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ENCYCLOPÆDIA AMERICANA:

SUPPLEMENTARY VOLUME.

A

POPULAR DICTIONARY

OF

ARTS, SCIENCES, LITERATURE, HISTORY,
POLITICS, AND BIOGRAPHY.

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VOL. XIV.

EDITED BY

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## PREFACE.

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THE *Encyclopædia Americana*, to which the present volume is supplementary, has been nearly fourteen years before the public, and has obtained a high rank, in its estimation, among works of a similar nature. It was founded on the basis of the seventh edition of the famous "*Conversations-Lexikon*." The eighth edition of the latter appeared between the years 1833 and 1837, and the ninth is now in course of publication. Hence it became desirable that this encyclopædia should be extended, to embrace the improvements thus introduced into the German work. But independently of any information which might be derived from this quarter, how many important events have occurred, or facts been observed, and how many individuals have emerged from comparative obscurity during the lapse of fourteen years,—affording abundant materials for such a volume as is now offered to the public, and even imperatively requiring its publication to restore to the *Encyclopædia Americana* all the advantages which belonged to it originally, as a book for ready consultation on subjects of general or popular interest!

No pains have been spared by the editor to execute the design of posting up to the present date the matter contained in the previous volumes of this work. The books which he has examined for the purpose have been exceedingly numerous, and his correspondence very extensive; but neither books, nor correspondence, have always furnished the latest or most exact information. Sometimes too, he may have failed to do full justice to a subject, from the mass of documents from which he had to cull; and he has occasionally been obliged to omit a subject altogether, from the entire deficiency of materials.

The printed sources of information to which the editor has most frequently had recourse,—beside the later editions of the German

“Conversations-Lexikon,” above referred to,—are the second edition of Pierer’s “Universal-Lexikon,” the publication of which is now nearly completed; the “Encyclopédie des gens du monde,” completed in 1845; the “Univers pittoresque,” still in progress, (particularly in reference to France and Frenchmen); the “Dictionnaire de la conversation et de la lecture;” the supplementary volumes of the “Biographie Universelle:” the Annual Registers, English and French; M’Culloch’s “Geographical, Statistical, and Historical Dictionary;” Waterston’s “Cyclopædia of Commerce;” the last edition of Cannabich’s “Lehrbuch der Geographie” (1842); Berghaus’ “Allgemeine Länder und Völkerkunde,” the last volume (the sixth) having been published in 1844; the Penny Cyclopædia, with the supplement to it, now publishing in monthly numbers; Brande’s “Dictionary of Science, Literature, and Art;” and Knight’s “Political Dictionary,” which has just been completed. Very few articles have been transcribed or translated entirely from these or any other sources; but while in his preparations the editor has consulted a number of authorities on the several subjects which he has treated, he has not hesitated to use the identical words he found employed by either British, French, or German writers, in every instance where they seemed to convey the meaning intended in a distinct and appropriate manner. And in the selection of his subjects, it may be added, he has kept constantly in view what was likely to be of especial interest to an American reader, and was not readily accessible to him elsewhere.

In accordance with the plan of the preceding volumes of the *Encyclopædia Americana*, the biographical notices which are given of distinguished Americans have been confined to the deceased. But the editor has endeavoured to comprehend in his list as many persons as were fairly entitled to a place in it. Yet he is aware of the omission of some whose claims may be regarded by their immediate relatives and friends to be quite as great as are those of not a few whose names have been inserted; and some two or three individuals, of an unquestionably high reputation with the community at large, have met with an apparent neglect, simply on account of the prolonged delay, or unwillingness of the parties by whom they were most intimately known, to furnish the information repeatedly and perseveringly asked for concerning them.—The notices which are given of foreigners are of the living as well as of the



dead. From the practice, also, which prevails to a greater extent in France and Germany than anywhere else, of publishing, in their encyclopædical and other collections to which the editor has had access, the personal history of the prominent contemporary characters, the present volume will be found to contain much curious and valuable matter of this description, relating to Frenchmen and Germans, and to the natives, likewise, of some of the other continental European States.

It was originally intended that the additional geographical information concerning the United States should find a place, according to its being of a more or less general character, in the article United States, or in separate articles distributed throughout the volume. This plan was adhered to through some of the first letters of the alphabet, but after these had been put in type the editor saw reason to prefer treating the subjects referred to under the single head of the United States; and this statement will explain an inconsistency in the arrangement, which, slight as it is, could not fail to be noticed.

There are some articles in the preceding volumes of this work, such as Bank, Constitution, &c., in which the subject is treated successively in relation to a number of different countries; it has been thought most advisable to distribute such additions as were to be made on these several subjects under the heads of each separate country. And here, any one who shall consult the articles generally in the present volume, and shall fail to find the information for which he is seeking, may be requested not to conclude hastily that, because it is not to be found in the article which he expected to contain it, it will be found in no other; he will, quite probably, meet with it in some article, the title of which will be suggested to his mind on a moment's reflection.

Such of the articles in this supplement as are continuations of articles in the former portions of the *Encyclopædia Americana* are marked with an asterisk; and the reader of them is desired to be particular in noting this, since, if he were not to do so, he might, in many or even most instances, deem the articles to be singularly defective in their statements or arrangement.

A few of the articles, it is proper to mention, have no reference to the period which has elapsed since the publication of the former volumes, but are intended to supply omissions which occur in them.

And it may be further stated, that much the larger portion of the present volume has been prepared by the editor; for some of the biographical articles, as well as for several of those relating to science and its application to the arts, he is indebted to others. These last treat of subjects which have latterly attracted, in a very high degree, the attention, not of scientific men only, but of the public generally—such as geology; magnetism and electricity; the telegraph; the causes which produce the explosion of steam-boilers; &c. — all of them containing information nowhere else to be met with in a condensed and connected form.

Philadelphia, November 20, 1846.

# ENCYCLOPÆDIA AMERICANA:

## SUPPLEMENTARY VOLUME.

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**A** **BABDEH**; the name given to several African tribes who occupy the region between the Nile and the Red Sea. Some of them have penetrated into Upper Egypt, where they earn a subsistence by the transportation of merchandise on their camels. They trade chiefly in senna, and in charcoal made of the acacia wood. Burckhardt regards them as Arabs; Ritter conjectures that they are descended from the people known, under the Roman emperors, as Blemmyes; but Ruppell is of opinion that they are a branch of the ancient Ethiopian race established at Meroë. In their manners and customs, they do not differ from the Bedouins.

**ABANDONMENT**; a term used in insurance. Before any demand can be legally made for the total loss of a ship, or goods with which she is freighted, the owner of the ship or goods must *abandon* or relinquish to the insurer all right to any portion of the property which may be saved. The term is also used in the language of the customs, when the owner of a commodity imported relinquishes it altogether, rather than pay the duties imposed upon it.

**ABANO**; a small town not far from Padua, in Italy, noted for its sulphur or mineral springs, which were well known to the Romans, under the names of *Aquæ Aponi* and *Aquæ Patavinæ*; and a description of them is given in a letter of Theodoric, the king of the Ostrogoths. Remains of ancient baths were discovered towards the end of the last century. The waters are the warmest of the kind in Europe, their temperature being as high as 150 or 157 degrees of Fahrenheit's thermometer. When applied to the surface of the body, either by bathing, or by means of the *mud* application or process, they are said to be efficacious in the cure of rheumatism, gout, and diseases of the skin.

**ABATEMENT**. To *abate a nuisance* is to remove whatever unlawfully annoys one,  
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or damages one's property. But this must be done in such a manner that no breach of the peace is committed, and no more injury be done to the property of another than is sufficient to accomplish the object intended.

**ABATTOIR**. The public slaughter-houses are so called in France. Those of Paris are the most remarkable. Five of them were constructed by a decree of Napoleon, promulgated in 1809; three on the right bank of the Seine, and two on the left. They are situated without the city, and consist of a spacious area surrounded by a high wall. Within the enclosure are stables for the animals destined to be slaughtered, and apartments for the different butchers, built of stone, and provided with every means to facilitate their operations, and secure a proper degree of cleanliness. They pay a small sum for each animal they kill, as a rent for the accommodations which they receive, and to compensate the labour of the subordinate persons employed in the establishment. These payments amounted in the aggregate, in 1824, to a million of francs. It is singular that buildings of the nature of these abattoirs should, hitherto, scarcely have been erected anywhere out of France; and that most people, even in the largest towns, should remain willing to endure the nuisance of numerous private slaughtering yards or sheds, offensive in the highest degree to both the eye and the smell, and, what is worse, diffusing pestilence and death through the midst of their population.

**ABBAS MIRZA**, the second son of Feth Ali, Shah of Persia, was born in 1785. The partiality of his father, together with his descent from the royal race of the Khadjars, led to his being, at an early age, proclaimed heir to the throne, to the prejudice of his elder brother, whom he survived. He possessed considerable talents, and agreeable and winning manners, but

was chiefly remarkable for his appreciation of the advantages of European culture and civilization. Being appointed governor of the province of Azerbaijan, on the northern frontier of the kingdom, he endeavoured to introduce them there, as far as lay within his knowledge and power, and especially, with the assistance of British officers whom he employed for the purpose, to organize and discipline his army after the European model. These efforts were, nevertheless, unavailing. He contended unsuccessfully against the Russians in the wars of 1803 and 1813. By the treaty of Gulistan, in 1814, in which Russia guaranteed the succession to the throne of Persia to whichever native prince should be named by the Shah, he was necessarily placed in a certain dependence on the Russian government. The irksomeness of his situation, added to his predilection for the English, gradually augmented his dislike to his northern neighbours, and at length, through his influence with his father, produced a renewal of the war with them in 1826. Misfortunes now ensued more rapidly, and to a greater extent, than in the contests in which Abbas had been previously engaged. The Russians overran the whole of Armenia, and entered Tabriz itself, the prince's residence. And it was only by great sacrifices that a peace could be purchased from them by the Persians, at Turkmanshai, February 27th 1828. On the massacre of the Russian ambassador and suite by the fanatical populace of the capital, Teheran, in the following year, Abbas was sent by the Shah to Petersburg, to deprecate the wrath of the Russian government, as well as to serve as a hostage for the good faith of his father. He was favourably received by the emperor; and having accomplished the object of his mission, he returned home, content to live in peace with Russia, till his death in 1833.—Abbas Mirza, it may be mentioned, had the singular honour conferred upon him of being elected a member of the Asiatic Society at Calcutta, as a reward for the enlightened views and thirst for knowledge which he exhibited on all occasions, and also, perhaps, for his leaning towards the English. Be this last, however, as it may, the reply which he returned to the letter, accompanying the diploma transmitted to him, would in itself go far to justify his election, viz., "that the acquisition of a province would have afforded him a less gratification."

ABBEVILLE; a considerable town in the department of the Somme, in France, and situated in a pleasant and fertile valley,

on the river Somme. Vessels of from 100 to 150 tons burthen can come up to the town, where the tide rises 6 or 7 feet. It was fortified in the time of Charlemagne, and in the 17th century was erected into a fortress of the 4th order by Vauban. The principal edifice is the Gothic church of St. Wolfram; and the houses are in general well constructed. It contains about 19,000 inhabitants. What, however, is most remarkable in Abbeville, is the manufacture of fine woollen cloths, established by a Dutchman, of the name of Van Robais, in 1665, under the auspices of Colbert. One English writer remarks, that "the cloths are little inferior to those of our own country;" and another speaks of their surpassing "even the English."

ABD' EL KADER, who, next to Mehemed Ali, is unquestionably the most remarkable individual in the existing Mohammedan world, was born towards the end of the year 1806, at the *ghetna* of his family; a seminary for the education of marabouts, in the vicinity of Mascara, in the territory of Algiers. His family were of the tribe of Hashem, which traced its descent from the Fatimite caliphs. When eight years of age, he accompanied his father in a pilgrimage to Mecca; whence he acquired the title of El Hadji, the pilgrim. On returning from this journey, he completed his education at the school of Fez, in Morocco, by the study of the Koran, and of Arabian literature and science. He visited Egypt in 1827; where, at Alexandria and Cairo, he observed the civilization of Europe, at least in so far as it had found its way into that country under the auspices of its ruler. His exterior is dignified and prepossessing; his disposition humane; and his habits correct, and exempt from the sensuality which very generally characterizes the Arab race. Adhering most zealously to his religious faith, and perfectly understanding how to avail himself of the fanaticism of his followers, he yet partakes not of their intolerance. He has always governed the tribes which acknowledged him as their chief, with a gentle sceptre; and many traits are recorded of his magnanimity to his foes. His public life began with the conquest of Algiers by the French, in 1830. The Arab tribes of the province of Oran then at once seized upon the opportunity afforded them of becoming independent. Abd' el Kader's father appeared at their head, and overpowered the Turkish troops which still occupied the capital. The inhabitants offered the chief authority over them to their deliverer. The latter, however, declined the offer in

favour of his son; who was, accordingly, invested with the office and dignity of an *emir*. Shortly afterwards, the neighbouring tribes acknowledged him as their chief; and from his residence, or head quarters, at Mascara, he contrived to extend his influence still more and more widely.

The only important undertaking of Abd' el Kader, for a time, was an unsuccessful attack, on the 3d and 4th of May 1832, on the French, who, since the events just mentioned, had occupied the town of Oran. There followed then a state of more or less active warfare between the parties, without any permanent advantage of moment being gained by either; until, at length, wearied by such fruitless hostilities, a treaty was concluded between them, known, from the name of the French general commanding in Oran, as the treaty *Desmichels*. It was soon apparent that the advantages of this treaty were principally reaped by the Arabian emir. He acquired an opportunity of triumphing over his enemies among his own countrymen, and of extending and confirming his power; an opportunity of which he profited to the utmost by his untiring activity. The discipline, too, of his troops was improved, by the aid of European renegades. And the confidence which had been diffused in the resources and ability of the emir was evinced, by the title of *sultan* being now conferred upon him by every city and tribe in the provinces of Oran and Tittery. At length, the French government, become aware of the mistake which had been committed in allowing Abd' el Kader leisure to strengthen himself, appointed General Trézel to succeed General Desmichels in his command, doubtless with such instructions to direct his conduct as could scarcely fail to lead to a renewal of hostilities. Such, at any rate, was the course adopted by the new commander, and such were the consequences which ensued. A French force penetrated into the enemy's territory, as far as the river Macta,—only, after having to maintain a sanguinary conflict, to make a disastrous retreat upon the point from which it had advanced.

So great was the moral effect of the result of this expedition on the minds of the Arabs, in favour of Abd' el Kader, that it was judged necessary, in November 1835, for Marshal Clausel, the commander-in-chief of the French army in Algiers, to march himself, with a strong corps of troops, against this formidable enemy of his countrymen. He triumphed over the Arabs, after an obstinate resistance, gaining possession of Mascara, the centre of Abd' el

Kader's power. But these successes resulted merely in the partial destruction of that town, and the subsequent retreat of the Marshal: Abd' el Kader resumed the occupation of all the ground which he had lost. In the military operations that ensued, the French were almost uniformly the victors; seldom, however, obtaining any advantages beyond the possession of the field of battle. At length, a body of 3000 men, under General d'Arlandes, after having fought successfully in a previous engagement, was defeated by the Arabian chief, on the Tafna, on the 25th of April 1836, and would probably have been entirely cut off, but for the timely arrival of an additional force of 4000 men, under General Bugeaud. On the 6th of July, of the same year, the last-mentioned general inflicted a severe defeat on the enemy on the Sikak. The war now began to languish; and when it became desirable for the French, on undertaking the expedition against Constantine, to concentrate as large a force as possible in a different direction, a treaty of peace was once more concluded between them and Abd' el Kader, who consented to acknowledge the sovereignty of France. This took place on the 30th of May 1837. Abd' el Kader, however, lost no time in making every preparation in his power for a renewal of the contest at a future period. He continued to strengthen the position of Tekedem, which, after the destruction of Mascara, he had chosen for his residence, and which he had made the seat of a manufacture of arms, and the dépôt of his military stores; he sought by every means to renew the confidence of his followers in himself and his fortunes, as well as to enlist in his support the Bedouins of the Sahara; he organized anew his subject territory, delegating to others many of the details of administration, on which he had hitherto bestowed his personal attention; he endeavoured, by the instrumentality of some deserters from the French army, to form an efficient body of regular troops; and he obtained ammunition and arms from the French themselves, by the trade which had been opened to him by the late treaty, and especially from English merchants, through Morocco, with whose ruler he always maintained the best understanding. The better to deceive the French government as to his real designs, besides maintaining, by means of his agents, an occasional intercourse with their officers in Algiers and Oran, he sent an ambassador to Paris in the summer of 1838. When his preparations were completed, and circumstances, in other re-

spects, seemed to be propitious, he renewed the war, on the alleged ground of the existing treaty having been violated by the expedition undertaken, in October, 1839, from Constantine, by Marshal Vallée, accompanied by the Duke of Orleans. Much hard fighting occurred in the following year, without any important results. But, in February 1841, General Bugeaud assumed the command of the French forces in Africa, in the room of Marshal Vallée. The contest at once assumed a decisive character. Blow after blow was inflicted upon Abd' el Kader, and he was soon reduced to extremities. His principal strongholds fell into the hands of the enemy. The various tribes, which he had repeatedly led to battle, now, for the most part, abandoned his cause as hopeless, and acknowledged their subjection to the king of the French. After the loss of Tlemecen and the fort of Taffra, in the beginning of 1842, and the almost entire destruction of his regular troops, he was under the necessity of seeking refuge on the territory of Morocco. His own tribe of Hashem, with a few others, continued faithful to him to the close of the contest, and have since evinced a disposition to renew it at every fitting opportunity. Abd' el Kader has, in fact, repeatedly returned to give serious annoyance to the foreign occupiers of his country, and has latterly become again sufficiently formidable to call for extraordinary measures on the part of the French government to accomplish his destruction.

ABDUCTION is the carrying off, by force or fraud, of the person of a child, ward, heiress, wife or other woman. In the four first-mentioned cases, the law infers that force or fraud has been practised, although, in reality, persuasion only has been used. The abduction of females, especially heiresses, was a crime, according to Sir Walter Scott, of frequent occurrence in the Highlands of Scotland; and it is even now not seldom committed in Ireland, although, in aggravated cases, visited by the severest penalties of the law.

ABEL (Nicholas Henry), one of the most acute mathematicians of the present age, was born August 6th 1802, at Findoe, in the diocese of Christiansand, in Norway. After receiving the elements of instruction from his father, who was the clergyman of that place, he was sent to the cathedral school of Christiania, where his genius for mathematics was called forth by the solution of geometrical and algebraical problems. While still at the university, which he entered in 1821, he published

one or two papers on mathematical subjects, which brought him into notice, and, aided by the earnest recommendations of the professors, obtained for him the patronage of the government. An annual allowance of 600 dollars (*thalers*) was bestowed upon him, that he might travel for his improvement. He accordingly visited Berlin, Vienna, and Paris. His efforts, during the stay which he made in the last-mentioned city, to induce the men of science to promote the publication of some memoirs which he had prepared, were unavailing; and he returned, in no slight degree discouraged, to Berlin. Here, however, he was so fortunate as to meet with precisely such a patron as he now wanted. Mr. Crelle, himself highly distinguished as a man of science, and thoroughly qualified to judge in the case, did not hesitate, on perusing the papers submitted to him by the young Norwegian, to pronounce their author to be entitled to take rank among the first of living mathematicians. He engaged, moreover, to publish those papers in the "Journal for the Pure and Applied Mathematics," which he at once resolved upon editing. This journal, too, with the "Astronomical News" (*Nachrichten*) of Mr. Schumacher, became the principal mediums for the communication of Abel's future labours to the scientific world. On his return to Christiania, Abel was appointed to supply the place of Professor Hansteen in the university and the school of engineers, during the absence of that gentleman on a journey to Siberia. He now applied himself with the most indefatigable ardour to the performance of the duties assigned him, and to the investigations in which he was engaged. But his bodily constitution was too feeble a support for a spirit like his. His health soon began to decline; and he expired on the 6th of April 1829, in the 27th year of his age. Young as he was, his merits were already everywhere acknowledged; and from no quarter had his praises been more generously and loudly uttered, than from that to which, a few years previously, he had looked for encouragement, and been disappointed. The first mathematicians of France had united in a testimonial to the government of his own country in his behalf; and, although the office which he held in the university at Christiania was merely a temporary one, there can be no doubt that, had he lived, he would have been appointed to the first vacancy in that institution. As an evidence of the fame which he had acquired, it may be mentioned that, a few days after his death, an

invitation arrived from the King of Prussia, in a high degree honourable to Abel, for him to remove his residence to Berlin.

His works have been published, in the French language, in two volumes 4to, at the expense of the King of Sweden. The most important portions of them are his paper on the impossibility of a general solution of equations of the 5th degree, and those relating to elliptic functions.

**ABERDEEN.\*** Few places in Great Britain have so much improved, during the present century, as New Aberdeen. Many new streets, with substantial and even elegant houses, have been formed; several beautiful bridges have been constructed; its manufactures and commerce in a remarkable degree extended; and its harbour deepened, by lengthening the pier originally built by Smeaton in 1750. The cotton manufacture now employs upwards of 3000 persons; the linen 4000. There are manufactories of woollens; iron works of various descriptions; distilleries and breweries. The products of these different establishments, together with salmon, kept fresh by being preserved in ice, and granite, for building and paving purposes, constitute the chief exports. A new edifice has been erected for Marischal College, and the numbers of the students attending the courses in it and King's College, in Old Aberdeen, have been considerably increased. In the session of 1837-38, we find them stated to have amounted to about 700. The population of the Old and New Town together was, in 1841, about 62,000.

**ABERDEEN (Lord).\*** To what has been already stated concerning this nobleman, in a previous volume of the present work, we may add that he was appointed Secretary of State for Foreign Affairs in 1828, under the Duke of Wellington's ministry. Directed by him, a reaction then took place in the foreign policy of Great Britain. The battle of Navarino was disapproved of, and declared to be "an untoward event;" and British diplomacy was employed in negotiating in the interest of Don Miguel, by the very individual who, but a short time before, had applied to the Portuguese prince in Parliament the harshest epithets. Lord Aberdeen quitted office, with the Duke of Wellington, in November 1830; became a member of the cabinet again, as Secretary of the Colonies, during the short-lived tory administration, from November 11th 1834 to April 8th 1835; and was once more placed in charge of the foreign department, on the accession of Mr. Peel and his friends to power, in 1841.

**ARETTOR.** See *Accessory*.

**ABEYANCE.** When a freehold or inheritance is not vested in any one, but is ready to descend upon or vest in the persons who shall first fulfil the conditions required by the nature of the estate, such freehold or inheritance is said to be in abeyance. Thus, if lands be leased to one person for life, with reversion to another for years, the remainder for years is in abeyance till the death of the lessee. Titles of honour, as well as the rights and privileges attached to them, may also be in abeyance; as, for example, the peerage in England, where the persons next in inheritance to the last possessor are females.

**ABIAD (BAHR EL).** See *Nile*.

**ABJURATION\*** signifies any solemn renunciation of opinions, especially of opinions connected more or less closely with religion. Of this nature, for example, is the renunciation required, on the marriage of the Emperor of Russia, from his consort, of her former religious persuasion, in favour of the tenets of the Greek church. Such, too, was the renunciation of his Protestantism by Henry IV. of France, in 1593, as a condition requisite to obtain the acknowledgment of his sovereignty by his Roman Catholic subjects; as well as that which was exacted by the Inquisition at Rome, in the following century, from Galileo, of his doctrines concerning the motion of the earth. When abjuration of the *realm* is mentioned by English writers, what is meant is the taking of an oath, permitted by the ancient common law to any felon who has not been guilty of sacrilege, and who has fled to a pariah church or churchyard for sanctuary, to renounce and depart the realm for ever. For oaths of abjuration in England created by statute, see *Abjuration*. In the United States we also have an oath or oaths of abjuration. Every alien, on becoming a citizen, is required to abjure all allegiance and fidelity to any government of which he was before a citizen or subject. And if the alien shall have borne any hereditary title, or belonged to any order of nobility, in the country from which he came, he must also make an express renunciation of such title or order of nobility.

**ABLUTION;** a religious ceremony, consisting in washing of the body, either wholly or partially. Ablutions, or lustrations, as they are also styled, were prescribed in the Mosaic law, on various occasions; sometimes to the priests, and at other times to the people of Israel generally. The superstitious attachment to them of the Hindoos, at the present day, is well known, as well as their peculiar



reverence for the waters of the Ganges. This last is carried to such an extent, that it is said, if a votary who cannot go to that river, will call upon it when bathing in another stream, he will be cleansed from any sin or pollution he may have contracted. But it is among the Mohammedans that we find the greatest faith reposed in the spiritual efficacy of ablutions. Actions the most ordinary or trifling in their nature should, according to their strictest doctors, be preceded or followed by them. The early Christians practised ablutions before partaking of the communion; and the Roman Catholics still occasionally do so before and after mass.

**ABO.\*** Since the great fire of 1827, the university has been removed to Helsingfors. Abo has, since that event, been rebuilt on a regular plan, with broad and well-constructed streets. It has about 14,000 inhabitants. The trade of the place is considerable, and ship-building is carried on to a large extent. Here also are a gymnasium and a school of navigation; and it is the seat of justice for South Finland.

**ABRAHAM MEN.** A set of vagabonds were so called, who were to be found in England at a period when very inadequate provision was made for the support and cure of lunatics, and when such of this description of persons as were harmless were turned out of the hospitals to subsist on the casual alms of the community. Going about in ragged and fantastic clothing, and singing portions of old ballads, they pretended to be insane, and exercised a profitable trade by imposing on the feelings of the humane and charitable.

**ABRANTES.** See *Junot*, (Sup.)

**ABSCESS;** an inflammatory tumour, containing purulent matter or pus.

**ABSOLUTISM;** a political term of modern origin, signifying a system of government in which, in opposition to that of a constitutional monarchy, all the powers of the state, legislative as well as executive, centre in a single individual. In Spain and Portugal, the political parties who for many years, since the fall of Napoleon, were engaged in a struggle with each other for the ascendancy, are very commonly styled the *absolutists* and the *constitutionalists*; the former applying to the King of Spain especially, as a title of honour, the designation of the *absolute king*.

**ABSORBENTS,** in anatomy, are very minute vessels, which take up any fluid from the surface or in any cavity of the body, and convey it into the blood. They are either *lacteal* or *lymphatic*. The lacteals

have their origin in the intestinal canal, and, absorbing the milky fluid denominated chyle, become the instruments for conveying into the system the new particles of matter which are necessary to replace the loss of the old. The lymphatics pervade every part of the body, and are employed in taking up and carrying away the old and worn-out particles. By means of the absorbents of the skin, also, foreign substances, capable of powerfully affecting the system, may be introduced into it. Such, for example, is the case with mercury when rubbed on the skin.

**ABUTMENT,** in architecture, is the part of a pier on which an arch is made to rest. It is a term especially employed in reference to bridges.

**ABYSSINIA\*** has been visited, of late years, by many Europeans, of very different endowments, and with very different objects in view. English and French official or unofficial emissaries, Roman Catholic and Protestant missionaries, and commercial agents, as well as men of science, have traversed the country in various directions; and if the reports they have rendered respecting it have not added to our knowledge in as great a degree as might have been anticipated, they have at least served to confirm most of the statements of preceding travellers, to which, on account of their anomalous character, the public still hesitated to give credence. Northern Abyssinia, it would seem, has, for some time past, instead of advancing, retrograded in civilization. Subdivided as it is into a number of independent states (the principal of them being those of Amhara and Tigre,) which are almost unremittingly engaged in a fierce and exterminating warfare with each other, cultivation is in many places rapidly disappearing, and the numbers of the people are subjected to a regular diminution. The entire population, east of the Tacazze, is estimated by Ruppell at half a million; west of that river, at a million more. United under one monarch, having his residence at Ankober, the provinces of Shoa and Efat, in the south, are comparatively prosperous. He has not merely been able to arrest the progress of the warlike tribes of the Galla, but has even wrested from them a portion of their former conquests, and made some of them his tributaries. His friendship has been thought worthy to be courted by both the French and the English, in reference to their political or mercantile interests.—In its general aspect, Abyssinia consists of a series of elevated plateaus, varying from 6000 to 10,000 feet in height,

and intersected by three considerable chains of mountains, viz., those of Lamalmon, Samen, and Gojam, besides smaller ones. The highest peaks (those of Samen), we are told, attain to an elevation of 14,000 feet above the level of the sea, and, contrary to the assertion of Bruce, reach the limits of perpetual snow. The chief rivers are the Bahr-el-Azrek or Blue river, long mistaken for the main stream of the Nile, and the Tacazze, with their numerous branches; some of these being themselves of very considerable magnitude. Both rise in the same chain or cluster of mountains, in the province of Gojam, and, after a general N. or N.W. course, unite with the Bahr-el-Abiad, or true Nile, in Sennaar. In the early part of its course, the first-mentioned river reaches and passes through the great lake of Tzana or Dembea. The Mareh, which is the most important branch of the Tacazze, is remarkable for losing itself, in the dry season, in the sand, before it reaches its proper destination. But the Hawash, a large river on the S.E. border of the kingdom of Shoa, presents a still more remarkable phenomenon: it flows towards the Red Sea, but never reaches it; in every period of the year losing itself in the intervening sandy desert.

The climate, as might be supposed from the varying elevation of the different parts of the country, exhibits as great a diversity as perhaps any other territory of equal extent. That of the greater portion of it, however, is temperate; Fahrenheit's thermometer ranging, during the year, from 41° to 69°. From April to September, there is a continued rainy season. Vegetation, during this time, advances with such rapidity as to admit of two, and, in some favoured spots, even three harvests being gathered; and by swelling the rivers which eventually discharge their waters into the Nile, the rains contribute also largely to the fertility of Egypt. Wheat is cultivated on the higher grounds, and is consumed only by the rich. The teff grows in almost all but the lowest situations, and from it is made the bread consumed by the people generally, of all classes; and on the lowest grounds, where no other grain will grow, the tucusso is raised, which, on being mixed with teff and barley, is a substitute, with the poor, for the better kinds of bread. Barley is chiefly used as food for horses. Besides the plants already mentioned, a considerable number of very remarkable ones are to be found in Abyssinia; some of them scarcely met with anywhere else. Among these may be mentioned the ensete, the green leafless

stem of which, many feet in length, is said to afford a wholesome and nutritious diet; the kolqual, whose leaves and branches contain an extraordinary quantity of a milky fluid, employed by the natives in the process of tanning; the woognioos, regarded as a sovereign cure for the dysentery, a disease extremely prevalent throughout the country; the cusso, a vermifuge so celebrated, and in such universal use, that it is always planted near churches, for the benefit of those persons who reside in their neighbourhood, or resort to them; the wanzey, a great favourite with the people of the country, and to which, as well as to the coffee tree, divine honours have been paid; the beautiful kuara tree, whose red beans, with a black spot in the middle, commonly called carats, have been from time immemorial, on account of their very remarkable equality in weight, employed in Africa, for the weighing of gold; and the papyrus, famous for furnishing the principal species of paper used by the ancients. There are great numbers of wild animals; hyenas, leopards, lions, buffalos, antelopes, giraffes, zebras, elephants, rhinoceroses, hippopotami, crocodiles, civet cats, monkeys, &c. The hyenas are held in a sort of superstitious awe or respect; and roam about the country, as well as sometimes come into the towns, singly, or in large herds, in quest of dead bodies,—which are there, not unfrequently, suffered to lie about unburied,—without any attempt being made to destroy, or even to molest them. Lions are only met with occasionally; and the giraffe still more rarely. The elephant and rhinoceros inhabit the low grounds, and places where moisture abounds. They are hunted by the Shangallas, who use their teeth as an article of commerce, and feed upon their flesh. One species of the rhinoceros is peculiar to Abyssinia, and is there found only in a few districts. It has two horns, having no connexion with the bones of the head. Of these horns they make the handles of their swords; and the skin of the animal, which is without any folds, is used for their shields. The domestic animals are, in general, similar to those of Europe. But there are two species of oxen which seem to be peculiar to Abyssinia; one having humps on their backs, and no horns, and another which have horns of an uncommon length. The horses are small, but strong and active. They are mostly reserved for war and the chase; asses and mules being employed for beasts of burden and the draught. Birds of prey are very numerous, and are to be seen, especially;

tracking the havoc and desolation produced in the warlike or marauding expeditions of their human fellow-destroyers. The most remarkable of these birds is the nisser, or golden eagle. Storks, parrots, partridges, pigeons, swallows, &c., are also abundant. Of the insects, the bee is entitled to an honourable mention. Much honey is brought to market and consumed; and so important an article is it considered, that we are told of the tribute of some of the subject tribes being paid by the delivery of a certain quantity of it annually. The locust is, as elsewhere in Northern Africa, exceedingly destructive. And several other insects are very annoying, and capable of inflicting great injury. Very little is known concerning the minerals of Abyssinia, the salt excepted which is found in the plain between Amphila and Massuah. The gold of Abyssinia is brought there from the regions to the S. and W. Manufacturing industry is in a rude state, and mostly confined to cotton, leather, and iron. And the trade of the country is not of any importance; it consists chiefly in the exportation of gold, ivory, and slaves, in exchange for a few Eastern or European luxuries.—There are at present two languages spoken in Abyssinia; that of Tigre, and the Amharic. The former has been derived from the ancient Ghees; and although the latter has a certain affinity to it, the differences between them are sufficiently great to justify the inference, that the Abyssinians have descended from two distinct races of men, who probably were brought into intimate relations with each other at a very early period. The Falashas or Jews, in Semea, have their own language, as have the Shangallas, Gallas, and the wandering tribes on the borders. Among the towns, Gondar, once the capital of the whole country, and now only of Amhara, is the most important; Antalow in Tigre, and Ankober in Shoa, are inconsiderable places. The houses in them, as elsewhere in Abyssinia, are wretchedly built, being, for the most part, mere mud hovels, with conical thatched roofs.

**ACCOMPLICE.** See *Accessory*.

**ACCORDION;** a small musical instrument, not long since invented in Germany, but which is now quite common elsewhere. It is composed of a double series of vibrating tongues, acted upon by a current of air produced by a sort of bellows. At first, it had only a single scale; but the accordions at present made, by means of stops to which the fingers are applied, often have two or more scales. From the great facility with which the instrument can be played, the

sounds produced are very far from always corresponding with the name given to it.

**ACCREDIT.** Governments give to the diplomatic agents, whom they appoint to represent them near other governments, letters of *credence*; and the giving of these letters is styled *accrediting* them. The representative or diplomatic character of the agent is acknowledged, and begins, only on the delivery to the foreign government of the letters by which he is accredited.

**ACKERMANN (Rudolph)\*** was born at Stollberg, in Saxony. The art of lithography, some specimens of which had been produced in London by Andre, in the beginning of the present century, was very much improved by Mr. Ackermann, and introduced by him into extensive use about the year 1817. He was also the first person in England to make use of gas lights; and, through the brilliant illuminations which he occasionally exhibited on his own premises, by means of an apparatus of his own, as well as through his active exertions in other respects, he led to the adoption of this mode of lighting the streets and houses of London and other large cities. And to his other merits, it may be added that he was one of the first who succeeded in rendering paper, hair-cloth, and certain other manufactured substances, impervious to water. He died on the 30th of January 1834.

**ACOUSTICS.\*** In the article *Acoustics*, in the first volume of the present work, it is stated that not more than 8192, nor less than 32 distinct concussions should be made on the medium for communicating sounds during a second of time, in order that the sound shall be audible to a common ear. Subsequently, however, to the experiments on which this conclusion was founded, it has been ascertained that the sounds produced by the wings of certain insects correspond to a rapidity of from 12,000 to 15,000 vibrations in a second. Indeed, the number of vibrations to which the ear is capable of adapting itself is affirmed by Savart to be as high as 24,000.—For a considerable period after the first careful experiments were made on the velocity of sound communicated through the atmosphere, this velocity was regarded as being at the rate of 1142 feet in a second of time. Until very lately, as the result of farther investigation, the rate assigned to it was 1130 feet. But a great number of experiments on the subject, made in Europe and elsewhere, during the present century, lead to the conclusion that the actual velocity of sound is even less. Sir John

Herschell, in the article *Sound*, in the *Encyclopædia Metropolitana*, on a comparison of the practical results which have been arrived at, pronounces in favour of a velocity of 1125 feet per second in dry air, at a temperature of 62° of Fahrenheit; or, what is the same thing, since the velocity diminishes with the temperature at the rate of 1.14 feet nearly for every degree of the scale, of 1000 feet at the temperature of freezing water.

**ACQUITTAL**; the deliverance of a person from the accusation, or charge, of having been guilty of an offence or crime. When one is acquitted, or pronounced by the verdict of a jury, in the technical language of the law, to be *not guilty*, he is not thereby declared to be altogether innocent, but the meaning is, that the witnesses produced have failed to establish the truth of what was alleged against him.

**ACRE** (St. John d'), after defending itself for six months against Ibrahim Pacha, son of Mehemed Ali, was taken by storm, May 27th 1832. Reduced to a mere heap of ruins, it continued under the Egyptian dominion, and was the residence of Ibrahim, until 1840. In that year, in consequence of Mehemed Ali's refusal to evacuate, and yield up to the Porte, the northern portion of Syria, in conformity to the terms prescribed in the famous "treaty of July" between the great powers of Europe, France alone excepted,—a refusal grounded on the hopes of assistance from France, in case of need, to enable him to repel any force that might be sent against him,—Syria became once more the seat of war. A combined naval and military force, English, Austrian, and Turkish, under Commodore Napier, promptly appeared on the coast, and, having reduced Beyrout, Jaffa, and other places of note, proceeded to bombard the town of Acre. Ibrahim was obliged to abandon the province. At length, by a convention concluded on the 14th of March 1841, between the great powers, France herself being a party to it, the pacha of Acre was formally reannexed to the Turkish empire.

**ACTUARY**; now almost exclusively used to denote the secretary of a life-insurance company, who, besides performing the proper duties of a secretary, acts also as a scientific adviser to the directors who employ him, on all matters relating to life-insurances and annuities.

**ADAM** (Albert), a distinguished painter of battle scenes, was born at Nordlingen, in Bavaria, in 1786. He was destined by his father, who was a confectioner, to follow his own vocation: but his talent for

the fine arts was very early developed; and he commenced his career as an artist at Munich, when 21 years of age. In 1809, he was induced by Count Froberg-Montjoie, one of his principal patrons, to accompany him in the campaign of that year, against Austria. An opportunity was thus furnished him to obtain, by personal observation, materials for pictures, such as he loved to paint, and which he soon after produced. The reputation these acquired him led to his removal to Italy, on the invitation, and under the patronage, of the viceroy, Eugene Beauharnais. He accompanied Eugene to Russia in the campaign of 1812; and, having with difficulty escaped from the wreck of the "grand army," he returned to Italy; where he continued to reside till 1815, when he removed to Munich. There he produced many pictures for the gallery of the King of Bavaria, as well as others, of perhaps a still higher order of excellence, for the collection of the Baron James de Rothschild, at Paris. Adam has also made himself known to the public by a splendid work, the fruit of his northern expedition, entitled "*Voyage Pittoresque Militaire*," consisting of 100 lithographic plates. Whatever may be the share of praise due to him generally as a painter or artist, the peculiar merit, in which he is regarded, by those most competent to judge in the case, as nearly unrivalled, is his faithful and spirited delineations of the horse, in almost every variety of attitude.

**ADAM** (Adolphus Charles); a distinguished musical composer, born at Paris, on the 24th of July 1804. His father, Louis Adam, who was an eminent pianist, and a professor at the Conservatoire, was desirous to divert his mind from music to literary and scientific pursuits, and placed him as a pupil at the "*Lycée Napoléon*." So great, however, were his musical propensities, that he failed to become interested in the studies assigned him; and his father was, at length, induced to transfer him to the Conservatoire. Here he received the instruction of several of the greatest masters, and especially of Boieldieu, with whom he formed the closest intimacy. He commenced his musical career as a performer on the piano-forte; at the same time giving lessons on that instrument; and he very soon composed and published a number of *fantasias* and variations, the materials for which were derived from the favourite operas of the day, as also many *ariettas* and *ensembles* for vanderilles. Encouraged by the applause he obtained, he published the first,

of his works which were of an entirely original character, the opera of "Peter and Catherine," in 1829; and another opera, entitled "Danilowa," in 1830. In the following year his talents were put in requisition for music adapted to the ballet. To his "Postilion of Longjumeau," however, published in 1836, he is indebted for the commencement of his *European* reputation. This opera has been followed by a vast number of other productions, exhibiting an extraordinary excellence in the lighter graces of musical composition. Adam has occasionally, too, ascended to a higher branch of his art, being the author of several pieces of sacred music. He is a skilful performer, as well on the organ as on the piano-forte, and has always exhibited a great predilection for the former instrument.

ADAM (William) was born at Maryburg, in the county of Kinross, in Scotland, in August 1751, and died at Edinburgh, in February 1839. He was admitted to the Scottish bar in 1773, but never practised in Scotland. He was chosen representative for Gatton in the parliament which met in November 1774. During a considerable portion of the American war, while he called himself a whig, he acted, in a great degree, a part independent of both the ministry and opposition of that day. He animadverted severely on Lord North for his indolence and his want of energy in carrying on the war; but he more bitterly reviled the opponents of the minister, because of their sympathies with the Americans. At the opening of the session, in November 1779, he spoke and voted against an amendment to the address praying for the dismissal of ministers. He declared that "amongst those gentlemen who stood candidates for office, he could not single out one by whom the state was likely to be better served than by their present rulers." "They" (the former) "had already betrayed their intentions by the abject concessions they would have made to our revolted subjects in America." And he expressed his fear, "should they be called into office, instead of carrying on the war with spirit and activity, they would terminate it with a dishonourable and humiliating peace." Mr. Adam's speech was commented upon very severely by Mr. Fox; and a duel, in consequence, took place between them, a few days afterwards, in which the latter was slightly wounded. In September of the following year, Mr. Adam was appointed to the office of treasurer of the ordnance, and continued to hold it till the dissolution of Lord

North's administration, in March 1782,—throughout which period, it is scarcely necessary to mention, he gave a uniform support to that minister. He resumed his office on the formation of the celebrated coalition ministry, and again went out, when they were succeeded in power by Mr. Pitt, in December 1783. In the mean time he had resolved, on account of the state of his pecuniary resources, to practise his profession of the law. He was called to the English bar in 1782, and, from this date until 1812, was alternately in and out of parliament; his time being, however, in a greater degree occupied with his legal avocations than with the concerns of the public. The political principles which he professed to hold were still those of the Whigs. He was one of the managers appointed by the Commons to conduct the impeachment of Warren Hastings; and he took an active part in defence of the Duke of York from the charges brought forward against him by Colonel Wardle. At the bar Mr. Adam rose to eminence; became king's counsel in 1796, and in 1802 counsel to the East India Company; and was appointed by the Prince of Wales, afterwards George IV., to be, successively, his solicitor-general, attorney-general, and chancellor and keeper of the great seal for the duchy of Cornwall. In 1814, he was made one of the barons of the exchequer in Scotland; and, finally, took his seat on the bench, in 1816, as the lord chief commissioner of the Jury Court for the trial of civil causes, then for the first time established in that part of the United Kingdom.

ADAM'S BRIDGE is a series of rocks and sand-banks, exposed at low water, extending from the island of Manaar, on the N. W. coast of Ceylon, to that of Ramisseram, on the opposite coast of Hindostan, a distance of about 35 miles, and having the gulf of Manaar to the S. of it. A direct communication between this gulf and the ocean, on the N. of the bridge, can only take place by means of the channels which are situated between the islands and coasts just mentioned; the channel on the coast of Hindostan being called the Paumbeen, and that on the coast of Ceylon the Manaar Passage. There is so little depth of water, too, in these channels, that vessels even of a very moderate size, in passing from the gulf of Manaar to the N. of Ceylon, are obliged to go round the whole of this extensive island.

ADANA; a town containing about 30,000 inhabitants, in the S. E. extremity of Asia Minor, near Syria. It is a place of con-

siderable trade. And in the contest between the Egyptians and Turks, in 1832, its situation, commanding as it does the passage of the mountains to the N. of Syria, rendered it an important military position. After the defeat of the Turkish army at Konieh, it was taken possession of by Ibrahim Pacha; and it continued to be held by the Egyptians until the treaty of July 1840 compelled them to evacuate it.

**ADDER;** the same as the common viper.

**ADEL** is a country reaching along the E. coast of Africa, from the straits of Babelmandeb to Cape Guardafui, and to an undefined extent into the interior. A very great portion of it is desert, and the climate intensely hot. Its principal natural feature is the salt lake of the Bahr Assal, which has only within a few years become known to Europeans. This lake is surrounded on three sides by mountains, and, on the fourth, is separated from the gulf of 'Ajajura by a belt of lava formation, about six miles across. What is most remarkable concerning it is, that its surface is not less than 570 feet below the level of the neighbouring gulf. The effects of evaporation are not adequately compensated; and its waters are continually receding, and becoming salter. The salt which is deposited or extracted from it is an article of considerable commerce with Abyssinia. Zeila and Berbera are the chief towns, both of them situated on the coast. Through them, slaves, gold dust, ivory, honey, wax, coffee, gums, &c., are exported in exchange for Arabian and Indian merchandises. A considerable number of cattle is reared. Some of the cows have horns of an extraordinary length; and there is a species of sheep which are said to have a dew-lap hanging from their necks down to the very ground. Some of these sheep have tails of a size to weigh sometimes as much as 25 pounds, and their wool resembles the bristles of a hog. The inhabitants are Mohammedans, and in a low state of civilization.

**ADELON** (P. N.), a distinguished professor of the Faculty of Medicine, in Paris. He was born at Dijon, in August 1782, and received his doctor's degree in 1809, when he sustained a thesis on the functions of the skin. Previous to this period, however, he had already published an octavo volume, with the title of "Analysis of a Course of Dr. Gall, or Physiological Anatomy of the Brain according to his system." Very soon afterwards, he delivered a course of lectures on Physiology, in which he explained the doctrines of Chaussier, whose pupil he had been, and

with whom he had formed an intimate friendship. He became a diligent contributor to several medical dictionaries, and prepared, in conjunction with Chaussier, most of the articles, not appropriated by Cuvier, on physicians and naturalists, in the "Biographie Universelle" of Michaud. He published, in 1823, his treatise on the *Physiology of Man*, and another edition of it in 1829, in which he has comprised every thing of interest in this branch of science. Besides these works, he was joint editor with Chaussier of Morgagni's treatise, *de Sedibus et Causis, &c.* And he was one of the founders of the "Annales d'Hygiène Publique et de Médecine Légale." When, in 1823, the Faculty of Medicine was reorganised on a new basis, M. Adelon was admitted a member, as one of the fellows (*agrégés*): three years afterwards, he was appointed to the professorship of Legal Medicine, which he continues to fill with reputation. He is also one of the most active members of the Royal Academy of Medicine; one of two professors whose duty it is to examine all pharmacutists and health officers; a member of the Board of Health (*Conseil de Salubrité*), &c. M. Adelon has made few or no discoveries; but he has the credit of having faithfully expounded the actual state of the branch of knowledge which he has selected for his province. As a practitioner of medicine, he is but little known; having devoted his time mainly to the study, and communication to others, of its theory.

**ADELUNG** (Frederick).\* In 1827, he published an account of Meyerberg's journey in Russia, and in 1830, an essay on the Sanscrit literature (*Versuch einer Literatur der Sanskritsprache*). A second edition of this work appeared in 1837, under the title of "Bibliotheca Sanscrita." It is a compilation evincing great industry, but not much critical acumen, on the part of the author.

**ADEN** is a small state on the S. W. coast of Arabia. The town of the same name is situated in N. lat. 12° 45', and E. long. 45° 9', about 100 miles distant from the straits of Babelmandeb, and on the W. side of a high rocky promontory, connected with the main land only by a narrow strip of sand. The surrounding country is described as barren in the extreme, and, indeed, as a mere desert of sand and lava. The excellence of its harbour has, nevertheless, rendered it, at different periods, a place of considerable importance. Before the Christian era, a city, occupying its present site, flourished

as the channel of the commerce between India and Egypt. This city was destroyed by the Romans about the middle of the first century. From the 11th to the 16th century, Aden was again the entrepôt of a similar commerce. It was besieged in vain by the Portuguese, under the celebrated Albuquerque, in 1513. But the discovery of the passage to India round the Cape of Good Hope led to its decline; so that, very lately, its population scarcely amounted to 800 persons, of whom from 250 to 300 were Jews, and the remainder Arabs. In 1837, the British East India Company demanded compensation from the Sultan of Lahadje, whose authority extended over Aden, for an act of piracy committed by some of his subjects there on a vessel from Madras; and, in the course of the negotiation which ensued, they made the especial demand of a cession to them of that town itself. On this being refused, the place was for sometime blockaded, and, at length, on the 19th of January 1839, taken by storm, by an English force. A formal cession was then made of it, on condition of an annual payment to the Sultan of 8700 German crowns. The garrison left in it for its protection has since successfully withstood several attempts made by the Arabs to regain possession of the town. The number of inhabitants, Arabs, Hindoos, Parsees, Negroes, Nubians, Jews, and others, is already estimated to amount to 20,000; and Aden bids fair to become, at no distant period, an important appendage to the Eastern Empire of Great Britain. Its commerce, lately very trifling in amount, and consisting in the exportation chiefly of millet, drugs, and a little coffee, and the importation of a few English cloths, of iron, lead, and tin, with rice, dates, and a small number of cattle, may speedily, constituted as the town now is—a half-way stopping-place for the trade between India and the Isthmus of Suez—surpass any thing related of it in remoter times.

**ADHESION**; a term in the revolutionary vocabulary of our day. When any person, having political importance or weight, in a country which has experienced a violent change in its government, submits to the new rulers, and formally acknowledges their authority, he is said to give in, or signify, his adhesion to that authority. So, also, when a corporate body makes the like acknowledgment.

**ADRAGANTH** is the same as *Gum Tragacanth*.

**ADRAIN** (Robert), LL.D., was born on the 30th of September 1775, at Carrick-

fergus, in Ireland. He was the eldest of five children. When a child, he was remarked for the precocity of his intellect and the readiness with which he learned the lessons assigned to him, rendered him a great favourite with his teachers. His education at school was, however, cut short when he was only fifteen years of age, in consequence of the death of both his parents. Young as he was, he was obliged, in order to gain a livelihood, to open a school at Ballycarry. Here he happened, one day, to meet, in an old book on arithmetic, with some of the signs used in algebra. So strong a curiosity was excited in him to know their meaning, that he gave himself no rest until it was gratified; and, by his own unaided efforts, he soon made himself acquainted with the elements of algebraical science. The civil war, or rebellion, of 1798, found Mr. Adrain engaged in the occupation of a private tutor, in the family of a Mr. Mortimer, an officer under the government. This engagement was abruptly terminated, by the former taking an active part with the insurgents; with which step his employer, although previously on the most intimate and kindly terms with him, was so much exasperated, as to offer a reward of £50 for his apprehension. An action soon afterwards took place between the hostile parties, in which Mr. Mortimer was mortally wounded, and Mr. Adrain received a wound in the back from one of his own company (he held the rank of captain), from which he was, at first, not expected to recover. It was reported through the country that he was actually dead; a circumstance which facilitated his escape from pursuit, and, perhaps, enabled him, the cause of his country having become manifestly hopeless, to make his way to America in safety. He landed at New York during the prevalence of the yellow fever; and being told, on the morning following his arrival, that the bed he had slept on was one in which a man had died of the fever, he hastened to leave the city, and to seek employment elsewhere as a teacher. At Princeton, in New Jersey, he obtained an appointment in the academy of that place, and continued there two or three years, when he removed to York, in Pennsylvania, to be the principal of the York County Academy. He now became a contributor to the *Mathematical Correspondent*, edited by Mr. George Baron, and published in the city of New York. The different problems proposed in this work, were all of them solved by him; and his solutions were remarkable for their simplicity, ingenuity



and elegance. He also contributed to this periodical a "Disquisition concerning the motion of a ship which is steered on a given point of the compass," and "A View of the Diophantine Algebra;" both of them ingenious papers.—In 1805, Mr. Adrain took charge of the academy at Reading, in Pennsylvania. During his residence in this place, he edited a periodical work, entitled the *Analyst*, intended as a successor to the *Mathematical Correspondent*, which had for some time ceased to be published. Among his various contributions to it, the most important is an article entitled "Research concerning the probabilities of the errors which happen in making observations, &c.," in which a rule is given, of simpler application than any before in use, for correcting the dead reckoning at sea, and another for correcting a survey to a very great degree of accuracy.

Mr. Adrain was, at length, extensively known as a skilful mathematician; and, in the year 1810, he was appointed to fill the professorship of Mathematics and Natural Philosophy in Queen's (now Rutgers') College, at New Brunswick, in New Jersey. Honours of different kinds were now awarded him. Shortly after removing to New Brunswick, the degree of LL.D. was conferred upon him; in 1812, he was elected a member of the American Philosophical Society; and, in the following year, a member of the American Academy of Arts and Sciences. About this period he published an edition of Hutton's *Course of Mathematics*, which was improved in its arrangement, and enriched with various notes and additions. In the summer of the year 1813, Dr. Adrain was chosen Professor of Mathematics and Natural Philosophy in Columbia College, in the city of New York, in place of Dr. John Kemp, who had died a few months previously; and when, a few years afterwards, it was deemed expedient, by the trustees of the college, to divide the professorship which he held, into the two distinct professorships of Mathematics, and of Natural Philosophy, he continued in charge of the former of these. After having resided in New York 13 years, he was induced by the state of his wife's health, which required the air of the country, to resign his professorship, and to accept of an appointment to the same post which he had once before occupied at New Brunswick, where, however, he remained only until 1827, when he accepted the office of Professor of Mathematics in the University of Pennsylvania. In this situation he continued till the year 1834. On his resignation of his professor-

ship in that year, he retired at first to New Brunswick; but, after a short period, unable to overcome his propensity to communicate knowledge to others, he once more went to the city of New York, and engaged in the business of instruction, both in his own apartments, and in the grammar school connected with Columbia College. About three years before his death, he was induced, by the persuasion of his family, to quit this field of his labours, and once more to retire to New Brunswick. His death took place on the 10th of August 1843.

The period of Dr. Adrain's first residence in New York was one with him of much intellectual activity. In the early portion of it, a paper of his appeared in the transactions of the American Philosophical Society, on the figure and magnitude of the earth, which added considerably to his reputation, and is, without doubt, the most important of his productions. He also made contributions on mathematical subjects to several periodicals, and edited, during the latter portion of the period in question, the "*Mathematical Diary*," a work of the same general character as the *Analyst*. Dr. Adrain left behind him a number of manuscripts, which, like his published works, have been pronounced, by a competent judge, to exhibit a very high order of ability. Great ingenuity, as well as a remarkable degree of simplicity and clearness, characterized every thing that he wrote. It may be added that his acquirements were by no means confined to the department of science in which he excelled. He was a good classical scholar, was extensively acquainted with general literature, and possessed no little skill and power in conversation.

ADRIA was once a considerable town, situated between the mouths of the Po and the Adige, and of so much importance as to have given to the Adriatic Sea its name. After the fall of the Western Empire of Rome, the dykes, which protected the surrounding country from inundation, were neglected, and it became marshy and uninhabitable. The mud, also, and other deposits, brought by the waters of the Po and the Adige, caused a gradual extension of the land into the Adriatic; and Adria ceased to be a seaport. It is now about 15 miles distant from the coast. By the draining of the neighbouring lands, the health of the place has been latterly much improved, and it has begun to revive. Its population is estimated to amount to 9000.

ADRIANOPIE.\* The Russian army, com-

manded by General Diebitsch, after forcing the passage of the Balkan, took possession of this city without opposition, on the 20th of August 1829, though fortified, and provided with a numerous garrison; and here, on the following 14th of September, the treaty of peace was concluded, which established henceforth the influence of Russia over Turkey. The statements of travellers make the population of Adrianople to vary from 90,000 to 150,000 persons. According to Mr. Keppel, whose authority seems to be entitled to as much reliance as that of any other traveller, it contains 25,000 houses and 90,000 inhabitants; 45,000 of whom are Turks, 30,000 Greeks and Bulgarians, and the remainder Armenians and Jews.

**AERONAUTICS.\*** Among the most interesting ascents which have been made with a balloon, are those of Biot and Gay Lussac in August 1804, and of the latter alone in September of the same year. The object which these two philosophers had in view was to make meteorological observations in the upper strata of the atmosphere. In the first voyage, they found the oscillations of the magnetic needle to be performed at an elevation of between 9,500 and 13,000 English feet in the same time as at the surface of the earth. At 12,800 feet, the thermometer, which stood at  $63\frac{1}{2}^{\circ}$  of Fahrenheit at the observatory at Paris, had sunk to  $51^{\circ}$ , being a decrease of only  $1^{\circ}$  for every thousand feet. The hygroscope indicated increased dryness in proportion to the elevation. In the second of the two ascents referred to, the variation of the compass, at the height of 12,680 feet, was found to remain unaltered. At 14,480 feet, a key, held in the magnetic direction, attracted with one end, and repelled with the other, the north pole of the magnetic needle, and the same was the case at 20,150 feet. At 18,000 feet, the thermometer fell to the freezing point, and at 22,912 feet, to  $14.9^{\circ}$  of Fahr. Two flasks, which had been previously emptied of air, were opened and filled, at an elevation exceeding 21,400 feet; and the air brought down from this region was found, on being analyzed, to contain exactly the same proportions of the constituent elements as at the surface. The utmost elevation reached by the aeronaut on this occasion was 23,040 feet, or  $4\frac{1}{4}$  miles above the level of the sea, which is considerably higher than the loftiest peak of the Andes.—In an excursion made in England, on August 1st 1843, Mr. Green found the mercury in the barometer to fall precisely 4 inches, in his ascent from an elevation of 2,591 feet to one of 6,758

feet; that is, about an inch for every thousand feet. He also found that at elevations between 5000 and 7000 feet above the earth, the atmosphere was completely saturated with moisture.—In general, however, most of the ascents which have been undertaken have served no other purpose than to gratify an idle curiosity; and from the total failure of every scheme that has been proposed for directing the course of balloons through the air, there is little reason to anticipate any advantages from them to society. Nevertheless, the comparative cheapness and facility with which they can be filled by coal gas, now so generally used for purposes of illumination, have been the cause of directing the public attention again to the subject; and the recent feat of Mr. Green and two companions, who, with a stupendous balloon, and carrying with them a ton of ballast, ascended from London in November 1836, crossed the channel, and, after a journey through the air of 18 hours, safely descended in the territory of Nassau in Germany, together with one or two equally or still more extensive journeys performed, more recently still, in the United States, have contributed to revive the hope of rendering balloons available for useful purposes.

**ÆTNA\*** is more frequently written in English *Etna*. Just as the opinion was prevailing that the fires of Etna were becoming exhausted,—an opinion founded on a comparison of the eruptions during the last 150 years with those which preceded them,—the eruption of November 1832 occurred somewhat to weaken our faith in its accuracy. This eruption was of a most terrific description, and threatened at one time the entire destruction of Bronte, a town with 13,000 inhabitants. A stream of burning lava, which had been steadily advancing nearer and nearer during several days, and which is represented to have been 18 miles long (including all its windings), a mile broad, and 30 feet high, appeared, for a short time, to balance between the route to the town, and another which equally presented itself, but at length decided in favour of the latter. It poured itself down a large gulf previously opened; and Bronte escaped, at least for a time.

**AFFIDAVIT** signifies an oath in writing, sworn before some person having authority to administer it.

**AFFILIATE** is a modern term, employed with reference to certain associations of men, which have been formed for the purpose of thereby more effectually accomplishing some important political object.

These *affiliated* societies are of a local character, but depend on a central society, with which they correspond, and from which they receive directions. The most remarkable of such societies have been the jacobin clubs of France, in the earlier part of the revolution; which were constituted after the model of that of Paris, and were distributed throughout the departments. Such, too, are, in our day, the repeal associations of Ireland.

**AFGHANISTAN.** The people, who are called Afghans by the English and other Europeans, style themselves *Pooshaneh*, or *Pooshtoo*, and are by the Hindoos denominated *Patans*. Very few words in the Pooshtoo language are of Sanscrit origin, and it differs, indeed, essentially from the neighbouring dialects. It is written in the *Niskee* character of the Persian alphabet; but the Pooshtoo literature is very scanty.—The Afghans are Soonees, or orthodox Mussulmans, in contradistinction to the Persians, who are Sheahs, or followers of Ali. They are, however, far from being intolerant to others. Hindoos remain unmolested on paying a slight tax. Christians sustain neither persecution nor reproach; they are called people of the *book*, as deriving their tenets from a written source, which they themselves respect, instead of being pagans, as the Hindoos. Sheahs are detested more than any other sect; yet the country is full of Persian Sheahs, many of whom held important offices under the crown, and now do so under the several chiefs. Sooffeeism (or freethinking), though denounced by the moollahs or priests, is common, and gains ground among the higher orders.—The Afghans are divided into a great number of tribes, who acknowledge the same general chief residing at Cabul, but act for the most part independently of each other. Of these tribes, the three principal are the Dooranees, Ghiljees, and Berdooranees; the two former belonging to the western, and the latter to the eastern, part of Afghanistan. The Hindoos and Tadshicks dwell almost entirely in the towns.—Trade is carried on with the neighbouring countries by means of caravans, and is restricted in amount by the badness and insecurity of the roads. The principal branch of it is that with India. Horses and fruits constitute the larger part of the exports: the imports consist chiefly of English and Indian manufactured goods, spices, sugar, &c. The points for the assembling and departure of the caravans, are Peshawur for Hindostan generally, Cabul for Bukharia, and Can-

dahar for the lower Indus. (For the important events which have latterly occurred in Afghanistan, see *India*, Sup.)

**AFRICA.** Since the publication of the article on Africa, in our first volume, the exploring of the various parts of that continent has proceeded with unabated activity. The course of the Niger having been already traced, by Lander, to its mouth in the bay of Benin, Laird ascended this stream in 1832, and again, accompanied by Oldfield in a steam vessel, in the following year. The latter, in a smaller vessel, succeeded in reaching Rabba; and then, going up the Tchadda, he constructed a map of it as far as the town of Addacudda (Laird and Oldfield's Narrative of an Expedition in 1832-34). In the last few years, a mercantile house in Liverpool has dispatched as many as three steam vessels annually, for trading purposes, to a distance of 50 miles on the Niger higher up than Rabba. Concerning Ashantee, the latest information which has reached us is from a missionary of the name of Freeman, published in Burton's work on the Slave Trade, &c. Mr. F. visited Ashantee in 1839. From Rankin, who resided there during the year 1833, we have a detailed account of the British colony of Sierra Leone. Commodore Owen, in a narrative of his voyage to the western coast of Africa, published in 1833, has given us a description of Congo, Angola, and Benguela: and one of the latest travellers in Angola is Bartholomew (1835). In Southern Africa, French missionaries, between the years 1830 and 1833, penetrated into the Bushwana country, and established in it a flourishing missionary station; while, every year, the English traders crossed the Orange river, and advanced far into the country beyond it. These successful expeditions led to the formation, at Cape Town, of a society for the systematic exploring of the interior of the continent. Dr. Andrew Smith, accompanied by several individuals selected for the purpose on account of their fitness, was accordingly commissioned to carry into execution the object of the society. The travellers were kindly treated by all with whom they held any communication on their journey, and found nothing to hinder them in their progress, excepting the difficulty of procuring the means of subsistence. This difficulty, however, became so great, when they had reached the latitude of 23° 28' S., as to compel them to turn back. With all their efforts, they had not advanced as far to the N. as a trader named Hume had done, who had

travelled on his own private business, unaided by any extrinsic patronage; and the only information of any moment they acquired was that of the existence of a lake at a considerable distance to the north. The next person who travelled in the same general direction, but by a different route, was Captain Alexander. In 1836, he visited the hitherto unknown territories of several nations or tribes, and has given a description of them in his account of "An Expedition of Discovery into the Interior of Africa." As sources of farther information concerning Southern Africa, may be mentioned Captain Harris's narrative of his hunting expedition in the country of the Matabilis, in the same year, 1836, and, more especially, the work of the French missionary among the Bushwanas, Eugene Casalis, published in 1841, and entitled "Études sur la langue Séchuana,"—a work which, besides its professed subject, gives an interesting account of the people among whom he laboured. But no part of Africa has attracted more of the attention of Europeans, in the last 12 or 15 years, than Abyssinia. Some of the most important of the works which have latterly described that country and its inhabitants, are those of MM. Combes and Tamisier, M. Rochet d'Héricourt, Messrs. Isemberg and Krapf, Captain Harris, and Mr. Johnston. In respect to Sennaar and Cordofan much less has been written; and perhaps the most interesting sources to be consulted are the reports, made to Mehemed Ali, by the chiefs of the expedition fitted out by him to explore the country of Soudan, in 1838, and originally written in the Turkish language, together with a narrative of the expedition, written in the same language, by one of the officers of the Viceroy, the Sheik Mohammed Eltumi. What is most important in the former of these may be found in Burton's treatise on the Slave Trade; and of the latter a French translation, by Perron, was published at Cairo. The work also of the Italian traveller, Ferlini, who was engaged, in 1833, in making excavations in these regions, may be consulted with advantage (Cenno sugli Scavi operati nella Nubia).

AFZELIUS; a Swedish family, remarkable for the number of distinguished men of letters whom it has produced. *Adam Afzelius*, who was born in October 1750, and died in January 1837, was the last surviving pupil of Linneus. In 1777, he was appointed teacher (*docent*) of Oriental Literature, and in 1785, demonstrator of Botany in the University of Upsal. He

went to Great Britain in 1789, and, while there, was offered the appointment of naturalist to the embassy of Lord Macartney to China, which he declined. In 1792, he consented to go as botanist to the British colony of Sierra Leone, in Africa. He returned thence to England in 1794, and was, two years afterwards, appointed secretary of the Swedish legation in London. In 1799, he returned to his own country, after an absence of ten years, and, in 1812, was appointed to the chair of Dietetics at Upsal, a situation which he continued to occupy till his death. As an author, he is known by his botanical writings, consisting chiefly of papers communicated by him to the Royal Academy of Stockholm, and to the Linnæan Society of London. Besides these, he published a notice of the life of Linnæus, with copious extracts from the autobiography of the latter. Several species of plants, and two of insects, have received names in honour of Afzelius. His large collection of plants was purchased for the university, of which he had, for so many years, been a member.—*John and Pehr Afzelius*, brothers of Adam, were, like him, professors at Upsal, the former of Chemistry, and the latter of Medicine; both distinguished as instructors, though neither of them has written anything for the public. Pehr, who is (1843) still living in retirement, was long known as one of the most eminent physicians of Sweden.—*Anders Eric Afzelius* is a near relative of the brothers who have been mentioned, and was, from 1818 to 1821, a teacher in the Faculty of Law in the University of Abo. When this city was annexed to Russia, he became obnoxious to the government on account of his political opinions, and, in 1831, was ordered to quit the country. Not, however, obeying the mandate with sufficient promptitude, he was arrested and exiled to Viatka. Since 1835, he has been permitted to reside at Willmanstrand, a town of Finland.—*Arvid Augustus Afzelius* was born in 1785, and has, since the year 1821, been settled as a clergyman, in the town of Enköping. He is honourably known for his researches into the earlier literature of the north of Europe. His attention has been, in an especial manner, directed to the ancient ballads, or popular songs, of his own country, and he has attempted several imitations of them. In conjunction with Geijer, he published an edition, in three volumes, of these ballads, accompanied by the older melodies. Dramatic composition he has attempted, but without much success. Since 1840, he

has been occupied with a history of Sweden; three volumes of which had appeared in 1842.

AGARDH (Charles Adolphus), bishop of Carlstad, and professor of botany in the University of Lund, in Sweden, was born on the 23d of January 1785, at Båstad, in the province of Schonen, where his father, who was a merchant, resided. He became a student in the institution just mentioned when 14 years of age, and in 1807 was appointed one of the instructors in mathematics. His attention was, however, very soon diverted from this department of science to the natural history of plants, especially of the cryptogamic plants; and among these, again, he selected, as a particular object of his inquiry, the class of the *algæ*. When, in 1812, he was appointed professor of botany in the university, an office which he still continues to hold, an opportunity was afforded him of gratifying, in a greater degree than heretofore, his favourite tastes. This opportunity he profited by, to be distinguished beyond all other naturalists, in his peculiar province of investigation. But besides, many papers on the subject of the *algæ*, which were communicated by him to different learned societies, he is the author of an elementary work on botany; and he found leisure, too, among his various occupations, to prepare and publish a work on the elements of political economy, together with a memoir of Linnæus. In 1816, Agardh entered into the ministry, and became a bishop in 1834; from which period he has been principally occupied with theology and oriental literature. He has several times been a representative of the clerical order in the diet of Sweden, and has highly distinguished himself in that body, both for the extent of his general knowledge, and his ability as a debater. It may be added that, among his other honours, he has that of being one of the 18 members of the Swedish Academy.

AGASSIZ (Louis), one of the most eminent naturalists of the present day, was born in 1807, at Orbe, in the Pays de Vaud, in Switzerland, where his father was a clergyman. He received his education successively at the gymnasium of Biel, the academy of Lausanne, and the universities of Zürich, Heidelberg, and Munich; in which last institution he took his doctor's degree. From his youth upwards he exhibited a passion for the study of nature. At Heidelberg and Munich, his attention was chiefly occupied with the subject of comparative anatomy; and at the latter place, Martius, on the death of

Spix, who had accompanied him to Brazil, entrusted, in 1826, to Agassiz the description of 116 species of fishes, from among those which were the fruits of his journey, many of them belonging to genera altogether new. Agassiz now first presented to the public his views relating to the classification of fishes,—views which he has since continued steadily to entertain. The work was published at Neuchâtel in a folio volume, with numerous lithographic plates, under the title of "*Pisces etc., quos collegit et pingendos curavit Spix, descripsit Agassiz.*" His attention having been thus directed to the subject of ichthyology, he was led to prosecute it still further. In his "*Histoire naturelle des poissons d'eau douce de l'Europe centrale.*" the first part published in 1839, and the second in 1842; he has described the fishes of the lakes and rivers of the middle portions of Europe with great minuteness of detail, furnishing us with much that is new concerning their anatomical structure, their distribution, and habits. Another of his works, which has appeared in numbers from 1833 to 1844, is the "*Recherches sur les poissons fossiles.*" It is founded upon a comprehensive examination of the fossil remains contained in public and private collections, especially at Paris, where he spent a considerable time with this object in view; and it supplied a desideratum in the department of fossil zoology. From one class of remains he has been, very naturally, attracted to the consideration of other classes. The "*Description des échinodermes fossiles de la Suisse,*" the "*Monographie d'échinodermes vivants et fossiles,*" the "*Études critiques sur les mollusques fossiles,*" and the "*Mémoire sur les moules de mollusques vivants et fossiles,*" are the fruits of his indefatigable labours. But none of his works have made so great an impression on men of science as his "*Études sur les glaciers;*" on account of the novelty of the geological speculations contained in it, developed, as they are, in a very ingenious and plausible manner.

AGENT, in law, is a person appointed to transact the business of another. It is a principle of law that whenever a man has a power, as owner, to do a thing, he may do it by the instrumentality, or agency, of another. An agent may, in general, be appointed by bare words, or his appointment may be inferred from circumstances. For some purposes, as a security against fraud, it must be in writing; and the agent of a corporation must, for the most part, be appointed by deed. It is only against

an agent who has engaged to perform certain duties for a consideration, that the performance of these duties can be enforced by law. When he engages to render any services to his principal without remuneration, the latter can only recover damages for their non-performance. If a person be appointed a general agent, the principal is bound by all his acts. But an agent, specially appointed, cannot bind his principal by an act which exceeds his authority. The following are general rules of law applicable to the relation of principal and agent:—the extent of an agent's authority, as between his principal and third parties, is to be measured by the extent of his usual employment; the representation of an agent, about the subject-matter of a contract which he is negotiating for his principal, will, if made during the course of the negotiation, bind the latter; payment to an agent, in the course of his employment, is payment to the principal; the principal is, under many circumstances, responsible in civil actions for the negligence or fraud of his agent, but not criminally liable for his acts, unless performed by his express command.

**AGITATE**; a term which has within a few years come into use in Great Britain to signify the exciting of the public attention to some important measure of political reform or policy, by repeatedly addressing the people throughout a country, or extensive district of a country, and inducing them, in consequence, to demand earnestly and loudly its adoption by the legislature. The most remarkable instances that have hitherto occurred of such agitation, are those for *Catholic emancipation*, for the passage of the *reform bill*, for the *repeal of the act of union* of Ireland with Great Britain, and that now so actively carried on for the *repeal of the British Corn Laws*.

**AGRAM**, a fortified city of the Austrian empire, and capital of Croatia, with 17,000 inhabitants, on the banks of the Save. It is the seat of a bishopric, and of a tribunal of appeal for Croatia and Sclavonia, and is the residence of the governor-general of the province. It has considerable trade in salt, wines, and in the tobacco and corn of Hungary. The principal structures are the cathedral, the episcopal palace, that of the states of Croatia, which assemble here, and the bridge over the Save. Here is a *Royal Academy*, with a public library attached to it, and the instruction in which is communicated by ten professors. There are also a *gymnasium*, a theological seminary, and other schools.

**AGUADO (Alexander Maria)\*** was born at Seville, in Spain, in 1764, and died in April, 1842. He was a descendant of a Jewish family in Portugal. At the early age of 12, he entered the Spanish army as a cadet; was rapidly promoted; and, in 1810, had attained the rank of colonel. In this year, he is said to have acted, for some time, as an aide-de-camp of Marshal Soult. After being obliged to quit his native country, on the retreat of the French, in 1813, across the frontier; and the regiment to which he belonged, like every other composed of foreigners in the service of France, having been disarmed by order of Napoleon, after the battle of Leipsic, he obtained an appointment as colonel in a French regiment. In 1815, however, on being appointed to a command in a body of troops destined to be sent to the French colonies, he resigned his commission, and commenced a mercantile business (mostly commission business) in Paris. His affairs were managed with the greatest skill and activity; and having, besides, the advantage of an extensive acquaintance in the colonies, he soon became possessed of considerable property. He then established a banking-house, and soon afterwards made himself generally known as the financial agent of the Spanish government. For his services in this capacity, he was amply compensated, both by the vast increase of his wealth, and the honours conferred upon him by the King of Spain. His services in procuring a loan for Greece, in 1834, were also honourably acknowledged in that quarter. Having become a naturalized citizen of France, he purchased considerable estates in that country; among them the estate of Chateau Margaux, so famous for its excellent wine. The property which he left behind him, at his death, was estimated to be worth 60 millions of francs. He was possessed of a splendid gallery of paintings, of which a description is in course of publication, under the title of the "Galerie Aguado."

**AGUAS CALIENTES**, one of the handsomest of the Mexican towns, province of Zacatecas, about 100 miles N. E. of Guadalupe. Several great roads intersect each other here, and render it a place of considerable trade. It is noted for its cloth manufactory, which, according to Ward, employed, in 1825, 350 persons. Population about 80,000.

**AHUMADA**. See *Girona*.

**AIDE-DE-CAMP**; an officer appointed to attend upon a general, especially on the field of battle, and to convey his orders

whithersoever it may be required. The number and rank of the aides-de-camp vary according to the rank of the generals, and the nature of the service in which the latter are, at any particular time, employed.

**Air.\*** At a mean temperature and pressure, the weight of atmospheric air may be stated, more accurately than in a previous volume, to be that of an equal bulk of water, as 1 to 816. Later experiments, also, on the relative quantities of nitrogen and oxygen contained in atmospheric air, have led to results varying somewhat from those before found. Its average ordinary constitution is stated in Brande's Dictionary to be as follows:—

|                         | By measure.   | By weight.    |
|-------------------------|---------------|---------------|
| Nitrogen . . . . .      | 77.50         | 75.55         |
| Oxygen . . . . .        | 21.00         | 23.32         |
| Aqueous vapour . . . .  | 1.42          | 1.03          |
| Carbonic acid . . . . . | 0.08          | 0.10          |
|                         | <hr/> 100.00. | <hr/> 100.00. |

By a peculiar method suggested by Messrs. Dumas and Boussingault, it was, not long since, shown that the quantity of oxygen contained in the air of Paris was 23.04 by weight in 100, in that of Berne 22.95, and in air brought from the Faulhorn, a mountain in the canton of Berne, 22.97. M. Dumas, also, analysed the air in his lecture-room, at the Sorbonne, in Paris, before and after one of his lectures, and found, before the lecture, 225 parts by weight of oxygen, 775 of nitrogen, and 0.0006 of carbonic acid,—and after it, 222 parts of oxygen, 773 of nitrogen, and 0.01 of carbonic acid. And more recently still, M. Lewy has communicated to the Academy of Sciences, at Paris, his researches, made at the request of the Academy, on the composition of atmospheric air obtained at Copenhagen and from the North Sea, comparing them with analyses of air from Guadaloupe, collected by M. Deville. This new series of experiments, conducted in the same manner as those just before mentioned, goes far to establish it as a fact, that the composition of air is *not constant* over the whole surface of the globe, and likewise that this variation is greater and most decided when the air examined has been procured at sea.—The relative proportion in the atmosphere of carbonic acid varies considerably, and its presence is indicated in all situations, even in the purest and most elevated regions, excepting only that it has sometimes not been discoverable at sea.—Dr. Prout, in his Bridgewater Treatise, has suggested the possibility of the occasional existence of

extremely minute portions of foreign and poisonous matters in the air during the prevalence of epidemic disorders; and, in reference to this subject, a remarkable observation occurred during the prevalence of the cholera. For more than six weeks previous to the appearance of cholera in London, he had been almost every day engaged in accurately determining the weight of a given quantity of air, under precisely the same circumstances of temperature and pressure. On the ninth of February 1832, the weight of the air suddenly rose above the usual standard; and it continued so for six weeks. On the 9th of February, the wind, which had been west, veered round to the east,—and the first cases of epidemic cholera made their appearance.

**AIR-BLADDER**, called also *air-bag*, *sound*, and *swim*, is an organ, or vessel, found in all fishes, excepting only such as live on the surface of the water, and such as live at the bottom. The object of it is, by its expansion or contraction so to regulate the specific gravity of fishes, as to enable them to sustain themselves at any depth. It has sometimes a communication with the œsophagus or stomach, through which air can be received or expelled. But, in other cases, the alteration in the dimensions of the air-bladder is effected solely by the augmented or diminished pressure of the water, according as the fish sinks or rises in it. Fishermen are accustomed to perforate this vessel with a fine needle in cod, and other species of fish, which require to be brought fresh to market, sometimes from a very great distance. The confined air is thus allowed to escape, and the fish constrained to remain at the bottom of their boats, where they live for a considerable period. Those sounds which are sold in the markets of our cities are nothing else but the salted air-bladders of the cod. From the cod-sounds isinglass of a very excellent quality is prepared by the fishermen in Iceland and America, though they are not acquainted with the method of clarifying it, which the Russians practise in preparing this article from the sound of the sturgeon.

**AIR-CELLS** are cavities in the stems and leaves of plants, intended to render the part which contains them buoyant in water.—Certain receptacles for air in the bodies of birds are likewise so called, the object of which is, by diminishing their specific gravity, to assist them in flying, and it is probable in the respiration and retention of air. Some persons have conjectured that they were of use to birds in



singing.—The bodies of flying insects, too, are dilated by air in a similar manner.

**AIR-PLANTS** are so called because they grow in situations where their roots are apparently not in contact with any substance from which they can extract nourishment. This, however, is only apparent. Where they are suspended freely in the air, certain plants will live for a comparatively long period; but they perish in the end, like other plants in similar circumstances.

**AIR-SHAFTS** are holes or shafts let down from the open air into a mine, to discharge the foul air or gas.

**AIR-THREADS**; the spiders' threads which are seen floating in the air, in autumn. The spider, having gained the summit of a bush or tree, darts from its tail several of these threads, till at length it produces one capable of sustaining it in the air, on which it rises in quest of prey, and frequently reaches considerable heights.

**AJAN**, the country along the eastern coast of Africa, from Zanguebar to Cape Guardafui. It is, for the most part, a sandy and unproductive region, and is traversed by a few independent tribes of negroes, whose chief occupation is the raising of sheep. Some tribes of Arabs dwell with their horses in the immediate vicinity of the sea. A trade is carried on in spices, gold-dust, and ivory; the two last-mentioned articles being probably brought from the interior.

**ALAVA** (Miguel Ricardo de); a Spanish general, born at Vittoria, in 1771, and descended from a noble family in the province of Alava. He entered the naval service at an early age, and met with rapid promotion. When he had attained the rank of captain of a frigate, he was transferred to a corresponding rank in the army. On the resignation of Ferdinand at Bayonne, in 1807, he was one of the assembly of Spanish notables who subscribed the constitution imposed upon their country by Napoleon, and he became a zealous *afrancesado* (which see). Shortly, however, before the battle of Albuera, he abandoned the party of King Joseph; and we find him, soon after, employed as the commissioner of the patriot government at the head-quarters of the army of Wellington. He distinguished himself on various occasions during the war. But notwithstanding his services in the cause of Ferdinand, on the return of that monarch to Spain Alava was put under arrest, being suspected of entertaining liberal political opinions. Through the interest of his uncle, the in-

quisitor Ethenard, as well as through the influence exerted in his behalf by his friend the Duke of Wellington, he was not only liberated from arrest, but appointed minister to the Hague. About the period of the revolution of 1820, he returned to Spain, was elected by his native province a member of the Cortes, and received the appointment of Captain-General of Aragon. He sided with the party of the *exaltados*, and voted in the Cortes at Seville, in 1823, for the suspension of the royal authority. Subsequently, at Cadiz, he was selected to negotiate the terms of a treaty with the Duke of Angoulême, and to endeavour to procure an explicit promise, on the part of the latter, that Ferdinand would bestow upon his people a representative constitution. All the efforts made for this purpose were unavailing; and the Cortes were induced to surrender the city of Cadiz, and to set the king at full liberty to act as he might judge to be proper, on the Duke of Angoulême promising to exert his influence to obtain from Ferdinand the desired constitution, as also that the partisans of the revolution should not be molested for the course which they had adopted, and should be free to depart whithersoever they might prefer. Very soon finding that no regard was to be paid to these promises, Alava, together with a majority of the Cortes, hastened to Gibraltar, whence he embarked for England. The death of Ferdinand led to his recall by the regent, Maria Christina, who also named him one of the *proceres*, or peers. Under the administration of Martinez de la Rosa, he was appointed ambassador to the court of St. James, where he became suspected by the *exaltados*, or more violent party in Spain, with which he had hitherto acted, of having allowed his personal friendship for the Duke of Wellington, then premier, to influence him unduly in his diplomacy. His influence contributed to the appointment of Mendizabal to be minister of finance, who, in return, suggested that of Alava to the ministry of foreign affairs, and the presidency of the Council. This he declined. In 1835, he went on an extraordinary mission to Paris, being still looked upon as belonging to the party of the *exaltados*. When Isturitz, however, became prime minister, Alava exhibited quite as much zeal in support of the measures of the *moderados*, as he had ever done in behalf of the opposite system, and as earnestly maintained the expediency of the intervention of France in the affairs of Spain, as he had heretofore opposed it in London. After the insurrection of I.

Granja, he refused to take the oath of fidelity to the constitution of 1812, being disgusted, as he stated, with the practice of taking new oaths on the occurrence of every political change; and quitting the service of his country, he withdrew into France, where he has since continued to reside. A pliable and skillful man of the world, Alava knew how to render himself personally acceptable to those with whom he held intercourse; and without, apparently, any very deep convictions founded on principle, he is one of a class of statesmen, not confined to the Spain of our day, who, unable to foresee or to direct the course of events, are but too ready to follow in their track, and thus to become distinguished, as much for the versatility and inconsistency of their politics, as for any thing else.

ALBANY,\* in the state of New York, has, of late years, continued to advance in prosperity. Its population, which, in 1830, amounted to 24,238, had increased, in 1840, to 33,721. To the public buildings already mentioned must be added the City Hall, the Exchange, a building for a medical college, and one for a female academy; and there are at least thirty houses of public worship. This city, too, has become, in a much greater degree than it was, a centre of communication and commerce between remote districts of the country. A continued railroad now reaches from it all the way to Buffalo; and another has been constructed from the opposite point on the Hudson river, to Springfield on the Connecticut, connecting there with the railroad from New-Haven through Worcester to Boston.

ALBUMEN\* (animal). Corrosive sublimate is an excellent test of albumen, forming with it a white insoluble compound; and hence it is that the white of eggs has been found to be the best antidote to the poisonous effects of corrosive sublimate on the human stomach. Besides alcohol and most of the acids, as already mentioned, several metallic salts also coagulate albumen; the subacetate of lead, for instance, renders a solution of one part of fresh white of egg in 2000 of water turbid, so that it detects one part of dry albumen in 10,000 of water. We give the results of the analysis of albumen of eggs and of serum by Mr. Mulder, repeated and confirmed in the laboratory at Giessen:—Of eggs, out of 100 parts, carbon 54.48; nitrogen 15.70; hydrogen 7.01; oxygen, phosphorus, and sulphur, 22.81: of serum, carbon 54.84; nitrogen 15.83; hydrogen 7.06; oxygen, phosphorus, and sulphur,

22.24. The *atomic* composition of animal albumen has been stated to be as follows: 8 atoms of carbon, 1 of nitrogen, 7 of hydrogen, and 3 of oxygen.

ALBUMEN (vegetable) is a proximate principle, having some of the leading properties of animal albumen.—The name of albumen is also given to a hard substance, which, in some seeds, is interposed between the embryo and their coat, and is often the most valuable part of the plant. In the cocoa-nut, it is the meat, the milk being a fluid, uncondensed portion of it; in the coffee-seed, it is the part which is roasted; and in corn, it is that which is ground into flour. The oil of the castor-oil plant and of the poppy, the aroma of the nutmeg, and the substance which forms chocolate, are all the produce of albumen. Its presence in abundance, or its total, or almost total absence, is a character of very great importance with botanists in distinguishing the different tribes of plants. They have remarked that this substance is never deleterious, however poisonous the plant may be by which it is borne.

ALDINI (Giovanni), brother of Anthony, who was noticed in a previous volume, was born at Bologna in 1762. He occupied, for a time, the chair of natural philosophy in the university of that city, and is known by his works on galvanism, and on various applications of the principles of mechanical and physical science to the useful arts. In 1827, he invented a method of securing the human body against the effects of fire. This was to be accomplished by means of garments of asbestos, and a sort of metallic armour, which were put to the test, and approved of, in Paris, London, and Vienna. Aldini's contrivances, however, have been since superseded by an apparatus of Paulin, which, besides the security of the persons of firemen from the direct effects of the surrounding flames, aims at furnishing them with an adequate supply of air fitted for respiration. Aldini died at Milan in January 1834.

ALEPPO.\* The population of this city has been, it is probable, very much magnified by travellers; and the accounts even now rendered of it, in systems of geography, have generally a reference rather to its past than its present condition. Not less than 20,000 persons are said to have lost their lives, and as many more to have been bruised or maimed, in the earthquake of the 13th of August 1822. Numbers, besides, perished from subsequent exposure in the open fields, without shelter, and without sufficient food to sustain them. A large part of the city was reduced to a

heap of ruins: and so it has remained; most of the surviving inhabitants, who were deprived of their homes, not having attempted to restore them, but having since contented themselves with comparatively mean accommodations, hastily prepared, in the outskirts of what may, without impropriety, be called the *former city*. It is even doubtful whether that city will ever be rebuilt, notwithstanding its advantageous situation for commerce with the surrounding regions. As a place of residence, it is undesirable, not merely on account of its liability to earthquakes, but also because of the degree in which it is subject to the devastations of the plague. This terrible disease has heretofore severely visited Aleppo, at an average interval of ten years; and one of these visitations (that of 1797) is reported to have carried off 60,000 persons. The climate, indeed, in other respects, is reputed to be salubrious to both natives and strangers; although the former are apt to be attacked, once at least in their lives, by a peculiar disease, known by the name of the ulcer, or ring-worm, of Aleppo. It is at first an inflammation of the skin, subsequently becomes an ulcer, continues for a year, and generally leaves a scar for life. It usually fixes in the face; and an Aleppine is known, all over the East, by the mark left by this disorder, the cause of which is unknown, but suspected to be owing to some quality of the water.—Aleppo is famous for its gardens, which extend nearly 12 miles in length, and are separated from each other by stone walls. Their beauty, like the size and importance of the city, has been much exaggerated; yet, contrasting, as they do, with the general character of the surrounding scenery, they present a striking and very agreeable picture to the eye of a European.—There are, or rather were here, 10 or 12 Christian churches, and 3 Christian convents; Aleppo being resorted to by the Christians, in preference to most other Mohammedan cities, on account of the greater toleration, and even urbanity, with which they are treated.

ALEXANDRIA,\* in Egypt. At the period of the French invasion of Egypt, Alexandria had declined to such a degree as not to contain more than about 7000 inhabitants. An impulse was then given to its prosperity, so that, some two or three years before the completion of the canal from it to the Nile, its population was estimated at 14,000; and this number has since been increased, in consequence of the measures adopted by Mehemed Ali, to 30,000, or

even more,—Arabs, Turks, Jews, Copts, Greeks and Franks. The principal public buildings, viz., the new palace, the custom-house, the arsenal, &c., were erected by his orders; and many of the best private houses were built on a speculation, which has proved a successful one, of his son Ibrahim. Alexandria is now a considerable naval port, and has an extensive commerce with Europe,—a commerce destined to become yet more extensive, if, as is not improbable, the European trade to India should resume its ancient route by Egypt and the Red Sea.—In this city the European consuls for Egypt reside, and possess peculiar privileges, and even jurisdiction, conceded to them by the pacha. The Franks, or Europeans, are exempted from taxes or public burdens, and are amenable when defendants in a suit, or when charged with any offence, only to their own consular courts, and to the laws of their respective countries. There is a commercial court, with Frank judges, but presided over by a Turk, for deciding questions between the Franks and natives, where the latter are defendants.—The streets of Alexandria are narrow, filthy, unpaved, and irregular, and the labouring classes of the people poorly clad, housed, and fed. To these circumstances, together with the rains which fall abundantly in the winter season, has been attributed the periodical visitation of the city by the plague. This terrible disease usually makes its appearance about the 20th of February, and ceases towards the latter end of June.—The western harbour is no longer closed against foreign vessels. And the canal above-mentioned, called the canal of Mahmoudieh, which is 48 miles in length, extends from Alexandria to Atfeh on the Nile, 100 miles or more from Cairo.—See *Egypt*, (Sup.)

ALFORT; a *château* in the department of the Seine, about two leagues distant from Paris, famous for its veterinary and agricultural school, established in 1767 on the plan of Bourgelot, with a botanic garden, an extensive collection of natural history, a cabinet of comparative anatomy and pathology, a library, and an amphitheatre or lecture-room, in which the pupils are taught the veterinary art and rural economy. The botanic garden is rich in rare plants, and is one of the finest in Europe. Nothing of the kind, too, can exceed the stables destined for the sick animals, which are brought here to be cured, and to serve as subjects for the instruction rendered. And among the objects of interest to which the attention of a visitor is pointed at Al-

fort, are a hydraulic machine of Périer for supplying the establishment with water, a flock of merino sheep, and another of Cashmere goats.—Dogs suspected of having the hydrophobia are brought here from Paris, to be experimented upon with a view to the discovery of the best method of treating that terrible disorder. Physiological experiments are also made on the larger animals, which have sometimes led to interesting results.

ALGIERS, or ALGERIA,\* as it is now styled by the French.† The necessity of providing against the not improbable occurrence of a war nearer home had led, after the revolution of July, to the diminution of the French forces in Algiers, already reduced, within three months after their landing, by the loss of 15,000 men killed, wounded, or sick. General Clausel, who succeeded Marshal Bourmont as governor of the province, and commander-in-chief of the army, found himself in circumstances to call for the exercise of the greatest degree of prudence, as well in his intercourse with the natives, as in his military operations. Instead of aiming directly at the conquest of the country, he sought to extend the influence of France by the establishing of tributary rulers in the provinces, to the E. and W. of the capital. Acting upon this system, he evinced the utmost activity and energy in yielding a timely assistance to such of those rulers as required it, when attacked by the hostile Arabs, and in punishing those among them who were faithless in their engagements to him. And every thing, perhaps, would have gone on favourably, but for faults of administration, which had been early and irretrievably committed, and by which the enduring hostility of the inhabitants had been aroused. One of these faults was the entire expulsion of the Turks, who had hitherto governed the country, instead of making use of them as instruments for its government, and as a means of gradually accustoming the people to the dominion of the conquerors. Oppression is ever felt to be doubly severe at the hand of a new master. It was, therefore, quite natural, that the various tribes of Bedouins and Cabyles, who occupied the interior of the country, should have been excited to resist, with a determined spirit, the invaders of their territory, whom they regarded, besides, with a fanatical abhorrence, as the enemies of God and their prophet. Another fault, equally great with that already mentioned, and a consequence of it, was the attempt to reorganize the

administration and institutions of the country after the forms and usages of the French. The latter, too, had been guilty, not to say of the injustice, but of the gross impolicy, especially at so early a period of their government, of destroying a number of mosques, and seizing upon lands appropriated to sacred purposes; thus aggravating the religious antipathy previously entertained towards them, as Christians. Nor had the French authorities in Algiers the apology to offer that these outrages were irregularities which had been committed without their sanction, but which they would take the proper measures in future to prevent or punish. The mode adopted by General Clausel, to put a stop to these irregularities, was by taking the matter into his own hands, and confiscating the whole of the property in question, together with the estates of the dey, of the beys, and of the expelled Turks, in direct violation of the terms on which the capital was surrendered. Such was the hostile spirit excited among the native tribes, that no Frenchman felt himself in security even in the immediate vicinity of the city; and the administration of Clausel presents to us an incessant series of petty conflicts, productive of no permanent results to compensate for the blood shed and money expended. (See *France*, App.) In these circumstances, while large tracts of land were purchased on speculation, they remained without settlers from Europe; and all serious attempts to colonise the country seemed to be indefinitely postponed. The general, at length, saw nothing better to be done than to conclude a treaty with the bey of Tunis, by which the provinces of Constantine and Oran were transferred to the brothers of the bey, on condition of their paying an annual tribute of a million of francs, and of their promoting, to the extent of their power, the settlement of the French in the country. On the non-ratification of this treaty by the government at home, and the recall of General Clausel, the whole of the French troops in Africa consisted only of 9300 men able to do duty.—With so diminutive a force, it would have been surprising, could his successor, General Berthezène, have been able to accomplish any thing of moment. His administration of the government of Algiers is, on the contrary, only remarkable for his unsuccessful expedition against Medeah, and the losses inflicted upon his troops during their retreat from that place.—At the close of the year 1831, he was, in his turn, superseded by Savary, Duke of Rovigo.

who brought with him from France an additional force of 16,000 men. The new governor, not satisfied with the superior resources thus placed at his disposal, hesitated not to employ for his purposes fraud as well as force, and to be guilty of a barbarous cruelty; and the separation of the civil from the military administration, which had been latterly effected, seemed scarcely any check upon his proceedings. His two most noted exploits were the extermination of the Arab tribe of El-Uflia, on account of a robbery committed by them,—not merely the able-bodied men, but old men, women, and children, being surprised and massacred in the night time,—and the execution of two Arab chiefs, whom he had contrived to get into his power by a written assurance of safe conduct. Exasperated by proceedings like these, those tribes which had hitherto remained quiet embraced the cause of their countrymen, and the French experienced renewed attacks in every quarter. The expeditions undertaken by the Duke of Rovigo, in October 1832, did not alter the general aspect of affairs. It was only in the province of Constantine that any advantage of consequence was gained by the French. In the province of Oran, in the opposite direction from Algiers, the power and influence of Abd' el Kader was continually extending itself, and, aided and stimulated as he no doubt was by the Emperor of Morocco, threatening to become, sooner or later, sufficiently formidable to overthrow the French dominion in Africa. (See *Abd' el Kader*, Sup.) In March 1833, the declining health of the Duke of Rovigo obliged him to return to France, leaving General Avizard provisionally in charge of the government.—On the death of the latter, shortly afterwards, this provisional charge was entrusted to General Voirol. The system of action pursued by him was the exact opposite of that which has just been described. He sought to maintain pacific relations with the Arabs, while he was anxious to promote the material interests of the colony. With the exception of several expeditions undertaken to chastise the tribe of the Hadjutes for depredations committed by them, and the capture of Boujeiah, towards the end of September 1833, nothing occurred in the province of Algiers, or in the country to the east of it, of any importance; and in the neighbourhood of the capital, many of the tribes, which had hitherto been hostile, acknowledged themselves subjects of France, and a tolerable state of tranquillity prevailed. The contest, on the other

hand, with Abd' el Kader, in the western province of Oran, was carried on with great activity, till the conclusion of the treaty, known as the treaty Desmichels, by the terms of which, the emir engaged to deliver up the prisoners he had taken, and to keep the peace in future, on condition of his having a monopoly of the trade with the French in corn, and the privilege of procuring arms and ammunition in the French ports. This treaty, or rather the attempt, on the part of General Desmichels, to keep its terms, last mentioned, secret from his own government, caused him to be removed from his post as governor and military commander in the province of Oran.—Towards the end of the year 1834, the government having come to a determination, on the report of two committees of inquiry, to maintain and colonize its possessions on the Barbary coast, the administration of the latter was again reorganized. Drouet, Count d'Erlon, was appointed governor-general of the colony; and under him were also appointed a commander of the troops, a commander of the naval forces, a military intendant, a civil intendant, and a director of the finances. Tribunals of justice, also, were established, on the principle of both French and natives enjoying the benefit of their respective systems of law.—The comparatively tranquil condition in which the new governor found the country entrusted to his charge enabled him, for some time, to direct his attention chiefly to the improvement of the civil and police arrangements. At length, however, hostilities were renewed with the Hadjutes in the neighbourhood of Algiers, and subsequently with the indefatigable Abd' el Kader. The latter had employed the interval, since the conclusion of his treaty with the French authorities in Oran, in extending his influence among the Arab tribes, and in procuring a sufficient supply of the articles necessary for a renewal of the war, which could scarcely fail, sooner or later, to occur. Whatever may have been his intentions in this respect, the first offensive movement was made by his enemies. He was charged by them with an infraction of the treaty by the purchase of arms and ammunition from foreigners, and they made a military demonstration from Oran, which was the signal of hostilities. The advantages gained by Abd' el Kader over the French general Trézel (See *Abd' el Kader*, Sup.) led not only to his removal from his command, but also to the recall of the Count d'Erlon.—General, now Marshal Clausel, once more assumed the government of the

French possessions in Africa. On his arrival in Algiers, on the 10th of August 1835, his first concern was to avenge the disasters inflicted on the French army by the emir, and, by striking a heavy blow upon this formidable enemy, to crush the growing spirit of resistance. He set out, on the 26th of November, at the head of 11,000 men, in the direction of Mascara, and reached that place on the 6th of the following month. Its partial destruction by fire was almost the only fruit of this expedition. Three days after its first occupation, the marshal judged it expedient to retrace his steps; and his retreat was not effected without considerable loss. For the subsequent events in the war with Abd' el Kader, till the treaty of the 30th of May 1837, see *Abd' el Kader*, (Sup.)

By this treaty of the Tafna, as it is called, Abd' el Kader, besides acknowledging the sovereignty of France over the whole of the country heretofore comprehended in the regency of Algiers, agreed to deliver, for the use of the French army, 60,000 sacks of corn and 5000 oxen: in return, he was allowed to exercise a ministerial authority over the portion of the country already in reality subject to him; he acquired possession of the town of Tlemecen, with its citadel (Mishuar); and liberty was given him to purchase in France such military stores as he desired. Previously to this event, Marshal Clausel had been recalled from his government. The occasion of this measure was his unsuccessful attempt on the town of Constantine. He arrived before it, with a force of about 9000 men, after a fatiguing march through an incessant rain, on the 21st of November 1836. Several fruitless attempts having been made to carry the place by storm, and not being provided with the heavy artillery requisite for besieging it in regular form, the French retreated upon Bona, whence they had advanced. On their march, and still more after their return, an extraordinary number of men perished from exhaustion and disease.—By his faulty administration, Marshal Clausel had left the colony in a truly wretched condition. General Damrémont was, in these circumstances, appointed to fill the office of governor-general, with instructions to repair the faults of his predecessor. Upon his arrival, on the 3d of April 1837, he occupied himself, in the first place, in subjecting certain tribes of the Cabyles, which had been excited to revolt by Abd' el Kader. This having been accomplished, he next directed his attention to the great object of his mission, the capture of Con-

stantine, which was now regarded as a step essential to the honour and interests of France. The treaty of the Tafna, by relieving him from the pressure of an enemy on the west of Algiers, enabled him to concentrate to the east of Bona a force of 12,000 men, composed of various elements; Frenchmen, a legion of foreigners (Europeans), and a corps of infantry (Zouaves), and another of cavalry (Spahis), formed of native Africans, serving under French officers of all grades. With these troops, he broke up from the encampment at Medjez-Ammar, on the Seibus, on the 1st of October; and encountering scarcely any opposition on his march, he appeared, on the 6th, before Constantine, which was defended by six or seven thousand men, mostly Cabyles, under the orders of Ben Aissa, the lieutenant or deputy of the bey (Achmet). The latter, instead of remaining, as he had done at the period of the previous attack, within the walls of the town, to direct the defence of it in person, had posted himself, with a small body of his followers, without the town, at no great distance from it. Notwithstanding the fatigue of the soldiers, and the extreme badness of the weather, the siege was begun without delay, and was terminated by the taking of the place, bravely defended as it was, by storm, on the 13th of the month. This was effected under the orders of General Vallée, General Damrémont having been killed by a cannon-ball on the preceding day, the 12th. By this brilliant exploit, the fall of Achmed Bey was decided; for although he still endeavoured to maintain the contest, he was soon obliged, by the tribes on the borders of Tunis, to seek a place of concealment. The neighbouring tribes hastened to make their submission; order was speedily restored in the captured city; and, a strong garrison being left for its protection, the army retraced its steps to Bona, arriving there on the 3d of November. Constantine henceforth remained in a state of tranquillity, not having since become the theatre of important events.

As a reward for the capture of Constantine, General Vallée was made a marshal, and appointed governor-general of the colony. Differences arose with Abd' el Kader respecting the interpretation of some of the articles of the treaty of the Tafna; but the renewal of hostilities between him and the French was postponed for a season, by the signing of a subsidiary treaty between them on the 4th of July 1838. While, then, here the affairs of the French remained stationary, in other parts of the

country they made no great advances. The French neither succeeded in acquiring the good-will and alliance of the independent tribes, nor in reducing them by force to submission; and colonization made as yet only a very slow progress. Of the provinces, that of Constantine exhibited the most improvement, in the construction of new roads, and otherwise. Nothing of importance occurred until October 1839, when Marshal Vallée, accompanied by the Duke of Orleans, went on an expedition from Constantine to the *Iron Gate*, against certain refractory tribes. Abd' el Kader, on the ground of his territory having, on this occasion, been violated by the French, fell upon their scattered forces with overwhelming numbers, and very soon reduced their dominion to the fortified towns and camps which they occupied. Even the settlements on the Metidja plain were lost; 40,000 Arabs encamping upon it, and thence pushing their advanced parties to the very gates of Algiers. This condition of affairs called for the adoption of energetic measures; and accordingly, the French army in Africa was augmented, in the course of the winter, to 60,000 men. In the mean time, several partial encounters took place between the contending parties, in most of which the Arabs were worsted. The most remarkable of these was the defence of the fort of *Massagan*, near *Mostaganem*, by its petty garrison of 123 men, against an army of from 12,000 to 15,000 of the enemy, who attempted in vain, during four successive days, from the 2d to the 5th of February 1840, to carry the place by assault. The campaign was opened, on the part of the French, by the march, on the 25th of April, of a considerable force, to obtain possession of the towns of *Medeah* and *Milianah*, and, by so doing, to cut in two the communications of Abd' el Kader. They were victorious against all opposition; yet the permanent results of this expedition were comparatively trifling. On the retreat of the main body, the garrisons left behind, so far from being able to operate with any effect against the surrounding tribes, soon found themselves confined within the towns just mentioned, and unable to add to the means of subsistence which they already possessed. So slight was the moral impression produced by the successes of the French, that, at the very time they were gaining bloody victories at the pass of *Muzaia*, and elsewhere, no one was secure of his life immediately outside of the gates of Algiers. Matters continued in this condition through-

out the year; and the only result of the campaign in the autumn was the provisioning of *Medeah* and *Milianah*. Not a single tribe was induced to lay down its arms, or to acknowledge its subjection to the French. The latter, indeed, seemed not to have been over-sanguine of any decisive issue to their efforts to subdue the hostility of the Arabs; since they had begun, during the present year (1840) to construct a wall around the fruitful plain of *Metidja*, as a protection from the incursions of the enemy. Marshal Vallée had not spared his men, harassing them with forced marches, and exposing them recklessly to all sorts of weather; so that sometimes a third of their number were in the hospitals. And the French government, becoming dissatisfied with the slender results obtained at a great expense of men and money, appointed General *Bugeaud* to succeed him.

The new governor-general arrived at Algiers on the 22d of February, 1841. Under him, the army, which, in the latter period of the administration of Marshal Vallée, had already amounted to 65,000 men, was reinforced so as to become nearly 80,000 strong. The system, hitherto pursued, of a number of insulated posts, which protected nothing, was now abandoned; and the greater part of the troops were collected in the principal towns, whence they advanced in succession, and with great rapidity, in different directions. In this manner, the enemy, always kept at a distance, and his harvests and flocks in continual danger of being destroyed or carried off, was obliged to maintain, without remission, a wearisome and ruinous defensive. The renewed provisioning of *Medeah* and *Milianah* was General *Bugeaud*'s first object in opening the campaign of 1841. Having accomplished this, he marched from *Mostaganem*, on the 18th of May, at the head of 11,000 men, upon *Tekedemt*, the principal strong-hold of Abd' el Kader, which he reached, after some fighting, on the 25th. It had been abandoned by its inhabitants, who had conveyed away with them whatever they could of their property: it was now reduced to ashes by the French, and its *Casaba*, or citadel, which had been constructed by the emir, was blown up. From *Tekedemt*, the general proceeded to *Mascara*, the cradle of Abd' el Kader's power, which he entered on the 30th of the month. Several of the tribes now began to waver in their fidelity to their leader, and that of the *Medabers* was led to signify their submission. All the arts employed by

Abd' el Kader to draw General Bugeaud aside from the pursuit of his object were unavailing. Even the intervention of summer, the hottest part of which had heretofore afforded a season of repose to the soldiery, was not allowed to put a stop to the military operations; whilst several attempts were made, by bribery and otherwise, to induce those of the tribes on whom the rule of Abd' el Kader pressed most heavily to declare against him. In the beginning of October, however, hostilities began to be conducted with renewed vigour. Having accomplished the re-provisioning of Mascara, the governor-general set out from that place, on the 17th of the month, for Saïda, the only remaining strong-hold in the possession of the emir, situated four days' march south of Mascara. It was entirely demolished; and its demolition operated most favourably upon the neighbouring tribes, employed, as it had been, as a means of retaining them in an unwilling subjection. None of them now offered any opposition to the French, and several of them became their allies. As in the preceding summer, so in the following winter, no opportunity was given to the enemy to repair his losses. In January 1842, an expedition was directed towards the borders of Morocco, the only region which still resisted, and, on the 30th of that month, the town of Tlemecen, as also, on the 9th of February, the fort or castle of Tafna, situated at the distance of two days' march further south, were taken, and the latter demolished. The regular troops of Abd' el Kader having now, after so many successive conflicts, been almost entirely destroyed, he had no other resource left but to retire upon the territory of Morocco. Most of his subject tribes no longer hesitated formally to submit to the supremacy of the French, or at least to remain perfectly tranquil, neither molesting them nor their allies. Abd' el Kader, notwithstanding this, suddenly re-appeared near Tlemecen, with a small body of followers collected in Morocco, together with a few of his former supporters, and made a sudden attack on General Bedeau, who commanded in that town, but was easily repulsed. After wandering about for a short period, he once more sought a refuge in the neighbouring territory. In April, General Bugeaud marched in different directions to force several of the tribes, which still continued refractory, to submission. Even the tribe of Hashem, including the brothers and uncles of Abd' el Kader, implored his mercy, and asked for peace at his hands. The subjection of

the entire country, formerly constituting the regency of Algiers, seemed at length to have been accomplished, when, in the course of the summer of 1842, that indefatigable chief was once again in the field, in the southern portion of the regency. Falling unexpectedly on the generals Lamoricière, d'Arbouville, and Changarnier, he defeated them successively, in the end of August, and in September, at Tlemecen, on the upper Sheliff, and at Mascara; and a combined plan of operations became necessary to drive him back to the frontier, and once more to reduce the revolted tribes to subjection. These, indeed, comprehended all the tribes from Morocco to Constantine, and especially the Cabyles, 5000 of whom in a body had made an attack upon the town of Setif. The greatest exertions were requisite, and the most difficult and dangerous marches had to be undertaken, along the borders of the desert, all the way from Jurjura to the Morocco frontier, through a region hitherto untrodden by the foot of a Frenchman, in order to restrict Abd' el Kader to a narrow district on the upper Sheliff. A separate expedition was, in addition to this, required, which was conducted by the governor-general in person, in the month of October, into the interior of the eastern portion of his government, again to subdue the wild tribes of the Cabyles. At length, at the close of the year 1842, the condition of the French affairs in Africa was restored to what it had been in the spring of the year; a result accomplished at a vast expense of human life and of money. The destruction of life, independently of the lives lost in battle, may in some measure be judged of by the fact that, in the course of the month of September, as many as 24,000, out of 80,000 men, were lodged in the hospitals.—Nevertheless, the colony now presented altogether a favourable aspect. Travellers could journey, and commerce be carried on, throughout its whole extent, in comparative security. The extraordinary increase of the latter was attested by the increase of the customs from a million of francs, in 1831, to nearly nine millions, in 1841. The foundation of the military colony of Ain-Fuka, as well as of several others, evinced a renewed spirit of colonisation. Roads had been constructed in every direction, and light-houses erected along the coast. Corn, cattle, and other commodities, which could, for a long time, only be procured from abroad, and at excessively high prices, were at length furnished by the native inhabitants, in abundance, and at moderate rates. The



European population, which, in 1881, consisted of not more than 3000 souls, in September 1842 amounted to 42,675; of whom 25,582 inhabited the capital; 6602, Oran; 4122, Bona; 4210, a new port named Philippeville; 1207, Constantine, and certain posts in the interior; the rest, Boujeiah, Shershell, and some smaller places on the coast. The vessels, which arrived in the course of the year 1841, are stated at 8560, of whom 4262 were French, 2442 Spanish, and 957 English.—The condition of Algeria, in 1843, was, however, far from being a tranquil one. Abd' el Kader still continued to annoy and disturb the French, by means of rapid incursions into the portion of it most accessible to him from his retreat near the western frontier, and by exciting the tribes through its entire extent to revolt. But these attempts were more easily repressed than heretofore; and the restless emir was again forced to seek a refuge in the territory of Morocco. In the mean time, the progress of improvement has been going on at an accelerated rate; emigrants from Europe have been arriving in numbers quite as great as could be provided with the accommodations necessary to enable them to start with advantage in their new career; commerce has been extending; and 200 leagues of carriage roads, as well as seven bridges over the principal rivers, are said to have been constructed in 1843, chiefly by the soldiers of the army. Yet, with all this apparent prosperity, the country is held by France at an immense annual expenditure of her own resources, for the most part incurred to maintain the military force required for the protection of the colonists; a force now amounting to not much less than 120,000 men, fully provided with all the *matériel* of war, and kept in a constant state of readiness for action. She feels it, too, to be a point of honour with her not to retreat from the position which she has assumed, and will continue to hold it, in despite of this expenditure of men and money. Yet, so far from her deriving additional strength from this, her favourite, and, indeed, only colony claiming to be of much importance to the mother country, there can be no doubt of its becoming a source of weakness to her, by withdrawing a large portion of her means of offence from the field of any future European contest.

ALIBERT (Jean Louis); one of the most distinguished of the physicians who flourished in France during the period of the empire and of the restoration. He was born at Villefranche, in the department of the Aveyron, May 12th 1766, and came

to Paris in 1789. The profession of medicine is said to have recommended itself to him, in a measure, because it would enable him, better than almost any other occupation he might select, to avoid mingling in the political storms, which were then beginning to agitate the community. No sooner, however, had he entered upon his medical studies than he pursued them with avidity for their own sake. He became the intimate associate of most of the men who subsequently rose to a high eminence in Paris in the art of healing, and united with them in the formation of the "Society for Medical Instruction." At this period he sustained a thesis "*Sur les fièvres intermittentes pernicieuses,*" which was the basis of a treatise on the same subject, afterwards published by him. He early gave private courses of instruction in medicine; and this instruction led to the publication of his work, entitled "*Traité de thérapeutique et de matière médicale,*" in two vols. 8vo., a work remarkable at the time it appeared, and which passed through five editions, but has been since superseded by others exhibiting the later discoveries, and more advanced doctrines, on the subject of which it treats. On being appointed physician of the hospital of St. Louis, an institution especially devoted to the cure of diseases of the skin, he commenced, in 1806, the preparation of his large work on these diseases. Some time after this had been before the public, he put forth an abridgment of it, which was afterwards reprinted. Besides the treatises already mentioned, he is the author of various productions, of which we may here specify his "*Nosologie naturelle, ou maladies du corps humain, classées par familles;*" his "*Physiologie des passions, ou nouvelle doctrine des sentiments moraux,*" said to have been composed at the express desire of Louis XVIII., and his "*Précis sur les eaux minérales les plus usitées en médecine.*" All of these met with a brilliant success in their day, but have already declined from the reputation they enjoyed. Alibert was appointed a professor in the school of medicine, a member of the academy of medicine, and physician in ordinary of Louis XVIII., and afterwards of Charles X. He probably surpassed most of his contemporaries, in the medical profession in France, in his literary attainments and tastes. Hence the faults of his style, which has been severely criticised, and which was, perhaps, more ambitious and rhetorical, than is suited to the simple dignity of science.

ALISON (Rev. Archibald) was born in Edinburgh, in the year 1757, and went to the university of Glasgow in 1772; where he attended the lectures of Dr. Reid, in company with Dugald Stewart, with whom he formed an intimate friendship. From Glasgow he went with an exhibition to Baliol College, Oxford, where he took the degrees of A.M. and LL.B., the latter in the spring of 1784. In this year he also took orders, and married the daughter of the well-known Dr. John Gregory, of Edinburgh. He was successively preferred to various livings in the Church of England; and, in 1780, he published the work on which his reputation is founded, the "Essays on the Nature and Principles of Taste." It is remarkable that it should have attracted the public notice in only a slight degree, until, on the publication of a second edition, with considerable additions, in 1811, it was highly commended in an article of great ability in the Edinburgh Review, from the pen of Mr. Jeffrey. It was the most valuable contribution, without doubt, which had hitherto been made by any individual to the philosophy of the sublime and beautiful. The two leading propositions which he laboured to establish were, first, that "the qualities of matter are not beautiful or sublime in themselves, but as they are by various means the signs or expressions of qualities capable of producing emotions;" and secondly, that "there is no single emotion into which these varied effects can be resolved; that, on the contrary, every simple emotion, and every object which is capable of producing any simple emotion, may be the foundation of beauty or sublimity." Whoever is capable of sympathizing with the genuine feeling of the beautiful which pervades these essays, cannot fail to derive the greatest pleasure from their perusal; but for a most philosophical exposition of the subject to which they relate, far more philosophical indeed than the original work itself, the reader may be referred to the article of Mr. Jeffrey in the Edinburgh Review, above mentioned, or to the article "Beauty" in the Encyclopedia Britannica, by the same writer.—Mr. Alison removed in 1800 from England to his native city, where he officiated as a clergyman, mingling at the same time familiarly in the society of the many distinguished men of letters who then adorned the capital of Scotland, until 1831, when a severe illness compelled him to relinquish the performance of all public duties. He died in 1839, at the advanced age of 82.—Besides the Essays on Taste, Mr. Alison published two

volumes of sermons, and a memoir of Lord Woodhouselee in the Transactions of the Royal Society of Edinburgh, of which learned body he was a member.

ALLAHABAD, a city of Hindostan, having a population of about 20,000 souls, is the capital of a province of the same name. It is situated at the confluence of the sacred streams of the Ganges and the Jumna, and, for this reason, is itself held in especial reverence by the Hindoos. It is visited annually by crowds of pilgrims, sometimes amounting in number to 200,000; some of whom imagine they secure a happy futurity for themselves by seeking death in hallowed waters. Those whose infatuation does not carry them quite so far as this, are content with the purification to be derived from bathing, and with carrying away with them, on their return to their homes, a certain quantity of the water for the service of their temples. The most remarkable feature of Allahabad is the palace, originally constructed and fortified by the emperor Akbar on the spot where the Jumna unites with the Ganges, at the enormous expense, it is said, of twelve millions of rupees, but fortified since by the English in the European manner. They have made of it a great military dépôt for the upper provinces.

ALLARD, general-in-chief of the army of Lahore, was born in France in 1788. He entered the French army at an early age, and during the eventful campaign of 1814, he held the rank of captain of cavalry. In the following year he was an aide-camp of Marshal Brune, and, on the assassination of the latter, quitting France, he went to Leghorn, with the design to embark for America. But, by the advice of a friend, he changed his plans, and set out for Egypt, whence he proceeded to Persia. He was favourably received by Abbas Mirza, who bestowed upon him the rank and pay of a colonel in his army. But, dissatisfied at not obtaining a command corresponding to his nominal rank, he pushed forward into Afghanistan, and, in 1822, still further into Lahore. There he entered the service of the celebrated Runjeet Sing, and succeeded in insinuating himself into the good graces of that prince to such an extent, that the latter was induced to place the most unlimited confidence in him, and to load him with honours. A large force was organized by him on the model of the French army, of which he was appointed the commander. Not long afterwards he married a native of the country, by whom he had several children. All this, however, failed to make

him entirely forget his own country. After the revolution of the three days, he was especially anxious to revisit it; and at length, in 1835, he obtained permission from Runjeet Sing to do so, accompanied by his family, on his giving a solemn promise to return again to his post. On his arrival in France, he was received at court with the greatest distinction. He was appointed chargé d'affaires of France in Lahore, with liberty to serve in the army of its chief, without thereby forfeiting his privileges as a French citizen. Leaving his wife and children behind him in France, he went back to Lahore in 1837, where an opportunity was soon afforded him of rendering important services to Runjeet Sing, by successfully conducting his military operations against the Afghans. But in the midst of prosperity, he was suddenly taken sick at Peshawer, and expired at that place on the 23d of January 1839. His body was brought to Lahore, and was interred there with the highest military honours.—Allard was not unmindful of the cause of science. He had formed a rich collection of coins and medals, which he brought with him to France, and presented to the Royal Library.

**ALLIX\*** (General). In 1826, several years after he had been permitted by the government of the Restoration to return to France, and to resume his former military rank, he presented a memorial to the Chambers, depicting the dangers to which the house of Bourbon was exposed from the administration of M. de Villele, and from the proceedings of the Jesuits. He published, in 1827, a work, entitled "Système de l'artillerie de campagne." In the revolution of the three days, in July 1830, he took an active part on the popular side; and subsequently, in his "Bataille de Paris," he gave an account of the contest at that period in the streets of the capital, pointing out particularly the faults in the measures of attack adopted by Marshal Marmont.

**ALLSTON** (Washington). This great historical painter was the second of three children of William Allston, one of the distinguished South Carolina family of that name, who served as a captain in the war of the Revolution, and was the proprietor of a plantation at Waccamaw, near Georgetown, in that state, where the subject of this notice was born, November 5th 1779. At the early age of seven he was sent by the advice of physicians to Newport, R. I., where he remained at a private school, frequented by many gentlemen's sons afterwards distinguished, until

his seventeenth year. In the autobiographical sketches published in Dunlap's History of the Arts of Design, he mentions, without attaching undue importance to it, his early tendency to the imitative arts. From forming miniature-landscapes about the roots of the old trees on the plantation, he passed, in his school-days, to drawing from prints of all kinds, and thence to original compositions from the romances that interested his boyhood. He had no direct instruction, but gained something incidentally from a worthy nautical-instrument maker who had been bred to portrait-painting; and shortly before quitting Newport he became acquainted with young Malbone, a native of the place, soon after celebrated as a miniature-painter. In 1796 he entered Harvard College, at Cambridge, Mass., where he took the degree of A. B. in 1800. His academical exercises soon procured him the reputation of a writer of elegance both in poetry and prose, which he justified by a fine taste and already extensive cultivation in polite literature. His leisure hours, however, were chiefly devoted to the pencil. He tried his hand in the department of his friend Malbone, but soon abandoned it, for he already succeeded so much better in oils that a landscape with figures, painted about this time, was afterwards exhibited at Somerset House. An old rich-toned Italian or Spanish landscape, at a friend's house, some pictures by Pine at a museum in Boston, and Smybert's copy of Vandyke's head of Cardinal Bentivoglio in the college-library, were his models. From Cambridge he returned on a visit to Charleston, S. C., where he painted for some months. By his own account, up to this time, and for a year afterwards, his favourite subjects, with an occasional comic intermission, were banditti. It would seem, however, that there was some other exception, for it was about this period that he painted a head of St. Peter at the cock-crow, and of Judas Iscariot. Disposing of his share of his paternal inheritance at some sacrifice, with a view to the support of his studies abroad, he embarked for London, where he arrived in June 1801. He took letters from a common friend to Dr. Moore, the author of Zeluco, who, however, had died shortly before his arrival. In a few weeks he became a student of the Royal Academy. His first drawing (from the Gladiator) obtained him permission to draw at Somerset House, and his third a ticket as an entered student. He was directly introduced to his countryman West, who had

been, since 1792, the successor of Reynolds in the presidency of the Academy. Of his constant kindness for a long series of years Allston always cherished a grateful remembrance. He also made the acquaintance of Fuseli, whom he then thought the greatest living painter, and for whom, especially as a writer on the art, he always retained a strong though more discriminating admiration. At the Somerset House Exhibition in 1802, the next year after his arrival, he exhibited three pictures, the college landscape already mentioned, a rocky coast with the favourite banditti, and a comic piece. For three years he applied himself closely to the more secret labours of his art, and laid securely the foundations of his future eminence. In 1804 he visited Paris, where the masterpieces of the Continent were then collected. Though then, as ever after, "a wide liker" in art, his special admiration seems to have been for "the gorgeous concert of colours" of the Venetian school. After a few months thus spent, he proceeded to Italy, where he passed about four years, principally at Rome, in the study of the great masters. He was also a fellow-member with Thorwaldsen of a private association, and devoted much time to modelling, with a view to anatomical accuracy in his art, a practice which he often afterwards followed. Here, too, commenced his long intimacy with Coleridge, of whom he says that to no other man did he owe so much intellectually. The impression he even then made, as an artist, is sufficiently attested by the fact that many years afterwards he was remembered there as "the American Titian;" and in Bunsen's great work on Rome, the chapter on modern art, by a celebrated German critic, speaks of him as approaching in colouring nearer the masters of the best ages in Italian art than any other modern painter. In 1809, he returned on a visit to America, where he shortly afterwards married a sister of the celebrated divine, Dr. Channing. In 1811, he resumed his residence in London, where his first historical picture, the Dead Man Revived, immediately obtained the first prize of the British Institution of 200 guineas, and was afterwards purchased by the Pennsylvania Academy of the Fine Arts. His labour on this painting occasioned him a severe illness, which left him, in a degree, an invalid ever after. In 1813, he published a small volume, "the Sylphs of the Seasons, and other poems." Mrs. Allston died in 1815. During this second residence in England, he

painted successively the large historical pictures of St. Peter liberated by the Angel, for Sir George Beaumont, now in the church at Ashley de la Zouch; Uriel in the Sun, for which the British Institution presented him with a gratuity of 150 guineas, and which is now in the possession of the Duke of Sutherland; and the Jacob's Dream, now in the collection of Lord Egremond, at Petworth; besides many other less considerable works. Indeed, such had been his success, that on his return to America, in 1818, he had but one finished picture to bring with him, the Elijah in the Wilderness, and this was afterwards purchased by the Rt. Hon. Mr. Labouchere, and taken back to England. Shortly after his return he received information of his election as an associate of the Royal Academy. During his residence for the next twelve years in Boston, he produced his celebrated pictures of Jeremiah prophesying, now in the possession of Miss Gibbs, of Newport; Saul and the Witch of Endor, in the collection of Colonel T. H. Perkins, of Boston; and Miriam singing the Song of Triumph, owned by the Hon. David Sears, of the same city; besides numerous others of a smaller size, landscapes and female heads, of which the most distinguished are the Beatrice of Dante, and the Valentine, owned respectively by the Hon. Samuel A. Elliot and George Ticknor, Esq., both of Boston. In 1830, he married for his second wife a daughter of the late Chief Justice Dana, of Cambridge, and made that place his future residence. He had brought with him from London the commencement of a picture of the largest size, on the subject of Belshazzar's Feast, and made considerable advances in it during the earlier part of his residence in Boston, where, however, he was interrupted by the want of a proper studio; this was now supplied, and he looked forward continually to the completion of his great work. Various hindrances, however, which have embarrassed most modern artists in the prosecution of works too extensive for their own private means, delayed the resumption of his labours upon it for some years. In the mean time he sent from his easel many of his most beautiful pictures of a smaller size; among others, Spalatro's Vision of the Bloody Hand, for Mr. Ball, of S. C., besides more landscapes and female heads, of which the Rosalie, now in the possession of the Hon. N. Appleton, of Boston, is the most celebrated. In 1836, he was honoured by Congress with a request to fill, with national pictures, two of the four vacant

panels in the rotundo of the Capitol, but he did not feel at liberty to divert his labour from the anticipated completion of the Belshazzar. In 1839, nearly fifty of his pictures, collected from various parts of the country, were exhibited in Boston with great success, and excited the enthusiasm of all the lovers of art. In 1841, he published "Monaldi," a tale of much power and beauty, written many years before. He had now resumed his labours upon his great picture, and though enfeebled by ill health and advancing years, was steadily progressing towards the completion of the extensive alterations he had previously planned in it. Amidst days thus passed in the exercise of his beautiful art, and evenings occupied with literary recreations, or in delighting, by his conversation and the singular amenity of his manners, a circle of chosen friends, or of younger artists who visited him as a master, his life was closed by a sudden but gentle death, on the 9th of July 1843, in the 64th year of his age. His personal appearance was most appropriate to a man of such a genius. His figure was of a good height, rather slender and of a graceful movement; his countenance, of striking intellectual beauty, was set off by flowing locks of prematurely silvered hair. His conversational powers, educated by intercourse with the finest minds in England, whether in anecdote, literary criticism, or on the philosophy of his art, were such as would have made him eminent had he been known only as a man of society; and his writings, both in poetry and prose, exhibit a force of imagination and felicity of language which would have insured him distinction had he been known only as an author. Though full of the sensibilities of genius, he was singularly free from its unamiable vices. His character was marked by a native purity, of which the spiritual beauty of all his female portraits was but a fit expression. During his second residence in England, he became a communicant in the church of that country, and the delicate reserve of his religious nature but increased the devoutness of his inner life. As an artist his excellence was various and of the highest order. In his few portraits, in ideal heads, in landscape and the higher walk of history, his works are masterpieces in their respective departments. In alternate grandeur and beauty of conception, in consummate execution, in the effects of composition and *chiaroscuro*, and more than all, in a certain magic of colour peculiar to himself, he was, by a general

consent, reckoned the first artist of his time, and worthy to take rank as a successor rather than a follower of the great masters of an earlier age.

**ALPACA.** There are several species of the South American llama, one of which is called *el paco*, or alpaca. It yields the alpaca wool, of which three millions of pounds weight were exported from Peru to Great Britain in 1841; and the quantity exported has since been constantly increasing. This wool is of an extraordinary length, of a silky nature, and free from grease. Some of the alpacas are brown, and others white; but the former, as well as the latter, have long and white wool on their bellies, which readily admits of being dyed. Like the lama, commonly so called, the alpaca is employed to carry burdens, and its flesh is said to have an agreeable flavour. It frequents the higher and colder regions of the Andes, easily accustoms itself to the presence of man, and is more easily tamed than the lama. It can endure thirst for a considerable time, and requires but little food, and of the coarsest quality, to sustain it. The various qualities of the alpacas which have been mentioned, have led to the project of introducing them extensively into the British isles. As yet, however, only very few of them have been imported there, and the results of the experiment thus made have not been of a character sufficient to justify a positive opinion, as to the effects of the change of climate on the animal or its wool.

**ALTERATIVES;** a class of medicines which act on the causes of disease, without producing sensible evacuations, or any other visible symptoms of their action. This action is commonly slow, and gradual in its effects; and its reality is the more difficult to be established, because time and the natural reaction of the system are often of themselves sufficient to produce a cure. Hence it is not surprising that a number of substances should have found their way among the alteratives, so called, whose chief merit is that of being absolutely inert, and therefore not in any degree interfering with the operation of the curative agents actually employed. Among those substances which an incontestable experience has truly entitled to be styled alteratives, are iodine, bromine, and mercury and its compounds. Arsenic, in almost infinitesimal doses, possesses the same properties.

**ALVAREZ** (Don Jose), a celebrated Spanish sculptor, was born, April 23d 1768, at Priego, in the province of Cordova.

Till the age of 20, he assisted his father in his labours as an ordinary stone-cutter. But, discovering a great ability for designing, he went to Grenada, and, in the academy of that city, distinguished himself by his skill in modelling. By means of the patronage of the bishop of his native city, he was enabled to go, in 1794, to Madrid, where he was admitted a member of the academy of San Fernando. In 1799, having obtained the first prize of the first class of the academy, he had a pension of 12,000 reals granted him by the King of Spain, Charles IV., to enable him to prosecute his studies in Paris and at Rome. Shortly after his arrival in the former city, he carried off the second prize in sculpture, awarded by the French Institute; the first, as a foreigner, he was precluded from obtaining. His reputation was raised to a very high pitch by a statue of Ganymede, in alabaster, which was exhibited in 1804, in the academy of San Fernando. Having rivalled Canova in the lighter style of composition, he now essayed to excel in the severer and bolder style. The subject selected by him was the death of Achilles. Scarcely, however, had his model been completed, in which, according to David, he had overcome almost insurmountable difficulties, when, owing to an accident, and perhaps to its great size, it fell to pieces. Through want of inclination or opportunity, he did not restore it; and having received, shortly afterwards, an addition of 16,000 reals to his pension, he left Paris for Rome. There he received, as did the other distinguished sculptors who were then in that metropolis of the fine arts, an order from Napoleon to execute a number of bas-reliefs, destined for a hall in the pontifical palace on the Monte Quirinale. Four of these were modelled by Alvarez, and excited the general admiration, as well as earned for him the esteem and friendship of Canova and Thorwaldsen. Owing to political events, they were never executed in marble. It was at Rome that he executed the greater portion of his works; and although he destroyed a considerable number of them before their completion, that he might leave behind him as few as possible of them in an unfinished state, enough are left to immortalize his name, and to attest the extraordinary diligence with which he laboured. One of the last which he executed in marble is his *Grupo colossal de Zaragoza*. It represents a scene in the defence of Saragossa, in the war of 1808, and adorns the royal museum of Madrid. He executed also a number of

busts of eminent persons. All his works are indicative of distinctness and simplicity of design, deep feeling, and natural truth. Next to nature, and the masterpieces of antiquity, he selected Michael Angelo for his imitation. In 1816, he was named first sculptor to King Ferdinand VII.; but he did not quit Italy for Spain until 1826. He died at Madrid, on the 26th of November of the following year.

**AMAUROSIS**, a loss of sight dependent upon defective action of the nerve of vision, and independent of visible injury; called also *gutta serena*,—the drop serene of Milton.

**AMBER.\*** The largest known mass of amber was found near the surface of the ground in Lithuania, about 12 miles from the Baltic: it weighs 18 pounds, and is in the royal cabinet at Berlin. The principal portion of the amber collected has been, in later times, purchased by Greek and Armenian merchants, for the use, it is conjectured, of pilgrims, previously to their journey to Mecca; who, on their arrival there, burn it in honour of Mohammed. The composition of amber has been stated to be: carbon, 80.59; hydrogen, 7.31; oxygen, 6.73; ashes, 3.27; loss, 2.10; making altogether 100. The ashes consist of lime, silica, and aluminum. But this analysis can only be considered an approximation.

**AMICI** (Giovanni-Batista), director of the observatory at Florence, and astronomer of the Grand Duke of Tuscany, was born at Modena, on the 25th of March 1786. After receiving the elements of his education in his native city, he pursued the study of the mathematical and physical sciences in the university of Bologna. From the year 1807 he was employed for some time as an architect, and then received an appointment as instructor in geometry and algebra in the lyceum of Modena. He became a professor in the university of that city, on its re-establishment by the duke. In 1825, he was excused from teaching, on condition of preparing an annual report on the progress made in astronomy and physics. And in 1831, on the death of Pons, he was appointed to the post which he now occupies at Florence. Amici possesses profound and varied attainments, with an inventive genius, and uncommon mechanical skill. His telescopes and microscopes, his sextants, and his *camera lucida*,—an instrument brought by him to an extraordinary degree of perfection,—are well known, and highly appreciated, by men of science. But he has acquired the most credit by his improvement of the reflecting microscope, which has enabled

him to make a highly interesting series of observations on the structure of various plants, and on the circulation of the sap in them. His memoirs on these subjects are contained in the "Memorie della Società Italiana," and are accompanied by the truest and most beautiful representations of the objects observed. He has also constructed some remarkable dioptrical microscopes; especially one with six eye and three object glasses, the smallest magnifying power of which in diameter is 80, and in surface is 7921 fold; its largest magnifying power being in diameter 4135, and in surface 17,098,225 fold.

**AMMONIUM**; a substance supposed by Berzelius to consist of ammonia with an additional atom of hydrogen. It has never been exhibited in a separate state, but is thought to form an amalgam with mercury, and to be therefore possessed of a metallic character.

**AMPÈRE** (Jean Marie), a distinguished mathematician and natural philosopher, was born at Lyons, on the 20th of January 1775. The death of his father, a merchant of his native city, by the axe of the guillotine, in 1793, made a deep impression on his youthful mind. It rendered him grave and thoughtful; and he sought relief from unpleasant recollections which oppressed him, in study. He gave private lessons in mathematics at Lyons, but soon obtained the appointment of professor of physics in the central school of the department of the Ain. Whilst in this situation he produced his celebrated paper, entitled "Considérations sur la théorie mathématique du jeu," the principal object of which was to prove that persons who abandon themselves to play must eventually become ruined; a production of which it has been said that, if all men were profound mathematicians, there would be an end to all gaming. In 1805, he was appointed *répétiteur d'analyse* at the Polytechnic School in Paris. Here he exhibited the most active diligence, not only in the discharge of his official duties, but also in the preparation of numerous papers on scientific subjects, which were published in the Memoirs of the Institute, and in the "Annales de Chimie." His attention was directed in 1820, in an especial manner, to the subject of electro-magnetism, the leading facts of which science had just been announced to the world by Professor Oersted, of Copenhagen. Before the close of the year, he had communicated to the Academy of Sciences a series of important facts, the result of the greatest ingenuity in the construction of apparatus, as well

as in devising experiments. And in his theory for explaining or connecting these facts, he applied to them, in the most skilful manner, the most refined and difficult branches of mathematical analysis. The experiments of Ampère were speedily repeated in various parts of the world, and gave rise to additional discoveries. This led him, in conjunction with M. Babinet, to publish an account of the discoveries that had been made by scientific men, on electro-magnetism, in different countries. He did not, however, tire in the career of original investigation, but continued to publish, from time to time, valuable papers giving an account of his investigations; and, at length, all his labours in the department of electro-magnetism, or, as he preferred to style it, electro-dynamics, were summed up in a work, which he published in 1826, entitled "Théorie des phénomènes electro-dynamiques, uniquement déduite de l'expérience."—While the reputation of Ampère is chiefly founded on the investigations of which an account has just been given, he comprised a very wide range of subjects in his researches; writing numerous papers on various branches of the pure mathematics, on mechanics, optics, crystallography, and natural history, which were published in the Memoirs of the Institute, the Journal of the Polytechnic School, the Annals of Natural History, and other periodical works. In the latter part of his life, he occupied himself in writing a work on the classification of the various departments of human knowledge, entitled "Essai sur la philosophie des sciences, ou exposition analytique d'une classification naturelle de toutes les connaissances humaines" (1834). The undertaking was one with which the powerful minds of Bacon and D'Alembert had failed to grapple with success, and one from which Dugald Stewart recoiled as impossible of execution, at least with the requisite precision and for any useful purpose; and it is therefore not surprising that this work must rank as the least valuable of the author's productions.—Ampère died on the 10th of June 1836.

**AMPÈRE** (Jean Jacques), son of the former, and professor of modern literature at Paris, was born at Lyons, in the year 1800. He has distinguished himself by the comparative study of the literature of nations differing widely from each other. In order the more effectually to accomplish the object which he had in view, he spent a considerable time in Italy, Germany, and the portion of Europe still further north. On returning to his own country in 1829,

and being disappointed in obtaining a professorship, he proceeded to Marseilles, where he delivered private lectures on the history of literature. In 1830, however, he was appointed to succeed Andrieux, as a professor in the College of France, and to occupy the place pro tem. of Villemain in the Normal School.—Ampère is a faithful instructor; and his writings are of a high order. He has investigated the subject of language in all its bearings; and a number of articles in relation to it, inserted by him in the public journals, have great merit. A selection of these articles has been printed under the title of “*Littérature et voyages*,” in two volumes (1834). Ampère is especially versed in German literature; although his essay, “*De la Chine et des travaux de Rémusat*,” shows that the remotest east has not been excluded from the range of his studies. His “*Histoire littéraire de la France avant le 12ième siècle*,” published at Paris, in three volumes, in 1839–40, evinces thorough research, and a sound criticism. In 1840, he undertook, in company with Mérimée, a journey to the Levant, of which he has given an account in the “*Revue des deux mondes*.” His last work, “*Sur la formation de la langue Française*,” in three volumes (1841), possesses considerable merit; though many of the opinions maintained in it are very questionable.

**ANAM.** This is the name of an empire on the eastern side of the peninsula of farther India, which was constituted, in the middle of the last century, out of the former kingdoms of Cochin China and Tonquin, and of portions of Cambodia and some adjacent regions. It is bounded on the N. by the Chinese provinces of Quantong, Quangsi, and Yunnan; on the W. by Laos, Siam, and the part of Cambodia not comprised in the territory of Anam; and S. and E. by the Chinese Sea. The number of inhabitants has been very variously estimated, sometimes as low as 5,000,000, and sometimes as high as 20,000,000. In this case, as in many similar ones, the lowest estimate is probably that which is the nearest to the truth. Of this population, as many as 400,000 have been stated to be Roman Catholic Christians, who were subjected, in 1836, to a severe persecution. See *Cochin China, Tonquin, and Cambodia*.

**ANCELOT** (Jacques Arsène Polycarpe François) was born, February 9th 1794, at Havre, where his father was registrar of the tribunal of commerce. Having received his education in this city, and at Rouen, he began his career as an author

with one or two not very successful vaudevilles. In 1819, however, he laid the foundation of his reputation by his tragedy of “*Charles IX.*,” of which fifty representations were given in succession at the *Théâtre Français*, and which procured for its author an annual pension of 2,000 francs. “*Le maire du palais*” did not obtain an equal success: after being represented a few times, it was altogether withdrawn. In his “*Fiesco*” (1824), he evinced great skill in adapting one of the masterpieces of Schiller to the French stage. His dramas of “*Olga*” (1828), and “*Élizabeth d’Angleterre*,” also met with a favourable reception from the public. In 1825, he published “*Marie de Brabant*,” an epic poem in six cantos; and in 1827, under the title of “*Six mois en Russie*,” an account of the journey which he made into that country during the preceding year, in company with Marshal Marmont. He is, besides, the author of several novels, of which the best are “*L’Homme du monde*” and “*Les emprunts aux salons de Paris*.”—The revolution of July deprived him not only of his pension, but also of the profitable office of librarian at the arsenal, which he owed to the favour of Charles X. To obtain, more certainly, an adequate maintenance for himself and family, he was now induced to cater for the taste of the multitude, by the composition of numerous vaudevilles; most of which met with great popular approbation, without permanently adding to his literary character. Being often reproached for confining himself exclusively to an inferior class of literary effort, he produced at length, in 1838, his tragedy of “*María Padilla*,” and in none of his productions has he discovered greater invention, vigour of thought, and propriety of style. He was elected a member of the French Academy in 1841, and still continues in the diligent employment of his pen.—His wife, *Mad. Virginie Ancelot*, is likewise a writer standing high in the estimation of the Parisian public. As an author of vaudevilles, she is regarded as having even excelled her husband; while her novels have displayed no small degree of talent.

**ANCILLON\*** (John Peter Frederic) was born at Berlin, on the 30th of April 1767, and died, whilst Prussian minister of foreign affairs, on the 19th of April 1837. He was descended from a family who emigrated from France on the revocation of the edict of Nantes. Having concluded his theological studies at Geneva, he proceeded from Switzerland to Paris, whence, after a short stay, he returned to his na-



five city, and was soon (1790) installed there as the pastor of the French (protestant) church. In 1792, he was appointed historiographer royal, and professor of history in the military academy of Berlin. In the same year, too, he became a member of the Academy of Sciences, of which he was subsequently, during four years, from 1810 to 1814, one of the secretaries. He applied himself, in fulfilment of the duties which he was called upon, by the nature of his appointments, to perform, to the special study of modern history; and the fruits of his labours were given to the world in his concise yet luminous work, entitled "Tableau des révolutions du système politique de l'Europe" (1803). In 1810, he resigned his professorship, and likewise his office as a preacher, and took charge of the education of the hereditary prince,—the present king of Prussia. His attention could scarcely fail, as well from the post which he occupied, as from the character of the times, to be drawn in a considerable degree to political affairs. When his educational functions were completed, he accordingly very naturally began a new career as an active politician. He was appointed, in 1814, to be privy counsellor of legation in the department of foreign affairs, which was, at that period, under the immediate direction of the prince of Hardenberg; and he became a member, and indeed the most active member, of the commission which was appointed to draw up a constitution for the kingdom of Prussia. Although the labours of this commission, as those also of another appointed in 1819, were not followed by any results, they afforded to Ancillon a field for the display of his qualifications as a statesman, and led to his further promotion in the administration of the country. In 1825, he was placed at the head of the business department of the foreign office, and in 1832 was entrusted with the direction of the department of foreign affairs, an office which he filled with honour to himself, and usefulness to the public, till his death, as has already been mentioned, in 1837.—The political principles of Ancillon were those of the moderate portion of the liberal party. Decidedly opposed to all revolutionary movements, he was anxious for the adoption of ameliorations in the actual system of government, and always avowed his approbation of a liberty of the citizen based upon law, and this even at times when he risked much in expressing such opinions. His ministry was conducted on the principle of maintaining peace with foreign powers so long

as this could be done with honour, and without compromising the public interests, and on that of extending by means consistent with a state of peace, the influence of Prussia in Germany and among the other European nations.—Ancillon exhibited a rare combination of the philosopher and the statesman; and his works, which are too voluminous to be enumerated here, are strongly marked by this twofold character. They abound especially in profound political knowledge. While they are divested of all utopianism, their author rises very far above the level of the mere practical politician, or dealer in expedients. He wrote with equal facility in both the French and German languages, and his style in both is clear, graceful and dignified.

ANCONA.\* When the insurgent Roman Marches were occupied by the Austrians in 1831,—an intervention on their part which France had in vain objected to,—the French government resolved, by an unexpected coup-de-main, to neutralize their influence in the states of the church. A French squadron appeared before the harbour of Ancona; 1500 men landed during the night between the 21st and 22d of February 1832, and entered the city without resistance; and, on the 23d, they obtained possession also of the citadel by capitulation. Notwithstanding the repeated protestations of the papal government, the French, leaving the civil authority in Ancona to be exercised by the officers of the pope, maintained the military position which they had assumed, until the month of December 1838, when they evacuated the Roman territory, simultaneously with the Austrians.

ANDAMAN ISLANDS; a group of islands in the Bay of Bengal, to the S. W. of the Birman empire. They are comprehended between 10° 30' and 13° 40' N. lat., and are in about 92° 50' E. long. There are two of them much larger than the others, and of these the principal is known as the Great Andaman, being 140 miles in length, but not more than 20 miles in breadth. They are elevated only a little above the level of the sea, and are exposed to the full sweep of the S. W. monsoon; and they are washed during eight months in the year by incessant rains. They produce many large trees, that might furnish timber and materials for the construction of ships, and for the finest cabinet-work. The inhabitants, who do not exceed 2500 to 3000 in number, are of diminutive stature, have a black skin and woolly hair, go quite naked, and are in every

respect in the lowest stage of barbarism.—In 1793, the English made a settlement, which received the name of Port Cornwallis, on the N. E. coast of the Great Andaman, intended for the reception of convicts; but it was abandoned a few years afterwards, on account of the extreme unhealthfulness of the climate.

ANDERSEN (Hans Christian) was the son of a shoemaker at Odensee, in the island of Funen, and, on the death of his father, was destined by his mother for a mechanical employment. For this, however, he had no inclination; and his parent reluctantly consented that he should try his fortune in Copenhagen. Here he had long to struggle against an extreme degree of poverty. He applied to be allowed to make an attempt as an actor at the theatre, but was rejected, on account of the *emaciation of his person*. Some of his acquaintances having noticed the excellence of his voice, and its adaptation to singing, he was patronized by the leading professional musicians of the capital, and the career of prosperity at length seemed to be opened to him. His anticipations were not realized. In a few months, his voice failed, and he was obliged to look out for other means of support. Happily he had, by this time, attracted the attention of several literary men, who discovered in him a poetic talent, which, if cultivated, promised to produce much fruit. By their influence with the King of Denmark, he obtained admission, in 1828, to one of the public schools, of a higher order, to be educated at the expense of the state. A long period did not elapse before he appeared as an author. Some sonnets, and other fugitive productions, procured him the patronage of a number of very eminent men, such as Ohlenschläger, Ørsted, Ingemann, &c. Through their solicitation, he received an allowance from the government to enable him to travel into foreign countries for his improvement. In 1833-34, he accordingly visited Germany, France, Switzerland, and Italy. The impressions made upon him in the last mentioned country excited him to the production of the most successful of his works,—a poem entitled the “*Improvisatori*.” He has since written a number of fictions in prose and in verse, and one or two dramatic pieces, most of which have added to his reputation as an author.

ANDES. Until lately, Chimborazo was universally supposed to be the highest peak of the Andes; but some others have been determined, by trigonometrical measurements, to be still higher. The eleva-

tion, for instance, above the level of the ocean, of Sorata is 25,250 feet; of Illimani, 24,200; of Aconcagua, 23,200; and of Gualtieri, 22,000; that of Chimborazo being only 21,423 feet.

ANDORRA (Valley of). It forms a petty state on the borders of France and Spain, on the S. declivity of the Pyrenees, between Urgel and the French department of the Arriège, and contains 6 small towns and 34 villages. It is traversed through its whole extent by the Balira, which is a branch of the river Segre. Though so very inconsiderable, it is independent of its powerful neighbours, with a few exceptions only; such as that the first magistrate is always a Frenchman, appointed by, and holding his office, at the pleasure of the French government; and that the magistrate next in rank is selected by the bishop of Urgel, at intervals of every three years;—and likewise, that the sum of 960 francs is annually paid to France, the latter engaging, in return, to protect the independence of Andorra, and to admit the agricultural products of the valley into its territory free of duty, and that 450 francs are to be annually paid to the bishop of Urgel, on account of the spiritual charge which he exercises over its inhabitants. These are said to amount at present to 17,800 souls. They elect the members of their legislative council by the general suffrage of the citizens. The council, in its turn, chooses, from its midst, a *syndicus* for life, to whom is entrusted the executive powers of the republic in reference to its exterior relations, together with certain other officers styled *consuls*, who attend to municipal affairs, and to the due execution of the decrees of the legislature. The functions of the officer appointed by France, and whose *rank*, it would seem, is the highest in the republic, are extremely limited. Indeed, they are confined, almost or quite exclusively, to the nomination of the judges, whose decisions in the causes brought before them are subject to an appeal to the court of cassation at Paris, or to the bishop's college at Urgel.—The independence, such as it is, of the republic, dates from the reign of Charlemagne, and presents a remarkable phenomenon in the history of modern Europe.

ANDRAL; the name of two distinguished French physicians, father and son.—*Guil-laume Andral*, born at Espédaillac, in the department of the Lot, in 1769, was professionally attached to the army at an early age. In the course of the revolutionary struggles, he had the good fortune

to make the intimate acquaintance of Murat, by whom his merits were very highly appreciated. On the latter becoming king of Naples, he appointed his friend to be the first physician of his court. In this office Andral continued until the restoration of the ancient dynasty to the throne of that kingdom in 1815, when he returned to France. The remainder of his life was spent at Paris, in the exercise of his profession; and in the period of the cholera (1831) especially, he was remarked for the assiduous attentions which he cheerfully rendered to the sick. He wrote a number of dissertations on medical subjects, which contributed to the estimation in which he was held.—*Gabriel Andral*, the son of the former, was born at Paris in 1797, where, on his return with his father from Italy, he pursued his studies at the college of Louis-le-Grand. He received the degree of doctor of medicine in 1821; and, in less than two years afterwards, was elected a member of the Academy of Medicine, and a professor in the Faculty of Paris. Scarcely 30 years of age, he was appointed to fill the chair of Hygiene in that Faculty, as also to be one of the physicians of the hospital of La Pitié. His writings have been very numerous. Having for a time contented himself with the publication of several memoirs on medical subjects, he ventured to present to the medical world (1823–31) two systematic works, the one entitled “*Clinique médicale*,” and the other “*Précis d’anatomie pathologique*.” The first of these, consisting of a series of observations made by the author on the diseases of the chest and abdomen, has passed through four editions, and has been translated into most of the languages of Europe. It effected a great change in the medical opinions of the day, by overturning the system of Broussais, which had hitherto enlisted so many ingenious minds in its support. The second of the two works above mentioned surpassed every other work on the same subject that had previously appeared. In 1830, Andral was transferred from the professorship of hygiene to that of internal pathology; and since 1839, he has filled the chair of general pathology. Besides his lectures, which have been always distinguished for their ability, he has continued, with success, his career as an author, by the publication of his researches, both new and interesting, “*sur les altérations du sang dans les maladies*,” and of his annotations on the work of Laennec,—annotations regarded as worthy of being annexed to the production of the discoverer of auscultation.

He was admitted a member of the Academy of Sciences in 1842.

ANDRIEUX\* was born at Melun. In 1829, he became perpetual secretary of the French Academy; and in this situation he took so exceedingly active a part in the preparation of the “*Dictionnaire de l’Académie*,” that he used to say “*Je mourrai du dictionnaire*.” His tragedy of “*Brutus*,” which was represented in 1830, was eminently successful. He died on the 10th of May 1833.

ANGERS; the *Juliomagus* of Cæsar, on the river Mayenne, the chief town of the French department of “*Maine et Loire*,” with a population, in 1836, of 35,901. It is generally ill built, and the streets are narrow and crooked. The principal edifices are the castle and cathedral. The castle, once the residence of the dukes of Anjou, serves at present as a prison for the city, and a powder-magazine. The cathedral, begun in 1225, is of large dimensions, and has its front ornamented by two symmetrical spires, each 225 feet high. Angers is the seat of a royal court for the departments of Maine and Loire, Sarthe, and Mayenne, and it has also a tribunal of original jurisdiction. There are here an academy; a royal college; a school for the deaf and dumb; a secondary school of medicine; a school of arts and trades, being, with the exception of that at Chalons-sur-Marne, the only school of the kind in France; a school of design; and an agricultural society. And the place possesses, besides, a public library of 28,000 volumes; a museum with about 600 pictures, many of them good; a cabinet of natural history; and a botanic garden.—There is a cotton-mill, and manufactures of sail-cloth, linen, starch, &c.; a sugar refinery; a wax refinery; and tanneries; and extensive slate quarries are situated in the neighbourhood.

ANGLESEA.\* The Marquis of Anglesea was again appointed, under the administration of Earl Grey, in 1831, to be Lord Lieutenant of Ireland; in which office he was, however, superseded by the Marquis of Normanby in 1833.

ANGORA\* has been latterly said to contain about 40,000 inhabitants. It has been long celebrated for its breed of goats, and its manufacture of camlets, a species of cloth made of the hair of these animals; which is of a beautiful silky texture, hanging in long locks down to the middle of their legs, and is shorn twice in every year. That the climate has an influence, perhaps to quite an equal extent with anything in the breed of the animals, to

produce the peculiar fleece in question, is apparent from the fact that the rabbits, and even the cats in Angora, have unusually long and fine hair, and also from the circumstance of the rapid degeneracy of the hair of the Angora goat, when transported to Europe from its native spot. 3000 bales of this hair, in the form of yarn, are said to be annually exported to Europe from Angora.

**ANGOULEME.\*** Excepting during his Spanish campaign, the Duke of Angoulême took no part ostensibly in public life. After the revolution of July, he united with his father (August 2d 1830) in abdicating his rights to the throne of France, in favour of his nephew, the Duke of Bordeaux, and accompanied the ex-king first to Holyrood, thence to Prague in 1832, and in 1836 to Goritz. On the death of Charles X., he became the head of the elder branch of the House of Bourbon; and the companions of his exile treated him with the respect due to a king, by the title of Louis XIX.

**ANGOULEME.\*** At the period of the revolution of 1830, the duchess d'Angoulême was on a journey to the S. E. departments of the kingdom. She hastened in disguise, by way of Dijon, to join the other members of her family at St. Cloud, and accompanied them in their exile.

**ANILLEROS;** a Spanish political party, so called. They constituted the *moderate* portion of the principal actors in the revolution of 1820-23; they possessed the chief influence, occupied the offices, directed the decisions of the Cortes, and had for leaders such men as Arguelles, Martinez de la Rosa, Morillo, and San-Martin.

**ANTERACITE.\*** See *Coal*.

**ANTIGUA.\*** The population of this island is stated to have amounted, in 1787, to 5000 whites, and 45,000 black and coloured persons. It would, therefore, seem to have been decreasing for a considerable period; for in 1831, there were only 29,639 inhabitants of all descriptions in the island. In 1837, however, we are told that the whites and people of colour together amounted only to about 2000, and the blacks, all of whom were enfranchised in 1834, to about 33,000.—There has been a considerable falling off in the exports of produce from Antigua since 1834; partly, perhaps, in consequence of deficient harvests, but in a greater degree, probably, from the emancipation of the slaves. See *West Indies*, (Sup.) The shipping entered inwards, in 1833, was 33,654 tons, employing 2370 men; outwards, 32,002 tons, and 2183 men.—The legislature is

composed of a governor, a council of 12, and an assembly of 25 members. The planters of Antigua have been remarkable for leniency to their slaves.

**ANTILLON,** a learned Spaniard, was born at Santa Culalia, a village of Aragon. He studied jurisprudence and the exact sciences at the university of Salamanca, and was appointed professor of astronomy, geography, and history, in the royal seminary for the education of the children of the nobility, at Madrid. While occupying this office, he composed several works adapted to the instruction of his pupils, and which were very successful. On the French invasion of 1808, he returned to his native province, and became a member of the junta of Teruel. After the fall of Saragossa, he repaired to Seville, where he co-operated with several other literary men, devoted to constitutional principles, in the editing of various patriotic journals. From Seville the advance of the enemy obliged him to proceed with the central junta to Cadiz; and shortly after his arrival there, he was appointed a judge of the royal court of Majorca. In this island he published a liberal journal, called "The Patriotic Aurora." When the French army evacuated Andalusia, he was elected a representative from Aragon to the constitutional Cortes, in which body he distinguished himself by his strenuous support of liberal principles. The opinions expressed by him rendered him odious to Ferdinand VII., who, on returning to Spain, ordered Antillon to be arrested, and brought before one of the commissions, organized at that period more for the purpose of condemning the accused, than of trying whether they were guilty or not. But before the formality of a trial could take place, he sickened, and was removed by death from the vengeance of the tyrant. The most important work published by Antillon is a geographical one, which has been translated into French under the title of "Géographie physique et politique de l'Espagne et du Portugal."

**ANTOECI,** used in geography to denote the inhabitants of the globe who live under the same meridian, but on opposite parallels of latitude. The hours of the day or night are the same to each, but the seasons of the year are opposite; that is, when it is summer with the one, it is winter with the other.

**ANTOMMARCHI\*** died in St. Jago de Cuba in 1836.

**ANTRUSTIONS,** a class of persons among the Franks, who were the personal vassals or dependants of the kings and counts.

They were not dependent on them on account of the lands which they held by their grant, but often, in consequence of being such dependants, they received from them lands or benefices, that, becoming hereditary, assumed the character of fiefs.

**ANTWERP.** Population (1844) 74,300. Since 1827, it has had a bank of discount and circulation. On the dissolution, in 1830, of the union between Belgium and Holland, which had added materially to the prosperity of Antwerp, this city became a portion of the former kingdom. —When the revolutionary party obtained possession of the city, General Chassé, who commanded the troops that had occupied it, withdrew with them into the citadel; and, irritated by the spirit of defiance in which the armistice had been broken by the Belgians, he bombarded the city during seven hours (October 27th), burning to the ground a number of houses, and damaging others. And again in 1832, the city was in imminent danger of destruction. A French army of 50,000 men, under Marshal Gérard, advanced, with the concurrence of the British government, to compel the delivery of the citadel by the Dutch to the Belgians, in conformity to the treaty of the 15th of November 1831, concluded between the five great European powers. To accomplish this object, a formal siege was necessary; and this siege could be most advantageously conducted from the fort of Montebello, which is an outwork of the fortifications of the city. Previous to the commencement of the operations, it was proposed to General Chassé that the city should be spared by being regarded by both parties as neutral ground. To this the latter objected, unless the attack should be made exclusively from the quarter opposite to the fort above mentioned. Marshal Gérard, in his turn, refusing his assent to this proposal, a most disastrous fate seemed to await Antwerp and its inhabitants. But the attack upon the citadel was made on the side of Montebello; and the Dutch general did *not* fire on the city, deterred by the threat that his government would be made responsible for all the mischief done, in case he should do so. Antwerp, however, did not escape altogether uninjured during the siege. A good many of the balls, discharged by the French batteries from the opposite side of the citadel, fell into the city, not only injuring a number of buildings, but also killing some of the inhabitants. After the citadel had been almost reduced to a heap of ruins, General Chassé capitulated, December 23d. Cer-

tain minor forts, or fortified posts, were surrendered, on the 30th of the same month, to the Belgian troops. But the Dutch still refusing to deliver up the forts of Lillo and Liefkenshoek, the garrison of the citadel of Antwerp was marched off to France as prisoners of war, to serve as hostages for the future surrender of those forts to Belgium.

**APIARY;** a place for keeping bee-hives, which should be selected with great care. It should be sheltered from the wet, as well as from the extremes of heat and cold. It should face the south, be defended from high winds, and not within the sphere of offensive smells, or liable to the attacks of hostile vermin.

**APPEARANCE,** in law, denotes the act whereby a defendant in an action recognises the process by which that action is commenced against him; originally by appearing in person, or by attorney, in court; now by filing a common or special bail on any process, if issued out of a court of judicature.

**ARABIA.\*** The interior of Arabia, during the conquests of the Caliphs, presents to us very few events of more importance than the every-day occurrences of Bedouin life, or the progress of the caravans, through the desert, to Mecca; and subsequently to that period, it exhibits everywhere the appearance of an almost utter exhaustion. Of the events forming an exception to our general remark, we may mention the subjection of Yemen, in the 16th century, by the Turks, and the expulsion again of the latter, in the following century; the dominion maintained by the Portuguese over Muscat from 1508 to 1659; the conquests achieved by Oman in India and Persia; the sovereignty acquired by the Turks over Hedjaz, and the risk they incurred of losing it through the transient successes obtained by the Persians, towards the end of the 16th century; and, at length, the revival of the spirit of fanaticism in the Arabian peninsula, by the rise of the Wahabees, in 1770. The moral influence of the last mentioned event still endures, although the political met before long a check from the neighbouring country of Egypt. Mehemed Ali subdued the coast of Hedjaz, as well as various portions of that of Yemen; and, in 1818, his son, Ibrahim, inflicted a severe blow upon the Wahabees by defeating them in a great battle, and by the destroying of their capital, Deraiyah. He incurred a large expenditure to maintain his superiority in Arabia, which secured to him a monopoly of the commerce of the Red Sea; but the events

of the year 1840 rendered it necessary for him to concentrate his forces in Syria; and, in consequence of the quadruple treaty of July 15th of that year, he was obliged to renounce all claims to any territory beyond a line drawn from the Red Sea to the Gulf of Akaba. The Hedjaz has thus once more become Turkish, but only nominally so; since, without a fleet on the neighbouring sea, no real dominion can be exercised over the Arabs on the coasts, not to speak of those in the interior of the peninsula.

**ARACAN.** See *Arracan*.

**ARAGO.\*** He became a pupil of the Polytechnic School when 18 years of age, and continued in this institution during two years. In the absence of the *répétiteur*, or teacher, of the class of which he was a member, he occasionally acted as his substitute; which circumstance has led to the statement, rather too unqualified, that Arago was an instructor in the Polytechnic School at the early age of 18. In 1805, he was appointed secretary of the Board of Longitude; and, associated with Biot, and the Spanish commissioners, Chaix and Rodriguez, continued the measurement of the arc of the meridian, already begun by Delambre and Méchain, from Barcelona to the island of Formentera. He was in the island of Majorca, engaged in this important work, when, in 1808, the insurrection of the Spaniards took place against Napoleon. The nature of his occupation did not protect him from the suspicions and hatred with which his countrymen were, very generally, regarded at the time in Spain; and he was arrested and retained for some months a prisoner in the citadel of Belver, near Palma. On being set at liberty, he made his way to Algiers, hoping from there to be able to get to France with comparative facility. At that place, he accordingly embarked on board an Algerine vessel for Marseilles. The vessel was, however, unfortunately captured by a Spanish privateer, and Arago was carried a prisoner to the fort of Rosas. Once more liberated, on the reclamations of the dey, in behalf of all the persons who were on board the vessel at the time of her capture, he again set sail in her for her destined port. But when this was nearly reached, a violent storm from the N.W. drove the vessel to the coast of Sardinia, where she sprang a leak; and her commander judged it expedient to bear away for Algiers. In the mean time the dey had been put to death in an insurrection; and his successor ordered Arago into slavery, and appointed him to act as an interpreter on board a privateer ship. It

was not till the next year, 1800, that, through the repeated intercession of the French consul, he obtained his freedom, and for the third time proceeded from Algiers to Marseilles, which he at last succeeded in reaching, after narrowly escaping capture from an English frigate at the mouth of the harbour. As a reward for his sufferings, underwent in the cause of science, Arago, just 23 years of age, was elected a member of the Academy of Sciences, in the place of Lalande, and was appointed by the emperor to a professorship in the Polytechnic School. Here he regularly gave instruction, until 1831, in Analysis and Geodesy. His scientific inquiries were, however, after a time, directed in a greater degree to Astronomy and Physics, and especially to the subjects of Galvanism, Magnetism, and the Polarization of Light. He received the Copley medal for his discovery of magnetism developed by rotation; and, on visiting Great Britain in 1834, the degree of LL.D. was conferred upon him by the university of Edinburgh, and he was admitted to the freedom of both the cities of Edinburgh and of Glasgow. In connection with Gay-Lussac, he established the "*Annales de Physique et Chimie*." The results of his measurement of the arc of the meridian, by means of which he was first introduced to the scientific world, are to be found recorded in the work entitled "*Recueil d'observations géodésiques*,"—a continuation of the "*Base du système métrique*," previously published by the Institute. In 1828, he commenced the publication of the "*Annuaire du Bureau des Longitudes*," where he has inserted a number of popular expositions of scientific subjects, exhibiting an uncommon talent for simplifying, and rendering generally comprehensible, what appears to be complex or difficult to be understood.—This talent for popular illustration was an important qualification for success in the political career on which Arago entered in 1830. He acted a conspicuous part in the revolution of July. Elected a member of the Chamber of Deputies in 1831 from Perpignan, the chief town of his native province, he took his seat on the "*côté gauche*," where he has, down to the present time, distinguished himself by an almost incessant opposition to every administration of the government. He may, indeed, be regarded, since the famous "*compte-rendu*," of which he was one of the signers, as one of the leaders of the extreme radical party. His report on the system of railroads attracted especial attention, as did also his speech against

what seemed to him the undue share of the public patronage bestowed upon classical studies. Scarcely was the project announced for fortifying Paris by a cordon of detached forts, when Arago came forth as its most determined opponent, maintaining, at the same time, that if it was expedient to fortify the city at all, the most that should be done was to surround it with a wall provided with bastions.—Arago holds various public offices, almost all of them by election, and some of them without any pecuniary compensation: besides being a member of the Chamber of Deputies, he is perpetual secretary of the Academy of Sciences, director of the Observatory and the Board of Longitude, a member of the "Conseil supérieur" of the Polytechnic School, a member of the "Conseil général de la Seine," and of the "Comité de salubrité," a colonel of the National Guard, &c.

**ARAL.\*** The two principal rivers which flow into the Sea of Aral are the Sir-Sihon, or Jaxartes of the ancients, on the N.E., and the Amu-Gihon, or Oxus of the ancients, on the S., the sources of which were traced by Lieutenant Wood, who accompanied Sir Alexander Burnes in 1828, to the height of 15,600 feet above the level of the ocean.

**ARARAT.\*** There are two mountains so called, near each other, and distinguished as the greater and the lesser Ararat. Their bases are united by a broad, level valley. Professor Parrot, of Dorpat, in Russia, is the first traveller, at least in modern times, who has succeeded in reaching the summit of the former mountain. This he accomplished in 1829, after the most persevering and untiring efforts. According to him, the elevation of the loftier peak is 17,236 feet, being about 4760 feet higher than Mont Blanc. The whole of the upper region of this mountain is covered, from the height of 14,000 feet, with perpetual snow and ice. The elevation of the lesser Ararat, according to the same authority, is about 13,000 feet above the level of the ocean, and about 10,000 feet above the adjacent plain. Parrot describes the greater Ararat as presenting to the view various forms of lava; and, in 1840, it evinced symptoms of volcanic activity, at least in so far as the sinking and disappearance of a portion of its summit is to be regarded as such. Tournefort, indeed, says that its precipices are blackened as if by smoke, but that nothing issues from it except torrents of muddy water. Dr. Reimsgg affirms, however, that he

has seen fire and smoke issue from it for three days together.

**ARAUCANIANS.\*** The most authentic source of information concerning these people is Pöppig's "Reise nach Chili und auf die Amazonenströme," published at Leipsic in 1835-6, in 2 vols. 4to. This intelligent traveller resided in those regions during a period of five years, from 1827 to 1832. We learn from him that the name of Araucanians has been given to them by the Spaniards, and that they are also distinguished as *Indios Costinos*, or inhabitants of the coast, and as *Moluches*, or inhabitants of the plains at the foot of the Andes. He tells us that much of what has heretofore been related concerning the civilization, and the political constitution, of the Araucanians, is fabulous. The fact that they are without even the first elements of a written language would alone rank them as barbarous. Some of them are nomades, and the remainder reside in villages scattered along the banks of the numerous rivers of the country. They are bound together in a sort of federative league, having the oldest and most experienced men among them for their chiefs. They are strongly made; are of middle height; and have a copper-coloured skin, a flat face, with an untoward, distrustful expression, and long, black, and shaggy hair. While the males are exercised from their youth upwards in riding on horseback, and in managing their long lances, the lasso, and the bolas (iron balls which are thrown forward by means of a long strap or sling), the females are treated like slaves, and are subjected to the performance of all manner of severe drudgery and taskwork.

**ARCHDUKE;** a title peculiar to the house of Austria, and which is, at the present day, applied to all the princes belonging to it; the corresponding title of archduchess being given to the princesses. It was formerly the title of the head of that house, before he acquired possession of the crowns of Hungary and Bohemia, or of the Cæsars, and was assumed by the dukes of Austria as early as the year 1156; but did not become hereditary with them until after the promulgation of the golden bull. It was not, however, recognised by the electors of the empire till the year 1453, when it was done by the express orders of the emperor, Frederick III.

**ARCHITRAVE.** See *Architecture*.

**ARCUEIL;** a village at a league's distance from Paris, on the road to Fontainebleau. Here some remains are still visible of an aqueduct constructed, when he

resided at Paris, by order of the emperor Julian, to convey the waters of Rongis to the palace of the Thermæ. But a more modern aqueduct was constructed by order of Maria de Medicis, to convey those waters to the garden and palace of the Luxembourg, which had been erected for her accommodation. It passes under ground, along the valley of the Bièvre, is 200 toises wide and 7000 long, and is supported on 24 arches. Water is supplied, even at the present day, by means of this aqueduct, to the southern portion of the city of Paris.—Arcueil acquired a degree of celebrity, at the commencement of the present century, on account of an association for the prosecution of investigations in physical science, formed by some of the most distinguished of the French savans, who then spent a portion of every year in its vicinity. Several volumes of their transactions were published, under the title of "Mémoires de la Société d'Arcueil."

ARGELANDER (Frederic William Augustus), professor of astronomy in the university of Bonn, and one of the most eminent astronomers of our day, was born at Memel, in Prussia, on the 22d of March 1799. He was educated at the university of Königsberg, where such an impression was made upon him by the instructions of Bessel on astronomy, that he resolved to devote himself to the especial cultivation of that science. In 1820, he was employed as assistant to Bessel in the observatory of which the latter had the charge, and was already in 1823 invited to take charge of the newly erected observatory at Abo, in Finland. Here he was principally occupied in observing those of the stars that have a proper motion of their own, until 1828, when, on the destruction of Abo by fire, the seat of the university, including the observatory, was removed to Helsingfors. At this place he superintended the construction of the observatory, which was completed only in 1834. In the mean time he had published a catalogue of 560 stars, with the results of the observations made by him upon their motions, during his residence at Abo; a work which earned for him the Demidow prize, awarded by the Academy of Sciences at St. Petersburg, and which rendered him extensively known to the scientific world. Argelander was appointed to the situation now occupied by him at Bonn, in the beginning of 1837.

ARGIL; or ARGILLACEOUS EARTH. See *Alumise*.

ARGOT, a jargon in use, in France, among thieves and vagabonds. It corresponds to the cant words and phrases used

by the same classes of persons in England. And Germany also has its argot, or as it is there called, *rotzwölsch*. This last is said to have a certain degree of affinity to the Hebrew language. As a knowledge of these argots might occasionally be of service in enabling officers of police or justice to ferret out offenders and bring them to conviction, vocabularies of several have been published, defining the words employed.

ARGUELLES (Augustin).\* Although, on quitting office in 1821, he had received the most outrageous treatment, he did not connect himself with the extreme opposition, but was one of the *anilleros* or moderates, and continued, as he ever had been, a steadfast supporter of the constitution of 1812. In the Cortes, at Seville, on the 1st of June 1823, he voted for the suspension of the royal authority, and on the overthrow of the constitution a short time afterwards, he made his escape to England, remaining there, until the amnesty of 1832 permitted him once more to return to his own country. After the issuing of the "Estatuto Real," Arguelles was elected a member of the Cortes, his constituents adding to his property an amount sufficient to yield him the requisite income of 12,000 reals. In the discussion concerning the law, proposed in July 1841, for the sale of ecclesiastical property, he declared himself opposed to any *concordat* with Rome. On the choice of a regent, the votes given in his favour were next in number to those received by Epartero; they were 103 to 179. Shortly afterwards, he was appointed guardian to the Queen Isabella. His enemies, for want of any more serious accusation to prefer, have charged him with vanity and other kindred weaknesses; but whether justified in doing so or not, Arguelles is, unquestionably, a man of a high order of talent; and one of the purest, and most consistent political characters, who have figured in the latter period of Spanish history.

ARLES (ancient *Arelate*); a city in the department of the Mouths of the Rhone, in France, containing about 20,000 inhabitants. Its manufactures are chiefly hats and silks. It has a college; a school of navigation; a public library; a cabinet of natural history; and another of antiquities. A canal has been constructed from Arles to the sea, partly on account of the many difficulties and dangers incurred in navigating the Rhone, and partly, also, for the purpose of draining the marshes that render the city and neighbourhood unhealthy. Arles is connected by a bridge.



of boats with the island of Camargue, as the territory comprehended between the branches of the Rhone and the sea is called, and which is celebrated for the raising of cattle. This city is one of the oldest in France, and its former importance is attested by many well-preserved monuments. Among the most remarkable of these may be mentioned its amphitheatre, 1284 feet in circuit, and the arena of which is now occupied by a number of wretched buildings,—the remains of a theatre,—a palace of Constantine the Great (now known as the *château de Trouille*)—the obelisk of granite (brought, it is probable, originally from Egypt), at present standing before the town-hall,—and the Elysian fields. Under the Roman empire, Arles was the residence of a prefect: subsequently, it became the capital of the kingdom of Burgundy.

ARLINCOURT (Victor, vicomte d'), a well-known author of French novels, was born near Versailles, September 10th 1789. His father was a zealous royalist, and suffered by the axe of the guillotine. Napoleon bestowed upon the son an office in attendance upon his (Napoleon's) mother, and appointed him in the sequel intendant of the French army in Aragon. On the return of the Bourbons, he was treated with much consideration, and was preferred to the office of "maître de requêtes;" from which office, however, he was removed after the "hundred days." He then lived for some time in retirement in Normandy, until at length again invited to court by Charles X., who appointed him one of his chamberlains.—Since the revolution of July in 1830, he and his works have occupied very little of the public attention. The latter, indeed, are thoroughly imbued with ideas of a devoted loyalty, and with a romantic adherence to an order of things rapidly passing away, and in a great measure actually gone by, calculated to obtain for him a degree of credit with the Bourbon party, far beyond his real merits as a writer.—His principal works are "Charlemagne, ou le Caroléide," an epic poem; the novels entitled "La solitaire," "Le renégat," "L'étrangère," "Les écorcheurs," &c. He made, not long since, an extensive tour through Holland and Germany, in the course of which he was received and entertained in the most flattering manner by the higher aristocracy; and an account of this tour was published by him in 1842, under the title of "Le pèlerin."

ARMANSPERG. See *Greece*, (Sup.)

ARMILLARY SPHERE; an artificial sphere, composed of a number of hoops or circles,

representing the several circles of the celestial sphere, such as the equator, the ecliptic, the colures, &c., to assist the mind in conceiving the constitution of the heavens, and the motions of the heavenly bodies.

ARMSTRONG (General John) was born at Carlisle, in Pennsylvania, in the year 1758. He was the youngest of two sons. His brother, the late Dr. James Armstrong, was a man of unblemished character, and of considerable eminence in his profession. His father, General John Armstrong, of Carlisle, served with distinction in the French and Indian war of 1755. At or about the commencement of the war of the Revolution, the subject of the present notice joined the American army as a volunteer, when only 18 years of age, contrary to the wishes of his parents, who were anxious that he should continue, for a time longer, to prosecute his studies. We find him at the battle of Princeton in the capacity of an aide-de-camp to General Mercer; and it was in his arms that the latter, when mortally wounded, was carried from the field. Accident subsequently made him acquainted with General Gates, who, pleased with his manners and conversation, asked him to dinner, and, before the party broke up, invited him to become a member of his military family,—an invitation which was promptly accepted. In this situation, and with the rank of major, he continued to serve until the close of the war.—When, on the occurrence of this auspicious event,—auspicious as connected with the permanent establishment of American independence,—and before the disbanding of the army, a high degree of dissatisfaction was felt by both officers and men generally, on account of the neglect of Congress to provide for the payment of the arrears due to them, Major Armstrong, at the suggestion of several of the officers of high rank, prepared the celebrated anonymous addresses, commonly known by the name of the Newburg addresses. They were written with great vigour and ability, and had for their object to induce the officers of the army to assume such an attitude, and to adopt such a tone, in their applications to Congress for a redress of their grievances, as were calculated to operate upon the fears of that body, as much as upon their sense of justice. What might have been the effects produced by those addresses, it is difficult to say, had it not been for the interposition of the commander-in-chief. General Washington, in a counter address to the officers assembled before him, condemned the addresses in question

in the most decided terms, and appealed to the patriotism of his hearers to repudiate the principles maintained in them; pledging himself at the same time to use his influence to obtain for his companions in arms the objects at which they aimed, at the earliest possible day. Armstrong's conduct on this occasion, though sanctioned at the time by so many of his brother officers, whose love of liberty and country have never been doubted, subjected him, in after life, to no small degree of obloquy. But, in justice to his character, it is proper to state here, that the knowledge of his being the author of the anonymous addresses did not impair the confidence that General Washington reposed in his integrity and patriotism. "Whatever may have been thought by General Washington at the time," says Mr. Sparks, "as to the character and objects of the Newburg addresses, it appears by the following letter, that he was afterwards led to form a different opinion of the motives of the author from that expressed in his address to the officers." In the letter referred to, General Washington, addressing himself to General Armstrong, says, "Believing that there may be times and occasions, on which my opinion of the anonymous letters and their author, as delivered to the army in the year 1783, may be turned to some personal and malignant purpose, I do hereby declare, that I did not, at the time of writing my address, regard you as the author of the said letters; and further, that I have since had sufficient reason for believing that the object of the author was just, honourable, and friendly to the country, though the means suggested were certainly liable to much misunderstanding and abuse."

The first civil appointment held by General Armstrong, was that of Secretary of the State of Pennsylvania, during Franklin's administration of its government; and soon afterwards, he became a member of the Old Congress. In 1790, having married a sister of the late Chancellor Livingston, he was led to establish himself on the banks of the Hudson river, in the county of Dutchess, and state of New York. In November 1800, he was elected a U. S. Senator by an almost unanimous vote of both houses of the New York legislature; and in 1804, before his senatorial term had expired, he received from Mr. Jefferson the appointment of minister to France. He discharged the complicated and highly responsible duties of this mission with distinguished ability, and in a manner highly honourable to the

country which he represented, and creditable to himself. During his residence abroad, it may be mentioned that he also performed all the functions of a separate mission to Spain; for which service he neither received nor claimed any remuneration from the government. His mission to France terminated, at his own request, in the autumn of 1810; repose being necessary to his health, and his private affairs, long neglected, requiring his supervision at home.

Soon after the declaration of war by the United States against Great Britain in 1812, he was appointed a brigadier-general in the U. S. army, and assigned to the command of the district embracing the city and harbour of New York; and in February of the following year, he succeeded Dr. Eustis as Secretary of War. This office he accepted with the greatest reluctance, having no confidence in the fitness of the generals whom the president (Mr. Madison) had appointed to the chief command of the American forces, and expecting only defeat and disaster until they should be superseded by younger, and more active as well as more able men. They had, it is true, seen and done some service in the war of the Revolution, but only in subordinate capacities; and, becoming enervated by a repose of 30 years, they had, according to General Armstrong, "lost all ambitious aspirations, while they had forgotten all they ever knew, and were ignorant of the later improvements in military science." In this condition of things, the new Secretary of War adopted the step, with difficulty acquiesced in by Mr. Madison, of transferring his department of the government from Washington to Sacket's Harbour, that he might be near the scene of the operations to be directed, from the state of New York, against Canada. But even his presence was unable to counteract the evils resulting from the mistaken appointments which had been made. The generals in command were not deterred from setting aside his instructions as to the plan of the campaign (of 1813); and, superadding to their other disqualifications that of quarrelling among themselves, the result of the efforts made for the conquest of Canada was precisely such as General Armstrong, before going into office, had predicted as likely, under the circumstances, to ensue.—The capture of Washington, in August 1814, led to General Armstrong's retirement from the War office, an act which terminated his political career. That no especial blame could be attached to him for

this untoward event, must be manifest, when we are told that the individual (General Winder) who was placed at the head of the forces which had been assembled for the defence of the district of Columbia, and who commanded against the enemy in the action at Bladensburg, had been appointed by the president to this post "against the advice of the secretary," as also that the latter had, under a decision of the president, been constrained "to leave the military functionaries to a discharge of their own duties, on their own responsibility." Public opinion, however, without any minute inquiry into the causes of the disaster which had happened, very naturally perhaps, fixed upon the head of the war department of the administration as a principal object of blame. Mr. Madison, though aware of the injustice of the clamour raised against the secretary, and in no wise disposed to take any step of a nature calculated to affect the reputation of this officer injuriously, was induced, from motives of precaution, to yield to it to a certain extent. He intimated to General Armstrong that a brief visit to his family would give time for the ebullition of passion and prejudice to subside, when he would be able to return and resume the functions of his office under more favourable circumstances. But the general regarded this intimation as itself an act of injustice, and felt indignant at its having been given. Determining to exercise his functions wholly or not at all, he sent in his resignation, which the president accepted.

In his retirement, General Armstrong's pen was employed on various subjects connected with the public good, or belonging to the history of his own times. Among the fruits of his literary labours, we have a treatise upon gardening, and another upon agriculture, that are held in high esteem; a review of General Wilkinson's memoirs, in which he handles the author with great severity; several biographical notices; and a history, in 2 volumes, of the last war. It was his intention to leave behind him a history of the war of the Revolution, a work in which he had made some progress, and which, had he been permitted to finish it, would, there is no doubt, have been invested with no ordinary interest, from the fact of his personal knowledge of the distinguished men, and most of the important events, of that period.—Towards the latter part of the year 1842, he fell into a decline; and gradually wasting away, he breathed his last, in the full possession of his mental faculties, and in the 85th

year of his age, on the 1st day of April 1843.

ARNAULT (Antoine Vincent).<sup>\*</sup> He was restored to his place in the French Academy in 1820, and, on the death of Andrieux in 1833, was appointed perpetual secretary of that body. During this period, he distinguished himself as a zealous supporter of the *classic*, in opposition to the modern *romantic* school of French literature. In 1833, he published a portion of his reminiscences, under the title of "*Les souvenirs d'un sexagénaire*," in 4 volumes. He died on his way back to Paris from a journey to Normandy, on the 20th of September 1834.—His son, Lucien Emile Arnault, now prefect of the department of the Meurthe, besides his "*Régulus*," previously mentioned, has also written two other historical dramas, "*Catherine de Medicis aux états de Blois*," and "*Gustave Adolphe*;" which, however, have not met with a success equal to that obtained by his former productions.

ARNDT<sup>\*</sup> (Ernst Moritz). After a suspension of 20 years from his professorship, he received permission, in 1840, from the present king of Prussia, to resume his lectures in the university of Bonn; and, in the same year, he published his personal memoirs, which rank among the most remarkable of his works.

ARNHEIM; the Roman *Arenacum*, chief town of the Dutch province of Guelders, with about 18,000 inhabitants. It is the residence of a governor, and the place of meeting of the provincial states; and here, also, is a tribunal of original jurisdiction, and another of commerce. It is situated on the Rhine, over which there is a bridge of boats, and it has a considerable trade with Germany. There is a gymnasium, a school of arts, and other scientific and literary institutions. It is strongly fortified. The edifices most worthy of mention are the palace of the former dukes of Guelders, and the church of St. Eusebius, in which the monuments of many of those dukes, and the counts their predecessors, are to be seen. The country in the vicinity of the town contains numerous paper-mills.

ARNIM (Ludwig Achim von), a German poet and novelist, was born in 1781, at Berlin. His attention was at first directed to the cultivation of physical science; and, in 1799, he published a "*Theory of Electrical Phenomena*." He then wrote several novels, and travelled through Germany in all directions, to make himself intimately acquainted with the manners and customs of the people, in all their varieties. In the

course of these excursions, he succeeded in catching the popular ballads, as he heard them sung by the shepherds, the travelling workmen, or the peasant girls of the country. Herder had already published a number of these ballads; but Arnim discovered others, and, in concert with his brother-in-law, Brentano, composed many more of a similar nature. They collected the fruits of these inquiries and inspirations in a volume, entitled "des Knaben Wunderhorn" (the child's wonderful horn). Arnim, in his novels and romances, partakes of the character both of Tieck and of Hoffman; he has the predilection for the middle ages of the one, and the taste for the supernatural of the other. His "Wintergarten" (winter garden) is a collection of tales published by him in 1809. "Armuth, Reichthum, Schuld und Busse der Gräfin Dolores," a romance, followed it in 1810; a work exhibiting the sad and touching picture of a person, accustomed to the luxuries and enjoyments of high life, falling into a state of misery. His "Isabelle von Ägypten" (1811), perhaps the best of his works, presents us with a picturesque account of the gypsies. And he composed also several dramatic pieces.—For some years afterwards, the misfortunes of his country are said to have made so serious an impression on his mind, that he was incapable of employing himself in the lighter pursuits of literature. When, however, the tide of fortune had turned, and the independence of his country was once more achieved, he again appeared as an author. Among his later works, the principal is a romance, entitled "Die Kronenwächter" (guardians of the crown), the scene of which is laid in the reign of the Emperor Maximilian.—His death took place in 1831, from an attack of apoplexy.—All his writings evince an uncommon richness of imagination, great sensibility and humour, extensive knowledge, much power of observation, together with a faculty of vividly delineating character; but the extreme carelessness with which, particularly in his earlier productions, he suffered himself to be carried away from his main design by any out-of-the-way notion which struck him, the many irregularities and extravagances of his style, as well as the want of arrangement in his statements, detract essentially from the effect of his story.—His wife, *Elizabeth von Arnim*, is also an author of some celebrity, but of a character exceedingly eccentric and extravagant.

ARNOLD (George Daniel), a professor in the faculty of law in the university of

Strasburg, in France, was born in that city in the year 1780. He is the author of a work on the Roman Law, written in the Latin language, and entitled "Elementa juris civilis Justiniani cum Codice Napoleoneo et reliquis legum codicibus collati." Independently, too, of his professional eminence, he obtained a considerable reputation, both in France and Germany, by various poetical productions, especially a comedy, "Der Pfingstmontag," for the most part written in the ancient dialect of Alsace, his native province, and depicting the manners of a bygone period with the most admirable humour. This work has been minutely analyzed, and lauded in the highest terms, by Goethe, in his treatise "über Kunst und Alterthum." Arnold died at Strasburg in 1829.

ARNOLD (Thomas), D. D., was born at Cowes, in the Isle of Wight, June 13th 1795. He was educated at Winchester school, and in 1811, in his 16th year, was removed to Oxford, having obtained a scholarship in Corpus Christi College. Here he devoted his attention chiefly to the philosophers and historians of antiquity, among whom his favourite authors were Aristotle and Thucydides. He took the degree of A. B. in 1814. In 1815, he gained the prize for an English essay on the subject of "The Effects of Distant Colonization on the Parent State;" and in the same year, he was elected a Fellow of Oriol College. He obtained, in 1817, the prize for the Latin essay on the subject "Quam vim habeat ad informandos juvenum animos poetarum lectio!" in which year he also took the degree of M. A. Having overcome certain scruples respecting some points in the 39 articles of the church of England, with which he appears to have been harassed about the time he graduated, he was ordained deacon in 1818, and priest in 1828. By his marriage in 1820, he had vacated his fellowship; and he spent the period of his life from 1819 to 1828 at Laleham, near Staines, in the preparation of 7 or 8 young men for the universities; and such leisure as this occupation allowed him he employed in the collecting of materials for his edition of Thucydides, writing articles on Roman history for the "Encyclopædia Metropolitana," and preparing the way for his History of Rome. He was appointed Head Master of Rugby School in 1828, and took the degree of B. D. in March, and that of D. D. in December, of the same year. On the death of Dr. Nares, in 1841, he was appointed Regius Professor of Modern History at Oxford. This office, requiring

the delivery of only a limited number of lectures, did not interfere with the continued performance of his duties at Rugby. Under his able superintendence, the school there was raised to a very high eminence among the public schools of England. Dr. Arnold retained the old classic basis of instruction, but gave it breadth by connecting it with other departments of learning. He inspired it with life and vigour by the practical views to which he directed it; and imparted to it elevation and dignity by what had heretofore been wanting in the public schools,—the introduction of a high moral and Christian element; so that Rugby became, in the true sense of the word, the seat of an enlightened and Christian education.—In 1835, the office of a Fellowship in the Senate of the new London University was offered to Dr. Arnold, and the office was accepted. He consented to join the University “without insisting on a Scriptural examination (for degrees), on the alleged ground of fact, that such an examination was not practicable, on account of the objections of different classes of Christians, and on the hope, which he distinctly expressed, that the Christian character of the university might be secured without it.” But becoming convinced that “the Scriptural examination was both practicable and all but indispensable,” he succeeded, in December 1837, in carrying a resolution “that, as a general rule, the candidates for the degree of A. B. shall pass an examination either in one of the four Gospels, or the Acts of the Apostles, in the original Greek, and also in Scripture History.” Such an outcry, however, was raised in certain quarters against this measure, that it was judged expedient by the Senate of the University to rescind the resolution, and to substitute in its place another, “that examination in the Hebrew text of the Old Testament, and in the Greek text of the New, and on Scripture History, shall be instituted in this University; and that all candidates for degrees in arts may, if they think proper, undergo such examination.” Dr. Arnold withdrew, in consequence, from his Fellowship in the Senate, in November 1838, being led, “after the fullest consideration and inquiry, to the conclusion that the voluntary examination would not be satisfactory,” or as he otherwise expresses himself, “would not satisfy, either practically or in theory, those principles which appeared to him indispensable.”—Dr. Arnold died at Rugby, of spasm at the heart, on the 12th of June 1842, within one day of completing his 47th

year.—His opinions, in politics, were those of the liberal, but not radical, school: in religion, he was one of the most decided opponents of the Oxford new school of theology. His attention was much directed to the improvement of the social and moral condition of the working classes of Great Britain. With this benevolent object in view, he delivered lectures at the Rugby Mechanics' Institute, started a newspaper in 1831 expressly for the use of the lower orders, and in the same year, and also in 1832, wrote letters in the public papers.—As a writer, Dr. Arnold was remarkable for vigorous thought, clearness of expression, and purity of style. The most important of his works are his edition of Thucydides, and his History of Rome. In the notes and dissertations contained in the former, he has given a social and political, as well as a critical interest, to his author. The latter work, in 3 volumes, comprehends the period from the origin of the state to the end of the second Punic War. To these another volume has been added, comprising his contributions to the “Encyclopædia Metropolitana,” and carrying on the history to the time of Trajan. His sermons, pamphlets on a variety of subjects, articles in several reviews, the lectures delivered by him at Oxford in his capacity of professor of modern history in that university, together with a posthumous tract on the Church, are, also, productions of no common order.

ARNOTTO, or ANNATTO, is an extract from the pellicles of the seeds of the *Bixa Orellana*, and is chiefly imported from Brazil and Guiana. It is used by dyers for giving more or less of an orange cast to the simple yellows; as an ingredient in varnishes; and for colouring cheese. It imparts little colour to water, but dissolves in alcohol and in alkaline solutions. Its colour, which is brown on the outside and a dull red within, is not materially altered by acids or alkalis.

AROMA; the characteristic odour of certain vegetable and animal substances, especially the former, and once supposed to be a peculiar principle.

ARRACAN.\* The eastern portion of this country is a rude and uncultivated mountain region, and the western portion a swampy level, covered with jungles, and abounding in elephants, tigers, and other wild beasts. The mouths of the rivers are enlarged into considerable bays, and good harbours are to be found on the coast; which, however, is of difficult approach on account of the numerous rocks and sandbanks by which it is surrounded: and it is

rendered inaccessible for six months in the year by the S. W. monsoon. The climate is exceedingly unhealthy; so much so that the English, who are now in possession of the country, would, most probably, at once withdraw their troops from it, and abandon it altogether, were it not regarded as an advanced post, either for offence or defence, against the Birmanians. The vegetable products of Arracan are inconsiderable in amount. They consist chiefly of rice, coffee, cotton, the sugar-cane, tobacco, indigo, pepper, oranges, lemons, pine-apples, and cocoa-nuts, together with excellent teak-wood. Scarcely any thing is known concerning the minerals of the country, excepting that gold-dust, and silver in grains, are to be found on the eastern side of the mountains. Its population is somewhere from 120,000 to 200,000 persons, divided into Birmanese, Mohammedans, and Mughls or Arracanese. Of these, the latter constitute two-thirds of the whole number, and, differing in their appearance exceedingly from the natives of Bengal, bear a strong resemblance to the Chinese. They prefer hunting and fishing to agriculture, and are very artful traders. Their language has a very close relation to that of the Birmanians; and the art of writing is said to be so extensively diffused among them, that every person, man or woman, can write with ease, and even with elegance. Arracan had been long an independent kingdom, when it was annexed by conquest to the Birman empire in the year 1783. It was conquered by the English in 1825, and formally ceded to them, at the close of their war with the Birmanians, in the following year.

**ARRIAZA Y SUPERVIELA** (Don Juan Bautista de); a distinguished Spanish poet, born at Madrid in 1770. He began his career in the royal marine, in which he continued to serve, until, in consequence of a severe fit of sickness, he became so near-sighted as to be obliged to retire altogether from the service. Two years previous to this, he had already given evidence of the possession of poetic talent, in an elegy on the last Duke of Alba (1796); and the next year appeared his "Las primicias, o colleccion de los primeros frutos poéticos de D. J. B." Appointed secretary of legation at London, he there completed (1803) his didactic poem of "Emilia," which owed its composition to the love for the fine arts evinced by a lady of this name, who had resolved upon educating a number of poor orphans of promising talents as artists. On quitting London, he spent two years in Paris, and returned to his own

country in 1807. A strenuous supporter of the absolute monarchy of Spain, while he declared against King Joseph and the afrancesados, he was equally opposed to the Cortes and the constitution of 1812. While, by his "Poesias patrioticas," he endeavoured to encourage his countrymen to fight valiantly for the securing of the national independence, he put forth a series of political tracts in favour of the system of government heretofore established. Ferdinand VII., on his return to Spain, appointed him successively a counsellor of state and cabinet secretary, "Oficial segundo jubilado" in the ministry, and his chamberlain. Arriaza died at Madrid in 1837. His poetry is chiefly of a lyrical character, although he seems to have been almost equally at home in every species of versification. His works, however, are distinguished more for elegance of diction, than for vigour of imagination, or intensity of feeling. Nevertheless, some of his odes have great merit; and his patriotic songs are in the mouth of every Spaniard.

**ART AND PART**; a phrase used in Scotland, and applied to an accomplice in crime. When any one is accused of a crime, they say that he is art and part in committing it; that is, he was concerned both in the contrivance and execution of it.

**ARTESIAN WELLS.** See *Boring for Water*, (Sup.)

**ARTICLES OF WAR.** See *Mutiny*, (App.)

**ASCENSION\*** (Island of). After the death of the Emperor Napoleon, the English continued to occupy this island, to prevent its being a place of refuge for pirates; and latterly its importance has been enhanced by its having become a dépôt for stores, and a place for watering ships cruising on the coast of Brazil, or in the South Atlantic ocean.

**ASCHEBACH** (Jos.), born on the 29th of April 1801 at Höchst, in Germany, is at present a professor in the gymnasium at Frankfort on the Maine. He is distinguished, among his countrymen, as a historian. His principal works are "The History of the Visigoths" (1827), "The History of the Omniads in Spain" (3 vols., 1829-30), "The History of Spain and Portugal, during the dominion of the Almora-vides and Almohades" (3 vols., 1833-37), "The History of the Emperor Sigismund" (3 vols., 1838-41), and "The History of the Heruli and Gepidæ."

**ASHANTEES.\*** Cumassee, the chief town of this African nation, contains from 12,000 to 15,000 inhabitants. It is regularly laid out, with wide streets; but the houses, with the exception only of a stone building

belonging to the king, are constructed of wood and reeds.—The death of General M'Carthy was subsequently (1826) avenged by his successor, Governor Campbell, who defeated the Ashantees and compelled them to pay tribute.—In the year 1839, a Wesleyan missionary, of the name of Freeman, after residing for some time among the Fantees, visited Cumassee, where he was favourably received and hospitably treated.—For the latest information concerning the Ashantees, Buxton's "African Slave Trade, &c." may be consulted.—Two Ashantee princes have lately been educated in England; they accompanied the expedition to the Niger in 1841, on their return to their own country.

ASHMUN (John Hooker) was the son of Eli P. Ashmun, a distinguished lawyer of the Massachusetts bar, and who for a time represented that commonwealth in the Senate of the United States. He was born at Blandford, the residence of his parents, on the 3d of July 1800. His mother died when he was quite young; but the maternal care that he so early lost was fortunately supplied to him by another, for whom he entertained, through life, sentiments of a very tender regard. He was educated at a private school in Northampton, until he had attained the age of nine years. Having made very extraordinary progress in the Latin language, he was removed to Blandford, to be farther prepared for entering college. When thirteen years old, he was admitted a student of Williamstown College, and, after remaining there three years, joined the "Junior" class in Harvard University. He took the degree of A.B. in this institution in 1818. During his stay at the university, he is reported to have been not at all remarkable for his application to his studies. His principal improvement was in mathematics; his extreme youth probably preventing him from taking the same degree of interest in the other branches of the prescribed course of instruction.—As soon as he was graduated, he commenced the study of the law in the office of his father. But the latter dying shortly afterwards, he completed his studies with another gentleman of the legal profession. When in due time admitted to the bar, he devoted himself with the greatest zeal and industry to the enlargement of his knowledge of the law, to the almost entire exclusion of every other subject. "His career," says Judge Story, "was soon marked by deserved success; and before he left the bar, in which he was then accustomed

to practise, he stood in the very first rank of his profession, without any acknowledged superior." During the last year of the life of Judge Howe, this gentleman had associated Mr. Ashmun with him in a law school of a very high character, which he had established at Northampton; and on his decease, Mr. Ashmun, in conjunction with Mr. Mills, continued to conduct the labours of the school with undiminished success. When the Law Institution in Harvard University was reorganized, in the year 1829, he was invited, by the unanimous vote of the corporation, to the chair of the Royall Professorship of Law. This led to his removing his residence to Cambridge, where, in conjunction with Judge Story, he lectured to successive classes of students, with distinguished ability and success, down to the period of his death, in April 1833. He had not yet attained the age of 33. His health, too, had in general been so feeble, as to prevent him from the full exertion of his intellectual powers. Moreover, we are told by Judge Story, in the funeral discourse which he delivered on his friend and colleague, that the latter, owing to ill health, "could not be said to have attained either grace of person, or ease of action;" that "his voice was feeble,—his utterance, though clear, was laboured,—and his manner, though appropriate, was not inviting;" and that "he could not be said to possess the higher attributes of oratory, copiousness and warmth of diction, persuasiveness of address, a kindling imagination, the scintillations of wit, or the thrilling pathos which appeals to the passions." His success at the bar, which was so great as, before quitting Northampton, to have secured his being engaged on one side or the other of every important cause in the counties in which he practised, was, in short, a triumph due almost exclusively to his extensive and accurate knowledge of his profession, aided by very extraordinary reasoning powers. Complicated as is the science of the law, and commonly requiring the labours of a long life for the exploring of its various recesses, such was the high opinion formed of Mr. Ashmun, as a jurist, by those who knew him best, that he was already, in the 33d year of his age, judged to be as worthy as any one else at the bar, to occupy the situation vacated by the highest judicial officer of the state of Massachusetts.

ASIATIC SOCIETIES AND MUSEUMS.\* The first Asiatic society, or association of literary men, for investigating the literature, history, geography, religion, and languages

of the east, was founded by the Dutch in Batavia. Its Transactions, published at Batavia (15 vol. 1780-1833), have, however, only lately attracted general attention. The next society was the "Asiatic Society of Bengal," founded by Sir William Jones at Calcutta in 1784. Of its Transactions 20 volumes appeared (1788-1834) under the title of the "Asiatic Researches," which have contributed very much to extend our knowledge of India; and, since 1832, a journal has been issued by it, called the "Journal of the Asiatic Society of Bengal," among the contributions to which those of Prinsep on the Indo-Bactrian and Grecian numismatics are worthy of especial mention. The "Medical Society of Calcutta" have published 7 volumes of their Transactions (1824-32); and the "Agricultural and Horticultural Society of India" published a volume of theirs in 1829. Transactions also of the "Literary Society of Bombay" have appeared (3 vol. 1819-24), and of the "Literary Society of Madras" (1 vol. 1823). The last mentioned society have also latterly published a "Journal of Literature and Science." The "Société Asiatique" was established at Paris under royal patronage in 1822; and in the year following began the publication of the "Journal asiatique," as likewise of other works, in the original or in translations, and of grammars and dictionaries, partly at the expense of the society itself, and partly by means of subscriptions obtained from various quarters. It has collected a considerable Asiatic Museum, consisting of books, manuscripts, and antiquities of different kinds. Very soon after the origin of this society, the "Royal Asiatic Society of Great Britain and Ireland" was founded (March 19th 1823). Since the year 1828, a very active *Oriental Translation* committee of this society has printed, at its expense, English, Latin, and French translations of oriental works, and have sometimes reprinted these in their original languages; while another branch of it, instituted under the patronage of the Earl of Munster, confines itself entirely to the republication of such works. The "Transactions of the Royal Asiatic Society," 3 volumes of which were issued (1824-34), filled with valuable papers, have been succeeded by the "Journal of the Asiatic Society," 13 numbers having hitherto (1843) appeared. This society has also collected an excellent Asiatic Museum. A collection of the same nature, it may be mentioned, had been made under the direction of the counsellor of state, von Frähn. And not long since,

an Egyptian society was established at Cairo. In Germany, no institution of the kind exists; but the oriental scholars of that country have a point of reunion in the "Zeitschrift für die Kunde des Morgenlandes" (Göttingen, vol. 1-4, 1837-42), edited by Lassen, at Bonn.

ASIOLI (Bonifacio)\* died in 1832.

ASPARAGIN; a white crystallizable substance, obtained from the expressed juice of asparagus. It has been proposed as a diuretic in medicine.

ASSAM.\* One of the parties, in a civil war, having called in the Birmans to his assistance, they took possession of the country, and (1822) proclaimed the general commanding their forces to be the rajah of it, in subordination to the king of Ava. A rupture speedily took place between the new power and the British authorities in Hindostan, in relation to the island of Shapuree, on the coast of Chittagong; whereupon a body of the East India Company's troops entered Assam, and (1825) expelled the Birmans. It is now a dependency on the British empire in India; and our knowledge of the country and its inhabitants has, in consequence, been latterly very much extended.—The most remarkable feature in the physical geography of Assam is the abundant manner in which it is watered. Not only does the Bramapootra traverse it along its whole length, but it has 34 rivers flowing from its northern, and 24 from its southern, mountains; all of them, it is said, navigable for vessels of some size. The inundations which prevail, during a part of the year, give to the region the appearance of an extensive lake, and render the climate very unhealthful. On the decline of the waters, vegetation is exceedingly luxuriant; and Assam might be rendered one of the most productive portions of the globe. The products of the soil, as well as the animals to be found here, bear, in general, a close resemblance to those of Bengal. Three-fourths of the crop consists of rice; wheat, barley, and millet, are used only to a very limited extent. The tea-plant is indigenous to Upper Assam, where it is cultivated by the inhabitants. Some of the tea has been brought to England, and sold at a high price. Cotton is raised; but silk, which constitutes a great part of the native clothing, to a much greater amount. It is of a very superior quality, and for the most part made by wild insects, of which there are five different species. The principal mineral products, besides gold, are iron and salt. Of gold, the quantity collected (in the



form of gold dust) is very considerable; that from the Dhunserree river alone having been estimated as high as 180,000 rupees a year.—Assam is divided into Upper, Central, and Lower Assam, with a population of about 600,000. The inhabitants are of a variety of races, differing from each other in many respects, and yet not admitting of being easily arranged under distinct heads. Besides many other tribes of less importance, the following may, however, be mentioned; the Assamese, properly so designated, who hold the highest rank, especially in Central and Lower Assam; the Colitas and Cutch, also in Central and Lower Assam; and the Doms or Nodiyals, who are more numerous than any of the other classes.—The greater part of the land is granted to persons named payiks, each of whom, in return, is bound to work gratuitously four months in the year, either for the rajah, or for any person whom he chooses to substitute in his place. These serfs of the crown are placed under farmers of the revenue. All the domestics are slaves.—Justice is administered by the heads of tribes, and the punishments inflicted are said to be of the most barbarous description; a capital crime involving the death, not only of the criminal, but also of all the members of his family.—The religion of three-fourths of the inhabitants is that of Brahma, introduced in the 17th century; the remaining fourth worship the god Chang, who is probably the same as Boodh. The prevailing language is the Bengalee.—Jorhaut, Gerghong, Rungpoor, and Gohati, are the principal towns; but they are all mere collections of mud hovels, with conical roofs of straw or bamboo.

**ASSESSORS.** Among the Romans, assessors were persons having a knowledge of the law, and appointed to assist the judge by their counsel. Of themselves, they had no jurisdiction. This arrangement, too, has been adopted by the French, the Germans, and other modern nations. This has been, and is still, the case, even in England, where the system of law has borrowed so little, comparatively speaking, from the Roman. In various inferior courts, for example, assessors, of the character described, are appointed by statute. Assessors were employed, previously to the Reform Act, to assist the returning officer in deciding on the cases submitted to his cognisance, at the period of an election. And by the Municipal Corporation Reform Act, subsequently enacted, the burgesses of every borough are directed to elect two assessors, for the purpose of

assisting the mayor in his duty of revising the Burgess lists, and presiding at the elections.—The term assessors is also applied to the persons appointed, or elected, to apportion the amount of direct taxes, imposed by the government, equitably among those who are liable to pay them. This is the sense in which it is used, almost exclusively, in the United States.

**ASSIGNATS.\*** At the end of the year 1792, there were 2200 millions of francs in assignats circulating in France. About this period, they fell rapidly to one-half of their nominal value. Their amount was, notwithstanding, gradually augmented; so that, in January 1795, they amounted to the enormous sum of 45,578 millions. But their real value was then only 18 for every 100. Again, in March 1796, one louis'd'or could purchase no less than 7200 francs in assignats. These were then by law withdrawn from circulation, and redeemed by an issue of *mandats* at the rate of one for thirty.

**ASSIGNMENT,** in law, is the act of assigning or transferring to another the interest or property a person has in anything.—An *assignee* is the party to whom an assignment is made. This term, however, more commonly denotes the person to whom is committed the management of a bankrupt's estate.

**ASSUAN.** See *Syene*.

**AST** (George Anthony Frederic), a German philologist, was born at Gotha in 1778, and died at Munich in December 1841. He is the author of a number of philosophical and philological works of merit. But he is chiefly remarkable for the industry and ability with which he has expounded the works of Plato. His introduction to the study of the Platonic Philosophy, published at Leipsic in 1816, is one of the best works of the kind; and we are indebted to him for an admirable edition of Plato's works, with a Latin translation, and copious and valuable commentary (11 vols., Leipsic, 1819–32), to which he afterwards added a comprehensive "Lexicon Platonicum" (3 vols., 1834–39). He occupied successively a professorship in the university at Landshut, and at Munich.

**ASTEROIDS.** The four small planets, Juno, Vesta, Ceres, and Pallas, have sometimes been so designated.

**ASTRACHAN.\*** The population of the city of this name was estimated, in 1843, to amount to 45,700 persons, besides from 20,000 to 25,000 strangers who visit it in the fishing season.—It is stated to contain at present 37 Greek, 2 Roman Catholic

1 Protestant, and 2 Armenian places of worship, and 15 Medsheds or Tartar mosques. Astrachan is the great entrepôt of the trade of Russia with Persia and the countries to the east of the Caspian Sea. It sends to them leather, furs, iron, copper, tallow, &c., and receives, in return, silk and cotton goods, raw silk, cotton twist, drugs, carpets, &c. The exports to those countries amounted, in 1834, to 1,447,189 roubles, and the imports to 912,416 roubles; but they have sometimes been more than double these amounts.

**ASTRINGENTS** are agents which contract the fibres of the muscles and blood-vessels, and lessen the flow of fluids, whether these be the secretions from the glands proceeding from their natural orifices in excessive quantity, or the contents of the blood-vessels escaping by their exhalant extremities, or by a rupture or unnatural opening. Such astringents as are applied to the surface of the body are called *styptics*: they act, in general, with more energy than those do which are taken inwardly. *Tonics* are weak astringents. The principal substances of this class are very diluted acids; the salts of alumine and lead; the different preparations of iron, tannin and gallic acid; together with those vegetable bodies which contain the two last mentioned substances.

**ATHANASIAN CREED** is a confession of faith described in the Common Prayer Book of the Church of England as commonly called the Creed of St. Athanasius. That it was really composed by that father is more than doubtful. Modern divines are generally of opinion that it was written by Hilary.

**ATHENS.\*** The present city of Athens is the capital of the kingdom of Greece, and contains a population of about 17,000 individuals, of a most heterogeneous composition; persons from all parts of Europe, besides Greeks, being met with in its streets.—Previous to the Greek revolution, Athens was a place of inconsiderable importance, the residence of a Greek archbishop, and of a woiwode dependent on the pacha of Eubœa. It was built in the Turkish manner, its houses having been, for the most part, constructed of wood, and its streets very crooked; and it was encompassed by a wall, scarcely 15 feet high and 2 feet thick, erected in 1772 for the protection of the town against the predatory incursions of the Albanians. In June 1822, Athens, with its citadel, the Acropolis, was surrendered by the Turks to the insurgent Greeks, who retained possession of it during the next four years. In this

period, many improvements were made; schools particularly were established; and a printing-press was brought from England by Colonel Stanhope. But, in August 1826, the Turks, in overwhelming force, again obtained possession of the town, and, in June following, also of the Acropolis, after a desperate resistance on the part of its defenders. Athens was now reduced to a heap of ashes, and continued in this condition till the protocol of the London Conference, of the 3d of February 1830, decreed the union of Attica with Greece, when numerous Greeks, as well as other Europeans, began to settle in it. This occurred to a yet greater extent after the Bavarians had taken formal possession of it in the spring of 1833, and especially after king Otho had removed his residence hither from Nauplia, which took place at the close of the year 1834. Turkish habits and institutions now very rapidly gave way to those of the *Franks*. Public and private buildings sprang, as it were, into existence; and broad and straight streets were laid out through the confused remains of the former city. Besides the necessary cares of the public administration, the new government of Greece has bestowed much attention on the education of the people. It has established a gymnasium and a university in Athens; in which institutions there were, according to the latest accounts, 36 professors or instructors, and 300 students.

**ATLAS.\*** The division of the mountains, known in Africa by this name, into the two distinct chains of the greater and the lesser Atlas, is pronounced by the latest authorities to be founded in error. Indeed, these mountains cannot be regarded with propriety as constituting a chain at all, but rather as a number of groups or clusters, in some places shooting forth branches in different directions, and in others surrounded by subordinate groups, or by single elevations. They are highest in Morocco, where alone their summits are covered with perpetual snow, the Milt-sin being the loftiest peak (about 12,000 feet high); and they gradually diminish in height as we proceed eastwards. The greatest elevation in Algiers, is only about 7000 feet high, and the Ghuriano, the greatest in the Tripolitan territory, is not higher than 1500 feet.

**ATMOSPHERIC TIDES** are certain periodical changes in the atmosphere, similar to those of the ocean, and produced, like them, by the attraction of the sun and moon.

**ATTORNEY GENERAL;** an officer ap-

pointed by the government, in the United States and in Great Britain, to manage all its legal affairs, whether in criminal prosecutions or otherwise.

AUBER (Daniel François Esprit), was born at Caen, in Normandy, January 29th 1784. He attained the height of his reputation by his opera of "La Muette de Portici" (1828), a work in which, no longer contenting himself, as heretofore, with imitating the style of Rossini, he struck out a new path, and succeeded in uniting an unwonted energy to the graces exhibited by him in his former compositions. Then followed in rapid succession, until 1832, "La Fiancée," "Fra Diavolo," "Le Dieu et la Bayadère," "Le Philtre," and "Le Faux Monnoyeur;" and he has subsequently, at long intervals, produced "Le Serment," "Gustave III. ou le Bal masqué," "Le Cheval d'airain," "L'ambassadrice," "La Mer des Fées," and "Les Diamants de la Couronne." Of these operas, that which, perhaps, next to the Muette de Portici, presents us with the most favourable specimens of the peculiar manner of their author, is the Fra Diavolo. In most of them, as in his earlier works, there is too obvious an imitation of Rossini. All, however, exhibit great facility, as well as a correct and elegant style, and a perfect knowledge of stage effect. Since the death of Cherubini, in 1842, Auber has been the director of the Conservatoire of music at Paris.

ANOUIN (Jean Victor), one of the most diligent and scientific zoologists of the present day, was born at Paris, on the 27th of April 1797, where he died on the 9th of November 1841. He was destined by his parents for the profession of the law; but soon abandoning this, he studied medicine. From medicine, however, he was afterwards drawn aside to the study of natural history, for which he had always had a great predilection, and in which he had the good fortune to receive instruction and encouragement from such men as Cuvier, Geoffroy St. Hilaire, Brogniart, &c. The first work published by him, in 1818, on the anatomy of insects, of the crustacea, and of the hitherto neglected class of annulated worms (annulata), met with great approbation. Others followed very soon, which exhibited the extent and exactness of his knowledge, and procured for him, in 1826, the appointment of "Suppléant" to Lamarck and Latreille. In 1833, he was appointed a professor at the Museum of Natural History, and delivered a course of lectures on entomology, exhibiting many original views, with the greatest success.

By direction, too, of the government, he performed numerous journeys, for the purpose of observing the habits of various insects injurious or destructive to the labours of man, and of discovering the most effectual means of protecting the objects attacked by them from their depredations; and these journeys were, in several instances, productive of important results. He died, it is supposed, a victim to an exaggerated mental activity.

AUERSPERG (Anthony Alexander, count of), who has distinguished himself of late years as a poet, and particularly as a lyrical poet, under the name of Anastasius Grün, was born, April 11th 1806, at Laybach, in Carinthia. He has spent his time alternately at this place, in the neighbourhood of which he inherited an estate from his father, and at Vienna, with the exception only of a visit made by him to Paris in 1837. His political principles are of the liberal school; too liberal indeed for the country in which he resides, since at one period we find him subjected to a fine for violating the laws relating to the censorship of the press, and at another placed under arrest in his own house as a suspected person. The poetical productions, to which his reputation is principally to be attributed, are "Die letzte Ritter" (the last of the knights); being a narrative of the life and actions of the emperor Maximilian I., in a series of ballads after the manner of the German poets of the middle ages; the "Spaziergänge eines wiener Poeten" (the promenades of a Vienna poet), published at first anonymously; a collection of elegies, under the title of "Schutz" (dust); his "Gedichte;" and "Blätter der Liebe."

AUFFENBERG (Jos. baron von), known as a dramatic poet, and by his tragical fate in Spain, was born in the year 1798, at Freiburg, in the grand duchy of Baden. He entered the university of his native town, in 1813, his object being the study of law. Finding this study, however, not much to his taste, he secretly quitted the place, and set out, in company with one of his friends, for Greece. They arrived, on their route, at Treviso, in Italy, in a state of great destitution; and others, whom he had expected to join him there, and to become his companions in his quixotic expedition in search of adventures, not arriving, he and his friend were glad of the pretext thus afforded them for retracing their steps to Germany. Next, entering the Austrian service, he made the campaign of 1815 against France. On a visit to Vienna, after the conclusion of

peace, he resolved to devote his leisure to the composition of dramatic poetry. His tragedy of "Pizarro" was written in the greatest haste, and offered by him for representation at the court theatre. It was rejected by the manager; but the latter, in doing so, nevertheless commended it as evincing much talent in the author, who was thus prevented from being altogether discouraged by his failure. In compliance with the desires of his parents, he now returned to Baden, and received the commission of a lieutenant in the military service of the grand duke. Here he produced a number of tragedies, which obtained for him a considerable reputation. In 1832, he undertook a journey into Spain. While taking an evening walk in the neighbourhood of Valencia, he was beset by robbers, and was overcome by them, after a desperate resistance, having received as many as 23 wounds in the encounter. He was conveyed to a hospital in the city, and through the attentive and careful nursing of a religious sisterhood, he gradually recovered, to the astonishment of the Valencians. The account of this journey, which he published under the title of "Humoristische Pilgerfahrt nach Granada und Cordova" (1835), is rich in matter and in striking remarks on what he saw, and contains a correct and vivid description of the habits and every-day life of the Spaniards. In 1829-30, he produced "The Alhambra," a dramatic poem, in 3 volumes. His dramatic works had already been collected and published together, as early as 1823; and a more complete edition of them, exceeding 20 in number, is at present in preparation. Since 1830, he has filled the office of Marshal of the Palace to the grand duke of Baden.

AugSBURG\* has now a population of 35,000 persons, 13,000 of whom are Protestants. Besides the public institutions already mentioned (Vol. 1.), this city has a protestant gymnasium, a catholic seminary established by the king of Bavaria in 1828, a school of arts founded in 1820, a polytechnic school, a polytechnic society, a public library, &c. There are manufactures of calicoes, silk stuffs, and of gold and silver work; also a cannon foundry, and a type foundry; and paper, watches, soap, and glass, are made here to a considerable amount. A railroad already connects Augsburg with Munich, and it will soon be connected by another with Nuremberg. The "Allgemeine Zeitung," published here, is a journal in very extensive circulation, and is regarded throughout Europe as one of the most authentic

sources of political information. Augsburg is the centre of an extensive trade in printing, engraving, and bookbinding; and it is next to Frankfort (on the Maine) in importance, as a centre of banking and exchange operations in central Europe. The greater part of the extensive transactions between Vienna and Western Germany, as well as those between Germany and Italy, are finally adjusted and balanced in this city.

AUGUSTAN HISTORY; a series of historical works relating to the Roman Empire, from the year 157 to the year 285 after Christ, written by the following six authors; Ælianus Spartianus, Julius Capitolinus, Ælianus Lampridius, Vulcatius Gallianus, Trebellius Pollio, and Flavius Vopiscus.

AUGUSTINE AGE; a term employed to denote the reign of Augustus, the most brilliant period in the literary history of Rome.

AURICLES, the external ears; also, the venous chambers of the heart are so termed.

AURORA BOREALIS.\* This phenomenon is now most commonly attributed to electricity; in what manner, however, has certainly not been satisfactorily explained. The observations of Richardson, Franklin, Parry, and others, made under the most favourable circumstances, in high northern latitudes, refer it to a place far within the limits of the atmosphere, and scarcely above the region of the clouds. The most systematic series of observations which we possess on the subject are those of the Rev. James Farquharson of Aberdeenshire, made, in 1829, with an apparatus furnished by the Royal Society, and of which an account is published in its Transactions for 1830.

AURUNGBAD is the chief town of the province of the same name, in the dominions of the Nizam, in Hindostan. It is situated 180 miles E. N. E. of Bombay, on the banks of the Kowlah river, a tributary of the Godavery, in a well-watered and even marshy basin, surrounded by barren and rocky eminences. The climate is subject to great and sudden changes, which, together with the excess of heat and moisture, renders it unhealthful. The city has very much declined from its former grandeur, and exhibits to the spectator a mass of ruins. Its inhabitants, however, still amount in number to 60,000; and its favourable situation, between Bengal, Delhi, Bombay, and Hyderabad, will probably secure it from any further decline. Aurungabad was the favourite residence of Aurungzebe, from whom it derived its

present name, having been originally called Gurka, and the splendid mausoleum of that monarch is about 15 or 16 miles distant, in the vicinity of the celebrated temples of Ellora, and near the famous fortress of Dowlatabad.

**AUSCULTATION.** See *Stethoscope*.

**AUSTRALASIA.** Besides those islands that are situated near the eastern and western continents, and which it is therefore easy to class with the four grand divisions of Europe, Asia, Africa, and America, and besides also the islands in the polar seas, some geographers have recently formed two other grand divisions of the globe, to which they have given the names of Australasia and Polynesia; the former comprehending the islands occupying the western part of the Pacific ocean, and extending southward from eastern Asia; and the latter the islands between these and the coast of America. Australasia consists, according to Mr. Larrow, of, 1. Australia, or New Holland; 2. Van Diemen's Land; 3. New Zealand; 4. Papua, or New Guinea; 5. New Britain and New Ireland; 6. Solomon Islands; 7. New Hebrides; 8. New Caledonia. See *Australia*.

**AUSTRALIA OR NEW HOLLAND.\*** The term *Australia* is sometimes also employed synonymously with *Australasia*; that is, as comprehending not only New Holland, or *Australia* proper, but likewise the islands in its neighbourhood, or by which it is surrounded; on the same principle that *Madagascar* is considered as appertaining to Africa, or Cuba to America. For the present, however, we shall apply it to New Holland exclusively.—The first British colony was sent out to *Australia* in 1787. In May of that year, Captain Philipp, the governor of the intended colony, set sail from England with a fleet of 11 vessels, conveying, besides the necessary complement of seamen, 200 marines, and 776 convicts; and, on the 26th of January 1788, he laid the foundation of the town of Sydney, the future capital of New South Wales. Clothed with extraordinary powers, he nevertheless very soon discovered that the task assigned him was far from an easy one. It required, for its accomplishment, the greatest energy and the most untiring vigilance. For the first quarter of a century of its existence, the colony was, in fact, neither more nor less than a species of penitentiary, or compulsory work-house, constructed in a very defective and costly manner, and removed from the supervision of the government by which its officers were appointed. After settlements had

been begun at Paramatta, and on Norfolk island, a number of voluntary immigrants arrived from England, who, with soldiers whose time of service had expired, and discharged convicts, constituted the elements of a free population, certainly not of the most unexceptionable character. Their improvement, too, was checked by a measure adopted, without due consideration, by the government at home. A New South Wales regiment was formed in England, and subsequently recruited from there, the soldiers of which, it was intended, should gradually be transformed into colonists. The officers' commissions were, for the most part, sold to adventurers of vicious and dissipated habits. On their arrival in the colony, the latter constituted a separate faction, often exercising an influence in direct opposition to the civil authorities, and injurious in many respects to the morals of the inhabitants. They contrived, more especially, to monopolize almost the whole trade of Sydney, and, by encouraging the purchase of spirituous liquors, to diffuse habits of drunkenness throughout the community. Governor Philipp, finding himself unable to counteract these evil influences, resigned his office, the next year (1792) after the arrival of the new regiment. In 1795, he was succeeded by Governor Hunter, who rendered important services to the colony by the founding of Castlehill, Bankstown, and Windsor. He was, however, unable, any more than his predecessor, to repress the evils that have been mentioned, and, for this reason, returned to England in 1800. While under the administration of King, Hunter's successor, new settlements were made, and the country was farther explored, it was Bligh, who was appointed governor in 1806, that first ventured to engage in an open contest with the military. But a rebellion ensuing, headed by an individual named M'Arthur, his person was seized by the insurgents, and he was sent by them, as a prisoner, to Europe. Macquarie became governor in 1810, and continued in office until 1822. During his administration, the civil authority at length succeeded in obtaining a decided superiority over the military combination which had so long domineered over the colony; and new settlements were made on every side,—at Liverpool and the Cowpasture, in Appin, Airds, Illawarra, &c., on the coast, and at Bathurst, in Camden and Argyle, in the interior. In the mean time, a new source of disunion had arisen among the inhabitants, which had a serious influence on their political and social condition, and

which all the efforts of the government were inadequate to remove; viz., their very different origin. Hence the existence of the two parties of the *exclusionists*, or the office-holders and wealthier inhabitants, and the *emancipationists*, or liberated convicts; the former looking with contempt upon the latter, who, in return, very naturally indulged no small degree of hatred to the former. Under the following governors, Brisbane (1822), Darling (1825), and Bourke (1831), the immigration into the country increased to a considerable extent, and improvements continued to be made in rapid succession. The selection of a certain number of penal settlements, to which criminals of the worst description were confined, promised to contribute to the common welfare.—Whilst New South Wales was thus advancing in prosperity, the colony established on Van Diemen's Land (see *Van Diemen's Land*, Sup.) in 1803, on like principles, had advanced even at a faster rate, and promises to become eventually a colony of great importance.—The remaining settlements in Australia were not formed by transported convicts, but by voluntary emigrants from the mother country, and are situated remote from the convict settlements which have been mentioned, that is, in W., S., and N. Australia. It was in 1829 that Governor Stirling succeeded, after overcoming the greatest difficulties, in laying the foundation of the colony on the Swan river, at the foot of the Darling hills, in W. Australia, by beginning the construction of the three towns of Guilford, Freemantle, and Perth, the last of which was made the seat of government. Some individuals had settled themselves, in 1833, and the immediately following years, on Vincent's gulf, in S. Australia, who were organized into a colony, and the town of Adelaide built, in 1837. A joint-stock association had been constituted in England, to whom the management of the affairs of this colony was intrusted, and who were to have the privilege of disposing of the unappropriated lands, on condition that the moneys received for them should be devoted to replacing, in the first instance, the outlay incurred in the establishment of the colony, and, subsequently, to objects calculated to promote the common benefit of the inhabitants; it being also stipulated that the colony should be under the immediate government of the crown, until its population should reach to 50,000 persons, when a representative legislature should be constituted. Moreover, to prevent all risk of collision between the parties to these va-

rious stipulations, the governor appointed by the crown is also the agent of the company. The price of land, in March 1836, was already as high as a pound sterling per acre; and, by the 1st of January 1838, 64,358 acres had been sold. The town of Adelaide, which began to be built, as has been stated, in 1837, contained, in 1839, as many as 500 houses, and 3000 inhabitants. It has a bank issuing its own notes, and selling bills of exchange on Europe, India, the Cape of Good Hope, &c.; and it has also, by the last accounts, two newspapers. The colonists have directed their attention, in a considerable degree, to the raising of sheep. In 1838, these already amounted in number to 30,000, many flocks of which were merinos; and they are, at present, at least ten times as numerous. Whilst, one year only after the founding of Adelaide, a new town, by the name of Port Lincoln, sprang up on the W. side of Spencer's gulf, the colony of Port Philipp was established towards the S.E., in the region which has received the name of Australia Felix, with its flourishing capital Melbourne, and placed under subordination to the authorities at Sydney. An attempt previously made to form a colony in N. Australia had been unsuccessful. The colonists had been obliged to abandon Fort Dundas on Melville island, and Wellington in Raffles harbour. Another settlement, named Victoria, was made in 1838, at Port Essington, in the peninsula of Coburg. Its situation is a very favourable one, and it promises to become, before long, of considerable importance.—The following is the mode in which the government of New South Wales has been organized; and what will be said in relation to it will apply for the most part to the governments of the other colonies of which we have been speaking. The executive power resides in the governor, assisted by a small council of the highest officers of the government, while the legislative is shared by him with a council which includes a few of the principal settlers and merchants; both councils being appointed by the king. Every new law is proposed by the executive, who, before submitting it to the legislative council, must lay it before the chief justice, that he may pronounce whether it contains any thing contrary to the law of England. After passing the council, it must be communicated to the government at home within six months afterwards; and till three years have elapsed, the king may interpose his veto. It must also, within six months, be laid before the British Par-

liament. The judicial power of the colony is vested in a chief justice and two assistant judges, who try all cases, criminal and civil. In the former, one of the judges is combined with what is called a jury, which consists not of the colonists, but of seven naval or military officers nominated by the governor, and which seems, therefore, to partake more of the character of a court-martial. The jurors, however, are liable to challenge, the grounds of which are pronounced upon by the judge. In civil cases, he, or one of the assistant judges, is combined with two assessors, who must be magistrates of the colony, except where both parties consent to have a jury of twelve men, as in England. In cases where the value in litigation exceeds £500, an appeal lies to the governor; and, in case of a reversal of judgment, and in all cases above £2000, to the king in council.—To the above it may be added, that the population of Australia, in 1840, amounted to 87,298 males, and 43,558 females; in all, 130,856, of whom 26,977 were convicts. The exports are reported at £2,462,858, the imports at £1,951,544. The chief heads of the former were 7,638,960 lbs. of wool, valued at 15*d.*; 1854 tons spermaceti, at £85; 4298 of whale oil, at £18. A considerable depression, however, was felt, attributed to excessive speculation. The sales of land in New South Wales, in 1839 and 1840, amounted to 340,172 acres; in 1841 to only 15,700. There were, however, established beyond the limits of location,

7068 persons, having 377,172 cattle, and 1,329,069 sheep. Australia Felix had become a more favourite resort. In 1839 and 1840, the sales of land there amounted to 124,235 acres; in 1841, to 53,733. S. Australia has had its prosperity interrupted by severe financial embarrassments, and for two or three years has continued stationary. In 1841 the land sales amounted only to 320 acres, and in 1842 the immigrants did not exceed 145. Mr. Eyre made an attempt to penetrate into the interior, but was interrupted by a large lake, partaking of the nature of a bay, which, in the form of a horse-shoe, nearly encloses the colony. W. Australia, on the contrary, has somewhat emerged from its obscurity; and a company has undertaken to form another settlement, to the south of it, to be named Australind. In 1839—1841, there were sold in W. Australia 70,198 acres of crown lands; and, in 1842, there arrived 563 immigrants. The population is now probably about 3000. The whole number of emigrants to the Australian colonies amounted, in 1841, to 28,721; in 1842, to only 5740.

AUSTRIA.\* The population of the Austrian empire, in 1840, is stated to have amounted to 36,950,401.—The following table exhibits the population in the several provinces in the year 1839; as also the extent of each of these in German square miles, together with the number of inhabitants per square mile. A German square mile is equivalent to 21.1773 English square miles.

| Provinces.                                 | Population.       | Area.         | Pop. per sq. m |
|--------------------------------------------|-------------------|---------------|----------------|
| <b>I. GERMAN PROVINCES</b> .....           | 11,742,630        | 3,590         | 3,270          |
| 1. Austria below the Ens, or Lower Austria | 1,395,500         | 361           | 3,865          |
| 2. Austria above the Ens, or Upper Austria | 800,390           | 349           | 2,465          |
| 3. Styria.....                             | 956,570           | 409           | 2,337          |
| 4. Carinthia and Carniola .....            | 778,760           | 371           | 2,099          |
| 5. Trieste, or the Littorale .....         | 471,470           | 146           | 3,230          |
| 6. Tyrol and the Vorarlberg .....          | 845,990           | 518           | 1,633          |
| 7. Bohemia .....                           | 4,206,710         | 953           | 4,414          |
| 8. Moravia and Silesia .....               | 2,227,240         | 483           | 4,611          |
| <b>II. HUNGARIAN PROVINCES</b> .....       | 15,397,490        | 6,164         | 2,497          |
| 1. Hungary, with Croatia and Slavonia ..   | 11,788,190        | 4,200         | 2,807          |
| 2. Transylvania .....                      | 2,056,900         | 1,009         | 2,037          |
| 3. Dalmatia .....                          | 383,250           | 239           | 1,603          |
| 4. Military frontier districts .....       | 1,169,150         | 716           | 1,632          |
| <b>III. POLISH PROVINCES.</b>              |                   |               |                |
| Galicia and Buckowina.....                 | 4,671,810         | 1,582         | 2,953          |
| <b>IV. ITALIAN PROVINCES</b> .....         | 4,707,630         | 826           | 5,700          |
| 1. Lombardy .....                          | 2,569,200         | 390           | 6,587          |
| 2. Venetian Province .....                 | 2,138,430         | 436           | 4,904          |
| <b>Total for the whole empire</b> .....    | <b>36,519,560</b> | <b>12,162</b> | <b>3,003</b>   |

Of the population of the empire, 16,602,500 are of Slavonic origin; 5,066,000 Italians; 7,030,000 Germans; 4,996,000 Magyars and Szecklers; 475,000 Jews; 128,000 Gipseys; 16,500 Armenians; and 3000 Turks.

The principal towns, arranged according to the number of their inhabitants in the same year (1839), are as follows:—

|                         | Inhabitants. |
|-------------------------|--------------|
| Vienna .....            | 350,097      |
| Milan .....             | 136,966      |
| Prague .....            | 102,918      |
| Venice .....            | 97,156       |
| Pesth .....             | 64,500       |
| Lemberg .....           | 54,965       |
| Verona .....            | 48,486       |
| Debreczin .....         | 47,500       |
| Trieste .....           | 44,535       |
| Buda .....              | 40,600       |
| Grätz .....             | 39,772       |
| Presburg .....          | 37,380       |
| Brünn .....             | 36,707       |
| Padua .....             | 35,216       |
| Maria-Theresiopol ..... | 34,930       |
| Szegedin .....          | 32,209       |
| Brescia .....           | 31,871       |
| Bergamo .....           | 29,266       |
| Cremona .....           | 27,668       |
| Mantua .....            | 27,073       |
| Chioggia .....          | 23,717       |
| Pavia .....             | 23,458       |
| Lintz .....             | 23,318       |
| Cronstadt .....         | 22,478       |
| Zombor .....            | 21,500       |
| Stuhlweissenburg .....  | 20,700       |
| Vicenza .....           | 20,688       |
| Neusatz .....           | 20,231       |

The three classes of nobles, citizens, and peasants, are strictly defined in all the provinces. The nobility are both numerous and wealthy, and the higher charges of the court, the army, and the church, are reserved for them. The members of the male sex of the various noble families, throughout the empire, were estimated, in 1835, at 250,000; of whom 163,000 belonged to Hungary, 24,900 to Galicia, and 2200 to Bohemia. The privilege of manorial rights can only be enjoyed by a noble. These include the right of presentation to livings and schools on his estates, and the right to hold courts of justice in the first instance. He himself can only be cited before peculiar tribunals; he is free from the military conscription, and has the right of sitting in the provincial assembly of each province in which he has estates. Persons who are not of noble birth, or have not obtained a patent of nobility, pay a double portion of

the taxes. The peasant is personally free throughout the empire; and an appeal being allowed from the manorial court of his lord to the court of the circle or district, his condition is daily improving, and his rights and property obtain more respect. On the introduction of the present system of direct taxation by the empress Maria Theresa and her son Joseph II., an arbitrary regulation of the dues claimed by the landlords was effected, and the total amount which a landlord could demand, whether paid in money, service, or kind, was ordained not to exceed 17 florins, 46½ kreuzers, for every 100 florins which the land produced,—a measure that was indispensable to enable the peasants to meet the heavy taxes, which are said to average 12½ per cent. of the gross produce. At the same time, the peasant's property in the land he held, from whatever lord, was declared indisputable; and though the latter may seize upon his stock and moveables, he cannot eject for arrears of rent, unless the land be held on lease or tenure, which is by no means common.—There is very little difference in the degree of cultivation and refinement among the higher classes in the various portions of the empire. This is owing in part to the fact of the universities and the other higher institutions for instruction being open to the inhabitants of all the provinces, and being arranged throughout on a uniform plan; and in part also, at least in the larger towns, to the great proportion of Germans among their inhabitants, even in the Slavonic and Magyar districts, and who are everywhere distinguished for their superior intelligence and activity. The mass of the people may, perhaps, be said to be most advanced in the Italian provinces; then come the inhabitants of Austria Proper and the Tyrol; then the Bohemians, Silesians, and Moravians. The Dalmatians come last, and they stand, indeed, on the lowest footing of European civilization.—No regular tax is levied for the support of the poor. Each parish is by law bound to support its own poor; but as the standard of pauperism is, in all cases, very low, the charge is nowhere burdensome. The large towns have poor-houses, supported partly by revenues from foundations, partly by voluntary contributions; and on extraordinary occasions, the emperor or government supplies a sum to meet their exigencies. Savings' banks have been introduced into the different provinces, with an excellent effect on the habits and condition of the poorer classes. Hospitals, under the best regulations, have been



established, and are supported by voluntary contributions, for the benefit of the people, in every important town.

Education to a certain extent is more diffused in the Austrian dominions than is commonly supposed. A law enacted in 1821, and which, it would appear, has been very generally put in force, directs that no village shall be without an elementary school; that no male shall enter the marriage state, who is not able to read, write, and cast up accounts; that no master of any trade shall, without paying a heavy penalty, employ workmen who are not able to read and write, and that small books of a moral tendency shall be published and distributed, at the lowest possible price, to all the emperor's subjects. The great defect of Austrian education is attributable to the jealousy entertained by the government of everything like freedom of inquiry or discussion, as to matters connected with the principles of politics, public law, political economy, and even philosophy. These important branches are not taught, at least so as to be made available or useful, and are but little studied, in Austria. The board of education (*Studienhof commission*) has the appointment of all professors in universities and colleges, and of all teachers in schools. It likewise publishes the books used in instruction, and controls the minutest details relating to schools. It prescribes the course and the distribution of the hours of study, from which not the slightest deviation is permitted; and the scholars of the few *private* schools are forced to attend the examinations of the public institutions, to ensure their being taught according to the prescribed system. There are 9 universities, situated in Vienna, Prague, Olmütz, Innsprück, Grätz, Lemberg, Pesth, Pavia, and Padua; a polytechnic institute in Vienna, one of the best institutions of the kind in Europe; more than 200 gymnasiums; 34 lyceums, and 15 higher philosophical schools (as they are called); a number of theological and medical schools; together with several schools of mines, military schools, &c.—It is only in Hungary, Transylvania, and the Lombardo-Venitian kingdom, that the Protestants enjoy equal privileges with the Roman Catholics; in all the other provinces, the Protestants are merely *tolerated*. There are 11 Roman Catholic archbishops, and 60 bishops, several of whom have splendid revenues. The clergy are more dependent on the emperor than on the pope: all appeals to Rome are prohibited; and no papal bulls are allowed to be promulgated,

without the express authority of the government having been previously obtained.

The peace establishment of the Austrian army consists of 196,377 infantry, 44,970 cavalry, and 30,864 artillery, engineers, sappers, &c. In the event of a war, the infantry admits of being augmented to the number of 440,653 men, and the cavalry to that of 55,714.—Austria maintains also a small naval force in the Adriatic Sea, consisting of 3 sail of the line, 5 frigates, 5 corvettes, 8 brigs, and 11 smaller vessels; and there is a naval arsenal at Venice.

The financial system of Austria is covered with a thick veil of secrecy; and the amount of the public revenues is therefore only a matter of probable conjecture. It has been estimated, by the writers whose opinions on the subject can be most relied on, that they amount to as much as 150,000,000 of florins. The public debt, in October 1837, is stated to have been 494,031,198 of florins, equivalent to about 240,000,000 of dollars. The "Austrian National Bank," at Vienna, was instituted in 1817, with the object of restoring the money standard of the empire, which had been depreciated by the excessive issues of irredeemable paper by the Vienna bank during the war. It commenced with a capital of 100,000 shares, each of 1000 florins of this depreciated paper (the Vienna bank being then discontinued), and of 100 florins in specie. The former were converted into government bonds, bearing interest at 2½ per cent. payable in specie, and were redeemable at 50 per cent.—the treasury at the same time establishing a sinking fund for their redemption. The bank, though connected with the state, is under the management of a board of directors, appointed, it is true, by the government, but whose action is not under the control of the ministry for the time being. Its accounts, too, are regularly published. It advances money on bills and other securities; receives deposits; and issues notes for 5, 10, 25, 100, 500, and 1000 florins, which are payable in silver on demand. Branches have been established at Trieste, Milan, Prague, and other towns throughout the empire; and according to a late statement of the shares having considerably risen in value, it would seem that its affairs have been managed with discretion and skill.—Since the peace of 1815, a very laudable attention has been paid by the Austrian government to the means of communication throughout the empire. From Pavia, on the S. W. frontier, an uninterrupted Macadamized road conducts the traveller through fine provinces to

Czernowitz in the Bukowina, a distance of 1120 miles. From Milan to Vienna there are three lines of road, and through Galicia the line is double. Three great high-roads from Venice, and two from Trieste, lead to the Tyrol and Germany; and double lines run from each of these cities to the capital. Prague is connected with Vienna by numerous lines of communication, which are continued to the frontiers of Bavaria, Saxony, and Prussian Silesia. Materials for making roads abound in every province; and the art is well understood in Austria, where the roads are equal to those of Prussia. Upward of sixty passes, through the most extensive ranges of mountains that any single state possesses, have been made not only practicable but commodious for travelling and commercial purposes. In length these passes vary from 10 to 70 miles. On the roads across the Alps from the Tyrol and Illyria, the greatest sums have been expended; their importance in a military point of view, and the necessity of facilitating the communication with a powerful and not very well affected province, rendering them indispensable. The roads across the Splügen, the pass of Finstermünz, and the Wörmser Yoch, to the lake of Como, must be classed among the greatest undertakings of the kind. That over the Wörmser Yoch passes over an elevation of 8400 feet above the level of the sea, and is protected in dangerous parts by covered ways of solid stone, which receive the fall of the avalanches, and cause them to glide into the depths below. It exceeds the passages of the Simplon and Mount Cenis, both in boldness and splendour of execution. The example of the government has been also emulated in many cases by individuals, or companies of individuals. Among the most remarkable works of the kind now referred to may be mentioned the splendid road over a part of the Julian Alps, between Carlstadt in Croatia and Fiume on the Adriatic Sea, which was constructed by a joint-stock company, chiefly composed of Hungarian nobles. On that part, known by the name of the Karst, the porous nature of the rocks made it necessary to construct cisterns to catch the rain-water; and stout parapets have been added, which protect travellers and carriages against the furious blasts of the *Bora*, which, without this check, would sweep away everything in its course. This road was commenced in 1803, and named after the archduchess Maria Louisa. For the Austrian railroads, see *Germany* (Sup.)—The communication between dis-

tant parts of the empire is also facilitated by the numerous navigable rivers, such as the Po, the Adige, the Elbe, and especially the Danube with its important tributaries. A new impulse has of late years been given to the navigation of the Danube in consequence of the introduction of steamboats by a company at Pesth, under the direction of count Stephen Szicheny, in the year 1828; and companies have since been formed in Austria and Bavaria, who have established a steam communication from Ratisbon to Vienna, and thence to Trebisond, Constantinople, and Smyrna. So long ago as 1838, these companies had 10 vessels plying on the Danube between Linz and Constantinople. The journey from Vienna to the last-mentioned city is performed in 12 days, including a day of rest at Pesth, and two days for disembarking at Drenkova, and re-embarking at Orsova, where the rocks of the *Eisernen Thor* impede the navigation. Steamboats have also been introduced on some of the other rivers, and on the principal lakes.—Besides the canals mentioned in a former volume, the Sarviz or Palatine canal, along the river Sarviz, in the county of Schulweissenburg in Hungary, and that of the Bega, in the Banat, extending from the borders of Transylvania, by Temeswar, to the town of Beeskerek, near the Danube, are worthy of notice.—Notwithstanding, however, its many excellent means of intercommunication, a variety of causes conspire to limit the trade of Austria, both internal and external; such as the diversity which exists in the languages, manners, and customs of the inhabitants, even of contiguous provinces,—the comparatively small extent of sea-coast, together with the circumstance of the principal rivers, the Adige and the Po excepted, having their mouths in the territories of other powers,—but especially the heavy duties, many of them of a prohibitory nature, imposed at the frontier on the importation of foreign commodities, and the duties, in many instances, also exacted on the products of the country itself, when transported from one part of it to another. The chief articles exported are silk, mostly unmanufactured, to the value of about 25 millions of florins; wool and woollen goods (about 35 millions of florins); glass-ware; and various manufactures of cotton and linen. The imports consist chiefly of sugar; coffee; olive oil; dye stuffs; cotton wool; cotton, linen, and woollen yarn; furs; &c. Austrian vessels, sailing from the Adriatic Sea, seldom proceed, towards the west, beyond the straits of Gibrat-

tar; they frequent the Levant and the Black Sea, where they are in a great degree occupied in the transportation of grain and other commodities from port to port.

The emperor Francis II. died March 2d, 1835, and was succeeded by his son Ferdinand I.; a change, however, which has produced scarcely any perceptible alteration in the general system pursued by the Austrian government.

AUXERRE; an old town in the French department of the Yonne, and situated on the left bank of the river of this name. It has a population of 12,000 persons, whose chief occupations are the woollen manufacture, the tanning of leather, and the trade in wines. There are here a college, a seminary for the instruction of teachers,

a public library, an agricultural society, a museum of antiquities and of natural history, and a botanic garden. The principal buildings are the beautiful cathedral, the hotel or residence of the prefect, and the tower of Guillardre with its remarkable clock.

AVA.\* This city has once more become (since 1822) the residence of the Birman monarch. It contains about 30,000 inhabitants.

AZORES.\* The population of the Azores has been very lately estimated at 200,000; of which the island of San Miguel is stated to contain 85,000; Pico, 25,000; Fayal, 24,000; Santa Maria, 5000; San Jorge, 12,000; Graciosa, 7500; Flores, 13,000; and Corvo, 800.

## B.

BABBAGE (Charles), one of the most distinguished of the men of science in England at the present day, and professor of Mathematics in the university of Cambridge, was born about the year 1790. Besides a number of papers in the Transactions of the Royal Societies of London and Edinburgh, he has published several works in a separate form, which have attracted very general attention. His "Logarithmic Tables" is, perhaps, the most remarkable of these, inasmuch as it was the difficulty he experienced in freeing those tables from the errors of calculation, that led him to think of inventing a machine to perform, because of its acting mechanically, or without reflection, the processes, in the performance of which the human mind is so apt to err. Having conceived the idea of such a contrivance, he visited, during a period of ten years, a considerable number of workshops and factories, as well on the continent as in England, to make himself acquainted with the various resources of mechanical art, in reference to its execution. The information thus obtained suggested to him the preparation of his essay "On the Economy of Machinery and Manufactures." He is the author of a "Comparative Account of the various Life Insurance Societies." And his work "On the Decline of Science in England" produced quite a sensation both at home and abroad. His "Calculating Machine" consists of two distinct parts; the first being the machine properly so called, and whose province is to calculate the tables required

by the mathematician and astronomer, while the other is destined to the printing of the results arrived at. The construction of the former was begun in 1828, and was in most of its parts completed in 1833, when its further progress was interrupted. The latter was not half ready. Yet the whole expense incurred (by the government) had already amounted to £17,000; and as it was estimated that twice as much as this sum would still be wanted to perfect the machine, it has since been permitted to remain in the unfinished state we have described.

BAB-EL-MANDER.\* The straits so called are about 20 miles across; and the island of Perim is much nearer to Asia than it is to the opposite coast. The channel between Perim and Arabia, though narrower than the other, and the current more rapid, is the most frequented by Arabic vessels; probably because, being only from 7 to 14 fathoms deep, it allows of their casting anchor, which, owing to its great depth, is impracticable in the greater or western channel.

BABEUF.\* The doctrines of Babeuf, to which the French have given the name of *Babouvisme*, are distinguished from those of his predecessors in the revolutionary career, by their being still more disorganizing and *radical*. He carried the doctrine of equality especially to an extreme. The equality of Robespierre was identical with that of Rousseau, and meant no more than an equality in respect to the constitution and laws of a country;

it acknowledged the diversity in the natural powers of men, and merely insisted on the utmost latitude being allowed for the development of these powers, consistent with the rights of all. *Babouvisme* goes beyond this, and maintains that all men should not only be rendered equal, but kept so, by all being obliged to labour for the benefit of all, every member of society being entitled to, and having secured to him, by compulsory measures if necessary, an equal share in the products of labour; and, in a manifesto put forth by its disciples, at a period when it flourished most, we read "Let there be no other differences among mankind than those of age and sex. Since *all men have the same wants and the same faculties*, let them all be educated alike, and fed alike. They are all of them obliged to be satisfied with the same sun and the same air. Wherefore, then, ought not the same portion, and the same quality of food, to be sufficient for each?" This is not the doctrine of the agrarians, or of those who hold to the expediency of a division of the property of the rich among the poor, but something still more absurd. Both would remove the principal stimulant to exertion, by preventing the individual accumulation of property; but the followers of Babeuf assume besides, as the basis of their system, a proposition so utterly inconsistent with notorious facts, as that the faculties and wants of men are always and everywhere the same. Hence, it is not at all surprising, even in the excited and unsettled state of the public mind in France, when that political fanatic appeared, that his doctrines should have made but a comparatively slight and transient impression.

BACK (George), a captain in the British navy, first became known as a companion of Franklin and Richardson, in their expedition to the N. coast of America. During a summer residence in Italy, in 1832, he formed the resolution to go in quest of Captain Ross, who had then been three years absent on another expedition to the same region, and was generally supposed to have perished. His views having been approved by the British government, he quitted London on the 17th of February 1833, accompanied by surgeon King and three other properly qualified persons, two of whom had been with Captain Franklin. They proceeded by way of New York to Montreal, and remained sometime at Norway House, one of the principal trading stations; of the Hudson's Bay Company, where he enlisted in his service 16 boatmen, fishermen, and carpenters. He com-

menced his journey in a single boat, on the 28th of June. On the 8th of August, he reached Fort Resolution, on the Great Slave lake, and set out from there again on the 11th of the same month. In his farther progress, he encountered the greatest difficulties. Boat, baggage, and provisions, had repeatedly to be carried by the party over rocky eminences, sometimes 2000 feet high. On their route, they discovered a river to which the name of Back has since been given, as also Waldsley and Artillery lakes. They returned to the Great Slave lake, and passed the winter there; during which they themselves subsisted on a limited stock of provisions, while they witnessed with pain the wretchedness of the native Indians who gathered about them in crowds, entreating for relief from the miseries of famine,—a relief not in their power to supply. Fahrenheit's thermometer fell, at the end of December, to 86° below 0 in the open air, and notwithstanding that a great fire was kept up in the middle of the hut occupied by Captain Back, it could not be made to rise higher than 10½° below 0. The impression which was made by so great a degree of cold on the human body was exceedingly painful; and in order to assuage in some measure the suffering experienced, the most effectual method was found to be to smear the parts of the body, most affected by the frost, with grease. Almost every thing possessed of life disappeared. Even of the Indians who belonged to the expedition, nine perished. A thaw did not take place till the middle of April. On the 25th of this month, Captain Back received intelligence that Ross and his companions were in safety; whereupon he resolved on proceeding to the Arctic Ocean. He set out, with the surviving portion of his companions, on the 7th of June 1834, down Back's river, having had his boat conveyed to that stream, from the Great Slave lake, over a narrow strip of land. The weather was still very inclement; although, in May, the thermometer had risen in the sun to 41° of Fahrenheit. On the 29th of July, the party discovered, in N. lat. 66°, a large lake, with vast fields of ice occupying its borders. Making their way through the ice on the 22d day of this month, they continued their descent down Back's river for about 90 or 100 miles, when, meeting with some Esquimaux, they became aware of their near approach to the sea. These friendly savages warned Captain Back of a cataract over which he might otherwise have been precipitated; and it was only by their assistance that he

succeeded in transporting his boat to a secure part of the river. At length, he reached the Arctic Ocean on the 29th of July, just beyond a promontory, to which he gave the name of Cape Victoria. He then proceeded westwards along the coast till the 10th of August, when, being in N. lat.  $68^{\circ} 10'$ , the obstructions which he encountered from the ice obliged him to retrace his course, without having been able to penetrate so far as Franklin's Point Turnagain. The region of coast discovered by him he called after the reigning king of England, William IV.; in whose name also he took formal possession of the country. Cape Richardson, the most northern point which he reached, is in N. lat.  $68^{\circ} 46'$ , and in W. long.  $96^{\circ} 20'$ . After a laborious journey of 36 days up the river which he had descended to the ocean, he arrived, towards the end of September, at the place where he had passed the preceding winter. In the following year (1835), Captain Back prosecuted his explorations in the Arctic Ocean with the greatest perseverance, and remained, from the month of August 1836 to the summer of 1837, fastened in the ice. On being liberated from this state of imprisonment, he returned with his companions to Europe, on board the British ship "Terror;" arriving on the 3d of September at Lough Swilly in Ireland, in a state of the greatest destitution and distress. See "Captain Back's Narrative of the Arctic Land Expedition to the mouth of the Great Fish river, and along the shores of the Arctic Ocean, in the years 1833, 1834, and 1835."

**BADEN.\*** The population of this grand duchy has been steadily increasing since the peace of 1815. It amounted, according to the census of 1834, to 241,520 families, or 1,231,319 inhabitants, of whom 600,334 were males, and 631,085 females; and, in 1840, it had become as many as 1,289,800. In proportion to its surface, Baden is one of the most populous parts of Germany. The lowlands of this state are, indeed, as densely inhabited as almost any other region of equal extent in Europe. The *movement* of the population, in the year 1833-34, was—births 43,025, of whom 40,465 were legitimate and 2560 illegitimate, marriages 9871, deaths 41,985. Thus the proportion to 1000 inhabitants is, of births 38, of deaths 34, of marriages 8; and the illegitimate births are to the legitimate as 1 to 5.4. The proportion of male to female births was, in the year 1834, as 1.06 to 1; of births of legitimate children to marriages as 4.1 to 1. Although the grand-duke is a Pro-

testant, the Roman Catholic outnumber the Protestant population in the proportion of somewhat more than 2 to 1; and there are about 20,000 Jews.

The political division of the country into six circles was, in 1832, superseded by another into four, viz. the circles of the Lake (of Constance), and of the Upper, Middle, and Lower Rhine.—The following is a list of the principal towns of Baden, with their population, in 1840, annexed; Mannheim, 20,585; Carlsruhe, 20,487; Heidelberg, 13,670; Freiburg, 12,240; Bruchsal, 7200; Pforzheim, 6300; Constance, 6230; Lahr, 6000.—Baden owes the form of her present government in part to the desires loudly expressed by the people, at the conclusion of the general peace in 1815, for a representative constitution, but partly also to the claims set up by Bavaria to a considerable portion of her territory. The grand-duke Charles, who, at the congress of Vienna, had been opposed to the proposed adoption by the German princes of a common obligation to introduce a representative system in their respective states, and who had before strenuously resisted every proposition of the kind made to him individually, at length, in 1818, a short time only before his death, acceded to the wishes of his subjects, and bestowed upon them a constitution. What his chief motive was in taking this important step, is apparent from the incorporation into the instrument of the principle of the indivisibility of the existing territory of Baden. He evidently wished to make the constitution a permanent bond of union between his own family and all those who were destined by him to enjoy its benefits. Mention has already been made of the meeting of the Chambers of Baden in 1819 and 1820. Their third session, after having lasted seven months, was suddenly prorogued on the 31st of January 1823, on account of the refusal of the deputies to vote the sum required by the ministry for the maintenance of the army; 1,600,000 or at the least 1,550,000 florins were asked for, and only 1,500,000 voted. In December 1824, the Chamber of Deputies was dissolved; and so great, in the mean time, had been the reaction of public opinion in favour of the government, that of the 63 members of which the second chamber consisted, three only, on the meeting of the chambers in January 1825, took ground in opposition to it. Indeed, such was the violence of this reaction, that addresses were received from various towns and rural districts urging the entire abrogation of the constitution, or, at least, its suspen-

sion during the life of the reigning grand-duke. The government took advantage of this state of things to modify the existing constitution, by means of a law passed on the 14th of April 1825, enacting that the Chamber of Deputies should be wholly renewed every six years, instead of being only partially renewed as heretofore; and that in place of meeting every two, they should do so only every three years. The grand-duke (Lewis) dying without issue, March 30th 1830, was succeeded by the present grand-duke (Leopold), who is the eldest son of a former grand-duke (Charles Frederick) by a left-handed (*morganatische*) marriage. The children of such a marriage cannot usually inherit from their father; but, in the instance before us, the succession had been solemnly arranged beforehand, and guaranteed by Great Britain, Austria, Prussia, and Russia. Notwithstanding all this, the king of Bavaria, whose claims to a portion of Baden, before preferred, had ancient authority in their favour, was far from being satisfied; and he prepared to assert his rights, as he esteemed them to be, by force. The grand-duke of Baden, on his part, prepared to repel force with force. But the mediation of the great powers, of Austria especially, allayed the gathering storm, and decided the dispute in favour of Baden.—With the accession of Leopold, which preceded the revolution of the three days in France only by a few months, the constitution assumed a renewed activity. On the assembling of the chambers in March 1831, every branch of the government appeared to be anxious for the introduction of practical improvements. All were agreed in respect to the expediency of a greater degree of order and economy in the public expenditure. The annual appropriation for the support of the army was, accordingly, diminished by the sum of 450,000 florins; and while 30,000 additional florins could be appropriated to the maintenance of the teachers of the country schools, and 260,000 more to various purposes of public utility, the people were relieved from taxes to an amount not less than 747,000 florins. Among a number of important and useful laws, which were enacted at the present session of the chambers, we may select for mention here the abolition of all feudal services on the part of the peasantry, and the establishment of the liberty of the press. This last produced a vast sensation throughout the whole of Germany, and was every where hailed with the most enthusiastic rejoicings. But the course which the legislation of Baden

had taken, and which has just been described, was the consequence, as has been intimated, of the French revolution in the preceding month of July. The government yielded to the contagion which it felt itself unable to repress, and gave up a portion of its authority, with the expectation of thereby the better securing the rest. This feeling endured, however, only for a comparatively short period. As soon as the Polish insurrection was subdued, and Warsaw was once more in the possession of the Russians, the grand-duke of Baden, as well as other of the minor European princes, conceived that he had been too precipitate in yielding up a portion of his power. Six months after the enactment of the law for establishing the liberty of the press, he published an ordinance declaring it to be of no effect, "because inconsistent with the existing regulations of the Germanic diet on the subject of the press." And it is worthy of notice that the reaction, of which we are speaking, affected not the government only, but even the deputies themselves. The chambers, at their session from May 20th to November 13th 1833, although composed, with few exceptions, of the very same individuals as at the preceding session, exhibited a decided majority disposed to sympathize with the government in its views. In one instance, however, the legislation of this session was in keeping with that of the last; a law was passed legalizing certain assemblages of the people and public associations hitherto prohibited, but with the proviso of the police not having forbidden them in any particular instance. The accession of Baden to the German Customs' Union took place on the 1st of January 1834. The session of 1838 is remarkable for the sanction given to the construction of a railroad from Heidelberg, by way of Mannheim, to Basel, which was completed between the two former towns in 1840. In the year just mentioned, symptoms occurred of a reaction in the popular direction. An edict was issued by the government for the better securing of authors against the arbitrary censorship of the press. And, in 1841, a vehement opposition was made in the Chamber of Deputies to the right claimed and exercised by the ministry of refusing to office-holders, who had been elected deputies, leave of absence from their official duties; the debates on this point being terminated only by a dissolution of the chambers, in February 1842. The opposition to the government obtained a decided majority in the second chamber, by means of the new

elections; and when the chambers met again in May 1842, they refused to restrict their debates, as they were earnestly desired to do in the opening speech, to the budget and to the subject of railroads. While the taxes required were voted, and propositions by the government concerning railroads, approved, a number of motions were made, by the leading members of the opposition, on the most important branches of administration, of a most annoying nature to the ministry. Of these may be particularized a motion having reference to the interference of the government in the elections of the deputies, and to a circular letter which had been issued by the chief minister with this object in view, and which had caused the greatest excitement throughout the country. Notwithstanding the protestations of the ministers against such a step being taken by the chamber, a formal resolution was adopted and placed on record, censuring their proceedings as calculated to restrict the right of the people freely to choose their own representatives. It is scarcely necessary to say that, during all the opposition which the government experienced from the popular branch of the legislature, it met with a steady support from the members of the other chamber. The session was closed on the 9th of September 1842; and although no very tangible advantage had been gained by the popular party, a moral impression had been produced, of a character to lead eventually to consequences, perhaps of the greatest moment,—an impression of which some estimate may be formed from the enthusiastic reception of the opposition members, by their constituents, on their return to their homes, and from the festivities and entertainments got up on that occasion.

The legislation of the constitutional government of Baden will compare advantageously with that of most of the other European states. It has been especially distinguished by the attention which has been shown to the intellectual and moral interests of the community. Education is very extensively diffused, and skilfully conducted. There are 1900 elementary or common schools, with about 2400 teachers, and 190,000 pupils, besides many schools of a somewhat higher order in the towns, a number of trades' schools, 2 seminaries for the instruction of schoolmasters, a deaf and dumb institute at Pforzheim, and one for the blind at Bruchsal. There are also 7 *pedagogiums*, 6 gymnasiums, and 4 lyceums; together with the universities of Heidelberg and Freiburg. And

in addition to all these, there is a polytechnic institute (at Carlsruhe), a veterinary school, a military school, and a seminary for Roman Catholic priests (at Freiburg). The polytechnic school was established, under the especial patronage of the government, in the year 1834, and has 30 instructors, and 300 scholars. Its establishment has, very probably, contributed in part to the diminution which has latterly taken place in the number of the students attending the universities. But other causes have co-operated; such as the extension and improvement of the courses of instruction in the gymnasiums and lyceums, necessarily advancing the age at which young men can find admission to an institution of a still higher order, and the stricter examinations to which candidates for the different professions are now subjected. The natural effects of these arrangements have been to render the student more disposed to be satisfied, than heretofore, with the scientific and literary acquirements obtained by him before entering the university, and to make this essentially a place of resort for obtaining a mere professional education.—The foundations of the different religious denominations, for religious and charitable purposes, are stated by a late writer as follows: Catholic (religious), 1731 foundations, with an annual revenue of 966,525 florins; Catholic (secular), 613 found., ann. rev. 430,713 fl.; Protestant, 603 found., ann. rev. 674,616 fl.; Jewish, ann. rev. 14,900 fl. In addition to these rich endowments, all classes of civil and religious functionaries have subscription funds for providing for orphans and widows; and savings' banks are general, to encourage providence among the lower classes. Beyond these institutions, no formal provision is made for the poor, whose moderate habits keep them from being burdensome. In the larger towns, subsidiary relief is generally given in the shape of food, clothing, or fuel, from voluntary subscriptions raised by the inhabitants. The regulations are very strict as regards settlements in the communes, and permission to marry; and the number of tradesmen is everywhere limited by the magistracy.—Roman Catholics and Protestants have equal political privileges; and the government, in reference to them, has been administered with the utmost impartiality. The Jews, however, whose number in the grand duchy, as has been before stated, amounts to 20,000, are, as elsewhere in most Christian countries, still kept in a degraded condition. A proposition for their emancipation, made in the

Chamber of Deputies, so late as the year 1842, met with no success; many of the liberal members of that body being, on this point, equally *illiberal* with those to whom they were habitually opposed.—The estimate of the budget for 1837–38 was 13,026,559 florins a year. The public debt amounted to about the same sum.—The contingent of Baden to the army of the Germanic Confederation is 10,000 men, with a *reserve* of a third of this number.

**BAGAUDÆ.** In the third century of the Christian era, whilst the empire of Rome, and Gaul especially, was desolated by civil warfare, the peasantry of this province, reduced to an extreme degree of misery by the oppression of the landed proprietors, revolted, and committed the most horrible depredations everywhere around. They received the name of *Bagaudæ*, a name analogous to that of the *Jacquerie* applied to the peasantry of the same country, at a later period, under similar circumstances.

**BAGNÈRES;** the name of two watering-places in the south of France; the one, *Bagnères-de-Bigorre*, in the department of the "Hautes Pyrénées;" the other, *Bagnères-de-Luchon*, in that of the "Haute Garonne." *Bagnères-de-Bigorre* has about 8000 inhabitants, is well built, and beautifully situated on the river Adour. It contains a college, a museum, and manufactures of wool, leather, and paper. But its celebrity is owing to its mineral springs and baths, which were known to the Romans, and which render it at the present day a place of considerable resort, in the summer season, for visitors, even Russians and English. As many as 8000 are reported to have been assembled here at the same time. The temperature of the different springs, of which there are about 30, varies from 18° to 41° of Réaumur. The waters are said to be aperient, diuretic, and slightly cathartic in their effects.—*Bagnères-de-Luchon* is a much smaller place, having little more than 2000 inhabitants. It is, like the former, one of the most frequented watering-places in France, and, like it, was well known to the Romans. There are 9 mineral springs, varying in temperature from 26° to 52° of Réaumur. The waters have a fetid smell, and are said to be very efficacious in a number of complaints, especially in rheumatism and gout.

**BAGRATION** (Peter, Prince), one of the most distinguished of the Russian generals, was born about the year 1762, and entered the Russian service in 1783, where his military talents were developed in the school of Suwarrow. He was present at

the storming of Oczakow; fought against the Poles, having already attained to the rank of general, in 1792 and 1794; and partook of the memorable campaign of 1799 in Italy and Switzerland, where he was twice dangerously wounded. He acted an important part in the Austro-Russian campaign of 1805; especially earning enduring laurels on the 16th of November of that year. The Russian general-in-chief, Kutusow, who was on his march for Znaim in Moravia, having received intelligence of the passage of the Danube by the French at Vienna, became apprehensive lest, gaining his rear, they would reach the former town before him, and intercept his retreat upon the reinforcements which were approaching to join him. To prevent this, he despatched Bagration, at the head of 8000 of his best troops, to Hollabrunn, against Prince Murat, with orders to defend himself there to the last extremity, until the main army should have passed Sprottenthal. The Russians were attacked, in the position assigned them, by Murat, who had at his disposal the entire corps of Marshal Lasnes, together with the cavalry of reserve. By their obstinate and prolonged resistance, Bagration was enabled to secure the object he had in view, and Kutusow succeeded in reaching Znaim in safety. Bagration took, also, an active part in the battle of Austerlitz. He fought bravely at the battles of Eylau and Friedland. After the peace of Tilsit, he was engaged against the Swedes, taking possession of the islands of Aland in behalf of Russia. In the Russian campaign against the Turks of the year 1809, he was present at the sanguinary battles fought in the neighbourhood of Silistria, and, by his defeat of the force sent from Adrianople to its relief, decided the fate of this fortress. In 1812, he commanded the second army of the West; was unsuccessful in his attack upon Marshal Davoust at Mohilew; but succeeded in effecting a junction with the first army at Smolensk. He was mortally wounded at the battle of Borodino, and died shortly afterwards, on the 7th of October 1812.

**BAHAMAS.\*** Only 25 of these islands are inhabited. The population, in 1832, was 4674 whites, 4069 free blacks and people of colour, and 9765 slaves. In 1837, the total population was 19,943. The Bahamas form a British colony, the government of which is modelled after that of the British colonies on the continent of America. It consists of a governor, a council of 12, and a house of assembly of 30 members. The revenue of these



islands amounted, in 1837, to £25,165, and the expenditure to £27,193. The chief town is Nassau, in the island of New Providence. It is fortified, has a fine harbour, and about 6000 inhabitants. Besides cotton, the principal articles exported are coffee, dye-woods, mahogany, fruits, and salt.

**BAHAMA CHANNEL.** See *Gulf of Florida*.

**BÄHR** (John Christian Felix), professor of classical literature and principal librarian in the university, and also director (Ephorus) of the lyceum, at Heidelberg in Germany, was born at Darmstadt, on the 13th of June 1798, where his father was a clergyman of the Reformed Protestant church. He was educated in the gymnasium, and then in the university of the first-mentioned place. At the early age of 23, probably through the good offices of Creuzer, the author of the "Symbolik," as well as on account of the character for literature which he had already established, he was appointed there an extraordinary professor (*professor extraordinarius*); and, in 1826, he became an ordinary professor (*professor ordinarius*). During this the first period of his professorship, he was chiefly occupied with the exposition and criticism of Plutarch. To qualify himself the better for editing the works of this author, he made a journey to Paris in 1821. The fruits of his studies were communicated to the public in an edition of the "Alcibiades" (1822), with a copious commentary, and in one of the "Philopœmen, Flaminius, and Pyrrhus" (1826). He also collected and illustrated (1824) the fragments of Ctesias. But a work which engaged his attention in a much greater degree, and is distinguished for its comprehension and perspicuity, is his "Geschichte der röm. Literatur" (1828; 2d ed. 1832); and to which three supplementary volumes have since been added, viz., "Die christlichen Dichter und Geschichtschreiber Roms" (1836), "Die christliche-röm. Theologie" (1837), and "Geschichte der röm. Literatur im karolingischen Zeitalter" (1840). A fourth is to follow, which it is intended shall bring down the history of literature to the beginning of the 12th century. In 1833, he published an abridgment, or epitome, of the volumes that had previously appeared, entitled "Abriss der röm. Literaturgeschichte," of which there has been a French translation (1838). Another important work of which Bähr is the author, is his edition of Herodotus in 4 volumes (1832-35),—a work exceedingly valuable for the fulness with which the

improved knowledge of our day has been brought forward to confirm, correct, or illustrate the facts, whether geographical, historical, or physical, recorded by the Greek historian. And to the works of Bähr above enumerated, must be added numerous contributions of a philological and literary character to various periodical journals.

**BAHREIN** or **AVAL** islands. The population of this group of islands is, perhaps, about 60,000; 40,000 or 50,000 of whom are native Bahreins, a mixed race between the Persians and Arabs, and the remainder Arabs. Their principal occupation is the pearl fishery, which is said to be the richest in the world. See *Aval*.

**BAILLIE** (Matthew), a distinguished physician and anatomist, was born on the 27th of October 1761, at Shots, in the county of Lanark, in Scotland, where his father, who was subsequently professor of theology at Glasgow, then resided as the parish clergyman. After pursuing his studies for some time in Glasgow, he went to London, in the 18th year of his age, for the purpose of studying medicine under the direction of his maternal uncle, the celebrated William Hunter. Here he made so rapid a progress in the especial branch of the latter, that he was, only two years afterwards, appointed demonstrator of anatomy. Hunter died in 1783, leaving to his nephew his house and anatomical theatre, together with the use of his extensive anatomical museum in London, besides a small estate in Scotland. In 1785, Baillie, lecturing in conjunction with Cruikshank, delivered his first course of anatomy, which produced such a favourable impression, both in respect to matter and style, as to attract a crowd of students to his following courses. A portion of his time was, meanwhile, employed in the practice of his profession, and with so great a degree of success that he was chosen physician of St. George's hospital in 1787. He embraced the opportunity this appointment afforded him to prosecute with diligence the study of pathological or morbid anatomy, and to form a museum of morbid anatomical specimens, which, two years before his death, he presented to the College of Physicians. In the latter part of his career, the great extent of his private practice induced him to resign his charge of the hospital, as well as to give up lecturing altogether. He was physician in ordinary to the Princess Charlotte of Wales, and consulting physician to George III. He died on the 23d of September 1823.—The principal works of Dr. Baillie

are "The Morbid Anatomy of some of the most important parts of the Human Body," which has been translated into German, French, and Italian; "A series of Engravings to illustrate the Morbid Anatomy of the Human Body;" and "Lectures and Observations on Medicine," of which there has been a German translation.

BAILY (Francis) was born, April 28th 1774, at Newbury, in Berkshire, in England, where his father was a banker. He received a liberal education, and is said to have evinced a particular interest in the pursuits of physical science at an early age, which was subsequently augmented by an intimate acquaintance with Dr. Priestley. Having chosen, however, a life of business, he served his time in the city of London. He then changed his views, and after travelling about two years (1795-98) in the United States, and then residing some time with his father at Newbury, he went into business as a stock-broker. As such he rapidly acquired a high reputation. In 1806, he wrote a pamphlet in defence of the stock-brokers against the city of London; and in 1814, he was appointed by the committee of the Stock Exchange to prepare the evidence against the perpetrators of the celebrated fraud of De Berenger (better known under the name of Lord Cochrane), which he is reported to have performed in the most masterly manner. He published several reports on the subject.—While actively engaged in business, in which he accumulated a large fortune, his leisure moments were diligently devoted to science and literature. He paid much attention, especially, to the subjects of annuities and life assurances. He published "Tables for the purchasing and renewing of Leases;" "The doctrine of Interest and Annuities;" "The doctrine of Life Annuities and Assurances;" an "Appendix to the doctrine of Life Annuities and Assurances;" and "An Account of the several Life Assurance Companies." The publication of the Appendix just mentioned, arose out of the refusal of the Royal Society to print in the Philosophical Transactions the method of calculating annuities proposed by Mr. Barrett; a method which has been very extensively adopted, and which, it is not improbable, would have been lost, had it not been preserved by Mr. Baily. It was Mr. Baily's habit so methodically to commit to writing all he learned, that his notes enabled him to publish, in 1813, the "Epitome of Universal History," in 2 volumes. He was also the author of a "Chart of History," with an

explanation; being an extension of Dr. Priestley's Chart.—Mr. Baily retired from business in 1825, at the age of 53; and from this time till his death, which took place on the 30th of August 1844, he occupied himself chiefly with astronomy. "Between the ages of 51 and 70, when most men in his circumstances would have been enjoying the leisure to which commercial men, above all others, are apt to look forward, he did the work of a lifetime." He was, in 1820, one of the founders of the Astronomical Society, and was also one of those who exerted themselves to produce a reformation and enlargement of the Nautical Almanac, and whose efforts prevailed upon the British government to place it on its present footing. In experiments with the pendulum, he was among the foremost of those who investigated the newly observed effects of the air upon the instrument. When the expedition which set out under Captain Foster returned with the loss of its commander, Mr. Baily reduced and digested his observations, which take up the whole of the 7th volume of the Astronomical Society's Memoirs. He superintended the formation of the same society's standard scale, and wrote a full and valuable account of the history and present state of the subject, with details of the experiments. He repeated, with an extreme accuracy, the Cavendish experiment with the torsion balance. The Astronomical Society's catalogue of stars was the suggestion of Mr. Baily and Mr. Gompertz, and was superintended by Mr. Baily. Up to that time there had been no general consent as to the mode of reducing the stars. "This catalogue," says Sir John Herschel, "put the astronomical world in possession of a power which may be said, without exaggeration, to have changed the face of sidereal astronomy." Mr. Baily published a life of Flamsteed, to which he annexed a new edition of that eminent astronomer's catalogue of the stars, with such a complete examination of the original observations as to make it quite a new work. He had already revised Mayer's and Lacaille's catalogues in the Astronomical Society's Memoirs. In the 13th volume of the same collection,—a volume which is entirely his own work, and printed at his own expense,—he put the finishing hand to his revision of the ancient catalogues. It is the third complete volume (independently of the catalogue above mentioned) which he contributed to these Transactions, and contains a new edition of Ptolemy's catalogue in Greek, with those of Ulugh Beigh, Tycho Brahe,

Halley, and Hevelius. Mr. Baily is the author of about 15 memoirs inserted in the other volumes, almost all the annual reports, and various addresses, notices, &c. And in addition to all these claims to scientific distinction, he suggested to the British Association the republication of the immense catalogue of Lalande, called the "Histoire Céleste," combined with that of Lacaille; the two together containing 57,000 stars. He suggested to the same body the extension of the Astronomical Society's catalogue to 10,000 stars, accompanied by the coefficients of reduction. He superintended the construction of these tables and a portion of the printing, and he left the preface to them completely written. And he had also undertaken the construction of the new standard scale, wanted by the government in consequence of the destruction of the old one.—His last public appearance was at Oxford, on the 2d of July 1844, only a few weeks previous to his death; to which place he went with difficulty, labouring as he did under an affection of the kidneys, to receive the honorary degree of Doctor of Civil Law.

BAINBRIDGE (William); a distinguished American naval commander. He was born at Princeton, New Jersey, on the 7th of May 1774, and was the fourth son of Dr. Absalom Bainbridge, a highly respectable physician of that place. At the age of 15, he went to sea as a sailor. When only 18, he was appointed first mate of a ship in the Dutch trade; and, in the following year, was promoted to be her captain.—When the aggressions of France upon our commerce rendered it necessary for the United States to organize a navy for its protection, he was offered the commission of a Lieutenant and Commander; a well-merited compliment to the dauntless resolution and sound judgment displayed by him on several occasions, more particularly while in command of the ship *Hope*, a merchant vessel carrying 4 guns, and having a crew of but 11 men before the mast. With this small armament, he compelled a British schooner, which had attacked the *Hope*, to strike her flag, although the schooner carried 8 guns, and had on board 30 men. Soon after this action, he took a sailor from an English merchant-vessel, of 8 guns and 20 men, in retaliation for one taken from his own vessel by an English cruiser, commanded by Sir Edward Pellew, afterwards the celebrated Lord Exmouth.—Upon entering the navy, Lieutenant Bainbridge was ordered to take the command of the schooner *Retaliation*, and while cruising in this vessel, he was

captured by two French frigates, and taken into Guadaloupe. The governor of this island being very desirous that it should be regarded as neutral during the contest between France and the United States, promised to release all the American prisoners, and to restore the *Retaliation*, if Lieutenant Bainbridge would enter into his views, and would pledge his honour to proceed directly to the United States, and not capture or molest any French vessels on his passage home. This proposal was promptly rejected, as Bainbridge considered it improper to receive instructions from any other authorities than those of his own country. But notwithstanding this refusal, the governor released the *Retaliation*, and compelled her to depart, sending with her a cartel to assist in conveying the American prisoners then in the island. The governor, at the same time, assured Lieutenant Bainbridge that in case any act of hostility was committed by the *Retaliation* before her arrival in the United States, he would put to death every American prisoner who should afterwards be brought to Guadaloupe. The whole conduct of Lieutenant Bainbridge in this matter was highly approved by the government at home; and immediately upon his return to the United States, he was promoted to the rank of Master and Commander.

On the 14th of November 1799, Captain Bainbridge was appointed to the command of a squadron of three sloops of war, with instructions to cruise off Cuba. Upon his leaving this station, the American merchants at Havana addressed to him a letter expressive of the high value which they placed upon his services; and so favourably were these regarded by the President, that he was made a Post Captain, his commission bearing the date of May 2d 1800. At this time, Captain Bainbridge had not quite completed his 26th year.—At or very soon after his promotion, he received instructions to take command of the frigate *George Washington*, and to proceed to Algiers with the tribute which, by existing treaties, the United States were bound to send annually to that Regency. From Algiers he went to Constantinople, taking with him the presents destined for the Sultan, and having on board the Dey's ambassador to him. At Constantinople, Captain Bainbridge was treated with very marked courtesy, and particularly so by the Capudan Pacha, a brother-in-law to the Sultan, and whose office corresponds to that of Lord High Admiral. This officer not only took Cap-

tain Bainbridge and his vessel under his protection,—a mark of distinguished favour,—and gave him passports for the frigate, which entitled the flag, as well as the commander, to the greatest respect in all Turkish ports, but extended to his vessel a compliment never before paid to a foreign vessel of war, by directing him to be saluted from the fortress of Tapana, which commonly salutes the Capudan Pacha only. Upon his return to Algiers, the Dey insisted, for some reason, that he should go a second time to Constantinople. This, however, he positively refused to do, although completely in the Dey's power; and he would probably have lost his life, had it not been for the protection afforded him by the firman given to him by the Capudan Pacha. As soon as this document was presented, the whole manner of the Dey was changed, and his offers of service were most liberal. Of these Captain Bainbridge availed himself so far as to save from irons and slavery the French consul, and upwards of fifty men, women, and children, belonging to the French republic, all of whom he received on board of the *George Washington*, and conveyed to Alicant, in Spain; and this notwithstanding his own country and France were, at the time, at war with each other. For this act he received the thanks of Napoleon, then first consul; and upon his return home, he had the gratification to find his whole conduct, while in the command of the *Washington*, fully approved by his own government.—Captain Bainbridge was next appointed to the *Essex*, one of the frigates destined to protect the American commerce in the Mediterranean, against the corsairs of Barbary. From the *Essex*, however, he was transferred to the frigate *Philadelphia*, and proceeded in her to the Mediterranean, with orders to seize all vessels belonging to the Bey of Tripoli, or to his subjects.—During the passage of the *Philadelphia* up the Mediterranean, she discovered a Moorish man-of-war, with an American merchant brig in company. Finding that the brig had been captured, he took possession of the Moorish vessel and carried her into Gibraltar, and there left her in charge of the American consul, to await the arrival of Commodore Preble. This reasonable check to Moorish rapacity prevented all further depredations upon the commerce of the United States by Morocco. For his conduct on this occasion, Commodore Bainbridge received the thanks of the President of the United States and of the Secretary of the Navy.—On the 21st of October 1806, while off Tripoli, and

engaged in the pursuit of a corsair belonging to that regency, the *Philadelphia* struck on a ledge of rocks. Every expedient was tried to get her off, but without success; and she remained exposed for several hours to the constant fire of the enemy's gun-boats, which it was impossible to return. A council of officers was held, who being unanimously agreed that there was no longer any possible hope of saving her, her flag was struck. The Tripolitans took possession of the *Philadelphia*, and eventually succeeded in their efforts to bring her into the harbour of Tripoli, where she was subsequently destroyed by the officers and men who volunteered with Lieutenant Decatur (afterwards the gallant commodore) to execute this bold project; the practicableness of which was suggested to Commodore Preble in a letter to him from Captain Bainbridge, written with sympathetic ink, and forwarded to him through Mr. Nissen, the Danish consul. To the kind attentions of this gentleman, Captain Bainbridge and his officers were indebted for many alleviations of their sufferings, during their captivity of more than nineteen months.—On the 3d of June 1805, a treaty of peace was concluded with the Bey, and they were set at liberty. Captain Bainbridge and his officers returned almost immediately to the United States, and landed at Hampton, in Virginia. In the different places through which they passed, on their way to the seat of government, they were most cordially welcomed by their fellow-citizens.

After passing a few weeks with his family, he was appointed to the command of the Navy Yard at New York. Having, however, held this command for only a short time, he obtained a furlough, and sailed, in the brig *Minerva*, to Havana, on a trading voyage. He was induced to pursue this course from the circumstance of his pecuniary affairs having become somewhat embarrassed during his captivity. In December 1808, he took command of the frigate *President*; and after superintending her repairs and equipment, he sailed in her, in July 1809, on a cruise along our coast, until May 1810. He kept at sea during a long and boisterous winter, to prepare his crew for the exigency of a war, of which there were strong expectations at the time, from the state of our relations with England. These expectations not being realized, he obtained another furlough, and made two voyages to St. Petersburg. During the first of these, his vessel was captured by a Danish privateer

Through the kind offices of his friend Mr. Nissen, who was at this time at Copenhagen, the vessel was released, and Captain Bainbridge was permitted to proceed on his voyage to St. Petersburg. From the second voyage, made in the autumn of 1811, he returned as early as February 1812, having hastened home from the Russian capital, by way of Sweden and England, on hearing of the renewed prospect of a war between the United States and Great Britain. On reporting himself at Washington as ready for duty, he was directed to take the command of the Navy Yard at Charlestown, Massachusetts.—On the declaration of war against Great Britain, he solicited the command of a frigate, and was appointed to the *Constellation*. But before the necessary repairs could be made, the *Constitution* arrived at Boston after the capture of the *Guerriere*; and Captain Hull having obtained leave of absence, Captain Bainbridge requested to be transferred to this vessel. The request was complied with; and a small squadron, comprising the *Constitution*, the frigate *Essex*, Captain David Porter, and the sloop of war *Hornet*, Captain James Lawrence, was placed under his command. The *Constitution* and *Hornet* sailed from Boston on the 26th of October 1812, on their destined cruise; and the *Essex*, then lying in the Delaware, was ordered to sail first to the Cape de Verd islands, and then, if practicable, to form a junction with the other vessels of the squadron. On the 29th of December, after a remarkably well fought action on both sides, the *Constitution* captured the British frigate *Java*, commanded by Captain Lambert, a brave and skilful officer, who was mortally wounded during the action. Among the prisoners taken from the *Java*, were Lieutenant-General Hislop, Governor of Bombay, and Major Walker and Captain Wood, of his staff. The deportment of Commodore Bainbridge made a deep and abiding impression upon the minds of these officers, who never permitted an opportunity to escape them of manifesting their respect and esteem for him; and as an expression of his feelings for the delicate and kind treatment shown to himself and his companions captured in the *Java*, General Hislop presented to Commodore Bainbridge a splendid gold-mounted sword. Between these two distinguished officers there then began an intimacy, which only terminated with the life of the latter. At the close of the action, the *Java* was a complete wreck, and the *Constitution* was much shattered. During the contest, Commodore

Bainbridge was dangerously wounded; yet he continued in the command of his ship. For this victory, as well as for his treatment of the captured, Commodore Bainbridge and his brave companions received the highest commendations from their fellow-citizens, and from the constituted authorities of their country. The gold medal awarded to him by Congress bore the appropriate inscription, "*Patriâ victisque laudatus.*"—In March 1813, Commodore Bainbridge was again appointed to the command of the Navy Yard at Charlestown, and of the eastern naval stations. At Charlestown he superintended the building of the *Independence*, a ship of the line, which he afterwards commanded.—The ports of New England being threatened by the enemy, he proposed to the citizens of Boston, and to the authorities of Massachusetts, a plan of defence against any attack which might be made upon the harbour and city: the plan was adopted, and Boston remained unmolesated.

After the war, Commodore Bainbridge sailed twice to the Mediterranean, in the command of the squadrons sent to protect our commerce in that sea against the depredations of the Barbary powers, and to bring them to terms. The first of these squadrons was the largest ever sent from the United States.—Among other valuable services rendered to his country by this distinguished officer, he was the first to recommend the establishment of the Board of Navy Commissioners, consisting of the older and more experienced officers of the Navy. Of this Board he was for three years the President.—By the loss of the frigate *Chesapeake*, during the war, our naval signals fell into the hands of the enemy; and Commodores Bainbridge, Decatur, and Hull, were constituted a board to prepare others. The attention of the officers associated with him being directed at the time to other important matters, Commodore Bainbridge prepared the signals himself, and they have been continued in use ever since.—But of the various services rendered by him to his country, perhaps the most important was the remonstrance which, jointly with Commodore Stewart, he made against the laying up of our national vessels, during the last war with England. That a letter containing such a remonstrance, by whatever motives prompted, was addressed by them to the President of the United States, admits of no doubt; the evidence as to this point being full and positive. And there is as little reason to doubt that, if their letter did not prevent

the measure which they feared and opposed, it at least served to satisfy the President and the Secretary of the Navy, as to the entire inexpediency of the measure against which they entered their protest.—Commodore Bainbridge died on the 28th of July 1833, in the 60th year of his age.

**BAIRD** (Sir David), a distinguished British general, was born at Newbyth, in Aberdeenshire, in December 1757, and entered the army as an ensign in 1772. He served in the East Indies for a considerable period, where he had the misfortune, after being severely wounded, to be taken prisoner by the ferocious Hyder Ally, and retained in captivity for three years and a half, under circumstances of great suffering, and in daily apprehension of being put to death. He was present at the storming of the important fortress of Nundydroog, and at the capture also of Savendroog, where he rendered himself conspicuous by his conduct and bravery. In 1793, he commanded the European brigade in the force to which Pondicherry surrendered. And at the capture of Seringapatam, May 4th 1799, he led the storming party. In 1801, he was sent with a large body of troops to co-operate with the British army in Egypt, and reached Alexandria just after the articles for the capitulation of the town had been signed, and, of course, too late to be of any actual service in the expulsion of the French. In 1802, he returned with his troops to India; and, obtaining permission to embark for England, he arrived there in 1804, having, on his passage, been captured in the Bay of Biscay by a French privateer, but retaken by an English man-of-war. He commanded the expedition which took possession of the Cape of Good Hope in 1805; and he was at the attack on Copenhagen in 1807. He was second in command under Sir John Moore in Spain, and, on the death of the last-mentioned officer at the battle of Corunna (January 16th 1809), assumed the command; which, however, on being severely wounded, he was obliged to transfer to Sir John Hope. Returning to England, he was made a baronet, and subsequently held several military appointments. He died on the 18th of August 1829.

**BAIZE**; a coarse, open woollen fabric, with a long nap, sometimes frized on one side, and without wale, being manufactured on a loom with two treddles, like flannel.

**BAKS** (John), an eminent Dutch philologist, and an able writer in the Latin language, was born at Leyden, on the 1st of September 1767. He was appointed,

in 1815, *extraordinary* professor, and in 1817 *ordinary* professor of Greek and Roman literature, in the university of his native city. Besides various articles of a philological character, published in the "Bibliotheca critica nova," and in the "Annales acad. Lugd. Bat.," he is the author of a valuable work entitled "Scholica hypomnemata," in 2 volumes (1837-39), and consisting of a number of philological essays, especially in relation to the works of Cicero, evincive of the greatest acuteness and erudition. His last work was an edition of "Cicero de Legibus" (1842).

**BAKEWELL** (Robert), an eminent English agriculturist, was born at Dishley, in Leicestershire, in 1725, and died there in 1795. He rendered a great service to his countrymen by improving the breeds of cattle and sheep. In this he proceeded on the principle that the physical qualities of the offspring were a mean between those of the parent animals, and, consequently, that it was possible, by a proper crossing of the breeds, to modify the forms of the race, within certain limits, at pleasure. Accordingly, the famous Dishley breed of sheep, which has since obtained so high a reputation, has been formed in this *artificial* manner. The model which Bakewell proposed to himself for his sheep was, "fine forms, small bones, and a true disposition to make readily fat;" and he succeeded in his object. In the latter years of his life, his sheep were in such repute as to command enormous prices; which gave occasion to the saying, that "they were too dear to purchase, and too fat to eat." His long-horned oxen, and his horses, which were large and powerful, also obtained a very high reputation.

**BAKU**; a town of Russia, on the W. shore of the Caspian. Its harbour is an excellent one, and, next to that of Astrakhan, is more frequented than any other by the vessels which navigate that sea. The exports amounted, in 1831, to 1,702,460 roubles, the principal article being naphtha, of which there are numerous wells or springs in the peninsula of Abecharon, where the town is situated. It is used as a substitute for lamp oil, and, when ignited, emits a clear light, with much smoke, and a disagreeable smell. To the E. of the naphtha springs, there is a temple of the ancient Ghebers or fire-worshippers; a remarkable spot, something less than a mile in circumference, from the centre of which a bluish flame is seen to rise.

**BALANCE** is a term which is used to denote various modifications of the lever employed to ascertain the weights of bodies.

It is, however, especially applied to the lever with equal arms, an instrument sometimes constructed with the greatest possible degree of accuracy, for weighing articles of great value in a small bulk, as well as for experimental purposes; and, when so constructed and applied to the last-mentioned purposes, it is sometimes styled the *philosophical balance*. The sensibility of such a balance may be carried to an almost inconceivable extent. There is one in the possession of the Royal Society of London, made by Ramsden, which weighs 10 pounds, and is said to turn with the ten-millionth part of that load, or the thousandth part of a grain. The term balance is also applied to any apparatus employed for comparing the intensities of very small forces, as the electric balance, the balance of torsion, &c.

**BALANCE OF A WATCH** is that part of it which, by its inertia, regulates the beat and produces equable motion. It is formed of a wheel or ring, having its weight principally accumulated in its rim, and connected with a spiral spring in such a manner that, when drawn aside from the position of rest, it acquires an oscillatory motion from the alternate contraction and expansion of the spring. The balance answers the same purpose in watch-work as the pendulum in clock-work, and is affected in a similar manner by variations of temperature; and the same principle has been applied in both to correct the irregularities arising from this source, viz., the unequal expansion or contraction of two different metals. Hence we have the *expansion* or *compensation balance*.

**BALBI\*** (Adrian) was born at Venice on the 25th of April 1782.—After residing in Paris from 1821 to 1832, he took up his residence at Padua; and since then, he has published an "Essai sur les bibliothèques de Vienne," and the first five volumes of a collection of his geographical works (*Scritti geografici*). The work by which he is best known is his "Abrégé de géographie," a fourth edition of which has very lately appeared.

**BALDRIC**; a girdle used by the warriors of feudal times: it was often splendidly ornamented, and marked the rank of the wearer.

**BALL**, in the military art, comprehends all sorts of bullets for fire-arms, from the cannon to the pistol. Cannon-balls are made of iron (cast iron); musket-balls, pistol-balls, &c., are of lead. The experiment has been tried of iron balls for pistols and fuses, but without success, as their lightness prevents them from flying

straight, and they are apt, besides, to furrow the barrel of the pistol. Cannon-balls are distinguished by their respective calibres or diameters. Thus, the diameter of a

|                 |       |               |
|-----------------|-------|---------------|
| 42 lbs. ball is | - - - | 8.684 inches. |
| 32 " " "        | - - - | 6.105 "       |
| 24 " " "        | - - - | 5.547 "       |
| 18 " " "        | - - - | 5.040 "       |
| 12 " " "        | - - - | 4.408 "       |
| 9 " " "         | - - - | 4.000 "       |
| 6 " " "         | - - - | 3.493 "       |
| 3 " " "         | - - - | 2.775 "       |
| 2 " " "         | - - - | 2.423 "       |
| 1 " " "         | - - - | 1.923 "       |

**BALLANCHE** (Pierre Simon), a French writer of considerable celebrity, was born at Lyons, on the 4th of August 1776. The period of his youth was passed in sickness and suffering, and, in the 18th year of his age, he underwent the operation of trepanning. This condition of body, by disqualifying him for active occupation, as well as for any severe exertion of mind, had an important influence on the character of his understanding. His life, after he had attained to manhood, was, for the most part, spent in meditating on his own observations of what he saw or was conscious of, or in the society of a few eminent men, such as Chateaubriand and Nodier. Satisfied with this species of retirement, he sought not for many years to appear before the public as an author; and his first literary productions were circulated among his friends in manuscript only. The return of the Bourbons to France roused Ballanche from this state of comparative apathy. Having all along entertained royalist sentiments, he was then induced to take up his residence in Paris, and to employ his pen on political subjects. In 1818, he published his "Essai sur les institutions sociales," which was a fruitless attempt to reconcile the discordant views of the ultra-royalists and liberals; and, in 1820, he published the history of a regicide, under the title of "Homme sans nom." His principal work, however, is a disquisition on the philosophy of history, not yet completed, his "Essai de paléogénése sociale,"—a work evincing much profound thought, but containing also much that is unintelligible and mystical. Ballanche has very little in his writings in common with his countrymen. Hence it is not surprising that, notwithstanding his great merits in point of style, his reputation as an author should have been of very slow growth. And it was not till the publication of a uniform edition of all his works, in 4 volumes, in the year 1831,

that it was firmly established. In 1642, he was elected a member of the French Academy.

**BALLAST.** The object of the ballast, placed at the bottom of a ship or vessel, is to give her *stiffness*; that is, to increase her tendency to return to the upright position, when inclined or *heeled over* by the force of the wind, or other cause. Iron ballast has the advantage, over the other kinds of ballast employed, of lying in a smaller compass; but, in consequence of its great weight, it tends to give an excess of stability, which renders the vessel *un-easy* from the suddenness of the motion. This defect is, however, remedied by placing the ballast higher up in the vessel. Owing to its greater cleanliness, iron ballast is more healthy for the crew than any other.

**BALLESTEROS** (Don Francisco) was born at Saragossa, in Spain, in the year 1770. He entered at an early age into the military service of his country, and distinguished himself in the campaigns of 1793 and 1794, in the Eastern Pyrenees. In 1804, he was deprived by the then minister of war, Caballero, of his rank of captain, on a false accusation, preferred against him, of having converted to his use a sum of money, which had been intrusted to him for the purchase of provisions for the troops; but was reinstated soon afterwards, through the influence exerted in his behalf by the Prince of the Peace. On the occurrence of the war with Napoleon in 1806, he rose rapidly to the rank of a general officer, and was conspicuous on various occasions for his activity and bravery. When the duke of Wellington was appointed general-in-chief of the Spanish armies, Ballesteros, refusing to serve under his orders, on the ground of the impropriety of the appointment in question being conferred upon any foreigner, was arrested and sent as a prisoner to Ceuta. It was not long, however, before he was recalled, and appointed to the command of a body of troops in the county of Niebla, whose operations were, however, of minor importance. He was appointed minister of war on the return of Ferdinand, but was dismissed from this office through the influence at court of the absolutists and serviles, and exiled on half-pay to Valladolid. On the breaking out of the insurrection of the Isle of Leon, in 1820, he was again sent for by Ferdinand, and offered the command of the forces destined to quell the insurgents. He refused the offer, expressing it as his opinion that the only effectual mode of accomplishing this was by restoring the

constitutional government of the Cortes. Thereupon, he was named by the king vice-president of the provisional government. For a time he exercised the whole executive power of the state, Ferdinand being, in reality, a mere prisoner in his own palace. One of the first steps which he took was to set at liberty all persons imprisoned for political offences. He removed from office all persons who had co-operated in the overthrow of the Cortes, and organized the municipality of Madrid anew, on the model of what it had been in 1812. And when, in July 1822, the royal guards rose against the existing authorities, he marched against them at the head of the militia of the city, and promptly suppressed the revolt. On the invasion of Spain by the French army, under the orders of the duke of Angoulême, in 1823, Ballesteros was appointed to the command of the force destined for the defence of Navarre and Aragon. After several unsuccessful actions, he was obliged to retire towards the southern portion of the peninsula, and, at length, to enter into a convention with the enemy, by which the troops under his command were placed in a state of inactivity, and the suppression of the resistance still made to the French, elsewhere in Spain, thereby facilitated. In this convention it was stipulated that the Spanish officers should retain the rank which they respectively held in the service. When the king, by the decree of the 1st of October, declared all the acts of the constitutional government to be invalid, Ballesteros, in a letter to the duke of Angoulême, protested against this stretch of arbitrary power, and complained especially of the violation of the military convention above mentioned. Being excepted from the benefits of the amnesty published by the government, he made his escape into France, and resided at Paris till his death, in June 1832.

**BALTIC SEA.\*** Not only its high northern latitude, but also its little depth, and the comparative freshness of its waters, subject it to being more readily frozen over. This has not unfrequently occurred, even in its widest portion; and, in 1809, the ice of the gulf of Bothnia was sufficiently firm to afford a passage to a Russian army over it.—The increasing elevation of the coasts above the level of the sea is a phenomenon that is now fully ascertained; and is common to the Baltic with the Black and Caspian seas.

**BALTIMORE.** See *United States*, (Sup.)  
**BALZAC** (Honoré de) was born at Tours, on the 20th of May 1799. After



having gone through a regular course of education at the college of Vendome, he went to Paris about the year 1820. He began his literary career there by producing, in rapid succession, under various fictitious names, a number of novels, and some poetical effusions, which met with very moderate success; and of most of which he felt himself at liberty subsequently to disavow the authorship. He next set up a printing establishment; but, finding himself unable to conduct this business to any advantage, he soon resumed his literary efforts. In 1829, he published "*Le dernier des Chouans, ou la Bretagne en 1800*," affixing his own name to the title-page. The intention of doing this had probably exerted a favourable influence on the composition of the work; which exhibited much greater merits, both in respect to arrangement and style, than any of his former productions had done; and, deviating in it from the manner of Pigault Lebrun, of which he had hitherto been a close imitator, he succeeded in making a favourable impression on the public mind. His "*Physiologie du mariage*" (1831) went, however, much farther to establish his reputation: it is replete with acute observations, brilliant wit, and exquisite delineations of character; but has the demerit—not a slight one in a moral point of view—of representing the married state as almost necessarily an unfortunate, and even a ridiculous one,—a circumstance which, it is more than probable, contributed to its popularity among the Parisians. The works already mentioned have been followed by the "*Scènes de la vie privée*" (1831); the "*Scènes de la vie de province*" (1832); the "*Scènes de la vie parisienne*" (1832); "*Le médecin de campagne*," "*Le père Goriot*," "*La peau de chagrin*," "*La recherche de l'absolu*," "*L'Histoire intellectuelle de Louis Lambert*," "*Eugène Grandet*," &c.; all works of the same class, and all of which have added, or contributed to maintain his reputation as a writer. In his "*Contes drolatiques*" (1833) he has attempted, quite happily, an imitation of the manner and language of Rabelais. Latterly, also, he has produced two dramatic pieces, "*Vautrin*" and the "*Ressources de Quinola*," which have been severely criticised, and pronounced by those best qualified to judge to be unequivocal failures.

**BANCA**\* has been lately estimated to contain as many as 160,000 inhabitants. It is noted not only for the production of tin, but also for its pearl fisheries. In 1836, the tin exported amounted to 2634 tons,

being considerably more than half the amount of the tin annually produced from the Cornwall mines in England. Previously to 1812, this island belonged to the sultan of Palembang, in Sumatra; it was then ceded to the East India Company; and, in 1816, was transferred to the Dutch.

**BANDA ISLANDS**.\* There are at present about 100,000 lbs. of nutmegs, and 30,000 lbs. of mace, annually produced in these islands.

**BANDANA** or **BANDANNA**; a kind of calico printing practised in India, by which bright figures or spots are produced on a red or dark ground. But the European imitations now far surpass, in beauty and precision of design, the oriental patterns.

**BANG-KOK**, the present capital of the kingdom of Siam, in the peninsula beyond the Ganges, is situated on both banks of the river Meinam, about 30 miles from its mouth. It has a population of from 50,000 to 60,000, and is a place of considerable commerce. The most active portion of this commerce is carried on with the ports of the Chinese empire; but the trade with Singapore and British India has latterly been augmenting in importance. The principal exports are sugar, black pepper, ivory, sandal wood, hides, &c.: the imports are porcelain, tea, quicksilver, dried fruits, silks, &c., from China; with opium, British and Indian piece goods, and British woollens and glass, from India. More than one-half the inhabitants are Chinese, or their descendants; the rest are foreigners from the different states of the peninsula, and some Christians of Portuguese descent, together with a few Brahmins, who are supported by the king, and have a small temple of their own.

**BANIAN-TREES**, of India; one of the most remarkable curiosities of the vegetable kingdom. It never dies; for every branch shoots downwards, and, striking into the ground, becomes itself a parent tree, whose branches, in like manner, spread. One of them has been described as having as many as 350 stems, equal to large oaks, and more than 3000 smaller ones, covering a space sufficient to shelter 7000 persons. Its branches are crowded with families of monkeys, and with birds of every kind, and also with enormous bats, all of which find a subsistence upon the rich scarlet figs that grow upon it.

**BANIM** (John) was born near Kilkenny in Ireland, in the year 1800. His genius began to be very early developed; and there are said to be still in existence manuscripts of his prose and poetry, writ-

ten by him when a boy, which contain ample promise of the excellence to which he afterwards attained. He displayed, also, considerable taste and skill as a painter, and, for some years, intended to make painting his profession. When scarcely 17 years of age, he became editor of the "Leinster Journal." At the age of 18, he produced the play of "Damon and Pythias," which was successfully represented at Drury-Lane. When about 20 years old, he married and proceeded to London, where he became the editor of the "Literary Register." He, however, abandoned the unprofitable work of editorship in a few years, when the great success of the first series of "The O'Hara Tales" appeared (1825) to open to him the way to fame and fortune. In these, he was the first to depart from the path chosen by the Edgeworths and the Morgans, and to exhibit the crime, the passion, and the tragedy of the cabin, in all their dark colours. Carleton, Griffin, and others, have since followed, but have not surpassed him. The second series of "The O'Hara Tales" appeared in 1827. Then followed, in rapid succession, the "Boyne Water," the "Cropp," the "Denounced," the "Smuggler," the "Mayor of Windgap," "Father Connell," &c. But Mr. Banim, although he laboured most indefatigably, found literature a precarious subsistence; and he was, in consequence of an accident which seriously injured his health, in 1832, reduced to much distress at Boulogne; from which he was relieved by a public subscription made in his behalf, and enabled to return to Kilkenny, in the summer of 1835. In 1837, a pension of £150 was granted to him by the government, which was subsequently increased by an addition of £40 per annum. In his latter days, however, he was compelled to be dependent on the bounty of friends.—Banim died on the 4th of August 1842.

**BANKRUPT.\*** The act of 1 & 2 William IV., c. 56, constituting "the Court of Bankruptcy," materially altered the mode of administering the bankrupt law of England. It entirely removed the jurisdiction in the first instance, in cases of bankruptcy, from the Court of Chancery to the new Court of Bankruptcy, reserving only an appeal from the judges of that court to the Lord Chancellor, as to matters of law and equity and questions of evidence. Instead of the commission under the great seal, which formerly issued to a certain number of barristers-at-law, who were permanent bankrupt commissioners, the above act substituted a *fiat* of bank-

ruptcy, which issues in individual cases, on a petition of one or more creditors to the Lord Chancellor. The *fiat* is directed either to a commissioner of the Court of Bankruptcy, or to the commissioners of the district courts of bankruptcy, constituted under 5 & 6 Victoria, c. 22. This act, which went into operation on the 11th of November 1842, also effected several important alterations. It added, more especially, to the cases in which, according to the previously existing statutes, or judicial decisions under them, an act of bankruptcy can be committed, by rendering a trader liable to a *fiat* of bankruptcy who neglects paying, securing, or compounding a judgment debt, upon which the plaintiff might sue out execution, or who disobeys an order of any court of equity, or order in bankruptcy or lunacy, for payment of money on a peremptory day fixed.—In Ireland, there is no separate court of bankruptcy; but there are two commissioners who are empowered to act by a commission under the great seal.—In June 1838, the French law of bankruptcy and insolvency was abrogated; and an entirely new law was promulgated, which now forms Book III. of the "Code de Commerce."—The Congress of the United States legislated a second time on the subject of bankruptcy, by an act, passed in August 1841, to establish a uniform system of it throughout the Union; which took effect on the second day of February 1842, but was repealed in the session of Congress of 1842–43. The act provided for two kinds of bankruptcy, *voluntary* and *compulsory*. Of these, the first was where a person who owed debts, not created by any defalcation as a public officer, or in a fiduciary capacity, might, upon making a petition to the proper court, be declared to be a bankrupt by a decree of the court, and if he have been found to have complied with the provisions of the law, be entitled to a discharge from all his debts. The second was where the debtor, being a merchant, whether engaged in the wholesale or retail trade, and indebted to an amount not less than 2000 dollars, might be declared in a variety of specified cases to be a bankrupt, on the petition of one or more of his creditors, to whom he owes debts amounting altogether to a sum not under 500 dollars; but any person, in this manner declared to be a bankrupt, was entitled, if he claimed it, to a trial by jury, before being compelled to make an assignment of his property for the benefit of his creditors.—In assigning his property, too, the bankrupt was permitted to retain the

wearing apparel of himself and family, together with his necessary household and kitchen furniture not exceeding in value the sum of 300 dollars; and nothing in the act was to be construed in any way to impair the rights of married women or minors, or securities of any description whatever on property, real or personal, that might be valid by the laws of the respective states.—The repeal of this act, so soon after it had gone into operation, it may be mentioned, scarcely affected any existing interests, and excited comparatively little of the public attention; inasmuch as almost every debtor who was not, or did not, before long, expect to be, in circumstances to meet his pecuniary engagements, had hastened, in anticipation of the possibility of its repeal, to take advantage of it *voluntarily*.

**BARATIER** (John Philip), born in January 1721, at Schwabach, in the margravate of Anspach, in Germany, was the son of a French Protestant clergyman, who had emigrated from his own country on account of his religion. The father, who was a man of extensive information, devoted all his leisure time to the education of his child, whose precocity of intellect was such that, at 4 years of age, he spoke Latin with his father, French with his mother, and German with the domestics of the family. Between 4 and 5 years of age, he commenced the study of Greek, and in 15 months was able to read the Scriptures in that language, and to translate them into Latin. Towards the end of his 6th year, he began Hebrew, in the study of which he spent 3 years. When in his 7th year, he had learned by heart the Psalms in the original. At 9 years of age, he made a dictionary of the most difficult Hebrew and Chaldaic words; and at 10, could translate from the Hebrew Bible without points, readily and fluently, into Latin or French. He learned, without oral instruction, Syriac, Arabic, and Ethiopic. He then betook himself to Rabbinical literature, reading with great avidity the books of the Cabbalists, Talmudists, commentators, &c. In his 13th year, he began a translation into French of the travels of Benjamin of Tudela, a Hebrew writer of the 12th century, to which he added copious notes and a number of curious and interesting dissertations. Next he applied himself to theology and the study of the Christian fathers, as well as to philosophy and mathematics, especially astronomy. Of his great progress in the last-mentioned branches of knowledge he gave unequivocal evidence in a memoir,

presented to the Academy of Sciences at Berlin in January 1735, in which he explained a new method of finding the longitude at sea, and on account of which he was elected a member of the Academy. In the same year he underwent an examination at Halle, where he defended 14 theses, prepared the night before, in the presence of 2000 spectators, and excited the astonishment of all. After a visit to Berlin, where he was kindly received and patronized by the King of Prussia, he returned to Halle, in order to enter upon the study of the law, in accordance with the recommendation or direction of that monarch. In the course of 15 months, he attained to such a proficiency in this study, that he was able to support a thesis on public law with great credit; and this was accomplished, too, without his neglecting the favourite studies which had heretofore occupied him. His intense application to study, however, proved extremely prejudicial to his health, and brought on a lingering disease, of which he died in 1740, when only 19 years and 8 months old.

**BARBADOES.\*** The capital, Bridgetown, contains about 20,000 inhabitants.—The governor, who is also the governor of Grenada, St. Vincent, Tobago, Trinidad, St. Lucia, and their dependencies, administers the island, in conjunction with a council of 12 members, and a representative assembly of 2 members from each of the parishes,—making 22 members.—The principal exports are sugar, molasses, rum, coffee, cotton, and ginger; they amount in value at present to about £650,000, having latterly very much declined; partly in consequence of the equalization of the duties on the importation into Great Britain of East and West India colonial products. See *West Indies*.

**BARBAROUX** (Charles), born at Marseilles in 1767, was involved, at an early age, in the events of the French revolution, and became one of the most distinguished among the *Girondists*. But, although of an ardent temperament, and embracing zealously the new opinions of the period, he acquired the credit of never forgetting, in his political career, what was due to civilization and humanity. While practising his profession of the law in his native city, he edited a journal under the title of "*L'Observateur Marseillais*," which contributed powerfully to kindle that enthusiasm with which the people of Marseilles enlisted in the revolutionary cause. A General Lieutaud had been placed at the head of the national guard of the city, who, being secretly attached to the ancient

*réfuge*, sought to render its adversaries odious, by allowing, and even stimulating, those under his control to commit all manner of excesses. Barbaroux saw the tendency of his proceedings, and succeeded in having him superseded. The municipality, whose respect and confidence Barbaroux had a long time enjoyed, now appointed him their secretary,—an office in which he exhibited the greatest activity and diligence, at the same time not intermitting his labours as an advocate, or editor. When the Constituent gave place to the Legislative Assembly, he was sent as the especial agent of the "Marseillais" to Paris, to take charge of their interests, in co-operation with the deputies of the department (*Bouches du Rhone*). There, on the memorable 10th of August 1792, he took an active part with the Marseillais in the overthrow of the monarchy; and on Roland, with whom he had formed an intimate connection, again becoming one of the ministry, he was invited by him to be his secretary. This offer he declined, and shortly afterwards returned to Marseilles, where he was received by his fellow-citizens with the utmost enthusiasm. He was chosen by them to be their representative in the Convention. In that body he occupied a prominent rank among the Girondists, and was one of those who, while they voted for the death of the king, voted at the same time for an appeal to the people of France in reference to his fate. Having strenuously opposed the party of Marat and Robespierre, and pointedly charged the latter with aiming at the dictatorship, he was proscribed, on the 20th of May 1793, as a royalist and an enemy of the republic. He took refuge, at first, in the department of Calvados, where he and his friends had hoped to be able to make head against the forces of the Convention. Being disappointed in this, he fled for security, encouraged by his friend Guadet to expect a favourable reception in that quarter, to the department of the Gironde. The partisans of the Convention had, however, been beforehand with the Girondists. Everywhere the reign of terror had been fully organized; and it was with difficulty that Barbaroux, with a few of his companions in misfortune, succeeded in reaching St. Emilion. Here they were for a time concealed in the house of a sister-in-law of Guadet, remaining during the day in a damp subterranean recess. It became necessary to change their hiding place; and, after wandering a while about the neighbourhood, they took up their abode again

in St. Emilion, with an individual of the name of Troquet. This worthy man being, however, threatened with a domiciliary visit, the unhappy party whom he had protected were obliged once more to go they knew not where. On their route, perceiving a crowd of persons whom they conceived to be in pursuit of them, Barbaroux, in despair, attempted to commit suicide by shooting himself with a pistol. Although badly wounded, he survived to be condemned to death and guillotined, a few days afterwards, at Bordeaux. He perished on the 25th of June 1794, in the 28th year of his age.

**BARBER;** a person who makes a trade of shaving and dressing the hair of other people for money. Barbers acted a conspicuous part at Athens, even before the practice of shaving the chin was introduced. The Athenians allowed their beards to grow only to a certain length, and the chief province of the barbers was to keep them of the proper length and form, by frequently and skilfully cutting them with a razor, scissors having then not yet been invented. According to Varro, as reported by Pliny, there were no barbers in Rome until the 454th year of the city, when they were imported by Ticinius Mela from Sicily. In both Athens and Rome the barbers' shops became the resort of loungers and idle gossips, eager to hear and to tell the news or scandal of the day. Horace, to indicate the extreme notoriety of a story, says that it was "omnibus et lippis notum et tonsoribus." In both Athens and Rome, too, the barbers had the task assigned them of cutting their visitors' nails. The practice of shaving the head in eastern countries renders the employment of barbers in them indispensably necessary. This operation is, in some places, performed by women; but, whether by male or female hands, it is commonly performed with the greatest dexterity. As early as the time of Hippocrates some surgical operations were considered as degrading to physicians, and consequently left to be performed by barbers; and such is still the case in some countries, especially in the East, at the present day. In France, the council of Tours, in the year 1163, prohibited the clergy, who then shared with the Jews the practice of medicine in Christian Europe, from performing any bloody operation; and from that time the barbers remained, for some centuries, in uninterrupted possession of the practice of surgery. To this circumstance is to be attributed the importance subsequently

attached to barbers; and, in part, the influence acquired by some of their number, even in affairs of state. Pierre la Brosse rose to be prime minister of Philip the Bold; and Oliver le Diable possessed the confidence of Louis XI., was promoted by him to the dignity of a count, and appointed to the command in various military expeditions. In England, so late as the early part of the 16th century, the barbers were incorporated with the surgeons of London. This state of things has, however, now past away. The only surgical operation performed by barbers any where in Europe, at present, is bleeding. The barber has sunk to his proper level; and the surgeon has assumed his seat by the side of the practitioner of physic.

**BARSIER** (Auguste); a French poet, born on the 28th of April 1808, at Paris, where he resides in the possession of a competent fortune. Shortly after the revolution of July, he made himself known by a number of vigorous satires directed against the corruptions of the period. The first was "La Curée," published in the "Revue de Paris," in which he severely lashed those intriguers who secluded themselves during the three days, but who came forth when the victory had been achieved by the people, like so many vultures, to partake of the spoils; then followed "L'Idole," an indignant poem against Napoleon; and next "La Popularité." His collection of poems, entitled "Il Pianto" (1833), contains, with much that is objectionable to criticism, many truly poetic *plaints* on the degradation of the Italian people; while, in his "Lazare" (1837), he undertakes to describe the *wretched* condition of the English. A uniform edition of his satires and other poems was published in 1837, and his "Nouvelles Satires" in 1840.

**BARBOUR** (James) was born in Orange county, Virginia, on the 10th of June 1775. His parents, though in the highest degree respectable, were possessed of very moderate pecuniary means; in consequence of which he received only a limited preparatory education. When a boy, he acted as deputy sheriff of his native county; and he had to earn a subsistence while occupied in prosecuting his legal studies. He was admitted to the bar at the age of 19, and soon acquired considerable reputation as an advocate. But he did not remain in the practice of his profession long enough to rise to a high eminence in it. As soon as he became eligible by attaining the age of 21, he was elected, by his immediate fellow-citizens, to represent

them in the Virginia Legislature; and of this body he continued a member until 1812. He took a leading and active part on the principal subjects which engaged its deliberations. The first conspicuous occasion on which he distinguished himself in his political career, was when Mr. Madison's celebrated resolutions, of 1798, were submitted to the House of Delegates. He spoke and voted in favour of those resolutions. Their adoption was an important link in the chain of events which led to the defeat of the party in power, and the placing of Mr. Jefferson, in 1801, in the presidential chair. This victory having been achieved, to which Mr. Barbour had contributed by his ability and influence, a proscriptive spirit led, in many instances, to the removal from office of the existing incumbents, on no other grounds than the disagreement in their political opinions and those entertained by the dominant party. An attempt to follow the example thus set, by the removal of the state auditor, a faithful and competent officer, was successfully resisted by Mr. Barbour and other high-minded members of his party, who declared that, in the preceding contest, they had contended for principle, and not for the privilege of seizing or distributing the spoils of victory. While a member, also, of the legislature of his native state, Mr. Barbour originated several of its wisest and most beneficent measures. He proposed, and carried through the House of Delegates, a law against the practice of duelling, which was, however, lost in the Senate. Having, in the succeeding session, been chosen Speaker of the House, he was precluded, by parliamentary usage, from presenting it again. But a bill that was an exact copy of the former was brought forward by another member, and was enacted into a law. Another subject, in reference to which Mr. Barbour's services to his country entitle him to especial notice in this place, is that of education. Not being able to succeed in obtaining a direct appropriation by the Legislature for the diffusion of the means of instruction among the people of Virginia, and finding that a few thousand dollars flowed annually into the public treasury from fines, &c., he prepared a bill, entitled "An act to appropriate certain escheats, penalties, confiscations, and forfeitures, to the encouragement of learning," which passed both branches of the Legislature. This act laid the foundation of the literary fund; without the previous existence of which, all the influence of Mr. Jefferson, aided as it was by the efforts

of Mr. Barbour and other enlightened citizens, would have been unavailing to establish the University of Virginia,—and the thousands of dollars now annually expended for the education of the poor in that state would have been wanting.—Mr. Barbour was elected Governor of Virginia in January 1812; and after having been re-elected to this office, by the Legislature, as often as he was constitutionally eligible, he was translated to the United States Senate. He entered on the duties of his new station at a period when, on account of the war between the United States and Great Britain, the fiscal embarrassments of the general government were at their height; and he was the member of the party, which supported the administration of Mr. Madison, who was selected to present a bill, and urge the passage of it in the Senate, for the incorporation of a national bank, to take the place of the bank whose charter expired in 1811. The proposed measure was regarded by the government, at the time, as indispensable for restoring order to its embarrassed finances, and placing its credit on a proper basis; and the speech delivered by Gov. Barbour, in presenting the bill, has been commended as one of great ability. The bill passed the Senate, and would also, there can be no doubt, have passed the House of Representatives by a decided majority, but for the news of peace, which arrived before the action of that body. At a subsequent session, Gov. Barbour gave his support to the act incorporating the late Bank of the United States. He acted a prominent part in the discussions on the celebrated "Missouri question," and on other important occasions, and was honoured by the Senate, by being first placed at the head of the military committee, then appointed chairman of the committee on foreign relations, and lastly, by being elected its president *pro tem*. He was a member of the Senate from 1815 to 1825. In the last-mentioned year, he was invited by the newly-elected president of the United States, Mr. Adams, to take charge of the department of war. He continued to discharge the duties of this station until 1828, when he received the appointment of minister to the Court of St. James. On the accession of General Jackson to the presidency in 1829, he was recalled. Returning to the United States, he retired to his residence in Orange county, Virginia, and devoted his time mainly to agricultural pursuits; without, however, losing his interest in politics. He was a zealous opponent of the administrations of General Jackson

and of Mr. Van Buren. In 1839, we find him presiding at the "Harrisburg Convention," which nominated General Harrison for the presidency, and, in 1840, addressing the people in different parts of Virginia, in behalf of the latter's election. At this period his health was already declining, and he died on the 8th of June 1842, regretted not by his own family and his numerous personal friends only, but by his fellow-citizens in general, and the poor of his county, to whom he had been a benefactor.

BARBOUR (Philip Pendleton), a younger brother of the former, was born in Orange county, Virginia, on the 25th of May, 1783. He went to school in the neighbourhood of the residence of his parents, until the year 1799; and he is said to have exhibited, while a boy, a great facility in the acquisition of the Greek and Latin languages. He passed the early part of the year 1800 at home; and, to use his own expression, "read some law." In the month of October of the same year, he was sent by his father to the state of Kentucky, to attend to some business which the latter had in that quarter. Meeting with unexpected difficulties and delays in accomplishing the object of his journey, young Barbour found himself in a remote region, and in the midst of strangers, altogether destitute of funds,—his father having, in the mean time, felt himself under the painful necessity of writing to him that he must not expect to receive any further assistance from his parents. In this dilemma, he applied to the trustees of the Bardstow Academy to appoint him teacher of the ancient languages. His application met, at first, with very little favour; the trustees being disposed to take for granted the incompetency, for the office which he sought, of a youth only 17 years old. After his qualifications to fill it, however, had been ascertained, at his desire, by an examination, they pressed it upon his acceptance. But he now declined it; having been persuaded by some of his new acquaintances to offer himself in the adjacent courts as a candidate for admission to the bar. When admitted, he soon succeeded in making a favourable impression as an advocate; and a fair prospect seemed to be presented to him of his eventually rising to eminence in his profession, in Kentucky. Yet in 1801, as soon as he had earned fees enough to bear his expenses, he yielded to the persuasions of his friends, and returned to Virginia. Having there borrowed the requisite funds, he attended, during one session, the lec-

tures at the college of "William and Mary." In the spring of 1802, Mr. Barbour resumed the practice of the law, selecting his native and the neighbouring counties, as a field for his exertions. He married in 1804. His professional reputation soon became so great, that he was employed on one side or the other, of every case of any consequence. He was required to travel great distances from his home to defend criminals; he was entrusted with important causes in the "Court of Appeals" at Richmond; and he was at length called to appear before the Supreme Court of the United States at Washington.—Mr. Barbour's political career began in 1812, by his election, by the people of Orange county, to represent them in the Legislature of Virginia. He served in that body during two successive sessions with great distinction, and was one of the acknowledged leaders of the party which supported the administration of Mr. Madison, during the last war with Great Britain. In 1814, he was elected to a seat in Congress, where he was chairman of the naval and judiciary committees, and subsequently the speaker of the House of Representatives. While a member of the House, he took part in the discussion of all the great questions of the day,—“the constitutional power of Congress to engage in internal improvements,”—“the Missouri question,”—“the tariff bill,”—“the national road bill,”—&c.; and on all these he spoke with ability, maintaining in respect to them the opinions usually entertained in the southern section of the Union by the party (the democratic) to which he was attached. As the presiding officer of the House, he was at once dignified and prompt and accurate in his decisions. In 1825, Mr. Barbour retired from Congress, to take a seat on the bench of the General Court of Virginia; which position had been assigned him by a very flattering vote of the Legislature of the state. Two years afterwards, however, resigning his judgeship, he consented, at the earnest request of his former constituents, to represent them again in Congress. He was honoured in 1829, by being selected to preside over the deliberations of the Convention which formed the present constitution of Virginia, and which embraced among its members two ex-presidents of the United States,—Mr. Madison and Mr. Monroe,—Chief Justice Marshall, and others of her most eminent citizens.—While engaged, on the floor of Congress, in a speech on the Maysville road bill, in which he put forth his whole strength as a debater, he was attacked

with so copious a hemorrhage from the lungs, as to cause apprehensions of his immediate death. Warned by this event of the expediency of his ceasing to address any public body, or to make any uncommon exertions of voice, he accepted, in 1830, the appointment of judge of the Federal Court of the Eastern District of Virginia, which was tendered to him by President Jackson. In October 1831, he went to Philadelphia, as a delegate to the "Free Trade Convention," and was unanimously chosen, by his fellow-delegates, to preside over their deliberations,—an office which he performed in the most satisfactory manner. On the 15th of March 1836, he was translated from the judicial station which he held to the bench of the Supreme Court of the United States, as an associate justice. This high office he continued to fill, with a steadily increasing reputation as a jurist, till the 24th of February 1841; when a sudden death, in the city of Washington, closed his earthly career. In addition to the offices filled by Mr. Barbour, others, of a very honourable character, were pressed at different times upon his acceptance, but which he declined; such as the professorship of law in the University of Virginia, urged upon him by Mr. Jefferson when that institution was opened in 1825,—the office of Chancellor of the state,—and that of Attorney General of the United States. He also refused the nomination for a judge of the Court of Appeals, for governor, and for a seat (on two occasions) in the Senate of the United States.—One well qualified to form an opinion (Peters Reports, vol. 16) has said of Judge Barbour that—"his mind was in a remarkable degree acute, sound, and discriminating; inclining to subtlety in disquisition, but not misled by it. He was earnest, candid, patient, and laborious in all his investigations; quick to discern the real points and merits of a case, but slow in arriving at his own conclusions. His talents were of a high order; but he was distinguished less for brilliancy of effort, than for perspicacious, close, and vigorous reasoning. He sought less to be eloquent than to be accurate; less to persuade by declamatory fervour, than to convince by clear and logical deduction. The learning, therefore, that he brought to the discussion of every cause, was pertinent, exact, and illustrative. It had point and force, and not merely remote analogies to give it effect." These qualities, too, characterised him, not in his professional capacity only, but also in his political or legislative career. His speeches were

powerful appeals to the understandings of his hearers, but have no pretensions to be styled eloquent, at least according to the common acceptation of this term. We may add that, in all the relations of life, Judge Barbour maintained an exemplary character; he was an excellent son, husband, and father, a kind neighbour, charitable to those in distress, and indulgent to a fault, towards his dependents.

**BARCELONA.\*** The trade of this city has greatly declined since the emancipation of S. America. In 1831, only 128 foreign ships, of the burden of 15,130 tons, entered the port. The ships belonging to Barcelona carry on no foreign trade except to the Spanish West Indies: they are few in number, and are continually decreasing. Those engaged in the coasting trade are usually of very small burden. Grain is generally represented as forming an important article in the imports into Barcelona. But its importation from abroad is prohibited; and the wants of the city are supplied either by land carriage from the interior, or by coasting vessels from other Spanish ports. See *Spain*, (Sup.)

**BARCLAY DE TOLLY** (Prince), a Russian field-marshal, was descended from a Scottish family, one of whom, his ancestor, settled in Livonia in the year 1669, and served under Peter the Great. He was born in this province in 1756, and entered the Russian army when yet a mere boy. He served in the campaigns of 1788 and 1789 against the Turks, in 1790 against the Swedes, and in 1792 and 1794 against the Poles. In the campaign of 1806-7, against Napoleon, in Poland, he commanded the advanced guard of the army under Benningsen, and distinguished himself greatly on several occasions, but was so severely wounded by a shot in his right arm that he was deprived of the use of it for many years. In 1808 and 1809 he acted against the Swedes in Finland; and, in the winter of the last-mentioned year, performed the exploit of crossing the Gulph of Bothnia on the ice, at the head of a considerable force, and thus contributed decisively to the successful conclusion of the war. He was appointed minister of war in 1810; in which office he introduced many important improvements into the Russian army, and prepared the means of resistance to the invasion of Napoleon, which he foresaw would, sooner or later, inevitably take place. When this event actually occurred, in 1812, he was appointed, by the emperor Alexander, to the command in chief of the Russian armies assembled on the western frontier.

If not the originator of the plan of the campaign that followed—a campaign that was to determine the fate of Europe—Barclay de Tolly at least deserves the credit of having given it his own approbation, and of having induced Alexander to adopt it. It consisted in the retreat of the main army before the superior forces of the enemy, as slowly as the maintenance of order and discipline among the soldiers would admit, from time to time turning upon their pursuers, or receiving the attack of the advanced divisions of the latter when the ground and other circumstances were favourable for so doing. On their route, also, every thing that might serve for support or accommodation to the French army was to be destroyed; and the retreat was to be continued until the Russians had reached the town of Nishni-Novogorod, at the confluence of the Wolga and the Ocka, before the real contest should begin. The French army, reduced in numbers, extended over a wide region of country, and provisioning themselves with difficulty, were then, besides being engaged by a formidable and determined enemy in front, to be attacked in flank and rear by the armies from the northern and the southern provinces of the empire. This plan, however, as is well known, could only be carried partially into execution. There were *moral* difficulties in the way, which had not been foreseen. The Russian soldiers could not comprehend the motives of their leaders in thus steadily retreating before the enemy, and began to lose confidence in the capacity and patriotism of the commander in chief, whom, though born in Livonia, they scarcely considered as a Russian. Their discipline was shaken, and they became clamorous for battle. In this state of things, Alexander thought it expedient to yield to their wishes, and to hazard a great battle for the preservation of Moscow; but, in order that this might be done with every chance of success, their general in retreat was superseded by Marshal Kutusow, who had lately been successful against the Turks, and who possessed the advantage of being a genuine Russian. Barclay de Tolly did not, on this account, desert the post assigned him in the defence of his country. He commanded the right wing in the sanguinary conflict of Borodino; with which he maintained his ground after the centre and left had been obliged to quit the field, and with which he kept the enemy at bay so as to secure the further retreat of the army without molestation. While, during the subsequent part of the war against



Napoleon, he did not again act as commander in chief, but was rendered subordinate first to General Wittgenstein, and next to Prince Schwarzenberg, he distinguished himself on several important occasions; as, for instance, at Culum, in compelling the corps of General Vandamme to lay down its arms, at the battle of Leipzig, and at that fought before Paris, which concluded the campaign of 1814. For his conduct on the last occasion especially, he was promoted to the rank of field-marshal. In the following year the contest between the hostile parties was ended by the success of the English and Prussians at Waterloo, and the necessary consequences of that success, before Barclay and his soldiers reached the scene of action. After a stay of a few months in France, he returned to Russia. He died in 1818, on a journey which he had undertaken for the benefit of his health, at Insterburg, in East Prussia.

**BARE POLES;** the masts of a vessel at sea without any sails upon them. *Under bare poles* implies, in general, that the wind is so high that no sail can be exposed to it.

**BARÈGES** is a small town of France, in the department of the "Hautes Pyrénées," situated in a valley between two chains of mountains, on the banks of the gave de Bastan, and consists of a single street. It is celebrated for its warm sulphur springs. The three principal of these have a temperature from 86° to 113° of Fahr. From 1000 to 1200 persons are said to resort here annually, the majority of whom belong to the army, in quest of health. Bathing in the water is recommended for rheumatism, diseases of the skin, old gunshot wounds, &c.

**BARILLA.\*** This substance is principally consumed in the manufacture of soap and glass, and in bleaching. But it is now much less used than formerly, on account of the cheapness with which soda is obtained from common salt. About 70,000 cwt. are at present imported annually into Great Britain for home consumption, mostly in Ireland. The value of the quantity imported into the United States amounted in the year ending June 30th 1844, to \$50,394.

**BARING\*** (Alexander) was created a peer, by the title of Lord Ashburton, on his retiring from business as a banker, in 1835. Since the passage of the Reform Bill in 1832, to which measure he was decidedly opposed, his apprehensions of the consequences likely to ensue from the progress of *radicalism* have thrown him

into the ranks of the tories; and he was appointed, in 1842, by the tory ministry of Sir Robert Peel, to proceed to the United States as ambassador extraordinary from Great Britain, for the purpose of putting an end, by a treaty, to the controversy relating to the boundary line between the former country and the N. American possessions of the latter. This mission, it is well known, resulted in an arrangement as satisfactory to both the parties concerned, as could well have been expected under the circumstances of the case.

**BARIUM.** See *Barytes*.

**BARRÈRE.\*** The revolution of July (1830) left the way open for Barrère to return to France. In 1831, the department of the "Hautes Pyrénées" elected him a member of the chamber of deputies; but the election was annulled by the chamber, on account of some informality. He was subsequently chosen by the arrondissement of Tarbes to be a member of the general council of this his native department, where he had contrived, under every vicissitude of prosperous or adverse fortune, to retain his popularity. This office he held until 1840, when he resigned it, that he might pass the remainder of his days "in repose and contemplation." He died on the 14th of January 1841,—the last of the men who acted a conspicuous part in the earlier period of the revolution, and the last survivor of those who directed the course of public affairs during the "reign of terror." For some time before his death, he had been engaged in writing a history of the proceedings of the celebrated Committee of Public Safety. In what state this work was left by him, we are not informed. He left behind him memoirs of his life, or, more properly, an apology for his political career, which have since been published by the younger Carnot (1843), in 4 volumes. What is most remarkable in these memoirs is the profession made by Barrère of being actuated by religious feelings, and this to such an extent as to derive his democratical opinions from the principles, or what he conceived to be the principles, of Christianity. Of the numerous literary productions of which he was the author and which were published during his lifetime, we may mention the "Esprit des états généraux" (1789); his "Opinion sur le jugement de Louis XVI." (1792); "Les Anglais aux dix-neuvième siècle" (1804); his "Histoire des révolutions de Naples, depuis 1789—1806;" "Les époques de la nation française et les quatre dynasties" (1815); and the "Théorie de la constitution de la

Grande Bretagne, ou ses trois pouvoirs séparés et unis" (1815).

**BARREL**; an English measure of capacity, formerly varying with the nature of the liquid measured; thus a barrel denoted  $31\frac{1}{2}$  gallons of wine, 32 gallons of ale, or 36 gallons of beer. Towards the close of the 17th century, however, the ale and beer barrels were equalized, by statute, for every part of England, except London.

**BARROW'S STRAITS**, in N. America, the "Lancaster Sound" of Baffin, is the connecting channel between Baffin's Bay on the E. and the Polar Sea on the W. The water of this strait is exceedingly deep, the soundings frequently giving a depth of 200 fathoms; and often no bottom can be found. There is very little appearance of a current in any direction. But perhaps the most remarkable circumstance connected with it is the sluggishness of the mariner's compass on its waters; which is so great that, after advancing a short distance towards the W., no alteration of course produces a change of more than three or four degrees in the direction of the needle. The observation of this fact led first to the conclusion, that the magnetic pole would be found in this neighbourhood.

**BARRY** (William Taylor) was born in Lunenburg county, Virginia, on the 5th of February 1785. His father was of Irish descent, and a soldier of the Revolution. In 1796, he went to Kentucky, and settled in Jessamine county. He received his preparatory education at the "Kentucky Academy" in Woodford county, and was subsequently a student at Transylvania University, where he was graduated. Having determined upon making the law his profession, he commenced the study of it under the direction of the Hon. James Brown, afterwards minister of the United States to France, and completed his legal course at the college of William and Mary, in his native state. In 1805, he was admitted to the bar at Lexington, Kentucky. He married in 1807, and, in the same year, was appointed attorney for the commonwealth. In 1807, too, he was elected a member of the Legislature, and served in this capacity during several successive sessions. He was elected to Congress in 1810. He contracted a second marriage in 1812. In 1813, he acted as an aide-de-camp of Governor Shelby in his North-Western campaign, and was at the battle of the Thames. In 1814, he was again elected to the State Legislature, and chosen Speaker of the House of Representatives; and in the beginning of the

legislative session, he was elected to the Senate of the United States. Before the expiration of his senatorial term, he resigned his seat, and was soon after, in 1816, appointed one of the superior judges of the courts of Kentucky. In 1820, he was chosen lieutenant-governor; in 1824, he was appointed Secretary of State, by Gov. Deaha; and, on a reorganization of the judiciary department, was appointed chief justice. This last office proved only a temporary one; as, before long, an act of the Legislature restored the old system of judicature. On the election of General Jackson to the presidency of the United States, he was appointed Postmaster General. This office he held during six years. He resigned it in 1835, when he was sent as American Minister to Spain. He, however, never reached his destination; dying, on his way thither, at Liverpool, on the 30th of August (1835).—Mr. Barry's distinguishing trait was his talent for popular eloquence. He was affable in his deportment, and benevolent in his disposition.

**BARRY CORNWALL**. See *Proctor*, (Sup.)

**BARTHE** (Felix), peer of France, was born on the 28th of July 1795, at Narbonne, in the department of the "Aude," studied law at Toulouse, and practised his profession at Paris. From 1820 to 1830, he distinguished himself by defending various individuals before the tribunals, charged with political offences, and often successfully. He thus acquired a high degree of popularity, and was thereby stimulated to become one of the most conspicuous and energetic adversaries of the government of the Restoration. At length came the revolution of July, which opened to him a new career. A few days only after the re-establishment of order, he was appointed public prosecutor before the tribunal of the department of the "Seine," and shortly afterwards, president of that court. Before the end of the year, he was named minister of Ecclesiastical Affairs and Public Instruction, as well as president of the Council of State. Subsequently to this, it was on one occasion of moment only that he seemed to act in entire consistency with his former principles. He made a proposition to repeal the tax imposed on newspapers,—a proposition, however, rejected by the chamber. His ministerial career was, in general, marked by an unscrupulous adherence to the prevailing power; and one of the earliest measures which he adopted in the department of the administration especially confided to him, was the practical revival of a pri-

hibition, issued by the late government, against all associations or combinations of students. This was followed by such a demonstration of public opinion, as at once to make him fully aware of the loss of his former popularity, and to incapacitate him from being henceforth of any real service to the government. He drew up a bill relative to the subject of elementary instruction in France; but so defective in its nature, that, when presented to the chamber, it was not only condemned by the opposition to the ministry, but was disapproved of by many of their supporters; and he was obliged to withdraw it. On Lafitte's retirement, Barthe became Keeper of the seals (*garde des sceaux*). He subscribed the removal from office of Comte, Odillon Barrot, and others, with whom he had once entertained a community of opinion; was a partaker in the famous ordinance put forth by the government, after the events of June 1832, declaring Paris in a state of siege, and which was declared to be illegal by the Court of Cassation; evinced an extraordinary zeal in the prosecution of the press, and of political associations; and, in 1834, originated the law for materially restricting the right of the people to associate together, with the view of accomplishing, by so doing, any public object. On the change of administration in the last-mentioned year, he was compensated for the loss of office, by the sinecure post of first president of the Court of Accounts, until the fall of the *doctrinaire* ministry in April 1837, when he once more became *garde des sceaux*, or minister of justice. In this situation, he took part in framing the amnesty granted for political offences; although, by his influence, it was considerably restricted in its application. Without contributing, in any great degree, to the support of the Molé ministry, he continued a member of it, till its dissolution in April 1839.

**BARTHÉLEMY\*** (Auguste Marseille). In conjunction with his friend Méry, he had contributed, by satires on the government of the Restoration, to render it odious to the people, and to effect its overthrow. Yet this event, so long the goal of his aspirations, at once, from its very nature, annihilated his importance. The satirist's occupation was gone; his friends were in power. But this was not all. With the revolution of July was, very naturally, associated a change, to a certain extent, in the prevailing literary tastes of the day. The same reverence as heretofore could no longer be paid to the writings of a

former period; and the *classic* yielded to the *romantic* school. Barthélemy and Méry, who had belonged to the former of these, were not competent to commence successfully a new career in a field entirely new to them. After continuing, besides, to write for a time in a republican spirit, Barthélemy surprised his friends by becoming a defender of the decree of the government declaring Paris in a state of siege (1832). Public opinion was loud in condemning this step; and it was even insinuated that he had been bribed by the government. His poem, entitled "Ma justification," had not the intended effect of allaying the feeling which existed to his disadvantage; whereupon he set out on a journey to America. Barthélemy has, since then, published a translation of Virgil into French verse.

**BASIN**, in physical geography, is the space of country drained by a particular river, as the basin of the Thames, Rhine, St. Lawrence, Mississippi, &c. In geology, it denotes depressed portions of strata, forming a hollow surrounded by hills, as the London basin, the Paris basin, &c.

**BASQUES\*** The population of this race has been lately estimated as high as 370,000 in Spain, and 130,000 in France. Their language is composed of a number of dialects, all having a common origin, yet so distinct from each other, that the inhabitants of one province can scarcely understand those of another. Hence is it that, in Spain, they do not say the Basque people or nation, but the *Basque nations* (*las naciones bascas*). The Basques retained their peculiar laws and privileges down to the year 1806, when these were very much infringed upon; and the attempt, made in 1832, to deprive them altogether of these privileges, especially of the so-called *fueros*, was the principal cause of their support of the pretensions of Don Carlos, and of the civil war in the north of Spain. The contest, too, only ceased when the privileges in question were solemnly confirmed to them by the treaty of Vergara. See *Spain*, (Sup.).

**BATAVIA\*** in the island of Java. Since 1816, when it was restored to the Dutch, its population has been on the increase. According to a census taken in 1824, there were in the city and precincts, 3025 Europeans and their descendants, 23,108 Javanese and Malays, 14,708 Chinese, 601 Arabs, and 12,419 slaves; amounting in all to 53,861 persons, exclusive of the garrison. The number of inhabitants may now be estimated at from 60,000 to 70,000. In 1828, the value of the imports into Ba-

tavia was 17,976,004 florins, and that of the exports 17,490,341 florins. The principal articles imported were cotton goods, wines, copper (chiefly from Japan), and opium; those exported were coffee, rice, tin, bird's-nests (eaten as a delicacy in the east), tobacco, &c. Next to Holland, the chief trade is with England, China, Japan, and the United States of America.—The health of Batavia has been much improved since 1816; partly by the building of a new town on the heights a little more inland, where the government functionaries and principal merchants have their residences; and partly, also, by the demolition of useless fortifications, the filling up of some of the canals, cleaning of others, and the widening of several of the old streets.

**BATTEL**; a trial by combat which was formerly allowed by the law of England, where the defendant, in an appeal of murder or felony, might fight with the appellant, and thereby make proof, according as he was the victor or not, of his innocence or guilt. It is only of late years that this barbarous law has been abolished.

**BATTUE**; a term indicating a practice of huntsmen, which consists in encompassing a certain portion of the forest, and in endeavouring, by beating the bushes and with loud exclamations, to bring out wolves, foxes, or other animals of the chase.

**BAUDIN** (Nicolas), well known as a navigator, was born at the Isle of Ré, on the W. coast of France, in the year 1750. After spending a number of years in the mercantile service, he was appointed, on the reorganization of the French navy, in 1786, a lieutenant. The next information we have of him is that he was the captain of a vessel which sailed under Austrian colours from Leghorn to India, to make collections in natural history for the emperor of Germany. In another voyage, undertaken by the orders of his own government, he brought to France, from the West Indies, some valuable collections of the same description. He was then promoted to the rank of captain, and despatched, in the command of a ship, to China, conveying with him a young Chinese, who was desirous to return to his native country. From China, Captain Baudin proceeded to the Isle of France, and thence to New Holland, the coasts of which he had been directed to explore. In performing this task, his health was seriously impaired; and he died, in consequence, at the Isle of France, whither he had returned, on the 16th of September 1803. His harsh treatment of the natu-

ralists who accompanied him in this expedition was made by them a subject of bitter complaint. An account of it has been published by Péron, under the title of "Voyages aux terres australes."

**BAVARIA.\*** The population, at the end of the year 1837, was 4,315,469. Of this number 3,038,159 were Roman Catholics; 1,216,310 Lutherans and Reformed; 1000 Mennonists and Moravians; and 61,000 Jews.—The annual revenue and expenditure was fixed, by the budget for 1837–43, at 30,000,000 florins. The public debt amounts to about 130,000,000 florins.—The code Napoleon is in force in Rhenish Bavaria; but in other parts of the kingdom there is an extreme difference in the proceedings as to civil matters. The penal code, introduced in 1813, might be much improved, both in its regulations and in the form of its procedure. There is a high court of appeal and cassation at Munich; and in each of the provinces an inferior tribunal, to which an appeal lies from the courts of primary jurisdiction in the towns, and from the seignorial and cantonal courts of the country districts. A law has been passed providing for the purchase of the seignorial jurisdictions by paying an equivalent to their proprietors.—Of late years, the attention of the Bavarian government has been laudably directed to the education of its subjects; the Prussian system being adopted as a model for its imitation. Attendance at school is imperative on all children who have not received permission to be instructed by private tutors. Bavaria had, in 1837, besides primary schools, 78 Latin schools, which prepared boys for the gymnasiums or lycæums; 25 gymnasiums; 6 lycæums or high schools, preparatory to the universities; and the 3 universities of Munich, Wurzburg, and Erlangen, the two former of which are Catholic institutions, and the last a Protestant one. There are, ordinarily, upwards of 1300 students in attendance at the university in Munich, and 400 and 300 each in the others. In addition, too, to the schools already mentioned, a number of schools of arts and of rural economy, polytechnic institutions, seminaries for the education of teachers, theological seminaries, schools for civil engineering, for military science, for the fine arts, &c., have been established in different parts of the kingdom.—Until the formation of the Prussian commercial league, which has opened a great extent of country to the products of Bavaria, its natural facilities for commerce were defeated by its own prohibitory regulations, and those of most

of its neighbours. Although sounder views in this respect are beginning to be entertained, and although the government has given a powerful impulse to industry, by establishing mechanics' schools, annual exhibitions, and prizes, and still more by the abolition of the pernicious privileges of guilds and corporations, a vast deal yet remains to be done in removing the obstacles which trammel the productive powers of labour. One hears with surprise that here the number of labourers permitted to reside in towns, the number and distribution of trades, the prices of bread and meat, and even the introduction of new machinery, are all determined by artificial arrangements, dependent on the calculations and estimates of the minister of the interior, and enforced by means of a system of passports and a preventive police.—The "Bavarian Bank" at Munich, established, in 1835, on shares at 500 florins each, has functions assigned to it of the most various nature. It is not merely a bank of deposit, transfer, discount, and issue, but it insures lives, grants annuities, and lends money on mortgage of real estate, three-fifths of its whole capital being appropriated in the last mentioned manner. The present capital amounts to the sum of 10 millions of Rhenish florins; it may, however, be increased to 20 millions. The bank is prohibited from issuing notes under the denomination of 10 florins; and to be provided with the means of meeting its engagements, it is required to have a disposable fund in coin, at all times, of one-fourth of the amount of the notes issued by it, together with double that of the remaining three-fourths in mortgages. All the mortgages, too, of the bank must be on property not previously mortgaged; and the property must be of at least twice the value of the mortgage. The money thus loaned is to be repaid by yearly instalments of a percentage on the amount of the original sum, so as to complete the repayment in a period of 43 years. A commissioner is appointed by the king to superintend or inspect the transactions of the institution; which is, besides, subject to the usual control of a committee selected for that purpose. Whether owing or not to the complicated character of the business performed by it, it became, not long after going into operation, involved in embarrassment; from which, however, it has since happily relieved itself, and now possesses the confidence of the public.—In Bavaria, all destitute persons have a legal claim to relief from the public; and, most probably, it

was the wish to prevent the abuse of this right which has led to the enactment of a law that "no marriage between people without capital shall be allowed, without the previous permission of the poor institutions," that is, of the persons in each provincial district elected to superintend the management of the poor, who are bound to refuse such permission, unless they see a reasonable prospect of the parties being able to provide for the children that may be expected to spring from the proposed union. To insure their vigilance, it is enacted that the members of poor institutions neglecting to enforce this law "are to answer for the maintenance of the said families, should they not be able to maintain themselves." A law of this sort must tend powerfully to prevent improvident unions; and we are assured that it has retarded the increase of population, and has had a most salutary effect in averting extreme poverty, and consequent misery. Whether it has operated in a manner injurious to the public morals, it would be difficult to say. One thing, however, in this connection, is remarkable, to wit, the extraordinary proportion of illegitimate to legitimate births, which is as 1 to 4.4 in the kingdom generally. At Munich half the births are illegitimate; a fact, to a certain extent, to be accounted for by the residence in that city of the court, of a numerous garrison, and of a great influx of strangers.—The following are the principal towns of Bavaria, with their population in 1840: Munich, 93,435; Nuremberg, 44,863; Augsburg, 34,273; Wurtsburg, 27,353; Ratisbon, 21,904; Bamberg, 21,251; Baireuth, 16,949; Furth, 14,766; Anspach, 12,690; Passau, 10,820; Amberg, 10,788; Landshut, 10,224; Ingoldstadt, 10,195; Erlangen, 9957; Aschaffenburg, 9497; Speier, 8700.—The constitution bestowed by the king of Bavaria upon his people, in 1818, was sufficiently restrictive in its character, but was carried into practical operation in a spirit of still greater illiberality. All opposition to the measures of the administration for the time being, as well as every proposition made in the representative chamber for an enlargement of popular privileges, seemed to be regarded as evidence of the existence of seditious and disorganizing intentions; and the individuals most actively concerned were, in consequence, considered to be proper objects for the *surveillance*, and even hostility, of the government. Great hopes were, however, entertained of an improved condition of things, on the accession to the throne of the present king, Louis L. in

October 1825, who was understood to have a decided taste for the sciences, and especially for the fine arts, and, on various occasions, to have expressed very liberal sentiments. Accordingly, in the earlier part of his reign, some important reductions were made in the public expenditures, in both the civil and military departments; a million of florins from what was thus saved being added to the sinking fund, for extinguishing the public debt; and the remainder made to contribute to the erection of public buildings, of a splendid character and in an elegant taste, in the capital and elsewhere, as well as for the purposes of education, more especially for the richer endowment of the university of Munich, which was removed, in 1827, from Landshut to that city. In the same year, the censorship of the press on all journals, not political, was entirely abrogated; and a commercial union was effected with Wurtemberg. About this period, however, the government excited considerable dissatisfaction, on account of the restoration by it, in consequence of a concordat with Rome, of several religious orders and convents. Next came the revolution of July 1830, in France, which, in Bavaria, as in others of the German states, without inducing any popular tumults, vehemently agitated the minds of men, and alarmed the security of the existing authorities. This alarm became apparent as the elections approached of members to the representative chamber of 1831, when the government unexpectedly exercised its constitutional right of refusing to certain public officers, who had been chosen members, leave of absence from their posts during the session of the chambers, and when it also, without any such constitutional right, issued a decree restricting, in a still greater degree than heretofore, the liberty of the press. After the opening of the session, indeed, the government, thinking it had gone too far, dismissed from his post the minister who had originated the obnoxious decree, and exhibited a willingness to compromise the questions, which it had thus itself brought to an issue between it and the representative body, by the passage of laws that, under other circumstances, would have been readily assented to; but in the prevailing excitement, cherished as it was by the political journals of the country which had, in the mean time, ventured to exercise an unlimited freedom of discussion, the compromises offered were promptly rejected. Differences, likewise, arose between the parties, concerning the amount of the civil

list, and other matters having reference to the public revenue and expenditure. The government, which, during the whole of the session, had been zealously supported by the upper chamber, at length, tired with a fruitless contest, came to the resolution of dissolving the chambers, on the 31st of December 1831. Notwithstanding this step, the agitation of the public mind continued, and did not attain to its height till the "festival of the constitution," as it was called, in the month of May following, at the castle of Hambach, where 20,000 persons from different parts of Germany assembled, displaying the ancient colours of their common country, singing patriotic songs, and drinking toasts in honour of the French who had achieved their liberation, and of the Poles who were then struggling to accomplish theirs, from their oppressors. Then, however, a reaction, as is natural after every exaggeration of the ordinary tone of public sentiment, ensued; the agitation subsided, and gave place to tranquillity. In this state of things, the government cast aside all pretence of moderation; and such among the more conspicuous of its opponents as failed in making their escape from the kingdom by flight, were subjected, as a punishment, or in revenge, for their alleged political offences, to a protracted imprisonment, or were obliged to solicit forgiveness before the portrait of the king!—An important event in the later history of Bavaria was the selection, by the London Conference, of May 7th 1832, of the king's second son, Otho, to be king of Greece; and a still more important one was the accession of Bavaria, in conjunction with Wurtemberg, to the Prussian Customs' Union, on May 15th of the following year. At the meeting of the chambers in the spring of 1834, after the unfortunate result of the course pursued by them at their preceding session, it is not surprising that the members, although mostly the same individuals as then, should have come prepared to acquiesce passively in the measures proposed to them on the part of the government.—The year 1835 was remarkable for the opening of the first railroad constructed in Germany,—that from Nuremberg to Fürth. Since then, the successive sessions of the legislature have been chiefly occupied in the calm consideration of the means of promoting the *material* interests of the country, and many useful laws have been enacted; the only exceptions, calling for mention here, to the general remark just made, being certain differences which arose from the denial by the king of the

right of the chambers to inquire into the appropriation of the moneys, granted by them, to their destined purposes, and from the constantly augmenting influence of the ultra catholic party in the affairs of the state,—exemplified by a regulation promulgated by authority, that the protestant equally with the catholic soldiery should bend the knee on the elevation of the host, as also by the continued increase of the monastic institutions of various kinds. The number of these, which in 1831 was 42, amounted in 1840 to 105.

**BAY**, in geography; a portion of the sea, inclosed between two capes or headlands, so that the opening is in the widest part, and the inlet gradually narrows within. It is thus distinguished from a gulph, in which the opening is comparatively narrow. But the distinction is not always strictly observed; Baffin's Bay and Chesapeake Bay in N. America being, for example, more properly gulphs.

**BAY SALT**; a large-grained salt obtained by the spontaneous evaporation of sea-water in large shallow pits (bays) exposed to the full influence of sun and air. All coarse-grained salt is frequently known under the name of *bay salt*.

**BEACH**; a shelving tract of sand or shingle washed by the sea or a freshwater lake, and interposed between the water and the land on which vegetation grows. The beach of the ocean is, generally speaking, little more than the space between low and high water mark; the beach of a lake, that between the water marks of the highest and lowest ordinary level of the lake. An inland sea without tide, such as the Mediterranean, has, commonly, very little beach, except on flat coasts, where the waters are apt to rise and fall considerably, according to the prevailing winds.

**BEAM** of a ship. The beams of a ship are the great cross-timbers which hold the sides of the ship from falling together, and which also support the decks and orlops. Hence a wide vessel is said to have *more beam* than a narrow one. A vessel is said to be on her *beam-ends*, when she inclines so much on one side that her beams approach a vertical position. When this is the case in a heavy gale, there is often no other resource to *right* the ship than cutting away the masts.

**BEARING**, in geography and navigation, is used to denote the direction of one place from another, in reference to the meridian, or north and south line, passing through the latter.—When a ship sails towards the shore, she is said, in the language of sail-

ors, *to bear in* with the land or harbour. To let the ship sail more before the wind, is *to bear up*. To put her right before the wind, is *to bear round*. A ship that keeps off from the land, is said *to bear off*. When a ship that was to windward comes under another ship's stern, and so gives her the wind, she is said *to bear up under her lee*, &c.

**BEAU IDEAL**. See *Ideal*.

**BEAUMARCHAIS**.\* The claim of the heirs of Beaumarchais on the government of the United States was, at length, allowed for in the settlement, in 1835, of the claims of the United States on France for spoliations committed by the latter power on American commerce, during the domination of Napoleon.

**BEAUMONT** (Elie de), a distinguished French mineralogist and geologist, was born at Lanon, in the department of Calvados, on the 25th of September 1798. He was educated in the College of Henri IV., in the Polytechnic School, and the School of Mines. In 1824, he received the appointment of an engineer of the mines; in 1829, that of professor of geology in the School of Mines; and, in 1832, the same professorship in the College of France. In the following year, 1833, he became the chief engineer of the mines, and was elected a member of the Academy of Sciences. He has made a number of scientific journeys, especially one to England in 1824, and another to Algiers in 1838, both by the direction of the government. Although not the author of any extensive systematic work, he has made numerous and able communications, on mineralogical and geological subjects, to the French journals and dictionaries of science, especially to the "Annales des mines," the "Annales des sciences naturelles," the "Bulletin géologique," and the "Dictionnaire des sciences naturelles." His most important papers are, however, those contained in the series of "Mémoires pour servir à une description géologique de la France," published by him in conjunction with Dufrenoy, in 4 volumes (1833-38). Since 1825, also in conjunction with Dufrenoy, he has been engaged in the preparation of a geological map of France on a large scale.

**BECKFORD** (William) was a son of Alderman Beckford, who died while lord mayor of London in 1770, and from whom he inherited a large fortune, consisting chiefly of extensive estates in the island of Jamaica, and also of the estate of Font-hill, in Wiltshire. He is said to have thus come into a revenue exceeding £100,000. Already before his father's death, he had

attracted notice, though then only about nine years old, by his liveliness and intellectual precocity; and the promise, so given, was fulfilled by a little work which he published in 1780, entitled "Biographical Memoirs of Extraordinary Painters," which was a satire on certain living English artists, and on the common slang of connoisseurship. He had visited Paris, and mixed in the society of that capital, in 1778; but he set out on what was properly his first continental tour in June 1780, and traversed, between that date and the following May, part of Flanders, Holland, Germany, and Italy. In 1782, he made a second visit to Italy; and, in 1787, he visited Portugal and Spain. Meanwhile he had, in 1783, married a daughter of the earl of Aboyne, and in 1784, had obtained a seat in parliament. In the last-mentioned year, he published his remarkable Arabian tale of "Vathek," in French. He told a friend, more than 50 years afterwards, that this tale cost him three days and two nights of hard labour, *accomplished at a single sitting*. He stated, also, that he never knew the author of the English translation, but thought it tolerably well done.—Mr. Beckford sat in parliament until 1794, when he went abroad. He purchased an estate near Cintra in Portugal, and built the sumptuous mansion, the desertion and desolation of which is described by Byron, in the lines of his "Childe Harold" beginning,

"There thou, too, Vathek! England's wealthiest son,  
Once formed thy Paradise."

On his return to England, he occupied himself in the embellishment of his house at Fonthill; but in 1801, all the splendid furniture was sold by auction, and this was followed the next year by a similar sale in London of the proprietor's collection of pictures. These proceedings, however, were merely preliminary to the commencement of a much more magnificent collection of books, pictures, curiosities, &c., and the erection of a new building at Fonthill, the most conspicuous feature of which was a tower of great height. Mr. Beckford was a member of the parliament which sat in 1806, and also of that which met in 1807. He resided at Fonthill until 1822; in which year, having been deprived of two of his Jamaica estates by a decree of the court of Chancery, he judged it expedient to dispose of his estate and house there. He then removed to Bath, where he erected another lofty building on a neighbouring eminence.—In the long interval between the publication of

"Vathek" and the year 1834, Mr. Beckford had abstained from authorship. At the last-mentioned period, he published an account of his first continental tour (in 1780), in a series of letters, under the title of "Italy, with sketches of Spain and Portugal" (2 vols.); which was followed, in the same year, by the republication of the "Memoirs of Extraordinary Painters," and in the next, by a volume entitled "Recollections of an Excursion to the Monasteries of Alcobaca and Batalha," in Portugal, made in June 1794. This, like his previous book of travels, is distinguished for vivacity, polished sarcasm, and graphic power. Of the tale of "Vathek," which has been often reprinted, Byron has said that, "for correctness of costume, beauty of description, and power of imagination," it far surpasses all other European imitations of the Eastern style of fiction.—Mr. Beckford died on the 2d of May 1844.

BEQUEREL (Antoine César), one of the most eminent among the French experimentalists (*physiciens*), was born on the 7th of March 1788, at Chatillon-sur-Loing, in the department of Loiret. Having completed the course of studies in the Polytechnic School at Paris, he entered the army as a member of the corps of engineers, and made the campaigns in Spain, of the years 1810, 1811, and 1812, under Marshal Suchet. He distinguished himself on several occasions by bravery and talents, and, on his return to France, was promoted to the rank of captain, receiving at the same time the cross of the legion of honour. He was shortly afterwards appointed an inspector of the studies of the Polytechnic School. Here he continued until again summoned into active service, on the invasion of France by the allies in 1814. In the following year, he took his dismissal from the army, with the rank of chief of battalion. His attention was thenceforth directed to scientific research. The results of his investigations were for the most part communicated to the public in the "Annales de physique et chimie," and led to his being chosen, in 1829, a member of the Academy of Sciences. He has, more especially, devoted himself to the subjects of electricity and magnetism. His work entitled "Traité expérimental de l'électricité et du magnétisme" (5 vols., 1834-37) contains a full account of his own labours, as well as of those of his predecessors in this department of knowledge. The following are some of the particular subjects which he has examined: the electrical properties of the tourmalin; the conducting power of the different metals, &c.;



the production of heat in bad conductors; the magnetic and other analogous effects produced in bodies by strong electrical currents; the electricity excited by the contact of different pieces of the same metal; the susceptibility of all bodies to become magnetic; the application of electro-chemical forces to plants; and the application of galvanism to the decomposition of the ores.

**BEDCHAMBER, LORDS OF THE**, before the accession of the House of Hanover styled *Gentlemen of the Bedchamber*, are certain officers of the household of the kings of England, under the groom of the stole. Their number has usually been 12, and they wait in turn, a week each. During the reign of a queen, this office is performed by *ladies*.

**BEER** (Jacob Meyer). See *Meyerbeer*, (Sup.)

**BEER** (Michael), a younger brother of the celebrated musical composer Meyerbeer, born at Berlin in 1800, of Jewish parentage, has distinguished himself as a dramatic poet. His principal production is his tragedy of "Struensee" (1827), the favourite of the king, and lover of the queen, of Denmark; and, as he is also depicted by the author, the zealous supporter of the liberal doctrines of latter times. Though performed at the Munich theatre, it was, for a long period, not permitted to be represented on the stage of his native city; it might be supposed from political considerations, were it not that the difficulty in the way, whatever it was, was at length overcome by the direct interference of the king of Prussia. Possessed of an income more than sufficient for supplying his wants, he was enabled to gratify his inclination for travelling; and he spent much of his time in France and Italy, before he took up his residence at Munich. Besides his dramatic pieces, he wrote, when in Italy in 1826, a volume of elegiac poetry possessing much merit. A complete edition of his works was published (1835) by his friend, Edward v. Schenck, after his death, which occurred at Munich in March 1833.

**BEER** (William), another brother of Meyerbeer, is a banker, and privy counsellor of commerce (*Geh. Commerzienrath*) at Berlin, where he was born on the 4th of February 1797. During the years 1813-15 he fought as a volunteer, in the Prussian army, against the French. But on the conclusion of peace in the last-mentioned year, and at the desire of his father, he engaged in commerce. After having been thoroughly initiated in his new voca-

tion, and his affairs going on prosperously, from the circumstance of becoming casually the owner of one of Frauenhofer's telescopes his attention was attracted to astronomical inquiries, to which he henceforth devoted all his leisure moments. He has obtained an extensive reputation, as an astronomer, from the works which he has published jointly with Mädler. These consist of a memoir on the planet Mars (1830); a map of the moon (1836), the fruits of six years' labour, and for which the French Academy of Sciences conferred upon its authors the "La Lande prize;" and lastly, of a copious descriptive commentary on this map, entitled "Der Mond nach seinem kosmischen und individuellen verhältnissen, oder allgemeine vergleichende Selenographie."

**BEKKER\*** (Emanuel). To the works of this eminent philologist already mentioned, we may add his *Scholæ* to Aristotle (4 vols., 1831-36), to Harpocration and Mæris (1833), to Sextus Empiricus (1842), and to Tacitus (2 vols., 1831); and his editions of Cedrenus, Ducas, Glykas, Mero-baudes, Coryppus, &c., in the collection of the "Scriptores historiæ byzantine," which began to be published at Bonn under the superintendence of Niebühr.

**BELFAST.\*** Its population in 1831 was 58,287; and by a census taken in 1834, believed however not to have been very accurate, it amounted to 60,763, viz., of the Church of England, 16,388; Roman Catholics, 19,712; Presbyterians, 23,576; other persuasions, 1137. In 1841, the population was 63,625.—By the reform bill of 1832, Belfast acquired the privilege of sending *two* members to the Imperial parliament.—Much attention has been paid by the inhabitants to education. Besides numerous private schools, there are free and charity schools, well-conducted classical and mercantile schools, an academy of a higher order called the Belfast Academy, and, of a still higher order again, the Royal Academical Institution. This last originated in a voluntary subscription of the citizens in 1807, by whom a fund of above £25,000 was raised for the buildings, and the endowments of professors and teachers. It was afterwards incorporated by act of parliament, and receives an annual parliamentary grant of £1950, taken at an average of the seven years ending with 1837. There are professors of mathematics, natural philosophy, chemistry, moral philosophy, logic, and belles-lettres, of Hebrew, the Greek and Latin languages, church history, biblical criticism, anatomy and physiology, med-

wifery, *materna medica*, surgery, and botany.—The institutions of different kinds for affording aid to the poor and infirm are very numerous.—The trade of Belfast is greater than that of any other town in Ireland. In 1835, the value of its exports amounted to £4,341,794, and that of the imports to £3,695,438. The customs duties, in 1838, were £316,175.

BELL (John), a celebrated surgeon, anatomist, and physiologist, was born at Edinburgh, on the 12th of May 1763. He was educated at the High School, and studied medicine in the University of his native city. In 1790, he commenced a system of private lectures on anatomy and surgery, which was at first warmly opposed as an innovation upon the rights and privileges of the university. But his perseverance, extent of knowledge, and eloquence as a lecturer, overcame all opposition; and he continued to lecture until his practice had become so large as to require his undivided attention. Jointly with his brother Charles, he published (1798–1804) the "Anatomy of the human body," "Engravings of the bones, muscles, and joints" (1794), "Engravings of the arteries" (1801), "Engravings of the brain and nerves" (1803), "Engravings of the viscera" (1804). He was also the author of "Discourses on the nature and cure of wounds" (1793), of the "Principles of surgery with engravings" (1826), and of "Observations on Italy," from notes made during his tour in that country, whither he had gone, in 1820, for the benefit of his health (1825). He died of a dropsy, at Rome, in the 57th year of his age. Independently of his professional acquirements, he was a man of extensive reading and great powers of conversation, which rendered him very popular in general society, notwithstanding an occasional vehemence of manner, the effect of an ardent temperament. He also possessed a fine taste for the beauties of nature and of art. To this his work on Italy bears abundant testimony. It is altogether an elegant production, and contains many excellent remarks upon the various specimens of sculpture, painting, &c., to be met with in that country.

BELL (Sir Charles), younger brother of John Bell, was born near Edinburgh, in the autumn of the year 1781. Like his brother, he was educated at the High School of that city; which he quitted, when 17 years old, to pursue the study of medicine. In 1803, he went to London, where, during two years, he practised midwifery. He then applied himself es-

pecially to anatomy, and was soon appointed lecturer on this subject in the College of Surgeons. When the London University was established in 1828, he was invited to fill the professorship of physiology and therapeutics. He was knighted in 1833. In 1836, he accepted an invitation, as professor of surgery, to Edinburgh, where he died, on the 18th of April 1842.—Besides the works of which his brother and himself were joint authors, he published a "System of operative surgery" (1807–9), a work "On the diseases of the urethra (1819), "Engravings from specimens of morbid parts" (1813–17), "Surgical observations" (1816–18), "Exposition of the natural system of the nerves of the human body" (1824), his Bridgewater treatise on "The Hand," &c. The reputation of Sir Charles Bell is, however, chiefly founded on his discoveries relating to the functions of the nervous system, which are, indeed, of such importance that he may be regarded as having produced a revolution in the physiology of the nerves. He not only showed that the nerves of every organ are complicated in proportion to the functions they have to perform, but he likewise clearly demonstrated that the anterior root, by which the spinal nerves are connected with the vertical medulla, is exclusively instrumental in producing motion, and the posterior root to the nerves of sensibility. The similarity too, of the fifth pair of nerves to a nerve of the spinal marrow, suggested to him the idea of a similarity in their functions; and observation and experiment led him to conclude that the sensibility of the eye is produced by branches extending from the larger root of this pair of nerves, while the muscles of the eye were dependent for their motion on the seventh pair,—a conclusion of practical utility to the oculist.

BELLEGARDE\* (Count) died at Vienna, in January 1830.

BELLINI\* (Vincenzo). Having produced, besides the operas already mentioned, the "Somnambula" and the "Beatrice Tenda," which contributed much to extend his reputation, he came to Paris in 1833, where he first became acquainted with other than Italian music; and mistrusting, in consequence, the power of this to make a superior impression on the Parisian public, he spent some time in studying the tastes of the latter, and in endeavouring to adapt himself to them, before he ventured to bring forward another new opera. In the mean time having also visited London, where he was received in the most gratifying manner, he composed "I Puritani"

for the Italian Opera, on his return to Paris. Of all his productions, it is his masterpiece. He has avoided in it most of the faults with which he had been previously charged; and although, to a certain degree, adopting a new style of composition, this was far from being a slavish imitation of any particular model. In the midst of a brilliant success already obtained, and a still more brilliant promise, Bellini was carried off by a diarrhœa, the consequence of a slight and therefore neglected indisposition, at Puteaux, near Paris, on the 24th of September 1835.

**BENEFICE.** Under the Romans, certain grants of lands made to the veteran soldiers were called *beneficia*; and the same term was applied, at the commencement of the feudal system, to estates conferred by the sovereign and held under him,—which, afterwards assuming an hereditary character, became fiefs, properly so called. In the middle ages, the popes assumed the feudal right with reference to ecclesiastical patronage, and the term *beneficium* was hence applied to church livings, &c., under the assumption that they were held under the pope as a superior lord. It was the assertion of this claim by Innocent III. and his successors, which roused the jealousy of the European sovereigns, especially those of England and France; and from the contentions consequent upon this, the first opening was made to the cause of the Reformation. The term *benefice* is understood to denote rectories, vicarages, perpetual curacies, and chaplaincies, as distinguished from a dignity, under which title are comprehended bishoprics, deaneries, and prebends.

**BENGAL** (presidency of). See *India*, (Sup.)

**BENSLEY\*** (Thomas) died in 1835.

**BENZENBERG\*** (John Frederick). By several political pieces published by him in 1820–21, he gave offence to the Prussian government. He has lately (1839) written a work on falling stars (*Sternschnuppen*).

**BÉRANGER\*** (Pierre Jean de). The fine of 10,000 francs which he was sentenced to pay, December 11th 1828, was more than made good to him by his friends; and his songs obtained a more extensive popularity and circulation than ever. He took an active part in the revolution of July, but declined the offices and honours which were offered him, that he might maintain his independence. For some time after that event, his muse was altogether silent; with the dethronement and expulsion of Charles X., as he himself said, his occupa-

tion was gone, his own destiny accomplished. In 1833, however, he published a volume of "*Chansons nouvelles et dernières*," in which he took a final leave of the public. Several complete editions of his works have since appeared.

**BÉRICE\*** See *Guiana*, (Sup.)

**BÉRINGER\*** (Alphonse Marie Marcellin Thomas). He was born at Valence, May 31st 1785.—After the revolution of July, he distinguished himself, in the chamber of deputies, especially by the report made by him on the new law of elections, all the restrictive clauses of which were, however, far from meeting his approbation, and by his efforts to procure the abolition of capital punishment.—In 1832, he was elected a member of the institute, and, in 1839, was advanced to the peerage.—Besides the work on criminal justice previously mentioned, Béringer has published a translation of the "*Novellæ*" of Justinian (1810–11).

**BERESFORD\*** (William, baron) was born in Ireland.—On his return to England from his expedition to Portugal in 1826, the relations which he entertained with the partisans of Don Miguel gave offence to the dominant authorities in Portugal; and he was, in consequence, deprived of the rank of Portuguese field-marshal, which he had long held.

**BERGASSE\*** (Nicholas). In 1821, he was prosecuted before the "*cours d'assises*" of the department of the Seine, for the publication of a work entitled "*De la propriété*," in which he attacked the sale of the national property (*biens nationaux*), but was acquitted. Since then, he lived in retirement till his death, at an advanced age, in 1832. During the latter period of his life, he was engaged in the preparation of a treatise on christian morals.

**BERGHAUS** (Henry), born on the 3d of May 1797, at Cleves in Germany, has acquired an extensive reputation as a geographer. He enlisted, as a volunteer, in the Prussian army in 1815, and penetrated into France, with the corps to which he was attached, as far as Brittany, and, while there, collected valuable materials for a future map of that country. On the conclusion of peace, he sought and obtained an office of topographical engineer (*Ingenieur-Geograph*) under the minister of war in Berlin, and for some years was chiefly employed in the great trigonometrical survey of the Prussian monarchy. In 1824, he was appointed professor of the applied mathematics in the school of civil engineering (*Bauakademie*) at Berlin. Since 1830, he has resided at Potsdam,

without, however, on this account, resigning his professorship. His activity as an author has been prodigiously great. Of the maps which he has published, those best known are his map of Africa; his remarkably accurate atlas of Asia, to consist, when completed, of 18 maps; and his "Physikalischer Atlas," of 60 maps. In conjunction with Hoffman, he edited, from 1825 to 1829, a geographical journal entitled "Hertha," containing many valuable papers. This was succeeded by the "Annalen der Erd-, Völker- und Staatenkunde," edited by Berghaus exclusively, but inferior to its predecessor in originality of remark. From 1837 to 1841, he also published an annual volume on the progress of geographical knowledge, under the title of "Almanach den Freunden der Erdkunde gewidmet;" and from 1837 to 1845, in 6 volumes, a general treatise of geography, the "Allgemeine Länder- und Völkerkunde," the first 3 volumes of which are occupied exclusively with the mathematical and physical branches of his subject. And lastly, he is the author of an elementary work, entitled "Grundriss der Geographie" (1842).

BÉRIOT (Charles Auguste de), one of the most eminent violinists of the present day, was born on the 20th of February 1802, at Louvain, in Belgium, where he received his first instruction in music from Rohrer (a pupil of Viotti), and the professor of music, Tiby, and where he remained till he was 19 years of age. He then went to Paris, to accomplish himself under the direction of Viotti, Baillot, and Lafond, but, it would seem, enjoyed their instruction for a short time only. He very soon took his own course, and with so much success, as to venture to present himself to the Parisian public, as a candidate for their applause, contemporarily with the first appearance before them of the celebrated Paganini. His performance has no decided mannerisms to distinguish it from that of his rivals, but, combining the various excellencies of which his instrument is susceptible in just proportion, it constitutes a model proper for the imitation of those who aspire to eminence in his art. His science is perfect, and his tuning un-failing. His execution is delicate and facile. As a composer he does not rank remarkably high. On his return to his own country from Paris, the king of the Netherlands bestowed upon him a pension of 2000 florins; of which, however, he was deprived on the separation of Belgium from Holland, in consequence of the events of 1830. In 1836, he married Madame Malibran, and

in 1838, after her sudden death, made a professional tour in Germany, accompanied by her younger sister. His performances, at concerts in Berlin and Leipsic, met with the most unqualified approbation. In 1842, he succeeded Baillot at the conservatoire of Paris.

BERLIN.\* This city presents to us one of the most remarkable instances of improvement in modern Europe. In 1688 the population was only 18,000; in 1775 it had increased to 135,500; in 1816 it was 182,387; at the close of the year 1826 it was 220,000; in 1838 it amounted to 290,797; and, again, at the close of the year 1841, to 340,260. Of this last number, there were 319,678 "evangelical" or protestant, and 14,056 catholic christians, 6518 Jews, with a few mennonists and persons of the Greek church. The manufactures and trade of the city are extensive, as is likewise the provision made for the intellectual and moral culture of the inhabitants, and for beneficent purposes of various kinds. No where, indeed, is a greater attention paid to education than here. The university possesses a numerous corps of able professors in all the branches of human knowledge, and all the apparatus and *matériel* requisite for efficient instruction; and the number of students in the winter session of 1841-42 was 2140. An especial department for the use of the university has been lately added to the royal library, which, at present, contains 260,000 printed volumes, and a large and valuable collection of manuscripts. Among the improvements, too, which have been introduced within the few last years, we may mention the lighting of the streets with gas, and the communications by railroad opened to the inhabitants.

BERLIOZ (Hector), born on the 11th of December 1803, at La Côte St. André, in the French department of the Isère, may be regarded as an extraordinary phenomenon, whatever judgment we may be disposed to pronounce upon him as a musical composer. On account of the originality of his compositions, his admirers have proclaimed him the founder of a new school; while, on the other hand, their eccentricity, so much in unison with the life and character of Berlioz himself, has led his detractors to represent them as little better than the effusions of a madman. His father, who was a respectable physician, destined him for his own profession; and Berlioz, making an effort to comply with the wishes of his parent, studied medicine, accordingly, at Paris, for a year. At the

end of this time, he could no longer restrain the passion for music, which had first been excited in him, at a very early age, by a quartette of Hayden. He abandoned altogether his medical studies; and, discarded in consequence by his father, he procured the means of subsistence as a singer in the chorus of the "Théâtre des nouveautés," and by giving lessons in singing. In the mean time, he pursued the study of music, under the direction, first, of Lesueur, and then of Reicha, at the conservatoire. Such was the progress which he made here, that, in 1825, he obtained the second, and, in 1830, the first musical prize. These prizes furnished him with money for a journey to Italy, where he continued during two years, suffering his fancy and feelings to run wild without restraint in the enjoyment of art, and especially of music. Returning to Paris from Italy, he became enamoured of Miss Smithson, an English actress, whom he saw in the character of Ophelia at the English theatre; and, on certain slanderous reports concerning her coming to his ears, he was seized with a frantic fit, in which state he composed a piece of music entitled "Symphonie fantastique," intended by him to express the emotions of his mind at the time. This production has been condemned as an extravagant and unmeaning medley; yet, on the other hand, it was thought by Liszt to possess so much merit as to induce him to adapt it to the piano forte. Then followed other symphonies; an opera, "Benvenuto Cellini;" and a piece which he called "Romeo and Juliet," but which it would be difficult to class under any regular head of musical composition. We have very high authority in favour of his symphonies, viz: that of Paganini, who declared them to be superior to any music since that of Beethoven, and who is said to have testified to the sincerity of this declaration, by presenting Berlioz, on an evening after a concert given by the latter, with an order for 20,000 francs on his banker, as a reward for what he had achieved.

**BERMUDAS' ISLANDS.\*** The population of these islands in 1837 was 8456, of whom 4083 were whites. The imports, in the same year, amounted to £97,811; the exports, consisting latterly of little besides arrow-root and cedar wood, to £23,271. In the same year, also, the revenue was £17,273, and the expenditure £19,374. The government is administered by a governor, a council of 8 members appointed by him, and an assembly of 36 members, who are chosen by the land-owners. The

legislatures of these islands, and of Antigua, were the only colonial legislative bodies that abolished slavery, without the intervention of apprenticeship.

**BERNARD** (Simon) was born of poor parents, at Dôle, in France, April 28th 1779. He derived his early education from some priests, who perceived his capabilities for instruction, and took pleasure in witnessing the rapid progress which he made in knowledge. By their means, he was found qualified, on being examined, for admission to the Polytechnic School when only 15 years of age. After pursuing the regular course of studies in this celebrated institution, and distinguishing himself among the foremost of the pupils, he received a commission in the corps of engineers. Having accidentally been brought in contact with Napoleon in 1805, the latter was so favourably impressed in behalf of the young officer, as shortly afterwards to appoint him to be one of his own aides-de-camp. Bernard accompanied the emperor in his subsequent campaigns, was rapidly promoted, and, during the hundred days, was placed at the head of the topographical bureau. He fought at Waterloo; on the loss of the battle, tried in vain to reorganize the defeated troops; and sought, but was refused, permission to attend Napoleon to St. Helena. He was not unwilling to serve under the government of the Restoration; on the principle, that whoever may be the rulers whom one's country chooses for itself, or consents to obey, the obligations of the citizens to it are ever the same. The government of the Restoration, however, would not trust him, and exiled him to Dôle. In these circumstances, he accepted an appointment in the United States, as chief of the corps of engineers; in which capacity, he superintended the construction of various fortifications and public works, designed to facilitate the defence of our coasts against an invading enemy.—The revolution of July opened the way for General Bernard's return to his own country. Scarcely had he arrived in France, when Louis Philippe nominated him to be one of his aides-de-camp; and he was, soon afterwards, promoted to the rank of lieutenant general of engineers. He was entrusted with the department of war in September 1836, under the administration of Count Molé; but quitted office, with his colleagues, in the beginning of 1839. He died in the last-mentioned year.

**BERNHARDY** (Gottfr.) was born on the 20th of March 1800, at Landsberg, in the Prussian province of Brandenburg. After

receiving his education at Berlin, in one of the gymnasiums, and in the university, of that city, he was appointed to be a professor in the latter institution in 1826; and, in 1829, he accepted a professorship of ancient literature at Halle, an office which he continues (1843) to hold. He is the author of several learned works, among which may be mentioned his "Syntax of the Greek language" (1829), his "Elementary Roman literature" (1830), his "Outlines of an Encyclopedia of Philology" (1832), and his "Elements of Greek literature" (1836). In the first of these works, he abandoned the usual mode of treating his subject, and sought to trace the gradual development of the Greek syntax through the whole series of writings which have been handed down to us.

BERNSTORF (Christian Günther, count de) was born at Copenhagen, on the 3d of April 1769. After completing his education, he entered upon the diplomatic career, in which he met with rapid advancement. At a comparatively early age, he was Danish minister at Stockholm. He then resided, for a short time, without any official appointment, at Copenhagen, and became minister of Foreign Affairs, on the death of his father, in 1797. Unlike the latter, who was ever solicitous to improve the condition of his country, by the introduction of beneficial changes in every branch of the public administration, his leanings were in favour of things as they were, apprehensive that changes made too rapidly might lead to revolution. His measures, too, in reference to the foreign relations of Denmark, were unsuccessful; leading, as they did, to the British attacks on the capital in 1801 and 1807. He ceased to be minister of state in 1810, and went as Danish ambassador to the court of Austria. In 1814, he was the minister plenipotentiary of the king of Denmark to the congress of Vienna; on the dissolution of which assembly, he was appointed by his government minister to Berlin. Here he made so favourable an impression on the king of Prussia, that the latter selected him, in 1818, in preference to any of his own subjects, to succeed the prince of Hardenberg as his principal minister of state. Count Bernstorff was present, beside the congress of Vienna, at those of Aix-la-Chapelle, Carlsbad, Troppau, Laibach, and Verona. He continued to be the prime minister of Prussia until 1831; when he retired from office at his own request. He died on the 29th of March 1835.

BERRYER (Pierre Antoine), born at

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Paris in 1790, was the son of an eminent advocate of the French bar, who distinguished himself, jointly with Dupin, in the defence of Marshal Ney. He chose the profession of his father, and was very soon remarked for his eloquence. In 1829, he was elected a member of the chamber of deputies by the department of the Upper Loire; since which period, he has continued to be a member of it, without any interruption. His opposition to the famous address of the 221 deputies attracted the attention of the supporters of the government of Charles X. to him in such a degree, as to lead to the expectation of his being speedily invited into the cabinet. But the revolution of July intervened; and, placing Berryer in a peculiar position, deprived him of all influence or consequence in the state. He took, indeed, the oath of allegiance to Louis Philippe; declaring, however, at the same time, that he retained all his former opinions and preferences; and he, accordingly, continued in open correspondence with the members of the exiled royal family. He was long the only legitimist deputy; and, in despite of his eloquence, could scarcely obtain a hearing from his colleagues. But as other legitimists were gradually added to the chamber, while, also, the party of the *extreme right* came often to act in connexion with that of the opposite extreme, in opposing the measures of the government, his importance increased, and on questions, not of a party nature, he occasionally exercised a predominating influence. What, moreover, has enabled him to conciliate public opinion to himself, in some degree, has been his zealous support of the honour or interests of France, even at the risk of a war, in its relations with foreign countries. Since the fall of the Thiers ministry, Berryer has been one of the most uncompromising opponents of the Soul-Guizot administration. Besides the conspicuous part which he has acted in the chamber, he has attracted much of the public attention by his able advocacy of individuals before the tribunals, especially royalists. His extraordinary ability as a speaker, both in the legislature and at the bar, is now conceded, even by those who differ most from him in political opinion; and his friends regard him as the greatest orator that has appeared in France since Mirabeau.

BERTIN (Louis François), known as Bertin the elder, was born at Paris in 1766. He was the principal founder, and, for a considerable period, editor of the "Journal des débats." During the "consulate," this journal ventured to inculcate

monarchical opinions, before it was yet safe to do so; and its editor was, in consequence, condemned to 9 months' imprisonment, and afterwards banished to the island of Elba. He, however, succeeded in making his escape thence into Italy; and, proceeding to Rome, he there formed an intimate friendship with Châteaubriand, which subsequently had no little influence on the character of his journal. He returned to Paris in 1804, when to express monarchical opinions was no longer considered a crime, but when the press was nearly, or quite as much, fettered in every other respect, as it had been at an earlier day. He was permitted to publish the "Journal des débats" under the title of "Journal de l'empire," but only under the superintendence of an editor in chief, imposed upon him by the minister of police. At the Restoration, he was, at length, set free to express his royalist sentiments without disguise or restriction. During the 100 days, he accompanied Louis XVIII. to Ghent, where he assisted to edit the "Moniteur de Gand." On the return of the king to Paris, Bertin again acquired possession of his journal, which generally supported the measures of the administration for the time being; until it took ground, with Châteaubriand, and other conspicuous royalists, against the administration of the prince of Polignac. It was, in consequence, subjected once more to a prosecution for obnoxious opinions expressed in an editorial article, but was successfully defended by Dupin. Although Bertin refused to insert in it the protest of the liberal journals, he declared, at the revolution of July, in favour of the new government; and has since, with few exceptions, supported the ministers who happened to be in power. He died in the beginning of 1842.

**BERTON\*** (Henri Montan) is the author of more than 20 operas. He died of the cholera at Paris, July 19th 1832.

**BERTRAND\*** (Henri Gratien). The revolution of July 1830 recalled Gen. Bertrand into active service; and he was, in that year, also chosen a member of the chamber of deputies. In this capacity he supported with zeal the principles of the extreme left, and was, more especially, strenuous in defending the liberty of the press. He was likewise one of the 50 deputies who established the republican journal entitled the "Journal du peuple," and for some time edited by Dupoty. As was to have been expected, he was one of those who were sent to St. Helena, in 1840, to bring to France the ashes of Napoleon. In 1843 he visited the United States,

where he was very favourably received. He died soon after his return to his country, in the following year.

**BERTUCH\*** (Frederick Justin) died April 3d 1822.

**BERZELIUS\*** (John James). No one living has done more for chemistry than Berzelius. In addition to what has been already stated concerning him, it may be mentioned that he is the discoverer of the metals selenium and thorium, and was the first who exhibited calcium, barium, strontium, tantalum, silicium, and zirconium, in their metallic state. His discoveries were mostly communicated to the public in the scientific journals of Sweden and the continent; but he is also the author of several systematic works on chemistry and mineralogy, the most important and extensive of which is a general treatise on the former subject. This has passed through several editions in his own, the German, and French languages. The 5th German edition, with the last corrections and additions of the author, is now in process of publication.

**BESSEL\*** (Frederick William). In 1828, he published his "Researches on the length of the simple seconds' pendulum," and in 1830, his "Determination of the length of the simple seconds' pendulum," both of which are possessed of great value. He has obtained much credit, too, for his "Astronomical observations at the observatory at Königsberg" in 20 parts (1815-40), his "Tabulæ regionontanæ reductionum observationum ab a. 1750 usque a. 1850 computatæ" (1830), his "Measurement," published jointly with Bayer, "of a degree in East Prussia, &c." (1838), his "Statement of the measures adopted, in 1835-38, for determining a uniform standard of the Prussian measure of length," and for his "Astronomical researches" (1841-42). But one of the most interesting of his lesser works is the "Measurement of the distance of the 61st star in the constellation of the Swan," published in Schumacher's "Jahrbuch" (1839). From numerous observations he deduced an annual parallax of  $\frac{1}{15}$  of a second, whence it follows that the distance of the star from the sun is 357,700 radii of the earth's orbit. He also found, from a close examination of the observations made by Brandes and others on the phenomenon of falling stars, that their previous rise from the surface of the earth had in no instance been shown; thus removing a great difficulty in the theory of these meteors.

**BEUDANT** (François Sulpice), a member of the Academy of Sciences, and professor

of mineralogy in the University of Paris, was born in that city September 5th 1787, and received his education in the Polytechnic and Normal schools. He was appointed, in 1811, professor of mathematics in the lyceum at Avignon, and in 1813, professor of physics in the college of Marseilles. On the restoration of Louis XVIII., he was commissioned to bring the mineralogical collection of the king from England over to France, and was then entrusted with the charge of it as sub-director. From this period he devoted himself especially to the study of mineralogy, to the various branches of which he has since made important contributions. In 1818, he undertook a journey to Hungary, at the expense of the French government, and subsequently published an account of it in the "*Voyage minéralogique et géologique en Hongrie*" (3 vol. 1822). It was after his return from this excursion that he was appointed a professor in the university; and, in 1824, he was elected a member of the Academy of Sciences. His principal work is his "*Essai d'un cours élémentaire et général des sciences physiques*" (1828), which has since been subdivided into the "*Traité élémentaire de physique*" and the "*Traité élémentaire de minéralogie*." Both of these works have been translated into German: the former has passed to the 6th edition (1838); the latter to the 2d (1830). In this work, Beudant has not only formed an entire system of mineralogy on the basis of Ampère's circular arrangement of the elements, but has also made many judicious remarks and inferences in the discussion of the details of the subject; particularly in reference to the chemical and optical relations of different substances. The last work published by him is entitled "*Cours élémentaire de minéralogie et de géologie*" (1841).—Beudant is known, likewise, by his investigations of the connection of chemical composition and crystallization, and on the possibility of the moluscae of the ocean continuing to live in fresh water, as well as by his labours on the specific gravity and chemical analysis of minerals.

**BEVEL GEAR**, or bevelled wheel-work. See *Wheel-work*.

**BEXLEY (Lord)**. See *Vansittart*.

**BEYROUT**, the ancient Berytus, a town on the coast of Syria, between Sidon and Tripolis. It is described by Abulfeda as the flourishing port of Damascus. It contains at present about 7-8000 inhabitants, whose principal employment is the manufacture of cotton stuffs and earthenware. A Greek and a Maronite bishop have their

seat here; and the town is noted for being a place for the assembling of pilgrims, who proceed hence in caravans to Mecca. After having been, for a considerable period, almost forgotten by Europeans, Beyrout, on a sudden, in 1840, acquired a new importance. The hostilities of the combined English, Austrian, and Turkish fleet, against the Egyptian occupants of the patriarchic of Syria, began by the bombardment of it, from the 10th to the 14th of September. Though almost entirely destroyed, it was not till the 9th of October that it was evacuated by its defenders, and taken possession of by the allied forces. On the following day, Ibrahim pacha was attacked, in the strong position which he had assumed in the neighbourhood, by a Turkish army under Selim pacha, Commodore Napier, and General Jochmus, and totally routed. The question at issue between the contending parties, viz: whether Turk or Egyptian should be master of Syria, was thus summarily decided at *Beyrout*.

**BIBLE SOCIETIES**. See *Societies*, (Sup.)

**BIBLIOGRAPHY**.\* To the Italian works already mentioned, may be added the 4th edition of Gamba's "*Serie de' Testi*" (1839), and his "*Serie degli scritti impressi in dialetto veneziano*" (1832); as, also, Simone's "*Collezione delle opere in dialetto napoletano*" (3 vol. 1826). In reference to England we have Lowndes' "*Bibliographer's manual*" (4 vol. 1834); for France there is Quérard's "*France littéraire du 18ième et 19ième siècle*" (10 vol. 1837-40); for Germany, O. A. Schulz's continuation of Heinsius' "*Allgemeinem Bücherlexicon*" (1836-38 and 1842). Chr. G. Kaiser's "*Vollständiges Bücherlexicon von 1750-1832*" (1834-37), and the "*Allgemeine Bibliographie für Deutschland*" (1836-42).

**BICE**; a light blue colour prepared from smalt. Next to ultra-marine, which is too dear for general use, it is the best of all the blues. From bice, by a mixture with yellow orpiment, another colour is formed of a green hue, having the same name.

**BIDDLE** (Nicholas) was born at Philadelphia, on the 8th of January 1786. His ancestors came to America with William Penn. Charles Biddle, the father of Nicholas, was distinguished, during the war of the Revolution, for his devotion to the cause of American independence, and, subsequently to it, when Franklin was its president, held the office of vice-president of the Commonwealth of Pennsylvania.—Nicholas Biddle was a pupil in the academy, and then in the collegiate department of the "University of Pennsylvania"



At 13 years of age, he was transferred from this institution to the college at Princeton, New Jersey; where he remained for upwards of two years, and was graduated in September 1801. He quitted college with a character for talent and scholarship unsurpassed by any member of his class, and commenced the study of the law in his native city. In 1804, when his term of legal study was nearly completed, General Armstrong, who had been appointed the American minister to France, and who had been an intimate friend of his father, offered to take him with him to Europe as his secretary,—an offer which was promptly accepted. After spending some time in Paris, he visited Switzerland, Italy, Greece, Germany, Holland, and England. In the latter country, he acted for a short time as secretary to Mr. Monroe, who then represented the United States at the Court of St. James.—In 1807, Mr. Biddle returned to his own country, and commenced the practice of his profession in the city of Philadelphia. He also, in conjunction with Dennie, edited the "Port Folio" down to the period of the latter's death, after which he conducted it alone until another editor could be procured. And in addition to the contributions furnished by him to this periodical, he about the same time found leisure to prepare for publication, from the original documents put into his hands, a history of Lewis' and Clarke's expedition across the continent of America to the Pacific ocean.—In the autumn of the year 1810, Mr. Biddle was elected a member of the House of Representatives, in the Legislature of Pennsylvania. He acted a conspicuous and a leading part in the proceedings of that body, and distinguished himself especially by an elaborate and able report on a bill, which he had introduced, relating to a system of public schools, and which was founded on the principle of a very cheap, but not gratuitous instruction,—a bill, however, that failed of receiving the requisite support to become a law. He also attracted, in no slight degree, the attention of the public, by a speech in opposition to a resolution for instructing the members of Congress from Pennsylvania to vote against the recharter of the then existing Bank of the United States. At the close of the session (1811), he declined becoming a candidate for re-election; but during the war with Great Britain, in 1814, he consented to serve in the Senate of the state. He distinguished himself in that body by his spirited efforts to induce the Legislature, in the absence of aid from

the general government, to adopt vigorous measures for the defence of the state, and particularly of the city of Philadelphia, against any probable attempts which might be made by the enemy. The report which Mr. Biddle drew up, during his present term of legislative service, on the propositions of the "Hartford Convention," added also considerably to his reputation as a statesman. Having vacated his seat in the Senate in 1817, he was, in the following year, nominated by the party to which he belonged (the democratic) as their candidate for Congress; but being at the time a minority in Philadelphia, they failed to elect him. And he was again nominated for Congress in 1820, with the same result.—Mr. Biddle's connection with the Bank of the United States began in 1819, by his appointment by the government to be one of its directors. This was at the period when, through the mismanagement of its affairs, its credit had become exceedingly impaired, and when it was even threatened with a speedy destruction. Mr. Langdon Cheves then became president of the institution, which speedily regained its character. On the resignation of his office by that gentleman, Mr. Biddle was selected, in accordance with the wishes of the stockholders, and with the public opinion generally, to succeed him. His administration of the bank began with the year 1823, and continued down to the period when the institution having failed to obtain a renewal of its charter from the government of the Union, was chartered anew by the Legislature of Pennsylvania, and from that time again until the 29th of March 1839, when he resigned his office, to pass the rest of his life in retirement, at his seat of Andalusia on the banks of the Delaware, above the city of Philadelphia. For a short sketch of the later history of the Bank of the United States, while he was its president, the reader is referred to the article *United States*, in the present volume. Mr. Biddle died on the 27th of February 1844.—It is conceded, even by his detractors, that Mr. Biddle was distinguished among his fellow-citizens, during his whole career, for great public spirit, and for his desire to promote the intellectual, as well as material interests, of the community. Not to speak of his readiness to co-operate in every promising scheme of "internal improvement," or of his efforts for the introduction of a system of public schools, already stated, it may be mentioned, in illustration of our general remark, that he was an active member of a great number of associations for beneficent

or useful purposes; that he contributed, not only in his capacity of president of the Agricultural and of the Horticultural Societies of Philadelphia, but by his own example likewise, to promote the agricultural and horticultural interests of his state; and that the city of Philadelphia owes to him the two finest specimens of architecture within the limits of our country, to wit, the Girard College, and the late banking-house of the Bank of the United States. — We ought not to omit to mention that besides the essays, legislative reports, speeches, &c., of Mr. Biddle, already specified, he prepared, at the request of Mr. Monroe, the volume published by the authority of Congress, entitled "Commercial Digest," being an account of the regulations of foreign countries concerning trade and matters connected with it.

**BIGNON\*** (Louis Edward). Agreeably to the desire of Napoleon in his will, Bignon wrote the "Histoire de France, depuis le 18 brumaire (1799) jusqu'à la paix de Tilsit" (7 vol. 1827-29), and, in continuation, the "Histoire de France, depuis la paix de Tilsit jusqu'en 1812" (4 vol. 1838). In July 1830, he was appointed to the ministry of foreign affairs by the provisional government, and on the 11th of August, by Louis Philippe, a member of the council of ministers; a post, however, which he retired from so early as the November following. After the victory of the doctrinaires, he took a decided part with the opposition in the chamber of deputies, and signalized himself especially by his animadversions on the foreign policy of the administration. He was made a peer in 1837, and died on the 7th of January 1841.

**BILDERDYK\*** (William). This distinguished writer left behind him a work on the history of Holland (*Hollandsche historie*), imbued with aristocratical partialities, which has since been published (vols. 1-12, 1832-39) by his friend Tijdemann, with accompanying remarks of an opposite political character.—His second wife, *Catharine Wilhelmina Bilderdyk*, has acquired a high reputation in her own country as a poet. Some of her productions have been published with those of her husband; others have appeared separately. She received a prize for her poem on the battle of Waterloo; and her translation of Southey's "Roderick" is regarded as a masterpiece.

**BILGE\*** is the bottom of a ship's floor, or the part she rests on when she is aground. Hence, bilge-water is that which lies on her floor, and cannot go to the well of the pump. It has usually a peculiar and of-

fensive smell. When a ship is tight, the bilge-water, when pumped up, is dark; but in a leaky ship, it comes up quite clear.—A ship is said to be *bilged*, when she has some of her timbers stove in, by striking against a rock or anchor.

**BILIARY DUCTS** are small canals that convey the bile out of the liver into the hepatic duct, which is formed of these canals into one trunk.

**BILL OF CREDIT** is a paper which a merchant or banker gives to a person whom he can trust, empowering him to receive money from his correspondents in foreign countries. Bills of credit are entitled to the same privileges as bills of exchange; money paid in consequence of them being recoverable by law.

**BILL OF HEALTH**, a certificate or instrument, signed by proper authorities, which is delivered to the masters of ships, on clearing out from any port suspected of being infested by particular disorders; and which certifies the state of health at the time that such ships sailed. Bills of health are of three kinds, *clean*, *foul*, and *suspected*.

**BILL OF SALE**, in law, is a contract under seal, by which a person passes his interest in goods and chattels to another, and which does not require either a valuable consideration, or an actual transfer of the goods, to render it valid as respects the parties immediately concerned; although, as between the vendee and the vendor's creditors, the absence of such consideration and transfer would, in general, be held to be indicative of fraud, and would invalidate the contract.

**BILLS OF MORTALITY**. See *Mortality*.

**BIOT\*** (Jean Baptiste). Besides the works already mentioned, Biot is the author of a "Traité analytique des courbes et des surfaces du second degré," and of "Recherches sur les mouvements des molécules de la lumière autour de leur centre de gravité." One of his latest productions is his "Mémoire sur la constitution de l'atmosphère terrestre," published in the "Connaissance des temps" for 1841, the fruit of his extensive researches concerning the refraction of light. In 1836, he published an interesting memoir on the periodic falling stars of November.

**BIRMINGHAM\*** At the beginning of the 17th century, this city had a population of 10,000 souls; in 1801, it had 73,670; in 1831, 142,251; and the population amounted in 1841 to 182,922. This extraordinary increase has been owing to the extension of manufacturing industry, aided by the abundant supply of iron and coal in

the neighbourhood, and by the canal communications which it possesses with London, Liverpool, Bristol, Hull, &c. To these advantages, must also be added the railroads passing through Birmingham, which have latterly been constructed, or are now in progress of construction.—The reform bill has conferred upon Birmingham the privilege of sending two members to parliament. Of late years, its inhabitants have stood prominently forward as the advocates of ultra-liberal opinions, and have been conspicuous for their "political union," in order, by concentrated action, the better to obtain the objects desired by them from the government.

**BIRTH** (Evidence of). By the French "code civil" it is required that a declaration shall be made of every birth to the proper officer, within three days, with production of the child. The "act of birth," setting forth the time and place of the event, sex, and name of the child, and description of the father, is then immediately drawn up in the presence of two witnesses. It is entered on the register, and a copy kept by the parent.—In England, the minister of every parish is required to keep a register of births. But besides, by a recent act for registering births, deaths, and marriages, it is enacted that the parent, or occupier of a house in which a child is born, *may*, within 42 days after the birth, give notice to the district registrar; and *shall* give such information, on being requested by the district registrar, within the same time. After 42 days, the birth may be registered only in presence of the superintendent-registrar, and on a peculiar declaration. After six months, registration of a birth cannot take place. Certified registers of births, as well as of deaths, are to be forwarded, after a certain time, to the superintendent-registrar, and copies of registers to the general register office.—In the United States, on the other hand, little or no pains have been had to record with accuracy the births, deaths, and marriages, which take place; important as such a record must often be for establishing the title to property, or other rights of individuals.

**BISCUIT**; a kind of bread made usually in the form of flat cakes, in order to secure their being deprived of moisture in the baking, which is necessary for preserving them fit for use during the continuance of long voyages. The use of this kind of bread on land is pretty general as a matter of luxury; but at sea, biscuits are an article of primary necessity, since bread, in the more ordinary form in which it is used on shore, would speedily become

stale, and unfit for food.—The name biscuit (*twice cooked*) indicates the process to which this kind of bread was formerly subjected. The two bakings then used are no longer found to be necessary; but the name, although thus rendered inappropriate, has been continued.

**BISSEXTILE YEAR**; the same as leap year. It was called bissextile because the intercalary day was inserted by Julius Cæsar, every fourth year, before the 24th of February; so that there were then two 6th days before the kalends, or 1st day of March. See *Calendar*.

**BISTRE** is a dark brown paint, made from the soot of dry wood, and, in preference, from that of beech wood.

**BITTER**; an epithet given to all bodies of a sharp, acrid, biting taste. Bitters are accounted stomachic and cleansing; and are said to resist putrefaction, correct acidity, and assist digestion.—Artificial bitter is any bitter formed by the action of nitric acid on certain vegetable and animal substances.

**BLACAS\*** (Count) was made a duke by Louis XVIII.—He became a member of the Chamber of Peers in 1815.—On declining, in 1830, to take the oath of fidelity to Louis Philippe, his name was stricken from the list of the peers; and he followed Charles X. to Holyrood, Prague, and Goritz. On the decease of the latter, he resided with the duke of Angoulême, at the castle of Kirchberg, in Lower Austria, where he died on the 17th of November 1830. In the course of his life, he had attained the possession of great wealth; much of which was employed by him in the encouragement of the fine arts, and the formation of an exquisite collection of antiquities, described in part by M. Reinaud in the "Description des monuments musulmans du cabinet de Blacas" (2 vol. 1828).

**BLACK**. There are several blacks used in painting; as *Frankfort black*, of which there are two sorts,—one a natural earth, inclining to blue; and the other made from the lees of wine, burnt, washed, and ground with ivory, bones, &c.; *lamp black*, the smoke of resin, prepared by melting it in iron vessels; *ivory black*, made of burnt ivory, and used in miniatures; and *Spanish black*, made of burnt cork, and first used by the Spaniards.

**BLACK FRIARS**, a name given to the Dominicans. See *Dominicans*.

**BLACKHEATH**; an elevated, moory tract, in the vicinity of London. It commands many fine prospects, and has numerous elegant villas. It has been the scene of

many remarkable transactions in English history. Vestiges of a Danish encampment are still to be traced; and it is known that the invaders had their chief station in its neighbourhood, in the 11th century. Wat Tyler, in 1381, and Jack Cade, in 1450, both occupied this heath with their camps. It formed the head-quarters of the Lancastrians in the commencement of the contest of the Roses; and it was the field of battle on which Lord Audley and the Cornish rebels were defeated by Henry VII. in 1497.—Hither, also, it was customary for the lord mayor and corporation of London, and sometimes even for the king and court, to proceed, in order to meet distinguished or popular personages who had been long absent, or illustrious strangers from the continent.

**BLACK LETTER** is the name applied to the old English or modern Gothic letter, which was introduced into England about the middle of the 14th century, and became the character generally used in manuscript works before the art of printing was publicly practised in Europe.

**BLANC-MANGAR**, a preparation of dissolved isinglass, milk, sugar, &c., boiled into a thick consistence.

**BLACK SEA.\*** This sea, although supplied from large and numerous fresh-water rivers, and discharging itself uninterruptedly by a current flowing through the straits of Constantinople and the Dardanelles, is only  $\frac{1}{4}$ th part less salt than the Atlantic, and fully  $\frac{1}{4}$ th part saltier than the Baltic; a circumstance, in all probability, attributable to the saline nature of the sea-bed. The N. const. is almost one continued plain of salt; and the numerous lakes, with which these steppes abound, are, by the action of the summer's sun, covered with a thick, white crust, of the same mineral, perfectly crystallized, and having the appearance, and almost the consistency, of ice.—The notion of the peculiarly stormy character of the Black Sea is fast disappearing with the increased navigation of it by Europeans. A short and troublesome sea is, indeed, produced by anything like a gale, but not in a greater degree than in other portions of water of the same limited extent. Even in winter, when the fogs, and the falling snow, cause sometimes a darkness so great that mariners are unable to discern objects at the distance of a cable's length from their vessels, there is very little hazard, for the depth of water is always sufficient to allow of lying to without danger of drifting upon sand or rock; and with the least break in the weather, land-marks of

the very best kind come into view, which may be seen at 20, and often at 60 miles distance.—Another mistaken opinion of the ancients, concerning the Black Sea, was that of its gradual subsidence. Polybius has not only asserted it, but has given his reasons for thinking it to be a fact. Highly improbable, however, as it may have been before the period in which this writer lived, there can be no doubt, from a variety of observations made by intelligent travellers in later times, that, during many centuries at least, the waters of the Black Sea must have been maintained at very nearly the same level, that is, at a level somewhat higher than those of the Mediterranean; as might be inferred from the perpetual current flowing from it towards the latter.

**BLESSINGTON** (Margaret, countess of), noted as a fashionable novel-writer, for her peculiar social position, and the classic taste which she has exhibited in her domestic arrangements, was born in the latter part of the preceding century, at Curragheen, in the county of Waterford, in Ireland. When only 15 years of age, she was married to Captain Leger Farmer, who died in the year 1817. In 1818, she was married, a second time, to Charles John Gardiner, earl of Blessington, by whom she was first introduced into the higher circles of English society. In company with her husband, she made several extensive excursions on the continent of Europe; where, as had been the case before she quitted England, she succeeded in collecting around her many of the most distinguished men of the day; and at Genoa she formed an intimate friendship with Lord Byron. Subsequently, she resided at Paris, where her husband died, until 1829, when she returned to England. Since then she has made her home at her mansion of Gore-house, Kensington, in the suburbs of London. From her soirées there, which were attended by some of the most eminent of her literary contemporaries, she was careful to exclude all whom she regarded as hostile to her favourite, Lord Byron; and it was with an account of her intercourse with him, during her stay in Italy, that she commenced her career as an author. Among her other productions may be mentioned "The Confessions of an elderly Gentleman," "The Repealers," "The Idler in France," "The Idler in Italy," "The Governess," and "The Victims of Society." She writes with great facility and elegance of style, though in general too diffusely; and her representations of character and man-

ners are given with much vivacity and effect.

**BLIND.\*** See *Schools*, (Sup.)

**BLUBBER** is the fat substance found immediately under the skin, and over the muscular layers, of whales and other large sea animals, and of which train-oil is made. In the whale it covers the body about six inches thick; but near the under lip, it is found two or three feet thick. The whole quantity yielded by one of these animals ordinarily amounts to 40 or 50, but sometimes to 80 or more hundred-weight.

**BLUFFS** are high banks presenting an abrupt form towards the sea or river.

**BLUMENBACH\*** (John Frederick). The infirmities of old age compelled him to retire from the duties of his professorship in 1835; and he died on the 22d of January 1840, having survived all his family, one son only excepted. Most of the specimens composing his large and valuable collections remain at Göttingen.

**BOARD** is equivalent to the French  *bureau*. It is applied to certain individuals in a collective capacity, who are intrusted with the management of some public office or department, or who are appointed by competent authority to deliberate on or superintend the operations of any private business or speculation.

**БЪКН\*** (Augustus). The first number (*Hefi*) of the "Corpus Inscriptionum Græcarum" was published by him in 1832. Besides this important work, and the others which have been already mentioned, he is the author of an ingenious dissertation on the weights, measures, and coins of the ancients (*Metrologischen Untersuchungen über Gewichte, Münzfüsse und Masse des Allerthums in ihrem Zusammenhange*, 1838), and of another on the Athenian navy (*Urkunden über das Seewesen des Attischen Staats*.) He has also contributed a number of very valuable papers to the Transactions of the Academy of Sciences of Berlin, among which may be mentioned one on the odes of Pindar (1825), and another on Leibnitz and the German Academies. His literary labours have acquired for him a widely extended reputation, and have obtained him admission as a member to almost every learned academy or society of Germany, as well as to several in other countries, and among these to the Institute of France.

**БОССТА.\*** Since 1831, this city has been the capital of the republic of New Grenada; and it contains now about 40,000 inhabitants. It has numerous convents and churches, a university, with a library and cabinet of natural history, several gymnasia,

a school of mines, an observatory; a botanic garden, and a number of elementary schools. There are also associations for the cultivation of literature, law, and medicine. Bogota suffered exceedingly by an earthquake on November 16th 1827. Among the buildings destroyed was the cathedral, built in 1814, and distinguished by the simplicity of its interior. From an apprehension of the recurrence of such disasters, the houses generally are low, and constructed with great solidity, little or no attention being paid to architectural beauty. They have no chimneys, and are heated exclusively by stoves. Although the climate is described as healthful, the atmosphere is so rarefied, on account of the great elevation of the city above the level of the ocean, as for some time to be exceedingly oppressive to strangers arriving here by the Magdalena, and very often productive of violent affections of the bowels, or intermittent fever.

**BOISSARD** (Jean Jacq. Franç. Marie), born at Caen in 1743, was the most successful French writer of fables since La Fontaine. Without any attempt to imitate the peculiar manner of the latter, his fables exhibit the same simplicity and naiveté of narration. The first of these appeared as early as 1764, in the "Mercure de France;" and the first collection of them was published in 1773. His later productions are the "Fables" and the "Mille et une fables," published in 1803 and 1806, at Caen, where he resided, during the latter years of his life, in retirement and almost forgotten by his contemporaries.—When young, he held several minor public offices, and at the breaking out of the revolution he was private secretary to one of the king's brothers. During the course of the political changes which occurred, he remained true to his royalist opinions, and was sufficiently happy to be permitted to hold these without being questioned concerning them. And when the Restoration took place, he had acquired new habits, that rendered him indisposed, at an advanced age, to mingle again in the turmoil and passions of the world.—He died in 1831.

**BOISSERÉE.\*** The collection of pictures so called was purchased in 1827 by the king of Bavaria for 400,000 florins, and transported in consequence to Munich.—The publication of the splendid series of engravings illustrative of the cathedral of Cologne, in 48 parts, was completed in 1832, and a second edition of it was published in 1842.—Sulpicius Boisserée is the author of another important work on the

architecture of the middle ages, with lithographic plates, entitled "Die Denkmale der Baukunst vom 7-13 Jahr. am Niederrhein" (the architectural monuments of the 7th-13th centuries on the lower Rhine), in 12 parts (1831-33). He has likewise communicated to the Transactions of the Bavarian Academy of Sciences an interesting dissertation "On the Holy Sepulchre," which has since appeared in a separate form (1833).

BOISSONADE\* (Jean François). In addition to the works already mentioned, he has published the "Sylloge poetarum græcarum" (24 vol. 1823-26); an edition of the New Testament (2 vol. 1824); the "Anecdota græca" (5 vol. 1829-1840), which are important for illustrating the Byzantine history, and for the study of the Greek Grammarians; the "Epistolæ" of Philostratus (1842); as well as several valuable editions of French classical authors.

BOISSY D'ANGLAS (Franc. Antoine, count of), one of the men who figured most conspicuously during the French revolution, was born of a Protestant family, on the 8th of December 1756, at St. Jean Chambre, in the department of the Ardèche. Having studied law, and been admitted as an advocate before the parliament of Paris, he did not apply himself to the practice of his profession, but purchased the office of steward (*maître d'hôtel*) to the count of Provence, afterwards Louis XVIII. He devoted his leisure to literary pursuits, and appeared to take but little interest in political events, when he was elected a deputy to the states general from Annonay. As a member of the Constituent Assembly, he was distinguished for his hostility to the privileges of the nobility; on which account he incurred, in no slight degree, the odium of their adherents. They charged him not only with exhibiting too great a degree of indulgence to the tumults and disorders of the period, but also expressed a belief that he was desirous of an entire change, religious as well as political, in the constitution of the government—in short, that he aimed at the establishment of a Protestant republic. On the dissolution of the Assembly, he was appointed public attorney (*procureur syndic*) for the department of the Ardèche, which office he filled with integrity and firmness, until he became a member of the Convention. Here he voted in succession, at the trial of the king, for his detention in captivity, his deportation from the French territory, for the appeal to the people in his behalf, and for the postpone-

ment of the execution of the sentence of death. Apprehensive, no doubt, lest he might be a mark for the vengeance of the triumphant party, on account of these votes, as well as the unequivocal terms in which he had condemned their measures in an address made by him to his constituents, he was a silent member of the Convention during the reign of terror, contenting himself with voting constantly with the Girondists. He was, in fact, frequently denounced to the Committee of General Safety; and his life was probably only saved by the personal friendship of one of its members, who is said to have suppressed the communications in writing respecting his case, as soon as received. It was only after the fall of Robespierre that he reappeared at the tribune, and took a prominent part in the proceedings of the legislature. He was elected secretary of the Convention on the 7th of October 1794, and on the 8th of December following a member of the Committee of Public Safety, where he evinced uncommon judgment and talent. Charged by the committee with the office of superintending the provisioning of Paris, he was falsely suspected by the populace of having caused the scarcity that some time afterwards prevailed. Hence the part which he was called upon to perform, in the tumultuary insurrections of the 12th Germinal and 1st Prairial of the 3d year of the Republic (April 1st and May 20th 1795), was rendered still more difficult and dangerous than it would otherwise have been. Nevertheless, the calmness, firmness, and presence of mind, which he displayed on those occasions, when presiding over the deliberations of the Convention, and even while surrounded by a furious mob, who had forced their way among the members, and who, having murdered one of their number on the spot, paraded before his face the bloody head of their victim, succeeded in turning aside the danger to which he was exposed, until a force adequate to expel the intruders had had time to assemble from the different sections of the capital. After the Convention had passed away, Boissy d'Anglas was a member of the Council of Five Hundred, and subsequently the president of that body. But, being hostile to the Directory, he was accused, on the 18th of Fructidor of the year 5th (September 5th 1797), of being in correspondence with the club (royalist) of Clichy, and condemned to be deported to French Guiana. He contrived, however, to elude this sentence by concealing himself for two years. At the end of this

time, he surrendered himself a prisoner at the island of Oléron, in order, by so doing, to prevent the spoliation of his family. From his imprisonment he was only liberated after the revolution which made Bonaparte First Consul. He was named by the latter, in 1800, to the Tribunate, of which body he was elected president in 1803; and he became a member of the Senate, with the title of count, in the beginning of the following year. On the restoration of the Bourbons, in 1814, having given his adhesion to the new government, he was made a Peer of France by Louis XVIII. On account of his having taken his seat in the Chamber of Peers during the hundred days following the return of Napoleon from Elba, his name was, after the second Restoration, stricken from the list of the Peers, but was, in a few weeks, replaced on it. His course was henceforth entirely consistent with the principles avowed by him in the earlier period of his political career. He was an advocate for the law of elections, for the institution of the jury, and the liberty of the press. He was a member of the Academy of Inscriptions and Belles Lettres, and was much occupied with literary pursuits. Of the works published by him, the principal are the "Recherches sur la vie et les écrits de Malesherbes" (3 vol. 1819), and the "Etudes littéraires et poétiques d'un vieillard" (6 vol. 1826). Boisy d'Anglas died on the 20th of October 1826, at the age of 70.

**BOLE.\*** There are a great variety of boles. They are sometimes used medicinally. Generally, they are reddened by oxide of iron; as is the case in the *Armenian bole*, which is used in tooth-powder, and to give colour to the fish-sauce called essence of anchovies.

**BOLIVIA\*** is divided into the six departments of La Paz, Oruro, Potosi, Cochabamba, and Santa Cruz de la Sierra, the first three having their chief towns of the same names, and the chief towns of the others, in the order in which they are mentioned, being Oropesa, Chuquisaca, and San Lorenzo de la Frontera. The population of Bolivia has been very variously estimated, at from 600,000 to 1,800,000 individuals; three-fourths of whom are Indians, and the remainder, except a few negroes and people of colour, are of Spanish descent. Of the chief towns, Chuquisaca, which is the seat of government, has about 18,000 inhabitants; La Paz is said to have 40,000, Potosi 35,000, and Oropesa 25,000.—The commerce of Bolivia is inconsiderable, owing

chiefly to the difficulties which have been encountered in bringing its products to market. The people have not yet learned to avail themselves of the navigable affluents of the Amazon and La Plata, by means of which an intercourse might be opened with the ports on the E. coast of S. America; and, at present, the trade with Europe takes place wholly through the ports of the Pacific, which cannot be reached except by toilsome passages. The country to Cobja, the only Bolivian port, is traversed by but one road, that from Oruro, and it is practicable only for mules and lamas. Cobja, though a free port, is therefore but little frequented; the Bolivians preferring to obtain their foreign imports through Arica and Tacna, ports of Lower Peru, notwithstanding a transit duty of 3 per cent. is there imposed upon them. These imports mostly consist of hardware and a few articles of finery. The exports are nearly confined to the precious metals, and a few other commodities having a great value in a comparatively small bulk.—The constitution bestowed upon Bolivia by Bolivar soon became exceedingly unpopular, and after repeated insurrections of the inhabitants of the department of La Paz, towards the end of 1827, General Sucre, with the Colombian troops which he had retained, was constrained to leave the country. A new Congress, which assembled on the 3d of August 1828 at Chuquisaca, essentially modified the constitution, and chose General Santa Cruz to be the president of the Republic. Santa Cruz declined the honour conferred on him; whereupon the presidency was usurped by General Velasco, who was, however, deposed by the Congress in the month of December following. That body then elected General Blanco in his place. He, in his turn, lost his life in an insurrection which occurred on the last day of the year. A provisional government was then established, by whom General Santa Cruz was once more invested with the dignity of first magistrate. The latter no longer hesitated to comply with the wishes of the majority of his fellow-citizens, and coming in May 1829 to La Paz, succeeded in restoring the country once more to a state of tranquillity. In 1831, he introduced a new code of laws, the "codigo Santa Cruz," brought order into the finances, and concluded a treaty of amity and commerce with Peru. He was the author, besides, of various measures of a nature calculated to promote the prosperity of Bolivia, for which a happy future seemed to be opening. But Santa Cruz

became ambitious of extending his authority over a wider extent of territory, and scrupled not, in consequence, to involve his country in war with Peru. On pretence of mediating between the opposing candidates for the presidency of that republic, he invaded it at the head of all the forces which he could muster. In a battle which was fought near the city of Cusco, on the 8th of August 1835, he defeated the Peruvian general Gamarra, and proceeded, in the spring of 1836, to complete the object that he had aimed at. He assumed the title of the Pacificator of Peru, and was declared to be the supreme chief of the three states of N. Peru, S. Peru, and Bolivia. According to the constitution then framed by him for the confederation, while the several states composing it were to have their own local governments, he himself was to preside over the common interests of all, as the chief magistrate of the central government, under the designation of *Protector*. The jealousy of the neighbouring states had, however, in the mean time been excited, and particularly that of Chili. The hostilities with that republic, which began in 1836, were protracted, through the years 1837 and 1838, into 1839; on the 20th of January in which year Santa Cruz suffered a total defeat at Jungay from the Chilese, and an auxiliary force of Peruvians commanded by his old antagonist, General Gamarra, who now became president of Peru. General Velasco, who commanded the forces in Bolivia, next seized the opportunity afforded him to declare war against Santa Cruz and the Confederation, and on being appointed by the Congress, then in session at Chuquisaca, president pro tem., hastened to conclude a peace with Chili. No resource remained to Santa Cruz, but to consult his safety by embarking at Guayaquil for the neighbouring republic of Ecuador. But by one of those singular changes of public sentiment and of fortune so often occurring in the new S. American states, and, on account of our very defective knowledge of the circumstances under which they have occurred, so incomprehensible to us, scarcely had the ex-protector made his escape from his enemies, when a reaction in his favour took place in Bolivia, and his former official career was pronounced, by a formal act of the Congress, to be free from all blame. The president Velasco was even arrested and deposed, and Santa Cruz once more nominated to the presidency. Still as it was impossible for the latter to arrive in sufficient time to secure the ascendancy of his

partisans, these deemed it expedient to rally in support of general Ballivian, who had also put forth claims to the high office in question. Bolivia, nevertheless, was not yet destined to relapse into tranquillity. General Gamarra, the president of Peru, in the mean time thinking to embrace the opportunity of the unsettled condition of the affairs of Bolivia, to gain possession of the province of La Paz, which he was desirous of annexing to his own government, penetrated with a considerable force as far as Viacha, somewhat in advance of the city of that name. There he was attacked and his army totally routed by the Bolivians, on the 18th of November 1841, he himself being numbered among the slain. Ballivian, at the head of the victorious army, now, in his turn, advanced into Peru, threatening to reduce it to a state of subjection to Bolivia; but, through the interference of Chili, a treaty of peace was concluded, June 7th 1842, between the contending parties, by which Ballivian agreed to evacuate the Peruvian territory, and to restore the relations of the two states to what they were previously to the commencement of hostilities.

**BULLMAN\*** (Erick) died at Kingston in the island of Jamaica, December 10th 1821.

**BOLOGNIAN STONE**; a sulphate of baryta, which is found near Bologna in Italy, and which, when heated with charcoal, becomes a powerful solar phosphorus. The light given out is especially strong when it is pulverized and kneaded into a paste with linseed oil.

**BOLTON, or BOLTON-LE-MOORS**; a flourishing manufacturing town of England, in the county of Lancaster, with 50,163 inhabitants. It is situated in a marshy region, and is divided by a small rivulet into Great and Little Bolton. A canal connects it with Manchester and Bury; and it is owing to its improved communications, as well as to its command of coal, that it has become one of the principal seats of the English cotton manufacture. Six millions of pieces of muslin are stated to be annually produced.—Sir Richard Arkwright, the inventor, or, at all events, the introducer of the spinning-jenny, was a native of Bolton. Crompton, the inventor of the mule-jenny, was a native of Bolton parish.

**BOMBAY.\*** See *India*, (Sup.)

**BOMBAZINE**; a twilled fabric, having its warp of silk, and its weft of worsted. The worsted is thrown on the side which has a twill upon it. It was formerly made entirely for mourning garments, but it is



now manufactured of various colours. Bombazines are woven with silk of the natural colour, and dyed afterwards.

**BOMBELLES\*** (Louis Phil., count of) was Austrian ambassador, in 1829, to queen Donna Maria da Gloria in London, in 1834 at the Court of Turin, and in 1837 at Berne, in Switzerland.

**BONA.\*** The population is variously stated from 5000 to 8000. The harbour, though capacious, is far from being a safe one, the N. E. and E. winds throwing in a heavy sea. Bona is the principal seat of the coral fishery on the coast of Algeria. The Casaba or citadel, the capture of which by the French in 1832 was one of the most remarkable events connected with their occupation of this part of Africa, is situated on an eminence commanding the town. In 1837, it was considerably injured, and partially destroyed, by the explosion of a powder magazine, but has since been reconstructed. The town of Bona is the seat of the most eastern of the four military governments into which the French colony of Algeria is divided.

**BONAPARTE** (Maria Letitia), the mother of Napoleon, died at Rome, on the 2d day of February 1836, in the 86th year of her age. For several of the last years of her life, she was deprived of her sight, and bed-ridden.

**BONALD\*** (Louis Gabriel Ambroise, Viscount de). The revolution of July 1830 brought his political life to a close. He refused to take the oath of allegiance to the new government, and thus renounced his rights as a Peer. He then retired to his seat at Monna, the place of his nativity, where he died in 1840.

**BONDI\*** (Clemente) died at Vienna in 1821.

**BONDY\*** (Taillepiep, count of). Besides being a member of the chamber of deputies in 1816 and 1818, as already mentioned, M. de Bondy was elected a deputy in 1823, and again in 1827. He continued, during his whole legislative career, to sit on the left (*côté gauche*) of the chamber. After the revolution of July, he succeeded Odillon-Barrot in the difficult office of prefect of the department of the Seine, but ceased to hold it on being elevated to the peerage in 1832.

**BONE.\*** The animal matter of bones amounts on an average to about half their weight, or, when dried, to between 30 and 40 per cent., so that they contain a large relative proportion of nutritive matter. The bones, including their animal matter, are the most durable parts of the animal fabric. Hence the proposal of storing them

up, as occasional sources of nutriment; for not only is the cartilaginous portion unimpaired in bones which have been kept dry for many years, but it has even been found perfect in bones of apparently antediluvian origin. The best mode of extracting the nutritious part of bone for human food consists in grinding it fine, and subjecting it with water to a heat of about 220° in a digester; or the earthy part may be removed by dilute muriatic acid.—Bones of animals are extensively used in the arts, in forming handles for knives, and various other purposes. They have latterly been employed, particularly in England, as a manure on light soils; and they are commonly ground, and drilled in, in the form of powder, with turnip seed. On account of the facility of their carriage, many distant and hilly tracts have been improved in this manner, at comparatively little cost.

**BONN.\*** This city has at present 14,640 inhabitants, not including the military. The Jews amount in number to 500; and more than five-sixths of the inhabitants are Roman Catholics.—Besides the university, there are a gymnasium, and other schools. The Leopoldine Academy of Natural History, founded at Vienna in 1652, was removed to Bonn in 1808; and the Society of the Lower Rhine for the prosecution of Physical, including Medical science, was established here in 1818.—Bonn has considerable manufactures of cotton goods, earthen ware, sulphuric acid, and soap.—The university has at present, from the state, an annual income of 90,000 Prussian dollars, 4250 dollars of which are appropriated for the increase of the library, already consisting of 100,000 volumes. There are 70 professors and other instructors, composing the five faculties of Roman Catholic Theology, of Protestant Theology, of Law, of Medicine, and of Philosophy. The number of students, in the summer of 1742, amounted to 609. A new observatory has latterly been erected, on the most improved construction.—Bonn is the birth-place of Beethoven, and possesses, since 1842, a beautiful monument of him, constructed by Hähnel in Dresden.

**BONNYCASTLE** (Charles) was born at Woolwich in England; at the Military Academy of which place his father, John Bonnycastle, was professor of Mathematics. He was intended for the employment of a builder in the service of the government, and was actually placed with a master-builder for this purpose. But not liking the occupation, or for some other reason, he abandoned it; and he afterwards travelled with Lord Pomfret, assisted his

father in the preparation of several elementary books on mathematical subjects, and occasionally wrote articles for encyclopædias and other works published in numbers.—Mr. Bonnycastle was selected as the first professor of Natural Philosophy in the University of Virginia, by Mr. F. W. Gilmer, who was sent to England by the visitors of the university to choose professors for several of the departments. He arrived in the United States with Dr. Dunglison, the professor of Medicine, and Mr. Key, the professor of Mathematics, (now of the London University), in February 1825. He was an excellent mathematician, and likewise exceedingly well informed on the various branches of physical science, which he taught to large classes of students. The classes of mathematics in the university, however, were still more numerously attended; and Mr. Bonnycastle therefore was, at his request, transferred to this department, on the return of Mr. Key to his native country, in 1827. He was the author of a treatise on "Inductive Geometry," and of several memoirs on scientific subjects.—He married in Virginia; and left behind him, at his death, which occurred in October 1840, a widow and three children.

BONPLAND\* (Aimé) was set at liberty by Dr. Francia in November 1829, when he proceeded to Buenos Ayres. Thence he wrote to Alexander de Humboldt that he only awaited the arrival of his collections from Paraguay to return to Europe. He afterwards, however, altered his mind, and returned to Paraguay. From Montevideo, he wrote to Humboldt, towards the end of the year 1840, that it was his intention to remain in that country for some time longer, since, now Francia was dead, he would be able to make his researches with little or no further obstruction; and that, in the event of his dying suddenly, his herbarium and manuscripts would be found in the best order. This is the last which has been heard from him. His observations on the herbarium, collected by Humboldt and himself, have been incorporated by Kunth in the "Nova genera et species plantarum" (12 vol. 1815-25.)

BONSTETTEN\* died at Geneva, February 3d 1832. Besides his works already mentioned, his "Letters to Matthison," from 1795 to 1827, were published in the last-mentioned year; and his "Letters to Frederica Brun," down to 1828, edited by Matthison, appeared in 2 volumes in 1829.

BOOM, a nautical term, denoting a long pole to extend the bottoms of particular sails, whence jib-boom, main-boom, stud-

ding-sail-boom, &c.—The term boom denotes also a strong chain or cable stretched across the mouth of a river or harbour, with yards, topmasts, or spars of wood, fastened to it, to prevent an enemy from entering.

BOOTON; an island lying off the S. E. extremity of the island of Celebes. On the E. side of Booton, there is a deep bay, called by the Dutch Dwaal, or Mistake Bay. There is danger, in calm weather, of ships being drawn, by the set of the currents, into this bay; in which case, they can only get out again at the coming in of the W. monsoon. When Mr. de Clerc was on his way to assume the government of Banda, he was detained during a whole year in this inlet. The inhabitants are Mohammedans, and have a king of their own, who is independent of any other power.—The Dutch East India Company formerly maintained a settlement on the island, to which they every year sent an officer to destroy the clove trees. This was done under a treaty with the king of Booton, to whom about £30 sterling were paid for the privilege, and for the assistance which he bound himself to give in accomplishing the proposed object. The Dutch officer employed received the appropriate name of the *extirpator*.

BOPP\* (Francis). Besides the works on Sanscrit literature before mentioned, Bopp published, in 1829, the "Diluvium cum tribus aliis Mahabharati episodiis;" and he has also presented to the public his views of the grammar of the Sanscrit language, in three separate publications; viz. the "Ausführliches Lehrgebäude der Sanskritsprache" (1827); the "Grammatica critica linguæ sanscritæ" (2 vol. 1829-32); and the "Kritische Grammatik der Sanskritsprache" (1834). To these he has added (1830, 2d ed. 1840) his "Glossarium Sanscritum." In short, no other writer has done so much to facilitate and promote the study of Sanscrit literature as Bopp. His principal merit, however, is his analysis of the grammatical forms of the various languages of Indo-Germanic origin, by means of which he laid the true foundation of the science of comparative or general grammar. The principal work on this subject, of which he is the author, is his "Vergleichende Grammatik des Sanskrit, Zend, Griechischen, Lateinischen, Lithauischen, Atslawischen, Gothischen und Deutschen," in 4 parts (1833-42); and his researches on this subject have been further prosecuted in his dissertations, communicated to the Academy of Sciences of Berlin, and after

wards published in a separate form, "Über die keltischen Sprachen" (1839), "Über die Verwandtschaft der malaiisch-polyneischen Sprachen mit den indo-germanischen" (1841), and "Über das Albanesische." He has, moreover, written a review of the works of J. Grimm and of Graff on the grammar of the German language (1836).

BORGHESE\* (prince) died at Florence, May 8th 1832.

BORGHESE (Bartolomeo, count), distinguished by the attention which he has paid to ancient coins and inscriptions, was born at Savignano, in Italy, July 1781. His taste for literary pursuits was very early developed under the instruction of his father, himself eminent for his literary acquirements. The young Borghesi, when only in his 11th year, published an essay on a copper coin. On the death of his father, he continued his studies at the Collegio dei Nobili, and the College of San Luigi, at Bologna. Returning in 1800 to his native town, he co-operated in the formation of the "Accademia Savignanesa," and commenced his antiquarian researches, with the object in view of preparing an improved edition of Muratori's *Annals*, which he was, however, obliged to give up on account of the enfeebled state of his health. In 1802, he went to Rome, and applied himself more particularly to the study of inscriptions. After an absence of some time at Milan, where he lost no opportunity to prosecute his favourite studies, he returned to Rome, and undertook, at the request of pope Pius VII., to arrange a catalogue of the collection of coins in the Vatican, asking for his labour the singular reward,—the only one which he was willing to receive,—of being exempted from the observance of the fasts of the Romish church.—Since the year 1821, Borghesi has resided at San Marino, and, in May 1842, was sent to Rome as an ambassador from that republic, to treat with the papal government in relation to the taxes imposed by it on salt and tobacco. This has been his only political employment; and he has refused every proposition made to him from abroad of a nature to remove him from San Marino, or to restrict his independence. His principal work is entitled "Nuovi frammenti dei fasti consolari capitolini illustrati" (2 vol. 4to, 1818–20). He has made important additions to Forcellini's Latin Lexicon, as likewise to Perticari's improved edition of the "Dellamondo" of Faccio degli Uberti.

BORNEO. The Dutch have had a factory at Bandjermasing, on the S. coast, ever since the year 1747; and they ac-

quired the sovereignty of this portion of the island in 1787, by cession from the sultan who then ruled over it. The W. coast was ceded to them in 1780, by the king of Bantam. They have two small stations here, at Sambas and Pontiana, about 90 miles apart. Settlements of Chinese occupy the intermediate territory, where alone the valuable mines of diamonds and gold are situated; but, controlled and oppressed as these Chinese have been by their European neighbours, they have not latterly worked the mines to the same extent as formerly. The Dutch revenues are chiefly derived from monopolies of salt and opium imported by them; the first-mentioned article chiefly from Java, &c., in vessels chartered by the government, and sold at seven times the cost and charges of importation,—the interior being entirely dependent on the coast for its supply: other resources are from capitation taxes on the Chinese, and imposts on their entering or leaving the Dutch settlements, through which only the produce of their industry can find its way to a market.—The population of the Chinese and Dutch territories has been estimated by Mr. Earl to be

|                                      |         |
|--------------------------------------|---------|
| Chinese.....                         | 150,000 |
| (80,000 in the Dutch settlement)     |         |
| Malays.....                          | 50,000  |
| Bugis.....                           | 10,000  |
| Arabs.....                           | 400     |
| Javanese and Amboynese soldiers..... | 150     |
| Dutch.....                           | 80      |
| Dyaks.....                           | 250,000 |
| Total.....                           | 460,030 |

BOROUGH ENGLISH, a customary descent of lands or tenements, in certain places in England, by which they descend to the youngest, instead of the eldest son; or, if the owner have no issue, to the younger, instead of the elder brother. The reason assigned for this custom is that the youngest is presumed, in law, to be least able to provide for himself.

BORSHOLDER; one of the inferior magistrates among the Anglo-Saxons, whose authority extended only over one tithing, consisting of ten families. He was elected by the adult males in the tithing.

BORY DE ST. VINCENT\* was placed in 1829, by the French government, at the head of the scientific expedition which was destined to explore the Morea and the neighbouring islands. How actively he performed the duties assigned to him appears, not only from the work entitled "Expédition scientifique en Morée" (1832), and edited by him, but more especially from the botanical section of it (*Partie botanique*) prepared by him exclusively, as

well as from the "Nouvelle flore du Péloponnèse et des Cyclades, etc." (1838), published by him jointly with Chaubard. An article which he contributed to the "Dictionnaire classique de l'histoire naturelle," was subsequently expanded by him into a comprehensive treatise, under the title of "L'homme, essai zoologique sur le genre humain" (2 vol. 1827), containing many original views. Bory de St. Vincent has been a contributor to a great number of scientific works; and he prepared the parts relating to the *cryptogamia* in Duperrey's "Voyage autour du monde," and Belanger's "Voyages aux Indes orientales." As editor of the "Dictionnaire classique de l'histoire naturelle," he rendered great service to the cause of science.—In 1832, he was elected a member of the chamber of deputies; but his election was annulled by the chamber. Notwithstanding his advanced age, he undertook, in 1839, the direction of the scientific commission which the French government sent to Algeria. He accompanied it in person; but after having, for a time, guided its operations with much effect, he returned to France.

Bosc (Louis Augustin Guillaume), a French naturalist, born at Paris, January 29th 1759, made himself known at first as editor (rédacteur) of the "Journal des savants." Proscribed, during the reign of terror, in consequence of his connexion with Roland, under whom, when minister, he had held an office, he found a refuge in the forest of Montmorency. Here, although in daily expectation of being discovered and conducted to death, he employed himself in botanizing; and thereby acquired an augmented taste for natural history, to which he devoted himself, on his return to Paris, after the fall of Robespierre. In 1796, the Directory appointed him vice-consul of France at Wilmington, and subsequently, consul at New York; but he was not acknowledged in either of these capacities by the president of the United States, in consequence of the differences then existing with the French government. Without any official employment, he travelled much, and collected a large number of botanical and zoological specimens. Having returned to his own country, he was appointed, in 1799, one of the administrators or managers of the hospitals and prisons of Paris,—an office from which he was removed after the 18th of Brumaire. But a short time only elapsed, when he was employed, by the consular government, in scientific excursions into different parts of France, and into Switzer-

land and Italy. From the latter country, he brought home the fine collection of petrified fishes presented by the city of Verona to Bonaparte, for the Museum of Natural History. After the Restoration, he became superintendent of the gardens and nurseries of Versailles, a member of the Academy of Sciences and of the Central Society of Agriculture, and, at length, a professor at the "Jardin du Roi." He died July 10th 1828.—Bosc was a very voluminous writer, having contributed many papers, on various subjects of natural history, to the scientific journals, and the transactions of the learned societies which had bestowed upon him the honour of membership, as well as numerous articles to the "Nouveau dictionnaire d'histoire naturelle appliquée aux arts, &c.," and the "Nouveau cours complet d'agriculture théorique et pratique." He is the author of two valuable works,—the "Histoire naturelle des coquilles" (5 vol. 1824), and "Histoire des vers et des crustacées" (2 vol. 1829).

Bosio.\* This distinguished sculptor was born at Monaco, in Italy, in 1769.—The successive governments of France, from Napoleon to Charles X., have equally patronized him, and heaped honours upon him. Louis XVIII. created him a knight of the order of St. Michael, and made him an officer of the Legion of Honour, besides bestowing upon him, with the title of sculptor to the king, a pension of 4000 francs, which he retained till the revolution of 1830. Charles X. made him a baron.—He holds a professorship in the Academy of the Fine Arts in Paris; and he has been admitted an honorary member of the Academies of Berlin, Turin, and Rome.

BOTS; a species of small worms found in the intestines of horses, and which are the *larvæ* of a kind of gad-fly that deposits its eggs on the tips of hairs, generally of the fore-legs and mane, whence they are taken into the mouth and swallowed.

BOTTA\* published, in 1832, under the title of "Storia d'Italia" (20 vols. 1832). Guicciardini's history, his (Botta's) continuation of it, embracing the period from 1535 to 1789, and his "Storia d'Italia" from 1789 to 1814, already mentioned. He was not permitted to return to his native country till the year 1830, when prince Charles Albert became viceroy of Sardinia. The latter bestowed upon him a pension at first of 3000, and afterwards of 4000 *liri*. He closed his life at Paris on the 10th of August 1837. Two Frenchmen, two Italians, and two Americans,

have erected at Turin a monument to his memory.

**BÖTTIGER.\*** His journal styled "Amalthea" was published from 1821 to 1825, extending to three volumes; and one number of a proposed continuation of it appeared in 1828. In 1823, jointly with B. W. Seiler, he published a work illustrative of the muscles and bas-reliefs of Matthäi's models of horses (*Erklärung der Muskeln und Basreliefs an Matthäi's Pferdmodellen*), and, in 1826, a volume entitled "Ideen zur Kuntsmythologie," which has been continued in another, compiled from the manuscripts left by him at his death, which occurred on the 17th of November 1835.—His numerous occasional publications, in German and in Latin, together with his various contributions to the journals, have been collected and published by Sillig, under the titles of "Böttigeri opuscula et carmina latina" (1837), and "Böttiger's Essays on archeological and antiquarian subjects" (3 vol. 1837-38).

**BOUCHER\* (Alexander).** After the Restoration, Boucher lived several years in France. In 1821, he made an extensive artistical tour in Germany, Poland, Russia, and the Netherlands. He then returned to Paris, and remained there, giving lessons on the violin, with occasional concerts, until about the year 1831, when he went to Spain, in which country he has since resided.

**BOUILLY\*** was born at Boudraye, near Tours, in 1763, and died at Paris, April 24th 1842.

**BOUNTY** (Queen Anne's) is the produce of the first fruits and tenths due to the crown, which were made over by Queen Anne to a corporation established in the year 1704, for the purpose of augmenting poor livings under £50 a year.

**BOURBON\*** (Isle of) was, during the French revolution, and down to the year 1809, called *Réunion*, and from 1809 to 1814, *Bonaparte*.—The population, in 1836, amounted to 106,099, of which 69,296 were negro slaves. The chief town and port, St. Denis, on the N. side of the island, has 12,000 inhabitants.—The total value, in 1836, of articles exported, of the growth and produce of the island, was 16,743,699 francs, and of the imports, 13,769,541 francs. The principal commercial intercourse is with France, where the bulk of the produce of the island is exchanged for manufactured articles.—The Piton des Neiges, the highest summit in the island, has been found to be 3450 metres, or 10,355 feet above the level of the sea.

**BOURMONT** (Louis Auguste Victor de Ghaisne, count of), marshal of France, was born in 1773, at the château of Beaumont, in Anjou. At the outbreak of the revolution he was an officer in the French guards, and emigrating with the great body of the nobility, he joined the army of the prince of Condé, who appointed him one of his aides-de-camp. In 1791 he was sent to Nantes to ascertain the state of public opinion in the west of France, and, if this should be found to be sufficiently favourable to the royal cause, to contribute, to the extent of his ability, to excite the people to insurrection. Returning, after this mission, to the army on the Rhine, he distinguished himself in the campaigns which followed in that quarter. Towards the end of the year 1793, he proceeded to England, on another mission from the prince of Condé, to induce the British government to send a body of troops to co-operate with the Vendean insurgents. Disappointed in this object, he left England for La Vendée, and was most cordially welcomed by the viscount Scépeaux, one of the chiefs of the insurgents. He was appointed to an important command, and was also selected to be a member of the superior council of the Chouans of Maine, where his family possessed considerable influence. When, in 1796, every hope of the Vendéans seemed for the time to be extinguished, he repaired once more to England, and remained there awaiting a more propitious moment for renewing the civil war; and we accordingly find him, in 1799, once more actively engaged as a chief among the Chouans. He was soon, however, reduced to the necessity of making terms with the enemy; whereupon he proceeded to Paris. There he was favourably received by the First Consul. He appeared to have given up all idea of further resistance to the existing government, and to be even solicitous to cultivate its good will. Then, in 1803, occurred the attempt to assassinate Bonaparte by means of the infernal machine. Bourmont's officiousness in denouncing the jacobins as its authors, together with the information obtained by the government of his being still in correspondence with the royalists, led to his arrest, and imprisonment successively in the Temple, the citadel of Dijon, and that of Besançon. In 1805, he succeeded in making his escape from the latter, and directed his course to Portugal. He contrived, on the entrance of Junot into that country, in 1808, to justify his conduct in such a degree as to be permitted to return again to

France; and, before long, he was appointed by Napoleon colonel-adjutant in the army of Naples, and shortly after a general of brigade. He distinguished himself on several occasions in the campaigns of 1812, 1813, and 1814, especially at the battle of Dresden, and in the defence of Nogent against very superior forces; for which last exploit he was promoted to the rank of general of division.—On the 31st of March 1814, the day of the entrance of the allies into Paris, Bourmont declared for the Bourbons, and, two months afterwards, was appointed to the command in chief of the sixth military division. In this capacity he was at Besançon, when Napoleon landed on the coast of Provence from Elba. He promptly obeyed the order transmitted to him from the capital to unite his forces with those of Marshal Ney, to resist the progress of the invader; which made him present at the defection of the troops, and rendered him, also, an important witness at the trial of the marshal. During the hundred days, he succeeded in obtaining the confidence of the emperor, to such an extent as to be entrusted with the command of a division of the corps d'armée under the orders of General Gérard, in Flanders. Just, however, before the commencement of hostilities, he deserted his post, and announced himself at the advanced pickets of the Prussians as an adherent of Louis XVIII. Ten days afterwards, he re-entered France with the office of commander of the Northern frontier conferred upon him by the king. In September 1815, he was appointed to command one of the divisions of the royal guard. In this capacity, he was attached to the reserve of the French army which entered Spain in 1823. On the surrender of Cadiz, he was appointed commander in chief of the forces in Andalusia, and, before the close of the year, was promoted to the peerage. In 1824, he returned to Paris, and took his seat in the Chamber of Peers, where he gave a steady support to the measures of the government. He became minister of war in 1829, and general in chief of the expedition to Algiers in the following year, for his services in which he was made a marshal of France. By his absence in Africa at the period of the revolution of July, he escaped the fate of his colleagues in the ministry. When, in consequence of that event, he was superseded in his command by General Clausel, he embarked at Algiers for Mahon, and proceeded to England by way of Spain. Persisting in his refusal to take the oath of fidelity required by law, on the

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10th of April 1832 he was stricken out of the lists of the army and peerage, and in 1840 was deprived of his rights as a French citizen. In 1833, Don Miguel placed him at the head of his troops in Portugal, but without any ultimate advantage to his cause. Bourmont went to Rome in 1837, and sought to operate there in the interest of Don Carlos. In 1840, he came to Marseilles, but being publicly insulted by the inhabitants, he proceeded to La Vendée, and made a short stay amid the scenes of the earlier part of his career. Of his subsequent course we have no information.

BOURRIENNE\* died at Caen, Normandy, on the 7th of February 1834, in a "maison de santé," in which he had passed the last years of his life, in a state of insanity.

BOWDITCH (Nathaniel) LL. D., was born at Salem, in Massachusetts, on the 26th of March 1773. His ancestors, for three generations, had been ship-masters; and his father, on retiring from the sea, carried on the trade of a cooper, "by which he gained a scanty and precarious subsistence for a family of seven children." He was sent to school only till he was ten years old. The instruction, too, which he received must have been of a very inferior kind, if we are to judge from the fact of there being no other book in the school than a dictionary, which belonged to the master, who gave out from it the words to be spelled by the boys; and from the fact, also, of the latter being every day called upon to spell aloud, all together, in chorus, the word *honorificabilitudinitas*. But the advantages of this school, such as they were, he was obliged to relinquish, that he might go into his father's shop and help to support the family. When about 12 years of age, he was transferred, as an apprentice, to a ship-chandler, who retired from business in 1790; whereupon he was employed as a clerk, by another individual of a similar occupation, down to the period of his going to sea, in January 1795. His genius for mathematical investigation had by this time been very decidedly manifested. In this department of science he was entirely self-taught; and such was the ardour with which he prosecuted its study, that he likewise, without the aid of any teacher, acquired a knowledge of the Latin language, expressly to be enabled to read the Principia of Newton, an achievement which he had accomplished by the age of 21.—Dr. Bowditch made five long voyages, the first in the capacity of captain's clerk, the next three as supercargo, and the fifth as master and supercargo. It

was on his return from the last of these, on the 25th of December, 1803, that he found his way into Salem harbour, in a dark and snowy night, with no other assistance than his own reckoning, and a single glimpse of the light on Baker's Island. In May 1799, he was elected a member of the American Academy of Arts and Sciences at Boston; and, in 1802, the honorary degree of Master of Arts was received by him from Harvard University. This compliment, from a literary institution of so high a character in the public estimation, was in a peculiar manner gratifying to him; so much so, indeed, as to be, ever after, recurred to with the greatest pleasure, even amid the many distinctions subsequently conferred upon him in his own and in foreign countries, and to be even made a subject of mention in his will. He married in March 1798, but his wife died in October of the same year. In October 1800, he contracted a second marriage, which lasted upwards of 33 years, and made him the father of a numerous family. In 1800 also, having previously published three editions of Hamilton Moore's Treatise of Navigation, he printed his work on the same subject, entitled "The New American Practical Navigator," which has passed through 9 editions, and is unquestionably the best book of the kind in the English language, or, it may be safely said, in any other.—In 1804, Dr. Bowditch was appointed president of the "Essex Fire and Marine Insurance Company" at Salem, the duties of which office he continued to discharge till the year 1823, when, on the establishment of "The Massachusetts Hospital Life Insurance Company," in Boston, he was selected as the fittest person to superintend its affairs. While residing at Salem, he was frequently solicited to accept of professorships in various literary institutions in different parts of the country, all of which he declined, though the emoluments connected with them considerably exceeded the amount of the salary paid him by the Insurance Company. Thus, in 1806, he was chosen to fill the Hollis professorship of Mathematics at Harvard University; in 1818, he was requested by Mr. Jefferson to accept the professorship of Mathematics in the University of Virginia; and in 1820, he received a letter from Mr. Calhoun, then Secretary of War, desiring him to permit his name to be presented to the President of the United States to fill the chair, then vacant, of professor of Mathematics in the Military Academy at West Point. When Dr. Bowditch was appointed

to be the actuary of the Hospital Life Insurance Company, its capital was \$500,000, and its business was strictly confined to insurances on lives; but, at his suggestion, the Company applied to the Legislature for additional power to hold in trust, and loan out, the property of individuals. This power was granted; and "upwards of \$5,000,000, nine-tenths of which belonged to widows and orphans, were, in consequence, received and invested; the institution becoming in this way a saving's bank on a large scale." In the management of its extensive concerns, Dr. Bowditch exhibited always a sound judgment, and a remarkable degree of practical skill; in consequence of which it suffered, during the financial and commercial embarrassments of 1836 and 1837, less perhaps, in proportion to its capital, than any moneyed institution of the country.—Besides the work on navigation already mentioned, Dr. Bowditch was the author of a chart of the harbours of Salem, Marblehead, Beverly, and Manchester, of remarkable beauty and exactness, and constructed from surveys made by himself during the years 1805, 1806, and 1807, while he resided at Salem. During his residence at Salem, also, he contributed 23 papers to the Transactions of the American Academy of Arts and Sciences, mostly on astronomical subjects: several of them attracted the attention, in a considerable degree, of men of science, both abroad and at home. He was a contributor to the Analyst and the Mathematical Diary, two periodical publications of which the late Dr. Adrain was the editor, and he resolved every question that was proposed in them, with great ingenuity and neatness. He wrote a number of articles for the American edition of Rees's Cyclopædia—the article on Modern Astronomy, in the 20th volume of the North American Review,—and a short account of the comet of 1806, in the 4th volume of the Monthly Anthology.—But the work on which the reputation of Dr. Bowditch chiefly rests is a translation, accompanied by an elaborate commentary, of the "Mécanique Céleste" of Laplace, in 4 large quarto volumes, which appeared successively, at Boston, in 1829, 1832, 1834, and 1839. The manuscript of these had been completed as early as 1817; and their publication had been so long deferred partly from an expectation that Laplace himself would publish another edition of his treatise, and partly, too, from the great expenditure required, without the possibility, on account of the necessarily limited demand for so profound a work of sci-

once, of this expenditure being ever replaced. Indeed, had it not been for Mrs. Bowditch, who cheerfully sacrificed her personal convenience and gratification to the fame of her husband, the work would, in all probability, have remained unpublished to the present day. Though at length enabled to accomplish the object which he had long had in view, the 4th volume was not issued from the press until after his death, which happened on the 16th of March 1838.—The volumes of Dr. Bowditch's translation and commentary correspond to the first 4 volumes of the original work. It had been his intention to translate also the 5th volume, published by Laplace many years after the others, and to annex to it copious notes, many of which he had already prepared. This is not the place to speak, at any length, of the merits of the commentary in question. It may suffice to say that it is "a real and effective explanation of all the innumerable steps which the author has omitted;" that it has thereby rendered the "Mécanique Céleste" accessible to many, comparatively speaking, who would not fail to be altogether discouraged from an attempt to master its contents by their own unaided efforts; and that it embraces numerous and important investigations, entitling it, in not a few instances, to be regarded as itself an original work deserving of being ranked in the first class of treatises on the higher mathematics.—The merits of Dr. Bowditch, as a man of science, were highly appreciated, as well in Europe as in his own country. The degree of LL. D. was conferred upon him by Harvard University in 1816; and he was a member of the American Philosophical Society. He was elected a fellow of the Royal Societies of London, Edinburgh, and Dublin;—a member of the Astronomical Society of London; a corresponding member of the Royal Academy of Sciences at Berlin, &c.—To what has been stated may be added, that Dr. Bowditch was not only a profound mathematician and a skilful man of business, but, in despite of the defects of his early education, was imbued with a taste for elegant literature, and was a very general reader,—that he had acquired an acquaintance with several languages, ancient and modern,—that he passed through life with a high sense of religious and moral obligation,—and was beloved and respected by all who had intercourse with him.

BOWRING\* (John) was born at Exeter, in England, October 17th 1792. He entertained the most intimate relations with Jeremy Bentham, who, on the decease of

Dumont, devolved upon him the task of editing his works, and who also appointed him to be his executor. He made himself known at an early period of his life in the political world, by his zealous efforts in behalf of the dissenters, and by his advocacy of a reform of the House of Commons. On a journey to France in 1822, his well known opinions caused him to be suspected of designs against the existing order of things in that country, in consequence of which he was arrested, and imprisoned at Boulogne until liberated through the intervention of Mr. Canning. After contributing to the earlier numbers of the Westminster Review, he became, in 1825, its editor, and continued to be such down to the year 1830. He made a visit to Holland in 1828; and his letters from there, published originally in the "Morning Herald," and subsequently translated into the Dutch language, earned for him the diploma of doctor of laws from the university of Groningen. In the following year, 1829, he collected materials in Copenhagen for a Scandinavian Anthology. Since then, by the direction of the British government, he has made several excursions into different European countries, to inquire into the details of their manufactures and commerce. He was a member of a mixed commission appointed to examine into the commercial relations of England and France; and the reports, prepared by Mr. Villiers and himself, which were laid before parliament in 1834 and 1835, are considered masterpieces of their kind. The same may be said of his report on the commerce, manufactures, and arts of Switzerland, the great object of which is to exhibit in a clear light the superiority of the system of the freedom of trade above that of prohibition and restriction. His journeys to Italy, and especially to Tuscany, in the year 1836, and again into Egypt and Syria, furnished him with materials for further communications to the British parliament. His last excursion was to Germany, the result of which has been his report on the German Customs' Union. In this he aims to prove that the tendency of the measures adopted by it is to encourage manufactures at the expense of agriculture. As a member of the House of Commons, he has been distinguished for the ability and consistency with which he has maintained his principles of domestic and foreign policy, even when these happened not to be in accordance with the views entertained, on the particular question in discussion, by the ministers who had employed him in the manner that has



been described. His opposition to the course pursued by the Whig administration in 1840, in relation to the affairs of the East, may serve as an example of this.

**BOYAR**; a general name for a nobleman among the Russians, and other people of Slavonian origin.

**BOYARDIEU\*** died at Paris, October 9th 1834.

**BOYEN** (Herm. von), Prussian general of infantry, and at present minister of war, is one of the most accomplished military men of the age. To him is due the first suggestion of the "landwehr," and of a milder system of discipline than that previously in use. He co-operated, also, efficiently with General Scharnhorst, in the reorganization of the army after the peace of Tilsit. Being unwilling to serve under the standard of Napoleon in the war of 1812, he quitted his own country, and went to Russia. The instant, however, that the king of Prussia signified his intention to make common cause with the Russians against the French, he hastened to rejoin his former companions in arms, and as chief of the staff of the corps of Bulow, he took part in most of the important actions of the campaigns of the years 1813 and 1814. After the peace of Paris, he was appointed minister of war; which office he held till the year 1819, when he retired from it, as likewise from the army, to private life, in consequence of a dissatisfaction, on his part, with certain measures which the king insisted upon in relation to the landwehr, and which he regarded as inconsistent with the principles on which this force was originally organized. He retired with a pension, and, by retiring, secured the object that his influence, when in office, was unable to obtain.

—Boyen is a man of extensive general acquirements; and during a period of 21 years, much of his leisure was employed in literary pursuits. He wrote a work giving an account of General Scharnhorst (*Beitrag zur Kenntniss des Generals von Scharnhorst*), and a reply to Haugwitz's memoirs, published in the "Minerva" for October 1837. By the great body of the people in his own country he is well known as the author of the national song entitled "Der Preussen Losung." On the accession to the throne of the present king of Prussia, General Boyen accepted the invitation of his sovereign to rejoin the army with the rank of a general of infantry, and shortly afterwards to take charge once more of the ministry of war.

**BOYER\*** (Alexis, baron) died at Paris, November 25th 1833.

**BOYER\*** (Jean Pierre) was born at Port-au-Prince, in February 1776. For about 15 years after his treaty with France, already mentioned, he conducted the administration of the affairs of the island of Hayti in great tranquillity. At length, however, his arbitrary conduct, and his preference, carried to an extreme, of the mulatto to the black population, excited against him much violent and concealed hostility. This state of feeling first made its appearance publicly by an opposition, in the second chamber of the legislature, to the measures of the government. The violent steps taken by Boyer against the leaders of this opposition caused an insurrection to break out (1843) among the troops. In the time of his need he found very few adherents, and was obliged to seek a refuge from his enemies, with about 30 followers, in the island of Jamaica.

**BRABANÇONNE**; the patriotic song of the Belgians, during and subsequent to the revolution which resulted in their separation from Holland. It served the same purpose among them as the "Marseillaise" did among the French in the revolution of 1789. The author of it was a young Frenchman, named Jenneval, who was an actor at the Brussels theatre; and the music for it was composed by a public singer of the name of Campenhout. Jenneval fell in an action with the Dutch, near Berchem. A pension of 2400 francs was granted to his mother by the Belgian government. King Leopold presented Campenhout with a gold snuff-box, and appointed him his "maitre de chapelle." Every verse of the Brabançon ends with the words "La mitraille a brisé l'orange—sur l'arbre de la liberté."

**BRACES**, in sea language, are ropes fastened to the extremities of the yards, for the purpose of traversing or squaring the sails.

**BRAHLOW\*** The population of this town has been latterly stated so low as 6000. It is, however, certain that the independence of the province, together with the increasing commerce and navigation of the Danube, have had a favourable influence on the prosperity of the place; and it is probable that this will still continue to increase. Corn and tallow are the chief articles of export.

**BRAN** is the husk of grain, and especially of wheat, separated from the flour by a sieve or boulder. It is gently laxative; and an infusion of it, under the name of *bran tea*, is frequently used as a domestic remedy for coughs and hoarseness. It is of wheat bran that starch is made. Ca-

lico printers employ bran and warm water with great success to remove colouring matter from those parts of their goods which are not mordanted.

**BRANCHIE**, or *gills*, are terms applied to all vascular organs of an animal body in which the blood-vessels are in greater number than is necessary for mere preservation or growth, and are minutely subdivided for the purpose of submitting the blood to the influence of air contained in water.

**BRANDES** (Henry William) was born at Groden, near Hamburg, July 27th 1777. He went to the university of Göttingen in 1796, where, in connection with Benzenberg, he made a series of observations on the phenomena of falling stars. In 1811 he was appointed a professor of Mathematics in the university of Breslau, and in 1826 a professor of the same science at Leipsic. At the time of his death, May 17th 1834, he was rector of the university in the last mentioned city. His principal works are a treatise, in two volumes, on the higher geometry (1822–24); his "Observations on the Refraction of the rays of Light" (1807); "Contributions to Meteorology" (1820); "Letters on Astronomy" (2 vols. 1811), afterwards published under the title of "Lectures on Astronomy" (1827); a treatise on "The laws of the Equilibrium and Motion of Solid and Fluid bodies" (2 vols. 1817–18), and "Lectures on Natural Philosophy" (3 vols. 1830–32). He also furnished a number of articles, especially relating to Optics, for the last edition of Gehler's "Dictionary of Natural Philosophy" (1825).

**BRANDIS** (Christian Aug.) was born at Hildesheim, in Germany, February 13th 1790, and studied at the universities of Kiel and Göttingen. After residing for some time first at Copenhagen, and then at Berlin, he went, in 1816, with Niebuhr to Rome, as secretary of the Prussian legation, a situation which he soon resigned, to accept of the charge of making researches, and collecting materials, preparatory to the projected publication, by the Academy of Sciences of Berlin, of a critical edition of the works of Aristotle (4 vols. 1831–36). To these objects he devoted himself almost exclusively for a considerable period, visiting, in company with Immanuel Bekker, the most important libraries of Europe. In 1821, he accepted of a professorship in the university of Bonn. Here he edited the *Metaphysics* of Aristotle, and the "*Scholæ græca in Aristotelis metaphysicam*" (1837). He obtained, in 1837, leave of absence from Bonn, that

he might accompany the young king of Greece, as his instructor or adviser in his studies, to that country. With the rank and title of a counsellor of state (Cabinet-rath), he remained there during several years. The fruits of his residence in Greece were communicated by him to the public in his "*Mittheilungen über Griechenland*" (3 vols. 1842). He has published, also, the first volume of a work on the Greek and Roman philosophy, entitled "*Handbuch der griech.-röm. Philosophie*" (1835), in which he has confined himself, in a great measure, to the historical exposition of the opinions of the ancients, without any mingling with them of his own speculations.

**BRAY\*** (count de) was the ambassador of the king of Bavaria at Paris from 1820 to 1827, when he was transferred in the same capacity to Vienna. In 1831, he returned to Bavaria, where he died in 1832.

**BRAZIL\*** The population of Brazil, in 1830, is stated by Cannabich, on the authority of documents existing in that country, to amount to 5,735,502. Balbi computes the total at 5,300,000, subdivided as follows:

|                                                           |           |
|-----------------------------------------------------------|-----------|
| Portuguese, and descendants of Portuguese, .....          | 900,000   |
| Mestizoes and Mulattoes (free), .....                     | 600,000   |
| Mestizoes and Mulattoes (slaves), .....                   | 250,000   |
| Free Negroes, .....                                       | 150,000   |
| Negro Slaves, .....                                       | 2,926,500 |
| Indians professing Christianity, .....                    | 300,000   |
| Independent Indians, Europeans not Portuguese, &c., ..... | 150,000   |

In none of the former European colonies do the prejudices of colour exist in so slight a degree as in Brazil. According to the old code, indeed, people of colour are not eligible to some of the chief offices of government, nor can they become members of the priesthood; but, from the mildness of the laws, the mixed classes have gained ground considerably, and the regulations against them are evaded, or rather have become obsolete. The laws concerning slaves are peculiarly humane; and they are, in general, treated with comparative mildness. Great as is their number, and in despite of the existing convention with Great Britain, concluded for the express purpose of putting an end to the slave trade, the Brazilians persist in procuring them from the coast of Africa. There is, in fact, no reason to think that the trade has sustained any material interruption from the convention referred to, or the measures taken by the British government in relation to this subject. In the opinion of Mr. Buxton, who has carefully inquired into the facts, the importation of slaves into Brazil, since 1830, can-

not be estimated at less than 78,000 annually; and it is affirmed by those who have had good means of coming at the truth, that recently upwards of 50,000 slaves have been imported in a single season into Rio Janeiro alone.—Notwithstanding Pedro I. founded two universities in Brazil, education is at a low ebb, and the public journals constitute very nearly the whole stock of literature. In 1836, 35 journals were published; all of them of a very inferior description.—The internal commerce of Brazil chiefly consists in conveying the produce of the country to the sea-ports, and receiving European manufactures in exchange. Mules form the common means of transport, as the roads seldom admit of the use of carriages, and as yet there is no inland navigation. A number of large rivers intersect the country in various directions; but very little is known of their capabilities. The foreign commerce of Brazil exceeds that of any other country of America except the United States, and is yearly increasing. The exports chiefly consist of coffee, sugar, cotton, and hides, besides tallow, horns, brazil-wood, rose-wood, fustic, tobacco, rice, indigo, ipecacuanha, sarsaparilla, castor-oil, tapioca, caoutchouc, nuts, gold and diamonds. The trade in brazil-wood is a government monopoly, but the commodity is extensively smuggled. The imports consist of manufactured goods, tea, wine, oil, provisions, &c. Upwards of two-thirds of the whole foreign trade is said to be in the hands of the British; although nearly all the tea, and about two-thirds of the flour, consumed in the country, are brought from the United States. The total amount of exports is estimated at £6,000,000 sterling, and the imports at nearly the same. The principal ports are Rio Janeiro, Bahia, Pernambuco, Maranhão, &c.—By treaty with Great Britain and some other nations, the duties imposed on imported commodities were limited to 15 per cent. on their value; but they, in general, average about 20 per cent. The duties on exports vary in the different ports.—No silver or gold coins are at present in circulation; all payments being made in imperial bank, or rather treasury, notes, issued for one milrea and upwards, and which are inconvertible.—The revenue, for the year ending the 30th of June 1839, was estimated, by the minister of finance, at 13,663,289 dollars, and the expenditure at 13,622,696 dollars. The entire debt may be estimated at £15,000,000.—The disputes between the emperor and the chamber of deputies having continued

after the adoption of the constitution, the former, at length, abdicated the throne, April 7th 1831, in favour of his son Don Pedro II., then only 9 years of age; and singular as it appears, the rights of the latter have hitherto been preserved amid the struggles of contending factions, and of contending aspirants to the ministry. How long he will be able to retain possession is a problem on which, from the deficiency of our knowledge of the actual condition of the country, we can scarcely form a well-founded conjecture.

**BRAZIL NUTS;** the seeds of a majestic tree, growing to the height of 100 or 120 feet, of which there are large forests on the banks of the Orinoco, and in the northern parts of Brazil. From 48 to 72 of these nuts are contained in cells within great ligneous pericarps, or outer shells, of nearly the size of a man's head. They are wrinkled triangular substances, having pure white kernels or almonds, which form a delicious fruit when fresh, and also yield a large quantity of oil suited for lamps. They are chiefly exported from Para and French Guiana.

**BRAZIL WOOD** is a valuable dye-wood, and is the product of a tree which grows in various tropical countries, but is found in greatest abundance, and of the best quality, in the province of Pernambuco, in Brazil. The tree commonly grows in dry places and amid rocks, and seldom exceeds 30 feet in height. The only part of any value is the heart, which, after being freed from the thick bark and white pith, is only about one-half of the trunk. Brazil wood is ponderous and hard, and, when first cut, is of a pale red, becoming darker, however, on exposure to the air. It is susceptible of a good polish, and is occasionally used by the turner and the cabinet-maker; but it is chiefly employed as a dye. It is sometimes used for dyeing silk of a crimson colour, but is inferior to, and less enduring than the crimson obtained from cochineal. It is also used in the manufacture of red ink, and in the preparation of a brilliantly red lake.—There is a kind of wood, having similar properties with the above, and likewise called Brazil wood or Braziletto, but of very inferior quality. It grows in the West Indies, and is chiefly exported from the Bahamas and Jamaica.

**BREDA.\*** Its population is 15,000. One of the churches here has a spire 362 feet in height. The chief manufactures of the place are hats, carpets, playing-cards, and leather. A school for military and naval cadets was established in 1628.

**BREGUET\*** (A. L.) died in 1828.

**BREITHAUP** (Joh. Aug. Friedr.), professor of Oryctognoy in the School of Mines at Freiberg in Saxony, was born on the 18th of May 1791, at Propetzella, in the principality of Saalfeld. After having studied at the gymnasium of the town of Saalfeld, he went to the university of Jena in 1809, and thence to Freyberg, where he soon obtained the good will of Werner, and by whose recommendation he was, in 1813, appointed inspector of precious stones (*Edelstein-inspector*) and assistant instructor in the School of Mines. In 1827, he received the appointment to the professorship of Oryctognoy. By the desire of Werner, he continued the "Manual of Mineralogy" of Hoffman, adding five parts to three already written by that author. He published, about the same period (1816), an essay "On the Genuineness of Crystals," and, in 1820, a work, which has since passed through several editions, entitled "Complete Characteristics of the System of Mineralogy." Not to speak of the papers of his to be found in the journals, or of several minor treatises, we may mention, as the most important of his productions, his "Complete Manual of Mineralogy" (2 vols. 1836-41).

**BREMEN.\*** Its population has, of late years, been very much augmented, and now amounts to 49,700 souls. Vessels drawing not more than 7 feet of water come up to the town, and those drawing 13 feet may come up to Vegesack; but large vessels do not generally ascend higher than Bremerhaven, lying on the E. bank of the Weser, about 38 miles below the town. A new and excellent harbour has been formed at this place, on a piece of ground ceded, in 1827, by Hanover to Bremen, which has contributed much to augment the commerce of the port. Bremen possesses considerable manufactures of cigars, refined sugar, tobacco, leather, and other articles. That of cigars is the most extensive, employing, in the beginning of the year 1843, as many as 3500 persons. But the importance of the town is in a great degree derived from its being one of the principal continental ports for the warehousing and transit of foreign and German commodities.

**BREMER** (Frederica), a Swedish novelist, was born in 1802, at, or in the neighbourhood of Abo, in Finland. Her father, having disposed of his property in this province, brought her, in the 3d year of her age, to that of Schonen. Subsequently, she resided with her friend, the countess

Sonnerhjelm, in Norway, and is now a teacher in a female academy in Stockholm. Her intellect appears to have been chiefly cultivated by the study of German literature; Schiller's "Don Carlos" being her favourite work. The first of her productions in order of time, is "The President's Daughter;" and it at once, very deservedly, attracted general attention to her. Then followed "the Neighbours," which brought her reputation to its height. The most meritorious of her following novels are "Home," "Strife and Peace," the scene of which is laid in Norway, "The Family H.," and "Nina." She excels in delineating the occurrences and feelings of domestic life, exhibiting them with a natural simplicity and fidelity to truth, and often, too, with a certain quiet humour; which engages the interest of the reader, in despite often of her verbosity, and the defects of her plot.—Miss Bremer has also written latterly one or two theological essays.

**BRENTANO\*** died at Aschaffenburg, on the 28th of June 1842. His latest production, "Gokel, Hinkel, and Gakeleia," appeared in 1838. Under the guise of a fictitious story, it is a caustic satire on the spirit and tendencies of the age.

**BRESLAU.\*** The progress of this city in wealth and population, since the conclusion of the last European war, has been very remarkable. In 1811, it had 63,237 inhabitants. These had increased, in 1821, to 76,992; and, in 1843, they amounted to 92,305, exclusive of the military stationed in the city. Of the inhabitants, 63,552 are Protestants, 28,686 are Catholics, and 5733 are Jews. A railroad has been completed from Breslau to Oppeln, in Upper Silesia; the construction of another has been begun to Schweidnitz and Freiburg; and a third is projected from Breslau, by way of Liegnitz, to Frankfort on the Oder. The university has continued to prosper. It has the four usual faculties of the German universities; that of Theology, however, being again subdivided into the Catholic and Protestant faculties. The number of students, for some years past, has been from 600 to 700. The revenue of the university is about 86,000 Prussian dollars; and it is amply provided with the means of acquiring knowledge in the various branches of science and literature. It has a library of 300,000 volumes, an observatory, philosophical and chemical apparatus, zoological and mineralogical cabinets, a botanical garden, and a museum of antiquities and art.

**BRETON DE LOS HERREROS** (Don Ma

nuel), perhaps the most popular living poet of Spain, was born in December 1800, at Quel, near Logroño. He served in the army from 1814 to 1822. At this period, he obtained an office in the department of the minister of finance, at Madrid, and he was afterwards appointed secretary, first to the Intendency of Xativa, and then to that of Valencia. Always faithful to the cause of freedom, he was obliged to retire to private life, on the restoration of absolute power. In 1834, he was appointed to a subordinate office in the capital, from which he was, before long, transferred to the honourable post of librarian of the National Library. Of this he was deprived in 1840, in consequence, it is said, of an ode which he was required by the Junta, at a short notice, to compose, in honour of Espartero, not giving satisfaction. He had, however, the gratification, about this time, of being elected a member of the Spanish Academy.—Breton commenced his career as an author at the early age of 17, with a comedy "A la vejez viruelas," which was first performed in 1824, with decided success. Since then, he has produced upwards of 130 dramatic pieces, in part entirely original, in part founded upon older Spanish plays, and in part also consisting of translations from the French and Italian. Most of them have been highly approved of by the public. It is in the lighter species of comedy that his success has been greatest; and hence, he has been styled the "Scribe" of Spain. But Breton has not confined himself to dramatic poetry. He has composed a number of odes and satires, possessing, in general, an uncommon degree of merit. It is, indeed, in the humorous and satirical that he seems always to be most at home.

BREWSTER,\* now *Sir David Brewster*, having been made a baronet since the publication of our preceding article concerning him. He has chiefly distinguished himself by his researches relating to the polarization of light. Besides numerous papers in the Transactions of the Royal Society of Edinburgh and the scientific journals, and articles in the Edinburgh Encyclopædia, he has written "Letters on Natural Magic" (1831), a "Treatise on Optics" (1832), and a "Life of Sir Isaac Newton" (1832).

BRIANÇON; one of the strongly fortified towns of France, in the department of the Upper Alps, with about 4000 inhabitants. There are seven forts surrounding it; all of great strength, and communicating with each other by subterraneous passages. The place is especially important, in a military

point of view, as commanding the road leading into Italy, over Mont Genève. It is situated on the right bank of the river Durance, over which there is a stone bridge of a single arch, 130 feet in span, and 170 feet high; and is remarkable for being the highest town in France.

BRIGHTHELMSTONE or BRIGHTON.\* The population of this place has continued rapidly to increase. In 1831, it amounted to 41,944; and, in 1841, to 46,661. The arrangements, for the accommodation, convenience, and pleasure of the visitors, have been augmented in proportion. A German Spa was established in 1826, for the preparation of artificial mineral waters, in imitation of the natural springs at Carlsbad, Ems, Marienbad, Pyrmont, &c.

BRISTOL,\* in England. The population of this city was, in 1811, 76,433; in 1821, 95,758; in 1831, 117,016; and, in 1841, 122,296.—The inhabitants are deserving of commendation for their encouragement of knowledge and education. The Mechanics' Institute, built in 1832, has a lecture and a reading room. The Bristol library was established in 1772, and has an extensive collection (about 30,000 volumes) in general literature. There are also law and medical libraries; a medical school, established in 1834, in which complete courses of lectures are given; a proprietary school, called the Bristol college, established in 1830, for classical and scientific education; and an academy for the education of young men for the Baptist ministry, to which an extensive library and museum are attached.—In October 1831, a most disgraceful riot occurred here; which, owing to a want of decision on the part of the civil and military authorities, was allowed to attain a most alarming height. The mansion-house, episcopal palace, and several private houses, were burned down; and a large amount of property destroyed.

BRISTOL STONES, or Bristol diamonds, are small and brilliant crystals of quartz, found in the vicinity of Bristol (Eng.), and occasionally used for ornamental purposes.

BROCCHI (Giovanni Batista); a distinguished naturalist and traveller, born at Bassano, in Italy, February 18th 1792. He first made himself known, when only 20 years of age, by an essay, "Sulla struttura agiziaca," possessing very little merit, and which afterwards he endeavoured to suppress, by purchasing all the copies offered for sale by the booksellers. His next publications were "Delle piante odorifere," and some excellent letters on Dante (1798). The former of these con-

tributed to his appointment as lecturer on Botany at the Lyceum of Brescia, and superintendent of the botanic garden in that city. In 1806, being appointed inspector of mines in the kingdom of Italy, he removed to Milan, the capital, and continued there till this office was abolished by the Austrian government, when he went to Rome (1814). In 1822, he was induced to enter the service of the Viceroy of Egypt. From Cairo, as a centre, he made a number of journeys in various directions. He died at Cartoum, in Cordofan, on the 26d of September 1826.—While yet at Brescia (1806), he published a work on the mines of Mella and Valtrompia, in 2 volumes. Subsequently, his attention was chiefly directed to the subject of fossils. The fruits of his researches, in some of the portions of Italy that are richest in such remains, appeared in his "Conchiliologia fossile subapennina" (2 vols. 1814), as well as in the papers communicated by him to the "Biblioteca italiana." His last work of importance is entitled "Dello stato fisico del suolo di Roma" (1820), which is worthy of notice in a philological and antiquarian point of view.

**BRADR.\*** This city now contains 26,000 inhabitants, of whom 22,000 are Jews. In 1778, it acquired the privilege of a free commercial town; that is, a town into which commodities may be imported, and from which they may be exported, free of duty. This franchise has rendered it an important emporium. It is the principal place for exchanging the products of the Austrian and Russian empires, and is resorted to by merchants from very remote quarters.

**BRODZINSKI** (Casimir), one of the most distinguished Polish poets of our day, was born in 1791, near the town of Lipno, not far from the Prussian frontier. In 1809, during the existence of the grand duchy of Warsaw, he entered the army as a subaltern officer of artillery. He was in the campaign of 1812 against the Russians. In the following year, he fought at Leipzig, where he was taken prisoner by the enemy. Being liberated on his parole, he retired to Cracow. Here he resided a year, when he went to Warsaw, and became a professor of *Aesthetics* in the university there; an office to which he was preferred in consequence of the reputation already acquired for him by his poems. He now entered upon a new field of literary effort, and, by a number of essays which he produced, soon entitled himself to take a high rank as a critic among the writers of his country. To his exertions

the triumph in Poland of the romantic over the classic school of poetry was in no slight degree owing. After the Polish insurrection of 1831 had been brought to a close, the university of Warsaw was suppressed; and Brodzinski continued to reside in that city, without public employment. Although he had not been actively engaged in the struggle for the independence of his country, its disastrous issue preyed upon his mind, and affected his bodily health. With some difficulty he obtained permission to visit the baths of Bohemia, whence he never again returned to his country. He died at Dresden, on the 10th of October 1835.

**BROEK**; a village of Holland in the neighbourhood of Amsterdam, celebrated, in a land of cleanliness, for its extreme cleanliness, carried, indeed, to an absurd and ridiculous excess. Neither cattle, horses, nor carriages of any description, are permitted to enter the streets, on account of the dirt which they might introduce. And no stranger is allowed to enter a house, without first throwing off his shoes or boots, and putting on slippers provided for the purpose; a regulation with which even Napoleon and Alexander, on their respective visits to this singular place, thought proper to comply.

**BROGLIO\*** (Victor, duke of). He would scarcely have deliberately acceded to any scheme for the overthrow of the elder branch of the Bourbons; but this event having taken place without any concurrence on his part, he became disposed to look upon it as a parallel case to the English revolution of 1688, and accordingly entered into the views of Guizot and the doctrinaires, of which party he was considered, for a time, the head. On the 30th of July 1830, he was selected by the provisional government to be minister of the Interior *pro tem.*; and, in August, he was appointed by Louis Philippe to the ministry of Public Worship and of Education, and also president of the Council of State. This office, however, he continued to hold only till the following November, when he gave in his resignation to the king, on account of the tendency, in his opinion, of the administration to advance too rapidly in the career of reform. In the Chamber of Peers, he now made a stand against the demands of the popular party, and defended the hereditary character of the peerage. From October 1832 to April 1834, then again from November 1834 to February 1836, he was minister of Foreign Affairs, and from March 1835 to the last mentioned date, president of the Council of

State. Almost from the period of his retreat from the ministry, in 1836, to the year 1840, he has from time to time been applied to for the formation of a new cabinet; which applications he has uniformly declined. He has latterly separated himself in a considerable degree from Guizot, and his former political associates, the doctrinaires, and has approached nearer in his opinions to Thiers, and even to Odillon Barrot. He has always taken a great interest in the amelioration of the condition of the negroes. When minister of Foreign Affairs, he was solicitous to accomplish, in co-operation with the British government, the entire suppression of the African slave trade; and in March 1842, he presided in Paris at an abolition meeting.

**BROKEN-WINDED**; a ruptured state of the air cells, chiefly on the edges of the lungs, in the horse, in consequence of which the expiration occupies more time than the inspiration of the air, and is laboriously, and generally spasmodically, effected. It is a disease which may admit of palliation, but not of cure; the animal becomes gradually less capable of exertion, and if urged on, he drops and dies.

**BROME\*** is, by English authors, usually styled *bromine*. Its equivalent number is about 78.

**BRONCHIA**; the smaller ramifications of the windpipe.

**BRONCHITIS** is the inflammation of the bronchia.

**BRÖNDSTED** (Peter Oluf), distinguished as a philologist and antiquary, was born, on the 17th of November 1781, at Horsens in Jutland, where his father was a clergyman. He studied at Copenhagen. In 1806, he went to Paris, accompanied by his friend Koes, and remained there for two years, diligently qualifying himself to travel with advantage into Greece, which it was his design to do. From Paris he proceeded to Italy, whence, in 1810, he, and his friend already mentioned, having been joined by several German travellers, and an English architect, named Cockerell, of like purposes and tastes with themselves, set out on their expedition to Greece. There they remained during a period of three years, examining every thing which that country presents to an inquirer for illustrating its condition in the classic ages, and making frequent excavations to detect the hidden memorials of its ancient existence. Bröndsted returned to Copenhagen in 1813, and was appointed professor of Greek philology in the university of that city. In 1818, he went to Rome as the representative of the

king of Denmark near the pope, a situation more favourable than a continued residence in Copenhagen for the preparation of the work which was to embody the results of his researches in Greece. He made excursions, in 1820 and 1821, from Rome to the Ionian islands and Sicily; and after the engravings for his work were executed in Italy, he quitted that country to superintend the printing of it at Paris. His residence for several years in the last mentioned city was interrupted only by a visit to England in 1826, and another to Denmark in 1827. In 1832, he finally returned to Copenhagen, where, as superintendent of the royal cabinet of antiquities, and professor of classical philology and archaeology in the university, he found a suitable sphere of exertion. He died in consequence of a fall from a horse on the 26th of June 1842.—The title of the work above referred to,—the only one of any importance of which he is the author,—is entitled “Reisen und Untersuchungen in Griechenland, nebst Darstellung und Erklärung vieler neuentdeckten Denkmäler Griechischen Stils” (2 vol. 1826–30). It was published simultaneously in the French and German languages.

**BRONGNIART** (Alexander), a celebrated mineralogist and geologist, was born at Paris, February 5th 1770. He became an engineer of mines in 1794, and was subsequently advanced to the rank of an engineer of the first class. Having already delivered several private courses of lectures, he was appointed, in 1796, professor of natural history in the “École des Quatre Nations,” and, at the organization of the university, adjunct professor (to Haiüy) of mineralogy. In 1822, he was appointed professor of natural history at the Garden of Plants. Since the year 1800, he has been the director or superintendent of the porcelain manufactory at Sevres, into which he has introduced many improvements.—Not to speak of the numerous memoirs on mineralogy, geology, zoology, the art of painting on glass, &c., which he has written, he is the author of a “Traité élémentaire de minéralogie, avec application aux arts” (1807); jointly with Cuvier, of the “Description géologique des environs de Paris” (first ed. 1811, third, 1835); jointly with Desmarest of the “Histoire naturelle des crustacées fossiles” (1822); and of a number of other works, which have attracted the general attention of naturalists.—Brongniart is a member of the Academy of Sciences of Paris, and of the principal scientific associations of Europe.

**BRONGNIART** (Adolphe Théodore), the son of the former, and professor of botany at the Garden of Plants, was born at Paris, January 14th 1801. He edited the botanical section of the "Annales des sciences naturelles," and contributed many able articles to that valuable work, as well as to the "Annales de la société d'histoire naturelle de Paris," and the "Annales du musée d'histoire naturelle." He has directed much of his attention to the subject of vegetable fossils, and published in 1821, when scarcely 20 years of age, an essay towards their classification, followed in 1828 by a "Prodrôme d'une histoire des végétaux fossiles," and this again by the "Histoire des végétaux fossiles, ou recherches botaniques et géologiques sur les végétaux renfermés dans les diverses couches du globe" (1828-42). His merits as a vegetable physiologist are highly appreciated by all who are competent to judge of them.

**BROUGHAM**\* In addition to the subjects previously enumerated, on which the powers of this eminent individual have been chiefly exercised, may be mentioned the repeal of the corporation and test acts, and the emancipation of the catholics. On the accession of the Whigs to power, at the close of the year 1830, he was created a peer, by the title of baron Brougham and Vaux, and appointed Lord High Chancellor of Great Britain. While presiding in this capacity in the House of Lords, various opportunities were afforded him of further distinguishing himself, which he did especially by his speech, in 1831, on the Reform Bill. In the exercise of the legal functions of his office, he at the same period exhibited the most untiring activity; correcting many abuses that had grown up in the court of chancery, as well as dispatching, in the course of a single year, all the causes still pending in this court for adjudication. It was chiefly through his instrumentality that the procedure, in relation to bankrupts, was essentially improved. In pressing this measure to a conclusion, without regard, too, to the decided opposition of the lawyers, he evinced a remarkable disinterestedness, since the effect of it was to subtract as much as £7000 sterling from his own income. The Whigs, having gone out of office in 1834, were restored to it once more in 1835; but Lord Brougham, having in the mean time given dissatisfaction to William IV. and the leaders of the Whig party generally, was not invited to a seat in the new cabinet. Being thus in a great measure separated from party connexions, he has

not merely acted an independent part, but occasionally a very eccentric one, which has affected materially the respect for his judgment, before, very generally, entertained in Great Britain, and has left him with scarcely any influence upon the public mind.—In 1833, he published a collection of his most important speeches in 4 volumes, and in 1836, "Sketches of Statesmen in the time of George III."

**BROUSSAIS**\* was appointed, in 1832, professor of general pathology and therapeutics in the medical faculty of Paris. He was subsequently elected a member of the Institute. And he died, on the 17th of November 1833, at his country-seat, at Vitry, in Champagne. For an account of his life and opinions, Montègre's "Notice historique sur la vie, les travaux, et les opinions de Broussais" may be consulted.

**BROWN** (Major-General Jacob) was born in Bucks county, Pennsylvania, where his ancestors for several generations had been members of the Society of Friends. His father was a respectable farmer, who, however, not content with the moderate income which his occupation afforded him, embarked in commercial enterprises that, proving unsuccessful, deprived him entirely of his property. When this happened, young Brown, though only about 16 years old, applied himself manfully to the task of making his own way in the world. From 18 to 21 years of age, he taught a school at Crosswicks in New Jersey, devoting, during the same period, his leisure time most assiduously to the improvement of his mind. He next spent two years in the neighbourhood of Cincinnati, being employed in surveying the public lands. Going to the city of New York in 1798, he once more, but for a few months only, taught a public school. There, too, he commenced the study of the law, but soon abandoned it, not finding it congenial with his tastes. Having purchased some land in that part of the state of New York which is now embraced within the limits of Jefferson county, near Lake Ontario and the river St. Lawrence, he established himself upon it, in 1799, while wholly uncultivated. The new settlement made a rapid progress; and General Brown distinguished himself as an enlightened and practical cultivator, as well as by the ability and energy with which he prosecuted the measures best adapted to promote the improvement of the country.—In 1800, he was appointed to the command of a regiment of militia, and, in 1811, promoted to the rank of a brigadier-general.



At the beginning of the war with Great Britain in June 1812, General Brown was entrusted with the command of a brigade, in the first detachment of New York militia which was called into the service of the United States, and was charged with the defence of the frontier from Oswego to Lake St. Francis, a distance of nearly 200 miles. He had speedily an opportunity of distinguishing himself by his bravery and skill in the defence of Ogdensburg on the 4th of October. With a force of less than 400 men, he succeeded in repelling the attack of 800 well-appointed British troops. After the expiration of his term of service, he returned to his residence at Brownville. The government, however, highly appreciating the military qualifications of General Brown, and unwilling to lose his services even for a season, tendered to him the appointment of a colonel in the regular army,—an offer declined by him, from an unwillingness to fall from the rank which he already held. In the spring of the year 1813, the important post of Sackett's Harbour, having been left with only 400 regular troops for its defence, was threatened by the enemy. Colonel Backus, who commanded this force, and who had been merely a few days on the ground, and was unacquainted with the neighbouring localities, sent to General Brown, residing, as he did, not farther than 8 miles from Sackett's Harbour, to invite him to come with as large a body of the militia as he could collect, and take the command of the post. Brown hesitated not a moment in complying. The threatened attack was made, and defeated by the resolute valour of the Americans, disposed and directed by their leader with admirable judgment and skill. The government, a few months afterwards, appointed him a brigadier-general in the United States army. He partook in the unsuccessful expedition in the autumn of this year (1813), down the St. Lawrence, against Montreal, and, at French Creek, repulsed, with his own brigade, a considerable force sent from Kingston to impede his progress. He was the officer of the day on passing the British fort of Prescott, and the safety of the army is to be attributed, on that occasion, in a great measure to his able conduct. During the whole course of the expedition, indeed, he was distinguished for the ability with which he performed the duties assigned to him. Soon after the retreat of the troops from Canada, in November, General Brown was invested with the chief command of them, by the sickness of General Wilkinson, and

the absence from their posts of the other officers, his seniors; and, early in the year 1814, he was promoted to the rank of a major-general. Through his exertions, and that of a number of efficient officers under his orders, the spirits of the troops were, in the course of the following winter, in a remarkable degree revived, and their discipline also exceedingly improved. The enemy having, in the mean time, obtained possession of fort Niagara, and being in considerable force on the opposite shore, a determination was once more formed to remove the principal seat of the war to that frontier. In the spring of 1814, General Brown, accordingly, was directed to march with his division from French Mills, by the way of Sackett's Harbour, to Buffalo, and to take the chief command of the expedition intended to invade Canada. Stopping no longer at Buffalo than was requisite for making the necessary preparations, he led his troops across the Niagara river, and reduced Fort Erie. On the 5th of July, he fought the battle of Chippewa; and, on the 25th of the same month, another in the immediate vicinity of the falls; in both of which he was victorious against superior numbers. In the last of these actions, he was twice severely wounded, but did not quit the field until the victory was completed, although so enfeebled from loss of blood, as to require to be supported on his horse. After recovering from his wounds, we find him within the walls of Fort Erie, to which the American army had retired on the British receiving a preponderating reinforcement. The latter, in his absence, had made an ineffectual attempt to carry the fort by storm; but General Brown, not satisfied with acting on the defensive, made a sortie on the 17th of September, the day before the fire from the enemy's batteries was to commence. The besiegers were driven from their position, and their works were destroyed or rendered unserviceable; and this was accomplished, too, with a force of 2000 against nearly 4000 men. An end, soon after this, was put to the war, by the treaty of Ghent; and General Brown, who remained on the peace establishment of the army, was appointed to the command of the northern military division. In 1821, he became commander-in-chief; from which time, till his death, on the 24th of February 1828, he resided at Washington city. The disease of which he died is said to have been a consequence of another contracted by him at Fort Erie, during the war, and from the effects of which he had never since been wholly ex-

empted.—General Brown possessed, in an eminent degree, the various qualifications requisite for being a successful military chief. To great personal bravery, he united a moral courage, that on no emergency was found to waver; and to an excellent judgment in determining the objects it was in his power to accomplish with the means at his disposal, and skill in combining his measures, he added great firmness and decision of character, an untiring activity, and the faculty of gaining the respect and confidence of those with whom he had intercourse, and especially of all subjected to his authority. Nothing, in short, seems to have been wanting to give him a place in the foremost rank of military commanders, excepting a longer period, and a wider field, of action.

Brown (James).—Senator of the United States, Minister to France, and an eminent lawyer of Kentucky, and also of Louisiana,—was born near Staunton, in Virginia, on the 11th of September 1766. His father, the Rev. John Brown, a clergyman of the Presbyterian Church, married Margaret Preston, second daughter of John Preston, who removed to Western Virginia in the year 1740, and there established a family destined to spread, thrive, and multiply, to a surprising degree;—his descendants, under the names of Preston, Breckenridge, Brown, Blair, Humphreys, Craighead, Madison, McDowell, Floyd, Marshall, Howard, Wickliffe, &c. &c., abounding in Virginia, Kentucky, Tennessee, and other Southern and Western States, and a large proportion of them being successful and prominent persons. James Brown, who was one of twelve or more children, received his education at William and Mary College; and, after studying law under the well known George Wythe, left home to seek his professional fortune in Kentucky, whither he had been preceded by an elder brother, John Brown, who represented Kentucky, in the House of Representatives and Senate of the United States, about twenty years. To the practice of this brother, when called from professional to political life, he succeeded; and soon rose to eminence amid the formidable competition of such men as Clay, Rowan, Nicholas, Talbot, Breckenridge, and others, at that day, ornaments of the Kentucky bar. In 1791, he commanded a company of mounted riflemen, and performed his part with credit, under Gen. Charles Scott, who made a successful expedition against the Indians, encountering and routing them near the Wabash. In 1792, when Kentucky took

her place as one of the States of the Union, Governor Shelby appointed him Secretary of State of the new commonwealth.

Sometime after, he was compelled, by the condition of his health, though a man of remarkable frame and proportions, and great bodily vigour, to seek a milder climate; and Louisiana having been just before ceded, by the French republic, to the United States, that it might not fall into the hands of the English upon the rupture of the treaty of Amiens, Mr. Brown, along with gentlemen of his profession from various parts of the country, repaired to New Orleans, where an abundant professional reward awaited them;—the old Spanish tribunals of the Territory having dammed up, and accumulated in the courts, prodigious quantities of valuable property, of all kinds, which our tribunals, their successors, in the administration of justice, forthwith proceeded to distribute among the owners and claimants, with American activity. Mr. Brown continued his career at the bar, without any cessation from a large and lucrative practice, until the beginning of the year 1813, when he was elected a Senator in Congress from Louisiana. He had held, at New Orleans, under the appointment of Mr. Jefferson, and until he resigned it, the office of District Attorney of the United States. He took his seat in the Senate on the 5th February 1813, where he supported the war against Great Britain, and the measures, generally, of President Madison.

His senatorial term expired on the 4th March 1817. In December 1818, he was re-elected a Senator, and, on the 8th December 1823, was nominated, by Mr. Monroe, Envoy Extraordinary and Minister Plenipotentiary to France. He remained in that country on his mission, the duties of which he filled with general approbation, until the autumn of 1829; when, at his urgent request, he was permitted to return home to private life, which he never again relinquished for public honours. He died at Philadelphia, on the 7th of April 1835.

Mr. Brown was a man of talent, of sound sense, enlarged views, knowledge of mankind, and scrupulous, even anxious integrity. As a speaker, he was bold, ready, rapid, and fluent; with a power of sarcasm that was remarkable. In private life, he used his ample means, the product of his own professional labours, munificently, in acts of private generosity, and in a hospitality which, aided by uncommon social powers, made his house, whether in New Orleans, in Washington, or in Paris,

the resort of accomplished society. He married Miss Hart, a daughter of Col. Thomas Hart, of Lexington, Ky., and a sister of Mrs. Clay.

BROWN (Robert), perhaps the most distinguished living botanist, was born in 1781. By the recommendation of Sir Joseph Banks, he was appointed, when only 20 years of age, to be the botanist of the expedition under the command of Captain Flinders, which was fitted out by the British government to explore the coasts of New Holland. When Flinders was obliged to direct his course homewards, on account of the damaged condition of his vessel, Brown, with his draughtsman, Ferd. Bauer, remained in that part of the world, and were the first Europeans who visited many regions then in a state of nature, but now covered with flourishing colonies. Proceeding then to Van Diemen's land and the islands in Bass's straits, they returned to England, in 1805, with a collection of not less than 4000 new species of plants. The description and classification of these served to occupy Brown for several years. The result of his labours appeared in 1810 under the title of "Prodromus floræ Novæ Hollandiæ, etc.," a work which at once attracted the general attention of naturalists, and established his reputation, throughout Europe, as a botanist; although, in his own opinion, it was so far from fulfilling the design it had proposed to accomplish, that he afterwards even endeavoured to suppress it. With a natural partiality for a province of botanical science, which he had rendered, so to speak, his peculiar property, he published, in 1814, "General remarks on the Botany of Terra Australis," together with an essay on the distribution of the different families of plants in New Holland, and in 1830, a "Supplementum primum floræ Novæ Hollandiæ, etc.," the materials for which were furnished by the herbariums of later travellers. Besides these original publications, his high character as a botanist led to many applications for his assistance in preparing the parts of the works of others, relating to the plants which they had collected and brought to Europe. In this manner he became the author of the botanical portions in the accounts of the polar expeditions of Ross, Parry, and Edw. Sabine, and also contributed his aid to Dr. Richardson, the companion of Captain Franklin. He described also, from time to time, the herbarium collected by Horsfield (1802-15) in the island of Java, and the plants collected by Salt in Abyssinia, by Oudney and Clapperton in the interior of Africa,

and by Smith, who accompanied Captain Tuckey in his voyage up the river Congo. — It has ever been the study of Brown to exhibit his views in as simple a manner as was possible, and to avoid all innovations excepting such as seemed to him to be absolutely necessary. He has, notwithstanding, contributed much for distinguishing accurately between families of plants previously known, and for defining with exactness the characteristic properties of those which have been newly formed. And he has also made various discoveries in vegetable physiology.

BRUNEL (Sir Mark Isambert), the constructor of the famous Thames tunnel, was born in 1769, at Hacqueville, in the French department of the Eure, and was educated first at the college of Gisors, and then, being destined by his father for the pulpit, at the seminary of Nicaise. Exhibiting, however, a total disinclination to theological studies, his father at length consented to his entering the navy in 1786, although he himself would have preferred the profession of a civil engineer. Then came the revolution; and Brunel emigrated from France in consequence, like many others of his countrymen. He arrived at New York in 1793, where he applied himself with zeal to his favourite subject of mechanics, and to those branches of science and art which are connected with it. He soon obtained employment as the superintendent of a cannon foundry, and he was also, it is said, employed in fortifying the harbour. But, in 1799, he went to England, and has remained there ever since. In 1806, he completed the construction, at Portsmouth, of an ingenious machine for the fabricating of pulleys for the use of the British navy,—a machine the importance of which was estimated so highly by the admiralty, that the sum of £20,000 sterling was granted as a compensation for the services rendered by him. His reputation as a mechanist and engineer was now fully established, and henceforth he found abundant occupation in various public works. The most remarkable of these is, without doubt, the Thames tunnel, the plan for which was furnished by him as early as the year 1819, but which was begun in 1825, finished in 1842, and first opened to the public on the 25th of March 1843. — Brunel is vice-president of the Royal Society of London, and was created a baronet in 1841.

BRUNET\* (Jacques Charles). The "Manuel du libraire, etc.," of this learned bibliographer has been followed, in 1834, by the "Nouvelles recherches bibliographiques

pour servir de supplément au manuel, etc." in 3 volumes. An edition of both these works, united in one, was published in 1842-44.—The occasional consultation of it at least is almost indispensable to every scholar.

**Brunswick\*** (Duchy of). Its population has been lately estimated to amount to 265,000, who, with the exception of the lower classes, speak the German language with great purity. Although the duchy has no university of its own (the young men, who devote themselves to the higher order of studies, mostly frequenting that at Göttingen, in the kingdom of Hanover), great attention has been paid to the education of the people generally, and science, literature, and the arts are extensively cultivated.—The official published statement of the annual revenue and expenditure of Brunswick, for the three years 1837-39, makes each to amount to the sum of 3,287,664 German dollars. But this estimate comprises only the revenue after defraying the civil list of the duke, which amounts to 237,000 dollars annually. The duke further derives a revenue of 170,000 florins from the duchy of Oels, in Silesia, which is a mediatized principality under the sovereignty of Prussia. And the estates of the convents and religious foundations secularized at the period of the Reformation, and then destined to support the clergy and the institutions of education, form a separate fund that does not enter into the budget, yielding annually 340,605 dollars. The public debt is stated not to exceed 2,300,000 florins, and is undergoing a rapid reduction.—The principal towns, with the number of their inhabitants, are:—Brunswick, 37,255; Wolfenbützel, 8500; Helmstadt, 6400.—One of the first acts of the present duke, on his accession to the sovereignty, was, in conjunction with the estates of the duchy, to remodel the constitution which had been introduced in 1820 under the direction of count Munster, during the minority of the former duke, substituting a single one, instead of two representative chambers. How little of a reforming or revolutionary spirit actuated the members even of the first legislatures which assembled under the new constitution, in 1831 and 1832, under circumstances calculated to rouse such a spirit into activity if it anywhere existed, may be judged of from the fact that a proposition for the publicity of their meetings was rejected; and rejected, too, by a large majority of the votes of the members. The legislation of the duchy has, indeed, been

almost altogether confined to the *material* interests of the people, such as the taxes to be imposed, the railroads and other *internal improvements* to be effected, &c. One of the most important measures adopted was the formation, in 1835, of a commercial or customs' union with Hanover, which was acceded to in the year following by the duchy of Oldenburg. This union of the three states was modelled after the Prussian Commercial League. They became, so far as the circulation of commodities was concerned, only different provinces of the same common country. The duties, also, collected on every point of their boundary towards other states, were of a uniform rate, and distributed among them in proportion to their respective population. Brunswiäk, however, on the 1st of January 1842, separated itself from the Hanoverian union, to connect itself commercially with Prussia and the great majority of the German states.—An event of some moment, as illustrative of the greater or less rigidity with which some of the European governments are inclined to adhere to the principle of legitimacy, may be here mentioned. When, in 1836, proposals of marriage were made by duke William to a princess of one of the reigning families of S. Germany, the latter deemed it expedient to consult the emperor of Austria, as to the confidence which might be placed in the continued possession of the ducal office in Brunswick by the present duke and his descendants, to the prejudice of the descendants of his elder brother. The answer returned was, that in case that brother should marry, and have children by a member of any princely family, those children would undoubtedly be entitled to rule in preference to the children of the younger brother; notwithstanding the assumption of the government by the latter had been sanctioned by the different states of Germany, Austria herself among the number. The family connexions of the House of Brunswick thereupon issued a semi-official document, declaring, on the contrary, that the sovereignty of the duchy of Brunswick would lawfully vest, in the event of duke William's decease, in his children, the fruit of a princely marriage. William IV. of England went a step further, in a decree issued by him at Brighton, November 19th 1836, in his capacity of king of Hanover, and head of the House of Brunswick. In this he, on the one hand, asserted the rights of the reigning duke and his male descendants to the crown of Hanover, in case of the extinction of the

male line of the Hanoverian royal family, and, on the other, the rights of the males of this family, in regular succession, to succeed, in like manner, to the sovereignty of Brunswick.

**BRUNSWICK\*** (capital of the duchy). Population in 1840, 37,255. The ducal palace, destroyed by fire in 1830, was rebuilt in 1833-36, in a magnificent and tasteful style. The Collegium Carolinum was transformed in 1835 into a polytechnic institute. There are here, besides a gymnasium, a "real-schule" or mechanics' and commercial institute, a school of cadets established in 1823, an institution for the deaf and dumb, one for the blind, an anatomical and surgical school, together with a number of excellent manual labour schools. Brunswick is likewise distinguished for the well ordered benevolent institutions which it possesses, especially its orphan-house, and its almshouse, organized in imitation of the one in Hamburg.—Should the railroad already extending from the city to the foot of the Hartz mountains be carried on to the Elbe or the Weser, it cannot fail to enlarge materially its commercial intercourse with foreign countries.

**BRUSSELS\*** has been, since the revolution of 1830, the capital of the new kingdom of Belgium; a change which has contributed much to its prosperity. Since that period, its manufactures and trade have had a new impulse given to them, among other causes, by the improvement of its communications with the other important points of the kingdom. Besides the canals connecting it with Mechlin and Antwerp towards the N., and Charleroy towards the S., the latter of which was first opened in 1830, it is now embraced in the system of Belgian railroads, planned and executed by the government at the public cost.—Brussels is noted for the number and extent of its institutions of education and charity. Among the former of these, the Free University, as it is called, was founded subsequent to the revolution. It offers every desirable facility for completing a course of study in science, languages, and literature. The number of students in 1838 was 210. Of the institutions for the promotion of knowledge which have taken their origin within the last 15 years, one of those most deserving of notice is the geographical establishment, founded by M. Vandermaelen, an affluent and patriotic inhabitant of the city.—According to the last accounts, the population of Brussels, including its suburbs, is 144,000.

**BUBBLE**, in commerce; a term given to any delusive scheme or project for raising money on imaginary or false pretences; as the famous South Sea bubble, and hundreds since.

**BUCH\*** (Leopold von) is the author of a work "On the Jura in Germany" (1839), and of "Contributions towards determining the formation of the mountains in Russia" (1840); and he has latterly published several essays on different species of petrifications. His geognostical atlas of Germany in 42 maps, the 2d edition of which appeared at Berlin in 1832, is deserving of especial commendation.

**BUCHAREST.\*** Since the final emancipation of the province of Walachia from the Turkish dominion, the most praiseworthy efforts have been made to introduce improvements, and to supply all classes, especially in Bucharest, the capital, with the means of education. In this view, the college of St. Sauvain has been organized, which furnishes instruction to 600 pupils. The French language has been adopted as the vehicle of instruction, and the institution is under the direction of a gentleman who resided long in Paris. Four other schools have been opened in the city, where instruction is afforded gratuitously to all who choose to accept it. There is also a lyceum for the Greeks; and a public library, a society of belles-lettres, and an agricultural society have been established.—The trade of Bucharest has become very considerable. It is carried on principally with Germany, whence the inhabitants procure almost every thing they consume, from the cheapest necessities up to the most expensive luxuries, and export in return immense herds of horned cattle, hogs, &c. They export besides wool, butter, wheat, hides, honey, wax, tallow, &c., by Varna to Odessa, Constantinople, &c. There is a large number of German artisans in the town.

**BUCHARIA,\*** or *Great Bucharia*. The principal sources of information respecting Bucharia are Meyendorff and Burnes; the former of whom accompanied the Russian mission to that country in 1820, and the latter visited it in 1832-34. According to Meyendorff, the population, and the different races of which it is composed, are as follows:—

|                                |           |
|--------------------------------|-----------|
| Uzbeks .....                   | 1,500,000 |
| Tadjiks .....                  | 650,000   |
| Turkomans .....                | 200,000   |
| Arabs .....                    | 50,000    |
| Persians .....                 | 40,000    |
| Kalmucks .....                 | 20,000    |
| Kirghis and Kara Kalpaks ..... | 6,000     |

|               |           |
|---------------|-----------|
| Jews.....     | 4,000     |
| Affghans..... | 4,000     |
| Lezhis.....   | 2,000     |
| Gypsies.....  | 2,000     |
| Total .....   | 2,478,000 |

Burnes, however, estimates the total population at not more than a million, half of whom he thinks are wandering tribes. There are very few towns. The most important, besides Bochara and Samarcand, are Kurshee, Karakool, and Balkh. Bucharia is a great central mart, where the productions of Europe, Persia, Cabul, India, and China, are brought and exchanged with each other. The trade, to and from it is carried on in caravans, the roads not being safe, for individuals or small parties, from the depredations of the inhabitants of the countries through which they pass. The manufactures of Russia come by a route to the E. of the sea of Aral; while those of Great Britain find their way into the country by way of India and Afghanistan.—The government, though despotic in its form, is in reality limited by the influence of the mollahs or priests, without whose advice or authority no measure of any moment is adopted; and about one-half of the land is said to be owned by the church. The total amount of the public revenue is estimated by Meyendorff at about £400,000, and by Burnes at £369,350, a considerable portion of which is expended in maintaining an armed force of about 20,000 horse and 4000 foot.—With the exception of the Persians and of the small number of Jews in the country, the people are all Mohammedans of the Sunnite sect. There are colleges, in which theology is almost the only study. The sons, even of the most opulent persons, learn only to read, write, and get the Koran by heart; and most of the people know neither how to read or write.

ВУСННОЛЬ\* died at Berlin, February 24th 1848.

BUEL (Jesse) was born at Coventry, in the state of Connecticut, on the 4th of January 1778, and was the youngest of 14 children. When 12 years of age, his father removed from Coventry to Rutland in Vermont, where, two years afterwards, he was, at his own urgent desire, apprenticed to the printing business. When he had attained his 18th year, he purchased the unexpired three years of his term of service, and worked for some time as a journeyman, first in the city of New York, and subsequently at Waterford and Lansingburg. In 1797, he commenced the

publication of a political newspaper at Troy. In September 1801, he married and removed to Poughkeepsie. The newspaper which he there published proving an unsuccessful speculation, he found himself reduced to utter bankruptcy. His next residence was Kingston, at which place he again established a weekly paper, and continued from 1808 to 1813, applying himself with great diligence to his occupation. During a part of this period, he sustained with reputation the office of judge in the Ulster county court, and he not only retrieved his losses, but even acquired considerable property. He removed in 1813 to Albany, by the persuasion of Judge Spencer and other friends, to undertake the editorship of the "Argus," and, in the following year, was appointed state printer. This office he held until 1820; when, also, he sold out his interest in the Argus, as well as his printing establishment, and purchased a small farm not far from Albany. On this farm he resided during the last 19 years of his life, his attention being almost exclusively directed to its improvement, and to the acquirement and diffusion of agricultural information. His very remarkable success in the accomplishment of these objects has entitled him to a notice in the present volume. "By manuring, by draining, by good tillage, by alternating crops, by root culture, and by the substitution of fallow crops for naked fallows," he succeeded in transforming a barren tract into a productive estate, which became every year more valuable. After satisfying himself, by actual experiment, of the advantages of his system of agriculture, he grew desirous of making it as extensively known as possible, and, for this purpose, commenced in 1834, under the auspices of the New York State Agricultural Society, the publication of the "Cultivator," a monthly periodical, devoted to agricultural and horticultural subjects; which has, in fact, been very instrumental in exciting a spirit of improvement among farmers through a wide extent of country. Besides numerous articles contributed by Mr. Buel to the columns of the Cultivator, he was the author of the "Farmer's Companion," a work "containing within a small compass, the embodied results of his agricultural experience," and of a great number of addresses delivered before agricultural and horticultural societies, in New York and some of the neighbouring states. Such societies, even in the remotest states, also vied with each other in enrolling his name in the list of their members. Nor were his merits acknowledged in his own

country only. He was chosen a member of the "Lower Canada Agricultural Society," of the "London Horticultural Society," of the Royal and Central Society of Agriculture" at Paris, and also a member of the "Society of Universal Statisticians" in the same city.—Mr. Buel was several times a member of the New York Legislature; in 1836, he was an unsuccessful candidate for the office of governor of the state; and he was one of the regents of the university at the time of his death,—which occurred, October 6th 1839, at Danbury, in Connecticut, while on his way to deliver a lecture to an agricultural society at New Haven. He was without reproach in the various relations of private life, and was esteemed by all who knew him for his integrity of character, and for the unaffected affability and simplicity of his deportment.

**BOFF**; a kind of leather generally prepared by dressing buffalo-skin with oil. It is also made from the skins of other animals.

**BUGEAUD** (Thomas Robert Bugeaud de la Piconnerie), a marshal of France, was born in 1784, at Exideuil in the department of the Dordogne, and entered the military service, as a private soldier, at 18 years of age. He met with a rapid advancement, being already a colonel shortly before the fall of Napoleon in 1815; in which year he distinguished himself in the army of the Alps, under the orders of Marshal Suchet. During the government of the Restoration, he lived in retirement in his native district, doing every thing that lay in his power for the improvement of its agriculture and the diffusion of education among its inhabitants. In 1831, after the revolution of July, he was promoted to the rank of a *maréchal de camp*, and in the same year, as well as repeatedly afterwards, was elected a member of the chamber of deputies from Périgueux, where he became one of the most zealous supporters of the government. Towards the close of the year 1832, he was one of a committee appointed to report on the expediency of introducing into France the Dutch and Belgian system of agricultural pauper colonies. Soon after this, he was appointed to command a brigade of the troops quartered in Paris; and, in the beginning of 1833, we find him entrusted with the charge, as commandant of the fort of Blaye, of watching over the safe-keeping of the duchess of Berry. The parties, of both extremes, in opposition to the government, and to whom General Bugeaud was already sufficiently odious,

represented this as a degrading office. One of their number, M. Dulong, ventured even to taunt him in the chamber of deputies, for having consented to perform it. A duel between this gentleman and the general was the consequence, in which the former was mortally wounded. General Bugeaud then continued his parliamentary career in the same spirit as heretofore, defending the laws against political associations, resisting strenuously every proposed alteration in the system of elections, as well, indeed, as every other proposition for a change in the actual condition of things, and taking a stand against the so-styled despotism of the public journals. In 1836, he was sent to the province of Oran, in Algeria, for the purpose of relieving the troops who were surrounded, and prevented from retreating with safety, by the enemy on the banks of the Tafna. Having accomplished this object with great ability and energy, and also inflicted a severe defeat on Abd-el-Kader, he returned to France, after an absence of only ten weeks. For these services, he was now promoted to the rank of lieutenant-general. In the following year, 1837, he was again sent to Africa as governor of Oran, and clothed with extraordinary powers. He concluded, in consequence, with Abd-el-Kader, on the Tafna, a treaty, which was regarded by the parties in opposition to the government as not sufficiently favourable to the interests of France, and for which, therefore, he was subjected to the most vehement attacks in the public journals and in the chambers. His administration, on the other hand, of the province confided to his charge, is allowed to have been deserving of much commendation. He again returned to take his seat in the *centre* of the chamber of deputies, in February 1838; and he spoke, in 1840, in favour of the fortification of Paris. In December of the last-mentioned year, he was appointed, in place of Marshal Vallée, governor-general of Algeria, where his indefatigable activity, as well as the judicious manner in which he conducted, for a time, both the military and civil administration of the colony, obtained for him the approbation even of many who were previously most embittered against him. Latterly, however, he has exhibited, in his warfare against the revolted Arab tribes, a conduct so inconsistent with the practice of civilized nations, as to have rendered himself an object of the severest animadversion, by not a few among his own countrymen, as well as by foreigners generally.—He has written "*De l'organisation unitaire de*

'armée" (1835), a "Mémoire sur notre établissement dans la province d'Oran par suite de la paix" (1838), and "L'Algérie; des moyens de conserver et d'utiliser cette conquête" (1842). While he was originally of opinion that the retention of Algeria would entail upon France a burden greater than any advantage which she might expect to derive from it eventually, he came subsequently to the conclusion, that, after the expenditure already incurred in maintaining and improving it, the sacrifice would be too great, were it to be abandoned.

**BULL**; ornamental furniture, in which tortoise-shell and various woods are inlaid with brass. The name is derived from its inventor.

**BUHLE** (Joh. Gottlieb), known as the author of several works on the history of philosophy, was born at Brunswick, in Germany, September 29th 1763. He completed his studies in the university of Göttingen, where, in 1787, he became a professor of philosophy, and, subsequently, a member of the Royal Academy of Sciences. In 1804, he quitted Göttingen, and accepted a professorship of ancient languages, of history, and of the arts of design, at Moscow, in Russia. And from that country, he returned to Germany in 1814, being appointed a professor of law in the "Collegium Carolinum," in his native city, an office which he continued to fill till his death in August, 1821.—As a scholar, Buhle is best known by his edition of Aratus (2 vol. 1793—1801), and by his incomplete edition of Aristotle (5 vols. 1791—1800). Of his other works, the most worthy of mention are the "Elements of the History of Philosophy, etc." (8 vols. 1796—1804), and the "History of Modern Philosophy, since the period of the Revival of Letters, down to the time of Kant" (6 vols. 1800—1805). This last has been translated, from the original German into French, by Jourdan; and an elaborate review of it, attributed to Cousin, is to be found in the "Archives philosophiques" for 1816.

**BULL** (Ole Bornemann), of all living performers on the violin, has attracted the most public attention, in Europe and America, on account, not only of his exquisite skill, but also of the peculiar circumstances in which he commenced his musical career, and the remarkable incidents that are related of his life. He was born at Bergen, in Norway, on the 5th of February 1810. His parents destined him to become a clergyman; and, with this purpose in view, he pursued his studies at

Christiania (1828). Here, his musical talent, which had been developed in his early youth, attracted general attention; so that he was called upon to act as a director of the orchestra. Thus encouraged in his favourite tastes, he determined to abandon his theological studies, and to devote himself henceforth entirely to music. He went to Cassel, in Germany, to enjoy the advantage of instruction from Spohr; but was received and treated so indifferently, it is said, by the latter, that, in a fit of discouragement, he suddenly came to the resolution of giving up music; and he commenced, in consequence, the study of law at Göttingen. His resolution, however, did not last long. He could not resist the temptation of taking up his instrument, and thus renewing his enthusiasm for the art in which he was already so great a proficient. A concert at Minden, on the Weser, got up for the benefit of the poor, decided his future career. On this occasion, he volunteered his services as one of the performers, and played so admirably, as to extort from his audience the most unbounded applause. Here, too, he had the misfortune to quarrel with another artist; when a duel was fought between them, in which the latter was mortally wounded. By the assistance of friends, Ole Bull was enabled to escape the pursuit of justice; and, by way of Hamburg and Copenhagen, he arrived at Christiania. After two or three years of the most assiduous study and practice, he set out on an artistical tour, first through his own country, and then through Sweden, Denmark, the Netherlands, and France. He was unfortunate in the time of reaching Paris. That great city had been attacked by the cholera, to the progress of which the attention of its inhabitants was almost exclusively directed. In this state of things, Ole Bull having been robbed of all his effects, and even of his violin, was reduced to despair, and attempted to commit suicide, by throwing himself into the river Seine. Some washerwomen, who saw him take the plunge, immediately gave the alarm, and he was rescued from a watery grave. Escaping, as soon as he was sufficiently restored, from the scene of this event, in order that he might evade the inquiries of the police, he chanced to enter the house of a widow, who mourned the death of a son, and who, from a resemblance which she discovered to him in the stranger, received the latter kindly, and relieved his most pressing necessities. We are told that, shortly after this, Ole Bull sold his last shirt, that he



might obtain the means of hearing Paganini. To rival this great master was, from this time forth, the object of his ambition. Having, at length, given a concert, with some success, at Paris, he travelled to Italy; but his prospects there were very unpromising, until, in a concert at Bologna, he was called upon to supply the place of Bériot, who was unable to perform through indisposition. So powerful was the impression which he then made, that his reputation was soon extended throughout all Italy, and a brilliant career was thus suddenly opened to him. Returning to Paris, he met there with an enthusiastic reception. His journeys through France, Italy, England, Russia, Denmark, and Norway, were so many triumphal progresses; and everywhere, it is with Paganini only that the most competent judges undertake to compare him. In 1843, he came over to the United States; where, it is scarcely necessary to say, he fully realized the expectations which the report of his performances, on the other side of the Atlantic, had excited.

BULMER\* retired from the printing business in 1819, and died in 1830.

BULWER.\* Since 1832, Bulwer has pursued his career as an author, in general, with distinguished success. The novels already mentioned have been followed by "The Pilgrims of the Rhine," "The Last Days of Pompeii," "Rienzi," "Ernest Maltravers," "Alice," "Night and Morning," "Zanoni," and "The Last of the Barons." His "Student" comprises the best of a series of papers originally published in the "New Monthly Magazine," under the title of "The Conversations of an Ambitious Student." "England and the English" is a book in which, while he has been guilty of some extravagances, he has, in the main, given a correct delineation of persons and things. He appears to great advantage, also, in his historical work, "Athens, its Rise and Fall." Lastly, too, he has attempted dramatic composition; but with a success decidedly inferior to that achieved by him as a novelist. The plays written by him are "The Duchess of Vallière," "The Lady of Lyons," "Richelieu," "The Sea Captain," and "Money." All of them were brought on the stage by Mr. Macready; and all of them, the first-mentioned excepted, were very favourably received by the public. The only one, however, which retains a considerable share of popularity, is the "Lady of Lyons."—Bulwer has not distinguished himself as a debater in the

House of Commons in a degree at all corresponding to his reputation as an author. His voice is said to be weak, his elocution somewhat hesitating, and his style more florid than accords with the taste of that assembly. To these circumstances, as well as to a real, or perhaps only seeming, effort on his part, by his dress, manner, and appearance generally, to attract attention to himself, it is attributable that, notwithstanding the zealous support he has uniformly given to the prominent measures of the whig party, his influence with them and in parliament, is comparatively limited.—On the occasion of the queen's coronation, Bulwer was created a baronet.—His elder brother, *Henry Lytton Bulwer*, born in 1801, has also distinguished himself as a writer: he is the author of "France, social, literary, and political," and of the "Monarchy of the Middle Classes," both of them evincing much talent. He has been a member of Parliament, and has filled successively the post of secretary of the British legation at Brussels, Constantinople, and Paris.

BUNSEN (Christian Charles Josias, Chevalier de), Prussian ambassador in London, was born, August 25th 1791, at Corbach in the county of Waldeck, in Germany. He studied at Göttingen, and applied himself especially, under the direction of Heyne, to philological pursuits. His progress in these was rapid, and such as to promise a high degree of future eminence. He obtained the prize in the university for an essay "De jure Atheniensium hæreditario" (1813). Shortly afterwards, he was appointed one of the instructors in the Göttingen gymnasium; an office which he, however, declined, to go to Paris, that he might have the assistance of Sylvestre de Sacy, and other orientlists resident in that capital, in acquiring a knowledge of the Sanscrit language. From Paris he went to Italy; and having waited for some time in vain at Florence for an Englishman, in company with whom he had engaged to go on a journey to Hindostan, he proceeded to Rome, where he had the good fortune to make the acquaintance of Niebuhr, who was at the time the ambassador of the king of Prussia to the Pope. Bunsen was induced by the advantages, which he derived from a familiar intercourse with such a man as Niebuhr, to prolong his stay at Rome, in the capacity of the latter's private secretary. By the recommendation and influence, too, of this friend, he obtained, before long, the appointment of secretary of the Prussian legation. On occasion of the king of Prus-

ain's visit to Italy in 1822, Bunsen made so favourable an impression on that monarch, as to be appointed, when Niebuhr returned to Germany, to be his chargé d'affaires at Rome, and not long afterward received the appointment of minister resident there. — In consequence of his association with Niebuhr, the attention of Bunsen, while residing in Italy, was directed, in a greater degree than before, to the literature and antiquities of the classic ægea. He became a principal contributor to the great work published by Cotta, under the title of "Description of the city of Rome;" and, taking a deep interest in the inquiries of Champollion and others into the system of Egyptian hieroglyphics, he exerted himself successfully to induce the Academy of Sciences at Berlin to employ Dr. Lepsius, to prosecute systematically similar inquiries in Egypt, during a period of several years. He was also a most active member, and secretary, of the Archæological Institute, founded by Gerhard at Rome. At length, the differences which arose, in relation to ecclesiastical affairs, between the Pope and the king of Prussia, led to Bunsen's recall from his post. After passing some time at Munich, in Bavaria, he travelled into England. But in the end of the year 1839, we find him residing at Berne, in Switzerland, as Prussian ambassador to the Swiss Confederacy. Towards the end of 1841, he removed to London, to be the representative of his sovereign at the court of St. James. Very lately he has published a work on ancient Egypt.

BURDETT\* (Sir Francis) was born on the 25th of January 1770, and is descended from an ancient family, who have had their seat in the county of Derby from the time of William the Conqueror. His public career, down to the year 1815, has been already noticed. In 1818, he reproduced his plan for a radical reform of the House of Commons; and, in 1819, he resisted the measures proposed by Lord Castlereagh against the liberty of the press. Nevertheless, his zeal in behalf of liberal principles gradually abated. In the debates which took place on the bill restricting the importation of corn into Great Britain, he spoke in favour of that measure, and in support of the peculiar interests of the landed aristocracy. He was, however, an advocate for catholic emancipation, in 1827 and 1828; and was so zealous a supporter of the reform bill, in 1832, as to justify a popular insurrection in its behalf. After the final passage of this bill, and the triumph of the whigs, his occupation, as a liberal politician, seemed to be suddenly

gone. He gave out that all he had desired had been accomplished; and he then seldom appeared in his seat in Parliament. He has since thrown himself into the arms of the Tories, and has thereby rendered himself politically insignificant.

BÜRG\* (John Tobias) was a native of Vienna. In 1813, he lost his hearing, from the effects of a cold which he had taken. From this period, he resided at Wiesenau in Carinthia, holding very little intercourse with his fellow-men, or with the sciences, and employing himself almost exclusively with the birds and other animated inhabitants of the woods, till his death, on the 25th of November 1834.

BURGESS. See *Parliamentary Reform*.

BURG-GRAVE; a title which was bestowed in Germany, in the middle ægea, upon the military commandant of a town or stronghold, who possessed at the same time a right of jurisdiction over the inhabitants. Some of these burg-graves contrived to render the title hereditary in their families, and even to extend their authority over considerable districts. Such, for example, were the burg-graves of Magdeburg, of Friedberg, and of Nuremberg.

BURKE; the particular mode of putting an individual to death employed by a villain of the name of Burke, at Edinburgh, in Scotland, in 1827 and 1828, and employed by him for the purpose of selling the bodies of his victims as subjects for anatomical dissection. While he or an accomplice held the legs and arms of the victim, the other of the two stifled him by closing his mouth and nostrils. Burke suffered the extreme penalty of the law for his crimes.

BURNOUR.\* Of his commentary, before referred to, on the "Vendidad-Sade" of Zoroaster, styled the "Commentaire sur le Yaçna," a volume appeared in 1835. He has, besides, facilitated the understanding of the Zend-Avesta, in the Zend language, by several articles inserted in the "Journal asiatique" and in the "Journal des savants." The attention paid by him to the ancient language of Persia led him, in the next place, to attempt the deciphering of the Persopolitan cuneiform inscriptions, in his "Mémoire sur deux inscriptions cunéiformes" (1836); an attempt, however, which has been surpassed by the labours of Lassen and Beer. For the "Collection orientale" he published the text, accompanied by a French translation, of the "Bhagavat-Purâna," a system of Indian mythology and tradition (1840). Latterly, he has been busily occupied in translating some of the sacred

works of the Buddhists, written in the Sanscrit language.

BARR (Colonel Aaron) was born on the 6th of February 1756, at Newark, in New Jersey. His father, the Rev. Aaron Burr, was the first president of the College of New Jersey, which was opened at Newark, but was subsequently removed to Princeton; his mother was the daughter of the Rev. Jonathan Edwards, so distinguished as a metaphysician and divine, and who succeeded his son-in-law in the presidency of the college. The former died in 1757, and the latter in the following year, leaving only two children, Aaron and a daughter, afterwards the wife of Judge Tappan Reeve, of Connecticut. Colonel Burr inherited from his father a considerable property. He was graduated at Princeton when only 16 years old. When in his 20th year, he joined the American army, after the battle of Bunker's Hill, in the neighbourhood of Boston. Here he volunteered to accompany General Arnold in the expedition against Quebec. This officer led the detachment under his command into Canada, by way of the Kennebec, and through the wilderness between the St. Lawrence and the settlements in the region now constituting the state of Maine. On his arrival at Chaudière pond, Burr was sent with a communication to General Montgomery, who was advancing from the state of New York with the forces under his immediate orders; and who was so much pleased with the young messenger as to appoint him to be one of his aides-de-camp. In this capacity Burr was present at the battle of Quebec, and near the person of the general when he was killed. On his return from Canada, in May 1776, he proceeded to the city of New York, on being "notified verbally that it would be agreeable to the commander-in-chief" that he should do so. But it would seem that Colonel (then already Major) Burr, for some reason or other, failed to make a favourable impression personally on General Washington. He, in consequence, became, in his turn, dissatisfied, and even inclined to quit the service; when, through the instrumentality of Governor Hancock, he obtained the appointment of aide-de-camp to General Putnam,—an appointment which he gladly accepted. In July 1777, he was promoted to the rank of a lieutenant-colonel; but was obliged, in March 1779, to resign his commission in the army, on account of the impaired state of his health. He had, on various occasions, during the war, highly distinguished

himself by his bravery, vigilance, and skill, and had been repeatedly selected by Washington to execute his commands on important emergencies, although that great man, and admirable judge of character, had formed but a low estimate of his principles and morals.—On retiring from the army, and after an interval of repose required for the restoration of his health, Colonel Burr applied himself to the study of the law, as well to provide himself with an adequate field for distinction among his countrymen in his future life, as to repair the pecuniary losses which he had incurred, during the period of his military service, by the liberality and extravagance of his expenditure. He commenced the practice of his profession at Albany, in the month of April 1782, and married in July following. As soon as the British troops had evacuated the city of New York, at the conclusion of the war, in November 1783, he removed thither, where he speedily acquired an extensive and lucrative practice. He was a member of the Legislature during the sessions of 1784 and 1785; but as that body met in the city where he resided, and as he took part in its deliberations only on a few of the most important questions which came before it for its decision, his professional avocations suffered scarcely any interruption; and it was only after the existing constitution of the Union went into operation that he became prominent as a party politician. In 1789, he was appointed attorney-general of the state. In January 1791, he was elected a senator of the United States; and he took his seat in that body in the autumn of that year. He was appointed, in October 1792, to be a judge of the supreme court of the state of New York, but declined the appointment; preferring to hold his position in the U. S. Senate, as one of the most prominent leaders of the party (the democratic) to which he belonged. At the presidential election which took place in the autumn of 1800, an equal number of votes were found to have been given for the two highest candidates on the list, Mr. Jefferson and Colonel Burr; and it, in consequence, devolved on the members of the House of Representatives, voting by states, to decide which of these gentlemen should hold the office of president, and which of them that of vice-president. Notwithstanding that, prior to the choice of electors, Mr. Jefferson was alone intended, by the party that nominated him, as their candidate for the presidency, it was not until after 36 ballotings that the contest was decided

in his favour.—From this time forth, as from the circumstances of the case might naturally have been expected, Colonel Burr lost the confidence of the majority of his former political friends; and the attempts which he made to ingratiate himself with those to whom he had been heretofore opposed were only partially successful. In 1804, he was a candidate for the office of governor of New York, but failed of being elected. He was supported by a portion of both the political parties; by a minority of the democrats, and a majority of the federalists. Of the latter party, General Hamilton had been one of those who most earnestly opposed him; and a duel took place, on the 11th of July, between these distinguished men, growing out of their rivalry and adverse relation to each other. Burr was the challenger, conceiving himself to have been injuriously spoken of at the period of the preceding election by Hamilton, who was mortally wounded in the encounter.—Colonel Burr continued at his post in the Senate of the United States till within two days of the expiration of his term of service as vice-president; the last public duty of any importance performed by him having been to preside at the trial of Judge Chase, who was impeached by the House of Representatives for “high crimes and misdemeanours.” It was not very long afterwards that he formed the scheme of his singular, and even yet not satisfactorily explained, western expedition, which led to his arrest, and trials at Richmond, in Virginia, in August and September 1807, for treason first, and then for a misdemeanour. He was acquitted on both these charges.—In June 1808, he embarked from New York for England; induced to take this step, in a certain degree, by the personal and political prejudices that had been excited against him, by the death of Hamilton, and by the equivocal course he had pursued in the western country, but, in a degree also, by an expectation of being able to obtain encouragement and assistance from some of the European governments, for attempting the emancipation of the Spanish American colonies from the oppressive domination of the mother country,—a project which he had long contemplated. His efforts in this respect were, however, entirely unsuccessful; and he returned to the United States in June 1812, after an absence abroad of 4 years. He opened an office in the city of New York, and practised the law there, but without attracting the attention of the public to any considerable

extent.—In 1816, General Toledo, then in the city of New York, and whose object in visiting the United States was “not only to obtain the means of continuing the war (of Mexico against Spain), but to seek the person best capable of employing them,” invited him to “assume the management” of the “political and military affairs” of the Mexican republic. Colonel Burr declined this invitation. But again, in 1819, he received a commission from the government of Venezuela, authorizing him to raise troops for the sea and land service of that republic, and pledging itself to pay all debts of his contracting in the exercise of the authority granted him.—Colonel Burr died on the 14th of September 1836, in the 81st year of his age, on Staten Island, where he had passed the summer for the benefit of the pure air. Agreeably to his own request, his body was conveyed to Princeton, to be there buried.

**BURSARS;** the name at present given in Scotland to persons who are enabled to prosecute their studies at a university, by means of funds derived from endowments.

**BUSHIRE\*** has at present a population of from 12,000 to 15,000. The neighbouring island of Kharak was taken possession of by the English in 1837, but has since been abandoned by them. Should the Euphrates once again become, as is not improbable, a usual route of communication between Europe and India, Bushire cannot fail to rise into considerable importance.

**BUTTMAN\*** died in 1829. His last work, published shortly before his death, is entitled “*Mythologus, or Dissertations on the Traditions of Antiquity.*”

**BUTTER TREE;** a remarkable plant found by Park in the interior of Africa, especially in Bambarra, yielding from its kernels, by pressure, a white, firm, rich butter, which, even in that climate, will keep well for a year without salt. Another species is the Phulwara tree of India (*Bassia butyracea*), whose seeds produce a firm, agreeable, buttery substance, of about the consistence and colour of hogs' lard; it is used medicinally in rheumatic affections. The Illupie tree of Coromandel (*Bassia longifolia*), and the Madhuca tree of Bengal (*Bassia latifolia*), are other species having similar properties. They are large trees belonging to the natural order Sapotacis, and their timber is sometimes of excellent quality.

**BUTTURA.\*** In addition to the literary labours of Buttura already mentioned, he contributed many articles of literary criti

cism to the "Repertory of ancient and modern literature;" and he was the editor and annotator of a "Library of Italian poetry" (30 vols. 1820), of a "Library of Italian prose" (10 vols. 1825), of "The four great poets of Italy" (8 vols.), and lastly, of the "Speaking animals" of Casti.—His last work is an Italian and French, and a French and Italian dictionary, published in 1832. He died before having prepared the last two letters of it.

BYSTRÖM (Joh. Nicolaus), at present professor of the arts of design at Stockholm, was born December 18th 1783, at Philipstätt, in the Swedish province of Wärmeland. He was the favourite pupil of the sculptor Sergel, by whom his attention was particularly directed to the study

of the antique. Having obtained, in 1800, the prize awarded by the Academy of Sculpture, with which prize was connected a contribution in money to enable the receiver of it to travel for his improvement, he went, in the following year, to Rome; where he continued until 1815, when he returned to Stockholm. He now rendered himself generally known, and earned the patronage of the Crown Prince of Sweden, by a colossal statue of the latter. His works consist chiefly of statues of historical personages, but partly, also, of subjects taken from the mythology of the Greeks. These last, especially his figures of females and of children, have been much lauded for their grace and truth to nature.

## C.

CABRERA (Don Ramon), count of Morella, the most distinguished, next to Zumala-Carreguy, among the generals who embraced the cause of Don Carlos in Spain, was born, August 31st 1810, at Tortosa, in Catalonia. His father, a merchant of that city, dying when he was quite young, he was almost wholly abandoned to his own inclinations and vicious propensities. He learned little or nothing at the schools where he was placed, kept bad company, addicted himself to gaming, and led, in other respects, too, a very disorderly life. Through the influence of an aunt, who was a nun, he obtained at length the reversion or expectancy of the office of chaplain to the "Hermita de Nuestra Señora del Camino" at Tortosa, and, in 1831, the preparatory consecrations. The concluding ones were, however, refused him by the bishop, on account of his continued irregular conduct. When, on the death of Ferdinand VII., the movement in favour of Don Carlos extended itself to the neighbourhood of Tortosa, Cabrera, quitting his cell, joined a small body of guerillas under the command of Carnicer, who soon appreciated his abilities, and conferred upon him the rank of captain. Noted from the very outset of his military career for his vindictive and bloodthirsty disposition, he became a monster of inhumanity, after his mother, blind, at the advanced age of 80, was shot by the orders of General Mina, on the pretended charge of conspiring to overthrow the existing government, but, in reality, for no reason excepting her relation to him. On the day before he heard

of his mother's execution, he had taken a number of the Christianos prisoners; all of them became victims of his revenge. And henceforth he vied with Mira in putting to death without mercy those of the opposite faction who fell into his hands.—His career has been marked by many vicissitudes; sometimes brilliantly successful, and penetrating into the remotest parts of Spain; at others a fugitive, and obliged to seek an asylum from his pursuers in the mountains of Catalonia and Aragon. In 1838, in acknowledgment of the services rendered by him to Don Carlos on the expedition of the latter to Madrid, and especially to commemorate his capture of the fortress of Morella, he was created count of Morella, and promoted to the rank of lieutenant-general. Cabrera is, however still more a champion in what he regards to be the cause of the Catholic church, than he is an adherent of Don Carlos; so that, when this pretender to the crown of Spain found it expedient to quit the Spanish territory, he (Cabrera) undertook, from religious zeal, to continue the contest. It was not till the summer of 1840, that Espartero succeeded in expelling him from his fastnesses, and forced him, with the remnant of his followers, to take refuge in France. There he was, indeed, at first arrested, and conducted a prisoner to the fortress of Ham; but towards the close of the year 1840, he was set at liberty. In 1841, after only a short stay in the islands of Hières, he went to reside at Lyons.

CACHUCA; a new Spanish dance, accompanied by the castanets and the melody of

an old Spanish ballad, and composed of the steps of the bolero and the fandango. The principal difficulty in executing it well consists more in the proper and graceful performance of the movements of the head, arms, and upper part of the body, than of those of the feet. It has acquired very general celebrity through Fanny Elsler, who first danced it, with an extraordinary effect, in "Le diable boiteux," and who, in dancing it, has far transcended all her imitators.

**CADMIUM**, a metal discovered by Stromeyer at Göttingen, in 1818. Its appearance is much like that of tin. Its specific gravity is about 9; and it fuses and volatilizes at a temperature a little below that at which tin melts. Its ores are associated with those of zinc. Its equivalent number is 56. With oxygen it forms an oxide, composed of 56 parts of cadmium and 8 parts of oxygen. Its scarcity prevents its employment in the arts; but the oxide has been used as a pigment.

**CADORS** (Jean Baptiste Nompère de Champagny, duke of) was born at Roanne in France, in 1756. Entering the navy, he was rapidly promoted, and attained to the rank of captain at a comparatively early age. In the beginning of the revolution, he was chosen a deputy to the States General by the nobility of Forez; and he was one of the nobles who, by uniting themselves with the representatives of the third estate, decided the merging of the separate estates into a single National Assembly. In 1791, he retired from the assembly, and from public life. During the reign of terror, however, he was suspected of holding anti-republican opinions, and was thrown into prison, where he remained until the 9th of Thermidor. The 18th of Brumaire opened for him anew a political career; he became a counsellor of state in the department of the Marine. In 1801, he was appointed ambassador to the court of Vienna; in 1804, minister of the Interior; and in 1807, minister of Foreign Affairs. In this last office, he was entrusted with those negotiations with the Spanish court, which led, in 1808, to the abdication of Charles IV. and Ferdinand VII., and to the invasion of Spain by the French armies. He was made duke of Cadore, by Napoleon, in the same year; and in 1809, after the conclusion of the war with Austria, it was he who negotiated the marriage of the emperor with the archduchess Maria Louisa. In 1811, he retired from the ministry of Foreign Affairs, and became intendant of the domains of the crown. During the

campaign of Russia, he held the office at Paris of secretary of state; and we next hear of him as accompanying the empress, in 1814, in her flight from the capital, to Blois on the Loire. He became a peer on Napoleon's return from Elba; but, after the hundred days, was obliged to retreat from public life, till 1819, when he was once more preferred to the peerage, by Louis XVIII. He died in 1834.

**CAFFEIN**; a bitter, crystallizable substance contained in coffee, and a portion of which volatilizes when coffee is roasted. It has not been applied to any use.

**CAILLÉ\*** (René). His papers were arranged, and their contents published, by Jomard, under the title of "Journal d'un voyage à Tombouctou et à Jennée dans l'Afrique centrale, etc.," (3 vols. 1830). He died in the neighbourhood of Paris, May 25th 1838, without having returned to Africa, after the year 1828, as it was his design to do.

**CAILLIAUD\*** was appointed, in 1827, Conservator of the Museum of Natural History at Nantes. In 1832, he published a work entitled "Recherches sur les arts et métiers, les usages de la vie civile et domestique des anciens peuples de l'Égypte, de la Nubie et de l'Éthiopie" (2 vols. 1832).

**CAIRO.\*** The commerce of Cairo has, in late years, very much declined; owing, among other causes, to the system of monopoly adopted by Mehemed Ali, the rapacity of his government, the insecurity of property, the corruption of the courts of law, together with the practice of transporting all the produce to Alexandria to be disposed of,—a practice which has led to the removal to that city of many of the principal merchants. Three caravans still arrive annually at Cairo, from Mourzouk, Sennaar, and Darfour. The principal commodity brought by them is slaves, 10,000 being sold every year. A considerable number of Georgian slaves are also publicly exposed in the markets for sale.—Two English hotels have been opened for travellers since the steam communication with India has been established; but neither steam conveyances nor railroads, though much talked of, have yet come into operation to aid the commerce of Cairo. The only Egyptian steamboat on the Nile is the private property of the pacha, and is reserved for his own use.—For the institutions established by Mehemed Ali for manufacturing purposes, and for the education of his subjects, see *Mahammed Ali*; and also *Egypt*, (Sup.)

**CAFFPUT OIL.\*** is highly pungent and aromatic. It is a powerful stimulant and

diaphoretic; is used, in medicine, as a remedy for the gout, and as a vermifuge; and has been much extolled as a remedy in the Asiatic cholera, though other essential oils would probably be quite as effectual. It is also sometimes employed to destroy vermin.

**CALAMANDER WOOD**, a species of timber, of late years brought to Great Britain from the island of Ceylon, where, on account of its scarcity, it is an expensive article: It is remarkable for the variety and admixture of colours which it exhibits, and is so hard that common edge-tools cannot work it, so that it must be rasped and almost ground into shape. On account of its costliness, it has not been imported for sale, but only by private gentlemen, who have been in Ceylon, for their own use. It is the most beautiful among the fancy woods. The nearer it is taken from the root of the tree, the finer it is.

**CALCIUM**, the metallic base of lime, discovered by Sir Humphry Davy in 1808. See *Lime*.

**CALCUTTA** \* is situated on the left or eastern bank of the Hoogly river. Its population in 1822 was 179,917, exclusive of that of the suburbs. In 1887, it amounted to 229,714, of whom only 84,803 were females: of the whole number, 137,651 were Hindoos; 58,744 Mohammedans; 3133 English; 3181 Portuguese; 636 Armenians; 362 Chinese; 307 Jews; and 165 Frenchmen. A great part, however, of what may fairly be considered the population of Calcutta, consisting of labourers, mechanics, and persons engaged in trade, reside at night in the suburbs or neighbouring villages; coming into town early in the morning to their respective employments. These have been estimated to amount to from 100,000 to 150,000 persons.—Calcutta is now, Canton perhaps only excepted, the greatest commercial emporium of the East; the gross amount of its imports and exports amounting to from £10,000,000 to £12,000,000 a year.—The native Portuguese and Armenian merchants have latterly been declining both in wealth and importance; while, on the other hand, the Parsees have increased in numbers and opulence, and there are several of them possessing a capital of £250,000.

**CALIFORNIA** \* (Gulph of) is famed for its pearl fishery, which, in the 17th century, was very productive. It occupied, at that period, as many as 800 divers. At present, there are from 15 to 18 small vessels annually employed in the gulph, each of which obtains, in favourable sea-

sons, from 500 to 1000 dollars' worth of pearls.

**CALIFORNIA** \* (New). The population of this region is very scanty, and composed for the most part of Indians; about one-half of whom, or 18,000 of them, are distributed among 21 villages or stations, under the charge of the Franciscan missionaries. The men are employed in agricultural labours, or in the warehouses and laboratories of the mission; the women are occupied in spinning, grinding corn, and other domestic duties. All are fed and clothed by the friars, to whom they are in fact slaves. Their condition is, of course, superior to that of their race who remain in the savage state; at the same time, deprived, as they have been, of the right of private property, it is not at all singular that they should have made only an inconsiderable progress in civilization. There are about 5000 colonists, or soldiers of Spanish or Mexican descent, who are settled in several small towns, or occupy military posts, intended for the protection of the missions.—The vine and olive are said to thrive here more than in any other portion of America: the latter, indeed, is represented as being produced in a state of great perfection; and it is not improbable that New California may, at a time not very remote, become celebrated for the excellence of its wines. At present, however, cattle constitute the staple produce of the country.

**CALIFORNIA** \* (Old). Its population probably does not exceed 15,000, mostly Indians, who are of a character very much resembling that of the Indians of New California, and are distributed very much in the same manner. The missions here were originally established, so long ago as the year 1642, by the Jesuits; who have since been succeeded by the Dominicans. These acting on the same system as their Franciscan brethren have since done in the adjoining region, and having had to deal with a yet more degraded race of savages, their permanent success has been even less.

**CALLISEN** (Adolphus Charles Peter), born April 8th 1786, at Glückstadt, in Holstein, was the nephew of Henry Callisen, noticed in a previous volume. After receiving his preparatory education in his native town and in Keil, he studied medicine during the years 1803 and 1804, at the university of the last-mentioned place. In 1805, he went to Copenhagen for the purpose of completing his medical studies. He was appointed a surgeon in the Danish army in 1808; and in the following year,

set out on an extensive tour through Germany, Switzerland, Italy, France, and Holland. After his return to Copenhagen, he was appointed successively to various medical or surgical offices, especially, in 1816, extraordinary professor, and in 1829, ordinary professor, in the Academy of Surgery; and in addition to this office, he became librarian, in the same institution, in 1830. He is well known in the medical world by his dictionary of living physicians, surgeons, &c. (*Medicinische Schriftstellerlexikon der jetzt lebenden Ärzte, Geburtshelfer, Apotheker, und Naturforscher aller gebildeten Völker*) in 25 volumes; and to which he has added a supplement in 8 volumes more, bringing the work down very nearly to the present day.

**CAMBRIDGE**,\* in England. Population in 1821, 14,142; in 1831, 20,917; and in 1841, 24,453. The number of members composing the senate of the university, in 1839, was 2705; that of members on the boards of the colleges was 5628. The professorships amount at present to 24; the last one, founded in 1828, being that of Political Economy.

**CAMBRIDGE**\* (duke of). After the disturbances at Göttingen, in 1831, he was appointed viceroy of Hanover. In 1833, he introduced into that kingdom the constitution granted by William IV., and continued to administer the government, in a faithful conformity to it, until the year 1837; when, in consequence of the death of William IV., and the accession of queen Victoria to the British throne, the duke of Cumberland became king of Hanover. He returned to England; having earned, by his mildness, good sense, and integrity, the esteem and respect of the people over whom he had exercised authority.

**CAMBRONNE**\* was appointed, by Louis XVIII., in 1820, to be commandant of the fortress of Lille, with the rank of a "maréchal de camp;" which office he, however, resigned in 1824, on account of the shattered condition of his health. He died March 5th 1826.

**CAMPBELL**\* (Thomas). In 1830, when he suffered the loss of his wife, he resigned the editorship of the "New Monthly Magazine." In the following year, however, he established the "Metropolitan Magazine;" but retained its management in his own hands only a short time. He went to Algiers in 1832, and gave an account of that country, in a series of papers published in the "Metropolitan Magazine;" and which were afterwards collected and reprinted, in two volumes 8vo., under the title of "Letters from the South." The

other publications of his later years were a "Life of Mrs. Siddons" (2 vols. 1834); a "Life of Petrarch" (2 vols. 1841); and the "Life and Times of Frederick the Great," a work of which he professed to be only the editor (4 vols. 1841-43); and the "Pilgrim of Glencoe," a poem (1842).—In 1842, he made a visit to Germany; and, in 1843, he retired to Boulogne, where he died on the 16th of June 1844. His body was brought over to England, and interred in Westminster Abbey, near the centre of Poet's Corner, close to the tomb of Addison.

**CAMPBELL** (Lord), one of the most eminent advocates at the English bar, was born in 1778, at Cupar, in the neighbourhood of Edinburgh. After studying in the university of that city, he went to London; where, for several years, he was a reporter for the "Morning Chronicle." He was called to the bar in 1807; and was not long in acquiring an extensive practice, and a high reputation, as a lawyer. While engaged as such, he found leisure to prepare and publish reports of the principal cases decided in the courts of King's Bench and Common Pleas. In 1822, immediately after his marriage with the daughter of Lord Abinger, he obtained a seat in Parliament, and distinguished himself by his able advocacy of the principles and doctrines of the Whig party, to which he had attached himself. On the accession of the Whigs to power, he was appointed attorney-general. In 1841, he became chancellor of Ireland; a post, however, which he quitted, after only a short period, on the return of the Tories to office; but which he had held long enough to win the respect of the Irish people, in despite of the prejudice at first entertained, by many among them, against him, as a Scotsman. He was elevated to the peerage in the last-mentioned year.

**CAMPEACHY**\* has lately been the scene of civil war. When, in 1842, Yucatan, the province in which it is situated, ventured to assume a revolutionary attitude in relation to Mexico, a Mexican force marched against it; but, although some advantages were at first obtained over the troops which advanced from the town on the 24th of November of that year, the Mexicans were defeated and forced to retreat in the following January. Another Mexican force, after gaining possession of Chica, February 1st 1843, undertook to renew the attempt which had so lately miscarried. It was, however, encountered on its way to Campeachy by the enemy, under General Llergo, and totally defeated.



Encouraged by this success, the people of Yucatan resolved to declare their entire independence on Mexico; assuming then, for the first time, a peculiar national flag.

**CAMPHENE** or **CAMPHOGEN**, a term applied by chemists to a hydrocarbon, composed of 10 atoms of carbon = 60, and 8 of hydrogen = 8; and therefore represented by the equivalent number 68. It is identical with pure *oil of turpentine*. Camphor is its protoxide; that substance being composed of 68 camphogen and 8 oxygen; and therefore represented by the equivalent number 76.

**CANADA.\*** The population of Lower Canada, in 1836, was 664,631, chiefly of French origin; of Upper Canada, at the same period, 371,332, chiefly of British origin.—The number of immigrants from Great Britain, who landed at the port of Quebec, in the nine years ending with 1838, amounted to 263,089, of whom 165,000 proceeded to the upper province; but of the whole number, from 50 to 60 per cent. re-emigrated, after a short residence, to the United States. The greatest number who arrived in any one year was in 1832, when 51,746 landed at Quebec; the smallest number was in 1838, when 4992 only reached that port. Within the period spoken of, there were also 50,000 estimated to have reached the provinces by way of New York and the Erie Canal; a like proportion of whom also re-emigrated.—The two provinces have been united under one legislature, by an act of the British Parliament passed July 23d 1840.—The imports into Lower Canada, in 1836, amounted in value to £1,941,053 sterling; and the exports to £1,034,514. These sums, however, do not include the extensive illicit trade which is carried on with the United States.—In addition to the colleges and schools of the higher order under the management of the Catholic clergy, a college has been established, by the government of the colony, at Toronto; but this has been accomplished, it is much to be regretted, only by diverting to this object funds originally set apart for the support of schools throughout the country. There have been occasionally grants by the Legislature for the purposes of education; but the schools are few, and of an inferior kind, even in the best settled districts; and in the remoter ones there are none. Nor has any considerable degree of attention been bestowed by the government on the *material* interests of the colony, there being even a deficiency of roads where they are most wanted, and

those in existence being for the most part in a wretched condition.

Since the American revolution, the administration of none of the British colonies has given more trouble to the government at home than that of Canada. Besides the increasing number of inhabitants, which alone would, sooner or later, have led to the assertion of a claim, on their part, to a greater influence in the affairs of the colony than had been allowed them in an earlier stage of their progress, there were peculiar circumstances, springing out of a difference of race, to which the effect in question is attributable. When, in 1763, the country was ceded to Great Britain, the whole of it, then constituting the province of Quebec, contained only a population of about 70,000 persons, all of whom, with a very few exceptions merely, were the descendants of Frenchmen. With the object in view of assimilating their character to that of Englishmen,—a task which, aided, as it would be, by the expected emigration from the British islands to the colony, appeared by no means a difficult one,—the system of English jurisprudence and judicial procedure, both civil and criminal, was substituted for that previously existing, and the use of the English was to be preferred to that of the French language in the business of the courts. The dissatisfaction, which these measures occasioned, was scarcely in any degree mitigated by the promise, at the same time made, of bestowing upon the Canadians a popular legislature, without whose consent no taxes should be imposed. They had been, from the first settlement of their ancestors in America, accustomed to an absolute rule, and were wholly unprepared for the exercise of the privilege of self-government. As the discontents, however, of the British North American colonies, now the United States, were gathering to a head, and threatening a rupture with the parent country, the British government deemed it expedient to secure, if possible, the attachment to it of its Canadian subjects, by retracing its steps to a certain extent. By the act of 1774, called the Quebec act, the law was thenceforth, in all *civil* cases, to be administered as it had been before the year 1763; with this reservation, however, that the settlers on such lands as, before that period, were not a portion of any *seigneurie*, should continue to be subject to the administration of English justice. Limited as this concession thus was, yet being accompanied by the abolition of the old French taxes, and the substitution in their place of others

much lighter, and less obnoxious in the mode of their collection, and which, it was enacted, should be expended exclusively for the benefit of the colony, a general feeling of contentment was produced throughout the community. On the breaking out of the war between Great Britain and her other colonies, the Canadians, accordingly, remained unaffected by the example of their neighbours, and even co-operated with great zeal in the contest against them. In 1784, the Habeas Corpus act was extended to Canada; and, at length, in 1791, Mr. Pitt, in compliance with the promises long held out to the inhabitants, introduced a bill into Parliament, usually called the "constitution of 1791," bestowing upon them a representative system of government, at least in part. The province of Quebec was now for the first time divided into the two provinces of Upper and Lower Canada, each of which was to have its own separate executive and legislature, but formed on precisely the same model. There was to be in each a governor, an executive council, a legislative council or upper house, in imitation of the British House of Lords,—all these appointed by the king,—and, lastly, an assembly composed of members elected by the people. But these arrangements, in their practical operation, were far from fulfilling the expectations of their author. Instead of contributing to secure, for the future, the attachment of the Canadians to the British government, they contained within themselves the germs of the dissensions and troubles which have since afflicted the colony. In the first place, the division of it, into the provinces of Upper and Lower Canada, had the effect of marking more precisely than ever the distinction between the two races constituting their population; since the former was inhabited chiefly by emigrants from Great Britain or Ireland, together with the descendants of American loyalists, whom the revolution of 1776 had induced to settle there; while the great majority of the inhabitants of the latter province still consisted of French Canadians, and was likely to continue to do so, in despite of every effort on the part of the government to produce a different state of things. Instead, then, of the mingling and eventual confounding of the two races into one uniform mass, as might have been expected, under other circumstances, to happen, their peculiarities and mutual repugnancies were in a considerable degree perpetuated, and two legislative bodies were organized in contiguous colonies,

with opinions and feelings disqualifying them, for most useful purposes, from co-operating harmoniously together, to any extent. But another cause of contention and difficulty, involved in the new constitutions, was the very dissimilar organization of the different branches of the same legislature. Emanating, as these did respectively, from two such opposite sources as the king in England and the people in America, disagreements between them were not only apt to arise, but when they did so, there was no provision of any kind for their being accommodated or compromised. While in England, no minister can practically continue to maintain his post with a majority, however small, against him in the House of Commons, in Canada, on the contrary, both the governor and executive council, holding their places at the pleasure of the crown, were subject to no such control on the part of the assembly elected by the people. The legislative council was likewise appointed by the crown; and the circumstance of an individual being a member of the former council did not preclude him from being a member at the same time of this,—which was, in fact, only an instrument in the hands of the executive for controlling the action of the Legislature. The latter, moreover, had no means of inquiring into, or checking, the delinquencies of the public officers, and did not possess the right of impeaching them before any impartial tribunal. Under these circumstances, it is not surprising, notwithstanding the exclusive right of taxing themselves was secured to the colonists by the constitution, that they should soon come to look upon it as an instrument of oppression, rather than as a boon bestowed upon them for their benefit, and for which they ought to be grateful to the government of Great Britain. By the repeated collisions which occurred between the Assembly and the executive authority, first of Lower, and then of Upper Canada also, and by the perpetual state of irritation kept up between them, the embarrassments, which were experienced in the administration of the affairs of the provinces, were continually aggravated, without any very decided measures being devised for applying a remedy to the evil. In proportion, too, as the British government omitted to concede anything to the wishes, or demands, of the Canadians, those demands were extended and multiplied; until they, at length, amounted to a claim to have a political constitution so altogether similar in its practical operation to that of England as

to render the Assembly, like the House of Commons, the controlling authority in the country. And however the question then at issue may be disguised, it really amounted to this:—Shall Canada henceforth continue to be a colony, or become an independent state?

The difficulties referred to did not rapidly come to a head. Twenty-one years had elapsed from the introduction of the new constitutions, when, in 1812, war was declared by the United States against Great Britain; and the people of Canada were yet far from desiring to shake off the yoke of the latter country. Even in the lower province, where much the larger portion of the inhabitants had no associations of history, language, or religion to bind them to their rulers, they were still sufficiently impressed with the benefits that had been conferred upon them in their new political relations, as well as with the respect uniformly exhibited to their religious privileges, to induce them to co-operate with the British regular forces with so much promptness, in the defence of their territory from invasion by the Americans, as to deserve the thanks of the prince regent of Great Britain, communicated formally to the provincial assembly by the then governor-general. It was not, indeed, until the administration of Lord Dalhousie, which began in 1820, that the opposite parties became systematically engaged in contention with each other; that nobleman having suffered himself to be implicitly guided, in the course pursued by him, by the faction most hostile to the claims of the Canadians. So far, at that period, was the British government from evincing the slightest disposition to yield anything to the wishes of the colonists, that, in conformity to the advice which it received from its agents in America, it was inclined to reunite the provinces which had been so mistakenly separated, in reference to the general interests of the empire, by the act of Mr. Pitt; and a proposition to this effect was, accordingly, made in Parliament, in the session of 1822. A decision upon it was postponed for a season, through the strenuous exertions of the friends of Canada; and when the intelligence of what had occurred reached the other side of the Atlantic, it produced a general dissatisfaction, as well in the upper as in the lower province. The habits of both had now conformed themselves to a state of separation. The people of Upper Canada were quite as desirous of remaining entirely English, as those of Lower Canada were of preserving

their character of Frenchmen. Hence it was that petitions against the measure proposed, so numerous subscribed, were sent over to England, as to induce the ministry to abandon it altogether. Emboldened by this success, the Canadians multiplied their causes of complaint, and pushed their demands more vigorously than ever. From this time forth, too, the points at issue between the parties, very naturally, came by degrees to have a much greater reference to general politics than to any peculiarities of the two races; and opposition members of the assembly, not of English origin only, but several of French also, were elected from townships inhabited almost entirely by English,—which proceeding was reciprocated by the election of certain members of English origin in some of the *seigneuries*. In 1826, in consequence of the suggestion made to the British government by Lord Dalhousie, Parliament passed the "Canada Tenures Act," which abolished the existing relations between the seigneurs and their tenants, with a view to make a favourable impression upon the latter, and to separate their interests from each other. This was another mistaken step. It only tended still further to increase the prevailing irritation; even the party intended to be benefited by the change not having desired it, attached as they were to their ancient usages, as well as to those whom they looked up to as their superiors. Next followed the refusal, in November 1827, by the governor-general, to acknowledge Mr. Papineau, the distinguished leader of the opposition to the government in Lower Canada, as speaker of the Assembly, when elected to that office,—a harsh procedure which produced a renewed excitement among the people in general. This, in its turn, led to further petitions and remonstrances, relating to the various causes of complaint of the Canadians, being sent to Great Britain; in consequence of which a parliamentary inquiry was instituted into the condition of the colony. The committee to whom the inquiry was entrusted were ready with their report in July 1828. They were of opinion that the sources of all the difficulties which had occurred were to be found in the different characters of the French and English population, and in the organization of the legislative council; and they proposed that, on the one hand, all persons who held offices of honour or profit under the government at home, or the governor-general in America, should be excluded from a seat in that body; and on the other, that an ap-

proach should be made to a representation in it of the two races, by the appointment as members of a certain number of French Canadians. They suggested, besides, the expediency, in order to put an end to all disputes of a financial nature, that, in addition to the moneys voted by the Legislature, the revenues derived from taxes imposed by acts of Parliament, passed before the grant of the existing constitution, as likewise those, insignificant in amount, springing from certain crown lands, as they were called, should be placed at its disposal; but with the proviso annexed, that the Assembly should consent to vote a civil list, comprehending the salaries of the principal officers, administrative and judicial, for the life of the reigning sovereign, or for a term of years. Such concessions as these might, at a previous time, have been acceptable to the Canadians; it was now too late for any favourable result to be produced by them. So long, indeed, as the Canadians in the legislative council were not sufficiently numerous to constitute a majority of the members, so long they would remain powerless to accomplish anything of moment in behalf of their fellow-citizens; and to have the disposal of the public moneys, only on the condition above mentioned, seemed to be but an insignificant privilege. Matters were, however, prevented from coming immediately to a crisis, by the recall of Lord Dalhousie. His successors in office conducted with much greater forbearance and prudence, and thus contributed to prolong the season of comparative tranquillity which ensued. In the mean time, the government in England continued to temporize, doing absolutely nothing calculated to allay the dissatisfaction with which they had to contend. The patience of the Canadians, at length, became exhausted; and despairing of any voluntary action on the part of the government for their relief, the assembly of Lower Canada adopted, in 1836, the bold resolution to grant the taxes for six months only, and expressed its determination to refuse to make any further grants, unless the privilege should be conceded to the inhabitants of the province to elect as well the members of the legislative council, as of the assembly itself. Similar resolutions were also come to by the assembly of Upper Canada, who, though composed of individuals of English origin, were tired with being under the perpetual control of an aristocracy composing the other branches of the provincial administration. These demands of the colonists met with no favour in England,

except among the radicals, and a few of the more liberal portion of the whig party. A series of resolutions were introduced into the House of Commons by Lord John Russell, in March 1837, declaring the inexpediency of acceding to the demands of the provincial assemblies, condemning the course pursued by them in several respects, and repeating the readiness of the British government to concede to the Canadians the privileges before stated to have been suggested by a parliamentary committee as expedient to be granted to them, with the conditions likewise, suggested by that committee, annexed to the grant. These resolutions were adopted by the decided vote of 318 to 56; and although the death of William IV. caused a dissolution of Parliament to take place before any bill was framed in conformity with them, it became evident that Canada had nothing to hope for from this quarter. On receiving the intelligence of what had been done in England, the Canadians threw off all reserve in the expression of their opinions; public meetings were everywhere held, the persons attending them, in many instances, coming with arms in their hands, and in which the most energetic denunciations of the British ministry and parliament were uttered; and associations were formed for diffusing, as extensively as possible, throughout the different districts of the country, a determined spirit of resistance to the existing system of government. When the Assembly of Lower Canada met, August 18th 1837, it refused to vote the necessary taxes, until Parliament should retract the obnoxious resolutions, and until all the grievances of the province should be redressed. It was, in consequence, prorogued by the governor, Lord Gosford, for an indefinite period.

Henceforth, the liberal party looked forward to nothing short of the establishment of Canadian independence. This object was, for example, unequivocally stated in an address, dated on the 6th of October, to the "Sons of Liberty," by the committee of that association; and, on the 23d of the same month, a temporary confederacy, which had been formed of six of the counties, to enable them to act on any emergency with the greater effect, under the presidency of Dr. Nelson, one of the most distinguished of the Canadian leaders, put forth a formal declaration of rights; at the same time issuing an appeal to the people of the United States, to come to their aid in the task which they had before them. A hostile collision was not long (November 6th) in occurring between the two op

posite parties, which had come to be designated as the "patriots" and the "constitutionalists," in the city of Montreal. The "Sons of Liberty," on leaving their place of meeting, it would appear, were encountered by the members of the "Dorian Club," an association of antagonistic political sentiments, and provoked by them to the use of violence. An affray ensued, and several persons were wounded; and, in the course of the same evening, the printing-office and press of the "Vindicator," an opposition paper, was attacked and destroyed by the loyalists. After this, the leaders of the popular party judged it expedient to quit Montreal; and armed parties of insurgents were collected on both banks of the St. Lawrence river, in the districts of Three Rivers and Town Mountains. A detachment of the police, who attempted to make some arrests on the left bank, were attacked and put to flight. Sir John Colborne, the military commander at Montreal, then sent out from that place two bodies of troops, each consisting of five companies of infantry, ostensibly to sustain the civil authority in its attempts to take offenders into custody; but, in reality, for the purpose of acting offensively against the insurgents. At the head of one of these, Colonel Gore made an attack on 1500 men, who, under the command of Dr. Nelson, already mentioned, occupied the village of St. Denis, situated on the right bank of the river Richelieu or Chambly, but were repulsed. With the other, Lieutenant-Colonel Wetherall succeeded in dislodging from the village of St. Charles, not very remote from St. Denis, about 600 insurgents, commanded by Brown, one-half of whom only were armed, after a stout resistance. Brown retreated upon St. Denis; where Nelson, as well as himself, becoming convinced of the impossibility of ultimately succeeding in their attempt, dismissed their followers to their homes, that their lives might not be uselessly sacrificed, while they themselves made their escape, with some difficulty and risk, into the United States. On the other side of the St. Lawrence, the insurgents contented themselves with a mere demonstration. It was obvious that the insurrection had been made without any adequate organization of the means at the disposal of the disaffected; and that it was, indeed, altogether premature. The last embers of it soon died out in Lower Canada, and those who were regarded as its leaders were driven to seek a refuge, as exiles from their homes, in other countries; a reward having been offered for

their apprehension, amounting, in the instance of Mr. Papineau, the most conspicuous and most influential individual among them, to £1000. These events had scarcely occurred in Lower Canada, when the standard of revolt was also raised in the upper province. Mr. Mackenzie collected, in the neighbourhood of Toronto, a number of discontented spirits, variously estimated at from 500 to 3000 persons, with whom, however, he failed to accomplish anything; and he was speedily obliged, after a feeble resistance, when attacked by the loyal militia, under Colonel Macnab, to consult his safety, with that of others of his companions, by escaping into the state of New York,—rewards being offered, as in the case of the patriotic leaders before-mentioned, for their apprehension. In the United States however, along the Canadian frontier, they found many *sympathizers*, with whose aid they attempted to renew the struggle, making Navy Island, in Niagara river, their general rendezvous. This gave occasion to the burning of the steamboat *Caroline*, while lying at anchor off Fort Schlosser, on the New York side of the river, on the alleged ground of the boat being employed in the service of the insurgents;—a violation of the American territory which, for some time, threatened to involve our country in war with Great Britain. But the petty warfare in this quarter was not of long continuance. By the measures adopted, both by the governor of New York, and by the president of the United States, clothed with the requisite powers by a special act of Congress, the *sympathizing* spirit of a portion of the citizens of that state was allayed or rendered inactive; which circumstance, co-operating with the determination evinced by the British to dislodge Mackenzie and his followers, at all events, from Navy Island, induced them not to await the attack of the enemy there, but to evacuate it on the 14th of January 1838, and to deliver up their arms to the American authorities at Buffalo. Some feeble attempts were still made to disturb the tranquillity of that part of Upper Canada which is situated opposite to the state of Michigan; but the authority of Great Britain was everywhere, throughout the provinces, completely re-established.

As soon as the news of the Canadian insurrection reached England, Parliament was convened to meet at an earlier day than that to which it had been prorogued; and, five days only after it had assembled, a bill was brought in by Lord John Russell, suspending the constitution of Lower

Canada till the 1st of November 1840, and directing the appointment of a governor-general, invested with extraordinary powers, and with an authority especially conferred upon him to impose taxes on the inhabitants, and to expend the amount collected for the benefit of the colony. This bill became a law by the almost unanimous vote of both Houses. Lord Durham was the individual selected to fill this very important and responsible post. His appointment, too, gave general satisfaction to those who had been most opposed to the passage of the bill, on account of the liberal principles uniformly professed and acted upon by that nobleman.—The new governor-general landed at Quebec on the 21st of May 1838; but he remained in Canada only about five months. In adopting a course for himself, between the extreme views of public policy which divided the people over whom he was appointed to rule, and studying to allay their hostile feelings by moderating between them, he, as is common in such cases, gave satisfaction to neither; and when, in the exercise, as he conceived, of the plenary authority committed to him, he undertook to banish to the island of Bermuda, without a trial, certain individuals charged with having been partakers in the late insurrection, he found his authority for taking this step called in question; more particularly by his old political adversaries, the tory party in England. Parliament pronounced the ordinance of banishment, which had been issued by him, to be not warranted by law; at the same time passing an "indemnity bill," exempting him from any responsibility for the act. This proceeding was almost necessarily followed by Lord Durham's resignation of his office, and return to England.—Under his successors, recourse has been had, by the government, to a system of conciliation, carried, perhaps, as far as could have been expected from a quarter where the predominant object must, of course, be the retaining of Canada in a condition of colonial dependence. Several of the most prominent among the Canadian "liberals" have been admitted into the executive and legislative councils, as well as to the highest offices; and a calmer state of things has ensued. Still the desires of the great majority of the inhabitants have not been satisfied. On the first favourable opportunity, they cannot fail to be loudly expressed; the demands on the British government, which were rejected by it at the hazard of a civil war, will again be renewed; and the question will once more

have to be decided, whether Canada shall constitute one or more independent states, or continue, for a time longer, a colony of Great Britain.

**CANARIES.\*** The population of these islands, in 1835, was, of Teneriffa, 85,011; of the Grand Canary, 66,040; of Palma, 33,069; of Lancerota, 17,434; of Fuerteventura, 18,865; of Gomera, 11,742; and of Ferro, 4444; making a total of 233,645.—The total value of the exports amounted, in 1833, to about 470,000 dollars.

**CANGALE;** a sea-port town of France, in the department of Isle-et-Vilaine, and about 9 miles E. of St. Malo. It has 4850 inhabitants. It is celebrated for its oysters, which constitute a considerable article of trade.

**CANDIA.\*** The number of inhabitants in 1820, previous to the Greek revolution, was 270,000. In 1839, it amounted to only 158,000, of whom 105,000 were Greeks, 45,000 Turks, 2000 black slaves, and the remainder Arabs, Albanians, and other strangers. Candia was ceded, in 1830, by the Porte to the viceroy of Egypt, who was, however, obliged to cede it back again to Turkey in 1841.

**CANELLA, or Canella Alba;** an aromatic tree common in the West Indies. The bark of the young branches, freed from its outer rind, is imported in rolls or quills two or three feet in length, or in small broken pieces, and employed as a stomatic. It has a bitterish, acrid, peppery taste, and is sometimes called *white cinnamon*.

**CANGA-ARGUELLES.\*** While in England, after the overthrow of the Spanish constitution in 1823, he occupied himself, in the first place, with the preparation of his elementary treatise of finance, "Elementas de la ciencia de hacienda" (1825), and subsequently with a more comprehensive work on the same subject, entitled "Diccionario de hacienda para el uso de la suprema direccion de ella" (5 vols. 1827-28). In 1825, he also published "Observaciones sobre la guerra de la Peninsula," the object of which was to reclaim for his countrymen what he conceived to be their share of the merit of expelling the French armies from the Spanish territory in the war of 1808-14, and which had been denied them by the prominent English historians of the period.—Canga-Arguelles was permitted to return to Spain in 1829. He was afterwards elected a member of the Cortes; in which body he remained true to the principles he had before maintained, but did not again assume a conspicuous position.

**CANNABICH** (Joh. Gottfr. Friedr.), was born at Sondershausen, in Germany, in the year 1786. After attending the usual university courses of Theology, he filled for some time the office of rector, or principal, of the academy at Greussen, and was afterwards a clergyman in several small towns successively, the last being the Greussen just mentioned. His leisure time has been devoted to geographical studies, and to the composition of his numerous geographical works, which have, very deservedly, attracted much of the public attention. The principal of these, besides extensive contributions to the "Vollständige Handbuch der Erdbeschreibung" (25 vols., Weimar 1819-27), and to the last edition of Schütz's "Allgemeiner Erdkunde," are the "Statistisch-geographische Beschreibung des Königreichs Preussen" (6 vols. 1827-28, and another edition in 1835), the "Statistische Beschreibung des Königreichs Württemberg" (2 vols. 1828), together with his "Lehrbuch der Geographie" and "Hülfsbuch beim Unterricht in der Geographie," the former of which has passed through 14 editions, and the second edition of the latter was published, in 3 volumes, in 1839-40.

**CANTON.\*** See *China*, (Sup.)

**CAPE BRETON.\*** Population in 1839, 35,000. There are extensive beds of coal in this island, said to resemble that of Newcastle in England. The mines which are at present worked are in the neighbourhood of the capital, Sydney. It is only since 1827 that they have been productive to any extent; and in 1837, the produce was about 70,000 tons, about one-half of which was sent to the United States, and the remainder to Nova Scotia and Newfoundland. There are 500 persons employed in the mines. Besides coal, the chief articles exported are timber, fish, fish-oil, potatoes, gypsum, &c.; the total value of the exports amounting, in 1837, to £41,337. The imports are mostly British manufactured goods, West India products, and corn. — About 300 Indians are still to be found on the island, for whom some tracts of land are reserved, on which they cultivate maize and potatoes, though they support themselves chiefly by fishing. — The once famous fortress of Louisburg is now only a heap of ruins. Cape Breton had a separate government until 1820, when it was attached to the province of Nova Scotia.

**CAPE OF GOOD HOPE.\*** The population of this colony, in 1838, is stated to have been 100,053 whites, and 51,563

blacks, making a total of 151,616 persons, besides 2500 aliens and resident strangers, and a military force of 2500 men. — The government is vested in a governor appointed by the crown, and assisted by an executive council, composed of the commander of the forces, the chief justice, auditor-general, treasurer, and accountant-general. There is also a legislative council, composed of five official, and an unlimited number of unofficial members, the debates of which are conducted with open doors. The revenue amounted, in 1836, to £158,697; the public expenditure for the same year was £147,579, exclusive of that incurred in England on account of the colony. — The Dutch Reformed, Lutheran, English, Presbyterian, and Roman Catholic churches, are all supported, entirely or in part, by the government. There are numerous missionary schools; and free schools have been established in each district. And a joint stock institution, entitled the "South African College," with five professors, was established at the capital, Cape Town, in 1829. — Wine and wool are the principal productions, and constitute the leading items in the list of exports. These amounted, in 1836, to £384,388. The ports are few, and in bad condition. The most important are Cape Town, on Table Bay; Port Elizabeth, in Algoa Bay; and Simon's Town, — all of them free warehousing ports. In 1836, 486 vessels entered these ports, having an aggregate tonnage of 134,875 tons. — The progress of the colony has, of late years, been materially impeded by the invasion of the N. W. frontier by the Caffres, and by the emigration (1837) of about 20,000 of the Dutch colonists to Port Natal, on the E. coast, partly on account of the great fertility of that region, and partly from hostility towards the British Government, on account of the emancipation of their slaves. Nevertheless, the settlement which they have founded there is regarded by the English as a dependence on the government of the Cape of Good Hope.

**CAPE HORN.\*** The dangers attending the doubling of Cape Horn have, in consequence of the improvements in navigation, been very greatly diminished. The coast may be approached with comparatively little danger; the water being deep, and free from either rocks or shoals.

**CAPE VERDE ISLANDS.\*** The population, in 1831, was 83,400; but of this number 30,000 are said to have been swept off by a famine in 1833, previously to which no rain fell for three or four

years. The people are a mixed race of Portuguese and negroes.—Of the mal-administration of these islands by Portugal an opinion may be formed from such facts as the prohibition of the making of wine, which might otherwise become an important branch of industry, and enter into competition with the wines of the more favoured islands of Madeira, and the monopolizing by the government itself of orchilla, a weed that attains here to great perfection, and yields a rich purple tincture, used chiefly in dyeing silks and ribbons. The authority of the governor extends over the Portuguese settlements in Senegambia, on the opposite coast of Africa.

CAPECE-LATRO, archbishop of Tarento, and, as such, primate of the kingdom of Naples, born about the year 1745, rendered himself conspicuous by the opinions which, at different times, he put forth in favour of a reformation of the Romish church, especially in an essay in which he argued against the justice of a tribute paid by Naples to the pope, and in another directed against the celibacy of the clergy; both of which, and particularly the latter, attracted in a high degree the general attention. Having held an official station during the republican period, he was thrown into prison when this was put an end to by cardinal Ruffo. Such, however, was the respect paid to him by all classes and parties, that the cardinal thought it expedient, before long, to set him at liberty. Under Joseph Bonaparte and Murat, he was the minister of the Interior. He lost his archbishopric on the fall of the latter; and retiring altogether from public affairs, he rendered his house the resort of all persons most distinguished for rank, talents, or acquirements. His last work, remarkable for its brilliancy of style, is his "Elogio di Federigo II., re di Prussia," printed at Berlin, in 1832.

CAPEFIGUE (Baptiste Honoré Raymond) was born, in 1799, at Marseilles, where he received his education. He went to Paris about the same time as Thiers and Mignet, but embraced the opposite side in politics, and became one of the editors of the "Quotidienne." By his contributions to this journal, and his "Recueil des opérations de l'armée française en Espagne" (1823), he soon attracted the notice of the government, which appointed him to an office of some importance in the department of the minister of Foreign Affairs. He continued to hold this office till the revolution of July, and profited, in the mean time, by the opportunities it afforded

him for examining the original sources of French history, and collecting materials for his future historical works. Within the period of four years, from 1823 to 1826, Capefigue obtained no fewer than three prizes for essays on historical subjects, proposed by the Academy of Inscriptions and Belles Lettres. In 1823, he also published his "Essai sur les invasions des Normands." And this has been followed, from 1827 down to the present day, by so many other works, several of them quite voluminous, as, it would seem, to preclude that thorough research, and attention to style, which are indispensable to the historian who aims at an enduring reputation. But however applicable, in a degree at least, this remark may be to Capefigue's writings, they are, nevertheless, possessed, in general, of much interest, and richly deserve to be consulted by the discriminating student. The following are the chief of the works referred to: the "Histoire de Philippe Auguste" (4 vols. 1827-29); the "Histoire constitutionnelle et administrative de la France depuis la mort de Philippe Auguste,—première époque de Louis VIII. jusqu'à la fin du règne de Louis XI." (4 vols. 1831); the "Histoire de la réforme, de la ligue et du règne de Henri IV." (4 vols. 1834); "Richelieu, Mazarin et la Fronde" (4 vols. 1835); "Louis XIV." (6 vols. 1837); "Hugues Capet et la troisième race jusqu'à Philippe Auguste" (4 vols. 1839); and in reference to the present age, the "Histoire de la restauration et des causes qui ont amené la chute de la branche aînée des Bourbons. Par un homme d'état" (10 vols. 1831, and 2d edit. 4 vols. 1842); "Europe pendant le consulat et l'empire de Napoléon" (12 vols. 1839-41); his "Cent jours" (2 vols. 1841); and "Le gouvernement de Juillet, les partis et les hommes politiques" (2 vols. 1835). This last work served as an introduction to a voluminous one on the reign of Louis Philippe, now in course of publication.—Capefigue is also the author of an historical novel, entitled "Jacques II. à St. Germain," and of a life of St. Vincent de Paule, productions possessing very little merit.

CARAT, or *Karat*; a term used in a relative sense to express the fineness of gold. It means the 24th part of any given weight of that metal, or of its alloy. If such a weight be pure gold, it is said to be 24 carats fine; if  $\frac{3}{4}$  only be gold, it is said to be 18 carats fine.—In the process of assaying gold, the quantity taken is very small, generally from 6 to 12 grains; and this is termed the *assay pound*. It is sab-



divided into 24 carats, and each carat into 4 assay grains, and each grain into quarters; so that there are 384 separate reports for gold. When the gold assay pound is only 6 grains, the quarter assay grain only weighs  $\frac{1}{4}$ th of a grain. This will give an idea of the accuracy required in the weights and scales which are used in such operations.—The carat employed by jewellers is, however, a definite weight: the diamond carat =  $3\frac{1}{2}$  troy grains; and the pearl carat =  $\frac{1}{4}$ ths of a troy grain.

**CARBONARI.\*** After the restoration of the Bourbons, numerous secret societies were formed in France, similar in their nature to the Italian Carbonari, with whom they entered into intimate relations, or *fraternized*, as soon as the latter, in 1820, became of sufficient importance to attract to themselves public notice; and when the Neapolitan and Piedmontese insurrections of that year had been subdued, and Carbonarism proscribed in Italy, as high treason against the rulers of the country, Paris became the centre of its operations. In 1821, it is said to have numbered 60,000 members in the kingdom. But after the defeat, in 1823, of the constitutional party in Spain, and the consequent discouragement experienced, for a time, by the advocates of liberal principles in France, as well as elsewhere, the associations in question dwindled into insignificance; still, however, continuing to exist down to the revolution of July. This event, by uniting, in support of the government then established, the more moderate portion of the party opposed to the former government, very naturally induced an approach to republicanism in the opinions avowed by the most dissatisfied among those who constituted the new opposition. French Carbonarism, or *Charbonnerie*, was now, in consequence, organized anew, on principles similar to those of Babeuf and his associates, during the first French revolution; and, in 1837, had, for its most conspicuous chief, Buonarotti, then four-score years of age, who had been one of Babeuf's fellow-conspirators. Its ultra doctrines met, nevertheless, with comparatively little sympathy among the mass of the French people; and it has, for some years past, scarcely evinced any symptoms of life.

**CAREY** (Mathew) was born at Dublin in Ireland, on the 28th of January 1760, and died at Philadelphia, on the 18th of September 1839. He was the most eminent biblioplist that has lived in this country, and one of its most copious writers. Owing, also, to the extent of his

business, as well as the ardent and active part which he took in public affairs, few persons were more widely known throughout the Union. His father, who was himself a respectable and intelligent man, bestowed upon him a very liberal education, in common with his five brothers; all of whom subsequently became distinguished for their learning or literary taste. He describes himself as having, before he was 15 years of age, been a voracious reader, and as clandestinely subscribing to a library. About this time, he selected for himself the business of a printer and bookseller, contrary to the wishes of his father. When only 17 years old, he commenced authorship, by the publication of an essay on duelling; and two years afterwards, in 1779, he printed a political pamphlet, the advertisement of which was so inflammatory as to call to it the attention of the parliament, then sitting in Dublin. It was, in consequence, suppressed; and a prosecution was determined upon against the writer. His friends judged it expedient that he should be conveyed out of the country; and he succeeded in reaching Paris, where he made the acquaintance of Dr. Franklin. At the end of a year, the storm which had been raised against him having blown over, Mr. Carey returned to Dublin, and became the conductor of the "Freeman's Journal." In 1783, he established the "Volunteer's Journal," which soon obtained an extensive circulation and influence, and called into existence the "Volunteers of Ireland." This body of armed men produced an impression on the British government that mere peaceful remonstrance was unable to effect; and caused it to remove many of the chains by which the people of Ireland had been bound for centuries. A severe attack which appeared in his paper, in 1784, against the parliament and premier, was the occasion of his being arrested and brought before the House of Commons. He was ordered to prison, but was in a few weeks liberated by the Lord Mayor. It now, however, became again necessary for him to leave his unfortunate country, and he embarked for America. He was induced to select Philadelphia for his residence, from the accidental circumstance of seeing an account of his own trial in a newspaper of this city.—Here, in January 1785, he commenced the publication of a paper, under the title of the "Pennsylvania Herald," which soon became distinguished for the able reports contained in it of the debates in the House of Assembly,—reports that were prepared by Mr. Carey himself—

At this period, party spirit ran very high, and Colonel Oswald, the editor of a journal of opposite politics, attacked Mr. Carey with great virulence, which produced a challenge from the latter. In the duel which ensued, he (Mr. Carey) was severely wounded. — In 1786, he published the "Columbian Magazine," and, in 1787, commenced the publication of the "American Museum." The last was continued for six years, and has always been considered one of the best works of the kind issued in the United States. He married in 1791. In 1793, when the city of Philadelphia was afflicted with the yellow fever, Mr. Carey, with Mr. Girard and some other valuable citizens, became members of the Committee of Health, appointed for relieving the sick, and taking care of the children who were bereft of their parents. In the performance of this arduous and dangerous duty, Mr. Carey saw so much of the prevailing disease that he published a large pamphlet on its origin and progress, and the circumstances connected with it, which went through four editions. He was the founder, about this time, of the "Hibernian Society for the relief of emigrants from Ireland," that is still in beneficent operation. In 1796, he was zealously engaged, with a number of other citizens, in the formation of a Sunday School Society, supposed to have been the first one established in this country. It was in the same year that he was drawn into his celebrated controversy with Cobbett, which was brought to a close by the publication of the Porcupiniad, Cobbett making no attempt at a reply. In 1802, the standing edition of the English Quarto Bible was issued from his press; and it is believed to have been the first standing Bible published in the English language. In 1806, being a member of the Select Council of the city of Philadelphia, he united with Mr. Girard and others to endeavour to introduce a change in the mode of taxation, by levying a part of the taxes on personal property. To prepare the public mind for it, he wrote a pamphlet on the subject. — When the question of the renewal of the charter of the Bank of the United States came up for consideration, in 1810, Mr. Carey took a deep interest in it; and anticipating, as he did, the most disastrous consequences from the destruction of the bank, he published a series of essays in favour of its being rechartered. His views in relation to this subject were at variance with those entertained by the great majority of his political friends, by some of

whom he was assailed with no little severity. Notwithstanding this, he says "I fearlessly pursued my course, regardless of vituperation or ridicule." The publication by Mr. Carey of his "Olive Branch," in 1814, exhibited another instance of the fearless independence of his character, and was evincive, besides, of the kindly feelings which he habitually indulged towards his fellow-men. To moderate between contending parties, whatever may be the points at issue, is rarely a mode of making one's self acceptable to either; but, on the present occasion, so great was the mutual exasperation of Federalists and Democrats, that he wrote the Olive Branch with an impression that the step which he was taking would, not improbably, ruin him in his business. His ardour, nevertheless, in the preparation of it, may be judged of from the fact of its having been completed in 6 or 7 weeks only after it was begun. No unpleasant consequences, however, resulted to Mr. Carey from having published it; and the success which it met was altogether extraordinary. Besides 7 editions published by himself, 3 editions were issued by other publishers, under a general permission to reprint the work granted by the author; making in the whole 10,000 copies, and exhibiting a greater sale than any book, a few religious works only excepted; had till then obtained in the United States. It need scarcely be added that the Olive Branch contributed in no slight degree, in co-operation with other causes, to soften the asperities of party spirit, and to bring about that calm in the political condition of the country that soon afterwards ensued. — In the early part of 1818, Mr. Carey undertook an important historical work,—his "Vindiciæ Hibernicæ." Its object was to vindicate his unfortunate countrymen from the calumnies contained in the English histories of Ireland, and particularly those connected with the insurrection of the year 1641. It seems to have made a deep impression on the minds of those for whom it was intended, and went through 4 editions.—After the publication of the work just mentioned, Mr. Carey's attention was chiefly directed to the advocacy of a tariff of duties, on the importation of foreign commodities, sufficiently high to prevent them from coming into competition, in the American market, with the corresponding products of American industry; in other words, to the advocacy of the "protective policy," as it is styled by its friends, or "restrictive policy," as its opponents prefer to call it, in opposition to the system of "free trade." It is impossible to find

place here even for the enumeration of his various publications on this very important question, all of which were extensively read, and regarded, by those whose opinions coincided with his own, as the ablest expositions of the doctrines maintained in them anywhere to be met with. A list of his pamphlets, &c., on the protecting system, which were published from 1819 to 1833, consists of no less than 59 separate works, comprising in the whole 2322 pages. Some of these went to 3 or 4 editions, and many were reissued in the public journals of the day. Besides these, too, he wrote numerous essays for newspapers, memorials to Congress, and circulars to leading manufacturers. "These," he says, "are the most indisputable evidence of the zeal, and ardour, and industry, which I devoted to this great and glorious cause."

—The part which he took in the promotion of "internal improvements" was with the usual energy of his character. A canal between the Chesapeake Bay and the river Delaware had been projected so early as 1769 or 1770, and was then a subject of consideration by the American Philosophical Society. The project was revived by Mr. Robert Morris in 1790, when above \$100,000 were expended upon it, and it was then abandoned. In 1821, Mr. Carey once more brought it to the public notice. He called several meetings of the citizens of Philadelphia to take measures in relation to it, and succeeded in procuring the appointment of 25 influential gentlemen to devise the means of carrying it into execution. From this period, the success of this noble work may be dated. In 1824, he induced a number of public-spirited citizens to form a society expressly for the promotion of "internal improvements" in the state of Pennsylvania, and which was in fact mainly instrumental, by procuring information from abroad at a considerable expense to themselves (each of the 48 members subscribing \$100), as well as by their influence with their fellow-citizens, in exciting the spirit for the construction of improved means of communication, between the different parts of the state, which soon afterwards prevailed.

—Mr. Carey had, through life, been in an eminent degree a philanthropist, seeking ever in what manner it was in his power to benefit his species; but during the last years of his life, after having retired from the cares of an extensive and successful business, and withdrawn from the arena of controversy on questions of great public importance, every day, and almost every hour, was more or less de-

voted to the promotion of some charitable or useful purpose; and the widow, the orphan, and the destitute, will long remember the hand which so freely administered to their wants.—In his private associations, Mr. Carey was gifted with qualifications of a high order. He was a classical scholar, familiar with the poets of antiquity, was extensively read in both civil and ecclesiastical history, and was possessed of a great fund of anecdote. It was rare to find any one whose conversation was more varied and attractive. And if occasionally betrayed in his intercourse with others, by the warmth of his feelings, into a heat of argument which cooler temperaments are happily enabled to avoid, he was eminently placable, and ready at all times, when convinced of an error, to make an acknowledgment of it.—Mr. Carey was held in the highest respect in the city of his residence by all who knew him, and by some who differed from him in many of his favourite opinions quite as much so as by those who agreed with him. He was elected a member of the "American Philosophical Society" in 1821; and his fellow-citizens generally testified the estimation in which he was held by them, by resolutions passed at public meetings, as well as by presenting to him pieces of plate in commemoration of the course pursued by him on various public occasions.

CAREY (Will.), a missionary to British India, and distinguished by his knowledge of eastern languages and literature, was born at Paulersbury, in Northamptonshire, in England, in 1761. He received an ordinary English education from his father, who taught a small free school, and at the age of 14 was apprenticed to a shoemaker in the village of Hackleton. During his apprenticeship his mind was very much occupied with religious subjects, and he became a preacher in the Baptist denomination of Christians before he had attained his 20th year. Shortly after this he married; and although he had to endure the severest privations, and to work at his trade for the support of his infant family, he devoted much of his time to the study of the Latin, Greek, and Hebrew languages. In 1787, he was entrusted with the charge of a congregation at Leicester. Here he was earnest in his efforts to inculcate upon all within the range of his influence a zeal for the conversion of the heathen nations to Christianity, and was mainly instrumental in the formation of a Baptist missionary society, by whom he was immediately se-

lected as the person best fitted by his disposition, temper, and facility in acquiring languages, to be their first missionary. They, also, fixed upon India as the preferable field for the commencement of their enterprise. Carey and his family arrived, early in 1794, in Bengal, where they had the misfortune to lose all their money and effects, by the sinking of a boat in the river Hoogly. From the state of destitution and dependence to which he was thus reduced, he was relieved by being appointed to take charge of an indigo factory near Malda, the property of a servant of the E. I. Company, of high rank. While so employed, his leisure time was devoted chiefly to the study of the Sanscrit and Bengalee, and he very soon engaged in the translation of the Bible into the latter of these languages. In 1795, he succeeded in establishing a school in the neighbourhood of his factory, and began to preach there, in the language of the country, twice a week. In 1797, he made a journey into Bootan, and obtained the consent of the Soubah for an attempt to introduce Christianity into that country, so soon as a fit agent could be provided. In the same and in the following years, he preached publicly in Dinagepore. Towards the close of the year 1799, he relinquished the appointment which he held at Malda, and removed to the Danish settlement of Serampore, where he was joined by four other preachers sent out from England, with their families. A school was opened: a printing-press was established; and an edition of the Scriptures in the Bengalee language was begun, with types brought from Europe. On the establishment in 1801, by the Marquis Wellesley, of the college of Fort William, at Calcutta, Mr. Carey's reputation as a linguist recommended him to fill the professorship of the Sanscrit, Bengalee, and Mahratta languages, in that institution. In 1805, he received from one of the British universities a diploma as doctor of divinity; and, in the following year, was elected a member of the Asiatic Society of Calcutta. He died at Calcutta in 1834.—Dr. Carey lived to see the Scriptures, chiefly by his instrumentality, translated into the vernacular dialects of more than 40 different tribes, and thus made accessible to nearly 200,000,000 of human beings. In this great work he took an active and laborious part. But besides all this, his philological and literary labours were very extensive. He wrote grammars of the Sanscrit, Bengalee, Mahratta, Punjabee, Telinga, Carnata, and, jointly with Dr.

Marshman, of the Bhotanta language; also a Bhotanta dictionary, published in 1828. Dr. Carey had prepared a dictionary of the Sanscrit, which was nearly completed, when a fire broke out in Serampore and burnt down the printing office, destroying the impression, together with the copy, and other property. He published, in 1805, an edition, in the Mahratta language, of the "Hitopadesha," a collection of Indian fables, and in 1808-10, in 3 volumes 4to, the "Ramayana" of Valmeeki, a Sanscrit poem, with notes and an English translation. In 1820, he edited the "Flora Indica" of Roxburgh; in 1826, the Thibetan dictionary of Schröder; and in 1825, the Bengalee dictionary prepared by his son, in 3 quarto volumes. Of this dictionary an abridgement by Dr. Carey appeared in 1827.—*Felix Carey*, the author of the dictionary just mentioned, is worthy of note, likewise, for having been the first European who made a careful study of the Birman language, of which he composed a grammar and a dictionary. He translated a number of English works into the Bengalee, Sanscrit, and Birman languages. He died before his father, in 1822.

CARIPE; a town and valley of Venezuela, in the province of Cumana, 40 miles S. E. of that city. The town is the chief seat of the Chayme Indian missions. The valley is celebrated for a remarkable cavern in a limestone formation, at least 2900 feet in depth, and for some distance 60 or 70 feet high. It is inhabited by multitudes of birds called guacharos, a species of *Caprimulgus*, the young of which are annually destroyed in great numbers by the Indians, for the sake of the fat with which the lining membrane of their abdomen is laden, and of which excellent oil is made.

CARLISLE\* (Eng.) is situated at the confluence of the Eden, Caldew, and Petril. The navigation of the Eden being impeded by shoals, a canal has been constructed, suitable for vessels of 100 tons burden, between the town and Bowness, on the Solway Frith, 11 miles distant. The trade of the place has been latterly very much promoted by a railroad from it to Newcastle, as well as by the establishment of regular steamers between it and Liverpool and Ireland. The improvement of Carlisle, too, has kept pace with the increase of its trade. Its population, which, in 1801, amounted to no more than 10,221, was, in 1821, 15,486; in 1831, 20,006; and in 1841, 23,012. Much attention has been paid to the intellectual cultivation of its in-

habitants. Besides numerous schools for educating the children of all denominations, an academy for the encouragement of the fine arts was formed in 1822; a mechanics' institute in 1824; and a literary and philosophical institution in 1835.

CARLOS\* (Don Maria Isidro) was exiled by Ferdinand VII., in 1832, to Portugal, and, on his refusing to acknowledge the right of the princess of Asturias to the succession, was ordered to proceed from there to Rome. He disobeyed this mandate, putting forth, in reply to it, a formal declaration of his own pretensions to succeed his brother on the throne. On the death of Ferdinand, he was still in Portugal, where he was at once acknowledged, as king of Spain, by Don Miguel. When these princes were forced to leave the Peninsula, in June 1834, Don Carlos sailed for England, and had scarcely arrived in that country, when he secretly left, and, travelling in disguise through France, reached the Spanish frontier in the beginning of July. His arrival was the signal for the breaking out of the civil war in the north of Spain, which continued to rage, with varied fortunes, until Don Carlos saw himself, in 1839, once more obliged to quit the kingdom, and to take refuge from his pursuers within the French territory. (See *Spain*, Sup.) The Legislative Cortes had, as early as the year 1834, almost unanimously decreed the Pretender and his descendants to be for ever excluded from the throne, and had banished him from Spain, — a decree confirmed by the Constituent Cortes, in 1836, without a single dissentient voice. His first wife having died in 1834, he married, in 1838, Maria Theresa, Infanta of Portugal, and widow of the Infant Don Pedro of Spain. — The castle of Bourges has been assigned, by the French government, to Don Carlos for his residence, which, it would seem, he is not allowed to change, so long as he refuses to pledge himself to make no further attempt to disturb the tranquillity of his country by again returning to it, or refuses his consent to prevent the contests likely enough to arise at a future period from a disputed title to the crown, by consenting to the marriage of his eldest son to queen Isabella.

CARLSBAD\* is the most fashionable and aristocratical watering place in Europe. The number of visitors in the season varies from 4000 to 5000. The principal spring is the hottest at any European watering place; its temperature being 165° of Fahr. That of the spring at which the visitors most commonly drink is 138° of

Fahr. The chief constituents of the waters are the sulphate, carbonate, and hydrochlorate of soda; and the waters are efficacious in diseases of the liver and kidneys, as well as in some other complaints. They are not transportable to a distance, because, when inclosed in a vessel, a partial decomposition soon takes place, a thin pellicle covers the surface, a sediment is formed, and the contents of the vessel acquire a disagreeable taste.

CARLYLE (Thomas) was born, December 4th 1795, at Eccleham, in Dumfriesshire, in Scotland. After pursuing his studies in the university of Edinburgh, he lived for some time in retirement, devoting his time to literature, and especially to German literature. Having, in a great measure, formed his tastes and style by a diligent perusal of the works of Schiller and Goethe, he commenced his career as an author by his "Life of Schiller" (1825); which was followed by "William Meister's Apprenticeship" (3 vols. 1825), and the "German Romances" (4 vols. 1827), being a selection from Goethe, Tieck, Jean Paul, Fouqué, Musäus, Hoffman, and other German writers. In short, no person has been so instrumental in directing the attention of the reading public of Great Britain to the study of German literature as Carlyle. — In 1837, he published the "French Revolution, a history" (3 vols. 1837); and to this succeeded, in 1838, his "Sartor Resartus," an imitation, but certainly an unsuccessful one, of Jean Paul. — Besides the works which have been enumerated, Carlyle has been a frequent contributor to the literary journals of his own country; and some of his "reviews" have entitled him to a high rank as a critic. — He resides commonly at Chelsea, in the neighbourhood of London.

CARNICER (Don Ramon), born at Tarrega, in Catalonia, is the most distinguished musical composer now living in Spain. He is the author of several operas, which have been favourably received by the public of Madrid and elsewhere, the most successful of these having been his first one, styled "Adela de Lusignan;" and also of various pieces of church music, as well as of a number of beautiful melodies adapted to national and popular songs. He resides in the capital, where he is charged with the direction of the Italian opera.

CARRARA; a town of Italy, situated in the duchy of Massa-Carrara, which is now attached to the duchy of Modena. It has about 8000 inhabitants, and is remarkable for the quarries of marble in its vicinity. These were wrought as far back as the

time of Augustus, and probably long before. The marble extracted from them is of different colours; the two principal species are the dove-coloured (bardiglio) and the white. The latter is what is usually known by the name of Carrara marble. About 1200 men are kept steadily employed in procuring it; and a considerable number of persons, besides, are engaged in preparing the rough blocks for exportation, through the neighbouring port of Lavenza, to all parts of the world. The demand for Carrara marble, however, would be much greater, were it not for the heavy duty imposed on its export. This has led to the opening of rival quarries at Serravezza, and in other parts of Italy.

CARREL (Armand) was born at Rouen, in France, May the 8th 1800. His father, who was a merchant, was desirous of bringing up his son to his own occupation, and assented, only with the utmost reluctance, to the urgent solicitations of the latter to be permitted to enter the army. As a preparatory step, the young Carrel was placed at the military school of St. Cyr, where he distinguished himself by his diligence, and the ability with which he performed the exercises practised by the pupils. Having completed the course of education in this institution, he was appointed a sub-lieutenant in a regiment at the time quartered in New Brisach. His mind had been powerfully impressed by the exploits of his countrymen, in the various campaigns of the revolution and of the empire; and he associated the government then existing with events which had tarnished the renown acquired by those exploits. In the state of feeling which this produced, he was led, while at New Brisach, to involve himself in the conspiracy of Befort, of the year 1821. It exploded when he was on his way thither from the former place; and, consequently, before he had committed himself as a partaker in it by any overt act, unless the journey itself might be considered as having this character. By hastening back to his post, he succeeded, however, in evading inquiry into the real motives of his absence. He was soon emboldened, by the impunity he had experienced, to express, louder than ever, his dissatisfaction with the actual condition of things, and even fearlessly to avow, though still continuing to hold his commission in the army, opinions unequivocally republican. Then occurred, in 1823, the intervention of the French government in the affairs of Spain, for the purpose of destroying the constitution which the Spaniards had adopted of their

own choice, and once more restoring the authority of the "absolute king." Such was the indignation felt by Carrel at this proceeding, that he resigned his commission; and, not stopping here, was impelled, by his sympathy for the patriots of the peninsula, and the cause in which they were engaged, which he verily believed to be the cause, likewise, of France, and of all mankind, to set out for Spain, and to enrol himself in a corps of foreigners, of kindred sentiments with himself, that had been levied to co-operate with the national troops, in resisting the progress of the invaders. In the course of the ensuing campaign, he was taken prisoner by his own countrymen, was tried by a council of war, and condemned by it to death for having fought against his native land; no regard being paid by the court to his plea, that, having resigned his commission in the French army, he could not be looked upon as a deserter, and that, in any other respect, the government had no right to treat him, because born within the boundaries of the French territory, in a more rigorous manner than they did foreigners taken in arms. But through certain informalities which had occurred during the trial, the benefit of a new trial before another military tribunal was granted him, when he was acquitted, and set at liberty.—Now began his literary career. Proceeding to Paris, he became intimately associated with Thiers, Mignet, and Augustin Thierry,—especially with the latter,—at whose suggestion he published an epitome of the history of Scotland; the success of which induced him to prepare another of the history of Modern Greece, and also a "History of the Counter Revolution in England,—a work exhibiting a view of the times of Charles II. and James II., that was particularly acceptable to the liberal party of the day. He was, besides, an active contributor to several of the political and literary journals. At length, he became a joint editor, with Thiers and Mignet, of the newly-established opposition paper called the "National;" and its sole editor after the revolution of July, in the same year, his colleagues having been, in consequence of that event, appointed to public offices. Carrel, also, was offered, but declined, the office of prefect of the department of Cantal. The National, under his editorship, ably and vigorously sought to press the revolution forwards to what he conceived to be its legitimate, and what he hoped to be instrumental in making its ultimate results. From the principle of the sovereignty of

the people, professedly acknowledged by all who had concurred in the overthrow of the monarchy of the Restoration, he deduced, as consequences, the establishment of a republic at home, and a system of republican propagandism abroad. The consistency of his political opinions was carried so far as to induce him, when elected by his fellow-citizens to be an officer of the national guard, to refuse to serve as such, because he would not take the required oath of fidelity to a king of the French. His highly honourable character, together with the zeal, as well as ability, with which he maintained his opinions, soon rendered him the acknowledged head of the republican party, and the most dangerous adversary of the existing government; whose errors and wavering policy, he exposed, in the columns of the "National," with the greatest acuteness, and in the most unrelenting spirit. He was, however, steadily opposed to all secret combinations against the authority of Louis Philippe, which, by the inadequacy of the means employed, it might not only be foreseen, would fail in the execution of their design, but would, by their defeat, and the sympathy excited in behalf of the party attacked, have the effect of strengthening the power it was intended to overthrow. Hence, he was an object, in despite of his hostile relations to the supporters of the monarchy, of dislike, and even of hate, to the ultra-revolutionary faction in France, or rather in the capital. — His editorial articles, by the keen and fearless manner in which they were written, subjected him to repeated judicial prosecutions. Thus, for example, when Paris was declared, in 1832, to be in a state of siege, the government resolved to bring him before a council of war, to be tried for sedition; although, notwithstanding his vehement denunciations of the measure in question, he had exerted all the influence which he possessed to prevent the disturbances that gave occasion to it. But having timely information of what was intended, he managed to keep himself concealed, and this without any interruption of his labours in the "National;" until the laws resumed their ordinary course, in consequence of the judgment pronounced by the Court of Cassation, against the legality of the steps taken by the government. On the 2d of February of the following year, he was involved in a duel with one of the many chivalric defenders of the honour of the duchess of Berry, which was supposed to have been reflected upon in the columns

of his journal. He was severely wounded by the sword of his antagonist; from which he, however, slowly recovered,—the event serving, in the mean time, to evince the very high personal estimation in which he was generally held,—crowds of persons, of the most opposite political opinions, calling upon him to inquire concerning his health, and to express their sympathies in his behalf. The next event which directed the attention of the public, in a peculiar degree, to Carrel, was the republican insurrection of the month of April 1834. This, like all similar attempts before made, he had discouraged as premature, and as necessarily terminating in defeat; but when his anticipations of the result had been realized, and the parties most actively engaged in the undertaking were tried by the chamber of peers, the columns of the "National" denounced, in the most unqualified and energetic language, the unlawfulness of the proceedings against them; dealing, at the same time, in the freest manner, with the characters of the men who were to decide upon their fate. The peers, in their turn, called the journal to account; and on one of his friends avowing himself to be responsible for the article that had given the most offence, Carrel appeared as his counsel before the chamber; less, however, to defend the accused, than boldly to bid defiance to his judges. "I know you," he exclaimed; "you are the judges of Marshal Ney, and I exult in being the first to protest in this place against his abominable murder;" and as, thereupon, General Excelmans responded,—"I am of the same opinion; the condemnation of Marshal Ney was a lawless assassination," the peers, without any farther hearing of the case, and in the midst of a prodigious tumult, sentenced the responsible agent (*gérant*) of the "National" to two years' imprisonment, and to pay a fine of 10,000 francs. This sum was furnished him, by public subscription, in a few days. In the list of subscribers, were found some of the first names of France; and it comprehended individuals of every description of party politics,—all parties uniting to condemn the precipitate and violent decision of the chamber. — Carrel continued his editorial and political career in the manner that has been described, repeatedly subjected to judicial prosecutions, and sometimes suffering imprisonment, from the sentence of the courts; until, at length, it was suddenly brought to a close, by a duel with Emile de Girardin, July 22d 1836. A monument, constructed by David, has been erected to his

memory by his numerous admirers, in the church-yard of St. Mandé, the place near which he breathed his last.

**CARRON.\*** The Carron iron works were, for a long time, the most extensive in Scotland; and, for a while, perhaps, the most extensive in Great Britain: but they are now far surpassed by similar establishments in Scotland, as well as by vast numbers in England. The period of their greatest importance was during the last war with France, when they furnished to the British government an extraordinary number of cannon, mortars, howitzers, and carronades, together with a vast amount of all descriptions of military projectiles. There are, however, more than 2500 people still employed in the works; and 200 tons of coal are daily consumed. A canal has been cut, by the company who own the works, to Grangemouth, 3 miles distant, whence their goods are conveyed, by the Forth and Clyde canal, to Liverpool and London. The principal motive force employed at the works is water-power; and the water requisite is derived partly from the river, and partly from artificial reservoirs, which cover about 250 acres of ground.

**CARTHAGENA\* (S. Am.)** The importance of Carthagena has greatly declined of late years; but it is still the principal depôt for the goods of Bogota, Popayan, and Quito, and has a considerable foreign trade; and the completion of the canal of the Dique, from it to the river Magdalena, promises to give to it a new impulse. See *New Grenada* (Sup.)

**CARTESIANS** are those who adhere to the doctrines of Descartes. See *Descartes*.

**CARUS (Charles Gustavus)** was born, January 3d 1789, at Leipsic, in Germany, where his father was a dyer. After receiving his preparatory education at a school in his native city, he became a student in the university; his chief object being to qualify himself, by a knowledge of chemistry, for conducting, in future, his father's business to the best advantage. But having, besides, been induced to attend a course of lectures on anatomy, he became so much engaged in this subject, as to lead him to resolve upon making medicine his main pursuit in life. In 1811, he commenced a course of private lectures on comparative anatomy, which had not, until then, been treated in a separate course at Leipsic. He next applied himself, with an especial interest, to the study of midwifery, and endeavoured, also, to make himself familiar with the art of painting in oil. In consequence of a fever contracted by his

attendance, in 1813, at the French military hospital, he was, for a time, disabled from prosecuting his scientific labours. In 1815, however, when the Medico-Chirurgical Academy at Dresden received a new organization, he accepted the appointment tendered him of professor of Midwifery, and removed accordingly to that city. In addition to the duties attached to this office, he delivered, with great success, in 1827, a select course of lectures on the Natural History of Man; and another, in 1829, with equal success, on Physiology. In the last-mentioned year, he was chosen to accompany the hereditary prince, Frederic Augustus, the present king of Saxony, on an excursion to Switzerland and Italy. In 1833, he obtained the prize of the Academy of Sciences of Paris, for the discovery of the circulation of the blood in insects, and other contributions to natural history.—His principal works are the "Essay on the Nervous System, and particularly the Brain" (1814); the "Manual of Zootomy," with 20 plates, engraved by the author himself (1818); the "Manual of Gynecology" (2 vols. 1820); "Explanatory Tables of Comparative Anatomy" (5 parts, 1826-1840); "On the Circulation of the Blood in Insects" (1827); the "Elements of Comparative Anatomy and Surgery" (3 vols. 1828); "Lectures on Physiology" (1831); "Letters on Landscape Painting" (1831); "Paris, and the Country on the Rhine," being the journal of an excursion made by the author in 1835; a "System of Physiology" (3 vols. 1838-40); "Outlines of a New and Scientific System of Cranioscopy" (1 part, 1843); "Twelve Letters concerning Earthquakes" (1841); and "Goethe, his Individuality, and his relation to the Natural Sciences" (1843).

**CARVALHO (Joze da Silva)** was born, December 19th 1762, in the Portuguese province of Beira. He pursued the study of jurisprudence at the university of Coimbra, where he was already noted for his "liberal" opinions. On account of the openness with which these were expressed by him, he was, for a considerable period, an object of suspicion to the police and the inquisition, and was long in obtaining an appointment from the government to the lowest office, that of a judge in the first instance, in the career which he had selected for himself. In December 1817, when holding the office of *Juiz das orphãos*, that is, Judge in cases relating to orphans, he contributed to the forming of a secret combination, whose exertions led



to the revolution which broke out at Oporto in August 1820. Carvalho was named to be one of the members of the provisional government which was then proclaimed; and, in the following year, he was appointed by the Constituent Cortes of the kingdom, assembled at Lisbon, to be one of the council of regency, who were to conduct the administration of public affairs until the arrival of John VI. from Brazil. In the same year, too, he was made president of the municipality of the capital, and invested with the office of minister of justice,—an office which he continued to hold down to the counter revolution of 1823.—The triumph of the “absolutists” on this occasion obliged him to take refuge in England. Here he resided in much retirement till the death of John VI., and the promulgation of the constitutional charter bestowed upon Portugal by Don Pedro, when he returned to his country. On the overthrow of the constitution, and the usurpation of the throne by Don Miguel, Carvalho again fled to England, where he evinced the greatest activity, in co-operation with other Portuguese emigrants, in preparing the means for the expedition undertaken by Don Pedro against his brother Don Miguel, in favour of his daughter Donna Maria da Glorid. To him was more particularly due the obtaining of the first loan from Ardoin & Co. in London, without which the expedition would have been altogether impracticable.—Carvalho joined Don Pedro at the Azores, and, shortly after the party had effected a landing in Portugal, was appointed director of the civil administration of the army, and president of the tribunals of Justice and of War. He next took charge of the ministry of Finance under circumstances of the greatest embarrassment, and contributed in this capacity very materially to the final success of Don Pedro. His services, indeed, in introducing and maintaining order in the finances, were so important, that he had scarcely, towards the end of the year 1835, been removed from the ministry through the intrigues of his personal enemies, when the derangement of them which occurred rendered his recall indispensable, in a few months only after his dismissal from office.—The revolution of the 10th of September 1836, in favour of the constitution of 1820, and which overthrew the constitution established by Don Pedro, at length drove Carvalho from the post which he had filled with such signal ability; whereupon he likewise resigned all the other offices that he held. He partook in the unsuccessful

attempt at a counter revolution, made in the November following, and became, in consequence, once more an exile in England, whence he again returned to Portugal under favour of the amnesty for political offences granted by the queen. From this period until the revolution which, in 1842, restored the constitution of Don Pedro, Carvalho occupied a private station; an object of the persevering hate of his political adversaries, and of suspicion, and occasional insult, on the part of the populace. Since 1842, he has been a member of the Council of State.

CARY (Henry Francis) was born at Birmingham in England, in 1772. At the early age of 15, he published “An irregular Ode to General Elliott,” which was followed, shortly afterwards, by a 4to pamphlet of “Sonnets and Odes.” He entered a commoner of Christ Church College, Oxford, in 1790, and took the degree of M. A. in 1796. In the next year, he was presented to a living in the established church. While at the university, he devoted much of his time to the study of Italian, French, and English literature, as well as of Greek and Latin. In 1797, he produced an “Ode to General Kosciusko.” In 1805, he published the “Inferno” of Dante in English blank verse, accompanied with the original Italian; and in 1814, his entire translation of the “Divina Commedia.” The work remained, however, almost unnoticed for several years. At length, Coleridge, having formed an acquaintance with the translator, drew the attention of the public to its merits; since which time it has taken its place among the standard productions of modern English literature. It is not only unusually careful and exact, but possesses considerable force and expressiveness. Mr. Cary has subsequently produced translations in verse of the “Birds” of Aristophanes, and of the “Odes” of Pindar; a series of Lives of English Poets, in continuation of Dr. Johnson’s, and another of Lives of Early French Poets, in the “London Magazine;” besides editions of the works of Pope, Cowper, Milton, Thomson, and Young. In 1826, he was appointed assistant librarian in the British Museum, but resigned this situation in 1832, on account of his having been passed by, in the promotion of another to the office of keeper of the printed books. The government afterwards bestowed upon him a pension of £200 a year, which he enjoyed till his death in August 1844. He was interred in Poet’s Corner, Westminster Abbey.

CASPIAN SEA.\* The fact of the alter

nato rise and fall of its waters, and this to a considerable extent, seems to have been ascertained beyond any doubt; but whether these changes occur at regular periods of 30 years, or of any other series of years, or are merely the consequences of the occurrence in succession of several years favourable or unfavourable to evaporation, we are without the means of determining.

**CASSAY**; a country of India beyond the Ganges, between 24° and 26° N. Lat., and 93° and 95° E. Lon., and lying S. of Assam. It constituted a portion of the Birman empire until 1824: it is now a nominally independent state, under the protection of the British. The majority of the inhabitants have much more affinity, both in person and manners, with the Hindoos, than with the Birmans. They are industrious, and possessed of much ingenuity. They are good horsemen, and their cavalry is said to be decidedly superior to that of most of their neighbours. The upper classes are worshippers of Vishnu; and this country may be regarded as the extreme E. limit of Brahminism,—though the Cassay language differs widely from the Sanscrit. Munneypoor is the principal town.

**CASTAÑOS**.\* In the Council of State, a member of which General Castaños was made in 1825, he supported the system of "moderation" in opposition to the Carlists. Subsequently to the period just mentioned, he was appointed president of the Council of Castile. In 1833, he resisted the proceedings of the minister, Zea Bermudez, in reference to the succession to the throne; and retiring from court, his name does not appear in the public transactions of the kingdom, until the fall of Espartero in 1843. He then succeeded Arguelles in the office of guardian to the queen.

**CASTIGLIONE** (Carlo-Ottaviano, count of) is one of the most distinguished linguists of the present age in Italy, and is also noted for the attention bestowed by him on the study of Numismatics. His first work was a description of the Cufic coins in the cabinet of Brera at Milan (*Monete cufiche dell' J. R. museo di Milano*), published at Milan in 1819. In the same year, he published, jointly with the abbé Angelo Mai, an edition of Ulphilas' Gothic translation of St. Paul's Epistles, which the latter had discovered, in 1817, among the palimpsests of the Ambrosian library. The dissertations with which the work is enriched are mostly from the pen of Castiglione. But his most important work is the "Mémoire géographique et numismatique sur la partie orientale de la Barbe-

rie appelée Afrikiah par les Arabes, suivie de recherches sur les Berberes atlantiques" (1826). He died in 1828.

**CASTILHO** (Antonio Feliciano), one of the most distinguished among the more modern Portuguese poets, was born at Lisbon, in November 1800. When only six years old, he had the misfortune to lose, by the measles, the sight altogether of one eye, and to have the other eye so much weakened, that it was only after the lapse of several years, the experiment could be hazarded of teaching him to read and write. In compliance with the wishes of his father, who was a professor of Medicine in the university of Coimbra, he studied the law, and was admitted as an advocate, but never undertook to practise his profession. After passing some years in retirement with one of his brothers, who was an ecclesiastic, and had the charge of a country parish, he prosecuted his poetical career, which he had already begun, when a student, by a collection of bucolics, entitled "*Cartas de Echo e Narciso*," and another, "*A primavera, colleção de poematos*." The former of these won him the love of a young woman to whom he was at the time personally unknown, and whom he afterwards married. Besides a translation of the "*Amores*" of Ovid, and one of the first five books of his *Metamorphoses*, he has written "*Amor e melancolia, or a novissima Heloisa*," "*Or Noite do Castelo e os Ciúmos de Bordo*," and other poems. An office, to which he was appointed by king John VI., was subsequently abolished; and, under Don Miguel, becoming obnoxious to the government on account of his liberal sentiments, he was obliged to leave Portugal for a time.—His brother above referred to, *Augusto Federigo Castilho*, who, like him, and for a like reason, was obliged to leave his country, translated Lucan's *Pharsalia*, and, in conjunction with Antonio Feliciano, published "*Quadros historicos de Portugal*" (8 parts, 1831-1841).

**CATALOGUE RAISONNÉ**; an expression from the French to denote a catalogue of books, classed under the heads of their several subjects, with a general abstract of the contents of works, where the title does not sufficiently indicate them.

**CATAMARAN**; a sort of raft used chiefly on the coast of Coromandel, in India, for the purpose of fishing. It is composed of three pieces of wood lashed together, the middle piece being longer and broader than the others; and it is almost the only kind of boat that can live in the surf that prevails on that coast.—Catamaran was also

the name given to the floating batteries with which the French, at the commencement of the present century, meditated the invasion of England.

**CATCH**, in music, is defined to be "a piece for three or four voices, one of which leads, and the others follow in the same notes." But perhaps it may be more correctly described as a fugue in the unison, wherein to humour some conceit in the words, or to give them a different meaning, the melody is broken, and the sense is interrupted in one part, and *caught* and supported by another.

**CATEL\*** died at Paris, November 29th 1830.

**CATENARY**; the curve into which a rope or chain of uniform density and thickness forms itself, when allowed to hang freely from two points. Its true nature was first demonstrated by James Bernouilli, and its various properties soon after pointed out by John Bernouilli, Huyghens, and Leibnitz. It is interesting on account of the light which it throws on the theory of arches, and also by reason of its application to the construction of suspension bridges.

**CATHOLIC WORSHIP.** See *Chatel*, (Sup.)

**CATSKILL**; the chief town of Greene county, in the state of New York, situated on the Hudson river, about 30 miles lower down than Albany. The *village* has a population of somewhat less than 3000; and a railroad to Canajoharie, on the Mohawk, begins there. A spacious hotel has been constructed on the Catskill mountains, at an elevation of 2200 feet above the level of the river, which is frequented in the summer season by visitors from all parts of the United States, on account of the grand and beautiful scenery, and the refreshing coolness of the climate. The Mountain House, as the hotel is called, is approached by an ascending road, 12 miles in length from the landing place on the Hudson.

**CAUCHOIS-LEMAIRE.\*** On his return to France, under the administration of Decaze, besides being a contributor to several of the liberal journals, he put forth a number of political pamphlets; and select portions of these were republished by him in his "Opuscules" (1821), and the "Lettres politiques, religieuses et historiques" (2 vols. 1828-32). Of all his productions, however, that which attracted in the greatest degree the public attention, and for which he was condemned to be imprisoned during 15 months, and to pay besides a considerable fine, was his "Lettre au duc d'Orléans sur la crise actuelle" (1827),

urging him to place himself at the head of the opposition to the government of Charles X. In 1830, he prepared, jointly with Chatelain, the editor of the "Courrier français," and Thiers, the protest of the journals against the ordinances of July. On the accession of Louis Philippe, he for a long time declined all offers of office which were made to him, preferring to continue his labours as a journalist. At length, in 1838, he accepted a minor post connected with the public archives; and since then has ceased altogether to write for the newspapers.—It is said that the amount of money which he was condemned to pay, in consequence of the various prosecutions directed against him previous to the revolution of July, exceeded the sum of 12,000 francs.

**CAUCHY** (Augustin Louis), one of the most eminent among living mathematicians, was born at Paris in 1780. When only in the 16th year of his age, he had already published an essay on the Motion of the Waves. In 1816, he was chosen a member of the Academy of Sciences, in the class of Mechanics, and was subsequently appointed one of the instructors of the Polytechnic School. During several years after the revolution of July, he accompanied the unfortunate Charles X. in his exile; residing chiefly at Prague, in Bohemia. He then returned to Paris. The most important of his numerous works are his "Cours d'analyse" (1821); the "Leçons sur le calcul différentiel" (1829); the "Leçons sur les applications du calcul infinitésimal à la géométrie" (2 vols., 1826-28); the "Exercices de mathématiques" (1826-29); the "Exercices d'analyse et de physique mathématique" (1839); and his "Mémoire sur la dispersion de la lumière."—His father, *Louis François Cauchy*, born in 1755, obtained, for a period, a certain popularity as a writer of occasional verses, especially by his "Ode au premier consul" (1802), and "La bataille d'Austerlitz" (1806).

**CAVALIER**, originally used, in a general sense, to denote a soldier who fought on horseback, came to be applied, in the great civil war of England, to the adherents of Charles I., in contradistinction to the *Roundheads*, or the supporters of the Parliament.

**CAYENNE.\*** See *Guiana*, (Sup.)

**CAYES\* (Les).** Population at present about 3000. The town was partly destroyed by a hurricane in 1831.

**CEAN-BERMUDEZ** (Juan Augustin), a distinguished Spanish historian of the Fine Arts, was born, in 1749, at Gijon in Astr-

rins, and directed his attention at an early age to the study of art, under the superintendence of Rafael Mengs, at Madrid. He occupied for some time the office of secretary of the Council of the Indies, but afterwards retired to Seville, devoting himself exclusively to the branch of literature which he had selected for his province, and establishing in that city an Academy of the Fine Arts. He was a member of the Academy of History and the Arts at Madrid, where he died in the year 1829. Among his works may be mentioned his "Diccionario historico de los mas illustres profesores de las bellas artes en España" (6 vols., 1800); the "Carta sobre el estilo y gusto en la pintura de la escuela sevillana" (1806); the "Noticias de los arquitectos y arquitectura de España" (4 vols., 1829); the "Dialogo sobre el arte de la pintura" (1819); and his Memoirs of his friend Jovellanos (1814). And to these must be added his very important work on the early geography and antiquities of Spain, entitled "Sumario de las antigüedades romanas que hay en España, en especial las pertenecientes a las bellas artes" (1832), which was issued at the public expense.

**CERISES.\*** The Dutch possessions on this island are of no intrinsic importance to that nation, the expense of maintaining them far exceeding the revenue which they yield. They are of consequence, however, as furnishing, at all times, a ready supply of rice, and other provisions, to the Moluccas, or Spice islands. The residence of the governor is in Fort Rotterdam, in the vicinity of which, and on the site of the former town of Macassar, is situated the large settlement of Vlaardingen, inhabited by Dutch, Chinese, and natives. There are two Dutch settlements in the N. E. portion of the island, Manado and Gorontalo, which are governed by *residents*, who are themselves subject to the authority of the governor of Ternate.

**CEMETERY.\*** The celebrity of the cemetery of Père la Chaise has produced the effect in several other countries, besides France, of causing the laying out, in the neighbourhood of large towns, of burying grounds, in a more ornate, and sometimes more picturesque manner, than had hitherto been usual. In a few instances, perhaps, municipal regulations, founded on a growing conviction of the unhealthiness of interring the dead in the midst of a crowded population, may have contributed to the selection of a more secluded spot for this purpose; and the splendid monuments erected in it, occasionally over the graves

of even very insignificant persons, were calculated to gratify the vanity of friends, however displeasing or offensive they might be to the more correct and fastidious taste of a stranger.—Among the cemeteries in the United States, those most deserving of especial mention are that of Mount Auburn, noted for its designed irregularity, as well as the good taste exhibited in the structure and style of many of the monuments; that at New Haven, a sort of city of the dead laid out by mathematical rule; and Laurel Hill cemetery near Philadelphia, partaking in some degree of the different characters of the former two.

**CENTRAL AMERICA.\*** See *Guatemala*, (Sup.)

**CEPHALONIA.\*** The population of this island in 1814 was 45,399: in 1834 it amounted to 30,875 males, and 25,951 females,—in all, 56,826. The great majority of the inhabitants belong to the Greek church; the remainder are chiefly Roman Catholics. Argostoli and Lixuri, situated on opposite sides of the bay of Argostoli, are the principal towns. Cephalonia had, in 1834, 85 schools, containing 1711 pupils; and 12 of the schools, having 504 pupils, are public, costing the government £867 sterling.—The raisins of this island are the most esteemed of any in Greece, those of Zante only excepted.

**CERAM;** one of the Molucca islands, situated between the islands of Amboyna and Sunda. It is about 185 miles long and 30 broad, with a surface of 5500 sq. miles. It has large forests of sago-palm, the produce of which constitutes much of the food of the inhabitants; and there are fine woods suited for cabinet work. In one portion of the island, great quantities of nutmegs and cloves were formerly produced; but the trees were extirpated by the Dutch about the year 1652. The interior is inhabited by the Haraforas, a Polynesian tribe; people of Malay race live on the coasts.

**CERATE;** a composition made of oil, wax, and other ingredients, used externally in several diseases, where plasters are necessary.

**CERIGO.\*** Population, in 1834, including the little island of Cerigotto, 8579; Greeks, and of the Greek religion. The chief town is Capsali, at its S. extremity. In 1834, there were 11 schools with 475 pupils: 9 of the schools, containing 403 pupils, were public, and were supported at an expense to the government of £204 sterling.

**CERUMEN;** the wax, or viscid yellow

liquid which flows from the ear, and hardens on exposure to the air. It consists of albumen, an oily matter, a colouring matter, soda, and phosphate of lime.

CEVALLOS\* died, in 1838, at Bayonne, where he had resided for several years previously.

CEYLON.\* According to a census taken in 1835, the population of this island consisted of 9121 whites, 1,194,482 free persons of the different coloured races, and 27,397 slaves; amounting altogether to 1,241,825. While the distinctions of caste are recognised, and in some instances scrupulously preserved, by the Cingalese, they respect them only in their civil, rejecting their religious influences. The other inhabitants of the coast consist of Dutch, Portuguese, and English colonists; some Caffres and Javanese; a few Chinese and Parsee traders; and a various population, sprung from the intermixture of these with each other and with the native races. The common language of the Cingalese is a dialect of the Sanscrit; their sacred language, like that of the Birmans, is the Pali.—There are 16 places of public worship belonging to the Church of England, and 32 belonging to other Protestant denominations; and there are also numerous Roman Catholic chapels.—In 1831, the number of schools in the island was 1055, of which 99 were supported by the government; 56 by the missionaries of the Church of England; 86 by the Methodist, 16 by the Baptist, and 100 by the American missionaries; and 90 others by the Roman Catholic priests or missionaries. The greater part have been established on the W. and S. coasts; few of them in the interior; and the two most important are the government academy at Columbo, where the usual branches of a classical and mathematical education are taught, and the classical and theological school of the American mission at Batticaloa. Presses have also been established in several places on the island, for the printing of religious and school books.—The governor is invested with both executive and legislative powers; but in the exercise of the latter he is assisted by an advisory council, the members of which are appointed either by himself, or the secretary of state for the colonies. In 1835, the public revenue was £371,695, and the expenditure £323,277, exclusively of that incurred in England on account of Ceylon; which last amounted, in the same year, to £113,345. The principal articles exported are coffee, cinnamon, pearls, cocoa-nuts, cocoa-nut oil, arrack, areca-nuts,

and tobacco; and the imports consist principally of cotton goods and grain (mostly rice). The total value of the former, in 1835, amounted to £199,268; of the latter to £352,077. Were it not for its being a government monopoly, salt would probably become an important article of exportation. It is stated that it can be imported at Calcutta at two-thirds the price of the salt produced in India; and according to Col. Colebrooke, this island supplied Bengal with it, before the existence of the Dutch monopoly. Under the government of the Dutch, who were the first to cultivate the cinnamon plant, this spice was also strictly monopolised, and severe laws were enacted against those who cut down or peeled trees without the cognizance of government, though on their own property. The monopoly was abolished in 1833; but the advantages that would naturally have grown out of this wise measure have been counteracted by laying a duty of no less than 3s. per lb., or 300 per cent. ad valorem, on the exported article. The pearl fishery in the Bay of Condatchy was formerly, equally with the salt and the cinnamon of the island, a government monopoly, but is now free, and forms a profitable employment to many of the inhabitants of the neighbouring coast. The Ceylon pearls are whiter than those of Ormuz, or the Arabian coast; and the natives are very expert in cutting and drilling them.—Some progress has been made in improving the communications of the island. There is a canal between Calpenteen and Columbo, by which merchandise is conveyed during the S. W. monsoon. A fine road has been constructed from Columbo to Candy, on which a mail-coach runs; carriage roads also extend from Columbo N. to Chilaw, and S. to Matura. Many rapid and unfordable streams have had iron and wooden bridges thrown across them, among which is that of Paradeinia, across the Mahavilly Ganga, which consists of a single arch, with a span of 205 feet, principally composed of satin wood.

CHAFF; the husk or withered calyx of grasses, and more especially of the bread corns. The term is also applied to straw or hay cut into very short lengths, and used for mixing with corn, roots, or other food for horses or cattle. This kind of chaff, in greater lengths, is also used for mixing with mortar in some parts of Europe, more particularly in Germany and Russia; and it is used as a substitute for hair in making plaster for rooms. Both stubble and cut hay were used by the ancient Egyptians in making bricks.

**CHALMERS** (Alexander) was born, at Aberdeen in Scotland, in 1759. Having received a classical and medical education, he obtained, in 1777, the situation of a surgeon in the West Indies; but after he had already arrived at Portsmouth to embark for his destination, he altered his mind, and proceeded to seek his fortune in London. There he became connected with the public press, and acquired considerable reputation as a political writer. Besides contributing to several of the newspapers and critical journals, he was for some time the editor of more than one of the former. And in addition to his labours of the kind referred to, he was very much occupied in editing, for the booksellers, many of the standard works of English literature, as well as in the preparation of his "General Biographical Dictionary" (32 vols., 1812-17), and of various separate pieces of biography. The most important of his *editions* are those of the "British Essayists," beginning with the "Tatler," and ending with the "Observer," with prefaces, biographical and historical, (45 vols., 1803); of Shakspeare (9 vols., 1803), with an abridgment of the more copious notes of Stevens, and a life of the great dramatist; and of the English poets, from Chaucer to Cowper, including the series previously edited by Dr. Johnson, and the most approved translations (21 vols., 1810).—He suffered greatly from disease during the latter years of his life, and died in London, December 10th 1834.

**CHALMERS** (George) was born in 1742, at the village of Fochabers, which is situated partly in the county of Banff, and partly in that of Moray, in Scotland. After receiving the elements of his education in his native place, he became a student of the King's College, Old Aberdeen, and subsequently studied the law at Edinburgh. He then emigrated to North America, where he practised in the colonial courts for ten years. On the occurrence of the American revolution, he adhered to the side of the mother country, to which he returned, and went to reside in London. There he was appointed, in 1786, clerk of the Board of Trade, a situation which he held till his death in 1825.—He wrote extensively on various subjects; and the principal works published by him are the "Political Annals of the United Colonies" (1780), "On the Comparative Strength of Great Britain during the present and four preceding Reigns" (1782), "Opinions on Public Law and Commercial Policy" (1784), and an historical and topographical account of North Britain,

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from the most ancient times, entitled "Caledonia." The last work was intended to be completed in 4 quarto volumes but he only lived to publish the second. The first volume contains the historical portion, furnishing a clear and excellent account of the Scots and Picts since the Romans first penetrated into the N. part of the island. Chalmers is the author also of a life of Daniel De Foe, of a life of Thomas Ruddiman, and of a life of Thomas Paine.

**CHAMBERTIN**; a famous vineyard of France, in the department of Côte d'Or, producing at an average from 130 to 150 pipes of one of the best red Burgundy wines. It is exported far and wide; although much of the wine called by this name is, in reality, of an inferior quality, and the produce of neighbouring vineyards.—Chambertin was the favourite wine of Louis XIV. and of Napoleon.

**CHAMBORD**.\* After the revolution of July 1830, the right of the duke of Bordeaux to this estate was brought into question, on the ground of the national domains in the possession of the members of the Bourbon family having been declared to be confiscated. The suit, which was, in consequence, instituted in relation to it, was brought to a conclusion in January 1841, by the decision of the court of Cassation, that it did not come under the designation of national domains, but was the property of the duke of Bordeaux, lawfully acquired by the grant of the donors. That court, however, also decided that, inasmuch as no descendant of the elder branch of the Bourbons was allowed to hold lands in France, the estate should be sold; which, nevertheless, had not taken place so late as the beginning of the year 1843.

**CHAMPAGNE WINE**.\* There is no wine which has been imitated to a greater extent, or more successfully, at least in some cases, than this. In Germany, from some of the light wines of the country, those of the Rhine, Maine, Neckar, &c., for example, others have been compounded, so closely resembling Champagne, that connoisseurs themselves have been deceived by them. Well-known establishments for their manufacture exist at Eßlingen, Heilbron, Berg, and other places. In France, too, various processes are employed for imitating the genuine Champagne wine; and it is said that the greater part of the Champagne which is sold in the city of Paris itself is produced there, either by impregnating other wines with carbonic acid gas by mechanical means, or by mingling with them ingredients that, by ac-

ing chemically on each other, develop carbonic acid gas, and give them the sparkling appearance so well known. And in the United States a wretched preparation from other wines, and even from cider, is not unfrequently thrown into the market, and palmed upon the community as Champagne.

**CHAMPOLLION\* the younger.** The accounts rendered by him of his journey to Egypt in 1828 are to be found in the collection of his "Lettres écrites d'Égypte et de Nubie," published, after his death, in 2 volumes. On his return to Paris, he occupied himself in the preparation of the abundant materials which he had accumulated in relation to the countries he had visited; but in the midst of his labours, he was carried off by the cholera, on the 4th of March 1832.—The manuscripts which he left behind him were purchased by the Royal Library at Paris for the sum of 50,000 francs. Of these there have been printed the "Grammaire Égyptienne" (3 vols. 1838-41), and the "Monuments de l'Égypte et de la Nubie d'après les dessins exécutés sur les lieux, sous la direction de Champollion" (4 vols., fol. and 2 vols. 4to. 1840-41). The views of Champollion, concerning the Egyptian hieroglyphics, have been controverted by Klaproth, Seyffarth, and others.

**CHAMPOLLION-FIGÉAC\*** was appointed in 1828 conservator of the manuscripts in the Royal Library at Paris, and has, since that period, conferred a service on the student of history, by the publication of various important documents,—for example, the "Documents historiques tirés de la bibliothèque royale" (vol. 1st, 1842), and the "Lettres des rois, reines et autres personnages des cours de France et d'Angleterre" (2 vols. 1840). And to these must be added that sumptuous work, the "Paléographie universelle," of Silvestre (1839, with 300 copperplates), the text of which was furnished by Champollion, and his nephew, Aimé Champollion.

**CHANNING** (William Ellery), D. D., was born at Newport, in Rhode Island, on the 7th of April 1780. His father was a distinguished lawyer of that place; his mother, to whose piety and faithfulness he has himself borne an affectionate and grateful testimony, was a daughter of William Ellery, who was a member of the American Congress from 1776 to 1785, and one of the signers of the Declaration of Independence. Dr. Channing was graduated at Harvard College in 1798, with the highest honours of the institution. After completing his collegiate studies, and be-

fore his preparation for the ministry, he entered as a tutor the family of a gentleman in Virginia. He there suffered severely in health; and his constitution, before remarkably robust and healthful, was from that time enfeebled to the close of his life. After pursuing his theological studies, he accepted an invitation to become the pastor of the church in Federal street, Boston, and was ordained June 1st 1803. The society worshipping there was then small; and on this account he preferred the situation to another which was offered to him, thinking that his state of health required light labour. He was at once distinguished as a preacher and loved as a pastor; so much so, that his society, by the addition of members from all the walks of life, increased to a degree which rendered necessary the erection of a new and larger house of worship. The health of Dr. Channing was much improved, and his mind and heart filled with new thoughts and purposes, by a visit to Europe. He continued to discharge alone the duties of his office till 1824, when a colleague was associated with him. He retained his connection with his society until his death; though by his own request, he was relieved from the obligation of performing any public functions, in May 1840.—As a theologian, his reputation, beyond the immediate sphere of his labours, dates from the appearance, in the "Christian Disciple" for 1820, of his "Moral Argument against Calvinism;" and as an essayist, he attracted extensive notice by his "Remarks on the Character and Writings of Milton and Fenelon," and on the "Life and Character of Napoleon Bonaparte," inserted in the "Christian Examiner," in 1826 and 1829. A volume, containing a collection of Dr. Channing's writings, was published at Boston in 1830, under the title of "Reviews, Discourses, and Miscellanies." He continued, also, to produce occasional tracts, discourses, and other writings, during the remainder of his life. The subjects treated were chiefly war, temperance, public education, the church, and the abolition of slavery, of which measure he was an earnest advocate. That he was one of the most striking writers of the present age is universally conceded; and his works, besides their attractions of style, are all animated by a pure and lofty moral spirit. Of all controversial writers too, he was remarkable for freedom from personal invective and temper, as well as for a devoted love of truth.—Dr. Channing passed the last few years of his life in much privacy; residing in Boston during the win-

ter, and in Newport in the summer season. While absent from home on an excursion, he was seized with typhus fever, and died at Bennington in Vermont, on the 2d of October 1842. His remains were interred in the cemetery of Mount Auburn, near Boston.

**CHANTILLY**, a small and pleasant town of France, in the department of the Oise, 24 miles from Paris on the road to Amiens; but it deserves to be mentioned chiefly on account of its magnificent castle and park, until the revolution the seat of the illustrious family of Condé. The "Grand Château" was destroyed at that period; and all that now remains are the "Petit Château," the "Château d'Enguien," and the stables: the latter are unequalled in Europe. By the testament of the duke of Bourbon, the last prince of the family of Condé, the domain of Chantilly has become the property of the duke of Aumale, the 4th son of Louis Philippe, the present king of the French.

**CHANTRY\*** (Francis). In 1816 he was chosen an associate, and in 1818 a member of the Royal Academy. In the following year he paid his first visit to Italy, where he was elected a member of the Academies of Rome and Florence. During the last 20 years of his life, his career, as a monumental sculptor, was unrivalled. He was knighted by the queen in 1837; at which period he was already a sufferer from disease of the heart; and from this time he finished few works himself. His death took place on the 25th of November 1841.

**CHAPEL**; a term used in England to denote a place of divine worship, either connected with a private establishment, as a nobleman's house, a college, &c.,—or subsidiary to a parish church for the sake of additional accommodation, in which case it is called a chapel of ease,—or a meeting house belonging to a dissenting congregation.

**CHAPTAL\*** died at Paris, on the 30th of July 1832.

**CHARGE**, in gunnery, denotes the quantity of powder and ball with which a gun is loaded. For proving cannon, the charge of powder is equal to the weight of the ball; but for service it is about one-half, or more frequently, about one-third of the weight of the ball.

**CHARKOW\*** Population at present about 25,000. The university, in 1835, had 56 professors and teachers, and 342 students.

**CHARLERoy\*** The fortifications of Charleroy were demolished on the annexa-

tion of Belgium to France; but on the reduction of the latter country to its former limits, after the overthrow of Napoleon, it was again fortified, to serve as one of the defences of the newly constituted kingdom of the Netherlands, on its most exposed frontier.

**CHAR.** Wood is said to be charred when its outer surface has been carbonised by burning, in order to preserve it from decay when it is inserted under ground. The charring of posts used for fencing is a common practice both in Europe and America.

**CHARLES** (Jacq. Alexandre César), an eminent natural philosopher, was born at Baugency in France, November 12th 1746. In his youth, he evinced a general aptitude for the acquisition of knowledge, and a taste for the mechanical arts, as well as for music and painting. He was indisposed to qualify himself for any particular profession or business of life, and accepted, as a means of subsistence, an inconsiderable office in the treasury department of the government; while he occupied or amused his leisure by physical experiments, with an apparatus which he gradually collected. After a few years, however, his office was suppressed, from motives of economy on the part of the existing administration; and he commenced lecturing on experimental science, as a pecuniary resource in this emergency. His ability in explaining, in a popular manner, the subjects of which he treated, united with an extraordinary skill in his manipulations, soon attracted numerous auditors, and acquired for him an extensive reputation. This was, indeed, so great, that not only dukes and princes, but Franklin and Volta, came to hear him. It was also enhanced by the success with which he repeated and extended the recent experiments in electricity, which then, in a peculiar degree, attracted the attention of the scientific world, and by the spirit with which he prosecuted the subject of aërostation, rendered interesting by the discovery of Montgolfier. He was the first person to make use of hydrogen gas, in place of heated air, for the filling of balloons; and he was, with Robert, the first who ventured to undertake an aërial excursion,—an exploit successfully performed, in December 1783. They ascended from the Tuilleries in the presence of the assembled population of Paris, and rapidly attained to an elevation of 7000 feet; then traversing in some minutes a space of 9 leagues, they reached the ground in safety on the plain of Nesle. Charles ascended



a second time alone, and descended again safely, having attained an elevation of 2000 feet greater than he had previously done. The intrepidity, and presence of mind, exhibited by him on this occasion, was in conformity with his general character. An anecdote is related illustrative of this, as also of the temper of Marat, who acted afterwards so conspicuous, and so infamous a part, as the associate of Robespierre, in the French revolution. Marat, it appears, had, at one period, attempted to tread the path of science. Fancying that he had made some discoveries of a nature to overthrow an established law of optics, he called upon Charles to explain them to him; but speedily becoming violently irritated when the latter endeavoured to convince him of the errors he had committed in his investigations, he drew the sword, which, agreeably to the usage of the day, he wore at his side, and would have plunged it into the body of the philosopher, but for the promptness with which he was himself disarmed, and after having been chastised for his conduct, thrust out of doors.—Charles, by withdrawing from the public eye for a time, escaped becoming a victim during the reign of terror; Marat too, most probably forgetting his existence, rather than forgiving him for the corporal infliction he had sustained at his hands. As soon as the times permitted, Charles resumed his lectures. In 1785, he was elected a member of the Academy of Sciences. He was comprehended in the first class of the Institute in 1795, and was, at a later period, its librarian. He died in 1825, a few days after having undergone an operation for the stone.

**CHARLES X.,\*** king of France. After the revolution of the three days, in July 1830, Charles X. abdicated the crown in favour of his grandson, the young duke of Bordeaux, and set out for Cherbourg, whence he crossed the British Channel, and took up his residence at Holyrood House, in Edinburgh. He afterwards removed to Prague in Bohemia, and thence, for the sake of a milder climate, to Goritz in Styria. Soon after his arrival at the last-mentioned place, he was attacked by the cholera, and died on the 6th of October 1836, in the 80th year of his age. He had reigned 6 years, and passed 32 years in exile.

**CHARLES XIV.,\*** king of Sweden and Norway, died on the 8th of March 1844, in his 81st year. He was succeeded by his son, Oscar I.

**CHARLESTOWN.\*** The foundation of the

monument for the commemoration of the battle of Bunker's Hill, which was laid, as already stated, in 1825, having been deemed insufficient, the construction of the present monument was begun in the spring of 1827; and it was completed in the month of July 1842. It is an obelisk 221 feet high, with a base of 30 feet square, and having at the summit a square surface of a little more than 16 feet square. From the summit there is a splendid view of Boston, its harbour, and the environs; and it is visible from a great distance by seamen.

**CHARTISTS.** See *United Kingdom of Great Britain and Ireland*, (Sup.)

**CHARLES** (Victor Euphémon Philarète), a distinguished living French writer, was born at Mainvilliers, in the neighbourhood of Chartres, at the commencement of the present century. After having been carefully educated up to the age of 14, his father, a general of division in the French army, apprenticed him, in accordance with the notions of Rousseau, to a printer, who, having become involved in certain intrigues against the government, was arrested, and his apprentice with him, by the police. By the intervention of Chateaubriant, the latter was soon, however, set at liberty; whereupon he went to England, and remained there 7 years, during which time he pursued, with the greatest diligence, the study of English literature. On his return to France, he contributed a series of articles to the "Revue encyclopédique," the "Revue britannique," and other journals; having for his object to elucidate the principles of a sound criticism, and, more especially, to dispel the prejudices of his countrymen in relation to the literary character of the northern nations. He obtained a prize in 1823, for his memoir of De Thou; and another, in 1827, for his "Essai sur l'histoire littéraire du 16ième siècle." This prize he shared with St. Marc Girardin. In 1827, he also published a collection of some of his reviews and essays, under the title of "Caractères et paysages." He was appointed, in 1830, *conservator* of the Mazarin library, and, in 1841, professor of the literature of the northern parts of Europe in the College of France. On the latter occasion, he published two dissertations; one, in the Latin language, on the affinities of the northern languages to each other; and another, on the historical authority of Flavius Josephus. His activity as a contributor to the public journals has, in the meantime, continued unabated. And it has been said, that his numerous articles

in the "Revue de Paris," the "Revue des deux mondes," and particularly in the "Journal des débats," would furnish, of themselves, a comprehensive view of the intellectual movement of Europe during the four preceding centuries.

CHASSÉ (David Henri, baron) was born at Thiel, in Gelders, March 18th 1765. He entered the military service of Holland at a very early age, and had attained to the rank of captain in 1787, when, through the intervention of the Prussians, the civil dissensions of that country were terminated in favour of the prince of Orange. Having taken part with the defeated patriots, he fled to France, and entered into the French service. He was a lieutenant-colonel in the army of Pichegru, which successfully invaded Holland in the winter of 1795; and he then re-entered the Dutch army. He was present with the Dutch troops, which were attached to the French armies, in several of the following campaigns; and, having risen to the rank of a general officer, was appointed to the command of the corps, sent from Holland to Spain in 1808, to co-operate with the French armies, in subduing the opposition of the Spaniards to the designs of Napoleon. Here he distinguished himself on various occasions; and, after the battle of Ocaña (November 19th 1809), was created a baron, and had an estate conferred upon him, yielding an annual revenue of 5000 florins. Shortly after the sanguinary conflicts of the Pyrenees, in which he had been an active partaker, he was recalled from the Spanish frontier, to assist in the campaign of 1814 against the allies on the Seine and Marne. On the capitulation of Paris, and the consequent conclusion of peace in that year, he once more returned to his own country; when he was appointed, by the king of the Netherlands, a lieutenant-general in his service. In the following year, he commanded a division of Dutch troops at the battle of Waterloo; and, by his good conduct, earned the approbation of the general-in-chief. His next exploit was the defence of the citadel of Antwerp, at the close of the year 1832, against the French army under General Gérard,—an event which, for a time, attracted towards him the general attention of Europe. After the citadel had surrendered, General Chassé was conducted, as a prisoner of war and a hostage, to Dunkirk; whence he returned to Holland immediately on the conclusion of the preliminary convention of May 21st 1833. He resides at present

in retirement, at his seat, in his native town of Thiel, in Gelders.

CHATEAUBRIAND\* was so far from being a partaker in the revolution of July 1830, that he spoke in the Chamber of Peers, with the greatest earnestness, in favour of the rights of the duke of Bordeaux. He also refused to take the oath of fidelity to Louis Philippe; and thus incurred the loss of a yearly income of 12,000 francs. Since that period, he has been ever ready to serve the exiled monarch and his family, with his counsel and with his pen. The political system to which he adheres is contained in his work "De la restauration et de la monarchie élective" (1831). Against the *projet de loi* for the banishment of the elder branch of the Bourbons, he wrote a work, entitled "De la nouvelle proposition relative au bannissement de Charles X. et de sa famille;" and the imprisonment of the duchess of Berry, his own arrest, with other passing events, furnished him with materials for several pamphlets. In 1832, he superintended a new edition of his works. In May of the following year, he undertook a journey to Prague, then the residence of Charles X., partly in reference to the affairs of the duchess of Berry, and partly, also, in order to concert in respect to the general policy to be adopted by the legitimists. Not long after this, he addressed a letter to a committee of an association of certain young men, who had it in view to establish a new convent, to be subjected to the rule of St. Benedict, applauding their intention, and consenting to join them as an honorary member of the society to be formed. Latterly, he has been chiefly occupied with the preparation of his own memoirs, which, as their title, "Mémoires d'outre-tombe," indicates, are to appear only after his death. His "Congrès de Vienne, Guerre d'Espagne" (2 vols. 1838) must be regarded, however, as a fragment of these memoirs. In 1837, he published a French translation of Milton, not remarkable for fidelity to the original; and the "Essai sur la littérature anglaise," connected with it, is filled with distorted and prejudiced views.

CHATEL (Abbé Ferd. Franç.), the founder of what has been, of late years, styled the "French Catholic Church," was born, January 9th 1795, at Gannat, in the department of the Allier. After studying theology at the seminary of Montferrand, he became successively vicar at the cathedral of Moulins, curate at Morretay, in the department of the Allier, and chaplain

in the army. Already, in the reign of Charles X., he was conspicuous among the catholic clergy for the liberality of his opinions on religious subjects; but it was only after the revolution of July, that he ventured to take upon himself the character of an apostle of reform. In August 1830, he commenced the establishment of his new worship at his own apartments in Paris, transferring the seat of it from one part to another of that city, as the number of attendants increased; which they continued for a time to do, notwithstanding the condemnation pronounced by the pope against the attempted innovations.—The principal peculiarities of the Abbé Chatel and his church, as distinguished from their Roman Catholic brethren, were that they acknowledged no authority merely human, but only God, to be infallible, and, as a consequence of this, no right of excommunication; that they used their vernacular tongue in every part of their worship; that they held that the clergy should now, as in the primitive ages of Christianity, be permitted to marry; that all religious fasting or abstinence was improper; and that all who died were entitled to Christian burial.—The new church remained unmolested by the government, for a period of more than 12 years after its origin. But, on the 28th of November 1842, its doors were closed by the police. The Abbé Chatel thereupon went to Brussels; whence he protested against this procedure. In 1843, he published a journal, under the title of the “Réformateur religieux;” but not having given the required security (*caution*), he incurred the penalty of the law, and the journal was suppressed.

CHAUDON\* died May 26th 1817.

CHAUNCEY (Commodore Isaac) was born at Black Rock, Fairfield county, Connecticut. His father was a respectable and wealthy farmer; and both his parents could trace their descent from the first settlers of New England. At an early age, and at his own earnest desire, he went to sea, in charge of one of the principal ship-masters sailing from the port of New York. He soon evinced a remarkable energy of character, and very rapidly acquired a thorough knowledge of his profession; so as to obtain the command of a vessel when he was only 19 years old. Several successful voyages were made by him to the East Indies, in ships belonging to Mr. J. J. Astor, who bore strong testimony, on various occasions, to his character and qualifications as an accomplished seaman. In 1798, he obtained a commission as a lieu-

tenant in the United States Navy; and served with distinction under Truxtun, Preble, and other commanders. His conduct as the Acting Captain of the frigate Constitution, in the several actions off Tripoli, received the highest praise from his commanding officer, Commodore Preble; and Congress voted him a sword for his skill and gallantry on those occasions.—In the war of 1812 against Great Britain, Commodore Chauncey was appointed, by the government, to the highly important post of commander of the American naval forces on Lake Ontario. “It was generally admitted,” says Mr. J. F. Cooper, “that a better selection could not have been made.” Proceeding from New York, where he had been entrusted with the charge of the navy-yard, to Sackett’s Harbour, then a mere wilderness, he exhibited a most indefatigable activity in making his preparations, for contesting with the enemy the dominion of the lake. A small fleet of merchant-vessels was armed, and in other respects equipped, in the autumn of 1812; and, in the following spring, a sloop of war, of the largest dimensions, and a frigate, were completed,—the first in 28, and the latter in 44 days, from the laying of the keel. The operations of the force under Commodore Chauncey’s orders were conducted throughout the war with the greatest ability; although he failed in his efforts to bring the British commander, Sir James Lucas Yeo, to action. This distinguished officer, when his antagonist’s guest at Sackett’s Harbour, a few days after the peace, alleged, as the reason for his systematically avoiding an engagement with the Americans, that he acted under the instructions of his government, which regarded a victory, on his part, as involving at most the destruction of the enemy’s fleet; but a defeat, on the other hand, as likely to lead to the entire loss of Canada.—On the conclusion of the war, Commodore Chauncey was appointed to the Washington, of 74 guns; and, in 1816, to the command of the U. S. squadron in the Mediterranean, consisting of 1 ship of 74 guns, 3 frigates, 3 sloops of war, 1 brig, and 1 schooner. While engaged in this service, he negotiated, in conjunction with the late William Shaler, the American consul-general in Algiers, the treaty with that power, which continued in force until its conquest by the French in 1830;—the treaty that had been concluded by Commodore Decatur having been immediately afterwards violated, on the part of the Algerines, by acts of piracy committed on our commerce, and the mal-treatment of

American citizens. At every port, too, which he visited, Commodore Chauncey did not fail to make a most favourable impression, by his uniformly dignified, and yet conciliatory deportment, as well as by the exact order, and high state of discipline, maintained on board the vessels composing the squadron under his command. He returned to the United States in 1818; and, after a short season of repose at his estate on the East River, not far from the city of New York, he was, in 1820, called to Washington city, to fill the post of a Navy Commissioner. This he continued to do until the year 1824; when he was appointed to the command of the New York navy-yard and station. He was re-appointed one of the Board of Navy Commissioners in 1833; and served as such down to the period of his death (he was then the president of the Board) on the 27th of January 1840. The naval service of his country lost in him one of its most distinguished ornaments, and his family one who had, in the several relations of private life, ever conducted himself in the most exemplary manner.

CHAUVEAU-LAGARDE\* was appointed, in 1823, a counsellor of the Court of Cassation; an office which he subsequently, however, resigned in favour of his son. Since then, he retired altogether from the practice of his profession, and resided mostly in the country. He died at Paris, February 20th 1841.—He must not be confounded with an eminent advocate of the name of *Adolphe Chaveau*, who is at present a professor of administrative law, or legal procedure, at Toulouse; and who has made himself extensively known by his excellent "Théorie du code pénal" (4 vols. 1836).

CHAUVELIN.\* The continued feeble state of his health induced him to retire from the Chamber of Deputies, in July 1829; and he lived, thenceforth, entirely abstracted from public affairs, at Citeaux, near Nuits, where he established several factories, which did not, in the end, fulfil the expectations he had been led to entertain respecting them. After the revolution of July, to which he had himself contributed by his vehement opposition to the Bourbons, he entered once more into political life, but was carried off by the cholera, on the 9th of April 1832.

CHAVES (Emanuel de Silveyra, count of Amaranthe, marquis of), born about the year 1780, was the principal actor in the different revolutions which took place in Portugal in favour of the absolutists, from 1820 to 1830, on the 7th of March of

which year he died at Lisbon.—Though none had served the cause of Don Miguel so effectually as the marquis of Chaves, he was, during the last years of his life, not merely neglected, but despised and hated, by the latter; which treatment of him aggravated the alienation of mind that had occasionally before affected him, and no doubt contributed to his death.

CHELSEA,\* forming part of the W. suburbs of London, on the left bank of the Thames, has a population of from 30,000 to 40,000. It contains the royal military hospital, finished in 1690, on a plan of Sir Christopher Wren. This institution has usually about 550 in-door pensioners, consisting of veteran soldiers, who, besides food and clothing, receive weekly pay, varying, according to rank and service, from 8d. to 3s. 6d. The out-door pensioners amounted, in 1836-7, to 79,500. Their pensions vary from 4½d. to 2s. a day, a few of them receiving from 2s. to 3s. a day; and the total expenditure incurred on their account, in the year just mentioned, amounted to £1,359,463. York hospital is connected with the former; having been built for the reception of wounded soldiers from foreign stations, who are taken into the other as vacancies occur. A military asylum was established here in 1801, for soldiers' orphans, and the children of those on foreign stations; 700 boys and 300 girls being maintained, clothed, and educated in it: the boys, on leaving, enter the army; the girls are apprenticed. Chelsea is also remarkable for its extensive botanic gardens, covering no less than 10 acres of ground.

CHELTEHAM\* is said to contain, at present, more than 40,000 inhabitants. The number of visitors to it in the watering season varies from 8000 to 12,000. In all the springs, chloride of sodium is the predominating ingredient. The other mineral components consist chiefly of the sulphates of soda, magnesia, and lime, oxide of iron, and chloride of manganese,—the three last in smaller proportions. Iodine and bromine have also been detected in several of the springs. They are efficacious particularly in bilious and dyspeptic cases.

CHERUBINI.\* The compositions of Cherubini are exceedingly numerous; and he has known how to combine, in the happiest manner, the science of counterpoint with the graces of a natural style. Nor did he excel in one department only of his art. Beside the operas, or theatrical pieces, of which he is the author, he has composed a number of solemn masses that

are perfect in their kind. His last production is the opera of *Ali-Baba*, represented with great success at the "Académie royale de musique" in 1833.—The conservatoire of Paris is indebted, in a great measure, to Cherubini, for its present flourishing condition. To him must be particularly ascribed the improved system of instruction which has been adopted in composition, and in singing, in that institution, and the unsurpassable precision of its orchestra.—Cherubini died at Paris, on the 15th of March 1842.

CHEVALIER (Michel) was born at Limoges, in France, January 13th 1806. Having distinguished himself at school in his native town, he became a pupil of the polytechnic school at Paris, in 1823, but left this institution afterwards, to apply himself more particularly to the subject of mining, which he then intended to make his profession for life. Becoming, however, soon infected with the doctrines of the St. Simonians, he was drawn aside from his purpose by a desire to contribute, to the extent of his power, in spreading those doctrines among the public. Subsequent to the revolution of July, he was, accordingly, one of the most diligent "collaborateurs" of the St. Simonian journals, the "Organisateur" and the "Globe." Although much less attached to the religious side of St. Simonianism, than to the political, Chevalier remained faithful to *Enfantin* (when the latter separated himself from *Bazard*), and followed him in the colony (*retraite*) in the suburb Mesnilmontant. Here he had several contests with the police who were determined to suppress this association; in consequence of which he was arrested, and condemned to be imprisoned for a time. But before the expiration of the time appointed, his friends succeeded in procuring his liberation, and even obtained a commission for him from the government to visit the United States at its expense, and to examine and report upon the American railroads. In his letters, written during his journey, and communicated to the public through the columns of the "Journal des débats," he did not confine himself to the special object of his mission, but dilated also on the political, industrial, and commercial relations of the United States. These letters were, in 1836, collected and published in a separate form, under the title of "Lettres sur l'Amérique du Nord," in 2 volumes. On his return to France, Chevalier wrote much for the "Journal des débats," and, in 1837, was despatched upon a new mission to England. In that

country, he was so severely injured by being overset in a carriage, that it was only after a stay of many months at a watering-place, on the Pyrenean frontier, his health was again fully restored. Since this period, he has devoted himself chiefly to promote the extension of the system of railroads in France.—In addition to his literary labours above mentioned, Chevalier is the author of a useful work "Des intérêts matériels en France" (1838); of a "Histoire et description des voies de communications aux États-Unis" (2 vols. 1840-42); and of "Essais de politique industrielle" (1843). He has been appointed by the king a counsellor of state, and fills the chair of political economy in the College of France. A course of lectures, delivered by him in that institution, has appeared, entitled "Cours d'économie politique, rédigé par Broët" (1842).

CHEVREUL (Michel Eugène), an eminent French chemist, was born at Angers, August 31st 1786. He distinguished himself early in life, in such a degree as to become the successor, in 1809, of his instructor, the celebrated *Vauquelin*. He was subsequently appointed professor of the physical sciences in the Lyceum Charlemagne, an examiner of the Polytechnic School, and then director of the colouring department at the manufacture of the Gobelins. The last appointment led him to institute a series of experiments on the subject of the colours employed in dyeing, the results of which he communicated, in 1826, to the Academy of Sciences, in a "Mémoire sur les teintures." Previous to this, however, he had acquired an extensive reputation by his "Recherches chimiques sur les corps gras d'origine animale" (1823), the "Considérations générales sur l'analyse organique et sur ses applications" (1824), together with a number of admirable articles inserted in the "Annales de Physique et Chimie." He is the author of all the articles relating to chemistry in the "Dictionnaire des sciences naturelles." In the year 1826, he was elected a member of the Academy of Sciences, and in 1830, appointed professor of Chemistry in the College of France,—an office which he continues to hold. Latterly, he has been a very active contributor to the "Journal des savants."—To Chevreul we owe the first minute and accurate researches concerning indigo. Among his discoveries may be mentioned the margaritic acid, the oleic acid, and more especially that of the two substances, *stearine* and *elaine*, which are the proximate principles of the different kinds of

lets; and from his discoveries, he has been enabled to deduce the true theory of saponification, without which the manufacture of soap must necessarily be nothing more than a blind routine. The later researches of Liebig, Dumas, and others, have confirmed and extended the results arrived at by Chevreul.

CHÉZY\* died at Paris, August 31st 1832, of the cholera.

CHICAGO. Here is a town which affords a remarkable illustration of the progress made, and still making, by the western states of the Union. In 1840, it contained 4470 inhabitants; ten years previously, they did not amount to one-twentieth of this number, whose rude houses, or rather cabins, were clustered together round a fort, garrisoned by U. S. troops, to afford a protection to the whites against any hostile incursion of the neighbouring Indians. It is situated in the N. portion of the state of Illinois, on both banks of the river Chicago, very near Lake Michigan. It has an artificial harbour, constructed at a considerable expense by the general government, and accessible by steamboats and other craft of the lakes. The imports of merchandise into Chicago amount already to several millions of dollars annually; and when the Chicago and Illinois canal, which was begun in 1836, shall have been completed, the town cannot fail to become a vast commercial entrepôt, where the commodities of the Atlantic states, and of foreign countries, will be exchanged for the productions of the immense region extending from it westwards to the foot of the Rocky mountains. The garrison of the fort has been withdrawn, all apprehensions of Indian hostilities having been dissipated by the retirement of the neighbouring tribes to a remote distance from Chicago.

CHICORY. See *Endive*.

CHILBLAIN; an inflammatory swelling occasioned by suddenly warming a cold part, or suddenly cooling a heated part: hence the parts of the body most subject to them are the toes, fingers, ears, &c. They are not unfrequently produced by holding the hands or feet to the fire, after they have been exposed to great cold; in which case the difference of temperature is such as actually to burn the part. The itching and pain of the chilblain are generally relieved by moderately stimulating applications, such as equal parts of vinegar and spirits of wine, or of oil of turpentine and soap liniment.

CHILE.\* Of the Indian population, a portion live in *missions*; but the majority

continue to dwell in a state of independence in the region S. of the Biobio. Much more than justice was rendered to the ancestors of these Araucanians, as they are still often called, in the poem of Ercilla, if we are to form an opinion of them from the condition of their descendants at the present day. The latter have, indeed, been represented by travellers as very little farther advanced in civilization than the wild and wandering tribes of Patagonia.—The mean elevation of the loftiest ridge of the Andes, in Chile, is somewhat more than 10,000 feet; although several peaks rise to a much greater height, and even higher than the celebrated Chimborazo. Aconcagua is the principal of these: it has been proved to be at least 23,000 feet in height. At intervals, it is an active volcano. The northern provinces, being at a distance from this and other volcanoes in the S. of Chili, which apparently act as safety-valves, are especially subject to earthquakes. Shocks are felt in some parts almost daily; and the country is almost desolated by them. In 1819, the town of Copiapo was totally destroyed; and in 1835, Concepcion, and other towns on the coast in the middle provinces, were nearly ruined by an earthquake.—The shores are mostly high, steep, and rocky, as is general along the whole W. coast of S. America. They have almost every where, however, deep water near them, and there are many tolerable harbours, the best being those of Valdivia, Concepcion, Valparaiso, and Coquimbo. Valparaiso is the chief port, and the centre of the foreign trade; in 1835, 436 trading vessels, of the burden of 86,429 tons, entered its harbour. Of these, 93 were British, 73 American (U. S.), 44 French, and 150 Chilean; the burden of the last amounting to 18,480 tons. Chile is supposed to be the only American state, formerly subject to Spain, whose commerce has increased since the separation from the mother country. This increase has been very rapid of late years. According to an official report, in the year 1833, from 18,000 to 20,000 packages of foreign goods were deposited in the free bonding warehouses; the number in 1834 had augmented to from 70,000 to 80,000. The customs collected from 1825 to 1829 were, at an average, \$638,670 a year; and in 1834 they amounted to \$1,241,080. Great Britain has a larger share of the foreign trade than any other country; next come the United States; and then France. The total average annual value of British goods imported is estimated at about 6,000,000 dollars; of the imports from the

United States, at about 2,500,000 dollars. These consist chiefly of tobacco, spermæti, candles, oil, and manufactured goods. The exports to the United States are chiefly hides, copper, seal-skins, and bullion. Few accommodations or conveniences exist for the internal commerce of the country. The high ridges, which every where separate the valleys, are passable only for mules; and the roads suited for carriages are almost confined to the two leading from the capital, Santiago, to Valparaiso and Concepcion. Poeppig says that there are but three or four bridges of any size in all Chile, and these have been mostly ruined during the war. The mountain torrents and ravines are crossed in some places by Indian hanging-bridges made of osiers and thongs of raw hide, which sometimes sway from side to side, with the weight of the person crossing them, in a terrific manner.—The public revenue, which, in 1831, amounted to \$1,517,537, has since been steadily increasing, and in 1836 amounted to \$2,175,000. The state expenditure in the same year amounted to \$1,840,204, leaving a surplus of upwards of \$330,000. According to subsequent accounts, the revenue in 1838 was, in round numbers, \$2,275,000, and the expenditure \$1,150,000. Ever since 1835, there has been a surplus of the revenue over the expenditure. The domestic debt amounts to about £5,000,000 sterling. The foreign debt amounts to £1,000,000, raised by the issue of bonds in England in 1822, bearing interest at 6 per cent., and which were disposed of at 70 per cent. The interest has remained unpaid since September 1826.—In August 1828, under the administration of General Pinto, a constitution was adopted by the Chilese. Pinto was succeeded, on the 5th of April 1831, by Prieto as president of the Republic, who accomplished, at length, the task of restoring the country to a state of tranquillity, and originated a number of useful laws. An insurrection, however, against the government, which had its source in Peru, broke out in 1837, and was only suppressed after much blood had been shed. Chile declared war, in May of that year, against Peru, then united with Bolivia under the presidency of General Santa Cruz. The contest was prolonged until the month of March 1839, when it was terminated by the expulsion of Santa Cruz. Subsequent to this event, Chile has enjoyed a well-earned repose, and is on the way to become perhaps the most flourishing and powerful of the new American republics.

CHILOS\* was the last possession held by Spain on the Pacific coast of America; and it has belonged to Chile only for a few years. The population of the whole archipelago is estimated at present at 44,000.

CHIMAY.\* The princess of Chimay died at Brussels, January 15th 1835.

CHIMBORAZO\* is not, as was long supposed, the highest summit of the Andes. See *Andes*, (Sup.)

CHINA.\* This name has been borrowed from the Malays, who call the country *Tchina*. The practice of the Chinese is to call their empire after the name of the reigning dynasty, which is at present *Thising*. Hence they speak of themselves as *Thising-Jen*, or men of Thising.—Very different statements have been given of the population, and we have no adequate means of determining what it is in reality, with any approach to the truth; though it is easy enough to show that on some of those statements no reliance whatever can be placed. Perhaps the most reliable one is that of the Jesuit Amyot, founded on official documents, who estimated the population in 1743 at 143,000,000, which, adding for some classes omitted by him, may be carried to about 150,000,000. In 1792, the British ambassador, Lord Macartney, was informed by a mandarin, “a plain, unaffected, honest man,” whose statement is also said to have been made on the authority of official documents, that the population was 333,000,000; and by a census, said to have been taken so late as 1813, it is made to amount to upwards of 362,000,000. Some accounts make the number of persons who dwell in floating habitations on the rivers, in order, as it is said, to avoid the payment of the tax imposed upon those who reside on the land, to amount to as many as 20,000,000. In comparison with the Chinese, properly so called, the Tartar races, especially the Mandshus and Tunguses, by whom they have been successively conquered, and who are still invested with the offices and dignities of the empire, are but few in number. Besides these, there are various semi-savage tribes, among them Malays, the latter of whom inhabit chiefly the island of Formosa; also about 50,000 Jews; whose ancestors, as we are told, emigrated to China before the commencement of the Christian era; Bucharian, Armenian, and Parsee merchants, settled in some of the commercial towns; together with some families of Cossacks settled at Peking, the descendants of prisoners made long ago by the Chinese in Siberia. Free access to the interior of the country is forbidden even to

the inhabitants of the contiguous countries; and two or three of the sea-ports of the empire are open only to the temporary residence of foreigners.—The Mandshu is the language of the court; and it is employed, concurrently with the Chinese, in the administrative and legal acts of the government.—There is no religion in China actually supported by the state, and Yu, the doctrine of Confucius, is the only one countenanced by it, although the other pagan sects are undisturbed in the exercise of their respective rites. Jews and Mohammedans, too, are permitted to worship freely. Christianity is reported to have been introduced into China by certain Nestorian bishops, who had been driven eastward, about the middle of the 7th century, by persecutions in the Roman provinces; the profession of it was also propagated to a considerable extent by the Jesuit missionaries, in the 17th and 18th centuries. The Jesuits were expelled from China in 1724; and their disciples subjected to various persecutions. At length, in 1828, the few Catholic missionaries who were still allowed to reside at Pekin, as almanac-makers, were obliged to quit the country. As many as 80,000 Roman Catholics are, however, still said to be found there. By virtue of treaty arrangements between China and Russia, a Greek ecclesiastical mission is supported by the emperor of Russia at Pekin, for the religious instruction of the Cossacks in that city. Of late years, earnest efforts have been made by Protestant missionaries to diffuse the blessings of Christianity among the Chinese. (See *Missions*.)—Education is held in such estimation in China, that distinction is only to be obtained by learning. Even the sons of the emperor and their families merge into the common mass, should they not study, so as to become qualified for some official employment. Every literary honour confers the title of mandarin; and it is only by repeated examinations that a mandarin is advanced in rank. All state employments are given, *by competition*, to the best scholars. To procure the highest of them, an examination before the national college or *Han-lin* is necessary; but the very pinnacle of fame is only arrived at by being examined by the emperor himself. The schools established all over the empire are superintended by various officers appointed by the government. Reading and writing may almost be said to be universal. To writing, indeed, particular attention is paid; for no man who does not write a good hand can lay claim to any literary

distinction. But with all this attention to education, the Chinese carry their blind conservatism of every thing ancient so far as to regard genius and originality rather as a blot upon, than as an ornament to the character of a student. Memory is the chief object of admiration,—memory to repeat the greatest number of the wise sayings of the ancient sages. All that has been said relates to the education of the males. The females of the higher class are permitted to acquire a little reading and writing, and have been known to write poetry; but the great object of their education is to inculcate upon them obedience.—The external commerce of China has hitherto been inconsiderable when compared with the great resources of the country. This has arisen partly from the variety of agricultural and manufactured products exchanged by means of the vast internal trade; but chiefly from the intercourse with Europeans being prohibited except at the single port of Canton, a port most unfavourably situated for foreign commerce, from its lying on the S. coast, far removed from the most fertile and populous provinces, and at the farthest extremity from the metropolitan province. The policy of thus confining the European trade to a place so little suited to its extension, is attributed to the desire of the Chinese government to remove the danger of foreign quarrels from the neighbourhood of the capital, and to derive the largest possible revenue from transit-dues. In the early period of European intercourse with the east, a more liberal spirit prevailed; and the English E. I. Company possessed factories, both at Tay-wan in Formosa, and at Amoy. Owing to losses sustained at these establishments, they were, after some years, abandoned, and the trade removed to Canton. The oppressive exactions at the latter place induced the English to re-open the communication with Amoy; but in 1757, all attempts of this kind were foreclosed by a decree of the emperor Kien-Lung, strictly limiting European intercourse to Canton. Since that time, various endeavours were made by the British, and other European states, to negotiate an improvement of their commercial relations with China, but without success. Lord Macartney's embassy, in 1792, failed in procuring more than some slight relaxations at Canton; and Lord Amherst's, in 1816, led to no result whatever; partly, it has been said, from his refusal to perform the celebrated homage of the *ko-tow* to the emperor, though this was done, without any advantage obtained from it, by the



Dutch ambassador, sent to China in 1794. —The great articles of export are tea and silk, with the former of which China supplies the whole world. The average annual quantities of tea exported to various parts of the globe may be as follows:—

|                                      |                 |
|--------------------------------------|-----------------|
| Great Britain .....                  | 36,000,000 lbs. |
| United States .....                  | 10,000,000      |
| France .....                         | 350,000         |
| Holland .....                        | 2,800,000       |
| Russia, by way of Kiachta .....      | 6,500,000       |
| Cape of Good Hope .....              | 200,000         |
| British colonies in N. America ..... | 1,200,000       |
| New South Wales .....                | 500,000         |
| British possessions in Hindostan ..  | 2,000,000       |

Opium, from India, is by far the most important of the imports, though the use of this drug is prohibited by the laws. In the years 1817–18, the quantity imported was 2435 chests, but in the years 1835–36, it had increased to 26,018 chests, amounting in value to \$17,106,903, probably the largest sum given for any raw article supplied by one nation to another, if we except the raw cotton furnished to Great Britain by the United States.—The heaviness of the port charges at Canton, particularly on small vessels, joined to the contraband nature of the opium trade, have led to an extensively organized system of smuggling at Lintin. At this island, situated at the mouth of the river, small vessels tranship their cargoes into larger ones. Ships are also stationed here with rice, which they sell in sufficient quantities to vessels newly arrived, to exempt them from port charges. It is likewise the chief seat of the opium trade; and ships are constantly lying here as depôts for this drug.—The Chinese trade is, however, principally internal, the country supplying most articles necessary for the subsistence or luxury of its inhabitants, and is carried on by means of canal and river boats. Salt is the article most extensively dealt in.—Money consists of the *cash*, made of copper; from 720 to 1100 of them being, according to their quality, equivalent to a dollar. Silver is employed rather as an article of traffic than as a circulating medium; that used as money is cast into the shape of a horse's hoof, and called *tael*, being equal to about a dollar and a half. Gold is also seldom used as currency; but when it is, comes into the market beaten into thin leaves. Credit is little known except at Canton; consequently, paper money has not a very extensive circulation. There are, nevertheless, banks in the large commercial towns, which issue paper.—The most important event in the reign of the present emperor Tara-Kwang, or Tao-Kwang, and perhaps the most important in its consequences of any in the

history of China, is the late contest of the Chinese with the English, growing out of the illicit traffic carried on by the latter at the port of Canton in opium; and some account of which will be found in the article *United Kingdom of Great Britain and Ireland*, in the present volume. By the treaty of peace of August 26, 1842, the emperor of China consented to all the demands of the English; that is, to the payment by four instalments of \$21,000,000, the entire cession of Hong-Kong, and freedom of trade at five ports.—Hong-Kong is the most northerly of a group of islands at the mouth of the estuary leading to Canton, from which it is distant about 100 miles, and from Macao 40. It is eight miles in length, and about two in breadth, and lies in lat. 22° 12' N., long. 114° 13' E. The bay between it and the main land, from one to six miles broad, is deep and spacious, with secure anchorage for shipping, especially as respects the typhoon, the great scourge of those seas. On the whole, the island has few equals as a naval station; and it abounds with materials for building. In other respects, it has few advantages; being rocky, barren, and rather insalubrious. Fresh water, however, is plentiful, and provisions can be readily procured from the adjoining country.—The 5 ports, stated in their order from N. to S., are the following:—*Shang-hai*, a celebrated port of the province of Kiang-nan, advantageously situated in one of the most fertile districts of China, not far from Nan-king, the ancient capital of the empire. It lies on the banks of a navigable stream, adjoining the estuary of the mighty Yang-tse-kiang, the largest river in Asia. *Ning-po* the flourishing emporium of the province of Tche-kiang, lies about 100 miles S. from Shang-hai, from which it is separated by a bay, having at its water-side the well-known island of Chusan. The city is situated about 14 miles up the river Ta-hae, at the mouth of which, contiguous to Chin-hae, there is anchorage for shipping of any size. A little N. of it lies Cha-poo, the principal seat of the trade with Japan. *Fou-tcheou*, the capital of the province of Fo-kien, lies on the Min-kiang, a river navigable for the largest ships to within 10 miles of the town; and which, flowing through the centre of the principal tea district, will enable tea to be brought to Fou-tcheou at a much cheaper rate than over land to Canton. *Amoy* is situated in lat. 24° 20' N., long. 118° 16' E., on a barren part of the coast of Fo-kien. But it is the emporium of the trade with the large

island of Formosa, the granary of the E. coast of China, from which it is distant only 150 miles. Amoy is besides, next to Canton, the chief seat of the commerce of the empire; being the residence of numerous wealthy merchants, who trade with Singapore, Bankok, Manila, the Eastern Islands, and Japan. *Canton* is the fifth of the ports in question.—On the 3d of July 1844, Mr. Cushing, whom the President of the United States had sent as American minister to China, concluded a treaty with it, by the terms of which American merchant vessels are permitted to enter the 5 ports, on complying with the rules established by the Chinese government for the regulation of commerce. American citizens are also authorized by it to construct, in those ports, dwellings, store-houses, churches, cemeteries, and hospitals; and also freely to employ teachers, and other literary assistance, and to purchase books in China. Among many other provisions, too, it was stipulated that subjects of China, who may be guilty of any criminal act towards citizens of the United States, shall be arrested and punished by the Chinese authorities, according to the laws of China; while citizens of the United States, who may commit any crime in China, shall be subject to be tried and punished only by the consul, or other public functionary of the United States, thereto authorized, according to the laws of the United States;—that all questions in regard to the rights, whether of property or persons, arising between citizens of the United States in China, shall be subject to the jurisdiction, and regulated by the authorities, of their own government;—that all controversies occurring in China, between citizens of the United States and the subjects of any other government, shall be regulated by the treaties existing between the United States and such governments respectively, without interference on the part of China;—and that, on the one hand, mutineers or deserters from the vessels of the United States are to be apprehended in China; while, on the other, all Chinese criminals, taking refuge in the houses or vessels of the Americans, are to be delivered up to the Chinese authorities. This treaty, which has been duly ratified by the President and Senate of the United States, is to be in force for 12 years, or longer, at the option of the two governments.

*CHINTZ*; a peculiar style of fast-printed calico, in which figures of many different colours are impressed upon a white or light-coloured ground. It was originally

manufactured in India, but is now made elsewhere.

*CHIOGGIA*; a sea-port town of Austrian Italy, 14 miles S. of Venice, situated on an island of the same name, and connected with the main land by a stone bridge of 43 arches. It has about 25,000 inhabitants, including the suburb of Sottomarina, and is well built. Its harbour is strongly fortified, and has the deepest water (17 feet) of any of the entrances of the lagoon of Venice. It is also the most frequented, that of Malamocco excepted. The trade of Chioggia is active in Italian and German produce; and is facilitated by canals communicating with the Brenta, Adige, and Po rivers. It is the seat of a bishop; and has a cathedral, an episcopal palace, a gymnasium, and other institutions of education or charity.

*CHIPMAN* (Nathaniel) was born in Salisbury, Conn., Nov. 15th 1752. He entered Yale College in 1773; and received a lieutenant's commission in the army in the spring of 1777. At the next commencement, a degree was conferred upon him while in the army. In October 1778, he obtained a discharge from the service. In 1779, he was admitted to the bar, in Litchfield county, Conn., and immediately after commenced the practice of law in Rutland county, Vt. In 1786, he was elected a judge of the Supreme Court, continued on the bench one year, and returned to his practice at the bar. In 1790, he was appointed Chief Justice of the Supreme Court; and continued in that office until the year 1791, when he was appointed Judge of the U. S. Court for the District of Vermont. He was one of the commissioners on the part of Vermont, to settle the controversy between that state and the state of New York; and a member of the convention which, in the year 1791, resolved (yeas 105, nays 2) that application be made for the admission of Vermont into the Union; and, immediately after, Nathaniel Chipman and Lewis R. Morris were, by the Legislature, appointed commissioners to negotiate such admission. In 1793, he published a small work, entitled "Sketches of the principles of Government;" and the same year, published a small volume, containing reports of cases decided by the Supreme Court while he was one of the justices, and dissertations on several branches of the laws; both of which have been long since out of print; although his decisions continue to be regarded as of the highest authority, and have, in some respects, modified the mercantile laws of the State. Having re-

signed his office of District Judge, in October 1796, he was again appointed Chief Justice of the Supreme Court; and, in October 1797, was elected a member of the U. S. Senate.

After the expiration of his senatorial term, he returned to his practice at the bar; and, in the year 1813, was again elected Chief Justice of the Supreme Court; and was re-elected in 1814. In the year 1833, he published a work, entitled "Principles of Government,—a treatise on free institutions, including the constitution of the United States;" a work which exhibits, with characteristic modesty and simplicity of style, and singular clearness and soundness of judgment, an extensive acquaintance, not only with the literature of his subject, but also with the elegant literature of antiquity.

By a constant use of his mental faculties, they appeared entirely unaffected by age until his death, which happened on the 15th of February 1843, in the 91st year of his age.

**CHITTELDOOG**; an inland and fortified town of Hindostan, in the territory of Mysore, but occupied by a British garrison. The fort, enclosed by the town, is a most elaborate specimen of a defended rock. An endless labyrinth of walls of solid masonry winds irregularly up to the summit, guarding every accessible point, and forming enclosure within enclosure. The more exposed points are crowned with batteries; and the ascent is partly by steps, and partly by superficial notches cut in the rock, and scaled with great difficulty. Such is the intricacy of the works, that an enemy might be master of the outer walls, and yet not materially advanced towards the reduction of the fort.

**CHLADNI**\* died at Breslau, on the 3d of April 1827.

**CHLOPICKI**\* (Jos.), one of the most distinguished of the Polish generals, and dictator of Poland, after the breaking out of the revolution in that country, in the year 1830, was born in Gallicia, in March 1772, of a noble family, but in reduced circumstances. He entered the military service of his country when only 15 years of age; and in the contest for the maintenance of the national independence, which not long after ensued, at the combat of Raclawice, he earned the approbation of the commander-in-chief, Kosciuszko, in such a degree that the latter embraced him in the presence of the whole army. After the storming of Praga by the Russians, in November 1794, had extinguished the last hopes of the Poles, Chlopicki lived in retirement

until 1797, when, responding to the appeal of General Dombrowski, he was among the foremost of his countrymen to enlist in one of the Polish legions, then forming in the service of the Cisalpine Republic. In the famous campaigns in Italy of the years 1799 and 1800, he was conspicuous for his bravery and ability on various occasions. After the treaty of Luneville, he went again into retirement, again to reappear on the theatre of European warfare when Napoleon, after the battle of Jena, had penetrated into Poland, and held out expectations to its inhabitants of the restoration of their nationality. He fought, and was distinguished, at Eylau and Friedland. We next meet him in Spain, contributing with his compatriots in arms to destroy the independence of that country. Here he continued, adding greatly to his military reputation, till ordered by the French emperor to join the mighty host which marched, in 1812, into the heart of Russia. He was present at the battles of Smolensk and Borodino, at the latter of which he was severely wounded. As soon as cured, he rejoined the standards of Napoleon; but on being overlooked in a promotion which took place, he resigned his commission, and was residing at Paris, without employment, when the Allies entered that city in March 1814.—In the same year, Chlopicki returned with his countrymen to Poland, and was shortly afterwards appointed, by the emperor Alexander, a general of division in the army of the newly erected kingdom of Poland. Being, however, injuriously treated by the grand duke Constantine at a review, he retired from the army, in 1818, and lived entirely abstracted from public affairs.—When the revolution broke out at Warsaw, in the night between the 29th and 30th of November 1830, Chlopicki kept himself concealed, that he might not become involved in an enterprise, which, in his opinion, could not be otherwise than unsuccessful, as well as disastrous in its consequences. On the following morning, he was, nevertheless, designated by the unanimous voice of the people of Warsaw, as the individual best fitted by his military talents and the respect entertained for his character, to take the lead in the existing emergency. He took his seat in the administrative council only after long hesitation; and, on the 5th of December, he assumed the dictatorship, openly declaring that he did this solely through the force of circumstances, and that it was his determination to resign his authority into the hands of the Diet of the kingdom, as soon as it should be assem-

bled. He immediately exerted all his energies to maintain a strict discipline among the troops, as well as to prevent all irregular or anarchical manifestations on the part of the people, while he endeavoured, by negotiation, to obtain, from the Emperor Nicholas, an assurance that the existing constitution should hereafter be faithfully carried into effect. This course was far from giving general satisfaction; and threats were uttered in the popular assemblies of calling him to account for his conduct. He was induced, in consequence, to lay down the dictatorship, although this office had, in the mean time, been anew conferred upon him by the Diet, on his offering to them his resignation, agreeably to his declared intention of so doing. That his motives for the step which he felt himself compelled to adopt might, however, not be misconstrued, he joined the army as a simple volunteer. He assisted the commander of the army, by his advice, in the sanguinary engagements of the 19th and 20th of February 1831, at Wavre and Grochow, and by his personal daring excited the soldiers to the highest pitch of enthusiasm; so that the advantages, then obtained over the enemy, were in no small measure ascribable to him. The conflict having been renewed on the following days with doubtful success, a great effort was made, on the 25th of February, at the suggestion of Chlopicki, to overwhelm a portion of the Russian army, by unexpectedly concentrating against it all the efforts of the Poles. He performed prodigies of valour, at the head of a regiment which he led against the dense array of the opposing lines; and a fair prospect of making a successful impression upon them was presented, until, severely wounded, he was obliged to be carried from the field, when discouragement seized upon his followers, and the attack failed. On the ensuing 10th of March, he went to Cracow, for the restoration of his impaired health, and subsequently to the baths of Bohemia, thus ceasing to take any further part in the Polish insurrection.

CHOISEUL-STAINVILLE\* was appointed major-general of the national guard during the administration of the marquis Desolles, but resigned that post when M. de Villèle was minister. Until the revolution of July, M. de Choiseul applied himself diligently to the performance of his duties as a legislator in the Chamber of Peers, taking an active part in the discussion of most of the important topics of the time; and such were the respect and confi-

dence which he inspired in the party in opposition to the government of the Restoration, that he was named to be a member, with General Lafayette and Marshal Gérard, of the provisional government that intervened between the substitution of the Orleans for the Bourbon dynasty. Since this event, he has been one of the king's aides-de-camp, and governor of the Louvre, and has also continued to perform the functions of his station with great credit.

CHORIS (Louis), an eminent Russian painter and traveller, was born of German parents at Jekaterinoslaw in Little Russia, March 22d 1795. He was educated at the gymnasium of Charkow, where he exhibited an extraordinary taste and talent for drawing, which, attracting attention, led to his being selected to accompany the naturalist Marschall von Biberstein in his journey to the Caucasus, in 1813. In the following year, he was appointed draughtsman to the expedition round the globe of the brig *Ruric*, commanded by Otho von Kotzebue, which left Cronstadt in July 1815, and returned in August 1818. In 1819, he went to Paris, where he was treated by the leading *savants* with much attention, and, at their suggestion, applied himself to acquire the art of lithography, that his sketches might lose nothing of their originality by being presented to the public through the instrumentality of others. While at Paris he published (1821-23), in folio, his "Voyage pittoresque autour du monde," accompanied by descriptions of mammalia by Cuvier, and observations on the crania of different tribes of men by Dr. Gall. The delineations of natural objects in this work have a freshness, a truth, and an originality, surpassing every thing of the kind before attempted. His "Vues et paysages des régions équinoxiales dans un voyage autour du monde" (1826), in folio, may be regarded as a continuation of the former publication.—His passion for travelling induced him, in the year 1827, to set out on a journey to South America. He landed at Vera Cruz, with the intention of proceeding thither by way of Mexico, and Central America; but on his way from Vera Cruz into the interior, he and his travelling companion, an Englishman, of the name of Henderson, were attacked and killed by robbers, on the 22d of March 1828. After his death appeared his "Recueil de têtes et de costumes des habitants de la Russie, avec des vues du mont Caucase et de ses environs."

CHRISTIANA.\* Population, in 1835, 23,121; in 1801, it was only 9,699. The

university had, in 1840, 27 professors and lecturers; viz. 3 in Theology, 4 in Law, 6 in Medicine, and 14 in science and literature, or the Faculty of Philosophy. There were 700 students; 200 of whom studied Theology, 200 Law, and 140 Medicine. The library contained 126,000 volumes, together with 8000 manuscripts. A regular communication, by steamers, is maintained with Copenhagen and Gottenburg, as well as with the principal seaports on the Norwegian coast. Christiania ranks at present as the first port of Norway in regard to imports, and, in regard to exports, the fourth; the latter having materially declined, owing to the high discriminating duty imposed by Great Britain on timber from the N. of Europe.

**CHRISTINOS.** This term is employed by the Spaniards to denote the partisans of Maria Christina, widow of Ferdinand VII.,—and regent of Spain, from the death of her husband on the 29th of September 1833, till the 12th of October 1840.

**CHRISTOPHER, St.\*** The population, in 1826, amounted to 23,491; of whom only 1610 were whites; 1906 were free people of colour, and 19,865 slaves. According to the last registration, the number of slaves was 20,660; for whose manumission a sum of £331,630 was awarded, as a compensation to the proprietors. In 1837, there were 23,492 inhabitants.—The total value of the exports from the island, in 1836, amounted to £145,703, and that of the imports into it, during the same year, to £96,344. The government is administered by a lieutenant-governor, assisted by a legislative council appointed by the crown, and by an assembly chosen by the people of the colony.

**CHURCH\* (States of the).** The population, in 1833, was 2,732,036.—The revenue, in 1835, amounted to 8,812,961 scudi, derived chiefly from taxes on land, customs, lotteries, and government monopolies of salt, tobacco, alum, vitriol, &c.; the expenditure to 9,429,799 scudi, including 2,547,555 on account of the national debt.—Manufactures, in despite of protections of all kinds bestowed upon them by the government, are in an exceedingly depressed condition. Many a town of Great Britain, of only 30,000 inhabitants, as Dr. Bowring remarks, produces a greater quantity of manufactured goods than all the inhabitants of the Pontifical States.—The total value of the imports from all countries is estimated at £1,456,000 sterling, and the exports at £1,042,000.—The education of the mass of the people in the Papal States is in a very degraded condi-

tion; and, even in the universities, it is only the mathematics, and the sciences which relate to matter, that are taught with any effect. Philosophy, politics, and political economy, are proscribed. There are, however, no fewer than 8 such institutions,—at Rome, Bologna, Ferrara, Perugia, Camerino, Macerata, Fermo, and Urbino. The first two of these have at least 38 professors; and each of the others has 17. The University of Rome was attended, in 1839, by 843 students; that of Bologna is usually attended by from 500 to 600 students; that of Perugia, by about 300; and those of Camerino, Macerata, and Urbino, by about 200 each. The censorship of the press is severe in the extreme; and the gazettes published in the different towns insert nothing not approved by the censors. The importation, too, of books on the moral and political sciences, is absolutely forbidden.—Charitable institutions, of different kinds, abound throughout the Roman States. In Rome, especially, the sums expended on charitable foundations are, in proportion to its extent, twice as large as in Paris; so that one might, perhaps, be at first disposed to think, says Serriatori, that in the Pontifical States, and particularly in Rome, there would be no mendicity existing. But nowhere are the pernicious consequences of indiscriminate charity better exemplified than here, where mendicity, wretchedness, and want, prevail to a frightful extent. The universality of beggary removes all sense of shame; and a large proportion of the population are degraded enough to prefer subsisting on alms, to making any attempts to provide for themselves.

**CIRCASSIA.** See *Russia*, (Sup.)

**CIVIALE (Jean),** an eminent French surgeon, born at Thiezac, in the department of Cantal, July 1792, noted for his discovery of a new method of operating for the stone, styled *lithotrixy*. This he has described minutely in his essay "De la lithotritie" (1827), in the "Parallèle des divers moyens de traiter les calculs" (1836), and again, in his "Traité pratique sur les maladies des organes génito-urinaires" (2 vols. 1837-40). The cases in which he has performed the operation successfully are very numerous. In 1826, the Institute bestowed upon him the sum of 6000 francs, as a testimonial, on the part of that body, to his merits: and, in the year following, the annual prize of 10,000 francs, founded by Monthyon, was conferred upon him by the Academy of Sciences.

**CIVITA VECCHIA.\*** Population 8000,

exclusive of galley-slaves. It is a free port,—that is, a port into which commodities may be imported, and either made use of, or re-exported free of duty; but quarantine regulations are very strictly enforced. The value of the annual imports is about £650,000, or £700,000; and that of the exports is about the same. Marseilles and Genoa have the largest share of the foreign trade; and next to them, England. Fully three-fourths of the ships entering the Papal ports arrive at Civita Vecchia. There is a regular communication, by steamers, with Marseilles, Genoa, Leghorn, Naples, Greece, Egypt, and Turkey.

CLAIRAUT (Alexis Claude), one of the greatest mathematicians of the last century, was born at Paris, on the 7th of May 1713. At the age of 10 years, he was able to read and understand the most profound mathematical treatises; and when in his 13th year, he presented to the Academy of Sciences a memoir on four new species of curves which he had discovered. He was chosen a member of the Academy before he was 18, shortly after the publication of his "Recherches sur les courbes à double courbure." In 1738, he accompanied Maupertuis to Lapland, to determine the length of a degree of the meridian in that high northern latitude. His attention was, in consequence, directed to the theory of the earth's figure; and the results of his investigations were communicated to the public in his treatise "Sur la figure de la terre" (1743). The next important work of which he was the author, was the "Théorie de la lune déduite du seul principe de l'attraction" (1752). He calculated the return of Halley's comet; and, taking into account the attractions of the planets Jupiter and Saturn, he assigned it to the 4th of April 1759, committing thus an error of only 23 days, the comet having appeared on the 12th day of March. But, as La Place has observed, had the mass of Saturn been more correctly known to Clairaut, the error would have been reduced from 23 to 13 days. In 1760, appeared his "Théorie des mouvements des comètes." In addition, too, to the works which have been mentioned, he wrote various scientific memoirs, together with two elementary treatises,—one of geometry, and the other of Algebra,—both of them possessing extraordinary merit, especially the latter. And he also competed honourably with the most eminent of his contemporaries for the prizes, from time to time proposed by the Academy of Sciences. He died in 1765. On the death of his father, who survived him, the government

testified their sense of the merits of Clairaut, by conferring on his only sister, still living, a pension of 1200 livres.—Clairaut had a brother, who, like him, exhibited an extraordinary intellectual development. He died in 1734, at the early age of 12, having, 3 years previously, published an essay "Sur les diverses quadratures circulaires elliptiques."

CLARENCE\* (duke of) succeeded to the throne of Great Britain, on the decease of his brother, George IV., June 26th 1830, under the title of William IV. For his reign, which continued till his death on the 20th of June 1837, see *United Kingdom of Great Britain and Ireland*, (Sup.)

CLARION; a species of trumpet, whose tube is narrower, and its tone more acute and shrill, than that of the common trumpet.

CLARKE (Sir James) is an eminent English physician. After studying his profession at Edinburgh, he travelled through France, Switzerland, and Italy, making the climate and medical institutions of those countries the particular objects of his inquiries. On his return to his own country, he settled at Edinburgh, where he soon obtained an extensive reputation as a practitioner, especially in diseases of the lungs. He subsequently removed to London, on being appointed physician to St. George's Hospital; and became consulting physician to several members of the royal family. After the accession of queen Victoria, he was selected to be her physician in attendance. He is the author of "Medical Notes on Climate, Diseases, Hospitals, and Medical Schools, in France, Italy, and Switzerland; comprising an inquiry into the effects of a residence in the South of Europe, in cases of pulmonary consumption, &c." (1820); of a work on "The Influence of Climate in the Prevention and Cure of Chronic Diseases, more particularly of the Chest and Digestive Organs" (1829); and of "A Treatise on Pulmonary Consumption" (1835).

CLARKS (William). See *Lewis (Memoir)*.

CLARKS (Willis Gaylord) was born at the town of Otisco, in Onondaga county, in the state of New York, in the year 1810. His father had served with credit in the war of the Revolution, and was a man of considerable cultivation of mind. This qualified him, with the aid of the Rev. George Colton, a relative of the family, to superintend with advantage the education of his son, and to lay a judicious foundation for the future acquirements of

the latter. The poetic inclinations of Willis Clarke were manifested at a very early age; and his descriptions of his native scenery were distinguished for their distinctness and force, as was his versification for the ease and harmony with which it flowed. It was not long, too, before he added to these qualities that tone of gentle and even melancholy solemnity, for which his poetic effusions are in general so remarkable.—Mr. Clarke came to the city of Philadelphia when about 20 years old, and was induced to commence here a weekly literary journal, similar in its character to the *New York Mirror*. But becoming satisfied that there was little probability of the profits of the undertaking proving an adequate compensation for the labour applied, he abandoned it after a short period. He next engaged, in conjunction with the Rev. Dr. Brantley, afterwards president of the college at Charleston in South Carolina, in editing the "*Columbian Star*," a religious and literary journal, published weekly. He inserted in it many poetic pieces of his own, of a high order of merit. Some of them were subsequently collected, and printed, in a small volume, with a poem of considerable length, under the title of the "*Spirit of Life*." Mr. Clarke's connection with the "*Columbian Star*" was dissolved, on his assuming the editorship of the "*Philadelphia Gazette*," one of the oldest and most respectable daily political newspapers of the city. After some time he became its proprietor; and he conducted it till his death with diligence and ability, and with a uniform observance, even in his animadversions on the sentiments and conduct of those from whom he most differed, of the courtesies proper to the character of a "Christian gentleman." Besides his writings in the journals of which he was the editor, Mr. Clarke contributed also, during many years, to the magazines and annuals of his own country, and occasionally also to some of the English periodicals. The series of papers from his pen inserted in the *New York Knickerbocker Magazine*, under the title of "*Ollapodiana*," are, in an especial manner, deserving of commendation "for their heart-moving and mirth-provoking qualities." An eminent English living author, after having spoken of Mr. Clarke's poems in high terms, characterized him as a gentleman "who has an enviable genius, to be excited in a new and unexhausted country, and a glorious career before him, where, in manners, scenery, and morals, hitherto undescribed and unexhausted, he

can find wells where he may be the first to drink." And "as a prose writer," says the author of an article in the *American Quarterly Review*, "Mr. Clarke possesses a rare combination of dissimilar qualities. At times eloquent, vehement, and impassioned, pouring out his thoughts in a fervent tide of strong and stirring language, he sweeps the feelings of his readers along with him; and at others, playful, jocular, and buoyant, he dallies with his subject, and mingles mirth and argument, drollery and gravity, so oddly, yet so aptly, that the effect is irresistible." Mr. Clarke died in 1841.

CLAUSEL (Bertrand, count), a marshal of France, was born December 12th 1772, at Mirepoix in the department of the Ariège. He entered the army at an early age; served with distinction in the army of the Pyrenees, during the campaigns of 1794 and 1795; and then went to Italy, where he was appointed, in 1799, to the command of a brigade. In 1802, he accompanied the expedition under General Le Clerc to the island of Saint Domingo; and, on the death of Le Clerc, after aiding General Rochambeau to save the remains of the French army, he returned to France. His name is recorded as a general of division in the French army of Italy, in the campaign of 1809 against Austria. But it was in the war of Spain that his reputation was principally acquired. After the battle of Salamanca, fought July 22d 1812, he directed the retreat of the defeated army upon Burgos, and was subsequently appointed to the command of the left wing of the army which, under the orders of Marshal Soult, was intended, if possible, to arrest the further progress of the duke of Wellington. Although he had remained to the last faithful to the cause of Napoleon, Louis XVIII., besides conferring upon him various honours, named him to be inspector-general of infantry. This did not prevent him from promptly declaring in favour of the emperor, on the landing of the latter from Elba. During the 100 days, he was made a member of the chamber of peers, and received the command of the army of the Western Pyrenees. The firm resistance, exhibited by him at Bordeaux to the returning Bourbons, led to his being proscribed as a traitor, with other prominent Bonapartists, in the famous ordinance of July 24th 1815; the consequences of which measure, however, he evaded by a timely departure to the United States. Inquiries, instituted by the restored government, having led to the discovery that Clausel was among those

who, during the period of the first restoration, had conspired to offer the crown of France to the duke of Orleans, and in the event of the latter declining to accept the offer, to invite Napoleon back from Elba, he was tried in his absence before a council of war, and condemned to death, September 11th 1816. By the amnesty of 1820, he was, nevertheless, exempted from the effects of this sentence, and permitted to return to his own country; a permission of which he was not slow to avail himself. He was first elected a member of the chamber of deputies in 1827, and voted, as such, with the party in opposition to the government. He was one of the 221 members who adopted the famous address to the king, which led the way to the revolution of July. On the 4th of September 1830, he superseded General Bourmont in the office of governor-general of Algiers. In the following year he returned to France, when the services rendered by him were rewarded by his advancement to the rank of a marshal. He resumed the command in Africa in the month of August 1835; continuing there until the beginning of the year 1837. (For an account of Marshal Clausel's administration and military career in Algiers, see *Algiers*).—In the interval between his two visits to Algiers, Marshal Clausel took an active part in the proceedings of the chamber of deputies. He supported the proposition of General Lamarque relative to the "mobilisation" of the national guards; declared himself opposed to the hereditary peerage; maintained with great zeal the system of African colonization; and, in 1834, expressed himself in favour of permission being granted to the members of the Bonaparte family to re-enter France. But his opposition to the government was, in general, characterised by great moderation. On his final return from Africa, he opposed the measures of the government, however, more decidedly than he had previously done, although without partaking much in the discussions of the chamber.—Marshal Clausel died at Toulouse, in the night between the 20th and 21st of April 1842.—The strongest testimony was borne to Clausel's military talents by Napoleon, when he said, in the island of St. Helena, that Gérard, Clausel, Foy, and Lamarque, were the generals in the French army who were intended by him to be his future marshals.

**CLAUSTHAL**, or *Klausthal*, in the kingdom of Hanover, and the principal mining town of the Hartz, is situated in a bare and bleak region, on the top and slopes of

a hill 1750 feet above the sea, and 26 miles N. E. of Göttingen. It has 9070 inhabitants. It contains a mining school, supported by the government; and it has also a mint, at which about 14,000 silver dollars are coined weekly, and from 600 to 800 gold ducats yearly. The chief lead and silver mines in the Hartz are in the neighbourhood. The shaft of one of these mines reaches to 2000 feet below the level of the Baltic. The mines are drained by a tunnel, cut through the mountain to the small town of Grund, a distance of 6 miles. The total length of this tunnel, however, with its branches, is nearly double that distance: it was commenced in 1777, and finished in 1799. All the machinery used in the mines being set in motion by water power, every little stream around Clausthal is carefully made use of to form a reservoir; and the canals conducting the water thence to the different mills, machines, &c., are said to have an aggregate length of 125 miles.

**CLAVIÈRE** (Etienne), born at Geneva, January 27th 1735, was, for a short period during the revolution in France, minister of Finance. He was the intimate associate of Brissot and the other leaders of the party of the Gironde, and was one of the most determined and courageous opposers of the rising power of Robespierre. He was, in consequence, arrested on the 2d of June 1793; and, satisfied that no hope of escape was left him from the vengeance of his enemies, he anticipated his public execution by plunging a knife into his bosom. His wife also put an end to her life by taking poison, two days afterwards.—Clavière was the author of several publications on the subject of finance, the most important of which was a pamphlet entitled "Du numéraire métallique." He contributed to several of the public journals, and had a considerable share in the preparation of the work styled "De la France et des États-Unis," published in 1787, and the design of which was to exhibit the importance of the American revolution to France, and the advantages which both nations might derive from a commercial intercourse between them.

**CLAVIGERO\*** died in the papal states towards the end of the last century.

**CLEMENTI\*** (Muzio) died on the 10th of March 1832, and was buried in the cloisters of Westminster Abbey.

**CLERE\*** (John) died at Eldin, at a very advanced age, in July 1812. The friends of Lord Rodney have denied that he derived from Clerk the idea of breaking the enemy's line, a manœuvre which he set



successfully executed in his action of the 12th of April 1762, against the French fleet under the command of the Count de Grasse. General Sir Howard Douglas, in particular, has adduced reasons to show that the passage of the British through the enemy's line arose from the chance position of the two fleets, and was the result of the unpremeditated decision of the moment. But even if this be granted, the credit remains with Clerk, of having been the first to point out the manœuvre in question, as a systematic mode of attack in naval engagements.

CLERMONT, or *Clermont Ferrant*, to distinguish it from several other towns named Clermont, in France, is the chief town of the department of Puy-de-Dôme, with a population, in 1841, of 31,300. It is situated on the summit of a hill, and is built of lava, with which also the streets are paved. It is extremely dirty; several of its streets being compared by Mr. Young to channels cut in a dung-hill. The mountain breezes, however, purify the air; and there has been a considerable improvement since his time. The principal edifice is the cathedral; the interior of which is considered one of the finest specimens of Gothic architecture. There is here a secondary school (*école secondaire*) of medicine, having, in 1839, 20 students; a royal college, with 439 pupils; and a departmental normal school;—also a public library of 16,000 volumes; a mineralogical cabinet; and a botanic garden.

CLONMELL; a thriving town, in the county of Tipperary, in Ireland, on the Suir. In 1834, the number of the inhabitants amounted to 17,835, of whom 6737 were of the established church, 250 Protestant dissenters, and 15,848 Roman Catholics. Cotton goods are manufactured; and there are extensive flour-mills in the town and its vicinity. On the Suir, there is an extensive salmon fishery. The principal trade is in grain, provisions, cattle, and butter, with all which it supplies the Liverpool, London, and Bristol markets.

CLOQUET (Jules) was born at Paris in 1790. He applied himself at an early age to the study of the natural sciences and of medicine, and soon became distinguished for his attainments. His attention, however, has been chiefly directed to anatomy and surgery. The works which he has produced are exceedingly numerous, and are full of sagacious and original observations. He has treated of hernia, of the preparation of skeletons, of the existence and situation of the lachrymal ducts in fishes, of the anatomy of intestinal worms,

and of urinary calculi and the diseases in general of the urinary organs. But his most important production is the "Anatomie de l'homme, ou description et figures lithographiées de toutes les parties du corps humain" (5 vols. fol. with 300 plates, 1821-30); and whilst this work was in course of publication, he also published a "Manuel d'anatomie" (1 vol. 4to, with plates, 1825). Cloquet is, moreover, the inventor of several operative processes and many less or more ingenious surgical instruments; and he excels in the preparation of anatomical specimens, and in the art of modelling in wax. He has filled several professorships; all of them obtained after a competition (*concours*) with most of the eminent French anatomists and surgeons of our day. Since the year 1831, he has been one of the professors of clinical surgery (*clinique chirurgicale*) of the Faculty of Paris; the duties of which office he has discharged with unsurpassed ability.—Cloquet was the physician, and intimate friend of General Lafayette; on whose death he published (1835) "Souvenirs sur la vie privée du General Lafayette," a well written book, full of interesting details.

CLOQUET (Hypolyte), a brother of the former, was born at Paris, May 17th 1787. He pursued the study of anatomy with the greatest zeal, and was appointed *prosector*, or demonstrator, of anatomy to the Medical Faculty of the capital. He was subsequently a professor in that faculty, and died as such in March 1840. Besides contributing numerous articles to the journals, and to different dictionaries of Medicine and Natural History, he wrote the "Osmiologie, ou traité des odeurs, du sens et des organes de l'olfaction" (1821), the "Traité d'anatomie descriptive" (2 vols., 1816) followed afterwards by an atlas of plates, the "Faune des médecins" (6 vols., 1823-28), and the "Traité complet de l'anatomie de l'homme, comparée dans ses points les plus importants à celle des animaux" (5 vols. 4to, 1826-27, with 400 copperplates). He also undertook, in 1822, a continuation of Vicq d'Azyr's "Système anatomique."

CLOT, or, as he has been subsequently styled, *Clot Bey*, was born of poor parents, in April 1795, at Marseilles, where he commenced the study of medicine, which he completed at Montpellier. He then established himself as a physician in the former city. But, in January 1825, he was engaged to go to Egypt, as chief surgeon to Mehemed Ali, the viceroy of that country; by whose direction, he organized

a board of health for the army at Cairo, and a medical school, with a hospital connected with it, at Abu Zabel, in the neighbourhood. As the instruction in the school was necessarily to be communicated in the Arabic language, the lectures of the professors (all of whom were Europeans) were, in the first instance, translated by two interpreters, to a select class of ten young men; and each of these again repeated what they had heard to ten others. The professorship which Clot reserved to himself was that of Surgery.—He established, besides, a school for the French language, a school of Pharmacy, and one for midwives. For these services, as also for those rendered by him during the then prevailing cholera, the viceroy conferred upon him, in 1832, the dignity of a Bey, and this without requiring him to embrace the Mohammedan faith. In October 1832, he went to Paris, taking with him 12 of his most promising pupils, (who were intended to become, in their turn, instructors), that they might have the best opportunities of completing their medical education. During his visit, he was made a member of the Legion of Honour, and was elected a foreign member of the Academy of Medicine. He made a short excursion to London in 1833; and in the same year, returned to Egypt, to organize the sanitary arrangements at Alexandria, for the sailors and workmen in the marine service of Mehemed Ali. In 1836, he was appointed chief of the medical staff of the army, and placed at the head of the medical department of the government, with a salary of 36,000 francs. He revisited Paris in 1839, for the restoration of his impaired health, returning again to his post in 1840.—Several of his smaller medical productions are contained in the "Compte rendu des travaux de l'école de médecine d'Abou-Zabel et de l'examen général des élèves pour les 1-5 années de sa fondation, 1242-47 hégire (1827-32), suivi de l'exposé de sa conduite et des travaux de l'auteur lui-même en Egypte depuis 1240-48 (1825-32), et de diverses pièces relatives à son voyage en France" (1832-33). Clot Bey has also written a "Relation des épidémies de cholera morbus qui ont régné à l'Heggriaz, à Suez et en Egypte" (1832), and "De la peste observée en Egypte" (1840).

**COBBETT.\*** In 1831, he was prosecuted for a libel, and defended himself in a speech of six hours. The jury, after long consideration, could not agree to a verdict, and were consequently discharged. After the passing of the Reform Bill, in 1832,

Cobbett was elected to parliament for the new borough of Oldham. His parliamentary career, however, displayed little of the originality which he possessed as a writer; and his course was generally moderate and moderate. The principal exception to this was his motion for an address to the king, praying for the dismissal of Sir Robert Peel from the Privy Council, on account of the alteration in the currency, which had been made under his auspices,—a proposition for which only four members, besides himself, voted, out of 302 who were present. He now lost the influence he before possessed, both within and without the House of Commons; although he continued to attend its meetings with great assiduity, and occasionally to partake in the debates. The late hours which he kept, the crowded assembly, and the excitement of debate, gradually undermined his health; and he died, on the 18th of June 1835, in the 73d year of his age.—The most important of Cobbett's publications, not previously mentioned, was his Parliamentary History of England to the year 1803, in 12 volumes.

**COCA**, a shrub (*Erythroxylon coca*) cultivated extensively on the Andes of Peru, on account of its leaves, which, when dried, and mixed with burnt lime, form a stimulating narcotic, used extensively by the Peruvians as a masticatory. The use of coca brings on a state of apathy to all surrounding objects; and its effects are of the most pernicious nature, exceeding even those of opium in the destruction of the mental and bodily powers. A confirmed coca-chewer, or *coquero*, is said never to be reclaimed. In Peru and Bolivia, the value of this drug prepared annually is estimated at above 2½ millions of dollars.

**COCHRANE\*** (Lord). After returning to England from Greece, in the beginning of 1828, he re-appeared there in December of that year, on board the steamer *Hermes*; but his designs did not meet with the approbation of the Greek government; and he was politely informed, by the president Capo d'Istria, that Greece, being then placed under the protection of the great European powers, had no farther need for his services. He thereupon once more returned to England; where, in 1831, he succeeded to the title and estate of his father, and in the following year, was restored to his rank in the British navy. William IV. also conferred upon him the order of the Bath.

**COCOON**; the silken case which the larvæ of certain insects spin, for the pur-

pose of a covering, during the period of their metamorphosis; and which some spiders prepare as a protection to their ova, or eggs, during the development of their young. The cocoon of the silk-worm is a well-known example of the most valuable of these productions.

COGNAC, a town of France, in the department of the Charente, on the navigable river Charente, with a population of about 4000. The brandy which is shipped from this port, under the name of Cognac,

is considered superior to any other kind. It is made from a very secondary white wine.

COINS.\* In addition to the table of the comparative value of the principal coins, given in a previous volume, the following tables, which are copied from Waterston's Cyclopædia of Commerce, may be consulted with advantage. The gold coins are computed at the rate of £3 17s. 10½d., and the silver at 5s. per ounce, British standard.

TABLE OF THE PRINCIPAL FOREIGN GOLD COINS.

| Country.               | Names.                 | Assay Report. | Full Weight. |          | Standard Weight. |         | Pure Gold. | Value in Sterling. |
|------------------------|------------------------|---------------|--------------|----------|------------------|---------|------------|--------------------|
|                        |                        |               | car. gr.     | dwt. gr. | dwt. gr.         | grains. |            |                    |
| Austria.....           | Half-sovereign.....    | W 0 0½        | 3            | 14       | 3                | 13.75   | 7c.61      | £s. d.             |
|                        | Ducat.....             | B 1 2½        | 2            | 5½       | 2                | 10.00   | 53.17      | 9 4.93             |
| Bavaria.....           | Max d'or.....          | W 3 2½        | 4            | 4        | 3                | 11.80   | 76.62      | 13 7.18            |
| Denmark.....           | Christian d'or.....    | W 0 1         | 4            | 7        | 4                | 5.63    | 93.34      | 16 6.25            |
| East Indies.....       | Mohur.....             | W 0 0½        | 7            | 12       | 7                | 11.48   | 164.53     | 29 1.44            |
|                        | Napoleon.....          | W 0 1½        | 4            | 3½       | 4                | 1.52    | 89.39      | 15 9.26            |
| France.....            | Double Louis 48 livres | W 0 1½        | 9            | 30       | 9                | 15.97   | 212.64     | 37 7.63            |
|                        | George d'or.....       | W 0 1½        | 4            | 6½       | 4                | 5.04    | 92.96      | 16 4.72            |
| Hanover.....           | Ducat.....             | B 1 2½        | 2            | 5½       | 2                | 9.56    | 52.77      | 9 4.07             |
|                        | 10 florins.....        | W 0 1½        | 4            | 7½       | 4                | 5.63    | 93.21      | 16 5.97            |
| Portugal.....          | Dobraon.....           | Stand         | 34           | 12       | 34               | 12.00   | 759.00     | 134 4.01           |
|                        | Joanese.....           | W 0 0½        | 9            | 6½       | 9                | 5.86    | 203.37     | 35 11.95           |
| Russia.....            | Half Imperial.....     | Stand.        | 4            | 3½       | 4                | 3.50    | 91.20      | 16 1.71            |
| Spain.....             | Doubleon.....          | W 1 0½        | 17           | 8½       | 16               | 11.80   | 302.26     | 64 1.40            |
| United States, America | Half Eagle.....        | W 0 2         | 5            | 9        | 5                | 6.06    | 115.56     | 20 5.40            |

TABLE OF THE PRINCIPAL FOREIGN SILVER COINS.

| Country.               | Names.                  | Assay Report. | Full Weight. |          | Standard Weight. |         | Pure Silver. | Value in Sterling. |
|------------------------|-------------------------|---------------|--------------|----------|------------------|---------|--------------|--------------------|
|                        |                         |               | oz. dwt.     | dwt. gr. | dwt. gr.         | grains. |              |                    |
| Austria.....           | Species thaler of 2 fl. | W 1 2         | 16           | 1        | 16               | 6.09    | 360.63       | £s. d.             |
| Denmark.....           | Rigsbank dollar.....    | W 0 12        | 9            | 7        | 9                | 18.94   | 195.12       | 2 2.36             |
| East Indies.....       | Company's rupee.....    | W 0 2         | 7            | 12       | 7                | 10.37   | 165.00       | 1 10.29            |
| France.....            | 5 francs.....           | W 0 6         | 16           | 1½       | 15               | 15.32   | 347.17       | 3 10.91            |
| Hamburg.....           | Current mark.....       | B 2 2         | 5            | 2½       | 4                | 18.73   | 106.19       | 1 2.34             |
| Hanover.....           | F. zweydrittel.....     | B 0 16        | 8            | 9        | 8                | 23.48   | 199.32       | 2 2.93             |
| Holland.....           | Gulder or florin.....   | W 0 8         | 6            | 22       | 6                | 16.01   | 148.01       | 1 8.00             |
| Mexico.....            | Dollar 1853.....        | W 0 6½        | 17           | 11       | 16               | 22.73   | 376.22       | 4 2.84             |
| Naples.....            | Ducat del regno.....    | W 1 2         | 14           | 16       | 13               | 6.91    | 285.00       | 3 3.66             |
| Peru.....              | Dollar 1853.....        | W 0 5         | 17           | 7½       | 16               | 22.14   | 375.68       | 4 2.76             |
| Portugal.....          | Crusado novo.....       | W 0 4         | 9            | 3        | 8                | 23.05   | 198.92       | 2 2.88             |
| Prussia.....           | Thaler.....             | W 2 3         | 14           | 7        | 11               | 12.56   | 255.62       | 2 10.57            |
| Rome.....              | Scudo.....              | W 0 3         | 17           | 1        | 16               | 19.47   | 373.21       | 4 2.43             |
| Russia.....            | Silver ruble.....       | W 0 14        | 13           | 8        | 12               | 11.89   | 277.33       | 3 1.47             |
| Spain.....             | Pillar dollar.....      | W 0 7         | 17           | 8        | 16               | 18.88   | 372.60       | 4 2.36             |
| United States, America | Dollar.....             | W 0 8         | 17           | 8        | 16               | 17.01   | 370.93       | 4 2.12             |
| Venetian-Lombardy..... | 6 lire.....             | W 0 7         | 16           | 17½      | 16               | 4.84    | 359.67       | 4 0.60             |

The American eagle, which is declared to be equivalent to 10 dollars, contained, previously to the year 1834, 246 grains pure gold, and 24 grains alloy, that is, 270 grains of standard gold. Its weight has been reduced, since that date, to 256 grains, of which 232 are pure, and 24 alloy. This alteration has, of course, had the effect of enhancing the value, in payments, of the gold, when compared with that of the silver coin. The pound sterling, which was formerly worth 4 dollars and 57 cents, is now worth 4 dollars 67 cents.

COLBURN (Zerah), noted for the extraordinary talent which he exhibited in mental arithmetic when a boy, and the great interest which he, in consequence, excited in the United States and Europe, was born at Cabot, in Vermont, on the 1st of September 1804. He was the 6th child of his parents, who were "plain persons," and in "straitened circumstances." Until he was nearly 6 years old, they regarded him as the least promising of all their children. His remarkable powers of computation, by methods peculiar to himself,

but which he was unable to explain to others, were then, for the first time, discovered. Soon afterwards, his father, having been encouraged to form large expectations of the capability of his son, if properly instructed, to rise to future eminence, took him from home, to be seen and examined by persons of influence, through whose sympathy and instrumentality in his behalf, it was hoped that adequate means for educating him might be obtained. After passing through Vermont and New Hampshire, he arrived at Boston, about the end of the year 1810. He had been everywhere very kindly received; and at Dartmouth College, we are told that the president of the institution, Dr. Wheelock, "made a very generous offer, intending to take upon himself the care and expense of his studies;" but the father of the young prodigy declined it, under the impression that a still more favourable offer would not fail to be speedily made. At Boston, the impression made by Zerah's performances was very great. "Questions in multiplication, of two or three places of figures, were answered with much greater rapidity than they could be solved on paper. Questions involving an application of this rule, as in Reduction, Rule of Three, and Practice, seemed to be perfectly adapted to his mind. The extraction of the roots of exact squares and cubes was done with very little effort." He was also skilful in finding the factors of numbers. Addition, Subtraction, and Division, were performed with less facility. Several propositions were made to Mr. Colburn, for the education of his son, by "a number of the first gentlemen of Boston;" all of which he thought proper to decline, as not sufficiently satisfactory.—Having made a tour through the middle, and a portion of the southern states, exhibiting his son for money in the principal towns which he visited, but without coming any nearer to the object he had proposed to accomplish by the journey, Mr. Colburn embarked at Norfolk for England, in January 1812. After travelling over England, Scotland, and Ireland, they spent 18 months at Paris. Although here Zerah succeeded in obtaining admission, as a pupil, for a short time, to the "Lycée Napoléon," this journeying about proved of as little avail as in the United States, for procuring the means requisite for his education. On his return from France to England, in 1816, we are told, in his autobiography, that "there had never been a time, since they first left Cabot, that their pecuniary circumstances were so low as they now

were."—Before long, however, he was so fortunate as to secure the patronage of the earl of Bristol; by whom he was placed at Westminster school, and supported there until May 1819. He was then withdrawn from it, on the refusal of his father to comply with certain arrangements proposed by the earl. According to his own account, "he learned (while at the school) with facility; and the continual practice preserved what he acquired fresh in his memory;" but he adds, "it is, however, a truth, that the mind of Zerah was never apparently endowed with such a talent for close thinking on intricate subjects as many possess. He was not peculiarly fortunate in arriving at a result which did not readily present itself, or for which the process leading thereto was not soon discovered."—After the loss of the earl of Bristol's patronage, so generously bestowed, during a period of nearly three years, Mr. Colburn, finding himself without resources, proposed to his son to go on the stage; and he, "being young, (only in his 15th year), and having a fondness for display, was well pleased with the foolish notion." He applied himself very assiduously to qualify himself for the profession of an actor; and enjoyed, for two or three months, the instructions of Mr. Charles Kemble. But this new experiment proving a failure, he embraced the opportunity which offered of going into a school, in the neighbourhood of London, as an assistant. Here, he remained only three months; when he commenced a school of his own, in the usual branches of a common English education. And his next occupation was the performing of certain astronomical computations, under the direction, and for the use, of Dr. Thomas Young, then Secretary of the Board of Longitude.—On the death of his father, in February 1824, Zerah Colburn was enabled, by the assistance of his former patron, the earl of Bristol, Mr. Archibald Gracie, an American merchant, then residing at Liverpool, and others who felt a sympathy for his misfortunes, to return to his own country, and to rejoin his family at Cabot. When he had been some months at home, in the society of his mother, and brothers and sisters, he went, in December, to act as an assistant-teacher in an academy, at Fairfield, in the state of New York, connected with Hamilton College; but, "finding his prospects there quite different from what he had anticipated," he removed, in March 1825, to Burlington, in Vermont. Here, he taught the French language to a number of young ladies and gentlemen, as a

means of present support; while he, at the same time, resumed his classical studies, 'thinking it possible that, if every thing went on according to his wishes, he might eventually receive a diploma from the college, when duly qualified.' Towards the end of the year, he became a member of the Methodist society, and soon after, a Methodist preacher. Having *itinerated*, as such, for a number of years, he took up his residence, in 1835, at Norwich, where, before long, he was appointed a professor of the "Latin, Greek, French, and Spanish languages, and English classical literature," in the institution denominated the "Norwich University." A "Memoir of Zerah Colburn, written by himself," was published in 1833.—He died at Norwich, on the 2d of March 1840, in the 35th year of his age. We are told that he manifested no uncommon talent as a preacher or a scholar, but was a man of estimable and exemplary character, and of plain and very unpolished, yet of modest and unassuming manners.

COLDEN (Cadwallader D.). Cadwallader Colden, a notice of whose life was inserted in a previous volume of this work, was the father of three sons, Alexander, Cadwallader, and David; each of whom, at different times, acted as surveyor-general, and were, in other respects, prominent men, in the colony of New York.—David, the youngest, and the father of Cadwallader D., excelled in mathematics and natural philosophy, and was a correspondent of Dr. Franklin.—The subject of the present notice was born at Spring-hill near Flushing, in Queen's county, Long Island, on the 4th of April 1769. He was educated in part at home by a private tutor; and he went to school at the town of Jamaica, not many miles distant. In the spring of 1784, he embarked with his father for England, where he attended a classical school near London, until the autumn of 1785, when he returned to New York. He then commenced the study of the law in that city; but his family affairs making it necessary for him to visit the British province of New Brunswick, he pursued his legal studies there for some time, and completed them, on coming back to the state of New York in 1789, at Kinderhook, on the Hudson river.—Mr. Colden was admitted an attorney in January 1791, and received from Governor George Clinton a commission as a public notary. He had practised his profession in the city of New York for a short period only, when he removed to Poughkeepsie, in Dutchess county. There his success was so decided

as to encourage him to resume his station at the New York bar, in 1796. About this time, he received the appointment of district attorney; and by his zeal, industry, and talents, soon laid the foundation of his subsequent eminence as a lawyer. His intense application to business, however, so impaired his health, in the course of a few years, that his friends became seriously alarmed on his account; and it was judged expedient that he should go on a journey, with a view to its restoration. He embarked for France in the spring of 1803, and spent about 18 months in that country and other parts of the continent of Europe. Returning from abroad with his constitution reinvigorated by this excursion, he not only found no difficulty in recovering the business which he had before his departure from home, but rapidly extended it. His success was, indeed, flattering in the extreme; and it was not many years before his standing as a commercial lawyer was at the head of his profession, while, in every other respect, he was ranked among the first.—On the occurrence of the war with Great Britain in 1812, although it is probable that his practice at the bar was more lucrative than that of any other member of his profession in the state, Mr. Colden relinquished a large portion of it that he might attend to military duties. He was colonel of a regiment of volunteers, and contributed his aid efficiently in the erection of the fortifications which were deemed necessary for the defence of the city of New York.—Mr. Colden was elected a member of the House of Assembly in 1818; and, during the same year, succeeded Mr. Dewitt Clinton, as Mayor of the city. As such, he presided in the municipal court, and by his ability, dignity, and impartiality as a judge, fully sustained the high reputation which that court had obtained. In 1822, he was elected to Congress; and in 1824, to the Senate of his own state. He was a distinguished and useful member of these bodies; his opinions being always listened to with great respect, and especially so on questions requiring, for their proper decision, extensive legal attainments.—In addition to the professional and other duties, already mentioned, which Mr. Colden was called upon to perform, he found leisure to bestow much attention in devising the means of promoting, in various ways, the improvement and well-being of the community to which he belonged. The intellectual and moral education of youth was with him a favourite object; and the public schools in the city of New

York, accordingly, ranked him among their most active and efficient founders and patrons. He took a prominent part in digesting a proper system for the reformation of juvenile delinquents, and was subsequently the president of the society incorporated for this important purpose. For many years he was one of the governors of the New York hospital. He was one of the earliest and most zealous promoters of the system of "internal improvement" in the state of New York. His name is recorded among those subscribed to the celebrated memorial on the subject, bearing date in February 1816; and he was a member of the committee of correspondence appointed by the great meeting held in the city of New York, in that year, relating to it. In the history of the Erie canal, which was published by order of the State Legislature, we find his name often recorded in connexion with measures conducive to the accomplishment of that important work. After its completion, he wrote, as is well known, the memoir concerning it which was published by the Common Council of the city. Subsequently to his withdrawal from the Senate in 1827, he devoted much of his time to the superintending of the construction of the Morris canal, connecting the waters of the Delaware river with the bay of New York.—His life of his friend, Robert Fulton, is his chief literary production. It was read by him before the New York Literary and Philosophical Society, and published by that association with the laudable design of erecting some memorial in honour of that eminent and successful experimental philosopher. Not long before his death, he wrote a remarkable paper on the insanity of the count de St. Jean d'Angely, who had come to the United States from France in 1817. It is in the form of a letter to his friend, Dr. Francis, and is of peculiar importance to the medical jurist. It may be found in the Life of the late Thomas Eddy, by Colonel Knapp. Mr. Colden contemplated the publication of the writings of Lieutenant-Governor Cadwallader Colden, in a number of volumes, with an original memoir of his life drawn up from materials in his possession; but he made only partial advances in the undertaking. His death, from dropsy of the chest, took place on the 7th of February 1834, in Jersey City, where he had resided for several years.—What has been said by Mr. Colden of Fulton may, with entire propriety, be applied to himself:—"In all his domestic and social relations, he was zealous,

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generous, liberal, and affectionate. He knew of no use for money but as it was subservient for charity, hospitality, and the sciences." Besides the time and money which he spent in promoting the interests of his fellow-citizens in the various modes already mentioned, it may be stated to his great credit, that he was ever solicitous to afford encouragement to the younger members of his profession, to genius in the arts and sciences, and, in short, to all who were actuated by commendable motives. To such he liberally imparted his counsels, his hospitalities, and even, if requisite, pecuniary aid. And there was no advocate at the bar more prompt to lend his professional services, without reward, when the occasion called for it, in defence of the poor and unfortunate.

COLEBROOKE (Henry Thomas), an eminent orientalist, was born in 1765. In 1782, he was appointed to a writership in India; where he obtained, shortly afterwards, a situation in the revenue department. He next received a judicial appointment at Mirzapore, and was subsequently British resident at the court of Berar. In 1816, he returned to England, bringing with him a rich collection of manuscripts which he presented to the E. I. Company. He was elected president of the Royal Asiatic Society; and, after many years of infirm health, he died on the 10th of March 1837.—Besides numerous papers in the "Asiatic Researches," on the history and literature of Hindostan, afterwards published in a separate form, under the title of "Miscellaneous Essays," Colebrooke published "Remarks on the Husbandry and Commerce of Bengal,"—a translation from the Sanscrit into English of "A digest of Hindoo Law on contracts and successions, with a commentary by Jagannatha Zerchapanchanana" (4 vols. 1797),—a "Dictionary of the Sanscrit Language, by Amara Simpa," with an English interpretation and annotations,—the "Algebra of the Hindus, with Arithmetic and Mensuration, from the Sanscrit of Brahmagupta and Bhascara" (1817),—together with various other treatises on the philosophy and laws of the Hindoos.

COLERIDGE (Henry Nelson), was born at the beginning of the present century, and was a nephew of Samuel Taylor Coleridge, a daughter of whom he married. She is a learned and accomplished lady, and published some years ago a translation of the "History of the Abipones" from the Latin of Dobrizhoffer, and more recently a beautiful fairy tale, called "Phantasmion." Mr. Coleridge was educated at

Eton and at King's college, Cambridge, where he was elected a Fellow, and where he graduated B. A. in 1823. In this year, he was a contributor to "Knight's Quarterly Magazine." His papers, which bear the signature of "Joseph Haller," are distinguished for a liberal and comprehensive view of historical questions, and evince an extent of acquirement beyond the ordinary range of the reading of young men educated at the university. Having fallen into ill health, he accompanied his uncle, the bishop of Barbadoes, in 1825, to that island, and on his return to England, after his restoration, he published a short, but lively and amusing, narrative of his voyage, under the title of "Six Months in the West Indies, in 1825."—He was called to the bar in November 1826; practised as an equity draftsman and conveyancer; and was appointed Lecturer on the principles and practice of equity to the "Incorporated Law Society."—In 1830, he published an "Introduction to the Study of the Greek Classic poets." In 1835, he gave to the world "Specimens of the Table Talk of the late Samuel Taylor Coleridge," in 2 volumes. These were followed, in 1836, by 2 volumes of the "Literary Remains of S. T. Coleridge;" and by an additional volume of the same series in 1838. Since then, he has published several other posthumous editions of his uncle's writings. He is the author, besides, of several articles in the Quarterly Review.—Mr. Coleridge died on the 26th of January 1843.

COLERIDGE\* (Samuel Taylor). The latter years of Mr. Coleridge's life were made easy by a domestication with his friend, Mr. Gillman; and, for some years, he received a pension from George IV. of £100 per annum, as an academican of the Royal Society of Literature. For several years before his death, he was afflicted with great bodily pain, and had contracted the habit of using opium to a mischievous extent, having resorted to it, under a mistaken notion, for medicinal purposes. He died on the 25th of July 1834.—Since his death, two volumes of his "Table Talk" have been published, which, however, give no adequate idea of his conversational powers. These are said to have been very extraordinary. He did not deliver himself in fragments, as might be inferred from the work just mentioned, but spoke continually, and that sometimes for hours together, without aid from others, in the way either of suggestion or of contradiction; and, even when discoursing on the abstrusest subjects, there was a spell in what

he said, which the most dull or ignorant could not resist.

COLLEGE.\* For further information concerning the American colleges, see *United States*, (Sup.)

COLMAN (George), the younger, as he was in the habit of styling himself, and as he was usually styled by others, to distinguish him from his father of the same name, noticed in a previous volume, was born in October 1762. He was sent, when in his 10th year, to Westminster school. His holydays, while there, were spent at his home in London; and by this means, he was, while a child, brought into the company of Johnson, Goldsmith, Gibbon, Burke, Reynolds, Garrick, and the other eminent men who frequently assembled round his father's table. Of course he was little able to appreciate their conversation; but we are told that he understood enough to imbibe "a preference of hearing modern wits in English, to reading ancient classics, Greek or Latin." In 1777, Mr. Colman, the elder, purchased the Haymarket theatre, a step decisive of the destiny of his son. The latter, then about 15 years old, gained admittance to the green room of the theatre; and the greater part of his holydays were afterwards spent within its purlieu. In due season, however, he went to Oxford, "where he was more remarkable for quickness of parts than the love of study;" and he "gained the address and manners of a gentleman, whilst he learned to be fashionable, witty, and idle." In 1781, his father, disapproving of his conduct, removed him from Oxford to King's college, Aberdeen, in the hope that its alleged strictness of discipline might arrest his extreme gaiety and sprightliness; but in vain, though the son was very far from altogether neglecting his studies. Indeed, one authority states that at this period he more than made up the time which he lost at Westminster and Oxford. During his stay at Aberdeen, he published a little poem, entitled "The Man of the People," the hero of which was Mr. Fox; and he there also wrote two dramatic pieces, a farce and a three-act comedy. The first, called the "Female Dramatist," was brought out anonymously by his father at the Haymarket, but was condemned by the audience; the other, to which was given the name of "Two to One," and which was the first of his publicly-avowed dramas, was performed in 1784 with considerable success. The author immediately afterwards returned to London, and then having made a visit of a few weeks to Paris,

commenced, with great reluctance, the study of the law; but the bent of his inclination being towards dramatic composition, he soon gave up the law for pursuits more congenial to his taste. His father having been seized with paralysis in 1785, he was appointed to preside over the Haymarket theatre; and he exercised with zeal and ability the arduous duties of management. However profitable his connection with the theatre was to him for a time, as well after as before the death of his father, it eventually reduced him, owing, it is believed, to the protracted continuance, and expenses, of a suit in chancery in which he became involved, to become a resident within the "rules" of the King's Bench. But subsequently, through the intercession, it is said, of the duke of York, and the friendship of George IV., the place of licenser and examiner of plays was bestowed upon him, which gave to his latter years leisure with competency. In this office, he did not acquit himself to the satisfaction of every one; being more solicitous to check the violations of morality or decorum in the writings of others, than he had been in his own case.—Mr. Colman was an extremely prolific writer of plays. Among the best of them may be ranked "Incle and Yarico;" "Ways and Means;" "The Iron Chest;" "The Mountaineers;" "The Poor Gentleman;" "Who wants a Guinea?"; and "John Bull," for which he is said to have received the largest sum of money perhaps ever paid for any drama. He was also the author of three poems, distinguished more by wit than decorum, published under the title of "My Nightgown and Slippers," which he enlarged and republished under the title of "Broad Grins;" of a volume of doggerel called "Poetical Vagaries;" of another, entitled "Vagaries Vindicated;" of another, called "Eccentricities for Edinburgh;" and lastly, of "Random Records," in 2 vols., being memoirs of his early life and times.—But Mr. Colman was not only distinguished as a writer; he shone in society by his ready wit. He is described as "the greatest convivialist of the age. The days are yet remembered when Sheridan and he, 'two great ones of the city,' were wont to set the table in a roar.' Sherry led the way, and Punch followed, as Byron has said of them."—Mr. Colman died on the 26th of October 1836.

**COLOGNE.\*** The celebrated cathedral of this city has, for many years, been in progress of completion, at the expense of the king of Prussia.

**COLOMBAT DE L'ISÈRE**, an eminent French physician, was born in the commencement of the present century, at Vienne on the river Isère. He is entitled to especial notice on account of his researches on the subject of stammering, which led him to the discovery of a method of treating it, so successful, that, in an institution established by him in Paris for this purpose, he is stated to have entirely cured 500 individuals in a comparatively short period of time. The essential part of his method consists in a persevering repetition of phrases in a certain rhythmical measure, accompanied by a close attention to the motions of the muscles employed in doing so. He communicated to the world in several publications the results to which he had arrived; and, for these, the Academy of Sciences of Paris awarded to him the Monthyon prize of 5000 franca. The king, too, made him a member of the Legion of Honour. His principal works are his "*Traité médico-chirurgical des maladies des organes de la voix*" (1834); a "*Dictionnaire historique et iconographique de toutes les opérations, et des instruments, bandages et appareils, de la chirurgie ancienne et moderne*" (2 vols. 1835); and a "*Traité des maladies des femmes, et de l'hygiène spéciale de leur sexe*" (2 vols. 1835).

**COLOMBIA.\*** The separation of Venezuela from Colombia, in January 1830, led to the resignation of his authority, by Bolivar; whereupon Mosquera was elected to be the president of the latter country. But this change in the administration of the government not having had the effect of quieting the existing discontent, as had been hoped, Mosquera, in his turn, resigned his office, on the 4th of September 1830. The former captain-generalship of Quito declared itself independent, on the 11th of the same month, under the name of the Republic of Equador. What still remained of Colombia was, on the 21st of November following, constituted, by the Congress assembled at St. Fé-de-Bogotá, into the Republic of New Granada. The three new states subsequently entered into engagements to respect each other's independence, to defend one another against the attack of a foreign enemy, and to allow a mutual freedom of trade, without the payment of any duties. The public debt of Colombia, of which the portion contracted in England alone amounted to £8,750,000 sterling, was assumed by the new states in equitable proportions.

**COLONIZATION SOCIETY.\*** See *Liberia*.  
**COLTON** (Charles Caleb), a clergyman,



vicar of Kew and Petersham, in Surrey, in England, was a writer of considerable talent, but of eccentric and disreputable habits. He was educated at Eton, whence he removed to King's College, Cambridge, of which he became a fellow. He first attracted public notice by the publication of a pamphlet, entitled "A plain and authentic Narrative of the Stamford Ghost," in which he attempted to prove that certain occurrences which took place at a house near Tiverton, originated in supernatural agency. He also wrote a poem on Napoleon, and a satirical poem under the title of "Hypocrisy." His best known and most popular production was "Lacon; or Many Things in few Words," published in 1820. A passion for gaming at length involved him in pecuniary difficulties, and on his absconding, in 1823, his living was declared void, and a successor was appointed. He then went to America, and thence to France, where he became a professed gamester. He is said to have gained by play at Paris, in two years, no less than £25,000.—In his *Lacon* is found the following apothegm:—"The gamester, if he die a martyr to his profession, is doubly ruined. He adds his soul to every other loss, and by the act of suicide, renounces earth, to forfeit heaven." Yet it is recorded that he blew out his brains, while on a visit to a friend at Fontainebleau, in 1832.

COMBE (George), celebrated as a phrenologist, was born October 21st 1783, at Edinburgh, in Scotland, where he studied the law, and practised as an advocate until the year 1837. Gifted with great powers of observation, his attention had been all along, in a certain degree, diverted from his professional pursuits to the natural and physical sciences. He attended, for example, Barclay's lectures on Anatomy, and Murray's on Chemistry. In 1816, he became acquainted with Dr. Spurzheim; and, though at first prejudiced against the phrenological opinions of the latter, was induced, by the interesting manner in which they were expounded, to prosecute the subject for himself. He was soon struck with the fact, that the doctrines of Gall and Spurzheim, relative to the structure of the brain, on which they founded their system of phrenology, were the result of the most accurate investigations; and he was eventually led to a conviction of the truth of the new science which they professed to teach. In the year 1819, he published his "Essays on Phrenology;" and, in 1824, his "System of Phrenology." The first phrenological society was formed

at Edinburgh, in 1820, under his auspices. About the same period, he commenced lecturing on his now favourite subject. After an excursion to Germany, in 1837, he made a journey, in 1838, to the United States of America, where he also lectured extensively, and to numerous and intelligent audiences. In 1842, he again visited Germany; delivering lectures on phrenology, in the German language, in the summer of that year, to large audiences, in the university of Heidelberg. With his reception and success here, he was so much gratified that, after spending the ensuing winter at home, in Edinburgh, he returned to Germany in the spring of 1843.—Beside the works already mentioned, Mr. Combe is the author of an essay "On Popular Education;" of a treatise "On the Constitution of Man, considered in relation to external objects" (1828); and of "Notes on America" (3 vols. 1841).—How far the labours of Mr. Combe may have really contributed to extend the belief in phrenology as a science, is not a little questionable. In the United States, it would, perhaps, not be far wrong to say, that the subject attracts much less attention to it at the present day than it did immediately before the visit of Mr. Combe to the country, notwithstanding the large and respectable audiences which, as has been already mentioned, he repeatedly addressed.—Mr. Combe married, in 1833, a daughter of the celebrated Mrs. Siddons.

COMBE (Abraham), an elder brother of the former, born at Edinburgh, January 15th 1785, was a sugar refiner, first in Glasgow, and afterwards in his native city. In 1820, having made the acquaintance of Robert Owen, then residing at New Lanark, where he had an extensive cotton factory, Mr. Combe was led to adopt his peculiar social and philanthropic views, and resolved to devote himself, as well as the greater part of his property, thenceforth, wholly to aid in carrying them into practice. A "Co-operative Society," established by him in Edinburgh, although promising fairly at first, proved, before long, a failure. In no wise discouraged, he commenced, in 1825, in conjunction with several of his socialist friends, another experiment of a like nature, but on a more extensive scale, at Orbiston, about 9 miles from Glasgow. He, however, did not live long to witness its progress, having died in August 1827.

COMBE (Andrew), a younger brother of the preceding, distinguished as a physician, and a medical writer, was born October 27th 1797. In 1835, he was ap-

pointed physician to king Leopold, of Belgium,—a situation, however, which he was obliged to resign in the following year, on account of the infirm state of his health. Among the works of which he is the author, may be mentioned his "Observations on Mental Derangement" (1841); the "Principles of Physiology applied to the Conservation of Health" (1834); the "Physiology of Digestion considered with relation to the principles of Dietetics" (1836); and a "Treatise on the Physiological and Moral Management of Infancy" (1840).

COMET.\* The reappearance of Halley's comet in 1835, was expected with great interest. Its perturbations in the previous revolution were calculated by Damoiseau and Pontécoulant, in France, and by Rosenberger, in Germany; and the time of its perihelion passage fixed for the month of November in that year. Damoiseau's calculation gave the 4th, Pontécoulant's the 7th, and Rosenberger's the 3d of the month. The comet, true to its appointed laws, became visible about the end of August, in the part of the heavens predicted; and it appears, from the comparison of the numerous observations that were made of it, to have actually passed the perihelion on the 16th of November. The position of its orbit was such that it could scarcely be seen in Europe after the passage, on account of its proximity to the horizon; but it was then caught by the astronomers of the southern hemisphere, and continued to be observed by Sir John Herschell, at the Cape of Good Hope, till the end of March 1836, when its increasing distance from the earth rendered it invisible.—The opinion that an ethereal medium pervades the regions of space, of sufficient density to affect the motions of comets, though so rare as to offer no sensible resistance to the denser masses of the planets, whose periods of revolution have continued exactly the same since the epoch of the first astronomical observations, seems to be gaining ground. Its existence, indeed, seems alone competent to explain the observed acceleration of Encke's comet in its orbit. But it follows that, if this medium really exists, the comet must ultimately fall into the sun, unless it is dissipated altogether; an event which seems not improbable from the fact of its having been less conspicuous at each reappearance.—Biela's comet is small, has no tail, and presents no appearance of a solid nucleus, but only a slight increasing density towards the centre; and small stars were seen through it. Its orbit, by a singular

coincidence, nearly intersects that of the earth; and had the earth, at the time of the comet's passage in 1832, been a month in advance of its actual place, it would have passed through, or very near, the comet.

COMMANDITE, a species of partnership in use in France, where one of the partners only is responsible to the whole extent of the debts contracted; the others being liable only to the amount of the portions of capital contributed by them. These are styled *commanditaires*, and are not permitted to control in the slightest degree the business of the partnership. Every such partnership, before commencing its operations, is required by law to publish the amount of the capital at its disposal, the time it is to endure, the general nature of its business, &c.

COMMUNEROS, a secret political association, which, in the year 1821, grew in Spain out of the society of the Freemasons. Their opinions were an exaggeration of those entertained by the latter. Not satisfied with the re-establishment of the constitutional monarchy, they indulged in speculations, or dreams, concerning liberty and equality, and the sovereignty of the people in Spain. They were, in short, in a fair way of attempting to act over again, in that country, the part of the early revolutionists of France, when their career was cut short by the French invasion of 1823. The ministry of Florez, which directed the public affairs at the termination of the constitutional government, may be regarded, in a certain degree, as the organ of their political sentiments; it was, at least, the only ministry which had met with their support. After the restoration of the absolute monarchy, the society of the *comuneros* was proscribed, under very severe penalties.

COMORN, a strongly fortified town of Hungary, at the confluence of the Danube and the Waag, about 46 miles W. N. W. of Buda. Its favourable situation, in respect to trade, has caused its population to increase from 9300, which it was in 1805, to 17,500, exclusive of the garrison. It has manufactures of woollen cloths, tanneries, &c., and considerable trade in corn, wine, honey, fish, and timber, by the Danube.

COMTE (François Charles Louis) was born, August 25th 1782, at St. Enimie, in the French department of the Lozère, and had already acquired a reputation as a lawyer (*avocat*) at the period of the first restoration (1814). He was conspicuous among those who then sought, by every

legislative means, to oppose the reactionary measures of the government. His defence of General Excelmans, in 1815, acquired for him, in a high degree, the respect of the liberal party; and he thenceforth was induced to devote himself mainly to politics. In company with his friend Dunoyer, he commenced the publication of a periodical journal, in numbers consisting of 20 sheets; those of smaller dimensions being subjected to a censorship. This journal was styled "Le censeur, ou examen des actes et des ouvrages qui tendent à détruire ou à consolider la constitution de l'état." The editors were, before long, involved in difficulties with the police, by whom they were accused of a design, in their opposition to the existing government, of playing into the hands of the Bonapartists. That such an accusation was altogether groundless, became speedily apparent from the fact, that only three days previous to the entrance of Napoleon into Paris, after his return from the island of Elba, Comte put forth a pamphlet, entitled "De l'impossibilité d'établir une monarchie constitutionnelle sous un chef militaire, et particulièrement sous Napoléon." During the hundred days, Napoleon attempted in vain to enlist the author in his cause. The latter declined every office that was offered him, as well as the proffered editorship of the "Moniteur universel," the official journal of the imperial government. On the second restoration of the Bourbons, similar prosecutions with those to which he had before been subjected, were instituted against him; and, on account of an article in his journal, then published under the title of the "Censeur européen," he was condemned to be imprisoned for a year, and to pay a considerable fine. In the mean while, through the active support received by him from the liberal party, and more particularly from General Lafayette, he was enabled to transform his journal into a daily paper, which, in 1820, was united with the "Courrier français." A judicial sentence passed upon him, to which he was unwilling to subject himself, led to an exile from his country of five years' duration. He was hospitably received, first at Geneva, and next at Lausanne, where he was appointed to the professorship of Natural Law. Here, however, not finding himself at his ease, in consequence of the intrigues of the French police to render him an object of suspicion to the authorities of the "Pays de Vaud," he quitted Switzerland, in 1823, and went to England; in which country he remained 18 months. Return-

ing, at length, to Paris, he endeavoured, but without success, to be reinstated as an advocate at the French bar. Then came the revolution of July, when he was appointed "Procureur du roi" (attorney-general). This office, however, which was little in harmony with his political views, he held only for a short time. He was, subsequently, a member of the chamber of deputies; and, as such, voted with the opposition. He died in the month of April 1837.—The most important of his works is his "Traité de législation, ou exposition des lois générales suivant lesquelles les peuples prospèrent, dépériissent ou restent stationnaires" (4 vols. 1827).

CONCEPTION\* was formerly a flourishing town, containing several good buildings, and as many as 20,000 inhabitants. It suffered considerably in the late wars; and, in 1835, was almost entirely destroyed by an earthquake. Its population, at present, does not exceed 10,000.

CONCHOLOGY.\* This term, as generally employed, is applied to that branch of natural history which treats of animals provided with testaceous coverings, though, as stated in the first part of this work, it properly designates only a knowledge of the shells themselves, without reference to the animal contained in them, and hence is improper in the present state of the science; but it would lead to no good purpose to attempt to substitute for it the more appropriate designation of *Conchylology*, or that of *Malacology*, proposed by Blainville.—The animals in question form the class *Mollusca* of Cuvier. They are thus defined by Blainville. "Symmetrical animals, whose body and its appendages are soft, not articulated, and covered by a skin or mantle of a variable form, on or within which is, most generally, a calcareous covering (the shell), formed of one or more pieces. The circulation is complete, the blood white, the heart aortic. The respiration is either aquatic or aerial. The nervous system is composed of a brain-like ganglion, situate below or around the œsophagus, and communicating with the nerves of function; those of locomotion being lateral."—Molluscan animals, as thus defined, are essentially soft, though in some cases they are somewhat hard or coriaceous externally; but in general they are almost gelatinous, and rapidly decompose after death. Their colour is usually pale, or of a yellowish or dirty white, and opaque, but some present the most vivid tints, or are almost transparent. Their form is exceedingly varied. Their envelope, or mantle, is sometimes closely

adapted to and connected with the body, sometimes is partially free and expanded into processes of different shapes, or again, as in most bivalve shells, it is attached to the body only at a few points, and forms two large leaves which enfold the body. This mantle is muscular and very contractile, sometimes soft, but often hard and coriaceous, forming in many cases the only external protection to the animal, when it is said to be naked; or it may secrete a more or less calcareous substance called shell, as an additional defence. Such is the case in the larger proportion of the Mollusca. This shell may be external or internal, rudimentary or perfect. The mantle, as said above, varies considerably in form: sometimes it is in the shape of a flat shield covering the back; sometimes it is in two lobes which meet at their edges, so as to appear like a bag; or these lobes may be perfectly united, except at certain openings, for the passage of the excretions or of certain organs; or, finally, it may present free edges, which are either single or variously lobed or fringed. It is to the mantle that the animal owes its colour, and to it also the shell owes its origin. This shell is composed of animal and calcareous matters, united in different proportions in different species. It is formed by a successive deposit of layers, one within the other, the most recent and internal projecting somewhat beyond the others, thus increasing the size of the shell in a sensible but gradual manner. According to the mode of deposit, these layers may be lamellar, fibrous, or compact; almost every group of Molluscous animals differing in this respect, as has been shown by the experiments of Dr. Carpenter. — Most shells are hard, compact and opaque, but at the same time brittle; in these the calcareous portion is greater than the animal. On the other hand, some are thin, fragile and translucent, or even in some cases flexible and corneous; here the animal matter predominates over the calcareous, which may be wholly wanting; this is more peculiarly the case in those species which float on the surface of the sea, and are not exposed to the accidents to which the more littoral ones are subjected. This deficiency of calcareous matter is almost universal in all internal shells, as the mantle serves as a sufficient covering to protect them from injury. The forms of shells are almost infinite, but they may be classed in a few great divisions. Thus they are composed of one or more pieces called *valves*; when there is but one they are termed *univalve*; when two, *bivalve*;

when many, *multivalve*. — Univalve shells present two principal modifications of form, the cone and the cylinder; these may be long or short, single or combined, thus giving rise to an infinite variety of shapes, especially when, as is constantly the case, there are superadded numerous minor differences as regards the size and development of the lip, the existence or absence of processes, &c. In many of this great group of shells there is often to be found another part of great importance; this is a corneous or calcareous lid or door affixed to the animal, by means of which, when withdrawn into the shell, it is enabled to close the opening; this is called the *operculum*, and may be complete or incomplete, that is, closing the mouth of the shell, either entirely or only partially. — The construction of bivalve shells is widely different. In them there is, it is true, a faint attempt towards the spiral in each of the valves, as is shown in the convolution of the beaks in some species; but, in general, they may be considered as two more or less concave bodies united together by a hinge or ligament, or both. Sometimes, but rarely, there are accessory pieces or imperfect valves, to aid in the protection of the animal. — In multivalve shells, the different portions are connected together by the mantle of the animal, as in the Chitons, which are the only true multivalve mollusca; in the Cirripoda, generally included in this class, belonging to the Articulata. Almost all shells, whether univalve, bivalve, or multivalve, are protected externally by an animal membrane of different thickness, consistence, &c., according to the species; this membrane is called the *epidermis*. When the shell is internal, it is always wanting; and its presence or absence is therefore a guide in the determination of its character in this respect. The shell is always connected to the animal by a muscular attachment, where they are external; where this is not the case, they are merely kept in place by the folds of the mantle. The place of attachment of these muscles is always visible on the shell, and is known under the name of *muscular impression*; and the number, form, and situation of these is of much importance in determining to what group the animal belongs. In bivalve shells, besides the imprint left by the muscles, there is often a more or less marked line extending around the shell, just within the margin; this is the *palleal impression*, resulting from the adherence of the mantle at this place to the shell.

Molluscous animals may be divided into

two great classes: those furnished with a head and those in which this part is wanting. In some of the first of these, the head is placed on a distinct neck, as in the cuttle-fish; but in others there is no such marked separation of it from the rest of the body; while in others again it is so hidden, and as it were masked, that it is scarcely to be distinguished. In the acephalous class, the situation of the head is merely indicated by the organs of nutrition. The mouth is always at the most anterior part of the animal, and is of various forms, and is often furnished with appendages of different kinds; thus in most bivalve shells there are four lamellæ; in the Aplysia there are long appendages on each side; in some, the mouth is provided with horny jaws; in others it is furnished with a kind of proboscis. The head of most of these animals is provided with appendages called *tentacula*. These vary in number, but are always in pairs; they are usually more or less retractile, or simply contractile. Their exact office is not ascertained, but they appear to be the principal organs of touch. They often bear the eyes either at their extremity, or on some part of their surface; but in other cases these organs are wholly separate from them, and are then almost always indistinct; whilst, when they are in connection with the tentacula, they are always distinguishable. The eyes vary much in structure; in some, as the large conch, they are very large, and almost as perfect as in animals of a higher grade; whilst in others they are scarcely developed, or may be wholly wanting, as in the bivalves. Vision, in fact, appears to be confined to three only of the classes of Mollusca; and even in one of these it is by no means satisfactorily proved that it exists. The other senses also, with the exception of that of touch, are very feebly developed, or are wholly wanting. A few only of these animals are endowed with organs of taste and hearing; but none of them appear to possess any apparatus of smelling. The sense of touch is, however, very much developed in the greater proportion of them; nor is it confined to any one part of the animal, the whole body appearing to have great sensibility. At the same time, there are certain organs which are more peculiarly destined to this office; these in some are the tentacula, in others the fringed expansions of the mantle, or even the appendages on the surface.—The whole of these animals are furnished with a digestive canal, the openings of which are variously situated. The liver is always

very large; and in the more perfect, there are salivary glands, and organs of mastication of different degrees of completeness. The organs of circulation consist of a heart, formed of a ventricle and one or two auricles. To this is sometimes added various expansions connected with the organs of respiration, which are termed pulmonary hearts; but their true office is not understood. The organs of respiration vary exceedingly, but may be considered as lungs or gills. In the first, they consist of a cavity lined with blood-vessels, and in most cases fitted to breathe air alone, but in others capable of separating this fluid from the water. In the second they are solely destined to aerate the blood through the medium of water, as in fishes.—The reproductive system varies much in the Mollusca, some of these animals being monoecious, whilst in others the sexes are distinct; but in both, except in a few heterostrophe species, the generative organs are situated on the right side. They are with very few exceptions oviparous, and it is even thought that when the young are brought forth in a formed state, they have been hatched within the body of the mother. But in all instances they are born in a perfect state, and undergo no metamorphosis or change of form.—The organs of locomotion may be considered as divisible into two great classes, those fitted for crawling, and those adapted for swimming. As these parts have furnished Lamarck and others with characters for the different orders, they require to be noticed somewhat in detail. Sometimes, as in the Cephalopoda, these organs consist of arms, situated near the head, and usually provided with suckers; they are used in some species for crawling, in others for swimming, either alone, or with the aid of fin-like expansions. These arms and fins are variously modified, according to the peculiar habits of the species. In the Pteropoda, the organs of motion consist of large membranous fins, by means of which they are enabled to move very rapidly through the water. In the large order of Gastropoda, progression is performed by means of a muscular disk, termed the foot, situated beneath the body of the animal; this disk is capable of great contraction and expansion, thus enabling the animal to crawl. This motion, as is observed by Blainville, differs totally from that of reptiles. "It is rather a sliding forward, produced by a series of almost imperceptible undulations, caused by the successive action of the numerous sets of small lon-

gitudinal muscles." In some species this action is superseded by one analogous to that of certain caterpillars, the animal resting on the anterior part of the foot, whilst it brings the hinder portion in apposition with it, when the anterior portion is carried forwards, and so successively. Some of the Gasteropoda have the extraordinary power of walking on the surface of the water in a reversed position; but it has never been explained how the animal thus overcomes the power of gravity. In many of the crawling Mollusca there are additional organs, in the form of fins, membranes or vesicles; in which case the foot is always small. In the other orders the foot becomes of minor importance, and even may be wholly wanting, especially in those bivalves which are always fixed by the adherence of their shell to one spot. In those which are free, the foot acts either by pushing the animal onwards, by its gradual extension, or as a lever or spring, by which it is thrown forward in a succession of leaps. The form of the foot varies in almost every genus of this order. Sometimes it resembles a kind of sucker, as in *Nucula*; sometimes it is tongue-shaped, as in *Mytilus*, hatchet-shaped, as in *Venus*, &c.—Various classifications of the Mollusca have been proposed, founded in some instances on the form of the shell alone, in others on the peculiarities of the animal, or on both these combined. It would be impossible, in the limits assigned to this notice, to attempt even a sketch of these, to notice their merits or demerits. The most generally adopted, is that of Lamarck, with certain modifications. The following by Gray is one of the best, and will give a sufficient idea of the great divisions:—A. Crawling on a foot placed under the body. I. *Gasteropoda*, which have a distinct head, furnished with eyes and tentacles, and usually protected by a conical spiral shell. II. *Conchifera*, having the mouth placed between the gills; they and the body enclosed between the two leaves of the mantle, and the whole covered with two shelly valves united by a cartilage. B. Substitute of a foot. III. *Brachiopoda*, having the mouth placed at the base of two spirally twisted arms, between the two leaves of the mantle, which are covered with two separate shelly valves. IV. *Pteropoda*, having a prominent head, with one or two pairs of fins on the sides of the neck, by which they swim. The body often covered with a thin glassy conoidal shell. V. *Cephalopoda*, having a large distinct head, furnished with eight or ten arms, by means

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of which they walk head downwards.—As much difference exists among conchologists in their description of shells, as to their natural position, or the manner in which they are placed on the animal, it may be stated that the portion over the head of the animal is the front; the right and left sides of a univalve shell, when placed on its opening with its apex to the observer, corresponding to the same sides of the animal. In bivalves, if the shell be placed with its hinge part uppermost, and with the ligament towards the observer, it will be in its natural position, and its right and left sides will correspond in like manner with his. Linnæus and his followers, and even Lamarck, in most cases have described bivalve shells just the reverse of this; and hence much confusion has arisen.

The history of conchology, since the publication of the article in a former volume (iii. 402), may be traced in a few words; although its progress in that period, both as regards the discoveries of new species and genera, and in the elucidation of the animals, has been greater than at any previous epoch. The great and essential improvement has been, that the form of the shell has not been considered as of paramount importance in the determination of the great groups, but has been justly deemed subordinate to that of the animal, while it has been allowed its due weight in the separation of the smaller divisions. It has been fully shown, that while in many cases, the dissimilarity or resemblance in two shells will be attended with a like diversity or likeness in the animals, the exceptions are almost as numerous; thus, for instance, the two genera of *Patella* and *Lottia* are so similar in their shells, that the most experienced conchologist would be unable to distinguish them; yet the animals are widely different in their organization. At the same time, a due regard must be paid to the shell, and more especially since the well-conducted experiments of Dr. Carpenter demonstrate that these parts are capable of furnishing characters of primary importance in the determination of groups, drawn not from the form, but from their intimate constitution. This beautiful discovery has not yet been made sufficiently available to ascertain how far it may be useful in the minor divisions, but opens a wide field to the observer.—In England, the excellent papers of Owen on the Cephalopoda and Brachiopoda have widely extended a knowledge of these groups; whilst the labours of Blainville, Deshayes, Philippi, and many

others, in France and Germany, have done much to establish the science on a firm basis. In the elucidation of species, the magnificent works of Sowerby and Reeve are in the course of publication in England, those of Keiner and Chenu in France, the republication of Martini and Chemnitz, by Kuster, various Monographs, by Philippi, Pfeiffer, and others, in Germany, the continuation of the great work of Poli, by Chi-aji, in Italy, besides a multitude of less imposing, but equally valuable treatises, by different authors; leaving nothing to be desired in this respect. Nor have the naturalists of the United States been idle during this period, as is evidenced by the numerous publications of Lea, Conrad, Gould, Binney, Haldeman, Mighels, Adams, and others, which have increased a hundred-fold our knowledge of our native mollusca.

**CONSIGNMENT OF GOODS**, in commerce, is the delivering or making them over to another: thus, goods are said to be consigned to a factor, when they are sent to him for sale, &c. He who consigns the goods is called the *consignor*; and the person to whom they are sent is the *consignee*.

**CONSTANT\* DE REBECQUE** (Benjamin). On the discussion in the chamber of deputies of the new charter, after the revolution of July, he was among those who declared themselves most decidedly adverse to the adoption of a republican system of government. He expressed his conviction that a republic in France was utterly impossible, and that the geographical position of that country, as well as its political, social, mercantile, and military condition, absolutely required it to be a constitutional monarchy. He died on the 6th of December 1830.—His speeches, delivered in the chamber of deputies, have been published in 3 volumes; the last after his death, by Pagès. His work, entitled "De la religion considérée dans sa source, ses formes et ses développements," has been extended to 5 volumes; it was completed in 1830. In 1829, he collected a number of his smaller productions, and published them under the title of "Mélanges de littérature et de politique;" and in 1833, a posthumous work of his appeared, styled "Du polythéisme romain, considéré dans ses rapports avec la philosophie grecque et la religion chrétienne," in 2 volumes, being a supplement to that on religion, already mentioned.

**CONSTANTIN** (Abraham), a distinguished painter on porcelain, was born at Geneva, in Switzerland, about the year 1785, but learned his art in Paris, and resided many

years in Italy. From this country he returned to Paris in 1826, and was made by the king a member of the legion of honour. In 1832, he again visited Rome, for the purpose of making copies for Louis Philippe of some of Rafael's master-pieces in the Vatican. Among the pictures of the great masters copied by him on large porcelain plates, those perhaps in which he has succeeded best are Rafael's Ezechiel, Fornarina's Amor and Psyche, and Henry IV.'s entrance into Paris of Gérard. He has also attempted original pieces, as well as portrait painting. The best collection of his works is in the possession of the king of Sardinia, at Turin.

**CONSTANTINA**; the chief town of the province of the same name, in the French colony of Algeria, in Africa. It has, exclusive of the garrison, about 23,000 inhabitants, of whom one-half are Cabyles, one-fourth Moors, and the remainder Turks and Jews. Before the occupation of it by the French, the population is said to have amounted to 40,000. It is situated on a rocky eminence, and is strongly fortified. The surrounding country is extremely fertile. There are manufactures of saddles, bridles, boots and shoes; and a few coarse woollen goods, and articles of which iron constitutes the principal material, are also made. This place was formerly one of the most considerable *entrepôts* of the commerce of N. Africa: at present, a good deal of trade is still carried on with the inhabitants of the interior, who furnish gold-dust, ostrich feathers, slaves, &c., in exchange for corn, saddlery, and articles of European manufacture. The most remarkable of the edifices, recently constructed, is the palace of the former Bey.—Constantina is situated on the site of the ancient *Cirta*, the capital of the kings of Numidia, which was destroyed in the year 311, and again restored by Constantine the Great, after whom it was thenceforth called. And there are many remains of antiquity to be seen; such as a Roman bridge and aqueduct, cisterns, &c.

**CONSTITUTION.\*** For additional information concerning the constitutions of different countries, the reader is referred to the articles which treat of those countries respectively.

**CONTINUITY** (Law of) is that law of nature by which a body cannot pass from one state to another without passing through all the intermediate states; a law which is sometimes expressed, by saying that every change in the condition of a body takes place in succession, and not *per saltum*. This law was known to Plato;

it was distinctly stated by Galileo; but Leibnitz was the first who applied it as a principle to test the consistency of theories, or supposed laws of nature. A remarkable application of the law of continuity was made by John Bernoulli, in an *Essay on the Laws and Communication of Motion*, which gained the prize of the Academy of Sciences of Paris in 1724, to prove that perfectly hard bodies cannot exist; because, in the collision of such bodies, a finite change of motion must take place in an instant; an event which, by the law in question, is impossible. This conclusion was objected to by D'Alembert and Maclaurin, who, on account of it, were disposed to reject the law of continuity altogether; but the difficulty is got over by supposing (what, on various grounds, is extremely probable) that there is no real contact, and that bodies begin to act on each other when their surfaces, or what seem to be their surfaces, are yet at a distance.

**CONTROLLER**, in law; an officer appointed to control, or verify, the accounts of other officers.

**COOK'S ISLANDS**; a numerous group of islands, situated to the W. of the Society Islands. They were discovered by Captain Cook, and were named after him by Krusenstern. They do not rise much above the level of the ocean, and are surrounded by coral reefs, which render them inaccessible excepting by very small craft. There is a scarcity of drinking-water, for which the inhabitants are often glad to find a substitute in the milk of the cocoa-nut. They amount in number to about 50,000, and belong to the Malay race, like those of the Society and Friendly Islands; and a portion of them have been converted to Christianity, through the labours of European missionaries.

**COOPER**\* (Sir Astley). Queen Victoria, on her accession to the throne, in 1837, appointed him to be her physician. He died on the 12th of February 1841, after having long been a sufferer from the gout, of dropsy in the chest. Besides his works already mentioned, he is the author of "Observations on the Structure and Diseases of the Testis" (1830), and of "The Principles and Practice of Surgery" (2 vols. 1836-37). An account of his life was published in 1842, in 2 volumes, by his nephew.

**COOPER** (Thomas), M. D. and LL. D., was born in London, October 22d 1759, of parents whose circumstances were not affluent, but who sent him to Oxford, where he devoted himself with zeal to

study. The bent of his mind was towards the natural sciences, particularly chemistry, in which he afterwards became highly distinguished. In the variety and extent of his knowledge, he has seldom been surpassed. He did not, however, neglect those studies, which were peculiarly necessary to fit him for the profession of the law, for which he was intended; and he became an accomplished classic scholar. Removed to one of the inns of court, he still pursued his favourite studies, particularly anatomy and medicine, in which he became an adept, and was frequently called into consultation after he came to America. He was called to the bar, and went the circuit for a few years; but took a more active part in the political agitations of that eventful period. The French revolution was then in progress; and he was sent with Mr. Watt, the celebrated improver of the steam engine, as a deputy from one of the democratic clubs in England, to the clubs of the same stamp in France. While there, he took part with Brissot, and the party of the Gironde; but, perceiving in its weakness and irresolution, that it must sink beneath the weight of the Mountain, he returned to England, despairing of the cause of rational liberty in that country. For this mission, he and his friend Mr. Watt were denounced, by Mr. Burke, in the House of Commons; and Mr. Cooper replied by an inflammatory pamphlet, which had a rapid sale; and his publisher proposed to print it in a cheap form, to which Mr. Cooper consented. Shortly afterwards, he received a note from the attorney-general (Sir John Scott, subsequently the distinguished Lord Chancellor Eldon), informing him that, though the government took no exception to his pamphlet, while the price of it confined its circulation to the middle and upper classes, yet, that it would become his duty to file an information against him, if he published it at a price that would put it into the hands of the million. Mr. Cooper acknowledged his civility, and relinquished the project. He brought with him from France the secret of procuring chlorine from common salt, which has since entirely changed the process of bleaching; and he became a bleacher and calico-printer at Manchester: but, like every adventurer in a new business not thoroughly understood, was unsuccessful.—He came to America, and joined his friend, Doctor Priestly, at Northumberland, in Pennsylvania, where he established himself as a lawyer. His love of politics still clung to him; and he took an active part



with the democratic party, then under the lead of Mr. Jefferson, against the administration of the elder Adams. He returned, for a short time, to England, to be present at the trial of his friend, Mr. Thomas Walker, of Manchester, who was included in the state prosecutions instituted by Sir John Scott; and was himself, shortly after his return to America, prosecuted, convicted, and imprisoned, on the "sedition act." He was appointed, by Governor McKean, one of the commissioners to settle the contest with the Connecticut claimants in Litchfield county,—an object which he accomplished, by dint of energy and perseverance, though beset with difficulties which had baffled two previous sets of commissioners. Some time afterwards, he was appointed, by the same governor, to the office of president-judge of a judicial district; in which office, he exhibited the same energy of mind that had before distinguished him: but, becoming obnoxious to some influential men of his own party, a complaint of arbitrary conduct was got up against him, and so artfully fomented before the legislature, that he was removed by legislative address.—He was then called to the chair of chemistry in Dickinson College, at Carlisle, whose declining reputation he sustained, for a few years, by his own; but was eventually transferred to the chair of Chemistry, as applied to the arts, in the University of Pennsylvania, which he relinquished for the chemical chair of Columbia College, in South Carolina. Of this institution, he subsequently became the president. He retired from it, under the pressure of increasing infirmities; and the Legislature then confided to him the revision of the statutes of that state, in the performance of which duty he died, at an advanced age, May 11th 1840.—His habits were eminently social; and he was stored with original literary and political anecdotes. He was the author of a translation of Justinian's Institutes, with copious notes, and references to English and American decisions; a treatise on the English and American bankrupt laws; the *Emporium of Arts*, containing an immense fund of information about various processes of manufactures, then unknown in America; several translations of French medical works, with notes and observations; a metaphysical treatise on personal identity; a treatise on political economy; and a great number of controversial pamphlets on politics, physic, and divinity. He published, also, an edition, with notes, of Thomson's Chemistry.—It may be added, that the degree of M. D. was conferred

on Mr. Cooper about the time of his removal from Carlisle to Philadelphia.

**COPAIBA** (Balsam of); a resinous juice, flowing from incisions made in the stem of a South American tree, called by botanists the *Copaifera officinalis*. It is of the consistence of oil, and is used in medicine. Taken in a small quantity, it operates as a diuretic; in a larger quantity, it is an aperient. It has been of service in the treatment of hæmorrhoids.

**COPENHAGEN**.\* The population of this city, in 1834, was 119,292.—The trade of the port is said to have declined; but it is still considerable. In 1837, there entered the port 1493 vessels (not including steamers); of which 164 were Swedish, 463 Prussian, 154 Norwegian, and 95 British.

**COPYRIGHT**.\* The law of copyright in Great Britain is now embodied in an act of parliament, which was passed July 1st 1842. As to all works published after the date of the act, it extends to the lifetime of the author, and to 7 years after his death; but, if these 7 years should expire within 42 years from the first publication, the copyright is to exist till the termination of 42 years from the date of publishing. The copyright of a book published after the author's death, and after the 1st of July 1842, is to exist 42 years in the person of the proprietor of the manuscript. The same period of copyright is extended to the authors of books published before the 1st of July 1842, and to their representatives; but publishers, who have acquired the copyright of them, hold it only to the extent of the old law (28 years, or the lifetime of the author), unless the author, or his representative, holding the copyright, consent to accept the benefits of the act, and enter a minute to that effect in the register at Stationers' Hall; when the remaining copyright "shall be the property of such person or persons as in such minute shall be expressed." Where the holder of a copyright, after the author's death, refuses to give the world the benefit of the work, the judicial committee of the privy council may grant a license to publish it, on its being shown to be advantageous to the public. Instead, too, of the delivery of a copy of every new book to as many as nine public libraries, one is to be sent to each of the following four:—the Bodleian, at Oxford; the Public Library, at Cambridge; the Advocates' Library, at Edinburgh; and Trinity College Library, at Dublin. Another copy is required to be sent to the British Museum, on the best paper used in the impression, with all plates, &c., that may belong to it, finished

in the best manner; and a like copy of every subsequent edition, if there be alterations. By a late act, copyright may be secured in works first published abroad, if the publication have been in a country which grants a reciprocal privilege to books first published in Great Britain. The privilege is proclaimed by order in council. It cannot exceed the amount of copyright privilege which the acts of parliament allow to British publications; but it may be for any shorter period that the order in council may direct. The acts which have been referred to include music, maps, charts, and plans. In dramatic compositions, there is now, by an act passed on the 10th of June 1833, also a copyright as against performances on the stage, which are subjected to the same limitations, in respect to time, as all other literary property; and it extends to all pieces not printed and published at the passing of the act, as well as to all that have been printed and published at any time not more than ten years before that date. Since then, musical compositions have been placed, in regard to copyright, precisely on the same footing as dramatic compositions. Another statute, enacted two years afterwards, constitutes a copyright in lectures delivered, which are not to be published without the lecturer's consent, either by persons who have obtained liberty to attend them, through the payment of fees, or by any other unauthorized person. This privilege, however, extends only to the period of copyright at the time the act was passed, which was 28 years; no mention of this species of copyright being made in the subsequent statute, further extending that period to 42 years, as above mentioned.—In most of the German states, copyrights are perpetual; and, to prevent spurious copies being introduced from other states, a late resolution of the Diet has declared that a copyright secured in one state is good in all. Copyright was granted in Russia, in 1828, to an author and his heirs, until 25 years after his decease. In Denmark, it was, in the same year, declared to be perpetual; and all reprints, even of books published originally in foreign countries, were prohibited, unless with the permission, first obtained, of their authors or proprietors.—In the United States, the law respecting copyright has been modified, by extending the period during which an author, or his legal representatives, are to enjoy the privilege, from 14 to 28 years; as well as by extending it 14 years longer, in case the author, his widow, or any child of his, be still living at its close. An at-

tempt was made in Congress, in 1837, in consequence of the presenting of a petition to that body, signed by 56 British authors, for the establishment of a reciprocal copyright between the United States and Great Britain, to place the subjects, or residents, of the latter country, and of France also, on an equality, as to the privileges of copyright among us, with our own citizens. But the bill which was introduced into the Senate, for this purpose, was not acted upon during the session; and the existing state of things, in reference to the matter, has, since then, been allowed to remain undisturbed.

CORAY\* died at Paris in 1833.

CORK.\* The population of this city, which, in 1821, was 100,658 souls, amounted, in 1831, to 107,016, in the proportion of about 1 Protestant to 5 Catholics.—The Cork Institution was founded in 1803, and was at first supported partly by private subscriptions, but chiefly by a grant of public money, which being withdrawn in 1830, the institution has since declined; and the botanic garden attached to it has been converted into a cemetery, on the plan of that of *Père la Chaise* at Paris.—The charitable and benevolent institutions are numerous. The principal of these are a Foundling Hospital, which, in 1833, maintained 446 children within, and 872 without the establishment; two Infirmeries and Dispensaries; a Fever Hospital, with accommodations for 300 patients; a Humane Society and Vaccine Institution; a Lying-in Hospital; a Lunatic Asylum, which received 376 patients during the year 1836; a House of Industry, maintaining upwards of 1200 paupers; a Magdalen Asylum; and several almshouses. A loan fund, commenced in 1774, still continues to grant loans of from £2 to £3, repayable by weekly instalments.—The trade of Cork is very considerable. The chief articles exported are provisions, together with corn, meal, and flour. The butter exported has obtained a reputation in the British and foreign markets; which is said to be owing to the careful inspection to which it is subjected, under the direction of a select body, chosen from among the chief merchants, and called "the Committee of Merchants." This committee performs, likewise, all the functions exercised by the Chambers of Commerce in other mercantile towns.

CORMENIN (Louis Marie de la Haye, Vicomte de), perhaps the most distinguished living political writer of France, and one of the most influential members of the Chamber of Deputies, was born at

Paris, January 6th 1786, and is descended from an ancient noble family. Both his father and grandfather had occupied prominent stations in the French Marine. Cormenin studied the law, and was admitted to practise as an advocate (*avocat*), but was prevented from doing so with any earnestness by a certain diffidence, which he has never been able entirely to overcome. He was, in 1810, appointed an auditor (*auditeur*) in the Council of State, and attached to the committee on legislation and matters in dispute (*contentieux*). In 1813, he was directed to accompany one of the extraordinary commissioners, then despatched by the emperor into the departments to excite the inhabitants to a vigorous resistance of the foreign invaders. In the year following the first Restoration he became "Maitre des Requêtes;" but, on the landing of Napoleon from Elba, he abandoned his post in the Council of State, and, sending to the minister of war a contribution of 500 francs towards the equipment of the national guard, went as a volunteer to Lille, to assist in the defence of that important fortress. Then came the battle of Waterloo, and the second Restoration. Cormenin, going back to Paris, resumed his functions in the Council of State, in which body he henceforth represented the views of the more moderate liberals.—Previously to this, he had already appeared as an author of a number of "Odes nationales." As a poet, however, his success was very limited, and he had the good sense to relinquish poetry, in consequence, altogether. From the year 1818, he devoted a portion of his time to the resolution of some of the most important questions relating to the administration of government. In that and the following year, he published his work "Sur le conseil d'Etat envisagé comme conseil et comme juridiction," and his "Essai sur la responsabilité des agents du gouvernement, et les garanties des citoyens contre les décisions des ministres et du conseil d'état;" and in 1822 appeared another still more important work, entitled "Questions de droit administratif"—a work which was entirely remodelled in 1826, and which has largely contributed to his reputation.—In May 1828, shortly after he had attained the requisite age, he was elected a member of the Chamber of Deputies by the city of Orleans. Not possessed of the gift of oratory, he did not take a prominent part in the discussions. His course as a deputy was, however, remarked for its uniform consistency with the principles which he avowed, and of which he had

heretofore been the advocate. He was one of the signers of the famous address of the 221 deputies, in 1830, directed against Prince Polignac and his colleagues in the administration. On the consequent dissolution of the Chambers, he was re-elected by his former constituents, Anticipating then the approach of a revolution in the government, he resigned his seat in the Council of State, that, come what might, he should not be embarrassed in the performance of his representative functions by any official connexions. When the revolution of July had taken place, and Louis Philippe had been called to the throne by the Chamber of Deputies, he refused to take the required oath of fidelity to the new monarch, on the ground of the incompetency of the Legislature, or of any other authority but that of the people of France, assembled in their primary meetings, to determine on a change of dynasty, and ceased, of course, to be a deputy. He repelled every attempt made to win him over to the support of the new government; declining the appointments, successively tendered to him, of director-general of the public works, of attorney-general (*procureur général*), and others. Nevertheless, after all that had occurred, he was, three months afterwards, elected anew a deputy, from the department of the Ain, and consented to take the prescribed oath. From this time forth, he took an active part in the discussions of the Chamber, by reading, from the tribune, an exposition of his views on many of the most important subjects presented for consideration; and as his views were exhibited with great ability, always exactly in point, and never at too great length, he was generally listened to with the greatest attention, and his influence gradually extended itself. Yet the impression, which in this way he made, bore no comparison with that produced by the articles prepared by him for the public journals, or by the pamphlets of which he was the writer, on the more exciting political topics of the day. If these do not evince the extraordinary force characteristic of the writings of a Paul Louis Courier,—by their transparent perspicuity, and singular logical acuteness, they were calculated to produce effects scarcely less great. Cormenin's "Trois Philippiques," or "Lettres sur la liste civile" saved to the nation several millions of francs. A supplementary pamphlet, under the title "Très humble remontrances de Timon au sujet d'une compensation d'un nouveau genre que la liste civile prétend établir entre quatre millions

qu'elle doit au trésor et quatre millions que le trésor ne lui doit pas" (1838), completely attained the object proposed by its publication; since the government did not, in fact, venture to realize the claims which it had put forth against the public treasury. Two other pamphlets of Cormenin are here deserving of mention on account of the importance attached to them at the time of their appearance: the first of these (1840) was directed against the proposed endowment (*dotation*) of the duke of Nemours, a measure which was subsequently rejected by the Chamber of Deputies; and the other was the "Avis aux contribuables" (1842), founded on a comparative view of the budgets of 1830 and 1843. This last was regarded by the existing ministry to be of such moment as to require on their part a formal reply to it, published in the "Moniteur," to which, in his turn, Cormenin again replied.—Notwithstanding his biting satire, and the keenness with which he has so repeatedly attacked the measures of government, Cormenin has been careful to violate no law, and to afford no opportunity to the men in power, to whom he had become peculiarly obnoxious, to institute a public prosecution against him. This circumstance, by bearing of itself the strongest testimony to the soundness of his judgment in the management of party tactics, has added much to his influence in the community.—Among Cormenin's works which have no direct connexion with party politics, the most remarkable are the "Études sur les orateurs parlementaires," where he delineates, and analyses with great discrimination, the style of oratory of the several speakers in the French Chambers; and the "Dialogues politiques et utilitaires," being a popular exposition of the most interesting questions in political economy,—a subject to which the author had, for a time, directed a considerable portion of his attention, especially in its application to the great practical question, how the condition of the poorer classes of a country is to be improved.

**CORN LAWS.\*** A succession of bad harvests, conspiring with the difficulties thrown in the way of the importation of corn from abroad, during the wars which grew out of the French revolution, led, in Great Britain, to an extraordinary investment of capital in the cultivation of the land. When these causes ceased to act, the effect was apparent in a fall in the price of corn. The average price of wheat, for example, which, in 1810, was about 90s. estimated in gold, and, in 1812, as

high as 100s., fell, in 1814, to 54s. per quarter. In consequence of the cry of agricultural distress which then ensued, Parliament was induced to pass the act of 1815, securing the monopoly of the home market to the British grower, until the average price of wheat should reach 80s.—Since the passage of this act, the quantity of waste land taken into cultivation annually has been diminishing. In the 10 years 1810–19, no fewer than 853 enclosure bills were passed; but between 1820 and 1830, the number was only 205. This diminution has been attributed, by many of the land-owners, to the circumstance of the previous enclosures having greatly reduced the quantity of waste land fitted to be brought into cultivation. It is, however, in a much greater degree attributable to the fact, that a larger amount of produce has been drawn, especially in the N. counties, from the same portion of ground, than was obtained in general at the beginning of the century,—an improvement which has been effected by the more complete drainage of the land, the adoption of better rotations, the enforcement of greater economy in the management of details, and other causes. That such has been the case, Mr. Porter, in his "Progress of the Nation," has clearly shown, by exhibiting the proportionally decreasing quantities of land brought into use from 1801 to 1835, in contrast with the increase of the population during the same period. From 1820 to 1835, moreover, there was no increase worth mentioning in the quantity of foreign corn entered into the ports of Great Britain for home consumption, as compared with the previous 10 years; while there can be no doubt that the bulk of the population now consume more corn, and particularly wheat, than at any former period. According to the estimates adopted by Mr. Porter, 10,000 acres of arable and pasture land, which, as cultivated in 1801, supported 4327 inhabitants, do, at the present day, owing to the improvements brought about in the art of agriculture, support 5555 inhabitants; being an increase of about 25 per cent. in this period. And we are told by the same author, that, with scarcely any exception, the revenue drawn, in the form of rent, from the ownership of the soil, has been at least doubled in every part of Great Britain, since 1790.—In late years, the British corn laws have come to be viewed by a large portion of the labouring classes as a monopoly of the means of subsistence, established for the benefit of the wealthy land-owners at the expense

of the poor; and some of the most distinguished men of the nation have been, and are still engaged, in *agitating* for their repeal,—a measure which they have a deep conviction is called for on the principles of an enlightened political economy. This agitation has been already (1845) crowned with so much success, that it is not improbable one or two bad harvests are all that is wanting for the accomplishment of the object aimed at. When it shall actually have been accomplished, it will constitute one of the most important events of modern times; in as much as, from the influence which such a testimonial, borne by Great Britain to the advantages to be derived from a greater freedom of commerce, cannot fail to exert upon the other civilized nations of the world, a general abolition of the existing restrictions upon their intercourse with each other may be expected, with more or less rapidity, to follow. (See *United Kingdom of Great Britain and Ireland*, (Sup.)

CORNELIUS\* (Peter). His paintings in the *Glyptothek* at Munich were completed in 1830. He was employed, in the next place, in representing the principal subjects connected with the Christian revelation, on the walls and vaulted arches of the church of St. Louis, which is said to have been erected by the king of Bavaria for this express purpose. And he furnished, besides, the designs for the fresco paintings in the Pinacotheca, the object of which is to exhibit the history of modern art.—In 1841, Cornelius removed to Berlin at the invitation of the king of Prussia.

CORREGADOR, in Spain, is the name of the first magistrate in the towns, or districts, where there is no Royal Audience, or governor. He is appointed by the king, and is at once a judge, administrator, and chief of the municipality. The *Corregedor*, in Portugal, had formerly the like functions assigned to him; but he is now merely an administrative agent of the government.

CORVETTE; the name given by the French to a small vessel of war, carrying from 10 to 20 guns.

COSTA (Paolo), one of the most distinguished Italian writers of later times, was born, June 13th 1771, at Ravenna. He was educated at the college of that city, and subsequently prosecuted his studies at Padua, under the direction of Cesarotti. Conjointly with the most eminent literary men of Italy, and encouraged by them, he very early came forth as a decided opponent of the innovations of the *Romantic School*, and sought to revive a taste for the

works of the classic authors, and particularly of Virgil and Dante. He held professorships, in succession, at Treviso, Bologna, and Corfu, and died on the 21st of December 1836. The first of his literary productions which attracted public attention was his "Osservazione critiche" (1807), directed against the "Bando della Selva nera" of Monti. As a text for his lectures, he next composed his treatise "Dell' elocuzione" (1818), a work which has been introduced into all the schools of Italy. By his "Divina commedia di Dante Alighieri con tavole in rame" (3 vols. 1819), he has rendered this great national poem more accessible to the Italian youth. He then, in conjunction with Franc. Orioli and Franc. Cardinali, undertook the revision of the great dictionary "della Crusca" (1819-25), which, in its present state, although still deficient in various respects, is unsurpassed by any other work of the kind. He has also written an "Elogio di conte Jul. Perticari;" a novel "Demetrio di Modena," in imitation of Gil Blas; a translation of Anacreon's odes (jointly with Giov. Machetti), of the Homeric *Batrachomyomachia*, and of Schiller's *Don Carlos*; together with some occasional verses. Both tragedy and comedy he attempted with comparatively little success; he was more happy in satire. But he is regarded as excelling in the treatment of abstruse and metaphysical subjects, more especially in his "Discorso sulle sintesi e sull'analisi." His works were collected and published, during his lifetime, in two volumes.

COTTA.\* Besides his career as a bookseller and publisher, already mentioned, he acted a conspicuous part as a public man, which deserves to be noticed. It was in November 1799 that he first appeared as such, being charged by the government of Württemberg with a mission to Paris, in order to negotiate a separate peace with France. He succeeded in forming a treaty accordingly, which was, however, afterwards not ratified. In 1801, he again visited the French capital to promote the especial interests of one of the minor German princes. We find him in 1815 at Vienna during the meeting of the famous Congress, whose decisions settled for the future the territorial arrangements of the several European states, as well as the conflicting claims, in some of them, of different individuals, or classes of individuals. He went there at the earnest desire of the principal booksellers and publishers in Germany, to influence the members of the Congress, to the extent of his

power, in behalf of the liberty of the press. He was repeatedly elected a member of the states of Württemberg, and acted in them uniformly an independent and a prominent part. Among the landed proprietors of that kingdom, he was the first, in 1820, to abolish the remains of the feudal servitude of the peasantry. Model farms were established by him on his estates, affording to the cultivators a practical illustration of various agricultural improvements. In 1824, he made use of a steam printing press at Augsburg, being the first which was introduced into Bavaria. Soon afterwards, he founded at Munich the Literary and Artistical Institute. He made the experiment, in 1825, of a steamboat on the lake of Constance, and, in the following year, regulated with the governments of the districts, situated along the Rhine, the steam navigation of that important river. His last public employment was, in behalf of Württemberg and Bavaria, to negotiate at Berlin, with Prussia, the treaty of 1823, relating to the commerce and customs of these states. He died on the 29th of December 1832.

**Coupons**, from the French, is a term employed in England and elsewhere, to denote the warrants for the payment of the periodical dividends on public stocks, a number of which, being appended to the bonds, are severally *cut off* for presentation as the dividends fall due. The practice of appending coupons prevails chiefly in reference to foreign stocks.

**COURIER** (Paul Louis) was born January 4th 1772, at Paris, where he received his early education, and made considerable progress in the study of Greek literature and Mathematics. He then went to the School of Artillery at Chalons; on quitting which in 1792, he entered the army. After having distinguished himself on various occasions, he took his dismissal from the service after the battle of Wagram, in 1809, through a disgust with the restraints which it imposed, and a desire to devote himself entirely to literary pursuits. On a visit to Italy, towards the close of that year, he discovered, in the Laurentine library at Florence, a complete manuscript copy of the pastoral of Longus, entitled "Daphnis and Chloe;" and he published, in consequence, in 1810, an edition of the entire work, accompanied by the old French version of it of Amyot, and by one of his own of the newly discovered portion of the original, in a style resembling that of Amyot and his contemporaries of the period of Francis I. We are indebted to him also for a critical edition

of the Greek text of Lucian's "Ass of Lucius of Patras," with notes and a French translation; of Xenophon's treatise on "Cavalry and Horsemanship;" and of one or two other minor Greek works. All these evince great acuteness and erudition on the part of Courier.—But it was as a political pamphleteer that he particularly excelled. As such, indeed, he may be said to be absolutely unrivalled. He combated the abuses of the Restoration with inimitable powers of ridicule and satire, and in a style the most admirably adapted to the purposes to which it was applied. For one of the publications referred to, the "Simple discours," which appeared on occasion of the subscription for the purchase of Chambord to be presented to the infant duke of Bordeaux, he was prosecuted by the government, and condemned to two months' imprisonment at St. Pélagie. This prosecution, in its turn, led to the publication by him of another pamphlet, entitled "Une histoire du procès de Paul-Louis Courier, vigneron, &c.," written in a manner worthy of Molière himself.—Courier was assassinated in the neighbourhood of his residence, at Veretz in Touraine, April 10th 1825. A complete edition of his works was published, in 1829-30, in 4 volumes, by A. Carrel.

**COURVOISIER** (Jean Jos. Antoine) was born at Besançon, about the year 1770. He emigrated with his father, who was an advocate at the parliament of Besançon, at the beginning of the revolution, and served in the corps of the prince of Condé, and subsequently in the Austrian army. He was present at the battle of Marengo, where he had a horse killed under him. Returning to France in 1803, he studied the law, and engaged in the practice of his profession in his native city, where he was, in 1815, appointed "avocat général" of the Imperial Court. In 1816, he was elected a deputy by one of the electoral colleges of the department of the Doubs. He sat for 8 years in the Chamber, and exhibited an extraordinary ability as a speaker. The successive administrations of the dukes of Richelieu and Decazes had no more zealous supporter than M. Courvoisier; and as a reward for his support, he was appointed "procureur général" of the Royal Court of Lyons. In 1818, he exerted himself in favour of the law proposed by Marshal St. Cyr concerning the mode of recruiting the army. In the sessions, however, which followed, when the ministry attacked the liberty of the press, the electoral law of 1816, and other existing rights or privileges of the people, he

inclined to the "côté gauche" of the Chamber. On the dissolution of this body in 1824, he was not again chosen a deputy. He subsequently was understood to have undergone an important change of opinion, in relation both to matters of government and the proceedings of the jesuits and catholic missionaries. Hence it probably was that, in 1829, he was appointed to the department of Justice, under the administration of the prince of Polignac. The remembrance, too, of the course pursued by him during the latter part of his career as a deputy, the government might, very naturally, have supposed would tend to render the ministry in general less unpopular, and therefore to give it a greater degree of strength. But whatever may have been the views latterly adopted by Courvoisier, he had no idea of going the lengths expected by the ultra royalists in their reactionary measures. He resigned his office, on the 19th of May 1830, in order to avoid signing the obnoxious ordinances, and was on the same day named a minister of state and a member of the king's privy council. The revolution of July drove him into retirement. His health soon afterwards declined, and he died at Lyons in 1835, on his return to his family from a visit to the waters of Barèges. — M. Courvoisier is known as an author by his "Dissertation sur le droit naturel, l'état de nature, le droit civil et le droit des gens" (2 vols. 1804), and his "Traité sur les obligations divisibles et indivisibles, selon l'ancienne et la nouvelle loi" (1807).

Cousin\* (Victor). Besides his literary labours noticed in a preceding volume, he published, in 1831, a French translation of Tennemann's History of Philosophy (*Geschichte der Philosophie*) in 2 volumes; in 1837, a work entitled "De la métaphysique d'Aristotèle;" and in 1836, Abelard's "Ouvrages inédites." A portion of the lectures delivered by him have been taken down by stenographers, and have thus found their way into print; among them those constituting his "Cours d'histoire de la philosophie" (1828). He was chosen a member of the French Academy in 1830; and when, after the revolution of July, his friend Guizot attained to the direction of affairs, he was appointed inspector-general of the University, and a member of the Council of State; and in 1832, he was named a member of the Chamber of Peers. Previously to this, in May 1831, he set out, by the direction of the then minister of public instruction, on an expedition into Germany, for the purpose of inquiring into the systems of education adopted in that

country, and especially in the Prussian dominions; as well as to collect authentic documents in relation to them. The results of his inquiries are contained in his "Rapport sur l'état de l'instruction publique dans quelques pays de l'Allemagne" (2 vols. 1832). He subsequently visited the Netherlands for a similar purpose. From March 1st to October 29th 1840, he was a member of the administration of which Thiers was the head, in the capacity of minister of public instruction.

COUTHON\* (George), born at Orsay, in Auvergne, was a lawyer at Clermont, at the breaking out of the French revolution. He was a member of the Legislative Assembly, and subsequently, of the National Convention; and, in both of these bodies, he was for pushing matters to an extremity against the ancient order of things. He voted for the immediate execution of the king; and, on the overthrow of the monarchy, after a momentary hesitation between the hostile parties of the Girondists and the Mountain, sided, and went all lengths, with the violent measures of the latter. He became the intimate associate, and most useful creature, of Robespierre, in the famous committee of public safety. As one of the three commissioners appointed by the convention to suppress the royalist insurrection of Lyons, he distinguished himself, after its capture by the republican forces, by establishing in it the reign of terror, and by the demolition of the principal edifices of that unfortunate city. On his return to Paris from this mission, he proposed the passage, by the convention, of a formal act of accusation against all the kings of the earth; was active in causing the adoption of a resolution declaring Pitt to be an enemy of the human race, and the English nation traitors to humanity; urged forward the condemnation of Danton and Hébert; and required the institution of another tribunal, the proceedings of which should be more summary still than the revolutionary tribunal, so styled. — Couthon's fall was a consequence of that of his leader, Robespierre. He was accused of aiming, in conjunction with the latter and St. Just, at the triumvirate, and suffered with them, under the axe of the guillotine, on the 28th of July 1794.

CRACOW.\* The population of the Republic amounted, in 1837, to 131,462, mostly Roman Catholics; of whom 37,027 belonged to the city of Cracow. — Notwithstanding its nominal independence, Cracow has been garrisoned, since 1526, by Austrian troops; and the government is,

in reality, administered by the resident agents of Austria, Russia, and Prussia.—Though the subjects of the neighbouring powers are prohibited from studying in the university, it had, at an average of the five years ending with 1837, 271 students. The city contains, besides, a gymnasium, a school of arts, an academy of painting, a public library with 30,000 volumes, an observatory, a botanical garden, theatre, &c. Since 1831, it has possessed a national bank.

**CRAPLET\*** (A. G.) is not only distinguished as a publisher, but likewise as a writer. Two visits which he made to England gave occasion to his "Souvenirs de Londres en 1814 et 1816," published in 1817, anonymously. He is the author of a translation of the portion of "Dibdin's Bibliographical, Antiquarian, and Picturesque Tour," which relates to France, with notes rectifying his statements; of "Observations sur les écrits de M. le vicomte de Bonald, pair de France;" of a translation into French verse of the poem of Catullus on the nuptials of Thetis and Peleus; of the "Notice sur la vie et les ouvrages de Quinault," prefixed to his edition of the works of that writer; of a work full of curious research and erudition, entitled "Les études pratiques et littéraires sur la typographie, à l'usage des gens de lettres, des éditeurs, des libraires, des imprimeurs, des protes, des correcteurs, et de tous ceux qui se destinent à l'imprimerie," in 2 volumes; and, lastly, of a work under the title of "Des progrès de l'imprimerie en France et en Italie aux XVIIe siècle et de son influence sur la littérature" (1836).—Among the numerous publications that have issued from the press of M. Crapelet, the most noted is, perhaps, his beautiful collection of the romances and poetry of the middle ages.—He died at Nice, December 11th 1842.

**CRAWFORD** (William Harris) was born in Nelson county, Virginia, on the 24th of February 1772. His parents removed, in the year 1779, to the state of South Carolina, not far from Augusta, and thence again, in 1783, to a settlement on Kiokee creek, in Columbia county, in Georgia. Having received as good an education as could be obtained in the ordinary schools of the country, he commenced teaching school himself, in 1788, when he was only 16 years old. In the same year, his father died, in reduced circumstances; and he contributed, by teaching, during several years, to the support of his mother and her numerous family. In 1794, he was not deterred, by his comparatively advanced

age, from entering the academy of the Rev. Dr. Waddel, in Columbia, that he might enjoy the benefit of classical instruction. The progress which he made in his studies was rapid; and, after being a pupil in the academy for about a year, he was promoted to be an usher, receiving, as a compensation for his services as such, a third part of the tuition money. In April 1796, he went to Augusta. On his arrival there, "he obtained a situation in the Richmond Academy, where he remained, in the double character of student and instructor, until the year 1798, when he was appointed rector of that institution." While residing at Augusta, he studied law, and was admitted to the bar in the course of the year just mentioned. He commenced the practice of his profession in the spring of 1799, in Oglethorpe county, Georgia, and soon rose to eminence. Already, in 1802, we are told that he stood at the head of the bar in the part of the state in which he practised.—Mr. Crawford's political career began as a member of the Georgia Legislature. He so distinguished himself during a service of 4 years in this body, as to be elected in 1807 to the Senate of the United States, to supply the vacancy caused by the death of Mr. Baldwin. He was re-elected in 1811, but resigned his seat in 1813, when, after declining the office of Secretary of War, he was appointed by Mr. Madison minister of the United States to France. As a senator, Mr. Crawford took an active and leading part in the discussion of the principal questions of the period, and gave in general an able and efficient support to the then existing administration. Respecting the embargo and the recharter of the Bank of the United States, he fearlessly and independently took his ground in opposition to the great majority of his party (the democratic), earnestly resisting the former, and with equal earnestness urging the adoption of the latter measure. After representing his country abroad with ability and dignity during 2 years, he took charge for a few months of the department of War, and then became Secretary of the Treasury. Such was the respect and popularity which he had now attained, that, in the course of the winter of 1816, he was solicited by a number of his friends to allow his name to be put in nomination as a candidate for the presidency. Although he promptly refused his assent to this proposal, and urged his friends to unite in support of Mr. Monroe, he obtained notwithstanding, in the "caucus" of the democratic members of Congress, nearly as



many votes for the nomination as did the latter gentleman. On Mr. Monroe's becoming the president, Mr. Crawford was re-appointed to the office of Secretary of the Treasury; and he continued to hold it until the retirement of Mr. Monroe in 1825. He declined a re-appointment under Mr. Adams, who was desirous of securing the benefit of his experience and ability as a member of the cabinet. At the period of the election of Mr. Adams to the presidency, Mr. Crawford was an unsuccessful candidate; partly perhaps, as many of his friends believe, on account of the impaired state of his health, which would, for a time at least, have disqualified him from the adequate performance of the arduous duties of a first magistrate of the American Union.—In 1827, Mr. Crawford was, without any solicitation on his part, appointed judge of the Northern Circuit of Georgia, by the governor of that state; and in the following year, and again in 1831, he was elected to the same office by the Legislature. He was on his way to hold a court in one of the counties of his circuit, when he was taken sick at the house of a friend, and died there on the 15th of September 1834.—Mr. Crawford is described to have been distinguished as a public speaker, “not so much for fluency or elegance of style, as clearness of illustration and cogency of argument.” He is stated, also, to have been dignified, yet unostentatious and affable, in his deportment; animated and lively in his conversation; and an excellent son, husband, and father.

CREFELD.\* Population in 1840, 23,008. It is the principal town in the Prussian dominions for the manufacture of silks, silk velvets, silk thread, &c.; and a large proportion of the silks, introduced into England as French, are said to be really made at Crefeld.

CREUZER.\* Since the publication of the article relating to Creuzer in a preceding volume, he has published several treatises and dissertations on the Grecian and Roman antiquities; but by far the most important result of his labours since then, has been the completion of his edition of the entire works of Plotinus, in 3 volumes (1835).

CROCKETT (David) was born in W. Tennessee, and was the ninth child of his parents, whose circumstances were very limited. The only education which he formally received was about two months' instruction in reading and writing. He married at an early age, and settled himself in a remote and wild district of his native

state, where he became remarkable for his skill as a marksman, and consequent success as a hunter. These were qualities that, added to his free and companionable manners, were calculated to render him very popular with his neighbours; and he was at length elected, in 1827, to represent them in the Congress of the United States. He had scarcely arrived in Washington, when the eccentricity of his deportment and modes of expression, exhibited by him not only in his private intercourse with others, but also on the floor of the House of Representatives, acquired for him a great public notoriety. Much of what has been reported concerning him in this respect we may, however, easily suppose to have been exaggerations of the truth, for sportive or other purposes; for it is only on such a supposition that the consideration which he continued to enjoy among his own constituents, and his re-elections to Congress, in 1829 and 1831, can be accounted for. He succeeded in obtaining a majority of the votes of his district in the last-mentioned year, in despite of his having withdrawn his support from the administration of General Jackson, of whom he had previously been one of the most vehement partisans. Colonel Crockett's popularity at home (he was a colonel of militia), nevertheless declined from this time forth, before that of the general; and he was induced to commence a new career in Texas, whither he removed in 1834. He engaged zealously in the contest of the Texans with Mexico, and fell, March 7th 1836, heroically fighting in the defence of the Alamo, in San Antonio de Bexar.

CRUIKSHANK (George), a celebrated English caricaturist, was born, in the year 1780, in London, whither his father, who was an engraver, had removed from Edinburgh. He made very little progress in his education, being, even at an early age chiefly occupied with the gratification of his propensity for caricaturing, for which the perpetual and singular varieties of London life provided him abundantly with subjects. He put forth a number of *squibs*, or satirical sketches, possessed of so much merit in their way as to attract very general attention. His reputation was, next, considerably enhanced by the sketches, published by him, jointly with his elder brother Robert Cruikshank, a miniature painter, under the title of “The life in London is death.” Latterly he has furnished some admirable illustrative representations of character for the works of Dickens and other popular writers. There

is a close adherence to the truth of nature in all Cruikshank's delineations of the human countenance and form, in the midst of his greatest efforts at drollery and effect.

Csoma (Alex.) was born at Körös in Hungary, and studied at the university of Göttingen in Germany, where he took the degree of Doctor of Medicine. His education had been conducted with a systematic design, on his part, of becoming a traveller in remote and unfrequented countries, and he had chosen medicine for his profession as a means of making his way more readily among the people whom he should visit. In 1816, he set out from his native place, passing through Walachia, Bulgaria, and Roumelia, to Constantinople, where he continued a considerable time, in order to acquire a knowledge of several of the oriental languages. He embarked, in 1819, for Egypt, and proceeded thence through Palestine and Syria to Bagdad, and, in 1820, to Persia. After spending several months in the capital, Teheran, he formed the resolution of penetrating into the heart of Central Asia, into regions where the foot of a European had scarcely ever trod. He travelled over the elevated plains of Chorasán to Bokhara, and arrived at Cabul by the way of Samarcand and Balck. Notwithstanding the disturbed condition of Afghanistan, he succeeded in crossing the Indus in safety; and passing through the delicious valley of Cashmeer, he scaled the snow-capped summits of the Himalaya, reaching Leh, the capital of the kingdom of Ladack, which is a dependence of the Chinese Empire. Here he had the good fortune to meet with the English traveller Moorcroft, through whose intervention permission was obtained for him to protract his stay in this elevated region, hitherto so carefully closed against European intrusion, that he might make himself acquainted with the language, literature, and history of Thibet, until then almost uninvestigated by any inhabitant of Christendom. He assumed the costume, the manners, and mode of living of the natives, and gained the favour of the Lama of Zonkar, in whose territory he resided during several years, in such a degree as to obtain from that prince every facility for the accomplishment of his purpose. Five years after his arrival in Thibet, he crossed the Himalaya mountains, and descended into the valley of the Sutledge; on the banks of which river, at Canum, in a sort of convent, the residence of Thibetan lamas, he passed four more years in the greatest retirement from the rest of the world, prosecuting his studies

by the assistance of his associates. In this place he was found by Gerard, the British naturalist, on the return of the latter from an unsuccessful attempt to penetrate into Thibet. In the spring of 1831, he went to Calcutta, for the purpose of superintending the publication there of his "Tibetan and English Dictionary" (1834). He also communicated to the public, in volume 20th of the "Asiatic Researches," a comprehensive account of the contents of the sacred books of the Thibetans. By the intervention in his behalf of the British authorities in Hindostan, permission was granted him to continue philological and other investigations at Lassa, which is the chief city of the kingdom of Thibet; but he sickened and died, April 11th 1842, on his route thither from Calcutta, before he had got beyond the Anglo-Indian territory.

CUBA.\* The population of this island, according to a census taken so late as the year 1842, amounted to 1,007,624 persons; viz. 418,291 whites, 152,838 free coloured persons, and 436,495 slaves; exhibiting a total excess above the results of the census of 1827, of 303,137. Of the inhabitants, moreover, it was ascertained, in 1842, that 360,170 resided in the towns and villages, and the remaining 647,454 on the plantations, and in the country generally. —We learn, from official statements, that the value of the imports of Cuba, in 1841, was \$25,061,410, and that of the exports, \$28,774,615. Some of the principal articles imported were wines, estimated at \$2,429,575; provisions, at \$2,613,745; grain and flour, at \$4,023,615; cotton goods, at \$1,991,040; linens, at \$1,943,880; silks, at \$294,300; hardware, at \$1,173,995, &c. The articles exported were chiefly sugar, estimated at \$11,613,300; coffee, at \$1,426,025; leaf-tobacco, at \$719,360; cigars, at \$1,331,120; honey, at \$321,190; wax, at \$307,130; rum, at \$226,050; cattle, at 1,332,590; copper, at \$4,505,490; and the precious metals, at \$1,092,670. The chief intercourse is with the United States, the imports from which amount to nearly five times as much as those from Great Britain. This arises from the United States, on the one hand furnishing a near and ready market for most of the exports of the island, and from their being able to supply provisions in abundance; while Great Britain, on the other, does not admit the productions of Cuba into her ports on as favourable terms as those of her own colonies. The total value, above stated, of the imports, it is proper to mention, does not include negro

slaves, of whom about 25,000 are annually brought into the island; and to the low price of labour, thus induced, is, in part, attributed the increased production which has lately taken place. About 2500 vessels have, on an average for some years past, entered the ports of Cuba; one-half of which were from the United States; about 740 Spanish; nearly 200 English; 50 French; and the same number from the Hanse towns, and the Netherlands respectively.—The revenues, on an average, of the five years ending with 1837, amounted to \$8,948,561 per annum; of which the import and export duties formed 61 per cent., and the internal taxes 22½ per cent. In 1841, they reached the amount of \$11,917,299; the expenditures, in the same year, amounting only to \$10,112,534. The currency of Cuba consists of doubloons, dollars, and their aliquot parts. Paper money is unknown. The means of internal communication are, in general, very defective, and after rain, the roads are quite impassable; but the island being of a long and narrow form, the planter is enabled to bring his produce to the sea without a long land-journey. Hence the activity of the coasting trade, in which a very considerable number of small vessels are employed, in conveying the produce to the Havana, and the other ports of shipment. A beginning was made, in 1835, in the construction of a railroad from the Havana to Guines, a distance of 45 miles: which was completed, and opened for the conveyance of passengers and goods, in 1838. The capital employed in its construction was obtained by means of a loan negotiated in London. Its nominal amount was £450,450; but, having been taken at 75 per cent., its actual produce was only £337,837 10s., bearing 6 per cent. interest, with a 2 per cent. sinking fund, which ought to extinguish the debt in 1860. The debt is, in the mean time, secured upon the receipts of the railroad, and the revenues of the Royal, Commercial, and Agricultural Society of Cuba. Several branches have been proposed for connecting this railroad with the S. coast at Batabano or Guanimas; and, in 1838, a company was formed for constructing a railroad between Cardenas and Soledad de Bemba, which, if carried into effect, would, probably, afterwards be extended, so as to communicate with the Havana and Guines railroad at Bejuical. Steamboats also maintain a regular communication between the principal ports.—The capital of Cuba is Havana, containing 130,000 inhabitants. It is situated on the N. W. side of the island,

and is one of the greatest commercial cities of America. The chief other ports are Matanzas, St. Jago de Cuba, and Trinidad. And besides these, the following are licensed for foreign trade:—Puerto Principe, Baracoa, Gibara, Cienfuegos, and Manzanillo.

CUMBERLAND\* (Ernest Augustus, duke of) became king of Hanover, by the death of his brother, William IV., king of Great Britain and Ireland, and of Hanover, on the 20th of June 1837. See *Hanover*, (Sup.)

CUMIN SEED; the seed or fruit of the *cuminum cyminum*. It is brought from Sicily and Malta. It forms an ingredient in *curry powder*, and in some kinds of cheese. It has a very peculiar odour, and a bitter and aromatic taste. Some of the Roman poets allude to its power of producing pallor and languor.

CUNEIFORM LETTERS;—the name given to the inscriptions found on old Babylonian and Persian monuments, from the characters being formed like a wedge. It should seem that the peculiarity of their form caused them to be employed, like the hieratic characters of the Egyptians, chiefly in monumental inscriptions, there being another mode of writing in use, better calculated for ordinary purposes; and Mr. Rich conjectures that they fell into disuse soon after Alexander's conquest of Persia, when neither the Persians nor the Babylonians had any monuments to erect, or events to record. A few specimens of inscriptions, existing at Persepolis, of the kind referred to, having found their way into Europe about 70 years ago, the attention of the learned was, in a considerable degree, directed to the subject. But it was not till the commencement of the present century, when Dr. Grotendorf, of Hanover, engaged in the pursuit, that the mystery in which this species of writing had, for so many centuries, been involved, began to be cleared up, and the foundation laid of a more satisfactory and philosophical mode of explication. According to Grotendorf, the characters in question are formed of two radical signs,—the wedge and the angle,—susceptible, however, of about 30 different combinations, and consist of three varieties, distinguished from each other by a greater or less degree of complication. They are written from right to left, like the Sanscrit; differ from the ancient Egyptian hieroglyphics, inasmuch as they are alphabetic, not ideographic; and, with a few considerable modifications, form the basis of most of the eastern alphabets. But, apart from the cul-

lateral benefits which have flowed from the prosecution of this study, and which have exhibited themselves chiefly in the greatly increased desire that exists throughout Europe to obtain a knowledge of the eastern languages, the only direct results, by which it has been hitherto followed, may be stated to be the translation of a few minor inscriptions, and the establishment of a canon, so extremely arbitrary, that it is very problematical if the labours of others in the same field can be materially benefited by it. All that has been done on this subject is described, with great distinctness, in a paper addressed by Dr. Grotefend, a few years since, to the university of Göttingen. For information on the subject, the reader may also be referred to Rich's "Memoirs," which contain numerous specimens of the cuneiform writing.

CUNNINGHAM (Allan) was born of humble parentage, at Blackwood, in Dumfriesshire, in 1786. He was taken from school at an early age, and apprenticed to a common mason at Nithsdale. But he had a keen sense of poetic beauty; and, enraptured by the songs and ballads of his native land, he essayed to imitate them; and the applause which was bestowed upon some of his productions determined him to pursue a literary career. With this object in view, he went to London, in 1810, and, soon after his arrival, obtained an engagement, in connexion with the daily press of the metropolis, as a reporter; at the same time furnishing articles to the *Literary Gazette*, and other periodicals. Probably not finding authorship a very secure dependence for a livelihood, he next entered into the service of Sir Francis Chantrey, as his assistant; and continued in this capacity until that celebrated sculptor's death, 12 years afterwards. It would seem that he never exhibited any peculiar talent as a sculptor. His literary powers did not cease to develop themselves. He published, in succession, a volume containing "Sir Marmaduke Maxwell, a dramatic poem; the Mermaid of Galloway; the Legend of Richard Faulder; and twenty Scottish songs" (1822); "Traditional Tales of the English and Scottish Peasantry" (2 vols. 1822); "The Songs of Scotland, ancient and modern" (4 vols. 1825), accompanied by characteristic and historical observations; the novels of "Paul Jones" (3 vols. 1826), and "Sir Michael Scott" (3 vols. 1828); "The Lives of the British Painters, Sculptors, and Architects" (5 vols. 1829), written by him for Murray's "Fa-

mily Library;" a poem, entitled "The Maid of Elvar;" a "Biographical and Critical History of the British Literature of the last fifty years" (1834); and some productions of minor moment. Only two nights before his death, which occurred October 29th 1842, he completed the biography of his friend, Sir David Wilkie.

CURAOÇA or CURASOA; a liqueur which derives its name from the island of Curaçoa. It is prepared in great perfection by the Dutch. It derives its flavour from Seville orange peel, with a small quantity of cinnamon and mace.

CURATOR. This title is derived from the ancient Romans, by whom it was given to various officers, who acted as superintendents of different departments of the public service.—In the Civil Law, it denotes the guardian of a minor who has attained the age of 14. Before that age, minors are under a tutor. The guardianship of a person under various disabilities, and of the estates of deceased or absent persons and insolvents, is also committed to a curator.—In learned institutions, the officer who has charge of libraries, collections of natural history, &c., is frequently styled curator.

CURFEW, from the French *couvre-feu*; the practice of tolling the church bell at a certain hour in the evening, to warn people to extinguish their fires. It was not introduced at first into England by William the Conqueror, as is commonly supposed. He, probably, merely enforced a police regulation previously established, and one which was very general in Europe during the Middle Ages.

CURRENT.\* The fruit commonly known under the name of currants consists of a small dried grape, chiefly cultivated in the Morea and the Ionian Islands.

CUTTLE FISH, a molluscous class of animals (*Cephalopoda*), the most common species being the *Sepia officinalis*. They have small arms, with serrated cups, by which they lay fast hold of any thing. They have also two tentacles, longer than the arms. When pursued, they emit a black fluid that darkens the water, by which means they escape. This fluid is supposed to form an ingredient in India ink. The internal plate or bone, when ground, furnishes *pounce*, a material used, in writing, for erasures.

CUIVIER\* (George). On his death, in May 1832, a pension was bestowed on his widow, by a vote of the French legislative chambers, as a testimonial of the national gratitude to her husband. His library, and his various collections of natural

history were, besides, purchased by the government. And a monument has been erected to his memory in the cemetery of Père la Chaise.

CUVIER (Frederick), the brother of the former, was born at Montbéliard, June 27th 1773, and, like him, devoted himself to the study of Natural History. Besides a great number of excellent articles in the "Dictionnaire des sciences naturelles," the "Annales du Muséum," the "Annales d'histoire naturelle," and other scientific or popular collections, he is the author of a treatise "Des dents mammifères, considérées comme caractères zoologiques" (1824),—of the "Histoire naturelle des mammifères," in conjunction with Geoffroy St. Hilaire, (70 numbers in fol. 1818–37),—the volume in the "Suites à Buffon" on the Cetacea (1836), the preface to which exhibits, on the part of the writer, the most comprehensive and philosophical views of his general subject,—and "Observations sur l'enseignement de l'histoire naturelle dans les collèges" (1838).—At the time of his death, which occurred on the 23d of July 1838, at Strasburg, he was Inspector-general of the studies of the University, Chief Director of the Royal Menagerie, and a Member of the Academy of Sciences.

CYPRUS. This island once contained, probably, a million of inhabitants; and in 1571, when conquered by the Turks, they were still estimated to amount in number

to 400,000. The population has now declined to 70,000, and even less; of whom 40,000 are Greeks.—Cyprus has always been celebrated for its wines. In the earlier part of the last century, the total produce of the vintage was supposed to amount to 2,000,000 gallons, nearly one-half of which was exported; but the wine at present produced and exported does not amount to a tenth part of these quantities. The common wine of the island is red: all the valuable kinds are white. They are made from grapes superlatively rich and luscious, their juice resembling a concentrated essence; and they have a sickly sweetness, which is, however, removed after very long keeping. In colour, sweetness, and many other properties, they closely resemble Tokay wine. They are strongly aperient, and must be drunk with caution.—The chief town, situated in the interior of the island, is Nicosia, or Lefcosh, the seat of a Greek archbishop and an Armenian bishop; and on the coast, Larnaka to the S., and Famagosta to the W. The former of these is the residence of the foreign consuls, and much wine is exported from it, for the most part to Venice and Leghorn.—Cyprus was occupied, in 1832, by the forces of the viceroy of Egypt, Mehemed Ali; and it was formally ceded to him by the Porte in the following year. The Turks, however, resumed possession of it in 1840.

## D

DACCA.\* Population about 200,000, somewhat more than one-half of whom are Mohammedans. There are some respectable Greek, Portuguese, and Armenian merchants, but Englishmen are not numerous in this city.—Like other native towns, it is a mixture of brick and mud houses, with others constructed cheaply of bamboos, mats and thatch, which, it is said, are burned down and rebuilt once or twice in the course of every year.—The striped and flowered muslins of Dacca were formerly regarded as inimitable, and were in great request at the Mogul and other native Indian courts, as well as at the old court of France. The manufacture has been annihilated by the destruction of the native courts and the wealthy native nobles.—The Serampore mission has had a station here since 1816.

DAENDELS\* (Gen.) died in June 1818.

DAGUERRETYPE; the name given to a process, lately introduced by M. Daguerre, an ingenious French artist, who is the inventor also of the diorama. By means of it, the images, formed in the focus of the camera obscura, are fixed on very smooth surfaces of pure silver, plated on copper. With the exception of local colour, the productions of the daguerreotype present nature herself to the spectator. The qualities of objects are so clearly expressed, that silk could not in the representation be mistaken for satin, nor marble for plaster. The sky is given with as different an expression of quality from stone as that substance is from the ground on which it stands. This invention was regarded in France to be of such importance as to be purchased by the government for the benefit of the nation at large.

DALBERG\* (duke of). In the latter part:

of his life, his renewed partiality for his native country induced him to take up his residence at his hereditary seat of Hershheim, near Worms, where he died in April 1833.

DALLAS (Commodore Alexander James) was born in April 1791, in the city of Philadelphia, and was the eldest son of Alexander James Dallas, noticed in a former volume of the present work. After going through a course of schooling, and acquiring a share of mathematical and classical education, he entered the navy of the United States, as a midshipman, on the 23d of November 1805, being then between 14 and 15 years of age.—He was always anxious to be in active service. During the war of 1812, he was first with Commodore Rodgers, on board the frigate *President*, in eager pursuit of the enemy, even to the entrance of the Channel:—and subsequently, he commanded a schooner, in the squadron of Commodore Chauncey, on Lake Ontario. While a lieutenant, his ability as a seaman, set off by the spirit and bearing of a true gentleman and gallant officer, made him always sought for by those Captains who were preparing their commands for sea. Commodore Porter specially invited him to accompany him on his celebrated cruise against the formidable gang of pirates in the West Indies, which was signaled by the attack on Foxardo.—After a devoted and untiring service of 23 years, he became a Post-Captain, on the 24th of April 1828; and he thenceforward exhibited much ability and prudence in the command of single vessels, or squadrons, or stations on shore. He died on board of his frigate, while in command of the American naval squadron in the Pacific, off Callao, in the month of June 1844.

DALTON (John) was born at Eaglesfield, near Cocker-mouth, in the county of Cumberland, in England, on the 5th of September 1766, of respectable parents, members of the Society of Friends. After acquiring the first elements of his education in his native place, he was sent to a boarding-school, kept by a relation of his family at Kendal, in Westmoreland. He gave early indications of intellectual ability. In 1781, he became a mathematical teacher in Kendal, whence he contributed largely, upon mathematical, philosophical, and general subjects, to the two annual works called the "Gentleman's" and the "Lady's Diary." In 1788, he commenced his meteorological observations, which he continued throughout his

life. In 1793, he published a volume of "Meteorological Observations and Essays," and in the same year was appointed professor of Mathematics and Natural Philosophy in the New College at Manchester,—an office that he held until the period when the college was removed from that city to York. He continued to reside at Manchester, though, subsequent to the year 1804, he was frequently absent from it on excursions to some of the principal towns in Great Britain, for the purpose of delivering lectures in them on Chemistry. The moderate receipts yielded to him by these lectures are said to have constituted his chief, if not only means of support. In 1808 he published the first, and in 1810 the second part, of his "New System of Chemical Philosophy." He also frequently contributed to Nicholson's Journal, the Annals of Philosophy, and the Philosophical Magazine, as well as to the Memoirs of the Literary and Philosophical Society of Manchester, of which, for half a century, he was an active member, and of which he was elected president in 1817. He was chosen a fellow of the Royal Society in 1821 or 1822; and he was also a member of the Academy of Sciences of Paris, and of several other learned societies, in Great Britain, and on the continent of Europe. From 1833, till his death, on the 27th of July 1844, he enjoyed a royal pension of small amount.—Mr. Dalton has enriched physical science by a number of very interesting discoveries, and has succeeded in correcting several errors into which the philosophers who preceded him had fallen. He was the first to show that all the gases dilate equally on their temperature being raised from the freezing to the boiling point of water, and that the spaces which they occupy at these extreme temperatures are very nearly in the ratio of 3 to 4, or more accurately as 100 is to 137.5. He has experimentally demonstrated the pressure of vapour to be exactly the same, whether there be any atmospheric air in the vessel in which it is enclosed, or not; and by determining the quantity of vapour produced, and the pressure exerted by it at every degree of temperature, within a considerable range of the thermometer, he has disclosed a remarkable relation between the boiling points of different fluids and the elastic force of their vapours at a given temperature. We are also indebted to him for a valuable table of the specific heats of the different gases. But perhaps the principal claim which Mr. Dalton possessed to the reputation which he enjoyed, among

the men of science of his age, was his development of the atomic theory, and the application of this to the definite proportions in which bodies combine.

**DAMASCUS.\*** The number of inhabitants in the city of Damascus is at present still above 200,000, among whom there are about 20,000 Christians, and a good many Jews. — Damascus is one of the sacred cities of the Mohammedans; and its inhabitants have the character of being the most intolerant and fanatical of all the prophet's followers. Previous to 1832, when it was taken possession of by the forces of Mehemed Ali, the appearance in the streets of a Frank costume was the signal for a riot. Christians and Jews were alike prohibited from riding any beast but an ass; and in 1807, even this was forbidden. The appointment of an English consul, in 1831, caused an insurrection which lasted several months. — The Egyptians retained the city until, in 1840, they were compelled, by the interference of England and Austria, to restore it, in common with the rest of Syria, to its former owners, the Turks. While under the government of Mehemed Ali, Christians of all sects and Jews walked in procession, openly rejoicing in the protection avowedly extended to them by the public authorities, and exposed only to the threats of those who retained the will, but had lost the power to annoy them more seriously.

**DAMASK.\*** The damask employed at the present day for curtains, and the like articles of household furniture, is made of a mixture of silk with flax, cotton, or wool; the warp is of the more costly material.

**DAMIETTA.\*** Its present population can scarcely exceed 20,000. Mehemed Ali obtained possession of it from the Turks in 1833; and he has subsequently established a school in it for infantry officers. — The bar at the mouth of this branch of the Nile prevents the access of any large vessels to the town; so that merchant vessels have to lie outside of the bar, and load and unload by means of various descriptions of small craft. But notwithstanding these difficulties, Damietta, previously to the sway of the viceroy, had a considerable trade; which has been transferred, in consequence of his commercial system, to Alexandria. Its chief article of export is rice.

**DANIELL** (John Frederick) was born in London, March 12th 1790. He entered originally into business as a sugar refiner, but soon relinquished it for the pursuits of science. In 1814, he became a fellow

of the Royal Society. In 1816, in association with Mr. Brande, he commenced the "Quarterly Journal of Science and Art," the first 20 volumes of which were published under their joint superintendence. In 1820, he published an account of his new hygrometer, an instrument which, for the first time, rendered regular and accurate observations on the dryness and moisture of the air practicable. His most important production, the "Meteorological Essays," appeared in 1823. It was the first synthetic attempt to explain the general principles of meteorology by the known laws which regulate the temperature and constitution of gases and vapours, and in which the scattered observations and isolated phenomena presented by the earth's atmosphere were considered in their most extensive and general bearings. In 1824, Mr. Daniell published an "Essay on Artificial Climate," which is stated to have completely revolutionized the methods of horticulture till then adopted in England. About this period also, he became managing director to the "Continental Gas Company," and travelled through most of the principal European cities, in company with two others of the directors, making the arrangements by which many of them are lighted at the present day. On the establishment of King's College in 1831, he was appointed professor of chemistry; the duties of which office he discharged to the day of his death. The Royal Society awarded to him, in 1832, the Rumford medal, for a new pyrometer of his invention, and in 1837, the Copley medal, for a paper communicated to it in the preceding year, in which he traced the cause of the rapid decline of power in galvanic batteries of the ordinary description, and pointed out an arrangement by which a powerful and continuous current of galvanic electricity may be maintained for an unlimited period. In 1839, he published his excellent "Introduction to Chemical Philosophy," and in 1843, a second edition of it. And besides the scientific labours of Mr. Daniell which have been mentioned, he suffered scarcely a year to pass, from 1816 downwards, without the appearance of one or more essays on physical or chemical subjects from his pen. For the last six years of his life, he held the office of foreign secretary to the Royal Society; and in addition to his professorship in King's College, he was lecturer to the East India Company's military academy at Addiscombe, and examiner on chemistry in the University of London since the opening of that insu-

tion.—Mr. Daniell died of an attack of apoplexy, on the 13th of March 1845, while attending a meeting of the Council of the Royal Society, and having just spoken on a point under consideration, apparently in perfect health.

DANNECKER\* died on the 8th of December 1841. An account of his life and works was published at Hamburg in that year, with 25 lithographic prints of his productions, from drawings by his pupil Wagner, also a celebrated sculptor.

DANTZIC.\* Its population, in 1837, was 56,257; of which number 2400 were Jews. A late estimate makes the population, however, to amount to 63,000, all Protestants, with the exception of 15,700 Roman Catholics, and 2600 Jews.—Dantzic has a gymnasium, possessing a valuable library, and which, in 1836, had 10 professors or instructors, and 295 pupils; two high schools; a school of commerce, founded in 1832; a school of arts and trades; one of navigation; another of midwifery, &c. It has likewise a good public library of about 30,000 volumes; an observatory; a museum of natural history; a collection of paintings; a society of natural and physical science, which has existed since the year 1742; a large workhouse; an orphan and a founding hospital; several other hospitals, &c. Being the emporium of the extensive and fruitful countries traversed by the Vistula and its affluents, Dantzic is at the head of all the corn-shipping ports, not of Europe only, but of the world. It has an extensive trade likewise in lumber, and is altogether the most important commercial town on the Baltic, next to St. Petersburg. The exports amounted, in 1840, to £1,798,722, and the imports to £380,280. In the same year, about 210,000 tons of shipping entered the harbour.

DANUBE.\* See *Austria*, (Sup.)

D'ARBLAY (Madame), originally Miss Frances Burney, was born at Lynn-Regis, June 13th 1752, and was the second daughter of Dr. Charles Burney, the author of the "History of Music," who was then organist in that town. By the time that she was 10 years old, she informs us, in her *Memoirs of her Father*, she had begun, of her own accord, to exercise her talents in composition, and was incessantly busy in scribbling "elegies, odes, plays, songs, stories, farces, nay, tragedies and epic poems." At 15, she burned all her early performances; but one of them, the "History of Caroline Evelyn," kept possession of her memory and fancy, and gave rise to her conception of a sequel to it, in the

story of the daughter of her former heroine. This story, under the title of "Evelina; or the History of a Young Lady's Introduction to the World," was published in the year 1778, when she was 26 years of age. Its success was extraordinary; and Johnson, Burke, Reynolds, and other eminent literary men, friends of her father, were loud in its praise. A recent writer, speaking of this work, says on the contrary, that "its most striking characteristic is the immaturity of mind which it displays, the girliness of conception that pervades it, the want of the power of penetrating beyond the outside shows and forms of things, the utter incapacity for appreciating motives and probabilities, the childish absurdity of the whole construction and movement of the story, and of the conduct at every turn of the persons figuring in it." He adds "there is a fluency, indeed, and some occasional vivacity, but the latter is nowhere brilliant, and much of it is made up of mere hoydenish rattle and practical jocularities, and often of insipid vulgar exaggeration and the lowest farce."—The second of Miss Burney's novels, "Cecilia, or the Memoirs of an Heiress," appeared in 1782, and is a considerable improvement upon "Evelina." It was welcomed with high approbation by the best literary judges of that day; and she relates that Lord Chancellor Thurlow, throwing the book one day on the table in his library, declared it was worth all the books in the room.—In 1786, she was appointed one of the dressers, or keepers of the robes, to Queen Charlotte, and this situation she held for five years. In the summer of 1793, she married M. D'Arblay, a French emigrant artillery officer. She went to Paris with her husband in 1802, after the peace of Amiens; and M. D'Arblay having given in his adhesion to the existing government, they remained in France. In 1812, however, Mad. D'Arblay found means to pass over to her own country, where she was joined by her husband, who had in the mean time become General D'Arblay, at the conclusion of the war; and they resided together at Bath till his death in 1818. She survived him nearly 22 years, dying at Bath, January 6th 1840.—Beside the novels already mentioned, Mad. D'Arblay was the author of two others, "Camilla, or a Picture of Youth" (1796), and "The Wanderer, or Female Difficulties" (1814), both of them of very inferior merit. The first of these was published by subscription, and is said to have yielded to her above £3000; and the second was sold, it



is said, to a bookseller for £1500. She wrote also a pamphlet, shortly after her marriage, entitled "Brief Reflections relative to the Emigrant French Clergy;" a tragedy, "Edwy and Elgiva," acted at Drury Lane, but speedily withdrawn, and never printed; and "Memoirs" of her father, Dr. Burney, in 3 volumes (1832). "This work was unlike anything she had previously written, as much in manner as in subject; instead of the fluent, familiar style of her novels, she surprised her former readers, and the public in general, by a pompous, indirect, long-winded, drawling diction, apparently intended as an improvement upon Johnson or Gibbon, but having rather the effect of a ludicrous, though unintentional, caricature."—Five volumes have appeared, since her death, of her "Diary and Letters, edited by her Niece;" and another volume has been recently announced as in the press. This work, though much of it is exceedingly frivolous, is on the whole a very curious record; and the account given in it of some departments of English life and society, in the latter part of the 18th century, is the amplest and most distinct that is anywhere to be met with.

**DARCEY\*** (John Peter Joseph). His works consist, for the most part, of articles inserted in the "Annales de Chimie et Physique," together with a few communications by him to the "Annales d'hygiène publique." In 1843, he published an essay discussing the effects on the health of a neighbourhood of various manufacturing establishments, with the practical object in view of determining how near to any inhabited house or place they should be permitted to exist.

**DARDANELLES.\*** So tenacious have the Turks been of keeping these straits closed against the armed ships of other nations, that in 1833, during the Egyptian war, while the Russian fleet was anchored before Bujukdere, permission was refused to the British and French fleets to pass them; and in a treaty concluded in September 1841, the five great powers engaged anew to the Porte, that no vessel of war should be allowed to enter them.

**DARMSTADT\*** affords a remarkable instance of rapid increase in a European town. Its population, which, in 1794, is stated to have amounted only to 7000, was, in 1840, 21,392, and has been lately estimated as high as 27,000; of whom 2500 were Roman Catholics, 600 Jews, and the remainder Protestants. The grand duke resides in a new palace of no great architectural pretensions. The old ducal

palace, surrounded by a dry ditch which has been changed into a shrubbery and garden, is a structure of the various ages from the 16th to the 18th century, and contains a picture gallery with about 600 paintings, a museum of natural history with some valuable fossils, a museum of ancient and modern sculpture, a hall of antiquities, a collection of cork models, an armoury, and a library of 100,000 volumes open to the public. The large building, formerly used as a drilling-house and a riding-school, has been converted into a depot of artillery.—Darmstadt has a military school, provided with 14 professors; a gymnasium, which, in 1830, had 12 professors and 224 pupils; a practical school of arts and sciences; one of sculpture and drawing, &c. The theatre, built in 1818, is one of the finest edifices of the kind in Germany.

**DAUNOU** (Pierre Claude François) was born August 18th 1761, at Boulogne, in the then French province of Picardie. He became a member of the congregation of the "Oratoire," and taught successively the Belles Lettres, Philosophy, and Theology, in several of their colleges. He was ordained a priest in 1787. Then came the revolution, which abolished the religious orders, and left Daunou at liberty to embrace the pursuits of civil life. In 1792, he was elected a deputy, together with Carnot and Thomas Paine, to the National Convention, by the department of the Pas de Calais. At the trial of Louis XVI., he sided with the more moderate party, at first denying altogether the right of the Convention to sit in judgment over him, next voting for his banishment from France, then for his imprisonment until the conclusion of a peace, and lastly, when a majority of the members had condemned him to death, for the postponement of his execution. His course on this occasion, as well as his subsequent support of the Girondists, and protest, jointly with 73 other members, against the arrest and condemnation of their leaders, marked him for the vengeance of the Mountain. He was thrown into prison, and was only rescued from the fate of the guillotine by the fall of Robespierre. He resumed his seat in the Convention, and took a very prominent part in the measures adopted for the reorganizing of the government. On the 24th of April 1795, he was appointed on the committee of 11, charged with the preparation of a new constitution; and he was the member of the committee to whom the task of furnishing the first draft of that instrument (the constitution of the year

III.) was assigned. Chosen a member of the Council of Five Hundred, he was selected to be the first president of that body. He continued a member of it until the 20th of May 1797, and was conspicuous for the various measures which he proposed and caused to be adopted; such as the organization of the judicial tribunal, at present known as the Court of Cassation,—the passage of a law for the repression of offences of the press,—the enactment of penalties for slander,—and the establishment of an official journal. His skill in the framing of new constitutions of government was put in requisition by the Directory, as it had before been by the convention. He was sent to Italy to organize the new Roman Republic; which office having been speedily and satisfactorily performed, he returned to France, and, in March 1798, was once more elected a member of the Council of Five Hundred. After the revolution of the 18th of Brumaire, which placed Bonaparte at the head of the government, Daunou was one of the committee appointed to draw up the constitution of the year VIII. Declining the post of counsellor of state offered to him by the First Consul, he preferred to become a member of the Tribunate. In this body, he earnestly withstood every measure tending to add to the authority or influence of the Executive; and Bonaparte, after in vain attempting to gain him over to his interests, contrived, at the first opportunity, to have him eliminated from the Tribunate, in company with Chénier and Benjamin Constant. He then divided his time between his duties as librarian at the "Panthéon" and his labours as a member of the Institute. In 1807, Napoleon appointed him to succeed Camus as keeper of the public archives, of which office he was deprived in February 1816, by the government of the Restoration. In November of this year he became the principal editor of the "Journal des Savants," and in 1819, professor of History in the College of France. In 1819, he was also elected a member of the Chamber of Deputies, where he continued to sit until the year 1824, and where he spoke and voted with the liberal party, and took an especial interest in the cause of public education. After the revolution of July, he was restored to the office of keeper of the public archives, and was again a deputy from 1831 to 1834. He was elevated to the rank of a peer in November 1839, and died in the month of April following.—Among the numerous writings of Daunou, the most worthy of mention are his essay

"De l'influence de Boileau sur la littérature française" (1787); his "Mémoire sur l'étendue et les limites de la puissance paternelle" (1788); an "Essai sur l'instruction publique" (1793); an "Essai sur la constitution, etc." (1793); the "Analyse des opinions diverses sur l'origine de l'imprimerie" (1802); the continuation of the "Histoire de la Pologne" of Rulhière (1807); an "Essai historique sur la puissance temporelle des papes" (1810); and the continuation of the collection of the "Historiens de France" and of the "Histoire littéraire de la France," works which were begun by the Benedictines. He published, also, a number of editions of the writings of standard French authors, such as Boileau, Chénier, and La Harpe, accompanied by biographical notices; and contributed largely to the "Biographie universelle."

DAVIS (John A. G.) was born in the county of King and Queen, in the state of Virginia. He was educated at William and Mary College, in that state; and, having married a grand-niece of Mr. Jefferson, settled himself in the county of Albemarle, and there commenced the practice of the law. He was also, for a few years, editor of a weekly journal, published at Charlottesville. In the year 1830, he was appointed professor of Law in the Virginia University. As such, he fully realized the expectations of those friends who had urged him to become a candidate for the professorship, and gave great satisfaction to the public. He was three times appointed, by the "visitors," chairman of the Faculty. One night, not long after his last appointment (November 1840), hearing a pistol fired before his door, he went out to discover the violator of the laws; and, seeing a student masked, approached him, to discover who he was. The other retreated a few steps, took deliberate aim fired a pistol, and shot the professor in the body. After lingering two days in great pain, he died at the age of 39, leaving behind him a widow and 7 children.—A few years before his death, he published a volume on Criminal Law, for the use of justices of the peace, the copyright of which the Legislature of Virginia subsequently purchased from his family for the liberal price of \$12,000.

DEAD-BEAT, in clock-work, called, also, *dead-scapement*, or *scapement of repose*, is a peculiar kind of scapement, invented by Mr. George Graham, about the year 1700, with a view to lessen the effect of the wheel-work on the motion of the pendulum. It acquired its name from the cir

cumstance that the seconds' index stands still after each drop; whereas the index of a clock with a *recoiling* escapement is always in motion, hobbling backward and forward.

**DEAD LIGHTS;** strong wooden ports, made to suit the cabin-windows of a ship, in which they are fixed to prevent the water from entering in a storm.

**DEAD WATER;** the eddy water closing in with a ship's stern as she passes through the water.

**DEBRECZIN;** next to Pesth, the largest town in the kingdom of Hungary. It is situated in a sandy plain 114 miles E. of Pesth, in N. Lat. 47° 30', and E. Long. 21° 6'; and, in 1839, had 47,500 inhabitants, nearly 44,000 of whom were Protestants, of the Reformed Church. The Hungarian language is said to be spoken here in its greatest purity; and the manners and customs of the people have been less modified by the admixture with Germans, than in any other considerable town of the kingdom. The streets are broad, but unpaved; the houses, with few exceptions, are of only one story in height, and the greater part are thatched; which has rendered Debreczin subject to severe ravages from fire. It contains a college (the principal one of the Hungarian Protestants), with a library of 20,000 volumes, and upwards of 2000 students; also a Piarist college, a Catholic high-school, and a monastery, and 3 hospitals, 2 infirmaries, an orphan asylum, &c. Among the chief articles manufactured are shoes, tobacco-pipes, red clay pipe-bowls, prepared sheepskins, coarse woollen cloth, and a spongy kind of soap, greatly esteemed throughout the Austrian empire.

**DECARDOLLE.\*** The labours of this distinguished naturalist were prevented, during several years before his death, by disease and suffering. He died on the 9th of September 1841.

**DECazes.\*** During the reign of Charles X., the opposition of the duke Decazes, in the Chamber of Peers, of which body he had been a member ever since the year 1818, was almost entitled to the party designation of *liberal*; but he was chiefly occupied, at that period, with agricultural and mining operations in the department of the Gironde, which, however, were far from fulfilling the expectations he had entertained of their success. Since the revolution, he has become grand referendary of the Chamber of Peers; and, without otherwise interfering in public affairs, has uniformly sustained his friends, the "doctrinaires," by his votes and influence.

**DEJJEAN** (Pierre François Aimé Auguste, count), a peer of France, and lieutenant-general in the French army, and one of the most distinguished entomologists of latter times, was born at Amiens, in 1780, and first made choice of medicine for his profession. His father, however, having met with a rapid promotion in the republican armies during the earlier campaigns of the revolution, he was induced to enter the military service, in which he gradually rose to the rank above-mentioned. He was actively engaged in the war in Spain; accompanied the grand army into Russia; and was one of the aides-de-camp of Napoleon at the battle of Waterloo. On the return of Louis XVIII. from Ghent, Fouché, whom he had offended, had his name placed in the list of persons banished from the French territory. He was permitted to re-enter it in 1818; but continued out of service until the change of dynasty in 1830.—But, whatever may be his merits as a military man, it is as a naturalist, chiefly, that he is entitled to our notice. His attention had been early directed to the subjects of ornithology and entomology; and, even in the midst of his professional career, he devoted every leisure moment to the cultivation of the latter. Thus it was that, while in Spain, he formed a large collection of insects, many of them belonging to species not before described. By means of a journey made by him, at the period of his exile from France, through Styria, Carinthia, Carniola, Dalmatia, and Croatia, as well as by his correspondence with almost every European entomologist of note, his collections were augmented, so as to become, perhaps, the most extensive of the kind anywhere existing. In 1821, he published a "Catalogue systématique de toutes les espèces de coléoptères," which they contained. In 1822, he commenced the publication, in conjunction with Latreille, of an "Iconographie des coléoptères d'Europe;" of which, however, only three numbers appeared, owing to the feeble health of Latreille. M. Dejean was next the author of the "Species générales des coléoptères." Of this work, five volumes have appeared, one having been published in each year, from 1825 to 1831. These contain the description and classification of the family of "Carabiques," constituting about a fourth of the whole order of the "coléoptères." The work, though incomplete, is one of great authority, and has since been illustrated by an "Iconographie des coléoptères d'Europe," in 46 numbers, being a publication of the same nature as

that originally contemplated by Latreille and himself.

**DELA VIGNE.\*** On the accession of Louis Philippe, Delavigne was appointed to be inspector of the "Conservatoire" at Paris, with a considerable salary. In 1843, he made a first attempt (jointly with his brother, a skilful vaudevillist) at the composition of the words for an opera (Halevy's Charles VI.) He died, Dec. 10th 1843, at Lyons, when on his way to Montpellier, for the restoration of his declining health.

**DELAWARE BREAKWATER.\*** See *United States*, (Sup.)

**DELFT\*.** In 1837, it had 15,967 inhabitants. The manufacture of "Delft ware" in the place has declined from its former importance, since the improvements introduced into the English potteries by Wedgwood. In fact, nearly all the Delft ware in use in Holland, and over the greater part of the continent of Europe, is exported from England.

**DELPECH (Jacques Mathieu)** was born at Toulouse, in the south of France, October 2d 1777. He studied Medicine and Surgery at Montpellier; where he practised, and delivered private courses of lectures, for several years, with the greatest success. After visiting Paris, in 1811, and making himself acquainted with the leading members of the faculty in that metropolis, as well as with the mode of lecturing adopted by the professors there, he became, in the following year, a successful competitor for the professorship of clinical surgery at Montpellier. Here, both as an instructor and a surgeon, his reputation rose to a level with that of the most eminent of the professors and practitioners of his country. His career was suddenly terminated, on the 29th of October 1832. He was assassinated by a former patient of his, who, immediately afterwards, put an end to his own existence. Various motives have been assigned for the commission of this desperate act:—the most probable appears to have been an impression on the mind of the perpetrator, who was of a very excitable temperament, and had previously been subjected to a four years' imprisonment for an attempt to kill, that Delpech had made improper disclosures concerning the nature of the disease for which he had attended him, and which disclosures he conceived to have interfered with his prospects in life.—The principal works of Delpech are his "*Précis élémentaire des maladies réputées chirurgicales*" (3 vols. 1816); the "*Chirurgie clinique de Montpellier*" (2 vols. 1823-25); and "*L'Orthomorphie*

*par rapport à l'espèce humaine*" (2 vols. 1829).

**DENMARK.\*** The population of Denmark proper, including Jutland, which, according to a census taken in 1769, was 786,000, and which had increased, in 1801, to 924,974, amounted, in 1840, to 1,283,027; in which year, too, the population of the duchy of Sleswick was ascertained to be 348,526; of Holstein 455,093; and of Lauenburg 45,342. That of Iceland, in 1835, was 56,035; of Greenland, in 1834, 7,552; of the Faroe Islands 6,928; and of the Danish West India Islands 43,178. The sum total of the population of all the territory governed by the King of Denmark has been very lately estimated to amount to 2,244,600.—The low state of manufacturing industry is ascribable partly and principally to natural, and partly to political causes. Being nearly destitute of coal, of water-power, and of the useful minerals, Denmark has no natural facilities for the successful prosecution of manufactures. All, or nearly all, the branches of industry, carried on in the kingdom, have been subjected to the control of guilds or corporations. No person can engage in any business until he has been authorised by its particular guild; and, as this permission is rarely obtained without a great sacrifice, the real effect of the system is to fetter competition and improvement, and to perpetuate monopoly and routine. In this condition of things, it is not surprising that the prohibitory regulations, by which the government has attempted to foster the manufactures of the country, should merely obstruct its commerce, and encourage sloth and smuggling. This system was, however, somewhat modified in 1838. There are three manufacturing establishments that belong to the state, and are superintended by persons appointed by the government: they are those of porcelain, at Copenhagen; of woollen cloths, at Usseröd; and of arms, at Frederikswerk and Hellebeck.—The commerce of Denmark has been steadily improving since the peace, although still comparatively inconsiderable on account of the heavy duties levied on foreign imports. Much attention is bestowed on navigation; and from the economical manner in which it is conducted, the Danes possess a considerable share of the carrying trade of other nations. At present, the number of their ships is estimated at upwards of 3700, in burden 143,600 tons.—The total value of the articles exported, in 1838, amounted to about £2,000,000 sterling. They consisted chiefly of grain and flour, rape-seed, butter,

horned cattle, sheep and horses, wool, salted and smoked pork and beef, &c. The Danish horses are in high estimation for military service; and it is for this purpose that there is a demand for them in Germany, France, and Russia. — The Danes possess, in the West Indies, the small but well-cultivated island of St. Croix, together with the islands of St. Thomas and St. John, in the vicinity; Tranquebar and Serampore, on the Coromandel coast of Hindoetan; and some inconsiderable settlements on the coast of Guinea, in Africa. The trade with the East was formerly in the hands of an exclusive company, which was dissolved in 1838, when it was thrown open to individual enterprise. — There are 4 canals: — the canal of Kiel, already mentioned, uniting the German ocean with the Baltic; the Stecknitz canal, which unites the Elbe with the Trave; that of Odensee, extending from the town of Odensee, in the island of Funen, to the sea; and that of Daneakiold, in Zealand. No fewer than 2524 vessels are stated to have passed through the first-mentioned canal in 1838. A railroad has been constructed between Kiel and Altona, and opened to the public in 1844. — Education, in Denmark, is very widely diffused. There are, scarcely without exception, two elementary schools in every parish, and even among the lowest classes, very few persons who are unable to read and write. Grammar schools, or schools of a higher order, are to be found in all the larger towns; at Soroe and Altona there are gymnasiums or colleges; and the universities of Copenhagen and Kiel complete the general system. But to all these must be added a number of schools of a special nature, such as the seven seminaries for the instruction of teachers intended to take charge of the elementary schools, and the following institutions established at Copenhagen: — a veterinary school, a polytechnic school, a theological seminary, a school of naval cadets, two military schools (one preparatory, and the other of a higher order), an agricultural institute, the Royal Academy of the Fine Arts, together with a school for the deaf and dumb, and another for the blind. — The law in Denmark has been simplified, established on equitable principles, and reduced into a code by Christian V. It is uniformly, cheaply, and steadily administered. In order, however, to diminish as much as possible the expenses of justice, all civil cases must, in the first instance, be carried before a *commission of conciliation*, composed of the most intelligent and

respectable men of the vicinage. Its sittings are private. If both parties agree to abide by the decision of this commission, it is registered, and has the effect of law; if not, either is at full liberty to proceed in a court of justice; and to obviate any unnecessary delay, the proceedings must be concluded within 15 days. More than 5-6ths of the suits that occur in the kingdom are, in this manner, disposed of. — Although from the year 1660 down to our own times, the king has been possessed of absolute power, the government has been administered generally with great moderation. The privileges and immunities formerly enjoyed by the nobles have been much restricted; and the slavery of the peasants has been totally abolished. In 1834, the kingdom was divided into four parts, in each of which provincial assemblies were to meet once every two years, to whom should be presented for discussion and approbation, before going into effect, all proposed changes in the laws relating to the rights of persons or property, as well as every law relating to the imposition of taxes; and who were to have the privilege also of originating such additions or amendments to the existing laws, affecting the common weal, as they should deem to be expedient. A small portion of the members of these assemblies are named by the king; the remainder are chosen by the landed proprietors in the provinces. The Danish islands constitute one of the four provinces; Jutland another; Sleswick another; and the remaining one is composed of Holstein and Lauenburg. The places where the provincial assemblies meet are respectively Raskild, Wiborg, Sleswick, and Itzehoe. While everywhere else the constitution of government bestowed by the king was received with enthusiasm by the people, in Sleswick, Holstein, and Lauenburg, on the contrary, it appeared to serve merely the purpose of calling into activity feelings, for a long time entertained by the inhabitants, of a separate interest, on their part, from the rest of the kingdom. A large party, indeed, not only in the two last-mentioned duchies, where the population was nearly (in Lauenburg altogether) of German descent, but even in Sleswick, where about 1-3d of it only was of this character, became anxious for their organization into a state distinct from Denmark, but of which the king of that country was to be the sovereign, in the same manner as, in the 18th and 19th centuries, the kings of England had been at the same time the sovereigns of Hanover, and

which should constitute a part of the German confederacy. The fact of the name to be given to the new state having been discussed among its advocates, some of them being disposed to respect the ancient denominations of the territory, by styling it Sleswick-Holstein, and others coming for it the term of North Albingia, is an evidence of the earnestness with which the object in question has been looked forward to. And the excitement on the subject has not been allayed, but only waits an opportunity for exhibiting itself with augmented force.—The public revenue, in 1837, amounted to £1,564,133; of which the land tax furnished £395,890; the customs and excise, £416,334; the crown property, £181,831; the sound-dues, £213,997. The expenditure in the same year was £1,561,920; including for the army and navy, £437,183; for the interest of the debt, £521,065; and for the sinking fund, £397,862. What are called above the sound-dues are duties paid by every vessel which passes the sound, by virtue of long-established usage, confirmed by treaties with the different nations whose ships navigate the Baltic Sea. It is fixed at 1 per cent. on the value of the cargo for English, French, Dutch, and Swedish ships, and at 1½ per cent. for all other vessels, the Danish included. The payment is made professedly to compensate the Danish government for the maintenance of lighthouses, signals, &c., for the common benefit of mariners. The public debt, on the 1st of January 1841, was 116,572,000 rigadollars.—A bank, under the name of the “Rigsbank,” or Royal Bank, was organized at Copenhagen on shares, so early as the year 1736, with a capital of 500,000 (subsequently increased to 600,000) Danish dollars, current money, and authorized to perform all the functions pertaining to the business of banking. Already in 1745, it found itself under the necessity of suspending payments in specie, and all checks to over-issuing being thus removed, it flooded the country with its paper. When, in 1773, the shareholders transferred their interest in the bank to the government, the issues had reached to 11 millions of dollars, and they then continued to be augmented until they amounted to as much as 16 millions. To remedy this evil, it was ordained that the bank should thenceforth cease to issue any more of its notes, and should annually redeem 750,000 dollars of those in circulation. A new Danish-Norwegian bank was, besides, established, with a joint-stock capital of 2,400,000 dollars, which was

intended to operate, independently of any action on the part of the government, for the restoration of the national currency. This scheme proved, however, to be an entire failure. The new bank-notes, in 1804, fell 25 per cent. below their nominal value, while the old continued at an exceedingly depreciated rate; and such at length was the depreciation of the former, that, in 1813, as many as 1600 dollars in bank-notes was exchanged for a single dollar in specie. In the last-mentioned year, a new bank, styled the “National Bank,” was again established at Copenhagen, for the purpose of anew attempting the extinguishment of the existing vicious circulation, and substituting a sound one in its place. This purpose, too, by faithful and judicious management, it has effected; and the stock was, in the beginning of 1843, several per cent. above its par value. The bank received permission, in 1840, to establish a branch at Flensborg, in the duchy of Sleswick; which branch was, in its turn, authorized to have an office subordinate to it at Rendsborg, in the same duchy. Notes are issued by the bank for 1, 5, 10, 50, and 100 *rigabank* dollars. They are current at a fixed discount for specie, which is adjusted by certain authorities quarterly. The circulating medium consists almost wholly of this paper; and it was not long since nearly equivalent to specie.—The army, in time of peace, does not exceed 6000 men, but is so organized and officered as to admit of being, in the event of a war, speedily augmented to 40,000. In 1840, the navy consisted of six ships-of-the-line, 7 frigates, and 4 corvettes, besides smaller vessels.—A compulsory provision for the support of the destitute poor was introduced into Denmark in 1803; and although the principle of the law is, that the pauper shall be supplied only with those things that are absolutely necessary for his subsistence, the rate has since been becoming progressively higher. All begging is strictly prohibited.—The following are the principal towns, with their population annexed:—Copenhagen, 121,000; Altona, 28,100; Flensborg, 16,000; Sleswick, 12,000; and Kiel, 11,000.

DEPPING\* is one of the most prolific writers of the present age. Among his works, in addition to those which have been already mentioned, the most important are the “Histoire des expéditions maritimes des Normands et de leur établissement en France” (2 vols. 1826); the “Histoire du commerce entre l’Europe et le Levant depuis les croisades jusqu’à la fon-

*dation des colonies d'Amérique*" (2 vols. 1832); "*Les Juifs dans le moyen âge*" (1834); the "*Essai sur les Gnostiques*;" and the "*Règlements sur les arts et métiers de Paris, rédigés au neuzième siècle*" (1837), making a part of the great collection of documents relating to the history of France, published by the government.

**DERBY.\*** The population of this town, which, in 1811, was 13,043, amounted in 1841 to 35,015; an increase corresponding to that of the manufactures which form its chief occupation. Among these, perhaps the most remarkable is that of silk. Derby has long been one of the principal seats of the silk-growing business; and in 1839, it had 17 silk-mills, employing as many as 3000 hands.—It communicates by canals with all parts of England, and is connected with Birmingham, Nottingham, and Leeds, by railroads.—It has many excellent charitable and educational foundations. The literary and scientific institutions are the Literary and Philosophical Society (originally held at the house of the celebrated Dr. Darwin), with a good library, a collection of fossils, and a mathematical and philosophical apparatus; the Town and Country Library; and the Mechanics' Institute, which is in a flourishing condition.

**DESÈZE.\*** This distinguished advocate died at Paris, May 2d 1828.

**DESFONTAINES** (René Louiche), born about the end of 1751, or beginning of the following year, first studied medicine at Paris, but subsequently applied himself exclusively to botany. In 1783-85, he travelled, under the protection of the deys, through the regencies of Algiers and Tunis, and to the southern slope of the ridge of the Atlas, collecting numerous specimens of plants, which were destined to form the basis of his highly esteemed "*Flora atlantica*" (2 vols. 1798-1800). Shortly after returning from this journey, he received the appointment of professor of Botany at the Garden of Plants; and in 1793, was chosen a member of the Academy of Sciences. Besides the work already mentioned, his essay on the "*Organisation des tiges des monocotylédons*," his "*Mémoire sur l'irritabilité des plantes*," his "*Histoire des plantes et des arbrisseaux qui peuvent être cultivés en France en pleine terre*," together with the "*Expériences sur la fécondation artificielle des plantes*," are among the most important of his contributions to science.—Desfontaines died on the 22d of November 1833.

**DESGENETTES** (René-Nicolas Dufriche, baron) was born at Alençon, in Norman-

dy, May 23d 1762. He studied medicine, and obtained, in 1793, an appointment as one of the physicians attached to the army of Italy. He soon rose to be physician-in-chief in that army; where his services were so highly appreciated by Bonaparte, that, on the expedition to Egypt, in 1798, being resolved upon, one of the first acts of the latter was to select him as chief of the medical department. Desgenettes, who, on all former occasions, had evinced the greatest courage and devotedness in the performance of the duties assigned him, on this expedition surpassed himself by his conduct at Jaffa; where, in order to revive the spirits of the soldiers, when attacked with that terrible disease, the plague, a measure so necessary for their cure, he inoculated himself in their presence with the pestilential virus; and where, on the expediency being suggested to him of putting an end by poison to the lives of such of the sick of the army as could not be removed, and whose cases were hopeless, that they might not be subjected to the barbarity of the Turks, had the boldness to refuse to comply, and to signify to the general-in-chief "that his province was to cure, and not to kill." On his return from Egypt, he was appointed professor of hygiene in the School of Medicine; then principal physician of the military hospital of Val-de-Grâce; and, in 1804, inspector-general of the sanatory department (*service de santé*) of the army. In this last capacity, he made all the campaigns of the empire. Under the Restoration, he was deprived of several of his appointments, and had much difficulty in recovering the post of principal physician to the army. After the revolution of July, he became the principal physician to the "Hotel of the Invalids," an office which he retained till his death in 1836.—Desgenettes, in the midst of his various engagements, found leisure to compose a number of works, the most important of which are the "*Analyse du système absorbant ou lymphatique*" (1792); the "*Histoire médicale de l'armée d'Orient*" (1812); and his "*Éloges des académiciens de Montpellier*" (1811).

**DESSAIX\*** (Jos. Marie, count). After residing for a time in Switzerland, he went to Piedmont, where he was arrested and imprisoned by order of the king of Sardinia. He was, however, liberated before long, and subsequently lived in retirement.

**DESTUTT DE TRACY.** See *Tracy*, (Sup.)  
**DEWEES** (William Potts). M. D., was born May 5th 1768, at Potts-grove, in

Pennsylvania. Being early left fatherless, and with very little property, he had not the advantage of a superior education. He, nevertheless, improved all the means at his command, and must have made some proficiency in the study of languages, as his knowledge of Latin and French, in after life, was sufficient for all necessary purposes. Having early determined to study medicine, he was, for this purpose, placed with a practising apothecary, as was very customary at that period, when the proper distinction between the business of the apothecary and of the physician had not been generally made. He next entered the office of Dr. William Smith, in the city of Philadelphia; and in the years 1787, 1788, and 1789, he attended the lectures delivered in the medical department of the University of Pennsylvania by its distinguished professors, Drs. John Morgan, William Shippen, Adam Kuhn, and Benjamin Rush. In accordance with the almost universal custom of the day, Dr. Dewees commenced the practice of his profession, without receiving a regular diploma from his preceptors, in the summer of 1789. He was then only 21 years of age, and had the appearance of being still younger; but notwithstanding the objections made to his youth and inexperience, he soon engrossed all the valuable practice at the village of Abington, in Montgomery county, where he had fixed his residence. The ranks of the medical profession in Philadelphia having been diminished by the yellow-fever of the year 1793, Dr. Dewees embraced the opportunity, thus afforded him, of removing to this city, with a fair prospect of obtaining both employment and reputation as a physician. The science of obstetrics was then hardly known in America, and women were very generally the practitioners of it as an art. This department of his profession, therefore, offered to Dr. Dewees a fairer field than perhaps any other for distinction; and he, accordingly, devoted himself to it, in an especial degree. He not merely made himself familiar with the best writers on the subject, French as well as English, but aspired to improve upon their labours,—an object which he succeeded in accomplishing. In the mean time his reputation was diffused through the community, and his practice became extensive and profitable. Before long, too, he instituted a course of private lectures to medical students on obstetrics, being, as is stated by Dr. Hodge in an eulogium upon Dr. Dewees, delivered to the medical students of the

University of Pennsylvania, in 1842, the first full course on the subject given in the United States.—At length, the devotion of Dr. Dewees to the duties of his profession very seriously impaired his health; his breast became delicate, and on several occasions he was threatened with hæmorrhage from his lungs. This dangerous indication of pulmonary affection, conjoined with a tempting pecuniary investment, induced him, in the year 1812, to abandon his station in Philadelphia, to resign his profession, and to invest the proceeds of a life of toil and self-denial in lands at Phillipsburg, in the interior of Pennsylvania.—This speculation proved an unfortunate one, and a few years sufficed to destroy the property he had been long in accumulating. His health, however, having been restored, he returned in 1817 to the scene of his former prosperity, to resume the practice of his profession, and his private courses of instruction to medical students. These were delivered thenceforth, until 1832, in the Medical Institute of Philadelphia; an institution founded by Dr. Chapman, about the period of Dr. Dewees' return to the city. The latter obtained again a very extensive and lucrative practice; and, in 1825, was appointed adjunct professor of Midwifery (to Dr. James) in the University of Pennsylvania. The duties of the professorship gradually devolved more and more upon him as Dr. James declined in health, and were performed with great ability. In the autumn of 1834, Dr. James having resigned his office on account of his growing infirmities, Dr. Dewees was appointed to the full professorship. But his own health, which had before this time been very seriously impaired, received a further shock from the exertions which he was obliged to make; and he felt himself, in consequence, called upon to resign his professorship, in November 1835. He embarked for the island of Cuba, hoping to be benefited by a change of climate. The experiment was not wholly in vain. He recovered sufficiently to attend to some of the lighter duties of a practitioner of medicine, which he discharged chiefly at Mobile, in Alabama, where he spent most of his time for 4 years. In May 1840 he returned to Philadelphia, and died here on the 20th of May 1841.—When he came back to Philadelphia from Phillipsburg in 1817, Dr. Dewees determined to produce a series of works, the result of his own thoughts, founded on his reading and observation. His first publication was a second edition



of his elaborate thesis, written on his applying to the university for a diploma, in the spring of 1806. In 1823, he published, in a volume, a number of essays which had been contributed by him occasionally to the medical journals. Then followed his *System of Midwifery for the use of students and practitioners*, perhaps the best of his works; his "*Treatise on the Physical and Medical Treatment of Children*" (1825), which has passed through several editions; a "*Treatise on the Diseases of Females*" (1826), another standard work of our medical literature; and next, a *treatise on the Practice of Medicine* (1830). This last is of inferior merit to the others; for, though the excellency of the practice usually inculcated by the author has not been questioned, the book has no pretensions to a scientific arrangement or treatment of diseases; and being prepared hastily, and with reference to popular use, it does not partake largely of the confidence of the medical profession. — Dr. Dewees was a man of taste as well as of genius. We are told that the walls of his house were covered by the productions of the masters of the art of painting, which cost him large pecuniary sacrifices; while to music he devoted much of his leisure, and was refreshed by its agency amid the severe duties of his profession. He possessed conversational powers in no ordinary degree, and contributed always his full share to the pleasures of social intercourse. And his temper and deportment in the various relations of private life were such as to secure the love and respect of all who were connected with, or knew him.

**DIAPER.\*** Diapers are now also made of cotton, in imitation of the linen goods bearing the same name.

**DICKENS** (Charles) was born on the 7th of February 1812, at Portsmouth, in England. At a very early age, he was taken by his father, who held an office connected with the navy, first to London, then to Chatham, and then back again to London. It is not improbable that these successive removals, by presenting, from time to time, a change of scene to the eye of the child, may have tended to cultivate in him a talent for observation, and may have thus contributed to the education of the future *sketcher* and novelist. After receiving the instruction to be obtained at a school in the metropolis, he went into the office of an attorney, a position altogether favourable for improving his acquaintance with the habits and manners of the middling, and especially of the lower, orders of his

countrymen. In the mean time, his taste for literature was continually augmenting, and gradually absorbed his whole attention. He resolved to attempt a literary career, and to begin that career, like so many others who had preceded him, and had risen to eminence as professional men or authors, in the capacity of a reporter for the newspapers. For this avocation, requiring, besides the indispensable qualification of being a skilful stenographer, great promptness and tact, and an extensive knowledge of the usages and modes of thinking of the different classes of society, he made a diligent preparation before he ventured to engage in it. This, however, he at length did with so much success, as very soon to be invited to become one of the editors of the "*Mirror of Parliament*," noted for the accuracy with which it reported the parliamentary debates. He was next engaged as a reporter for the "*Morning Chronicle*;" the columns of which newspaper were, at the same time, opened to him for the publication of short sketches of popular character and manners. These were favourably received by the public, and were, in consequence, afterwards collected, and published in a separate form, under the title of "*Sketches of London*," in 2 volumes, with illustrations by Cruikshank. Then followed, in weekly numbers, the "*Pickwick papers*," the success of which was altogether extraordinary. Dickens's reputation was now firmly established. His "*Oliver Twist*," "*Nicholas Nickleby*," "*Master Humphrey's Clock*," and "*Barnaby Rudge*," excellent as they are, have not raised it higher; while some of his later publications have detracted from it. The leading characteristic of Dickens's writings is the very opposite of that of Bulwer's. The former is disinclined to make any reflections, and with him every thought and every feeling, whether grave or gay, is, as it were, transformed into flesh, and blood, and bones. All his works of imagination, likewise, relate exclusively to the every-day life of the people, which, if some of its eccentricities be exaggerated for effect, is never caricatured. This truth to nature, it may be added, gives to his writings their peculiar charm. — Mr. Dickens has recently paid a visit to the United States; where, from the admiration which his works had excited, he was most kindly, nay enthusiastically, received. On his return to his own country, he gave an account of his stay amongst us in his "*Notes on America*," so superficial, and so full of prejudice against our

social and political arrangements, as to render his judgment, in matters more serious than story-telling, of no value whatever, in the opinion of all liberal-minded persons who have the opportunity of verifying his statements from observation.

DIDOT\* (Firmin) retired from business in 1827, and, in the same year, was elected a member of the Chamber of Deputies from the department of the Eure. In that body he acted with the more moderate portion of the opposition to the government; he was one of the 221 members who, in 1830, voted the famous address which led the way to the change of dynasty; and, on various occasions, he interested himself actively in behalf of the liberty of the press. He is the author of two tragedies, "La Reine de Portugal" and "La Mort d'Annibal," remarkable for purity and strength of style; of translations into French verse of the Bucolics of Virgil, the Songs of Tyrtæus, and of the Idyls of Theocritus, and of a memoir of Robert and Henry Stephens. He died on the 24th of April 1836.

DIDOT (Ambrose Firmin), who, in company with his brother, Hyacinthe Didot, succeeded to the business of his father just mentioned, was born at Paris in 1790. After pursuing his studies, especially in the ancient and the modern Greek, under the direction of the celebrated Coray, and after spending some time at the college or gymnasium of Cydonia in Asia Minor, he was attached, in 1816, to the French embassy in Constantinople. Before returning to his own country, his desire to view the monuments of antiquity, to be met with in those eastern regions, led him to make an extensive tour through Greece, Asia Minor, Syria, Palestine, and Egypt, of which he published an account in 1821, under the title of "Notes d'un voyage fait dans le Levant." He is, besides, the author of a good translation of Thucydides (4 vols). M. Didot was the first person in France to propose, in 1823, a subscription in behalf of the Greeks, and he was actively instrumental in the formation of the Greek committee of Paris, of which he was appointed the secretary.—Among the many important publications which have issued from the press of the brothers Didot, may be selected for mention here the "Monuments de l'Égypte et de Nubie," by Champollion the Younger; the "Expédition scientifique des Français en Morée;" the new edition of the Dictionary of the Academy; the "Bibliothèque française;" the "Collection des classiques français;" the collection of Greek authors,

with Latin translations annexed; the new edition of the "Thesaurus græcæ linguæ" of Stephens; the "Glossarium mediet infim. latinitatatis" of Dufresne; and the collection published under the title of "L'Univers pittoresque."

DIEBITSCH-SABALKANSKI (Hans Karl Friedr. Ant., count) was born, May 13th 1785, of a noble family, on the estate of Grossleippe, in Silesia. He received his education in the school for Cadets at Berlin; but left the Prussian for the Russian service in 1801, in which his father, also a Prussian by birth, and an aide-de-camp of Frederick the Great during the Seven Years' War, then held the rank of a major-general. The young Diebitch made his first campaign in 1805, and distinguished himself in such a degree at the battle of Austerlitz, by his bravery and presence of mind, as to attract the particular attention of the emperor Alexander. His conduct, also, at Eylau and Friedland, added to his reputation, and secured him a rapid promotion. He partook of the principal conflicts of 1812, 1813, and 1814; in the latter of which years, he contributed essentially to determine the march of the allied armies upon Paris, after the sovereigns had nearly resolved upon a general retreat to the Rhine, in consequence of the disasters that had befallen the main army under the command of the prince of Schwartzenberg; a service ever afterwards gratefully remembered by Alexander. He accompanied that monarch on his journey to Taganrock, and saw him die there. On occasion of the conspiracy which followed at St. Petersburg, he established himself in the favour of the emperor Nicholas, by the intrepidity and judgment which he displayed. In the Turkish campaign of 1823, he was chief of the staff of General Wittgenstein; and, in the following year, succeeded him in the chief command of the army. The war was now speedily brought to a close, by the passage of the Balkan and the capture of Adrianople. For this brilliant exploit, Diebitch was promoted to the rank of a field-marshal, and created a count, with the surname of *Sabalkanski*, that is, conqueror of the Balkan, annexed to his name. When the Polish insurrection broke out, in the end of 1830, he was commissioned to quell it, at the head of an army of 150,000 men. Although, no doubt, a number of causes conspired with the valour and enthusiasm of the Poles, to render the task assigned to him more difficult than was anticipated by himself and his government, such as the unusually bad weather, the extremely

bad condition of the roads, the difficulty hence arising of provisioning the troops, and the appearance among them of the Asiatic cholera, yet it is certain that the contest was conducted with little energy or skill on his part. He was, accordingly, about to be superseded in his command, when he was rescued from that disgrace by the hand of death, on the 10th day of June 1831. By some, the fact of his conduct in this, his last campaign, having come far short of his former reputation, has been attributed to disease, both bodily and mental, brought on, probably, by habits of intemperance; and some, too, have intimated that his death was owing to poison, which he took to prevent the disgrace he foresaw would be inflicted upon him. The physician, however, who attended him, has positively stated that he died of an attack of the cholera.

**DIEFFENBACH** (John Frederick), one of the most distinguished surgeons of the present day, was born at Königsberg, in Prussia, in the year 1795. He was brought up at Rostock, in the duchy of Mecklenburg, and educated in the gymnasium of that place till 1812, when he went to the university of Greifswald to study Theology. In 1813, however, he suspended his theological studies to take part, as a volunteer, in the war against France; resuming them again on the return of peace. It was not long after this that he discovered he had mistaken his profession; and applied himself to Medicine, and especially to Surgery. The study of the latter he pursued chiefly at Vienna, under Walther, whose reputation had attracted him thither. From Vienna, he accompanied a blind lady, in 1821, as her surgeon, to France; and, while there, was seized with a vehement desire to go to Greece, to assist the inhabitants in their struggle for independence. He had already reached Marseilles, on his way, when family circumstances induced him to change his mind, and he retraced his steps to Germany. After taking the degree of Doctor of Medicine at Würzburg, he settled himself at Berlin, where his success as a surgeon was rapid and extraordinary. Besides the employment afforded him by an extensive private practice, he has the principal charge of one of the hospitals of the city, is a professor in the university, and, since the death of Gräfe, in 1840, director of the department of Clinical Surgery in that institution. As a lecturer, his reputation does not stand high; but, as a surgeon, he is not only unsurpassed in the dexterity with which he uses the knife, but he has introduced many improvements in

the practice of his art, more particularly in reference to that branch of it which seeks to correct deviations or distortions from the natural form of the human body, and to furnish substitutes for parts or functions that may be wanting. His skilful formation of noses, lips, eyelids, cheeks, &c., together with his mode of rendering the vision direct of those who squint, and of giving fluency of speech to the stammerer, are instances of what is meant.—His writings are valuable for the matter contained in them, but are defective in form and style. The most important of them are his "Chirurgischen Erfahrungen, besonders über die Wiederherstellung zerstörter Theile des menschlichen Körpers" (4 parts, 1829-34); the continuation of Scheeles' work, entitled "Die Transfusion des Blutes und die Enspritzung der Arzneyen in die Adern" (1828); the essay "Über die Durchschneidung der Sehnen und Muskeln" (1841); and "Die Heilung des Stotterns durch eine neue chirurgische Operation" (1841).

**DIEMEN'S (VAN) LAND.**\* See *Van Diemen's Land*, (Sup.)

**DIEPPE**,\* in 1841, had 16,443 inhabitants. A regular steamboat communication is maintained with Brighton, on the opposite coast of England. There are in Dieppe fine baths, constructed in 1822; and the town is much resorted to in the summer season for sea-bathing. Articles of ivory, bone, and horn, are made here perhaps better than anywhere else in Europe. The inhabitants are extensively engaged in the fisheries, chiefly with a view of supplying the markets of Paris; and as many as 12,000,000 of oysters are annually sent thither.

**DIJON.**\* Population, in 1841, 28,356. Besides the institutions previously mentioned, Dijon has an "académie universitaire," with faculties of law, literature, and science; a secondary school of medicine, a royal college, which, in 1842, had 295 pupils, a theological seminary, a museum of paintings, sculpture, and antiquities, a rich dépôt of archives, with several important charitable establishments. It has some fabrics of linen, cotton, and woollen stuffs, vinegar, mustard, &c.; but its main dependence is on its wine trade, it being the principal dépôt and market for the sale of Burgundy wines.

**DIMITY**; a cotton cloth of a thick texture, and generally striped, or otherwise ornamented, in the loom; it is chiefly used for articles of female dress, and for bed furniture or window curtains, and is very rarely dyed.

**DINDORF** (William), one of the most eminent philologists and critical scholars of latter times, was born at Leipsic, in 1802, where his father, who died in 1812, was professor of the oriental languages. After the usual preparatory education, he applied himself chiefly, at the university of his native city, to the study of classical literature. Already, when only 17 years of age, he commenced his career as an author by the continuation of Beck's commentaries and scholia to Invernizzi's edition of Aristophanes; which was speedily followed by a smaller edition of that writer, intended for academical use. In 1828, he accepted of a professorship at Leipsic, after having previously declined one offered him at Berlin, together with the post of principal librarian (*custos*) of the Royal Library in that city. His lectures met with unqualified approbation; but, in 1833, he was, nevertheless, induced to resign his professorship, that he might have the more time to bestow on the preparation, jointly with his brother and Hase, of the new edition, which Didot had undertaken to publish at Paris, of Stephens' "*Thesaurus linguae græcæ*." Among his other numerous works, may be mentioned his editions of Aristides, Athenæus, Themistius, Procopius, and Syncellus; also of the "*Grammatici græci*" (1823-25); the "*Poetæ scenici græci*" (1830); the excellent commentary on the three Greek tragedians, and on Aristophanes (7 vols. 1836-42), in which he has collected the observations of preceding critics and illustrators of the text, and to which he added, in 1842, the "*Metra Æschyli, Sophoclia, Euripidis et Aristophanis*;" and he is the editor, besides, of Sophocles, Aristophanes, and Lucian, in Didot's series of the Greek classics. In all these productions, Dindorf has exhibited uncommon acuteness in deciding on disputable points, great erudition, and a refined taste; and as an editor, he possesses the merit of not captiously or hypercritically undervaluing the labours of his predecessors, and of refraining from unnecessary controversy. Dindorf, it may be stated to his credit, has not been so entirely absorbed by classical pursuits, as not to take an interest in matters of utility affecting the interests of his fellow-countrymen. He is one of the directors of the Saxon and Bavarian Railroad Company.—His younger brother, above referred to, Lewis Dindorf, is likewise a distinguished scholar, and the editor of some of the works of Xenophon and of Diodorus Siculus.

**ΔΙΟΦΑΝΤΟΣ**; a mathematician of the

school of Alexandria, in Egypt, who lived, according to some, about 160 years B. C., and according to others, not till 200 years later. He has been usually, but erroneously, regarded as the inventor of algebra. His works, however, are the earliest on that subject, which have come down to us from the ancients. They relate chiefly to a class of *indeterminate problems*, now commonly comprehended under the general term of the *diophantine analysis*. He wrote a treatise entitled "*Arithmetica*," in 13 books, 6 only of which are extant, and an essay "*de numeris polygonia*."

**DISSEN** (George Ludolf), an eminent philologist, was born in December 1784, at Grossenschnen, near Göttingen, in Germany, at which place his father was pastor. He was sent in his 14th year to the celebrated school at Schulpforte, in Saxony; and having there laid an excellent foundation for his future studies, he went in 1804 to the university of Göttingen, where he devoted himself diligently to the study of philology and philosophy, under Heyne and Herbart, until the year 1806. He became a private lecturer in the university in 1809. In 1812, he was invited to a professorship at Marburg, and was, a year afterwards, appointed professor of classical literature at Göttingen, which he continued to be till his death, on the 21st of September 1837.—The activity of Dissen as a professor was very great, his lectures being the result of profound investigation, as well as digested with the greatest care; and he succeeded in inspiring his audience with an ardent love for the study of antiquity. But the zeal with which he applied himself to his professional duties, and the cultivation of his own mind, prevented his doing much as an author. All that was published by him from 1815 to 1825, consists of the part he took in Boeckh's great edition of Pindar, and some reviews which he wrote for the "*Göttinger Gelehrten Anzeigen*." In regard to ancient writers, and poets in particular, he directed his attention, in an especial manner, to analyzing the connexion of the ideas, a point which had been much neglected by preceding commentators. With a view to supply this want, he prepared a new edition of Pindar, which appeared in 1830, in 2 vols., and which is one of the best that we have of that poet. In 1835, he published an edition of Tibullus, with valuable dissertations and a commentary, and, in 1837, an edition of Demosthenes's oration "*De Coronâ*," with a similar object.—Dissen was, besides, the author of an excellent little treatise, entitled "*Anlei-*

ting für Erzieher, die Odyssee mit Knaben zu lesen," together with a number of smaller dissertations in Latin and German. These were collected and published with a selection of his reviews, after his death, by his friend K. O. Müller, in 1839, under the title of "Kleine Lateinische und Deutsche Schriften von Ludolf Dissen," with several biographical notices of the author prefixed.

**DISTEMPER**; a disease incident to dogs, horses, and other domestic animals. The distemper in dogs is commonly considered as a catarrhal disorder, and in general a running from the nose and eyes is one of the first and leading symptoms. It is usually accompanied by a short dry cough, and succeeded by wasting of the flesh and loss of strength and spirits. An extraordinary irritability is very often evinced, attended by great debility and paralysis of the extremities, or by convulsive twitchings resembling St. Vitus's dance, and sometimes also by epileptic fits. In some of these attacks, the dog walks round and round, unconscious of every thing about him; and in such cases the unfortunate animal is, not unfrequently, supposed to be mad, and is sacrificed accordingly. But the suddenness of the seizure, says Mr. Blaine, ought to inform the looker-on of the impossibility of its being *rabies*, which is always in the worst cases marked with some recollection, some knowledge, and which never exhibits the indiscriminate fury that characterizes epilepsy.

**DOBROWSKY**\* was born in 1753, at Gyermet, near Raab, in Hungary, and died at Brünn, in Moravia, January 6th 1829.

**DOCTRINAIRES**.\* The leaders of the "parti doctrinaire" were for a long time M. M. Royer-Collard, Guizot, de Broglie, Ch. de Rémusat, Jaubert, Duvergier de Hauranne, Cousin, Piscatory, &c. Of late years, however, the party has lost its distinctive character, and some of the individuals enumerated have separated themselves entirely, in their political course, from their former colleagues.

**DOEBEREINER** (John Wolfgang), one of the most eminent of living chemists, and professor of chemistry in the university of Jena, was born at Hof, in Germany, on the 13th of December 1780. His education was very defective; and he is a remarkable instance of what is styled a *self-made* man. When 15 years old, he applied himself to acquire a knowledge of pharmacy, and becoming gradually more impressed with his want of scientific information, he laboured diligently to supply it, being encouraged to do so by the intel-

ligent men whose acquaintance he had the good fortune to make, first at Carlsruhe, and then at Straßburg, where he had established himself, in 1799, as a practical pharmacist. In 1803, at the suggestion of some of his relations, he engaged in mercantile pursuits, which, however, he found himself compelled to abandon after a short period, when he devoted himself wholly to the study of chemistry, practically as well as theoretically. Through the recommendation of Gehler, he was appointed professor of chemistry at Jena. Here the peculiar interest manifested in his behalf by the grand duke, and by Goethe, led him to decline several advantageous offers made him from other quarters.—Doebereiner was the first to ascertain that oxalic acid contained no hydrogen; and he discovered it to be decomposed, by means of sulphuric acid, into carbonic acid and carbonic oxide. He discovered also that formic acid was decomposable into carbonic oxide and water. He was the first to analyze organic substances by the instrumentality of the oxide of copper; he originated various contrivances for arriving at accurate chemical results while operating only on small portions of matter; and he made many important discoveries in relation to the phenomena of fermentation. But among his numerous discoveries, that which has attracted in the greatest degree the public attention, is the remarkable property of platinum, when in a spongy state, to inflame hydrogen gas in contact with oxygen gas or atmospheric air,—a property which he applied to the construction of lamps for various economical purposes, and of eudiometers of platinum. His earlier discoveries were for the most part communicated to the world in Gehler's "Journal der Chemie, Physik und Mineralogie;" his later in Schweigger's "Journal für Chemie und Physik," and in separate publications. Of these the most remarkable are the treatises "Zur pneumatischen Chemie" (5 vols. 1821-25); "Zur Gährungschemie" (1822); "Über neuentdeckte höchst merkwürdige Eigenschaften des Platins" (1824); "Beiträge zur physikalischen Chemie" (3 parts, 1824-36); and "Zur Chemie des Platins" (1836). His elementary treatise, such as the "Elemente der pharmaceutischen Chemie" (2d ed., 1819), the "Anfangsgründe der Chemie und Stöchiometrie" (3d ed., 1826), and the "Grundriss der allgemeinen Chemie" (3d ed., 1826), together with the "Supplements" to this (1837), are likewise deserving of honorable mention.—He has besides, jointly with

his son, Francis Doebereiner, published a "German Pharmacopœa."

**DOMINICA.\*** At the last registration, in 1834, there were 14,384 slaves; on the emancipation of whom the planters received the sum of £275,923 13s., being at the rate of £19 3s. 7d. for each slave. At the same period, the white inhabitants were 840, and the free people of colour 3,606; so that the whole population then amounted to 18,830.—The principal article of export from the island is coffee, and the next in importance sugar. The total value of the exports from the colony, in 1836, was £78,292; of imports, in the same year, £68,077. 169 vessels, burden 5061 tons, entered, and 170, burden 6548 tons, left the ports of Dominica in 1836. The island can scarcely be said to have any harbour; Roseau on the W., and Prince Rupert's Bay on the N. coast, are merely anchoring places of little security.

**DONCASTER;** a town of Yorkshire, in England, on the river Don, 36 miles S. by W. of York, and containing, in 1841, 10,455 inhabitants. It is extremely well built, and is distinguished for its educational and charitable institutions; one of the most prominent and flourishing among the latter being the Yorkshire Institution for the Deaf and Dumb. But Doncaster is principally indebted for its celebrity to its races. These are held in the month of September of every year, and are zealously patronized by the corporation, as well as by the surrounding nobility and gentry. The interest excited by them is quite extraordinary: they attract visitors from all parts of Great Britain and Ireland, and even from foreign countries; and nowhere, perhaps, is there to be seen such a display of magnificent equipages and fashion.

**DONIZETTI** (Gaetano), born at Bergamo in Italy, is one of the most distinguished musical composers now living. He resides chiefly in Paris, and is the author of a number of operas, among which those most entitled to mention are his "Enrico," "Elisir d'amore," "Marino Faliero," "Anna Bolena," "Lucia di Lammermoor," "Belisario," and "La fille du régiment," in the latter of which, more particularly, he has aimed to gratify the prevailing taste of the Parisians. He has also produced several overtures, quartettes for the violin, and some pieces of sacred music. He is not the founder of any new school of music, but his style of composition is to be regarded as a modification of that of his great master Rossini.

**DORPAT.\*** The university in this place  
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was originally founded by Gustavus Adolphus of Sweden in 1632, by a decree issued by him from his camp near Nuremberg, when, as might have been supposed, his mind was sufficiently occupied with the military operations in which he was engaged. In the wars which subsequently ensued between Sweden and Russia, it declined, and became altogether extinct in 1710. The emperor Paul had commanded its restoration; but his death, shortly afterwards, left this task to be accomplished, as has already been mentioned, by his successor Alexander. A magnificent edifice was erected for its accommodation; and it has been provided with a library of upwards of 60,000 volumes, an observatory, an extensive philosophical and chemical apparatus, a zoological museum, a mineralogical cabinet, a botanic garden, an anatomical theatre, an hospital, and, in short, with all the requisites for the delivery to the students of efficient courses of instruction in the various departments of knowledge. Towards the end of the year 1843, there were 27 professors, besides other lecturers and teachers; and the number of students, at the same period, exceeded 500. An institution was attached to the university in 1823, the object of which is to form professors for the Russian universities. In the beginning of 1844, we find it stated that 23 individuals had completed their studies in it, and that the number of its students was then 7. Dorpat has, besides, a gymnasium, a normal school for the education of teachers competent to take the charge of the public schools in the surrounding country, a Protestant theological seminary, and (in the neighbourhood) a practical school of agriculture.—The town is well built, and contains about 10,000 inhabitants.

**DORT.\*** The population, in 1837, was 19,614: it has, however, been lately stated to reach as high as 22,000.—It has a gymnasium, and a mint.—The hall in which the famous synod of Dort held its sittings is still in excellent preservation, but is now degraded to the ignoble purpose of a low Sunday-evening theatre.—Dort is the centre of a considerable trade in flax, which is grown in great quantities in its vicinity, and a good deal of which is shipped for England and Ireland.

**DOUAI** or **DOUAY;** a strongly fortified town of France, in the department "du Nord," on the river Scarpe, 18 miles S of Lille, with about 22,000 inhabitants. The town contains a superb arsenal and one of the three royal foundries in the kingdom. It is the seat of a sub-prefecture, of a royal

court for the departments "du Nord" and of the "Pas de Calais," and of a tribunal of primary jurisdiction. It has also a royal college, with 352 pupils in 1842, a royal school of artillery, an "académie universitaire" which has replaced its celebrated university, schools of design and music, and a primary normal school; with a public library of 29,000 volumes, museums of paintings and antiquities, cabinets of natural history and medical science, a botanical garden, 2 hospitals, an orphan asylum, and a theatre.—It has fabrics of lace, tulles, gauze, cotton stuffs, thread, and earthenware, glass and soap works, and salt and sugar refineries; and it has a considerable trade in flax, which is extensively cultivated in its neighbourhood.—Douai existed in the time of Julius Cæsar, was a place of consequence in the middle ages, and before the revolution the seat of the parliament of French Flanders and of the university above mentioned, which was founded in 1562 by Philip II. of Spain. It was taken by the French in 1667, lost by them in 1710, and again taken by them in 1712. France retained possession of it by the terms of the treaty of Utrecht, concluded in the following year.

**DOURO**; one of the principal rivers of Spain and Portugal. It takes its rise N. W. of Lorca, in Old Castile, and flows by Soria, Aranda, Toro, Zamora, Miranda, and Oporto, discharging itself into the Atlantic ocean, at a short distance W. of the last-mentioned place. Its most important tributaries are, on the right, the Pisuerga, Seguilla, Esla, Sabor, Túa, and Tamega, and on the left, the Rituerto, Riaza, Duranton, Cega, Adaja, Tormes, Agueda, Coa, and Tavora. Its entire course is estimated at very little short of 500 miles, generally in a S. W. or W. S. W. direction. It flows for the most part through deep and narrow valleys; and its current is very rapid. It is, however, navigable for about 70 miles from its mouth.

**DOUVILLE** (Jean Baptiste), the secretary of the Geographical Society at Paris, and one of the most noted travellers of the present age, was born in the W. of France, about the year 1704. From his early youth, he had a passion for visiting strange countries, and sought to obtain the information that would best qualify him for doing so with advantage. Scarcely had he entered into possession of a considerable fortune, when he travelled successively to Asia and America. He next resolved upon making the attempt to penetrate into the interior of Africa, from the Portuguese settlements on the W. coast of that conti-

nent. Neither the difficulties thrown in his way by the distrust of the Portuguese authorities, nor the hostility of the native tribes, who had much to complain of in the conduct experienced by them from their European neighbours, could deter him from his purpose. Setting out from San-Felippe de Benguela, and at a sacrifice of nearly 200,000 francs, he not only traversed the kingdoms of Benguela and Angola, but also, in the regions situated to the N. of these, he reached a point in Lat. 13° 27' S. and Lon. 25° 4' E. of Paris, whence he proceeded in a N. W. direction to the port of Ambriz to embark for Europe. On the 20th of June 1831, he arrived at Paris. The report which he made of his journey to the Geographical Society there produced so great an impression, that, in 1832, he received the prize awarded for the most important geographical discovery made during the year 1830; and the Geographical Society of London bore their testimony to his merits, by electing him an honorary member. An account of his journey was published by him, under the title of "Voyage au Congo et dans l'intérieur de l'Afrique équinoxiale, fait dans les années 1828, 1829 et 1830" (3 vols), in the preparation of which he was aided by Eyriès, the editor of the "Annales des Voyages."

**DRESDEN**.\* At the close of the year 1843, the population of this city, including a military force of 7,613 men, amounted to 86,601 persons; of whom 73,037 were Lutherans, 4635 Roman Catholics, 619 of the Reformed Church, 71 Greek Catholics, and 626 Jews.—Besides the educational institutions previously mentioned, Dresden has 2 gymnasiums, 2 normal schools, a school for the blind, another for the deaf and dumb, numerous free elementary schools, and schools for the reformation of depraved children. It has also many charitable establishments, including orphan asylums of various kinds, a founding hospital, and 5 other hospitals. The Royal Library, containing about 300,000 volumes, besides pamphlets and manuscripts, is open to the public.—Dresden has no very considerable external trade. It has numerous painters, designers, sculptors, engravers, and other workers in the fine arts; and some manufactures of woollen and silk, leather, gold and silver articles, carpets, sealing wax, macaroni, white lead, straw hats, artificial flowers, musical, mathematical, and philosophical instruments, with a bomb and cannon foundry, and a large sugar refinery. What is called Dresden China is not made in this city, but at Meissen, 14 miles distant.

The greater proportion of its external commerce has, until lately, consisted in its transit trade by the Elbe. Its general trade is, however, increasing; and, since 1826, a wool market has been established. — The inhabitants generally are great lovers of the fine arts, and devoted to music.

**DRONTHEIM**; one of the principal towns of Norway, on the river Nid, at its mouth, in a large fiord or gulph, 275 miles N. E. of Bergen. It is a regularly and well built town, though the houses are chiefly of wood; and contains above 12,000 inhabitants. It is the seat of a bishop; and has a public grammar-school, an institute for the deaf and dumb, besides various kinds of elementary schools. There is here, also, a public library and museum, in which are collections of books, minerals, zoology, and antiquities; a theatre; a work-house; an asylum for the insane; and several hospitals, and other charitable institutions.

**DROUET\*** (Jean Baptiste). On April 11th 1824, a man died at Macon, in France, who had lived several years there in great retirement, and had called himself *Merger*. On the examination of his effects after his death, he proved to have been Drouet.

**DROUET** (count d'Erlon). See *Erlon*, (Sup.)

**DROVETTI** (Bernardin), formerly consul-general of France in Egypt, was born somewhere about the years 1775 to 1777, at Leghorn, in Italy. He entered the French army at an early age, and partook of the expedition to Egypt, with the rank of lieutenant-colonel. Appointed, subsequently, by Bonaparte, to the consul-generalship in that country, he exerted himself in the discovery and excavation of antiquities; and, even after he was superseded in his office, under the government of the Restoration, he remained there, actively engaged in this respect as before. In company with Caillaud, and under the protection of Mehemed Ali, he travelled through Egypt, and some of the adjacent regions, where, hitherto, the foot of a European had scarcely trodden; and made plans and drawings, at his leisure, of what he saw. He made, besides, extensive purchases from the Arabs, as also from other travellers, of every thing they had to dispose of, that was calculated to illustrate the early history of that portion of the African continent. Under Charles X., he was re-appointed consul-general; but was again displaced in 1830. Latterly, he has resided chiefly at Marseilles. His exten-

sive collections have been divided into two parts, both of them extremely valuable. The more important one of these was purchased from him by the king of Sardinia, for the museum at Turin; the other became the property of the French government, and constituted the nucleus of the Parisian Museum of Egyptian Antiquities. Neither part contains many large statues; but, in each of them, there are several thousands of idols, scarabei, medals, intaglios, and other objects, illustrative of the religion and domestic life of the ancient Egyptians, together with a number of mummies, and about 200 rolls of papyrus.—Jomard was assisted by Drovetti in the preparation of his "*Voyages à l'oasis de Thèbes et dans les déserts situés à l'orient et à l'occident de la Thèbaïde, etc.*" (1822); and he also made use of the journals and drawings of Drovetti and Caillaud in his "*Voyage à l'oasis de Syouah*" (1823.)

**Droz\*** (Joseph). To the works published by him, already enumerated, there are to be added the "*Application de la morale à la politique*" (1825); his "*Économie politique, ou principes de la science des richesses*" (1829); and lastly, the "*Histoire du regne de Louis XVI. pendant les années où l'on pouvait prévenir ou diriger la révolution française*" (1839).

**DRY ROT.\*** The most efficacious mode of preventing this disease in timber is that proposed by Mr. Kyan. He employs for this purpose a solution of corrosive sublimate. This salt of mercury is a well-known vegetable poison: if any animal jelly, upon which fungi will quickly appear in the form of mouldiness, is mixed with a minute quantity of corrosive sublimate, no fungi will in that case be produced; so that both theory and experience are in favour of Mr. Kyan's process. It is not improbable that the progress of dry rot might even be arrested in the buildings where it occurs, if the timbers could be got at, and well washed with the same solution.—Although dry rot generally fixes itself on timber, it will also attack any form of vegetable matter. The paper-hangings of rooms, which are chiefly composed of cotton and linen thread, are occasionally overrun in houses that have been long shut up and neglected; and the mildew which destroys the strength of canvass is only another form of dry rot.

**DUBLIN.\*** Its population, from 1798, when it amounted to 182,370, to 1821, remained nearly stationary. Since the last-mentioned period, it has augmented with great rapidity, and had attained, in 1834, as returned by the commissioners at



public instruction, to the number of 240,300; of whom 61,800 were members of the established church, 3500 Protestant dissenters, and 175,000 Roman Catholics. We find it stated, however, that the *borough* of Dublin, according to the census of 1841, contained a population of 228,895 persons. — Dublin was the seat of a university so early as 1320; but the institution gradually declined, in consequence of the unsettled state of the country, and the deficiency of funds. The existing university of Trinity College was founded in 1593. At present, it consists of a provost, 7 senior, and 18 junior fellows, and 70 scholars; besides whom, there are 16 professors, and 3 lecturers, with assistants; all endowed. The number of students in the institution is about 1300 annually. Its library contains upwards of 300,000 volumes, and is entitled to a copy of every work published in the British empire. It has, besides, a museum, a theatre of anatomy, and a printing-office; and it maintains a small, but well-kept botanical garden, in the S. E. suburb. There is a "College of Physicians," which is connected with the university, and a "College of Surgeons," founded in 1784. The incorporated company of apothecaries has established courses of lectures in pharmacy, and other branches of medical science. There are also several private medical and surgical schools, much frequented by students.—The chartered scientific and literary societies are the "Royal Dublin Society," for the promotion of the useful arts, having professorships in botany, chemistry, and experimental philosophy, drawing schools, a library, a museum, and a large botanic garden; the "Royal Irish Academy," founded in 1786, for the encouragement of abstract science, polite literature, and antiquities, with a small, but increasing library, containing a good collection of Irish MSS., and a museum; and the "Royal Hibernian Academy," founded in 1823, for the encouragement of the fine arts. These three institutions receive annually grants of public money. The unchartered societies for science, literature, and the fine arts, are supported wholly by voluntary contributions. They are the Royal Irish Institution for Painting; the Zoological Society, which has a handsome garden; the Mechanics' Institute, established in 1837; together with the Horticultural, Agricultural, Natural History, Civil Engineers', and Historical Societies. — The schools and charitable institutions are very numerous.

DUCHATEL (Charles Marie Tannegui,

count), descended from a noble family in Normandy, was born at Paris, February 19th 1803. After completing his legal studies, he enlisted himself in politics, under the standard of the *doctrinaires*, and was an active contributor to the "Globe" newspaper, and the "Revue française." His attention, at the same period, was attracted to the subject of political economy, especially in its relations to the condition of the poorer classes of society; which led to the publication by him, in 1820, of a treatise "De la charité dans ses rapports avec l'état moral et le bien-être des classes inférieures de la société." In this, founding his reasonings on the principles of population, as deduced by Malthus, he maintains that labour, economy, and prudence in respect to marriage, are the appropriate means of preserving the poor from want and misery.—On the accession of the *doctrinaires* to power, in 1830, Duchâtel was appointed to an office in the department of finance, of which, however, he was deprived, on their being displaced in October 1832. He has, since then, partaken in all the vicissitudes of his party, which has been alternately in possession of the administration of the government, and in opposition to it; and he is at present minister of the Interior, under the premiership of his friend Guizot, with whom he entertains the most intimate relations. — While thus actively engaged in the management of public affairs, or in the contentions of politics, he found leisure to prepare and publish, in 1834, the volume of the "Documents historiques sur la France," giving a statistical account of the agriculture, mines, manufactures, commerce, navigation, colonies, central administration, finances, military and naval forces, judicial acts, and public instruction of the kingdom. Until then, nothing so complete of its kind had appeared. He was the originator, also, of the inquiry into the state of the commerce of the country, made in 1834 and 1835, with the object in view of modifying the existing tariff of duties; and the results of which were subsequently communicated to the public, in 3 volumes 4to.

DUENNA; the chief lady in waiting on the queen of Spain. In a more general sense, it is applied to a person holding a middle station between a governess and a companion, and appointed to take charge of the junior female members of Spanish and Portuguese families.

DULONG (Pierre Louis), an eminent French *savant*, was born at Rouen, in the year 1783. He at first studied medicine;

but being subsequently admitted into the laboratory of the celebrated Berthollet, he devoted himself thenceforth altogether to chemical and physical science. In 1811, he instituted some interesting investigations concerning the different salts; and in October of the same year, made the discovery of the chloruret of nitrogen, which announced its existence by a violent explosion. The laboratory where the occurrence took place was utterly destroyed; the experimentalist, however, escaping with some severe injuries. This accident did not prevent him from making a thorough examination of the properties of the substance in question, which he succeeded in ascertaining, at the expense of one of his eyes and a finger, caused by another explosion. In 1815, he published his researches on nitric acid, and in the next year those on the acids of phosphorus. His experiments, on all these subjects, had been conducted with an extraordinary precision, and his conclusions from them drawn with the utmost sagacity; and the same precision and sagacity were carried by him into the province of physics, which he undertook to explore, at first in conjunction with his friend Petit, and, on the death of the latter, without a colleague. He was thus led to the detection of several hitherto unknown laws relating to caloric or heat, especially the important one (this jointly with Petit) that the specific heats of bodies are in the inverse ratio of the weights of their atoms.—Dulong was Petit's successor as professor of Physics in the Polytechnic School, and was also afterwards appointed professor of Chemistry in the Faculty of Sciences, in the "Ecole Normale," and in the veterinary school of Alfort. At the period of his death, in 1838, he filled the professorship of Physics in the Faculty of Sciences, and was director of the studies in the Polytechnic School.—The papers in which the greater part of his discoveries were communicated to the world are to be found in the memoirs of the Academy of Sciences, of which he was a member, in the "Annales de Chimie et de Physique," and in other scientific collections.

DUMAS (Alexandre), one of the most prolific French authors of the present time, was born at Villers-Cotterets, in the department of the Aisne, on the 24th of June 1803. His father was the general of division, Alexander Davy Dumas, who repeatedly distinguished himself, during the wars of the revolution, by his personal prowess, and who was the son of the marquis de la Pailletterie, a wealthy colonist

in the island of St. Domingo, by an African negress. On the death of his father, Alexandre Dumas, being in very necessitous circumstances, went to Paris, hoping, by the instrumentality of some of his father's former friends and associates in arms, to obtain a desirable appointment. He was received by them, however, very coldly, and might have been speedily reduced to a state of entire destitution, but for the interference in his behalf of General Foi, then a member of the Chamber of Deputies, to whom he had been provided with a letter of recommendation from one of his most influential constituents. Foi procured for him a clerkship in the office of the secretary of the duke of Orleans (the present king of the French), with a salary of 1500 francs. In this situation, he occupied every moment of his leisure time, for several years, in supplying the defects of his previous education. On witnessing a representation of "Hamlet" by a company of English actors, he was powerfully impressed with the genius of Shakespeare, and set about reading his plays with the utmost avidity. This was precisely at the period when the public began to weary of the form and composition of the old French drama, and when the opposite schools of the "Classiques" and "Romantiques" had engaged in their contest for supremacy. The ambition of Dumas was kindled to distinguish himself in the ranks of the latter, by the production of a tragedy, after the model of the great English original. His "Henri III. et sa cour," which is remarkable for its striking delineation of character, its rapid dialogue, and its energetic and glowing diction, accommodated as much as possible to the language of the period referred to, was received, on its representation at the "Théâtre français," with unbounded applause; and the obscure author became at once one of the leading spirits in the contemporary literature of his country. The duke of Orleans, too, acknowledged his merit by appointing him to be his librarian; an office, however, which he soon resigned, to enable him to pursue his career as an author without distraction. A number of dramatic performances now followed in quick succession, such as the tragedies of "Christine ou Stockholm," "Fontainebleau et Rome" (1830), "Antony" (1831), "Teresa" (1832), "Angèle" (1834), "La Tour de Nesle" (jointly with Gaillardet), "Catharine Howard," and "Caligula,"—the comedy entitled "Un mariage sous Louis XV." (1841), together with the vaudevilles "Halifax" and "Le mariage au

tambour."—Dumas has likewise written some novels, which have met with more or less success; although his reputation as a novelist is altogether secondary to that enjoyed by him as a dramatic author. His "Impressions de voyage" and "Nouvelles impressions," giving an account of his journeyings in Italy, the islands of the Mediterranean, Syria, &c., superficial as the remarks made in them for the most part are, furnish much agreeable reading.

—The writings of Dumas have no doubt done some service to French literature, by co-operating to emancipate his countrymen from their subjection to a prescribed mode of composition; but, like those of several others among the present race of French authors, they teem with descriptions and characters of a nature offensive to good morals.—It ought to be added, that his exceeding fertility as a writer has led to the suspicion that some of the pieces which have appeared under his name, and which have been published with his sanction, have really been the productions of others, inferior in reputation to himself.

DUMAS (Jean Baptiste), professor of chemistry in the University of Paris, and member of the Academy of Sciences, was born at Alais, in the department of the Gard, in July 1800. He applied himself, first in his native town, and then at Geneva, to the study of pharmacy. From pharmacy, however, his attention was soon turned to chemistry and natural history; and he published some original views on the subject of botany, and also an account of his researches relating to the physiology of animals. With the reputation which he had thus acquired, he went to Paris in 1821, to prosecute his researches, and to enjoy the advantages of associating with the numerous distinguished men in that great centre of science, engaged in similar pursuits with himself. There the merits of Dumas were not long in meeting with general acknowledgment; and in 1823, he was appointed "répétiteur" of chemistry in the Polytechnic School, and professor of the same science at the Athénæum. Since this period, he has been occupied with a series of investigations, which have had a decided influence on the existing state of chemical science; and, down to the latest period, his theoretical views have very generally prevailed in France, though zealously controverted by Berzelius, as well as other eminent chemists, in Germany and elsewhere. With the exception of his earlier inquiries into the specific gravity of the vapours of many volatile substances, and his later into the equivalents of carbon and hydrogen, lead-

ing him to the hypothesis that the equivalents of all bodies are simple multiples of those of hydrogen, his labours in chemistry have been almost exclusively directed to the organic branch of it. These have related more particularly to the alcohols, the combinations of ether, the spirit of wood and its combinations, the volatile oils, indigo, the acidity of wine, and the action of the alkalies on organic bodies. Latterly too, since the physiologico-chemical researches of Liebig, he has, in conjunction with Boussingault and Payen, applied himself with great zeal to the examination of the unsettled questions relating to nutrition, the formation of fat, &c.

—The writings of Dumas consist of articles inserted in the "Annales de chimie et de physique;" of the "Traité de chimie appliquée aux arts" (6 vols. 1828-43); the "Leçons sur la philosophie chimique" (1837); the "Essai sur la statique chimique des êtres organisés" (1841); and of his "Thèse sur la question de l'action du calorique sur les corps organiques" (1838).

DUMAS\* (Mathieu, count). On his return to France in 1814, he was appointed a counsellor of state by Louis XVIII., who bestowed upon him, besides, several other marks of his confidence. This, however, did not prevent him from again serving under Napoleon, on the return of the latter from Elba. Three years after the second restoration, he became once more a counsellor of state, and was employed in the administrative department of the army; but was dismissed from all his offices, in 1822, because, in despite of holding them, he voted steadily in the Chamber of Deputies with the opposition to the government. In 1830, he was one of the 221 deputies, who by their famous address to the king, took the initiatory step to the revolution of July. After the dethronement of Charles X., he organized the national guard of Paris, jointly with Lafayette, and was appointed commander of all the national guards of the kingdom. In 1831, he was created a peer of France; and he died on the 16th of October 1837, having previously become nearly blind.

DUMB AND DEAF.\* See *Schools*, (Sup.)

DUMÉRIL (André Marie Constant) was born in 1774 at Amiens, in France. He studied medicine at Paris, and as early as the year 1800 was professor of Anatomy and Physiology at the School of Medicine. In 1818, he exchanged this office for the professorship of Pathology in the same institution; and in 1825, on the death of Lacépède, whose assistant (*suppléant*) he had been for more than 20 years, he succeeded him as the professor of Herpetology

and Ichthyology at the museum of the "Jardin du roi." During a period of four years, he also lectured on Natural History, in the place of Cuvier, at the "École centrale" of the Pantheon. He has been a member of the Academy of Sciences since 1814.—His works are not only extremely accurate in their details, but evince also of a philosophical spirit in their author. The principal of them are his "Traité élémentaire d'histoire naturelle" (1803), composed by order of the government; the "Zoologie analytique" (1806), which contains a minute classification of insects, together with the important changes introduced by the author into that of reptiles and fishes; the "Considérations générales sur la classe des insectes" (1823), being the substance, with some alterations and additions, of the articles relating to insects, contributed by Duméril to the "Dictionnaire des sciences naturelles;" the "Eléments des sciences naturelles" (2 vols. 1825); and lastly, the most important of all, in which he has been assisted by Bibrón, the "Erpétologie générale" (vols. 1-5, 1834-39, and vol. 8, 1841), and which contains the first attempted systematic description of all known reptiles.

DUMONT D'URVILLE (Jules Sébastien César) was born May 21st 1790, at Condé-sur-Noireau, in the French department of Calvados. He entered the navy at an early age, and was gradually promoted till he attained to the rank of rear-admiral on the last day of the year 1840. In 1819-20, he accompanied the expedition to the Black Sea, under the command of Captain Gauttier; on his return from which he made himself known by a "Mémoire géologique sur l'île volcanique de Santorin," and a "Mémoire archéologique sur les ruines d'un temple de Mélos." On this expedition he discovered the beautiful statue, styled the "Venus of Milo," which now adorns the gallery of the Louvre. He set out, in 1822, with Captain Duperry on his voyage round the world, and in addition to his duties as first lieutenant on board the corvette "La Coquille," was appointed to act as botanist. When he came back to France, he brought with him a rich collection of insects, and several hundred new specimens of plants. As fruits also of his observations, must be mentioned various papers communicated by him to the scientific journals, and especially a Flora of the Falkland islands. Whilst busily occupied in preparing the descriptive and botanical account of this voyage, he was appointed to command a new expedition, composed of the corvettes

"L'Astrolabe" and "La Zélée," which sailed from Toulon on the 20th of April 1826, and which was destined to explore the coasts of New Zealand and New Guinea, and to ascertain, besides, where the unfortunate La Peyrouse had perished. This last he became convinced had occurred off the island of Vanicoro, as had been previously reported by Captain Dillon of the British navy. The other prescribed objects of the expedition were accomplished with great exactness and ability, as well as discoveries made of islands before unnoticed by any European navigator. The account of all these proceedings has been published by Dumont d'Urville in the "Voyage de l'Astrolabe," in 13 vols. 8vo. In 1837, he quitted France on a voyage undertaken to explore the Antarctic seas. He penetrated as far south as the ice would allow; and in the midst of the greatest risks of being shipwrecked, he discovered lands, to which he gave the names of Louis Philippe and of Adélie.—On the 8th day of May 1842, he was among the victims of the fire which destroyed the cars on the railroad between Paris and Versailles.

DUNA. See *Dvina*, (Sup.)

DUNDEE; a flourishing city and sea-port of Scotland, in the county of Forfar or Angus, on the N. bank of the Frith of Tay, 38½ miles N. by E. of Edinburgh. The number of inhabitants, in 1841, was 62,873. The place is remarkable for its manufactures, being the chief seat not only of the Scotch, but of the British linen manufacture. The business is principally confined to the coarser fabrics, such as Osnaburgs, imitation Russia sheeting, sail-cloth, sucking, and bagging; but the spinning of finer yarns has been introduced within these few years, a part of which is manufactured in the place, and the remainder exported to France and Belgium. Dundee imports the raw material, or hemp, flax, and cordilla, almost solely from Russia, Prussia, Holland, and Brabant; rather more than two-thirds of the whole supply coming from Russia. The accommodations for shipping have of late years been very much enlarged; and, in 1839, the number of vessels which belonged to the port was 325, with a tonnage of 44,862. In the same year the number of British vessels which cleared out for foreign ports was 297; of foreign vessels, 47. A regular steam communication is maintained between Dundee and London; and a vast amount of black cattle, sheep, and agricultural produce, is conveyed to the metropolis in the steamers. There are two railroads extending

from Dundee,—one in the direction of Newtyle, and the other in that of Arbroath,—which cannot fail to contribute materially to its prosperity.

**DUNFERMLINE;** a town of Scotland, in the county of Fife, 15 miles N. W. of Edinburgh, with 13,296 inhabitants. It can boast of a great antiquity, and was once noted for the palace and abbey which it contained, of both of which only a few ruins remain, sufficient however to indicate the extent and magnificence of the original buildings. It is at present remarkable for its linen manufactures, particularly for the finer sorts of diapers, damasks, &c.

**DUNKIRK.\*** Population, in 1841, about 27,000.—It has a communal college, a school of hydrography, a school of drawing and architecture, a public library containing 18,000 volumes, a theatre, and concert-hall.—There is a regular communication by steam between Dunkirk and Rotterdam, Hamburg, and Havre. The vessels of all descriptions, belonging to the port, amount in number to 187, with a tonnage of 16,894 tons.

**DUNLAP** (William) was born, February 19th 1766, at Perth Amboy in New Jersey. His taste for reading and pictures was cultivated at a very early age by frequent visits to the house of an old gentleman, of the name of Bartow, residing in the neighbourhood of his home; of whose society, however, he was deprived at the beginning of the revolutionary struggle, when he was only 9 years of age, Mr. Bartow then retiring to Bethlehem in Pennsylvania. In the midst of the warlike scenes which now occurred, his education was neglected, until his father removed, in 1777, to the city of New York, then in the possession of the British. Here he was sent to school for a short time, when, from an accident that occurred while at play with some other boys, he was deprived of the sight of one of his eyes, and only by degrees recovered the use of the other eye. Thenceforth there was an end to all regular schooling. He had acquired the use of Indian-ink, and became attached to copying prints; and his father, perceiving that he had a desire to become a painter, sent him to an artist to be instructed. The lessons of the latter, it would however seem, were few and of little account. Mr. Dunlap was, in fact, almost altogether his own instructor. Having painted the likenesses of some of his relations and companions, he commenced portrait-painter in the year 1782, when only in his 17th year; fixing his price, as

he himself has told us, at 3 guineas a head. In the summer of 1783, after the conclusion of peace, he visited New Jersey and Philadelphia. "Here," he says, "I saw and admired Peale's gallery of pictures, for then I admired every thing." At Rocky Hill, near Princeton, he was introduced to General Washington, who honoured him by sitting to him for his portrait. Having made two attempts at painting in oil, the first a head of Sir Samuel Hood for a sign-painter, and the second a full-length figure of Washington, he embarked in May 1784 for England, to become a pupil of his countryman, Benjamin West; who had previously consented to receive him. He remained abroad somewhat more than 3 years, without making any considerable progress in his art; partly on account of the deficiencies of his earlier instruction, and partly also, and perhaps in a still greater degree, from suffering himself to be diverted from his studies by the amusements and gaieties of the British metropolis. On his return to New York, he lost no time in offering his services to the public as a portrait-painter. But his success was very limited; few persons employed him; and his efforts, as he states, were unsatisfactory to himself. "I sought," he says, "a refuge in literature, and after a year or two abandoned painting, and joined my father in mercantile business." He represents himself as having been withdrawn from the convivial associations in which he was fond of indulging, by his marriage, about this time, to a daughter of Mr. Benjamin Woolsey, by which means he not only obtained a "good wife," but the advantage of a connexion with her highly respectable relatives. "I derived much advantage intellectually," he thus expresses himself, "from the society of the Rev. Timothy Dwight, afterwards president of Yale College, who had married my wife's sister, and at whose house on Greenfield Hill I passed some of my happiest hours. I was now rescued from inevitable destruction."—Mr. Dunlap continued to be engaged in mercantile pursuits, for some time after the death of his father, down to the year 1805; but having been tempted to become the lessee of the New York theatre, and this speculation proving an unfortunate one, he was, at the period just mentioned, reduced to bankruptcy. He now once more had recourse to portrait-painting as a means of subsistence, first at Albany, and next at Boston, but with so little success as to induce him gladly to accept an offer, made by Mr. T. A. Cooper, to assist him at the New York

theatre, of which he had taken a lease, in the capacity of general superintendent of his theatrical concerns, and manager in his absence. In this situation he continued till 1812, when he relinquished it, on account, as we are told, of its having become "disagreeable," and again betook himself to the business of painting portraits. Though he seemed at the outset to have a fair prospect of at length succeeding in his profession, this attempt, like the others of the same kind before mentioned, was destined to be a failure. He next published the "Memoirs of George Frederick Cooke," and commenced a magazine under the title of "The Recorder." The latter was speedily discontinued, for want of a sufficient number of subscribers to pay the expenses of publication. He had scarcely begun, with considerable success, to paint portraits in oil, when he was, another time, called away from the practice of his art, by his appointment, in 1814, to be assistant paymaster-general of the militia of the state of New York, in the service of the United States; an office which did not expire until the autumn of the year 1816. Then only, at the age of 51, did he become permanently a painter.—From this time forth, he led a very wandering life, visiting various parts of the United States, and also Canada, in quest of employment. This he succeeded in obtaining, through the exertions of his numerous friends as well as his own merits, to a far greater extent than might have been expected from his former want of success.—Nor was the attention of Mr. Dunlap confined exclusively to portrait-painting. He executed a series of pictures, which, by their excellence, have enrolled his name in the list of distinguished American artists. The principal of them are the "Christ Rejected," avowedly containing a number of figures borrowed from the printed descriptions of West's picture of the same name; the "Bearing of the Cross;" "Death on the Pale Horse," in which he once more took as his guide a printed description of one of West's pictures; and his "Calvary," regarded by him as the best and most finished of his compositions. They were all exhibited to the public successfully in various parts of the United States, and the pecuniary receipts which they produced contributed materially, during several years, to the support of his family. Among the best of his minor works may be mentioned "A child returning from school," painted for the Hon. William M'Coun, vice-chancellor of the state of New York; and a female study, called by him "The

Historic Muse," and purchased in 1833 by H. C. Beach, Esq. The last was pronounced by Sully to be his best picture.—In the winter of 1830–31, Mr. Dunlap read a course of lectures on historical composition in painting to the students of the "National Academy of Design," an institution founded at New York in 1826, and composed and governed by artists only; and, in April following, he delivered an address to the students, on distributing premiums, which was published by the academy, and attracted some degree of attention both at home and abroad. A year afterwards, he gave two lectures on the fine arts in the Clinton Hall lecture-room, for the benefit of the Mercantile Library Association, and again lectured to the students of the National Academy. He published, in November 1832, a "History of the American Theatre," which he had long been engaged in preparing; and, by the favourable reception it met from the public, he was encouraged to issue proposals for the publication of his history of the "Arts of Design in the United States," comprehending an interesting sketch of his own life. On the last day of February 1833, he received a complimentary benefit at the theatre in New York, the net proceeds amounting to \$2517; a gift, as he tells us in his autobiography, that supported him under the afflictions of disease, and enabled him to labour on the work just mentioned. This was issued from the press towards the close of the year 1834.—Besides the works already noticed, Mr. Dunlap wrote a number of plays, during the period of his theatrical lease; and he was the author of a biography of Charles Brockden Brown.—He died, September 28th 1839, in the 74th year of his age.

DUPERREY (Louis Isidore) was born in October 1786. After studying the mathematics at the normal school of Paris, he entered the French navy when 16 years of age. In 1816, he accompanied Captain Freycinet, in the "Uranie," in his voyage round the world; and the hydrographical department of the expedition was almost exclusively attended to by him. He commanded the "Coquille" in her voyage of discovery (see *Dumont d'Urville*). Leaving Toulon on the 11th of August 1822, he cast anchor at Marseilles on the 24th of April 1825; having doubled Cape Horn, and visited the W. coast of S. America, various groups of islands in the Pacific ocean, Australia, and New Guinea. During the voyage, he made an extensive collection of objects of natural history, determined by astronomical observations the

positions of a number of important points, made very numerous experiments with the pendulum and on the magnetism of the earth, and noted many curious facts concerning the people whom he met with. The government, on his return, confided to him the preparation of the account of his labours, which was subsequently published in 6 vols. 4to., with illustrative plates.

DUPIN\* (André Marie Jean Jaques). After the restoration of the Bourbons, he devoted much of his time to authorship. He published, among other works, the "Lettres sur la profession d'un avocat" (2 vols. 1818); "Observations sur plusieurs points importants de notre législation criminelle" (1821); "De la jurisprudence des arrêts" (1822); "the "Lois communes" (2 vols. 1823); an "Examen des actes de la commission militaire instituée pour juger le duc d'Enghien" (1823); "Les libertés de l'église gallicane" (1824); "Consultation pour le comte Montlosier contre l'illégalité des jésuites" (1826); and the "Notions élémentaires sur la justice, le droit et les lois" (1827).—In 1827, he was again elected a member of the Chamber of Deputies; and in 1830, was the "rapporteur" or member who drafted the famous address of the "221." Encouraged and stimulated by him it was that the editors of the "National," and other journalists of Paris, protested against the ordinances of July. He partook, also, largely in the measures adopted by certain of the deputies, assembled together hastily on that occasion, against the arbitrary proceedings of the government, as well as in the appointment of the municipal commission for the maintenance of order in the capital.—Having contributed to the dethronement of Charles X., M. Dupin concurred in the substitution of a new dynasty in the place of the elder branch of the Bourbons, and subsequently opposed with great earnestness the extreme radical opinions which tended to its overthrow. In August 1830, he was appointed "procureur général" in the court of Cassation; and, in 8 successive sessions of the legislature, he was president of the Chamber of Deputies. His persistence in what has been called the system of the "juste milieu" having rendered him more and more unpopular with many of his former friends, he was led to publish, so long back as 1833, a defence of his political course, under the title of "La révolution de juillet 1830," in which one of the principal objects is to prove that a republic is altogether unfitted for the existing condition of France; that the great

body of the French people do not desire the establishment of one; and that Louis Philippe was, under the circumstances, the only individual, practically speaking, who could have been selected as the new monarch,—not because he was *quasi-legitimate*, but in spite of his being so, "quoique Bourbon."—M. Dupin is said to be at present engaged in the preparation of the memoirs of his own life.

DUPIN\* (Charles), now the baron Dupin. In 1832, he was elected a member of the Academy of the Moral and Political Sciences, and in 1837, was elevated to the dignity of a peer.

DUPONCEAU (Peter S.), was born on the 3d of June 1760, in the Isle of Rhé, on the western coast of France, where his father held a military command. He exhibited at an early age a taste for reading, and a great facility in acquiring languages. Besides the Latin, which he learned at a grammar school, or from private teachers at home, he gained a knowledge of the English and Italian from intercourse with the officers of an Irish and an Italian regiment quartered in the neighbourhood. His father intended him for the army, and, to prepare him for becoming a military engineer, had him taught mathematics, geography, history, &c. But this project was soon abandoned, on account of the son's shortness of sight. It was then determined that he should receive a collegiate education; and he was accordingly sent, in 1773, to a college of Benedictine monks, at St. Jean d'Angely. When he had been there 18 months, his father died. Through the persuasions of his mother and family generally, and as a means of providing for himself, he submitted, but with great reluctance, to the "tonsure," and became an ecclesiastic. The bishop of Rochelle, who was a friend of the family, sent the "young abbé" as a "régent," or instructor, to his episcopal college at Bressuire, in Poitou. This situation, however, soon proved so unpleasant to him, on account of the jealousies of the other "régents," and of the annoyances to which he was subjected from the pupils, that, at the close of the year 1775, he abandoned it, and set out for Paris, to seek his fortune there. For a time, he earned his living by translating English works, at a fixed price per sheet, for professed translators, who made a profit out of his labours; by translating commercial letters for men of business; and by giving lessons in the French and English languages. At length he made the acquaintance of Court de Gébelin, the author of the "Monde Primi-

us," who engaged him to be his private secretary. While thus employed, he met, at the house of the celebrated Beaumarchais, with Baron Steuben, then passing through Paris on his way to embark for America. The baron was in want of a secretary that could speak and write the English language, and proposed to young Duponceau to accompany him in the double capacity of his secretary and aide-de-camp. They sailed together from Marseilles, and landed at Portsmouth, New Hampshire, on the 1st of December 1777. —On the 18th of February 1778, Mr. Duponceau was appointed, at the request of Baron Steuben, a captain by brevet in the army of the United States, on which he always prided himself greatly; and as a surviving captain in the army of the Revolution, he received a pension until the day of his death. Mr. Duponceau attended Baron Steuben in his various military movements, till the close of the campaign of the year 1778, when they took up their winter quarters at Philadelphia. Here he was attacked by a coughing and spitting of blood, accompanied by great emaciation, which for a time threatened the most serious consequences, and which obliged him to seek the restoration of his health by a residence in the country, during the summer of 1780. An attempt to engage again in active service proved to be altogether beyond his strength. He, accordingly, left the army, and proceeded once more to Philadelphia, bearing with him a letter from Baron Steuben, in which this distinguished officer strongly recommended him to Congress, and solicited for him an employment in some civil capacity. —In July 1781, he became a citizen, as he expresses it, "of the great Commonwealth of Pennsylvania;" and in the following October, through the interest exerted in his behalf by Governor McKean, Judge Peters, and other influential friends, he obtained the office of secretary to Mr. Robert R. Livingston, who had been appointed by Congress to take the charge of the department of Foreign Affairs. Mr. Duponceau continued to perform the duties of this office for a period of somewhat less than 20 months. He then entered upon the study of the law, and was admitted an attorney in June 1785. Previously to this, he had been appointed a notary public; and in 1791, he was made sworn interpreter of foreign languages. —Mr. Duponceau married in the year 1788; from which time, we are told, he began to lead a very retired life, attending only to the duties of his profession. His reputation as a law-

yer became gradually extended, so that he was often employed in very important suits; and, on questions of civil and foreign law, his opinion was justly held in the highest estimation. The character which in this respect he acquired led to the offer to him, by the president of the United States, Mr. Jefferson, of the office of chief justice of Louisiana,—an offer, however, which his prospects and associations in Philadelphia induced him to decline. In the intervals of his arduous occupations, he found leisure to translate several valuable foreign works on law, and to write interesting essays on professional subjects, some of which were published.—After he had earned for himself by his profession a "comfortable competence," Mr. Duponceau devoted much of his time to philosophical pursuits, for which he had ever evinced a decided inclination. An impulse was given to him in this direction by the establishment, in March 1815, by the American Philosophical Society, of which he was a member, of the "Committee of History, Moral Science, and General Literature." This committee presented to the society, in 1819, a report prepared by Mr. Duponceau, on the "Structure of the Indian Languages," which was printed in the Transactions of the committee. It speedily acquired for him the reputation of being a learned philologist; and procured for him the degree of LL.D., and the distinguished honour of being elected, on the 20th of April 1827, a corresponding member of the French Institute, in the Academy of Inscriptions. At a subsequent period, in May 1835, the prize of "Linguistique," founded by Volney, was awarded to him by the same learned body, for a memoir on the "Indian Languages of North America," which was afterwards published in Paris. About this time, too, his attention was directed to the structure of the Chinese language, which has generally been regarded as *ideographic*, that is, the written character has been considered to represent ideas, not sounds; so that the Chinese and congenerous nations, it has been conceived, may be able to correspond with each other in writing, although their spoken languages may be mutually unintelligible. Mr. Duponceau boldly, and most ingeniously and ably, maintained, from analogy, the opposite opinion,—that the written language is *lexigraphic*, or, in other words, that the characters represent sounds. His "Dissertation on the Chinese Language," published in 1838, when he was 78 years old, was the latest of his works. — Besides his writings on



legal and philological subjects, noticed above, he was the author of a number of memoirs, communicated to the literary and scientific societies to which he belonged, and of more than one of which he was the president; of public addresses pronounced by him on various occasions; and of many essays and other minor pieces. He was, indeed, remarkable through life for an extraordinary intellectual activity, reading diligently, and using his pen as much as he did, in despite of his extreme shortness of vision, and, in his latter years, notwithstanding his being affected with cataract. Many anecdotes, we may add, are told of his extraordinary absence of mind, not a few of which might probably be accounted for by the defects that have just been mentioned.—Mr. Duponceau died on the 1st day of April 1844, in the 84th year of his age.

DUPUYTREN\* died February 8th 1835, leaving to his daughter a fortune estimated at from 7 to 8 millions of francs. He bequeathed, also, 200,000 francs to found a professorship of pathological anatomy; a portion of which sum has been appropriated to the formation of a museum of specimens to illustrate the lectures of the new professor, styled the "Muséum Dupuytren."

DURHAM, an ancient city of England, capital of the county of the same name, on the river Wear, 65 miles N. N. W. of York. Population in 1841, 14,151.—The great objects of interest in the city are the cathedral and castle. The first of these structures, begun in the reign of William Rufus, but much enlarged and improved in subsequent ages, is a large and majestic pile of Norman architecture. It is 461 feet in length, by about 200 in extreme breadth, and has a central tower, 214 feet in height, besides two smaller ones at one of the ends. The see of Durham has been one of the most valuable in the kingdom. At an average of the three years ending with 1831, it yielded a net revenue of £19,066 a year. The bishop's revenue is now fixed at £8000 a year; the surplus revenues of the see being reserved to form a fund for the augmentation of the incomes of the poorer bishops. The castle, founded by William the Conqueror, stands a little to the N. of the cathedral. With the exception of a suite of rooms reserved for the accommodation of the bishop, on his visits to the city, it is appropriated to the purposes of the university, being occupied by students. This institution was incorporated by royal charter in 1837. It was endowed by the dean and chapter, the bishop, and other wealthy individuals, with

the professed object of affording instruction, and granting degrees, in the different faculties. It serves chiefly, however, to prepare candidates for admission to orders in the church of England.

DURHAM (John George Lambton, earl of) was the eldest son of William Henry Lambton, M. P. for the city of Durham, by a daughter of the earl of Jersey. He was born on the 12th of April 1792,—the day after the formation of the society of the "Friends of the People," of which his father was the chairman, and which commenced that agitation for Representative Reform which produced Earl Grey's motion on the subject in that year, and continued to exist, in a less or greater degree, until the object proposed was accomplished, in 1832, by the active exertions, among others, of the son. The political career of Lord Durham began in 1813, by his election to a seat in parliament from his native county. He very soon took a part in the proceedings of the House; and, though he did not speak often, made a considerable figure in the debates. His first speech was made in 1814, on his seconding a motion for an address to the prince regent against the annexation of Norway to Sweden. And he especially distinguished himself, in 1815, by moving for the production of papers relative to the transfer of Genoa to Sardinia, and by opposing the new Corn Law Bill; in 1816, by bringing forward the subject of Mr. Canning's mission to Lisbon, and by opposing the addition made to the incomes of the royal dukes, and the continuance of the Alien and Bank Restriction Acts; in 1816, by opposing the Indemnity Bill demanded by the ministers; in 1819, by his opposition to the six repressive bills brought in by government, after the great Reform meeting at Manchester; and, in 1821, by his reprobation of the proceedings instituted against the queen, and by a plan of parliamentary reform, submitted by him to the House. On account of the pressure of ill health, his name is scarcely connected with any measure of consequence down to the great, and eventually successful, renewal of the Reform agitation, in 1830. With the generality of his party, he supported both the Canning ministry of May 1827, and that of Lord Goderich, which succeeded it in October of the same year. When the latter was dissolved, in January 1828, he was raised to the peerage, with the title of Baron Durham, of the city of Durham.—In November 1830, on the formation of the ministry of Earl Grey, Lord Durham was made Lord Privy Seal;

and the preparation of the government Reform Bill was entrusted to him, jointly with Lord John Russell, Sir James Graham, and Lord Duncannon. He proposed the introduction of the ballot into the scheme, and persuaded his colleagues to agree with him. This measure, however, it was subsequently deemed advisable to omit in the bill, as actually brought forward, in the House of Commons, by Lord John Russell, on the 1st of March 1831. Lord Durham delivered a speech in the House of Lords, in explanation of the bill, at an early period of the discussions in relation to it. He took no part in the discussion of the second Reform Bill, in consequence of the occurrence of a domestic calamity which deeply affected him. But he spoke several times, and ably, in the spring of 1832, in support of the third and last bill. After its passage had been accomplished, he took little part in the business of the government; and, in March 1833, he retired from the administration, and was raised to the dignity of an earldom.—In the summer of 1833, Lord Durham was sent on a special mission to the emperor of Russia, to endeavour to soften the rigour of the vindictive proceedings against the brave, but ill-fated Poles. His mission failed in its benevolent design; and, after an absence of only a few months, he returned to England. In 1834, he was present at a number of public meetings, in different parts of Great Britain; and the character of the speeches which he delivered, on those occasions, led him to be generally hailed as the leader of the "movement party." He went again to Russia as ambassador in 1835, and remained there till the summer of 1837. In the following year, he went out as governor-general to Canada, entrusted with very extraordinary powers, with a view to the pacification of the troubles and dissensions of that country. But a misunderstanding, soon after his arrival at his post, arose between him and the ministry at home; and, considering that he had not been properly supported, he re-embarked for England, without having been either recalled, or having obtained leave to return. See *Canada*, (Sup.) This unprecedented step occasioned a rebuke; and he was not allowed to land under the usual salute. His arrival in London was speedily followed by the publication of an able and interesting report, addressed to the queen, detailing the history of his colonial administration, vindicating the course which he had pursued, and explaining the principles on

which he conceived that the management of the affairs of Canada ought in future to be conducted.—The infirm state of his health now no longer permitted Lord Durham to take any part in public affairs, beyond occasionally attending in the House of Lords. And at last, early in the summer of 1840, he retired to the Isle of Wight, where he died in the month of July of that year.

**DÜSSELDORF.\*** Population at present about 30,000, of whom 24,000 are Roman Catholics, 5600 are Protestants, and 600 Jews. The school of painting at Düsseldorf has recently, under Schadow, attained to very considerable celebrity. But the city derives its principal importance from its position on the Rhine, nearly opposite to the entrance of the canal leading to Venloo, on the Maese, and from its being the entrepôt and principal port of the contiguous flourishing manufacturing district, of which Elberfeld is the centre. It has been connected with Elberfeld, by means of a railroad, since 1840.

**DUVAL\*** (Alex.) became a member of the "Académie française" in 1816, and was appointed "Conservator" of the library of the Arsenal in 1830, an office which he retained till his death, January 10th 1842. In a "Lettre à M. Victor Hugo de la littérature romantique" (1833), he appeared as a champion of the *classical* school, laying the blame of the decline of the dramatic art in France altogether on the *romantic* innovations of the time.

**DUVAL\*** (Amaury) died at Paris, on the 12th of November 1838.

**DWINA**; the name of two Russian rivers, one of which falls into the White Sea by several mouths, 35 miles below Archangel, and the other into the Gulph of Riga, in the Baltic, 9 miles below Riga. The first, or *Northern Dwina*, is formed by the junction of the Soukhona and the Joug, and is navigable along its entire course, from the junction of these rivers to the sea, a distance of 350 miles. The second, or *Southern Dwina*, or *Duna*, as it is sometimes called, is also an important stream. It has its sources not very remote from those of the Volga; and, after pursuing a S. W. course to Vitepsk, it flows in a W. N. W. direction to its mouth. It is obstructed by cataracts and shoals; so that it can only be navigated with safety after the breaking up of the ice in the spring, and after the setting in of the autumnal rains. The banks at its mouth render the port of Riga inaccessible for vessels drawing more than 12 to 15 feet water.

## E.

**EARTHQUAKE.\*** To the list of the principal earthquakes of modern times, given in a preceding article, may be added that which visited Chilo in 1822; the same year in which Aleppo, in Syria, was destroyed by an earthquake. The coast of S. America, for 100 miles, is stated to have sustained an elevation of from 2 to 4 feet, while about a mile inward from Valparaiso it was raised from 6 to 7 feet. In 1827, Popayan and Bogota suffered severely from earthquakes, during which vast fissures opened in the elevated plains around the latter city. In 1835, the town of Conception, in Chile, was entirely demolished by an earthquake. In 1837, the countries along the eastern extremity of the Mediterranean, especially Syria, were violently agitated by an earthquake, which caused great damage to the towns of Damascus, Acre, Tyre, and Sidon, and entirely destroyed Tiberias and Safet. Destructive earthquakes also occurred in Syria in 1840; in Hayti in May 1842; and in the island of Gaudaloupe, and at Ragusa, on the coast of the Adriatic Sea, in the year 1843.

**EAST INDIA COMPANIES.\*** See *India*, (Sup.)

**EBEL\*** died at Zürich, October 8th 1830.

**ECONOMY;** a singular community in Beaver county, Pennsylvania, on the left bank of the Ohio river, a short distance below Pittsburg. It is composed of about 500 or 600 Germans, who, on their arrival in the United States, first settled in Butler county, in the same state, under the direction and government of Mr. George Rapp. They subsequently removed to Indiana, and then returning to Pennsylvania, occupied their present place of residence. — Besides the peculiar deference which they pay to the authority of their patriarch, the individual just named, they differ from other men in holding no property except in common.

**ΕΡΦΟΥ** is a small village built on the site of the *Apollinopolis Magna* of the ancients, with from 1500 to 2000 inhabitants, consisting principally of Ababdie Arabs, with a few Coptic families, who manufacture blue cotton cloth, and pottery, and boast of inheriting from their ancestors the art of making earthen vessels. Their kilns, and the forms of their vases, are said to bear an exact resemblance to those of ancient Egypt, as represented on the monuments. The place,

however, would be unworthy of notice were it not for its antiquities. It contains the remains of two noble temples, situated opposite to each other, but which have been buried in the sand, and of an ancient quay. The greater temple is the largest to be met with in Egypt, next to those of Thebes; and from the style of its architecture, it is supposed to have been erected in the age of the Ptolemies.

**EDINBURGH.\*** At the period of the Union in 1707, the population of this city was estimated at only 35,000. Since then, it increased with great rapidity, until 1831, when it amounted to 136,301. In the following 10 years, however, it was very nearly stationary; the census of 1841 making it to amount to 138,182.—In addition to the conspicuous edifices already noticed, the building of the Royal Institution may be mentioned. It is constructed in a pure classical style, with ranges of Doric pillars on the front and sides. The institution itself was chartered in 1827, for the purpose of encouraging the fine arts in Scotland. Its leading object is the annual exhibition of pictures of living artists, as also occasionally to offer exhibitions of pictures by the old masters. In 1826, a separate establishment was founded by a body of artists, with similar objects in view, entitled the Scottish Academy of Painting, Sculpture, and Architecture, which has since obtained a charter, and had regular annual exhibitions, and which is provided with apartments under the roof of the Royal Institution. A secession from this body, it may be stated, took place in 1838, under the title of the Society of Scottish Artists, which has had two annual exhibitions. The Royal Society of Edinburgh, the Society of Antiquaries of Scotland, the Society of Arts, and the Board of Trustees for encouragement of trade and manufactures in Scotland, which last was founded so long ago as 1727, have also apartments in the above-mentioned building. The Board of Trustees, besides the primary object for which it was established, pays £500 a year to the Royal Institution for the encouragement of the fine arts.—The present number of professors in the university is 32. The magistrates of Edinburgh are its general patrons, and have power to institute new professorships, and to alter or modify the college discipline. Out of the 32 appointments, they possess the exclusive right of presentation

to the offices of principal and of 14 professors; they unite with other parties in the right of election to 7 other chairs; the crown enjoys the patronage of 8; while the principal and professors are invested with the patronage of one, namely, music, instituted in 1839. The students reside wherever they choose; and no discipline is exercised over them, except when within the walls of the college. There is but one session annually, from the 1st of November till the end of April. There are, however, a few summer classes, for three months, on the different branches of natural history, especially botany. In the session of 1822-23, the number of students, in the 4 faculties of philosophy, law, medicine, and divinity, was 2344. A rapid diminution of attendance has since taken place; and in the session of 1839-40, there were only 1282 students, of which number, as many as 574 were students of medicine. This decline has been attributed to the recent institution of several colleges in England, as well as to the country generally having become more commercial, and supplying more advantageous channels of employment than those afforded by the learned professions. Though the proportion of medical students is great, the decline in this faculty is nearly as considerable as in the other departments; but it is a singular fact that, in spite of this decline, the number of medical graduates has been more than maintained. The average number for the last 25 years is considerably above 100. The graduates in arts are, on the other hand, very few indeed,—about 6 annually. Very little value is, in fact, attached to the degree of A. M. The university, too, is very sparing of the honorary degrees of D. D. and LL. D., the former of these, annually conferred, averaging only 2, and the latter only 1 in number. The present university buildings, which are on a very magnificent scale, were begun in 1789, the expense being defrayed partly by public subscriptions, but chiefly by repeated grants from the government. The structure is quadrangular, 358 feet by 255, enclosing a court. A handsome portico, supported by massive Doric columns, forms the chief entrance. This is to be surmounted by a dome, the only thing that is now wanted to complete the building. The university library consists of nearly 100,000 volumes.—The High School, which has, for a long period, enjoyed a great celebrity, now consists of a rector, and four other Greek and Latin masters, each of whom begins an elementary class yearly, and at the end of

four years hands it over to the rector, under whom, generally, during two additional years, the curriculum of study is completed. The school also embraces teachers of writing, arithmetic, mathematics, and French. The present building, situated on the S. slope of the Calton hill, is one of the greatest ornaments of the city; it was opened in 1829. In 1830, the number of scholars was 968; but for some years past it has been rather under 400, which is to be ascribed chiefly to the institution, in 1824, of a more aristocratic establishment of the same kind, called the Edinburgh Academy.—Edinburgh possesses also a Naval and Military Academy, founded in 1825, which embraces all the classes necessary for the two professions from which its title is derived, as well as all the branches implied in a liberal education; another institution, called the Southern Academy, in which, besides classical literature, all the branches requisite in a commercial or general education are taught; a School of Arts, or Mechanics' Institute; with many other schools of various descriptions.—Valuable as is the library of the university already mentioned, it is surpassed by that of the faculty of advocates. This collection at present exceeds 150,000 volumes, and is by far the most extensive and valuable in Scotland. The library of the writers to the signet is also large and very valuable.—Edinburgh can scarcely be regarded as a manufacturing town; and the printing business employs, perhaps, a greater number of hands than any other. It ranks in the United Kingdom, as a literary mart, next to London.—The charitable institutions of different kinds are exceedingly numerous. Pauperism has, nevertheless, for some time been on the increase, and the condition of the labouring poor in general has been becoming more and more depressed. Owing to the inadequate supply and bad quality of their food, and the crowded and intolerably filthy state of their lodgings, the lanes and closes of the Old Town are hardly ever free from malignant fever; and the mortality is, in consequence, unusually great, reaching as high, in the year ending in May 1838, a year of ordinary general health, as 1 in 21, or 1 in 22. This deterioration of the condition of the people may be attributed, in no inconsiderable degree, to the great influx of Irish labourers, who found employment on the Union canal, extending westwards from the neighbourhood of Edinburgh. When that work was completed, they settled in the city, and having since received large accessions

from Ireland, now form a colony of several thousands, injuring the Scottish labourers by their competition, and far more by the pernicious example of their low estimate of what is necessary for comfortable subsistence.

EDWARDS (W. Frederick), a doctor of medicine of the Faculty of Paris, was born in the island of Jamaica, in 1777. He has made important researches in anatomy, pathological physiology, and comparative anatomy, and is a member of the Academy of the Moral and Political Sciences. Dr. Edwards published, in 1829, a work entitled "Des caractères physiologiques des races humaines, considérées dans leurs rapports avec l'histoire." It produced a great sensation, and placed its author at once at the head of the French ethnologists. An "Ethnological Society" has since (1839) been formed, of which he has been chosen the president.

EDWARDS (Milne), a son of the former, is a member of the Academy of Sciences, and an adjunct professor in the Faculty of Sciences of Paris. He is the author of an able work on the Crustacea, as well as of several other works on zoology and anatomy. He is also one of the editors of the "Dictionnaire classique d'histoire naturelle."

EGYPT.\* Mehemed Ali has continued to pursue without interruption his system of monopoly and oppression, as described in \* preceding volume; and notwithstanding the large military and naval force which he still maintains, his importance and influence have materially diminished. The condition of his subjects, too, has been deteriorating, and their numbers diminishing. According to the recent statement of Mr. Lane, the population of Egypt consists of 1,750,000 Arab Egyptians; 150,000 Christian Egyptians (Copts); 10,000 Turks; 5000 Syrians; 5000 Greeks; 2000 Armenians; and 5000 Jews. The Arabians, Nubians, Franks, white and negro slaves, &c., may be 70,000 more.—Most of Mehemed Ali's boasted improvements have been productive of little permanent benefit; and some of them have merely enabled him to swell his own revenues, to be devoted to his own unproductive expenditure. Perhaps his chief merits have been the strict police which he has maintained throughout his dominions, and which has rendered the path of the traveller everywhere secure from molestation or danger; his freedom from all religious intolerance, a circumstance exceedingly remarkable in a Mohammedan; and the attention which he has bestowed on

the education of a portion of the Egyptian people. His system of public instruction is nearly as follows:—The pupils are first sent to the *primary* school, of which, in 1838, there were 50 throughout the country, instructing 5500 scholars. The youth having acquired the rudiments of education at these, they are advanced to the two *preparatory* schools, at which there were 2300 pupils in the same year. The next step is to the *special* schools, which are 10 in number, each devoted to particular studies, viz. medicine, midwifery, veterinary surgery, languages, music, and agriculture; the other 3 being military schools, to fit the scholars for the cavalry, artillery, or infantry service. At Abu Zabel, near Cairo, the pacha has established a military hospital and a medical college, both under the direction of a distinguished French physician, Dr. Clot, now Clot Bey. The success that has attended this establishment has been quite extraordinary; and notwithstanding their old prejudices, many of the Arab pupils have become expert anatomists and clever surgeons. (See *Clot Bey*, Sup.)—Besides the productions of Egypt already enumerated, Mehemed Ali introduced the cultivation of a species of cotton requiring very little moisture, and therefore peculiarly adapted to the soil and climate of that country. It is called the Maho cotton, from its growing, at the period of its discovery, in 1820, in the garden of Maho Bey. It began to be exported in 1822; and in 1824, the quantity exported amounted to as many as 14<sup>9</sup>,276 bales. Extravagant expectations were entertained, in different quarters, respecting the extent of the supply of raw cotton which Egypt was about speedily to furnish to the markets of the world. Sinister predictions were even uttered of the approaching decline, in consequence, of the cotton culture, in the United States. Those expectations, however, have not been realized. The quantity of Egyptian cotton exported has never since been as great as in 1824. In 1839, it was only 47,111 bales, and in 1840, 66,342. Of this last amount, 29,981 were shipped to Liverpool; 15,768 to Marseilles; 17,405 to Trieste; 1286 to Leghorn; 2582 to Malta; and 320 to Odessa.—Mehemed Ali had been rewarded by the Porte for the services rendered by his forces, under the command of his son Ibrahim, against the Greeks in the Morea, by having the island of Candia added to his pachalic of Egypt. But not yet satisfied with the extent of the territory which he governed, nominally as the viceroy of the grand seignor, but in reality as an inde-

pendent prince, he caught with avidity at a cause of quarrel with the principal pacha of Syria, Abdallah, the governor of Acre, who, he alleged, had encouraged smuggling into Egypt on his frontiers, and seduced the inhabitants of the district of Chargyeh. The latter had taken refuge in the contiguous pachalic from the tyranny that had been exercised over them; and Abdallah refused to comply with the demand made of him to deliver them up to their former master. The Egyptian army, again under the command of Ibrahim Bey, thereupon entered Syria, and commenced that war with the Ottoman empire, which, after the victory of Koniah (December 22d 1832) had opened to him the road to Constantinople, was terminated by Mehemed Ali's obtaining the government of Syria together with the district of Adana, on condition of his acknowledging himself a vassal of the sultan, and engaging to pay the usual tribute. This arrangement was concluded on the 14th of May 1833, and its execution guaranteed by the five great European powers. From this period, accordingly, Syria was a province of the pacha of Egypt, until the year 1840; when, through the intervention of the great powers, France excepted, it was wrested from his authority, and restored in full sovereignty to the Porte. (See *Turkey*, Sup.)

EHRENBERG (Christian Gottfried), one of the most eminent naturalists of the present age, was born on the 19th of April 1795, at Delitsch, in what is now the Prussian province of Saxony. After receiving his preparatory education at the town of Schulpforte, he went to the university of Leipsic, where he applied himself in the first place to the study of theology, but in a few months turned from it to that of medicine. This he prosecuted with great diligence, until, in 1817, his professional pursuits were interrupted by a year's military service at Berlin. Here, in the following year, he took the degree of M. D., and then resided as a practising physician, occupying himself at the same time with physiological investigations, more especially with the transformation of unorganized matter into the constituent parts of organized bodies; in consequence of which he was led to examine with care the minutest systems of organization.—Ehrenberg had long cherished the desire of undertaking an extensive journey, for scientific purposes, to some remote region, when, in the spring of 1820, the means were furnished to him and his friend Hemprich of visiting Egypt, in company with the Prussian general Minutoli, who

was about proceeding to that country to inspect its ancient monuments. It was originally intended that they should be absent during two years; but their stay was subsequently prolonged to a period of six years. Hemprich died in Egypt; Ehrenberg returned to Europe in the autumn of 1826, and was then appointed an "extraordinary" professor in the university of Berlin. In 1829, he accompanied Alex. de Humboldt on his journey into Asia as far as the Altai chain of mountains. A sketch of Ehrenberg's first journey is contained in the "Naturgeschichtlichen Reisen durch Nordafrika und Westasien in den Jahren 1820–25, von W. F. Hemprich und Chr. Gottfr. Ehrenberg" (vol. i., part 1. 1828). The scientific results of the expedition are communicated to the public, by Ehrenberg, in his "Symbolæ physicae," a work not yet completed, and which appears in 4 subdivisions, comprehending respectively the mammalia, birds, insects, and invertebral animals. He has also published an account of the "Korallenthier" of the Red Sea" (1834), and another of the "Akalephen" of the same (1836).—On his return from his Asiatic excursion, Ehrenberg resumed his microscopic observations on the organization of the lower classes of animated nature, and announced from time to time a series of important discoveries on this subject, in his "Organisation, Systematik und geographisches Verhältniss der Infusionsthierchen" (1830), his contributions "Zur Erkenntniss der Organisation in der Richtung des Kleinsten Raumes" (1832–34), and his "Zusätze zur Erkenntniss grosser Organisation im kleinsten Raume" (1836). The discoveries referred to produced a great sensation among naturalists, and were regarded by Cuvier, who did not live to become acquainted with Ehrenberg's subsequent labours, as a new era in the advancement of the branch of Natural History to which they relate. The works which have just been enumerated were speedily followed by another more comprehensive, and still more important, entitled "Die Infusionsthierchen als vollkommene Organismen, ein Blick in das tiefere Leben der Organischen Natur" (1838).—Among the most remarkable of Ehrenberg's discoveries must be ranked those relating to the fossil infusoria, that is, those which are protected by an external siliceous case; the extraordinary fact, particularly, that certain mineral substances are composed in a great degree of fossils of this description, and, indeed, that whole strata, of considerable extent and thickness, consist almost ex-

clusively of them.—Ehrenberg has latterly published some other works connected with his favourite department of investigation, such as his essay on the phosphorescence of the ocean (1835),—his “Kurze Nachrichten über 274 seit dem Abschlusse der Tafeln des grossen Infusorienwerks neu beobachtete Infusorienarten” (1840),—and his copious dissertation concerning the “Verbreitung und den Einfluss des mikroskopischen Lebens in Sud-und-Nordamerika” (1842). He is the author of a work on the plague of Egypt and the East, published by him in 1831, with the hope that the remarks made in it might be of some service in reference to the Asiatic cholera, then ravaging Europe; of another, “Über die naturwissenschaftlich und medicinisch völlig unbegründete Furcht vor Körperliche Entkräftung der Völker durch die fortschreitende Geistesentwicklung” (1842); and of some others of less moment.

EICHHORN\* (Fred. Charles). Besides the works of his previously mentioned, he has published juridical treatises, entitled, respectively, “Enleitung in das deutsche Privatrecht mit Einschluss des Lehnrechts” (4th ed., 1836), and “Grundsätze des Kirchenrechts der katholischen und evangelischen Religionspartei in Deutschland” (2 vols. 1831–33).

ELBA.\* The population of the island, in 1835, was 16,865.—The average produce of iron ore from Elba has of late years been nearly 18,000 tons a year, worth about \$5 a ton; the whole of which is taken to the opposite coast of Tuscany to be smelted. Marine salt is manufactured by evaporation in four basins, near Porto Ferrajo. About 4,000,000 lbs. are produced annually.—The sea around Elba swarms with fish. The tunny and mullet are taken in large quantities, and from 5000 to 6000 tons of the former are annually exported, besides a considerable supply of the latter.

ELBE.\* The Elbe is at present navigated by steamboats from Dresden upwards, and from Magdeburg downwards.—A convention of delegates from the states bordering on this river assembled in 1821, and regulated the navigation of the river on equitable principles. The regulations which were formed, having been approved by the governments interested in the matter, were carried into effect the following year; but they have since been, in a greater or less degree, evaded at different points of the stream. Loud complaints were, in consequence, uttered by the public; and another meeting of dele-

gates, similar to that which took place in 1821, was held. Its deliberations were brought to a close in February 1844; but what results it came to, we have had no means of ascertaining.

ELBERFELD\* forms one municipal body with Barmen; and they form in fact one town, the most important, as a manufacturing one, in the Prussian dominions. Their united population amounted, in 1840, to 55,745; of which number, Elberfeld contained 26,770, and Barmen 28,975.—The most remarkable of the Elberfeld factories are those appropriated to the dyeing of Turkey red. In this art, whether it be owing to the air or the water, or to some peculiar process or mystery, the dyers of this place have attained to unrivalled excellence; their colours are more brilliant and lasting than those produced in England, or elsewhere. So much so is this the case, that considerable quantities of yarn are annually exported from Glasgow and other places in Great Britain, to be dyed at Elberfeld, and are again imported to be wrought up.—The Mexican Mining Association, and the Rhenish *West India* Company, before mentioned, after encountering great losses, have been dissolved.—A railroad now connects Elberfeld with Düsseldorf.

ELBEUF\* is now the principal seat of the woollen manufactures of France. In 1834, the quantity of cloth produced was estimated at from 60,000 to 70,000 pieces of 40 ells each, of the value of about 50,000,000 francs. The population is upwards of 13,000.

ELBING.\* The harbour of this town is a very indifferent one. The Frische Haff is too shallow to be navigated by vessels of any considerable burden; so that the trade of the town by sea has to be carried on, by means of small vessels or lighters, through Pillau, at the mouth of the Haff. In despite of this disadvantage, Elbing has latterly been reviving from its state of depression; and its exports, consisting of corn, timber and staves, hemp and flax, &c., are quite extensive. It is connected, by means of a canal, with the Nogat, or eastern arm of the Vistula.—Elbing has its full proportion of educational and charitable institutions. Among them may be remarked a house of industry, established, during the present century, by an Englishman named Cowle, who resided here for many years, and in which as many as 400 poor children are instructed.

ELDON.\* Lord Eldon was raised to the dignity of earl of Eldon in 1821, and finally resigned the office of Chancellor in April

1827, when Mr. Canning became prime minister. He died on the 13th of January 1838.

ELECTRICITY.\* See *Magnetism*, (Sup.)

ELECTRO-MAGNETISM.\* See *Magnetism*, (Sup.)

ELLIOTT (Commodore Jesse Duncan) was born in Maryland, in the year 1785. While prosecuting his studies at Carlisle, in Pennsylvania, preparatory to entering on the profession of the law, he obtained, in 1804, an appointment as midshipman in the navy. His first cruise was made in the frigate *Essex*, commanded by Captain James Barron; this vessel having then been ordered to the Mediterranean, on account of the war in which the United States were engaged with Tripoli. On his return home in 1807, he was transferred, with his former commander, to the frigate *Chesapeake*, and was on board of her when attacked by the British ship *Leopard*, in the summer of that year.—We next find Mr. Elliott, having in the mean time been promoted to the rank of a lieutenant, acting, shortly after the commencement of the war with Great Britain, in 1812, under the orders of Commodore Chauncey, on the northern lakes. By the direction of the latter, he proceeded to superintend the naval preparations on Lake Erie. When, accordingly, occupied with great diligence in the performance of the duty assigned him, he formed the project of attacking and taking possession of two armed British brigs, the *Detroit* and the *Caledonia*, which had come down the lake, and anchored for protection under the guns of Fort Erie. With the aid of a small detachment of soldiers, placed at his disposal for the purpose by the military commander on the Niagara frontier, and of some volunteers from Buffalo, he accomplished his object, in a very gallant style, on the 8th of October (1812). For this exploit a sword was presented to him, "with suitable emblems and devices," by a resolution of both Houses of Congress.—Soon afterwards, Lieutenant Elliott repaired to Commodore Chauncey's squadron on Lake Ontario. In 1813, he was promoted, over a number of other lieutenants, to the rank of a master commandant, and appointed to the command of the *Madison*, the commodore's flag ship. At the attack upon York, in Upper Canada, April 27th, this ship not being able to approach sufficiently near to be of any service, on account of its drawing too much water, he volunteered to command one of 7 schooners and to lead them into action. These schooners, after beating up to their posi-

tion, as they were obliged to do, "opened," says Commodore Chauncey, in his official report to the Secretary of the Navy, "a heavy cannonade upon the enemy, which did great execution, and very much contributed to their final destruction."—In the beginning of August of this year (1813), Captain Elliott was directed to proceed to Lake Erie, and to take the command of the *Niagara*, under the orders of Commodore Perry. The battle of Lake Erie, which resulted in the capture of the entire fleet of the enemy, was fought on the 10th of September following. Of the conduct of Captain Elliott on this occasion, it will suffice to state here, that Commodore Perry, in his official account of the battle, dated September 13th, said, "Of Captain Elliott, already so well known to the government, it would be almost superfluous to speak. In this action he evinced his characteristic bravery and judgment, and since the close of the action, has given me the most able and essential assistance." Also that, in despite of this and other testimony, at the time rendered to Captain Elliott's merits, rumours to his disadvantage were, before very long, circulated, which led to the appointment, at his request, of a court of inquiry, to investigate his conduct in the battle,—which court sat in the city of New York, in April 1815, and after an examination of the witnesses, expressed its conviction, "that the attempts to wrest from Captain Elliott the laurels he gained in that splendid victory, as second in command under that gallant and meritorious officer, Captain Perry, ought in no wise to lessen him in the opinion of his fellow-citizens, as a brave and skilful officer." On Captain Perry receiving permission, in the end of October 1813, to leave the lake service, Captain Elliott succeeded him in the command of the naval forces on Lake Erie; but as this position, after the destruction of the enemy's fleet, had become one of very secondary importance, at the desire of Captain Elliott himself he was ordered, in April 1814, to return to Lake Ontario, and once more obtained the commendation of Commodore Chauncey, for the manner in which, in the brig *Sylph*, which he commanded, he attacked a British brig that had been intercepted by the American fleet, and compelled the enemy to blow her up, to prevent her capture. At length, it became apparent, from the studious manner in which the British commander on the lake had avoided a general action, that an opportunity for further distinguishing himself was not likely soon to occur; and he, in consequence, ap-



plied for, and obtained, the command of the sloop-of-war *Ontario*, which was at the time at Baltimore. Then, however, came the peace with Great Britain; and Captain Elliott, in the *Ontario*, joined the squadron which sailed in the spring of 1815 to the Mediterranean, to exact reparation from the Barbary powers, for injuries committed by them against the property of American citizens during the late war. This service being performed, he returned to his own country, and remained with his family till 1817; when he was appointed one of the commissioners to examine the coast of the United States, in order to select the situations best suited for permanent dock-yards, for fortifications, and for lighting the coast of North Carolina; and he was thus occupied down to the year 1824. He had in the mean time, in March 1818, been promoted from the rank of master commandant to that of captain in the navy. From 1825 to 1827, he was engaged, in command of the U. S. ship *Cyane*, in cruising on the coasts of Brazil and Buenos Ayres, for the purpose of protecting our commerce, liable to suffer injury from the system of blockades, and other measures against each other, adopted by those belligerent states,—a duty which he performed with great ability and discretion. Captain Elliott's next appointment was in 1829, to the command of the squadron on the West India station. It consisted, besides the *Peacock*, of 5 sloops-of-war and 2 schooners. In this cruise, as in the preceding one, he very actively, as well as effectually, protected the persons and property of his fellow-citizens. He was absent on it until 1832, with the exception only of a few months in the summer of 1831; in which interval it was that, being at Norfolk, in Virginia, a requisition was made upon him for aid to quell an insurrection of slaves in Southampton county, of that state, and with which he without loss of time complied, going himself, with a portion of the seamen and marines under his command, to the scene of the insurrection. Although, on his arrival there, the object in view had been already attained, and his services were no longer necessary, his prompt and spirited conduct on this occasion gained for him the especial approbation of the president, signified to him through the secretary of the navy, and an honourable mention from the governor to the legislature of Virginia.—In the autumn of the year 1832, when the difficulties between the general government and the state of South Carolina, arising out of the "protecting" policy

adopted by the former, threatened to involve the country in a civil war, Commodore Elliott had the disagreeable task assigned to him of commanding the naval force before the port of Charleston. After these difficulties had been allayed by the passage by Congress of the famous "compromise act," he was, in the spring of 1833, appointed to the charge of the navy-yard at Charlestown, in Massachusetts. This post he quitted to bring Mr. Livingston, the American minister, in the course of the summer of 1835, home from France, in the frigate *Constitution*; in which vessel he subsequently sailed for the Mediterranean, to take the command of the American squadron in that sea. While abroad on this occasion, he made an extensive tour, having in company with him General Cass and family, whom he took on board his ship at Marseilles. They visited together some of the most interesting parts of Italy and Greece, Constantinople, Palestine, Egypt, &c.—After a cruise of several years, Commodore Elliott returned to the United States, to have his conduct during his absence subjected to the examination of a court of inquiry, and next to be tried before a court martial on a variety of charges preferred against him, on account of alleged severity and harshness of discipline in several instances; of bringing home in the *Constitution*, without proper authority for so occupying a part of that vessel, a number of animals (intended by him chiefly for the improvement of the breed of the like animals in our own country); with one or two other charges of minor consequence. He was convicted by the court martial on one of the charges of severity, and on that relating to the animals, and sentenced to be suspended from his rank in the navy for 4 years, and to be deprived of his pay during 2 of these. The last part of this sentence was, however, remitted by the president; and, before the expiration of the period for which he was suspended, the president saw fit to restore him to the service. This took place in November 1844; and in the following month, Commodore Elliott was appointed to the command of the Philadelphia navy-yard. His health soon afterwards declined, and he died on the 10th of December 1845.—Commodore Elliott was a strict, and was indeed very generally reputed to be a severe, disciplinarian; yet those who were personally acquainted with him can bear unequivocal testimony to the amiability of his deportment in his intercourse with his fellow-men. Although, too, he had the misfortune of making many ene-

mies, he had also many warm friends, whose feelings to himself he ardently reciprocated, and whom, when the occasion offered, he was always ready to make every exertion to serve. The excellence of his private character was never called in question; and he was a kind husband and an indulgent father.—Commencing, as he did, his naval career at a comparatively early age, and in the course of it not enjoying many intervals of professional leisure, some of which were besides, in a certain degree, devoted to agricultural pursuits, he possessed nevertheless much useful knowledge, the result as well of his own observation as of his reading. His correspondence, at different times, with the functionaries of foreign governments, was very creditable to him; and he evinced his respect to science and the cause of education, by the donations of objects of natural history and of art which he made to several of our public institutions.

EMMET (John Patton) was born at Dublin, in Ireland, April 8th 1797; and was 8 years old when his father, Thomas Addis Emmet, with many other Irish patriots, finding their efforts to improve the political condition of their country unavailing, took leave of it forever, and sought an asylum in the United States. While at school, and when he was about 16 years of age, a severe illness so affected his lungs, as to confine him for many months to the house, and compelled him to leave school. On his recovery, he entered as a cadet at West Point; where he remained 3 years, and went through the usual course with so much credit, that he was thereupon made an assistant-instructor in mathematics. His health, though greatly improved by the manly exercises of a military institution, was not so firmly established, but that it was thought advisable for him to spend a winter in the south of Europe. He accordingly went to Naples, and remained there about a year. Soon after his return to New York, he commenced the study of medicine under Dr. M'Nevin, one of his father's intimate friends, with whom he remained 4 years. During this time, he also attended the lectures delivered at the College of Physicians and Surgeons in that city, and there received the degree of Doctor of Medicine. His health was, however, still so delicate, that, during the winter months, he was obliged to confine himself at home. This time he devoted chiefly to the science of chemistry, now become his favourite pursuit; a room in the house being fitted up as a laboratory. In the mean time, it became evident

that Dr. Emmet's lungs could not safely encounter the risks of another northern winter; and, in 1822, he visited Charleston and Savannah, for the purpose of selecting a place of permanent residence; and having made choice of the former city, he removed thither, the following winter, as a practitioner of medicine. Having, like professional men generally in the outset of their career, an abundance of leisure, he applied himself to his favourite study, and delivered an effective course of lectures on chemistry to a cultivated and intelligent audience. He continued at Charleston until the winter of 1824, when he was appointed professor of Chemistry and Natural History in the University of Virginia. For the first 2 or 3 years, besides preparing a full course of lectures on chemistry, he attended diligently to the study of several branches of natural history, especially botany, in order to qualify himself for teaching them; but, finding this to require more time than could be given to it by a professor of chemistry, he subsequently abandoned altogether the subject of natural history.—Dr. Emmet was, for several years, a contributor to "Silliman's Journal." In 1830, for example, he wrote a paper, showing that iodide of potash afforded a ready test for the presence of arsenic; in 1833, one on the solidification of gypsum or plaster of Paris, in which he showed that certain solutions of potash would give to that substance the solidity to which heat had been previously thought necessary; in the same year, one on a new mode of exhibiting the magnetic-galvanic power of the horse-shoe magnet, which power was thereby so increased, as not only to give sparks, as it had previously been made to do by Nobili, and other European chemists, but also to give shocks and strong galvanic currents, which had not been before produced by the magnet; in 1835, an inquiry into the cause of the voltaic currents produced by the magnet, in which, by a train of intricate and ingenious reasoning, he endeavoured to prove that it was by the process called induction; in the same year, an essay on Caloric, as a cause of galvanic currents; and in 1837, a paper on formic acid, showing its utility in bringing back metals, when in solution, to their natural state. These papers are all written in that perspicuous and unaffected style which should characterise philosophical speculations; and whatever of originality they contain is stated in an unpretending manner, and without disparagement of the labours of others. The lea-

tures of Dr. Emmet were in the same modest and simple style. Aided, too, as they often were, by the beauty and novelty of his illustrations, they were well calculated to fix the attention of his hearers, and to excite in them a taste, as well as a desire, to prosecute still further the study of the science of which they treated. His classes increased, accordingly, from 35, which they were when he was first appointed in the university, to 130, in the 12th year of his professorship.—The disease which had all his life threatened him had been of late making insidious approaches, and, in the winter of 1842, it was deemed expedient by his friends that he should try the effects of a more moderate climate. In the mild temperature of Florida, the symptoms of his disease were so far mitigated, that sanguine hopes were entertained of his restoration to health. These hopes, however, proved delusive. After a boisterous passage, in a small uncomfortable vessel, by which he lost more than he gained in Florida, he breathed his last, about 6 weeks subsequent to landing at New York, on the 13th of August 1842, in the 47th year of his age.—Dr. Emmet had a taste for the fine arts, which, even in the midst of his official duties and scientific pursuits, never deserted him. Soon after his father's death, he had sculptured a bust of his parent, which was a good likeness, as well as of respectable execution; he now and then exercised his pencil also, but it was chiefly on grotesque subjects; and he had occasionally attempted musical composition. He is described as "witty, frank, and amiable;" and his society is represented to have been eagerly sought by those who knew him, on account of the faculty, possessed by him in an uncommon degree, of rendering himself acceptable to all with whom he had intercourse.

**EMPIRE** meant originally the territory under the authority of an emperor. But the term has latterly been employed to denote a large extent of dominion, without reference to the title of the sovereign. Thus it is usual to speak of the British empire, as well as of the empires of Austria or Russia.

**EMPYREUMA**; a burned odour. Hence, the oils obtained by distilling various organic substances, at high temperatures, are called empyreumatic oils.

**ENGLAND.**\* See *United Kingdom of Great Britain and Ireland*, (Sup.)

**EPOCH.** In an article under this head in a preceding volume of this work, it is mentioned, we know not on what authori-

ty, that "the Russians adopted the New Style in the year 1580." Sir Harris Nicolas, in the second edition of his *Chronology of History* (Lardner's *Cab. Cyclop.*) published in 1838, makes a contrary statement, namely, that "in Russia and Greece the Gregorian Calendar is still rejected," and that "they adhere tenaciously to the Old Style." Neither the Oxford Tables of 1640, nor Blair's *Chronology* brought down by Henry Ellis to the year 1843, takes notice of an event, so interesting, in case of its occurrence, to all countries having political, scientific, or commercial intercourse with that great empire. The merchants of Philadelphia continue to receive from St. Petersburg, letters and invoices with the double date, such as <sup>Feb 20</sup> 1845; <sup>March 7</sup> and we happen to have seen a communication in like form, addressed to the Secretary of the American Philosophical Society on November  $\frac{1}{2}$  1843, by Count Cancrinc, then minister of finances of Russia. There is, consequently, strong ground for doubting whether the reform in question, however desirable, or likely to be effected ere long, has yet taken place.—We remark also on the article above referred to, where a Rule is given at page 549 for turning the Old into the New Style, that the 29th of February in 1700, 1800, 1900, and 2100, is, by inadvertence or misprint, spoken of and marked as belonging to the New Style. The error should be corrected, since, according to the Gregorian law, centesimal years having centurial figures, not multiples of 4, can never be bissextile.—Several very able and interesting essays from the pen of Professor De Morgan, of University College, London, have appeared in the "Companion to the British Almanac" of 1845 and 1846, and in the Supplement to the Penny Cyclopædia (*Art. Easter*) now issuing from the press of the Society for the Diffusion of Useful Knowledge; but we have not, in consulting either, or other recent works of science, met with any *method* by which the principal chronological problems of the Christian Calendar can be so easily and expeditiously solved, as by the very simple arithmetical rules and compact tables of the following new "Perpetual Calendar," devised in 1844, and printed in the latest Quarterly Bulletin of the American Philosophical Society, from a memoir read by one of its members, in August last, and ordered for publication in the forthcoming volume of Transactions. The whole tablet, occupying scarcely greater space than Delambré's set of algebraical formulæ, or than De Morgan's directions for both

Styles, might conveniently serve, by the brevity of its additive processes, every essential purpose of about fifty pages of tables and explanations in Sir H. Nicolas's work.—We seek, therefore, the earliest occasion, to aid by our Supplement, in making more extensively known to the public, the ingenious mechanism of this labour-saving instrument; which, though professedly meant for popular use, will be found of great practical utility in the hands of the learned also; who, from the accompanying examples and general description of the chief points of structure, will readily verify the consonance of its plan with the mathematical principles of both the Ancient and Reformed Calendars, as elucidated by Lalande, Gauss, Delambre, Galloway, De Morgan, &c., and as exhibited at large in numerical tables by the author of the Art of Verifying Dates.

Mr. M'Ilvaine's Calendar consists of a central column headed "Eras," accompanied by two series of secular equations, by means of which, and of two small ancillary tables, he has been enabled to reduce to identical terms, his formulæ for finding in both styles and through a vast range of time, the day of the week in the Civil Calendar, and the Annual Epact, with Easter deduced from it, in the Ecclesiastical. After noticing the simplifications of the Calendar, effected within the last half century by the analytical methods of Gauss and Delambre, Mr. M'Ilvaine proceeds to demonstrate the rule of his own Civil Calendar, and to explain the principles upon which Table B, containing numbers for the respective months, was formed. Having thus proved that no necessity exists for the use of Dominical letters in the Julian Calendar, since the same object may be attained in an easier way through the Solar Equation 5, standing in column A, opposite to the Julian Era, he goes on to show that, with the aid of table B, a similar device may be equally well adapted to the Gregorian Era.—The first step in the reformation of the Julian Calendar, in 1582, consisted in the suppression of 10 days in that year, by calling the day, which, in the old style, was the 5th of October, the 15th of October in the new. Now the Julian 5th of October, 1582, will be shown by the Calendar to have been Friday, and the 15th, consequently, Monday; and, as the series of days of the week was not interrupted, nor intended to be, by the reform, in order to make the 15th of October, in the new style, coincide with Friday, it is obvious that we must go back three days; that is, we must subtract 3

from the Julian Solar Equation 5, leaving 2, which will thus become the Gregorian Solar Equation for the remainder of the 16th century. This equation would suit all succeeding centuries, were it not for the second step taken at the reformation, of directing that after 1600, which continued bissextile in both Calendars, every succeeding hundredth year, whose centurial figures were not divisible by four, without a remainder, should cease to be leap years.—As each of the years 1700, 1800, and 1900, loses consequently a day, the number expressive of the solar equation is diminished by one at each change of the centurial figure; but for 2000, and for every succeeding 400th year, whose centurial figures are divisible by four without a remainder, the equation continues, like that of 1600, the same as the preceding one, and these years only are marked on the civil side of the column of Eras with an asterisk.—Thus column A, consisting of fewer figures (and these symmetrically disposed in a cycle of 7) than have ever been used in constructing any table of Dominical letters for either style, completes a Civil Calendar of simple form, and unlimited extent. In the present century, whose solar equation is 0, the computation will be found particularly easy.—Mr. M'Ilvaine then proceeds to explain the construction of the Ecclesiastical side of his Calendar, and the means which he adopted for connecting it with Table B of the other side, as well as for making a single additional column C, serve as a convenient substitute for the Extended Table of Epacts now in use.—From the descriptions given in Mr. Galloway's article on the Calendar, in the seventh edition of the Encyclopædia Britannica, and in one by Lord Macclesfield, published in the Philosophical Transactions for 1750, Mr. M'Ilvaine inferred, that the golden numbers, as *remainders*, on division by 19 of the year plus 1, might be dispensed with, and their place, in computation, conveniently supplied by adding to 11 times the year, the 19th part of the year used as a *quotient*, or whole number, (taking care only that when the year happens to be a multiple of 19, one less than the 19th part shall be added), and then rejecting thirties from the sum. This easy formula, equivalent to the rule at the head of the tablet, yielded him, without a failure, the constantly recurring 19 epacts that mark the Julian Calendar. Now obtaining in this way the Julian epact for 1582, and advancing the epacts by a unit, which is equivalent to the tabular arrangements made at this



EXAMPLES.

| OLD STYLE.                                           | OLD STYLE.                         | NEW STYLE.                                                 | NEW STYLE.                          |
|------------------------------------------------------|------------------------------------|------------------------------------------------------------|-------------------------------------|
| <i>What day of the Week was April 2d, A. D. 326.</i> | <i>Required Easter, A. D. 326.</i> | <i>What Day of the Week will be March 22d, A. D. 1845.</i> | <i>Required Easter, A. D. 1845.</i> |
| 4) 326<br>81                                         | 3260<br>19) 326                    | 4) 1845<br>461                                             | 18450<br>19) 1845                   |
| A 5                                                  | 17                                 | A 0                                                        | 97                                  |
| Mo. 6                                                | C 0                                | Mo. 3                                                      | C 0                                 |
| Day 2                                                |                                    |                                                            |                                     |
| 7) 420<br>60                                         | 30) 3603<br>120                    | Day 22                                                     | 30) 20392<br>679                    |
| Remainder 0<br>or 7                                  | Rem. or Epact 3<br>Taken from 5    | 7) 2331<br>333                                             | Epact 22<br>From 44                 |
| Answer, Sat.                                         | Term April 2                       | Remainder 0<br>or 7                                        | Term March 22                       |
| Thence . . . to Sunday 1                             | Term April 2                       | Answer, Sat.                                               | Thence . . . to Sunday 1            |
|                                                      | Ans. April 3                       | thence . . . to Sunday 1                                   | Ans. March 23                       |

Rule proved by examples from De Morgan.  
See British Almanac and Companion for 1845.

| Julian Yr.              | Easter                           | Gregorian Yr.           | Easter.                          |
|-------------------------|----------------------------------|-------------------------|----------------------------------|
| 4) 1639<br>409          | 16390<br>19) 1639                | 4) 4610<br>1152         | 46100<br>19) 4610                |
| A 5                     | 86                               | A 0                     | 242                              |
| Mo. 6                   | C 0                              | Mo. 6                   | C 18                             |
| Day 10                  |                                  | Day 13                  |                                  |
| 7) 2069 Rr.<br>Wed'y. 4 | 30) 18115<br>Epact 25<br>From 35 | 7) 5781 Rr.<br>Friday 6 | 30) 50970<br>Epact 30<br>From 43 |
| From 8                  | Term April 10                    | From 8                  | Term April 15                    |
| 4 . . . to Sunday 4     |                                  | 2 . . . to Sunday 2     |                                  |
| Same Answer, April 14   |                                  | Same Answer, April 15   |                                  |

Rule proved by examples from Delambre.  
See Conn. des Temps for 1817, and Hist. de l'Astron. Mod.

| Julian Yr.                | Easter.                          | Gregorian Yr.             | Easter.                          |
|---------------------------|----------------------------------|---------------------------|----------------------------------|
| 4) 4763<br>1190           | 47630<br>19) 4763                | 4) 3909<br>977            | 39090<br>19) 3909                |
| A 5                       | 250                              | A 5                       | 205                              |
| Mo. 6                     | C 0                              | Mo. 6                     | C 21                             |
| Day 12                    |                                  | Day 17                    |                                  |
| 7) 5976 Rr.<br>Thursday 5 | 30) 52643<br>Epact 23<br>From 35 | 7) 4914 Rr.<br>Sat. 0 = 7 | 30) 43225<br>Epact 25<br>From 42 |
| From 8                    | Term April 12                    | From 8                    | Term April 17                    |
| 3 . . . to Sunday 3       |                                  | 1 . . . to Sunday 1       |                                  |
| Same Answer, April 15     |                                  | Same Answer, April 18     |                                  |

transition to the Gregorian Calendar in that year, the first equation of column C becomes 1. From this the succeeding equations of that column were derived, as follows: Every centurial figure, at which, in successive periods of 25 centuries, (beginning at 1800, 4300, 6800, &c.), the epoch is, according to the Gregorian law, to be increased by a unit—a correction which occurs at the end of every 300 years, seven times in succession, and then once at the end of 400 years (making 8 corrections in the course of 2500 years)—was marked with an asterisk. Then descending, century by century, in the central column of eras, the equation in column C was kept the same, wherever a single asterisk was met with on either side. The last equation was diminished by 1 whenever there was no asterisk, and increased by 1 whenever the asterisk appeared on both sides, limiting the series by the cycle of 30, and considering 30 as always equivalent to 0.—The epochs obtained by means of the table thus formed, and the rule, Mr. M'Ilvaine found to be in exact correspondence with those set down in the Extended Tables of Epochs given in the ordinary treatises upon the Calendar.—Mr. M'Ilvaine then explains his method of obtaining, in the table for finding Easter, four fixed numbers in each Calendar, by means of which he arrives at once at the Paschal term, or day of the month in March or April, on which Easter Sunday depends. The day of the week corresponding to this is then to be found by the Civil Calendar, and the succeeding Sunday is, of course, Easter Sunday.

**ERIVAN**; a fortified town, situated on a lofty eminence, the capital of Russian Armenia, and containing about 14,000 inhabitants, who are for the most part Armenians. In the last war waged by Russia against Persia (October 13th 1827), it was taken by storm by the Russian general Paskewich; and by the treaty of peace concluded at Turkmanshay, on the 22d of February of the following year, it was definitively ceded to the former country.

**ERLANGEN**.\* The number of inhabitants is now about 10,000.—The university, by the latest accounts, had 460 students.—Besides this institution, which occupies the ancient palace of the margraves of Bayreuth, Erlangen has a gymnasium, a polytechnic school, a school for the fine arts, &c.

**ERLON**. Drouet (Jean Baptiste), count d'Erlon, a marshal and peer of France, was born at Rheims, in Champagne, on the 29th of July 1765. In 1792, he en-

listed in a battalion of volunteers, and not long afterwards became an aide-de-camp of General Lefebvre, with whom he made the campaigns of 1793 to 1796, in the armies of the Moselle, and of the Sambre and Meuse. In 1799, he had attained the rank of general of brigade, and in 1805, that of general of division. He accompanied the grand army in the campaigns of 1805, 1806, and 1807, and distinguished himself on various important occasions. In 1809, he was employed, under the orders of his former chief Lefebvre, then become Marshal Lefebvre, in subduing, or, as it was called in milder terms, pacifying the Tyrolese. We next find him in Portugal, in Spain, and in the south of France, actively engaged, first under one French marshal, and then another, against the English and their peninsular allies. After the first restoration, the government sought to gain him over to its interests, and conferred upon him the command of one of the military divisions of the kingdom. But in March 1815, he was suspected of being concerned with General Lefebvre-Desnoettes in a plot to overthrow the Bourbons and recall the emperor Napoleon, and was arrested at Lille and detained there as a prisoner about a week only before Napoleon actually entered the capital, on his return from the island of Elba. Drouet contrived to escape from his guards, and succeeded in gaining over the garrison of the citadel of Lille to the cause of the emperor. The latter rewarded him for this service by creating him a peer of France, and conferring upon him the title of count d'Erlon, as well as appointing him to the command of the first corps of the army. In this capacity, he fought at Waterloo, and retired with the remains of the army behind the Loire, after the capitulation of Paris. Being comprehended in the ordinance of the 24th of July 1815, and about to be tried by a council of war, he effected his escape into Germany. He resided in the neighbourhood of Baireuth, in Bavaria, till permitted to return to France, in 1825. In the course of the next five years, repeated invitations to re-enter the military service were made to him by the government, all of which he declined. On the occurrence, however, of the revolution of 1830, he was restored to his former rank in the army, as well as to his former title, and, in 1831, was appointed commander-in-chief in "La Vendée," armed with extraordinary powers, which he successfully exerted to restore order in that disturbed district. From the 23th of Sep-

tember 1834 to the 26th of the following August, he occupied the important position of governor-general of Algiers. He was made a marshal of France in May 1843, and died on the 25th of January 1844.

ERMAN (Paul) was born in Berlin, in the year 1764. After studying theology for a time, his attention was directed exclusively to physical science, which he subsequently taught with success, first in the French gymnasium, then in the military school, and lastly in the university, of his native city. He is the author of numerous contributions to Gilbert's and Pogendorff's Annals, to the Transactions of the Academy of Sciences of Berlin, as well as other scientific collections. These relate to a wide range of subjects; more especially, however, to electricity and magnetism. The galvanic prize, founded by Napoleon, was awarded to him by the French Academy of Sciences, in 1806. Previous to this date, he had been elected a member of the Academy of Berlin; he was for a time its secretary for the physical sciences; and on its re-organization, he was appointed joint secretary, with Encke, of the mathematical and physical class.

ERMAN (Adolphus George), a son of the former, was born at Berlin in 1806, and received his education at the French gymnasium, at the university there, and at Königsberg, where he prosecuted his studies under the direction of the celebrated Bessel. In the years 1828-30, he performed, at his own expense, a journey round the world, for scientific purposes, the principal of these being to make a series of magnetic observations, by help of the best instruments, in the exactest manner, along the whole line of his progress. On setting out, he associated himself with Hansteen, who had been sent by the Swedish government on a similar expedition into Siberia. He parted from this philosopher at Irkutsk, and proceeded alone through the rest of Northern Asia to Kamschatka, whence he sailed over to the Russian colonies in America, and by way of California, Otaheite, Cape Horn, and Rio Janeiro, returned to Petersburg and Berlin. The account of this journey was published in two distinct works; the one a narrative, entitled "Reise um die Erde durch Nordasien und die beiden Oceane" (2 vols, 1833-36), and the other entirely of a scientific character (2 vols, with an atlas, 1835-41).—Erman is at present professor of Mathematics in the French gymnasium, and "extraordinary"

professor of Philosophy in the university of Berlin.

ERZERUM\* was taken by the Russians, under General Paskewich, on the 9th of July 1829, but was restored to the Turks by the treaty of Adrianople. At the period of its capture, it contained probably 80,000 inhabitants; of whom it was estimated that 23,000 were Armenians, and the rest principally Turks, with about 250 Greeks. The city had no Jewish inhabitants. Of the Armenians, about 4000 belonged to the Roman Catholic, and 19,000 to the Armenian church. On its being delivered up to the Turks, however, it was abandoned by a large portion of its Christian population, who were its mechanics and tradesmen, and who emigrated to the adjacent possessions of Russia.—Erzerum is well situated for trade, on the high road between Asia Minor, Georgia, and N. Persia; and it was once the thoroughfare of most of the overland commerce, between Europe and the East, that survived the discovery of the passage round the Cape of Good Hope. The amount of goods that passes through it is still far from inconsiderable, and has been steadily increasing since the establishment of steamers on the Black Sea.—There was in 1829 an Armenian grammar school in this city, with 6 or 7 teachers, and from 500 to 600 scholars, besides a seminary for the instruction of the Armenian clergy; and a comparatively large proportion of the inhabitants were reported to possess the rudiments of education.

ESNEH.\* Mehemed Ali has succeeded in re-opening the canals by which the neighbouring country had formerly been irrigated, so that its ancient fertility has been in part recovered, and it has become the seat of extensive cotton plantations. The town has a population of about 4000, and is the principal commercial place in Upper Egypt. It is noted as the point of departure of the caravans for Darfur and Cordofan, and as a market for camels. It has also some manufactures, particularly of cotton shawls and pottery.

ESPARTERO. See *Spain*, (Sup.)

ESQUIROL (Jean Etienne Dominique), born January 4th 1772, at Toulouse, was eminent as a physician for the insane. He attended in 1794 at the military hospital in Narbonne, obtained the doctor's degree in 1805, and was appointed physician to the "Salpêtrière." In the year 1817, he commenced the delivery of clinical lectures on the diseases of the mind and their mode of cure; and in the following year he procured the appointment of a comman-



sion of which he himself was a member, to correct the abuses in the French lunatic asylums. In 1823, he became inspector-general of the university, and in 1825, first physician to the "Maison des aliénés." He at the same time conducted the admirably regulated institution for the insane which he had established at Charenton. By the revolution of July, to which he was unfriendly, he was deprived of his public offices; and he thenceforth was occupied only with the care of his private patients. He died on the 12th of December 1840.—Esquirol was a profound thinker, as well as a skilful practitioner; and he exhibited in a very striking manner the qualifications requisite for administering relief at once both to the body and the mind of the sufferer, qualifications so seldom combined in the same individual. By the humane system of management adopted by him towards the unfortunate persons submitted to his care, and a corresponding moral treatment of them, he effected many happy cures. He has written several works on the subject to which he devoted his life, the most important being his treatise "Des maladies mentales considérées sous les rapports médical, hygiénique et medico-légal" (2 vols. 1838).

**Ess\*** (Leander Van). Besides his translation of the New Testament, already mentioned, he is the author of several works, the chief object of which is to excite in the members of the Roman Catholic Church a spirit of inquiry with reference to religion, with a disposition to examine the Scriptures for themselves. In 1816, he also published in Latin a treatise under the title of "Pragmatica doctorum catholicorum trident. circa Vulgatum decreti sensum, nec non licitum textus originalis usum testamentum historia."

**Esseck**; one of the most strongly fortified towns in the Austrian empire, and the capital of Slavonia, in a marshy and unhealthy situation on the river Drave, 13 miles from its confluence with the Danube, and 34 miles S. of Buda. Including its suburbs, it contains about 12,000 inhabitants, for the most part of German descent. It has a military school, a Catholic gymnasium, high and other schools, and various other public establishments. There are manufactures of silk stuffs and twist; but the chief commercial importance of Esseck is derived from its large and well-frequented fairs for corn, horses, cattle, hides, &c., held four times a year.

**ESSEQUIO.\*** See *Guiana*, (Sup.)

**ESTERHAZY** is the name of an ancient and distinguished Hungarian family. They

profess, indeed, to trace their descent from Attila. The present head of the family is Prince Paul Esterhazy, who was for many years the ambassador of Austria to the court of St. James. His estates have been said, with some exaggeration, to cover a surface equal to that of the kingdom of Würtemberg. The revenues which they yield do not exceed 1,800,000 florins, a sum quite small, in comparison to their extent, but one sufficiently large, it may be thought, to satisfy the wants of any individual, however expensive his tastes might be supposed to be. So far from this having been the case, the estates in question have, in consequence of an excess of his ancestors' expenditure above their income, been so encumbered with debt, as for many years to yield to their present proprietor a net revenue of only 80,000 florins.—The prince Esterhazy enjoys the privileges of coining money, conferring nobility, and exercising judicial power, criminal as well as civil, throughout his own domains.—When Napoleon was at Vienna in 1809, he is said to have made a private offer of the crown of Hungary to prince Nicholas Esterhazy, the father of prince Paul, which was declined.

**ÉTIENNE** (Str.); a celebrated manufacturing town of France, in the department of the Loire, 81 miles S. W. of Lyons. Its present population is about 50,000. Its manufactures are very various. Those of arms, cutlery, nails, files and other tools, numerous kinds of steel articles, &c., are mainly indebted for their flourishing condition to the supplies of coal and iron to be found in the vicinity. The waters of the Furens, which are said to be particularly well adapted for the tempering of steel, supply a great many factories. Exclusive of hardware, silk fabrics are largely manufactured, especially silk ribands; and lace, embroidered muslins, *tulles*, cotton yarn, eau de Cologne, and lampblack, are produced. There are, besides, some bleaching and dyeing establishments, with tanneries, and glass and paper factories.—A railroad, 36½ miles in length, extends from Lyons to St. Etienne, and there communicates with another, 54 miles in length, from St. Etienne to Andrézieux and Roanne.—St. Etienne has a theatre, a public library, a cabinet of natural history, a royal college, having, in 1842, 237 pupils, a school for mining, and several benevolent institutions.—The prosperity of this city dates from the conclusion of the last European war, in 1815. Since then, its population has been trebled.

**ÉTIENNA\*** (Charles Guillaume). *His-*

acquirements and ready elocution led to his being chosen by the department of the Meuse, first in 1820, and then again in 1822, a member of the Chamber of Deputies. In this new field of exertion, his course was at least equally distinguished as in literature. Till the close of the period of the Restoration, he was one of the most firm, moderate, and able of the liberal party. In 1829, he was re-elected a member of the Academy. In 1831, too, he was again chosen a deputy; and he was repeatedly selected to be one of the vice-presidents of the Chamber. He was made a peer of France in 1837.

ETON.\* The course of instruction at Eton school is almost wholly classical; and the only entire works read are those of Homer, Virgil, and Horace. Extracts, however, from numerous others, are occa-

sionally made use of. The system of fagging, by which the boys of the Lower School are fags, or servants, to those of the Upper, out of school hours, still prevails.

EUPHRATES.\* Attempts have, within a few years past, been made by the English, under the direction of Colonel Chesney, to navigate this river by steam. He is said to have proved the practicability of doing so with steamers, drawing not more than 4 feet water. That the Euphrates should, however, ever again become an ordinary channel of communication between Europe and India, is more than doubtful.

EUROPE.\* The following comparative view of the extent, population, &c., of the different European states, from McCulloch's Geographical Dictionary, may be useful for reference.

| States, and their Designation.                                | Area in sq. m. English. | Population. (Latest returns.) | Pop. to the sq. m | Capitals.      |            |
|---------------------------------------------------------------|-------------------------|-------------------------------|-------------------|----------------|------------|
| Russian empire (incl. Poland) .....                           | 2,000,000               | 49,000,000                    | 24.5              | Petersburg     |            |
| Austrian empire (incl. Lombardy, &c.) .....                   | 257,368                 | (1839) 36,519,560             | 141.9             | Vienna         |            |
| France (including Corsica) kingdom .....                      | 203,736                 | (1836) 33,540,908             | 164.6             | Paris          |            |
| { Great Britain and Ireland (kingdom) .....                   | 119,286                 | (1831) 24,410,499             | 204.6             | London         |            |
| { (Isle of Man, Channel I., Malta, &c.) .....                 | 1,214                   | 940,000                       | 197.2             | —              |            |
| Prussia (kingdom) .....                                       | 107,921                 | (1838) 14,330,146             | 133.7             | Berlin         |            |
| Spain (kingdom) .....                                         | 162,270                 | 12,260,491                    | 66.9              | Madrid         |            |
| Turkish empire (incl. Servia, Wallachia, and Moldavia) .....  | 210,585                 | 9,545,000                     | 45.3              | Constantinople |            |
| Sweden and Norway (kingdom) .....                             | 291,164                 | (18—) 4,156,900               | 14.3              | Stockholm      |            |
| Belgium (incl. parts of Limburg and Luxemburg (kingdom) ..... | 13,214                  | (1836) 4,242,000              | 321               | Brussels       |            |
| Portugal (kingdom) .....                                      | 36,510                  | 3,530,000                     | 97.2              | Lisbon         |            |
| Holland (incl. parts of Limburg and Luxemburg (kingdom) ..... | 13,598                  | (1838) 2,915,396              | 214.4             | Amsterdam      |            |
| Denmark (incl. Holstein Lauenburg (kingdom) ..                | 21,256                  | (1834-5) 2,033,265            | 93                | Copenhagen     |            |
| <i>Germany.</i>                                               |                         |                               |                   |                |            |
| Bavaria (kingdom) .....                                       | 29,637                  | (1837) 4,315,469              | 145.2             | Munich         |            |
| Hanover (kingdom) .....                                       | 14,734                  | (1838) 1,706,320              | 129.5             | Hanover        |            |
| Wirttemberg (kingdom) .....                                   | 7,640                   | (1836) 1,634,654              | 214.2             | Stuttgart      |            |
| Saxony (kingdom) .....                                        | 5,759                   | (1837) 1,652,114              | 287.5             | Dresden        |            |
| Baden (grand duchy) .....                                     | 5,904                   | (1838) 1,263,100              | 213.9             | Carlsruhe      |            |
| Hesse-Cassel (electorate) .....                               | 4,430                   | —                             | 704,900           | 159.1          | Cassel     |
| — Darmstadt (grand duchy) .....                               | 3,240                   | —                             | 783,400           | 241.1          | Darmstadt  |
| Mecklenburg Schwerin (grand duchy) .....                      | 4,833                   | —                             | 492,652           | 99.8           | Schwerin   |
| Oldenburg (grand duchy) .....                                 | 2,417                   | —                             | 267,660           | 110.7          | Oldenburg  |
| Nassau (duchy) .....                                          | 1,733                   | —                             | 379,292           | 216.3          | Weisbaden  |
| Other German States .....                                     | 10,263                  | —                             | 970,190           | 191.6          | —          |
| <i>Italy.</i>                                                 |                         |                               |                   |                |            |
| Naples and Sicily (kingdom) .....                             | 42,132                  | (1837) 7,975,250              | 189.3             | Naples         |            |
| Sardinia and Piedmont (incl. Monaco) kingdom                  | 29,130                  | (1829-33) 4,169,717           | 143.1             | Turin          |            |
| Papal State (popedom) .....                                   | 17,210                  | —                             | 2,732,430         | 158.7          | Rome       |
| Tuscany (grand duchy) .....                                   | 7,666                   | (1836) 1,436,785              | 186.9             | Firenze        |            |
| Parma (duchy) .....                                           | 2,268                   | (1833) 468,673                | 206.7             | Parma          |            |
| Modena (duchy) .....                                          | 2,092                   | —                             | 403,000           | 192.7          | Modena     |
| Lucca (duchy) .....                                           | 413                     | (1836) 156,300                | 365               | Lucca          |            |
| San Marino (republic) .....                                   | 22                      | —                             | 7,600             | 345.4          | Sau Marino |
| Swiss Confederation (republics) .....                         | 14,950                  | (1836) 2,125,480              | 142.1             | —              |            |
| Greece (kingdom) .....                                        | 17,900                  | —                             | 926,000           | 51.1           | Athens     |
| Ionian Islands (republic) .....                               | 919                     | —                             | 208,100           | 208.3          | Corfu      |
| Cracow (republic) .....                                       | 488                     | (1837) 131,462                | 269.4             | Cracow         |            |
| Andorre .....                                                 | 200                     | —                             | 7,000             | 35             | Andorre    |
| <b>Total .....</b>                                            | <b>3,684,841</b>        | <b>232,677,909</b>            | <b>63.1</b>       |                |            |

By the foregoing table it is obvious that Russia is the state comprising the greatest actual amount both of extent and population; though, as to density of population,

in proportion to the square mile, it ranks last but one. The independent state, with the least amount of population, is the principality of Lichtenstein, population

3690: that which has the least extent of surface, the republic of San Marino: that with the greatest density of population of any, is the free city of Frankfort on the Mayn, one of the minor German states, population to square mile 1,499: that with the least density of population is the kingdom of Sweden and Norway. The population to the square mile in Spain may be considered as nearly representing that of Europe at large.

*Religion.*—In the *Weimar Almanac* for 1836, the population of Europe is estimated at 228,000,000, distributed as follows among the different religious creeds:

|                    |                         |             |
|--------------------|-------------------------|-------------|
| Christians         | { Roman Catholics ..... | 121,743,000 |
|                    | { Protestants .....     | 52,340,000  |
|                    | { Greek Church .....    | 43,300,000  |
| Mohammedans .....  | 8,050,000               |             |
| Jews .....         | 1,752,000               |             |
| Other faiths ..... | 615,000                 |             |
| Total .....        |                         | 228,000,000 |

Hence it appears that more than 19-20ths of the whole population are Christians. In an enlarged point of view, the Roman Catholic faith prevails chiefly in the S., Protestantism in the N., and the Greek Church in the E. Mohammedanism is confined to Turkey and the extreme S. part of Russia. The Jews are scattered over the whole of Europe, but are especially numerous in Poland. The nomadic Kalmuc tribes in the S. provinces of Russia profess Buddhism or Lamism; Sabæism, or the worship of the celestial bodies, &c., prevails amongst some of the Caucasian tribes; the wandering Gipsy races have a religion peculiar to themselves; and Fetichism, including various kinds of idolatrous worship, still exists amongst some of the Finnic and Ostiak tribes of Lapland, Sweden, N. Russia, &c. (*Balbi*, 103, &c.)

EVANS (De Lacey), a colonel in the British army, was born in Ireland, about the year 1786, and after being educated in the military school at High Wycombe, in England, entered the East India Company's service. In this he, however, remained for only a short time. He obtained a commission as a lieutenant of dragoons, with which he went to Spain, and distinguished himself on several occasions during the Peninsular war. He made a part of the British force which in 1814 captured the city of Washington, and failed in an attempt upon Baltimore; and he was also present at the battle of New Orleans. At Waterloo, he acted as an aide-de-camp of General Ponsonby, and soon afterwards, attained the rank of lieutenant-colonel. On the conclusion of peace, his attention

was much given to politica. He obtained a seat in the House of Commons for Rye, but was, in 1830, elected a member for Westminster. In this body he was an earnest advocate of parliamentary reform, as well as of the measures usually designated, or stigmatized, as *radical*. His sympathies having, in the mean time, become enlisted in an especial manner in behalf of the constitutional cause in Spain and Portugal, he accepted, in 1835, a commission as a lieutenant-general in the Spanish service, and at the head of a legion of 10,000 men, levied in Great Britain with the permission of the government, embarked for Biscay. Although his achievements during the ensuing campaigns against the adherents of Don Carlos, from a variety of causes, did not meet the expectations of his friends, and afforded room for illiberal criticism to his adversaries, he nevertheless gained many advantages over the enemy. The time of service of his men having expired in 1837, and comparatively few of them being willing to renew their engagements, General Evans returned to England, where he resumed his seat in the House of Commons, as a member for the city of Westminster. He was also promoted to the rank of a colonel in the British army, and was made a knight of the Bath.

EXCELLENCY.\* Although in none of the United States, Massachusetts excepted, is the governor entitled by a constitutional provision to have this title applied to him, it has become everywhere quite customary to designate that functionary in this way, especially when addressing to him any formal communication.

EXCHANGE. See *Bill of Exchange*.

EX OFFICIO, in law, is the power which a person has, by virtue of his office, to do certain acts without special authority.—*Ex officio informations*, in England, are prosecutions commenced at the suit of the king, in cases of such great danger, as that the safety of the state might be involved by waiting for the usual course of law.

EXPECTATION.\* The expectation of life in London, as is exhibited in Simpson's table, given in a preceding volume, has reference to a period when the mortality in that metropolis was much greater, in proportion to the number of inhabitants, than it is at present. Even in London, therefore, the table, for any useful purpose, would need to be corrected. But no overgrown city can afford a criterion for a country under ordinary circumstances of health and longevity, in reference to the expectation of life; and this is higher, ge-

nerally speaking, in a small town than in a large one, in the open country than in towns of any description whatever. We subjoin a table, calculated by Mr. Milne, according to the rate of mortality at Carlisle, in England; and which is better fitted, we should think, for general use, not in England only, but in the U. States also, at least in the Eastern and Middle States.

EXPLORING EXPEDITION. See *Voyages of Discovery*, (Sup.)

EYNARD resides at present in Geneva, where he has latterly employed a portion of his abundant wealth in the erection of several splendid buildings.—In 1831, he published “*Lettres et documents relatifs aux divers événements de Grèce.*”

| Age. | Expectation. | Age. | Expectation. | Age. | Expectation. | Age. | Expectation. |
|------|--------------|------|--------------|------|--------------|------|--------------|
| 0    | 36.72        | 96   | 27.14        | 52   | 19.66        | 78   | 6.12         |
| 1    | 44.68        | 27   | 36.41        | 53   | 18.97        | 79   | 5.60         |
| 2    | 47.55        | 28   | 35.69        | 54   | 18.28        | 80   | 5.11         |
| 3    | 49.82        | 29   | 35.00        | 55   | 17.58        | 81   | 4.63         |
| 4    | 50.76        | 30   | 34.34        | 56   | 16.89        | 82   | 4.17         |
| 5    | 51.25        | 31   | 33.68        | 57   | 16.21        | 83   | 3.73         |
| 6    | 51.17        | 32   | 33.03        | 58   | 15.55        | 84   | 3.29         |
| 7    | 50.20        | 33   | 32.36        | 59   | 14.92        | 85   | 2.85         |
| 8    | 50.24        | 34   | 31.68        | 60   | 14.34        | 86   | 2.40         |
| 9    | 49.57        | 35   | 31.00        | 61   | 13.82        | 87   | 1.95         |
| 10   | 48.82        | 36   | 30.32        | 62   | 13.31        | 88   | 1.50         |
| 11   | 48.04        | 37   | 29.64        | 63   | 12.81        | 89   | 1.05         |
| 12   | 47.27        | 38   | 28.96        | 64   | 12.30        | 90   | 0.60         |
| 13   | 46.51        | 39   | 28.28        | 65   | 11.79        | 91   | 0.15         |
| 14   | 45.75        | 40   | 27.61        | 66   | 11.27        | 92   | 0.37         |
| 15   | 45.00        | 41   | 26.97        | 67   | 10.75        | 93   | 0.48         |
| 16   | 44.27        | 42   | 26.34        | 68   | 10.23        | 94   | 0.53         |
| 17   | 43.57        | 43   | 25.71        | 69   | 9.70         | 95   | 0.53         |
| 18   | 42.87        | 44   | 25.09        | 70   | 9.18         | 96   | 0.46         |
| 19   | 42.17        | 45   | 24.46        | 71   | 8.65         | 97   | 0.28         |
| 20   | 41.46        | 46   | 23.82        | 72   | 8.16         | 98   | 0.07         |
| 21   | 40.75        | 47   | 23.17        | 73   | 7.79         | 99   | 0.77         |
| 22   | 40.04        | 48   | 22.50        | 74   | 7.33         | 100  | 0.28         |
| 23   | 39.31        | 49   | 21.81        | 75   | 7.01         | 101  | 1.79         |
| 24   | 38.59        | 50   | 21.11        | 76   | 6.69         | 102  | 1.30         |
| 25   | 37.86        | 51   | 20.39        | 77   | 6.40         | 103  | 0.83         |

F.

FABRE (François Xavier), a pupil of the celebrated French painter David, was born at Montpellier, in 1766. Having obtained, in 1787, the first great prize awarded by the Academy, he went to Italy, where he remained until 1826. In that year he returned to his native city, and died there in 1831. While in Italy, he is said to have been secretly married to the Countess of Albany, the widow of the last of the Stuarts and of the celebrated Alfieri. The principal pictures which he painted are “The Death of Milo of Crotona;” “Philoctetes in the isle of Lemnos;” “The chaste Susanna;” “The Judgment of Paris;” “The Death of Philopœmen;” “The portrait of Alfieri;” &c. At his death, he bequeathed all the objects of art in his possession to the museum of Montpellier, together with 30,000 francs for the construction of a new gallery.

FABRE (Marie Jos. Victorin) was born, July 19th 1785, at Jaujac, in the French department of the Ardèche, and brought

up at Lyons. In the 18th year of his age he went to Paris, where he speedily distinguished himself by his poetical productions, such as his “*Opuscules en vers et en prose*” (1806), the “*Discours en vers sur les voyages*” (1807), and “*La mort d’Henri IV.*” (1808); to all of which prizes were awarded by the French Academy. They are deserving of great commendation in respect to composition and diction; but otherwise evince no extraordinary powers on the part of their author. His prose writings, besides his “*Tableau littéraire de la France au 18ième siècle*” (1810), which also obtained the prize of the Academy, consist of eulogies on Boileau, Corneille, Labruyère, and Montaigne; and generally express common-place ideas in a correct and elegant style.—Fabre ever maintained an honourable and independent character, and was unambitious of titles or office. He declined becoming a member of the Academy, and, under the imperial government, refused various advantageous

offers which it tendered to him; nor could he be induced, by any persuasion, to celebrate the fame of Napoleon in his verse. —At the time of his death, on the 29th of May 1831, he was editor of the "Bibliothèque française." —His brother, *Jean Raymond Auguste Fabre*, who was born at Jaujac on the 24th of June 1792, and died in 1839, established the "Tribune" newspaper in 1839, and was the author of "La Calédonie," a poem in 12 cantos (1823), a "Histoire du siège de Missolonghi" (1826), "La révolution de 1830 et le véritable parti républicain" (1833).

FABVIER (Charles Nicolas, baron) was born on the 15th of December 1783, at Pont-à-Mousson, in Lorraine, and was educated at the Polytechnic School of Paris, and subsequently, at the School of Practice (*Ecole d'application*) of Metz. He entered into a regiment of artillery in 1804, and made the campaign in Germany of the following year. In 1807, he was sent, by Napoleon, with several other French officers, to Turkey, to assist in the defence of Constantinople against the threatened attack of the English. In the same year, also, he accompanied General Gardanne to Teheran, whose mission had for its objects to detach the shah of Persia from any connexion with the English or Russians, and to instruct his troops in the modes of European warfare. From Teheran, Fabvier was dispatched to Ispahan, in order to form in that city a park and corps of artillery; an object which he in a certain degree accomplished, notwithstanding the many difficulties thrown in his way by the prejudices of the inhabitants, and the bad disposition of the local authorities. The principal object of the mission, however, having failed, it was, before long, withdrawn from Persia; and Fabvier set out for France by way of Russia. Finding that the war with Austria, of 1809, was already in progress, he joined the Polish troops under prince Poniatowski, which were advancing into the enemy's territory; but, as soon as an opportunity offered, rejoined his countrymen as a captain in the Imperial Guard. In 1811, he became an aide-de-camp of Marshal Marmont, in Spain, who sent him with despatches to Napoleon, then advancing into Russia. He arrived at the head-quarters of the grand army on the eve of the battle of the Moskwa, in which he highly distinguished himself, and was named, by the emperor, "chef d'escadron" on the field of battle. He was present in the principal actions of the two following campaigns, and with Colonel Denis, he himself then

also holding the rank of colonel, signed the capitulation of Paris, of 1814, in behalf of the marshals Marmont and Mortier. During the hundred days, he served under the standards of Napoleon; in consequence of which, after the second restoration, he was neglected, for a time, by the government, and the superior officers in whom it confided. But in 1817, he accompanied Marmont, as the chief of his staff, to Lyons, for the suppression of the disturbances excited in that quarter by the ultra-royalists. The part which he acted on this occasion having laid him open to severe animadversions from different quarters, he felt himself called upon to justify his conduct in a pamphlet, published in 1818, under the title of "Lyon en 1817." This, in its turn, caused him to be prosecuted for calumny by General Canuel, against whom the pamphlet contained very serious charges. He was convicted of this offence; and, subsequently to his conviction, he was removed by the government from active service. After the disturbances in Paris in 1820, he was accused at the bar of the Chamber of Peers of high treason, but was acquitted. In 1822, he had to defend himself against a charge of aiding in the escape of four non-commissioned officers from prison. At length, wearied out and disgusted with these repeated collisions with the government, he resolved to quit France for a season. Having visited England and Spain, and then England again, he, in 1823, offered his services to the Greeks, who had already, for two years past, been engaged in their contest for independence. He rendered valuable service to Greece by the forming of regular troops, and the improving of the discipline of the Greek army; but, finding himself an object of the jealousy and distrust of the chiefs, and conceiving his merits not to be properly appreciated by the government, he took his dismissal, and returned to France in the summer of the year 1828. In the month of November of the same year, however, he accompanied the French expedition to the Morea, refusing, at the same time, to accept of any appointment in it. After having organized the Greek militia into a corps d'armée, he again went back to his own country, and resumed his rank as a colonel in the French army. To his credit, it may be mentioned, that he gave up the arrears of his pay, while in the service of Greece, together with the prize money due to him, for the benefit of the widows and orphans of those Greeks who had fallen in battle.—Fabvier took an active

part in the revolution of July, and was appointed chief of the general staff of the national guard. But dissatisfied with the policy adopted by the government, he resigned this office in 1831, and retired to his native town, with the rank of a "maréchal-de-camp."—He is the author of a "Journal des opérations du 61ème corps pendant la campagne de 1814 en France" (1819).

**FACTION.** A faction is distinguished from a party in this respect,—that while the latter has for its object the public good, the former is actuated merely by selfish or personal considerations; or, inasmuch as the grounds of human action are seldom of an unmixed character, perhaps it would be proper to say, that an actor in public life is to be styled patriotic or factious, according to the predominant motive with which he interferes with, or disturbs, the existing order of things in the country to which he belongs. The party in possession of power, experiencing more or less of inconvenience from every interference of the kind, are very apt, however, to stigmatize it, whenever it occurs, with the epithet of factious.

**FAIN** (Agathon Jean Frédéric, baron), born at Paris, January 11th 1778, was, when only 16 years of age, secretary of the committee on military affairs of the Convention. He next held an office of secretary in the "bureaux" of the Directory; then became, in 1806, "secrétaire archiviste" of the cabinet of the emperor; and was dignified with the title of baron in 1809. In 1813, Napoleon appointed him his private secretary, and retained him near his person till his abdication in the spring of 1814. During the hundred days, he served Napoleon again in the same capacity. On the second abdication of the latter, he acted for 48 hours only as the secretary of the provisional government, and shortly afterwards, retired from the capital, and from all participation in public affairs, and occupied himself in the arrangement and publication of his political and military reminiscences. His "Manuscrits de l'an III., de 1812, de 1813, et de 1814," entitle him to an honourable rank among the annalists of the periods of the Directory, and of Napoleon, although written in a spirit of extreme partiality to the latter.—Baron Fain was appointed by Louis Philippe, on his accession to the throne, in 1830, to be his first cabinet secretary. In 1832, he was entrusted by the king with the administration of the "civil list." In 1834, he was elected a member of the Chamber of

Deputies. He was also a member of the Council of State; and, a short time before his death, which occurred on the 14th of September 1836, he was made a grand officer of the Legion of Honour.

**FALKIRK.\*** The town of Falkirk had, in 1841, a population of 8209. The neighbourhood is very populous, and teems with manufactures and other sources of employment, such as the Carron Works, the Falkirk Foundry, several distilleries, extensive collieries, &c.—Falkirk, and its neighbourhood, are also distinguished for the attention which is paid to education. There were, in 1840, no fewer than 32 schools, male and female, in the parish, of which 22 belonged to the town. There is, also, a flourishing school of arts, in which courses of lectures on different branches of science are delivered every winter.

**FALKLAND ISLANDS.\*** The British took possession of these islands in 1833, and retained them in despite of all remonstrances to the contrary. At length, in 1837, they were definitively ceded to Great Britain, on the latter consenting to pay a moderate indemnity for the cession to the government of Buenos Ayres. The islands are capable of affording a plentiful supply of live stock and good water to ships touching at them; their harbours are excellent and easy of approach; and they are situated in a part of the world where there is no other British colony.

**FALLING STARS.\*** See *Meteors*, (Sup.)

**FALMOUTH.\*** The establishment, of late years, of steam-packets, has nearly superseded the employment of the sailing-packets that used to sail from the port of Falmouth; though as the steam-packets from London generally call here on their outward and inward voyages, to receive and put on shore passengers, and get supplies of coal, the town has not been much injured by the change. Its population, in 1841, was 4844.

**FAN, or FANNING MACHINE,** is a machine for separating the chaff, husks, dust, or other light matters, from seeds which are to be preserved for sowing, or for some other purpose in general or domestic economy. The air is put in motion by a wheel, commonly driven by hand, with leaves or fans instead of spokes, and is directed in a stream against the seeds to be fanned; which seeds are placed in a hopper, so regulated as to proportion their descent through the stream of air to the force of the current created by the wheel.

**FARADAY** (Michael), professor of Chemistry at the Royal Institution in London, and one of the most eminent experimental

philosophers of the present age, was born about the year 1790. He began his career in science in the laboratory of Sir Humphry Davy, and first attracted the public attention in 1820. Since that period, he has distinguished himself by a great number of interesting and important discoveries, in the departments of Chemistry and Physics. Among these, the most remarkable are his researches relating to the alloys of steel with the precious metals, and the peculiar properties which they possess; the reduction, by a very ingenious process, of several gases, previously regarded as permanently elastic, such as carbonic acid, chlorine, &c., to the liquid state; his exhibition of the different properties of various compounds of carbon and hydrogen, when united in the same proportions with olefiant gas; and the production of a species of glass from silex, boracic acid, and oxide of lead, adapted for optical purposes. But of all his discoveries, that which excited the greatest sensation among men of science was the property of the magnet to produce electrical currents. He has latterly published a series of valuable papers concerning those currents, and has undertaken, jointly with Armstrong, to investigate the electricity of steam. Besides these papers, and others of a scientific nature, he is the author of a treatise on "Chemical Manipulation," exceedingly useful to the practical chemist. The university of Oxford, in 1832, conferred upon him the degree of LL.D., in acknowledgment of the services rendered by him to the cause of science; and he is a member of the Royal Society of London, as well as a corresponding member of the French Academy of Sciences.

**FAUCHE-BOREL.\*** At a later period, Prince Hardenberg appointed him to be Prussian consul-general of his native town of Neufchâtel, where, however, he met with an unfavourable reception. The Bourbons, for whom he had spent his life and fortune, treated him with ingratitude. Charles X., at length, granted him a pension of 5000 francs. The concluding part of his life was occupied in agricultural pursuits; and he died, September 4th 1829, having fallen, or thrown himself, from the window of a house.

**FAUJAS DE ST. FOND.\*** In 1775, he made the discovery of a valuable iron mine at Lavoulte, in the department of the Ardèche, and of one of Puzzolane earth at Chenavary, in Velay. In acknowledgment of his services to his country, the Council of Five Hundred, in 1797, voted him the sum of 25,000 francs. He died at Paris,

on the 26th of July 1819, being at the time a professor of geology at the Museum of Natural History.

**FAURIEL** (Claude Charles), professor of the history of Modern Literature in the Faculty of Letters at Paris, was born in 1788, at St. Etienne, in the French department of the Loire, and came to Paris towards the close of the period of the Directory. He here devoted himself with great zeal to the study of literature, and especially to that of history. An intimacy which he formed with the celebrated Danish poet Baggesen, and with the Italian Manzoni, then a young man as yet a stranger to fame, gave to his pursuits the peculiar direction which they have ever since retained. He published a translation of one of the principal productions of the former, the "Parthénide" (1810), and subsequently (1823), a translation also of two poems of the latter, the "Carmagnola" and "Adelchi," accompanied by one of a piece in prose, in which the author discusses some of the disputed points in relation to the theory of the drama. Struck with the beauty of some popular songs of the modern Greeks, which fell into his hands at the period when the course of political events had awakened a new interest in their behalf, he contributed still further to augment this interest in France by translating them into French (1824). This publication had the merit besides of giving rise to that of several other similar collections, such as the "Chants populaires de la Bretagne," one of the most interesting among them. After an absence of three years in Italy, M. Fauriel earnestly applied himself to the study of the Arabic and Sanscrit languages, and, in conjunction with MM. Abel Rémusat, Saint Martin, and de Lasteyrie, founded the "Société asiatique;" to the journal of which he contributed a number of learned articles. In 1829, the professorship of French Literature in the Academy of Geneva was offered to him. While he yet hesitated to accept it, the revolution of July opened advantages to him, of a nature to induce him to remain in France. Although emphatically a man of letters, and abstaining entirely from the contentions of party politics, the government of the Restoration, in consequence, it has been said, of his connexion with Siéyès (he was the nephew and heir of that remarkable individual), treated him with neglect: under that which succeeded to it, and during the administration of the duke de Broglie, he held, for a short time, the office of minister of public instruction;

and the chair of foreign literature was created especially for him in the Faculty of Letters. His "Histoire de la Gaule méridionale, sous la domination des conquérants germains" (4 vols. 1836), opened to him the doors of the Academy of Inscriptions and Belles Lettres. This work, in which the author has imitated the spirit and method of Thierry, employing as much as possible the forms of expression, and frequently the identical language, of the sources whence his facts are derived, is the fruit of the most thorough research, and evinces the greatest calmness and impartiality of judgment. The next work of M. Fauriel is a "Histoire de la croisade contre les hérétiques albigeois composée en vers provençaux par un auteur contemporain" (1837), constituting a portion of the "Collections des documents inédits sur l'histoire de France," which is published under the direction of the minister of public instruction. He has also contributed to the "Journal des savants," and has taken part in the continuation of the "Histoire littéraire de la France," begun by the Benedictines.—A portion of his *lectures* have been communicated to the public through the pages of the "Revue des deux mondes." As pieces of literary composition, as well as on account of the matter contained in them, they possess very considerable merit. He has, nevertheless, made very little impression as a lecturer, in consequence of his stammering and otherwise defective elocution.

FAVETTEVILLE.\* Population, in 1830, 2868; in 1840, 4285. In 1831, this town was almost entirely consumed by fire, but was speedily rebuilt in a more substantial manner.

FEARN (John), an English metaphysician, not much known, but possessing great acuteness and originality, was born about the year 1767, and was for some time a seaman in the service of the British E. I. Company. While in India, the accidental meeting of a copy of Locke's "Essay on the Human Understanding" excited in him a taste for metaphysical speculations. Though his education had been exceedingly limited, and he was altogether unpractised in the arts of composition, he immediately began to transfer his thoughts to paper; and the first results of his lucubrations appeared in an "Essay on Consciousness" (London, 1811). Returning to England for the restoration of his health, which had been seriously impaired by the climate of India, he resided in London, mingling scarcely any with the world around him, and employing his

time, as his pecuniary means, very moderate as these were, enabled him to do, in the contemplations of philosophy. In 1820, he published his "First Lines of the Human Mind;" and in 1824—27, his "Anti-Tooke, or an Analysis of Language," in 2 volumes. His writings were commended by Dr. Parr and Basil Montague; but they failed, in these practical days of the English intellect, to engage any portion of the general attention. Discouraged, and out of humour with this neglect, he ceased altogether to write, and died December 3d 1837.

FRODOR IWANOWITSCH\* died in 1821.

FERDINAND VII.\* of Spain, had, by his last wife, Maria Christina of Naples, two children, both females; the present queen of Spain, Isabella II., born October 10th 1830, and Louisa, born January 30th 1832. Through the influence of the queen, while she was pregnant with her first child, he was induced, by a decree styled pragmatic, issued on the 29th of March 1830, to revoke the Salic law, which had been first introduced into Spain, or at least into Castile, by the Bourbon family, on their accession to the Spanish throne. The effect of this measure being to deprive the king's brother, Don Carlos, of the succession, in favour of his daughter, gave rise to multiplied intrigues and combinations among the disaffected, even during the remaining portion of the life of Ferdinand; and led, after his death, to the breaking out of a most atrocious civil war. (See *Spain*, Sup.)—Ferdinand died on the 29th of September 1833.

FERNANDO PO.\* The English took possession of this island in 1827, with the object of making it a military and naval station, on account of its supposed salubrity, and the facilities afforded by its situation for the suppression of the slave trade. But the climate was soon found to be quite as pestiferous as that of the other settlements generally on the W. coast of Africa. Most of the Europeans on the island were attacked by a malignant fever, from which very few of them recovered. The detachment of troops, placed there in garrison, was accordingly withdrawn in 1834. It was, nevertheless, formally ceded by Spain to Great Britain in 1841. The inhabitants are, for the most part, negroes. In the vicinity of Fernando Po is the island of Annabon, peopled exclusively by negroes, whose chief arrogates to himself the title of king.

FERNIS are certain cryptogamic plants in the highest state of development, and more especially remarkable for the perfect



manner in which their leaves are formed. They are extremely injurious to land where they have once taken root, and are very common in dry and barren places. Between the tropics, several species form small trees, having something of the aspect of palms, and are considered one of the greatest ornaments of those regions.

**FERRAND.\*** In the latter years of his life, he laboured under the misfortunes of a failing eyesight, and of a lameness in his feet; which, however, did not prevent him from attending the meetings of the Chamber of Peers. He died on the 17th of January 1825. His principal works are the "Esprit de l'histoire" (4 vols. 1802), which has been several times reprinted; the "Théorie des révolutions," (4 vols. 1817); the "Histoire des trois démembrements de la Pologne" (3 vols. 1820), being a continuation of Rulhière's "Histoire de l'anarchie de Pologne," and in the preparation of which the author made use of the materials collected and left behind him by Rulhière; together with the "Testament politique," published in 1830, several years subsequent to his decease.

**FERRARA.\*** The university, or rather college, in this place, has two faculties, of law and of medicine, but is not well attended. The public library, founded so recently as 1740, consists of 80,000 volumes. There is here, also, a botanic garden, an anatomical theatre, several charitable establishments, and one of the finest theatres in Italy.

**FERROL,** a sea-port town of Spain, in Galicia, N.N.E. of Corunna. Previous to 1752, it was a small fishing hamlet; but a town has since been built upon a regular plan, and it now contains 10,000 inhabitants. Its harbour is, perhaps, the best in Europe. It is strongly fortified, and is the most important naval arsenal of Spain.

**FÉRUSAC** (François d'Audebard, baron de) was born in the year 1786, at Charton, in the French department of Tarn et Garonne. He entered the army when 17 years old, and accompanied the invaders into Spain in 1808. After distinguishing himself at the siege of Saragossa, as well as on other occasions, a severe wound in the breast, received at Moguer, disabled him from further military service, just as he was about to be promoted to the rank of captain. He had already made himself known to men of science, by several memoirs on subjects of natural history, presented by him to the National Institute. He now prosecuted his scientific and literary labours with renewed activity. His "Coup d'œil sur l'Andalousie" (1812) met

with great success. On being read by Napoleon, he immediately made inquiries after the author, and appointed him sub-prefect of Oléron. On the advance, however, of the allies into the south of France in 1814, he repaired to the head-quarters of the duke of Angoulême, who directed him to resume his functions. During the hundred days, he was once more nominated to a sub-prefecture; but he refused to subscribe the "acte additionnel," and to take the required oath to the prefect. At the second restoration, he retired from public life, and devoted himself exclusively to science. He began the publication of the "Histoire naturelle, générale et particulière, des mollusques terrestres et fluviatiles" in 1822. In the following year, Férussac established the "Bulletin universel des sciences, et de l'industrie," intended by him as a medium of communication, and a bond of union, between the cultivators of science in every part of the globe, and which in its extent surpassed every other periodical journal of the day. Its publication was unfortunately suspended in 1831, in consequence of the refusal of the Chambers to vote the sum necessary for sustaining so extensive an undertaking.—M. de Férussac was, subsequent to 1830, a deputy from his native department. He died in 1836.

**FESCH\*** (cardinal) died at Rome, on the 18th of May 1839. He had steadily refused to resign his claims to the archbishopric of Lyons, so that during a period of 24 years, that see was administered by a vicar-general. His very large collection of paintings was gradually disposed of, after his death, at public auction.

**FESSLER.\*** On the dissolution of the Protestant consistory at Saratow, in 1833, Fessler was appointed to the office of general superintendent and ecclesiastical counsellor to the Lutheran communion at St. Petersburg, where he died on the 15th of December 1839.

**FEUERBACH.\*** His last work was a statement of all the ascertained facts in relation to Caspar Hauser, published in 1832. He died, on a journey to the baths of Schwalbach, in his native city of Frankfort on the Maine, on the 29th of May 1833.

**FIÉVÉE\*** published, in 1828, his "Nouvelle correspondance politique et administrative," in 3 volumes, containing much interesting matter. Besides his two romances or novels already mentioned, he wrote several others; and all of them acquired a certain degree of popularity. They have latterly been republished in a

uniform edition. Some light is thrown on his relations with Napoleon by his "Correspondance et relations de J. F. avec Bonaparte" (1837). He was a busy contributor to a variety of journals down to the period of his death, which occurred on the 8th day of May 1839.

**FILE**; an instrument formed by cutting teeth upon a plate or tool of soft steel by repeated blows of a straight-edged chisel. These teeth either form a single series of straight lines, or they are crossed by a second series; the former are called single-cut, the latter double-cut files. Files are required to be extremely hard; and unless they are carefully and skilfully hardened, they are apt to warp. The best files are made exclusively of cast-steel, and are cut by hand, none of the file-cutting machines producing unexceptionable tools.

**FITZJAMES** (Edward, duke of), one of the most zealous supporters of the principle of legitimacy at the revolution of July, was born at Versailles in 1776, and was descended from the famous Marshal duke of Berwick. (See *Berwick*.) He emigrated in the early part of the revolution of 1789, and after serving, until it was disbanded, in the army of the prince of Condé, went to Scotland. During the consulates of Napoleon, his name was, at his solicitation, stricken from the list of emigrants; but on returning to his own country, he declined to accept of any office of dignity or profit; living in retirement from political life until towards the close of the year 1813, when he became a *corporal* in the national guard of Paris, ostensibly to assist in the defence of that capital, should the allied armies make an attempt to obtain possession of it. When this emergency, however, arrived, on the 30th of March of the following year, he was active in persuading the legion of the national guard to which he belonged to refuse to co-operate with the regular troops in repelling the attack of the enemy; and, on the next day, he appeared at the head of the royalists who waited on the Emperor Alexander to congratulate him on his entrance into Paris. For his fidelity to the cause of the Bourbons, he was nominated, by the government of the Restoration, a peer of France; and the comte d'Artois, afterwards Charles X., selected him to be one of his aides-de-camp. Though undeviating in his royalist opinions, he was a strenuous supporter, in the Chamber of Peers, of the freedom of the press; for which reason, his political adversaries treated him generally with much forbearance. After the revolution of July

1830, he chose, at first, to take the oath of fidelity to Louis Philippe, rather than resign his peerage. Becoming, at length, convinced of the comparative insignificance into which the peers, as a body, had sunk, he resigned his seat among them in 1832. In the same year, he was placed under arrest, being charged with conspiring with the duchess of Berry, then concealed in France, against the existing government, but was soon liberated for want of sufficient evidence to substantiate the charge. He was elected, in 1834, a member of the Chamber of Deputies from Toulouse, and re-elected in 1837. The new field of exertion, thus opened to him, served to develop in him very extraordinary powers as a public speaker. He was soon ranked as second only to Berryer, as a parliamentary orator, among the members of the "côté droit." Among his speeches, that which produced the greatest sensation, not in the chamber only, but likewise throughout the kingdom, was one delivered in 1837 against the alliance of France with England. His real dislike to the existence of a good understanding between the two countries, with whatever professions of patriotism it was veiled, at the time, from his auditory, very probably was on account of its tendency to secure the peace of Europe, and therefore to preclude the occurrence of any of those chances which might eventuate in another restoration of the elder branch of the House of Bourbon.—In justice to the duke of Fitzjames, it should be mentioned that, notwithstanding the hostile sentiments manifested by Charles X. to the Greek revolution, he was one of the most active members of the Greek committee in Paris, and that he co-operated materially with Chateaubriand to render the cause of Greece popular among a portion even of the most uncompromising of the legitimists.—The duke of Fitzjames died in 1840.

**Fiume**.<sup>\*</sup> Population about 9000. With the minor adjacent harbours of Buccari, Porto Re, and Martinschizza, it is the point of contact of the kingdom of Hungary with the Adriatic Sea. For the roads extending from this place into Hungary, see *Austria*, (Sup.)

**FLASSAN**.<sup>\*</sup> The last work which has been published by this author is entitled "De la neutralité de la Belgique" (1831).

**FLÈCHE** (LA); a town of France, in the department of the Sarthe, on the Loire, 24 miles S. W. of La Mans. It contains 6440 inhabitants. It was already a place of some note in the 10th century, but afterwards declined. The munificence of

Henry IV. gave it a new impulse in the beginning of the 17th century, by establishing in it a college, which he confided to the care of the Jesuits, and which afterwards attained to a high degree of celebrity. The college buildings and grounds are now occupied by a preparatory military school, having 600 pupils, 400 of whom are supported at the expense of the state.

FLEISCHER (Henry Leberecht) was born in February 1801, at Schandau, on the Elbe, in Germany. He received his preparatory education at the gymnasium of Bautzen, and then studied theology in Leipsic, where, too, he prosecuted with great diligence the study of the Oriental languages. In 1824, he went to Paris, that he might enjoy the instructions of Silvestre de Sacy, and examine the rich collection of Oriental manuscripts in the royal library. There he likewise took lessons in the modern Arabic from Perceval the Younger, and endeavoured to acquire the power of speaking that language by frequent intercourse with the young Egyptians who had been sent by Mehemed Ali to the French capital to be educated. He returned to Germany in 1828, and was appointed one of the teachers in an academy of the higher order at Dresden, in 1831. In the last-mentioned year, he published a catalogue of the Oriental manuscripts in the royal library at Dresden, and an edition of Abulfeda's "Historia antislamica," with a Latin translation. His translation of "Samachshari's Golden Necklaces," which he accompanied with a severe criticism of Hammer's edition of the same work, involved him in a protracted controversy with this eminent orientalist. Fleischer was on the point of accepting the offer made to him of a professorship at St. Petersburg, when he was appointed to succeed Rosenmüller in the department of the Oriental languages in the university of Leipsic. In addition to the works above mentioned, he has published a "Dissertatio critica de glossis Habichtianis in quatuor priores MI noctium" (1836), and "Ali's hundred Proverbs, in Arabic, with the Persian paraphrase of Watwat" (1837). Subsequently to Habicht's death, he completed the edition, begun by that scholar, of the 1001 Nights, in the original Arabic; and he has been latterly engaged in superintending the printing of the important commentary of Baidhawi on the Koran.

FLINT (Rev. Timothy) was born in July 1780, at North Reading, in Massachusetts, a town about 15 miles N. of Boston. He was graduated at Harvard University in

1800. Immediately afterwards he studied divinity; and he was settled in the ministry as early as the month of September 1802, at Lunenburg, in his native state, over a rural population. There he continued for a period of 12 years, in the faithful discharge of his pastoral duties; cultivating at the same time a little land, and indulging his taste for letters and for chemistry. Some of his ignorant and prejudiced neighbours founded, on the chemical experiments which he made, a charge against him of coining and circulating bad money. Having instituted, in his turn, a prosecution against the originator of this charge, as he conceived it to be due to his own character that he should do, the irritated feelings which were produced, united with those springing from a difference of opinion between him and a majority of his parishioners in relation to the party politics of the day, led to the relinquishment by him of his pastoral charge in 1814. During the following year, he preached in several parishes in Massachusetts and New Hampshire. He then accepted an appointment from a missionary society in Connecticut, and set out, in September 1815, with his wife and three children, in a two-horse wagon, for the "Far West," a region which he had long desired to visit. The scene of his labours embraced the states or territories of Ohio, Indiana, Kentucky, and Missouri. After a few years of widely extended travel, and many changes of residence, he resigned his mission; still, however, continuing to preach occasionally in different places.—Mr. Flint now tried farming, and took pupils into his family, in whose instruction he was assisted by his wife, until 1822; when he and his family, having suffered severely from the diseases of the country, went down the Mississippi to New Orleans. After spending the greater part of a year at Covington, near Lake Pontchartrain, he took charge of an institution, styled a college, at Alexandria, on Red River, Parish of Rapide. There he continued, as "principal," till the spring of 1825, when his health broke down, and he was obliged to leave for the "North." With an emaciated frame, he reached the house of a friend at Salem, in Massachusetts, where, as he said, he had come to die. But by a change of climate, and quiet, and a visit to Saratoga springs, he recovered sufficiently to write, at the request of his friend, his "Recollections of ten years' residence and travels in the Valley of the Mississippi." This work appeared in 1826. It was very

generally read and commended in the Atlantic states, and was reprinted in London; and parts of it, also, were translated and published in Paris.—While on his return to his family, in the autumn of 1826, Mr. Flint commenced writing his first novel, "Francis Berrian, or the Mexican Patriot." Having completed it during the winter of 1826-27, he again went to New England in the spring, and published it there (in 2 vols. 12mo) in the course of the following summer. He once more rejoined his family at Alexandria, in the autumn. In 1828, he removed with his family to Cincinnati, in Ohio, and remained there for 6 or 7 years. During this time, he published "Arthur Clavering," a novel (2 vols. 12mo); a "Geography of the Western States" (2 vols. 8o); "George Mason, or the Backwoodsman," a tale (1 vol. 12mo); and the "Shoshonee Valley," a romance (2 vols. 12mo). He edited a monthly periodical, under the name of "The Western Review," which was continued by him, with very little aid from others, for 3 years, viz. 1828, 1829, and 1830. He compiled, besides, a "History of the Indian Wars of the West;" and prepared and published, from the notes of one James O. Pattie, a narrative of the explorations and adventures of the latter, in the then untravelled regions between Missouri and California.—Mr. Flint assumed, in 1833, the editorship of the New York "Knickerbocker," but was obliged to relinquish it, before the end of the year, from ill health. In 1834, he went to the "South," to remain with his family in Alexandria, where his eldest son and daughter resided; the daughter having recently married an eminent advocate and planter of that place. He there passed the concluding years of his life in the enjoyment of competence and leisure, usually, however, spending his summers in New England, and wrote nothing excepting a "Second part of Recollections of the Mississippi Valley," the manuscript of which he brought with him on his last visit to his friends at Salem, in Massachusetts, where he died, August 16th 1840.—In addition to the writings of Mr. Flint above enumerated, he wrote many tales and anonymous articles for the annuals and periodicals of his day. A volume of miscellanies might be selected from these, and his "Western Review," of great beauty and permanent interest. He left behind him revised copies of his principal works, a uniform edition of which is a desideratum in our literature, that it may be hoped will not be long in being supplied.

FLOURENS (Marie Jean Pierre) was

born in the year 1794, in a village near Bézier, in the S. of France. He brought himself into notice in 1821, by a course of lectures delivered at the Athenæum of Paris, on the physiological theory of the sensations, and by a series of memoirs on physiological subjects read to the Academy of Sciences. In 1828 and 1829, he delivered the course of natural history in the College of France, and in 1829 and 1830, that of comparative anatomy at the "Jardin du roi." M. Flourens was elected a member of the Institute (Academy of Sciences) in 1828, and has since then become one of the two perpetual secretaries of that learned body. In 1841, he was also elected a member of the French Academy.

FLÜGEL (Gustavus Lebrecht) was born in February 1802, at Bautzen, in Germany. He pursued his studies, first in the gymnasium of his native town, and afterwards in the university of Leipzig. The profession which he had selected was theology; but on being secured a competent support from the Saxon government, he soon devoted himself to the study of the languages and literature of the East; for which, even before he went to the university, he had evinced a decided predilection. He proceeded to Vienna, in the spring of the year 1827, to have the benefit of the instructions of Hammer-Purgstall, at whose suggestion he published the Arabic Anthology of Tha'libi, accompanied by a German translation (1829). After travelling through Hungary and the greater part of Germany, he went next to Paris. There he prosecuted his oriental studies under the direction of de Sacy. On his return to Saxony, he obtained a professorship in the provincial or high school of Meissen.—The most important literary production of Flügel is the large dictionary of Hadgi-Chalfa, with a Latin translation and explanation of the words, which was undertaken at the expense of the London Oriental translation committee, and of which three volumes (in 4to) have appeared. He has also published a history of the Arabians (2 vols. 1832-38), and superintended the stereotyped edition of the Koran, issued by Tauchnitz, in Leipzig.

FOGGIA; the chief town of the province of Capitanata, in the kingdom of Naples, 80 miles N. E. by E. of Naples. In 1832, it had 20,687 inhabitants. It is noted for its corn magazines, which are very extensive; they stretch under all the large streets and open squares, consisting of vaults lined with masonry, with their orifices closed up with boards and earth.

The corn produced in the fruitful country around is collected here, and then conveyed to Naples and elsewhere. Wool is another important article of commerce, Foggia being the place where the duty is levied upon the sheep coming every autumn from the mountains of the Abruzzi to winter in the Capitanata. This tax, which is one of the richest sources of revenue to the crown of Naples, originated with the ancient Romans, and continued to be collected uninterruptedly by the rulers of the country down to the 18th century. After an interval of two centuries, it was re-imposed by Alphonso I., king of Naples, who purchased a considerable extent of pasture land, for the use of the shepherds, called the *tavoliere*. The latter, who came down with their flocks into the *tavoliere*, from the Abruzzi, paid a fixed rate per head for their sheep, but were not allowed to dispose of their wool, lambs, cheese, &c., during their winter residence, in any fair but that of Foggia. By way, however, of compensation on the part of the crown, besides other privileges, no wools in the kingdom are suffered to be offered for sale till those at Foggia have been disposed of.

FOLLEN (Charles Theodore Christian) was born, September 4th 1796, at Romröd, in the Grand Duchy of Hesse Darmstadt, in Germany. He was educated first at the "pedagogium," and then at the university, of Giessen, where he applied himself with diligence to the study of jurisprudence. After making the campaign of 1814 as a volunteer against the French, he returned to prosecute his studies at the university. In March 1818, he took the degree of Doctor of Law; and in the summer of this year, he was employed as a counsellor in behalf of the "communities" of towns and villages of Hesse Darmstadt, which the government proposed to deprive of the management of their own financial affairs, in consequence of the magnitude of the debts incurred by them, during the 20 years that preceded the final overthrow of Napoleon. A petition was drawn up by Dr. Follen, and presented to the grand duke, in which the cause of the communities was stated with so much ability and force, as to induce that prince to retrace his steps, and restore every thing to its former state. Soon after this, he drew up another petition, in the name of a large number of his fellow-citizens, urging upon the grand duke the fulfilment of the promise, given by him at the Congress of Vienna, to grant to his subjects a representative constitution of government. The

share which he had in these two transactions, together with the well-known liberality of his political opinions, excited, however, against him in such a degree the personal hostility of so many influential individuals, that he judged it expedient to leave the grand duchy. He removed to Jena, in October 1818, where he lectured in the course of the following winter, with great approbation, on the Pandects of Justinian. The assassination of Kotzebue, by Sand, took place in March 1819; and in May, Dr. Follen was arrested, on suspicion of having been privy to the intentions of the latter. After an examination at Weimar, he was set at liberty, but was again arrested a few months subsequently, and conveyed to Mannheim to be confronted there with Sand. Nothing being proved to his disadvantage, he, as before, obtained his freedom. He had now, notwithstanding, become satisfied that he could no longer remain in Germany, with any confidence of permanent security; and he accordingly, in the winter of 1819-20, left his family and friends, and proceeded to France.—Dr. Follen staid a short time at Strasburg, occupying himself, while there, in the study of architecture, under an uncle of the name of Müller, and then visited Paris. Here he made the acquaintance of General Lafayette, and others among the leaders of the "liberal party." On the murder of the duke of Berry, he was one of the foreigners who were ordered by the government to quit the French territory; whereupon he sought an asylum in Switzerland, having been about this time invited by the countess of Benzel-Sternau, who was personally unknown to him, and solely out of respect to his character, to visit her at her seat on the lake of Zürich. In September 1820, he accepted an appointment as professor of the Latin Language and of Universal History, in the "Evangelical College" at Coire, in the canton of the Grisons. The inculcation by him, however, in his historical lectures of religious opinions not in accordance with those of the place, led to the demand by him of his dismissal from his professorship, in June 1821. Soon after it was known that he was going to leave the situation which he occupied at Coire, he was invited to Basel as a professor of the Civil and Ecclesiastical Law. Besides these subjects, he lectured also in that university on the Philosophy of the Human Mind, in its application especially to religion, morals, legislation, and the fine arts; and, jointly with several of the other professors, he edited a periodical journal,

the "Wissenschaftliche Zeitschrift." But he was not permitted to continue long in Switzerland. Already while at Coire, a demand had been made by the Congress assembled at Troppau, that he should be delivered up to them by the authorities of the canton,—a demand with which the latter had the firmness to refuse compliance. During his residence at Basel, a similar demand being made, and persevered in, by the princes of the Holy Alliance, he was first advised to depart from the canton, and on his refusal to do so, and insisting upon a legal trial, the government at length, by passing a resolution to arrest him, compelled him to consult his safety by flight. Hastening through France, by way of Paris, to Havre, he embarked for the United States, and arrived at New York on the 19th of December 1824.—From New York, after a short stay, Dr. Follen proceeded to Philadelphia. Here, a letter from General Lafayette, who was then at Washington, introduced him to Mr. Duponceau, to whose kindness and attentions he felt himself particularly indebted, and with whom, in the spring of 1825, he enrolled his name as a student of law. Immediately after his arrival in Philadelphia, he declared his intention of becoming a citizen of the United States, and applied himself so earnestly to the acquisition of the English language, that in less than 6 months he began to prepare a series of lectures on the Civil Law. He had, in the course of the winter, made the acquaintance of Professor Ticknor of Harvard University; and through the instrumentality of that gentleman, and of his friend Mr. Duponceau, he obtained, in November 1825, the appointment of teacher of the German language at Harvard. In the following winter, he lectured on the civil law to a select class of gentlemen in Boston; and in September 1826, opened there, at the request of a number of the most respectable citizens, an institution for the performance of gymnastic exercises. He also superintended the gymnastic exercises of the students at Cambridge.—The next important event in the life of Dr. Follen was his resolution to study divinity, which he did under the direction of Dr. Channing. He preached his first sermon in July 1828, but did not receive any permanent invitation from a parish, until 1830; when the Unitarian Society at Newburyport, whose pulpit he had supplied, at their request, during a preceding vacation of the college, invited him to become their pastor. He preferred remaining where he was (preaching only occa-

sionally), as a professor of "German Literature," as well as teacher of the German language. It was by an arrangement with some of his friends, who subscribed a sum of money for the purpose, for a period of 5 years, that the Corporation of Harvard were enabled to make the first-mentioned appointment, under the expectation, however, on their part, of being enabled in the mean time to make provision for the subsequent continuation of his salary. But before the expiration of the 5 years, Dr. Follen connected himself with, and took a very active part in, the proceedings of the societies, latterly established in the northern and middle states of the Union for accomplishing the abolition of slavery in the southern states. He became, in consequence, exceedingly unpopular with many of his former friends; and fully aware of the feeling which prevailed in respect to the course adopted by him, he put the question, in 1834, to the corporation of the university, whether it was their intention, at the end of the period above stated, to continue his professorship. The answer was "that the corporation did not think it expedient." About a year afterwards, accordingly, having no other means of support at Cambridge than his salary of \$500 as teacher of the German language, he found himself obliged to leave the university, and to endeavour to provide for his family elsewhere as best he could (he had married shortly after becoming a candidate for the ministry).—The interval from 1835 to 1839 was spent by Dr. Follen in teaching, preaching, authorship, and the performance of several journeys less or more extended. In May 1839, he accepted an invitation to become their pastor from a religious society at East Lexington, in Massachusetts, who had been previously gathered together under his care. They could afford to pay him only a very small salary, wholly inadequate to meet the expenses of his family, on the most economical scale. He hoped to make up the deficiency by teaching, or by literary labours of various kinds. He had a partiality for lecturing; having delivered courses of lectures at Cambridge, before his appointment to the professorship of German literature, on history and moral philosophy, and at Boston and elsewhere, at different times, on the civil law, on infidelity, on pantheism, and on Switzerland. In December 1839, he went to New York, to lecture there to the Mercantile Library Association, on German Literature, and especially on Schiller; and, on his return to Massachusetts, January 13th 1840, he was one

of the passengers on board the steambot Lexington, who lost their lives by the destruction of that vessel by fire, in Long Island Sound.—Dr. Follen was remarkable for his great simplicity and rectitude of character, and for a degree of moral courage which enabled him, throughout his career, to be prompt in sacrificing every prospect of personal advantage, in the performance of what he deemed to be conformable to the dictates of truth and justice.—His "Psychology," an Essay on Religion and the Church, and a Grammar of the German Language, are the most important of his writings. An edition of his works, with a memoir of his life by Mrs. Follen prefixed, was published in 1842 at Boston, in 5 volumes.

FONTAINEBLEAU.\* Population in 1836, 8021. The palace, or château, was comparatively neglected by Louis XVIII. and Charles X.; but Louis Philippe has restored it to more than its ancient grandeur. In 1837, the marriage of the duke of Orleans was celebrated here with great magnificence.

Food.\* None but organic substances are susceptible of digestion and assimilation, and for this reason come under the denomination of food. The proximate principles of organic bodies, however, on which their nutritive powers depend, are comparatively few. Among those of vegetable food, the most important by far are gluten and its modifications, starch, gum, sugar, and lignin or woody fibre; among those of animal food, albumen, gelatin, and their modifications, together with fats and oils, which are common to both kingdoms of nature. Again these proximate principles of our food are composed principally of four elements only,—carbon, hydrogen, oxygen, and nitrogen. Gluten, including vegetable albumen, is the only vegetable substance which abounds in nitrogen; gum, sugar, starch, and the rest, are constituted of carbon, hydrogen, and oxygen only: and what is very remarkable is, that in all these important principles, the oxygen and hydrogen bear to each other the same relative proportions as in water, so that they may, in a certain sense, be stated to be compounds of charcoal and water.—There are two very curious points in reference to that part of the chemical history of our food which has been adverted to. The one is, that no animal can subsist for any length of time upon food which is destitute of nitrogen; and the other that a certain mixture of different kinds of food is absolutely essential. An animal fed exclusively on starch, or sugar, or albumen, or

jelly, soon begins to suffer in health; peculiar diseases make their appearance, and his-existence is painful and brief; but mix them together, and occasionally vary their proportions, and he then thrives and fattens. Thus, geese fed upon gum died on the 16th day; those fed upon starch on the 24th; and those fed on boiled white of egg on the 46th. In all these cases, they dwindled away and died as if of starvation.—The following table exhibits the average quantity of nutritive matter in 1000 parts of several varieties of animal and vegetable food.

|              |     |              |     |
|--------------|-----|--------------|-----|
| Blood        | 215 | Carrots      | 98  |
| Beef         | 269 | Turnips      | 43  |
| Veal         | 250 | Cabbage      | 73  |
| Mutton       | 290 | Beet root    | 143 |
| Pork         | 240 | Strawberries | 100 |
| Chicken      | 270 | Pears        | 100 |
| Cod          | 210 | Apples       | 170 |
| Haddock      | 180 | Gooseberries | 190 |
| Bones        | 510 | Cherries     | 250 |
| Milk         | 72  | Plums        | 290 |
| White of egg | 140 | Apricots     | 200 |
| Wheat        | 250 | Peaches      | 300 |
| Rice         | 280 | Grapes       | 270 |
| Barley       | 290 | Cucumber     | 25  |
| Rye          | 292 | Tamarind     | 300 |
| Oats         | 242 | Almonds      | 600 |
| Potatoes     | 200 |              |     |

Upon an average, the nutritive matter in a pound of meat is not more than four ounces. This, however, only applies to raw meat; for, when dressed, a considerable portion of its constituent water is often dissipated. The nutritive matter of wheat is chiefly starch and gluten; and in this species of grain the gluten is in much greater relative proportion to the starch than in barley, oats, or rye. In rice there is little else than starch. There can be little doubt that the great value of wheat as an article of food depends upon this excess of gluten, which is a nitrogenous substance, and has, not inaptly, been termed the vegeto-animal principle. In the esculent roots, such as carrots, and especially turnips, sugar is the leading nutritive matter; and the common fruits contain sugar, gum, albuminous matter, and acids, together with a highly attenuated form of woody fibre or lignin, which, in that state, is probably digestible.—The following table shows the ultimate composition of those proximate principles which have been above adverted to as constituting the nutritive part of food. The numbers denote parts of 1000.

|               | Carbon. | Hydrogen. | Oxygen. | Nitrogen |
|---------------|---------|-----------|---------|----------|
| Albumen       | 516     | 78        | 228     | 130      |
| Gelatin       | 483     | 80        | 276     | 161      |
| Fat           | 760     | 122       | 98      |          |
| Curd of Milk  | 609     | 73        | 116     | 203      |
| Sugar of Milk | 454     | 61        | 465     |          |
| Gluten        | 557     | 78        | 230     | 145      |
| Starch        | 438     | 62        | 500     |          |
| Gum           | 419     | 68        | 68      | 513      |
| Sugar         | 444     | 68        | 494     |          |
| Lignin        | 500     | 56        | 444     |          |

**FORBIN\*** died in 1841.

**FORESTALLING.\*** Foresters are usually classed with *reggraters*, who are defined by Blackstone to be such persons as are engaged in the "buying of corn, or other dead victual, in any market, and selling it again in the same market, or within four miles of the place," and with *engrossers*, said, by the same writer, to be those who are engaged in "the getting into one's possession, or buying up, large quantities of corn, or other dead victual, with intent to sell them again." Severe laws have been enacted, at different times, in England, France, and other countries, against these supposed offenders. The inutility and impolicy of such antiquated interferences with the freedom of industry, are, however, at present, very extensively acknowledged; and they have been, for the most part, everywhere either formally repealed, or suffered to become obsolete.

**FORMOSA\*** (in the Chinese sea). The W. portion of this island is in the possession of the Chinese; the independent tribes occupy the E. coast. The latter are in a very rude and barbarous condition. They have no books or written language; nor have they any king or common head, but petty chiefs, and councils of elders and prominent men, much like the N. American Indians. Little more is known concerning them, excepting that their physical characteristics bespeak them to belong to the Malay or Polynesian race.—The trade of Formosa with China is very extensive, and is chiefly in the hands of Fokien merchants, who have also advanced a great part of the capital necessary for the cultivation of the soil. As many as 100 junks a month are estimated to leave Fokien for the W. coast of Formosa; where they are obliged to lie at a great distance from the shore; and carts with wheels destitute of spokes, drawn by buffaloes, are employed to carry their cargoes through the water. The quantity of rice exported from Formosa to Fokien and Chekiang is very considerable, and employs more than 300 junks. Of sugar there annually arrive at the single Chinese port of Teentsin upwards of 70 laden junks. The exportation of camphor is likewise by no means small; much of the camphor in the Canton market being supplied from Formosa. Tea, silk, and woolen and other kinds of manufactured goods, constitute the principal imports into this island from China.

**FORSYTH** (John) was born at Fredericksburg, in Virginia, October 22d 1780. His father was a native of England, but

served in the American army during the revolutionary war, at one time commanding a troop in Colonel Lee's regiment of horse, and being for several years actively engaged in the quarter-master's or commissary's department. At the close of the war, he moved his family first to Charleston, S. Carolina, and after two or three years to Augusta in Georgia. He was the first federal marshal of the latter state, under the present constitution of the general government; and was killed by a ball from a pistol discharged at him by a prisoner of the name of Allen, whom he had arrested. The man made his escape, and subsequently became a preacher in the "Far West." Young Forsyth, at this time, was only 10 years of age. After he grew up, he made several unsuccessful efforts to bring the slayer of his father to justice, and only relinquished the design at last at the earnest persuasion of his wife.—At an early age, Mr. Forsyth was sent to a grammar school at Princeton in New Jersey. From the grammar school he entered the college at that place, and graduated in 1800. He next studied law at Augusta, and was admitted to the bar in 1801. In 1802, he married a daughter of Josiah Meigs, then president of the Georgia University at Athens, and, at the time of his death, commissioner of the General Land office, at Washington. She was a sister, also, of Dr. Meigs of Philadelphia.—From 1802 to 1808, Mr. Forsyth practised at the bar, where he soon made a figure as a speaker. In 1808, he became attorney-general of the State of Georgia. In 1811, he was elected to Congress. He was appointed in 1818 or 1819, by Mr. Monroe, minister resident of the United States in Spain. After an absence of two years, he came back for his family, and returning speedily to his post, continued there until 1823. Before he reached home, he was elected once more a representative to Congress, and afterwards one of the senators from Georgia. In 1828 and 1829, he was governor of that state. He was then again sent to the Senate, where he occupied for a time, in 1833 and 1834, a leading position among the supporters of General Jackson's administration, and acquitted himself in a highly creditable manner, although obliged to contend almost alone in debate against a phalanx of the ablest men in the country. His friends regard the speech made by him on the proposition to reject the nomination of Mr. Van Buren, as minister to the Court of St. James, to have been his ablest effort on the floor of the Senate, and



surpassed by none made by him elsewhere, unless perhaps by the part which he performed during the Union Convention of Georgia in 1832, when he was mainly instrumental in preventing that state from pledging itself to the "nullifying" doctrines of S. Carolina.—Mr. Forsyth died at Washington, after a painful illness, on the 21st of October 1841, the day only before he would have completed his 61st year.

**FORTH.** Steamboats go up the Forth as far as Stirling, and ships of 300 tons as far as Alloa, 23 miles lower down the river.

**FOSSEMBRONE**, anciently *Forum Sempronii*; a town of Central Italy, in the Papal States, on the river Metauro, 7 miles E.S.E. of Urbino, and on the road from Fano to Rome. It has about 5000 inhabitants, and is noted for its manufactures of silk (*Seta della Manca*), reputed to be the finest in Italy. Near this town was fought, in the year 194 B.C., the great battle between the Carthaginians under Asdrubal, the brother of Hannibal, and the Romans, in which the former were totally defeated, and their general killed.

**FOUNDLING.** The attention of the public has of late years been perhaps more directed in France than anywhere else to the subject of foundling hospitals, from the immorality, mortality, and expense, connected with them; and the results of the investigations instituted in reference to them are stated in the excellent work of Messrs. Terme and Montfalcon, entitled "*Histoire des Enfants Trouvés*," published in 1837. These writers, after showing that the number of the children deposited in the hospitals in France has been steadily increasing, and this in a greater ratio than the population of the kingdom, explicitly declare that it is "not poverty, but luxury, which produces exposures." If we grant this to be the fact, it will be not at all surprising that the suppression of the turning-boxes, or, in other words, rendering the abandonment public, united with the measure of removing the newborn children into another department, should produce a great reduction in the number presented for admission, and, consequently, in the expenditure required for maintaining the hospitals.—In Italy, Belgium, and other countries where such hospitals prevail, a similar increase of burden has of late years been felt. There can be no doubt, however, that this is to be attributed in part to the improvement which has taken place in the management of the infants. Formerly death soon relieved the

institutions of their maintenance. Towards the end of the last century, 80 per cent. of the children are said to have died at Paris in a single year; 90 at Marseilles; 91 at Dublin. The mortality is now much diminished; though it is thought that in France nearly 60 per cent. still die in their first year. The whole number of children annually exposed is said to be, at St. Petersburg, about 45 per cent. of those born; at Rome, 28; at Lisbon, 26; at Vienna, 23; at Paris, 21.

**FOURIER** (Charles), the founder of the system of social and industrial reform which bears his name, was the son of a cloth merchant of Besançon, in France, where he was born on the 7th of April 1772. At school, he exhibited a considerable aptitude in acquiring knowledge; but his father, intending that his life should be devoted to commerce, transferred him at an early age, to his own counting-house. Subsequently, Fourier was a clerk in a mercantile establishment at Marseilles, then at Lyons, and next at Paris. Here, and in the same capacity, he continued to reside till his death, October 8th 1837.—His first essay as an author was an article inserted in a newspaper of Lyons, in 1804, on the foreign relations of France, which caused some sensation, and even excited the attention of Napoleon. The latter went so far as to make particular inquiries concerning the writer, but contented himself with satisfying his curiosity, without improving the condition of the humble clerk. Fourier henceforth studiously avoided all merely political topics, and employed his leisure in endeavouring to resolve the great problem of the means best adapted to give to every member of a community the greatest possible command over the necessaries and luxuries of life. In 1808, he announced the outline of his theory on this subject in a work entitled "*Théorie des quatre mouvements et des destinées générales*." Not discouraged by the very slight impression which it seemed to make on the public mind, he followed it up, 14 years afterwards (1822), by the publication of his "*Traité d'association domestique-agricole*" (2 vols. 8vo.), where his ideas are developed with much of detail, and with all the distinctness in his power. And without having, in reality, anything new to say, he added to the works already mentioned, "*Le nouveau monde industriel et sociétaire*" (1829); "*La fausse industrie*" (1835); a pamphlet against St. Simon and Owen (1831); together with a number of articles in the "*Phalanstère*," and the "*Phalange*," two journals esta-

blished successively, by one or two wealthy converts to his doctrines, for their more effectual propagation among the people of France.—In despite, however, of Fourier's efforts to exhibit his opinions in different lights, so as to make them intelligible to all, a great deal of what he has written appears vague and confused; as much, perhaps, from the author's frequent use of language in a sense peculiar to himself, as on account of any deficiency of skill on his part. His words very generally, or at least not seldom, imply that the various passions which impel the mind to action are implanted by God, and must therefore, in their very nature, be proper guides to determine the course which it is fitting and virtuous for man to pursue. To put any check, consequently, upon these passions, should be the very essence of vice. Yet he speaks of the miseries to which mankind are subject, as owing entirely to our inability to comprehend the will of God in the false condition of society in which we are placed by a mistaken civilization; and to an adequate comprehension of which the human race are promised that they shall arrive only after a long period of tribulation and suffering. Now, if this be so, he has surely no reason for assuming the passions to be indicative of the will of our Maker. Notwithstanding this inconsistency in the foundation on which he has thought proper to erect his system, this was adapted, by the very obscurity in which it was involved, to make a favourable impression on a class of persons with whom to speak or write intelligibly or perspicuously is to be commonplace, and to employ a phraseology that nobody else employs is a certain indication of originality of thought, as well as of language.—But what are the practical measures recommended as the means to procure for every member of society the greatest amount of the good things of this world, and to remove gradually the obstacles, created by a vicious civilization, to the virtue and happiness of man? They seem to be all comprised in the union of every 300 or 400 families in an association for producing, by their joint labours, the various articles which they desire to consume. Each individual of the association, or, to use the term coined by Fourier to denote it, *phalange*, is allowed, within certain limits, to choose his occupation for himself, and to pass from one occupation to another. The share which he is to obtain, of the whole of what is produced, is to be determined in proportion to the amount of the capital he has contributed

to the common stock, to the labour exerted by him, and the degree of skill or talent with which it is applied; and is to be determined by the votes of his fellow-members. No provision appears to have been made by Fourier for the exchange of the surplus produce of one of his phalanges for that of another; far less of the produce of one country for that of another. His mind was, indeed, exceedingly prejudiced against mercantile pursuits of every description, he having had the misfortune to witness, in the course of his experience, many of the worst arts resorted to by dishonest men, in palming off their wares upon the unsuspecting buyer for more than a proper value, or in evading the duties or taxes imposed upon them by the government. Independently, however, of this consideration, while it cannot be denied that a number of men, co-operating together in the business of production, may, in many cases, be able to obtain more of the necessaries and luxuries of life than they would when working individually, he seems to have formed a very inadequate estimate of the difficulty of maintaining the order and harmony of such a community as we are speaking of, at least for any protracted period of time; and he has also evinced an entire ignorance of the tendency of population to increase everywhere up to the level of the accustomed means of subsistence, and thus to counteract in a great measure the advantages conferred by all improvements of a nature purely *material*.—It was only after the decline of the doctrines of the St. Simoniens that *Fourierism* has attained a certain vogue; but it still remains a mere theory, the attempts hitherto made by its disciples to bring it to the test of experiment having failed, for want of a sufficient capital to construct the buildings, and furnish the various instruments and other requisites, for providing the members of a phalange with work, and with the means of support until their work shall have begun to yield its proper fruits.

FOURIER (Jean Baptiste Joseph, baron) was born at Auxerre, in France, March 21st 1768, of poor and humble parentage. He was instructed by the Benedictines, and was destined by them to take in due time the monastic vows. Such, however, was the ability which he evinced in his scientific studies, that, when scarcely 18 years of age, he was appointed to teach the mathematics in the school of his native town, where he had been educated. Not long afterwards, on the establishment of the normal school at Paris, he was sent to it

by his department, and so distinguished himself there among the foremost of his competitors, that, when the polytechnic school was organized in 1795, he was selected, through the recommendation of Lagrange and Monge, to be one of its professors. He was one of the "savants" who accompanied Bonaparte to Egypt, where he continued after the latter returned to France. He was secretary of the Institute of Cairo, and filled for a time the office of French commissary in that city; performing, besides, with credit to himself, various administrative and diplomatic functions that were occasionally assigned to him. In the beginning of 1802, he was appointed prefect of the department of the Isère; on the institution of the legion of honour, one of its members; and in 1808, a baron of the empire, with a suitable endowment. While discharging the duties of his prefecture in a most assiduous and exemplary manner, he found leisure to prosecute his extensive and admirable researches on the laws of the propagation of heat through solid bodies, which furnished him with the materials for his memoir on the mathematical theory of heat,—a memoir that, after obtaining the prize of the Academy of Sciences, was subsequently expanded by the author into his celebrated work entitled "Théorie analytique de la chaleur" (1822). When Napoleon, on landing in France from the island of Elba, advanced towards Grenoble, Fourier, in his character of prefect, issued a proclamation calling upon the inhabitants of his department to remain faithful to the existing government, and quitted his post on the arrival of the emperor. A few days only afterwards, Napoleon, nevertheless, from respect for his character, or from motives of policy, or both, named him prefect of the department of the Rhone. The confidence thus evinced in him was met by Fourier's acceptance of the appointment offered him; but having remonstrated against certain measures which he was required to adopt, he was removed from office before the conclusion of the "100 days." Thenceforth he devoted himself exclusively to scientific pursuits. In 1816, he was elected a member of the Academy of Sciences. Louis XVIII., however, refused to confirm his election. He was again elected in the following year by a unanimous vote of the members, when the king no longer refused his assent. He was, very soon after his admission, chosen perpetual secretary of the Academy, in conjunction with Cuvier. The leading scientific men of other coun-

tries also bore their testimony to his merits, by electing him a member of many of their learned societies, and, among these, of the Royal Society of London. Fourier, in addition to his distinction in science, was a skillful writer, and possessed of a fine literary taste; and these merits led to his being enrolled, in 1827, among the 40 members of the "Académie française." He died on the 16th of May 1830.—His principal works are the "Preliminary Discourse to the great work on Egypt" (Paris, 1810. 1 vol. fol.); "Memoirs on different questions in General Physics and Mathematics" (1821. 4to.), being a reprint of papers originally inserted in different scientific collections; his work on heat, previously mentioned; "Reports on the Progress of the Mathematical Sciences" (from 1822 to 1829 inclusive); together with eulogies of Delambre (1823), Sir William Herschel (1824), and Breguet (1826).

FRANCE.\* A census of the inhabitants is taken every five years. The first regular one was that of the year 1801. It was executed with great care, and may be regarded as having been sufficiently exact for all practical purposes. The censuses of 1806, 1811, and 1826, were only estimates; that of 1816 is wanting; those of 1821, 1831, 1836, and 1841, may be relied upon for the accuracy of the results within the unavoidable limits of error. In 1836, the total amount of the population of France was 33,540,910; and in 1841 it was 34,213,929. The increase of the population, in the 40 years ending with 1841, was 6,864,926; a result very remarkable, especially if we recollect the great consumption of human life in the wars of the first 15 years of this period. Every portion of the country is not equally populous. It is divided by the parallel of the 47th degree of latitude into two parts, of which the northern has an area of 12,093 square leagues, and the southern an area of 14,620 square leagues; yet the former had, in 1836, very nearly 3,000,000 of inhabitants more than the latter. In the last-mentioned year, the average population throughout the country was 1256 to the square league, or 164 to the square mile. The number of illegitimate births, which in 1800 was only 41,635, had in 1831 increased to 74,727; so that while the total population had increased about 1-4th part, the number of illegitimate births had nearly doubled. The proportion of the latter varies greatly in different departments; it is largest in those which contain the largest cities. In the department of the

Seine, comprehending Paris and its immediate vicinity, the illegitimate are to the legitimate births as 1 to 2.66. Illegitimate births are fewest in La Vendée, where the proportion is only 1 to 62.48. There are about 1800 suicides annually committed in France, which gives 1 for every 18,333 inhabitants. They are more frequent in the north than in the south. In the department of the Seine the proportion is 1 to 3632, and in that of the Upper Loire only as 1 to 163,242 deaths. France has but very few large towns; but it has a great number with a population varying from 5000 to 20,000. Of the total population, 4-5ths are estimated to reside in the rural districts, and but 1-5th part in towns of more than 1500 inhabitants.—It has also been estimated that 30,000,000 or more of the whole population of the kingdom speak French, or various *patois* having different degrees of analogy with that language: the German, or rather a corrupt dialect of the German, is spoken by a great portion of the people in some of the N. E. departments; the Breton in Brittany; the Flemish on the N. frontier, towards Belgium; the Basque near the Pyrenees; and the Italian in Corsica.—The great majority of the population of France hold the Roman Catholic faith. The Calvinists may amount to 850,000; the Lutherans to 500,000; and there may be a few thousands of other sects professing Christianity. There are also probably about 60,000 or 70,000 Jews. The Catholics have 14 archbishops, and 68 bishops; the last bishopric constituted being that of Algiers, in 1838. Toleration exists in a widely extended degree; every one, in the words of the *charte*, “professes his religion with equal freedom, and obtains for his worship the same protection.” Hence when it is said that the Roman Catholic is the dominant religion in France, all that is meant is that it is the religion of the greatest number of the people. The clergy of other sects, Jewish as well as Christian, are supported by the government, as well as those of the Roman Catholic church.—Besides the powers and privileges pertaining to the “king of the French,” as declared in the amended 14th article of the charter, and enumerated in a preceding article of this work, justice is administered in his name, and he exercises the pardoning power; he convokes the Chambers annually; prorogues them; and may dissolve that of the Deputies. In the last event, however, he is required to convocate a new chamber within three months afterwards. He takes an oath, on his ac-

cession to the throne, to observe faithfully the constitutional charter. The civil list is fixed for the whole of a reign by the first legislature that may be assembled after the accession of a new monarch. The king attains his majority when he has completed his 18th year. If, on the death of his predecessor, he has not attained this age, the prince, next in the order of succession, is invested with the regency of the kingdom during his minority; and the regent is to possess all the prerogatives, and to exercise the entire power, of the monarch.—The Peers are appointed by the king for life, and are selected from certain classes of persons designated by the charter; an arrangement, however, which admits of being modified by a special law. Their number is not limited.—The Chamber of Deputies is composed of representatives chosen by the electoral colleges. The number of these colleges, since the year 1831, has been fixed at 459, each of them naming one deputy. To be eligible as such, it is required to be at least 30 years of age, and to pay at least 500 francs of direct taxes. But it is provided that if there should, in any department, be less than 50 persons having these qualifications, this number is to be completed by adding to the list from those whose taxes are the highest. The chamber is renewed every five years; and every member, when appointed to an office to which a salary is annexed, vacates his seat, though he may be again immediately re-elected to it. The whole number of electors in France, in 1843, was 234,591. To be an elector, the principal conditions are the having attained the age of 25 years, and the payment of direct taxes to the amount of 200 francs. The ministers may be members of either of the two chambers, and, whether or not, they have the right of appearing in them, and likewise of being heard whenever they desire to deliver their opinions before them.—In 1844, there were 9 ministers of state:—the Keeper of the Seals (*Garde des Sceaux*) or minister of Justice and of Public Worship, the ministers of Foreign Affairs, of War, of the Marine, of the Interior, of Public Works, of Agriculture and Commerce, and of the Finances, and of Public Instruction. The ministers are assisted by a Council of State (*Conseil d'Etat*), the members of which, as well as the ministers, are appointed and dismissed at the pleasure of the king. The 86 departments of France are subdivided into 363 *arrondissements*, and these again into 2834 *cantons*, and 37,234 *communes*. Each de-

partment is governed by a prefect, with a salary from 10,000 to 40,000 francs a year, except in the department of the Seine, where the salary of the prefect is 100,000 francs. Each *arrondissement* is superintended by a subprefect, with a salary of 4000 francs a year; and each commune by a mayor and other magistrates, whose services are gratuitous. The prefect is assisted by the council-general of the department, which consists of a member from each canton, and meets once a year.—The present civil and criminal law of France has been embodied in codes, drawn up, under the auspices of Napoleon, with singular brevity and perspicuity; and is honestly and impartially administered. Trial by jury is introduced in all criminal cases, except in those which are cognizable by the Chamber of Peers, that is, in cases of treason against the state, and offences against its own proper dignity. The prisons are divided into five classes:—of *maisons d'arrêts*, for detention during a period less than a year; of *maisons de justice*, there being one in the capital of each department, for imprisonment for a longer term; central prisons, of which there are 20, containing, in 1836, 17,560 persons; 3 *bagnes*, at Brest, Rochefort, and Toulon, in which there are about 7000 criminals; and *dépôts de mendicité*, of which there are 5. It is estimated that there are annually about 38,000 individuals under confinement, or the surveillance of the police. Female criminals compose about 1-5th of the whole. Crimes against the person are most common in the departments of the centre and south of France; their number being greatest in Corsica. Crimes against property abound most in the north.—Public instruction in France, with some exceptions to be afterwards noted, is placed under the superintendence of a royal council of public instruction (*Conseil royal de l'instruction publique*), composed of 8 members, and presided over by the minister of public instruction. Under their authority, 12 inspectors-general visit all parts of the kingdom, to ascertain the state of education; and, subordinate to this central body, there are 27 academical boards, to which the immediate direction and superintendence of education within their respective districts are entrusted. The entire system, thus organized, is styled the "University of France;" and the minister of Justice has the title of Grand Master of the University, and Rector of the Academy of Paris. The instruction rendered is classed under the three heads of primary, secondary, and superior. To afford the

first, every commune is obliged by law to support at least one primary school, either of its own, or in conjunction with neighbouring communes. Reading, writing, the French language, the first rules of arithmetic, weights and measures, the outlines of geography, history, and drawing, are the principal branches of education in the primary schools; and they are afforded gratuitously. A provision is made for obtaining an adequate number of competent teachers, by the establishment of normal schools, specially appropriated to their instruction. The course of study and practice in these schools lasts two years. The secondary instruction is conducted in the royal colleges (*collèges royaux*), the communal colleges (*collèges communaux*), the institutions, and the pensions; and the object of the normal school of Paris is to form professors for these establishments. No one can be appointed to a professorship in a royal college who has not previously passed an examination, which takes place annually in the capital, before a properly qualified board, and been pronounced by it to be worthy of such an appointment, or, in the technical language employed, to be an *agrégé*. In 1842, of 243 candidates for aggregation, only 33 passed the ordeal to which they were subjected successively; and 19 of these had been pupils of the normal school. The number of royal colleges in the year just mentioned was 46 (five of them in Paris), having altogether 1216 professors and other functionaries, and 18,697 pupils; and the number of the communal colleges, in active operation, was 148, with 1669 professors, and 26,584 pupils. The superior instruction is divided into the five faculties of Theology, Law, Medicine, the Sciences, and Letters: the degrees conferred are those of Bachelor, Licentiate, and Doctor. The faculty of *Theology* has 6 Roman Catholic Schools (at Paris, Aix, Bordeaux, Lyons, Rouen, and Toulouse), a Lutheran school at Strasburg, and a Calvinistic one at Montauban. The faculty of *Law* has 9 schools, attended at Paris, in 1840, by 2798 students, by 187 at Aix, 164 at Caen, 138 at Dijon, 160 at Grenoble, 181 at Poitiers, 184 at Rennes, 105 at Strasburg, and 543 at Toulouse. The faculty of *Medicine* has 3 schools, having at Paris, in 1840, 26 professors, and 949 students, at Montpellier 17 professors and 205 students, and at Strasburg 14 professors and 85 students. None are permitted to attend the courses of instruction but such as have received the diplomas of bachelor in letters and the sciences; and four years of attendance

upon them are requisite for obtaining the degree of doctor of medicine. Diplomas or certificates of professional qualification (*diplômes d'officier de santé*) are also granted by the faculty to individuals, found to be duly qualified by an examination before a board appointed for the purpose. The degree of doctor of medicine, or at least a diploma of the kind just mentioned, is indispensable to be allowed to practise medicine in France. There is a school of pharmacy attached to each of the medical faculties, who confer diplomas in that branch. The faculty of *Sciences* has 11 schools:—at Paris, Besançon, Bordeaux, Caen, Dijon, Grenoble, Lyons, Montpellier, Rennes, Strasburg, and Toulouse. In all these, the candidates for degrees must have previously obtained the degree of bachelor of letters. In 1840, the degree of bachelor in science was conferred on 452 individuals; that of licentiate on 37; and the doctor's degree on 19. The faculty of *Letters* has 10 schools, situated in the cities just enumerated, Grenoble excepted. A course of rhetoric, and another of philosophy, attended in different years, are required for obtaining the degree of bachelor; and the candidate for the doctor's degree must prepare two theses, one, in Latin, on a philosophical, and the other, in the French language, on some literary subject. The number of degrees conferred, in 1840, were, bachelors 2934 (out of 5227 presented for examination), licentiates 41 (out of 116 examined), and 13 doctors (of 16 examined). The educational institutions, which are not constituent parts of the university, but which are placed under the special superintendence of the minister of public instruction, are the following:—the College of France, at Paris, having 27 professors or lecturers, and in which courses of instruction are delivered on the various branches of science and literature, including the Greek and Latin languages and literature, as well as the principal Oriental languages, both ancient and modern; the Museum of Natural History, also at Paris, with 15 professors of the different natural sciences; the course of Archaeology at the Royal Library; the School of the Living Oriental languages, founded in 1795, and established likewise at the Royal Library, with 8 professors; the course of Astronomy at the Royal Observatory of Paris; together with the school established, of late years, at Marseilles, for teaching the spoken Arabic language. The Polytechnic school, the Military and Veterinary schools, and the schools of mines, are also

institutions independent of the control of the university. The schools of the Fine Arts are placed under the superintendence of the minister of the Interior. The most important of these is the Royal and Special School of the Fine Arts at Paris, which has 7 professors of Painting, 5 of Sculpture, and 7 of Architecture and the arts that are accessory to it. We may also make mention here of the Conservatory of Music at Paris, with 46 professors, and upwards of 400 pupils. The Industrial schools (*Écoles industrielles*) are 4 in number, and are superintended by the minister of Agriculture and Commerce. They are the "Conservatoire des arts et métiers de Paris" with 34 professors and other functionaries; the "École royale des arts et métiers" at Chalons, with 42 professors and other functionaries; the school of the same kind at Angers, with 40 professors; and that at Aix, with 38 professors.—France is not wanting in institutions for the relief of the indigent, such as hospitals, different asylums, (*hospices*), "bureaux de bienfaisance," &c. Their funds are partly derived from the state, and partly also from their own landed or other property, bestowed upon them by individuals. There were, in 1833, 1329 hospitals and asylums, into which, during that year, 425,049 invalids were received, at an expense of 48,342,097 francs, and 6275 "bureaux de bienfaisance," which gave either in-door or out-door relief to 695,932 individuals, at an expense of 6,956,036 francs. There are several lunatic asylums, a royal institution and a royal hospital for the blind in Paris, deaf and dumb establishments at Paris and Bordeaux, maternity societies, others for the assistance of prisoners, the sick, &c., and a vast number of philanthropic societies of all kinds dispersed throughout the country. In 1824, the number of children in the foundling hospitals of France was 116,452; from that year to 1834, 336,297 more were admitted, making a total of 452,749. Of this number, 198,505 died; 78,500 were settled in life by the institutions, and 46,025 were reclaimed by their parents or others. The expenses of the foundling hospitals, for the above 10 years, amounted to 97,775,613 francs. There were, in 1833, 23 "monts de piété" (government pawnbroking establishments) throughout France. They are situated in the chief towns. Some, as that at Montpellier, lend money without interest; while that of Paris receives an interest of 12 per cent. on money advanced.—Insurance against the casualties of life, savings' banks, and

other useful or philanthropical institutions, are all making progress, and some of them with great rapidity. Savings' banks now exist in almost every town. The number of depositors at the end of 1837 was 205,344; and the amount of deposits 107,000,000 francs. Upwards of 50,000,000 of this sum was in the savings' bank of Paris. The amount deposited during the year 1837, in all these institutions, was 24,363,536, and of the sums withdrawn, 25,713,565 francs: in 1843, the sums deposited amounted to 40,437,223, and those withdrawn to 34,823,043 francs.—In 1839, the land under cultivation amounted to 19,314,741 hectares; 5,586,786 of which produced wheat, 2,577,253 rye, 1,166,169 barley, 3,000,634 oats, 631,731 Indian corn, 1,972,340 the vine, and 921,971 produced potatoes. The total value of the produce was estimated at 4,526,902,800 francs, the wheat having been valued at 1,102,768,057 francs, the rye at 296,282,740 fr., the barley at 137,622,411 fr., the oats at 302,011,470 fr., the Indian corn at 71,796,064 fr., the wines at 419,029,152 fr., the brandies at 59,059,150 fr., the beer produced at 58,085,735 fr., the cider at 64,422,137 fr., the potatoes at 202,105,866 fr., and beets at 28,979,449 fr.—The live stock of France, according to Berghaus, amounted in 1840 to 1,572,600 horses, 8,350,000 mules and asses, 6,793,400 head of black cattle, 39,000,000 sheep, 900,000 goats, and 4,500,000 hogs. Oxen are employed in many of the departments for farm-labour, in preference to horses. The latter, however, are in general much better adapted for such labour, and other heavy work, than for the saddle or for coaches; and for these purposes, as well as for mounting the French cavalry, a considerable number of horses are imported annually from Germany and England. It may be mentioned that bees are much attended to, especially in the S. of France. The honey of Narbonne is the most esteemed; and the total value of the annual produce of this article is stated to be 13 millions of francs.—Mining industry in France is placed in a great degree under the control of the government: for this purpose, the kingdom is divided into six portions, each under an inspector-general, which six inspectors, together with the minister of Public Works, compose the Council-general of Mines. The inspectors-general have associated with them in their several provinces a chief and subordinate engineers, who, besides exercising a superintendence over the mining operations in progress, advise in reference to

new undertakings, and make geological explorations throughout the country. There is a "School of Mines" at Paris, for the purpose of forming engineers, and "Schools of Mines" at St. Etienne and Alais, for practical miners; and in which the instruction is wholly gratuitous.—The silks of France are unrivalled among those of Europe, and probably superior to those produced in any other part of the world. At the close of the last century, it was ascertained by a series of accurate experiments, that French organized silk was 25 per cent. superior in elasticity to the best Piedmontese, and its tenacity as 26 to 21 or 20. But besides this, the French silks are distinguished by superior taste and elegance, and their excellence is sufficiently proved by the fact that 4-5ths of them are exported. The number of silk-looms in 1839 was estimated at 85,000, employing 170,000 workmen, and producing silks worth 211,500,000 francs a year. Although there can be no doubt that the woollen manufacture has of late years been much extended, Berghaus, whose statements may be depended upon generally for their accuracy, estimates the value of the annual product, in 1838, at only 265,000,000 francs, that is, no higher than the sum mentioned in a former volume of this work. Some French writers, however, carry the estimate as high as 420,000,000 francs. Unlike the silk and woollen manufactures, which are, so to speak, natural to France, that of cotton goods is, in a great degree, an artificial creation, the result of a legislative exclusion of the foreign fabrics; and notwithstanding the introduction to a greater extent than heretofore of steam-power and an improved machinery, it would be altogether impossible for the French to compete, in this branch of industry, with their neighbours on the opposite side of the channel, on equal terms. The total annual value of the cotton manufactures of all kinds in France has been often very much exaggerated, and probably does not much exceed 300,000,000 francs. According to Berghaus, the value, in 1839, of the linen and hempen fabrics, was 260,000,000 fr.; of hardware, steelwares, fire-arms, tools, wire, nails, tinned plate wares, and brass and zinc wares, was 215,000,000 fr.; of refined sugar, 112,000,000 fr.; watches and watch machinery, 37,900,000 fr.; and of books, 35,000,000 fr.—The fisheries on the French coast are not of much importance; the whole tonnage employed in them, in 1838, was 43,954, navigated by 27,207 persons. The cod and whale fisheries are mainly supported by a system of





tended shall communicate with the "lateral canal of the Loire," just below the junction with it of the Allier. The second branch, passing along the valleys of the Auren, the Yèvre, and the Cher, by Bourges and Vierzon, joins the Loire above the city of Tours. And the remaining branch is directed to Montluçon, by St.-Amand, following in its course the valleys of the Marmande and the Cher. The extent of the entire canal is about 80 leagues. It was begun in 1808; is now completed; and cost 20,963,577 francs.—5. The canal of *Blavet* is only a branch directed towards the sea from the canal between Nantes and Brest. It commences at Pontivy and terminates at Hennebont, having a length of 15 leagues. Some work was, not long ago, yet to be performed on it at the former place; but this circumstance did not interfere with its navigation, which was opened in 1825. The sums expended in constructing it amounted to 5,375,964 francs and 27 centimes.—6. The canal of *Bourbourg*. This canal connects the port of Dunkirk with the Aa, and constitutes, with that river, a part of the great line of communication between Paris and Dunkirk.—7. The canal of *Burgundy*. The basins of the Seine and of the Rhone are connected by this canal; which extends from La Roche on the Yonne to St. Jean de Loene, on the Saone, and has a length of 60½ leagues. It was begun in 1775. The works were suspended by the revolution, in 1793, but resumed in 1808, and continued, with various interruptions, until their completion in 1820. Altogether the canal cost 54,403,314 francs; and the tolls amounted, in 1839, to 934,708 francs and 88 centimes.—8. The canal of *Briare*, already described.—9. The canal of the *Centre*, which has also been already described.—10. The canal of *Craponne*. This canal, which is connected with the river Durance a little below Cadenet, was intended to irrigate the plain of the Crau, previously unfit for cultivation. It was constructed so far back as the year 1558, and is about 12 leagues in length.—11. The canal of *Ille et Rance*, so called from its connecting the basins of the Ille and the Rance, is intended to afford a navigable communication between the British Channel and the Bay of Biscay, across the peninsula of Brittany, and to unite the ports of Nantes, Brest, and St.-Malo. Its length, from its termination in the river Vilaine to Rennes and the sluice of Le Châtelier, below Dinan, is about 21½ leagues. The construction of it began in 1804, but was often interrupted, so that it

was at a comparatively late period only it was completed. As much as 14,226,799 francs were expended upon it, from first to last. The transportation upon it has, however, as yet been very inconsiderable.—12. The canal of the *Isle*. An attempt was made to improve the navigation of this river so long ago as the year 1768; but it is only since 1822 that the works, undertaken for that object, were carried on with any activity, and only within a few years that they have been brought to a conclusion. The improvement made has an extent, from Perigeaux to Libourne, of 36½ leagues, and cost 5,318,292 francs.—13. The canal of *Languedoc*. Of this a sufficient account has been previously given.—14. The lateral canal of the *Garonne* is a continuation of that of Languedoc, with which it is connected at Toulouse. Leaving this city, it extends along the right bank of the Garonne until it reaches a point opposite Agen; it then crosses over to the left bank, and follows the course of the stream as far as Castets where it joins it. There is a branch towards Montauban, and two others to the Tarn and the Bayse. It passes through the four departments of the Upper Garonne, the Tarn and Garonne, the Lot and Garonne, and the Gironde. Its construction was begun in 1836, and has since been actively prosecuted. The sums expended, down to the end of December 1839, amounted to 3,851,986 francs and 25 centimes.—15. The lateral canal of the *Loire*. This canal begins opposite to Digoin, and at a distance from it of 5000 metres acquires the same level as the canal of the *Centre*. The branch which unites these two navigable communications crosses the Loire on a bridge 9000 metres in length. From its commencement at Digoin, the canal referred to proceeds along the left bank of the river, crosses the Allier by means of a bridge, shortly afterwards is joined by a branch of the canal of Berri, enters the Loire above Briare, and from the opposite bank goes on further to connect itself with the canal of this name. The line just described has a length of 49½ leagues. It was begun August 14th 1822, and the whole extent of the navigation was opened in 1838. The cost of constructing it amounted to 29,980,337 francs, 57 centimes.—16. The canal of the *Loing*, already noticed.—17. The canal from the *Marne to the Rhine*. The object of this canal is to open a great line of communication, from Havre and Nantes in the W. of France, through Paris, to Strasburg on

the E. frontier. In quitting the town of Vitry on the Marne, it takes its course towards the valley of the Ormain which it follows as far as Naix, crosses the elevated ridge dividing the waters of the Ormain from those of the Meuse by means of a tunnel, and passing by Toul, Nancy, Sarrebourg, and Saverne, at length arrives at Strasburg. Such, at least, is a general account of the canal as it is to be when completed. It was begun in 1838; and the expenses incurred, down to the month of December 1839, amounted to 2,465,012 francs 15 centimes.—18. The canal from *Nantes to Brest*, the chief object of which is to ensure, in time of war, the provisioning of the most extensive and most important of the French naval arsenals, passes successively from the basin of the Loire into that of the Vilaine, from that of the Vilaine into that of the Blavet, and from the basin of the Blavet into that of the river Aulne, which discharges itself into the harbour of Brest. It traverses the departments of the Lower Loire, of Morbihan, of the Côtes du Nord, and of Finistère, and is 93½ leagues long. Its construction was begun in 1806; and it has cost 45,646,667 francs.—19. The canal of *Nivernais* commences at Auxerre, proceeds up the valley of the Yonne as far as Lachaise, ascends by the valley of the Colancelle to the plateau of Breuilles, then descends towards the Loire, following the rivulet of Baye and the valley of the Aron. Begun in 1784, the works were suspended in 1791, resumed in 1807, suspended again in 1813, and again resumed in 1821. It has since been completed throughout its entire length of 44 leagues. The sums expended in constructing it have amounted to 30,317,871 francs.—20. The canal of the *Oise*. In 1825, the improvement of the navigation of the Oise was begun by the construction of a canal, somewhat more than 7 leagues long, from the sluice of Manicamp to a point one league above the confluence of the Oise and Aisne. This lateral canal was opened for navigation in 1823. Its cost was 5,600,776 francs; and the tolls annually collected were 375,252 francs 70 centimes. The canal of the Oise comprises, however, besides the lateral canal just mentioned, the canal of the Oise properly so called, which connects the Somme with the Oise, and by means of the canal of St. Quentin, that may be regarded as a continuation of it, also the Somme with the Scheld.—21. The canal of *Orleans* has already been mentioned.—22. The canal from the *Rhône to the Rhine*. This canal, which was be-

gun in 1784, was only completed in 1833. It commences its course at the river Saône, a little above the town of St. Jean de Loane, crosses near Befort the dividing ridge between the basins of the Rhône and of the Rhine, and terminates in the Ill, a little above Strasburg. A branch of it takes the direction from Mülhausen on Huninguen and Basel. This great line of communication passes through five departments; the Côte-d'Or, the Jura, the Doubs, the Upper and the Lower Rhine. Its total length is about 87½ leagues. Its cost amounted to 28,191,803 francs; and the tolls amounted, in 1839, to 848,130 francs 22 centimes.—23. The canal of *St. Quentin*, already described.—24. The canal of the *Somme*. This canal has for its object the establishment of a navigable communication between Paris and the sea. Although begun in 1770, it was not completed, owing to various interruptions, until 1827. The principal places by which it passes are Ham, Péronne, Amiens, and Abbeville. It is nearly 89 leagues in length, and has 24 locks. An expenditure was incurred in constructing it of 9,399,113 francs 59 centimes. The tolls levied amounted, in 1839, to 346,917 francs.—The following are the French rivers, along which canals have been constructed, or the navigation of which has been improved: the Scheld, Moselle, Ill, Baise, Midouze, Adour, Loire, Saône, Rhône, Garonne, Lot, Meuse, and Marne. And to complete the system, a number of other canals and improvements have been projected.—The total value of the imports into France, in 1841, is stated at 1,121,424,216 francs in merchandise, and 186,980,851 francs in specie, and the total value of the exports, in the same year, at 1,065,357,603 francs in merchandise, and 72,892,083 francs in specie. The value of *French products* exported amounted to 760,653,561 francs.—In 1841, 18,006 vessels entered the ports of France from foreign countries, with a burden of 1,990,837 tons, of which 7090 vessels, with a tonnage of 706,637, were French. 8068 vessels, with a tonnage of 642,181 tons, came from the British Islands, and 388 vessels, with a tonnage of 165,214 tons, from the United States. The whole number of ships sailing under French colours, at the close of the year 1841, was 13,276, of the burden of 580,079 tons; and the steam-vessels amounted in number to 107, having a burden of 10,183 tons.—The *Bank of France* had, until at a comparatively late date, a capital of 90,000,000 francs, held in shares, the par value of which is 1000 francs each. But of the

90,000 shares somewhat more than 22,000 had been purchased by the bank itself. It emits notes of 500 and of 1000 francs. The governor and two vice-governors are appointed by the government: the directors, 17 in number, are chosen by the 200 largest stockholders; and the subordinate officers are appointed by the governor and directors conjointly. At the close of the year 1842, the bank had offices of discount at Montpellier, St. Etienne, St. Quentin, Rheims, Besançon, Angoulême, Grenoble, Clermont-Ferrand, Chateauroux, and Caen, whose operations, during that year, amounted to 229,998,000 francs, while their circulation is stated to have been only 5,000,000 francs. The operations of the bank itself amounted in the same period to 986,084,289 francs. Its circulation ordinarily fluctuates from 210 to 240 millions of francs, and the specie which it retains from 170 to 240 millions. Besides the Bank of France, there are departmental joint-stock banks, at Nantes, Bordeaux, Rouen, Limoges, Lyons, Lille, Havre, Toulouse, Orleans, Dijon, and Marseilles. We have no information concerning those at Limoges and Dijon; the other 9 have a circulation of 50-60 millions, and a capital of 21,350,000 francs. Among these, that at Bordeaux is the most important. It was established in 1818, with a capital of 6,000,000 francs; but so little confidence was then felt by the public in its success, that it failed in obtaining a subscription for the whole of its capital, which it became, in consequence, necessary to reduce to one-half of its original amount. The least important is the one at Toulouse; it has a circulation of 18-20 millions, and a specie provision of from 8 to 10 millions of francs, and it discounts annually to the amount of 120-130 millions of francs. That at Lyons, which has a circulation of 12-16 millions, and discounts annually 70-80 millions, is the only one that issues notes of 250 francs. The notes of all the others are of the denomination of 500 and 1000 francs. The "Caisse générale de commerce et d'industrie," commonly styled the "Caisse Lafitte," at Paris, partakes in certain respects of the nature of a bank. It was founded by Lafitte after the revolution of July, and intended to afford aid to the smaller traders, to whom the Bank of France was altogether inaccessible. It discounts yearly to the amount of 320-330 millions of francs, and has from 12 to 15 millions of its paper in circulation.—The charter of the Bank of France was not long ago extended till the 31st of De-

ember 1867, and its capital fixed at 67,000 shares of 1000 francs each.—The public revenue, for the year 1841, amounted to the sum of 1,362,553,891 francs, 400,029,566 of which were the product of direct taxation. The expenditure of the government in the same year, was 1,429,372,565 francs; and of this sum, 348,979,082 francs were on account of the public debt. Beside the state revenues, various taxes are levied by the communes, for defraying their own expenses: of these the principal is the *octrois*, or duties levied in the towns on all goods which pass through their barriers, the produce of which is applied to defray the expenses of hospitals, poor-houses, and other local charges.—The public debt of France, after deducting the sinking fund, now exceeds 5,000,000,000 francs, requiring, at the rate of 5 per cent., 250,000,000 francs annually for the payment of the interest upon it.—The French army (exclusive of the National Guard) consisted, in 1844, of 344,000 men of all arms, 60,000 of whom were posted in Algiers. While the military service is, in general, obligatory upon every Frenchman of 20 years old and upwards, the law exempts from it the only or eldest son of a widow, the eldest brother of a family of orphans, and the pupils of the Polytechnic, Normal, and other schools. All persons subjected to the surveillance of the higher police, or rendered infamous by the commission of crimes, are excluded from the army, being regarded as unworthy of serving in it. The time of service is 7 years; and no officer can be promoted to a superior rank, without having served 4 years in the rank immediately below. France is divided into 20 military divisions, each under the command of a lieutenant-general. The grade of lieutenant-general is the highest in the French army, excepting that of the marshals, of whom there are now 11. There are 183 fortresses, citadels, forts, and other military posts, and six military arsenals, in the country. The principal military schools are—those of engineers and artillery at Metz, the practical military and polytechnic schools at Paris, the schools of St. Cyr and La Flèche, and the cavalry school of Saumur.—The individuals composing the French naval forces amounted, in 1844, to 63,791 officers and men. Of the former, there were 2 admirals, 10 vice-admirals, and 20 rear-admirals. The number of ships afloat was 295; 4 of which were of 120 guns, 2 of 100, 3 of 90, 5 of 86, 9 of 82, 10 of 60, 1 of 58, 1 of 52, 1 of 50, 4 of 46, 3 of 40, besides corvettes and

other smaller vessels. The minister of marine is assisted by an admiralty-council, and a board of naval works. The principal naval schools are those of Toulon and L'Orient. There are besides 44 inferior schools.—The French colonies, which are under the superintendence of the minister of marine, comprise the islands of Martinique and Guadeloupe, and some smaller ones, in the West Indies; French Guiana in S. America; the regency of Algiers, Senegal, and the island of Goree, in Africa; the isles of Bourbon and St. Marie in the Indian Ocean; and Pondichery, Chandernagore, Karikal, Mahé, and Yanaon, in Hindostan. Their united population, exclusive of Algiers, in 1836, was 662,570, of which number 256,956, in the W. Indian and African colonies, were slaves, and 165,241 in the E. Indian. The 4 principal colonies, Martinique, Guadeloupe, Bourbon, and Guiana, have each a colonial council elected by the resident French above 25 years of age, and having certain property-qualifications. In every colony there is a governor appointed by the king as his representative, who convokes or dissolves the colonial councils at pleasure, and provisionally assents to, or suspends, the execution of the decrees passed by them. The French codes of laws are in force, and justice is administered in the colonies, as in France, in tribunals of the peace, of original jurisdiction, royal courts, and courts of assize.—The principal towns of France, with their population according to the census of 1841, are

|                  |         |                       |        |
|------------------|---------|-----------------------|--------|
| Paris.....       | 935,961 | Avignon.....          | 32,100 |
| Marseilles.....  | 147,191 | Besançon.....         | 30,713 |
| Lyons.....       | 143,977 | Versailles.....       | 99,641 |
| Bordeaux.....    | 99,513  | Clermont-Ferrand..... | 37,448 |
| Rouen.....       | 90,580  | Boulogne.....         | 27,409 |
| Toulouse.....    | 76,965  | Limoges.....          | 36,536 |
| Nantes.....      | 76,870  | Havre (Le).....       | 36,453 |
| Lille.....       | 63,063  | Dijon.....            | 36,184 |
| Strasbourg.....  | 61,150  | Grenoble.....         | 35,536 |
| Amiens.....      | 44,405  | Tours.....            | 34,739 |
| Nismes.....      | 41,180  | Roubaix.....          | 34,638 |
| St. Etienne..... | 46,025  | Dunkirk.....          | 34,530 |
| Metz.....        | 39,767  | Troyes.....           | 34,463 |
| Reims.....       | 39,185  | Aix.....              | 33,069 |
| Orleans.....     | 39,023  | Guilloière (La).....  | 33,943 |
| Caen.....        | 37,836  | Mans (Le).....        | 32,303 |
| Angers.....      | 36,531  | Poitiers.....         | 32,376 |
| Nancy.....       | 35,901  | Fourcolog.....        | 32,366 |
| Montpellier..... | 35,698  | Montauban.....        | 31,752 |
| Toulon.....      | 34,663  | St. Quentin.....      | 31,079 |
| Brest.....       | 33,668  | Arras.....            | 30,451 |
| Rennes.....      | 32,407  | Bourges.....          | 30,447 |

In the appendix to the preceding volumes of this work, a sketch has been given of the public events in France, from the revolution of the three days of July 1830 down to the formation of a new ministry in October 1832, under the presidency of Marshal Soult. The first im-

portant measure adopted by it, or rather by Louis Philippe, using his ministers as instruments for carrying his measures most effectually into execution, was an extraordinary creation of peers. No fewer than 62 individuals of every political denomination or party, the republican only excepted, were promoted at once to that dignity; the great object in view being, as much as possible, by every means to rally around the government, in support of the existing order of things, the whole of the naturally conservative force of the nation. The government obtained a certain degree of popularity at this time, with all classes of the community, by the energy with which it interfered in the affairs of Belgium. In accordance with the terms of a special convention formed with Great Britain, while a French and English squadron blockaded the mouth of the Scheldt, a French army, under Marshal Gérard, advanced into the Netherlands to compel the evacuation of the citadel of Antwerp by the Dutch. This was besieged in regular form, and compelled to surrender after a protracted and obstinate resistance, towards the close of the year. The only other events of 1832, which may be mentioned here, are the arrest of the duchess of Berry, at Nantes, and an attempt to assassinate the king, both of them in the month of November. The duchess was confined in the castle of Blaye, in the S. of France, where she gave birth to a daughter, having, as she declared, been privately married in Italy to count Luchési Palli. By this, however, as it may, this circumstance at once destroyed her influence, and rendered her incapable, in consequence, of in future disturbing, by her intrigues, the peace of the country. The French government, therefore, gladly availed itself of the opportunity thus afforded to it of setting her at liberty with impunity. The attempt at assassination referred to occurred when the king was proceeding to open the session of the Chambers; he was fired at, but without effect, by a person in the crowd, who succeeded in making his escape from his pursuers.—The year 1833 was one of comparative calm. Both republicans and royalists abstained from any *émeutes*, or outbreaks, against the government, contenting themselves with making war upon it in the public journals under their control, and by the publication of caricatures. Among the steps taken by the government, may be mentioned the attempt to resume the labours, which had been begun shortly after the revolution of July, to fortify the city of Paris,—an attempt which

the dissatisfaction with it, loudly expressed by the national guards of the capital, on the occasion of a review of them by the king, rendered it expedient again to abandon. A blow aimed against the republican associations of the "Rights of Man," and of the "Friends of the People," proved to be a failure: their leading members were arrested, and tried on a charge of conspiracy against the security of the state, but were pronounced not guilty by the jury. In March 1834, the Chamber of Deputies, by a vote of 176 to 168, annulled a treaty concluded in the month of July 1831, by the Duke de Broglie and General Sébastiani with the American minister, by refusing to grant the stipulated sum of 25,000,000 francs, to be paid to the United States, as an indemnity for the injuries inflicted during the last European war upon American ships and commerce. In consequence, Broglie and Sébastiani resigned their places; and the ministry was reorganized, under the presidency, however, as before, of Marshal Soult. Serious disturbances had already occurred at Marseilles and Lyons in the month of February; in the former city excited by the republicans, and wholly political; in the latter, chiefly resulting from the depression existing at the time in the manufactures and trade of the place, and the distress ensuing among the workmen employed. But the presenting, by M. Barthe, the minister of justice, of a "projet de loi," forbidding all meetings of secret associations without the especial permission of the public authorities being first obtained, called forth a new element of discontent; and the disturbances in Lyons broke out again (in April) with increased force. Fighting between the workmen and the troops continued for several days, accompanied by a great loss of life, and a considerable injury to the city. The troops finally prevailed. On the news of what had happened at Lyons reaching Paris, an insurrection broke out there also, which was speedily suppressed by the troops of the line, and the national guards; it was chiefly the work of the republicans. On the 22d day of April 1834, a treaty was concluded at London, between Great Britain, France, Spain, and Portugal, commonly styled the *quadruple alliance*, the object of which was the pacification of the two last mentioned countries, under their existing constitutional governments. Spain and Portugal engaged to assist each other in the expulsion of Don Carlos and Don Miguel from their respective limits; Great Britain engaged to co-operate, if necessary, by the employment of a naval force;

and France to do all that the contracting parties, in common, should determine upon. But, notwithstanding this treaty, Don Carlos, suddenly quitting London, in July following, crossed the channel to France, and, taking Paris in his way, travelled through the whole length of that country into Spain. This event was the immediate cause of Soult's retirement from the ministry. It appeared that Louis Philippe had been aware, during several days, of this journey of the "pretender," without communicating the fact to the Marshal,—a neglect which the latter, already soured by an unpleasant difference that had occurred between him and the minister of the interior, Thiers, was disposed to regard as an indignity. He was succeeded, in his post of president of the council and minister of war, by Marshal Gérard. This change produced no alteration in the general policy of the cabinet. An army of observation was assembled on the Pyrenean frontier, ready to carry into execution the objects of the quadruple alliance, but retained there in a state of inactivity, from an unwillingness on the part of the king and his ministers to risk giving offence to the other great continental powers, and endangering thereby the stability of the existing order of things in France. In the mean time, the insurrections of the preceding month of April had filled the prisons of the country with individuals, charged with having been in a greater or less degree partakers in them. Their extraordinary number rendered the question of what was best to be done with them doubly difficult to decide. Marshal Gérard was clearly of opinion that good policy at this period required the granting of a general amnesty for all political offences, and made his continuance in office to depend on the adoption of this measure. It being resisted by the other members of the cabinet, as well as disapproved by the king, he accordingly gave in his resignation (October 29th). It was found to be not an easy matter to supply his place with an individual altogether satisfactory to the remaining ministers; and the disputes, to which the necessity of doing so gave occasion, led, a few days afterwards, to an entire change of ministry, with the exception only of the keeper of the seals, M. Persil. On the 11th of November, a new administration was organized under the presidency of Maret, duke of Bassano, and composed, with a view to secure the support of a majority of the deputies, for the most part of members of the "tiers" party. It, however, lasted only four days; and gave place

to the former ministers, Guizot, Thiers, Duchâtel, de Rigny, and Humann, with Marshal Mortier as the nominal premier, but in reality having Guizot and Thiers as the leading members of the cabinet. Admiral Duperré was charged with the department of the Marine. The new ministers, on the meeting of the chambers towards the end of the year, had to maintain a stout contest with the opposition on the question of the amnesty before mentioned,—a measure to which their immediate predecessors had signified themselves to be favourable,—but which they themselves looked upon as calculated to give encouragement to the revolutionary spirit that had been checked, though not extinguished, by the energy displayed by the government. Thiers, on this occasion, described the system of administration to be pursued as a system of *resistance*, but not of *reaction*. After the ministers had secured a vote of confidence from the chambers, they once more ventured to present for their consideration the treaty with the United States, relating to the indemnity to be paid to the latter. Thereupon, also, the minister of finance proposed the renewal of the government monopoly of the tobacco trade. The majority at once refused to comply with this proposition, and resolved on the appointment, in the first instance, of a committee of inquiry, to ascertain all the facts relating to the subject.—This demonstration, on the part of the deputies, of a real want of confidence in the ministry, led to the dissolution of it in February 1835. Marshal Soult was then entrusted with the task of forming a new ministry, which he succeeded in accomplishing from among the members of the tiers party, but which, like the previous one, constituted of similar elements, was very speedily wrecked on the amnesty question. For about a period of four weeks, it appeared almost impossible for any ministry, that could be suggested, to command a sufficient support in the chambers, to enable it to carry on the government with efficiency. The crisis was, at length, brought to a conclusion, by the expression of the desire of the deputies that the former ministers should resume their places. The king, too, assented to the proposed arrangement, only naming the duke of Broglie to be president of the Council, and minister of Foreign Affairs. On the 18th of April, the Chamber of Deputies at last acknowledged the validity of the American claims, and made no further difficulty in providing for the payment, in annual instalments, of the 25,000,000 francs required. (See *United*

*States, Sup.*) By the French charter, the king has power to transfer the trial of political offences from the ordinary tribunals by a jury to the chamber of peers; and it was determined that he should avail himself of this power, in the case of the persons detained in prison, and accused of being concerned in the insurrectionary movements of the month of April of the preceding year. Of their number (from 1000 to 1200) 164 were selected for trial, the rest being discharged. The trials commenced on the 5th of May; but it was not until the following 17th of August that the peers were able to give judgment against the Lyonsese section of the accused, 52 in number, who were sentenced to imprisonment for life, or for a term of years. Further proceedings in the *procès-monstre*, as this prosecution was termed by the Parisians, were then adjourned, in consequence of the greater part of the Paris prisoners, destined to be tried, having made their escape by a subterraneous passage from the prison of St. Pelagie, where they were confined. As the king, accompanied by a splendid suite, on the 28th of July, the anniversary of the revolution of 1830, was reviewing the troops of the line and the national guards under arms in Paris, an explosion of an "infernal machine" took place from the windows of an adjoining house, killing or wounding upwards of 40 persons, among the former of whom was Marshal Mortier. Louis Philippe himself, and three of his sons who were with him at the time, escaped without any injury. The assassin, a Corsican named Fieschi, was immediately seized. He assigned no other motive, for the act which he had committed, than his dislike of the king. With two other obscure individuals, his accomplices, he was (February 1836) condemned to death by the Chamber of Peers. Nothing appeared, on his trial before that body, to justify the remotest suspicion of his having been connected with any formidable conspiracy, or political party, in the state. The ministry, nevertheless, seized the opportunity afforded by the crime of Fieschi to strengthen the executive power. The chambers assembled on the 4th of August, and three laws were presented to them for their approval,—one directed against the press, almost entirely annihilating its freedom,—another allowing to jurors the vote by ballot to protect them from popular influence, and providing that an absolute majority, of 7 to 5, should in future be sufficient, instead of two-thirds of their number, to convict the party tried before them,—and

a third empowering the minister of Justice to constitute as many courts of assize as may be necessary for proceeding simultaneously against accused persons, and prescribing the course to be adopted by the tribunals, in the treatment of contumacious prisoners, who refuse to plead, or insult the court, as had happened in the recent political trials. Though vigorously opposed, especially by Arago, Royer-Collard, and Dupin, all these laws received the sanction of the chambers, in the beginning of September. There cannot be a doubt that, by their means, the liberties of Frenchmen were contracted into much narrower limits than at any period under the government of the Restoration.—In January 1836, the trials of the Paris insurgents of April 1834 were concluded. Two of the prisoners only were acquitted; 19 or 20 were condemned to be transported for life, or to different terms of imprisonment; and those who had, as before stated, escaped from prison, and had not been retaken, were condemned *en contumace*. On the discussion of the budget for the ensuing financial year, the minister of Finance, M. Humann, having stated the continued existence of a deficit in the public revenue, mentioned that there were only two modes of meeting it, to wit, either by additional taxation, or by lowering the interest on the public debt, from 5 to 3 per cent. The king and his ministers preferred the former: the majority of the deputies evinced an inclination for the adoption of the latter. Louis Philippe was unwilling to give offence to the wealthy capitalists, who held a considerable portion of the debt, and who were among the most zealous supporters of his government; and the representatives of the people were naturally unwilling to impose any new burthens on their constituents. This difference of views resulted in the resignation of the ministers on the 5th of February. After a good deal of hesitation, the king found himself under the necessity of conciliating the more moderate portion of the "liberal" party, by appointing Thiers to be minister of Foreign Affairs, and president of the Council. Besides the count d'Argout, Marshal Maison, and Admiral Duperré, who had been members of the preceding ministry (the first mentioned, in the place of M. Humann, for a short time only before its dissolution), the members of the new cabinet were M. M. Sauzet, Passy, Pelet, and count Montalivet. In respect to the lowering of the interest of the public debt, the Chamber now contented itself with a pro-

mise of the ministers to lay before it a "projet de loi" on the subject in the course of the following year. On the 25th of June of this year (1836), a third attempt was made upon the life of Louis Philippe. He was shot at as he was leaving the Tuilleries in his carriage, accompanied by the queen and his sister, on their way to Neuilly. No injury was done, the ball lodging in the roof of the carriage. The guilty person, in this instance, was a young man named Alibaud, an enthusiastic republican in poverty. He had no accomplice, and was tried by the Peers July 6th, and guillotined on the 11th. Under the direction of Thiers, the foreign policy of France assumed a bolder tone. It is true that he united with the other great continental powers in requiring the expulsion from Switzerland of certain political refugees. But, on the other hand, he refused to order the evacuation of Ancona, which, since the year 1832, had been occupied by French troops; interested himself actively in behalf of the republic of Cracow; protected the dey of Tunis from the Turks; and organized a body of volunteers in France, to act against the adherents of Don Carlos on the other side of the Pyrenees. The king seemed disposed to enter cordially into the views of his minister in relation to Spain; when his intentions were altered by the re-establishment in that country of the constitution of 1812, and the almost entire annihilation of the queen's authority. On being pressed to reinforce the troops already serving as auxiliaries there, and to adopt other and extensive measures against the Carlists, he gave a decided refusal; upon which Thiers, and five of his colleagues, resigned. This occurred on the 25th of August; and on the 7th of September, the formation of a new doctrinaire ministry was announced. Count Molé became the minister of Foreign Affairs, and president of the Council; Guizot, the minister of Public Instruction; Duchâtel, of Finance; Gasparin, of the Interior; Persil, of Justice; General Bernard, of War; and Vice-Admiral Rosamel, of the Marine. While this, like the former doctrinaire administrations, evinced a praiseworthy solicitude to maintain the most friendly relations with all other nations, it studied to tranquillize the public mind at home, by remitting or mitigating, on occasion of the celebration of the king's birth-day (October 6th), the sentences which had been pronounced against 62 of the political offenders of the month of April 1832. Shortly afterwards, the ex-ministers of Charles X., im-

prisoned in the castle of Ham, were set at liberty; the indignation, which had been so extensively and violently felt towards them, having been for some time converted into a sympathy for their misfortunes. Notwithstanding the apparent strength of the government, and the ease and regularity with which its functions seemed to be performed, there was a latent feeling of dissatisfaction with it to a considerable degree pervading the community, and only prevented from exhibiting itself openly by an apprehension of thereby inviting a repetition of revolutionary horrors. To a knowledge of the existence of this feeling, and a disposition to take advantage of it for selfish purposes, we must ascribe such attempts at insurrection as that made at Strasburg on the 29th of October, by Louis Napoleon Bonaparte, a nephew of the late emperor, aided by a few followers. It was instantly suppressed, and the young prince shipped off to America. But while the leader of the party was treated with forbearance, the government had the indiscretion, to say the least of it, to arraign the subordinate conspirators before the court of assize of the department of the Lower Rhine. The humanity of the jury refused to convict them (January 1837) of any crime, on the express ground of the individual principally implicated having been withdrawn from all inquiry. As the king was proceeding, accompanied by his three eldest sons, to open the session of the Chamber of Deputies, on the 27th of December 1836, a pistol was fired at him by a workman, of the name of Meunier. The ball passed through the back of the vehicle in which the king was seated, and only narrowly missed him. Meunier was immediately apprehended, and, after trial, condemned in April of the following year to suffer death; but this sentence was commuted into banishment for 10 years. Louis Philippe was not prevented, by this fourth attempt upon his life, from executing his intention of meeting the Chambers on the day in which it was made. The speech which he delivered to them was one of considerable length, and he alluded in it, with the greatest composure, to the event that had just occurred.—As on a former and similar occasion, the ministers, taking advantage of the attempt which had been made on the life of the king, proposed several new laws, of a nature to fortify the executive branch of the government. The law of "disjonction," as it was called, was the most remarkable of these. It was introduced into the Chamber of Deputies, January 24th 1837, by the

minister of War, General Bernard, and provided that, in the event of both military and civil persons being engaged in the commission of a common crime, the former should be arraigned before a military tribunal, and the latter only have, in any case, the benefit of the trial by jury. It was at the same time proposed to revive the punishment of deportation; the island of Bourbon being designated for this purpose. Another proposition, too, was presented on the following day, to subject to a severe punishment all persons who should fail to communicate to the public authorities, within 24 hours of obtaining it, such information as they might possess concerning any conspiracy against the life of the king. These propositions were, however, rejected by the Chamber of Deputies on the 7th of March; and a bill for making a pecuniary provision for the king's second son, the duke of Nemours, experienced the same fate. Guizot thereupon zealously urged a dissolution of the Chamber, and a consequent appeal to the electors in behalf of the existing administration. M. Molé objected, and Guizot, with the other doctrinaire members of the cabinet, Gasparin, Persil, and Duchâtel, resigned their places. Montalivet became minister of the Interior; Salvandy was entrusted with the department of Education; Lacave-Laplagne with that of the Finances; and Barthe was appointed keeper of the Seals. These arrangements were far from being satisfactory to the opposition members. Holding, as the new ministers did, the same opinions as their predecessors in office, there was apparently no adequate reason for the change which had occurred. The session of the chamber was, however, brought to a close before an opportunity was afforded of a successful attack on the new administration. They had voted all the grants of money required from them by the government, including one of 2,000,000 francs a year, on occasion of the marriage of the duke of Orleans, the king's eldest son, with the princess Helena of Mecklenburg, instead of 1,000,000 francs which had been previously bestowed upon him, and including also another grant of 1,000,000 francs as a dowry to the king's eldest daughter, the queen of the Belgians; nevertheless, all this failed to conciliate to them the feelings of Louis Philippe and his ministers. When, in the course of the summer, an improvement took place in the affairs of the French in Algiers, and the course of events in Spain, likewise, appeared to become more propitious, it was, at length,



resolved to take the step insisted upon by Guizot, and the refusal to take which had caused his resignation. The Chamber of Deputies was dissolved on the 4th of October.—The expectations which had been entertained by the government of obtaining a decided majority of the newly elected deputies favourable to its measures were disappointed. They met in December 1837; but nothing very important occurred during the first two months of the session. At length, one of the liberal members, on the 20th of February 1838, presented a “projet de loi,” to reduce the interest on the public debt; and about the same period, another was presented by the minister of Commerce, empowering the government to construct an extensive system of canals, and four great lines of railway communication. After a long protracted discussion, the former was adopted by the deputies on the 5th day of May following, but was shortly afterwards rejected by the peers. The latter gave occasion to another defeat experienced by the government: it was also rejected, by the popular branch of the legislature; and the construction of canals and railroads was left, as before, to the enterprise of private associations. In the spring of this year, a model was discovered of a new “infernal machine,” in the possession of one of the pardoned republicans, named Huber; who, it would seem, intended to construct the machine itself in imitation of it, and then to make another attempt to destroy the lives of the king and his family. He was tried by a jury, and sentenced to deportation. The ministry conducted itself with rather a high hand towards some of the weaker sovereign states. Prince Louis Napoleon had returned from America to Europe, and taken up his abode in Switzerland, where he put forth a pamphlet under the name of a certain Lieutenant Laidy, of the French army, in which he maintained his own claims to the throne of France. The French ministry, not satisfied with dragging Laidy before the Chamber of Peers, which condemned him to be imprisoned for five years, and to pay a fine of 10,000 francs, for the crime of allowing his name to be used by the prince, demanded of the Swiss Confederacy the expulsion of the latter from its territory, and to enforce its demand, assembled a military force on the frontier. As the Swiss determined not to yield, hostilities might have taken place between the two countries, had not the individual himself, in relation to whom the difficulties between them existed, been sufficiently discreet to

put an end to those difficulties by voluntarily quitting Switzerland. For the measures which the French government pursued during this year (1838) towards Mexico and the republic of La Plata, the reader is referred to the articles *Mexico* and *La Plata*, in this volume. On the opening of the session of the chambers, in December 1838, a formidable opposition to the existing ministers was very speedily developed. The “liberals” and “doctrinaires,” with Thiers and Guizot respectively as leaders, had now cordially united to effect their overthrow; and deeming it most prudent to retire before the approaching storm, they resigned their places on the 22d of January 1839. Marshal Soult was commissioned by the king to organize a new ministry. As he, however, declared that it was impossible for this to be done, with the probability of its possessing in a sufficient degree the confidence of the chambers, without comprehending Thiers, Louis Philippe objected, recalled his former ministers, and then immediately adjourned, and, a few days afterwards dissolved, the Chamber of Deputies. But the appeal to the electors, thus made, proved unsuccessful. The opposition triumphed, and M. Molé and his colleagues once more resigned (March 9th). For upwards of two months, the utmost confusion pervaded every department of the government. Every attempt at the formation of a ministry proved to be unsuccessful; serious tumults took place in the capital; and the country seemed threatened with a state of revolution and anarchy. At length, a new ministry was announced, on the 13th of May, which, though a mere expedient for the occasion, possessed sufficient weight of character and influence to tranquillize the public mind, and to carry on with regularity the ordinary business of the nation. Marshal Soult was its leading member: he occupied the post of president of the Council and minister of Foreign Affairs; Teste became minister of Justice; General Schneider, of War; Passy, of the Finances; Cunin-Gridaine, of Commerce; Duperré, of the Marine; Villemain, of Public Instruction; Dufaure, of Public Works; and Duchâtel, of the Interior. Composed of widely differing elements, the only principle, if principle it can be called, by which this ministry could be kept together, was the non-action upon all the questions of difference between the parties which divided the chambers and the country. Nothing of moment occurred, in consequence, during the interval that elapsed till the end of the session

of the legislature, on the 7th of August 1839. When it re-assembled on the 23d of December following, the state of the French affairs in Africa, and the difficulties, in respect to the disposition to be made of Syria (for a time commonly called the *eastern question*), arising out of the war waged by the pacha of Egypt against the grand seignior, added to the feeble and uncertain policy of the ministers, produced a degree of embarrassment on their part, rendering them almost utterly powerless for good or for evil.—A month had scarcely elapsed, when their supporters in the Chamber of Deputies found themselves in a minority, on the question of a provision of 500,000 francs annually for the duke of Nemours, then asked for by Marshal Soult, on the occasion of the duke's marriage with a German princess; and on the failure of a second attempt, on the 20th of February (1840), the ministers deemed it expedient to resign their places. The king now felt himself constrained to have recourse to the decidedly liberal party, as the only possible means of carrying on the government. Thiers became president of the Council, and minister of Foreign Affairs; Rémusat, of the Interior; Vivien, of Justice; Gouin, of Commerce; Roussin, of the Marine; Pellet, of the Finances; Cubières, of War; Cousin, of Education; and Jaubert, of Public Works. Supported, as they soon appeared to be, by a decided majority of the deputies, their accession to office awakened expectations in the mass of the people of a re-action in the government, in favour of the principles of the revolution of 1830, and a corresponding apprehension, on the part of the European governments generally, of the dangers to their own security to ensue from such a course of policy. Both, however, were soon undeceived. The severe laws enacted, in September 1835, against the liberty of the citizens and of the press, remained un repealed; no serious attempt was made to modify the existing electoral law, which confined the right of suffrage within exceedingly narrow limits; and the reduction of the interest on the debt was rejected by the peers. Among the sums appropriated by the chambers, during their present session, was a considerable one for the construction of railroads, and another for that of steam-vessels. An appropriation, also deserving of mention, was one of 1,000,000 francs for the purpose of bringing the remains of Napoleon from St. Helena, to be interred with great pomp and ceremony in the capital of his former

empire. Subsequently to the close of the session, in July 1840, the undivided attention of Thiers was bestowed upon the affairs of the East. He made every effort to induce the other great European powers, Great Britain, Austria, Prussia, and Russia, to allow the pacha of Egypt to retain permanent possession of the whole of Syria; and on failing to accomplish his object by the arts of diplomacy, he is supposed to have endeavoured to persuade the pacha to make the best peace he could with the Porte, without waiting for the intervention of the great powers. The four of these which have just been mentioned, acting on this presumption, concluded, at London, a treaty among themselves, on the 15th of July (1840), and proceeded, agreeably to the terms of it, to settle the eastern question, without waiting any longer for the acquiescence of France in their views. For the prompt and effectual manner in which this was done, see the article *Turkey*, in this volume. On the announcement of the treaty of July, the greatest excitement pervaded the whole of France: the national dignity was supposed to have been grossly insulted; and a cry for war resounded through the country. The ministry, too, seemed to be animated by the same spirit as the people generally. An extraordinary activity prevailed in the ports and naval arsenals of the kingdom; and Louis Philippe, whose predilections for the maintenance of peace could not be doubted, was brought to consent to the augmentation of the army to the number of 639,000 men. In the mean time, two events occurred, of a nature to remind the king of the not improbable dangers, to himself and family, which might arise from an excited state of the public mind, and to induce him to resist the inclinations of his ministers to carry matters with the four other great powers to extremities. The first of the events referred to was the landing of prince Louis Napoleon Bonaparte, accompanied by a few followers, at Boulogne, August 6th, with the hope of producing a revolution in France in his favour, under the title of Napoleon II., which he assumed. No one joined him, and he was almost immediately arrested. The Peers condemned him to imprisonment for life in the castle of Ham. The other event referred to was a fifth attempt to take the life of the king. He was fired at with a musket loaded with six balls, while reviewing a body of the national guards on the 15th of October, but, as in the similar instances already mentioned, escaped all

injury. The perpetrator of the act, a man named Darmès, on the other hand, was injured by the bursting of the gun, and afterwards suffered under the axe of the guillotine. The meeting of the chambers was appointed for the 26th day of October; and it was the plan of Thiers, that the king should then formally denounce the treaty of July preceding, and should ask of the legislature extraordinary means for further warlike preparations. This, however, Louis Philippe declined doing; upon which, Thiers and his colleagues sent in their resignations (October 21st). An adjournment of the meeting of the chambers till the 5th of November was, in consequence, announced; and, in the mean time, a new ministry was organized, with Marshal Soult as president of the Council. Guizot took charge of the department of Foreign Affairs; Duchâtel, of that of the Interior; Martin "du Nord," of that of Justice; Humann, of the Finances; Teste, of the department of Public Works; Villemain, of that of Public Instruction; Cunin-Gridaine, of that of Commerce; and Admiral Duperré, of that of the Marine. Though Soult was the nominal head of this administration, Guizot was the most influential member. The great object which he and his colleagues proposed to themselves, and openly proclaimed, was the maintenance of the peace of Europe. To accomplish this, they found themselves unexpectedly supported, in the Chamber of Deputies, by a majority of as many as 60 votes. By the energetic action of the allied powers, the question at issue between the Porte and Mehemed Ali had been already settled on the terms dictated by them, and the specific cause for the proposed war thus removed. The more considerate, too, of such of the deputies as had at first been infected by the prevailing warlike spirit, would now, very naturally, under these altered circumstances, hesitate to plunge their country into a contest with the combined forces of Europe. A reduction of the military and naval establishments of the kingdom to their former condition was gradually effected; and the finances, which had been not a little deranged by the extraordinary expenditures lately incurred, were, as speedily as possible, restored to order. The depositing of the remains of the emperor, in the dome of the Invalids, on the 15th of December, produced far less enthusiasm and excitement than had been anticipated, and served only to demonstrate most unequivocally that, whatever dissatisfaction with the present government might

exist among the French people, the day of "Bonapartism" had passed away. And the arrival, towards the close of the year 1840, of Admiral Mackau from Buenos Ayres, with a treaty favourable to the interests of France, which he had extorted from that republic, was an occurrence also tending to increase the confidence of the new administration.—The project of fortifying the city of Paris had been resumed by Thiers and his colleagues in the midst of their preparations for a European war, and it was persevered in by their successors. Their plan for this purpose was presented to the chambers and approved by the deputies, February 1st 1841, and by the peers on the 31st of the following month. The most important events which occurred in France, between the close of the session of the chambers in June and their re-assembling on the 27th of December, were the tumults at Toulouse and other places in the South, in July, on occasion of a new assessment of the taxes, and which were promptly quelled by a military force; an unsuccessful attempt, on the 13th of September, upon the lives of three of the king's sons, for which the guilty party was subsequently condemned to be deported; and the promulgation of a royal ordinance, December 13th, for the diminution of the army by about 90,000 or 100,000 men.—In the course of the winter of 1842, the opposition to the ministers exerted itself with considerable effect in the chambers, on a variety of questions connected with the foreign policy of the country; and particularly in relation to a treaty, signed at London, on the 20th of the preceding December, by the representatives of the great European powers, France included, allowing to each other a mutual right of searching the vessels sailing under their respective flags, on the coast of Africa, for the more effectual suppression of the slave trade. The ministerial majority in the Chamber of Deputies had been gradually diminishing. There was reason to fear that it would, before long, disappear altogether. Accordingly, Louis Philippe did not venture to ratify that treaty unconditionally; and this unexpected separation to a certain extent from the other parties to it, produced a temporary coldness, and even irritation, between France and England, which any additional unpropitious occurrence might easily have kindled into open hostilities. The minister of finance, Humann, died in April (1842), and was succeeded in office by Lacave-Laplagne; a change, however, which produced not the slightest alteration

in the general policy of the administration, or the management, in particular, of the financial department. Just as the deputies were engaged in the discussion of a law authorizing the construction, at the expense of the state, of 900 leagues of railroad (May 8th), a shocking accident occurred on the railroad between Paris and Versailles, which cost the lives of 200 persons, and, among others, those of Dumont d'Urville, the circumnavigator, and his family. This accident, nevertheless, did not prevent the proposed law from passing. Another disaster, which occurred in the course of the summer, produced an extraordinary sensation: this was the death of the duke of Orleans, the heir apparent of the king, by being thrown out of the carriage in which he was riding. The Chamber of Deputies had, in the mean time, been dissolved, and the elections had been favourable to the ministry, who could calculate with confidence on being supported, in their measures, by a majority of from 70 to 75 votes in the new chamber. One of the first questions presented to it for consideration was that relating to the regency of the kingdom, in the very probable event of Louis Philippe dying before his grandson, the young count of Paris (son of the deceased duke of Orleans) should come of age. It was decided, in conformity with former precedents and analogies in the history of France, that the regency should be entrusted to the individual next in the order of succession to the throne, having attained the age of 21 years. The education and wardship of the prince was assigned to his mother. This law was enacted by the deputies by a vote of 300 to 95; Thiers and his friends separating themselves, on the occasion, from Odillon Barrot and the more "radical" portion of the opposition, and voting for it; and some 30 members of the "extreme left," with the legitimists of the chamber, abstaining altogether from voting. Designated by the law to be the future regent of France, the duke of Nemours, who is personally unpopular, may, on this account, should he survive the present king of the French, it is far from improbable, contribute essentially to the overthrow of an order of things, which it has required of the latter so much patient perseverance, and skilful management, to sustain. — During the last 3 or 4 years, the history of France has presented no events of more importance than the taking possession by her forces of the Marquesas and the Society Islands in the Pacific Ocean, and the exchange of visits between Louis Phi-

lippe and Queen Victoria. No efforts of its adversaries have hitherto been availing to effect the overthrow of the Guizot ministry; which continues, and seems likely to continue, to pursue steadily its policy, on the one hand, of maintaining the peaceful relations of the country with foreign nations, and, on the other, of developing its internal resources by every practicable means. See *Algiers*, (Sup.)

FRANCE\* (Isle of). See *Mauritius*, (Sup.)

FRANCIA\* died in 1840.

FRANCIS I.\* (Emperor of Austria) died in 1835, and was succeeded by his son, Ferdinand III.

FRANKFORT\* (on the Maine). Population of this city in 1838, 54,822, and including that of the small portion of territory attached to it, 63,936. Among the objects most worthy of notice in Frankfort, may be mentioned the Senkenberg Museum of Natural History, and the Medical Institute, occupying an imposing building of the 14th century; the museum contains many rare specimens presented by the traveller Rüppell and other naturalists. There are also 5 hospitals; an orphan asylum; a lunatic asylum; a gymnasium, and other schools; an institution for the deaf and dumb; a public library with 180,000 volumes; a theatre; and a new cemetery near the city, containing several works by Thorwaldsen. And to these must be added (besides the various objects of art in the possession of wealthy individuals, the most remarkable of which being Dannecker's celebrated statue of Ariadne seated on a tiger), the monument erected by the king, of Prussia, just without one of the gates, to the memory of the Hessians who fell on the spot in defending the city against the French. — The city of Frankfort is now included in the German Customs' Union. It is garrisoned by Prussian and Austrian troops.

FRANKFORT\* (on the Oder). This city has of late advanced very much in prosperity. In 1840, it had 23,378 inhabitants. There are three well-frequented fairs held here annually, in February, July, and November. Its institutions of education and charity are highly respectable; and being situated on the high road from Berlin to Silesia, and on a navigable river, communicating, by canals, with the Elbe and the Vistula, it has a considerable trade; though in commercial activity, it is far inferior to its namesake on the Maine.

FRAYSSINOUS.\* After the revolution of 1830, this prelate accompanied Charles X. and his family in their exile, and both

at Prague and at Goritz assisted in the education of the young duke of Bordeaux. He returned, however, to France in 1838, living there in retirement till his death, which occurred in 1841. Besides some funeral orations and other discourses, he is the author of a pamphlet on "the true principles of the Gallican church" (1818), and a "Defence of Christianity" (3 vols. 8vo. 1825).

FREDERICK WILLIAM III.\* died on the 7th June 1840, and was succeeded, on the throne of Prussia, by his son Frederick William IV.

FREDERICK VI.\* king of Denmark, died December 3d 1839, and was succeeded by his cousin Christian VIII.

FRESNEL (Augustin Jean) was born at Broglie, in the department of the Eure, in France, in 1788. He was a pupil of the polytechnic school, and first made himself known as a man of science in 1815, when he presented to the Academy of Sciences a memoir on the diffraction of light. Until then he had followed the profession of a civil engineer. Thenceforth he devoted himself entirely to mathematical and physical investigations, and especially in reference to the subject of light. Before long, he published a series of important papers, in which the phenomena of its diffraction, inflexion, polarization, refraction, &c., were explained on the undulatory hypothesis, and shown to be connected with each other; and in which, also, he exhibited extraordinary skill in the management of the higher geometry. He afterwards applied himself to determine with accuracy the dispersive powers of different transparent substances, as compared with their refracting powers. In 1821, he was appointed one of the examiners of the polytechnic school. In 1823, he was elected a member of the Academy of Sciences of Paris, and two years afterwards of the Royal Society of London. This society awarded to him in 1827, only a few weeks before his death, the prize, founded by count Rumford, for the most important discovery on light and heat.—To the claims of Fresnel to scientific distinction, already mentioned, should be added his improvements in the mode of exhibiting the light in light-houses. He succeeded in producing, in co-operation with Arago, a much more brilliant light, by means of lenses of an extraordinary size, than had hitherto been produced with the most powerful reflectors. An account of these improvements is given in a memoir presented by him to the Academy of Sciences, and which was published in 1822.—Be-

side his memoirs inserted in the transactions of the Academy, Fresnel published a number of papers in the "Annales de physique et chimie," and in the "Bulletin de la société philomatique."

FREYBERG,\* or rather *Freiberg*, had, in 1840, 11,446 inhabitants. The decline of its population since the middle of the 17th century is chiefly to be attributed to the diminishing productiveness of its mines; and this has been owing to the exhaustion of the richest veins, or to the shafts having been driven so deep that it is next to impossible to drain off the water. The number of miners employed, in the numerous silver, copper, lead, and cobalt mines in the vicinity, has been lately stated to be 4500.

FREYBURG,\* or *Freiburg*. Population, in 1840, 12,240. The university here is a Roman Catholic one, and was founded in the year 1454. It is in a flourishing condition, having about 600 students. It has a library with upwards of 80,000 volumes, a cabinet of natural history, museum, a fine collection of philosophical instruments, a chemical laboratory, an anatomical theatre, a school for clinical instruction, and a botanic garden.

FREYCISET (Claude Louis de Saulces de) was born at Montélimart, in France, August 7th 1779. Having entered into the naval service of his country, he had attained to the rank of a lieutenant when he was appointed to accompany Captain Baudin in his voyage of discovery. In 1804-5, M. de Freycinet commanded a corvette; in 1811, a frigate; and in 1817, he set sail, in the corvette *Uranie*, on his celebrated voyage round the world,—a voyage undertaken chiefly for the purpose of determining with exactness the form of the globe, and the intensity of the magnetic forces, in the southern hemisphere, but which was productive of important hydrographical results and meteorological observations, as well as of extensive collections in natural history. The *Uranie*, leaving Toulon, September 17th, proceeded by way of the Canary Islands and Rio Janeiro to the Cape of Good Hope, thence to the isles of France and Bourbon, the Asiatic Islands, the Sandwich and other islands of the Pacific ocean, New Holland, New Zealand, and then directed its course to Europe eastwards round Cape Horn. It made shipwreck on a submarine rock off the coast of the Falkland Islands, on the 14th of February 1820. The crew, as well as every thing of value which the vessel contained, were however saved; and Captain Freycinet was so fortunate

as to be able to purchase an American vessel that happened to touch at the Falkland Islands, in which he completed his voyage to France, arriving, on the following 18th of November, in the port of Havre. In this notice of the voyage of the *Uranie*, we must not omit to mention the remarkable incident, that as soon as the vessel, on leaving France, had fairly got out to sea, the commander discovered his own wife secreted on board, and disguised in the dress of a common sailor. She, of course, accomplished her object of going with her husband on his expedition, which could scarcely have been accomplished in any other mode, the presence of a female on board a ship-of-war not being in any case permitted. In 1826, Freycinet became a member of the Academy of Sciences, and in 1829, was appointed governor of Martinique. But complaints being made to the government of his conduct towards the coloured inhabitants of this island, he was recalled home shortly after the revolution of July. Jointly with H. Clément, he contrived a new process for rendering sea-water fit for drinking; and he likewise invented a new method of engraving charts on copper, which was afterwards applied practically with great success by Brué.—An account of his celebrated expedition of discovery was published at the expense of the French government, in a splendid form, under the title of “*Voyage autour du monde, entrepris par ordre du roi, sur les corvettes de S. M. l’Uranie, &c., pendant les années 1817 à 1820*” (8 vol. 4to., with an atlas).

FREYTAG (George William Frederick) was born, September 19th 1788, at Lunenburg, in Hanover, of humble parents, who early destined him for the study of theology. For this purpose, after he had received his preparatory education in his native town, they provided him,—at the cost of many deprivations on their part,—with the means of pursuing his studies at Göttingen. There, however, he applied himself assiduously, as well to philosophy, and the Hebrew language, with its kindred dialects, as to theology. An university prize, conferred upon him in 1810, led to his being appointed a tutor, in the institution, in the course of the following year. This post, Göttingen being then comprehended in the kingdom of Westphalia, he abandoned, in 1813, from patriotic motives, and went to Königsberg, in Prussia, where, for a time, he procured the means of support as an assistant to the librarian of the university, and as a subordinate teacher in one of the superior schools of the city.

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Having, at length, passed his theological examination, but been unexpectedly disappointed in obtaining a settlement as a clergyman, which had been promised him, he accepted of a chaplaincy in the Prussian army, that penetrated into France in 1815. At Paris, he made the acquaintance of Silvestre de Sacy, under whose direction he resumed his study of the languages of the East. Through the intervention of de Sacy with prince Hardenberg and Alex. de Humboldt, he procured, in the first place, leave of absence for a year from his official duties, and was subsequently enabled, by the grant of an annual stipend from the king of Prussia, to resign his office altogether, and to continue his residence in the French capital, prosecuting his favourite studies, with the advantage of consulting the rich treasures of oriental literature, preserved in the Royal Library. Here he published, in 1819, his “*Selecta ex historia Halebi*,” in the original Arabic, with a Latin translation, and erudite notes. About this period, he was invited to a professorship in the newly established university of Bonn, on the Rhine. The leisure time which this office left at his disposal was employed in the preparation and publication of the following, among other works:—the ode of Caabi Ben-Sobair, in honour of Mohammed (1823); “*Locmani fabulæ et plura loca ex codicibus maximam partem historicis selecta*” (1823); “*Hamassæ Carmina*,” a collection of the earliest Arabic poetry, with the scholiisms of Tebrisi, (1828); a treatise on the versification of the Arabians (1830); “*Chrestomathia Arabica, Grammatica, Historica*” (1834); a Hebrew grammar (1835); an Arabic and Latin dictionary (4 vols. 4to., 1827–38), with an abridgment of it (1 vol. 4to., 1837); and a collection of Arabian proverbs (1838).

FRIMONT\* was transferred from the military command of Lombardy to the presidency of the Council of War at Vienna; where he died on the 26th of December 1831.

FRITH or FIRTH is used in Scotland to denote the wide opening of a considerable river into the sea. The term corresponds to the *fjord* of the Danes and Norwegians.

FULMINIC ACID\* is composed of two equivalents of cyanogen=52, and 2 of oxygen=16, corresponding, therefore, in ultimate composition with the cyanic acid. The fulminates of silver and mercury, or fulminating silver or mercury, are objects of manufacturing interest; the former being used in detonating *bombons*, and the latter more largely and importantly as a priming for the percussion caps of gun locks.

**FUR TRADE.\*** The "North West" and "Hudson's Bay" Fur Companies were united under the firm of the "Hudson's Bay Fur Company," in 1821. The skins collected by this company are all shipped to London, mostly from their factories of York Fort and Moose Fort, in Hudson's Bay; some, however, from Fort Vancouver, on the W. coast of America; and some from Montreal. This last, which was the principal seat of the N. W. Company, has, since the union, sunk into a subordinate station.—On the part of the United States, the fur trade is chiefly prosecuted, as already mentioned, by the "North American Fur Company." Its principal establishment is at Michilimackinac, where skins are received, not only from the posts directly connected with this station, but from those on the Mississippi, Missouri, and Yellowstone rivers, and the great range of country extending thence to the Rocky Mountains. This Company penetrates into the bosom of these distant regions by means of steamboats. Of other associations in the United States, the most noted are Ashley's Company from St. Louis, and Captain Bonneville's, formed at New York in 1831; which last pushed its enterprises into tracts between the Rocky Mountains and the coasts of Monterey and Upper California. Indeed, the whole

of the districts from the Mississippi to the Pacific, and from the Arctic Sea to the Gulph of Mexico, are now traversed in every direction by the hunter. Almost all the American furs which do not belong to the Hudson's Bay Company find their way to New York, where they are either distributed for consumption in the United States, or exported chiefly to London.—The fur trade is also extensively pursued by the Russians in the N. of Asia, and the N. W. coast of America. Their principal association is the Russian American Company of Moscow; and the most important markets for their furs are the fairs of Kiachta, Novgorod, and Leipsic. The value of furs, especially of those which are articles of luxury and fashion, varies in an extraordinary manner, in consequence of the great inequality of the supply and demand; and the fluctuations in price, in the course of a single year, often exceed 300 per cent.

**FOSTIAN**; a kind of coarse, thick, twilled cotton, which is generally dyed of an olive, leaden, or other dark colour, and of which velveteen and corduroy are varieties.

**FUSTIC.\*** *Young fustic* is the Venice sumach, a plant that grows in Italy and the S. of France. It imparts a beautiful bright greenish yellow dye, which, when proper mordants are used, is very permanent.

## G.

**GABELLE** was the name given, before the revolution of 1789, to the tax imposed in France upon the consumption of salt. It had been levied down to that period, with the exception only of the five years from 1340 to 1345, ever since the reign of Philip of Valois, in the earlier part of the 14th century. The distribution of it was most capricious and arbitrary, some provinces having been altogether exempt from, and some more, and others less, subject to its operation. Towards the close of the reign of Louis XV., and the beginning of that of Louis XVI., the sum which it yielded to the farmers-general of the revenue was 38 millions of francs, only a small portion of which found its way into the public treasury. This tax had always been an exceedingly unpopular one, occasionally leading to tumults or even insurrection, and at all times to extensive smuggling, and consequent infliction of frequent and severe punishments on the parties offending; and

just before the revolution, it constituted one of the principal grounds of dissatisfaction with the existing constitution of the government. The gabelle was abolished on the 10th of May 1790. The consumption of salt remained unrestricted until 1806, when Napoleon once more imposed a tax upon this article. At the present day, every *kilogramme* of salt (worth from 3 to 4 centimes) pays a duty into the public treasury of 30 centimes; and the whole amount of the duty is 60 millions of francs, levied principally on the necessities of the poorer classes of the community.

**GABLER\*** died on the 17th of February 1826.

**GAGERN.** Besides the works of which this statesman was mentioned, in a previous volume, to have been the author, he wrote a memoir, which was presented to the German Diet, in 1817, and which attracted a certain degree of attention in this country, at the time of its publication; and also a work entitled "My Political Life" (*Mein*

*Antheil an der Politik*), in 4 volumes, the last of which, published in 1833, consists of the letters, addressed to the baron de Gagern, from 1813 to 1833, by the celebrated Prussian minister, the baron de Stein.

GAIL.\* This learned philologist died on the 5th of February 1829. The 22d volume of his "Philologue" was published previous to his death; and to his works already mentioned, is to be added his "Géographie d'Hérodote, avec atlas, contenant la géographie des trois grands historiens de l'antiquité et les plans des batailles qu'ils ont décrites" (2 vols. 1823).—*Jean François Gail*, a son of the former, born in 1795, has likewise distinguished himself as a classical scholar. He has filled a professorship in the College of France, and is the author of a memoir on the worship of Bacchus (1822), for which he received the prize of the Academy of Inscriptions and Belles Lettres, and of a dissertation on the Periplus of Scylax (1825). He has, besides, published the first three volumes of an edition of the "Geographi Græci Minores" (Paris 1827-31, and a French translation (jointly with M. Longueville) of Mathiæ's Greek Grammar.

GALACZ or GALATZ, a town of Moldavia, on the N. bank of the Danube, between the confluence of the Sereth and Pruth with that river, 80 miles W. of its principal mouth. Though at such a distance inland, it may be said to be the port of the Danube, vessels of 300 tons ascending to it by the Soulineh, or middle mouth of the river; and since the establishment of steam packets on the Danube, and the opening of its navigation by the terms of the treaty of Adrianople (1829), Galacz has attained to a considerable importance, and is probably destined to become one of the greatest emporiums in the vicinity of the Black Sea. It has been made a free port. The population is at present about 12,000. The trade of the town is chiefly carried on by Greek merchants; latterly, however, a number of English, and other foreigners, have formed mercantile establishments here. Notwithstanding the recent period at which the navigation of the Danube has been opened, and the barbarous state of the countries in the lower parts of its course, the value of the exports from Galacz and Brailow were conjectured, in 1842, to exceed £1,000,000 a year, nearly two-thirds of which amount being from the former place. The exports are corn, cattle, tallow, wool, hides, skins, &c.; the imports, cotton goods, and cotton

twist, principally from England, the demand for which is rapidly increasing; with sugar, coffee, olives and olive oil, iron and steel, hardware, &c.

GALLIC ACID.\* This acid is composed of 7 atoms of carbon, 3 of hydrogen, and 5 of oxygen. Its equivalent number is 25.

GALLO\* (Marquis de) continued to live in retirement from public affairs, till his death at Naples, in February 1833.

GALT\* (John) was born at Irvine in Ayrshire, May 2d 1779. He was a very voluminous writer. His novels alone are 24 in number; his dramas are hardly less numerous; and his biographical and miscellaneous works are even more so. Few have excelled him as a delineator of familiar Scottish life; and though some of his attempts of this kind evince all the carelessness of hasty composition, others, his "Ayrshire Legatees," "Annals of the Parish," "Entail," &c., are possessed of very uncommon merit, and are pervaded for the most part by an inimitable vein of "quaint, shrewd, homely, and observant humour." In 1833, Mr. Galt published "The Autobiography of John Galt" (2 vols. 8vo.), and in 1834, "The Literary Life and Miscellanies of John Galt" (3 vols. 12mo.).—He died, April 11th 1836, when he had almost completed his 60th year, and a few days after he had suffered his 14th stroke of palsy.

GAMBART (Jean Félix Adolphe), director of the observatory at Marseilles, was born at Cette, in the S. of France, some time in the year 1800. He was an eminent astronomer, and especially noted for his observations on comets, having discovered no fewer than 13 of these bodies between 1822 and 1834. He was a corresponding member of the Academy of Sciences, and died at Paris on the 13th of July 1836.

GAME LAWS.\* The principal British statutes relating to game, now in force, are the 7 & 8 Geo. 4, c. 29, the 9 Geo. 4, c. 69, and 1 & 2 Wm. 4, c. 32, by which last statute very great changes have been effected. The most important alterations made by the last of these acts are, first, that all qualifications are now done away with, and that any person taking out a proper certificate may kill game on his own land, or that of another person with his leave; and secondly, that every person having such a certificate may sell game to any person licensed to deal in it according to the act, who again is at liberty to retail it without restriction. Most trespasses and offences relating to game are punishable on summary conviction before



magistrates. The most serious of these offences is what is called night poaching. After two convictions before a magistrate for this offence, it becomes a misdemeanor to be proceeded against by indictment, and punishable by transportation for seven years, or imprisonment and hard labour. Night poaching committed by three or more persons in company together is a misdemeanor in the first instance, and punishable by transportation for 14 years, or imprisonment and hard labour.

**GANGES.\*** The annual inundation of this river is owing chiefly to the tropical rains, which prevail successively throughout all the countries through which the Ganges flows; and in this respect its inundation differs from that of the Nile, whose waters are augmented by rains falling along the upper part of its course only. The river begins to rise in the upper part of its course in the month of April; and by the end of July all the lower parts of Bengal, contiguous to the Ganges and Brahmapootra, are under water. A few days before the middle of August the waters attain their greatest height, and after remaining for only a few days nearly stationary, they begin to decline, notwithstanding that great quantities of rain continue to fall for the next 6 or 7 weeks. About the end of November the river is again in the same state in which it was in the beginning of April. It decreases at an average rate of half an inch a day from the end of November to the latter part of April, when it is lowest in Bengal, though the rains in the mountains have already begun to augment it in the upper portion of the country. Major Rennell estimated the quantity of water discharged by the Ganges per second in the dry season at 80,000 cubic feet, and in the rainy season at 405,000 cubic feet; being for the average of the year, as he surmises, and as has previously been stated, 180,000 feet per second. But according to some observations made at Ghazipore, above Calcutta, by Mr. Everest, in 1831, it would appear that from June to September about 500,000 cubic feet per second are discharged; while the average of the remainder of the year is only 100,000 cubic feet per second. The quantity of earth brought down by the river is very great. Mr. Everest estimates the total annual discharge of mud at 6,363,077,440 cubic feet; the weight of which, in the opinion of Mr. Lyell, would exceed 60 times that of the great pyramid of Egypt. A very striking effect of the inundation of the Ganges is the change produced by it, year after year,

in the bed of the stream, particularly in Bengal, where the soil is the most loose and yielding. Islands are formed, and in a few years again destroyed; extensive marshes are continually produced; and the condition and limits of private property interfered with. The Ganges, like several other great rivers, is subject to the phenomenon of the *bore*, or a rapid rush of the tide up the stream to a considerable distance. It occurs in all the mouths of the Ganges, and particularly in the Hooghly, through which branch it ascends as far as Culna, or even Nuddea, 200 miles from the sea.

**GANILH** (Charles) was born at Allanche, in the French department of the Cantal, on the 6th of January 1758. He was a lawyer (*avocat*) in Paris at the beginning of the Revolution in 1789, and acted a decided, though not a very conspicuous part, during its first stages, in support of free institutions. During the reign of terror, however, the moderation of his opinions subjected him to suspicion and imprisonment, and the events of the 9th of Thermidor alone prevented his deportation from France. After the revolution of the 18th of Brumaire, in which he took an active part, he became a member of the Tribunal, where he voted steadily against all the measures of the consular government invading the independency of the judiciary, or restricting the liberty of the press. He was, in consequence, eliminated from the Tribunal at the first opportunity, that is in 1802; from which period until 1815 he lived in retirement from all public affairs. In this year, he was elected by his native department a member of that Chamber of Deputies which has been styled the "Chambre introuvable," and in which body he constituted one of the minority. He continued to sit as a deputy down to the year 1823, and was remarkable, throughout his legislative career, for his moderation, and freedom from party prejudices. It was only on the annual presentation of the budget, and on occasion of the proposing by them of exceptional laws, that he was a regular opponent of the ministers. M. Ganilh was a voluminous writer. His three principal works are the "Essai politique sur le revenu public des peuples de l'antiquité, du moyen âge et des temps modernes" (2 vols. 8vo. 1806, 2d ed. 1823); a treatise entitled "Des systèmes de l'économie politique, de leurs inconvénients, et de leurs avantages" (1809, 2d ed. 1821); and the "Théorie de l'économie politique" (2 vols. 1815, 2d ed. 1822).

**GANS** (Edward), born at Berlin in Prus-

sis, March 22d 1798, was a professor in the university of that city, and one of the most eminent jurists of Germany. He may, indeed, be regarded as having been for some years at the head of the German philosophical school of jurisprudence, as Savigny was and is of the historical school. He has written a number of juridical works, which enjoy a high reputation, such as his treatise on obligations or contracts, "Über römisches Obligationen-Recht" (1819); his "Scholien zu Gains;" an important work on the law of inheritance, entitled "Das Erbrecht in weltgeschichtlicher Entwicklung" (4 vols. 1824-35); and his "System of Roman Law" (1827). As a professor, Gans was exceedingly able; he might even be called eloquent, a merit not often aimed at, and seldom attained, by the German professors. His lectures were always numerously attended, especially his courses on modern history. These were deeply imbued with the spirit of the age, and evinced in the lecturer great freedom and boldness of thought and expression; for which reason they were, after a time, discontinued by an injunction of the Prussian government. Among his *extra-professional* publications is that of which he professed himself to be simply the editor, but which may, in reality, be looked upon as his own, viz. "Hegel's Lectures on the Philosophy of History, edited by Gans" (1837). Hegel, on his death, left behind him only the introduction.—Gans was cut off by apoplexy, on the 5th of May 1839, at the early age of 41.

GARAT\* (Dominique Joseph) died on the 9th of December 1833.—Besides the work already mentioned and a number of eulogies and other minor productions, he published "Considérations sur la Révolution" (1792), and "Mémoires sur la Révolution" (1795); which last work contains a defence of his conduct while minister of justice. He was elected a member of the French Academy in 1806, but was excluded from it at the Restoration. A short time before his death, he was chosen a member of the Academy of the Moral and Political Sciences.

GARCIA (Manuel), born at Seville in Spain, in 1779, was a composer of music and a celebrated opera singer. He began his professional career at Madrid in 1801, and subsequently travelled through France and Italy, as well as his own country, obtaining everywhere great applause. After making a visit to America, he returned to Europe, and died at Paris in 1832.—He was the father of the celebrated singer, *Mrs. Malibran*.—The most successful

opera which he composed was the "Caliph of Bagdad."

GARNIER.\* The younger of the brothers of this name died in 1823; the elder was still living in 1841.

GARNIER (count Germain), was born at Auxerre in France, November 8th 1754; and at the commencement of the revolution of 1789 was an attorney (*procureur*) at the court of the Châtelet. He then became the secretary of Mad. Adélaïde, the aunt of Louis 16th. Thenceforth he devoted himself chiefly to literature, not however without taking part in the agitating politics of the day. He was a moderate monarchist, and was at one time, on account of his moderation rendering him less obnoxious to the public generally than most other royalists, offered by the king the post of minister of justice, which he declined from an unwillingness to encounter the hazards he would be subjected to, or perhaps despairing of being able to resist successfully the farther progress of the revolution. Immediately after the events of the 10th of August 1792, he emigrated to Switzerland, where he lived in retirement till the establishment of the government of the Directory, when he returned to France. Napoleon, on becoming First Consul, appointed him prefect of the department of the Seine and Oise. In 1804, he became a senator, and soon afterwards a count of the empire. He was president of the Senate from 1809 to 1811.—Notwithstanding the favour he enjoyed during the period of the empire, he embraced in 1814, with zeal, the cause of the Bourbons, and was allowed to retain his rank as a peer of France. During the hundred days, he refused to accept of office, but did not quit the French territory. For his fidelity to the royal cause, he was rewarded by Louis XVIII. by being made a minister of state and a member of his privy council. In the Chamber of Peers, he took a prominent part in reference to all financial measures, and was a steady supporter of the government until his death, October 4th 1821.—Of Garnier's numerous publications, that which is best known, at least beyond the limits of his own country, is his translation into French of Adam Smith's *Wealth of Nations*, to which he added numerous notes, written in accordance with the doctrines of the school of Quesnay (1806. 2d ed. 1822). Some of the most important of his other works are his essay "De la propriété considérée dans ses rapports avec le droit politique" (1792); an "Abrégé élémentaire des principes de l'économie politique"

(1796); and the "Théorie des banques d'escompte" (1806).

**GAS LIGHTING.\*** The use of coal gas, as a means of illumination, is every year becoming more general. It has been introduced into all the large towns of Great Britain, and into many on the continent of Europe and in the United States.—The economy of gas light is variously estimated. According to Mr. Brande, the cost of a lamp fed by gas, and giving the light of 7 candles, will (in England) be  $\frac{3}{4}$ d. per hour; of Argand's lamp with spermaceti oil, 3d.; of mould candles, 3 $\frac{1}{4}$ d.; and of wax candles, 1s. 2d. per hour. Dr. Ure, in estimating the comparative economy of different kinds of light, and assuming that of the illuminating power from wax to be indicated by 100, states that from tallow to be 28.6; oil, 14.3; coal gas, 4.76; thus making the cost of wax about 3 $\frac{1}{2}$  times that of tallow, and tallow about 6 times that of coal gas.—The light from gas, however, besides being procured at a smaller expense, is also more generally convenient than that yielded by other substances in the ordinary mode, as it may be reduced in an instant from the greatest splendour to the faintest degree of illumination, by the simple adjustment of the stop-cock. Its uses in buildings of all kinds, whether for industrial or domestic purposes, are universally known and appreciated, and still more conspicuous, perhaps, is its superiority as a street light.—The usual retail price of the gas in England is from 7s. to 10s. per 1000 cubic feet. In Philadelphia, it is furnished at the rate of \$2.80 per 1000 cubic feet; 5 per cent. besides being deducted for prompt payment.

**GASTON** (William) was born at Newbern, in North Carolina, on the 19th day of September 1778. His paternal ancestors were Huguenots, who, at the period of the revocation of the edict of Nantes, sought refuge in Ireland; where his father was born, and where he had an uncle, who was an eminent presbyterian clergyman. Dr. Alexander Gaston, the father, received his professional education in the medical school at Edinburgh, and was subsequently appointed a surgeon in the British navy; but, early in life, he came to this country, and settled at Newbern. He was distinguished among the patriots of the Revolution; was a member of the committee of safety for the district in which he resided; and served in the army,—at times in his professional capacity, and once in the command of a body of volunteers, which led to his early and

tragic death, being shot by a party of Tories in the presence of his wife and family. The mother of Mr. William Gaston was of the Roman Catholic faith, and was distinguished for her prudence, intelligence, and accomplishments. Only three years old at his father's death, it was to her exclusively that he owed those early impressions which determined his future character and principles. A disposition, in childhood "volatile and irritable," was so trained as to become a pattern of patience and perseverance. While, too, he very naturally embraced the faith of his mother, he was at the same time imbued by her with the most liberal sentiments of toleration and kindness towards those who differed from her in their religious belief.—In the autumn of 1791, when 13 years of age, he was sent to the college at Georgetown, in the district of Columbia, where his attention was assiduously directed to the study of the ancient classics. At the end of 18 months, however, he was recalled home, on account of the impaired state of his health. This having been restored, he was, after receiving some farther preparatory instruction, entered as a member of the junior class of Princeton college, in New Jersey, in 1794. There he graduated, in 1796, with the highest honours of the institution. He then studied law in his native town with Francis Xavier Martin, who was afterwards a judge of the Supreme Court of the state of Louisiana.—In 1798, Mr. Gaston was admitted to practice; in the summer of 1800, before he had completed his 22d year, he was elected a member of the senate of North Carolina; and he very soon became conspicuous for his talents, influence, and usefulness. In 1808, he was one of the electors of president and vice-president, and in 1813 a representative in Congress, in which body he continued till 1817. He took an active part in its deliberations, and was a prominent leader of the party adverse to the then existing administration of the general government. One of his greatest efforts on the floor of Congress was his speech, in the early part of the year 1815, in opposition to the bill authorizing the president to contract a loan of \$25,000,000, for the purpose of carrying on the war with effect against Great Britain. He resisted its passage on the ground of its being intended to provide the means of an invasion of Canada, instead of being limited, as he judged that it should be, to the defence merely of our own territory from the aggressions of the enemy. His next most remarkable speech was, perhaps, that upon

the motion of one of his colleagues from North Carolina to expunge the "previous question" from the rules of the House, and in which the learning and eloquence displayed by him excited the surprise, as well as admiration, of his auditors.—After the year 1817, his sphere of usefulness was confined to his own state, where he continued to be unremittingly occupied at the bar, in the Legislature, in the Convention to amend the constitution, and lastly as a judge of the Supreme Court. He died at Raleigh, on the 23d of January 1844, in the 66th year of his age, beloved and lamented by all who knew him.—To intellectual powers of an uncommon order, and an untiring industry, he added the virtues of a Christian and the manners of an accomplished gentleman. The provision of the former constitution of North Carolina, excluding from judicial stations all but Protestants, was in his case regarded, from the universal respect in which he was held, as a dead letter. Yet the propriety of his acceptance of a seat upon the bench of the Supreme Court, in the face of it, has been much called in question; and some even of his most ardent friends disapproved of the step. He contributed effectually, at a subsequent period, to the abrogation of the constitutional provision referred to,—an achievement that may be regarded, from the peculiar position which he occupied in relation to it, as the most interesting event of his life.

**GAU.**\* After his return from his journey to Nubia, he was entrusted with the construction of a new church, as well as of other important buildings, at Paris.—Besides his work on the antiquities of Nubia previously mentioned, he published another, of like nature, on the ruins of Pompeii (1824).

**GAUDIN**\* (duke of Gaëta) continued president of the Bank of France from 1820 till the month of April 1834, when he resigned, not altogether voluntarily, to make room for M. d'Argout. Since then, he has lived in retirement at his seat in the neighbourhood of Paris.

**GAUNTLET.** See *Ganlope*.

**GAUSS.**\* Of late years the attention of this distinguished mathematician has been very much directed to the subject of terrestrial magnetism. His theory relating to it, together with the observations made by him in conjunction with Weber, have attracted in a considerable degree the notice of the scientific world. These observations are recorded in the "Resultaten aus den Beobachtungen des magnetischen Vereins," published annually by Gauss

and Weber since the year 1839, as also in the "Atlas des Erdmagnetismus" (Leipzig, 1840). Still more lately Gauss has been much occupied with the theory of geodesy, on which he purposes to publish a series of memoirs. The first of the series was inserted in the Göttingen Transactions for the year 1843.

**GAY-LUSSAC**\* (Nicolas François) was born December 6th 1778, at St. Léonard, in the French department of the Haute Vienne. The discoveries made by him subsequent to the publication of the "Recherches physico-chimiques," mentioned in a former volume, are recorded for the most part in the "Annales de chimie," the "Annales de chimie et physique," and the "Bulletin de la société philomatique." In 1827, appeared his "Cours de physique, recueilli et publié par Grosselin," and, in the following year, his "Cours de chimie professé à la faculté des sciences de Paris, contenant l'histoire des sels, la chimie végétale et animale, recueilli par une société de sténographes, et revu par Gaultier de Claubry," in two volumes.—M. Gay-Lussac, besides being a member of the Academy of Sciences and of that of Medicine, has held a great number of honourable appointments. Among these were the professorships which he held at the Sorbonne (Faculty of Sciences), at the Jardin du Roi, and the Polytechnic School, together with a number of administrative offices, requiring a knowledge of chemical science.—From 1831 to 1837, he was a member of the Chamber of Deputies; and in 1839, was created a peer of France. As a legislator, however, he has taken little or no part in the political contentions of the day, but has commonly spoken on all questions relating to public instruction, or the manufactures and commerce of the country.

**GAZETTEER.**\* To the list of gazetteers or geographical dictionaries mentioned in a previous volume, may be added M'Culloch's "Dictionary, geographical, statistical, and historical," a work of great research, and the general accuracy of which may be depended on. The articles relating to the United States have been extended and improved in the American edition.

**GELATINE.**\* The ultimate components of gelatine are 47.8 carbon, 7.9 hydrogen, 16.9 nitrogen, and 27.4 oxygen.

**GENEVA.**\* In 1838, the population of the city of Geneva was 28,003. It is surrounded by ramparts and bastions, constructed about the middle of the last century. These, however, are of little ser-

vice as fortifications, the city being commanded by some adjacent heights, and are of use chiefly as promenades.—The academy, founded by Calvin, has faculties of jurisprudence, theology, natural science, and literature, and 39 salaried or honorary professors. It has attached to it a library of 40,000 volumes, including many valuable manuscripts. Geneva has also a college for classical education; a school preparatory for the academy; a school of manufactures, established in 1832; schools of watchmaking, drawing, music, &c.; and many private schools. Besides the institutions mentioned in a former volume, it has a society for the advancement of arts; societies of medicine and natural history, and other learned associations; lunatic and deaf and dumb asylums; and various other charitable institutions. There are a number of benefit societies; and a savings' bank was established in 1816, which had in 1835 a capital of 5,136,171 florins.—The main source of the prosperity of Geneva consists in its manufactures; the principal of which are watches, jewellery, musical boxes, and objects of taste in the fine arts. In 1834, there were 274 master, and 1332 working watchmakers; and 117 master, and 663 working jewelers. The number of watches annually made is estimated at upwards of 70,000; and of these at least 60,000 are of gold. In watchmaking and jewellery together, it is estimated that between 70,000 and 80,000 oz. of gold, and about 50,000 oz. of silver, are used annually. "The great advantage," according to Dr. Bowring, "which the Swiss possess, in competition with the watchmakers in England, is the low price at which they can produce the flat cylinder watches, which are at present much in request. The watches of English manufacture do not come into competition with those of Swiss production, which are used for different purposes, and by a different class of persons. Notwithstanding all the risks and charges, the sale of Swiss watches is large, and it has not really injured the English watchmaking trade. The English watches are far more solid in construction, fitter for service, especially in countries where no good watchmakers are to be found, as the Swiss watches require delicate treatment. English watches, therefore, are sold to the purchaser who can pay a high price; the Swiss watches supply the classes to whom a costly watch is inaccessible." The works or machinery of the watches are made principally at Fontainemelon and Beaucourt, in France. The unfinished work is called an *ébauche*,

and is polished and perfected by the Genevese artisan. A committee of master-workmen, with a syndic at their head, are appointed by the government to inspect every workshop, and the articles made in it, in order to guard against fraud in the substitution of metals not of the legal standard. It may be added that, in defiance of the strictest custom-house regulations, the watches and jewellery of Geneva are smuggled very extensively into France.

GENOA\* had, in 1838, a population of 97,621, exclusive of the garrison of 8000 men, and seamen belonging to the merchant service or royal navy, amounting to 9636 more, being a total of 115,257 persons.—It is the entrepôt of a large extent of country; and its commerce, though inferior to what it once was, is very considerable, and has latterly been increasing. The various duties and custom-house fees, formerly charged on the transit of goods through Genoa and the Sardinian territories, have recently been abolished, and the city made a free port, that is, a port where goods may be warehoused, and exported free of duty. Its chief commercial relations are with Great Britain, France, and the Austrian and Neapolitan states; but it has also an active intercourse with the Russian ports of the Black Sea, whence wheat, wool, and other articles are imported; the Levant; and Brazil, from which sugar, coffee, and other tropical productions are brought. Its trade is chiefly carried on under the national flag. In 1835, the value of the imports into the *arrondissement* of Genoa was £3,840,000 sterling; and of the exports, £2,520,000.—Genoa has a royal college; a naval school, the first established in Italy; an excellent institution for the deaf and dumb; and a public library, with 50,000 volumes, and 1000 manuscripts.

GENTLEMEN PENSIONERS. A band of 40 gentlemen, in England, are so called, whose office is to attend the king's person on occasions of solemnity. They were instituted by Henry VIII.

GENTZ\* died on the 9th of June 1832. An edition of his "Select works" was published at Stutgard, in 1838-39, and another at Manheim, in 1839, in 2 vols.

GEODESY denotes that branch of practical geometry which has for its object the determination of the figure and magnitude of the earth, or of any considerable portion of its surface; or, in other words, it is surveying, as this term is used by the mathematician, on a large scale. It comprehends all the geometrical or trigonometrical

operations that are necessary for constructing a map of a country, measuring the lengths of degrees, &c.

**GEOGRAPHY.\*** Perhaps the best geographical treatise which has appeared, since the publication of the article *Geography* in a previous volume of this work, is that by Mr. J. R. McCulloch, already mentioned under the head of *Gazetteer* in this supplement.

**GEOLOGY.** In a former article (vol. v. page 423) a succinct sketch of the leading doctrines of this science was given; the main differences of the prominent hypotheses of the day pointed out; and the following summary drawn: "That all writers agree in this, that there are evident marks of at least three distinct revolutions or changes, which have been coextensive with the surface of the earth, and which occurred previously to the earth's assuming its present form, by which the order of things was wholly changed." Since the publication of these views, another theory, merely alluded to by the writer, has rapidly gained ground, and requires due notice; this is the hypothesis of Mr. Lyell, that the changes in the crust of the earth are referable to causes which are still in operation, and hence that all theories founded on a supposition that the ancient revolutions were dependent on operations different in nature and effect from those now existing, are erroneous. Mr. Lyell attempts to show that the surface of the earth has undergone constant changes; that mountains have been elevated or depressed; that valleys have been formed, have been filled up, and have again been excavated; that seas have existed where dry land existed, which in turn has been covered with water; and yet, that amidst all these changes, and those of climate resulting from these revolutions, there has been an uninterrupted succession of animal and vegetable existences. He goes still further, and states that all this has been accomplished by the operation of the laws now governing the universe; and that various tribes of organized beings have been continued by the appearance, from time to time, of species fitted for the new order of things, and not by any change or transmutation of them. This theory is supported by much cogent reasoning, and by an assemblage of a multitude of facts admitting of no other explanation. But there has been a disinclination to embrace it, arising from several causes, one of which has operated powerfully with some writers, viz., the vast extent of time anterior to the creation of man required to effect the

changes now presented by the crust of the earth. Of course, to those geologists who adhere to the Mosaic days of creation, as periods of twenty-four hours, it is wholly rejected, as irreconcilable with Scripture; and even among those who deem it impossible to assign a limit to that lapse of years, during which the Omnipotent Creator was pleased to exert his power, it has been objected to as leading to a supposition that the present state of the world has gone on from all eternity;—an idea which is emphatically disclaimed by Mr. Lyell, and which the whole scope of his theory tends to disprove.—All rocks are considered as belonging to four great classes, as regards their origin. The first two agree with those already noticed, viz., the aqueous or stratified, and the volcanic; the two others are the plutonic and the metamorphic. The first of these, including the granites and porphyries, are supposed to be equally of igneous origin with the volcanic, but to have been formed under enormous pressure, and at great depths below the surface, owing to which they differ from lavas cooling near or at the superficies: the latter, or stratified crystalline rocks, are stated to have been originally deposited by water, but at an after period so altered by subterranean heat, as to become changed in their texture; this class includes part of the primary and the transition rocks of the Wernerians. These classes of rocks are produced contemporaneously, and may now be in the progress of formation; or, in other words, it is asserted, that the rocks considered by geologists as primitive, from their position, and the absence of all organic remains, are not older than the rocks that overlie them, and may, in some cases, be of more recent origin, as the lower parts of the crust of the earth may be modified and changed by the action of internal causes, without altering the superincumbent formations. These views differ so essentially from those hitherto held by all geologists, and still maintained by many of them, that it is necessary to enter into a fuller explanation of them. According to Mr. L.'s view, the crust of the earth has been continually undergoing changes, both above and beneath, from the successive action of fire and water; or, from times indefinitely remote, all the classes of rocks were in the process of formation or the reverse, and hence are of contemporaneous origin, though portions of each class are of course older than others. In other words, there may be primary, secondary, and tertiary formations in them all.—There are three principal tests by which the relative age of

stratified rocks can be determined; these are, superposition, mineral character, and the organic remains contained in them; and these have been taken as the basis of classification by most geologists, however widely they differ as to their nomenclature, or views of the real age of these formations. Thus Lehman, in 1759, divided them into *primitive* and *secondary*; the first containing no organic remains or fragments of other rocks; and the latter composed of the fossiliferous strata. Taking this theory as a basis, Werner proposed to introduce a third class under the name of *transition*, for a group of rocks having the crystalline characters of the primary, and at the same time containing organic remains. In 1832, Mr. Conybeare proposed to name these strata from their position alone, but from various causes his system was not generally adopted; and the same may be said of that of Mr. De la Beche in 1830, though it is much more definite, and better adapted to practical purposes. In the present condition of the science, stratified rocks are generally viewed as divided into primary, lower secondary, upper secondary, tertiary, and modern, all of which are variously subdivided by geologists according to their respective views, but which it would be impossible to notice in this place.—As regards the origin of the primary strata, the theories have been very various; but it is now generally admitted that they all result from the action of both water and fire; though much difference of opinion exists as to the mode of action, and the epochs at which the changes occurred. All the other strata being fossiliferous, present definite characters in their included remains, and thus have enabled geologists to arrive at much more correct calculations as to their relative age; and it may be assumed as demonstrated that the succession of fossiliferous rocks maintain the same relative position to each other in all parts of the world, thus showing that analogous causes have produced analogous results wherever they have been called into action.—It must at the same time be confessed that, although a vast mass of facts have been collected, and most learnedly brought to bear on this or that theory, the attempts made to connect the laws of phenomena with those of causation are all open to objections, and stronger proofs than any hitherto adduced are required before they are generally admitted, and before a clear and connected knowledge of the history of the changes in the crust of the earth can be arrived at. There are, however, certain facts and inferences from them, which

are now generally admitted and recognised by geologists. These are so well summed up by Mr. Trimmer in a recent work (*Practical Geology*) as to present in a few words the present condition of the science, stripped of all speculation and theory. The following abstract is principally derived from this source.—Rocks are still forming, under the agency of fire and water, in the same manner as in times past. The crust of the earth, as far as examined, presents its materials in a determinate order of superposition; the lower consisting of crystalline masses which are not stratified, and which not only frequently pierce through the superimposed beds, but have produced alterations in these beds, where they came in contact with them, only attributable to the action of heat. These granitic rocks are overlaid by crystalline strata, which are destitute of organic remains, but showing traces of having been deposited as a sediment, and are generally supposed to be aqueous deposits altered by heat; but the exact mode and amount of this change are still matters of controversy. The next strata in the ascending series abound in animal and vegetable remains; they are co-extensive with the earth's surface, and are very thick. The lowest of them is the oldest, and the uppermost the most recent. They are divisible into many groups, according to the groups of organic forms they contain. The greatest differences exist between those groups which are derived from the extremes of the series; and on the other hand, the greatest similarity between those which are found in strata which approximate in the order of succession. There are local diversities ably pointed out by Lyell and other geologists which must always be taken into account. These, however, are far more frequent in the newer than in the older deposits.—Almost all geologists now agree that an indefinite but vast lapse of time must have been required for these deposits to have been made, and that the few thousand years embraced in human records are as nothing compared with those incalculable periods during which the various strata composing the crust of the earth have assumed their present form. It has been clearly shown that these formations have been the result of gradual or successive operations; that deposits of strata have occurred; that these strata have been elevated, variously fractured, contorted and acted upon by subterranean forces, altered by the action of fire, again depressed, and other deposits made, and the whole elevated again above the

waters. Another point universally conceded is, that the temperature of the earth increases in a progressive manner towards its centre; and hence it is supposed, if the same fact holds good to great depths, that every thing must be in a state of fusion at a few miles below the surface. It has been remarked by all geologists, that the organic remains of the older deposits indicate a high but gradually decreasing temperature in northern latitudes, at the time they were destroyed; but no satisfactory explanation has yet been afforded of the change that has taken place. All which is generally admitted, is that this change has been gradual. It is true that considerable differences of temperature exist in the same parallels of latitude, from the influence of local causes; but these differences are scarcely sufficient to have been the origin of the high temperature towards the poles in an early state of the world. Mr. Lyell, however, proposes this solution of the problem, or that it was owing to the preponderance of land towards the equator, and of ocean to the north and south.—The changes that have occurred from the former condition of the globe, or of its parts, to its present state, have all been gradual, as is plainly indicated by the fossils found in the different strata. Breaks occur, and links, indeed, are wanting; but when the observations of geologists are more extended, these may be found. Of the former periods, that of the tertiary, as might be supposed, most closely approaches the one now existing. The organic bodies found in the rocks of that epoch are more diversified than in those of the secondary age, and remains of the higher animals become numerous, and according to the age of the deposit, are more or less closely allied to living species. Thus, whilst in the older tertiary, extinct genera are common, in the newer they are replaced by extinct species of existing genera; the passage, however, as just stated, was gradual, for it is found that mollusca, identical with those now living in the adjacent waters, co-existed in the same region with extinct species, and even genera of mammalia.—Anterior to the present epoch, but posterior to the tertiary period, occurred a state of things which has been ably investigated by Agassiz, Buckland, and Lyell. This is what may be termed the erratic block, or boulder period, during which marine currents of great force, extent, and continuance, appear to have passed over a large portion of the earth's surface from the north. There is no evidence to show that this occurred since the creation of man, as human re-

mains have not been yet found in or below any of these diluvial deposits. The writers referred to, appear to think that this period was one of intense cold, and that the temperate regions of Europe, and, in fact, wherever unstratified gravel is found, were covered with ice, as Greenland now is. This glacial theory was first broached by Agassiz from observations made during many years in Switzerland, which led him to the conclusion that the vast glaciers of that country were not extending, as was supposed, from the tops of the mountains to the plains, but were the remains of still vaster masses, which had covered the whole face of the country. Further observations in other countries confirmed him in this idea; and the investigations of Mr. Lyell in this country have led to the same conclusion.—One of the most certain facts of geology is, that man and his contemporary species are but recent inhabitants of the earth. This is explicitly confirmed by the only book that contains the early history of our race, and which is confined in its purport to that, and hence ought not to be considered as an account of what occurred prior to the creation of human beings. But other records exist bearing the imprint of the same great power that called man into existence, which, in giant characters, speak of ages so long anterior to the present epoch, that the mind becomes bewildered in endeavouring to affix dates to them.

GEOMETRY\* (Descriptive); a term first employed by Monge, and since by mathematicians generally, to express that part of their science which consists in the application of geometrical rules to the representation of the figures, and the various relations of the forms of bodies, according to certain conventional methods. It differs from ordinary perspective, inasmuch as the design, or representation, is made in such a manner that the exact distance between the different points of the body represented can always be found, and consequently all the mathematical relations resulting from the form and position of the body may be deduced from the representation.—Sculpture, architecture, painting, and all the mechanical arts, the object of which is to give to matter certain determinate forms, borrow from descriptive geometry their graphical procedures, by the aid of which all the parts of an object are faithfully represented in relief, before the object itself is executed. But it was chiefly in consequence of its application to civil and military engineering, and to fortification, that this branch of geometry re-



ceived a distinctive appellation, and was considered of so much importance as to form one of the principal departments of study in the polytechnic school of France.—The best systematic treatises written on the subject are those of Monge, Hachette, Vallée, and Leroy. A good general idea, however, may be obtained from the small work of Lacroix, entitled “*Complément des éléments de géométrie.*”

GERANDO\* (baron de) was, in 1819, appointed to a professorship of administrative law, the expediency of creating which he had himself suggested to the government. It was, however, suppressed two years afterwards. He had been elected a member of the Institute, in the class of the moral and political sciences; and on the suppression of this class, he became a member, in 1810, of that which, in 1816, received the name of the Academy of Inscriptions and Belles Lettres. Again, on the institution, in 1832, of an Academy of the Moral and Political Sciences, a seat in it was assigned to him. And he is also a member of most of the learned societies of Europe.—He was one of the founders of the Society for the encouragement of the National Industry of France, of that for the elementary instruction of the children of all classes of the community, and of that also for the promotion of Christian morals; and he was instrumental to the establishment of savings' banks. He was, besides, one of the most active managers of the institution for the deaf and dumb, as well as of various of the hospitals and other charitable establishments of the capital. In addition to the works, already mentioned, of which he is the author, he has published an essay, styled “*Le visiteur du pauvre,*”—a treatise “*De l'éducation des sourds-muets de naissance*” (2 vols. 1827),—another entitled “*Institutes du droit administratif français*” (1829),—and lastly, a work with the title “*De la bienfaisance publique*” (4 vols. 1839).

GERARD\* (count). After the revolution of July, he was entrusted, first by the provisional government, and subsequently by Louis Philippe, with the department of war, an office which, however, he held only during three months. In August 1830, he was promoted to the rank of a marshal of France, and in August of the following year, was appointed to command

the army destined to besiege the citadel of Antwerp. In October 1832, he was created a peer. On the 18th of July 1834, he once more became minister of war, and was at the same time appointed president of the council of ministers. But, as before, in little more than three months he quitted the ministry. He succeeded Marshal Mortier, on the death of the latter, as chancellor of the legion of honour; and in December 1838, on the death of Marshal count Lobau, he was invested with the office of commander (*commandant général*) of the national guard of the department of the Seine.

GERARD\* (Francis). Among the latest productions of this distinguished painter may be mentioned “*Napoleon in his closet*” (1831); “*The plague at Marseilles*” (1832); a full-length portrait of Louis Philippe; “*Louis Philippe accepting the lieutenant-generalship of the kingdom;*” and the portrait of General Hoche (1836). He died, January 11th 1837.

GERMAIN (Sophie), born at Paris in 1776, made, at a comparatively early age, an extraordinary progress in the mathematical sciences, and, in 1816, obtained the prize of the Academy of Sciences for a memoir on the vibration of elastic laminæ. She pursued this subject further in her “*Recherches sur la théorie des surfaces élastiques*” (1820), in another memoir presented to the Academy (1826), and in an article in the “*Annales de physique et chimie*” (1828). During the revolution of the three days, she was quietly engaged at Paris in the preparation of a memoir on the curvature of surfaces, which was, when finished, inserted in Crelle's Journal of the Mathematics. She died in 1831, of a cancer. Distinguished as she was by her acquirements and performances in the exact sciences, her attention had been far from being exclusively confined to them, but was, on the contrary, directed, in no inconsiderable degree, also to natural science, geography, history, and the speculations of philosophy.

GERMANY.\* The following table, exhibiting the extent in German square miles (each of them equivalent to 21.17 English sq. m.), with the population of the several states of the Germanic Confederation in the year 1840, is copied from Berg-haus' Geographical Almanac for 1841.

| States.                            | Area. | Pop.       | Pop. per Sq. M. |
|------------------------------------|-------|------------|-----------------|
| Austrian dominions in Germany..... | 3,527 | 11,831,000 | 3,367           |
| Prussian do. do. ....              | 2,363 | 11,041,100 | 3,963           |
| Bavaria.....                       | 1,328 | 4,368,000  | 3,118           |
| Hanover.....                       | 697   | 1,736,600  | 2,500           |
| Württemberg.....                   | 368   | 1,684,400  | 4,579           |
| Saxony.....                        | 372   | 1,679,100  | 6,174           |

| States.                       | Area.  | Pop.       | Pop. per Sq. M. |
|-------------------------------|--------|------------|-----------------|
| Baden                         | 276    | 1,290,000  | 4,673           |
| Mecklenburg-Schwerin          | 228    | 447,500    | 2,135           |
| Hesse-Cassel                  | 174    | 740,000    | 4,354           |
| Hesse-Darmstadt               | 153    | 794,300    | 5,217           |
| Holstein-Oldenburg            | 114    | 270,300    | 2,371           |
| Luxemburg-Limburg             | 80     | 335,000    | 3,770           |
| Saxe-Weimar-Eisenach          | 67     | 247,500    | 3,694           |
| Mecklenburg-Strelitz          | 49     | 186,700    | 1,810           |
| Holstein-Lauenburg            | 168    | 492,300    | 2,646           |
| Nassau                        | 87     | 301,400    | 4,500           |
| Brunswick                     | 69     | 253,500    | 3,674           |
| Saxe-Meinungen-Hildburghausen | 43     | 150,100    | 3,490           |
| Saxe-Coburg-Gotha             | 34     | 141,500    | 4,161           |
| Saxe-Altenburg                | 24     | 122,400    | 5,117           |
| Anhalt-Desau                  | 15     | 62,200     | 4,146           |
| Anhalt-Bernburg               | 14     | 46,000     | 3,347           |
| Anhalt-Coethen                | 12     | 40,700     | 3,394           |
| Waldeck-Pyrmont               | 93     | 50,300     | 2,696           |
| Lippe-Detmold                 | 28     | 87,600     | 3,990           |
| Hohenzollern-Sigmaringen      | 17     | 43,300     | 3,078           |
| Schwarzburg-Rudolstadt        | 16     | 67,000     | 4,187           |
| Schwarzburg-Sondershausen     | 15     | 56,300     | 3,758           |
| Reusa, younger line           | 15     | 78,100     | 4,890           |
| Schaumburg-Lippe              | 7      | 30,500     | 4,357           |
| Reusa, elder line             | 6      | 22,100     | 5,350           |
| Landgraviate of Hesse         | 5      | 23,400     | 4,680           |
| Hohenzollern-Hechingen        | 4      | 19,400     | 4,975           |
| Lichtenstein                  | 3      | 6,500      | 2,460           |
| Hamburg                       | 7      | 138,900    | 22,600          |
| Lubeck                        | 5      | 50,900     | 10,180          |
| Bremen                        | 5      | 64,600     | 12,920          |
| Frankfort on the Maine        | 2      | 65,300     | 32,600          |
|                               | 11,385 | 39,118,000 | 3,436           |

The same states had, in 1816, 30,164,300 inhabitants; so that their increase of population, in the following 24 years, amounted to 8,954,510, or to very nearly 30 per cent.

We give also a list of the 12 largest towns of Germany, with the amount of their population (1840) annexed.

|                               |         |
|-------------------------------|---------|
| Vienna                        | 350,097 |
| Berlin                        | 265,214 |
| Hamburg                       | 190,000 |
| Prague                        | 102,918 |
| Munich                        | 92,435  |
| Breslau                       | 87,869  |
| Trieste (including Weichbild) | 75,351  |
| Dresden                       | 64,523  |
| Cologne (including Deutz)     | 60,051  |
| Frankfort on the Maine        | 54,892  |
| Magdeburg                     | 51,344  |
| Leipzig                       | 47,514  |

The quota of troops which the several German states are required to furnish, in the event of a war, to the army of the Confederation, is the same at present as it was when the Confederation was formed, in 1815, with the exception (an alteration made in 1831) that, in the case of some of the smallest states, it is to consist of infantry only, the cavalry and artillery required to act with it being furnished by Austria and Prussia, and with the exception also of the army being divided into 11 instead of 10 corps. The 1st, 2d, and 8d corps are composed of Austrians (94,822 men); the 4th, 5th, and 6th of Prussians (79,234 men); Bavaria furnishes the 7th corps (35,600 men); Wurtemberg, Baden, and Hesse-Darmstadt, the 8th (37,346 men); the 9th is furnished by Saxony,

Hesse-Cassel, Nassau, and Luxemburg (27,231 men); the 10th, by Hanover, Brunswick, Holstein, the two Mecklenburgs, Lubeck, Hamburg, and Bremen (34,717 men); and the 11th by the other minor German states (11,152 men); the whole amounting to 320,102 men.

The two great *internal improvements* which have taken place in Germany of late years are, first, the gradual extension of the Prussian Customs' Union, or "Zollverein," until it has at length bestowed the benefits of an uninterrupted freedom of commerce throughout the whole extent of the vast region from Aix-la-Chapelle, on the borders of the Netherlands, eastward to Tilsit, on the confines of Russia, and from Stettin and Dantzic, southward to Switzerland and Bohemia; and the introduction of railroads, which here, as elsewhere, have had the effect of multiplying in an extraordinary degree the transit of both persons and commodities from one part of the country to another. In relation to the Customs' Union, the reader is referred to the article *Prussia* in this volume. The following are some of the most important points of information concerning the railroads actually constructed, or in process of construction:—*Austria*. 1. From *Budweis to Lintz and Gmunden*. It was begun in 1825, was completed as far as Lintz in 1832, and to Gmunden in 1836. It has only a single track; and the cars are drawn over it by horses. Its length from Budweis to Lintz

is about 80 miles, and from Lintz to Gmünd, about 42 more; and its cost was about 1,637,000 dollars. The projectors of this road intended to connect, by means of it, the Danube with the Elbe, and by help of these rivers to establish an easy communication, through the interior of Europe, between the German Ocean and the Black Sea. Thus far, however, it has chiefly served for the conveyance of the salt of Lower Austria in the direction of Bohemia, and as a means of supplying the steamboats on the Danube with the coal of the latter kingdom.—2. From *Prague to Lahna*. This is another link in the great chain of communication just mentioned. It was constructed by a joint stock association, having the privilege of the road granted them for a period of 50 years, but is the property at present of the prince of Fürstenberg. It has, like the former, only a single track, and the conveyance likewise is by horse-power. Its length, we are informed, is about 36 miles, and it was opened in the year 1830.—3. From *Vienna to Gloggnitz and Grätz*. This railroad is one of the most travelled on the continent of Europe. From 5000 to 6000 passengers are said to be conveyed on it daily. The section of it between Vienna and Gloggnitz was begun in 1839, and opened in 1842. It is 45 miles long, and cost about 5,000,000 dollars. There are two tracks upon it as far as Neustadt. It is the commencement of the intended great public line of railway communication between Vienna and Trieste, which is now in active progress.—4. A railroad extending from *Vienna northward*, in the direction of Moravia. Begun in 1836, it is now finished as far as Leipnick. The first section of this road, the only one which has two tracks, reaches from Vienna to Genserndorf; and from that place a branch goes off towards Stockerau, which is the commencement of a great line of communication, to be constructed at a future day, between Vienna and Munich, along the Danube to Lintz, and thence across the country to the Inn. From Genserndorf the road proceeds to Leipnick by way of Lundenburg and Prerau. At the former of these towns, a branch goes off to Brunn, and at the latter another to Olmütz. At a meeting of the stockholders, in October 1843, it was resolved to extend the road from Leipnick to Oderberg, where it is to connect itself with the Prussian railroad of Upper Silesia. Railroads intended to connect Brunn and Olmütz with Prague are now also in process of execution. The northern railroad of

which we have been speaking, will, including its several branches, have a length of about 190 miles; and the estimated cost is 8,000,000 dollars.—*Prussia*. 1. From *Berlin to Potsdam*. This road, intended for two tracks, has as yet only one. It is about 17 miles long, and has cost about 1,000,000 dollars. It is intended to be ultimately carried on to Magdeburg.—2. From *Berlin to Coethen*, a distance of about 96 miles. It has cost a sum of 4,230,000 dollars.—3. From *Berlin to Stettin*. This was commenced in 1840, and opened as far as Angermünde in 1842, and through to Stettin in the following year. Its length is 87 miles, and its cost 2,350,000 dollars. And although constructed for two tracks, it has only a single one, like most of the other railroads in Germany.—4. From *Berlin to Frankfort on the Oder*. Length, 52 miles; and cost, very nearly 2,000,000 dollars.—5. From *Leipsic to Magdeburg*. This line of railroad is 75 miles in length, and was completed with one track in August 1840. The second track was laid in 1842. The entire cost of the road was 3,100,000 dollars. It passes through Halle and Coethen.—6. From *Breslau to Oppeln, Liegnitz, Freiberg and Schweidnitz*. The railroad from Breslau to Oppeln was opened as far as Ohlau in May 1842, as far as Brieg in August 1842, and has been in full operation along its whole extent since the month of May 1843. Its length is 51 miles; and it cost somewhat above 1,000,000 dollars. The line of road from Breslau to Liegnitz is the first section of that which is destined to connect Breslau with Frankfort. It was begun in 1843. It has a length of 41 miles; and its prolongation into the kingdom of Saxony has been determined upon in a special convention concluded by the Prussian and Saxon governments at Berlin in July 1843. The line from Breslau to Freiberg and Schweidnitz was opened as far as the former of these places, a distance of 36 miles, in October 1843. This, with the branch from Jauernick to Schweidnitz, a distance of 5 miles, were constructed at a cost of 1,330,000 dollars.—7. From *Magdeburg to Brunswick, and branches*. This road is divided into several sections. The first connects Magdeburg with Gross-Oechersleben, whence there is a branch to Halberstadt. The second section extends from Oechersleben to Wolfenbüttel, where it unites with the railroad from Brunswick to Harzburg. This last road has been constructed by the government of Brunswick. The whole line was opened in

1843. On the main route, from Magdeburg to Brunswick, there are two tracks: the branches have only one. The length of the whole, including the branches, is very nearly 65 miles.—8. From *Cologne to Aix-la-Chapelle and Liege*. The whole of this line, which was begun in 1838, was opened in October 1843. The Prussian part of it extends a distance of about 54 miles, and cost the sum of somewhat more than 6,500,000 dollars, an enormous expenditure, when compared with that incurred in the construction of the other German railroads. This has been owing to the extraordinary difficulties encountered, and which it required all the resources of the most improved engineering to overcome, and to the many viaducts, tunnels, bridges, &c., that have been constructed in the progress of the work. One track only has as yet been laid; and the laying of another would require, it is said, a vast amount of labour and expense.—9. From *Düsseldorf to Elberfeld*. The commencement of this road was made in January 1838, and the whole extent of it opened for travelling in September 1841. Its length is only 16 or 17 miles; but it cost nevertheless, from causes similar to those that have just been mentioned, the sum of 1,800,000 dollars.—10. From *Cologne to Bonn*. This railroad was opened in February 1844. Its length is 21 or 22 miles; it is estimated to have cost about 660,000 dollars. It is constructed for two tracks, though as yet it has only one. It will be carried on, it is said, as far as Coblenz.—*German States, other than Prussia and Austria*, and in addition to the railroads from Berlin to Coethen, and from Leipzig to Magdeburg, already mentioned. 1. From *Hamburg to Bergedorf*. This road, nearly 10 miles in length, was opened in May 1842, a few days after the great fire of Hamburg.—2. From *Altona to Kiel*. The length of this line of road is about 63 miles; and its cost amounted to about 1,800,000 dollars.—3. From *Hanover to Brunswick*. This road has been made at the expense of the two states through whose territory it passes. It is 97 miles long, and cost 1,200,000 dollars. It was opened in the spring of 1844.—4. From *Leipzig to Dresden*. It is one of the most important of the German railroads. Its length is 73 miles; and its cost, comprehending that of the 7 additional miles from Leipzig to the Prussian and Saxon frontier, was 4,582,000 dollars. The construction of it (by a joint stock association) was begun in 1836, and completed in 1839. On this road is the tunnel of Obe-

rau, the first that was executed on the German railroads.—5. From *Leipzig to Altenburg*. It was constructed by a company, in the interval between the month of July 1841, and that of September 1842. Its length is 25 miles, and its cost was very nearly 1,700,000 dollars. There are to be two tracks upon it. Latterly, it has been extended from Altenburg to Werdau, in the direction of Plauen; and it is intended to form ultimately, in connexion with another railroad passing through the Bavarian territory, a great line of communication from the north of Germany to the lake of Constance.—6. From *Nuremberg to Fürth*. Its construction was begun in May 1835, and ended in December of the same year. It is less than 4 miles long, and cost 86,000 dollars.—7. From *Nuremberg to Bamberg*, which will hereafter constitute an important link in the communication by railroad between Munich and Leipzig. Its length and cost we have no means of ascertaining.—8. From *Munich to Augsburg*. This road, which is about 38 miles long, cost 1,700,000 dollars. It has only a single track, though prepared for two. It was constructed by a joint stock company, but has since become the property of the state, the stockholders having been fully indemnified by the Bavarian government. The construction of it began in 1838, and it was opened in October 1840.—9. From *Frankfurt on the Main to Wiesbaden*. It was begun in 1838; completed in 1840; and is about 27 miles long.—10. From *Manheim to Karlsruhe by way of Heidelberg*, and from *Carlsruhe to Offenburg by way of Rastadt, with a branch to Kehl, opposite Strasburg*. The section from Manheim to Heidelberg was opened in September 1840, and that from Heidelberg to Carlsruhe in April 1843. A section of the road from Offenburg has been very lately also opened to travellers. The length of the railroad from Manheim to Carlsruhe is about 45 miles.—And besides these railroads, we subjoin a list of a number which are now either in process of execution, or are projected with a prospect of being speedily begun to be executed.—1. From *Neustadt to Odenburg* (on the route from Vienna to Trieste).—2. *Gensersdorf to Presburg* (in Hungary).—3. *Stockerau to Munich*, by way of Krems (where it is to cross the Danube), Lintz, and Lauffen, with a branch to Salzburg.—4. *Budweis to Pilsen* (by Klattau).—5. *Pilsen to Lahna*.—6. *Brünn and Olmütz to Prague* (the two roads uniting at Frübau, and passing by way of Kollin).—7. *Leipaiso to*

*Oppeln* (by Oderberg, Ratibor, and Cosel).—8. *Cosel to Cracow* (by Glewitz).—9. *Augsburg to Lindau*, on the lake of Constance (by Kempfen).—10. *Ulm to Friedrichshafen*, on the lake of Constance.—11. *Augsburg to Ulm*.—12. *Augsburg to Nuremberg* (by Donauwerth).—13. *Ulm to Heilbronn* (by Stuttgart and Ludwigsburg).—14. *Ludwigsburg to Carlsruhe*, (by Pforzheim).—15. *Bamberg to Altenburg* (by Hof and Plauen).—16. *Bamberg to Frankfort on the Maine* (by Schweinfurt and Hanau).—17. *Prague to Dresden*.—18. *Liegnitz to Dresden* (by Bunzlau, Görlitz, Löbau, and Bautzen).—19. *Löbau to Zittau*.—20. *Liegnitz to Glogau, Posen, Bromberg, Dantzick, and Königsberg*.—21. *Liegnitz to Frankfort on the Oder* (by Bunzlau, Sorau, and Guben).—22. *Sorau to Glogau*.—23. *Guben to Riesa* (by Cottbus).—24. *Frankfort on the Oder to Posen*.—25. *Stettin to Bromberg*.—26. *Berlin to Hamburg* (by Ludwigslust and Bergedorf).—27. *Jüterbock to Riesa*.—28. *Halle to Weimar, Gotha, Eisernach, and Cassel*.—29. *Cassel to Heidelberg* (by Marburg, Giessen, Hamburg, Frankfort on the Maine, and Darmstadt).—30. *Cassel to Minden* (by Paderborn, Lippstadt, and Bielefeld).—31. *Lippstadt to Duisburg* (by Hamm and Dortmund).—32. *Dortmund to Elberfeld* (by Hagen).—33. *Minden to Cologne*.—34. *Minden to Hanover, and to Bremen* (by Verden).—35. *Bremen to Hamburg*.—36. *Hildesheim to Hamburg* (by Celle and Lunenburg).—37. *Cologne to Amsterdam* (by Dusseldorf, Wesel, and Arnheim).—38. *Mentz to Mannheim*.—39. *Sarbrück to Spiers and Mannheim*.—40. *Offenburg to Basel*.—There are but few canals navigable for large boats in Germany, but a considerable number for small ones. The principal canals are:—the canal of Holstein, which, by means of the Eider, unites the Baltic Sea with the German Ocean; the canal of Plauen, from the Havel to the Elbe; the canal of Finow, uniting the Havel and the Oder; the Frederick William's canal, from the Spree to the Oder; the canal of Papenburg, uniting the Ems with the German Ocean; the canal of Vienna, which, though ultimately intended to connect the Danube with the Adriatic, is only carried to a short distance beyond Neustadt; and the canal which unites the Stecknitz with the Trave at Lubeck.

The public mind in Germany was powerfully excited by the revolution of July 1830, in France; and this excitement was aggravated to a higher pitch by the events which occurred soon afterwards, first in

Belgium, and next in Poland. Had Louis Philippe, indeed, on his accession to the throne, deemed it expedient to govern at home in the spirit of those who were most instrumental in his elevation, and boldly to sympathise with the constitutional or liberal interests in every part of Europe, there can scarcely be a doubt that the revolutionary elements, which existed among the German population, would have been roused into an activity sufficiently violent to threaten the overthrow of the established order of things. But when the insurrection of the Poles was suppressed, and it became apparent that the maintenance of the general peace in Europe was a consideration with the French government paramount to every other, the popular excitement, on the one hand, rapidly abated, and the rulers, on the other, were emboldened to adopt severe and restrictive measures, as precautions against its renewal. Among the acts of the Germanic Diet, of this description, may be mentioned its prohibition of all petitions or addresses in behalf of the public interests, as an irregular interference on the part of subjects with the authority of the sovereign power (1831), followed soon afterwards by an act reminding the governments of the respective states of the confederation of their engagements to each other, to watch over the press, and to provide a proper censorship, to which it should be subjected, in conformity with the decrees of the Diet; its declaration (1832) that the representative bodies, in the constitutional states of Germany, are not, for any reason whatever, authorised to refuse to the government the pecuniary means necessary for the ordinary exercise of its functions; its appointment, at the same time, of a standing committee, whose province it should be to guard against the legislation of any of the states being inconsistent with the general objects or interests of the confederation; the appointment by it (1834) of a tribunal for determining all such disputes between the sovereigns and the representative bodies, or estates, as it should be found impossible to determine in a constitutional manner; the prescribing by it (also in 1834) of an alteration in the constitutions of the universities, restricting their jurisdiction over their members, and subjecting the latter to the authority of the local judicatures and police; the prohibiting of the "travelling mechanics" to visit any places, such as Switzerland for example, where public associations for a political object were tolerated; the suppression, by name, of certain political journals, and

the adoption of measures to prevent the publication or circulation of the writings of a class of authors, commonly spoken of under the designation of "young Germany;" together with a decree providing for the delivering up, when required, by the particular members composing it, of all offenders against the confederation.—Among the acts of the Diet of most interest, not of a political character, are those which relate to the question of copy-right. In April 1835, it was resolved no longer to permit the sale of foreign reprints of books originally published in Germany; and, by a late resolution of the Diet, a copy-right secured in one of the German states is good in all.—The capacity of the different states of the Germanic Confederation to act together in unison and with efficiency, in the event of a war, is yet to be tested. In 1840, however, when Thiers, who was at the head of affairs in France, seemed determined to make the settlement of the "eastern question" by the parties to the treaty of London, on principles unacceptable to himself and his colleagues, and to which they had strenuously objected, a cause of war, and when the French army received an extraordinary addition to its numbers, every part of Germany was active, to the full extent of the requirements made upon it, in making counter-preparations for the approaching conflict. And on that occasion, at least, the Confederation would not have been found wanting to itself.

**GERMAN SILVER**, sometimes called white copper, or paktong, is an alloy composed generally of copper, zinc, and nickel, the proportions varying according to circumstances. When intended as a substitute for silver, they are—copper 50 parts, nickel 25, and zinc 25, in the 100. But the proportions in the genuine German silver are as follows:—copper, 40.4; nickel, 31.6; zinc, 25.4; iron, 2.6.

**GERSDORFF**\* This general died, September 15th 1829.

**GESNIUS**\* died on the 23d of October 1842.

**GHEE**, in Oriental commerce, is clarified butter, made generally from the milk of buffaloes, and is an article of great importance in India, Arabia, and other eastern countries. It will keep fresh for a considerable time, and is commonly conveyed in bottles made of hide, called duppers, which contain from 10 to 40 gallons each.

**GHENT**\* Population, in 1836, 88,290.—Ghent contains the only large nunnery that survived the dissolution of conven-

tual institutions by the emperor Joseph II. This establishment, called the "Grand Béguinage," founded in 1234, is of great extent, forming almost a little town of itself, with streets, squares, and gates, surrounded by a wall and moat. It is inhabited by 700 or 800 nuns, who are not bound by any vow, and may return into the world whenever they please. But it is said to be their boast that none of their number has been known to quit the order after having once entered it. Each of the sisters resides in a separate house. They occupy themselves in nursing the sick in the hospitals and private residences of the city, and in sewing, knitting, lace-making, &c., or teaching young girls for a pecuniary compensation.—There are no fewer than 22 public hospitals, 2 deaf and dumb institutions, and many other charities. The great prison, begun in 1774, and not completed until 1824, is remarkable for its size and the excellence of its arrangements in reference to the objects proposed in its construction. The prisoners occupy separate apartments which are kept very neatly, and are ventilated when the prisoners go to work. The annual expense of this establishment is about 50,000 florins, and the number of prisoners is 1500. One-half of the produce of the prisoners' labour is reserved by the government for the expenses of the prison; and the remainder is divided into two portions, one of which is given to the prisoners for pocket-money, while the other accumulates, and is given to them on quitting the prison.—The principal educational institution is the university, founded in 1816. It has from 16 to 20 professors, and about 400 students; and besides a library of 60,000 volumes, is well provided with all the *materiel* and apparatus requisite for efficient courses of instruction in the different sciences. Ghent has also a gymnasium, a school of drawing, and a museum of paintings.—The separation of Holland from Belgium, in 1830, gave a considerable shock to the industry and trade of Ghent; and several capitalists soon after removed their establishments into Holland. The cotton manufacture is still, however, very extensive, though it is doubtful whether it will be able to maintain its ground against the competition of foreigners. Next to cotton, the most important branches of industry are lace-making, and the manufacture of silk, linen, and woollen fabrics. The city is connected by one ship canal with Bruges and Ostend, and by another, which passes by Sas van Ghent, with the Scheldt at Terneuse; and rail-

roads also extend from it both eastwards and westwards.

GIANNI.\* After the fall of the imperial government, this distinguished improviatore, through the influence which his friend Corvetto was still able to exert, retained his pension of 6000 franca. He died at Paris in 1822.

GIessen.\* Population in 1840, 7224. Although the fame of the university of Giessen has been of late years widely extended by the reputation of Liebig, who is one of its professors, the number of students has diminished. It now scarcely amounts to 300.

GILES (William B.) was born in Amelia county, Virginia, August 12th 1762. After the usual preparatory instruction to be derived at the county schools, he was placed by his father at Hampden Sydney College, under the care of the Rev. Dr. Samuel Stanhope Smith, who was then the president of that institution. He remained there for a year or two, when he accompanied Dr. Smith, on the removal of the latter to Princeton College, in New Jersey. Of the advantages which he enjoyed at this place he seems to have been in after life fully sensible; although, as is believed, he never graduated, having quitted the college before he had completed the entire course pursued by the students. Upon his return to Virginia, he went to Williamsburg, to study the law under Mr. Wythe, and in due time was admitted to the bar.—Mr. Giles commenced the practice of his profession at Petersburg, attending likewise the courts of the neighbouring counties, and the General Court of Virginia. His professional career was only a short one, not exceeding 5 or 6 years. When he retired from the bar, he had, nevertheless, obtained a considerable reputation as an advocate; but neither the time nor attention bestowed by him in the study of the law was sufficient to render him a sound or a learned lawyer.—The political life of Mr. Giles began in 1790. He ranked, at this period, with the federal, as opposed to the anti-federal party; these designations not having yet lost their original reference to the favourable or unfavourable opinions, entertained by the parties, in relation to the adoption of the present constitution of the general government. He was elected to fill a vacancy in Congress which occurred by the decease of the member of the district in which he resided, and took his seat in the House of Representatives in December 1790. The session which ensued was one of great importance, on account of the na-

ture of the measures proposed and discussed, especially the act incorporating the first Bank of the United States, and also on account of the new grounds on which the political parties of the country arrayed themselves against each other. Mr. Giles followed the lead of Mr. Madison, in opposition to the bank, and, with him, thenceforth ceased to be a federalist, and became a "republican" or "democrat." As a debater on the floor of Congress, Mr. Giles very soon developed an extraordinary ability, which, in connection with the conformity of his opinions with those of the majority of his constituents, secured his return by them as a representative to Congress at every successive election, until, in August 1804, he was appointed, by the governor and council of Virginia, to be a senator of the United States from that state. But in 1798-99, his congressional career was temporarily interrupted by his own act. Mr. Madison, Col. Taylor, Mr. Giles, and several others of the Virginia members, finding it hopeless to resist with effect, by remaining where they were, the measures pursued by the supporters of the administration of the elder Adams,—measures which, in their belief, were dangerous usurpations of the general government on the reserved rights of the states,—determined, by agreement, simultaneously to resign their seats in Congress, and to procure their election by their respective counties to the State Legislature, for the purpose of attempting some more effectual movement there. When this step was taken, the election for delegates from Mr. Giles's county, for the following session of the Legislature, had already taken place; yet a vacancy was created for the occasion by the resignation of one of the delegates elect, and Mr. Giles was accordingly chosen to fill it. He performed with ability the part which he had undertaken, co-operating efficiently in the adoption by the Legislature of the celebrated "Virginia Resolutions of 1798-99," and of the not less celebrated "Report" of Mr. Madison.—Mr. Giles was a member of the U. S. Senate from 1804 till after the termination of the war with Great Britain in 1815, when he resigned his seat that he might have more time to attend to his own private affairs. During the latter portion of this period, he was confessedly the leader of the party in the senate which supported the administration; and, throughout the whole of it, repeatedly distinguished himself in the debates which took place on the many important questions present-

ed for the decision of that body. On one of these,—that of the proposed recharter of the old Bank of the United States,—he occupied a position of a peculiar character. By resolutions adopted in January 1811, the Legislature of Virginia instructed the senators in Congress from that state to vote against the recharter. While his colleague did not hesitate to disregard altogether these instructions, he spoke and voted in accordance with them, but at the same time thought proper, in replying to the speeches of some of the senators, to state his opinion that such instructions derived their force and obligation from the respect due to the Legislature, and from the presumption that it expressed the sense of the people themselves, implying, therefore, that they were not in all cases to be obeyed by the parties instructed. And however satisfactory, as we are told they were, may have been the explanations subsequently given of his conduct to the Legislature, in a letter addressed by him to that body, his language was at the time interpreted in the sense that has just been mentioned, and it passed a vote of censure upon him as well as upon his conduct, notwithstanding its approbation of the vote which he had given. His resignation of his seat in the Senate, three years afterwards, it may be added, was in no wise connected with this censure, but was owing entirely to the reason actually assigned by him, viz. a desire to attend more minutely than he had heretofore done to his private affairs.—During more than 10 years, Mr. Giles continued in retirement. At length, he consented to be elected a member of the Virginia Legislature, in the spring of the year 1826; being induced to enter once more into the arena of politics by his earnest hostility to the administration of Mr. J. Q. Adams, but especially from his desire to contribute to the extent of his power in the defeat of the project then entertained for calling a convention of the people of Virginia to amend their state constitution. This project was in fact mainly defeated, in January 1827, by a powerful speech made by him against it, under all the disadvantages of a very enfeebled state of health. He was shortly afterwards elected by the Legislature to the office of governor, which he held for three years, this being the longest period any individual was allowed to hold it under the constitution. The bill for calling a convention was revived and passed in the winter of 1827-28; and Mr. Giles (then governor) was chosen to be one of its members. In

this body, which met in 1829-30, he sustained the reputation for talent which he had acquired, acting a prominent part among the many highly eminent individuals with whom he was associated.—Mr. Giles died at his seat in Amelia county, on the 4th of December 1830. He was highly estimable in the various relations of domestic life, as well as held in the greatest respect by those who knew him most intimately.

**GILDING.\*** Within the last few years, buttons, ear-rings, neck-chains, &c., have been extensively manufactured in England by a process discovered by Mr. Elkington, in which, after the articles have been properly cleansed by a weak acid, they are immersed in a hot solution of nitro-muriate of gold, to which a considerable excess of bicarbonate of potash has been added. In the course of a few seconds, they thus receive a beautiful and permanent coat of gold. The process is of an electrical or galvanic nature; and by means of it, and other processes which have been still more lately applied, it is easy to gild any metal which exhibits a negative electricity when brought in contact with gold.

**GILLIES (John), LL.D.**, was born, on the 18th of January 1747, at Brechin, in the Scottish county of Forfar. He received his education at Glasgow; where, when not yet 20 years of age, he was appointed to teach the classes of the Greek professor, then old and infirm. He soon, however, resigned this appointment, and went to London with the intention of making literature his sole pursuit. But before settling there, he visited the continent in order to acquire a facility in the use of several of the modern languages. On his return home, he was induced by the earl of Hopetoun to relinquish several literary engagements, to become a travelling tutor of one of his sons. His pupil died while they were abroad in 1776, and the earl acknowledged the services of Dr. Gillies by conferring upon him an annuity for life.—In 1778, Dr. Gillies published his translation of *Isocrates and Lysias*. By this time, too, he had received his degree of LL.D., to which in later life he added other literary honours, being elected a member of several learned societies in his own country, and a corresponding member of the French Institute and of the Royal Society of Göttingen. He next went abroad again with two other sons of the earl of Hopetoun. In 1784, he returned to England; and in 1786, published the first part of his "*History of Ancient Greece*." He was appointed to succeed Dr. Robertson,



in 1793, as historiographer royal for Scotland, a sinecure place with a salary of £200 a year. Enjoying a moderate competency, he prosecuted his studies with leisure; and his subsequent writings appeared at long intervals. His life was extended into his 90th year, he having died, at his residence in Clapham, near London, on the 16th of February 1836, of mere decay.—Besides his translation of Isocrates and Lysias, and the History of Ancient Greece, already mentioned, Dr. Gillies was the author of a "View of the Reign of Frederick II. of Prussia" (1789); of "Aristotle's Ethics and Politics, translated from the Greek, and illustrated by Introductions and Notes, the Critical History of his Life, and a New Analysis of his Speculative Works" (2 vols. 4to. 1797); a "Supplement" to this analysis (1804), which was subsequently incorporated in the 2d and 3d editions of the translation; a "History of the Ancient World, from the dominion of Alexander to that of Augustus, with a preliminary survey of preceding periods" (2 vols. 4to. 1807-10); the "History of Ancient Greece, its Colonies and Conquests, part 2d" (1820); and a "New Translation of Aristotle's Rhetoric, with an Introduction, &c." Most of these works met with considerable success at the time of their publication, but have since fallen into comparative neglect. His History of Greece appeared in the same year with the first volume of Mitford's work, and, if inferior to it, is yet superior to every thing of the sort previously existing in English. It has, nevertheless, been cast into the shade by the later views which have been taken of its subject. The translations of Dr. Gillies are not deserving of commendation. They are everywhere at the least paraphrastic, and in many places reprehensibly unfaithful. His translation of Aristotle's Ethics and Politics, particularly, abounds in inaccuracies, omissions, and unauthorized interpolations.

GILLS are parts of the body in which the blood-vessels are in greater number than is necessary for mere preservation or growth; and they are minutely subdivided, for the purpose of submitting the blood to the influence of air contained in water.

GIOJA (Melchior) was born on the 27th of September 1767, at Placentia in Italy, and after receiving an excellent preparatory education in the gymnasium or college of his native town, took orders in the church. Immediately afterwards, however, he devoted himself, with great zeal to the study of the mathematics,

under the direction of Fontana, the successor of Boscovich in the professorship of that science in the university of Pavia. His attention was next diverted from mathematics to political economy and statistics. Then came the invasion of Italy by the French under Bonaparte, and the organization of a republic in Lombardy. Gioja adopted with ardour the revolutionary ideas of the period, and expressed them in a dissertation on the question "Which among the different free systems of government was the best fitted for the people of Italy," for which he obtained the prize of the National Institute, then just founded in Milan. This performance, on the other hand, caused his arrest by order of the duke of Parma, and imprisonment until liberated by the interference of Bonaparte. He exercised, for a time, the editorship of the newspaper entitled the "Moniteur cisalpin," which he quitted, that he might occupy himself exclusively with the composition of certain elaborate works, which he meditated, on the theory of government, and other kindred subjects. On the expulsion of the French from the greater part of Italy, in consequence of the victories of Suwarrow in 1799, Gioja was again thrown into prison, once more to be set at liberty by Bonaparte, after the battle of Marengo. The latter appointed him, in 1806, historiographer of the kingdom of Italy, and placed him, subsequently, in an important post in the department, or board (bureau), of statistics, at Milan. The cause of his removal from the office of historiographer was the publication by him of his "Theory of Divorce." By the looseness of the views which he expressed on this subject, he offended the public sentiment to such an extent, that it was judged expedient by the government to mark distinctly its disapprobation of them. This having been done, by removing him, he was otherwise provided for, in the manner that has been mentioned. In 1811, his superior in office in the department in which he served, not deeming him sufficiently compliant with his own injunctions or wishes, contrived to have him displaced from the post which he had continued to hold to that date. Gioja, in revenge, as is supposed, put forth a satirical piece, under the title of "The poor devil" (*Il povero diavolo*). The minister and some of his friends, at least, imagined themselves to be aimed at by the author, who was, in consequence, banished from the kingdom. He was permitted to return to it in 1813, and entrusted with the preparation of a statistical account of the

kingdom of Italy. Of this office, however, he was deprived in the following year, by the annihilation of that kingdom, as a separate state. Henceforth entirely divested of all public engagements, he continued actively employed in authorship, until his death, on the 2d of January 1829.—For 8 months only did the quiet regularity of his life in the period just mentioned suffer any interruption. He was imprisoned on suspicion of having been a party to the scheme for revolutionising Italy in the year 1820; but on no proof appearing to confirm the suspicion, he was discharged.—Gioja was a very voluminous writer. Among the most important of his works, are his "Statistical Tables" (1806); a treatise on "Rewards and Punishments" (1818); one entitled "Ideology" (1822); the "Elements of Philosophy" (1822); and the "Philosophy of Statistics" (1826). All of them evince deep reflection and extensive acquirements. To use the language of the unfortunate Silvio Pellico, in his Memoirs, "Melchior Gioja was the profoundest thinker on the economical sciences in Italy of later times," and "his works constitute a monument to his own and his country's glory."

GIRAULT-DUVIVIER (Charles Pierre), a distinguished grammarian, was born at Paris in 1765, and died in 1832. His occupation was that of a broker; and he was led to an examination of the principles of grammar by educating, in his leisure hours, his own daughters. He published, in 1811, an excellent work, under the title of "Grammaires des grammaires," containing an analysis of the best treatises on French grammar, in two 8vo volumes, and of which a new edition, very much improved, was published (1842) after his death, by M. A. Lemaire. The other works of M. Girault-Duvivier are a treatise on the particples of the French language, and an "Encyclopédie élémentaire de l'antiquité" (4 vols. 8vo., 1830), having for its object to give an account of the origin and progress of the arts and sciences among the ancients.

GLAND; a term in anatomy, employed to denote those organs of the body in which *secretion* is carried on, that is, which are destined to separate some particular fluid from the mass of blood. They are composed of a great number of blood-vessels, and are covered with a membrane, usually provided with an excretory duct, through which the fluid of the gland is ejected.

GLASGOW.\* Its population in 1831 was 202,426; in 1841, it had increased to 274,324.—The *University of Glasgow*

has at present 22 professors, and there is a lecturer besides on the structure, functions, and diseases of the eye. The last professorship instituted (by the government in 1840) is one of Mechanics and Civil Engineering. Of the professors, 14 are appointed by the government, and the remaining 8 by the faculty, rector, and dean of the university. They derive their incomes partly from the fees paid by the students, and partly from funds belonging to the institution; but in addition to these sources of income, the government annually bestows a grant, varying in amount, to augment the income of several of the chairs. It is required by law that the principal and all the professors be members of the established church. The law, however, is not strictly enforced, except in the case of the principal and theological professors. There is no other interference with the religious preferences of the students than what is implied in the regulation requiring all of them, whose parents do not reside in the city, to attend public worship in the college chapel. There is only one session in the year, beginning on the 10th of October, and terminating the 1st of May. There are 29 bursaries, the benefits of which are extended to 65 students. The number of the students varies from 1000 to 1200. The university library contains nearly 100,000 volumes, and is open to the students. There is a valuable botanic garden, consisting of 8 acres, on the W. of the city, where, in a hall erected for the purpose, the professor of botany lectures to his class.

GLOSS.\* One of the senses of this word is to denote a species of commentary, one in which the commentary is chiefly occupied in the explication of the terms or language employed. Thus there are certain glosses of the Scriptures; and in the 12th century, the comments or annotations of learned jurists on passages in the text of the Roman law were denominated glosses. When these extended to a running commentary, they were termed an *apparatus*. The glosses were collected by Accursius in the 13th century; from which period they formed for a long time a body of authority reckoned equal, or even superior, to the text itself.

GLUCINA or GLUCINA.\* The metallic base of this earth, called *glucinium*, is of a dark grey colour. It was first obtained by Wöhler, in 1828, by acting on the chloride of glucinium by potassium. The equivalent of glucinium is 18; and glucina consists of 18 glucinium + 8 oxygen.

GLUCKSTADT.\* Population in 1835.

6000. It has a secure and spacious harbour; and in 1830 it was made a free port.

GLUTEN\* contains nitrogen; on which account it has been called the *vegeto-animal principle*. It yields ammonia when subjected to destructive distillation, and the vegetables which contain it give out a peculiarly disagreeable odour during their putrefaction.

GNEISENAU.\* On the occasion of the Polish insurrection of 1831, this distinguished general was appointed to the command in chief of the Prussian troops on the eastern frontier of the monarchy, having his head-quarters at Posen. Here he died, of an attack of the Asiatic cholera, in the month of August of that year.

GODWIN\* (William), published, in the year 1830, "Cloudeley," a novel; in 1831, "Thoughts on Man, his Nature, Productions, and Discoveries, interspersed with some particulars respecting the Author;" and in 1834, "The Lives of the Necromancers." He died, April 7th 1836, at the age of 81.

GOERRES\* was, in 1827, appointed professor of civil and literary history in the newly established university of Munich, and became there the most zealous supporter of ultramontane doctrines. His "Athanasius" (1837), which passed rapidly through several editions, is particularly remarkable for the ultra-catholic opinions of the author, and exhibits an ardent sympathy with the archbishop of Cologne in his dispute with the Prussian government. Among his other works, not yet noticed in this encyclopædia, are his "Christian Mysticism" (4 vols. 1836-1842), and "Church and State, after the passing away of the Cologne heresy."

GOLOWNIN\* died at St. Petersburg, on the 11th of July 1831, of an attack of the Asiatic cholera.

GONFALONIER; a term originally used in Italy to denote the bearer of a gonfalon or standard, particularly that of the pope. It afterwards was applied to one of the chief officers in the Italian republics of the middle ages. Certain governors of the principal cities in the states of the church have also been so styled.

GONIOMETER; an instrument for measuring the angles formed by the faces of crystals. The instrument chiefly used for this purpose was invented by Dr. Wollaston.

GOSSEC\* died at Passy, near Paris, where the last years of his life were spent, on the 16th of February 1829.

GOSSELIN (Pascal François Joseph), was born at Lille, in France, December

6th 1751. He engaged in commerce in that city, and was for several years a deputy to the royal council of commerce, which held its sessions in Paris. In 1772, 1773, 1774, and again in 1780, he travelled through several of the countries of Europe, collecting everywhere materials for illustrating the geography of the ancients, a subject to which his attention was particularly directed. He first appeared as an author in 1789, when he obtained the prize of the Academy of Inscriptions for an essay on the geographical systems of Strabo and Ptolemy. In 1791, he was chosen a member of this academy; in 1799, he was appointed conservator of the cabinet of medals; and in 1801, was selected to be one of the translators of Strabo. He was a member of the Institute from the date of its establishment. Besides the essay already mentioned, and a great number of memoirs inserted in the Transactions of the Academy of Inscriptions, in the French translation of Strabo's Geography, and in Pinkerton's Researches on the Scythians and Goths, he is the author of an important geographical work in 4 volumes 4to., the first 2 published in 1798, and the last 2 in 1813, under the title of "Recherches sur la géographie systématique et positive des anciens." Though unquestionably possessing great merit, and abounding in valuable information, it proceeds on the erroneous principle, or rather hypothesis, that the ancients were perfectly acquainted with the true dimensions of the earth, and of the distances from one known place to another on its surface; all *apparent* errors, committed by them in estimating those distances, being attributed to our ignorance of the measures employed, — which measures, too, even when called by the same name, as, for instance, in the case of the *stadium*, being always assumed to have such different lengths, as to make the results, as stated, to conform with exactness to the modern measurements. — Gosselin died at Paris, in 1830.

GÖTTINGEN.\* Population in 1840, 12,550. The professors in the university, including the class of instructors who in the German universities are styled *privatim docentes*, are about 90 in number. The largest attendance of students was from 1822 to 1826, when the average was 1461 annually. Since 1831, however, in consequence of the political disturbances at Göttingen, in which the professors and students were implicated, the university fell into disrepute, and the number of the latter, in the years 1831-37, averaged

only 800 annually. The oppressive measures of king Ernest in 1837, which drove some of the ablest professors to other universities, have still further injured it; and the students in 1839 had declined to 664, of whom only 200 were not Hanoverians. —The Transactions of the Royal Society of Sciences at Göttingen are still published in Latin. This society is the patron and superintendent of the Göttingen Literary Review (*Göttingische gelehrte Anzeigen*), two large volumes of which are published yearly; and the work has been distinguished not only for great ability, but for a tone of moderation and a strict adherence to truth.

**GOURGAUD.\*** The revolution of July restored General Gourgaud to active service. He was appointed commander of the artillery of Paris and Vincennes; then, in 1835, a lieutenant-general, and attached to the person of Louis Philippe; and he was subsequently one of the commissioners dispatched to the island of St. Helena, to bring to Paris the remains of Napoleon.

**GRAEGERG OF HEMSON (Jacob),** was born, May 7th 1776, at Gannarffe, in the Swedish island of Gothland, where his father held the office of lagman, or provincial judge, and where he received a careful education. At an early age, he visited England, Portugal, and America; and he subsequently made various journeys through Italy, Germany, and Hungary. In 1811, he was appointed vice-consul of Sweden for the port of Genoa; he was transferred in the same capacity, in 1815, to Tangier; and in 1823, he became Swedish consul at Tripoli. This post he quitted in 1828; since when he has resided at Florence. He devoted the leisure afforded him by his official duties in a great measure to the study of Languages, Geography and Statistics, History, and Numismatics. Among his numerous works, written in several different languages, may be mentioned his "Historical Researches relative to the Scalds" (Pisa, 1811), in which he aims to show that the northern minstrels were not imitators of the troubadours; a "Theory of Statistics" (Genoa 1821); and the "Scandinavia avenged" (Lyons 1822), where he rejects the opinion that the barbarous nations, which overthrew the Roman Empire, belonged to Scandinavia, and claims for the inhabitants of that region, at the period in question, a certain degree of civilization. His "Geographico-statistical Researches concerning the Regency of Algiers" (Florence 1830), was one of the first reliable works published on the subject of

which it treats. And there remains to be added an historical "Notice concerning the great Arabian historian, Ibn Khaldun" (Florence 1834); a "Geographical and Statistical account of the Empire of Morocco;" together with a number of valuable contributions to the Italian literary journals, and to the transactions of some of the numerous learned societies of which he is a member.

**GRAEFE.\*** To this eminent surgeon is due the introduction, in later years, of the practice of forming artificial noses. His reputation as an oculist was very widely extended; and after every effort had been made in vain, in England, to restore the sight of prince George of Cumberland, the son of the present king of Hanover, application was made to the skill of Graefe. But the latter did not live to make the desired experiment. He died suddenly in 1840.

**GRAMPIAN MOUNTAINS.\*** With the exception of Ben Nevis, the highest mountains of Scotland are comprised in the Grampian range; and the most elevated part of this range lies at the head of the Dee, between Ben Gloe, in Perthshire, and Cairngorm, on the confines of Aberdeenshire and Irverness-shire. Ben Macdhu is the most elevated summit, being 4327 feet high; which is only 43 feet lower than Ben Nevis.

**GRANT (Anne),** commonly called Miss Grant of Laggan, was born at Glasgow, in Scotland, February 21st 1755. She was the daughter of an officer in the British army, who served for some time in America previous to the Revolution. He returned to Scotland with his wife and daughter from the colony of New York, where they had resided, about the year 1768, and a few years afterwards was appointed barrack-master of Fort Augustus. During his residence at this place, the daughter became acquainted with Mr. Grant, the clergyman of the neighbouring parish of Laggan, to whom she was married in 1779. In 1801, she was left a widow with a large family, and in very straitened circumstances. She had from an early age found delight in literary pursuits; and she was accustomed to write occasional verses for the entertainment of her friends. Some of these prevailed on her, in 1803, to publish a volume of "Original Poems, with some translations from the Gaelic," which was extensively read and commended. It was followed, in 1806, by her "Letters from the Mountains," one of the most successful of the productions of light literature of the day.

They consisted of a series of letters, on the scenery of the Highlands, and the character and habits of their inhabitants, written to some of her intimate friends, from 1773 downwards. "My bookseller," she tells us, "dealt liberally with me, and many persons of distinguished worth interested themselves in me, and sought my acquaintance in consequence of perusing these letters." The only other works which Mrs. Grant prepared for the press were her "Memoirs of an American Lady" (1806), and the "Essays on the Superstitions of the Highlands of Scotland" (1811). She died on the 7th of November 1836, at Edinburgh, which had been the place of her residence during a considerable number of the latter years of her life, and where she was the highly esteemed centre of a circle of accomplished and amiable people.—From 1825 till her death, she enjoyed a royal pension of £100 yearly, which, with the emoluments derived from her literary productions, and some liberal bequests by deceased friends, rendered her quite easy and independent in her pecuniary circumstances.

**GREAT BRITAIN.\*** See *United Kingdom of Great Britain and Ireland*, (Sup.)

**GREAVE.** The greave was a piece of steel hollowed to fit the front of the leg, and fastened with straps behind. It was common among the Greeks, and was used in some instances by the Roman soldiery; but the latter applied it only to one leg, the other being covered by the buckler. Its use is said to have been discontinued in the armies of the Greek empire towards the close of the 6th century, but revived in those of the middle ages about the year 1320.

**GREECE.** This country was erected into an independent kingdom in 1832, comprising a portion of the country S. of the gulfs of Arta and Volo, and of an imaginary line drawn between them nearly due E. and W., together with the islands of Eubœa, the Cyclades, and the N. and W. Sporades. It extends from 36° 16' to 39° 34' N. lat., and from 20° 43' to 26° 28' of E. long. Its area is about 15,000 square miles; and the number of inhabitants is estimated to be 900,000, though a census, taken in 1838, is said to have made them amount to only 742,471 individuals. Of these the majority are Greeks; though there are many Albanians, who live chiefly in the northern division of the kingdom. There are also some Walachians, a mixed race of Greeks with tribes of Slavonic origin: from 20,000 to 30,000 Armenians; about 500 Jews; and a few Europeans. Only a very small number of the Turks

who formerly resided in the country have continued to do so. With the exception of about 20,000 Catholics residing for the most part in the islands, who have an archbishop and 3 bishops, and also of the Armenians, Jews, and Turks, just mentioned, the inhabitants profess the faith of the orthodox Greek church.—The government of Greece is a constitutional monarchy, hereditary in the line of prince Otho of Bavaria, who, as well as his successors, is prohibited from accepting the Bavarian or any foreign crown. The chief provisions concerning religion in the new constitution (of 1844) are:—that the orthodox Greek church is the established church of the state; that all other religions are tolerated; that all proselytism to the prejudice of the established religion is forbidden; that the church of Greece, though doctrinally accordant with the Oriental Greek churches, should be, as it had been since the year 1833, administered by its own functionaries, independently of the authority exercised by the patriarch of Constantinople. Respecting the legal and political rights of individuals, the constitution declares that all the Greeks have equal rights, and are called to the performance of the same duties to the state; that none but Greek citizens can be appointed to public office; that the personal liberty of all is alike inviolable, unless by a legal procedure, or sentence of a court of justice; that the right of petition, as well as the liberty of speech and of the press, should be enjoyed without restriction; and that slavery and the torture are prohibited. The King, Senate, and Chamber of Representatives, constitute the Legislature, and may each of them initiate a new law; the king alone, however, exercises, through his ministers, the executive power. Whilst his person is declared to be inviolable, his ministers are rendered responsible for his acts; none of which are to be regarded as valid unless subscribed by them. He nominates to, and removes from, all public offices; is commander-in-chief of the army and navy; concludes all treaties; promulgates and enforces the laws; convenes, suspends, and closes the sessions of the chambers, according to his discretion; dissolves the chamber of representatives; and is invested with the pardoning power. He must belong to the Greek church; and on his accession to the throne is required to take an oath to observe the constitution. The chambers are to be called together annually; their meetings are in general to be open to the public; the persons of the members are invio-

lable, and the freedom of discussion is expressly guaranteed to them. The representatives are chosen every three years, and, besides being Greek citizens, must have attained to the age of 30; the senators are appointed by the king for life, and must also be Greek citizens, have arrived at the age of 40, and have distinguished themselves in a remarkable manner. But the princes of the royal family are entitled to sit as senators, as soon as they are 18 years old. It is provided that the chamber of representatives may impeach the ministers before the senate. The judges of all descriptions are appointed by the king for life, or good behaviour, and can in no case be deprived of their office, excepting after trial and conviction before an appropriate tribunal. All exceptional administration of the laws is prohibited; and all trials are to be by jury, and open to the public. The highest court of justice is the Areopagus of Athens.—The finances of the kingdom are in a very disordered condition; though we have no precise information respecting the present amount of the public revenue and expenditure. In 1838, each amounted to somewhat more than \$3,000,000; and in 1843, the public debt was nearly \$33,000,000. The army, consisting of regular and irregular troops, numbered, in the summer of 1843, 6000 men; the navy consisted, in the previous year, of 39 (mostly small) vessels, manned by 1100 men.—Owing to the political disturbances which have latterly occurred in Greece, the system of public instruction has not received the attention before bestowed upon it by the government. Besides the university at the capital, Athens, with 34 professors and other teachers, and 250 students, there were, in 1842, 4 gymnasiums, attended by 600 pupils, a seminary for the education of teachers of the common schools, and 535 such schools, having 47,000 scholars. There are also a polytechnic and a military school at Athens, and schools of navigation at Syra and Nauplia.—The mercantile navy of the Greeks amounts, including small craft, to about 4500 vessels, navigated by nearly 16,000 frugal, active, and hardy seamen. This is exclusive of about 5000 men in the service of Turkey and Egypt. Most of the large vessels are engaged in the carrying trade, between the ports of the Mediterranean and the Black Sea. The exports consist of raw silk, currants, wool, oil, copper, wine, wax, mastic, &c.; the imports principally of corn, cotton, silk and woollen manufactures, sugar and coffee. Nearly the whole foreign trade is

centred in the ports of Missolonghi and Galaxidi on the W. coast of Hellas (N. Greece); Piræus (the port of Athens), on the E. coast; Nauplia, Patras, and Corinth, in the Morea; and Syra, Hydra, and Spezzia, in the respective islands of these names. The total value of the imports is stated to have amounted to nearly \$15,000,000, and that of the exports to about \$16,000,000.—After prince Leopold of Saxe Coburg had declined the throne of Greece, and during the interval which elapsed before a substitute for him was fixed upon by the powers that assumed the authority to decide for the people of Greece who should be their ruler, the condition of that country became continually more disordered, and a period of anarchy seemed to be rapidly approaching. In certain districts, the taxes could only be collected by force; and such was the deficiency of means at the disposal of the government, that four-fifths of the salaries of its officers remained unpaid. In this state of things, the president, Capo d'Istria, adopted various indiscreet measures, of a nature to aggravate exceedingly his unpopularity. At length, the course pursued by him against the obnoxious publisher of an opposition journal, and the refusal of the Hydriotes, among whom the latter had sought a refuge from the pursuit of his adversaries, to deliver him up, served as a signal for the outbreak of a civil war. A provisional government was organized at Hydra; and the example of this island was extensively followed. Miaulis succeeded in arraying the whole of the Grecian fleet on the side of the insurgents. He was, however, speedily blockaded by a superior Russian force in the harbour of Poros. Satisfied that he had not at his disposal adequate means to prevent his ships, in the event of a serious attack upon them, from falling into the hands of the Russians, he set fire to them, and at the same time blew up the defences of the harbour (August 13th 1831). This destruction, at a single blow, of the entire fleet of the country (the two Greek steamers only excepted) consisting of 28 vessels of all descriptions, valued at \$9,500,000, produced everywhere the greatest sensation, and exasperated the spirit of party to the utmost pitch; when a momentary truce took place in consequence of the assassination of count Capo d'Istria. The senate, assembled at Nauplia, invested the deceased's brother, Augustin Capo d'Istria, assisted by two other individuals, with the executive authority of the government. As this arrangement was regarded by the

Hydriotes, and proved in fact, to be an attempt to carry on the system of the former administration, and as every proposition which they made for a compromise, between them and their adversaries, was rejected by the latter, the civil war broke out afresh. The Nauplian government was on the point of being overturned by force of arms, when the news arrived in Greece of the selection of prince Otho of Bavaria for its sovereign. Both of the contending parties received the announcement of this event with the greatest joy, as likely to restore tranquillity to their bleeding country; and Capo d'Istrias at once resigned his office, and retired to Corfu (April 1832). But no sooner was it ascertained that some time must necessarily elapse before the new sovereign could take possession of the throne assigned him, than fresh intrigues broke forth, which, before long, again led to a renewal of the civil war. A state of the greatest confusion and anarchy everywhere prevailed, until the arrival of king Otho, accompanied by the regency appointed to govern for him during his minority, and 3500 Bavarian troops, in the beginning of February 1833. The regents in question were Count Armanberg, General Heidegger, the Counsellor of State von Maurer, together with the Counsellor of Legation Abel. They took their measures with such energy as to pacify the greater part of the country without delay; and then devoted themselves zealously to its improvement. Even the Clephts on the N. frontier were curbed in their attempts to disturb the peace of that portion of the kingdom. In March 1834, a conspiracy was detected having for its object the overthrow of the regency. Colocotroni and Colliopulos, the persons principally concerned in it, were condemned to 20 years' imprisonment. At one time, indeed, disastrous consequences were threatened by a disagreement of the regents among themselves; but which were prevented by the recall of two of their number to Bavaria, and the substitution of others in their place.—On the 10th of January 1835, the seat of government was transferred from Nauplia to Athens; and on the 1st of June of the same year, king Otho, having arrived at the age of majority, assumed the government, in the room of the regency; all the members of which left the country, excepting count Armanberg, who was placed, with the title of chancellor, at the head of the new administration. The years 1835 and 1836 were passed in tranquillity; and the only call

for the application of a military force was in an expedition against the obstinate Clephts. There were two causes, however, which could not fail, sooner or later, to be productive of evil. The first of these was the undue interference of the diplomatic agents of the "protecting" powers, Great Britain, France, and Russia, in the internal affairs of the kingdom, and the consequent intrigues of each to supplant the influence of the others: the second cause referred to was the partiality, very naturally exhibited by the government, towards Germans, and especially Bavarians, in preference to Greeks. Hence, besides a British, French, and Russian party, there arose a "native" party; and the latter, after a season, did not rest satisfied with the denouncing of the employment of foreigners in the subordinate posts of honour or profit, but called loudly for a "national administration." Armanberg, though in several respects guided by maxims unsuitable to the circumstances or prejudices of the Greeks, was personally inclined to apply a check to the Bavarian influence; but this only eventuated in his own removal from office, and the appointment of another of his countrymen, Rudhart, to be his successor (February 1837). The new minister, with every disposition to contribute, to the extent of his power, to the prosperity of Greece, found himself unable to maintain his position for any length of time. His dependence on the Bavarian government rendered all parties inimical to him; and he had, in addition, to encounter the embarrassments arising from the exhausted condition of the public treasury,—both Russia and France having failed to make punctual payment of the instalments on the loan for which they had stipulated. He felt himself under a necessity of withdrawing from his post in December 1837; when a "national" administration was at length formed. A Greek, named Zographos, was placed at its head, and entrusted especially with the department of Foreign Affairs.—Although the new ministers proceeded to gratify the public desires by the discharge of the German troops in the Greek service, as well as by the dismissal of the greater part of the Germans in office; yet, not being able to find a remedy for the financial difficulties, by which they were oppressed, equally with their predecessors, they were not in a condition to secure a continued hold on public opinion. Party spirit was once more kindled into activity; and a conspiracy was detected, which, under the pretence of supporting the Greek church,

threatened, as it was asserted, by the government, aimed at placing the country under the exclusive protection or guardianship of Russia, and which aimed also at exciting the Greeks throughout the Turkish empire to insurrection, and to make a common cause with themselves in a war, against the grand seignior. The opposition by the ministers to this warlike scheme, at a time so favourable to its successful execution as that in which the Turkish forces seemed likely to find sufficient occupation in resisting the encroachments of the Egyptian viceroy, was well calculated to fix upon the government, in the popular estimation, the stigma of being anti-national in its character and feelings. Its unpopularity was daily augmented with every class of the community; and its course, in consequence, became feeble and uncertain. Various changes of ministry ensued, without contributing in the slightest degree to allay the general excitement. And the cry for war with the Turks became so incessant and violent, that there can be no doubt of the government having only been prevented from yielding to it by the interposition of the representatives of the great powers residing near it,—this, too, at a period when the finances of the kingdom were in a more disordered condition than ever.—The government came at length to be censured by its own allies for having expended the whole amount of the loan of 60,000,000 francs guaranteed to it at the time of its creation, without taking care to make an adequate provision for the payment of the interest, as well as for the gradual extinguishment of the debt. A protocol was signed at London, on the 5th of September 1843, by the representatives of Great Britain, France, and Russia, in conformity with which King Otho, in a formal note delivered to him on the part of these powers, was required to cause the most productive taxes of his kingdom to be appropriated for those purposes. In this note he was besides required, as a security against future misgovernment, as well as a means of tranquillizing the discontents of the people, to remove foreigners, of every description, from the civil and military service, and to summon a national assembly of the Greeks. The Russian government, indeed, had anticipated this step by a note of the 7th of March preceding, urging upon the king the indispensable necessity of economy in his public expenditure, to enable him to provide for the regular payment of the interest of the debt. A document moreover, sanc-

tioned, as it was with good reason supposed to be, by the Russian minister resident in Greece, found its way there into general circulation, in the course of the summer, expressing very unfounded apprehensions respecting the maintenance of the privileges of the Greek church, by the existing government, and pointing out the expulsion of the Bavarians, and the establishment of a national representation of the people, as the proper remedies for the evils with which the country was oppressed. That Russia could have entertained any serious desire to enlarge the liberties of the Grecian people, will hardly be suspected; and it is more than probable that her seeming encouragement of liberal principles is to be accounted for by a conviction of such a step being the most effectual means which, under the circumstances, she could employ to accomplish the overthrow of the Bavarian dynasty, and the substitution in its room of a form of government subjected to her own influence or control.—But be this as it may, the result of all this extraneous action, co-operating with the discontents pervading the country, led to a revolution at Athens on the 15th of September (1843). By a timely yielding to the wishes of the people, joined, as they had been, by the troops stationed in the capital, the king was enabled to maintain himself on the throne. He was obliged to dismiss his ministers, and to assent to the calling of a national assembly for the purpose of forming a new constitution. This assembly met at Athens on the 20th of November (1843), and continued in session till the 30th of March following. Its deliberations had been of the most excited character, and the greatest agitation pervaded the whole of Greece. They were essentially influenced by the presence of a French and English squadron in the port of Piræus. But for this, and possibly also, as has been alleged, but for the distribution of French and English gold among the members of the assembly, it would quite probably have dissolved itself without coming to any result, or have adopted a constitution of so democratical a character as to have been objected to by the great powers, and to have been therefore practically equivalent to none. The constitution actually adopted was that of which an account has been already given in a preceding part of the present article. Under the circumstances, it could scarcely fail to be sanctioned, not by France and Great Britain only, but even by Russia; although, by retaining the Bavarian dynasty, and presenting a prospect of the



permanent settlement of the disturbed condition of the country, it had disappointed the expectations of her statesmen. This prospect, on the other hand, was not destined to be immediately fulfilled. Scarcely had King Otho sworn to abide by the new constitution, and appointed a new ministry, in the formation of which he had attempted to reconcile the heretofore discordant elements of party, when it was dissolved through the dissensions that broke out among its members. Another ministry was now organized (April 11th 1844), with Mavrocordato at its head, which was chiefly composed of persons in the interest of England, and from which the Russian party was entirely excluded. The disturbances of the kingdom continued; open violence was committed in different quarters; and at length a tumult of so serious a nature occurred (June 23d), in Athens itself, that it could only be quelled by an energetic employment of the military force. Among the prominent actors in these various disorders were the Colotronis and other leaders of the Pallicars, as they were called,—individuals who had been all along conspicuous for their unwillingness to submit to the authority of any regular government, and who had also contributed essentially to the revolution which resulted in the formation of the existing constitution of government. Their present course seems to have been guided purely by a desire to obtain a predominant influence in the management of public affairs. In the unhappy state of things which has been described, the elections took place of representatives to the first national assembly to be held under the constitution; and every effort of the ministers was directed to secure a majority of the members in their favour. Failing of success, they were constrained to quit their posts. A new ministry assumed the direction of affairs on the 18th of August 1844. It represented the combined interests of the French and Russian parties, which had just triumphed in the elections over their opponents. Coletti, the president of the cabinet, belonged to the former of these parties, and Metaxas, who was charged with the departments of Finance and the Marine, had long been conspicuous for his zeal as a member of the latter party. In the midst of the confusion and even anarchy around them, the new ministers found their principal occupation in the proscription of their political opponents, by removing them from office and appointing their own creatures in their place. Very soon, however, the two ele-

ments which composed the ministry began to repel each other, and the Russian to acquire strength at the expense of that associated with it.

GREEN (Jacob), M.D., was born in the city of Philadelphia, July 26th 1790. His love for natural science seemed to be instinctive. It first manifested itself in botany, and at a very early age his collection of plants and specimens filled a large *hortus siccus*. His inquiries, however, were soon extended to electricity and galvanism, to chemistry, mineralogy, conchology, and zoology in general. He graduated in the university of Pennsylvania at the age of 16, and shortly afterwards, in connection with a young friend, published a work on electricity, to which was appended a short account of the discovery of galvanism, with the state of the science up to that time. This work was recommended by a number of the most distinguished cultivators of science in our country, and deserves, even now, to be consulted by the student, as affording an excellent outline of statical electricity. He studied law at Albany, N. Y., where he was licensed as an attorney. In 1818, he was appointed to the professorship of chemistry, experimental philosophy, and natural history, in the College of New Jersey; which chair he filled with ability during four years. He then removed to Philadelphia, where, on the establishment of the Jefferson Medical College, he was appointed to be the professor of chemistry, and continued as such till his death, on the 1st of February 1841.—Professor Green possessed a vigorous imagination, an ardent curiosity, a thirst and capacity for improvement in science, a sound and discriminating judgment, and a remarkable memory. As a chemist and a naturalist, he was entitled to take rank among the eminent cultivators of these departments of liberal knowledge in our country. His acquaintance with other branches of science than those which he professed, and with literature in general, was not inconsiderable. In a word, taking into view his whole character, he was an amiable, an erudite, an useful, and a pious man.—He received his degree of Doctor of Medicine from Yale College. His works, besides his treatise on electricity, above mentioned, are: a text-book of "Chemical Philosophy;" "Astronomical Recreations;" a "Treatise on Electro-Magnetism;" "Consolations, by Sir H. Davy;" a "Syllabus of a Course of Chemistry;" a "Monograph of Trilobites, with wax models;" a second work on Trilobites; "Chemical

**Diagrams;** a work on the "Botany of the United States, with a list of the plants of the state of New York;" several papers in the 2d, 3d, 4th, and 5th volumes of *Silliman's Journal*; and his "Notes of a Traveller," giving an account of a visit which he made to Europe in the course of the year 1828.

**GREENOCK.\*** Population in 1831, 27,571; in 1841, 35,645. In 1839, the number of vessels belonging to the port was 403, with a tonnage of 61,828 tons.—The works which have been constructed in the rear of the town, for supplying it with water, are among the most remarkable undertakings of the kind. They were completed in 1827, at an expense of £52,000 sterling.

**GREIFSWALDE.\*** Population in 1840, 10,291.—The net revenues of the university amount to about 30,000 rix dollars. A medico-chirurgical department has been connected with it since 1830. The number of students, on the average, is at present 300.

**GRENADA (NEW).** See *New Grenada*, (Sup.)

**GRENVILLE\* (Lord)** died on the 12th of January 1834.

**GRETNA GREEN.\*** The marriages of parties from England, celebrated at *Gretna Green*, are estimated at between 300 or 400 a year; but as similar marriages occur at other places along the border, their total number may, it is said, amount to 500 a year. Competition has now reduced the marriage fees in such a degree that so small a sum as half a crown has sometimes been paid.

**GREY\* (Earl)** continued to occupy the post of premier, with the exception only of the brief interval from the 7th to the 17th of May 1832 (see *Parliamentary Reform*, (App.)), until the month of July 1834. A misunderstanding between himself and Mr. O'Connell on the subject of a Coercion Act, which he considered necessary for Ireland, was what then led to his resignation. For one or two years after his retirement from office, he occasionally attended the House of Lords; but the remainder of his life was spent in the midst of his family and friends, in entire abstraction from all participation in the political affairs of his country. He died at his seat, *Howick House*, in *Northumberland*, on the 17th of July 1845, in his 82d year.—Besides the passage of the "Reform Bill," Earl Grey's administration was rendered memorable by the acts for the abolition of colonial slavery, the abolition of the East India Company's monopoly, the re-

form of the Irish church, and the reform of the poor law.

**GRIESBACH\*** died at *Jena*, March 24th 1812.

**GRILLPARZER.\*** To the works of this poet already mentioned, we have to add several dramas, which have for the most part sustained the high reputation previously acquired by the author. These are "A faithful servant of his master" (1830); "Melusina" (1833); "The dream, a life,"—in German "Der Traum ein Leben" (1840); "The waves of the sea and of love" (1840), which is founded on the story of *Hero and Leander*; and "Wo to him who tells a falsehood" (1840). *Grillparzer* is, besides, the author of a number of lyrical compositions inserted in the German annuals.

**GRIMKE (Thomas Smith)** was descended on the paternal side from Huguenot ancestors, who emigrated on account of their religion to *South Carolina*. He was born at the city of *Charleston* in that state, on the 22d of September 1786. After pursuing his studies for some time in the *Charleston College*, he was sent by his father to *Yale College* at *New Haven*, in *Connecticut*, where he made great progress in every branch of knowledge which was taught, and graduated with the highest honours. On his return to his home, he entered the office of *Mr. Langdon Cheves* as a student of law, and was in due time admitted to the bar. His success in his profession was slow at first, as frequently happens to men of wide and varied attainments, whose efforts can with great difficulty be confined within the limits of a single science. But this very disadvantage, if it can be so called, was the means of his ultimately erecting his system of jurisprudence in a more solid and consistent manner than he could otherwise have done. For a number of years accordingly prior to his decease, he enjoyed an exceedingly large and lucrative practice as a lawyer. His most remarkable effort at the bar was his speech on the constitutionality of the *South Carolina "test oath,"* in April 1834.—The professional avocations of *Mr. Grimke*, however, did not, as has often happened in similar cases, withdraw him entirely from literary pursuits; and the calm and refined pleasures to be derived from these he preferred also to the excitement of party politics. His reputation for learning and general cultivation of mind led to his being frequently invited to deliver addresses, orations, &c., on important public occasions which have been collected, and, with some essays written by him, published in a large

octavo volume.—Mr. Grimke was, besides, as much distinguished for his moral qualities, for the domestic virtues and the finer affections of the heart, as for the superiority of his intellect or attainments.—He died of an attack of cholera, October 12th 1834, on his way to Columbus, in Ohio, after having just before pronounced, by invitation, an oration in the Oxford University, and an address before the College of Teachers at Cincinnati, in that state.

GRIMM\* (James Lewis Charles) removed in 1830 from Cassel to Göttingen, as a professor and librarian in the university of that town. On account of the part taken by him, in 1837, in the protestation against the suspension by the Hanoverian government of the constitution of the kingdom, he was deprived of his appointments in the university; upon which he returned to Cassel, where he remained until March 1841, when he was invited to fill a professorship at Berlin. Since his residence in the last-mentioned city, he has been very active as a professor, as a member of the Academy of Sciences, and as an author. Among his later publications may be mentioned his "Juridical Antiquities of Germany" (1828); a collection of German proverbs (3 vols., 1840–1842); a German Mythology" (1835. 2d edition, in 2 parts, 1843–44; "Renard the Fox" (1834) and the Anglo-Saxon poem "Andrew and Helena" (1840); and, jointly with A. Schmeller, a collection of the Latin poems of the 10th and 11th centuries (1838).—*William Charles Grimm*, the brother of the former, born at Hanau in 1786, accompanied him (1830) to Göttingen, as assistant librarian, and a professor in the university. He left Göttingen for a like reason, in 1837; he was, like his brother, appointed, in 1841, a professor in the Prussian capital; and again, like him, he is distinguished by the attention which he has bestowed upon the early literature of his country.

GRIPPE; an acute catarrhal affection, which has occasionally in later times exhibited itself in an epidemic form. It is the same disease that in the United States is commonly styled the influenza. Most generally, it prevails after sudden and extraordinary changes of temperature, from warm to cold, or the reverse. Although epidemics of this nature must, no doubt, have frequently occurred, they were not observed and described previously to the 16th century, when physicians regarded them as constituting altogether a new disease. The most violent attacks of the gripe were those of the years 1738, 1743, 1762, 1775, 1782, 1830, and 1833; all of

which seem to have pervaded every country of Europe, and even of the other quarters of our globe.

GROAT; an old English silver coin equal to 4d. of the present day. It was introduced by Edward III., about the year 1351, and has lately been again adopted and issued from the mint. The first coining of these modern silver groats, or four-penny pieces, took place in 1835.

GROLMAN\* (C. L. W. von) died February 14th 1829.

GRONINGEN.\* Population 31,000. The university has 20 professors, and about 300 students; and it is provided with a library, a botanic garden, and an excellent museum of natural history. The institution for the deaf and dumb is one of the best regulated in Europe. And here there are also a gymnasium, a school for architecture, a seminary for the education of the blind, &c.

GROOM, though now usually applied to servants who are employed about horses, is likewise the denomination, in England, of several officers of the royal household, chiefly in the lord chamberlain's department; such as groom in waiting, groom of the stole or robes, &c.

GROS.\* The body of this distinguished artist was found in the Seine at Paris, June 26th 1835. He probably committed suicide from the effects on his spirits of some severe critiques, made in the public journals, on several of the last productions of his pencil.

GROTEFEND\* (George Frederick). His attention was directed, in no inconsiderable degree, to the languages and literature of the East, as was evinced by his introduction to Wagenfeld's extracts from Sanchoniathon's "Early History of the Phœnicians" (1836), and in a work published by him, in the following year, on the cuneiform characters to be found in the ruins of Persepolis (*Neue Beiträge zur Erläuterung der persopolitischen Keilschrift*). The author has been pronounced, by both Silvestre de Sacy and von Hammer, to be the most successful decipherer of those characters.—Grotefend died of an attack of apoplexy, at Göttingen, on the 23th of February 1836.

GROUCHY\* (Marshal) was permitted to return to France by a royal decree of the 24th of November 1821; and he was reinstated in all his rights and dignities, with the exception of his rank as a marshal of France. This he re-obtained only 16 months after the revolution of July 1830. He was created a peer in October 1832.

GRUNDY (Felix) was born, September 11th 1777, in Berkeley county, Virginia. His father, who was a native of England, emigrated to this part of the then British colonies at an early period of his life, whence he removed with his family, first, in 1778, to the neighbourhood of Brownsville, in Pennsylvania, and then, in the following year, to Kentucky. The childhood of the son was thus spent on the frontiers of civilization, surrounded by scenes of savage warfare and devastation. The dangers which he incurred may be judged of from the fact that three of his brothers, older than himself, fell under the tomahawk and scalping-knife of the Indians. But severe as was the lot of the western settlers of that day, there can be little doubt of the effect of the rude and uncertain life which they led in forming that character for enterprise and energy which has since distinguished most of their descendants.—Mr. Grundy was educated in the academy at Bardstown in Kentucky, which had been recently established in that place by Dr. James Priestley, who was subsequently president of the Nashville University, in the adjacent state of Tennessee. After distinguishing himself among the foremost of his fellow-students, several of whom, like himself, attained at a future period to a high degree of eminence, he prosecuted the study of the law, under the direction of Mr. George Nicholas, the leader at the time of the Kentucky bar. In the practice of his profession he was very successful; in a short time acquiring an extensive reputation as an advocate, especially in criminal cases.—Mr. Grundy, in 1799, when only 22 years of age, was elected a member of the convention which was then convened to revise the constitution of the state. He took a conspicuous part in the discussions of this body, and urged upon it with great ability, but without attaining his object, an alteration, by a constitutional provision, of the existing system of judicature. Instead of a single court held in one spot to try the causes arising in 5 or 6 counties, he was anxious to substitute circuit courts, by which justice should be administered to the people in each of the several counties.—He was a member of the Kentucky Legislature from 1799 till the autumn of the year 1806, when he was appointed to be one of the judges of the Supreme Court of Errors and Appeals. During his legislative career, he succeeded in obtaining the change in the organization of the courts before mentioned, in despite of the resistance to its introduction made by

most of the older members of the bar; he opposed the chartering of banks, which he regarded as uncalled for by the circumstances of the state, and as calculated to produce more evil than benefit to the people; and he was instrumental in procuring the adoption of an indulgent course of treatment by the state towards its debtors, the purchasers of her public lands.—Shortly after Mr. Grundy's appointment to a seat on the bench of the Supreme Court, he was promoted to be the chief justice of the state of Kentucky; which office he administered with great ability, impartiality, and diligence. Finding, however, the salary annexed to it wholly inadequate to meet the expences of his family, he resigned it, and removed to Nashville, resuming there the practice of his profession. His success was now even greater than it had been in Kentucky, and his reputation as an advocate in the defence of persons charged with criminal offences became so extensive, that he was repeatedly sent for on this account from several of the neighbouring states.—Mr. Grundy was elected a representative in Congress from Tennessee in 1811, and was one of the most prominent and efficient supporters of the administration of the general government, in the measures adopted by it immediately before, and during, the war of 1812 with Great Britain. He had been re-elected in 1813, but declined another re-election in 1815. From this period until 1819, he devoted himself exclusively to his professional avocations. In the last mentioned year, he became a member of the Legislature of his state, and continued such for six years. The principal measures with which his name is connected at this time are the adjustment by commissioners, of whom he was one, of a long-standing dispute between the states of Kentucky and Tennessee, respecting their common boundary line; and the establishment of a bank on the funds of the state, that was to lend money "in small sums to individuals for their relief, under such restrictions as would be calculated to effect the object, and with such securities as would insure its eventual return to the public coffers." This institution was suggested by Mr. Grundy, as an expedient for alleviating the pecuniary pressure experienced by the inhabitants of Tennessee, in common with the inhabitants of most parts of the Union in 1819 and 1820, preferable to a proposed legislative interference with the relation of debtor and creditor.—In 1829, Mr. Grundy was elected one of the senators in

Congress from the state of Tennessee, and was re-elected as such in 1833. He was one of the most zealous supporters in the Senate of the measures adopted by President Jackson; and he was appointed by Mr. Van Buren to the office of attorney general of the United States. But this he did not long continue to hold, resigning it to resume his seat, at the call of his fellow-citizens of Tennessee, in the U. S. Senate.—He died on the 19th day of December 1840. His private character commanded the respect and esteem of all who knew him; and he is described as a tender and exemplary husband, a kind and indulgent father, a true friend, and a sincere and humble Christian.

**GRUYÈRE** or **GREYERZ**; a town of Switzerland, in the canton of Freiburg, 16 miles S. of Freiburg. It has about 1000 inhabitants, and is situated on a hill, the summit of which is crowned by the ancient castle of the counts of Gruyère, said to have been founded in the 5th century, and which is one of the most extensive and best-preserved feudal monuments in Switzerland.—The district around Gruyère is famous for its cheese, of which it produces about 25,000 cwt. a year. Though made in the same manner, it is not all of the same quality; the lower pastures being inferior to those in more elevated situations. The very finest qualities are said to be too delicate for exportation.

**GUADALAXARA.\*** Although this town suffered considerably from an earthquake in 1819, the inhabitants have increased from 19,500, the number to which they amounted in 1803, to 60,000.

**GUADALOUPE.\*** The population of this colony, and its dependencies, Marie-Galante, Les Saintes, La Désirade, and St. Martin, contained in 1836, 127,574 inhabitants, of whom 96,322 were slaves. From July 1830 to January 1837, 8,637 slaves were emancipated, about 1-10th part of whom purchased their liberty.—The chief ports of Guadeloupe are Bas-setterre, the capital, and Pointe-à-Pitre, which was nearly destroyed by an earthquake in February 1843. The principal exports, in 1836, were 36,377,548 kilogrammes of sugar; 2,554,424 of molasses; and 915,354 of coffee.

**GUANAXUATO.\*** The population of this city, which amounted in 1803 to 70,600, had in 1835 declined to 34,000. It is only within the last 70 or 80 years that the mines of Guanaxuato have become of any great importance. According to Humboldt, the great "mother vein" has yielded

more than a fourth part of the silver of Mexico, and a sixth part of the produce of all America; and according to Mr. Ward, it supplied bullion, from 1766 to 1829, of the value of \$225,935,736. The mine of Valenciana alone, situated at the N. W. extremity of this vein, is said to have constantly yielded an annual produce of £600,000 sterling; the net profit to the proprietors in some years being as much as £250,000. The machinery of this celebrated mine was much injured by Hidaigo in 1810, and destroyed by Mina after his unsuccessful attack on Guanaxuato in 1818. When the Anglo-Mexican Mining Association undertook to drain and work the mine, it was nearly 3-4ths filled with water, and the town of Valenciana, which at one time contained 22,000 inhabitants, had become a ruined place with only 4000 inhabitants; and notwithstanding the expenditure of vast sums by the association, it has not recovered its former productiveness.

**GUANO** is a substance used as a manure, and found in deposits, 50 or 60 feet thick, and of considerable extent, upon certain small islands off the coasts of Peru and Bolivia, in S. America, and on parts of the shore of the main land. It has lately also been found on some small islands on the W. coast of Africa, to the N. of the Cape of Good Hope. It is easily reduced to powder. Its colour varies from a dull red to a dirty white; and it has a strong smell, and a fat, unctuous feel. Humboldt was either the first, or one of the first, by whom this important substance was brought to Europe; but it was described at a much earlier date by Ulloa, and has been used as a manure by the Peruvians from the age of the Incas down to the present day. It is supposed to consist of the excrements of the sea-birds, which are to be met with in prodigious flocks in all the places where guano is found. According to the analysis of Klaproth, 100 parts of this substance are composed of 16 parts of urate of ammonia, 10 of phosphate of lime, 12½ of oxalate of lime, 4 of silica, ½ of common salt, 28 of sand, and 28½ of water, and organic or combustible matter. But its composition differs very materially. The best is that which contains the greatest proportion of ammoniacal salts.—It is only lately that guano has been imported into the United States, and that experiments have been here made with it as a manure. These, however, like most of those which have been tried elsewhere, have been eminently successful. To what extent a sup-

ply of it can be relied upon, is a point which remains yet to be determined.

**GUARDIAN**, in law; a person appointed by will, or otherwise, to superintend the education and property of a minor, to whom he is bound to account, after the child is of age, under responsibility to the court of chancery, or orphans' court, for the just performance of the trust committed to him. Guardians are also assigned to other persons, besides infants, who are incapable of directing themselves; as, for example, the insane, and occasionally, the habitual drunkard.

**GUATIMALA**, of **CENTRAL AMERICA**. The population of this country was estimated a few years since, by Don G. Galindo, to amount to 2,000,000 of persons; 482,000 of whom were whites; 740,000 Indians; and 778,000 Ladinos or Mulattoes. Another estimate, lately made, makes the population to amount to 1,900,000, 475,000 of them being whites; 665,000 Indians; and 740,000 Ladinos.—The disturbed condition of Central America has prevented its resources from being developed; and though most favourably situated for carrying on an extensive commercial intercourse with almost every region of the globe, the whole of its annual exports, consisting chiefly of specie, indigo, cochineal, and brazil-wood, amount only to about \$4,000,000.—The war between the states of Guatemala and San Salvador terminated in 1829, by the capture of the city of Guatemala by the forces of the latter, commanded by General Morazan. After the office of president of the confederacy had, subsequent to this event, been temporarily filled by another, General Morazan was, in 1830, elected to the presidency for a period of 8 years. He sought, by acting in a liberal spirit, as well as by endeavouring to promote, by every method in his power, the industry and trade of the country, to restore its prosperity, seriously impaired as this had been by the preceding civil war. Means, however, failed him to maintain the public tranquillity, and to prevent the secession from the confederacy of the states of Nicaragua and Honduras. The jealousies existing between the different races of men, composing the population, came now to mingle with the ordinary causes of contention, and aggravated exceedingly the general disorder. In 1838, Carrera, himself a half Indian, at the head of a body of Indians and Ladinos, took possession successively of Guatemala, Santa Rosa, and San Salvador, everywhere overturning the authority of Morazan. The latter had, previously to this, suc-

ceeded in re-uniting the seceding states to the confederacy; nevertheless, it was formally dissolved in the year 1839. In the mean time, Morazan had regained his former influence in the state of Guatemala; from which, however, he was expelled by Carrera in 1840. After moving about for some time, as if uncertain of his future course, he at length fixed upon Costa Rica for his residence; whence he prepared to make another attempt for the re-establishment of the federal government, at the head of which he hoped to place himself. On the 11th of September 1842, as he was setting out, with about 1000 men, whom he had collected together for the purpose, on an excursion into the state of Nicaragua, he was suddenly deserted by a portion of his followers, who, joining a number of the dissatisfied inhabitants of Costa Rica, obliged him to seek refuge, with the force which remained to him, in San José. Here he was besieged by the insurgents, who obliged him, in two days, to evacuate the town, and retreat upon Cartago. But scarcely had he arrived at the last mentioned place, when he was made a prisoner, carried back to San José, and shot. Though the project of a centralization of the powers of government, under the superintendence or presidency of a single individual, was put an end to by the death of Morazan, a close alliance, offensive and defensive, was formed, on the 7th of October 1842, between the states of Guatemala, Honduras, Nicaragua, and San Salvador.

**GUAYAQUIL**\* has a population of about 22,000. It is unhealthy; is ill supplied with water, which has to be brought from a considerable distance; and, like its whole province, infested with vermin. The value of the exports from this place is nearly £220,000 sterling. They consist chiefly of cacao (nearly 9,000,000 lbs.), timber, hides, cattle, and tobacco. Guayaquil is now comprised in the republic of Ecuador.

**GUAYRA (LA)** is on the Caribbean Sea, 11 miles N. N. W. of Caraccas, of which it is the port. It is gloomy, hot, and unhealthy. In 1839, 26,337 tons of foreign shipping arrived, with cargoes valued at £570,318 sterling; and the exports amounted to £388,795.

**GUIANA**\* *British Guiana*. This territory is supposed to comprise about 76,000 square miles; but a disputed portion of it, claimed by Brazil and Venezuela, amounts to not less than 64,000 square miles, leaving only about 12,000 square miles for the area of the undisputed British territory. The population was esti-

mated by Schomburgk at 98,000, exclusive of 17,000 aborigines. Of the former number, about 4000 were whites, partly of English, and partly of Dutch descent, and the rest negroes and mixed races.—The government is vested in a governor, and a *court of policy*, as it is called, consisting, besides the governor and his secretary, of the chief justice, attorney-general, collector of customs, and five unofficial persons, selected by the college of electors. All laws are enacted by this body, except the "annual tax ordinance," which is voted by the *combined court*, which is composed of the members of the former body, together with five financial representatives, elected by the inhabitants.—The climate was formerly very destructive of human life, owing to the pestilential vapours arising from the marshes of the coast; but draining and cultivation have so far altered its character, that it is now deemed one of the healthiest in the West Indies.—Of late years, a considerable decrease has taken place in the produce of the staple commodities of British Guiana, more especially of sugar. This is attributed to various circumstances, but mainly to the aversion to work shown by the emancipated negroes. This cause, as is well known, has influenced the productive power of several of the West India islands; but in Guiana it has been felt with particular severity, owing to the great extent and fertility of the unappropriated lands, from which the blacks can with little labour supply all their wants. At present, many of the plantations are lying waste; and Mr. Schomburgk lately reported that, of 80 estates on the Corentyn, 58 were abandoned. In 1839, about 400 Hill Coolies were imported from Hindostan into Guiana, who proved to be good labourers; but it having been suspected, with much reason, that this was in effect the revival of the slave trade, the practice was discontinued. More recently, measures have been adopted for the encouragement of voluntary immigration, from the coast of Africa and other places. The value of the exports in 1836 was estimated at £2,135,379 sterling; but in 1839 the value hardly exceeded £1,000,000.—Georgetown, formerly called Stabroek, the seat of government, is situated on the E. bank of the Demarara river, a short distance from its mouth, and has 20,000 inhabitants. The British Guiana Bank, incorporated in 1836, and the Colonial Bank, have establishments in Georgetown and New Amsterdam, and issue notes for 5, 10, and 20 dollars each, payable in silver. In 1836, the

revenue amounted to £106,061 sterling, and the expenditure to £113,946. The expense incurred by Great Britain for military protection, in the same year, was £45,421.—The population of *Dutch Guiana*, exclusive of Indians and Maroons, is probably 65,000, about 6000 of whom are whites, partly Jews and French; and upwards of 50,000 are negro slaves. Paramaribo, the capital, is situated on the W. bank of the Surinam river, 18 miles from its mouth, with 20,000 inhabitants. It maintains an active intercourse with Holland. The chief exports of the colony are sugar and coffee. The governor is assisted in his administration by a council.—*French Guiana* had a population in 1837 of 5056 free persons, and 16,592 slaves; making a total of 21,648, exclusive of the garrison and colonial functionaries. The administration is vested in a governor, assisted by a privy council of seven official functionaries, and a colonial council of 16 representatives. The colonial revenue amounted, in 1837, to 255,222 francs; the expenditure in the same year was 1,446,710 francs.—The climate is similar to that of British Guiana; but the coast lands appear to be less unhealthy. The settlements are neither so large, nor so numerous, as in British or Dutch Guiana; most of the plantations being in the island of Cayenne, and a few only on the adjoining coast and the banks of the Organabo. The remainder of the country is still possessed by the Indians. Nearly the whole of the produce exported is shipped for France; the total value of the exports per annum being about £125,000 sterling.—Cayenne, the chief town, lies on the N. side of the island of that name, and has 5000 inhabitants.

GUILLEMINOT\* (General) was recalled from Constantinople in 1831, and appointed afterwards president of the commission for tracing the line of the eastern frontier of France, as well as a member of the commission relative to the defence of the kingdom. While actively engaged in the performance of his duties in the first-mentioned capacity, he was attacked by a breast complaint, which carried him off towards the end of March 1840.

GUINEA-HEN, in ornithology; the *Numida meleagris*, an African fowl, domesticated in Europe and America, which makes a harsh, unpleasant cry. Its colour is a dark grey, beautifully variegated with black and light brown spots.

GUINEA WORM, the *Filaria Medinensis*; a worm which affects the skin, especially of the legs, in warm climates. While

it remains under the skin, this worm produces little uneasiness, till a part suppurates, and it puts out its head; much pain being experienced on attempting to draw it out, especially if it be broken.

**GUIZOT.\*** On leaving office, in November 1830, he sat on the "côte gauche" of the chamber of deputies, as an opponent of the administration of Laflitte. When Casimir Périer became prime minister in 1831, Guizot joined the ranks of the so called "juste milieu," and lent the government an active and earnest support; and on the 4th of October 1832, after the death of Périer, he once more was called to a place in the cabinet, as minister of public instruction. Though this department of the administration is ordinarily regarded as conferring on the individual who is charged with it an influence inferior to that of other heads of departments, its incumbent in the present instance soon exercised a predominant influence. The cabinet of which we speak was dissolved on the 22d February 1836. Its leading principle of action in politics was, like that which preceded it, a steady resistance to the spirit of further innovation that so extensively prevailed; and the leading political measures, by which its existence was marked, were the expedition against Antwerp, the suppression of the disturbances of the month of April 1834, at Paris and Lyons, the arrest of the duchess of Berry in La Vendée, together with the "repressive laws" of the year 1835. Politics alone were, however, far from exclusively occupying the attention, during this period, of M. Guizot. France is indebted to him for the important law of the 28th of June 1833, on the subject of primary instruction. To him, too, are to be attributed the institution of a number of new professorships for the higher branches of education, the re-establishment of the Academy of the Moral and Political sciences, and various public works and voyages of discovery undertaken at the national expense.—From the 6th of September 1836 to the 15th of April 1837, Guizot was, for the third time, a member of the administration, in the department of public instruction. At the date just mentioned, till the dissolution of the cabinet of which Count Molé was the head, the ex-minister of public instruction was conspicuous among the opponents of the government. During the administration of Thiers which followed, he was appointed to represent his country at the court of London. There he failed to prevent the conclusion of the famous treaty of the

quadruple alliance, as it is called, which led to the settlement of the *eastern question*, or the disputes between the Porte and the viceroy of Egypt, without the co-operation of France, and indeed in a manner exceedingly unsatisfactory to her. There, also, he signed the treaty with Great Britain for the more effective suppression of the slave trade by the extension of the mutual right of search between the contracting parties; an act which did not add to his popularity at home, and which the public opinion against it, loudly expressed, prevented from being ratified by his government. When M. Thiers ceased to be minister, on the 29th of October 1840, M. Guizot became the leading member of the cabinet; on this occasion taking to himself the department of foreign affairs. Since then, he has continued in office, apparently enjoying the entire confidence of the king, Louis Philippe.—The last appearance of M. Guizot in the professor's chair was in 1830. But his political avocations and excitements have not altogether diverted his mind from his historical labours. He published in 1840, under the title of "Vis, correspondance, et écrits de Washington" (4 vols. 8vo), an abridgement of Mr. Sparks' work concerning Washington, with an introduction, which has been translated into English. Guizot stands in the first rank of modern historians; and as a public speaker, although his manner is altogether didactical, his reputation among his countrymen is very high. He was elected a member of the Academy of the Moral and Political sciences in 1832; of that of Inscriptions and Belles Lettres in 1833; and in 1836, one of the forty of the French Academy, in the place of M. Destutt de Tracy.—Mad. Guizot, mentioned in a former volume, died August 1st 1827, at the age of 54. Two volumes of her posthumous works were published in 1834, under the title of "Conseil de morale."—The second Mad. Guizot was a niece of the former; who had expressed a desire to her husband that he should form this new alliance. She, like her predecessor, was an author; having written several articles for the "Revue française," together with other essays, which were collected and published by M. Guizot, in 1834. She died in 1833, when only 29 years old.

**GULPH;** an arm of the sea extending more or less into the land, and distinguished from a bay only in being of a greater extent.

**GUSTAVUS IV.\*** married, October 19th 1830, the eldest daughter of the grand duke of Baden, and then took the title of



prince of Vasa. He died at St. Gall, in Switzerland, in 1637.

GUTS-MUTHS\* died at Schnepfenthal, in May 1830.

GUTZLAFF (Charles) was born on the 8th of July 1803, at Pyritz, in the Prussian province of Pomerania, of parents, whose very moderate circumstances prevented them from affording him the education requisite for a christian missionary, to become which was his most anxious desire. After attending for some time the schools of his native town, he was sent to Stettin as an apprentice to a belt-maker. There he composed a short poem, in which he expressed his strong religious feelings, with his hitherto unavailing wishes respecting his career in life, and which he presented to the king of Prussia, on occasion of a visit paid by the latter to Stettin, in 1821. The effect of this step was to procure his admission as a pupil into the missionary institution at Berlin. Such was the progress which he made in his studies, that only two years afterwards, in the spring of the year 1823, he was judged to be sufficiently qualified for the object he had in view. He was sent to the Dutch Missionary Society at Rotterdam, which appointed him to be one of their missionaries to the East. But becoming more than ever sensible of the arduousness of the functions he had undertaken to perform, he did not venture to embark for his destination until the month of August 1826, having devoted himself, in the mean time, to a further diligent preparation for future usefulness. The first missionary ground assigned him was in the island of Java. He took up his residence at Batavia, where he married an English woman who was possessed of considerable property, and where, by mingling with the Chinese inhabitants, in the course of two years he acquired so skilful a use of their language, and became so intimately acquainted with their modes of life and intercourse with each other, as to be adopted by them into one of their families, and to have a Chinese name assigned to him. The circumstances, just mentioned, produced an important change in his plans. In the possession, as he now was, of a pecuniary independence, he resolved to break off his connexion with the Dutch missionary society, and to proceed to China, to preach

the gospel to the Chinese in their own country, to the extent that he might be allowed to do so. In the first place, however, he accompanied an English missionary, named Tomlin, to Siam, in the summer of 1828. This journey occupied Gutzlaff for a period of upwards of three years. Besides labouring diligently in his vocation as a Christian minister, he composed, while residing at Bangkok, a Siamese grammar, and, in conjunction with Tomlin, translated the New Testament into the Siamese language. He next proceeded to China, where, associating himself with Morrison, Medhurst, and other European missionaries, he selected Macao for his principal station. He established schools, distributed religious tracts among the people, assisted in a new translation of the Bible into Chinese, co-operated with Morrison in founding a society for the diffusion of useful knowledge in China, published a Chinese Monthly Magazine, and yet did not neglect, at Macao, and in various excursions made from that place, the preaching of Christianity to the inhabitants. All this went on without any hindrance, until Gutzlaff excited the suspicion of the Chinese authorities of his labours being in some way connected with the interested views of the English traders; and, in consequence, an attempt made by him, in May 1835, to penetrate into the province of Fokien, proved altogether unsuccessful. The printing of Chinese books of a Christian character was now forbidden; the distribution of such books was obliged to be suspended; and it became necessary to remove the printing-presses from Macao to Singapore. Thus restricted in his missionary sphere, Gutzlaff felt himself the more at liberty to accompany the British expedition against China, and to be exceedingly serviceable to it by his intimate acquaintance with the language and customs of the Chinese. He was also an active agent in bringing about the treaty of peace, concluded between the contending parties in 1842.—Gutzlaff is the author of a "Journal of three voyages along the coast of China in 1831, 1832, and 1833, with notices of Siam, Corea, and the Loo-choo Islands" (1834); of a "History of the Chinese Empire;" and of another work on China, entitled "China Opened" (2 vols. 12mo., 1838).

## H.

**HACHETTE** (Jean Nicolas Pierre), a distinguished French mathematician, was born at Mézières in 1770. He had the good fortune to attract the attention, and obtain the patronage at an early age, of the celebrated Monge. After completing his studies at the university of Rheims, and when 23 years old, he was appointed professor of hydrography at Collioure, and then at Port-Vendre. At the foundation of the Polytechnic School, in 1794, he was selected to be the professor of descriptive geometry. He was one of the scientific men who accompanied the expedition of Bonaparte to Egypt. In 1816, he was transferred from the Polytechnic School to the Faculty of Sciences. Two years afterwards, he was chosen a member of the Academy of Sciences; but the government of the Restoration refusing to confirm the choice, he did not obtain a seat in that body until after the revolution of July. He died in 1834. — Among other works, Hachette is the author of a "Collection des épreuves de géométrie" (1795, 2d ed. 1817); a "Traité élémentaire des machines" (1811, 2d ed. 1819); "Applications de la géométrie descriptive" (1817); "Éléments de géométrie" (1817, 1818); and a "Traité de géométrie descriptive" (1822).

**HÆMORRHAGE**; a flow of blood from any part of the body. This may arise from two causes: either a full state of the vessels, or *plethora*, when it has been called *active hæmorrhage*; or from a debilitated state of the vessels, or of the system generally, when it is called *passive hæmorrhage*.

**HÄHNEMANN**.\* This founder of Homœopathy continued to reside at Coethen until the year 1835; when, having married a French wife, and being anxious to enlarge the field of his professional activity, he was induced to remove to Paris. On his arrival in that city, authority was formally conferred upon him by a royal ordinance, dated the 31st of August 1835, to practise medicine on the homœopathic system, which he accordingly did, and continued to do till his death in July 1843. — To the works of Hahnemann already mentioned must be added a treatise on "Chronic Diseases" in 5 volumes, and several essays on the mode of treating the Asiatic cholera. Many of his works have been translated from the original into foreign languages; and his minor writings

were collected, and published together, in 1829-34, in 2 volumes.

**HÄHN-HÄHN** (Ida Maria Louisa Frederica Sophia Gustava, countess of) was born in June 1805, at Tressow, in the grand duchy of Mecklenburg-Schwerin. She was a daughter of a count v. Hahn, an officer in the military service of the grand-duke. In 1826, she was married to another count v. Hahn, belonging to a collateral branch of her own family. Hence it was that she received the *duplicate* appellation of *Hahn-Hahn*. Her father, who was passionately fond of theatrical representations, became, notwithstanding his rank, the director of a dramatic corps; and from him she imbibed literary tastes which materially influenced her future destiny. The want of congeniality between her husband and herself, led to her being divorced from him in 1829. She first appeared before the public, as the author of a volume of poems, in 1835; and this was followed by her "New Poems" in 1836, the "Venetian Nights" in the same year, and a volume of "Songs and Poems" in 1837. She next composed a series of novels, depicting, in a very aristocratical spirit, the manners of high life in Germany. The most noted and the latest of these are "The Countess Faustina" (1841); "Ulric" (1841); "Sigismund Forster" (1841), and "Cecil," a continuation of it (1844). — The countess Hahn-Hahn has made her home alternately at Greifswald, Berlin, and Dresden, but has also travelled extensively. In 1835, she visited Switzerland; in 1836 and 1837, Vienna; in 1838 and 1839, Italy; in 1840 and 1841, Italy, Spain, and France; in 1842, Sweden; and she has since made an excursion to Syria and the East. Her observations during these successive journeys are recorded in her "Beyond the Mountains" (2 vols. 1840), "Letters on a Journey" (2 vols. 1841), "Reminiscences out of and concerning France" (1842), "A Northern Tour" (1843), "Oriental Letters" (3 vols. 1844), &c.

**HAIR**.\* Human hair forms an article of some importance in trade, a considerable quantity of it being used for the making of wigs. It is preferred when long, fine, and dark coloured. The hair of the lower animals is applied to different purposes. That of the minever, marten, badger, polecat, and other beasts, is used in the manufacture of hair-pencils; while

the coarser hair of the dog, wild boar, hog, and others, is made into brushes. Horse hair is extensively used by the upholsterer, and for fishing-lines, as well as in a variety of the arts.

**HALEN** (Don Juan van), count of Peracompos, is of Belgian extraction, but born in the Isle of Leon, in Spain, in February 1790. When 15 years of age, he entered the Spanish corps of marines, and was present at the battle of Trafalgar. He took an active part in the insurrection of his countrymen in 1808 against the French; shortly afterwards submitted to the authority of king Joseph; and then once more joined the army of the patriots. In 1815, he was arrested on suspicion of being concerned in a conspiracy against Ferdinand VII., but was soon liberated, and promoted to the rank of a lieutenant-colonel. Becoming next involved in the attempt of Torrijos, he was cast into the dungeons of the inquisition; from which, however, he contrived to make his escape. We find him, in 1820, engaged in the Russian service, in a campaign in the Caucasus. In the same year, he returned to Spain to become one of the supporters of the constitution, just then reinstated by the revolution of the isle of Leon. When the absolute king was once more restored to power, through the French intervention of 1823, van Halen embarked in the first place for the Havana, whence he came to the United States, and from here found his way to Belgium. He was residing at Brussels, and living a very retired life, when the revolution of 1830 broke out in that city. At a loss on that memorable occasion for a military leader, the insurgents placed him at their head. But notwithstanding the services rendered by him to the Belgian cause in the expulsion of the Dutch troops from Brussels, he was soon rendered sensible that he did not possess the continued confidence of the patriotic party, and quitted the public service, with the rank of a lieutenant-general. Though at one time placed under arrest on a charge of having engaged himself in the Dutch or Orange interest, he remained at Brussels, until in 1836 he was invited back to Spain, and appointed to the command of a body of troops, with which he gained a victory over the Carlists in Navarre. After this, he again experienced the lot of being arrested on suspicion of a want of fidelity to the government which employed him; of being again liberated; and of being trusted to a greater extent than before his arrest. In 1840, he was appointed to the important office of

Captain-general of Catalonia. Adhering firmly to the cause of the regent Espartero, in 1842 he subdued the insurrection of Barcelona by the bombardment of that city, when all other measures had failed to accomplish the object. His efforts, however, to suppress the insurrection of Barcelona in the following year, proved unavailing; and he was, on the contrary, forced by his opponents to evacuate the whole of his province. On the 30th of July (1843), he and his brother, *Antonio van Halen*, who was also a general in the Spanish service, and the chief of Espartero's staff, embarked, in company with the latter, at Cadiz, for England.

**HALFORD** (Sir Henry) was born on the 2d of October 1786, at Leicester, in England. He received his preparatory education at Rugby school, and was afterwards a member of Christ Church college, Oxford,—where he graduated in medicine in 1794. He settled in London as a physician, and soon obtained, through the influence of his friends and connexions, as well as the remarkable elegance of his manners, an introduction to an extensive practice. He was appointed successively physician to George III., George IV., William IV., and Queen Victoria. In 1809, he became possessed of a large fortune by the death of a maternal relative when he assumed the name of Halford his original name having been Vaughan. He was made a baronet in the same year. He was appointed president of the College of Physicians in 1824; and died on the 9th of March 1844.—His publications consist of essays, and of addresses to the College of Physicians, the latter in the Latin language. Both are written in an easy and graceful style, and display the elegant scholar, as well as accurate observer of the phenomena of disease.

**HALL** (Captain Basil) was born at Edinburgh in 1788, and was a son of the distinguished Sir James Hall. He entered the British navy in 1802; became a lieutenant in 1806; was promoted to the rank of commander in 1814; and was made a post-captain in 1817. In the course of his service, he embraced with eagerness every opportunity afforded by the naval profession for the prosecution of scientific pursuits, and the study of men and manners. Few men have travelled more extensively, or visited regions more dissimilar in their scenery and climate, or in the character of their inhabitants. The results of his observations were communicated by him to the public in a series of works; such as

his account of a "Voyage of Discovery to the Western Coast of Corea, and the Great Loo Choo Island in the Japan Sea" (1817); "Extracts from a Journal written on the coasts of Chili, Peru, and Mexico, in the years 1820, 1821, and 1822" (1823); "Travels in North America" (3 vols. 1829); "Fragments of Voyages and Travels;" and a work, the last that he lived to publish, entitled "Patchwork" (1841), which embraces, besides recollections of foreign travel, a number of short tales, and a few essays. Partaking in a degree of the character of some of the works of which the titles have been given, may be mentioned his "Schloes Hoinfeld, or a Winter in Lower Styria;" being an account of a visit made by him to the castle of Hoinfeld, near the city of Grätz, in Styria, the residence of Count Purgstall, an Austrian nobleman, who had married a sister of Mrs. Dugald Stewart.—Captain Hall was a fellow of the Royal Societies of London and Edinburgh, and a member of the Astronomical Society of London; and was the author of a number of papers, relating to geological, astronomical, and other scientific subjects.—Having been seized with mental alienation, Captain Hall was placed in the Royal Hospital at Portsmouth, where he died on the 11th of September 1844.

HALL\* (Robert) died at Bristol, on the 21st February 1831. Since his death, his writings have been collected and reprinted, under the title of "The Works of Robert Hall, A. M., with a brief Memoir of his Life by Dr. Gregory, and Observations on his Character as a Preacher by John Foster, published under the superintendence of Olinthus Gregory, LL. D., &c." (6 vols. 1831–32). It was intended that the Life should be written by Sir James Mackintosh; but he died before beginning it.

HALLE.\* Population of this city in 1840, 26,447.—The university has at present upwards of 60 professors and lecturers, and from 700 to 800 students. Its library has increased to 60,000 volumes; and it possesses a fund for its further annual increase of upwards of \$2000. The whole annual revenue of the university, independently of the students' fees, now reaches the sum of \$55,000. The institution is provided with museums of various kinds, an anatomical theatre, chemical laboratory, botanical garden and observatory, together with several hospitals connected with the medical department.—Besides the university, there are several institutions for education, the chief among which is that founded by Francke in 1698. It

consists,—1. of an orphan school, sustaining and educating about 150 children, 3/4ths of whom are boys; 2. of a royal "pædagogium," for educating children of the better classes; 3. of a Latin school, for the sons of the citizens generally; and 4. of a Bible press, which has sent forth some millions of copies of the Scriptures at a cheap rate, and at which also certain classical works are printed for the use of the pupils. The profits are continually applied to increase the usefulness of the establishment.—Halle has a society of natural history, and an Oriental society; and one of the best literary journals of Germany, "Die Allgemeine Litteraturzeitung;" has been published here ever since 1804.

HAM; a town in the French department of the Somme, near the river of this name, and on the canal of Angoulême, 35 miles E.S.E. of Amiens. It has about 1700 inhabitants. It is celebrated for its castle, a strong fortress used as a state prison. Here, in 1816, Marshal Moncey was confined for refusing to sit in judgment over Marshal Ney; and this, too, was the place of confinement, during a period of six years, of Prince Polignac, and other ministers of Charles X.

HAMAKER (Henry Arens), professor of the Oriental languages at Leyden, in Holland, was born at Amsterdam in 1789, and died at Leyden, on the 10th of October 1835. Besides the Greek and Latin, in the latter of which most or all of his writings were composed, he possessed a knowledge of the Arabic, Hebrew, Syriac, Persian, Sanscrit, &c. And his writings, with the exception of a catalogue of the Oriental manuscripts in the library at Leyden, and his "Lectiones philostratiæ," which he published as an introduction to an edition projected by him of the works of Philostratus, relate to the literature contained in these languages. They evince an extent of Oriental scholarship, which has led him to be styled by some the Silvestre de Sacy of Holland.

HAMBACH; a village, near the town of Neustadt, in Rhenish Bavaria, celebrated for the festival held there, May 27th 1832, for the purpose of promoting the national union of all the Germans. As many as 30,000 persons were assembled on the occasion, who were excited to a high pitch of enthusiasm by the speeches made, the songs sung, the toasts drunk, &c., not in behalf of such an union only, but also of the attainment of political privileges hitherto denied to the people of Germany. The government, in consequence, became alarmed; and the king of Bavaria took

measures to prevent the recurrence, in the next and following years, of the festival.

**HAMBURG.\*** The situation of Hamburg, near the mouth of the Elbe, has rendered it the entrepôt for the commerce of the populous and industrious districts bordering on that river (navigable by barges to Melnick in Bohemia), and on the numerous natural and artificial communications connecting it with the Oder and the Vistula, and with Lubeck and the Baltic. But the liberal policy which has been adopted, in relation to commerce, has had no small influence in giving to the latter its present extent. A duty is imposed of only one-half per cent. on imports, and one-eighth per cent. on exports. Transit goods are wholly exempt from duty.—Hamburg is, next to Dantzick, the chief port where the grain of the N. of Europe is deposited to wait for the best market. In dear times, it is brought from a considerable distance; but the principal supply is derived from Holstein and the Lower Elbe, the wheat produced in which being coarse and damp, causes the general average of prices to be lower in the market of Hamburg than in Dantzick, where it is of superior quality. In addition to grain, the exports embrace a great variety of articles of German produce and manufacture, together with many commodities, such as iron, tar, tallow, &c., brought to Hamburg from the countries adjoining the Baltic Sea. The imports consist principally of tropical produce; wine, brandy, olive oil, fruit, and other articles from the S. of Europe; together with British manufactured goods. The total annual value of the exports and imports united is estimated at upwards of £15,000,000.—Hamburg is not a member of the Prussian Commercial Union; and she will hardly be willing to surrender that freedom of trade which has so much contributed to her reputation and prosperity. Still, however, opinions in favour of joining this association are spreading among the merchants and wealthier classes, though not among the citizens generally. On the 31st of December 1839, a convention was concluded between Hamburg and the Union, giving several facilities to trade.—The city of Hamburg was visited by a destructive fire in May 1842. But notwithstanding the heavy losses that were in consequence incurred, and the paralysis it occasioned in trade and industry, the shock was less severe than might have been anticipated. The system of mutual insurance having been generally adopted, the proprietors of houses and other property have been subjected to a tax to defray

the interest of a loan of 32 millions marcbanco raised to indemnify the sufferers, and to enable them to rebuild their houses; and it is probable that in a few years all traces of the recent calamity will have been obliterated.

**HAMMER\* (Von).** His "History of the Ottoman Empire" has been extended to 10 volumes, the last of these having appeared in 1834. Among his later works, we may mention his "History of the Ottoman Poetry" (4 vols. 1836-38); the "Portrait Gallery of the Moslem Rulers" (6 vols. 1837-39); the "History of the Golden Horde in Kiptshak," or of the Mongols in Russia (1840); and the "History of the Ilkhans," or of the Mongols in Persia (1843). All these different productions are replete with precious materials for the history, as well as for obtaining an adequate knowledge of the intellectual and social condition of the East, both in time past and at the present day.—Von Hammer has also, of late years, continued his translations from the Turkish, Arabic, and Persian languages. And in 1831, he performed the singular exploit of translating into Persian the "Meditations" of Marcus Aurelius,—in a manner, too, so satisfactory, as to be honourably acknowledged by the shah of Persia, who conferred upon the author, in 1834, his order of the Sun and Lion.

**HANSTEEN (Christopher)** was born at Christiania in Norway, in September 1784, and went in 1802 to Copenhagen, that he might pursue the study of jurisprudence in the university of that city. His attention was, however, very soon drawn aside from this object by his aptitude and taste for the mathematical sciences. On receiving an appointment as one of the instructors in the high school at Frederiksborg, in the island of Zealand, he made the magnetism of the earth an especial subject of investigation. He acquired a considerable reputation by a paper relating to it, which obtained the prize of the Academy of Sciences of Copenhagen; and this, in its turn, procured for him, in 1814, a professorship in the newly instituted university of his native town. In 1819, he published his "Researches concerning the Magnetism of the Earth;" a work which made him extensively known in the scientific world, and which led to the undertaking, by natural philosophers, of many journeys to various parts of the globe, for the purpose chiefly of observing the magnetic phenomena. Hansteen himself was one of the most active in this respect, visiting London, Paris, Hamburg, Berlin, Finland,

as well as every part of Denmark and Norway. Lastly, in 1828-30, he travelled through Siberia, as far as Irkutsk and Kjachta, being supplied with the necessary pecuniary means from the public treasury, by a vote of the Norwegian Storting. Of this expedition an account has been given by Erman of Berlin, who accompanied him. Shortly after his return from it, the Storting granted the money required for the erection of an observatory in the vicinity of Christiania, and which Hansteen was appointed to superintend. In addition to his astronomical labours, and the duties of his professorship in the university, he delivers a course of instruction on the applied mathematics in the school of artillery and engineering. Since 1837, too, he has been sole director of the trigonometrical survey of the kingdom of Norway.—Hansteen has published his lectures on Astronomy; an elementary treatise of Geometry; and a valuable elementary work on Mechanics. He publishes also the "Norwegian Almanac."

HARDING (Charles Lewis) was born, September 29th 1765, at Lauenburg in Germany, where his father was the clergyman of a parish. He went to the university of Göttingen in 1786, with the intention of studying theology, but was soon diverted from it by his taste for the natural sciences. He afterwards devoted himself chiefly to astronomy. From 1796 to 1805, he resided with Schröter at Lilienthal near Bremen, and assisted him in his astronomical observations. In 1805, he was appointed "extraordinary" professor, and in 1812, "ordinary" professor, of astronomy at Göttingen, which last office he continued to hold until his death, on the 15th of July 1834.—Harding discovered the planet Juno, on the 1st of September 1804. He published, in 1822, his valuable Atlas of the Heavens (*Atlas novus cælestis*); and, in addition to a variety of papers inserted in the "Göttingen gelehrten Anzeigen," in Zach's "Monatlicher Correspondenz," and in Bode's "Astronomischem Jahrbuche," he published, jointly with Wiesen, from 1830, downwards, a series of astronomical tables (*Kleine astronomische Ephemeriden*).

HARLAN (Richard), M.D., was born in Philadelphia, September 19th 1796. His family were from Monk Wearmouth, in the North of England, and were among the first Quaker settlers of Pennsylvania. He manifested a fondness for physiological investigations in early youth; and after receiving his preparatory education in the best schools of his native city, he be-

came a private pupil of the late Dr. Joseph Parish. Having first performed a voyage to Calcutta, as surgeon of an Indian, he graduated in medicine in the University of Pennsylvania, in April 1817.—Besides attending to his private practice as a physician, he served the Philadelphia Dispensary for some time, and was one of the physicians to the Philadelphia Almshouse, now Blockley Hospital, from 1825 to 1830, and one of the surgeons till 1838. In 1821, he was chairman of a committee of the "Academy of Medicine" of Philadelphia, which made the first of two long and laboriously digested courses of experiments on the question of venous, lymphatic and lacteal absorption; but he resigned this post in the next year. He was elected professor of comparative anatomy in the Philadelphia Museum in 1822, and immediately commenced delivering lectures on that science, with great research and industry. In 1832, the cholera having appeared on the American continent, at Montreal, he was associated with Drs. Meigs and Jackson in a commission appointed by the Councils of Philadelphia, to proceed to the former city and obtain information in regard to that scourge, and the proper mode of treating it; and there can be no doubt that the labours and report of this commission contributed in an eminent degree to diminish the sufferings endured, as well as the mortality experienced, when it subsequently visited this city. At that period, Dr. Harlan was entrusted with the charge of a temporary hospital; and for the services thus rendered by him to his fellow-citizens, he received from the city an honourable compliment.—In 1825, Dr. Harlan published his "Fauna Americana." The want of a good catalogue of American mammiferous animals was very generally felt; and in Desmarest's "Mammalogie," which was the latest work that professed to describe all the species of mammalia hitherto known, "the number inhabiting N. America is limited to 100 species," many of which are, besides, "described as uncertain, and his accounts of the habits and manners of most of them are at best deficient." The work of M. Desmarest was taken by Dr. Harlan as the basis of his American Fauna; the definitions of genera and species given by its author being in general distinguished in an eminent degree for precision, minuteness, and that brevity so much aimed at and admired by naturalists; and the descriptions of about 50 species "having been found very accurate," as we are told by Dr. Harlan him-

self, "are accordingly translated with very little alteration." M. Desmarest, also, approved of the use thus made of his work, and in an elaborate analytical review of the Fauna, composed in the spirit of a liberal critic, and published in *Férussac's Bulletin of the Natural Sciences* (vols. VI., VII., and VIII.), spoke of it in terms of great respect and commendation.—In 1835, Dr. Harlan collected most of his essays on subjects of medicine and natural history which had previously appeared, and published them, with various additions, in a volume entitled "Medical and Physical Researches," which, like his former volume, attracted the notice of some of the most eminent of the French zoologists.—Dr. Harlan visited Europe in 1833, and, a second time, in 1838. He was, in both instances, treated with marked respect by the men of science. An attempt, however, to establish himself as a physician among the Americans in Paris, proved unsuccessful; as did also another, on his return from Europe, to obtain an adequate medical practice in his native city. As is remarked by Mr. Bennett, in a notice of Dr. Harlan, read before the Linnæan Society of London, "there is reason to believe that his devotion to natural history interfered greatly with the brilliant prospect that was opened to him as a medical practitioner."—He finally removed to New Orleans, arriving there on the 1st day of December 1839. In that city he made a most favourable impression; and the most flattering prosperity appeared to await him, when he was suddenly cut off by an attack of apoplexy, on the 30th of September 1843.

**HARRISON** (General William Henry) was born at Berkeley, the estate of his family, on James river, in the county of Charles City, Virginia, on the 9th day of February 1773. His father, Benjamin Harrison, was a delegate to the first Continental Congress, which assembled at Philadelphia in September 1774, and one of the signers of the Declaration of Independence. The son was educated at Hampden Sydney College in his native state; on leaving which, at the age of 17, he directed his attention, in conformity to the wishes of his friends, to the study of medicine. In 1791, however, shortly after the death of his father, he obtained a commission as an ensign in the U. S. army, and proceeded at once to join the regiment to which he was assigned, and which was then stationed at Fort Washington, situated where the city of Cincinnati has since been built. He was selected by General Wayne to be one of his aides-de-camp in

his warfare against the Indians of the N. W. Territory; in the course of which, the young officer repeatedly distinguished himself, and was more than once mentioned by his commander in flattering terms of commendation to the government. In 1792, he was promoted to be a lieutenant, and in 1794, after the battle of the Miami Rapids, became a captain. After the conclusion of the treaty of Greenville with the Indians, he was left in command of Fort Washington. But wearied with the life of idleness and inactivity to which an officer of the army in time of peace is almost of necessity subjected, he was led, in 1797, to resign his commission; when he was immediately appointed secretary of the North Western Territory, which then comprehended the entire territory of the states of Ohio, Indiana, Illinois, and Michigan.—He was, in 1799, elected the first delegate to Congress from this territory, and, as such, was mainly instrumental in the enactment of a law for altering the system, till then pursued, of disposing of the public lands. The smallest quantity of these which the government had been authorized to sell to a single purchaser was 4000 acres, with the exception only of certain fractions on the banks of rivers,—an arrangement which, by throwing the lands into the hands of speculators rather than of actual settlers, operated to retard the advancement of the western country in population and wealth. Its rapid settlement was thenceforth insured by directing the sale of the public lands in alternate sections and half sections, the former containing 640 acres, and the latter 320 acres each.—In 1801, on the erection of Indiana into a distinct territorial government, General Harrison was appointed by the president, Mr. Adams, to be its first governor, with very extraordinary powers. This office he held down to the year 1813, having been re-appointed to it successively by Mr. Jefferson and Mr. Madison, at the earnest solicitation of the people of the territory. Mr. Jefferson also appointed him, in 1803, a "commissioner to enter into any treaties which might be necessary with any Indian tribes, northwest of the Ohio, and within the territory of the United States, on the subject of their boundaries or lands;" and, under the authority thus conferred upon him, he concluded as many as 13 important treaties with the different tribes. On the 7th of November 1811, he defeated the Indians at the battle of Tippecanoe. By this victory, which was stoutly contested by numbers very nearly equal on the opposite

sides, the plan which had been formed for attacking and destroying our border settlements in detail was frustrated, and the schemes of Tecumseh for combining together all the Indian tribes from the borders of Canada to the shores of the gulph of Mexico, in one great confederacy against the people of the United States, was prevented from being carried into execution. — On the declaration of war against Great Britain in 1812, he was appointed a brigadier-general, and shortly afterwards a major-general, in the U. S. army; and, after the surrender of General Hull, he occupied the important post of commander of the American forces on the N. W. frontier of the Union. In this capacity, he performed various important services to the country, especially in the defence of Fort Meigs, and the victory of the Thames, which resulted in the capture of the whole force of the British engaged, except only a few stragglers, who escaped from the field with their general. In consequence, however, of a misunderstanding between the Secretary of War and himself, General Harrison resigned his commission in the spring of 1814. Soon after this, he was appointed, jointly with Governor Shelby and General Cass, to treat with the northwestern Indians at Greenville; and in 1815, he was appointed to treat with a number of other tribes. — On quitting the army, General Harrison had retired to his farm at North Bend on the Ohio, about 16 miles below Cincinnati, from which he was called to be one of the representatives in Congress from the state of Ohio, in 1817. He served only a single term, or until the close of the session of 1819. Scarcely had he taken his seat in the House, when he demanded an investigation of certain reports which had been circulated to his disadvantage, relating to alleged improper conduct on his part, in reference to the commissariat department of the army lately under his command. The committee, appointed for this purpose, after fully examining into the charges which had been preferred against him, pronounced them "false and unfounded," and declared "that he was, in his measures, governed solely by a proper zeal and devotion to the public interest." During this term of his congressional service, it may be mentioned that the celebrated debate took place on the conduct of General Jackson in the Seminole war. General Harrison spoke on the occasion in terms of great moderation and discrimination, voting, however, for the censure proposed to be passed on General Jackson for taking

possession of the Spanish posts in Florida, without adequate authority conferred upon him by the government to do so. — General Harrison was, in 1819, chosen a member of the Senate of Ohio; and in 1824, was selected by the Legislature of that state to represent it in the Senate of the United States. In this body, he succeeded General Jackson as chairman of the committee on Military Affairs. He introduced a bill to prevent desertion in the army; and this object he aimed at accomplishing, rather by elevating the moral character of the soldier, than by the severity of the punishments inflicted. The subject of military pensions also occupied in a considerable degree his attention; endeavouring to procure the passage of a law to define, in general terms, the conditions which should entitle an individual to receive such a provision from the gratitude or justice of his country; and exerting himself strenuously in behalf of the surviving soldiers of the Revolution. — General Harrison was, in 1828, appointed by the president (Mr. J. Q. Adams) minister of the United States to the republic of Colombia; but where he did not long continue, being recalled by General Jackson, soon after the accession of the latter to the presidential chair in the spring of the year 1829. From this period until 1834, he occupied himself in agricultural pursuits at his farm in Ohio. In the last-mentioned year, he was appointed, on the almost unanimous petition of the inhabitants, to be prothonotary of the county of Hamilton in that state, an office desirable to him on account of his own pecuniary resources not being adequate for the support of his family in a suitable manner. — His name was next brought forward by his friends as a candidate for the presidency of the United States; and in the autumn of the year 1836, he received 73 out of the whole number of the electoral votes, Mr. Van Buren, the successful candidate, receiving 170. Four years afterwards, he was triumphantly elected president, by 234 out of 294 electoral votes. He was inaugurated, and entered upon the duties of his office, on the 4th of March 1841, and died on the following 4th day of April. In their official announcement of the death of General Harrison, the members of his cabinet say, "that the people of the United States, overwhelmed, like ourselves, by an event so unexpected and so melancholy, will derive consolation from knowing that his death was calm and resigned, as his life had been patriotic, useful, and distinguished; and that the last utterance of his lips



expressed a fervent desire for the perpetuity of the constitution, and the preservation of its true principles."—Besides his official correspondence and papers, a letter has been published, which was addressed by him, during his residence at Bogota in 1829, to Bolivar, to dissuade that distinguished liberator of his country from the dominion of Spain from acting the part of a military dictator; and he is also the author of an "Address delivered before the Hamilton County Agricultural Society, at their annual exhibition, held on the 15th and 16th of June, 1831," and of a "Discourse on the Aborigines of the Valley of the Ohio, with some remarks on the study of History, prepared at the request of the Historical Society of Ohio," in which he has made some interesting remarks on ancient Indian mounds, and on the original state of the forests of America.

HASE (Henry), born at Altenburg in Germany, in 1789, is a brother of *Charles Benedict Hase*, already noticed, and who is still living at Paris. The former, after completing his studies at Leipsic and Jena, passed the 8 years, from 1809 to 1817, as a private tutor in a family in Courland. He next visited France and Italy, and in 1820 was appointed an inspector of the cabinet of antiquities and coins at Dresden. In 1836, he was promoted to the office of principal inspector of the same, and entrusted also with the charge of the Mengs' collection of plaster-casts. He died in November 1842.—His attention was mostly given to the study of ancient and modern art. Among his writings those most worthy of notice are his "Directions for travellers in Italy" (1821); a "Catalogue of the specimens of Sculpture, and other Antiquities, in the collection at Dresden" (1826); "Tabular views illustrative of the History of Modern Art" (1827); "Grecian Antiquities" (2 vols. 1828.—2d ed. 1841); and "Paleologues;" consisting of a number of essays relating principally to antiquarian subjects (1837).

HASLAM (John) was born in the year 1764, and died at London on the 20th of July 1844. He rendered himself conspicuous in the medical world by his various publications on the subject of insanity,—namely, his "Observations on Insanity" (1796); "Illustrations of Madness" (1810); "Considerations on the Moral Management of Insane Persons" (1817); "Medical Jurisprudence, as it relates to Insanity, according to the Law of England" (1817); and a "Letter to the Governors of Bethlehem Hospital, containing an Account of

their management of that institution for 20 years (1818). Dr. Haslam was long and justly celebrated as a physician in cases of insanity, and a man otherwise of great attainments and literary tastes. He made numerous contributions to the lighter literature of the day, through the periodical press. As a reviewer, epigrammatist, and writer of witty and comic papers, he had few superiors.

HAT. What is usually called a *beaver* hat is made of a variety of furs, chiefly those of the hare and rabbit, mingled with wool, and in the best hats a proportion of beaver's fur; but the latter is altogether omitted in common *stuff* hats. (See *Felt-ing*.) *Silk* hats have a foundation of woollen felt, similar to those which are covered by beaver, upon which a silk plush is afterwards applied.

HAUSER\* (Caspar). After this singular individual had recovered from the wound, received by him in the manner described in the Appendix to the preceding volumes, he attracted the curiosity of numerous visitors, and among others of the English Lord Stanhope. This nobleman became much interested in his behalf, and procured for him a situation as a clerk, in one of the offices of the court of appeal at Anspach. There, on the 14th of December 1833, he was induced to meet a stranger in the garden of the castle, who pretended to have a communication to make to him from Lord Stanhope in relation to his history, and who gave him, on his appearance, a mortal stab in his left side. He survived only 4 days. The assassin succeeded in making his escape, and no trace of him has been subsequently discovered. The origin, too, of the unfortunate Hauser, has continued as great a mystery as ever; so at least we are told in a volume of the 9th edition of the German Conversation Lexicon, published in 1845. In a recent number,—the 103d,—of "Littell's Living Age," it is stated that "a work has been published, giving some revelations which prove that Caspar Hauser, who excited the public curiosity so strongly a few years since, was the son of the princess Stéphanie de Beauharnois, now dowager grand duchess of Baden, and that his disparition was owing to a dispute of succession which arose in 1818 between Bavaria and Baden."

HAUSSEZ.\* Having remained in England for some time after the revolution of July, this ex-minister of Charles X. travelled through Italy, Switzerland, and Germany. The results of his observations in the countries which he visited have

been published in "La Grande-Bretagne en 1833" (2d ed., Paris, 1834), the "Voyage d'un exilé de Londres à Naples et en Sicile, &c." (Paris, 1835), and the "Alpes et Danube" (Paris, 1837).

HAVANA.\* See *Cuba*, (Sup.)

HAVRE (LE).\* Its population, including that of the extensive *faubourg* of Ingouville, has been lately stated to amount to 29,482.—The annual value of the imports into Havre, in 1836, was nearly 200,000,000 francs. The chief exports are silk and woollen stuffs, lace, gloves, trinkets, perfumery, wines, and brandy; corn being sometimes exported, and at other times imported. Independently of the *cabotage*, or coasting trade, there entered the port, in 1839, from foreign parts, 753 sailing vessels, with cargoes of the total burden of 191,339 tons; of which 429 vessels, of the total burden 105,202 tons, were French. The entries of steamers, during the same year, were 558, of the total burden of 101,561 tons. The latter ply between Havre and London, and the principal ports of Great Britain, Holland, Lisbon, Hamburg, Copenhagen, Petersburg, &c. Some of the steamers ascend the Seine to Paris. There is a line of sailing packets between Havre and New York, one leaving each of these ports every 8 days; and other lines are established between Havre and Bahia, Vera Cruz, New Orleans, &c.—The port of Havre having become inadequate to the growing magnitude of its trade, the French government have in view to improve and enlarge it; and a plan to that effect was presented to the Chambers in 1839, the estimated expense of which was six millions of francs.

HAYNE (Robert Y.) was born in the parish of St. Paul's, near Charleston, in South Carolina, November 10th 1791. His grandfather was a brother of Colonel Isaac Hayne, who suffered on the scaffold for his fidelity to the cause of American independence. We are told that pecuniary embarrassments prevented his father from sending him to college, and that he therefore was obliged to be content with such an education as could be obtained at a common grammar school in the city of Charleston. When 17 years of age, he commenced the study of the law, in the office of Mr. Langdon Cheves; and he was examined for admission to the bar before he had attained his 21st year. He was then for a time a lieutenant in the state troops, which were called into the service of the United States during the war of 1812 with Great Britain. After the expiration of his term of service, he

began his professional career under peculiarly favourable circumstances; for Mr. Cheves, having been withdrawn from the bar by being elected to Congress, transferred to him the whole of his business.—Towards the close of the year 1814, Mr. Hayne was chosen a member of the Legislature of S. Carolina by his fellow-citizens, on whom he had produced a powerful impression, by the ability and eloquence displayed by him as an advocate, and in an oration delivered before them on the preceding 4th of July. After serving in this capacity during the years 1815, 1816, and 1817, at the commencement of the session of 1818 he became Speaker of the House, by an unanimous vote of its members; and, at the close of the same session, he was appointed attorney general of the state. In this office he continued, until elected, in 1823, to represent S. Carolina in the Senate of the United States.—Although but barely qualified in point of age, at the period of his election, to take his seat in the Senate, he at once occupied a prominent position in that body. During the greater part of the time that he was a member of it, he was the chairman of the Committee on Naval Affairs, and discharged the duties incumbent upon him as such, with an ability and promptitude that gained for him the warm approbation of his colleagues, as well as the entire confidence of the officers of the navy, and of all who felt an interest in its welfare. He distinguished himself in no ordinary degree, by the speeches which he delivered on the numerous and important questions presented to the Senate for its decision; but it was by the part which he took in the discussions of the senators, from 1824 to 1832 inclusive, relating to the tariff of duties imposed on the importation of foreign commodities into the United States, and to the constitutional questions growing out of the protective policy pursued by the government, that he chiefly attracted the attention of the country.—Having opposed unavailingly the enactment by Congress of the tariff laws of 1824, 1828, and 1832, he became conspicuous among the citizens of S. Carolina who came to the determination to resist practically the execution of those laws, in so far at least as that state was concerned, regarding them as encroachments by the general government on the rights reserved by the constitution to the sovereign states of the Confederacy or Union. He was chosen a member of the Convention which was convoked by the Legislature, for the purpose of considering the obnoxious acts of

Congress, of deciding on their character, and of devising the means of relief. The celebrated ordinance of nullification was reported to the Convention by a committee of which Mr. Hayne was the chairman, and was adopted by it on the 24th of November 1832. In the following month, he was elected governor of S. Carolina, and resigned his seat in the Senate of the United States. On the 10th of December, the president (General Jackson) issued his proclamation in relation to the proceedings of the Convention; and Governor Hayne put forth, in reply to it, a counter proclamation, 10 days afterwards, expressing the firm resolution of the people of S. Carolina to persevere in their system of resistance, at whatever sacrifice. Then followed the proceedings in Congress that resulted in the passage of the famous "Compromise Act." Governor Hayne presided over the Convention which met in March 1833, and which repealed the ordinance of nullification. He occupied the executive chair until December 1834; and by a proclamation which he issued enjoining obedience to the decision of the court of appeals against the constitutionality of a military oath of allegiance required by an act of the Legislature, he was essentially instrumental in allaying the violence of party spirit, within the limits of his own state.—The subsequent portion of Governor Hayne's life was devoted in a great measure to the "internal improvement" of S. Carolina and the contiguous states. As mayor of the city of Charleston, he contributed to a beneficial reorganization of its police; and as president of the Company for constructing the proposed railroad from Charleston to the Ohio at Louisville and Cincinnati, he was indefatigable in urging forward the execution of that great work. He died on the 24th of September, at Ashville, N. Carolina, of a fever which he had contracted whilst on a journey to that place, whither he had gone to attend a convention of the railroad company.—"His abilities," to use the language of the Charleston Courier, "were of an eminently practical cast; he was ready in resources, clear in judgment and conception, fluent and graceful in speech, and endowed with a persuasive eloquence, which never failed to find its way to the hearts of his audience, and told with equal effect in the popular assembly and in the intelligent legislature." In private life, we are also told, "he was distinguished for the same spotless integrity that marked his public career, and for those domestic and social

virtues which adorn and dignify human nature."

HAYTI.\* The present population of this island, from the nature of the climate, as well as from acquired habits, have comparatively few wants, and being enabled, from the abundance of fertile land, to obtain the bare means of subsistence with facility, engage only in the lighter kinds of labour; and the plantations have now almost entirely disappeared, except those of coffee, which are also much reduced. Cotton continues to be reared only to a very small extent. Maize, millet, cassava, plantains, and sweet potatoes, are cultivated, and with cocoa-nuts, cabbage-trees, pine-apples, and garden fruits, supply the chief subsistence of the natives. But the principal commercial products are now derived from the forests, which yield mahogany and various dye-woods in great luxuriance.—The exports of the great staples, on an average of the three years 1835, 1836, and 1837, consisted of 38,953,482 lbs. coffee; 8,699,292 lbs. logwood and other dyewoods; 5,055,507 feet mahogany; and 1,245,148 lbs. cotton. Considerable quantities of tobacco and cocoa were also shipped; the minor articles being hides, rags, wax, ginger, and sugar. In 1836, the shipping that entered the six principal ports of the island consisted of 369 vessels, in burden 50,580 tons; the cleared, of 385 vessels, in burden 52,485 tons. The external trade is entirely in the hands of foreigners, who are treated with much illiberality, being obliged to pay a heavy license-duty, loaded with vexatious regulations in regard to their dealings, and confined as to their residence to the free ports. These last are Port-au-Prince, Cape Haitien, Aux Cayes, Jacquemel, Gonaives, Puerta Plata, St. Domingo, and Jérémie; the first of these being the chief emporium of the island.—The revenue of 1837 amounted to \$2,062,522, of which about one-half is derived from import and export duties, three-eighths from territorial imposts, and the remainder from stamps, licenses, and petty taxes. In the same year, the expenditure was \$2,713,102, including \$536,305 on account of the national debt.—The engagements which the president, Boyer, had entered into with France, in 1825, were altogether beyond the means at his disposal; and the efforts on his part, by a much augmented taxation, to comply with them, only tended to excite the discontent of the population, and co-operated thus with the growing antipathy between the negroes and mulattoes, to the latter of which classes

Boyer himself belonged, to produce a revolution in the government. Such, at length, was the embittered state of parties, that, although France was induced to agree to a considerable diminution of her demands upon Hayti, an insurrection broke out against the authority of Boyer, in May 1838. This was suppressed; but its suppression was followed by repeated collisions between the president and the representative body. The former next deemed it necessary, for the purpose of securing himself against the designs of his adversaries, to adopt measures of an extra-legal character, — measures, however, which were the immediate causes of another insurrection in the month of February 1843. The civil war that ensued was of a very savage character, and terminated in the triumph of the negro over the mulatto portion of the population, and in the expulsion from Hayti of Boyer, who took refuge from his pursuers in the neighbouring island of Jamaica. — A committee of public safety, and a provisional government, with General Rivière at the head of it, were now constituted. Tranquillity was, nevertheless, far from being re-established. A counter revolution was attempted; and though the attempt was defeated, a state of almost entire anarchy occurred immediately afterwards, and continued till the end of the year. On the 30th of December a national convention met, and, under the presidency of General Gérard, proceeded to form a new constitution of government, on the model of that of the United States. There was to be a president, a senate, and a house of representatives, all elected for fixed terms of service by the people; the liberty of the press, and trial by jury, were guaranteed; the people were declared to have the right of assembly at their pleasure, to deliberate and express their sentiments on public measures; and all persons were to be allowed to worship their Maker according to the dictates of their consciences, without any hindrance, and without any legal preference being shown to any one sect or denomination above another. Free schools were also to be established for both males and females; and the right of citizenship, as well as that to hold real estate, was to be strictly confined to Africans and Indians, and their descendants. — When tranquillity was apparently everywhere re-established, another insurrection took place, in February 1844, in the eastern, or what was formerly the Spanish portion, of the island, the object of which was to organize in that quarter a separate republic, under

the protection of France. It was encouraged, if not originally instigated, by the French consul-general and the French admiral Moges, whose conduct was subsequently disavowed by their own government; and it was only with much difficulty that it was suppressed.

HEBEL (John Peter), a German poet, was born in 1760, at Hausen, near Schopfheim, in the grand duchy of Baden, and died in 1818. After studying theology, he performed alternately the offices of a teacher and of a Christian minister, besides being an ecclesiastical counsellor, and a member of the estates of Baden. His poems, which are written in the Allemanic or Suabian dialect, are all of a religious and moral cast, as well as descriptive of the manners and feelings of the peasantry of his country. They have obtained an extraordinary popularity.

HEBRIDES.\* The population in 1801 was 74,022; in 1831, 104,021; and it now very probably amounts to nearly 120,000. — The manufacture of kelp and the fishery were formerly the principal employments in the Hebrides; but they have of late years very much declined. Towards the close of the last war, the produce of kelp was estimated at about 6000 tons. Its decline is owing to the repeal of the exorbitant duties previously laid on barilla and salt, and especially the latter. The loss to the Hebrides, however, has been only apparent, as the manufacture had the effect of withdrawing the attention of the islanders from more profitable pursuits. — The introduction of large farms into some of the islands has given a powerful stimulus to grazing; and black cattle and sheep are, in fact, the staple products of the Hebrides. The horses are small and hardy; but they are not so handsome as those of the Shetland Isles. They are extensively exported. — The introduction of steam navigation has contributed largely to the improvement of the Hebrides, particularly the islands on the Clyde, in consequence of being resorted to by numbers of strangers of superior intelligence; and because the steam-boats create a taste, and open a market, for various articles for which there was previously no demand, and afford a ready means of conveying articles of native produce to Glasgow, Greenock, and other places. — There are only 10 attorneys in the Hebrides, some of whom are also bank-agents, and engaged in employments other than law. There are only 5 constables, and soldiers are neither known nor required; and the greater number of the islands are

destitute of surgeons, and even inns. The nearest hospitals are in Greenock and Inverness. There are no printing-presses, nor, of course, any newspaper.

**HERRN\*** died on the 7th of March 1842. In the latter years of his life, he was joint editor with Ückert of a series of works on the history of the different European states. During a period of 12 or 15 years, down to the year 1840, he was the editor also of the "Göttingen Learned Notices" (*Göttingischen gelehrten Anzeigen*).

**HEGEL\*** died at Berlin of the cholera, November 4th 1831.—According to Cousin, Hegel, in his philosophy, sets out with abstractions, which constitute at once the foundation and the type of all reality, but nowhere describes or indicates the process by which those abstractions have been arrived at. His speculations are charged with having a pantheistic tendency, and as leading to a denial of the immortality of the soul; though this is stoutly denied by the author. His writings, indeed, are often so very obscure that his followers accuse each other mutually of not properly comprehending his doctrines.—A complete edition of his works has been published at Berlin, since his death, in 17 vols. 8vo. (1832-40).

**HEIBERG\*** (Peter Andrew). To his literary productions already mentioned, are to be added his essays on the Norwegian representative system, and against the infliction of capital punishment, the former published in 1817, and the latter in 1821; an account of a three years' residence at Bergen, in Norway; together with a work entitled "Reminiscences of my political, social, and literary life, in France," which is written in an acrimonious and partial spirit, but contains many interesting facts relating to the administration of the French department of foreign affairs, during the period of the empire. He made, likewise, some successful attempts in lyric poetry, and among these may be mentioned a translation of Churchill's ode to Independence. Having lost his sight, he lived in a state of almost entire seclusion for some time before his death, which occurred at Paris in 1838.—*John Lewis Heiberg*, a son of the former, born at Copenhagen, December 4th 1791, has distinguished himself as a dramatic writer. He is the author, also, of a dissertation, in Latin, on the Spanish Theatre, and particularly on Calderon de la Barca; a novel entitled "A year in Copenhagen;" a treatise on the grammar of the Danish language; &c.

**HEINELBERG.\*** Population in 1840, 13,430. The university, like all the other German universities, has 4 faculties (theology, law, medicine, and philosophy); and to these are attached 40 ordinary and extraordinary professors, besides other instructors. Many of the professors at present are of high repute. The faculties of law and medicine are those most attended. The number of students in 1840 was 622, of whom 22 studied theology, 364 law, and 148 medicine. The library now contains, it is said, 120,000 volumes, together with a large number of rare and very valuable manuscripts. Connected with the university may be mentioned a homiletic seminary, a philological seminary, and a *spruch collegium*, or practical school for law students. There is here also a good gymnasium; and 17 elementary schools are supported by the government.

**HEINS** (Henry) was born at Dusseldorf, in Germany, in December 1799, of Jewish parentage. After studying jurisprudence at Bonn, Berlin, and Göttingen, he lived successively in Hamburg, Berlin, and Munich, until, in 1830, he took up his permanent abode at Paris. In 1825, he made a profession of Christianity. He had, previously to this, published some poems and one or two tragedies, none of which attracted in any great degree the public notice. This he accomplished, in the first instance, by the publication, in 1826-27, of the first 2 volumes of his "Travelling Sketches" (*Reisebilder*), which were followed by two remaining volumes in 1830-31. This work was greeted with especial enthusiasm by that portion of his countrymen who had just risen, or were then rising, into manhood; and the author came to be regarded as one of the most prominent literary representatives of "young Germany." The most important of his other productions are a volume of songs (*Buch der Lieder*), many of them very exquisite and very original (1827.—6th ed. 1844); "Contributions to the history of the later Elegant Literature of Germany" (2 vols. 1833); a collection of his letters (*Französische Zustände*), written from Paris for insertion in the "Augsburg Allgemeine Zeitung" (1833); the "Salon" (4 vols. 1835-40); the "Romantic School" (1836); a notice of Börne, a German author of the same stamp with himself (1840); and lastly, his "New Poems" (1844). His prose writings are distinguished for their wit and humour; but it is probably as a poet that his reputation will longest endure.

**HELSINGFORS\*** has at present about

10,000 inhabitants. — After the great fire at Abo in 1827, the university of that city was transferred to Helsingfors, to the prosperity of which it has greatly contributed. It had, in 1828, 25 professors and other instructors, and 500 students; and it possesses a library of 40,000 volumes, a botanic garden, and an astronomical observatory.

**HELVOETSLUYS.\*** Since the adoption of steam-packets for the conveyance of the English mail to Rotterdam, in 1823, Helvoetsluys has ceased to be the station for the English and Dutch packet-boats, which used to sail regularly twice a week to and from Harwich.

**HEMANS** (Felicia Dorothea) was born September 25th 1794, at Liverpool, in England, where her father, whose name was Browne, was engaged in mercantile pursuits. He was a native of Ireland; her mother was an Englishwoman, but was descended from a Venetian family, through her father, who was commercial agent at Liverpool for the Venetian government. — Miss Browne began to write poetry before she was nine years of age; and her mother, who was a woman of education and taste, was her first confidant and encourager. Her first volume of poems was published in 1808. A harsh review of this little volume affected her so much that she was confined to her bed for several days. Her second volume, "The Domestic Affections," was published in 1812. — In this year she became the wife of Captain Hemans of the British army, a union that was not a happy one. Shortly before the birth of her fifth son, he went to Italy, ostensibly for the benefit of his impaired health, and never again returned to his family. Mrs. Hemans went with her children to reside with her mother, then living near St. Asaph, in N. Wales. On the death of her mother, she removed to the neighbourhood of Liverpool; whence, after a few years, she finally removed again to Dublin. — After her separation from her husband, Mrs. Hemans resumed her literary pursuits with increased ardour. She studied the Latin, Italian, Spanish, Portuguese, and German languages. She made some translations from Horace, Herrera, and Camoens, and contributed a series of papers on Foreign Literature to Constable's "Edinburgh Magazine." In 1815, she published "The Restoration of the Works of Art to Italy;" in 1819, "Tales and Historic Scenes;" and about the same time, "The Sceptic," a didactic poem, in heroic rhyme, and "Modern Greece," in ten-line stanzas.

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Her poem of "Dartmoor" obtained the prize from the Royal Society of Literature, in 1821. But it is impossible to give here a complete enumeration of the titles of her different works; and a few only of the principal will be mentioned. At the suggestion of the Rev. Reginald Heber, afterwards Bishop of Calcutta, she wrote her first dramatic work, the tragedy of "The Vespers of Palermo," which was represented at Covent Garden Theatre, London, in 1823. It was unsuccessful there, but was subsequently well received at Edinburgh, when Walter Scott wrote an epilogue for it. "The Siege of Valencia, the Last Constantine, and other Poems," was published in 1823. Her next volume appeared in 1827, and contained "The Forest Sanctuary," and her "Lays of many Lands," most of which had been printed before in the "New Monthly Magazine." This again was followed, in 1828, by the "Records of Woman," the most successful of her works. In 1830, she published another volume of poetry, "The Songs of the Affections;" and in the spring and summer of 1834, the three collections of poems entitled "Hymns for Childhood," "National Lyrics and Songs for Music," and "Scenes and Hymns of Life." One of her biographers describes her versification as having three distinct styles; her earlier poems being obviously modelled on Campbell's Pleasures of Hope; her poems of the middle period of her literary career being in the manner of Byron, less flowing than her early style, but more vigorous; and her last style, which is properly her own, and exhibits in its free and continuous flow a perfection of rhythmical melody, that in sweetness and fullness of sound has never been surpassed. Her great defect is the similarity of tone and treatment which pervades all her works, and which, in uninterrupted reading, has an effect of cloying uniformity.—Mrs. Hemans died on the 12th of May 1835.

**HENGSTENBERG** (Ernest William) was born at Frondenberg, in the county of Mark, in Westphalia, on the 20th of October 1802. Having received his preparatory education from his father, who was the clergyman of his native town, he went to the university of Bonn, where his attention was principally directed to philosophical subjects and the Oriental languages. The fruits of his studies were soon apparent in his translation of the "Metaphysics" of Aristotle (Vol. I. 1824), and in an edition which he published of an Arabic author, "Am ruckeisi Moallakah" (1823). In 1828, he went to Basel,

in Switzerland; and there, without his becoming formally a theological student, theology occupied a considerable portion of his time. In the year following, we find him already a "private teacher" (*Privatdocent*) in this department at Berlin. He was appointed, in 1826, an "extraordinary," and in 1828, an "ordinary" professor of theology in the university of that city. As a theologian, he is extensively known by his "Christology of the Old Testament" (3 vols. 1829-35), and his "Contributions to the explanation of the Old Testament" (3 vols. 1831-39), as well as by the religious periodical of which he is the editor, entitled "Evangelische Kirchenzeitung."

**HENNEQUIN** (Antoine Louis Marie), a distinguished member of the French bar, was born at Monceau, near Paris, April 22d 1786. After the usual preparatory education, he entered upon the study of the law, which, however, he relinquished for the army. At the period of the peace of Tilsit, in the month of July 1807, he was a sub-lieutenant of artillery. Shortly after this, he resigned his commission, and in 1813 resumed his legal studies at Paris. A ready elocution, united with great reasoning powers, soon enabled him to acquire a high reputation as an advocate. He attracted the public attention especially in the defence of individuals prosecuted for political offences. The most remarkable case of this description was that of M. de Peyronnet, whom he defended, in 1830, before the Chamber of Peers. Hennequin was, also, the legal adviser of the duchess of Berry, after her arrest in 1832. — In 1834, he was elected a member of the Chamber of Deputies, by the town of Lille. He took his seat in that body at the "extreme right," and acted in steady co-operation with Fitzjames, Berryer, and other *royalists* of the old school. He was re-elected in 1837; and died February 10th 1840. — M. Hennequin is the author of a learned dissertation on the "Régime des hypothèques," a pamphlet "Sur le divorce," and an unfinished treatise "De la législation." He published besides, in 1824, a selection of his speeches at the bar.

**HENRY** (Charles), M.D., was the son of an eminent manufacturer in Manchester. He was educated in the University of Edinburgh, and was intended for the medical profession; but very delicate health, and the necessity of his co-operation in his father's lucrative pursuits, which he subsequently greatly extended, induced him, after some practice, to relinquish that oc-

cupation. Soon after his return to Manchester from Edinburgh, he delivered several courses of lectures on chemistry, and his notes for these lectures were ultimately expanded into a treatise on that science; a work which has passed through many successive editions, and which is remarkable for the precision of its information, and the excellence of its style. Dr. Henry contributed, also, a number of papers on scientific subjects to the Transactions of the Royal Society of London, the Memoirs of the Literary and Philosophical Society of Manchester, and to several periodicals. When coal-gas was applied to the purpose of illumination, he was one of the first to determine its constitution, to point out the best mode of analysis, and to suggest the most effective methods of obviating the inconveniences to which, in its early applications, it was liable. — In the course of 1836, he had fallen into a very indifferent state of health, and had occasionally laboured under great nervous irritability. His indisposition was greatly increased by the excitement consequent upon attending the meeting of the British Scientific Association at Bristol, in the summer of that year; and he suffered under an almost total privation of sleep, which appears to have finally overpowered his faculties. He was found in the vicinity of his dwelling-house, on the 30th of August, quite dead, having shot himself with a pistol.

**HERMANN\*** (John Godfrey James). This eminent philologist has of late years continued the publication of his editions of the separate tragedies of Euripides. "Iphigenia Aul." appeared in 1831; "Iphigenia Taur." in 1833; "Helena," in 1837; "Andromache," in 1838; "Cyclops," in 1838; "Phœnissæ," in 1840; and "Orestes," in 1841.

**HERMANN** (Charles Frederick) was born in August 1804, at Frankfort on the Maine. He attended the gymnasiums of that city and of Weilburg, where he had Eickhoff for his instructor, and then went to the universities of Heidelberg and Leipsic. In these institutions, he prosecuted his philological studies under Creuzer, Hermann, and Spohn. In 1824, he had already, by his "Specimen commentarii crit. ad Plutarchi de superstit. libellum," obtained the degree of doctor of philosophy. After a journey into Italy, he returned in 1826 to Heidelberg. He was appointed an "extraordinary" professor there in 1832. The next year, he became "ordinary" professor of Philosophy and Eloquence at Marburg; and in 1842, removed in the same ca-

paucity to Göttingen.—Hermann has published an edition of Lucian "de conscribenda historia" 1827). He is the author of an excellent elementary treatise on Greek antiquities "Lehrbuch der griech. Staatsalterthümer" (1831, 3d ed. 1841); of the "History and Systematic View of the Platonic Philosophy" (vol. I. 1839); together with a great number of dissertations on the literature and antiquities of Greece and Rome, inserted in various journals and academical collections.

HERMES (George), was the founder, in the Roman Catholic church of Germany, of a new school, the members of which, styled Hermesians, are very numerous in the Prussian dominions. He was born on the 22d of April 1775, at Dreyerwalde, in the bishopric of Münster. His attention was, at a comparatively early period of his life, directed to the speculations of philosophy, and especially to the systems of Kant and Fichte. From these he was led to the study of theology, with the hope of thereby discovering the solution of the various questions, concerning God and the human soul, which had hitherto perplexed his understanding. He was appointed a professor in the gymnasium of Münster in 1798; a professor of didactic theology in the university of the same city, in 1807; and next, a professor of the same in the university of Bonn, in 1819. His lectures made a powerful impression on the minds of his auditors; most of whom not only imbibed his peculiar opinions, but contributed subsequently to spread them over a wide extent of country. Unlike his more orthodox brethren, he was unwilling to receive either the Scriptures, or the doctrines contained in them, on the simple authority of the church; his philosophy teaching him to examine the evidences for these by the light of his own reason, and to yield his assent to them only in exact proportion as he was convinced of their truth. In addressing others, he urged upon them the duty of doing the same. So far, and so far only, is he to be considered as an innovator on the existing condition of the church of Rome. Such, indeed, was his confidence in the truth of its doctrines, as well as in the power of human reason to produce a conviction of their truth, that he firmly believed the method adopted by him would be the means of effectually reconciling the Protestants to the church. But this did not avail him to avoid ecclesiastical opposition,—an opposition, however, which did not attain to its height till after the death of Hermes in May 1831. His doctrines were condemned

by the pope in 1835, and his works prohibited to be read. Every attempt made by the Hermesians to obtain a hearing at Rome, or a suspension of this sentence, failed of success; and, on the other hand, the archbishop of Cologne, in whose jurisdiction the university of Bonn was situated, attempted to suppress the new heresy, not merely by measures embraced in his usual and acknowledged sphere of action, but by forbidding theological students from attending the lectures of certain of the professors in that institution. This led to the interference of the Prussian government, and the disputes between the latter and the see of Rome; for a notice of which, the reader is referred to the article *Prussia*, in this volume.—In 1805, Hermes published his "Researches on the Internal Evidences of Christianity;" in 1819 and 1820, two volumes of a work, under the title of "Philosophical Introduction to Christian Catholic Theology." After his death, likewise, one of his pupils published a volume of his "Christian Catholic Dogmatology."

HÉROLD (Louis Joseph Ferdinand), a distinguished musical composer, was born at Paris in 1792, and died in the neighbourhood of that city in 1833. He was the son of a German pianist, who was himself a composer of some merit. His attention, however, was not seriously directed to music, until subsequently to the death of his father, when he became first the pupil, in the conservatoire of Paris, of Adam, and then of Méhul. In 1810, he obtained the prize as a performer on the piano-forte in that institution, and in 1812, the prize awarded for musical composition. He was then sent to Rome, at the expense of the French government, and produced at Naples, in 1815, his first opera, the "Gioventù d' Enrico quinto," in two acts. Among the operas which he published, after his return to France, may be mentioned "Les Rosières" (1817), "La Clochette" (1817), "Le Muletier" (1823), "Marie" (1826), "La Sonnambule" (1827), "Le Dernier jour de Missolonghi" (1828), "Zampa" (1831), and "Le Pré au Clercs" (1832).

HERPETOLOGY is that branch of natural history which relates to reptiles. See *Reptiles*.

HERRING.\* The opinion that the herring periodically migrates from within the Arctic circle to the coasts of the Atlantic ocean, to deposit its spawn, is rejected by modern zoologists. In fact, the migration in question has no relation to difference of latitude, but takes place from deep to shall-



low water. The common herring, impelled by the stimulus of the increasing burden of milt or roe, quits the deeper recesses of the ocean, where it has passed the winter and spring months, and approaches the shallower water near the coasts, where the ova may be deposited, and impregnated with the requisite amount of heat, light, and oxygen, for their development.

**HERTFORD COLLEGE.\*** This institution, situated about two miles from the town of Hertford, is more properly denominated Hailybury College. It was founded in 1806. The buildings were erected at a cost of £70,000, and contain accommodations for 8 professors, and about 100 students. The latter receive instruction in science, law, history, the Oriental languages, &c. Malthus, the author of the *Essay on Population*, and Sir James Mackintosh, have been among the professors of this college.

**HIBERNATION** is the state in which certain animals exist during that season of the year when excess of cold or of heat prevents them from procuring their usual means of subsistence. It has been defined to consist in the continuance of life under the appearance of death, in consequence of the loss of sensibility, and the power of voluntary motion, as well as of the suspension of, or inability to perform, the ordinary vital functions. This torpid condition of the animal is in some instances *imperfect*, when its respiration recurs at intervals of 3, 4, or 5 minutes; in others it is entirely suspended, a fact fully substantiated by the experiments of Spallanzani, Flourens, &c. The blood ceases to circulate, or only circulates very slowly; the pulsations of the arteries are stopped; and on opening a vein, no blood, or merely a few drops, issue from the orifice. In the larger vessels of frogs, lizards, and some other reptiles, an oscillatory motion of the blood has been observed, which serves to prevent its coagulation, and therefore to hinder the extinction of life. The functions of digestion are likewise suspended. A worm, for example, introduced into the stomach of a lizard, in the condition of which we are speaking, remained there during an entire winter without undergoing any alteration. — Hibernating animals subsist upon their own substance. Their blood is renewed by the absorption which takes place, in their sleep or torpor, of the superfluous fat contained in some of their organs when in a state of active exercise.—It is a remarkable fact that anatomists have been unable to detect anything

in the *structure* of the animals that *do*, distinguishing them from those that *do not*, hibernate.

**HILAIRE** (Geoffroy St.) was born at Étampes in the French department of the Seine and Oise, on the 15th of April 1772. He was destined by his father for the clerical profession, and was placed at the college of Navarre in Paris, that he might be imbued with a certain amount of liberal knowledge, preparatory to the study of theology. In this institution, he acquired a taste for natural science in attending the course of lectures on physical science delivered in it by Brisson; a taste which was confirmed in him by his intercourse with the abbé Haüy, then an assistant professor in the college. He now resolved to devote himself entirely to natural history; and attending the lectures on mineralogy of Daubenton in the college of France, he made a powerful impression on the mind of this eminent man, by the nature of the questions asked by him in explanation of the lecture at its close, as well as by the sagacity and force of his remarks. We next hear of the activity of the young naturalist in procuring the liberation of Haüy, when the latter was arrested, and thrown into prison, after the memorable 10th of August 1792, and of his skilful and daring efforts to promote the escape of a number of the prisoners in Paris, during the massacres of the 2d and 3d of September following. Through the influence of Daubenton, to whose patronage he was earnestly recommended by the gratitude of Haüy, he obtained, not long afterwards, the appointment of deputy demonstrator of the cabinet of natural history; and when a school of natural history was instituted in 1793, in connexion with the garden of plants, he became, though only in the 24th year of his age, one of the professors of zoology, in the *section* of the vertebrated animals, and a colleague of such men as Daubenton, Fourcroy, Jussieu, Lacépède, Lamarck, Vauquelin, and Latreille. Here he contributed exceedingly to the progress of the science which he taught, both by his public lectures and by his writings. His zeal for its advancement was also evinced by the encouragement which he was ever ready to afford to the efforts of others, who were entering on the career in which he had preceded them. In this manner he was the means of giving to Cuvier a suitable field for his exertions, by inviting him to Paris, "to play the part," as he expressed himself in a prophetic spirit, "of another Linnæus." — Geoffroy St. Hilaire was a partaker in the expedition to

Egypt, in 1798, under Bonaparte. He examined that country from the Mediterranean Sea to the cataracts of the Nile, and made valuable collections in natural history. On returning to France, he resumed his post at the garden of plants. In 1807, he was elected a member of the Institute, and in 1809, a professor in the faculty of sciences. Napoleon sent him, in 1810, to Portugal, to organize there the system of public instruction. For this purpose his mission was a fruitless one; as the English, contrary to the expectations of the emperor, continued to maintain themselves in that country. But he succeeded in enriching the museum at Paris with an extensive and splendid collection of specimens of the various productions of Brazil. — Elected a member of the chamber of deputies in 1815, he nevertheless seemed to take scarcely any interest in public affairs, and never attempted to address the chamber. — Geoffrey St. Hilaire is an associate of the Academy of Medicine, and a member of almost all the learned societies of Europe. He is also the professor of anatomical philosophy at the Sorbonne, as well as of the philosophy of zoology at the garden of plants (*jardin du roi*). Though a member of the legion of honour, ever since its institution, he never became, like other eminent men of science in France, his contemporaries, an officer of it; nor has he, like so many others among them, been raised to the dignity of a peer. — The memoirs of which he is the author are very numerous, and are to be found scattered through many of the scientific collections of the period. The most important of his larger works are the following: — "Philosophie anatomique" (2 vols. 1818-23); "Histoire naturelle des mammifères," jointly with Frédéric Cuvier, (1819-26); "Système dentaire des mammifères et des oiseaux" (1824); "Considérations générales sur les monstres" (1826); and his "Cours sur l'histoire naturelle des mammifères" (1829). M. Geoffrey St. Hilaire is one of the contributors to the "Dictionnaire des sciences naturelles," and to the "Dictionnaire classique d'histoire naturelle." — *Isidore Geoffroy St. Hilaire*, a son of the former, born in 1805, is an assistant to his father at the "Jardin du roi." He is the author of the portion of the "Description de l'Égypte" which relates to reptiles and fishes, as likewise one of the most active contributors to the last-mentioned dictionary of natural history. He has been a member of the Academy of Sciences since 1833.

HILLHOUSE (James) was born at Mont-

ville, in New London county, Connecticut, on the 21st of October 1754. He was the son of Mr. William Hillhouse, a gentleman who held, during a long life, a conspicuous place in the estimation of his fellow-citizens. When 7 years old, he was received into the family of his uncle, Mr. James A. Hillhouse, a distinguished lawyer of New Haven, by whom he was adopted as a son. He was graduated at Yale College in 1773, and then entered upon the study of the law. On being admitted to the bar, he succeeded in a considerable degree to the practice of his uncle, who died a short time before. While diligently engaged in the business of his profession, New Haven was, in 1779, invaded by a British force under General Tryon; and we are told that it was owing in no small measure to his sagacity in planning, and intrepidity in executing those hasty and imperfect measures of defence which alone were practicable, that the town was saved from the flames. In the interval from this date to the year 1791, he was repeatedly a member of the House of Representatives or Council of Connecticut, and three several times declined a seat in Congress under the old confederation, to which he had been elected. In 1791, he became a member of the House of Representatives in the Congress of the United States, under the new constitution. In 1794, he was chosen to represent his native state in the U. S. Senate, of which body he continued to be an influential and active member for 16 years. His congressional career was especially remarkable for a series of propositions made by him for amending the constitution of the general government, and submitted to the Senate on the 12th of April 1808. His plan was to have the members of the House of Representatives chosen every year by the people; the senators chosen every three years by the legislatures of the respective states; and the president, with powers much inferior to those at present entrusted to him, selected annually by lot from among the senators. "He believed that the more frequently all power reverts into the hands of the people, the shorter the term of every legislative and executive office, the greater will be the security against party spirit, against corrupt elections, against the ambition of demagogues, against all the evils commonly supposed to be inseparable from a popular government." He believed, also, that to select a president by lot from among the senators (who would almost invariably be men eminent for their intel-

lectual or practical ability, particularly when appointed in reference to the contingency of their exercise of the office of first magistrate of the nation) would secure an individual, in the majority of cases, quite as well, or even better, qualified to perform the duties assigned to him, as one designated by the influence or intrigues of party politicians. — From 1810 to 1825, Mr. Hillhouse held the important office of Commissioner of the School Fund of Connecticut. This fund, which had been managed previously by a Board of Trustees or Commissioners, he found in an embarrassed condition: by his indefatigable patience and industry, as well as skilful management, he left it amounting to \$1,700,000 of well-invested property. His attention was next given to the construction of the Farmington and Hampshire canal, urging forward that enterprise, during 6 years, with his characteristic ardour and perseverance, under every discouragement and difficulty. To the achievements of his well-spent life we shall merely add here the services rendered by him to Yale College. For a period of no less than 50 years he was the Treasurer of that institution, and regulated its money concerns with singular ability and prudence; and “it was his foresight and diligence, and his great personal influence with the Legislature, more than anything else, which obtained for the college, in 1792, after the assumption of the state debts by the federal government, a grant of the outstanding revolutionary claims,—a most seasonable relief, which saved the college from extinction, and laid the foundation of its subsequent prosperity.”—Mr. Hillhouse died at New Haven, on the 29th of December 1832, in the 79th year of his age, respected and lamented by all who knew him.

HILLHOUSE (James Abraham), a son of the former, was born at New Haven, on the 26th of September 1789. His mother was the daughter of Colonel Melancthon Woolsey, of Dosoris, Long Island, and was distinguished alike for mental superiority, and for feminine softness, purity, and delicacy of character. Though educated in retirement, and almost self-taught, her son was accustomed to say that she possessed the most elegant mind he had ever met with; and much of the nice discrimination, and the finer and more delicate elements of his own character, were in his case, as in that of many other men of genius, an inheritance from his mother. Mr. Hillhouse was distinguished in his boyhood for great activity and excellence in

all athletic and manly sports, and by a peculiarly gentlemanly deportment. He graduated at Yale College in 1808. While a student there, he was already remarked for the good taste and elegance of his compositions. On taking his degree of A. M., he delivered an oration on the “Education of a Poet,” so full of beauty, that it was long and widely remembered, and led to an appointment by the Phi Beta Kappa Society (not much in the habit of selecting juvenile orators) to deliver a poem before them at their next anniversary. The “Judgment” was accordingly pronounced before that society in 1812.—About this period, Mr. Hillhouse passed three years in Boston, preparing himself for the profession of a merchant. During the interruption of business which took place in consequence of the last war with Great Britain, he employed a season of leisure, passed at home, in the composition of several dramatic pieces, of which “Demetria” and “Percy’s Masque” satisfied his own judgment best. When peace was restored, he went to New York, and embarked in mercantile business, to which, though at variance with his tastes, he devoted himself with fidelity and perseverance. In 1819, he visited Europe, and though the months passed there were a season of great anxiety and business occupation, he saw much to enlarge his mind, and added greatly to his stock of information. “Percy’s Masque” was printed at this time.—Having married, in 1822, a lady of congenial tastes with himself, he returned with her to his native spot, and there, at his beautiful seat of “Sachem’s Wood,” under the shade of his paternal oaks, devoted himself to the pursuits of a country gentleman, and practical agriculturist. His “Hadad,” a sacred drama, usually considered to be his best production, was written and published in 1824. In 1840, he published, in two volumes, the works which have been mentioned, together with some occasional pieces, written at the request of friends, and accompanied also by several orations delivered by him at New Haven, and before literary societies elsewhere. In looking at the amount of what he has written, we ought not to forget that he was very far from having been a mere man of letters. Literature was, in fact, during the greater part of his life, the amusement and occupation of his leisure hours only. His temperament, too, had all the nervous susceptibility which is so often associated with genius; and though he exerted great resolution in overcoming the lassitude of indolence, and was ever exemplary in the

discharge of his duties, his want of health often interfered with his plans of study.—Mr. Hillhouse died on the 5th of January 1841, having attained to a place in the foremost rank of our American poets. In as remarkable a degree as any of his contemporaries, he united great vigour of thought to a brilliant fancy, an exquisite taste, and a correct and elegant diction.

HINDOOSTAN.\* See *India*, (Sup.)

HOGENDORP\* (Gysbert Charles, count of) died in 1834. To his works already mentioned, are to be added his "Opinion delivered on the 17th of April 1816, in consequence of the union of Holland and Belgium," and his "Letters on the public prosperity addressed to a Belgian, in 1829 and 1830," published in 1831, in 2 vols. 8vo.

HOGENDORP (Thierry, count of), an elder brother of the former, was born at Rotterdam, in Holland, in 1761. He entered the military service of his country at an early age, and rose rapidly to the rank of a general officer. He was afterwards sent as ambassador to Russia, and next appointed governor of one of the Dutch colonies in the East Indies. Louis Bonaparte, when king of Holland, appointed him successively minister of war, and ambassador to Vienna, to Berlin, and to Madrid. On the incorporation of Holland with the French empire, Napoleon bestowed upon him the rank of a general of division, and selected him to be one of his aides-de-camp; in which capacity he made the campaign of Russia, in 1812. In 1813, he was governor of Hamburg, under the orders of Marshal Davoust. At the peace of 1814, he retired to Holland, but rejoined the standard of Napoleon on the return of the latter from Elba. After the battle of Waterloo, he emigrated to America, and, having first visited different portions of that continent, settled as an agriculturist in Brazil, where he died about the year 1830.—As a testimony of his regard for Hogendorp, Napoleon left him a legacy of 100,000 francs.—Count Hogendorp was the author of a work entitled "Système colonial de la France sous les rapports de la politique et du commerce" (Paris, 1817); of "Renseignements sur l'état actuel des possessions hollandaises aux Indes-Orientales, et du commerce qui s'y fait;" of a drama, in the Dutch language, styled "Kraspoucol, or a Picture of the Manners of India;" and of a tragedy in French, founded on the history of the Netherlands.—Another count *Hogendorp* (J. F.), a cousin of the two former, took an active part in the

insurrectionary movements against the French authorities which occurred in Holland, shortly after the defeat of Napoleon at Leipsic. He enjoyed the favour of the king of the Netherlands, till his death at a very advanced age in 1832, and was the author of an important work on the island of Java.

HOGG\* died in November 1835.

HOLLAND.\* See *Netherlands*, (Sup.)

HOLLAND\* (Lord), like the majority of his party, supported, without joining it, the administration of Mr. Canning, in 1827. When the Whig party was again called to power, in November 1830, he obtained a place in the cabinet, and was appointed to be Chancellor of the Duchy of Lancaster; which office he continued to hold to the time of his death, with the exception of the ministerial interregnum of a fortnight in May 1832, and Sir Robert Peel's four months' administration from December 1834 to April 1835. He died on the 22d of October 1840.

HOLMES (Abiel), D.D., was born at Woodstock, Connecticut, in December 1763. He graduated at Yale College in 1783, and went in the same year to S. Carolina, where he was engaged as an instructor. He was subsequently settled as the pastor of a church at Medway, in Georgia. In 1791, the unfavourable effect of the southern climate on the health of his wife induced him to return to New England; and in the following year he took the charge of a congregation at Cambridge, in Massachusetts. He died after a short illness, on the 4th day of June 1837.—Dr. Holmes was the author of the "Annals of America," first published in England in 1813, and afterwards, in 1829, in an improved edition, at Cambridge; of a "Life of President Stiles," of Yale College; of a History of Cambridge, and a Memoir of the French Protestants, inserted in the Historical Collections; besides sermons delivered on public occasions.

HOLY ISLAND, at an earlier period called Lindisfarne; a peninsula, wholly insulated at high water, on the N.E. coast of England, in the county of Durham, 11 miles S.E. of Berwick-on-Tweed. It is celebrated for its abbey, founded in 635, and which was once the residence of many literary monks. Various fragments of the monastery are still extant; and traces of walls are scattered over a space of 4 acres.

HONDURAS.\* The exports from the British settlement of Balize, on the coast of Honduras, consisted in 1836 of 9,768,293 square feet of mahogany, 992 tons of

wood, 8565 tons cochineal, besides hides, cocoa-nuts, cedar, turtle, and other articles. They, as well as the imports, are estimated to amount in value to between £400,000 and £500,000 annually. Balize has of late years become the depôt of British and foreign merchandise designed for the consumption of Central America, which is forwarded thence to Izabel and Omoa. In 1839, 107 vessels entered the port, of which 81 belonged to Great Britain, 4 to the British colonies, and 22 to the United States. — For the *state* of Honduras, see *Guatemala*, (Sup.)

**HORN;** a fine kind of stone, found in Germany, Turkey, and elsewhere, and used for sharpening or setting cutlery. It is of a green colour, inclining to yellow, often marked with thin dendrical lines, and is moderately hard, having a fine close texture resembling indurated clay.

**HONG** is the Chinese name for the foreign factories situated at Canton. The hong merchants, who are alone legally permitted to trade with foreigners, are 10 in number, and are always held responsible by the government for paying all duties, whether on exports or imports, in foreign vessels. No foreign ship that enters the Chinese ports can commence unloading until she has obtained a hong merchant as security for the duties.

**HONOURABLE** is a title which is prefixed in England to the Christian names of the younger sons of earls, and to those of all the children, both sons and daughters, of viscounts and barons. It is also conferred there on persons filling certain offices of trust and dignity, such as the maids of honour of the queen and queen-dowager; and collectively on certain public bodies or institutions, as the House of Commons, the East India Company, &c. In the United States, the term in question is applied to Congress and the State Legislatures; to the individual members of the former body; and to the higher order of judicial officers. — The title of *right honourable* is given to all peers and peeresses of the United Kingdom of Great Britain and Ireland; to the eldest sons and all the daughters of peers above the rank of viscount; all privy counsellors; and to some civic functionaries, as the lord-mayors of London and Dublin; the lord-provoests of Edinburgh and Glasgow, &c. We have no right honourables in the United States.

**HOOK** (Theodore Edward) was born in London, September 22d 1768. After having been a pupil of Harrow School, he was entered as a student at Oxford; but

he never actually studied in that university, being early drawn aside from any attempt at the systematic acquirement of knowledge by his taste for light literature and the theatre. When only 17 years of age, he composed an operatic farce, "The Soldier's Return," which was eminently successful; and this was quickly followed by a number of other successful pieces of the same nature. In 1809, he made his first essay as a novelist, by the publication, under an assumed name, of "The Man of Sorrow." It was a very flimsy production, and failed to attract attention. — Hook was even at this time distinguished for his conversational powers, as well as for his feats of mimicry; and these he played off separately, and conjointly with Charles Matthews. His talent also as an *improvisatore* is described as marvellous. The prince-regent was so much delighted with his performances, exhibited before him at some of the houses of the nobility, that he had him appointed, in 1812, accountant-general and treasurer to the British colony of the Mauritius, with a salary and allowances amounting to nearly £2000 a year. This office he held until March 1818, when he was arrested and sent to England, on account of an alleged defalcation in the accounts rendered by him of the public money which passed through his hands. The attorney-general's report was, that though Hook might be liable to a civil prosecution for debt, there was no apparent ground for a criminal prosecution; whereupon he was set at liberty. He was, in 1820, relieved from a state of entire want by becoming the editor of the "John Bull" weekly newspaper. From this source he derived at one time an annual income of full £2000. His prosperity was, however, interrupted in August 1823, by the institution against him, on the part of the government, of a prosecution for debt. He was taken first to a spunging-house, and some time afterwards transferred to the "Rules of the King's Bench." In May 1825 he was released from custody, but with an intimation that the crown abandoned nothing of its claim for the debt. — Hook published his first series of "Sayings and Doings" in 1824, while confined in the spunging-house, realizing by it, as he has recorded in his diary, a profit of £2000; and it appears that he received sums almost as large from the novels and other works which he published afterwards in rapid succession. The principal of the works referred to are "Sayings and Doings," 2d and 3d series (1825-28); "Maxwell" (1830); "Life of Sir

David Baird" (1832); "Gilbert Gurney" (1835); &c. In 1836, he became editor of the "New Monthly Magazine." He died August 24th 1841. His novel of Gilbert Gurney contains a sort of autobiography of himself.

HOPKINSON (Joseph) was born at Philadelphia, on the 12th of November 1770. He was the son of Mr. Francis Hopkinson, one of the signers of the Declaration of Independence, and celebrated for his political satires; of whom a notice has been given in a previous volume of this Encyclopædia.—Mr. Joseph Hopkinson received his education in the University of Pennsylvania, and, shortly after graduating, commenced the study of the law with Judge Wilson, and continued it with the late Mr. William Rawle. On being admitted to the bar, (he was then 21 or 22 years of age), he was induced, chiefly by the injury which his health had sustained by close application to his studies, to remove from the city to a country town. He opened an office at Easton, in Northampton county, and soon acquired a considerable practice. It was not long, however, before he returned to Philadelphia, where his professional reputation grew with great rapidity. He was the leading counsel of Dr. Rush in his famous suit against Cobbett, in 1799; as also for the defendants in several of the Insurgent trials before Judge Chase, in 1800. The extraordinary ability which he evinced in these trials led to his services being engaged by Judge Chase, on the impeachment of the latter before the Senate of the United States. How he acquitted himself on that occasion is thus told by Colonel Burr, then vice-president, and who presided at the trial, in a letter to a friend in Philadelphia, dated Washington, 21st of February 1805:—"Your Hopkinson to-day began the defence on the part of Mr. Chase. He acquitted himself greatly to his honour. He had method, precision, perspicuity, and displayed much ingenuity and knowledge of his subject; yet it was evident that he could have done still better if he had been more at his ease. The novelty of the subject, the scene, and the tribunal, obviously laid him under some restraint. He received, during a speech of three hours and a half, the most profound and unremitting attention from the Court and a very crowded audience."—Mr. Hopkinson was elected to Congress from the city of Philadelphia in October 1815, and again in 1817. At this period, when the House of Representatives embraced among its members an unusual number of high-

ly gifted individuals, he occupied a place among the foremost for talent and skill as a debater. He constituted one of the majority in that body who voted for the tariff bill of 1816. In the same year, he was a member of the committee on a uniform national currency, and with Mr. Macon of N. Carolina, another member, dissented from the report made by it of the bill to incorporate the subscribers to the Bank of the United States. He also addressed the House at length in opposition to the principles of the proposed measure. It may be stated that he did not deny the constitutionality of the new institution, but founded his objections to it wholly on the ground of its inexpediency. He had a firm conviction at the time that, organized as it was about to be, it would prove to be a source of more injury than benefit to the community. The credit must also be awarded to Mr. Hopkinson of having made one of the best speeches in the great debate which took place in Congress, in 1819, on the Seminole war. It was distinguished for moderation, discrimination, and force of argument.—At the close of his congressional term of service, in 1819, Mr. Hopkinson removed from Philadelphia to Bordentown in New Jersey, where he remained about three years; and during his residence there, he was elected to the Legislature of New Jersey. From Bordentown he came back, after a three years' absence, to Philadelphia, and resumed the practice of his profession in this city, in which he continued to be engaged until his appointment by President Adams, in 1822, to be Judge of the District Court of the United States for the Eastern District of Pennsylvania; this being the same office which his grandfather, Mr. Thomas Hopkinson, had held under George III., and his father, Mr. Francis Hopkinson, by appointment of President Washington, on the organization of the court under the constitution of 1789. This office Mr. Joseph Hopkinson retained till the time of his death.—He was a member of the convention which met at Harrisburg on the 2d of May 1837, for revising the constitution of Pennsylvania. A principal design of many of those who had been active in procuring the call of this convention had been to remodel the state judicature, and to reduce the tenure of the judges to a limited term of years. Every effort was made by Mr. Hopkinson to resist the intended innovation. As the chairman of the judiciary committee, he made a report in favour of preserving the article of the old constitution relating to the subject, and supported

the views of the majority of the committee in a powerful and eloquent speech, which contributed in no small degree to the result to which the convention ultimately came, to wit, a compromise between the extreme opinions entertained by the members on the judicial tenure of office. It was determined that the judges of the Supreme Court should thenceforth hold their places for 15 years, and all other judges required to be learned in the law for 10 years. Judge Hopkinson spoke also with his usual ability on other questions that came before the convention for its decision.—At the time of his death, which occurred on the 15th of January 1842, he was one of the vice-presidents of the American Philosophical Society; a trustee of the University of Pennsylvania; and the president of the Pennsylvania Academy of the Fine Arts. Of the last institution he may be considered the founder: he was always a director of it, and was elected to succeed its first president, Mr. Clymer.—In his desire to promote the interests of literature and its diffusion in the community, he was ever ready, when called upon, to deliver discourses or lectures before public bodies, such as the Athenian Institute, Mercantile Library Company, &c.: and these discourses were always remarkable for their practical common sense and the sound morals inculcated in them. None, however, of his literary productions can compare, in point of celebrity, with his song of "Hail Columbia." It was hastily composed, for the benefit of a young actor at the Philadelphia theatre, at a time (the summer of 1798) when party spirit was at its height; the people, too, with very few exceptions, being violently excited against each other mainly by their sympathy with England or France, in the warfare then raging between these nations. And he had for his object, when writing it, "to get up an *American spirit*, which should be independent of, and above the interests, passions, and policy of both belligerents, and look and feel exclusively for our own honour and rights. No allusion is made to France or England or the quarrel between them, or to the question which is most at fault in their treatment of us: of course the song found favour with both parties, for both were American; at least neither could disavow the sentiments and feelings it inculcated."—In his intercourse with his friends and acquaintance, Judge Hopkinson shone with great brilliancy. "His accomplished mind," to use the words of Mr. Walsh, by whom he was

intimately known, "observant of all the events, characters, and opinions of the day, was peculiarly qualified to delight, besides instructing, in convivial intercourse, by a strong relish for refined society, a cheerful and vivacious spirit, and a peculiar poignancy of remark and raciness of anecdote."—It may here not be uninteresting to add that for more than 20 years, Judge Hopkinson was the confidential friend of the count de Surveilliers (Joseph Bonaparte), and, when the count was absent, had the superintendence of all his concerns in this country. Judge Hopkinson was one of the two executors named in the count's will.

HORMAYR\* resided at Vienna until 1828, when he went to Munich, by invitation of the king of Bavaria, who appointed him first a counsellor of state in the department of Foreign Affairs, and subsequently (1832) to be his minister resident at Hano- ver, and (1839) to the free cities of Hamburg, Bremen, and Lubeck.

HORNTHAL\* died in June 1833.

HORSE-POWER. Although the capacity to raise 33,000 lbs. avoirdupois weight one foot high per minute is the standard of a horse's power in mechanics, the real horse-power is now considered to be equal to about 22,000 lbs. only. Hence in comparing the power of a steam-engine with that of horses applied to do the same work, regard must be had to this circumstance, as well as to the fact of the engine working unceasingly for 24 hours, while the horse works, at the last-mentioned rate, only during 8 hours. To do the same work, therefore, as an engine of one horse-power, 4.5 horses would be required.—The power of a man may be estimated at 1-5th of the real power of a horse, or 4400 lbs. raised one foot per minute.

HOSTAGE; a person given up to an enemy as a security for the performance of the articles of a treaty, on the occurring of which the person is to be released. The practice of taking hostages is now almost unknown in the mutual relations of civilized communities, but was formerly so common as to have given rise to many questions in the law of nations; such as the extent of the rights of conquerors over hostages, the events which may dissolve their obligation, the effect of their escape upon the convention between the principals, &c.

HOUWALD\* died in January 1845.

HUBER\* (Theresa) died in June 1829. Just before her death, she published the correspondence of George Forster (who was her first husband) with a notice of his

life, in 2 vols. 8vo. An edition of her tales, in 6 vols., was published by her son, in 1830-33.

HUE is the capital of the kingdom of Anam, in the peninsula beyond the Ganges, on the river Hue, about 10 miles from the Chinese Sea, with about 50,000 or 60,000 inhabitants. It is remarkable for its fortifications, which were constructed early in the present century, under the direction of some French officers in the service of the king of Cochin-China. They are in the European style, and, it is said, upon the model of those of Strasburg. Against Asiatic enemies the fortress is impregnable. Its principal fault is that it is too large; and it would require at least 50,000 troops to garrison it, in case of an attack from Europeans.

HUFELAND\* died on the 29th of August 1836.

HUGO (Victor Marie) was born on the 26th of February 1802, at Besançon, in France, where his father, who became afterwards a general, and was advanced to the dignity of a count of the French empire, was at the time stationed in garrison, with the rank of a colonel. His mother was a native of La Vendée, and early instilled into the minds of her children royalist sentiments; which circumstance led eventually to serious family disagreements. The first three years of Victor Hugo's life were passed with his parents in the island of Elba; the next two years at Paris; and the next two again in Lower Italy, in the Neapolitan province of Avellino, of which his father was governor. This region was then in a very unsettled state; and the French troops were frequently employed in serious conflicts with the various parties of banditti that infested it. It is not improbable that these circumstances, added to the wild and romantic character of the scenery which he witnessed, had no slight influence in forming the mind of the future author. On returning with his mother to Paris in 1809, an incident occurred, of a nature to cultivate still farther in him those political sentiments which his mother had already inculcated, as well as to awaken powerfully his sensibilities. Mad. Hugo received, and contrived to conceal in her house for two years, the French general Lahorie, who was an object of pursuit by the imperial police; during which period he found occupation and amusement in instructing her children in the Latin language, and other branches of education. He was, however, at length arrested, and, being implicated in the conspiracy of Mallet, was ex-

cutted with the latter in 1812, in the plain of Grenelle. In the course of the year 1811, young Hugo went with his parents to Spain, and spent a year in the school for the children of the nobility established at Madrid, where he acquired a correct and familiar acquaintance with the Spanish language. In 1812, he once more returned to Paris, which he did not again quit during the period of his education. This was for the most part directed by an aged priest, and with such success, that, when only 15 years old, he produced a poem "On the advantages of study," and only did not carry off from his competitors the prize awarded by the French Academy, because of an allusion in it to his actual boyhood,—an allusion regarded by the judges as an unworthy artifice on the part of the author, for obtaining the object desired. The latter contented themselves with awarding to him an honourable mention.—The next trophies of the youthful author were obtained at Toulouse. Two poetic effusions of his—"La statue d'Henri IV.," and "Les Vierges de Verdun,"—were crowned, in 1819, by the Academy of the Floral Games of that city, which, in the following year, also awarded the same honour to his ode of "Moïse sauvé des eaux," and appointed Hugo to be "maître des jeux floraux." The productions that have been mentioned, with a number of other odes and ballads, were published together in 1822, in a volume, and acquired for their author at once a place among the literary celebrities of the day. From this period down to the present time, Victor Hugo has poured himself forth in a vast number of publications, embracing a wide field of literature, in poetry and prose. These have acquired for him a position at the head of the *romantic* as opposed to the *classical* school of French writers, especially in the lyrical and dramatic departments. Besides the volume of odes and ballads already mentioned, he has published two others, in 1824-26, of a similar description; and among his other poetic works, are the "Orientales" (1829), the "Feuilles d'automne" (1831), the "Chants du crépuscule" (1835), and the "Voix intérieures." His novels are "Hans d'Islande" (1823), "Bug Jargal" (1826), "Le dernier jour d'un condamné" (1829), and, the most noted of them all, "Notre-dame de Paris." His dramas began with "Cromwell" (1827), which was followed by "Hernani" (1829), "Marion Delorme" (1829), "Le roi s'amuse" (1832), "Lucrece Borgia" (1833), "Marie Tudor" (1836), "Angelo" (1835), "Ruy Blas"



(1839), and "Les Burggraves" (1842). And in addition to all these, he is the author of "Le Rhin" (1840), consisting of letters written on an excursion along that beautiful river, and of a series of articles, mostly of a critical nature, contributed by him, in the earlier part of his literary career, to the pages of the "Conservateur littéraire," and which were subsequently published under the title of "Littérature et philosophie mêlées" (2 vols. 1834). In his numerous and various works, it cannot be denied that Hugo evinces much talent, and frequently talent of a high order; but it may be said with equal truth, that he is disposed, in a portion of them, to pronounce his opinions flippantly and confidently on every subject that happens to present itself to him, whether he has taken pains to understand it or not; and in the more imaginative portion of them, to maintain his claim to occupy the most prominent post among the "romantics," by a violation of all system and rules whatever.

HULL (Commodore Isaac) was born in Connecticut, March 9th 1775. His father was an officer in the American army during the whole of the revolutionary war, and was detained for a long time a prisoner in the Jersey prison-ship. Commodore Hull's passion for the sea was very early displayed, and became stronger as he grew up. With the hope of diverting his attention to other pursuits, he was sent by his friends to his uncle, General William Hull, at Boston, where he went to school. The object desired, however, not having been accomplished, they consented to his making a voyage. This proved a disastrous one; the vessel in which he sailed being wrecked on the coast of Ireland. He nevertheless returned home fortified in his resolution of leading the life of a seaman, which his family no longer opposed. — At the age of 19, he already commanded a ship to London. On the passage of a bill by Congress for the increase of the navy, he made application for a lieutenantcy in the U. S. service, and devoted himself assiduously, while awaiting the decision of the government in his case, to the studies necessary for the naval profession. He was commissioned as a lieutenant on the 9th of March 1798, the day on which he completed his 23d year. He was ordered to the frigate Constitution, then preparing for sea at Boston. For a period of about four years, he was occupied in cruising on the West India station, for the protection of American merchantmen going to or returning from the Windward Islands. In 1803, he distin-

guished himself by cutting out of the harbour of Port Platte, in the island of Hayti, the French letter of marque, the Sandwich; an enterprise executed with great gallantry and spirit, and without any loss to the assailants. On the return of the Constitution to Boston, Lieutenant Hull was directed to superintend the repairs of the ship; but, before this service was completed, he was ordered to proceed as first lieutenant of the frigate Adams to the Mediterranean. He subsequently commanded the schooner Enterprise of 12 guns, and rendered in her effectual aid to Captain Rodgers in the John Adams, in capturing a large corsair before the harbour of Tripoli. The next vessel that he was appointed to command was the Argus of 16 guns, which was in 1804; in which year, also, he was promoted to the rank of a master-commandant. He was made a captain in 1806. In the Argus, he cruised for some time off the coast of Morocco to watch the movements of the corsairs in the ports of that state; and after rejoining Commodore Preble's squadron off Tripoli, he was ordered to the Bay of Naples, and charged with the protection of American property in the event of the French gaining possession of that city. The next office intrusted to him was the conveying, on board of his vessel, of General Eaton and his officers to Alexandria, in Egypt. He at length returned to the United States, after an absence of four years and three months, and was immediately ordered to superintend the construction of gun-boats, in pursuance of the system adopted during the administration of President Jefferson. He was successively appointed to the command of the Norfolk Navy-Yard, and gun-boats on that station; to the command of the frigate Chesapeake; to that of the Constitution, in which vessel he conveyed to France Mr. Barlow, the American minister to the emperor Napoleon; and to that of the navy-yard and gun-boats in the harbour of New York. — At the commencement of the war of 1812, Captain Hull was appointed once more to command the Constitution frigate. He sailed in her from Annapolis on the 12th of July; and in the course of a few days an opportunity was afforded him of exhibiting a specimen of skilful seamanship and naval manœuvring, of so extraordinary a nature, as to excite the admiration even of the enemy. After a chase of nearly three days, and as many nights, he succeeded in effecting his escape from a British squadron consisting of the Africa 64 gun-ship, 4 frigates and a brig. On the 19th.

of the following month, he had the good fortune to encounter the *Guerriere*, one of the frigates of this squadron, single-handed. There is, perhaps, no instance on record of a greater execution having been performed by an equal force, and in an equal time, in naval warfare, than was done by the *Constitution* on the present occasion. Although there was an interval of about two hours between the firing of the first and the last shot, the battle was really won in a fourth part of that time. Of the Americans 14 only, of the British 79, were killed or wounded; and while the *Constitution* was so little injured as to be ready to engage another frigate immediately afterwards, had she been called upon to do so, the *Guerriere* was completely dismantled, and reduced to a mere wreck. — On his return into port, Captain Hull gave up the command of the *Constitution*, "with a feeling," to use the words of Mr. Cooper, "that was highly creditable to him, in order to allow others an equal chance to distinguish themselves; there being unfortunately many more captains than vessels in the navy at that trying moment." He was then appointed to the command of the navy-yard at Boston, and about a year afterwards was transferred to that at Portsmouth, in New Hampshire, where he remained until he was selected to be one of the first Navy Commissioners. After holding this office for a few months only, he accepted once more the command of the Boston station, and remained there eight years. At the expiration of this time, he was sent, in the frigate *United States*, to command the American squadron in the Pacific Ocean. Returning home in three or four years, he was ordered to the command of the Washington Navy-Yard. There he spent seven years, and, having obtained leave of absence, went to Europe with his family, and continued abroad two years. Upon his return, he was employed on various courts-martial, and other duties, for about 12 months. He was then appointed to the command of the line-of-battle-ship *Ohio*, and of the Mediterranean squadron; which cruise lasted nearly three years. Commodore Hull, finding his health to have become seriously impaired by the unremitting and arduous duties which he had been called upon to perform, asked for, and had granted to him, an unconditional leave of absence from the naval service. He established himself in the city of Philadelphia in the month of October 1842. And he died here on the 13th of February 1843. — He was ever exemplary in the perform-

ance of his private, as of his public duties; and the modesty, amiability, and courtesy, of his intercourse with others, as strikingly characterized him, as did his self-possession and intrepidity in danger.

HULLIN\* (General) published in 1833, "Explanations offered to impartial men, relating to the military commission appointed in the year XII. for the trial of the duke of Enghien." He died in 1841.

HUMANN (Jean George) was born at Strasburg, in France, in August 1780, of obscure parents. He embraced the mercantile profession in that city, and, by his industry and intelligence, acquired a large fortune. In 1820, he was chosen a member of the Chamber of Deputies from the department of the Lower Rhine. He took his seat on the benches of the opposition; and during the sessions of 1824, 1825, 1826, and 1827, often engaged in the discussions of the Chamber on financial affairs. In 1828, he was chosen a deputy by the electoral college of Villefranche. In 1830, he was one of the 221 deputies who voted the famous address to the king, which led to the dissolution of the Chambers, and the revolution of July. In this month, he was re-elected a deputy, by the town of Schélestadt, in the department of the Lower Rhine. He became minister of finance on the 11th of October 1832, and quitted this post in January 1836. On the 3d of October 1837, he was nominated a peer, and, on the first of March 1840, resumed the charge of the department of the finances. He continued in this office till the month of April 1842, when he was carried off by an attack of apoplexy.

HUMBOLDT\* (Frederick Henry Alexander, baron de). Since the return to Europe of this eminent individual from his journey in 1829 into Asiatic Russia, he has resided at Berlin, occasionally making a visit to Paris, and excursions to different parts of Germany.—He gave an account of the above-mentioned journey to the public, in 3 vols., in 1837–42, and has still more lately published, under the title of "Cosmos," an elaborate and learned work on physical geography.

HUMBOLDT\* (Charles William, baron de). After a number of years devoted exclusively to literary pursuits, this distinguished individual once more became a member of the Prussian cabinet in September 1830. He died at his estate of Tegel, near Berlin, on the 8th of April 1835.—Besides his works already mentioned, he is the author of a grammatical treatise "On the Dual Number" (Berlin, 1828); of a "Letter to M. Abel de Rémusat

on the nature of grammatical forms in general, and on the genius of the Chinese language in particular" (Paris, 1827); of observations on the Japanese grammars of Rodriguez and Oyanguren (1826); together with a dissertation on the Sanscrit verbs formed by the suffixes *iva* and *ya* in Schlegel's "Indischer Bibliothek" (vols. 1 and 2), and of several other dissertations in the Transactions of the Royal Academy of Sciences of Berlin. He left also two unfinished works, the intended appearance of which was announced to the public in 1840. These are a treatise "On the Languages of the Indian Archipelago," and another "On the Philosophy of Language."

HUMMEL\* entered in 1816 into the service of the king of Würtemberg, which he, however, quitted 4 years afterwards for that of the grand-duke of Saxe-Weimar. In 1822 he went to Russia, in 1823 to Holland and Belgium, and in 1825 to Paris; being acknowledged, wherever he went, to be the first performer on the pianoforte of his time. He excelled especially as an *improvisatore* on that instrument. In 1833, we find him directing the German opera in London. Returning afterwards to the continent, he made a visit to Poland, and then resumed his position at Weimar, continuing there till his death, which happened on the 17th of October 1837.—As a musical composer, he was unsurpassed by any of his contemporaries, Beethooven alone excepted.

HYDE DE NEUVILLE,\* on quitting the ministry in August 1829, was made a peer of France; but after the revolution of the following July, he conceived it to be his duty to refuse to take the required oath of fidelity to the new government, and to resign his peerage. Since that event, he has lived retired from public affairs.

HYDRA.\* The population of this island was estimated, in 1834, at only 20,000. The anticipations of its recovering its former prosperity after the peace have not been realized; its commerce having been, for the most part, transferred to the more advantageously situated ports of Nauplia and the Piræus.

HYDRATES are compounds containing water as one of their proximate elements, and in definite proportion. Caustic potash, for example, is a hydrate of potassa, composed of one equivalent of potassa = 48, and one of water = 9; and slacked-lime, which is an apparently dry white powder, is a hydrate of lime.

HYDRO-CYANIC ACID. See *Prussic acid*.

HYDROMEL. See *Mead*.

HYGROMETER.\* Much attention has been latterly paid to the improvement of hygrometers, but not with the success that might have been anticipated. Daniell's, especially as modified in its construction by Pouillet, is among the best of those hitherto proposed. Although an excellent instrument for most climates, it is scarcely fitted to give accurate indications when the dew-point is so far below the temperature of the air as it frequently is during our American summers. This difficulty having been much felt at the observatory attached to the Girard College, Prof. A. D. Bache was led to devise a new instrument, more simple in its construction and more accurate in its indications, and at the same time less expensive and less liable to be broken or injured. It consists of a thin metal trough filled with mercury, and placed horizontally, so that one end may be immersed in a box containing a freezing mixture. In the mercury a delicate thermometer moves, being supported in a vertical position by a metal wire, placed above and parallel to the trough. (A steel bar, having upon its upper surface a series of holes containing mercury, in each of which is placed a small thermometer, may be used in place of the trough.) The outer surface of the trough is gilded. The freezing mixture reduces the temperature of that end of the trough below the dew-point, while the outer end remains at the temperature of the air. Hence the temperature of some intermediate point of the trough will coincide with the dew-point; and this position will be indicated by the boundary line of the deposit of moisture. The thermometer (whose bulb nearly fills the trough) being moved opposite this point, will indicate the temperature.

## I.

ICE.\* In September 1833, a cargo of this article, shipped at Boston, was discharged at Calcutta. The price at which it was offered was 3d. sterling per lb.; while the native ice, artificially produced,

could not be sold under 6d. It was packed in solid masses, within chambers of double planking, with a layer of refuse tan or bark between them; but it was expected, by improved methods of packing, that ice

might be brought from America at a still cheaper rate. The whole quantity shipped, on the occasion just mentioned, was 180 tons, of which about 60 wasted on the voyage, and 20 on the passage up the river to Calcutta, and in stowing away.

**IDLER.\*** His last and most important work is a treatise on the "Chronology of the Chinese" (1839).

**IDIOLOGY** is the term applied by the later disciples of Condillac to the history of human ideas, considered as so many successive modes of certain original or transformed sensations. By some French writers, and particularly by Destutt-Tracy, it is employed in a more extensive sense, as synonymous with metaphysics. In this sense it was understood by Napoleon, when he said that he had no love for the *idéologues*. The speculations of the metaphysician have too close a relation to those of the political philosopher, concerning the defects and errors of existing systems of administration and government, to have been acceptable to the imperial despot; who, accordingly, abolished altogether the moral and political class of the Institute.

**IDRIA.\*** The quicksilver mines of Idria are the richest and most celebrated in Europe, next to those of Almaden in Spain. They yield annually from 3200 to 3500 cwt. of metal, about a sixth part of which is converted on the spot into vermilion, corrosive sublimate, and other preparations of mercury. The mine is rather more than 1000 feet in depth. From 600 to 700 workmen are said to have been latterly employed; 500 of whom are miners. These usually enter the service at 15 years of age. After 40 years' service, or earlier, if ill health overtake them, they are allowed to retire on full pay, and enjoy various privileges. The widows and orphans of miners, also, are entitled to a pension. The process of mining is said to be very unhealthful; the heat of the mine, varying from 80° to 86° Fahr., impregnates the atmosphere with volatilized mercury, which soon exerts all its characteristic effects on the constitutions of the miners. In some parts the heat is so great, and the atmosphere so vitiated, that the workmen are obliged to relieve each other every two hours.

**INDIA.\*** Such notice as the space to which we are limited permits us to take of the Portuguese, Spanish, Dutch, Danish, and French colonies in the East, will be found under the heads of those colonies respectively, or of the countries to which they belong. It is intended here merely

to add a few particulars to the account previously rendered of the possessions of Great Britain in that quarter, and especially in Hindostan, and to give a sketch of their recent history. — As has already been mentioned, the British empire in Hindostan is composed of such provinces as are directly subject to the authority of the East India Company, or the officers appointed by it; of the states which are tributary to it; and of those which are styled its allies. The first of these is divided into the presidencies of Bengal, Agra, Madras, and Bombay. Of these, Bengal is situated on the lower Ganges; Agra lies on the middle and upper parts of this river; Madras comprehends the territory at the southern extremity of the peninsula, on the coasts of Coromandel and Malabar, and the intervening table-land of Mysore; and Bombay occupies the northern portion of the western coast, together with a part of the plateau of the Deccan. The E. I. Company stipulates with its *tributarics* to protect them from all external enemies, and maintains for this purpose a considerable military force, the expense of which is provided for, either by the payment by those states of an annual subsidy, or by means of the revenue derived from districts ceded by them to the Company. In no case is the latter to interfere in the internal concerns of a tributary state, except when called upon to secure the succession of the legitimate heir, on the death of any of the Indian rulers. The E. I. Company's *allies* are bound to furnish, when required, an auxiliary force to co-operate with its own troops, as well as to contribute such other aid, in money or otherwise, as the common interests of both parties may render necessary. They are, moreover, to afford no refuge to criminals seeking to escape from justice in any of the presidencies, nor to employ any European in their service without obtaining the previous consent of the British government. — The extent and population of the several presidencies, as given in the article India in M'Culloch's Geographical Dictionary, is as follows:—

|                       | Area in sq. m. | Population. |
|-----------------------|----------------|-------------|
| Bengal and Agra ..... | 306,000        | 69,710,000  |
| Madras .....          | 130,900        | 14,895,000  |
| Bombay .....          | 68,100         | 6,940,000   |
| Total .....           | 505,000        | 91,545,000  |

The tributary or allied states of Berar, Oude, Mysore, Travancore, Cochin, Sat-tarah, the dominions of the Nizam, of the Rajpoot and Bundelcund chiefs, &c., which are either entirely or in part surrounded by the British territories, are estimated,

according to the same authority, to comprise about 433,000 sq. m., and a population of about 41,000,000. But even these do not complete the statement of the countries and people subject to the dominion of Great Britain in India. There yet remain to be mentioned the provinces beyond the Ganges conquered from the Birmans, and annexed to the presidency of Bengal, having an area of 77,300 sq. m., and a population of 1,357,500; the island of Ceylon, with an area of 24,450 sq. m., and a population of 1,242,000; and the British settlements on the straits of Malacca, viz. Penang, or Prince of Wales's Island, and Wellesley province, Malacca, and Singapore, with an area of 1570 sq. m., and a population of 154,500.

Until the year 1814, the E. I. Company had a monopoly of the trade with India. On the renewal of its charter in that year, it was deprived of this privilege, and the trade was thrown open to the individual enterprise of British merchants. But the trade with China remained wholly in the hands of the company until 1833, when its charter was last renewed; and the company was thenceforth restricted from carrying on, upon its own account, any commercial operations whatever. The effect of these changes, in augmenting the value of the produce and manufactures of Great Britain exported to India, has been very extraordinary. The declared value of these was, in 1814, £1,874,690; in 1832, it was £3,750,226; in 1833 (including the exports to China), £3,495,301; and in 1840 (also including China), £6,023,192. And the effect on the imports from India has been scarcely less remarkable. Some important branches of this trade may be said to have been created since the existence of the E. I. Company, as a commercial body, altogether ceased. Linseed, rum, tobacco, and wool, which, previously to 1833, did not enter into the trade between India and England, have become articles of considerable importance. The quantities of lac dye and shellac have been quadrupled. Hemp is more than doubled, and hides are increased three-fold. Pepper and rice have doubled. The sugar trade, from being quite insignificant, has lately become one of the most important branches of commerce; and the supply of cotton, in 1841, was 97,388,153 lbs., or three times as great as it was in 1833. The quantity of coffee was likewise nearly trebled; but the greater part of this increase proceeded from the extension of the culture of coffee-trees in Ceylon, which followed upon the assimilation, in 1835,

of the duties upon East India and West India coffee.—A very large trade, we must not omit to mention, is carried on from the settlements in British India in addition to that with Great Britain. In the years 1839-40, the value of the imports and exports of Bengal, of the character referred to, amounted respectively to £2,677,388 and £3,218,527. The value of the imports and exports of Madras was more than the half of these sums; while that of those of Bombay exceeded this.—On an average of four years ending in 1840, the revenues of the E. I. Company, and its expenditure, were respectively £19,403,590 and £21,661,114. The land is the principal source of revenue; then follow, in the order of their importance, the salt monopoly, the customs, the opium monopoly, &c. The wars in which the E. I. Company has at various times been engaged, have occasioned it to contract a debt, which, in 1840, amounted to the sum of £30,703,778.—The army maintained in British India consisted, in 1837, the latest year in which we have any distinct account, of 26,582 British, and 157,758 native troops, or sepoy, commanded by British officers, besides 111,500 native auxiliaries.—By the act of 1833, the E. I. Company holds, under the superintendence of the board of control, the political government and patronage of British India, till the 30th of April 1854. The supreme authority is vested in the governor-general, who is also governor of the presidency of Bengal. He is nominated by the court of directors, the nomination being subject to the approval of the sovereign, and is assisted by a council of five members, three of whom are appointed by the court of directors from among persons who are, or have been, servants of the company; another is chosen in a similar manner, but from persons unconnected with the company; and the remaining one is the commander-in-chief, who takes rank immediately after the governor-general. The other presidencies have also their governors and councils, subordinate to the governor and council of the Bengal presidency. The governor-general in council is competent to make laws for the whole of British India, and which are binding upon all the courts of justice, unless annulled by higher authority. Parliament reserves to itself the right to supersede or suspend all the proceedings or acts of the governor-general; and the court of directors has also power to disallow them.

Nothing occurred in the history of British India, after the termination of the Birman war in 1825, to attract the public

attention in Europe or America, in any considerable degree, to the affairs of that country, until the British incursion into Afghanistan. The grounds alleged by the governor-general, Lord Auckland, for making war against the Afghans, as announced by him on the 1st of October 1838, were the treatment experienced at the hands of Dost Mohammed, the ruler at Cabul, by Runjeet Sing, who was an ally of the E. I. Company; the refusal to the British of the unrestricted navigation of the Indus; the necessity of securing a bulwark on the N. W. frontier of Hindostan against the apprehended invasion of a foreign power; and that the interference of the company in his behalf had been required by its ally Shah Soojah, the lawful chief of Cabul, but who had been deposed by his enemies. A British force of 26,000 men advanced accordingly into the heart of Afghanistan, by the route of Candahar. Every attempt to resist it on its route proved abortive; and it re-established Shah Soojah in his capital, in the month of August 1839. Towards the end of that year, the country was evacuated by the British, with the exception of a small body of men left in garrison at Jellalabad, to support the shah in case of necessity. In the course of the next year, however, to provide more efficient means for the maintenance of the existing condition of things, an additional force was sent to be stationed at Cabul itself. To keep its communication open with the E. I. Company's possessions in India, it was judged expedient to purchase from the independent tribes an undisturbed passage at all times through the mountain passes, on the road leading to Jellalabad. It would appear that the money for this purpose was not paid to the full amount of what had been promised; in consequence of which some of those tribes occupied the passes in such numbers, that it was only with the greatest difficulty that General Sale was able to make his way through them, with the detachment under his command. This occurred in the autumn of 1841. Almost immediately afterwards, the Afghans rose in insurrection at Cabul, and hemmed in the British force there under General Elphinstone so closely, as to render it expedient, in the opinion of the latter and his advisers, to consent to quit altogether the capital of Afghanistan, on the assurance given by Akbar Khan of his retreat upon Jellalabad not being in any manner molested; and this, too, notwithstanding that, just before, the British resident, Sir William M'Naghten, had been treacherously put to death by

that chief, in a conference held with him in the neighbourhood of the British encampment. The conditions of the agreement which had been made were unscrupulously violated by the enemy; and the British troops, harassed on their march by continued attacks, perished almost to a man before reaching Jellalabad. In justice, however, to Akbar Khan, it is proper to mention that the officers and ladies who fell into his hands on this calamitous occasion, were treated by him in a most kind and respectful manner. "No European power," such is their own testimony, "could have treated prisoners of war better." It now became imperative on the government of India to restore the *prestige* of the superiority of the British arms by sending another army into Afghanistan, and striking a blow that would resound throughout the immense population subject to its sway. The division of General Pollock reached Jellalabad in April 1842, and united itself in that city to the troops under the orders of General Sale, who had succeeded in maintaining himself against all the efforts of the Afghans to drive him from his position. After a delay there of several months, General Pollock commenced his march on the 20th of August upon Cabul, which he entered, having totally defeated Akbar Khan on his way, on the 16th of the following month. In a few days afterwards, all the prisoners, one only excepted, were restored to their friends; and before long, the British army was joined by General Nott, who had advanced into Afghanistan by way of Candahar, and had been successful in various conflicts with the enemy. Lord Ellenborough, who had superseded Lord Auckland in the office of governor-general, now announced in a proclamation that the honour of the British arms having been restored by the recent victories which had been achieved, the army in possession of Afghanistan should be withdrawn to the Sutledge, and that he would "leave it to the Afghans themselves to create a government amidst the anarchy which is a consequence of their crimes." As a signal punishment of that people for the treacheries of which they had been guilty, the generals, before commencing their retrograde movement, directed or permitted their troops to commit various ravages, scarcely in accordance with the laws of civilized warfare; such, for example, as the destruction of the greater part of the city of Cabul, of the strong and populous town of Istalif, as well as of a number of other towns. On their march, too, to the Sutledge, the troops are

stated to have committed every kind of devastation. One writer says, "Our path is marked by fire and sword; nothing escapes us; friends and foes, at least *so-disant* friends, share the same fate." The next important event in the history of British India since the conclusion of the Afghanistan war, was the annexation of Sind to the British empire, in 1843. The Ameers or princes of that province, which is situated on both sides of the Indus, extending from the Indian Ocean to the Punjab, had evinced, during the occurrences of which some account has been given, an unfriendly disposition towards the British government. This circumstance drew upon them the attention of the latter, which required them to subscribe to a new treaty, granting to the British certain privileges in their dominions, beyond what had been stipulated for in preceding treaties. Though much disinclined to this measure, they actually subscribed the treaty on the 14th of February 1843, but on the following day treacherously attacked the residence of the British Commissioners with a large body of men. On the 17th of the same month, a severe action took place between the British troops under Sir Charles Napier and the forces of the Ameers, who, having been defeated, on the next day surrendered themselves prisoners of war. Their territory was appropriated as already mentioned. The contest which has more recently occurred with the warlike Sikhs, who occupy the country called the Punjab, threatened, for a short time, more seriously than any other in which the British had for many years been engaged, the safety of their eastern empire. But the latter have been victorious, and the danger apprehended has passed away; although they were in a great measure taken by surprise, and their adversaries were numerous, well organized, and abundantly provided with artillery, as well as with the various other munitions of war. Lord Ellenborough, it may be proper to mention, was superseded in the office of governor-general of India, in 1844, by Sir Henry Hardinge. This distinguished officer, waiving his superiority of rank, volunteered to act as second in command, under the commander-in-chief, Sir Hugh Gough, in the war with the Sikhs.

INMAN (Henry), a distinguished American painter, was born at Utica in the State of New York, on the 20th of October 1801. His talent for that department of art in which he became eminent showed itself early, but he received no regular

instruction in drawing until his parents removed to the city of New York, about the year 1812. While under the care of an elementary teacher, he attracted the attention of Jarvis, the painter, who proposed to receive him as a pupil. This proposal decided his career; a warrant which had been obtained for him to enter the Military Academy at West Point as a cadet was relinquished, and he entered upon a seven years' apprenticeship with Jarvis. He continued to serve out this whole term, and to this exact and regular discipline much of his professional reputation was owing. Inman began his career as a portrait and miniature painter in New York, and soon acquired a high reputation for the excellence and fidelity of his likenesses. He afterwards removed to Philadelphia, and then to a farm which he purchased in the neighbourhood of Mount Holly, New Jersey, being constantly engaged in his profession, chiefly as a portrait painter. He returned to the city of New York, which was his place of residence during the remaining years of his life. Remarkable for great rapidity as well as truth in his portraits, he has left, amidst a large number of pictures, likenesses of many of his distinguished countrymen. Among these, his portraits of Bishop White and Chief-Justice Marshall may be mentioned as works of the highest order of merit. The genius of Inman was not restricted to that branch of art in which he was chiefly engaged; he enjoyed also a fine reputation for fancy and landscape painting, of which he has left some admirable specimens. The prosperity of Inman's professional career was followed by pecuniary embarrassment, in which he became involved by unfortunate speculations about 1836. His health, too, was many years seriously impaired, and he was prevented from executing the commission from Congress to paint a picture for the Capitol, for which he had chosen as his subject a scene illustrative of Settlers in the West. In the summer of 1844, Inman visited England for his health,—and during his short visit executed two of his most remarkable likenesses, the portraits of Wordsworth and of Chalmers. He returned without improvement of his health; and the malady which had for many years afflicted him proved to be a disease of the heart, in one of its most aggravated forms, accompanied with frequent and severe paroxysms. During the intervals, he continued to practise his art with an unabated zeal and genius, until within a few weeks of his

death, which took place early in January 1846. — Mr. Inman was gifted with brilliant conversational powers, and his private and professional career was distinguished by the feelings of a genuine artist towards his fellow-artists, from whom he received an expression of their esteem by being chosen Vice-President of the National Academy of Design. Immediately after his death, a public exhibition was given, in New York, of such of his paintings as could readily be collected, for the benefit of his widow and children. The extent of his works may be in some measure judged of from the fact that this partial collection contained 127 paintings of various kinds.

**INNSBRUCK.\*** Population in 1840, 10,738. The university in this place is of the second order, in which the instruction rendered is entirely gratuitous. It occupies a fine and extensive building, and has 18 professors, together with exhibitions to the amount of 12,000 florins yearly. It is attended by several hundred students, and has attached to it a library, botanic garden, and cabinet of physical objects. The *Ferdinandum*, founded in 1823 upon the model of the *Johanneum* of Grätz, is a museum devoted to the productions of the Tyrol, both in art and natural history, and contains some interesting collections, particularly in the department of mineralogy.

**INTENDANT** is a word much used in France, to denote a person who has the charge, direction, or management, of some office or department; as an intendant of the marine, of the finances, &c.

**IRELAND.\*** See *United Kingdom of Great Britain and Ireland*, (Sup.)

**IRKUTSK.\*** Population of the town, including the military stationed there, about 15,000. It is the seat of an archbishop, and of a Russian governor, whose authority extends over the immense provinces of Irkutsk, Yakutsk, Okhotsk, Kamtschatka, and Russian America. It has numerous educational establishments, including, besides the gymnasium, with a library of 5000 volumes, an episcopal seminary, a school of navigation, with classes of instruction in the Tartar, Chinese, and Japanese languages, normal, secondary, Lancasterian, and other schools, and a cabinet of mineralogy. It is the great entrepôt for the commerce of N. E. Asia, importing tea, rhubarb, fruit, paper, silks, porcelain, and other manufactured goods, from China by way of Kiachta, and furs from Kamtschatka, the Aleutian Islands, and Russian America; which articles are here exchanged for European goods, sent from

Petersburg and Moscow by way of Tobolsk. It has also some trade with Bokhara.

**IRON.\*** The following estimate has been lately made of the annual produce of iron in different countries:—France possesses (1841) 475 furnaces, which produce 347,700 tons of cast-metal, worth £2,520,000 sterling, and 1500 refining furnaces, which produce 224,100 tons of malleable iron, worth £3,720,000; Sweden, 100,000 tons; United States (1837) 250,000 tons; Belgium (1837) 135,000 tons, from 89 furnaces; Saxony, 99,427 quintals, from 19 furnaces; Syria, 20,000 tons; Spain, 8000 tons. The quantity of iron produced in Great Britain, which in 1835 was estimated at about a million of tons, is supposed to have amounted in 1839 to as many as 1,512,000 tons; and the annual produce has since been steadily augmenting. This increase has been owing to the recently extended applications of iron to railways, machinery, gas-apparatus, roofs, columns, windows, and furniture; and it was proportionally greatest in Scotland, where such was the expansion of the iron trade, that the produce, though only 37,700 tons in 1823, was augmented in 1840 to 250,000 tons, a quantity greater by 47 per cent. than the total produce of all Britain in 1802.—Great Britain has a superiority over other countries in the cheapness, as well as in the quantity, of the iron produced. In point of quality, however, the British iron is greatly inferior to that of Sweden, Norway, Russia, India, and other countries, which, besides possessing a superior ore, have the means of converting it into metal by the aid of charcoal, an agent preferred to coal, at least in the preparation of bar-iron. Hence a preference is given in England to foreign iron in the manufacture of cutlery; and about 20,000 tons are annually imported for that purpose, mostly at Hull, for transmission to Sheffield. It is principally brought from Sweden, where the bar-iron is prepared by hammering instead of rolling; the finest being that made from the magnetical ore of the celebrated mines of Dannemora, near Upsal, and of Taberg, near lake Wetter.

**ISABELLA II.**, queen of Spain. See *Spain*, (Sup.)

**ISNARD\*** died about the year 1830.

**ITALY.\*** The French revolution of July 1830, as elsewhere on the continent of Europe, produced a high degree of excitement throughout Italy; and there can be little doubt that, but for the prompt and energetic preventive measures adopted by the Austrian government, revolutions in



a similar spirit would have taken place throughout the different states into which it is divided. Austrian troops in sufficient force were assembled, in the Lombardo-Venitian kingdom, to crush any insurrection in that quarter, however formidable, and to be in readiness to march to the aid of the other Italian governments, on the occurrence of any emergency. It was only at Bologna and Modena that any occasion arose for employing them; the rest of the country was prudent enough to vent its dissatisfaction with the existing order of things in murmurs, or at farthest in words. Tranquillity was again soon everywhere re-established, and has continued down to the present time, with scarcely any interruption. On the accession, in 1835, of the present emperor of Austria to the throne, the people of Italy seemed to him to be so resigned, if not reconciled, to their fate, that he ventured to liberate the prisoners of Spielberg, and to grant a general amnesty for political offences.

**IVORY.\*** Besides the uses of it already mentioned, namely, as "a material for toys, and as panels for miniature paintings," ivory is extensively employed for knife-handles, and in the construction of mathematical and musical instruments. Ivory articles are said to be manufactured to a greater extent, and with more skill, at Dieppe in France, than in any other place in Europe; but the preparation of this beautiful material is much better understood by the Chinese than by any other people. The western and eastern coasts of Africa, the Cape of Good Hope, Ceylon, India, and the countries to the eastward of the Straits of Malacca, are the great marts whence supplies of ivory are derived; but the most esteemed come from Africa, being of a closer texture, and less liable to turn yellow, than those from the East Indies. Though elephant's tusks are sometimes exported from Pegu and Cochin China weighing as much as 150 lbs., they are seldom to be met with above 70 lbs. in weight; and their average weight may be stated at 60 lbs.—The tusks or teeth of the sea-horse and hippopotamus are also used as ivory. The latter, procured in Africa, are harder and whiter than those of the elephant, and do not turn yellow so soon. *Fossil* ivory from the tusks of the mammoth or elephant is that principally used by the Russian turners: it is found plentifully, and in a high state of preservation, in the Laichovian isles, and on the shores of the Frozen Sea.—Ivory consists of about 24 per cent. of animal matter re-

sembling horn, and 66 of phosphate, with a trace of carbonate, of lime.—Not only the genuine *ivory black*, but likewise a mixture of charcoal and phosphate of lime, obtained by burning *bone*, is sold under this name, and, like other forms of animal charcoal, is very effective in depriving certain substances of their colour.

**IVORY (James)** was born at Dundee in 1765. After receiving the rudiments of his education in the public schools of that town, he was sent, at the age of 14, to the university of St. Andrew's, where he spent six years. The first four of these were occupied in the study of mathematics, philosophy, and languages; and the remaining two, in conformity with the wishes of his father, who intended that he should become a clergyman in the Church of Scotland, in that of theology. He then removed, in company with Mr. (afterwards Sir John) Leslie, who had been his fellow-student at St. Andrew's, to the University of Edinburgh, where he spent one year in completing his theological studies, but was never admitted to the office of a Christian minister. Immediately on quitting the university in 1786, he was induced to accept of the appointment of assistant teacher in the academy then recently instituted in Dundee, with the purpose of giving instruction in mathematics and natural philosophy; for the prosecution of which sciences he had imbibed a strong predilection, as well as evinced a peculiar aptitude. The duties of this post he continued to fulfil during 3 years. At the end of this time, he became a partner and manager of a flax-spinning company at Douglastown in Forfarshire; and he was thus engaged from 1789 to 1804. During this period of 15 years, while Mr. Ivory was employed daily in operations apparently very uncongenial with the tastes of a man of science, he succeeded, by a diligent use of his leisure hours, in making himself thoroughly acquainted with the profoundest works, not only of the English, but also of the continental mathematicians. He became, besides, extensively known by his own original researches; his earliest memoir, presented to the Royal Society of Edinburgh, having been read before that body in November 1796.—In 1804, the company of which Mr. Ivory was a partner was dissolved; and he applied for, and immediately obtained, one of the mathematical professorships in the Military Academy at Marlow (afterwards removed to Sandhurst). He resigned this office, and retired to private life, in 1819; after which period, he devoted himself entirely to sci-

entific researches; and the results of his labours have been printed chiefly in the volumes of the "Philosophical Transactions." In 1831, William IV., with the Hanoverian Guelphic Order of Knighthood, granted him, at the suggestion of Lord Brougham, a pension of £300 per annum, which he enjoyed during the rest of his life; and, in 1839, the University of St. Andrew's conferred upon him the degree of LL.D. He lived in great privacy in or near London till the time of his death, which happened on the 21st of September 1842, in the 77th year of his age. — Mr. Ivory's works consist of numerous papers relating to various branches of the pure mathematics and to physical astronomy, inserted in the scientific collections and journals; and

most of them are indicative of talents and attainments of the first order. He was a fellow of the Royal Society of London; an honorary fellow of the Royal Society of Edinburgh; an honorary member of the Royal Irish Academy, and of the Cambridge Philosophical Society; and a corresponding member of the Institute of France, of the Royal Academy of Sciences of Berlin, and of the Royal Society of Göttingen. He received, in 1814, the Copley medal for his mathematical communications to the Royal Society; in 1826, one of the royal medals for his paper on astronomical refractions, published in 1823; and, in 1839, another royal medal for his theory of astronomical refractions, which was published in 1838.

## J.

**JACKSON** (General Andrew) was born on the 15th of March 1767, at the Waxsw settlement, in South Carolina. His parents emigrated to this country, two years previously, from the north of Ireland. He lost his father at a very early age; and the task of bringing him up devolved exclusively upon his mother. Intending him, it is said, to become a clergyman, she resolved, though restricted in her pecuniary circumstances, to give him a liberal education. For this purpose, she placed him at an academy, where he continued until his studies were interrupted by the advance of the British troops into the neighbourhood, during the revolutionary war. Young as he was (scarcely 14 years of age), in company with an elder brother he joined the American army. Before long, however, they had the misfortune of being made prisoners by the enemy, who maltreated them as rebels, and inflicted upon them injuries of which the brother died after having been exchanged. — Andrew Jackson commenced the study of the law at Salisbury, in North Carolina, in the winter of 1784, and was admitted to the bar in 1786. In 1788, he removed to Nashville, then a new settlement in the western district of N. Carolina. This district having been ceded to the United States, and organized into a territory in 1790, he was appointed to the office of United States' attorney; and when the territory, in its turn, in 1796 became the state of Tennessee, he was a member of the convention to frame a constitution for it, and took a conspicuous part in the proceedings of this body. He was immediately after-

wards chosen a representative, and in the next year a senator, in Congress. But his seat in the Senate he held only for a single session, alleging, as a reason for resigning it, his distaste for the intrigues of politics. On this, he was appointed by the Legislature of Tennessee to be a judge of the Supreme Court of that state; an office which he accepted with reluctance, and from which he soon retired to his farm on the Cumberland river, near Nashville. And there he continued to reside till the breaking out of the war with Great Britain, in 1812. — During the earlier part of his residence in Tennessee, General Jackson had repeatedly distinguished himself by his prowess in the warfare carried on by the settlers with their Indian neighbours, and had even earned from the latter, by his exploits, the appellations of "Sharp Knife" and "Pointed Arrow." That after attaining to a prominent position in civil life, he should be selected by his fellow-citizens to occupy a corresponding military rank among them, was therefore almost a matter of course. The war of 1812, accordingly, found him a major-general of one of the divisions of the Tennessee militia. In the month of November of that year, he proceeded, by the direction of the government, at the head of a body of between two and three thousand volunteers, who had assembled on his invitation, down the Mississippi to Natchez, for the protection of the country against an apprehended hostile movement on the part of the Indians. The danger having passed away, he was ordered by the secretary of war to disband his troops on the spot. This order

he did not hesitate to disobey, on account, as he stated, of many of his men being sick, and unprovided with the means of paying their expenses on their way home. They returned accordingly in a body with their general, whose apology for the course which he pursued was accepted by the government. In 1813 and 1814, General Jackson was employed against the Creek and Muscogee Indians, who had invaded the frontier settlements of Alabama and Georgia, and inflicted on the inhabitants the usual horrors of savage warfare. After a succession of bloody victories achieved by him over those tribes, they agreed, by a treaty concluded in August 1814, to lay down their arms. In the month of May of this year, he was appointed a major-general in the service of the United States; and having first seized upon the town of Pensacola, in consequence of the admission into its harbour, by the Spanish governor, of a British squadron to refit, he proceeded to take the command of the forces intended for the defence of New Orleans against the approaching attack of the enemy. On arriving there on the 1st of December, he took his measures with the utmost decision and promptness. Becoming convinced of the expediency of taking precautions against the treachery of some disaffected individuals, he proposed to the Legislature of Louisiana, then in session, to suspend the privilege of the writ of Habeas Corpus. Impatient, however, of the time consumed in deliberating on his proposal, he proclaimed martial law, thus at once superseding the civil authority by the introduction of a rigid military police. Towards the enemy he acted with the same determined energy. Scarcely had the British troops effected a landing, when he marched against them, and by unexpectedly assailing them, in the night of the 22d of December, gained some advantages; the most important of which was that for which this movement of the general was chiefly made, namely, the impression produced upon his followers of their own ability to perform successfully the part assigned to them, at least while commanded by him, as well as that communicated to the invaders, of the formidable character of the opposition which they were destined to encounter. The contest for the possession of New Orleans was brought to a close by the memorable battle of the 8th of January 1815, which raised the reputation of the American commander to the highest pitch among his countrymen, and served as a satisfactory apology

with many for the strong measures adopted by him before the landing of the enemy, as well as for others which he adopted immediately after the retreat of the latter. — General Jackson's next public employment was the conduct of the war against the Seminole Indians, in 1818. With a force composed of Tennessee volunteers and Georgia militia, he penetrated into Florida to the retreats of the savages and fugitive slaves who had joined them, and set fire to their villages. He likewise took possession, without hesitation, of several of the Spanish posts in that region, whence the Indians had been supplied with arms and ammunition, and executed two Englishmen who had been actively engaged in this trade. The posts were restored by the orders of the government; but an attempt in the House of Representatives in Congress to inflict a censure upon General Jackson, for the irregularity of his proceedings, was defeated, after very protracted debates, by a considerable majority. When Florida was transferred by Spain to the United States, he was appointed the first governor of the new territory (in 1821). He resigned this office, and returned to his farm near Nashville, in the following year. In 1823, he was once more chosen to represent the State of Tennessee in the Senate of the United States, but resigned his seat in that body on becoming a prominent candidate for the presidency. Of the electoral votes which were given in the end of the year 1824, he received 99, Mr. Adams 84, Mr. Crawford 41, and Mr. Clay 37. The election devolved, by the provisions of the constitution, on the members of the House of Representatives in Congress, voting by states, and Mr. Adams was selected to be the president. In 1828, and again in 1832, General Jackson was chosen to fill that high office; in the former instance, by 178 of the electoral votes to 53 given in favour of Mr. Adams; and, in the latter, by a majority of 170 electoral votes above his opponent, Mr. Clay. For a sketch of his administration of the general government, the reader is referred to the article *United States*, in the present volume. He survived his presidency somewhat more than 8 years, dying at his residence, the "Hermitage," near Nashville, on the 8th of June 1845. Though enfeebled in body, he retained his mental faculties, apparently undiminished, till the day of his death. "The violence of political strife," as is remarked by a writer in the American Almanac for 1846, "will long confuse men's judgment of his character and abili-

ties as a whole; but will accord to him the praise of great firmness, energy, decision, and disinterestedness,—of remarkable military skill, and ardent patriotism."

JACOBI (James) was the son of a merchant of Potsdam, in Prussia, where he was born in 1804, and where he received his education preparatory to becoming a student in the university of Berlin. This took place when he was in his 17th year, and he then divided his time between Mathematics, Philosophy, and Philology. It soon, however, appearing evident to himself that it was in the first of these departments of investigation he was best calculated to excel, he resolved thenceforth to devote himself to it almost exclusively. In 1824, he became an instructor (*Privat-docent*) at Berlin; and in the following year, he received an appointment in the university at Königsberg. In 1827, he obtained the rank of an "extraordinary" professor in that institution; in 1829, of an "ordinary" professor.—His writings have placed him in the first class of living mathematicians. They consist of his "Disquisitiones analytice de fractionibus simpl." (1825. in 4to.); the "Fundamenta novæ theoriæ functionum ellipticarum" (1829. in 4to.); "Canon arithmeticus" (1839. in 4to.); together with a number of memoirs inserted in Crelle's "Journal for the Pure and Applied Mathematics," or in the Transactions of the Academy of Sciences of Berlin.

JACOBS.\* This distinguished scholar published in 1832 an edition of *Ælian* "De naturâ animalium" (2 vols.), and he has since translated the works of Longus and Philostratus from the Greek into German, and likewise a portion of Cicero's works into the German language. In 1835-43, appeared his "Contributions respecting ancient literature, &c." (3 vols.); in 1829-44, 5 volumes in addition to 3 previously published of his "Miscellaneous Writings;" in 1842-44, 3 volumes of "Writings for youth," consisting of a reprint of some of his former productions, together with other pieces entirely new; and lastly, in 1837, the 7th volume of a series of "Tales," begun in 1824.—It may be mentioned that the 7th volume of his "Miscellaneous Writings," which has the title of "Personalien," gives a very candid account of his own life.

JACOTOT (Jean Joseph), noted for a peculiar method of instruction, to which he gave the pompous designations of "universal education" and "intellectual emancipation," was born at Dijon in France, March 4th 1770. He pursued his studies

in the college of his native city; and, at the age of 19, filled the professorship of "humanity" in the same institution. In 1790, he was admitted to practise as an advocate. But having enrolled himself, in 1791, in a battalion of volunteers, and been chosen a captain of artillery by his associates, he served with distinction in the army during the first years of the revolutionary struggle. In 1794, we find him acting as a secretary in the office of the minister of war at Paris, and, shortly afterwards, in the capacity of an adjunct, or substitute, to the director of the "École centrale des travaux publics," which subsequently received the name of the Polytechnic School. This last post he quitted in the following year, to become a professor in the "École centrale" of Dijon. Here he taught successively logic, the ancient languages, the mathematics, and jurisprudence, and all of these, it is said, with credit. He was chosen a member of the Chamber of Representatives in 1815; and having, during the 100 days, expressed himself against the Bourbons in the most unmeasured terms, he deemed it prudent to expatriate himself, on their restoration again to power. He supported himself and family for a time, in Belgium, by giving private instruction to such pupils as he could obtain; till at length, in 1818, he was appointed professor of French literature in the university of Louvain. It was in this place that he made the discovery of the method of instruction, of the efficiency of which he himself and his followers have had the deepest conviction; a conviction they have made the most strenuous exertions to produce in others, hitherto, however, without any very extraordinary success. The method in question early attracted the attention of the government of the Netherlands; and its author was appointed to test its advantages in a military school, which was established, it would seem, for this especial purpose. Although the result of the experiment is stated to have been satisfactory, it is maintained that it would have been still more so, but for the interferences to which Jacotot was subjected on the part of others, who were unduly prejudiced in favour of the prevailing systems. He was, in consequence, engaged in disputes, which led to his withdrawal from the school in 1827. He returned to France after the revolution of 1830, and resided, during a period of seven years, at Valenciennes, where he laboured assiduously to diffuse more widely his principles of instruction. In 1838 he removed to Paris, where he remained.

until his death in July 1840.—The maxim on which the method of Jacotot is based, namely, that the scholar should not be overburthened with rules, before the occasion is presented for applying them,—or, to speak more precisely, that it is better to lead him to the discovery of them, when needed, than to teach them to him *a priori*,—so far from being a new one, has been repeated a thousand times, from Socrates to Rousseau, and from Rousseau down again to Jacotot and his contemporaries. It is a maxim, indeed, which, when thus nakedly stated, in all its generality, will scarcely fail to obtain the assent of every rational mind. But a difference of opinion will at once arise when it is applied to a particular instance. If we take, for example, the mode of communicating, or acquiring, a knowledge of a *language*,—say of the Latin,—how great is the disagreement among those who, from their own acquirements and intellectual habits, may be deemed to be the most competent judges in the case, in regard to the *quantity* of grammar that should be learned, before any attempt be made to detect, by study, the meaning of an author! While some would oblige the pupil to commit to memory the contents of a volume, to *prepare* him for learning Latin, there are others who, because little children acquire their vernacular tongue rapidly and with ease, and this without the aid of any grammatical rules whatever, are for throwing aside the grammar entirely, and insist that such is the most judicious course to be pursued, even in relation to the most complicated language, by the most matured understanding. Among these last M. Jacotot is to be ranked. His process, in teaching the French language to his Dutch pupils at Louvain, was a very simple one. They were required to learn, by heart, and to repeat over and over again, one or more books of Fénelon's *Telemachus*, so as to be perfectly familiar with every word, expression, or phrase, and to be acquainted with its meaning by help of an annexed literal translation. From what they thus learned, by a comparison of one expression with another, the precise import of the words employed was ascertained, and the grammar of the language gradually evolved. By reading, then, and by continuing diligently to compare what they read with the portion of the French language already acquired by them, they were to be enabled to attain to a more perfect knowledge of it, both theoretical and practical, than they could possibly do by any other method, in an equal portion

of time, and with no more than an equal amount of intellectual exertion.—This is not the place to comment upon the procedure which has just been stated, or to attempt to draw a line at the proper distance between the extreme modes of instruction above described; and, indeed, it would seem to be altogether impossible to state how this is to be done in terms applicable to every subject. Even though it were granted that a language may be acquired with a very small stock of its laws, or rules, to begin with, and that we may safely leave them to be evolved by a sort of induction, it will not follow that every branch of human knowledge may be treated in an analogous mode. And it would especially not be very easy to conceive how the method of Jacotot is susceptible of application, excepting in a very partial manner, to the *mathematical sciences*, as he asserts it to be, by designating it as a system of “universal education.” But whatever may be the merits or demerits of his method, he appears to have very injudiciously connected with it the adoption of a number of maxims, some of which, when explained by himself or his disciples, are recognised, under a show of novelty and profundity, to be nothing more than familiar truisms; while others are among the most questionable of propositions, and therefore utterly useless, or even positively mischievous, as maxims or axioms to be appealed to in our reasonings. We allude here to such as the following, which he is never wearied with repeating:—“Everything is contained in everything,” “one can teach what one is entirely ignorant of,” “the intellectual capacities of all men are equal,” &c.—Jacotot was the author of a considerable number of essays; most of which are of a controversial character, and none of them contain any very distinct or systematic exposition of his theory.

**JAMAICA.\*** The products of this island, in common with those of the other possessions of Great Britain in the West Indies, have considerably diminished since the emancipation of the slaves; and the exports from it have been, in consequence, likewise diminished. The exports of sugar, rum, and coffee, which amounted respectively in 1831 to 1,429,093 cwt., 3,522,463 gals., and 15,644,072 lbs., amounted in 1841 only to 528,585 cwt., 1,276,551 gals., and 7,618,890 lbs. The coffee and other estates on the N. side of the island have suffered much less, since the emancipation of the blacks, than the sugar estates in the S. In some places, coffee lands are cultivated by German and

other European emigrants, and the climate being there healthy and well adapted to the constitution of Europeans, the latter have recently formed several flourishing settlements. Projects have also been entertained for increasing the labouring population by carrying the liberated Africans thither rather than to Sierra Leone, as well as by the transportation of Coolies from Hindostan. It ought to be mentioned that a portion of the extraordinary falling off in the exports of sugar, above stated, is to be accounted for by the badness of the crops, at the period referred to and in the year preceding. — In 1835, there were 311,692 blacks in the island; and the entire population has been recently estimated to amount to 370,000, or at most 380,000 souls.

JANIN (Jules) was born at Ampuy, in the neighbourhood of St. Etienne in France, in December 1804, and went to Paris when in his 16th year, in order to complete his education. In 1823, he supported himself there by giving private instruction to a number of pupils. He was next led to try his skill as a journalist. In the first place, he was a contributor to the "Figaro;" in 1828, to the "Quotidienne;" in 1829, to the "Messenger;" and in 1830, through the instrumentality of the duchess of Berry, he was engaged as a regular contributor to the columns of the "Journal des débats." On the annihilation of the royalist party, to which he had attached himself, his literary efforts were directed into a new channel,—that of the *feuilleton*, or vehicle for spirited and lively remark on the passing events, amusements, and lighter literature of the day. Here he has found his proper sphere; and his success has been so brilliant as to entitle him to be considered as the first *feuilletonist* of the French capital. He has also written a number of novels or tales, such as the "Contes fantastiques" (2 vols. 1833), the "Contes nouveaux" (2 vols. 1833), "L'âne mort et la femme guillotinée" (1829), "La confession" (2 vols. 1830), and "Barnave" (4 vols. 1831–32); all of them destined to pass rapidly into oblivion. One of his last publications, "Un hiver à Paris" (1843), possesses much of the merit of his communications to the journals above referred to; a merit, however, which is to a certain extent borrowed from our countryman, the late professor Sanderson, whose admirable "Sketches of Paris" he has very freely used.

JAROSLAW, the capital of the Russian government of the same name, is situated at the confluence of the Kotorcel with the Wolga, 212 miles N.E. of Moscow, and has

about 28,000 inhabitants. It has manufactories of cotton, linen, and silk goods, a number of tanneries, and tobacco, hardware, and paper-making establishments. Its leather and table linen, especially, are held in high estimation. Its trade is considerable. It is the residence of a bishop, and has an ecclesiastical seminary, a gymnasium, an hospital, foundling asylum, house of correction, and 2 workhouses. But the most remarkable institution in the place is the Demidow lyceum, which was founded in 1803, having a good library, a cabinet of natural history, a chemical laboratory, and a printing press, and ranks immediately after the Russian universities. The course of instruction is, indeed, the same as is given in the latter, and lasts for three years. The institution is placed under a lay-director and an ecclesiastic, and has 8 professors.

JASMIN (Jacques), or *Jacques Jansemin*, born in 1798, at Agens, in the S. of France, has obtained a high reputation as a poet in the *patois*, or peculiar dialect, of his native district. He has himself informed us in his "Soubenis" that he had no advantages of birth or fortune to boast of. His father was a tailor of Agens; and his grandfather had been a common beggar, wandering through the country from house to house. Jasmin was taught to read and write gratuitously in a seminary of priests, from which he was, however, after a time, dismissed, on account of some irregularities of which he had been guilty. Obligated to obtain in some way a livelihood, he became apprenticed to a hairdresser, and in due season set up a shop on his own account. But while pursuing his *professional* occupation in the day, he wrote poetry at night. His verses, when published, obtained immense applause. He was invited to read them to large audiences at Bordeaux and Toulouse, which bestowed upon him honours of a nature to be compared with those conferred, on like occasions, on the poets of ancient Greece. In the mean time, the productions of Jasmin had found their way to Paris, and many readers of poetry thought it worth their while to study the dialect in which they were composed, to be enabled to enjoy them. On the invitation of his admirers, he was induced to visit the metropolis. There the barber poet met with a splendid reception in the most opposite quarters. He had a complimentary entertainment given to him by the "coiffeurs" of Paris, he was a guest in the most brilliant salons; and dined with Louis Philippe at Neuilly. Satiated, at length, with the at-

tentions thus heaped upon him, he returned to Agens,—to resume his professional labours! His principal productions are “*Lou Chalibary*” (*le Charivari*), a mock-heroic poem in three cantos (1825); and “*Las Papillotos*” (*les Papillotes*), being a collection of minor poems, all of them possessing a high order of merit, (1835–42).

JAUBERT (Pierre Amédée Émilien Probe) was born at Aix, in the south of France, in 1779. He went to Paris in 1793, and became, two years afterwards, one of the first pupils of the school of living Oriental languages. In 1798, he was one of the four young *orientalists* who were selected to accompany the expedition to Egypt. He went with Bonaparte into Syria, and was one of the few who returned with him to Europe in the autumn of 1799. Soon afterwards, he was appointed interpreter to the government, and then professor of the Turkish language in the “*école spéciale des langues orientales*.” In 1802, he accompanied Colonel Sébastiani to Egypt, Syria, and the Ionian islands, and was sent, in 1804, to Constantinople. He was intrusted also, about this time, with a mission to the Shah of Persia, which he executed to the satisfaction of his government. Napoleon granted him a pension, in 1807, of 4000 francs, which continued to be paid to him till the fall of the empire in 1814, and which was again awarded to him by a law passed in the year 1820. During the period of the empire he was appointed successively auditor of the council of state, “*secrétaire interprète*” of the ministry of foreign relations, and “*maître des requêtes*.” The emperor, moreover, bestowed upon him a gratuity of 100,000 francs; and in 1815, during the 100 days, conferred upon him the post of *chargé d'affaires* of France in Turkey. On the speedy restoration of the Bourbon government, he was recalled from this mission, and deprived of his office of “*maître des requêtes*.” This was, however, restored to him in 1818; and he was then despatched by the government on a new mission to the east, the objects of which were to establish friendly relations with the tribes inhabiting the region of the Caucasus, the Bukharians, and Persia, and to make inquiries concerning the species of goats that furnish the hair from which the shawls of Cashmeer are fabricated. He returned to his own country in 1829, by way of the south of Russia, and the Black and Mediterranean Seas. In 1830, he was elected a member of the Academy of Inscriptions and Belles Lettres; and he has subsequently been promoted

to the dignity of a peer of France, and appointed director of the “*école spéciale des langues orientales vivantes*.”—M. Jaubert is the author of a “*Voyage en Arménie et en Perse*” (1821); of “*Éléments de la grammaire turque*” (1823); and of a translation of the Geography of Edrissey; &c.

JAVA.\* Since the restoration of this island in 1816 to the Dutch, in conformity with the terms of the treaty of Paris, the government has made extraordinary efforts for its improvement, by the formation of roads, and by encouraging the investment of European capital in the cultivation of the soil. The most important natural production is teak, which would be largely exported were the trade not subjected to a rigid monopoly. The chief objects of cultivation are rice, coffee, and sugar, the produce of which has been very greatly increased of late years. Tobacco, and a variety of other tropical articles are also produced; and vast sums have been recently expended by the government in attempts to grow indigo, tea, and silk,—though, as respects the last two, with but little success. Few places anywhere can exhibit such an expansion of trade as has occurred of late years in Java. The imports into the island, which, in 1827, including specie, amounted only to 17,656,201 florins, increased in 1839 to 24,961,012 florins; while, in the same period, the exports increased from 14,868,227 florins to 56,718,633 florins, or £4,726,570. The increase in the production of sugar in Java has been most extraordinary, the quantity exported in 1837 having been 25 times greater than in 1826; and the increase in the growth of coffee has been even greater than that of sugar. In 1839, the government announced that the cultivation of spices, previously prohibited in Java, would for the future be free to all parties desirous of engaging in it, and that every facility would be given to such persons, by supplying them with whatever information, and even the seed, they might require. This measure is stated to have been preparatory to the abandonment of the Spice Islands, which have been a source of expense rather than of profit to their possessors.—The colonial government at Batavia is invested with authority over all the Dutch colonies in the eastern seas. The governor-general is assisted by a secretary-general, and a council of 4 members, who are required to be natives of Holland, or of Dutch extraction, and at least 30 years of age, and who are prohibited from exercising any other functions. Besides a number of other tribunals, justice is ad-

ministered in the last resort in a supreme court at Batavia, which also has original jurisdiction in all cases above the value of 500 florins. The Chinese are governed by their own laws, under functionaries chosen by them, who are responsible to the government for the behaviour of the rest. The most unlimited religious toleration subsists; and ministers of all Christian sects are equally remunerated out of the public treasury. Superior schools are established in the chief towns, and primary schools in most of the residences. There is a considerable military as well as naval force, maintained by the colony; and of the army, the European portion usually amounts to as many as 8000, that is to a third of the Europeans serving in British India. But notwithstanding the heavy expenses incurred by the government, Java is one of the few colonial dependencies that, in ordinary years, remit a considerable revenue to the mother country.

JAY\* (Antoine) was elected a member of the Chamber of Deputies by one of the arrondissements of Paris, in 1827. After the revolution of 1830, he was chosen a member of the Academy of Sciences, and also of the French Academy. To his works already mentioned may be added an "Eloge de Corneille;" "Considérations sur l'état politique de l'Europe" (1820); and "La conversation d'un romantique" (1830).

JENA.\* There are 28 *ordinary*, and 17 *extraordinary* professors, in the university of this city. Its annual expenditure amounts to about 38,000 rix dollars. Besides the funds whence the means of meeting this expenditure is derived, there is a refectory fund (*Speise-anstalt*), supported by endowments, and yearly grants from the grand dukes of Saxe-Weimar, Coburg, and Meinungen, which furnishes daily meals at several ordinaries for 132 indigent students, and another fund which is employed in pensioning the widows of professors. For some time past, the average number of students has been about 500.

JERMOLOFF\* (General) died in 1833.

JEROME BONAPARTE,\* after residing for some time at Schönau, near Vienna, removed to Lausanne in Switzerland, where he lost his wife in 1835. He has subsequently taken up his abode at Florence.

JOINTURE, in law, is a settlement of lands and tenements made on a woman in consideration of marriage; ordinarily an estate for life. By a statute of Henry VIII., a jointure was made a bar of dower, if granted with certain requisites.

JOISTS, in architecture, are the timbers of a floor to which the boards or laths for the ceiling are nailed. They either rest on the walls, or on girders, or sometimes on both.

JOMARD (Edme François) was born at Versailles in France, in 1777. He was one of the first pupils admitted to the Polytechnic School, on its organization in 1795; and in 1798 he accompanied the expedition to Egypt, in the capacity of a topographical engineer. During the stay of the French in that country, he was actively engaged in the duties pertaining to his department, and in the performance of which he was subjected continually to great personal danger, since almost every foot of ground to be measured was liable to be disputed by the enemy. His attention, during the same period, was directed to the exact observation and delineation of the Egyptian monuments. On returning to Europe in 1802, he was appointed by the French government to superintend the topographical surveys which were then making in the Upper Palatinate. He was, however, recalled to Paris in the following year, in order to co-operate in the preparation of the "Description de l'Egypte," and on the death of Conté soon afterwards, he was selected to succeed the latter as secretary of the board of commissioners, who were charged with the execution of that work. And again, in 1807, he succeeded Lancret as the commissioner to whom was especially entrusted the engravings of the plates and its printing, which occupied him during a period of more than 18 years. His own contributions to this great work amount to as many as six of its volumes. He is the author, besides, of a great number of dissertations and essays, published separately, or in different collections, for the most part relating to the antiquities and geography of Egypt and the neighbouring parts of Africa.—Another subject in which he has been much interested is that of public, and particularly mutual, instruction. This first attracted his attention when on a visit to England in 1814, for the purpose of examining the specimens of Egyptian antiquities to be met with in that country. The French government were, on his return to Paris, induced to associate him with Degerando, Laborde, Lasteyrie, and Gautier, as a commission for introducing the system of mutual instruction into France.—M. Jomard was elected a member of the Academy of Inscriptions and Belles Lettres, in 1816; he was one of the founders of the Geographical Society, in 1821; he



was appointed, in 1828, Custos or Curator of the Maps and Topographical Plans or Charts preserved in the Royal Library at Paris; and in the following year he obtained the appointment of principal librarian in that institution.

JOMINI.\* His last work, published at St. Petersburg in 1830, is entitled "Tableau analytique des principales combinaisons de la guerre et de leurs rapports avec la politique des états."

JORULLO; an active volcano of Mexico, in the state of Valladolid, in an extensive plain, 70 miles S. S. W. of the city of that name, and 80 miles from the Pacific, remarkable not only for its extent, but as being the only volcano of any consequence that has originated in New Spain since its conquest by Europeans. Its origin was, perhaps, one of the most tremendous and extraordinary phenomena that has ever been witnessed; for in one night (in 1759) there issued from the earth a volcano 1600 feet high, surrounded by more than 2000 apertures, which still continue to emit smoke. Although the subterranean fire seems to have lost its former violence, and the volcano and the surrounding plain begin to be covered with vegetables, the ambient air was not long since still heated to such a degree by the small ovens or furnaces, that the thermometer at a great distance from the surface, and in the shade, rises as high as 109° of Fahrenheit; and, for many years after the first eruption, the plains of Jorullo, even at a great distance from the scene of the explosion, were uninhabitable from the excessive heat.

JOSEPH BONAPARTE\* quitted the United States in 1832, and resided a number of years in London. In 1841, he went to Genoa, where he had a meeting with his two surviving brothers, Louis and Jerome. He subsequently went to reside at Florence. He died there July 28th 1844.

JOUFFROY (Théodore Simon) was born at Pontets, a small village in the mountains of the Jura, in the French department of the Doubs, in the month of July 1796. In 1814, he was admitted a pupil of the Normal School of Paris, where he applied himself with diligence and zeal to the study of intellectual and moral philosophy, under the direction of Cousin. He was appointed in 1817, by Royer Collard, who was at that time president of the committee of public instruction, to be at once "maître de conférences" in the Normal School, and "suppléant" to the chair of Philosophy in the "Collège Bourbon." The feeble state of his health obliged him to resign the latter situation in 1821; and

the suppression of the Normal School, in 1822, deprived him of the other. M. Jouffroy thereupon delivered a number of private courses of lectures on his favourite subjects, which were attended by many of the men who have since risen to political or literary eminence in France. In 1824, he founded, in concert with MM. Dubois and Damiron, the well-known journal entitled the "Globe," and was an active contributor to its columns until August 1830, when it became the organ of the St. Simonian doctrines. Previous to this, in 1829, M. Jouffroy had been appointed "suppléant" to M. Milon, the professor of the History of Ancient Philosophy in the Faculty of Letters of Paris. After the revolution of 1830, M. Cousin having succeeded M. Milon, M. Jouffroy was selected to succeed his former instructor as adjunct professor to M. Royer-Collard in the chair of the History of Modern Philosophy; and he was, at the same period, restored to his former office in the Normal School. This office, however, he resigned in the course of the year, on being appointed to the professorship of the History of Ancient Philosophy in the College of France; the labours of two professorships furnishing sufficient occupation for his time. In 1833, he was elected a member of the Institute (Academy of the Moral and Political Sciences). In 1837, he was promoted from the office of adjunct to that of the principal professor of the branch which he was called to teach in the Faculty of Letters; but his bad health induced him, in that year, to resign his other professorship. His continued illness obliged him, soon afterwards, to retire altogether from the business of public instruction.—M. Jouffroy was a member of the Chamber of Deputies from 1831 till his death in the winter of 1842. In this body he made a number of well-prepared speeches, which, in several instances, attracted in a considerable degree the public attention, especially one in 1839, relating to the "eastern question," then the subject of so much excitement.—Some of the lectures delivered by M. Jouffroy were taken down in short-hand, and published under the title of "Cours de droit naturel" (2 vols. 1834–35). He is not the author of any one work of much importance; but his contributions to the "Revue des deux mondes," to the "Globe," as well as to other collections or journals, are regarded by his countrymen as possessing a high order of excellence. He published, also, French translations of Dugald Stewart's Philosophical Essays (1826.—3d ed. 1841).

and of the entire works of Reid: the former of these was accompanied by a valuable introduction; and the latter by a preface of the translator, — a number of biographical notices of the different philosophers of the Scottish School, — a translation of Stewart's Life of Reid, — and a variety of extracts from the lectures of Royer-Collard.

LOURDAN\* (Marshal) was minister of war, for a few days, after the revolution of July 1830, and the accession of Louis Philippe, an event which met his hearty concurrence. He was then appointed governor of the "Hotel of the Invalids," an office which he held till his death, in November 1833.

JUGGERNAUT.\* The famous temple of Juggernaut constitutes a part of an establishment comprising 50 temples dedicated to various duties, and is a structure imposing only from its vast dimensions; its execution is rude and inelegant, and its form is unpleasing to the eye. Besides the grand festival which takes place in March, at the period of the equinox, there are 12 other principal, and many minor festivals, celebrated throughout the year. The worship of Juggernaut is attended by every sect and class of Hindoos, who meet on equal terms, all caste being abolished within the precincts of the temple. All the land within a distance of 20 miles from it is accounted holy by the Hindoos, and is held rent free by the cultivators and others, on condition of their performing certain services in and about the temple. The priests, and other persons deriving their subsistence from the establishment, are said to amount to 3000 families, exclusive of 400 families of cooks, to prepare the holy food so much sought after by pilgrims. — That excess of fanaticism, which is said to have prompted the pilgrims to court death, by throwing themselves in crowds under the wheels of Juggernaut, has long ceased to actuate the worshippers of the idol. During 4 years that Mr. Mansbach witnessed the festivals, only three cases of self-immolation occurred: one of these was probably accidental, and the two others were suicides, committed by sufferers to rid themselves of painful diseases. — On account of the clamour raised in England against the government of British India for promoting idolatry, as was alleged, by continuing to exact taxes on the pilgrims to Juggernaut, Gaya, and other places, which had previously been done by the native sovereigns, these taxes have been repealed. The natives have been extremely well pleased by this act of liberality on

the part of the government; and the number of pilgrims to the various shrines has, in consequence, since greatly increased.

JUJUBE; a fruit of the plum kind, produced in the south of Europe, Persia, and other countries. The Asiatic is much darker than the European, which is of a reddish yellow colour. The best are fresh, plump, and well dried. What is sold under the name of *jujube paste* professes to be the dried jelly of this fruit, but is, in fact, a mixture of gum arabic and sugar slightly coloured.

JULIEN (Aignan Stanislas), a distinguished oriental scholar, was born at Orleans, in France, September 21st 1799. He discovered at an early age a great aptitude for the acquisition of languages. While a pupil at the college of his native city, and pursuing, under the direction of his instructors, the prescribed studies of the institution, and chiefly the Latin language, he secretly, and unaided by any one, acquired a knowledge of the Greek, and so extensive and accurate a knowledge of it, that, on the establishment of a Greek professorship in the college, before he had completed the whole of the usual course of study, he was selected to fill it. Coming to Paris in 1821, and making the acquaintance of M. Gail, he made so favourable an impression on the latter, as to be soon selected by him to be his assistant (*suppléant*) in the professorship of Greek literature then held by him. In the same year, M. Julien commenced authorship by the publication of a translation of the Greek poem of the "Rape of Helen," by Coluthus. He applied himself, in 1822, so diligently and successfully to the study of the Chinese language, under the direction of M. Abel Rémusat, that in 6 months he was enabled to present to the Asiatic Society the first book of a Latin translation of the philosopher *Mengtseu*, which the Society judged worthy of being published at its expense. Before the expiration of the year, there also appeared translations by M. Julien of several pieces from the modern Greek, which language also he had contrived to learn. In July 1832, he was invited to fill the chair of Chinese literature, become vacant by the death of Rémusat; and from this period he has found occupation for himself, almost exclusively, within the limits of the department thus assigned him; giving to the world, from time to time, a number of translations into the French of Chinese works, such as "The Book of Rewards and Punishments" (1835), the work of the philosopher *Lao-tseu*, entitled "The Book

of Truth" (1842), two dramas, and a novel,—together with an "Abstract of the principal Chinese treatises on the cultivation of the mulberry tree, and the management of the silk-worm."

JULIUS (Nicholas Henry) was born at Altona, in the duchy of Holstein, in October 1783, and was intended by his father, who had established himself as a merchant in Hamburg, for the mercantile profession. But by the careful education which was bestowed upon the son, he acquired a taste for knowledge inconsistent with this design. The commerce of Hamburg, as well as almost every other part of the European continent, being, besides, in a very depressed condition, he engaged, with the consent of his friends, in the study of medicine, first at Heidelberg, and then at Wurzburg. He commenced the practice of medicine at Hamburg in 1809. On the organization of the Hanseatic legion in the spring of the year 1813, he joined its ranks as a volunteer. His professional services, however, were speedily put in requisition. He made, accordingly, the campaigns of 1813 and 1814 as a physician: in that of 1815, he acted in a military capacity, as a lieutenant and adjutant. When peace was concluded, he returned once more to Hamburg, where he practised his profession till the year 1825. In this year, he went on a journey to England, Scotland, and Ireland, with the object in view of examining their different charitable institutions, and especially their prisons and systems of prison discipline. The observations which he made on this journey produced so powerful an impression on his mind, that he resolved to devote himself henceforth to the discovery, and introduction into his own country, of the best methods of treating the subjects of crime, as well in reference to the great purpose of their reformation, as to the general interests of the community. Giving up his practice at Hamburg, he removed in 1827 to Berlin, and delivered in that city a course of lectures on prison discipline, which were printed in the following year, and attracted in a considerable degree the attention of the public, and also of the government. From 1829 to 1834, too, he published at Berlin a journal especially appropriated to the same subject,—the "Jahrbücher der Straf- und Besserungsanstalten." During the same period, he was employed by the Prussian government to visit the different provinces of the monarchy, and to report to it concerning the state of the prisons in them, making at the same time such suggestions

as he might judge to be useful. The years from 1834 to 1836 were spent by him in the United States and Canada; his chief object being here, as elsewhere, the examination of the prisons and the systems of prison discipline. One result of this journey was his work entitled "Nordamerikas sittliche Zustände" (2 vols. 1839). After another journey through S. Germany, and still another into Poland, both of them undertaken with the same objects in view as his previous ones, he returned to take up his residence at Hamburg.

JULIEN.\* Besides contributions to the journals named in a previous article, M. Jullien is the author of a "Sommaire d'un entretien avec le premier consul;" a "Mémoire sur l'organisation à donner aux divers États d'Italie, destinée au premier consul," published by Schoel, in his collection of official documents relating to Napoleon, and in which he developed his favourite scheme of an Italian Confederation; a work entitled "Essai général d'éducation physique, morale et intellectuelle;" an "Exposition de la méthode de Pestalozzi;" and an "Essai sur l'emploi du temps."

JUNOT (Madame), duchess of Abrantes, was born on the 6th of November 1784, at Montpellier, in the S. of France. She was a descendant, by the mother's side, of the Comneni, emperors of Constantinople. One of this family had removed, in the 17th century, from Greece to the island of Corsica, where the mother of Madame Junot was born, and where she herself was brought up, in the same town with Napoleon Bonaparte (Ajaccio). Her father was M. de Permon, who, by his employments in the civil department of the French army, had been enabled to accumulate a very large fortune. The intimacy which had long existed in Corsica between her family and the Bonapartes was continued through all the phases of the revolution, the consulate, and the empire, and contributed, on her marriage with General Junot, to the extraordinary favour and lavish means of expenditure bestowed by Napoleon upon the latter. During a considerable number of years, her residence was the centre of the most distinguished and brilliant society of Paris; by continually mingling with which she was enabled to collect without any trouble that mass of light description and anecdote, constituting the contents of the 18 volumes of memoirs subsequently published by her. At the period of the restoration of the Bourbons, she disappeared almost entirely from public observation, and was, indeed, soon almost entirely fur-

gotten in the scene of her former splendour. But after 1830, her literary performances replaced her in a conspicuous position. Her "Mémoires," already mentioned, is by far the most important and effective of the productions of her pen. She is the author, also, of several novels, the best of which is the "Amirante de Castille," in which she has attempted to describe Spain and the court of Madrid, in the reign of Charles III.; of "Une soirée chez madame Geoffrin;" of the "Souvenirs d'ambassade;" and the "Salons de Paris;"—and she has written "Mémoires contemporains," and "Les femmes célèbres de tous les pays, leurs vies et leurs portraits."—She died in 1839.

JUSSIEU \* (Antoine Laurent de), born at Lyons in 1748, came to Paris in 1765, where he studied medicine. The thesis which he prepared, on presenting himself as a candidate for his doctor's degree, was judged to be possessed of so high an order of merit, as to induce his appointment, at the age of only 22 years, to the post of *suppléant* (substitute or assistant) to Lomonnier, who was then the professor of Botany. Three years afterwards, his memoir on the *ranunculuses*, in which the natural principles of the classification of plants, suggested by his uncle, Bernard de Jussieu, were for the first time applied, opened to him the doors of the Academy of Sciences. In 1789, he published his "Genera Plantarum," a work which had the greatest influence, not on the progress of botany only, but on that also of every other science presenting a vast number of objects to be classed according to their analogies or resemblances, more or less marked. The revolution suspended for a season the scientific labours of Jussieu. Having been elected by his *section* a member of the municipality of Paris, he was charged, in 1792, with the administration of the hospitals and almshouses of the capital; and to him the ameliorations which, about this period, began to be introduced into these establishments, are in a great measure owing. When the Garden of Plants was reorganized, in 1793, under the name of the Museum of Natural History, he was appointed to the professorship of rural botany. In 1804, he became a professor in the faculty of Medicine, and, 4 years afterwards, titular counsellor of the university of Paris. His death occurred on the 25th of September 1836, at the age of 88.—Besides being the author of a great number of memoirs, and of articles, published in different scientific

collections, and of the "Genera plantarum secundum ordines naturales disposita," to which reference has been made above, he has also published a "Tableau synoptique de la méthode botanique de B. et A. L. de Jussieu" (1796), a "Tableau de l'école de botanique du Jardin des Plantes de Paris, ou Catalogue générale des plantes qui y sont cultivées" (1800); together with a "Rapport de l'un des commissaires chargés par le roi de l'examen du magnétisme animal," which appeared in 1784. It seems that Jussieu dissented in opinion from his colleagues on this occasion, recognizing the reality of the singular effects produced by Mesmer, which they were unwilling to do, and attributing them to the action of animal heat.

JUSTE MILIEU; a term now commonly employed, not only in France, but likewise elsewhere, to denote a system of politics equally removed from a blind adherence to the institutions and legislation of the past, and an undue readiness to adopt changes promising to be productive of eventual advantage to a community, or to society generally, how injurious soever they may be to existing interests or classes,—a system regarded by its advocates as the height of wisdom, and by its adversaries as a base and cowardly compromise of right with wrong, and on the part of the rulers of a country, a sacrifice of patriotism on the altar of selfishness. This term has come into vogue since 1831; in the beginning of which year it was made use of by Louis Philippe, when addressing a deputation of the national guard of one of the departments, in reference to the policy by which he intended that the course of his own government, as well foreign as domestic, should be guided. Little, however, is gained by the use of it, even though it be granted that truth, and the conduct which it is fitting for the rulers of a people to pursue, do in reality lie between two extremes, both of which are carefully to be avoided. The question must, in every practical case, present itself:—*What is the "juste milieu?"* or *at what point* between the extremes does it lie? And the reply to this question must necessarily be as various as the varying opinions of men.—But in consequence of the vagueness which seems to be involved in the very nature of the term as it has been defined, it has come to be applied to denote the system of policy which has actually been generally pursued by Louis Philippe since he became king of the French; and, especially, as exemplified during the administration of Casimir Périer.

## K.

**KASAN.** Population in 1833, 57,000; of whom 15,000 were Mohammedans: the remainder, with the exception of a few Protestants, belong to the Greek church. The university, which was founded in 1804, but not opened till 10 years afterwards, had, in 1835, 70 professors and other instructors, and 238 students; but the number of both professors and students has since been augmented. There is a library of 30,000 volumes; an excellent philosophical apparatus; a mineralogical cabinet; an observatory provided with the best telescopes; a botanical garden; an anatomical museum; a collection of coins; a mechanical institute; a chemical laboratory; a hospital for clinical instruction, &c. One of the principal objects of the university is to supply instruction in the eastern languages, or in Arabic, Persian, Turkish, Chinese, Armenian, Tartar, and Mongul. Kasan has also one of the 4 great theological seminaries of the Russian empire; a gymnasium; a school for the education of teachers, &c. It has also several literary and philanthropical societies; and several journals and other works, some of them in the Turkish and others of the languages just mentioned, issue from its presses.

**KATER** (Captain Henry) was born at Bristol in England, April 16th 1777. Both his parents are said to have been distinguished for their scientific attainments, and to have united in inspiring him, from his earliest years, with a taste for physical investigations. After some time, however, his father placed him in a pleader's office that he might be prepared for the profession of the law. Here he remained about two years diligently prosecuting his legal studies; but on the death of his father at the end of this time, he abandoned the law, and obtained a commission in a regiment then stationed in India. He was engaged in the trigonometrical survey of that country under Colonel Lambton, and published a description of a peculiarly sensible hygrometer, which he had constructed, in the "Asiatic Researches." His close application to study in a hot climate, during 7 years, greatly injured his constitution, and was the cause of the ill health under which he suffered to the close of his life. He went on half-pay in 1814, from which period he devoted himself entirely to science. His trigonometrical operations, his experiments for determining the length

of the seconds' pendulum, his investigation of the diminution of terrestrial gravity from the pole to the equator, his employment of the pendulum for the important purpose of finding the minute variations of the force of gravity in different parts of a country whose substrata consist of materials having different degrees of density, and his invention of the instrument called the "floating collimator," have made his name extensively known. Captain Kater was the author of a considerable number of papers on scientific subjects, most of which were inserted in the "Philosophical Transactions." He combined patient industry, minute observation, and mechanical skill, with high powers of reasoning. And many of the learned societies of his own country and of the continent of Europe testified their sense of his merits, by enrolling him among their members. He died in London, on the 26th of April 1835.

**KEAN\*** (Edmund). Having returned to England from his second visit to America, he performed until 1829 at Covent Garden Theatre, and subsequently at Drury Lane; but, having to contend with the feelings excited against him on account of his former and continued immoralities, with a success very inferior to what he had formerly enjoyed on the same boards.—He died in May 1833, in extremely embarrassed circumstances; although it has been estimated that, in the course of his theatrical career, he had received sums amounting to £176,000 sterling.

**KELP.\*** It has been recently found that the alkali required for the manufacture of glass and soap can be obtained more abundantly from sea-salt than from kelp; and this is, at present, used chiefly as a manure, especially for dry soils, the salt contained in the kelp being a powerful absorbent of moisture from the atmosphere. It has, however, lately acquired much importance as a source of *iodine*.

**KEMPELEN.\*** The automaton chess-player, contrived by the baron de Kempele, a few years ago, was taken by Mr. Maelzel, its proprietor, to be exhibited in the Havanna. Upon his death, in that city, some one brought it back to the United States, and sold it to a number of gentlemen; who, after occasionally exhibiting it for charitable purposes, have placed it, among other curiosities, in the Philadelphia Museum.

**KÉRATRY\*** was re-elected a deputy in 1822, but on the next dissolution of the chamber of deputies, failed of maintaining his seat in that body. He continued, however, his warfare against the existing administration of the government, with the greatest keenness and activity, in the columns of the "Courrier français," of which journal he was one of the proprietors and "collaborateurs." He was, in consequence, twice subjected to prosecution by the government; but succeeded, in both instances, in obtaining an acquittal. In 1827, he was again elected a deputy, from the department of La Vendée. From this period until the revolution of 1830, he continued on all occasions to support the cause of liberal principles. He was one of the 221 members of the chamber who voted the famous address to Charles X., and one of the members also who protested against the ordinances of the 27th of July, of the year just mentioned; and he co-operated in all the proceedings which led to the establishment of the new government. He was made a member of the chamber of Peers in 1837. — The last three literary productions of M. Kératry, so far at least as we are aware, are "Frédéric Styndall, ou la fatale année" (5 vols. 12mo. 1827); "Saphira, ou Paris et Rome sous l'empire" (2 vols. 8vo. 1836); and "Une fin de siècle en huit ans" (2 vols. 8vo. 1839). Besides the numerous works published separately by him, he has contributed extensively to several encyclopædical collections, especially on historical subjects, and the philosophy of the fine arts.

**KERSEY, and KERSEYMERE.** Kersey is a kind of coarse cloth, usually ribbed, and woven from long wool. Its name is probably a corruption of Jersey, where it is said to have been first manufactured. Kerseymere, on the other hand, is a thin stuff, generally woven plain from the finest wools; and hence it has been inferred that these two terms, whose meaning is so distinct, cannot be referred to the same origin. Accordingly, kerseymere is conjectured to have derived its appellation from Cashmeer, a country which produces the finest wool, and is most celebrated for the excellence of its woollen fabrics.

**KESTHELY;** a town of Hungary, near the W. end of lake Balaton, about 100 miles S. of Presburg, with 8000 inhabitants. It derives a considerable importance from the great school of agriculture founded here by count George Festetits, and known as the Georgicon, which has several professors and practical teachers, main-

tained at the count's expense. The complete course of instruction appointed for the pensioners lasts three years, and the subjects taught them are scientific agriculture, and the sciences relating to it; the law of property, as affecting landlords and tenants; together with practical husbandry, and the breeding of horses and cattle. Others, not pensioners, are at liberty to select such parts of the course as they may think proper, and to limit themselves to one or two years only of the whole time prescribed. In the Georgicon provision is also made for teaching girls the branches of knowledge connected with housekeeping. The institution is, moreover, amply provided with all the apparatus and other means for rendering the instruction communicated effective. The town has, besides the Georgicon, a Catholic gymnasium, and a high and a normal school: and it contains also a fine castle, in which count Festetits resides, 2 Catholic churches, a convent, and an hospital.

**KEW.\*** The gardens here are now opened daily, during all seasons, from one to three o'clock in the afternoon.

**KHARKOW, or CHARKOW;** the capital of the *government* of the same name, in the S. of European Russia. It has 4 fairs in the course of the year, at which an extensive trade is carried on in woollens, cottons, and silks. This town is, however, at present most remarkable on account of its university, founded by the emperor Alexander, and first opened in January 1805. It had, in 1838, as many as 71 professors and other instructors, and 383 students. It possesses a library which, in the year just mentioned, contained upwards of 35,000 volumes, a philosophical apparatus, a museum of natural history, and a cabinet of eastern medals which has recently received considerable accessions.—Kharkow contains a cathedral, a gymnasium, a theological seminary, &c., and has a population of about 13,000.

**KHIVA;** an independent khanat of Turkestan, in Central Asia. Its dominion is believed at present to extend between the 36th and 44th degrees of N. lat., and the 52d and 64th of E. long., having E. the Karakalpack territories and Bokhara, S. Afghanistan and the Persian province of Khorassan, W. the Caspian, and N. the Kirghese Steppe and the Sea of Aral. The population of this extensive territory is estimated by Sir A. Burnes at only 200,000 at most, nearly the whole surface consisting of unproductive sandy wastes. A portion of it owes its fertility to the river

Oxus and the canals communicating with it. The climate and products of Khiva are much the same as in Bokhara; and the inhabitants, though of the same race, are more barbarous. According to Burnes, the Khivans are at best an organized banditti, protected by the natural strength of their country.—Khiva, the principal town, and residence of the Khan, is situated on an irrigated and fertile plain, near the Oxus, 290 miles W.N.W. from Bokhara, and 720 miles S.S.E. from Orenburg, on the high road between these two cities. Its population is of a very mixed character, and amounts probably to from 10,000 to 12,000 persons. Its chief trade is in slaves, for which it is the largest mart in Independent Turkestan.—The Khivans having captured at different times a number of Russian subjects, and detained them in a condition of slavery, a Russian force attempted to penetrate into their country, in 1839; but General Petrofski, who commanded it, after encountering the greatest difficulties on his march through desert regions, and losing great numbers of his men, found it expedient to order a retreat, before accomplishing the object of his expedition. A similar attempt made by the Russians, in 1717, by order of Peter the Great, had been attended with no better success.—The expedition of General Petrofski, it was, that gave rise, a few years since, to the idea that the emperor Nicholas had then a design to establish at Khiva an advanced post, looking towards a future contest, for the dominion of Asia, with the present rulers of Hindostan.

**KIACHTA.\*** According to Klaproth, the accounts of the Russian commerce with China have been much exaggerated. In 1831, the Russian exports, by way of Kiachta, amounted to 4,655,536 francs, and the imports to 6,758,858 francs. The exports are furs, sheep, and lamb-skins, Russian and Silesian broad-cloths, Russian and morocco leather, coarse linens, cattle, and especially bullion; for tea, raw and manufactured silks, nankeens, porcelain, sugar-candy, rhubarb, tobacco, musk, &c. Of these last, tea is by far the most important, and the quantity of it imported and consumed in the Russian empire is rapidly augmenting. Goods may be conveyed from Kiachta to European Russia either by land or water. In the former mode, the journey occupies a year, and, in the latter, three years, or rather three very short summers, the rivers being for a great part of the year frozen over.—The Chinese or Mongolian town, situated on the opposite bank of the river from Kiachta, has

about 1200 or 1500 inhabitants; all males, no women being allowed to reside in it.

**KIEF;** capital of the Russian government of the same name, and the former residence of the grand dukes of Russia, on the Dnieper, a little below the confluence of the Desna with that river, in lat. 50° 27' N., and long. 30° 27' E. It contains about 40,000 inhabitants. The principal structures are the cathedral of St. Sophia, founded in 1037, and an object of the greatest veneration on the part of the Russians; the monastery of Pitchersk, the tower or belfry of which rises to the height of 304½ feet, and is deemed by the Russians a master-piece of architecture; the university buildings; the exchange, with a hall capable of accommodating 9000 persons; and the arsenal, erected by Catherine II., a large and handsome building, containing an extensive supply of arms.—The theological academy of Kief, founded in 1661, is one of the most celebrated in Russia. In 1830, it was attended, according to Schnitzler, by 1500 pupils. The former gymnasium of this city was transformed, in 1833, into a university, intended to replace that of Wilna, in Lithuania, which was suppressed after the late Polish insurrection. It had, in 1838, 63 professors and assistants, and 259 students, with a library of more than 45,000 volumes. In the next year, however, the courses of instruction were, for political reasons, suspended.

**KIEL.\*** Population, in 1840, 11,000.—Since 1834, it has become the seat of the supreme court of appeal for the duchies of Sleswick, Holstein, and Lauenburg. A good deal of trade is carried on. Packet-boats sail regularly for Copenhagen; and the road from Hamburg being equal to any in England, this route is much frequented by travellers visiting the Danish metropolis. The Holstein canal, forming a navigable communication between the Eyder and the Baltic, unites with the latter two miles from the town.—The university, by the last information, had 300 students, and maintains its reputation.

**KILT,** a loose dress extending from the belly to the knee, in the form of a petticoat; worn in the Highlands of Scotland by men, and by children in the Lowlands. The Highlanders designate the kilt as the *flibeg*. This singular national dress is fast hastening into disuse; and but for a few Highland regiments in which it is still maintained, it would probably long ere now have been universally superseded by the dress of the Lowlanders.

**KING'S COLLEGE.\*** In 1845, this institution had, besides the preparatory school, the three departments of "General Literature and Science," of the "Applied Sciences," and of "Medicine." The first of these was attended by 125 *matriculated* students; the second by 90; and the third by 152. There were also 35 *occasional* students in the various classes, exclusive of the medical; and 38 such students in the medical classes. The pupils in the school amounted in number to 471. After completing a three years' course in the department of general literature and science, those students who have passed through it with credit are entitled to the diploma of "Associate of King's College." The department of the applied sciences includes mathematics, general philosophy, chemistry, geology, and manufacturing art, with a special course for students in civil engineering and architecture. There are professorships, in the various departments of the college, of Classical Literature, English Literature and Modern History, Mathematics, Natural Philosophy and Astronomy, Experimental Philosophy, English Law and Jurisprudence, Political Economy, Chemistry, Geology, Botany, Zoology, the Fine Arts, the Hebrew Language and Literature, the Oriental Languages, and of the French, German, Italian, and Spanish Languages respectively, and also of Vocal Music, and Drawing and Perspective. A theological department was instituted in January of the present year (1846). There are libraries attached to the several departments, and likewise a general library.

**KIRSCHWASSER**, a German word, literally translated into English, *cherry water*, is the name given in Germany to a spirituous liquor, which is obtained by fermenting the small and sweet black cherry. The liquor produced is distilled and often flavoured with prussic acid, derived from the bruised kernels of the fruit: this gives to kirschwasser, when sweetened, the character of *noyau*. — It is chiefly made in the region of the Black Forest. Hence its French name, *eau de la forêt noire*.

**KLAPROTH\*** (Henry Julius v.) died at Paris, August 27th 1835, in the 52d year of his age. In addition to his works before enumerated, the following are the most important that have been published by him:—"Mémoires relatifs à l'Asie" (3 vols. 8vo. 1826-28), a work of extraordinary research and erudition; a "Tableau historique, géographique, ethnographique et politique du Caucase" (1828) a "Catalogue of the Chinese and Manchu books

and manuscripts in the Royal Library at Berlin, with a dissertation on the language and origin of the *Ouigours*" (1822, in German); a "Treatise on the language and origin of the Afghans" (1810); a number of translations from the Chinese and Japanese languages; a treatise entitled "Collections d'antiquités égyptiennes" (1829); and an "Examen critique des travaux de feu M. Champollion sur les hiéroglyphes" (1832). In the two last mentioned works he controverts some of the positions of Champollion.

**KLINGEMANN\*** performed many *artistic* or theatrical excursions in Germany, and published the observations which occurred to him on those occasions in a work entitled "On Art and Nature" (Brunswick, 1809. 2 vols.). In 1820, he quitted the direction of the theatre at Brunswick for a professorship in the Carolinum of that city. He died in January 1831.

**KOCK** (Charles Paul de), a French novelist and dramatic writer, of some celebrity, was born at Passy, near Paris, in 1794. He was the son of a Dutch banker, who had removed from Holland to that capital previous to the revolution. Instead of following the business of his father, for which he had been destined, he devoted himself at an early age to that of authorship. He put forth his first production, a novel, entitled "l'Enfant de ma femme" (1812), when he was only in the 18th year of his age. It had been rejected by the booksellers, who had no reason to expect anything worth reading from such a mere youth; and he was obliged to publish it at his own expense. Its success was, in fact, extremely limited. In no wise discouraged, he produced a number of melo-dramas, vaudevilles, and comic pieces, for the secondary theatres, by means of which he succeeded at length in bringing himself into public notice. In 1820, he resumed his attempts at novel writing, and published, in rapid succession, "Georgette," "Mon voisin Raymond" (1822), "Frère Jacques" (1822), "M. Dupont" (1823), "Sœur Anne" (1824), "La laitière de Montfermeil" (1827), "La maison blanche" (1828), "La femme, le mari et l'amant" (1829), "L'homme de la nature et l'homme policé" (1831), &c. &c. Several of these, too, he has himself recast in a dramatic form, adapted to the French theatres; and he has also written tales in rhyme (*contes en vers*). — He has undoubtedly attained, as a novelist, a certain degree of reputation, and has found readers, not in his own country only, but in Germany, Great Britain, the United States, and elsewhere.



Some able critics, however, have not been disposed to award to him a very high rank among his literary contemporaries; and some of his works deserve the severest condemnation for their loose character, and grossly immoral tendencies.

**KÖNIGSBERG.\*** Population in 1837, 64,200. The number of students attending the university, in 1835, was 437. This institution, besides a library already mentioned, has connected with it a valuable botanical garden, an excellent observatory, &c. Königsberg has also three gymnasiums, a school of arts, one of drawing and architecture, one for the deaf and dumb, another for the blind, together with a number of other institutions of education.

**KREUTZER** (Rodolphe), a celebrated violinist and musical composer, was born at Versailles, November 15th 1766. He received his first instruction in music from his father, a German musician settled in Paris, and made such rapid progress, that, when only 13 years of age, he executed in public, with credit to himself, a concerto of his own composition. His merits as a performer having procured for him the appointment of first violinist at the "Théâtre Italien," he produced his "Jeanne d'Arc," "Paul et Virginie," and "Lodotska;" of which the two last obtained an extraordinary and well deserved success. After the production of his "Imogène" in 1796, he made a professional journey through the north of Italy, Germany, and Holland, giving concerts in all the principal cities, and attracting general admiration by his performances. Returning to Paris when the "Conservatoire" was about to be organized, he was invited to a professorship in that institution, and, in conjunction with Baillot and Rode, founded that school of French violinists which has latterly earned so wide a celebrity. The compositions of Kreutzer are very numerous. He is the author of 9 grand operas, 5 ballets, 19 comic operas, 22 concertos or symphonies, 15 quatuors, 15 trios, &c. He published, also, jointly with Rode and Baillot, the "Méthode du violon du Conservatoire." It is, however, in the 8 numbers of his "Etudes et caprices pour le violon," that the principles of his method of instruction are to be found most fully developed and explained.—He died, January 6th 1831, at Geneva, whither he had gone for the restoration of his health.

**KRUG.\*** The university of Leipsic, in 1830, conferred upon Krug the degree of doctor of theology, and, in 1833, chose him to be its deputy to the states of Saxony. In 1834, he resigned his professorship, on

which a pension was bestowed upon him, accompanied by the privilege of a seat in the *senatus academicus* and the faculty, and the title of honorary professor; and authority was also granted him to continue, should he think proper, his courses of philosophy. His Philosophical Dictionary appeared in 1827-29, in 5 volumes, and a 2d edition of it was published in 1832-34, also in 5 volumes; and a uniform edition of his works was published in 1830-41, in 12 volumes. He has written the history of his own life.

**KUNTH** (Charles Sigismund) was born at Leipsic in June 1788. His taste for the study of natural history was very early developed; but his father, who supported his family by teaching the English language at Leipsic, dying, and leaving them destitute, he went to Berlin, where he had an uncle, a Prussian counsellor of state. Through the influence of the latter, he obtained a clerkship in the "royal company of maritime commerce." While faithfully performing the duties assigned him, he devoted his leisure moments with ardour, at first to the study of chemistry and botany, but soon to that of botany exclusively, in which he made a rapid progress under the direction of Willdenow.—A new career was opened to him in 1813. He was entrusted by A. de Humboldt with the preparation of the botanical part of his celebrated work on America, with which Bonpland and Willdenow had merely made a beginning. Kunth went to Paris, where Humboldt then resided, and continued there during a period of 17 years. His connexions with the leading botanists of the French metropolis enabled him, without travelling to any considerable extent, to collect a splendid and well arranged herbarium of 40,000 different species, and which is said to be the most complete of its kind in the possession of any one individual.—In 1829, he accepted a professorship of botany in the university of Berlin, in which city he still resides, actively engaged in his scientific pursuits.—The following are his most important works:—"Nova genera et species plantarum" (7 vols. Paris, 1815-25); "Légumineuses du nouveau continent" (Paris, 1819); and especially the "Révision des Graminées" (Paris, 1829-33), in 10 volumes folio, containing the description of 6000 plants, and upwards of 1000 engravings from drawings of his own. Since his return to Berlin, he has also published a manual of botany, "Handbuch der Botanik" (Berlin, 1830); a work on medicinal plants, "Anleitung zur Kenntniss sämmtl.

in der *Pharmacopœa borussica* aufgeführten officinellen Gewächse" (Berlin, 1834); and a "Flora Berolinensis," being a second edition, entirely recast, of a work of his under that title, which appeared in 1813, before he went to Paris, and was his first production. He has been, for some time

past, engaged in the preparation of a work of great extent, intended to contain a description of every known plant, and of which four, and it may be, more volumes, have been published, under the title of "Enumeratio plantarum omnium hucusque cognitarum."

## L.

**LABILLARDIERE** (Jean Julien), a celebrated naturalist and traveller, was born at Alençon in France, in October 1755. Having studied medicine at the school of Montpellier, he went to England, where he became intimately acquainted with Sir Joseph Banks, and applied himself diligently to the study of natural history, especially botany. He returned to France after an absence of 18 months, and occupied himself in a scientific exploration of various parts of that country, and of the region of the Alps. By the direction of the French government, he proceeded on a journey to Sardinia, Corsica, Candia, Cyprus, and the Levant; some of the botanical results of which were subsequently communicated to the world in the beautiful and expensive work, entitled "Icones plantarum Syriæ." In 1791 and 1792, he accompanied the expedition fitted out by order of the Constituent Assembly, in search of the unfortunate Lapeyrouse; and he was the author of the narrative of it, published in 2 volumes 4to., in 1799. In 1800, he was elected a member of the Institute. Among the most important of his contributions to natural science, may be mentioned his "Novæ Hollandiæ plantarum specimen" (2 vols., Paris, 1804-5), and his "Sertum austrô-caledonicum" (2 vols. 4to., Paris, 1824).—He died at Paris, in January 1834.

**LABORDE\*** (Alexandre Louis Joseph, comte de). On the 30th of July 1830, he was appointed provisionally prefect of the department of the Seine, and contributed materially, by the influence which this office bestowed upon him, to the establishment of the monarchy of Louis Philippe. He was selected to be one of the king's aides-de-camp, and was chosen a questor (*questeur*) of the Chamber of Deputies. These functions he resigned in 1841, retiring then altogether from public life. His death occurred in 1842.—Ever since 1813, he had been a member of the 3d class of the Institute (the Academy of Inscriptions and Belles Lettres), and since the year 1832, a member of the Academy of

the Moral and Political Sciences.—His son, Léon Emmanuel de Laborde, who succeeded him in the first of these learned bodies, is the author, among other works, of a "Voyage dans l'Arabie-Pétrée" (1830. 1 vol. 8vo., with an atlas); a *Flora of Arabia Petræa* (1833. 1 vol. 4to.); an "Essai pour servir à l'histoire de la gravure sur bois" (1833. 8vo.); an "Histoire de la découverte de l'imprimerie" (1838. 8vo.); a "Voyage en Asie-Mineure," and a "Voyage en Syrie," accompanied by atlases, both in 8vo., and both published in 1838; and lastly, of a geographical commentary on the books of Exodus and Numbers (1840. in folio). M. Léon de Laborde was also elected to the seat vacated by his father in the Chamber of Deputies.

**LABOURDONNAIS** (François Régis, comte de) was born at Angers, on the 19th of March 1767. He emigrated from France at an early period of the revolution, and joined the army of Condé on the Rhine, fighting valiantly against his countrymen in its ranks until it was disbanded. Then he took part with the Choquans, and next with the Vendéans, in their warfare against the French Republic. On the pacification of the insurgent districts, he signified, however, like many others of the ancient noblesse, his adhesion to the consular government. He became successively a member of the "conseil général" of the department of "Maine et Loire," mayor of Angers, and, in 1807, a candidate for the legislative body. After the disasters of Napoleon, he hailed with joy the restoration of the Bourbons, and was conspicuous, in 1815, among the members who at that period composed the ultra-royalist majority of the Chamber of Deputies. He originated the most violent of the propositions which were made in that body against the adherents of the former government, and thus acquired for himself the surname of the "Jacobin blanc." By M. Decazes, to the measures of whose administration he was steadily opposed, he was characterised as a cold-blooded tiger (*un tigre à*

*froid*). In the chamber of 1816, he was the acknowledged leader of the "extreme right," which, in its warfare against the ministers of the king, did not scruple to ally itself, for their overthrow, with the most *liberal* portion of the deputies. His promptitude, in presenting himself on all occasions at the tribune, caused him to be styled the *Ajax* of his party. In 1823, M. de Labourdonnaie acted a prominent part in the exclusion of Manuel from the chamber. Continuing to occupy his position at the head of the ultra-royalist, or more properly speaking, aristocratic opposition to the government, he contributed essentially to the fall of M. de Villèle. Under the administration of the prince of Polignac, in 1829, he held the appointment of minister of the Interior, but retired from his post before the coming storm, which he had the sagacity to foresee. On his retirement he was raised to the dignity of the peerage. He abstained, however, from taking any further concern in politics; and he ended his days, on the 28th of August 1839, at his château, near Beaupréau.

LACRETELLE\* (Charles). To his works already mentioned are to be added "Considérations sur la cause des Grecs" (1825); a "Tableau historique de la Grèce depuis la fondation de ses divers états jusqu'à nos jours" (2 vols. 1840); and his "Testament politique et littéraire" (2 vols. 1840.) M. Lacrestelle also composed the text of the "Voyage pittoresque de Constantinople, etc.," published by Melling. He has undertaken the preparation of the third part of "L'art de vérifier les dates." And he is besides the author of a considerable number of discourses and other minor pieces, remarkable in a greater degree for the graces of style than for the thoughts of the writer.

LACROIX (Silvestre François), an eminent mathematician, was born at Paris in the year 1765. He was a pupil of the celebrated Monge, by whose recommendation he obtained his first appointment as a professor of mathematics in the naval academy at Rochefort. Thence he was successively transferred to the military school of Paris, and the school of artillery at Besançon. He was appointed, in 1793, examiner of the "aspirants" and pupils of the corps of artillery, and in 1795 was selected by Monge to be associated with himself in the professorship of Descriptive Geometry in the first normal school. His next appointment was that of professor of Mathematics in the "École centrale des Quatre-Nations;" and, in 1799, he became

a professor of Analysis in the Polytechnic School, and a member of the Institute. On the reorganization of the University, he was invited to fill the professorship of Transcendental Mathematics. With this office he held that of dean of the Faculty of Sciences. Lastly, in 1815, he succeeded Mauduit in the chair till then occupied by the latter in the College of France. — The most important treatises published by M. Lacroix are the "Traité du calcul différentiel et du calcul integral" (1797. Third ed. 1814. 2 vols. 4to.); a "Traité des différences et des séries;" a "Traité élémentaire du calcul des probabilités" (1816); and his "Cours de mathématiques élémentaires." Few works have contributed more than the last-mentioned to promote the study of the exact sciences in the present age. — M. Lacroix died May 24th 1843.

LACTEALS; the absorbents of the mesentery, which convey the milky fluid called *chyle* from the small intestines to the thoracic ducts.

LAFAYETTE\* (Gilbert Motier de). Dissatisfied with the system of resistance to further political progress, or, in other words, with the system styled by its supporters the "juste milieu," adopted by the government, Lafayette occupied, during the latter years of his life, the same position in the Chamber of Deputies that he had done under the Restoration, namely, on the extreme left. Though already suffering from disease, he conceived it to be a duty which he owed to his political friends to follow on foot to the grave the body of the *liberal* member Dulong, who had been killed by General Bugeaud in a duel (January 30th 1834). Overcome with fatigue, on his return to his residence he took to his bed, which he never again quitted till his death on the following 19th of May. — His son, *George Washington Lafayette*, who was born at the period of the American Revolution, at first adopted the military profession, and obtained the rank of a lieutenant after the liberation of his father from the dungeons of Olmütz. He made various campaigns in Italy, Austria, Prussia, and Poland, as an aide-de-camp of General Grouchy. But having lost all hope of promotion, in consequence of the alienation of Napoleon from his father, on account of the opposition of the latter to the consulship for life, he resigned his commission in the army. In 1815, he was elected a member of the Chamber of Representatives; and since that period he has been a deputy, with very little interruption. As well after, as before, too

revolution of July 1830, he has steadily occupied a seat in the chamber on the benches of the extreme left.

**LAFITTE\*** (Jacques.) On his retirement from the ministry, in the month of March 1831, Laffitte took his place in the ranks of the opposition in the Chamber of Deputies, and resisted, though without success, the reactionary measures of the different administrations which followed. He was one of the signers of the famous "compte rendu;" and on the 6th of June, he accompanied Messrs. Arago and Odillon Barrot to the Tuileries, to request of the king, in behalf of the opposition, to give to his government a more popular basis. In 1843, he was chosen president of the Chamber of Deputies, to the great mortification of the government. — Some time after the revolution of July, Laffitte recommenced his business as a banker in a new form, and in 1837 established a bank of discount (*caisse d'escompte*) which has rendered important services to the commerce of Paris. Both as a banker, and as one of the leading stockholders of the railroad from Paris to Rouen, he contributed essentially to bestow upon France the most important line of communication of the kind which that country yet possesses. — He died on the 26th of May 1844.

**LAFONTAINE\*** (Aug. Henry Jul.) His works are said to occupy no less than 200 volumes 12mo. He died at Halle, in Germany, at an advanced age, in April 1831.

**LAFARPE\*** (Frédéric César) died on the 30th of March 1838.

**LAINÉ\*** after the revolution of July, took the oath of fidelity to the new dynasty, and continued to sit in the Chamber of Peers. His death occurred in 1835.

**LAKE** is a compound of aluminous earth with the red colouring matter of certain animal and vegetable substances; thus we have cochineal and lac lakes, madder lake, &c. Sometimes the term *lake* is indiscriminately applied to all compounds of alumina and colouring matter.

**LAMARCK\*** This distinguished naturalist died at Paris at the close of the year 1829.

**LAMARTINE\*** The poem which gave occasion to his duel with colonel Pepe, in 1825, was "The last canto of the Pilgrimage of Childe Harold," written in imitation of Lord Byron, shortly after the decease of the latter. Though containing passages of unquestionable beauty, it was but faintly applauded by its readers; and its publication was followed by a silence on the part of the author during a period of four years. He gave evidence in the

spring of the year 1830, by the publication of his "Harmonies politiques et religieuses" (2 vols.), that his poetic fires still burned with undiminished ardour; and the discourse which he pronounced, a few weeks subsequently, on his admission to the French Academy, produced a powerful impression upon his audience. He was about to depart for Greece, in the capacity of minister plenipotentiary of France to that country, when he was prevented by the revolution of July. While he did not hesitate to take the oath of fidelity to Louis Philippe, he nevertheless made it a point of honour to renounce the diplomatic career which had been opened to him by the former government; and indulging a desire entertained by him from his early youth, he set out, in the summer of 1832, accompanied by his wife and daughter, on an excursion to Palestine and the adjacent regions. The impressions made upon him by what he saw, during his absence, were communicated to the public in his "Souvenirs, impressions, pensées, et paysages, pendant un voyage en Orient, ou Notes d'un voyageur" (4 vols. 1835). It is a work of the same class as the "Itinéraire de Paris à Jérusalem" of M. de Chateaubriant; and though one cannot but regard it as exhibiting a faithful representation of the workings of the writer's mind, the accuracy of his descriptions of external objects has been questioned, or even positively denied. The later poetical productions of M. de Lamartine, his "Jocelyn," "Chute d'un ange," and "Recueils poétiques," fall far below the merit of his earlier efforts; a result, in some measure perhaps, to be accounted for by the political career in which he became engaged. — He entered the Chamber of Deputies for the first time at the close of the year 1833, and early (January 1834) announced his intention to adopt an independent course as a member of that body, untrammelled by any party considerations. To this intention he has adhered, in despite of ever-repeated charges of inconsistency, and even versatility of opinion, preferred against him from the most opposite quarters; and from the very peculiarity of his political position, he has caused his voice to be heard with effect on many of the contested questions of the day. Among the objects the accomplishment of which he has more especially had in view, may be mentioned the abolition of the punishment of death, the amelioration of the condition of the lower classes of his countrymen, the emancipation of the slaves in the French colonies, the ab-

rogation of all monopolies, and the removal of restrictions on trade and industry.

LAMB (Charles) was born in London, February 10th 1775, and was educated at the same time with his friend Coleridge, at the school of Christ's Hospital. In 1792, he obtained a situation in the accountant's office of the East India Company, where he remained until 1825, when he retired with a pension of £450, which he enjoyed down to the period of his death, on the 27th of December 1834.—He first appeared as an author in 1797, in a volume of poetry, conjointly with Coleridge and Lloyd; but it was by his occasional essays, inserted in various periodicals under the signature of "Elia," and afterwards collected and printed in two volumes, that he succeeded in making himself extensively known. In 1808, he published "Specimens of English Dramatic Poets who lived about the time of Shakspeare, with Notes, &c." He published also "Rosamund Gray," a tale; "John Woodvill," a tragedy; "Album Verses;" "Tales from Shakspeare;" "The Adventures of Ulysses," &c.; in some of which works he was assisted by his sister, Mary Lamb. "As he wrote, not from necessity, but for his recreation, when unoccupied by official duties or otherwise disengaged, his writings were select rather than numerous; and his manner of treating the subjects, which his fancy suggested, was at once piquant, terse, and playful."

LAMENNAIS (Félicité Robert, abbé de); one of the ablest writers of the present age, and noted for the warmth, and even vehemence, with which he has alternately maintained the cause of the Roman Catholic church, and that of democracy. He was born on the 19th of June 1782, at St. Malo, in Bretagne. Having lost his mother at a tender age, he was taken charge of by an uncle, who lived in retirement in the country, and who possessed an extensive library. Of this the boy availed himself without discrimination, reading the "Essais de morale" of Nicole, and the works of J. J. Rousseau when only 10 years of age, pursuing at the same time the study of the Latin language. When 12 years old, he commenced learning the Greek, without the help of a teacher. His father, who was a wealthy merchant, was desirous that he should also engage in mercantile pursuits; but he, on the contrary, preferred the ecclesiastical profession. It was, however, only after having reached his 29th year, in 1811, that he received the ecclesiastical tonsure, and six years afterwards that he was ordained a priest.

He made his first appearance as an author in 1807, by a translation of the "Spiritual Guide" of Louis of Blois. In the following year, he produced his "Réflexions sur l'état de l'Eglise," the publication of which was arrested by the imperial police. Although the principles maintained in it were of a nature, as might be thought, to render it acceptable to the established power, attacking as it did the philosophy of the 18th century and the sovereignty of the people, and preaching monarchical doctrines, there was exhibited in it an independence of thought calculated to offend a suspicious and gloomy despotism. From 1811 to the period of the Restoration, M. de Lamennais passed several years in the small seminary of St. Malo, where he was occupied in giving instruction in Mathematics, while at the same time prosecuting his theological studies under the direction of an elder brother, who had preceded him in the ecclesiastical career. Here he composed, also, his work entitled "La tradition de l'Eglise sur l'institution des évêques." In 1814, in which year he went to Paris, he became, very naturally, from his family connexions, as well as modes of thinking and living, one of the most zealous partisans of the restoration of the Bourbons. But his adherence to their interests did not blind him to the faults which they committed. He animadverted, for example, severely on the law concerning the press, and the censorship of it proposed by the abbé de Montesquiou. During the 100 days, he sought an asylum in England, where he supported himself by giving lessons in a school. On his return to France, he set about the preparation of the work which laid the foundation of his great reputation, the "Essai sur l'indifférence en matière de religion," in 4 volumes, the first of which appeared in 1817. His doctrines became at once subjects of earnest controversy. The politicians could not acquiesce in his ultramontane opinions, and his doctrine of the subordination of the state to the church, even in reference to temporal matters; and the philosophers were called upon to resist to the utmost his theory of certainty, which he based on the authority of universal testimony. M. de Lamennais carried his mistrust of or repugnance to human reason, in his second volume, so far, as to infer the existence of God exclusively from tradition. To this principle of authority it was objected, that to receive and to comprehend any truth whatever required the exercise of our reason; also, that to be

enabled to put any faith in testimony, it is necessary to appreciate the value of that testimony; and that we are thus constrained, in despite of all that has been asserted to the contrary, to repose confidence in the operations of our intellectual faculties. Shortly after the work just mentioned had attracted the public attention in so large a degree to its author, he co-operated with Chateaubriant, de Bonald, de Villele, Frayssinous, and other distinguished royalists, in the establishment of the "Conservateur," a journal which, by the ability and vigour with which it assailed the administration of M. Decazes, contributed essentially to its fall. M. Decazes was succeeded by M. de Villele, who, however, could not long retain M. de Lamennais among his supporters. The latter was not a man to be trammelled by the shackles of party. He had the capacity and determination to think on every subject, political as well as ecclesiastical, for himself, and the independence and courage at all times to express what he thought. He soon commenced a course of opposition to the measures of the new minister, first in the columns of the "Drapeau blanc," and then in the "Mémorial catholique." And this opposition was felt by the government to be so effective, that every attempt was made, by the offer to him of high ecclesiastical dignities, to gain him over, or to reduce him to silence, but in vain; he was not to be moved from his purpose. — M. de Lamennais visited Rome in 1824, where he was received with much distinction by the pope, Leo XII. At his return to France, in 1825, he made a vigorous attack on an ordinance issued by the government, for modifying in certain respects the system of instruction in the theological seminaries, in a work entitled "La religion considérée dans ses rapports avec l'ordre civil et politique," and in which, besides denouncing the declaration of 1682, which established the so-called liberties of the Gallican church, he strongly insisted on the entire independence in every respect of the church on the state. For the publication of this work, striking as it did at one of the fundamental principles of the existing constitution of government, he was cited before the "police correctionnelle," by which he was condemned to pay a fine of 36 francs; at which cheap rate he obtained, on the other hand, an immense popularity. This popularity again, in its turn, had the natural consequence of *liberalizing* still more his political opinions, of which he gave abundant evidence in a book, published by him in 1829, under

the title of "Progrès de la révolution," as well as in a journal, established under his auspices, in 1830, styled "l'Avenir." The writers of the latter, besides claiming for the Catholic church, in general terms, an entire independence of any control on the part of the civil authority, boldly maintained that, in order to secure this, it ought to renounce all pecuniary support or assistance from the government, trusting for its preservation and extension exclusively to its own resources; and they likewise, in their reasonings, made use of language asserting for themselves, and therefore, as might be inferred, for all men, the utmost liberty of thinking, and of publishing their thoughts to the world. The great body of the French clergy were alarmed at the promulgation of these doctrines, and at the favour with which they were received by the people. On their representation of the matter at Rome, the pope, Gregory XVI., in an encyclical letter, dated August 15th 1832, condemned, without naming him, the doctrines put forth by M. de Lamennais and his adherents, as "altogether absurd, and in the highest degree injurious to the church." In the same document the liberty of the press, and even of thinking, was regarded as highly dangerous in its nature, and a liberty that "could not excite too much horror." M. de Lamennais submitted to the papal authority; and the editors of the "Avenir" signified the discontinuance of that journal. But this was not satisfactory at Rome. The pope insisted on more than a mere passive submission from M. de Lamennais. It was not enough that this distinguished writer should cease to promulgate his own opinions, but he was required to embrace those which he did not hold, and to proscribe the liberty of conscience, and the liberty of the press. Such was the state of things, when, in 1834, appeared the "Paroles d'un croyant." In this production, M. de Lamennais applied his obnoxious doctrines, which he had hitherto in a great measure, if not exclusively, propounded in ecclesiastical matters, also to the political order of things. A new encyclical letter anathematized it as a book small in bulk, but vast in respect to its perversity, and designated it as audacious, detestable, and impiously tending to the overthrow of every institution, human or divine. The ties which had formerly attached him so strongly to the church of Rome, and which had rendered him one of its most uncompromising defenders, were now completely broken. Under the title of "Affaires de Rome," he published

a book, in 1836, denouncing the pope in unequivocal terms as hostile to the progress of improvement, and as actuated by principles in direct opposition to the spirit of the age. Thus far he was permitted to proceed with perfect impunity. Not so, however, when he undertook, in a pamphlet, entitled "Le pays et le gouvernement" (December 1840), to animadvert with severity on the conduct of the government. He was proceeded against judicially, and condemned to one year's imprisonment, and to pay a fine of 2000 francs. In 1841, he published "L'esquisse d'une philosophie" (Vols. 1-3), and in the same year, "Discussions critiques et pensées diverses sur la religion et la philosophie."—But the works of M. de Lamennais which have been mentioned are far from constituting a complete list of his writings. An edition of them, in which not a few were omitted, was printed as long ago as 1837, in 12 volumes 8vo. They are all characterized by great force of thinking, and are written in a vigorous, sustained, and elegant style, entitling the author to rank as one of the ablest writers in the French language.

**LAMP.\*** The facility of generally applying the Argand principle to lamps has recently been exemplified in an ingenious invention, by which lamps on that principle have been made to burn the common fish oil instead of spermaceti, which had hitherto been indispensable. The improvement consists chiefly in supplying the flame with a greater quantity of oxygen than had hitherto been effected. This is accomplished by means of apertures in the sides of the lamp, and a cap with a *deflector*. But in applying this improvement to lamps on Argand's principle, a larger and coarser kind of wick must be employed; and the tubes with which the burners and the wick are supplied with oil must also be enlarged. Lamps so constructed are designated solar lamps.

**LAMPBLACK**, a finely divided charcoal, is the soot obtained by the imperfect combustion of pitch, or some resinous substance, in chambers hung with old sacking, upon which the smoke collects, and is from time to time scraped off. It contains about 20 per cent. of peculiar resinous products, water, and saline matter.

**LANCASTER** (Joseph)\* died in the city of New York, October 24th 1838, in consequence of being run over by a wagon the day before.

**LANDER.\*** Towards the close of the year 1833, the Landers left England for the purpose of further exploring the region

of the Niger. Having arrived at the island of Fernando Po, they and their companions ascended the river Non, on the opposite coast of Africa, in a small vessel laden with merchandise, intending to proceed up that stream as far as the fort constructed on England's Island. They had, however, only advanced about 30 miles, when a number of shots were fired upon them from the shore, which killed three of the party, and wounded four others; among the latter was Richard Lander. Just as this occurred, the vessel of the travellers grounded on a shallow; and they were obliged to seek their safety in an open boat, in which they returned to Fernando Po, under a continued fire from the Africans, who pursued them in their boats during several hours. Lander died of his wound on the 6th of February 1834. It is conjectured that the conduct of his assailants had been prompted by certain slave-dealers, who were impressed with a belief that his real object, in visiting the country, was the suppression of the trade in slaves.

**LANDGRAVE**; a title assumed by some German counts in the 12th century, who wished to distinguish themselves from the inferior counts under their jurisdiction, and thus assumed the designation of landgraf, or count of the whole country. This, for example, was the origin of the landgraves of Thuringia, and of Upper and Lower Alsace, the only three who were princes of the empire.

**LONDON** (Miss). See *Maclean*, (Sup).

**LANGERON.\*** When the command of the Russian army on the Danube was, in 1829, conferred on General Diebitsch, the count de Langeron, who had heretofore been his senior in rank, quitted the army by the permission of the emperor, and retired to St. Petersburg, where he resided till his death, caused by an attack of the Asiatic cholera, in June 1831. He possessed a highly cultivated mind. Previous to his emigration from France, he had written a comedy, and some other literary pieces, of considerable merit.

**LANGLOIS** (Simon Alexandre), born on the 2d of August 1788, was for many years a professor of rhetoric at Paris. He has distinguished himself by his knowledge of the Sanscrit language and literature. He published, in 1827, the "Monuments littéraires de l'Inde;" in 1828, the "Chefs-d'œuvre du théâtre indien" (2 vols.); being a translation from the English of Wilson; and in 1835, "Harivansa, ou Histoire de la famille de Hari," a poem appended to the *Mahabharata*, and translated from the

original Sanscrit, with notes, in 2 vols. 4to. Several memoirs also have been presented by him to the Institute on Indian antiquities.

**LANSLOWNE\*** (Henry Petty, marquis of) was president of the council, not only under the Grey, but also under the Melbourne administration. He left office with the rest of his colleagues, on the 28th of August 1841. In his opinions, he has generally approached more nearly to the Tories than most of the other Whig leaders.

**LAROMIGUIÈRE** (Pierre) was born in 1756, at Lévignac, a small town in the S. of France. He was educated by the "doctrinaires" of Villefranche, and became a member of their "congrégation." He was appointed professor of philosophy at Toulouse in 1784, and published there in 1793 a "programme" or outline of his course of lectures, under the title of "Projet d'éléments de métaphysique." This production coming to the knowledge of Siéyes, made so favourable an impression upon him of the abilities of the author, that he invited the latter to Paris, and introduced him to the society of Condorcet, Cabanis, Destutt de Tracy, and others of the prominent men of letters of that metropolis. Here he contented himself for a time with the opportunity afforded him of attending the courses of lectures on his favourite subjects of investigation, in the "école normale." It was in one of these lectures that Garat read to his auditors some remarks on one of his previous lectures, announcing to them, at the same time, that they were the remarks of one among their number, meaning M. de Laromiguière, who deserved to occupy his place. At the creation of the National Institute, the latter was chosen a corresponding member of the class of the Moral and Political Sciences. Several memoirs which he read at its meetings added considerably to his reputation. In 1797, he was appointed professor of logic in the "École centrale" of Paris; then professor of ethics at the "Prytanée;" and at length, on the organization of the Faculty of Letters, he occupied the chair of philosophy. His lectures, in the last-mentioned situation, met with the most splendid success. All ranks, and all ages, pressed forward to listen to one possessed, in so extraordinary a degree, of the ability to exhibit the abstractions of intellectual science at once with perspicuity and elegance. After two years (1811 and 1812), however, he ceased to lecture, though still nominally retaining his professorship; and he subsequently held no public office, that of librarian to

the university only excepted. Two of his auditors had taken very full notes of his lectures; from which notes, assisted by his recollections and reflections, he prepared for publication, in 1813, his "Leçons de philosophie sur les principes de l'intelligence, ou sur les causes et les origines des idées." This work has passed through 5 editions, and may be regarded as the only philosophical treatise that has attained any popularity in France during the present century. The only other published literary production of M. de Laromiguière is entitled "Paradoxes de Condillac, ou Réflexions sur la langue des calculs" (1806. 2d ed. 1828).—The philosophy of Laromiguière is based upon that of Condillac, and *corrective* of it. His views on the origin of our ideas in reality do not differ essentially from those of the modern school of Scotch metaphysicians. Like them he denies that sensation is the only source of our knowledge, or, in the language of Condillac, that all our ideas are merely transformed sensations; and holds that the impressions which the mind receives by the exercise of the senses are the *occasions* merely when its faculties are called into activity, and when, in consequence, our most important ideas have necessarily their origin.—M. de Laromiguière had an aversion to political life. In an early part of his career, he declined to accompany Siéyes to Berlin, as secretary of the French legation to the court of Prussia; and although he was for a short time a member of the tribunate, he is said to have afterwards refused to become a senator.—He died in the month of August 1837.

**LARREY.\*** This eminent surgeon died in 1842.

**LAS CASES.\*** Since the year 1830, count Las Cases has been repeatedly elected a member of the Chamber of Deputies, where he has invariably occupied a seat on the benches of the extreme left. He died in 1842.

**LASSA.\*** The population of Lassa has been very differently estimated, from 24,000 to as high as 80,000. It is situated in a large and fertile valley, through which the river Dsangtcha, a branch of the Dsangpo, or great river Irawady, flows. In this city is the great temple of Buddha, which is likewise the residence of the Dalai Lama, the pontifical sovereign of Thibet. The Chinese geographers describe it in extravagant terms, as containing 10,000 apartments, varying in size and grandeur according to the supposed dignity of the idols which they respectively contain. In the neighbourhood of the



city are 5 other temples, built on the same general plan, but very inferior in size and splendour; and contiguous to the principal temple, on its four sides, are as many monasteries, alleged to be inhabited by upwards of 4000 monks, and which are much resorted to by the Chinese and Mongols as schools of philosophy and Buddhism.

LASSEN (Christian) was born at Bergen, in Norway, in October 1800. On the death of his father, he accompanied his mother to Germany, the state of her health inducing her to try the effects of a milder climate. In 1822, he went to the university of Heidelberg; and subsequently to that of Bonn, for the especial purpose of attending the lectures of A. W. v. Schlegel, who became his friend and patron, and who obtained for him from the king of Prussia the means of spending two years in London and Paris. He acquired thus the opportunity of making himself more thoroughly acquainted with the Sanscrit and other languages of India. In the last-mentioned city, he assisted M. Burnouf in deciphering several manuscripts, written in the *Pali*, a language until then only known by name to Europeans. The results of their labours were published by the Asiatic Society of Paris, under the title of "*Essai sur le Pali*" (1826). Returning to Bonn, Lassen applied himself to the study of the Arabic and Persian; and to obtain the privileges of a private lecturer in the university (*Privatdocent*), he sustained a thesis "*De Pentapotamiâ indicâ*" (1827), in which he attempted to reconcile the statements of the Greek and Latin writers with the Indian epic poems, and to throw light on several obscure points in eastern geography. When appointed, in 1830, a professor *extraordinarius*, he engaged, with Schlegel, in the publication of the "*Ramayana*," and of the "*Hitopadesa*," a collection of fables (1829-31); and soon afterwards he commenced that of the principal Hindoo philosophical treatises, under the title of "*Gymnosophista sive indicæ philosophiæ documenta*" (1st part, 1832), accompanied by a Latin translation of the text. These productions of Lassen were followed at short intervals by an essay on the "*Ancient Persian Inscriptions at Persepolis*" (1836); by the "*Institutiones linguæ paracriticæ*" (1837), a work very highly esteemed by philologists; the "*Gitagovinda*," *Jayadevæ poetæ indici drama lyricum*," one of the most beautiful specimens of Indian lyric poetry; by an "*Anthologia Sanscritica, glossario instructa*" (1838), which contains a number of hitherto un-

published pieces; and by the "*History of the Grecian and Indo-Scythian kings of Bactria, Cabul, and India*" (1838). In the last work, the author, profiting by the discoveries of Sir Alex. Burnes and other travellers, has endeavoured to exhibit as complete an account as possible of the countries referred to, from Alexander the Great down to the conquest of them by the Mohammedans. He has contributed, also, many valuable articles to various literary journals, particularly to the "*Zeitung für die Kunde des Morgenlandes*," of which he has of late years been the editor. And he is understood to have been for some time engaged in preparing a syntax of the Sanscrit language, and a manual of Indian antiquities. — Lassen was elected, in 1841, a corresponding member of the French Institute (Academy of Inscriptions and Belles Lettres).

LAST, in commerce; a measure of uncertain quantity, varying in different countries, and with respect to different articles. Generally, however, a last is estimated at 4000 lbs.

LATOUR-MAUBOURG.\* The first two members of this family, mentioned in a preceding volume, died in 1831, and the third in 1837.

LATREILLE.\* This eminent naturalist died in 1833.

LATTEN. Brass or bronze. Tinned iron is sometimes known under this name.

LAVALLETTE\* (Marie Chamans, count de) died after his return to France, in 1830, and subsequent to the death of his wife; whose heroic devotion to him is recorded on a monument, in the cemetery of Père Lachaise, erected over their remains.

LEADS are pieces of type-metal cast to specific thicknesses and lengths, lower than types, so that they do not make any impression in printing, but leave a white space where placed. Their general use is to be set between the lines when a work is not closely printed, which is considered to look better than when printed solid, and also to branch out the heads of pages and titles.

LEAMINGTON PRIORS; a town of England, in the county of Warwick, celebrated for its mineral waters, and as a place of fashionable resort in the summer season. It is also remarkable for its extraordinary increase in the course of the present century. In 1811, it had only 543 inhabitants; in 1841, there were as many as 12,864. It has now many opulent residents, and is among the best-built and handsomest towns in Great Britain. The chief constituent elements in the "Lea-

mington waters" are the sulphates of magnesia and soda, and the muriate of soda (common salt). These waters are used internally by dyspeptic and chronic patients, and have been found very serviceable, when applied externally, in cutaneous diseases and rheumatism.

LE CLERC (Joseph Victor), born at Paris in 1789, succeeded M. Villemain, in 1805, as the professor of Rhetoric in the "Collège Charlemagne." He was appointed, in 1821, "maître de conférences" at the "École normale," and, in 1824, professor of Latin Eloquence in the "Faculty of Letters." He became the dean of that faculty in 1832, and was admitted a member of the Academy of Inscriptions and Belles Lettres in 1834.—Among his works may be mentioned a "Christomathie grecque" (1812); "Pensées de Platon" (1818); an edition of the Port Royal Latin Grammar (1819); a translation into French of the entire works of Cicero (30 vols., 8vo. 1821-25. 2d edition 35 vols., 18mo. 1823-27); and an essay entitled "Des journaux chez les Romains" (1833). M. Leclerc has also contributed many articles to the "Biographie Universelle," the "Encyclopédie des Gens du Monde," the "Revue Encyclopédique," and the "Journal des Débats."

LEE-BOARD is a small platform of planks, which, being let down into the water on the lee side of flat-bottomed vessels, opposes the action of the wind to drive them to leeward.

LEE-WAY, in navigation, is the deviation of the course actually run by a ship from the course steered upon; or it may be defined to be the angle formed between the line of the ship's keel and the line which she actually describes through the water. This deviation from the course of the vessel is caused by the action of the wind or currents on its side.

LEGARE (Hugh Swinton) was born at Charleston, in South Carolina, January 2d 1797. After receiving his early education in that city, he was sent to the school in the Abbeville district of the state, on the Savannah river, which was conducted by the Rev. Dr. Moses Waddell. When 14 years of age he was transferred to the college at Columbia. While there, his chief attention was given to the study of the Greek and Latin classics; although his recitations in every department of the course of instruction were equal to those of any of his fellow-students. He graduated in December 1814, with the highest honours of the institution; and on his return to Charleston, where his mother continued

to reside (his father died when he was quite young), he entered upon the study of the law. He did not, however, like most young men who intend to practise the law as a profession, place himself formally in a lawyer's office, but was directed in his course of reading at home, on legal subjects, by an eminent member of the bar, Mr. Mitchell King, afterwards Judge King. Three years were employed in this manner, relieved by the perusal of works of ancient and modern literature.—At the expiration of this term, Mr. Legare went to Europe, with a fixed resolution to make his journey essentially one for improvement in knowledge, rather than for the mere gratification of an idle curiosity. During his stay at Paris, he applied himself particularly to the acquisition of a critical acquaintance with the French language, and with so much success as to be subsequently remarked for the correctness and elegance with which he spoke it. He also rendered himself familiar with the French writers of most reputation; and a portion of every day was devoted to the language and literature of modern Italy. From Paris he went by the way of London to Edinburgh, where, besides attending the classes of Playfair, Leslie, and Murray, on Natural Philosophy, Mathematics, and Chemistry, he devoted many hours each day to the study of the Civil Law, and, as a relaxation from severer occupations, prosecuted an extensive course of Italian reading. Such, indeed, was his devotion at this period to his intellectual improvement, that we are told:—"On one occasion he found himself at breakfast, Sunday morning, on the seat where he had breakfasted the day before, having remained in it four-and-twenty hours." The spring of 1819 was employed by him in visiting different parts of England and Scotland; the summer was spent in London; and in the following autumn he travelled through Holland, Belgium, and France. He returned to his own country in the beginning of the year 1820, when he took up his residence, with his mother and a younger sister, on a plantation on John's Island, not very remote from Charleston. After two years occupied in agricultural pursuits, rendered necessary for retrieving his mother's affairs, which had become embarrassed during his absence, he succeeded in making an advantageous sale of this property. The family, in consequence, went back to Charleston; and then it was that Mr. Legare commenced the practice of his profession.—In 1820, he was elected to the State Legislature from the parish.

of which John's Island was a part, and continued to represent it for four years: he represented the city of Charleston in that body from 1824 down to the time of his election to be attorney-general of the state, in 1830. "His course in the Legislature," we are told by Mr. Preston, "was distinguished by an application to its business, by the abundant knowledge which he brought to the consideration of every subject, but still more by his shining qualities as a speaker." In the division of parties on general politics, he sided with that which held the doctrine of a strict construction of the constitution and limited powers of the government of the Union, but was, notwithstanding, one of those who, when it was proposed to enforce the doctrine by state interposition, dissented from the constitutionality and expediency of the measure proposed. — On the establishment of the "Southern Review," in 1827, Mr. Legare was selected, jointly with Mr. Stephen Elliott, as the editors of it. A principal object of this work was to serve as an organ for the political doctrines which prevailed in the southern section of the United States. Mr. Legare, we are told, consented to engage in this undertaking from a wish to gratify his friends, who were anxious that he should do so, and from his State feeling, "for he was then sensible, that a reputation of being occupied in the pursuits of literature was detrimental to his standing at the bar." He contributed a greater number of articles to the review than any other individual; and it ceased to exist when, on his appointment to the office of attorney-general of S. Carolina, he became so actively employed in the labours of his profession as to withdraw from it altogether his co-operation. — The merits of an argument pronounced by Mr. Legare before the Supreme Court of the United States at Washington, and especially the unusual display of civil law erudition which he made on that occasion, produced an intimacy between him and Mr. Edward Livingston, who was then secretary of state, that, in its turn, led to his appointment, in 1832, to be chargé-d'affaires of the United States in Belgium. His residence at Brussels was continued till the autumn of 1836; when, after a tour through Northern Germany, he once more returned to his own country, and, as a considerable portion of his time while abroad had been devoted to serious study, he returned to it with a very enlarged knowledge of the civil law, as well as an acquaintance with the German language and literature.

—It had been his intention to resume the practice of his profession on reaching America, but was for a short time diverted from his purpose by the wishes of his friends, who had, in expectation of his arrival, already put him in nomination for Congress. He went into this body as a supporter of the administration of Mr. Van Buren; and on taking ground against it, on account of his disapprobation of the financial policy which it proposed, he lost the favour of his constituents, and failed of a re-election. He, at length, felt himself at perfect liberty to follow his own predilections, and to recommence the practice of his profession in S. Carolina. Cases of great importance were confided to him; and he speedily occupied a conspicuous position in the foremost ranks of the bar. — In the mean time, however, Mr. Legare did not entirely abstract himself from the political contentions of the day, or allow his professional avocations to prevent him from taking an active part, by addresses delivered at New York, Richmond, and elsewhere, in promoting the election of General Harrison to the presidency. In 1841, he was selected by Mr. Tyler to fill the office of attorney-general of the United States, for which he was eminently qualified, and in performing the duties of which he commanded the respect of all parties. Besides, too, performing those duties, he was, for a long *ad interim* period, the acting secretary of state during Mr. Tyler's administration of the government. His death occurred on the 16th of June 1843, at Boston, whither he had accompanied the president to assist in the approaching Bunker-Hill celebration. — In addition to his articles in the "Southern Review," Mr. Legare is the author of those in the "New York Review" on "Demosthenes, the man, the orator, and the statesman," on the "Athenian Democracy," and on the "Origin, history, and influence of the Roman Law," all of which are composed in an elaborate and copious style, and are replete with learning and keen and subtle disquisition. His writings have been collected and published during the present year (1846), with a memoir of his life, in 2 volumes 8vo.

LEGENORE.\* This eminent mathematician died in January 1833, in the 81st year of his age.

LEGGETT (William) was born in the city of New York some time in the year 1802, and, after the necessary preparatory studies, was sent to the college at Georgetown, in the district of Columbia, where he acquitted himself with credit, but did

not stay long enough to take a degree. He was withdrawn from it in consequence of the pecuniary embarrassments into which his father had fallen. In 1819, he accompanied his parents to the state of Illinois, of which they were among the early settlers. Having obtained a midshipman's warrant, he returned, in 1822, to the Atlantic states. He retired, however, from the navy in 1826, on account of the arbitrary treatment to which he was subjected by the officer under whose command he was placed. Shortly after he left the service, he published a volume of occasional verses, under the title of "Leisure Hours at Sea," and about the same time wrote for the "Atlantic Souvenir" a tale, styled "The Rifle," which attracted much attention, by the spirit and truth of its sketches of the manners and dialect of the western settlers, among whom, as has been mentioned, he had for some years resided. In November 1828, he established in the city of New York a weekly literary paper, entitled the "Critic," which was, at the end of six months, united with the "Mirror," to which he then became a regular contributor. The tales which he wrote and inserted in the "Critic" were subsequently collected and published, under the titles of "Tales of a Country Schoolmaster" and "Sketches of the Sea." Most of them are possessed of a high order of merit, and claim for their author a prominent position among American novelists. In 1829, Mr. Leggett became joint-editor with Mr. Bryant of the New York "Evening Post," and in June 1834, by the departure of the latter for Europe, was left sole editor for a time of that journal. In October of the following year, he was attacked by a severe and dangerous illness, occasioned by the intensity of his labours as a public writer, and which disabled him from all literary exertion for the period of an entire year. Near the close of the year 1836, he judged it expedient to retire altogether from his connexion with the Evening Post; and he then established a weekly political and literary paper, under the name of the "Plain Dealer," in which he resumed, with great boldness and vigour, the discussion of the various important questions that had occupied him before his illness. It soon obtained a large and increasing circulation, but was discontinued at the end of 10 months, in consequence of the failure of its publishers. After this, the decline of his health prevented Mr. Leggett from engaging in any other literary enterprise. In April 1840, he was appointed by the president, Mr. Van Buren, a diplomatic

agent to the republic of Guatemala. And he was preparing to set out for that country, when he died at his residence in New Rochelle, about 19 miles from New York, on the 29th of May. A "Collection of the Political Writings of William Leggett, selected and arranged, with a preface, by Theodore Sedgwick, Junr.," in 2 volumes, was published shortly after his decease.

LEIPSIĆ.\* Population in 1840, 47,514.—The university had, in 1840, 941 students. The library attached to it has been lately estimated to contain as many as 80,000 printed volumes, and 2000 manuscripts.—The book trade continues to be the distinguishing characteristic of the commerce of Leipzig. It is still the grand emporium of the literature of Germany, a distinction of great importance, seeing that the number of readers and writers is greater than in any other country of Europe. In 1837, the catalogue of the Easter fair announced 4353 new works, and that of the Michaelmas fair 3538; making a total of 7891 in the year. Of this number, Prussia contributed 2169, and Saxony 1342 publications. Railroads now proceed in different directions from Leipzig; and the extension of this mode of communication throughout Germany cannot fail to give an augmented impulse to the trade of that city, which may compensate for the decline of its foreign trade.

LEMAIRE (Nicolas Éloi) was born at Triancourt, in the French department of the Meuse. He prosecuted his studies with great assiduity and success at the college of St. Barbé, being especially distinguished for his talent of writing Latin poetry. At the age of 23, he succeeded his former professor, Binet, in the chair of Rhetoric. During the revolution, he rendered himself conspicuous by the part which he acted in what was designated by Danton as the irreligious *nummeries* of the period; presenting, on one occasion, to the Convention, a number of priests, who, he stated, had informed him of their desire to renounce their former juggleries and *charlatanerie*. At the same period, he filled several judicial and administrative offices. He found no favour from the consular government; and it was only after a long course of the grossest adulation to the emperor that he succeeded in overcoming the prejudices against him entertained by the latter, and obtained the appointment of professor of Latin poetry in the College of France. He was appointed to fill the same professorship in the Faculty of Letters in 1811, and became dean of this faculty in 1825.—Full of en-

thusiasm for his subject, the instruction given by him was of the most effective description. But the most important result of his literary and educational exertions, was his edition of the Latin classics, in 154 volumes 8vo. This beautiful collection, which was published under the patronage of the restored Bourbons, to whom he had transferred the adulatory phrases before applied by him to Napoleon, and which was printed by Didot, was begun in 1818, and finished only in 1832, the year of the editor's death. It consists of a reprint of the most approved modern editions, accompanied by a selection of the best existing commentaries on the text, together with others entirely original.

**LEMBERG.\*** Population in 1837, 54,965. —In 1833, the number of students in the university was 1311; and in 1837, 1321. In the former year, 485 studied divinity, 242 law, and 185 medicine. —Lemberg was formerly an important fortress; but the demolition of its fortifications was begun early in the last century, and completed under the emperor Joseph II., when its ramparts were planted with trees, and laid out in public walks.

**LEMERCIER\*** died in 1840.

**LEMON.\*** The binoxalate of potash is often sold under the name of the essential salt of lemons. It is chiefly used for removing iron-moulds and ink-stains from linen.

**LENNEP** (David James van), born at Amsterdam, in Holland, in July 1774, is one of the most erudite philologists of the present day. After having pursued the study of jurisprudence, and obtained the degree of *doctor juris*, he accepted an appointment to a professorship in the "Athenæum" of his native city, where he taught successfully the languages and antiquities of Greece and Rome, until invited to a professorship in the university of Leyden. Here he occupied himself diligently in a critical and historical study of the Latin language, and attained at length the reputation of being the best Latin scholar of his country since the death of Wyttenbach. He is the author of a considerable number of Latin works, both in prose and verse; all of them distinguished for the pure and classical style in which they are composed. He has published an edition of the "Heracles" of Ovid and Sabinus (Amst. 1807), and, in conjunction with Bosch, a Greek Anthology (5 vols. Utrecht. 1795-1822.) —Van Lennep has produced, besides, several poems in the Dutch language, which are considered by his countrymen to be master-pieces of their kind, and has trans-

lated, into Dutch verse, the "Works and Days" of Hesiod.—He was elected a member of the States General of Holland in 1838.—**JAMES VAN LENNEP**, the son of the former, born at Amsterdam in March 1802, is one of the most popular living poets of Holland, as well as the author of several historical novels, which are regarded by the Dutch as among the best works of fiction in their language; and in addition to his original productions, he has translated into Dutch some of the poems of Lord Byron.

**LENOIR\*** (Alexander). This learned antiquary died at Paris in 1839.

**LENORMAND\*** (Mademoiselle) aspired to a higher reputation than that of a fortuneteller and prophetic pretender, by the publication in 1827 of the "Mémoires historiques et secrets de l'impératrice Joséphine" (3 vols. 8vo). She has also announced the publication of her own memoirs, which cannot fail to contain much curious matter; but they are only to appear after her death,—an event, however, if we are to believe her, not to take place until she shall have lived to the age of 124 years, that is till near the close of the 19th century.

**LEO** (Henry) was born at Rudolstadt, in Germany, in March 1799. He studied successively at the universities of Breslau, Jena, and Göttingen, directing his attention in the first place to medicine, but soon afterwards to archæology and history. He took the degree of doctor of philosophy at Göttingen in 1819. In the following year, he left that place for Erlangen, where he composed a treatise "On the Constitution of the Lombard cities" (1820), and a dissertation "On the worship of Odin in Germany" (1822). He next removed to Berlin, and became there one of the most enthusiastic disciples of Hegel. The interest, however, that he took in the speculations of this philosopher did not prevent him from prosecuting his historical inquiries, the fruits of which were another volume on the constitutions of the cities of Lombardy, printed immediately after his return from an excursion into Italy. In 1826, Leo accepted a subordinate appointment in the royal library at Berlin, and, in order to eke out his means of subsistence, found himself obliged to submit to much literary drudgery, which occupied his time, without enhancing his reputation. At length, he became so dissatisfied with his position, that he suddenly quitted Berlin, and went first to Jena, and then to Halle, where he succeeded in obtaining an "extraordinary" professorship in 1828,

and two years afterwards an "ordinary" professorship of history, an office which he has continued to hold.—Leo's principal works are "Lectures on the History of the Jewish State" (1828); an "Introduction to the History of the Middle Ages" (1830); a "History of the Italian States," constituting a portion of the historical series of Heeren and Ukert (1829–32); "Twelve books of the History of the Netherlands" (2 parts, 1832–35); "Elements of Universal History," 6 volumes of which have appeared; "Specimens of the Language of the ancient Saxons and Anglo-Saxons" (1838); and "Beowulf, the oldest poem extant in the Anglo-Saxon dialect," examined as a work of art, and in its historical and mythological relations.

LERMINIER (Jean Louis Eugène) was born at Paris in March 1803. He went when young to Germany, and resided at Heidelberg and Berlin till the year 1827. He first made himself known by the publication, on his return to Paris, of his work "De possessione analytica Savignianæ doctrinæ expositio" (1827). A private or voluntary course of lectures, which he delivered in 1828–30, obtained for him from the government an appointment to one of the three new professorships instituted, in 1831, in the College of France, to wit, to that of "Comparative Legislation" (*des législations comparées*). His lectures, in this chair, were for a considerable time imbued with the most "liberal" political opinions, and being promptly reproduced by the public press, attracted in a very uncommon degree the public attention. The government at length became uneasy at the influence to its disadvantage which they were calculated to exert; and it was rumoured that the measure of abolishing the professorship held by M. Lerminier had been seriously agitated in the council of ministers,—a rumour tending to increase still more the popularity and influence of the lecturer. Notwithstanding all this, however, a gradual approximation took place on his part towards the principles on which the affairs of France were administered. In April 1838, his change of opinions was manifested in an unequivocal manner to the public, by his consenting to be made a member of the legion of honour, and to have the title of "maître des requêtes" conferred upon him by the government. His unpopularity with his former political friends soon became extreme, and led to his retirement altogether from public life in 1839.—Besides the work already mentioned, M. Lerminier is the author of an "Introduction générale à

l'histoire du droit;" the "Philosophie du droit" (2 vols.); "Lettres philosophiques à un Berlinois;" "De l'influence de la philosophie du dix-huitième siècle sur la législation et la sociabilité du dix-neuvième;" "Au delà du Rhin, ou de l'Allemagne depuis Mad. de Staël" (2 vols.); "Études d'histoire et de philosophie" (2 vols.); "Cours d'histoire romaine, depuis Auguste jusqu'à Commode;" and "Dix ans d'enseignement." He also contributed a considerable number of articles to the "Revue des Deux-Mondes," which are not the least remarkable of his productions; he was one of the founders of the journals entitled "Le Droit" and "Le Bon Sens;" and he has for several years written the political chronicle in the "Journal de Paris."

LESLIE\* (Charles Robert). With the exception of a few months passed at West Point, in the year 1832, this distinguished painter has continued to reside in England; that country offering advantages to artists which, as yet, America cannot afford them. Among the pictures purchased of him by American gentlemen, and now in this country, are Christ blessing little children; Christ with Mary and Martha; Sterne recovering his memorandums from the chaise-vamper's wife; Shallow prompting Slender's courtship of Anne Page; Touchstone and Audrey with the shepherd William; Dulcinea; and a fine portrait of Sir Walter Scott, which he painted at Abbotsford, for Mr. Ticknor, of Boston. Within the last few years, his elegant pencil has produced the Coronation of Victoria, and the Christening of the Princess Royal, both of which were painted for the Queen; also the Lady in Comus, for Prince Albert. Report speaks highly of his late pictures of the Vicar of Wakefield's family visited by Lady Blarney and Miss Skeggs; and the Reading the will of Roderick Random's grandfather.

LESLIE\* (John) was the professor of Mathematics in the University of Edinburgh from 1805 to 1819; when he succeeded Mr. Playfair in the chair of Natural Philosophy. He was knighted in June 1832, and died on the 2d of November of the same year.

LESSEURS\* (Jean Bapt. Barthélemi, baron de). He was appointed, in 1827, consul-general of France in Syria, and subsequently, to the same office at Tunis, where he died in 1832.

LESŒUR\* (Jean François, not Jean Baptiste) died in October 1837.

LETTER OF CREDIT is a letter from one banker or mercantile correspondent to an

other, requesting him to advance money to a certain amount to the bearer, or a third party named. The granting of such a letter is generally announced in course of post to the correspondent; a duplicate of it being sent at the same time, and the signature of the party in whose favour the credit is established, or a description of him, in case the document should fall into improper hands.

LETRONNE (Jean Antoine), distinguished as a geographer, antiquarian, and philologist, and one of the most erudite of the living men of letters in France, was born at Paris on the 25th of January 1787. His father, who was an engraver, was desirous that he should likewise pursue the career of an artist, and placed him at 8 years of age in the studio of David. But it soon became apparent that to be a painter, at least one of a high order of excellence, was not his proper vocation; while, from the intelligence and activity of mind which he already exhibited, hopes came to be entertained by his friends that he might one day rise to eminence in science or literature. With a view to prepare him for entering the Polytechnic School, he attended the courses of instruction of the central schools, until the death of his father, when he had scarcely attained his 14th year. This event again changed his destination, by obliging him to seek for a speedy means of supporting himself, and assisting to provide for the wants of his mother, and of a younger brother. Besides giving elementary lessons, he was employed by the geographer Mentelle to assist him while composing his Dictionary of Modern Geography. He was afterwards associated with the same author in the preparation of the "Géographie des quatre parties du monde" (4 vols. 1806). In the next place, he accepted of an advantageous offer made to him to accompany a foreigner on his travels through France, Italy, Switzerland, and Holland. This journey occupied the years 1810, 1811, and 1812. Shortly after his return to Paris, he published his first work, entitled "Essai critique sur la topographie de Syracuse." His "Recherches géographiques sur le livre de *Mensurâ Orbis*, of the monk Dieuil," appeared in 1814. In 1815, he was entrusted by the French government with the task of completing the translation of Strabo, begun by La Porte du Theil. In March 1816 he became, by appointment of the king, a member of the Academy of Inscriptions and Belles Lettres, and in the course of the same year obtained the prize proposed by the academy on "the metrical

system of Hero of Alexandria."—M. Letronne was appointed "inspecteur général des études" in 1819, and professor of history in the College of France in 1831. In 1832, he exchanged the former office for that of curator of the cabinet of antiquities of the royal library; in 1838, he became administrator of the College of France, and quitted the chair of history for that of archæology; and he succeeded M. Daunou in 1840 in the office of keeper of the archives of the kingdom.—Besides the works already mentioned, M. Letronne is the author of "Considérations générales sur l'évaluation des monnaies grecques et romaines, et sur la valeur de l'or et de l'argent avant la découverte de l'Amérique" (4to., 1817); "Recherches pour servir à l'histoire d'Égypte pendant la domination des Grecs et des Romains" (1823); "Observations sur l'objet des représentations zodiacales qui nous restent de l'antiquité" (1826); "Matériaux pour l'histoire du christianisme" (4to. 1833), &c. But the most remarkable of his productions is, without any doubt, the "Recueil des inscriptions grecques et latines recueillies en Égypte," now in course of publication, and to be completed in 5 volumes 4to., with an atlas in folio.

LEWIS (Major-general Morgan) was the son of Mr. Francis Lewis, one of the signers of the declaration of independence, and was born in the city of New York, October 16th 1754. He graduated at Princeton College in 1773, when he entered upon the study of the law in the office of Mr. Jay, afterwards Chief-Justice Jay. On the breaking out of the war of the Revolution, in 1775, he joined the American army under General Washington, in the neighbourhood of Boston, and continued in active service until the peace. During the contest he distinguished himself on various occasions, particularly at Saratoga, where, with the rank of colonel, he held the office of quarter-master-general under General Gates, and subsequently in the operations undertaken by General Clinton in the northern part of the state of New York against Sir John Johnson's mixed force of British regulars and savages.—At the end of the war, he resumed his profession of the law, and was shortly after elected a member of the State Legislature from the city of New York. He next represented in the same body the county of Dutchess, whither he had removed; and was then appointed successively a judge of the court of common pleas, attorney-general of the state, a judge of the supreme court, and (1801) chief jus

tice of the same court. In 1804, he was elected governor of New York; in 1810, he served as a member of the Senate of that state; and in 1812, he was appointed quarter-master-general of the U. S. army, with the rank of a brigadier-general. — The last-mentioned office he held, however, only for about 10 months, being promoted in March 1813 to the rank of a major-general. In the earlier part of the campaign of that year, he acted under the orders of General Dearborn on the Niagara frontier; and, in the latter part of it, he accompanied General Wilkinson in his expedition, down the river St. Lawrence, against Montreal. In 1814, he was entrusted with the command of the forces destined for the defence of the city and harbour of New York from an apprehended attack of the enemy. — From the close of the war in 1815 down to the period of his death, General Lewis lived in retirement from all public duties, with the single exception of an oration which he delivered (he being then in his 78th year), by the request of the corporation of the city of New York, on the 22d of February 1832; that day being the centennial anniversary of the birth of the "father of his country."

LEYDEN.\* Population in 1837, 36,110. — In 1835, the university had 33 professors, and 647 students. Of the latter, 250 were engaged in the study of law, 212 in that of divinity, 131 in that of medicine, and 54 only in the study of the various branches of literature or science taught by the faculty of philosophy. The university is well provided with the collections and apparatus required to give efficiency to the courses of instruction delivered by the professors. The museum of natural history is especially deserving of mention. It surpasses most others in Europe, being mainly indebted for its excellence to the public spirit of the Dutch naval officers and foreign agents, who take every opportunity of forwarding natural curiosities to their native country; but it also owes much to the acquisition of the valuable collection of birds by Temminck, and to the labours of travellers and collectors sent by the *senatus* to Africa, S. America, and other parts of the globe.

LIABILITIES is a term at present applied to denote the pecuniary obligations of an individual or company.

LIBERIA.\* In consequence of purchases of territory by the American Colonization Society from the natives during the year 1845, this colony has acquired an unbroken line of sea-coast from Digby, on the

North-West, to Grand Bassa Point, and from Blue Barre to Tassoo; and the means have since been supplied to the governor for making additional purchases. — The following statistical information is obtained from the annual report of the Colonization Society for 1846. The total number of emigrants from the United States, from the first attempt to establish a settlement in Liberia in 1820, down to the end of the month of September 1843, was 4454. Of these, 1687 were born free; 97 purchased their freedom; and 2290 were emancipated in view of their emigration. The deaths in the colony, during the same period, amounted to 2198, including 62 that died at Sierra Leone and Sherbro. There were, also, 520 removals from the colony; of whom 108 were to the United States, 197 to Sierra Leone, 147 to Cape Palmas, and the remaining 69 left in foreign vessels for places not mentioned. The number of persons in the colony in the autumn of 1843, who had been sent out by the American Colonization Society and its auxiliaries, was 1736, and the total population 2390. From 1820 to 1843, the number convicted of crimes were:— for murder 7, kidnapping 11, burglary and robbery 17, grand larceny, 107, petit larceny 184, and other offences 47. In 1843, there were as many as 23 distinct places of public worship; 13 of which belonged to the Methodist, 8 to the Baptist, and 2 to the Presbyterian denomination of Christians. The total number of children attending school was 562. The number of acres in cultivation was 3482. For the 2 years ending September 30th 1843, the value of the exports was \$123,695. That of the imports, for the same period, was 157,829.—There are now 11 settlements in Liberia. Of these, Monrovia is the largest, and the seat of government. It contains about 1000 inhabitants. On the St. Paul's river there are 3 settlements, Caldwell, Millsburg, and M'Donough; the first about 10, the second about 20, and the third about 18 miles, from Monrovia. On an arm of the St. Paul's river, called Stockton creek, is New Georgia, the settlement of recaptured Africans. At the mouth of the Junk river is the settlement of Marshall, about 35 miles by sea S. of Monrovia. On the St. John's river are the settlements of Bassa Cove, Edina, and Bexley, about 70 miles from Monrovia. Further down the coast, at the distance of about 130 miles by sea from Monrovia, at the mouth of the Sinon river, is the settlement of Greenville, and up the river about 6 miles, is the settlement of the people liberated by the late



Mrs. Reed of Mississippi.—The colony has at different times been subjected to much inconvenience, in consequence of the refusal of the commanders of British vessels to pay the duties imposed on imported goods by the local government. The right of the latter to impose such duties has, indeed, been called in question, on the ground of Liberia being neither an independent state, nor the colony of such a state, but merely the creature of an association of individuals, who are themselves merely the private citizens of another country. To provide a remedy for the evils likely to ensue to the colonists from this condition of things, the Colonization Society, in January last (1846), divested itself in their favour of such authority over them as it had hitherto retained, namely, of the power of appointing the governor, and of a *veto* over the acts of the colonial legislature, which, however, it had not for years past exercised in a single instance. The settlers of Liberia have thus, at length, in accordance with the original design of the philanthropic individuals who founded it, and sustained it through its infant existence, been left, in all respects, to the government of themselves; and their capacity for fulfilling adequately the trust reposed in them, and by so doing to command the respect as well of the civilized nations of the earth, as of the African tribes by which they are surrounded, will, it is not improbable, be very speedily put to the test.

LICHTENSTEIN\* (Martin Henry Charles) was entrusted with the superintendence of the zoological museum at Berlin in 1813, which has since become one of the largest collections of the kind in Europe, and, in a scientific view, at present claims to hold the first place among them. He has contributed numerous papers on the various branches of zoology, and especially ornithology, to the transactions of learned societies, and the public journals of the day; and his "Travels in Southern Africa" (2 vols. 1810-11) is a work much esteemed by naturalists.

LIEBIG (Justus) was born at Darmstadt, in Germany, in May 1803. He evinced at an early age a taste for the natural sciences, which led his father, in selecting for him an employment for life, to place him, on his quitting the gymnasium, with an apothecary, rather than with any other man of business. This, however, was very far from satisfying his aspirations. About a year afterwards (1818), he went to the university of Bonn, and subsequently to that of Erlangen. In 1822, he went to Paris, and continued there until 1824;

being enabled to do so by the bounty of the grand-duke of Hesse-Darmstadt. A memoir on the fulminates, which he presented to the Academy of Sciences, acquired for him the patronage and friendship of Alexander de Humboldt; and, through the instrumentality of the latter, he was appointed in 1824 an "extraordinary" professor of Chemistry in the university of Giessen. In 1826 he was promoted to the rank of an "ordinary" professor. His attention has been in a great degree directed to the study of *organic* chemistry, and with such brilliant success as to have produced an entire revolution in this department of science. The results of his investigations were for the most part communicated to the public in the "Annalen der Pharmacie." He is the author of an "Introduction to the Analysis of Organic Bodies" (1837); a treatise on "Organic Chemistry" (1839); "Organic Chemistry, in its application to Agriculture and Physiology" (1840); "Organic Chemistry, in its application to Physiology and Pathology" (1842); "On the study of the Natural Sciences, and on the condition of Chemistry in Prussia" (1840); &c. In conjunction with Poggendorf, he has also published a chemical dictionary.

LIEGE.\* This city, in 1836, contained 58,000 inhabitants. — It may be regarded as the Birmingham of the European continent. It owes this distinction to its situation in a district abounding with coal and iron, and which also affords zinc, lead, copper, sulphur, alum, marble, and slate. The royal cannon-foundry, instituted in 1802, produces at an average 9 pieces of ordnance weekly, partly brass and partly iron. There are numerous manufactories of fowling-pieces, muskets, pistols, &c. In 1836, the most flourishing year of the manufacture, the value of the fire-arms issued from the different factories of Liege was estimated at 7,000,000 of francs. Steam engines and machinery are also largely produced in Liege, and in the adjacent busy and populous village of Seraing, on the opposite bank of the Meuse. As many as 60 steam engines, of the aggregate power of 695 horses, with from 2000 to 2200 workmen, 500 of whom were miners, were said to have been employed, at one time, in the single manufactory of the Messrs. Cockerill, established by those gentlemen (Englishmen) in the palace of the former prince bishops, purchased by them for the purpose. Most of the locomotive engines upon the Belgian railroads, and the engines for steam vessels, &c., used in Belgium, have been made here, and many have also

been sent to other parts. Liege has, besides, manufactories of hardware of all kinds; of watches, jewellery, bronze, and other ornaments; woollen and cotton fabrics, hats, glue, tobacco, &c.; with numerous dyeing-houses, tanneries, and distilleries. A railroad connects it with Louvain and Brussels.—The university has 46 professors, and usually from 400 to 500 students. It possesses a cabinet of mineralogy, with upwards of 5600 specimens, a cabinet of 3000 fossils, found in the vicinity, and other scientific collections.

**LIGNIN** is the scientific designation for the *woody fibre*. (When, by different reagents, all the soluble matters are extracted from wood, the insoluble residue is lignin.) It exhibits itself in a variety of forms, constituting the different textures of hard and soft wood, and various fibrous products, such as hemp, flax, cotton, &c. When, by fine mechanical division, it is reduced to a pulpy state, it is formed into paper. The analogy that exists between the composition of sugar, gum, starch, and even vinegar, and lignin, has suggested the possibility of the conversion of those proximate elements into each other; and it has accordingly been found, that by carefully roasting pure and fine sawdust, it is rendered partially soluble in water, and that a part of it is converted into a nutritious substance, probably intermediate between sugar and starch; and which, when mixed with a little flour, yields a palatable bread, not very unlike that made by some of the inhabitants of the northern parts of Europe of the bark of trees. Mixed with sulphuric acid, lignin passes into gum; and from this, sugar may be obtained by boiling it for some hours in a very dilute sulphuric acid: this sugar, when purified, much resembles grape or honey sugar. By this process, rags may be converted into nearly their own weight of this peculiar saccharine matter. The production of vinegar by the destructive distillation of wood, originally suggested about the middle of the 17th century by Glauber, has lately become an important article of manufacture. And upon the whole, there are very few natural products equally important with lignin in their applications to the useful and ornamental arts.

**LINK**.\* Among the later works of this distinguished naturalist, may be mentioned here his "Elementa philosophiæ botan." (1824); his "Manual for the Knowledge of the most Useful Plants;" and his "Propylæa to the Science of Natural History."

**LINSEY**, or **LANSBY WOOLSEY**, a kind of flannel, of which, however, only the

wool is composed of wool, the warp being thread.

**LINTZ**.\* Population in 1839, exclusive of the garrison, 23,318. — Since the conclusion of the last war with France, Lintz has been fortified in a peculiar manner; no less than 32 strong detached forts having been erected at a certain distance around it, 23 on the left and 9 on the right bank of the Danube, rendering it a fortified camp, in case of necessity, for an army. Owing to the demolition of the fortifications at Ulm by the French, there was not, previously to the erection of these works any fortress to defend the valley of the Danube, between the frontier of France and Vienna.—Besides the manufacture of carpets and other woollen goods, there are manufactories of cotton and silk goods, leather, gold lace, cards, tobacco, &c. Lintz is a station for the steamers on the Danube, and the transit trade by that river is very considerable. Two railroads meet here: one goes north to Budweis, in Bohemia, 67 miles, and was the first constructed in Germany; and the other to Gmünden on the Traun, which it is intended to prolong to Grätz, by way of Leoben and Brück.

**LIPINSKI**\* was at Dresden during the year 1837. He next again visited Russia, but soon returned to Germany. Since 1839, he has resided at Dresden as the director of the concerts at the court of Saxony. In 1836, he published a number of "capriccios and variations."

**LISBON**.\* Population estimated to amount at present to 260,000. The trade of this city has greatly diminished since the separation of Portugal from Brazil. Upwards of 1000 vessels enter the port annually, of which about one-third are British.

**LISZT** (Francis), one of the most distinguished performers on the piano forte of the present day, was born in October 1811 at Rading, near Oedenburg, in Hungary, not far from the borders of Germany. His musical powers were very early developed; and he performed in public on the piano forte when he was only nine years of age. The pecuniary assistance bestowed upon him by several Hungarian noblemen enabled his father to take him to Vienna, where he enjoyed the instructions, both theoretical and practical, of the first masters in music. He next went to Paris, with the object in view of completing his musical education at the "conservatoire," under Cherubini. Repulsed by the latter, on account of his being a foreigner, he ventured, nevertheless, to perform, on se-

vers. occasions at the "théâtre de l'Opéra," and with the most extraordinary success. His reception in London, which he visited in the spring of 1824, was equally brilliant. In the course of the following year, he produced in the French capital his opera of Don Sanchez. He has since travelled over the greater part of Europe, his progress being marked, especially at Berlin, by a series of the most unequivocal triumphs. Liszt is a man of letters, and has published some essays, and a volume of poetry. It may be added that his musical career has been several times interrupted, and at one time for so long a period as two years, by the excited condition of his mind in reference to religious subjects.

LITTRON (John Joseph, Edler v.) was born in March 1781, at Bischof-Teinitz, in Bohemia. He became a pupil of the gymnasium at Prague in 1793, and a student in the university of that city in 1798. In 1802, he obtained a situation as private tutor in the family of a nobleman in Austrian Silesia. Until then, his passion for the acquisition of knowledge had been universal; but shortly afterwards, from a perusal of works of science to which he had access, his attention came to be in an especial manner directed to mathematical and astronomical investigations. He was appointed professor of Astronomy at Cracow in 1807, and next at Kasan, in Russia. In 1810, he became director of the observatory at Buda, in Hungary; whence he removed in 1819 to Vienna, to take the charge of the observatory in that city, and to occupy a professorship of Astronomy there. — Littrow is the author of many valuable works, such as— a treatise on "Theoretical and Practical Astronomy" (2 vols., 1821-27); "Elements of Algebra and Geometry" (1823); on the "Measurement of Heights by the Barometer" (1823); "Popular Astronomy" (1825); a work on the Calendar, entitled "*Kalenderiographie*" (1828); "The Calculation of Annuities for Lives" (1829); "Lectures on Astronomy" (2 vols., 1830); "Dioptrics" (1830); "Gnomonics" (1831); a treatise on Life Insurance (1832); another on Weights and Measures (1832); "On the Comet of the year 1832" (1832); "On the Calculation of Probabilities" (1833); "On the Constellations and Nebulæ of the Heavens" (1835); "The Double Stars" (1835); "The Wonders of the Heavens" (3 vols., 1836); "A Short Introduction to the Mathematics" (1838); "Atlas of the Starry Heavens" (1839); and the "Annals of the Observatory at Vienna" (18 vols 1821-39).

LIVERPOOL\* contained, in 1841, 286,467 inhabitants. — The port of Liverpool has continued to be improved by artificial means; as, for example, in 1839, by the opening (by dredging) of the Victoria Channel. Since then, vessels of the largest size cross the bar of the Mersey at first quarter flood; and 14,000 vessels passed this channel in 12 months from its opening. The aggregate annual value of the imports and exports does not fall much short of the extraordinary sum of £40,000,000, if they do not rather exceed that amount. Four-fifths of the trade between the United Kingdom of Great Britain and Ireland centres at present in Liverpool. The number of British ships which entered the port of Liverpool, in 1841, was 2187, of the burden of 537,359 tons; of foreign ships, the number was 1305, of the burden of 468,873 tons. There belonged to Liverpool, on the 1st of January 1840, 1133 ships, of the registered burden of 269,176 tons, manned by 13,958 seamen. — Liverpool has, by means of canals and improved river navigation, a complete water communication, directly or indirectly, not only with the great manufacturing towns of Lancashire, Cheshire, and Yorkshire, from which it derives its chief articles of export, but likewise with the S. counties, and, in fact, with nearly every part of England. The facility of transit, however, both for passengers and goods, has been vastly increased since the opening of the railways, by which Liverpool is brought within an hour's distance of Manchester, and both are brought within 4 hours of Birmingham, and 9 hours of the metropolis.

LIVINGSTON (Edward) was born in the year 1764, at Clermont (Livingston's manor), in Columbia county, in the state of New York. He was a younger brother of Mr. Robert R. Livingston, of whom a notice was given in a previous volume of this work. He went to school at Albany, and then at Esopus or Kingston, on the Hudson river. In 1779, he entered an advanced class of Princeton College, where he took his degree of A.B. two years afterwards. Having selected the law for a profession, he pursued the study of it at Albany, and upon being admitted to the bar in 1782, established himself in the city of New York. There, before he reached the age of 30, he had acquired a high reputation for his attainments as a jurist, and ability as an advocate. — Mr. Livingston was, in 1794, elected a representative in Congress, from the city of New York and some of the neighbouring counties. During the 6 years that he was a member of that body,

he was one of the leaders of the party opposed to the administration of the general government. His opposition, however, was devoid of asperity, and was far from being indiscriminate in its character. Nor was his attention by any means confined to the political questions by which the community was at that time agitated. To him were owing the first, though ineffectual, attempts to mitigate the severity of our criminal laws, and to adapt the punishments inflicted, more justly than had before been done, to the nature of the offence which was committed. He urged the passage, also, of several laws to protect or relieve American seamen, left by accident or misfortune on foreign shores. And he gave his earnest support to the measures for the gradual increase of the navy. — Shortly after retiring from Congress, he was appointed by the president, Mr. Jefferson, to the office of attorney of the United States for the state of New York; and about the same time he was elected mayor of the city of New York, an office which, as then constituted, required the exercise of important judicial functions, in addition to the duties ordinarily performed by the first municipal magistrate of a large city. In 1803, during his mayoralty, the city experienced an attack of the yellow fever; when “his personal exertions and benevolence were fearlessly displayed, at the risk of, and almost with the loss of his own life.” In the mean time, his private affairs having been completely neglected, in consequence of his assiduous attention to those of the public, they became greatly deranged; and through the misconduct of persons who had been entrusted by him with the collection of debts due to the United States, he was subjected to heavy liabilities. He at once resigned his offices, and by a removal to Louisiana, which had just been purchased from France, sought for a rich field, where, by his professional labours, he could hope to obtain the means of relieving himself from his pecuniary embarrassments. Nor was he disappointed; for he was ultimately enabled to discharge the obligations which he had incurred, both principal and interest. Shortly after his arrival in Louisiana, the Legislature of that territory entrusted to him, in conjunction with the late Mr. James Brown, the preparation of a system of judicial procedure. Discarding the fictions and technicalities of the English law, and avoiding also the prolixity of the Spanish, and not unfrequently of the French code, they produced a simple and intelligible system, and one well calculated to prevent

unnecessary delay and expense. It was adopted by the Legislature, as well through the ability displayed by its framers in its support, as on account of its own intrinsic merits; in despite of the resistance which it met with from the members of the bar generally who had removed to Louisiana from the other States of the American Union. But this was merely an introductory step to other still more important labours of a similar character. In 1820, he was appointed, jointly with Messrs. Derbigny and Moreau, to revise the system of civil or municipal law, a compound of French, Spanish, and American or English jurisprudence, hitherto in use in the state of Louisiana; and in 1821, he was charged solely with the preparation of a new system of penal law. The new civil code was presented to the Legislature in 1823, and, with the exception of the commercial part, to which objections were made, was promptly adopted by it. Mr. Livingston made, in 1822, a preliminary report on the principles and plan on which he proposed to frame the new criminal code, with specimens of the mode of its execution. This report was soon afterwards reprinted in London; and a French translation of it was published at Paris, in 1825. The system of penal law, in the form in which we now have it, was submitted to the Legislature in the year 1826. It is not, properly speaking, a single code, but consists of “a code of crimes and punishments, a code of criminal procedure, a code of evidence, a code of reform and prison discipline, and a book of definitions, together with introductory reports to each of the codes, pointing out the changes made in existing laws, the new enactments proposed, and the principles and reasons on which they were founded.” These were all published together at Philadelphia, in one large 8vo volume, in the year 1833. “The system,” Mr. Gilpin tells us in his biographical notice of Mr. Livingston, read before the American Philosophical Society, and inserted in the 3d volume of the American Law Magazine, “has not, it is believed, been yet finally acted upon, in its extended form, by the Legislature of Louisiana; but it does not, on this account, claim less justly the admiration of the philanthropist and jurist. It is a work worthy of the deep consideration of all communities. The beauty of its arrangement, the wisdom of its provisions, and the simplicity of its forms, have never been surpassed, probably never equalled, in any similar work; and it is not without entire justice, that this admirable prod: c-

tion has contributed, perhaps more than any other of his labours, to secure to Mr. Livingston that eminent place which he holds among those who are regarded, not merely as distinguished jurists, but as public benefactors."—For a period of 20 years, Mr. Livingston had taken no part in public affairs, excepting in so far as they were connected with the theory or practice of his profession, and excepting, too, the part which he acted in the defence of New Orleans, in the capacity of an aide-de-camp of General Jackson. At length, in 1823, on his signifying his intention to retire from the bar, he was elected a representative in Congress from the state of Louisiana; in 1829, he was transferred to a seat in the Senate of the United States; and in 1831, he was appointed by General Jackson to the office of secretary of state, then vacant by the resignation of Mr. Van Buren. During his service in Congress, from 1823 to 1831, Mr. Livingston did not speak often, and only on important questions of general policy. He was always listened to with marked attention and respect, and distinguished himself especially in the celebrated debate in the Senate on Mr. Foote's resolution, relative to the public lands. As the head of the department of State, his correspondence, and other documents of which he was the author, will compare without disparagement with those that have proceeded from the other eminent men who, since the organization of the government, have occupied the same position, and exhibit throughout a most enlightened and liberal spirit in reference to the foreign relations of the country. In the summer of 1833, the president selected Mr. Livingston to fill the post of American minister to France; it being at the time one of unusual importance, on account of the difficulties which had sprung out of the refusal by the French Chambers to make provision for the payment of the indemnity due to the United States, for injuries committed against their commerce during the last European war. Mr. Livingston conducted his mission, under trying circumstances, in a manner redounding very much to his own credit, as well as to the honour of the country which he represented. On his return to America in the spring of 1835, he retired to his seat at Rhinebeck, on the Hudson river, in the midst of his numerous family connexions. He died there on the 23d of May 1836.—Eminent as he was as a statesman, and as a member of the American bar, it is, however, as a theoretical jurist that Mr.

Livingston is most extensively known; and upon his merits as such his reputation will chiefly rest, and long endure. These merits were acknowledged in letters to him, and otherwise, by some of the most distinguished of his contemporaries abroad, as well as at home; and they procured for him, among other honours of a similar nature, that of being chosen to be one of the foreign associates of the Academy of Sciences of Paris, in the Moral and Political department.

**LOBAU\*** (count). The services rendered by him, as commander of the national guards of Paris, in maintaining the order and tranquillity of that metropolis, were rewarded by his promotion, in July 1831, to the dignity of a marshal of France. He died in the month of November 1838.

**LOCKHART** (John Gibson) was born in January 1794, at Cambusnethar in the Scottish county of Lanark. When 15 years old, he became a student in the University of Oxford, and took his degree of A.M. there in 1813. He then studied the law, and was admitted, in 1816, as an advocate at the Edinburgh bar. His attention was, however, soon withdrawn from the practice of his profession to the more agreeable pursuits of literature; and he became one of the most active contributors to "Blackwood's Magazine." In 1819, he published his "Peter's Letters to his Kinsfolk," which were very extensively read, in America as well as in Europe. This was followed (1820–1825) by his novels or tales of "Adam Blair," "Mathew Wald," "Valerius," and "Reginald Dalton," and by a volume of Spanish romances in an English version. His reputation was now fully established; and in 1825, he was selected to be the editor of the "London Quarterly Review," to which he has contributed a number of very able articles. In 1827, Mr. Lockhart published an account of the life of Robert Burns; in 1829, one of Napoleon; and in 1837, that of Sir Walter Scott, whose daughter he had married. He has also translated Frederick von Schlegel's "Lectures on Ancient and Modern Literature."

**LOMOND** (Ben), a mountain of Scotland, situated between lochs Lomond and Katrine, 27 miles N.W. of Glasgow. It is elevated 3195 feet above the level of the sea, and its summit commands a great extent of view, on which account it is more frequently visited than any of the high-land mountains.

**LOMOND** (Loch) is a lake of Scotland, between the counties of Dunbarton and Stirling. It is the largest of the British

akes, being 24 miles in length, from N.N.W. to S.S.E.; and where broadest, along its S. shore, it is from 7 to 8 miles across. It is celebrated for the varied magnificence of its scenery, and is much resorted to by tourists during the summer season. Contemporaneously with the occurrence of the great earthquake at Lisbon in 1755, the waters of the lake were violently agitated; rising rapidly several feet and as rapidly falling, for several hours.

LONDON.\* The population of London, in 1831, amounted to 1,508,469, and in 1841, it had increased to 1,710,426. A great increase has also taken place in its trade in late years. There were 3166 British ships, of the aggregate burden of 566,041 tons, and 2355 foreign ships, of 355,463 tons burden, which entered the port of London with cargoes from foreign countries in the year 1839. Of these ships, 15 British of the burden of 7272 tons, and 68, mostly or all American, of the burden of 32,508 tons, were from the United States. In the same year, the number and tonnage of coasting vessels that entered the port were, vessels 21,112, tonnage 2,828,701; and the number and tonnage of ships that entered the port, in that period, with cargoes from the colonies and dependencies of Great Britain, were ships 1683, and tonnage 417,139. There belonged to the port of London, in 1840, 2950 ships, of the total burden of 581,000 tons, manned by 32,000 seamen. This, which is by far the greatest amount of shipping that ever belonged to any single port, will appear the more extraordinary when it is considered that the colliers almost all belong to Newcastle, Sunderland, and other ports in the N.—During the last 30 years (to use the language of the article *London* in McCulloch's Geographical Dictionary) London has made greater advances than could reasonably have been expected in an entire century. Within that period, four bridges have been built, extensive docks have been excavated, gas been introduced into every street and alley; steam, both on the river and on railways, has given it an almost unlimited power of intercourse with every part of the kingdom, and of the world; new and handsome markets have been erected, arcades lined with elegant shops have been formed, and wide lines of communication have been opened through close and densely-crowded neighbourhoods. A new park, larger and handsomer than any of the other three, has been laid out, and surrounded with houses more resembling

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palaces than private residences; an improved police has given additional security both to person and property; abundant supplies of water have been furnished to every separate dwelling: the paving and sewerage have been greatly improved, especially in districts inhabited by the poor; and the formation of spacious cemeteries in the suburbs is gradually leading to the disuse of interments within the town. At the same time, the establishment of colleges and proprietary schools has materially increased the facilities for procuring good education; while the institution of a National Gallery and School of Design is contributing to improve the national taste, and to add to the innocent pleasures of the people.—London, unlike most other European capitals, had no university empowered to grant degrees till 1836, when one was established by the royal charter, for “the advancement of religion and morality, and the promotion of useful knowledge,” without distinction of rank, sect, or party. This institution differs from all other universities in its having nothing to do with the business of education, being constituted for the sole purpose of ascertaining the proficiency of candidates for academical distinctions. It is in fact a Board of Examiners, empowered to grant degrees in science and literature to such candidates as are found, on examination, to have attained the required proficiency. The senate, or board, consists of a chancellor, vice-chancellor, and 33 other members. The faculties are those of Arts, Law, and Medicine, in each of which are several examiners, amounting in the whole to 22, of whom 10 are members of the senate. The examinations are half-yearly; and the greatest number of candidates for degrees has hitherto been furnished by University and King's Colleges. The former of these, opened in 1828, is governed by a council and senate of professors: the course of education embraces classics, pure and mixed science, history, jurisprudence, and medicine; religion being wholly excluded. There are altogether 32 professors, 12 of whom belong to the faculty of Medicine. The success of the medical school, which has for some years been the largest in London, has led to the erection of a good hospital close to the College. The general classes have not been so well attended as the sanguine friends of the establishment at first expected; but the attendance is like to be increased from the addition to it of an excellent junior school, the instruction in which forms a good preparation for

higher studies. King's College is an institution of a similar kind to University College, and is similarly conducted, except that religion is taught, in accordance with the principles of the Church of England. See *King's College*, (Sup.)

LONDONDERRY or DERRY; a city in the N. of Ireland, and capital of the county of the same name, in the province of Ulster. It is situated on the W. bank of the river Foyle, about 5 miles above where it falls into Lough Foyle, 121 miles N. by W. of Dublin, in lat. 54° 59 N., and long. 7° 19' W.—Population in 1841, 15,150.—It is well built, and the principal streets are broad and clean, well paved, and well lighted. The cathedral, constructed in 1633, is a large, handsome, Gothic structure, 240 feet long, and has a tower and spire 228 feet high, erected in the present century. The principal public buildings, exclusive of churches and other ecclesiastical edifices, are the Corporation Hall, the Court-House, and the new gaol erected on the panoptical principle.—Londonderry has an extensive and rapidly increasing trade. The value of the exports from it, in 1840, was estimated to amount to £1,350,000 or £1,400,000. Steam-packets ply regularly between it and Glasgow and Liverpool. It is one of the principal points of departure for emigrants to the United States.—In Irish history, Londonderry is famous for the memorable siege which its citizens successfully sustained, in 1690, against the forces of James II. A fluted column, one of the chief ornaments of the city, was erected, in 1827, in honour of the Rev. George Walker, the heroic leader of the besieged.

LONGHI\* died at Milan in January 1831.

LOUIS BONAPARTE\* has resided in great retirement at Florence since 1830.

LOUIS PHILIPPE I.\* See *France*, (Sup.)

LOUIS\* (baron). Notwithstanding his advanced age, he was induced to accept of the office of minister of finance, in March 1831, through the earnest solicitations of Casimir Perier, and by so doing contributed, on account of the confidence generally reposed in the moderation and integrity of his character, to tranquillize the public mind. He retired from office, however, in October 1832, when he was created a peer. As such he took a prominent part in the debates relating to financial matters, till his death in 1837.

LOUVAIN.\* Population in 1836, 24,342.—The railroad from Liege to Brussels passes by way of this city.—According to the last information obtained, its univer-

sity had 20 professors, and from 600 to 700 students.

LOWNDES (William) was born at Charleston, South Carolina, about the year 1781. He was educated at the college in his native town, and then studied the law. He was admitted to the bar, but never practised his profession. Inheriting an ample fortune from his father, he was enabled to gratify his tastes, and to devote himself to philosophical and literary pursuits. The stores of information which he accumulated were not only very extensive, but were, at the same time, exact and practical in their bearing. Notwithstanding his extreme diffidence, amounting almost to what the French term *mauvaise honte*, he was soon elected a member of the Legislature; and, in the autumn of 1810, he was chosen a representative to Congress. He occupied, for a series of years, a prominent and influential position in that body. Although his voice was feeble, and his external appearance in every respect unprepossessing, he never failed, when he addressed the House, to engage the respectful attention of all who heard him; the members not unfrequently gathering around him in groups to catch the words which fell from his lips. His speech in the session of 1818-19, on Mr. Spencer's resolutions to issue a *scire facias* against the Bank of the United States for an alleged violation of its charter, and that in the session of 1819-20 on the tariff, were characterized by an extraordinary power of thought and great purity of diction; and his reports on the coinage, and on weights and measures, made in 1818-19, are models of that species of composition.—Mr. Lowndes visited Europe in the summer of 1820. The next summer he spent at a seat owned by him in the low country of South Carolina, where he laid the foundation of the disease of which he died. By the advice of Dr. Physick, whom he had consulted, he embarked on a second voyage across the Atlantic, but died before he reached his port of destination, on the 22d of November 1822.—It may be added here concerning Mr. Lowndes, that very few of our public men have been equally fortunate with him in commanding the respect of his political opponents, without in any degree lessening that of the men with whom he generally acted. No one, indeed, was less the slave of party than he was. A remarkable instance, in illustration of this, occurred in December 1811, when an election was about to be held for Speaker of the House of Representatives. Being so-

licited to attend a previous "caucus," for the purpose of uniting the vote of the democratic party, he replied to the member who addressed him, "No, sir, I will attend to the election of Speaker of the House of Representatives in the House of Representatives."

**LOZANOS,\*** in Pharmacy, is a medicinal substance made up into a small cake, gradually to be dissolved in the mouth. Sugar, gum, and starch, are the usual inert parts of lozenges, and minute quantities of active substances are added, according to the purposes for which they are intended; such as ipecacuanha or squills, for pectoral lozenges; extract of poppies or opium, for sedative lozenges; cayenne pepper as a stimulant; oil of peppermint, as an antispasmodic, &c.

**LUBECK\*** had, in 1840, 26,500 inhabitants.—Upwards of 1600 vessels enter and leave its port annually; they are principally Danish, the rest being Russian, Swedish, Lubeck, Dutch, English, and Prussian. Steam-packets sail at fixed periods from Travemünde, the port of Lubeck, for St. Petersburg, Stockholm, and Copenhagen. The duties on foreign imports are only  $\frac{1}{2}$  per cent. *ad valorem*; the transit duty is from  $\frac{1}{4}$  to  $\frac{1}{2}$  per cent.: there are no duties on exports.

**LUCCA.\*** The population of the city of Lucca in 1839 was 24,092.—It has several colleges, a seminary founded by Eliza, princess Bacchiocchi, sister of Napoleon, for 100 young ladies, a botanic garden, a ducal library with 21,000 volumes, a university library with 16,000 volumes, a *dépot de mendicité*, a *monte de pietà*, and a savings' bank.—About 12 or 13 miles up the valley of the Serchio, on which the city is built, are the baths of Lucca, picturesquely situated, and frequented by numerous visitors. The temperature of the hottest spring is about 128° of Fahrenheit.

**LUCIEN BONAPARTE\*** was permitted to leave the Papal States in 1830. After passing some time in England, he visited Germany in 1838, and then returned to Italy. He died at Viterbo, near Rome, June 29th 1840.—His son, *Charles Bonaparte*, (prince of Musignano), is the author, besides his American Ornithology, of a splendid work on the Italian Fauna. After making several journeys in Europe for scientific purposes, he went to Paris, and remained there for some time, undisturbed by the government. In 1839, Agassiz was preferred to him only by a single vote to fill a vacant seat in the Institute. He took an active part in the proceedings at

the annual meetings that have of late years been held by the men of science in Italy, and is a member of several learned societies, among them of the American Philosophical Society, and the Academy of Sciences of Berlin.

**LUCIFERS.\*** Matches tipped with a mixture of chlorate of potash and sulphuret of antimony are so denominated. They are inflamed by friction upon a piece of emery paper.

**LUDEN.\*** Since the notice of this writer in a previous volume of the present work, he has continued the publication of his "Geschichte der Deutschen Völker;" the 12th volume appeared in 1837. He wrote the account, in 1832, of the travels of duke Bernard of Saxe Weimar in the United States, and, in 1842, published a "Geschichte der Deutschen," in 2 volumes.

**LUMBER** is a term applied, chiefly in America, to timber through all its preparatory stages, from its growing in the woods until it be put into the hands of the artificer for the purpose of being worked up. It occurs principally in the form of scantling, deals, inch-thick boards, clapboards, shingles, staves, and hoops.

**LUNAR DISTANCE**, in Navigation, is the distance of the moon from the sun, or from a fixed star or planet, by means of which the longitude of a ship is found.

**LUNAR METHOD**, in Astronomy and Navigation, is the method of determining the longitude of a place or ship from the observation of *lunar distances*.

**LUND.\*** The university of Lund has continued to have about 600 students. In 1834, there were 106 students of divinity, 130 of law, 50 of medicine, and 160 of literature and science. In the same year, the number of professors is stated to have been 29. A more recent statement makes the instructors of every description to amount to as many as 60.

**LUSUS NATURÆ** (*a sport of nature*); a term applied to anything unnatural in the physical world.

**LUTE** or **LUTING**, in Chemistry; a composition or paste made of potter's clay, sand, and other materials, for the purpose of closing up the necks of retorts, receivers, &c., in different chemical experiments.

**LUTESTRING** is a plain, stout, silken fabric, forming with gros de Naples, of which, indeed, it is merely a fine kind, the staple of silks.

**LYELL** (Charles) was born on the 14th of November 1797, at Kinnordy, near Kirriemuir, in the Scottish county of Forfar. Soon after his birth, his father, who was a



highly educated man, and an excellent botanist, removed to Hampshire, in England. The son was sent to school at Midhurst, in the neighbouring county of Sussex; and, when 19 years of age, was entered as a student at Oxford. After a three years' residence at that university, he chose the law for his profession; and was, in due season, admitted to the bar.—From his childhood, however, he had imbibed a taste for natural history; and while at Oxford, he had occupied himself much with entomology, botany, and especially with geology, encouraged to do so by the example and advice of Dr. Buckland. In London, where he took up his abode, his attention was soon in a great degree absorbed by the last-mentioned subject. He became an active member of the geological society. In 1824, he was elected its secretary; in 1828, a vice-president; and in 1829, the secretary for foreign correspondence. He began to deliver his courses of lectures on geology, in King's College, in 1832.—Mr. Lyell has travelled extensively, for the purpose chiefly of geological investigation, in both Europe and America; and the fruits of his observations, as well as the theoretical views which he has founded upon these, have been communicated by him to the "Transactions of the Geological Society," and other scientific collections or journals. He is also the author of the "Principles of Geology," and of the "Elements of Geology;" and he has lately published an account of his journey in the United States in 1841–42.—For a sketch of Mr. Lyell's theory of the changes which have occurred in past ages, and are still occurring, on the surface of the earth, the reader is referred to the article *geology* in this supplement.

Lyons.\* In 1841, it contained 159,390 inhabitants; but this, probably, was exclusive of the suburbs of la Guillotière, de Vaise, and des Brotteaux. Lyons (in the words of the article Lyons in M'Culloch's Geographical Dictionary) is in France what Manchester is in England. And notwithstanding the active competition of Zurich, Basle, Crefeld, and other places on the continent, and of Coventry, &c., in England, it still maintains its rank as the first silk manufacturing city of Europe. Its position is peculiarly favourable: it is situated at the point of junction of two large navigable rivers, and has a ready communication with the Mediterranean, on the one hand, at the same time

that it is the *entrepôt* of a vast extent of inland country. The districts of France which produce the largest quantities of silk are immediately adjacent; while Lyons is the natural *dépôt* and place of transit for the silk of Italy, in its way to the great manufacturing countries. Added to which, the manufacture has here had, for centuries, its principal seat: the population have been thoroughly trained and habituated to it; so that though frequently disturbed by political events, and once or twice nearly annihilated, it has never failed, on tranquillity being restored, to return to its former locality. The silks, manufactured here, are distinguished by the equality and perfection of the fabric; the brilliancy, though perhaps not the durability, of their dyes; and by the unrivalled superiority of their patterns, and the taste displayed in the designs. This superiority has been ascribed to the School of Arts (*Institution de la Martinière*), and the liberal encouragement of this branch of science by the city authorities, and the government. About 180 students are gratuitously instructed in the various branches of drawing and modelling, and there is a professor who teaches the "*mise en carte*," that is, the adaptation of designs to the loom. The trade of Lyons, like that of all manufacturing towns, is subject to frequent crises, and periods of distress; a very serious one occurred in 1836–37, which led to formidable riots. But though many workmen, implicated in the insurrections, have settled in the rival towns of Switzerland, &c., there never, perhaps, were so many looms at work as since their departure, nor was the manufacture ever more flourishing. The gross produce of the Lyonnese looms, in 1838, was estimated at 135,000,000 of francs, being considerably more than half the estimated value of the silk goods manufactured in France.—According to M. Villermé, there were, in 1833, in Lyons and its neighbourhood, 40,000 silk looms. But Dr. Bowring was furnished with an estimate in 1834, which made the number of looms in the city 16,000, of which 4000 were for figured stuffs; in the suburbs 9000, half for figured silks; and in the country, for 12 or 15 leagues round, 7000, almost wholly for plain silks: making in all 32,000 looms. Hugo says that, altogether, 80,000 persons in and about Lyons are supported, directly or indirectly, by the silk manufacture.

## M.

**MACADAMIZING**, a method of making roads, first introduced by Mr. M'Adam, which consists in breaking the stones so small that they may bind with the earth into a solid smooth mass. In this manner the ground beneath is protected from the rains, and retained in the same condition of dryness.

**MCCRIE** (Thomas), D.D., was born in 1772, at Dunse, on the borders of England and Scotland. He received his education in the university of Edinburgh, and then studied divinity with the theological professor in connexion with the "General Associate" or "Antiburgher" Synod. Having been licensed as a preacher by that body, he became the minister of a congregation in Edinburgh. In 1806, he separated himself from the synod just mentioned, and assisted in forming what was called the "Constitutional Associate Presbytery." During the controversy connected with this change, Dr. McCrie was led to engage in a minute and patient survey of the writings of the Reformers; and the result was his *Life of John Knox*, which was published in 1812, a work of uncommon merit, that at once conferred upon him a high reputation as an historian. This was followed, in 1819, by the *Life of Andrew Melville*, which gives a full account of the formation of the Kirk of Scotland, and the peculiarities of the Presbyterian establishment. And Dr. McCrie is also the author, among other works, of a "History of the Progress and Suppression of the Reformation in Italy, in the 16th century" (1827), and of a similar history of the Reformation in Spain (1829). — He died at Edinburgh, August 5th 1835.

**MCCULLOCH** (John), M.D., was born in the island of Guernsey, in October 1773. In his childhood, he is said to have evinced great precocity of intellect. He went to study medicine at Edinburgh, where he obtained his diploma of physician at the age of 18, being the youngest student who had ever passed the required examination. After remaining at Edinburgh 5 years, he became an assistant surgeon in the army, and in 1803 accepted the situation of chemist to the Board of Ordnance. In 1807, he practised his profession at Blackheath. About the year 1811, he was engaged by the government to make various surveys in Scotland, in which service he continued to be more or less occupied during a long term of years. In 1832, he completed his mineralogical and geological survey of that

country, and received the sum of £7000 from the government for the map of it which he had constructed. Besides this important result of his labours, he was the author of a number of other works, such as:—a "Description of the Western Islands of Scotland, including the Isle of Man, &c." (2 vols., 1819); a "Geological Classification of Rocks" (1821); "The Highlands and Western Isles of Scotland, in a series of letters to Sir Walter Scott" (4 vols. 1824); and "A System of Geology, with a Theory of the Earth, and an Explanation of its Connection with the Sacred Records" (2 vols. 1831). He published also, in 1827 and 1828, two elaborate professional treatises, the first on the Production and Propagation of Malaria, and the second on Remittent and Intermittent diseases. And to these are to be added a treatise on the Art of making Wines, which appeared in 1821, and reached a 4th edition in 1829, together with numerous papers or articles contributed by him to the *Encyclopædia Britannica*, *Brande's Journal*, the *Transactions of the Geological Society*, the *Edinburgh Quarterly*, and *Westminster Reviews*, and the *London and New Monthly Magazines*. — Dr. McCulloch died on the 21st of August 1835, from the effects of an accident in being thrown out of a phaeton. He had some years before completed a work, entitled "Proofs and Illustrations of the Attributes of God, from the Facts and Laws of the Physical Universe; being the Foundation of Natural and Revealed Religion," which was published, in obedience to his last will, in 1837.

**MACDONALD\*** (Marshal), after the revolution of July, lived in retirement from public affairs till his death, which took place on the 25th of September 1840, at his château of Courcelles, in the neighbourhood of Guise.

**MACDONOUGH** (Commodore Thomas) was born in Newcastle county, in the state of Delaware, in t'ie month of December 1783. He obtained a midshipman's warrant in 1798; and we find him distinguishing himself in the war with Tripoli, being one of the officers selected by Decatur to accompany him when he proposed to burn the frigate Philadelphia, and partaking in the glory acquired by that brilliant exploit. On the breaking out of the war with Great Britain, Macdonough, then a lieutenant, was ordered to Lake Champlain. It was not, however, until two

years afterwards, that an opportunity was afforded him to attract towards himself the attention and approbation of his countrymen. The war in Europe had been brought to a close by the capture by the allied armies of the city of Paris, and the consequent abdication of Napoleon and his departure for Elba; and the British government was enabled, in consequence, to send over large reinforcements of troops to Canada. The enemy, under Sir George Prevost, now felt themselves strong enough to attempt to penetrate into the state of New York along the western shore of Lake Champlain, aided by the co-operation of a naval armament on the lake. No resistance of any moment was offered to them until they had arrived before the town of Plattsburg, where General Maccomb had posted himself with a very inferior force composed chiefly of the neighbouring militia, and where the squadron commanded by Macdonough was anchored, awaiting an attack. The Americans had 4 ships, namely, the *Saratoga* of 26 guns, the *Eagle* of 20, the *Ticonderoga* of 17, and the *Preble* of 7, together with 10 galleys carrying 16 guns, making altogether a force of 86 guns. The force opposed to them consisted of the *Confiance* of 39, the *Linnet* of 16, the *Chubb* of 11, and the *Finch* also of 11 guns, with 13 galleys carrying 18 guns, in all 95 guns; and they had also a greater number of men than the Americans. The action took place on the 11th of September (1814), and resulted in a complete victory achieved by the American squadron; and not only did it secure to the latter the dominion of the lake, but it at once decided the retreat of Sir George Prevost and his army (see *Maccomb*, Sup.) Macdonough was, for this victory, promoted to the rank of post-captain. His name was honoured throughout the Union; and substantial rewards were in several instances bestowed upon him, to testify the gratitude of the donors for the services he had rendered. He received, for example, from the state of New York, a grant of 1000 acres of land, from that of Vermont one of 200 acres, from the city of New York a lot of ground, and the like from the city of Albany.—He survived the close of the war about 11 years, dying of a consumption at Middletown, in Connecticut, on the 10th of November 1825.

MACLEAN (Letitia Elizabeth), better known as L.E.L., or Miss Landon, was born in London, about the year 1804. She is supposed to have depicted the history of her own childhood in her volume entitled "*Traits and Trials*" (1837). Her first

literary productions were brought forward in the year 1822, in the pages of the "*Literary Gazette*," to which journal she continued for many years to be a frequent contributor. A writer in the "*Athenæum*" remarks that "the early loss of her father, and the early manifestation of a talent facile as it was fanciful, brought her before the world while yet a girl, as an enthusiastic and constant literary labourer. To her honour, it must be added, that the fruits of her incessant exertion were neither selfishly hoarded, nor foolishly trifled away, but applied to the maintenance and advancement of her family. It might be partly the early consciousness of this power to befriend others, and partly the indiscriminate flatteries of those by whom she was surrounded and pushed forward at her first entrance into authorship, which encouraged her to such ceaseless composition as necessarily precluded the thought and cultivation essential to the production of poetry of the highest order. Hence, with all their fancy and feeling, her principal works,—the "*Improvisatrice*," the "*Troubadour*," the "*Golden Violet*," the "*Golden Bracelet*," and the "*Vow of the Peacock*,"—bear a strong family likeness to each other in their recurrence to the same sources of allusion, and the same series of imagery,—in the conventional rather than natural colouring of their descriptions, and in the excessive though not unmusical carelessness of their versification." She had, however, as is acknowledged by the same writer, at length reached a deeper earnestness of thought, as well as added largely to the stores of her knowledge, and done much to the polishing and perfecting of her verse.—Besides her poetry, Miss Landon wrote three novels,—"*Romance and Reality*," "*Francesca Carrara*," and "*Ethel Churchill*;" all of them works of sentiment, but the two last relieved by glimpses of gay and courtly life.—She was a frequent contributor, in addition to the *Literary Gazette*, to many of the periodicals of the day, and to nearly all the annuals, of some of which she wrote all the poetry, as *Fisher's Drawing-Room Scrap-book* (8 4to volumes), the *Flowers of Loveliness*, and the *Bijou Almanac*.—She was married, on the 7th of June 1836, to Mr. George Maclean, the governor of Cape Coast Castle, on the western coast of Africa, and was scarcely settled in her new residence, when she died on the 15th of October of the same year. Her death was pronounced by a jury to have been caused "by her having incautiously taken an over-dose of

prussic acid, which, from evidence, it appeared she had been in the habit of using as a remedy for spasmodic affections, to which she was subject."

MACLURE (William) was born at Ayr, in Scotland, in 1763. He received in that town the rudiments of a liberal education; but he soon wearied of his classical studies, and devoted himself, with singular zeal and success, to the attractive pursuits of natural science. He visited the United States at the early age of 19, and entered into mercantile business, which engrossed much of his time for many years. He was subsequently, in the year 1803, appointed, with two colleagues, a commissioner to settle the claims of American citizens on the French government, for spoliations committed during the revolution in that country. Amidst these various avocations, Mr. Maclure found time to study his favourite branches of science—Geology and Mineralogy; and on his return to America, he undertook the gigantic task of making a geological survey of the whole United States.—In this extraordinary undertaking, we have a forcible example of what individual effort can accomplish, unassisted by government patronage, or by any collateral aids. At a time when scientific pursuits were little known, and still less appreciated in this country, he commenced his herculean work. He went forth with his hammer in his hand, and his wallet on his shoulder, pursuing his researches in every direction, often amid pathless tracts and dreary solitudes, until he had crossed and recrossed the Allegheny mountains no less than fifty times. He encountered all the privations of hunger, thirst, fatigue, and exposure, month after month, and year after year, until his indomitable spirit had conquered every difficulty, and crowned his enterprise with success.—This unrivalled contribution to science was published, with a map and sections, in the Transactions of the American Philosophical Society; but without attempting an analysis of it, we may briefly observe, that every one at all conversant with geology is surprised at the number and accuracy of Mr. Maclure's observations; for the many surveys that have been recently accomplished, in almost every state in the Union, have only confirmed his correctness as to the extent, and relative position, of the leading geological formations of this country; while the genius and industry that could achieve so much, must command the lasting respect and admiration of those who can appreciate the triumphs of science.—In the year 1817, the period of the publi-

cation of his geological memoir, Mr. Maclure was elected president of the Academy of Natural Sciences of Philadelphia; an office to which he was annually re-elected until his death, a period of more than twenty-two years. About this time he also made a scientific visit to twenty of the West India islands, and published the result of his observations in the Journal of the Academy. He returned to Europe in 1819; again visited the United States in 1824; and, on account of impaired health, set out for the Mexican capital in 1827, in which city he died of accumulated infirmities, on the 23d of March 1840, in the seventy-seventh year of his age.—Besides many private, and various public benefactions, Mr. Maclure particularly directed his liberality to the Academy of Natural Sciences, an institution which he had been instrumental in founding, and which grew up under his fostering care. Of the fine library of that society, upwards of five thousand volumes, in every department of science and art, were presented by him; and he subscribed the sum of twenty thousand dollars towards the erection of the present Hall of the Academy. He purchased in France the copper-plates of several splendid works on botany and ornithology, with a view to their republication in a cheaper form in the United States; and among these works was *Michaux's Sylva*, which, in accordance with his wishes, has been revised, and partly reprinted, under the supervision of Mr. Nuttall. To conclude this brief memorial of an ardent and most successful cultivator of science, we gladly quote the following sentiment from the resolutions adopted by the Academy on the decease of their venerable president:—"That, as the pioneer of American geology, the whole country owes Mr. Maclure a debt of gratitude, and in his death will acknowledge the loss of one of the most efficient friends of science and the arts; and that, as the patron of men of science, even more than for his personal researches, Mr. Maclure deserves the lasting regard of mankind."

MACNEVEN (William James), M.D., was born at Ballynahowne, in the county of Galway, in Ireland, on the 21st of March 1763. When 10 or 12 years of age, he was sent for by an uncle, to be educated in Germany; a custom very general in the Catholic families of the country, and rendered necessary at that time by the operation of the penal laws. He received an excellent classical education in the college at Prague, and then studied me-

dicine there and afterwards at Vienna, where he graduated in 1783. In the following year, he commenced the practice of his profession in Dublin. He was soon enabled by his practice to live with comfort and independence, and a prosperous career seemed to be opened before him.—Of an ardent temperament, and an enthusiastic lover of his country, Dr. Macneven could scarcely avoid taking a deep interest in the political discussions and contentions of the period. A speech which he made in December 1791 before the "Catholic Committee" in Dublin, on the subject of a remonstrance to be offered to the government, and which he opposed as too submissive in its tone, brought him into general notice as an efficient advocate of liberal and patriotic principles. In the following year (1792), he represented the town of Navan in a general convention of the Catholics of Ireland; and in this body originated the measure (an amendment to a petition to the king) which obtained the elective franchise for the 40 shilling freeholders. He also became a member of the secret society of United Irishmen, and a prominent leader in the great object of the political emancipation of his countrymen. In the mean time, he continued the practice of his profession, and mingled in society as usual, until the attention of the British government was at length directed to him, as one of the individuals most actively engaged in the scheme for entirely shaking off the dominion of England, and for calling in a French force to assist in the accomplishment of this design. He was, accordingly, arrested at Dublin in March 1798, and imprisoned with his friend, Mr. Thomas Addis Emmet, and others, for a year in Kilmainham gaol, and three years more at Fort George, in the neighbouring island. On their liberation, Dr. Macneven passed the summer and autumn of 1802 in travelling through Switzerland on foot, of which journey he published an account under the title of "A Ramble in Switzerland." He also visited his relations in Germany; and in 1803, went to Paris. In that or the following year, he entered the French army as a captain in the Irish brigade; but, disappointed in the hopes which he had been induced to entertain of being employed in an expedition to Ireland, he resigned his commission, and set sail from Bordeaux for New York, where he arrived on the 4th of July 1805.—Dr. Macneven lost no time in declaring his intention of becoming a citizen of the United States; and fixing upon the city

of New York as his permanent residence, he entered immediately on the practice of his profession, in which he was so successful as speedily to assure himself an easy competence. In 1808, he was appointed professor of Midwifery in the College of Physicians and Surgeons; in 1811, he exchanged this chair for that of Chemistry; in 1812, he was appointed to the office of "resident physician," by Governor Clinton; and in 1816, *Materia Medica* was added to his chair, which arrangement continued until 1820, when the branches that he taught were again separated. In 1826, he resigned his professorship in the College of Physicians, and united with Drs. Hosack, Francis, Mott, and Godman, in another medical school, the chair of *Materia Medica* being assigned him. This school had been established under the auspices of Rutgers' College, in New Jersey; and after having been in successful operation during four years, it was compelled, by the enactments of the New York Legislature, to close its doors. Dr. Macneven thenceforth ceased to be a public teacher. During the cholera, in the year 1832, he was one of the medical council charged with the supervision of the hospitals, and other establishments, for the use of the sick. And he, a second time, held the office of resident physician, in 1840-41.—Besides the "Rambles in Switzerland" already mentioned, Dr. Macneven published an "Exposition of the Atomic Theory" originally propounded by Higgins and Dalton, and an edition of "Brand's Chemistry," together with some papers on medical subjects inserted in the "New York Medical and Philosophical Journal," and one on the mineral waters of Schooley's mountain in the "Transactions of the New York Literary and Philosophical Society." He had a peculiar aptitude for acquiring languages. "As a classical scholar," we are told by one of his biographers, "his claims were unquestioned. He spoke German and French with the same facility as English; and in the Italian, unlocked with delight the treasures of Dante and Ariosto. His native tongue, the Irish, as it was the first he had learned, so through life he conversed in it with fluency." And another characterizes him thus:—"As a lecturer, he was simple, clear, and animated; as a practitioner, judicious and efficient; as a man, amiable, honest and kind-hearted; as a patriot, ardent, active, bold, disinterested."—Dr. Macneven died on the 12th of July 1841, in the 79th year of his age.

MACOMB (Major-General Alexander)

was born at Detroit, in the present State of Michigan, on the 3d of April 1782. His father, having removed to the city of New York, had him educated at a school in high repute at Newark, in New Jersey. In 1798, though scarcely 16 years of age, he was admitted to be one of a select company, known by the name of the "New York Rangers," whose services, in anticipation of a war with France, had been volunteered to the government, and accepted by the latter. Early however in the following year, he obtained a commission as a cornet in the United States army, and continued to serve in it, after the disbanding of a great part of the troops when the prospect of a war had disappeared. On the subsequent formation of a corps of engineers, he was attached to it with the rank of a lieutenant, and stationed for a time at West Point. In 1805, he was promoted to be a captain, and, in 1808, a major, in the corps of engineers. At the breaking out of the war with Great Britain in 1812, finding that, in the position which he held, he was not likely to be called into much actual service, he asked to be transferred to the artillery. His request was granted; and he was appointed the colonel of the 3d regiment of that branch of the service,—a regiment that was yet to be raised. As soon as this was accomplished, in November (1812), he joined the American army on the northern frontier. In 1813, he distinguished himself at Niagara and Fort George; and in January 1814, was promoted to be a brigadier-general, and charged with the defence of the country bordering on Lake Champlain. The forces under his command consisted only of about 1500 regular troops, aided by some detachments of the neighbouring militia. With these he stationed himself at Plattsburg, and awaited the attack of Sir George Prevost at the head of an army of 14,000 veteran British soldiers. Commodore Macdonough, with the squadron under his orders, took up a position before that town, in expectation of being assailed by a superior naval force. The encounter between the hostile parties took place on the 11th of September (1814). While on the land the enemy failed to make any impression, he suffered a total defeat on the water (see the article *Macdonough* in this volume), which at once decided the retreat of Sir George Prevost into Canada. Testimonials of respect poured in upon General Maccomb from every quarter of the country; and the president advanced him to the rank of a major-general, directing at the same time that his commission should be

dated on the day of his victory.—At the conclusion of the war, General Maccomb was stationed at his native town of Detroit, and appointed to the command of the N.W. frontier. In 1821, he went to Washington as chief of the corps of engineers; and on the death of General Brown, in 1835, he succeeded him in the office of commander-in-chief of the army. In this capacity, he continued to reside at the seat of the general government; where he died on the 25th of June 1841.

**MADAGASCAR.\*** Subsequently to 1814, the French, as well as the English, have attempted to establish colonies in this Island. A French squadron took possession of Foulpoint and Tamatava; and a settlement was also made in the little island of St. Mary, opposite Titinga. The natives, however, succeeded in expelling the intruders on their territory from these several stations, in 1822. An attempt made by the French to recover their lost possessions, in 1829, terminated unsuccessfully: they were unable to maintain themselves against the attacks of the natives anywhere excepting at the island of St. Mary. On the death, in 1828, of the king who had encouraged the English missionaries in their efforts to christianize and civilize his subjects, a change of system took place, and those missionaries were driven from Madagascar. This island seemed for a time likely to be doomed to continue in a condition of hopeless barbarism. But it is now, nevertheless, not improbable that France will seriously aim to establish an important colony in it, and will take the proper precautions to ensure the permanent security of the colonists. During the administration of M. Thiers, in 1840, and, as it has been said, with a view to this object, an island, named Mayotte, was taken possession of by the French government. It is situated in the middle of the channel of Mozambique, about half-way between Madagascar and the coast of Africa, on the route from Europe to India, the Persian Gulf, and the Red Sea. Its soil is fertile; it has an excellent harbour; and it is in every way suited to become an important naval and military station.

**MADRIRA.\*** Population, including Porto Santo, about 112,500. — It is noted for its mild and healthful climate, rendering it a favourite place of resort for valetudinarians, as well as for its wines. The mean temperature of the year does not exceed 65° Fahr. The quantity of wine produced was formerly estimated at 30,000 pipes; but it does not now exceed 18,000, of which only the better sorts are exported, the remain-

der being made into brandy for the Brazils, converted into vinegar, or used at home. This decline, attributed partly to the frequency of adulteration, and partly to the preference given to Sherry and French wines, has led to a great part of the soil being applied to other purposes. The culture of potatoes and other provisions has been extended on the higher grounds. The planting of coffee has also become very general in the island, and with considerable success. The sugar-cane has been tried, but does not repay the expense of cultivation. — About 50,000 tons of shipping leave the port of Funchal, the only one of the island, annually, with cargoes of the estimated value of £240,000.

MADISON (James) was born on the 16th of March 1751, at the seat of his maternal grandmother, on the Rappahannock river, in King George county, Virginia. His father's home was at Montpellier, in Orange county, in the same state, where Mr. Madison himself subsequently resided. After the usual preparatory studies, first at a school kept by a Scottish teacher, of the name of Robertson, in King and Queen county, and then with a private tutor in his own family, he was sent, in 1769, to the college at Princeton, in New Jersey, where he took the degree of A.B. in 1772. He continued, however, at Princeton, until the following spring, pursuing a course of reading under the direction of Dr. Witherspoon, the president of the college, for whom he always entertained a high respect, and whose striking remarks he was fond of repeating. His devotion to his mental improvement, while at Princeton, was carried to such an extent, that, as he stated to his friend, Governor Barbour, for months together he had allowed himself only 3 out of the 24 hours for sleep, and that, when necessity compelled him to relax, he limited his hours of repose to the least number consistent with his health. This, in fact, had never been strong, and was so impaired by the excessive study just mentioned, as to continue feeble for a number of years afterwards. — On his return to Virginia, Mr. Madison commenced a course of reading to prepare himself for the bar, but was soon in a great measure diverted from it by the interest which he took in the agitating political questions of the period. He particularly distinguished himself by his efforts in behalf of the clergy of the Baptist persuasion, who were then persecuted by the established church, and occasionally even thrown into prison for preaching in defiance of prohibitory laws. In the spring

of 1776, he was chosen a member of the convention which formed the first constitution of Virginia. He was, in the same year, a member of the State Legislature, but lost his election in the following year, partly, it is said, on account of his conscientious refusal to treat the electors; and partly too, perhaps, on account of his silence, from a diffidence in himself and a respect for the older and more experienced members of the Legislature, at its previous session, — a silence which led many of his constituents to doubt altogether his capacity to speak in public. The Legislature, however, when it met, named him a member of the Executive Council, in which office he remained until appointed a delegate to the Continental Congress. He took his seat in that body in March 1780, and acted a prominent part in its proceedings during the three years that he held it. Among the services which, at this period, he rendered to his country, we may mention that he prepared the instructions given to Mr. Jay, then the American minister in Spain, in October 1780, maintaining the right of the United States to the navigation of the Mississippi river; and also the address to the states at the end of the war, urging upon them to adopt some plan, to enable the Confederacy to meet its pecuniary engagements to the army and its other creditors. In 1784, 1785, and 1786, he was again a member of the Virginia Legislature; and his efforts at this time were all exerted in favour of a wise and liberal policy. He drew up the memorial and remonstrance against the project of a compulsory support of religion, which was perhaps made with a view to a permanent establishment. Finding the people of Kentucky fixed in their determination to separate from Virginia, he lent his aid to enable them to accomplish their purpose. He opposed the introduction of paper-money; supported the laws introduced into the code prepared by Jefferson, Wythe, and Pendleton; and was in favour of the recovery of the debts due to British creditors. In January 1786, he obtained the passage of a resolution by the Legislature inviting the meeting at Annapolis, which led the way to the convention that formed the constitution of the United States; and he was one of the three commissioners appointed to the meeting. — Mr. Madison was one of the five delegates who represented Virginia in the convention. In this body he acted a conspicuous part; and he has entitled himself to the gratitude of posterity by the record which he daily made of the proceedings of its members, the

only one extant that is either complete or authentic. It was purchased by Congress, after his death, for the sum of 30,000 dollars, and has since been published. After the constitution was formed, he united with Mr. Hamilton and Mr. Jay in the publication in the newspapers of the well-known series of essays in defence of its provisions, under the title of "The Federalist," which attracted in an extraordinary degree the public attention, and, by the ability and force of argument with which they were written, contributed materially to augment the number of its advocates. And when the federal constitution was submitted to the several states for their adoption, he was mainly instrumental, in the convention of Virginia, in procuring a decision by that body in its favour, in despite of the zealous and eloquent opposition of Patrick Henry.—From 1789, when the new constitution went into operation, down to the year 1797, Mr. Madison occupied a seat in Congress, where he resisted the financial measures proposed by Hamilton, then secretary of the treasury, and the policy generally of Washington's administration. His opposition was, however, conducted in such a spirit as to have apparently for a long time no influence on the friendship which subsisted between the president and himself; and it never produced positive alienation. In 1798, though not a member of the Virginia Legislature, he prepared the celebrated resolutions which were adopted by that body denouncing the acts of Congress for removing dangerous and suspicious aliens, and for punishing libels on the government, commonly known by the name of the alien and sedition laws, as infractions of the constitution, and inviting the concurrence of the other states. He was elected to the Legislature in the following year, when he was the author of a new set of resolutions of similar import with the former, and accompanied them by a report in their vindication, which contributed powerfully to the triumph that speedily ensued of the democratic over the federal party. When Mr. Jefferson became president of the United States, in 1801, he selected Mr. Madison to be his secretary of state, a position which the latter continued to occupy so long as Mr. Jefferson himself remained in office.—In 1809, Mr. Madison succeeded Mr. Jefferson in the presidential chair, having obtained 122 of the electoral votes out of 176. The declaration of war against Great Britain, in 1812, on account of her violations of the neutral rights of America, it is scarcely

necessary to mention, was the most important measure of his administration,—a measure adopted on his part only with extreme reluctance. We are told by the author of a biographical notice of him in the "Penny Cyclopaedia," a distinguished gentleman of Virginia who knew him well, that "it is said that Mr. Madison, being aware how unprepared the United States were for war, and anxious to preserve peace as long as it could be preserved consistently with the neutral rights of America, wished to postpone the declaration of war, but was urged into it by Mr. Clay and some ardent spirits whose patience was exhausted." It is added that "if this be so, had his counsels prevailed, for he has often told the writer of this notice that the administration had afterwards indubitable evidence that the British ministry had decided on revoking the offensive Order in Council, in which case the principal cause of the war would have been removed."—After serving two presidential terms, Mr. Madison retired to his seat of Montpellier, in Virginia, in March 1817. In 1829, he consented to become a member of the convention which met at Richmond for the purpose of revising the constitution of his state, and contributed largely in several instances to effect a compromise between contending opinions and interests. With the exception only of the two months during which he was at this period absent from home, and his occasional visits to Charlottesville, in fulfilment of his duties as a visitor, and subsequently as rector, of the University of Virginia, it is stated that he never left his county after he quitted Washington. Although he lived to the age of 85, he had a very delicate constitution, and never enjoyed good health. He died on the 28th of June 1836.—In his domestic relations he was amiable and kind; and in his intercourse with his friends, his conversational powers rendered him always an instructive and entertaining companion.

MAGENDIE (François), born at Bordeaux, in October 1783, has distinguished himself as a physiologist. He is extensively known by his numerous experiments on living animals,—which were exceedingly curious in their nature, but, on account of the sufferings inflicted on those animals, subjected the experimenter to the charge of cruelty. The plea adduced in his behalf by his friends, and men of science generally, was the important results, theoretical and practical, to which the experiments in question promised to lead. The expectations, how-



ever, which were entertained, have not been in any marked degree realized; and the prosecution of similar investigations has since been very much neglected.—M. Magendie applied himself at an early age to the study of medicine, and particularly of anatomy, which he studied under the direction of the celebrated Boyer. He was soon appointed prosector of anatomy, and next professor of experimental physiology. After lecturing for a number of years exclusively on this subject, he became a professor of medicine in the university of Paris, and holds at the same time the office of surgeon at the "Hotel Dieu," in that city.—The writings of Magendie relate almost entirely to physiology; his principal work being the "Précis élémentaire de physiologie" (2 vols. 1816. 3d ed. 1833). It has been translated, and extensively read, in the English, German, and probably other languages.

**MAGNETISM.** Under the heads of Electricity, Magnetism, Galvanism, &c., in this Encyclopædia, accounts were given of several branches of physical science intimately connected with each other, and which are now frequently treated of under the general denomination of electricity. But, for convenience, we have concluded to give a brief notice of the additions which have been made to the general subject, during the last twelve or thirteen years, under the head of Magnetism. No branch of physical science, during this period, has been enriched with a greater number of important discoveries. Our limits, however, will permit us to notice only those which are connected with general principles, and these we shall consider under the following divisions:—I. ORDINARY ELECTRICITY; II. GALVANISM; III. MAGNETISM; IV. ELECTRO-MAGNETISM; V. THERMO-ELECTRO-MAGNETISM; VI. MAGNETO-ELECTRICITY; and VII. ANIMAL ELECTRICITY.

I. By ORDINARY ELECTRICITY we understand that which is usually evolved by means of friction in the common electrical machine, and which differs from Galvanism in the greater intensity of its action, and in the smaller quantity of the agent operative in the production of a given phenomenon.

*Velocity of Electricity.* The first important discovery we shall mention under this head, is that which we owe to the ingenuity of Professor Wheatstone, of King's College, London; and which consists in determining the velocity of transmission of an electrical discharge, from a Leyden jar through a long conductor. A copper wire, one-fifteenth of an inch in

diameter, and half a mile long, was insulated in such a manner that its parts were not in contact with each other, three breaks being made in it; one near the beginning, another near the end, and the third near the middle of the length. These breaks were then brought near each other, and arranged, say in a vertical line, before a small mirror, which could be made to revolve, by means of watchwork, at the rate of 800 times in a second.—When the mirror was at rest, and a charge of electricity from the jar was passed through the long wire, three sparks were seen in the reflector apparently at the same instant, one above the other, as shown in the first figure in the margin. But when the mirror was made to revolve at its full speed, the appearance was that exhibited in the second figure.

1st. Each spark appeared elongated or drawn out into the appearance of a line of light, indicating that the duration of the discharge occupied an appreciable portion of time; for if the spark were not absolutely instantaneous, but required some time to pass the opening in the wire, and the mirror revolved sufficiently fast, the light would be reflected at each instant in a new direction; and, on account of the continuance of the impression on the eye, would exhibit a line of light. 2d. The spark at the beginning of the wire was vertically over that at the ending, while in all the experiments the spark at the middle was thrown a little to one side: this appearance proves that the disturbance of the electrical equilibrium commences simultaneously from each end of the wire, and arrives last at the middle. By measuring the distance of the eye from the mirror, and the apparent lateral deviation of the middle spark from the other two, the fractional part of the revolution of the mirror performed during the passage of the discharge from either end to the middle, or through half the length of the wire, could be obtained; and knowing the length of the wire and the number of revolutions of the mirror in a second, the velocity of the discharge could be determined. In this way, Professor Wheatstone found the velocity of the discharge about 288,000 miles per second, or greater than that of light through the celestial space. He also inferred from the elongation of the light, that the spark, though not absolutely instantaneous, occupied in its passage less than the millionth part of a second. The fact that the discharge from a Leyden jar reaches the middle of the long wire last, has been thought to favour

the hypothesis of two fluids passing in opposite directions; but the same fact is also a legitimate consequence of the hypothesis of a single fluid.

*Specific Inductive Capacity.* The next advance in ordinary electricity we shall notice, is the discovery of Dr. Faraday of the specific inductive capacity of different bodies. This philosopher has advanced the hypothesis, that all electrical induction, or the development of electrical excitement at a distance by the influence of a charged conductor, is due to the action of the particles of the interposed nonconductor. It is well known that when a conductor A, charged say with positive electricity, is brought near an insulated conductor B in its natural state, the nearer end of the latter will be electrified *minus*, and the farther end *plus*. The conductor in this state is said to be polar, and the phenomena, in accordance with the Franklinian theory, are explained by saying, that the repulsion of the superabundant electricity of the charged body drives a portion of the natural fluid of the second conductor to the farther end, the action taking place at a distance through the intervening space. But according to the new views of Dr. Faraday, which have been adopted by most of the English electricians, the effect is due to a polarization of the particles of the stratum of air between the two conductors. He finds from a series of accurate experiments, that plates of the same thickness of different kinds of matter, interposed between A and B, cause the amount of the inductive influence to vary; or, in other words, that each kind of matter possesses a specific inductive capacity.

Differences of this kind were found only in liquids and solids; they were not exhibited in aeriform substances; and variations of density or elasticity, dampness or dryness, produced no effect on them. Dr. Faraday has, however, given a series of experiments to prove that the same action takes place in all cases, and that induction is always produced through the influence of the intervening nonconducting matter; the proof of which hypothesis is made to rest on the fact that induction, instead of always acting in straight lines as asserted by the Franklinian theory, is sometimes apparently extended in curved lines. Although we place the highest value on the experiments of Dr. Faraday, and are disposed to treat with the greatest respect whatever opinions may be advanced by him, yet in the present case we are forced to believe, from an attentive study of the

experiments, that the results do not warrant the conclusion: all the phenomena described in his paper, in reference to this subject, appear to us perfectly in accordance with the ordinary theory of induction, and indeed offer the most beautiful illustrations of the mathematical deductions from this theory.

Dr. Faraday has also made a series of interesting investigations relative to the discharge of ordinary electricity. These he has classed under three heads, namely, the discharges by *conduction*, *disruption*, and *convection*. The *discharge by conduction* takes place without chemical action, or any necessary displacement of the particles of the conductor; but different bodies oppose very different degrees of resistance to this action. He finds that all bodies except gases are to a certain extent conductors; that all oppose a certain amount of resistance to the passage of the electrical discharge; and that conduction and insulation are different degrees of the same quality.—The *disruptive discharge* is that which takes place generally between the conductors in the form of a spark. It varies very much when different aeriform substances are interposed between the two conductors. An apparatus was constructed in which the same discharge could pass through either of two cylinders, one filled with the gas submitted to the experiment, and the other with common air used as a standard of comparison. With this it was found that muriatic acid gas has nearly three times the specific insulating power of hydrogen, and nearly twice that of atmospheric air. The disruptive discharge sometimes changes its form from the spark to the brush; and the latter is shown, by the revolving mirror of Professor Wheatstone, to consist of a succession of intermitting discharges. The continued sound which accompanies the brush is due to the recurrence of the sound from each discharge: the brush exhibits specific characters in different media, which are manifested by difference of colour, light, form, and sound.—The *convective discharge* is that produced by the motion of charged particles. The particles of air, for example, in contact with the projecting part of a conductor, become highly electrified, and are repelled by the conductor; thus giving rise to currents of air which rapidly carry off the charge. Dr. Faraday traces an analogy between this discharge and the galvanic current, in which, as has been shown by Ampère, the consecutive portions repel each other.

*Electricity evolved from a Steam-boiler.*

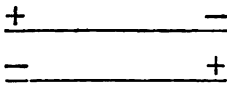
In 1840, a workman near New Castle, in England, discovered that, while one of his hands was plunged in a current of steam issuing from a boiler, a spark would pass between his other hand and any conductor to which it was approached. We owe to Dr. Faraday the discovery of the proper explanation of this phenomenon. He has shown, by a set of conclusive experiments, that the evolution of the electricity in this case is due to the friction of the drops of water from the condensed vapour against the sides of the tube, through which they are impelled by the elastic force of the steam. If the current issue through a stop-cock in the sides of the boiler, it produces at first, or so long as the cock is cold, a powerful excitement; but the moment the metal becomes so warm as not to condense the steam, the electricity disappears. Any substance that increases the conducting power of the liquid, being placed within a hollow in the stop-cock, destroys the exciting power as effectually as moisture does that of the rubber of the machine. The final conclusion from the researches made is, that pure steam or gases do not excite electricity by friction against solids or liquids, and that the effect in all cases is due to the presence of a liquid which rubs against a solid. Mr. Armstrong, availing himself of this method of developing electricity, has constructed an electrical machine of immense power, which consists principally of a tubular boiler, about the size of that of an ordinary locomotive, insulated on stout glass pillars, and furnished with a series of pipes through which the steam is blown off. One of the largest instruments of this kind has recently been exhibited in this country.

*Dynamic Induction of Ordinary Electricity.* In 1836, Professor Henry of Princeton commenced a series of investigations, the object of which was to ascertain whether there existed any dynamic phenomena in ordinary electricity analogous to those found in galvanism. His labours on this subject, which have been continued at intervals up to the present time, have given rise to a series of new phenomena, of which our limits will not permit us to give more than the following brief analysis.—1. When the discharge of a Leyden jar is transmitted through a conductor, for example a copper wire, it induces in an adjoining parallel wire a current of electricity analogous to that which, under similar circumstances, is developed by a galvanic current.—2. The direction of this induced current, as

indicated by the magnetic polarity given to a steel needle, enclosed in a spiral forming part of the circuit, changes its sign, (1) with a change in the distance of the two wires, (2) with the proximity of a third parallel wire forming a closed circuit, (3) with an opening in the wire which receives the induction, and (4) with the quantity and intensity of the discharge.—3. When the first induced current is made to act on a third wire, a second induced current is produced, which in its turn may give rise to another current, and so on. When the several wires are at a considerable distance from each other, and the direction of the several currents is determined by the magnetization given to a sewing-needle, we have (in calling the direction of the current from the jar plus) the series + — + — + — &c., that is each succeeding current is opposite in direction to the current which induced it.—4. When a plate of metal is placed between two flat spirals, and a discharge from a jar passed through one of them, the induced current, which would be produced in the other, is neutralised by an adverse current induced in the plate.—5. The dynamic induction of ordinary electricity takes place at a surprisingly great distance. A discharge from a jar being passed through a parallelogram of wire, arranged around the ceiling of an upper room, magnetized needles in a spiral forming part of a corresponding parallelogram placed on the floor of the cellar, at the distance of 30 feet below. In another set of experiments, needles were magnetized in a parallel wire at the distance of 300 feet from the primary current. And from all the experiments, it appears that the inductive results may be obtained at an indefinite distance, provided the length of the parallel wires be increased in proportion to the distances to which they are separated.—6. Inductive effects similar to those we have described can also be obtained from the discharge of the thunder cloud. Professor Henry attached to the metallic roof of his house a copper wire, which, passing through his study, terminated in a deep well near by: a needle, placed in a spiral forming a part of the conductor through the study, was magnetized at every flash of lightning within a circle of 20 miles in diameter around Princeton. The needle is sometimes magnetized in one direction, and sometimes in the other. When sparks are thrown from a small machine on the middle of a lightning rod, the electricity does not tend to pass silently into the earth: on the

contrary, a spark can be drawn from every part of the rod, even from that near the earth. — 8. It is also proved by the magnetization of a needle placed inside and outside of a hollow jar, that although galvanic electricity passes through the whole capacity of a conductor, ordinary electricity passes principally at the surface. It is also shown by a series of conclusive experiments, that, during the first moment of the discharge of a Leyden jar, half the length of the conductor next the end at which the discharge enters is *plus*, and the other half is *minus*, the intensity diminishing each way to the centre; and that at the next moment the condition is reversed, the opposite end becoming *plus*, and the other *minus*.

After a laborious investigation of the phenomena we have described, Professor Henry has succeeded in referring them all to the hypothesis of the existence of an electrical plenum, through which dynamic induction is transmitted wave fashion; and in showing that, in all cases of the disturbance of the equilibrium, the fluid comes to rest by a series of oscillations. Thus, in the discharge of the jar, all the phenomena indicate a principal action in one direction, and a series of reflex actions backwards and forwards, each more feeble than the preceding, until the equilibrium is restored. Our limits, however, will not permit us to give in detail the application of this hypothesis to the explanation of the phenomena; we can only allude to the explanation of a few of the more prominent ones. In the discharge of a Leyden jar through a long wire, we know that the disturbance reaches the middle of the length last; and this may be explained by supposing a quantity of free electricity to enter the end of the wire next the knob, and, at the same time, an equal quantity of the natural electricity of the wire to be drawn from the other end next the outside. The whole wire, for an instant, must therefore be thrown into a state represented by the upper line in the annexed diagram, in which the first end is *plus*, and the other *minus*. The natural



electricity of an adjacent parallel wire will, according to the law of ordinary induction, assume for a moment the condition represented by the second line, and in passing to this state from that of equilibrium, it will exhibit a current adverse to that in the primary wire; but the electricity of the primary wire will pass to its

ordinary state of equilibrium by a series of oscillations, each of which will induce an opposite wave in the second wire. If the two wires be at such a distance from each other, that the induction of only the first wave is effective in giving magnetism to the needle, it is evident from the foregoing, that we shall always have a polarity indicating an induced current opposite to that of the primary current; but if the wires be brought nearer each other, then the needle will be first magnetized to saturation by the first vibration; and immediately afterwards the magnetism will be discharged, and that of an opposite kind developed by the second vibration. In the same way, if the wire be placed still nearer, another change will be produced in the polarity of the needle, due to the third vibration, and so on.

It is not difficult to perceive that the variation in other conditions may also change the polarity of the needle thus:—suppose a break be made in the circuit of the secondary current, then the primary wave, having the greatest intensity, will alone pass through the opening, and the polarity of the needle will be due to the action of this; while if the opening be closed, the residual magnetism of the needle may be due to the action of some of the succeeding vibrations. In this way all the phenomena described in (2) are readily explained.

Also all the phenomena of the lateral discharge (7) find an easy explanation in a reference to the same principles. At the moment a charge is passing along the wire, each consecutive part of the length of the conductor becomes charged in succession, and tends to give off a spark to all neighbouring conductors, for the same reason that a conductor charged with statical electricity tends to produce the same result. All the phenomena of dynamic induction are analogous to those of statical induction, with the exception that, in the former, we are obliged, in order to explain all the facts, to admit *time* as an element of the calculation. The indefinitely greater distance at which dynamic induction takes place between two parallel wires, than that at which statical induction would be exhibited under the same circumstances, together with other phenomena, lead us to suppose that the former induction is transmitted in time, wave fashion, through the electrical plenum. All the phenomena of galvanic induction may be referred to the same principles as have been adopted in the explanation of the facts we have given in this article.

**II. GALVANISM.** The simple galvanic apparatus, as described in a previous volume of the present work, consists of a plate of zinc and a plate of copper, plunged at a little distance from each other into the same vessel, containing a solution of sulphuric acid and water. If the two plates be connected by means of a metallic wire, a current of electricity will pass continually from the zinc through the liquid to the copper, and back to the zinc through the connecting wire. According to Volta, and his opinion is still maintained by some, the current of electricity in this apparatus is due to the mere contact of the metals, and in cases where no metal is employed, to the contact of some other substances, which form parts of the arrangement. But the opinion at present more generally adopted is, that the continued disturbance of the electrical equilibrium is produced by the chemical combination of the zinc and the oxygen of the water. The chemical theory, we think, is fully supported by the researches of Faraday, and is in conformity with the great mechanical principle, founded on a wide induction, that mechanical power cannot be continually evolved without the exhaustion of something to produce the effect.

The action of the apparatus we have described does not long continue the same; the intensity of the current gradually declines, and finally entirely ceases. This deterioration of the action of the battery is now known to be due to several causes. First, the solution after a while becomes saturated with sulphate of zinc from the dissolving plate, and will require to be removed, and its place supplied with a fresh solution, before the action can be fully renewed. Again, as soon as the sulphate of zinc has become diffused through the liquid, so as to infilm the conducting plate, it is decomposed by the nascent hydrogen, and precipitated on the copper; where it forms as it were another zinc plate, the current of which is adverse to the current of the battery. Lastly, in this form of the apparatus, the rapid evolution of hydrogen along the surface of each plate, by its adhesion to the metal, prevents the more intimate contact of the liquid with the plate; also some of the electrical action passes off with the escaping gas. To remedy these defects, we first substitute for the plate of ordinary zinc a plate of amalgamated zinc, which is not acted on by an acid solution, so long as it is not in metallic connection with the copper: but as soon as this connection is established, a rapid evolution of hydrogen

takes place from the copper, while the zinc undergoes oxidation without giving off any hydrogen from its surface. The same effect is also produced by using perfectly pure zinc. The amalgamation of the metal materially improves the action of the battery, by removing the adverse influence of the film of hydrogen which covers the surface of the common zinc plate, and by rendering the whole of the oxidation of the metal effective in developing the galvanic current. — The next important improvement of the battery consists in separating the two plates from each other by a porous partition, which shall prevent the passage of the sulphate of zinc to the copper plate, while it permits the free circulation of the electrical current. This partition, which may be formed of *bladder, paper, wood, leather, coarse linen, or unglazed pottery-ware*, prevents the formation of the adverse current before mentioned, and also assists us to get rid of the hydrogen which tends to infilm the surface of the copper plate. For this purpose it is only necessary to place a solution of sulphate of copper in the division next the copper plate, which will be decomposed by the nascent hydrogen, and its copper precipitated, in a metallic state, on the surface of the negative element. No hydrogen will appear on the surface of the negative plate, because it has combined with the oxygen of the copper of the salt, and formed an atom of water, which remains in the solution. A more intimate contact of the liquid and solid is thus produced, and consequently the action is much increased. By these additions, the performance of the battery is wonderfully improved, both in the intensity of the current and in the continuance of the action.

Besides the galvanic arrangement we have described, and which is known by the name of Daniell's battery, several others have been invented. The most powerful of these is Grove's battery, which consists of dilute sulphuric acid on one side of a porous partition, and concentrated nitric acid on the other; a plate of amalgamated zinc plunged into the former, and a plate of platinum plunged into the latter, with connecting wires, complete the arrangement. It is necessary in this battery to use platinum instead of copper, because the nitric acid would act on the latter, and thus form an adverse current. It has been found, however, that prepared carbon may be substituted for the platinum, and also cast-iron.

Becquerel has shown that in all cases

in which two bodies act on each other chemically, or in the way of solution, a current of electricity is evolved, and the great energy of Grove's battery is due to two currents in the same direction, one from the reaction of the nitric acid through the porous diaphragm on the sulphuric acid, and the other from that of the latter on the amalgamated zinc.

But one of the most important additions to our knowledge of the operations of the galvanic battery, is the formula of Professor Ohm, of Nuremberg, which expresses with mathematical precision the effects of the several conditions and variations of the apparatus, when a few constants, which can easily be determined by experiment, are known. This theory is, simply, that *the effective or working power of the battery is directly as the electro-motive force, and inversely as the resistance.* Or if A represent the amount of work, the number of inches of gas produced in a minute for example, and E the electro-motive force of a single cell, R the resistance of the acid, and r that of the wire, then for a battery of n cells we shall have

$$A = \frac{n E}{n R + r}$$

The resistance of r, when it is merely a wire, is directly as the length, and inversely as the sectional area. The resistance R of the acid is proportioned to the thickness of the stratum of the liquid, and, in the case of plates of equal size, as those of the ordinary galvanic trough, is inversely as the surface of the plate; but when the zinc and copper surfaces are unequal, as in Daniell's battery, the resistance is inversely as the mean surface of the two.

*Electro-Chemistry.* The discoveries which have been made in this branch of electricity during the last few years, by Faraday, Becquerel, and others, though not as brilliant as those of Davy, are more important in reference to our knowledge of the operations of the chemical forces.

The following are the principal facts relative to the decomposition of compounds by the action of the electrical current, as known at the present time.—(1) The conduction of a galvanic current by a compound is a species of convection, in which the two ingredients or ions [goers] take a definite direction. Thus, in the decomposition of water, oxygen is always evolved at the positive electrode [pole], and hydrogen at the negative; chlorine, iodine, bromine, and fluorine, pass in the same direction with oxygen, while the metals are evolved at the same pole with the hydrogen. Also, in the compounds of acid and

alkali the former passes to the plus electrode [pole], and the latter to the negative.—(2) The substance to be decomposed must be in the liquid state; for example, water in the state of ice is a nonconductor, and consequently is unaffected by an electric current; but when it is melted, the current passes, and decomposition ensues. Also, chloride of lead, chloride of silver, nitrate of potassa, and chloride of potassa, all act in the same way.—(3) Different bodies require, for their decomposition, currents of different intensities. As a general rule, the more the elements are opposed to each other in their chemical affinities, the more readily are they decomposed.—(4) The most important fact discovered by Dr. Faraday is, that the chemical action of the electrical current is always definite, and proportioned to the absolute quantity of electricity which circulates; that, in the combination of a number of equivalents of any two bodies, just as much electricity is evolved in the form of a current, as is sufficient to decompose the same number of equivalents of any other compound capable of decomposition.—(5) There is but one decomposable compound of the same two elements. Single equivalents of elementary ions [goers], and not multiples, can go to the electrodes. All compounds, however, of single proportions of elements, are not decomposable; the elements of chloride of sulphur, proto-chloride of phosphorus, and proto-chloride of carbon, are not separable by the current. It is not necessary that the substance be a primary compound of elements; salts and acids are decomposed.—(6) Many of the results which formerly puzzled electricians, in the decompositions by means of the galvanic battery, are now known to be secondary actions, which are sometimes due to the mutual action of the element eliminated and the matter of the electrode, and sometimes to the action of the ion upon some substance contained in the liquid itself.

*Practical application of Galvanism.* The galvanic current has been applied with perfect success to the explosion of mines of gunpowder, whether on land or under water. The wrecks of several vessels have in this way been blown up, and also immense portions of earth displaced for engineering purposes. The first successful application of galvanism to this purpose is due to our distinguished countryman, Dr. Hare, of Philadelphia. His plan consists in extending from the galvanic battery two long copper wires, the farther ends of which are connected by

means of a short piece of platinum wire, and plunged into the midst of the powder; when the ends of the long wires near the battery are placed in contact with its poles, the current passes through the long circuit, heats to redness the platinum, and thus fires the powder. Galvanism will, in this way, probably be introduced as one of the appliances of the art of war.—If the two poles of a galvanic battery be terminated in plates of metal, and these plunged into a solution of a metallic salt, sulphate of copper, for example, the compound will be decomposed, the acid will pass to the positive plate, and the copper will be precipitated in a metallic state on the other, from which it may be detached in a malleable form. So accurately does the precipitated metal mould itself to the plate, that every scratch on the latter has its counterpart on the former. The observation of these facts gave rise to a new art, which consists in taking *fac similes* of medals, engraved plates, &c., and in covering different objects with a coating of the precipitated metal. To cover for example a plaster bust with metal, it is only necessary to brush it over with plumbago, and suspend it, thus prepared, in a solution of a salt of the metal, connected with the negative electrode of a battery of three or four pairs. Also, the arts of plating in silver, and gilding, have been much simplified by the same means. The solutions which, on the whole, are found to answer best for plating silver and gold, are formed by boiling the oxides of the metals in a solution of cyanide of potassium, and using the liquid which is poured off.

For an account of the application of the galvanic current to the transmission of intelligence to a distance, see the article *Telegraph* in this volume.

III. ORDINARY MAGNETISM. The additions which have been made of late years to this division, relate principally to terrestrial magnetism. This subject has lately excited much attention; and a combined system of observation has been established for the study of the phenomena, more extensive than any other of the kind which ever before existed. The first suggestion of this system is due to the celebrated Humboldt, who succeeded in interesting several of the governments of Europe in reference to it, and in directing the attention of the British Association for the promotion of science to the same object. This association, in 1838, induced the British government to fit out a naval expedition under Captain Ross, for the purpose of making magnetic observations

near the South pole, to correspond with those which had been made by Parry, Back, and others, near the North pole. It was also through the influence of the same association, and the co-operation of a German Magnetic Society, previously formed, that the system of observations above-mentioned was established. The following are the stations of the several observatories. Those of the English are Dublin, Toronto (Canada), St. Helena, Cape of Good Hope, and Van Diemen's Land, Madras, Simla, Singapore, and Aden. The Russian observatories are at Boulowa, Helsingfors, Petersburg, Sitka, Catharinenburg, Kasan, Barnaoul, Nicolajeff, Nertschinsk, Tiflis, and Pekin. Those of Austria are at Prague and Milan. In the United States there are observatories at Philadelphia, Boston, and Washington. The French have one at Algiers; the Prussian government, one at Breslau; the Bavarian government, one at Munich; and the Belgian, one at Brussels. There is one at Cairo supported by the Pasha of Egypt. Also, one in India, at Travandrum. These observatories, to which several others have been added, were established to carry out a complete set of two hourly observations, day and night (Sundays excepted), during three years, together with monthly term observations, for contemporaneous comparisons of very slight changes during twenty-four hours, made at intervals of 5 minutes each. They are widely scattered over the surface of the earth, and are all furnished with delicate instruments, on the general plan invented by Professor Gauss, of Göttingen, for observing the three elements of terrestrial magnetism, namely, the *declination* or *variation*, the *inclination* or *dip*, and the *intensity*. The operations of this system were commenced in 1839, and have been continued in most of the observatories until the present time. A congress of magneticians, assembled at Cambridge in England in June 1845, resolved to continue the observations upon substantially the same system for another period of three years. The comparison of all the observations thus furnished in nine years, cannot fail to throw much light on the fluctuations of the magnetism of the earth; but the labour of reducing them will be almost incalculable. The number of separate observations made at thirty stations, according to Sir John Herschel, will amount to nearly 6 millions.—The reductions, however, which have already been made, show some interesting results. According to these, the magnetic conditions

of the earth is in a state of continual fluctuation; the direction and intensity of the magnetic force being scarcely stationary from one minute to another. Also, the small as well as the large changes are observed to take place at nearly the same moment of absolute time at distant places. Thus the north end of the needle is frequently observed to move in the same direction, either to the west or to the east, nearly at the same instant, at Upsala, the Hague, Göttingen, Berlin, Leipsic, and Munich. The occurrence, however, of perfectly similar perturbations at the same time has been found not to extend to distant continents. In a series of observations made by Dr. A. D. Bache in Philadelphia, and Professor Lloyd in Dublin, the needle was not found to move in all cases in the same direction at the same time. Although it was frequently observed that, when the apparatus was most agitated in America, it was also unusually disturbed in Dublin.—From the comparison of the observations made at the American observatories, it has also been found that the fitful variations, which have been supposed to obey no law, really observe a certain order, both in regard to frequency and direction of motion. The perturbations in which the north end of the needle turns to the east have a maximum, both in number and intensity, at about 10 o'clock in the evening; and those in which the same end of the needle turns to the west, at about 8 o'clock in the morning. Both have a minimum at about the same period of day, between 2 and 4 o'clock in the afternoon.\* We must therefore infer from these results, combined with those at distant places, that though the fitful disturbance of the magnetism of the earth is produced by a cause affecting at the same time perhaps the whole globe, yet it is also connected with some cause dependent on the hour of the day; or, in other words, with the position of the sun in the heavens. Independent of the fitful disturbance, the American observations disclose a regular daily motion, the amount of which is much greater in summer than in winter; and this is particularly the case with the easterly movement.

Besides the contributions which are now making to our knowledge of the changes of the magnetic forces of the earth, by means of the observatories we have described, valuable additions have also been made within a few years, or are now in progress, in reference to the condition of

\* Similar observations have also been made on the fitful perturbations at Munich.

the magnetism of the earth at a given epoch. All the attempts to discover a northwest passage have been fruitful in magnetic observations within the arctic circle; and the expedition, before mentioned, under Captain Ross, as well as that sent out by our own government under Lieut. Com. Wilkes, will furnish important results of the same kind in reference to the antarctic regions. The French and Russian governments have also sent out expeditions, which have made magnetic observations in various parts of the globe. Also, in the principal countries of Europe, in Africa, in Siberia, and in America, magnetic surveys have been instituted, either by individual enterprise; or at the expense of governments, to ascertain the condition of the magnetic forces.

Dr. A. D. Bache, Professors Loomis and Locke, and Major Graham, have been engaged in a series of observations on the dip and intensity, in different parts of the United States; and to the results obtained from these observations, which are still in progress, must be added those constantly accumulating under the direction of Dr. A. D. Bache, at the several stations of the coast survey. We are also indebted to the last-named gentleman for a very important improvement in the method of obtaining the intensity, which consists in vibrating a needle in a vacuum, instead of performing the same operation in the air, as was previously the custom.

The facts which will be derived from all the sources we have mentioned, when they are properly collected and compared, will furnish the data for determining, at least approximately, the magnetic state of the earth at a given epoch; and by comparing them with the observations found on record since the time of Halley in 1700, the great changes to which the magnetic force is subjected will be exhibited. To ascertain, however, the law of these changes, will require the continuance of accurate observations for many years.

There are two extended lines on the globe, along which the magnetic needle points to the true north. These are called the lines of no variation; and one of them passes through the United States. It may be traced on the map by drawing a line a little concave to the east, from the north-western angle of Pennsylvania on Lake Erie to Cape Look-Out in North Carolina. At all places to the west of this line in the United States, the needle points to the east of the true north; and in all places on the east side of this same line, the varia-



tion is west. Thus, the variation at Cincinnati is about 4 degrees east, and at Philadelphia it is about the same west. But this variation is not constant. According to one of the earliest observations, that of Hudson in 1609, the variation of the needle, a few miles up the Hudson river, was 13 degrees west; the variation at the same place is now only between 5 and 6 degrees. — The general conclusion arrived at by Professor Loomis, who has industriously collected all the observations of importance which could be found relative to the magnetism of the United States, is that from the time of the earliest observations down to about the commencement of the present century, the westerly variation was increasing, and the easterly decreasing, in every part of the United States; or, in other words, the line of no variation was gradually moving towards the east. But more recently a reverse motion has taken place. The first announcement of the retrograde motion of the needle in this country, is due to Simeon De Witt, Esq., for many years surveyor-general of the State of New York. The change commenced between the years 1793 and 1819, and was not simultaneous in all places. The present annual change in the variation is about 2 minutes in the Southern and Western States, about 4 in the Middle States, and about 6 in New England.

Until recently, but few observations had been made in this country on the dip, of sufficient accuracy to determine the changes which it undergoes. It appears, however, from those which can be most relied on, that the dip is diminishing in the United States, at the rate of between one and two seconds annually. The amount of the dip in different parts of our country may be inferred from the following data: in Florida it is about 60, in the middle of Virginia about 70, and in the northern part of the State of New York nearly 76 degrees.

The theory of terrestrial magnetism is at present in a very unsettled state; the hypothesis of two poles in each hemisphere, advanced by Halley, and adopted by Hansteen, is not found to be in accordance with facts. It appears that the direction and intensity of the magnetic force, at a given place, are due to the combined action of the magnetism of all parts of the earth; and that the resultant action is similar to that of an irregular magnet, of which the poles are not stationary, and do not coincide with the geometrical poles of the earth. Indeed it would seem from all the

observations, that the magnetic poles are not mere points, but consist of irregular spaces around the north and south poles of the earth, in which a diffused magnetism is developed. Some of the changes of the magnetism of the earth are evidently connected with the position of the sun. And also, since electricity in motion is known to affect the needle, we must conclude that all disturbances of the electrical condition of the earth must give rise to perturbations of the magnetic force. The fitful variations of the needle are now well known to be accompanied with the appearance of the aurora; but these phenomena have not yet been proved to stand connected in the relation of cause and effect. Indeed it is more probable from all the observations, that they are contemporaneous effects of a more general cause.

IV. ELECTRO-MAGNETISM. The general laws of this branch of electricity, as expressed by the ingenious theory of Ampère, have been given with sufficient detail in an article in a preceding volume of this encyclopædia. The additions since made relate principally to the development of great magnetic power in soft iron, the most important results of which were obtained in our own country by Professor Henry, of Princeton. — It is stated in the article just referred to, that steel needles may be powerfully magnetized by placing them in the axis of a spiral of wire, through which a current of electricity is transmitted. Mr. Sturgeon afterwards magnetized a wire of iron, in the same way.\* At this stage of the history of magnetism by electricity, Professor Henry commenced his researches. He found that the magnetic effect was much increased, with a battery of a given power, by forming the spiral of a long wire covered with silk, and wound several times over itself; instead of using a short wire loosely wound around the iron, as had previously been done. The idea afterwards occurred to him that a much greater development of magnetism could be obtained by means of a small galvanic battery of a single pair of plates; by increasing the size of the iron; and also by winding in succession, on the bar, a number of strands of wire, instead of one. The galvanic current, divided among the different channels, would meet with less obstruction; and consequently more galvanism would be developed by the same battery. These suggestions were fully tested by a series of experiments of which we can give only the more prominent results. The greatest magnetic development was

\* See Thompson's *Annals of Philosophy* for 1826.

produced in a bar of soft iron, weighing 21 pounds, and bent into the form of a horse-shoe, when it was surrounded with 9 coils of wire, each 60 feet long, and so connected with the battery, that the current was divided among the several wires. With a single battery exposing but two-fifths of a foot of zinc surface to the acid, the weight supported was 650 pounds; and the maximum lifting power of this piece of iron, with a larger battery, was 750 pounds. When a compound battery was employed, it was found that the greatest magnetic development was produced by a coil consisting of one long wire, instead of several wires; the length of the coil being proportioned to the projectile power of the battery. With an arrangement of this kind, it was shown that a horse-shoe could be magnetized at a distance, and the applicability of the principle to the construction of a telegraph pointed out. By increasing the size of the iron, and the power of the battery, almost an indefinite amount of magnetic force may be developed.—Professor Henry has since constructed, on this plan, a number of magnets of great power; the largest of which is now in the cabinet of the College of New Jersey. It is formed of a piece of rounded iron, nearly four inches in diameter, weighing about 100 pounds, and surrounded with thirty strands of copper bell-wire, each about 40 feet long. With a small calorimeter, on Dr. Hare's plan, consisting of 22 plates of zinc, each 9 inches by 12, alternating with plates of copper of the same size, it supports three thousand five hundred pounds. After the connection with the battery has been broken, it supports, for a few minutes, upwards of one thousand pounds; and from year to year the lifter adheres with a force which is only counteracted by a weight of several hundred pounds. When the lifter, however, is detached, nearly all the magnetism disappears.—In the first experiments of Professor Henry, Dr. Teneyck of Albany was associated with him; and that gentleman made a number of separate experiments, to ascertain the ratio of the maximum lifting power of a magnet, in reference to its weight. The greatest result obtained was with a small magnet slightly flattened, one inch in length, weighing 6 grains, and surrounded with 3 feet of wire. This, with a small battery, supported 420 times its own weight.—Professor Henry has found that bars of steel may also be magnetized by heating them to redness, and then plunging them into a cylindrical vessel of cold water,

around which a current of galvanism is passing. The steel, cooled under the influence of the current, receives its maximum of magnetic development.

The next addition to electro-magnetism, was the invention of the electro-magnetic machine, which has since attracted much attention, on account of the hope it excited of applying galvanism as a moving power in the arts. The usual form of this machine is that of an assemblage of electro-magnets, and a permanent magnet; or of a number of electro-magnets arranged in such a manner that the galvanic current which circulates around, say the moveable part of the apparatus, may change its direction at each moment,—so that repulsion may take place between two poles which the moment before attracted each other, and so on continually. In this way, a constant vibration may be kept up in a bar suspended like the beam of a steam-engine; or a continual rotation may be produced in a horizontal bar, around an axis passing through its centre of gravity. The change in the direction of the current at the proper moment, is easily effected by causing the wires from the two ends of the coil around the soft iron to come in contact alternately with the two poles of a galvanic battery. The invention of the first machine of this kind is due to Professor Henry, and was described by him in Silliman's Journal for 1831. In 1833, Professor Ritchie, of the London University, published in the transactions of the Royal Society an account of a modification of the same machine, in which a continued rotatory motion was produced, instead of a reciprocating one; and since that period, various other modifications of it have been constructed in almost every part of the civilized world. The most ingenious of these are those invented by Dr. Page, of the Patent Office at Washington, to whom electro-magnetism is indebted for a greater number of ingenious articles of apparatus for the illustration of its principles, than to almost any other person.—All attempts to apply galvanism by means of this machine, as a moving power in the arts, in the present state of science, must necessarily be unsuccessful. The question is not whether a great mechanical power can be developed, but whether the cost will not be much greater than that of the powers now in use. In the case of galvanism, motion is produced by the combustion of zinc in acid. Now, since we have reason to believe that the amount of power developed in any case is proportional to the number of chemical equivalents which

have entered into combination during the process of combustion; and since zinc is a much more expensive article of fuel than coal; we conclude that the expense of this power must be immensely greater than that from ordinary fuel employed by means of the steam-engine.

V. THERMO-ELECTRO-MAGNETISM. The first facts in this branch of electricity were discovered in 1822 by Professor Seebeck, of Berlin. The general principles, so far as they have been traced, may be briefly stated as follows. When a bar of metal is plunged at its lower end into a focus of heat, an increase of temperature is propagated from particle to particle along the bar, from the warmer to the cooler end; and, during the continuance of this process, a current of the natural electricity of the metal tends to pass in the opposite direction; that is, from the cooler to the warmer end. Or if a bar of metal be heated at the middle, a current of electricity will flow from each end towards the heated point. The effect is the same as if the expansion of the metal, or rather the separation of the particles by the action of the heat, produced a vacuum, into which the electricity flowed from all the surrounding parts. To illustrate this principle, suppose we join, end to end, two bars of metal of different conducting powers for heat; connecting the other two ends with the wires of a galvanometer, and heating the point of junction. In this case, the current of heat will be propagated with greater velocity along the better conductor, and consequently a more powerful current of electricity will pass to the heated point along this bar than along the other. A residual current will thus be produced, which will flow past the point of juncture from the better to the worse conductor, and deflect the needle of the galvanometer. But the difference in the conducting power of the two metals for heat, is not the only circumstance which determines the intensity of the thermo-electrical current. The conducting power of the metal for electricity also affects the result, although in a less degree; and besides, it would appear from a comparison of the relative capacities of different substances for heat with their power of developing a thermo-electrical current, that these two properties are also connected.—According to M. Becquerel, to whom we are indebted for the principal generalizations of thermo-electricity, the following is the order of the electro-motive force of the principal metals, namely,—bismuth, platinum, tin, lead, copper, gold, silver,

zinc, iron, and antimony. In this classification, each metal is positive, relative to those which succeed it.

The quantity of electricity which is put in motion by the thermo-electrical apparatus, is very great; but the intensity is exceedingly feeble, in comparison with that from other sources. The intensity of the current may, however, be indefinitely increased, by joining a number of pairs of bars, for example, of antimony and bismuth, or of copper and German silver, in the form of the letter W, in which the thick lines may represent one metal, and the thin ones the other. All the upper angles are heated by a bar of hot iron held over them, while the lower ones are immersed in a mixture of salt and snow. The increase of intensity in this arrangement is due to a new electro-motive force, generated by the heat applied at each upper angle.

The dependence of the progress of different branches of science on each other, is interestingly shown in the application of the thermo-electrical apparatus to the study of the phenomena of heat. Shortly after the discoveries made by Seebeck, two Italian philosophers, Nobili and Melloni, constructed a thermo-electrical pile which, connected with a double-needle galvanometer, served to indicate minute changes of temperature. But the instrument has since been much improved by Melloni; and, in the hands of this distinguished investigator, it has furnished a series of the most interesting results, in reference to radiant heat. The improved apparatus consists of 36 pairs of bismuth and antimony, about an inch long, and so slender that the whole pile is packed into a cylinder of about  $\frac{1}{4}$  of an inch in diameter. So sensible is this instrument, that a difference of temperature of the two extremities equal to the thousandth part of a degree of Fahrenheit's scale, is perceptible in its effects on the needle.

Professor Henry has lately made an interesting combination of the thermo-electrical apparatus and the telescope. He places the end of the thermo-electrical pile at the point where the eye-glass is inserted in the tube of a reflecting telescope; and, by this combination, is enabled to detect the difference of radiation from small objects at the distance of several miles. It also exhibits a remarkable difference in radiations from different clouds, and also from different parts of the clear sky; and will therefore be an important instrument for meteorological purposes.

It is evident from what we have stated, that the action of heat and electricity are reciprocal; and this fact is most strikingly exhibited in the following experiment of M. Peltier. Two large bars, one of antimony, and the other of bismuth, are joined end to end, the surface of contact being small; and a current of galvanism, from a single battery, is transmitted through them. When the direction of the current is from the bismuth to the antimony, an increase of temperature is the result; but when the same current is passed in an opposite direction, a reduction of temperature is produced. If the compound bar be laid on melting snow, and a drop of water poured into the cavity, it will be frozen in a few minutes when the current is passed in the proper direction.

**VI. MAGNETO-ELECTRICITY and Galvanic Induction.** By Magneto-Electricity is understood the electricity which is developed by magnetic induction. The first discoveries in this division of our subject, which were made by Dr. Faraday in 1832, may be briefly stated as follows:—1. If a magnet be suddenly approached to a mass of conducting metal, a current of the natural electricity of the conducting substance is produced in the conductor, in a direction parallel and opposite to that of the hypothetical current, which, according to the theory of Ampère, revolves around the magnet, at right angles to the axis.—2. So long as the magnet remains at rest near the conductor, no effect is observed; but the moment it is drawn away, a current takes place in the same direction as that of the hypothetical current in the magnet, or, in other words, in a direction opposite to that which was produced at the time of the approach of the magnet. The current in each case continues only during the time of the motion of the magnet.—3. If a piece of soft iron be suddenly magnetized near a mass of conducting matter, a current of electricity will be induced in the conductor, in the same direction as that produced by the approach of a permanent magnet.—4. So long as the magnetism of the iron remains of the same intensity, no current is observed; but if the intensity be suddenly diminished, a current is produced in an opposite direction to that of the current which was developed at the time of the magnetizing of the iron. The current, in both cases, continues only during the indefinitely short period in which the iron is undergoing the change of state.—5. These facts may be readily verified, by coiling a long covered wire into the form of a ring, about four

inches in diameter, and consisting of about one hundred turns. The two ends of the coil being connected with a galvanometer, a current in one direction will be exhibited when a bar magnet is thrust into the axis of the ring, and another in an opposite direction when the bar is drawn out. While the magnet remains at rest, with its end, for example, just within the ring, no current is indicated; but if it be pushed further in or drawn further out, the needle will be deflected by an induced current in the wire.—Also a current will be induced in a coil by placing in its axis a bar of soft iron, and suddenly magnetizing this, either by approaching to its two ends the opposite poles of two magnets, or subjecting it to the influence of a galvanic coil, or even to the inductive action of the earth, as in the case of magnetizing a bar by suddenly turning it in the direction of the dipping needle. A magneto-electrical machine, which will produce a rapid succession of alternate currents, may be formed in this way, by mounting a bar of soft iron surrounded by a long coil of wire on an axis like a dipping needle, and causing it to revolve rapidly in the plane of the magnetic meridian; at each half revolution of the bar its polarity is changed, and consequently a series of currents in opposite directions is produced. To exhibit, however, the effect by the mere induction of the earth, a large bar, surrounded by a very long wire, is required. A much more intense induction is produced by causing the ends of the same bar, at each half revolution, to pass near the opposite poles of two permanent magnets; or what amounts to the same thing, by making them revolve before the two poles of a horse-shoe magnet. Various machines have been devised in accordance with these principles, for exalting the effects, and facilitating the experiments. The most complete arrangement now in use was the original combination of our countryman, Mr. Joseph Saxton. With a machine of this kind, shocks, decompositions, and all the other effects of galvanism, are produced.

**Galvanic Induction.** From the well-known identity of action of a permanent magnet and a cylindrical coil through which a galvanic current is passing, it might be reasonably supposed that effects similar to those we have just described might be produced by galvanism; and the truth of this inference was, also, proved by Dr. Faraday. The results obtained by him may be stated as follows:—1. When a conductor, for example a copper wire, through which a current of galvanism is

passing, is approached to another conductor arranged parallel to the first, a current of the natural electricity of the metal is induced in the second wire, in a direction contrary to that of the inducing current. —2. As soon as the motion of the conductor ceases the current ceases, and however long the two conductors remain relatively at rest, no effect will be produced on the needle of the galvanometer; but the moment the inducing current is withdrawn, a reflex current is exhibited. —3. If two conductors are placed near and parallel to each other, and a galvanic current is passed through one of them, a momentary induced current, in the opposite direction, will be produced in the other. —4. So long as the galvanic current is kept at the same intensity, no current is observed in the adjoining conductor; but the moment the galvanic current is stopped, a current in the same direction as that of the original current is induced in the adjacent wire. —5. All these principles are readily proved experimentally, by substituting in the experiments we have given under magneto-electricity, instead of the bar magnet, a coil in the form of a cylinder, consisting of several hundred feet of wire, through which a current of galvanism is made to pass. —6. After the discovery by Dr. Faraday of the foregoing principles of galvanic induction, the most important additions to this branch of electricity have been made by Prof. Henry. The following is a brief analysis of his results.

*Induction of a current on itself.* When the poles of a single battery terminating in cups of mercury are joined by a short wire, no spark, or at least a very feeble one, is obtained at the moment of breaking the circuit. But when the same poles are joined with a long wire, a brilliant spark is exhibited each time one end of the wire is drawn from the cup of mercury; and, if the conductor be sufficiently long, pungent shocks may be obtained by grasping the end of the wire while the rupture of the current is made. These effects Professor Henry has shown to be due to a momentary induction in the conductor itself, by which, at the moment of the cessation of the battery current, the natural electricity of the metal of the conductor is put into intense motion. The effects, which are increased by coiling the conductor on itself, are of two kinds; those of quantity, and those of intensity. Those of the first kind are best exhibited by means of a conductor of copper riband, about 100 feet long and an inch and a half

wide, covered with several thicknesses of silk, and wound into a plain spiral like the mainspring of a watch. When one of the projecting ends of the coil is fastened to one of the poles of a small single battery, and the other end drawn along a rasp attached to the other pole, a series of deflagrations is produced, as brilliant as those exhibited in the ordinary way with a battery of 20 or 30 pairs highly excited. To produce, however, the most pungent shocks from a small battery of a single pair of plates, the coil should be formed of a conductor four or five hundred feet long. The pungency of the shocks may be much increased, by placing in the axis of the coil a bundle of iron wires; we shall then have the inductive effect of the temporary magnetism of the iron added to that of the coil itself. On this principle the machines for medical purposes are now constructed. —7. *Conditions which influence the production of a secondary current.* When a flat riband coil, such as we have described, has been placed on another coil of the same kind, and a current of galvanism of a single battery passed through one of them, an induced current of quantity, or such as will produce brilliant deflagrations and magnetize needles, will be developed in the other. If in place of the riband coil which received the induction in the last experiment, there be substituted a coil formed of fifteen hundred yards of fine covered wire, an induced current of intensity will be produced, or such as gives pungent shocks. With a single battery, these effects are only exhibited at the ending of the primary current; but if a compound battery of fifteen or twenty pairs be used, the same results are obtained at the moment of beginning of the battery current. It is, however, a remarkable fact that, with a galvanometer, the quantity of induction in all cases appears to be the same at the completion, and the interruption, of the primary circuit. —8. The induction of a secondary current may be produced at a considerable distance, by coiling a long riband conductor into the form of a hoop, three or four feet in diameter, and placing opposite to this a coil of long wire. In this way, shocks may be given through the partition wall of two adjoining rooms, when the hoop is suspended on one side, and the long wire coil brought opposite to it on the other. —9. The interposed substance, in the last experiment, must consist of some nonconducting material; for if, between the two coils, a plate of metal be placed, the shock is entirely neutralized; and also, surprising

to say, the same result is produced, but less perfectly, if the plate be placed, not between the coils, but on the outside of one of them. This result is shown to be due to an induced current in the plate, which, by its adverse induction, neutralizes the current in the coil.—10. *Currents of different orders.* Although the secondary current we have been describing consists of merely a wave, enduring but for a moment at the beginning and ending of the primary current, yet it can also produce an induced current, and this in its turn another, and so on. The direction of these currents of the different orders, as indicated by the polarity given to a needle in a small coil forming part of the conducting circuit, is as follows:—

|                                     | At the beginning. | At the ending. |
|-------------------------------------|-------------------|----------------|
| Primary current.....                | +                 | +              |
| Secondary current.....              | -                 | -              |
| Current of the third order + .....  | -                 | -              |
| Current of the fourth order - ..... | +                 | +              |
| Current of the fifth order. + ..... | -                 | -              |

From the foregoing table, it might be supposed that each succeeding induction consists of a single wave, in the direction indicated by the magnetization of the needle; but this is not the case. The second induced current, for example, at the beginning of the battery current, does indeed consist of a single wave; but since an induced current is produced, at the ending, as well as at the beginning, of the inducing current, it follows that the current of the third order must consist principally of two waves which may be represented by + -; and since each of these will produce in turn two induced waves, the current of the fourth order must be formed of four waves - + + -, and for the same reason the current of the fifth order must consist of eight waves, and so on. The first wave in each series is the most intense, and hence the magnetic character of the needle is determined by this.

Professor Henry has succeeded in referring all these phenomena of galvanic induction to the principles which he has adopted for the explanation of the dynamic induction of ordinary electricity. If we suppose, in the case of a galvanic current, a constant addition of free electricity to one end of the conducting wire, and a constant subtraction of natural electricity from the other, the first end will be *plus*, and the other *minus*; and if, while the wire is in this state, a parallel wire is made to approach it there,—according to the laws of statical induction, during the advance of the secondary wire an induced current of the natural electricity of the wire should be produced in an opposite di-

rection to that of the battery current. When the motion ceases the current must cease. And although the wire is in a state of unusual equilibrium, which may be readily represented by a diagram, it exhibits no signs of excitement so long as the battery current remains the same and the wire is immovable; but if the second wire be drawn back, then its electricity must return to its normal state, and thus an opposite induced current be produced.

Under this head of galvanic induction, we may mention the recent discovery of Dr. Faraday, of the statical inductive influence of magnetism and galvanism on all solid and liquid substances. He divides all bodies belonging to these two states into two classes; one of which is affected by magnetism after the manner of iron, and is called the magnetic class, and the other, which is differently affected, is denominated the diamagnetic class. When bars of the first class are freely suspended between the legs of a powerful horse-shoe magnet, they arrange themselves, as is well known, in a line passing through the two poles; but when bars of the second class are similarly suspended, they turn into a position at right angles to the same line. Dr. Faraday also finds that a powerful galvanic current passed in a coil around a bar of almost any transparent substance, such as glass, induces on the body a change of molecular arrangement, which is exhibited in the twist given to the plane of polarization of a beam of polarized light transmitted through the substance. The same effect may also be produced by placing the transparent bar between the poles of a powerful magnet. Connected with these inductions, there is an interesting fact, first noticed a few years ago by Dr. Page of the Patent Office, and since studied by a number of persons, of the sound produced in a bar of iron at the moment of magnetization, indicating a change in the molecular arrangement of the metal.

VII. ANIMAL ELECTRICITY. The most important researches which have recently been made in reference to animal electricity are those of Matteucci in Italy. The result of his labours conclusively proves, not that the contractions of the muscles are due to a current of electricity from the brain, but that in all living and recently killed animals there exists in the muscle itself a constant current. The general conclusion to which he has arrived in regard to these currents may be briefly stated as follows:—During the whole time the arterial blood is acting on

the muscular fibre, a current of electricity is evolved, which passes from the fibre to the blood, and thence to the surface, probably the *facia*, of the muscles; or, in other words, the muscular fibre represents the zinc of an ordinary galvanic arrangement, the blood the exciting liquid, and the *facia* the copper or negative element. Indeed, the development of the electricity in the two cases appears to be due to the same cause, namely, the combination of an oxidizable substance with oxygen. We know that the oxygen of the arterial blood acts on every part of the animal economy, and that every part of the organism is undergoing a process of change analogous to combustion, in which carbonic acid is developed, and heat extricated. The electricity in the one case is evolved by the burning of zinc in an acid, and in the other by burning the muscular fibre in arterial blood.—For exhibiting these currents, a deep gash may be made transverse to the fibre of a muscle of a recently killed animal; and if one end of the wire of a delicate galvanometer be plunged into the bottom of the gash, care being taken not to touch the sides and the other end of the wire, brought in contact with the *facia*, the needle will be deflected. By using a series of portions of muscles of recently killed animals, we may form a compound battery; the muscular fibre of one piece being placed in contact with the *facia* or surface of the other, throughout the series. A pile formed in this way, of twelve or fourteen pieces of eels or muscles of pigeons, produces a very marked effect on the galvanometer.

*Effect of the electrical current on the nerves.* It is well known that the galvanic current transmitted along a nerve produces contraction in the muscle in which it terminates. According to Matteucci, there are two stages of vitality after the death of the animal, in which the current produces different effects. In the first of these, muscular contractions are produced both at the commencement and interruption of the galvanic current. In the second, they are observed in one case only, either at the beginning or ending of the current. In the case of mixed nerves, or those composed of bundles of nerves of sensation and motion, and which consequently have double roots, the contraction, when the current is directed from the centre toward the extremities, is exhibited at the commencement of the current; but with the motor nerves, with a current in the same direction, the contraction is only exhibited at the ending of the current.

When the current is in the opposite direction, the phenomena are reversed.

Some of the researches of Matteucci have a bearing on medical electricity, and he has been led to conclude:—that the electrical current may be used with good success in the treatment of cases of paralysis either partial or total, and also of *tetanus*; but that in the therapeutical application of electricity, we should be careful not to continue the passage of the current too long, lest we augment the disease. The more intense the current, the shorter should be its direction. When a current has passed for some time in the same direction through a nerve, paralysis of the nerve ensues; but the sensibility may be almost immediately restored, by passing the current in an opposite direction. In a case of paralysis of the nerve of motion, a current from the extremities to the centre is recommended; for paralysis of sensation, an opposite current must be employed. The most convenient instrument for the application of the electrical current for medical purposes is a single battery-coil machine. Some of these instruments are so arranged as to give a series of currents in alternate directions, and others to produce a series of impulses all in the same direction.

MAHABHARATA; one of the great Sanscrit epic poems, the subject of which is a long civil war between two dynasties of ancient India, the Kurus and Pandus, supposed by several English writers, on astronomical grounds, to have occurred in the 12th century before the Christian era. A translation of the beginning of the poem into English was published, in 1820, in the "Annals of Oriental Literature;" and parts of it have since been given to the public in Germany, chiefly by Bopp, in the original Sanscrit, accompanied by a Latin or a German translation.

MAHMOUD II.\* died, at Constantinople, July 1st 1839. See *Turkey*, (Sup.)

MAL (Angelo), who has become generally known by his discovery of several works of the ancient Greek and Latin writers, which have since been published under his supervision and editorship, is a native of Bergamo in Italy. There he resided, an obscure inmate of a convent of Jesuits, till the year 1813, when he was appointed to take the charge of the Ambrosian library in Milan. In 1819, he became the librarian of the Vatican; since which period he has continued to reside at Rome. After obtaining various ecclesiastical promotions of an inferior rank, he was advanced in 1840 to the dignity of a car-

dinal.—It was in 1814, that the *abbé* Mal laid the foundation of his present extended reputation, by the publication of three orations of Cicero which he had discovered in a *codex rescriptus* of the Ambrosian library. This was followed by that of several works of Cornelius Fronto, not before printed (1815); the letters of Fronto, and of the emperors Marcus Aurelius and Lucius Verus, &c. (Rome, 1823); eight orations of Symmachus (1823), to which he subsequently added several others; a fragment of a comedy of Plautus, entitled "Vitularia;" fragments of the Mæso-Gothic translation of Paul's Epistles; an "Itinerarium Alexandri," with the "Res gestæ Alexandri Macedonici," appended to it (1818); a volume containing select portions of the poems of Homer, with a great number of scholia, and pictorial illustrations, printed or represented after an ancient manuscript; and lastly, the restoration of a portion of the Chronicles of Eusebius, by means of an Armenian manuscript. All these were results of Mal's labours while residing at Milan. At Rome he discovered an almost entire copy of Cicero's treatise "De Republicâ," which he printed in 1822: and there, too, he published some fragments of the civil law as it existed before Justinian; of the "Ars rhetorica" of Julius Victor; together with a volume containing "Nicetæ et Paulini scripta," and a fragment of the "Episcopologia" of Aquileius (1827.) And among the products of Mal's editorship must be mentioned the collection published under the title of "Scriptorum veterum nova collectio e Vatic. codd. edita" (Rome, 1825-38, 10 vols. 4to.); and another collection, begun in 1826, entitled "Auctores classici e Vatic. codd."

MAISON\* (Marshal) quitted Vienna in 1833, to represent his country at the court of St. Petersburg; whence he was recalled to France, two years afterwards, to fill the office of minister of war. He retired from public life in 1836, and died at Paris in February 1840.

MAISTRE (Xavier, count de), a younger brother of count Joseph de Maistre, noticed in a preceding volume, was born at Chambéry, in Savoy, in 1764. He was an officer in the service of the king of Sardinia, and was already known as a chemist and as a landscape painter, when, in 1794, he published his ingenious and philosophical "badinage," entitled "Voyage autour de ma chambre." This little book obtained for him a European reputation, and a rank as an author, in the opinion of some of his admirers, in the class with Sterne. After

the conquest of his country by the French republicans, he went to Russia, and served for a time in the Russian army. He distinguished himself in the war then waged by the Czar against Persia, and attained the rank of a major-general. Establishing himself however, at length, at St. Petersburg, he devoted himself entirely to literary pursuits. In 1811, he published "Le lépreux de la Cité d'Aoste," a tale of great originality and interest, which added considerably to his reputation as an author. He returned to his own country in 1817, and published there "Le Prisonnier du Caucase" and "Prascovie," both of them tales of considerable merit, and rendered doubly interesting by the delineation of the manners and customs of the nations or tribes which had been visited by the writer.—A complete edition of the works of count Xavier de Maistre was published at Paris in 1825 in 3 vols. 18mo., and another since in 2 vols. 8vo.

MALACCA.\* The British colony of Malacca extends about 40 miles along the shore of the Malay peninsula, by 30 inland. Its area is about 800 square miles. It has a population of 22,000, chiefly Malays: that of the town is about 12,000. The soil is deficient in fertility; and its foreign trade has been supplanted by the two great emporiums in its neighbourhood, Singapore and Penang.—An Anglo-Chinese college was established here in 1818. Its main objects are the cultivation of Chinese literature by Europeans, and of European literature by the Chinese, Malays, and surrounding nations, together with the diffusion of Christianity. It has a library, which is well stocked with European and Chinese books, Siamese MSS., &c.; and attached to it is an English, Chinese, and Malay press. This college was founded by Dr. Morrison, the Chinese scholar, from whom, also, it received a small endowment. But at present it depends wholly on the fees paid by the pupils.

MALCOLM\* (Sir John). A short time after his return to England from India, he was elected a member of parliament for the borough of Launceston, in Cornwall, and he took an active part in the debates in that body. Not being re-elected, however, on the dissolution of parliament in 1832, he retired to his seat near Windsor, and occupied himself in the preparation of a work on the "Administration of British India," which was published in 1833. He died of a fit of apoplexy, in May of that year.

MALIBRAN (Maria Felicita), daughter of a singer and composer of music of some



celebrity, of the name of Garcia, was born at Paris, March 24th 1800. When scarcely 5 years old, she commenced her musical education at Naples, under the direction of the best masters. She sang in public, for the first time, in 1824, and so successfully as to give promise of attaining a very high order of excellence as an opera singer. In 1825, she accompanied her father to England, where a sudden indisposition of Mad. Pasta led to her performance, at a short notice, of the part of Rosina in the Barber of Seville. The highly satisfactory manner in which she acquitted herself, on this occasion, secured to her an engagement for the season in London, and she sang afterwards in Manchester, York, and Liverpool. Her father having been induced to come to the United States, he took his daughter with him, as the prima donna of his "operatic corps." Here her success was unbounded; and here she qualified herself by the most assiduous study for entering, on her return to Europe, into successful competition with the most celebrated singers of the time. At New York, in the meanwhile (March 1826), she married a French merchant of the name of Malibran, of more than double her own age, but who was supposed to be possessed of considerable wealth. Soon after the marriage, however, he became a bankrupt. Disappointed in her expectations of a pecuniary independence, and her feelings perhaps offended, as is said, by the cold and ready reliance placed by her husband on her musical powers, as a means of re-establishing his ruined fortunes, she deserted him, and returned to France in the month of September 1827. After two years of a most brilliant career in Paris and the departments, she accompanied Lablache on a professional tour through Italy. Her winters, subsequently, were passed in the French metropolis, and her summers appropriated to excursions in different directions. The French courts, in 1835, pronounced her marriage with M. Malibran to have been *ab initio* null and void, not having been contracted, as it was expressed, before a competent authority, that is, before an authority regarded as such by the French law. In the following spring, she married M. de Bériot, the celebrated violinist, and departed immediately with him from Paris to take up her future residence at Brussels. In consequence of an injury received by a fall from a horse, only a few weeks after her marriage, her health began to decline; and having gone over to England during the summer, she was suddenly attacked by a nervous fever, after

singing at a musical festival in Manchester, contrary to the advice of her physicians. Her already enfeebled constitution was unable to resist the progress of the disease, and she breathed her last on the 23d of September (1836).

**MALTHUS.\*** This eminent individual, the publication of whose "Essay on the Principle of Population" constitutes an era in the history of political science, died on the 29th of December 1834, when on a visit to his father-in-law at Bath. The following character of him is given in the "Supplement to the Penny Cyclopædia." "When a boy, and while at Cambridge, Malthus displayed a great love of fighting for fighting's sake, a keen perception of the ludicrous, much relish for wit and humour, and considerable comic power of imitation; but his character gradually changed: he retained indeed his cheerfulness and playfulness, but he became placid, temperate, patient, and forbearing, under the obloquy which was heaped upon him. His manners were kind and gentle, his conversation mild but earnest and impressive, his deportment gentlemanly. In politics he was a Whig and a decided advocate of all salutary reforms, but strongly attached to the institutions of his country, and fearful of all imperfectly considered changes and innovations."

**MAN (ISLE OF).\*** The purchase made of this island by the British government from the duke of Athol, in 1765, was subjected to certain reservations as to fiscal matters and titular dignity. A further arrangement was made in 1826, and Great Britain now enjoys all the rights and privileges of sovereign of the island. The constitution, however, was left untouched; and the administration is vested in a governor and council, and the "House of Keys," a self-elected body; the whole forming what is called the Court of Tynwald. The acts of this body are binding in all cases, and the laws are so few and brief as to admit of being included in a small volume.

**MANCHESTER.\*** The population of Manchester, including Salford, which is only separated from it by the narrow river Irwell, in 1840, was 236,183.—Its manufactures have, of late years, been prodigiously extended. Besides continuing to be, as heretofore, the great centre of the cotton manufacture of Great Britain, the manufacture of silk goods also, which was introduced in 1816, has been in a highly flourishing state since the removal, in 1826, of the oppressive duties on raw silk; and this branch of industry in Manchester now ex-

seeds that of Macclesfield. Nearly every kind of silk, from the rich brocade to the flimsy Persian, is manufactured, consuming upwards of a million pounds of raw silk, and employing 4000 handlooms, besides 2000 persons in throwing-mills, and 500 in dyeing and printing houses. The manufacture of machinery too, and especially of steam-engines, is conducted on a most extensive scale. And there are several flax-mills. To the increase of the manufactures and trade of Manchester, the canals, and latterly the railways, which connect it with London, Liverpool, and other important points of the kingdom, have essentially contributed. See *United Kingdom of Great Britain and Ireland*, (Sup.)— Much attention has at all times been paid in Manchester to literature and science, and to the education of the inhabitants. A college (removed, by the Unitarians, from York), on the plan of King's College, London, under the denomination of the Manchester New College, was opened for the reception of students in October 1840; and another college has since been instituted for the education of dissenters, styled the Lancashire Independent College. There are two medical schools; two mechanics' institutes, and another establishment for similar purposes called the Christian institute; three lycæums, intended for the improvement and recreation of the working classes, by furnishing them with books, magazines, newspapers, &c.; an athênæum, established in the view of affording to the middle classes a suitable resort for reading, study, and conversation; a royal institution, founded in 1823, for the promotion of literature, science, and the fine arts; a geological and mining society, founded in 1838; a statistical society; a botanical and horticultural society, established in 1827, and possessing gardens which cover 16 acres; a zoological society which has spacious gardens tastefully laid out, and containing a good and increasing collection of animals; and a society of natural history, possessing a good museum.—The fluctuations of alternate prosperity and depression, incident to nearly every kind of manufacturing industry, have tended in Manchester, as elsewhere, to render the rate of wages lower than they might otherwise have been expected to be, and lower than it is desirable that they should be. But there can be little doubt that the condition of the English part of the population has been injuriously affected by the prodigious influx of Irish immigrants, of whom, it is conjectured, there are not fewer than 65,000 in the town, where

they, for the most part, occupy an inferior quarter, called "Little Ireland." We are told that the Irish inhabitants are neither peculiarly disorderly, nor peculiarly dishonest; but their competition has depressed wages, or hindered them from rising, and their example has accustomed the English workmen to a lower standard of food and comfort.

**MANILLA.\*** It is only since the revolution in S. America, that the trade of Manilla has been opened to foreigners; and before that event, it was restricted to one galleon annually to Acapulco. It is the only port in the Spanish Philippines with which Spanish vessels, or foreign vessels from any quarter, are allowed to trade. Spanish vessels trading to China, Singapore, &c., are, however, allowed to proceed to various outports, and there take on board their outward cargo. About 130 ships entered the port of Manilla in 1839; of which 46 were Spanish, 36 British, 28 American, and 11 Chinese. The exports, in the same year, are estimated to have amounted in value to 1,665,265 dollars; but somewhat more than two-thirds of these exports had been previously imported into Manilla from China, Singapore, and elsewhere.—The population of the city is conjectured to amount at present to about 120,000 individuals, including, besides natives, from 4000 to 5000 Spaniards and other Europeans, with Chinese, Negroes, the descendants of the foregoing races, and foreigners from all parts of the world.

**MANNERT\*** died at Munich in September 1834.

**MANZONI.\*** The "Betrothed" (*Promessi Sposi*) of this writer has been followed by a series of historical novels, founded on the older Italian chronicles, and which have added considerably to his reputation. His popularity among his countrymen, it may be mentioned, has given a currency to many of the words and forms of expression which he has borrowed from the ancient Lombard dialect, and which, just before he wrote, would have been rejected as barbarisms by the purists of the della Crusca school. Encouraged probably by the influence thus exercised by him on the language of Italy, this has, it is said, become with him a favourite study, that may perhaps one day bear its fruits in some work professedly relating to the subject.—Manzoni is also the author of a work on "Catholic Morals," which has obtained an extensive circulation.

**MAP.\*** It is impossible to enumerate in

this place the many valuable maps, or charts, which have been published since the appearance of the preceding volumes of the *Encyclopædia Americana*. It will be sufficient to mention, in England, the series of maps of the Society of Useful Knowledge, which has recently been completed, and of which a second and improved edition is now in process of publication, and also Johnston's "National Atlas;" in Germany, Berghaus' Atlas of Asia, and his atlas of physical geography, surpassing in accuracy and style of execution everything of the kind before attempted; and in the United States, besides the improved maps of Tanner, those published by Mitchell.

**MARA**\* (Mad.) died at Reval in January 1838.

**MARANHAM**\* The population is variously estimated, at from 12,000 to 30,000, of which a large proportion are negroes. It has of late years acquired a certain degree of commercial importance. In 1838, 163 vessels left the port with cargoes, the value of which was estimated at £303,552; the value of the imports, in the same year, amounted to £414,002. The number of slaves annually imported is supposed to be as many as 3000.

**MARBOIS**\* (Barbé) died in 1837.

**MARBURG**\* Population, in 1840, 7700. The university has at present 40 professors, and 270 students.

**MARCHESI**\* died at Milan on the 15th of December 1829.

**MARET**\* (duke of Bassano). After the revolution of July he was created a peer, and was minister of the interior in the ministry of "the three days" of November 1834. From this period till his death, which occurred in May 1839, he lived in complete retirement from public affairs. At his funeral, Dupin the elder pronounced an eulogy upon him as a politician and statesman, and he was also eulogized by Étienne, in his character as a member of the Academy of Sciences.

**MARIA CHRISTINA**, queen dowager of Spain. See *Spain*, (Sup.)

**MARIENZELL**, a village of the Austrian empire, province of Styria, about 55 miles S.W. of Vienna, and containing about 1000 inhabitants. It is noted for its shrine of the Virgin, which is visited annually by 80,000 or 100,000 pilgrims.—The iron foundries in the vicinity of Marienzell are the most important in the empire. Every species of casting is executed in them, from the largest cannon and steam-engines, down to trinkets, which are said to rival those of Berlin.

**MARMONT**\* (Marshal) has absented himself from France since the revolution of July 1830, travelling through Hungary, and the S. provinces of the Russian empire, as well as to Constantinople, Egypt, and the Levant, and subsequently taking up his residence at Vienna. An account of his travels has been published by him in 6 volumes 8vo.

**MARQUESAS ISLANDS**\* These islands were taken possession of by a French force, under the command of Rear-Admiral Dupetit-Thouars, on the 1st of May 1842.

**MARS**\* (Mademoiselle). Her last performance at the theatre was in April 1841.

**MARSDEN**\* This distinguished Oriental scholar died of apoplexy on the 6th of October 1836, in the 82d year of his age.—His Malay grammar and dictionary still continue to be the standard works on Malayan philology; and they have been translated into the French and Dutch languages, by the direction of the king of the Netherlands. He was the author, in addition to the works already mentioned, of a "Translation of the celebrated Travels of Marco Polo" (1817), which is very accurately executed, and is accompanied by a commentary more valuable than the translation itself; of a treatise entitled "Numismata Orientalia, or Description of Eastern Coins," in 2 parts (1823-25); and shortly before his death, of three essays, the most important of which is on the Polynesian or East Insular languages, a subject to which he had given much attention.

**MARSEILLES**\* Population, 147,191.—In 1841, 3782 vessels arrived in the port, of the burden of 561,055 tons; and 3639 departed from it, of the burden of 534,055 tons. The value of the annual imports of merchandise into Marseilles, may be estimated at 200,000,000 of francs, and that of the exports at about as much.

**MARSH**\* (Herbert) died May 1st 1839.

**MARSH** (James), D. D., President and Professor of Philosophy in the University of Vermont, was born at Hartford, Vt., July 19th 1794. After spending his early youth contentedly in the labours of his father's farm, he entered Dartmouth College in 1813, and was graduated in 1817. He also resided two years at the same college as tutor, and three years at the Andover Theological Seminary. During these nine years, Dr. Marsh was distinguished for the steady enthusiasm and for the enlarged and liberal spirit with which he pursued a well-settled system of study, and for the singular success with which he trained his mind to habits of abstract and subtle think-

ing. In addition to remarkable acquisitions in theology and in ancient and modern literature, he led the way, in this country, to the study of a profounder philosophy, in the writings of Coleridge and of the German authors. — After having completed his theological studies and been ordained as a minister in the congregational church, Dr. Marsh resided three years in Virginia as Professor of Languages in Hampden-Sydney College. In October 1826, he was elected president of the university of his native State. This institution was at that time in a condition of great depression, in all respects; but during the presidency of Dr. Marsh, and by an impulse derived from him, was raised to the eminent and somewhat peculiar position which it still holds amongst the colleges in New England. This end was attained, not by ordinary appeals to patronage, but by the adoption of a high standard of scholarship, an improved course of study, and a liberal system of instruction with severe examinations—all deriving power and efficiency from his own enthusiastic spirit and encouraging example. — In 1829, Dr. Marsh published an edition of Coleridge's "Aids to Reflection," with a preliminary essay and copious notes of his own; and thus contributed materially to the foundation of what may be called a School of Theology and Philosophy in New England, before any similar result had been produced in the author's own country. Dr. Marsh's "Preliminary Essay" was adopted by H. N. Coleridge, and continues to be printed in connexion with the English editions of the original work.

**MARSH**; a flat surface, the soil of which is so far saturated with water throughout the year as to be unfit for culture by the spade or plough, but not so much as to prevent it from producing coarse grasses and other kinds of herbage. Where a marsh is situated so as to be occasionally overflowed by the sea, or by a river up which the tide flows, it is called a salt-marsh; and the herbage produced by such lands is found highly conducive to the health of animals which pasture on them for a certain portion of the year, from the alterative effect of its saline properties.

**MARSHALL** (John), Chief Justice of the United States, was born in Fauquier county, Virginia, on the 24th of September 1755. He was the son of Colonel Thomas Marshall, a planter of a moderate fortune, who afterwards served with distinction in the American army, during the war of the Revolution; and he was the eldest of 15 children. Colonel Marshall

had removed with his family to a place called "The Hollow" in the mountains east of the Blue Ridge, and, from the want of schools in that neighbourhood, became of necessity the first instructor of his son. Being a man of vigorous intellect, though of a comparatively limited education, he succeeded in efficiently training the opening faculties of the latter, and imbuing him with a taste for literature. At the age of 14, young Marshall was placed under the charge of a Mr. Campbell, a respectable clergyman, at the distance of about 100 miles from home, and remained with him a year; and he then pursued his classical studies for another year, under the direction of a Scottish gentleman who resided in his father's family, and had lately become the pastor of the parish to which he belonged. This was all the formal instruction which he received at this period of his life, as he was never at any college.—On the breaking out of the revolutionary war, Mr. Marshall embraced with ardour the cause of his country, and was engaged in the action at the Great Bridge, where Lord Dunmore was defeated by the provincial militia. He was appointed a lieutenant in the continental army in July 1776, and promoted to the rank of a captain in May 1777. He was present at the battles of Brandywine, Germantown, and Monmouth, and continued to serve with distinction until the time of enlistment of the troops with which he served had expired, when he returned to Virginia. An interval of 9 or 10 months was now occupied by him in prosecuting the study of the law, which he had already previously entered upon. Having been admitted to the bar, he again joined the army in October 1780, and served under the orders of Baron Steuben in the defence of Virginia from the invasion of a British force commanded by General Arnold. But before the renewed invasion of the State in the following year, there being more officers than was required by the Virginia line, he resigned his commission; and, on the re-opening of the courts of law after the surrender of Lord Cornwallis, he commenced the practice of his profession, in which he rose rapidly to distinction.—In the course of the year 1782, Mr. Marshall was chosen first a member of the Legislature, and then of the Executive Council. On his resignation of the last-mentioned office in 1784, he was, though residing at the time in Richmond, elected a member of the Legislature from his native county of Fauquier; and in 1787, he represented the county of Henrico in the same body

We next find him, as one of the delegates to the convention of Virginia which met in June 1788 for the ratification of the Constitution of the United States, ably defending against its adversaries the provisions of this instrument,—especially those relating to the powers of taxation, over the militia, and of the judiciary, granted by it to the general government. He was elected a member of the Legislature from the city of Richmond in 1789, 1790, and 1791. He declined a re-election in 1792, and from this period until 1795, was occupied uninterruptedly in the practice of his profession. His friends were, however, unwilling, in a season of great political excitement,—it was just after the conclusion of “Jay’s treaty,”—that he should remain abstracted from any participation in public affairs; and they, accordingly, elected him once more to the Legislature; where, if he did not succeed in preventing the adoption of resolutions approving of the votes of the senators from Virginia, against the ratification of the treaty, on the ground of its inexpediency,—to him at least it was in a great measure owing that they did not touch the constitutional objection, and that they disclaimed all intention to censure the motives of the President of the United States (General Washington) in ratifying it.—The extraordinary ability displayed at this time by Mr. Marshall obtained for him a conspicuous position in every part of the country, and he came to be regarded as a proper person to fill the highest political offices. Accordingly, he was offered successively the appointments of attorney-general of the United States, and minister to France, (on the recall of Mr. Monroe, in 1796,) both of which he declined. He continued in the Legislature of Virginia, where, however, he participated in the discussions only on important questions of general policy, his attention being for the most part given to his professional business, which had now become very extensive and lucrative.—On his refusal to accept of the embassy to France, General Pinckney was appointed in his stead. But the French government (the Directory) having refused to receive the latter, Mr. Adams, who was then the president, deemed it proper to make a last effort to preserve peace with France, by sending a special mission to that country. For this purpose, Mr. Marshall, in conjunction with General Pinckney and Mr. Gerry, was selected; and in the then existing critical posture of our foreign relations, he did not feel himself at liberty, as before, to decline the appointment tendered to him. The mission was unsuccessful, the American envoys not having been even received as such. Their letters, addressed to Talleyrand, the French minister of foreign affairs, are attributed to the pen of Mr. Marshall, and have been applauded as admirable specimens of diplomacy. In the summer of 1798, Mr. Marshall returned to the United States; in 1799, at the urgent request of General Washington, he became a candidate and was elected to Congress; and in 1800, he was appointed secretary of war, and then secretary of state. During the short period that he was in Congress, it is needless to say that he ranked among the ablest of that body, and on all constitutional questions was distinguished above every other member. “When he discussed them,” remarks Mr. Binney, in his Eulogy of Mr. Marshall, “he exhausted them; nothing more remained to be said, and the impression of his argument effaced that of every one else.” The speech which he delivered on the surrender of the person of Jonathan Robbins, on the requisition of the British minister in this country, under a clause of the treaty with Great Britain, upon a charge of murder committed on board a British frigate,—which speech is believed to be the only one that he ever revised,—is thus characterized by the same gentleman: “It has all the merits, and nearly all the weight of a judicial sentence. It is throughout inspired by the purest reason, and the most copious and accurate learning. It separates the executive from the judicial power by a line so distinct, and a discrimination so wise, that all can perceive and approve it. It demonstrated that the surrender was an act of political power which belonged to the executive; and by excluding all such power from the grant of the constitution to the judiciary, it prepared a pillow of repose for that department, where the success of the opposite argument would have planted thorns.” It may be mentioned that, during his term of service in Congress, he voted for the repeal of the obnoxious section of the act commonly known by the name of the “Sedition Law,” and evinced his superiority to mere considerations of party, by thus voting in opposition to all the members with whose political opinions his own generally corresponded.—On the 31st of January 1800, Mr. Marshall became Chief Justice of the Supreme Court of the United States, an office which he filled with the highest honour to himself, and with the greatest advantage to his country, for up-

wards of 36 years. "The decisions of the Supreme Court of the United States," we again quote the words of Mr. Binney, "have raised the renown of the country, not less than they have confirmed the constitution. In all parts of the world, its judgments are spoken of with respect. Its adjudications of prize law are a code for all future time. Upon commercial law it has brought us nearly to one system, befitting the probity and interests of a great commercial nation. Over its whole path, learning and intelligence and integrity have shed their combined lustre."—Judge Marshall was a member of the convention which met in the year 1829 for revising the constitution of Virginia. He spoke with much power on both of the great questions which divided and agitated the parties composing that body, namely the basis of representation and the tenure of judicial office; and while he contributed, by the sound sense and moderation of his views in reference to the former, to produce a compromise between the extreme opinions entertained concerning it, he was in no ordinary degree instrumental in causing the tenure of good behaviour, for the judges of the Superior Courts, to be adopted in the proposed constitution, guarded "by a clause against the construction which had in one instance prevailed, that the repeal of the law establishing the court, and by a mere majority, should dissolve the tenure, and discharge the judge upon the world."—Having been for some months in feeble health, he visited Philadelphia that he might have the benefit of the most skilful medical aid, and died in this city, on the 6th of July 1835.—Judge Marshall published his "Life of Washington" in 1805, in 5 volumes. It was greatly improved and compressed into 2 volumes, in a second edition which appeared in 1832. The first volume of the original work was published in a separate form in 1824, under the title of "The History of the American Colonies."

MARTIGNAC\* (Jean Baptiste Silvère Aigay, viscomte de) was born at Bordeaux in the year 1776, and died at Paris on the 3d of March 1832, about 15 months after his celebrated defence of Prince Polignac before the Chamber of Peers. His speech on that occasion is to be ranked among the finest specimens of French eloquence.—A few days before his death, he had announced the publication of a work entitled "Essai historique sur la revolution d'Espagne et sur l'intervention de 1823." It appeared not long afterwards, in 3 volumes 8vo. He was the author also of "Esopo

chez Xanthus;" a vaudeville in 1 act (1801), and of "Le couvent de Sainte Marie aux Bois, épisode, précédée d'une notice sur la guerre d'Espagne en 1823" (12mo. 1831).

MARTINEZ DE LA ROSA (Don Francisco), distinguished as a statesman and man of letters, was born at Granada, in Spain, in the year 1786, of a family of "hidalgos." As the eldest son of his father, he was entitled to the whole of his paternal estate, but voluntarily shared it with his brothers. Scarcely had he finished his studies, when he began to lecture on philosophy and history in the university of Salamanca. On the French invasion of 1808, he published a journal, in which he eloquently supported the cause of the national independence. In 1812, he was entrusted by the cortes with several diplomatic missions; and he was, two years afterwards, elected a member of the first assembly of the ordinary cortes, which was subsequently dissolved by Ferdinand VII. He shared the fate of the leaders of the liberal party who were transported to Africa. There he composed his tragedy of "Morayma." The revolution of the Isle of Leon, in 1820, restored him to liberty, when he was chosen by his native city as its representative in the cortes. Not less prominent by his eloquence than by his qualifications as a statesman, he drew nearer to each other the extreme factions of that body, which soon selected him to be its presiding officer. In 1822, Ferdinand placed him at the head of the department of foreign affairs, and charged him with the formation of the cabinet known as the ministry of the "moderates;" a ministry that was speedily overthrown by the triumph of the "comuneros" and "descamisados," consequent upon the revolt of the guards. On the dissolution of the constitutional government in the following year, he was fortunate enough to make his escape into France. He spent 7 years in that country in the cultivation of literature; and an historical play, of which he was the author, was represented at Paris in 1830. A short time after this he was permitted to return to Spain, where, without any compromise of his principles, he succeeded in gaining the confidence of the government. In January 1834, after the fall of the ministry of which Zea Bermudez was the head, Martinez de la Rosa was appointed by the queen-regent to the office of minister of foreign affairs, as well as to that of president of the council of ministers. He hastened to recall to their country Arguelles, Galiano, Isturiz, Qui

rega, Mina, and all others of the Spanish patriots who had been excepted from the preceding amnesty, promulgated by the government in favour of political offenders. On the 10th of April, he published the new constitution, styled the "Estatuto Real," which was vehemently attacked by the partisans of the constitution of 1812; and some days afterwards, he signed the treaty of the quadruple alliance between Spain, Portugal, France, and England. The violent hostility evinced to him by his political opponents obliged him, on their triumph over his administration, to take refuge once more in exile from his country. This exile, however, like the former, was only temporary. He returned after a season to Spain, to become again one of the most conspicuous members of its legislature, and to command, at length, universal respect, on account of the moderation and dignity of his character. — An edition of his literary productions was published at Paris in 1832, in 4 volumes. The estimation in which he is held, as a man of letters, by those among his countrymen best qualified to judge of his merits, will appear from the fact of his having long filled the office of perpetual secretary of the Spanish Academy.

**MARTINICO or MARTINIQUE.\*** In 1841, the population of Martinique amounted to 117,906 individuals, of whom 75,225 were slaves, and about 9000 whites; the remainder being free people of colour. The government of the island is, in addition to a governor and council, vested in a colonial assembly of 30 members elected for 5 years. Every individual of French descent, 25 years of age, born or having resided two years in the colony, and paying taxes to the amount of 300 francs a year, or having property worth 30,000 francs, may be an elector; and inhabitants paying taxes, or possessing property, of double the amount, are eligible to the assembly. The value of the annual imports may be set down at 20,000,000 of francs. The number of French vessels, which entered the ports of the island in 1823, was 353, of the aggregate burden of 48,861 tons; the number of foreign vessels, which entered in the same year, was 495. — Fort Royal is the seat of government. It is on the N. shore of the bay of the same name, in the S.W. part of the island, and contains about 14,000 inhabitants. St. Pierre, on the W. coast, with about 18,000 inhabitants, is, in respect to commerce, the most important town.

**MARTIUS** (Charles Frederic Philip von) was born at Erlangen, in Germany, in

1794. He studied medicine, but subsequently directed his attention almost exclusively to botanical researches, in which he attained a high degree of eminence, and was the author of an entirely new system of the classification of plants. In 1817-20, he accompanied Spix on a scientific journey to Brazil, performed at the suggestion and the joint expense of the Austrian and Bavarian governments, and of which an account was published by them on their return (Munich, 1823-31, 3 vols. 4to). Martius is also the author of a number of botanical works, several of them relating to Brazilian plants. He is at present a professor in the university of Munich, and has the charge of the botanic garden in that city.

**MARTOS** (Ivan Petrovitch), an eminent Russian sculptor. He was for many years director of the Academy of the Fine Arts, at St. Petersburg; and died, April 17th 1835, at the age of 62. He had attained the highest excellence in his art; rivalling Canova in his draperies, and in subjects of bas-relief being superior to any of his contemporaries. Among his best works may be reckoned the colossal group in bronze of Minin and Pozharsky, at Moscow; the emperor Alexander, at Taganrog; the duke of Richelieu, at Odessa, &c.

**MASUAH;** the principal sea-port of Abyssinia on the Red Sea, on an island separated from the continent by the narrow but deep channel of Adowa, 250 miles N.E. of Gondar, and 420 miles S. by E. of Djidda. It is a small and wretched town, though a considerable trade is carried on between it and the ports of Arabia. Articles of European and Indian manufacture are here exchanged for slaves, gold-dust, ivory, rhinoceros' horns, and corn, brought from the interior by a large caravan, which arrives in February of every year. The Naybe demands 10 per cent., *ad valorem*, on all exports and imports; and the same amount of duty is levied by the Imaum.

**MATANZAS.\*** Population at present not less than 20,000. — Until 1809, it was merely a subsidiary port to the Havana, and was not allowed to carry on any direct intercourse with foreign countries; but this impolitic restriction being then removed, Matanzas became at once the centre of a considerable trade; and the town and its commerce have steadily augmented, with the rapidly augmenting cultivation of sugar and coffee, and other colonial staples, in the adjoining districts. In the course of 1839, as many as 191,800 boxes

of sugar, and 174,800 arrobas of coffee, were exported from Matanzas.

**MATARO**; a sea-port town of Spain in Catalonia, 20 miles N. E. of Barcelona, with 13,000 inhabitants. It is celebrated for its red wine and brandy, much of which is exported to the United States.

**MATÉ, YERBA, or PARAGUAY TEA**; the leaves of an evergreen, shrubby plant, (*Ilex Paraguayensis*), largely consumed in the manner of tea in many parts of S. America, where it is the subject of an extensive commerce. The plant grows wild in all the woods bordering the affluents of the Uruguay and the Parana, as well as those of the Paraguay from the E., from lat. 24° 30' northward. The leaves are first slightly scorched, by drawing the branch itself through fire; they are then roasted, broken down, and packed under strong pressure. The custom of using this herb was derived by the Spaniards from the Indians of Maracaya; and it is now general in Paraguay, and even in Chile, Peru, and elsewhere. A pinch of the leaves is put into warm water, and the infusion is imbibed through a little tube pierced with small holes in the lower part, which only allow the passage of the water, and keep back the leaves. The same leaves serve for three infusions. Some drink it with sugar or lemon-juice, and it is taken at all times.

**MATHIAS\*** died in 1837, while on a visit to Italy.

**MATLOCK**; a village in the county of Derby in England, celebrated for its mineral waters, which are considered beneficial in cases of glandular affections, scrofula, bilious disorders, pulmonary complaints, and diabetes. The waters have a temperature of 66° or 67° Fahr., in other respects resembling the Buxton and Bristol waters.

**MATTER** (Jacques) was born at Old-Eckendorf in Alsace, in May 1791. His parents placed him, when 15 years of age, as a pupil in the gymnasium at Strasburg, then under the direction of Oberlin. In the following year, however, he attended lectures on philological and philosophical subjects in the Protestant Academy, and on history, modern literature, &c., in the newly established Imperial Academy of that city. He next went to the university of Göttingen, where his studies embraced jurisprudence, and other branches of a nature to qualify him for a civil or diplomatic career. From Göttingen he proceeded to Paris, and there, in 1816, a prize was awarded to him for his "*Essai historique sur l'école d'Alexandrie*," which was published in 1820. His success in this instance determined him to devote himself

to literary pursuits. Royer Collard, who was then president of the Committee of Public Instruction, gave him, in 1819, the choice of a professorship in the colleges at Strasburg, Toulouse, or Douai. He chose the first-mentioned of these; but, two years afterwards, he accepted the offer made to him to become the rector of the gymnasium of which he had formerly been a pupil, uniting with this office the professorship of history in the Protestant Academy. Subsequently, he became "Inspector" of the Academy, and was at length, in October 1832, transferred by Guizot from Strasburg to Paris, as "Inspector-General" of the University.—M. Matter, besides the essay above referred to, is the author of a number of very valuable works, such as the "*Histoire générale du christianisme et de la société chrétienne, considérée dans ses institutions et ses doctrines*" (4 vols. 2d ed. 1838); "*Histoire critique du gnosticisme et de son influence sur les sectes religieuses et philosophiques des six premiers siècles de l'ère chrétienne*" (3 vols. 1838); "*De l'influence des mœurs sur les lois, et de l'influence des lois sur les mœurs*" (1832), a prize essay, which was adjudged to possess so great a degree of merit as to obtain for him an *extraordinary* prize of 10,000 francs; and the "*Histoire des doctrines morales et politiques des trois derniers siècles*" (3 vols. 1837). He has written several elementary school-books, and has contributed articles to the "*Dictionnaire de la conversation et de la lecture*," and the "*Encyclopédie des gens du monde*." In addition also to all this, he is the author of an essay entitled "*Des principes de philosophie qui sont communs à Pythagore, à Platon et à Plotin*," and of translations into French of Cicero's "*Questions tusculanae*" and "*De natura deorum*;" and he was the editor, at the request of Benjamin Constant, of the latter's posthumous treatise, "*Le polythéisme Romain*."—In his philosophical opinions, Matter, notwithstanding his German education, coincides essentially with those entertained by his friend Royer Collard, or with the Scottish school of Reid and Stewart, who, disdaining to acquire the credit of being profound by becoming obscure, mystical, or *transcendental*, confined themselves in their inquiries to a record of the mental phenomena, and the deducing from these, by a legitimate induction, of the laws by which they are regulated.

**MATTHEWS\*** (Charles) died in 1835, after his return to his own country from a second visit to America.



**MATTHIE.\*** This celebrated philologist died on the 6th of January 1835.

**MATTING** is a texture formed of rushes or the bark of trees interwoven, and used for covering floors, for packages, and other purposes. Mats are imported from various countries, but chiefly from Russia, where a kind called *bast mats* are manufactured on a large scale from the inner bark of the linden tree. The *matting bags*, in which sugar is exported from Mauritius, are made of the leaves of a tree called in that island the *racoa*. Floor and table mats, made from rattans and rushes, are brought from China.

**MAUGUIN** (François), born at Dijon on the 28th of February 1785, was the son of a French lawyer, who destined him at an early age for the legal profession, and directed his education with this object constantly in view. After finishing his preparatory studies, he attended the course of instruction in the "Académie de législation" till 1804, in which year he was admitted to the bar. He did not, however, commence the practice of his profession until 9 years afterwards, devoting himself in the mean time to severe and persevering study. Scarcely had he entered upon his career as an advocate, when he attracted general notice by his attainments and eloquence. He distinguished himself especially in the defence of individuals accused of political offences; among whom were Labédoyère in 1815, Col. Fabvier in 1820, and Mignet in 1825.—From 1827 down to the present time, M. Mauguin has been a member of the chamber of deputies. Before and at the revolution of July 1830, he took an active and energetic part in opposition to the government of Charles X. He was among the foremost of those who, during the "three days," urged the measure of a provisional government; and he was conspicuous at that period, as a member of the municipal commission which held its sittings at the "Hotel de Ville." But he did not long give his support to the new monarchy. Finding that Louis Philippe and his ministers were unwilling to carry out the principles of the revolution to its legitimate consequences, he placed himself, with Odilon Barrot and other disappointed *liberals*, at the head of the "movement party." More lately, he has adopted a more independent position in politics. While still classed in the ranks of opposition, his attacks or criticisms on the measures of the government have become less indiscriminate than heretofore; and he has not hesitated at times to speak and to vote against his political friends.

**MAURITIUS.** The population of this island in 1839 consisted of Europeans and Africans 109,740, of whom 69,800 were males, and 39,940 females; Indians 23,800, of whom as many as 23,490 were males, and only 419 females; and aliens and strangers 1548;—making a total of 135,197.—The emancipation of the slaves in the Mauritius, we are told, does not appear to have been so prejudicial to agriculture as in the British West India Islands. A number of Hill Coolies were brought from Hindostan, but on account of their becoming little else than slaves, their introduction was afterwards stopped. Chinese settlers have also been introduced, though not in any considerable numbers. Owing to the admission into Great Britain, since 1825, of the sugar of the island on the same footing with that procured from the West Indies, the inhabitants have devoted themselves almost exclusively to sugar-planting. The exports of sugar, which in 1825 amounted to 21,793,766 lbs., in 1842 had augmented to 75,738,144 lbs. France still retains a great part of her trading connexion with Mauritius, one-eighth part in value of the total imports into the colony being from that country.—The government is vested in a governor and legislative council. The former is aided in his duties by an executive council, composed of the military officer second in command, the colonial secretary, and the advocate-general. The legislative council is composed of 15 members, 7 of whom hold no official station.

**MAVROCORDATO.\*** From the period of his exclusion from the administration of the government of Greece, after the fall of Navarino, Mavrocordato, dissatisfied and disgusted, retired almost entirely from public life; only performing occasionally a few minor services to his countrymen. He united with Miaulis, Conduriottis, and others of the Greek leaders, for the purpose of extorting from count Capo d'Istrias, on the latter being invested with the office of president, a convocation of a national assembly. Their efforts to accomplish this were unavailing; and a revolt of the Ionian islands seemed to be the signal for a general civil war, when the assassination of Capo d'Istrias, in October 1831, and the appointment of prince Otho of Bavaria to be king of Greece, in February 1833, gave a new aspect to the condition of affairs. Mavrocordato was selected to be the minister of foreign affairs under the new government, to which he gave his zealous support. In 1834, he was sent on a diplomatic mission to Mu-

nich, Berlin, and London. Returning to Greece from the last-mentioned capital in 1841, he became, for a short time, president of the council of ministers. He proceeded then as Greek ambassador to Constantinople, to negotiate anew with the Porte a treaty of commerce in place of that which had before been concluded by his predecessor Mr. Zographos, and which his own government had refused to ratify; a circumstance which rendered his office one of peculiar importance and difficulty.

**MAVROMICHALIS.\*** The disputes of this chief with the Greek government, relative to the revenues of the Mainote district, led to the arrest of Mavromichalis, and to the assassination, in 1831, of the president Capo d'Istrias, by the brother and son of the former. Mavromichalis was subsequently set at liberty by king Otho, and appointed one of the council of state.

**MAY-DAY.** The first of May is usually so called, in commemoration of the festivities which, from a very early period, were observed on that day. The earliest notice of the celebration of May-day in England may be traced to the Druids, who, on May-eve were accustomed to light large fires on eminences, in gratitude and joy for the return of spring. Under the Romans, certain heathen observances were introduced in honour of the goddess Flora, which, in a modified form, and without any reference to the source in which they had their origin, were subsequently continued for many ages. The *may-pole*, which is still visible in many of the English villages, and *Sock-in-the-green*, are relics of this custom. The celebration of May-day consists at present, where it subsists at all, simply in an excursion to the fields, in larger or smaller parties, for the gathering of flowers, accompanied by such merry-making and other entertainments, as the occasion naturally suggests.

**MAYER\*** (Simon) died December 2d 1845.

**MAYNOOTH;** a small town in Ireland, 14 miles W. of Dublin, of no importance excepting on account of the contiguous college, on which chiefly it depends for its support. This institution, destined for the education of the Catholic clergy of the island, is placed under the direction of a board of trustees, of whom the Roman Catholic archbishops are members *ex officio*, the remainder being selected from the Catholic hierarchy and nobility, in the proportion of 7 of the former to 6 of the latter. An additional board of control was appointed by parliament in 1800, consisting of the lord-chancellor of Ireland, the

justices of the Queen's Bench, Common Pleas, and Exchequer, the 4 Roman Catholic archbishops, and the Earl of Fingall. This board holds triennial, or, if necessary, more frequent visitations, and has power to examine into all matters connected with the college. The chief functionaries of the establishment are the president, vice-president, and 2 deans; besides whom, there are 3 professors of Divinity, and 5 others giving instruction in various branches of literature and science. The number of students is 450, at which it is limited by the inadequacy of the funds to admit of farther augmentation. The funds consist principally of an annual parliamentary grant of £8923, and £2000 a year are derived from donations and bequests.—The library of the college contains about 10,000 volumes, for the most part on theological subjects.

**MEAD** or **MÆTHEGLIN;** a liquor made by dissolving one part of honey in three parts of boiling water, flavouring it with spices, and adding a portion of ground malt and a piece of toast dipped in yeast, and suffering the whole to ferment. The Scandinavian mead is flavoured with primrose blossoms. Mead formed the ancient, and for centuries the favourite, beverage of the northern nations.

**MEADOW** is a flat surface under grass, generally on the banks of a river or lake, but so far above the surface of the water as to be considerably drier than marsh land, and, therefore, to produce grass and herbage of a superior quality. The soil of meadow lands is generally alluvial, and more or less mixed with sand; and it is kept in a state of fertility by the depositions made on its surface, in consequence of being occasionally overflowed by the adjoining river or lake. The produce of meadows is commonly made into hay, which, though not equal in quality to that produced on drier grass lands, is yet superior to what is obtained from marshes.

**MECHANICS' INSTITUTES.** This is the name given in Great Britain to the means by which instruction is communicated to tradesmen and mechanics in large towns. These institutes are said to have owed their origin to Dr. Birkbeck, who, in 1800, delivered a course of lectures on natural philosophy, and its application to the arts, to an audience composed entirely of the mechanics of Glasgow; though it was not till after the lapse of 20 years that his idea was followed up. Institutions of this sort are at present established in almost every town in England whose population amounts to 10,000, and in some of much

smaller number. They are supported partly by contributions, and partly by the subscriptions of the members. Short courses of lectures, illustrated by experiments, are given on the most interesting and popular branches of natural philosophy; and lectures are also occasionally given on literature, moral philosophy, political economy, &c. Reading-rooms are attached to the greater number of these institutions, which, speaking generally, are well attended.

**MECHLIN.\*** Population in 1836, 22,896. It is the seat of a tribunal of primary jurisdiction, and has an ecclesiastical seminary, a college, an academy of painting, a society of the fine arts, and a *mont de piété*. The lace manufacture, for which it was celebrated, has very much declined. Among its other fabrics are those of cashmere shawls, and gilt leather chairs: the latter were at one time an article of export; and it is said that upwards of 400 workmen are still engaged in making them.—Mechlin is accessible to vessels of considerable burden from the Scheldt; and is the central depôt of the Belgian railways.—The archbishop of Mechlin is primate of Belgium, and has a revenue of about £4000 a year.

**MECKEL\*** died at Halle in October 1833.

**MECKLENBURG-SCHWERIN.\*** The population of this duchy has increased very rapidly during the last 25 or 30 years, partly, it is said, in consequence of the breaking up of the old feudal system, and partly also of the introduction of the potato. The number of inhabitants, in 1818, was 377,954; they amounted, in 1843, to about 505,000. Mecklenburg is still, however, the least populous portion of Germany, there being only 99 inhabitants to the English square mile. Till within the last 25 years the peasants were in a state of mitigated slavery. They could acquire, enjoy, and transmit property, but they were *adscripti glebæ*, and bound to the soil, so as to be sold or let with it. About 1820, all the peasants who still remained in the condition of serfs (for many of the proprietors had already, since the peace, emancipated those on their estates) were declared free, though their actual manumission did not take effect till about 1825. At present, they are quite free, and may labour where, and under whatever conditions, they please to stipulate with their employer.—The government is intimately connected with that of *Mecklenburg-Strelitz*. Each grand duchy has its separate states, which meet separately; but the states of both grand duchies assemble

together, also, once a year, alternately at Sternberg and Malchin. The joint assembly has the right, in conjunction with the grand duke of Mecklenburg-Schwerin, to make laws for, and impose taxes on, the whole of Mecklenburg. It consists of the landed proprietors among the nobility, and of deputies from towns, &c., in all amounting to between 500 and 600 members. The initiative in all legislation belongs to the grand duke; and every measure must be proposed to the states in writing.

**MEMBRANE**, in anatomy; a broad, nervous, and fibrous substance, which serves as a covering for different parts of the body, particularly the brain and the viscera.

**MÉRIMÉE** (Prosper) was born and educated in Paris, in 1800. He studied the law, and was admitted an advocate, but never practised as one. Till the revolution of July his attention was divided between the politics of the day and literature; he wrote for the journals, and published, likewise, without disclosing the name of the author, several works of imagination, as, for example, "*Le Théâtre de Clara Gazul, comédienne espagnole, traduit de Joseph L'Estrange*" (1825), "*La Guzla, ou choix de poésies illyriennes*," professing to be a translation of pieces collected in Dalmatia, Bosnia, &c. (1827), "*La Jacquerie*" (1828), and the "*Chronique du regne de Charles IX.*" (1829), in which he represented the famous massacre of St. Bartholomew's eve as the consequence of a sudden excitement against the Protestants, and not, as it is commonly understood to have been, a premeditated event. Count d'Argout, of whom he was a connexion, appointed him, on becoming minister of Marine, after the accession of Louis Philippe, to be his private secretary. He was subsequently chief clerk (*chef de bureau*) in the department of the Marine. In 1835, he quitted this office to become the "inspector of the monuments of France;" which appointment he, however, resigned in 1837, to hold once more the office of chief clerk in one of the departments of the administration.—His official duties did not withdraw M. Mérimée altogether from the prosecution of his literary career. Besides contributing to the "*Revue de Paris*" and the "*Revue des deux mondes*," he has produced a number of novels, all of them tending, in a greater or less degree, to enhance his reputation as an author.—In 1844, he was chosen a member of the French Academy, in the room of Charles Nodier.

**MERLIN,\*** of Douai, returned to France

after the revolution of July 1830, and died at Paris in December 1836.

MERLIN\* of Thionville continued to live in retirement from public affairs till his death, in 1833.

MÉTAYER. In France and Italy, a farmer is so called who holds land on condition of yielding half the produce to the proprietor, from whom he receives tools and stock. This mode of letting land prevails also in parts of Spain, and in some parts of the East.

METHEGLIN. See *Mead*, (Sup.)

METTERNICH.\* By his prudence and discretion, this distinguished statesman contributed, in no slight degree, to the preservation of the peace of Europe after the French revolution of July 1830. It was by his advice that the emperor of Austria acknowledged Louis Philippe, on the accession of the latter as King of the French; while he immediately afterwards, by every means short of the application of force, repressed the desires which the subversion of the government of the Restoration in France had developed, among the Germans, for political change. Francis I., on dying in 1835, left behind him a letter, in which he recommended to his successor to undertake nothing without the counsel of Metternich; who has, accordingly, retained his office as the prime minister of the Austrian government, and has continued to pursue steadily his former "conservative" policy. His attention has been more especially directed to the maintenance of the Austrian ascendancy in Italy, and to the avoidance of a war between the principal European powers.

MEXICO.\* The population of the Mexican republic has been variously estimated at from 6,000,000 to 8,000,000; of which about one-half are Indian aborigines, 1,250,000 whites, and the remainder mixed races. The native Spaniards, or *Chapetones*, as they are called, never exceeded 80,000, and now hardly amount to 24,000; they are, politically considered, a degraded class. — Notwithstanding the exertions which have of late years been made, aided by no less than £3,000,000 of British capital, besides considerable investments by American and German companies, to work the Mexican mines, and notwithstanding the more improved processes which are understood to have been adopted, the silver produced at present is not estimated to exceed in value the sum of £2,300,000, nor the gold, £100,000; the former being only about one-half, and the latter scarcely above one-third, of the amount produced before the revolution. — The external com-

merce of Mexico, viewed comparatively with its population and natural resources, is inconsiderable. This is occasioned partly by the difficult communication between the interior and the coast, but mainly to the continued disensions which have prevailed in the country since the separation of it from Spain. The exports may be estimated at from £3,000,000 to £3,500,000 a year, and consist chiefly of silver, which, with cochineal and gold, is mostly sent to Great Britain: there are, besides, sugar, copper (sent from Gaymas to China), indigo, coffee, cotton, hides (shipped from Upper California), tobacco, jalap, sarsaparilla, vanilla, Campeachy wood, and other drugs and dye-woods. The principal article imported is quicksilver, of which about 6,000,000 lbs. are annually consumed in the mines; it is mostly brought from England, into which it is carried from Spain. Cottons, woollens, and linens, are brought from Great Britain, also iron, hardware, arms, and earthenware; glassware and linen from Germany; paper from Italy and France; olive oil from Spain; hats from France; spices from England, the E. Indies, and China; silks from China, England, and France; and cacao from Venezuela and Ecuador. The declared value of British produce and manufactures sent annually to Mexico fluctuates generally between £400,000 and £700,000. An extensive trade is carried on with the United States, where most of the Mexican products find a ready market, and are paid for in the manufactures of the states or of Europe. The shipping frequenting the Mexican ports is of inconsiderable amount, owing to the staples of its trade being mostly articles containing a great value in a small bulk. — Duties on imports are regulated by a tariff, non-enumerated articles paying a duty of 40 per cent.; quicksilver, tools, and seeds, books, maps, and a few other articles, are free. Articles, the produce of Mexico, may be exported duty free, except the precious metals, which, in the shape of ore, ingots, or dust, are prohibited: gold, wrought or coined, pays 2 per cent., and silver 3½ per cent. — The public revenue was lately stated to average 12,500,000 dollars, mostly derived from the customs; but this is exceeded by the charges upon it, and the finances have been long in a disordered state. The debt, too, is considerable, both domestic and foreign, and on the latter no interest is paid. — The army consisted, in 1839, of about 20,000 men, exclusive of an active militia of about 30,000. There are 5 fortresses, — San Juan de Ulloa, Campeachy, Perote,

Acapulco, and San Blas. Though the attention of the government is almost exclusively directed to the army, there is no military school. Education, indeed, of every kind, is very miserably provided for.—Pedraza returned to Mexico towards the close of the year 1831, from France, where he had for some time been residing, to resume his position as president of the Mexican republic; Bustamente continuing, however, to act as vice-president. The latter, accustomed, as he had been, to exercise all the functions pertaining to the office of first magistrate, and surrounded by an organized band of adherents, soon found both pretexts and means to rid himself of his superior. He issued a declaration that the public welfare required Pedraza to quit the territory of Mexico, and not to return to it again until after the expiration of the term of his nominal presidency. But although Pedraza retired to the United States, his rival was not allowed to administer the government in tranquillity. The troops at Vera Cruz were excited to revolt by Santa Aña; and a popular insurrection took place at Tampico, in March 1832, in opposition to the system of centralization adopted by Bustamente and his party, and in the interests of Pedraza. Another revolution, in consequence, ensued in the government; Bustamente was forced to become an exile, and Pedraza returned to be at length, for a short period, the president *de facto* of the republic. On the expiration of his term of office, he was succeeded (March 1833) by Santa Aña. In the mean time, the hostility to each other of the parties of the "centralists" and "federalists" continued unabated. The former, having Bustamente at their head, assembled in force in the neighbourhood of Valladolid, and proposed to Santa Aña to name him dictator. His conduct in this emergency was very equivocal. He marched, but slowly, and with seeming reluctance, against the insurgents; on approaching them, was abandoned by a portion of his followers; was made a prisoner; and consented to be proclaimed dictator. Shortly afterwards, he suddenly left his new friends and returned to the city of Mexico, whence, in the course of the summer (1833), he advanced anew with a force under his command adequate to suppress the insurrection without much difficulty. By a decree of the Congress, Bustamente, with about 30 of his principal associates, were banished for 6 years. About this period, too, it was that the Congress passed a series of laws, abrogating the authority of the pope, suppressing the convents, per-

mitting the return of the monks and nuns to the duties and privileges of civil life, and abolishing the compulsory payment of tithes. In 1834, it attempted to proceed still farther, proposing to appropriate the church property, which was estimated to amount in value to at least 100,000,000 dollars, to the payment of the public debt. But this was carrying matters beyond what could be submitted to without resistance by the clergy, and likewise beyond what public opinion generally throughout the country would bear. Insurrections broke out in Mexico, Puebla, Orizaba, and Cordova; and it became necessary for the Congress to adjourn its session. Santa Aña, who had disapproved of the extreme measures proposed in that body, now became a rallying point to the disaffected, and seemed, in consequence, to have a firmer hold of the authority invested in him by the constitution than ever. A new Congress assembled in January 1835, and everything went on smoothly until the summer, when, first, the states of Zacatecas, Durango, and San Luis, revolted, and next, those of Cohahuila and Texas declared their independence of the general government. All of them, with the exception only of Texas, were speedily coerced by Santa Aña. Advancing northwards from Cohahuila, he crossed successively, with a body of 6000 men, the rivers Del Norte, Colorado, and Brasos, to be totally routed and taken prisoner, April 21st 1836, by the Texans, or rather by the emigrants from the United States settled in Texas, at the memorable battle of San Jacinto. See *Texas*, (Sup.)—This disaster of Santa Aña enabled Bustamente once more to occupy the first station; he was chosen to be the president in February 1836. Towards the end of this year, the government of Spain, having at length, in the midst of civil contentions at home, given up all hopes of regaining its lost dominion over Mexico, was induced to acknowledge its independence. During the administration of Bustamente, Mexico was involved in a serious difficulty with France, arising from the violence practised by the Mexicans on the persons and property of Frenchmen settled since the revolution in several of the towns of the interior, and engaged in the retail trade. In the spring of the year 1838, the French government, wearied with making ineffectual demands on that of Mexico for a reparation of the injuries which had been inflicted, required of the latter as an *ultimatum*, not only an indemnity for all the pecuniary losses incurred by the sufferers, but also that cor-

tain Mexican functionaries, who had been partakers in the murders and other acts of brutality charged to have been committed, should be removed from office, that Frenchmen should thenceforth participate in the commercial advantages bestowed on the most favoured nations, and that they should have the privilege of carrying on the retail trade of which they had been for a time deprived. This ultimatum, however, not having been complied with in the time specified, a French squadron under Rear-Admiral Baudin, proceeded to make an attack (November 27th 1838) on the fort of San Juan de Ulloa, which defends the harbour of Vera Cruz. In a few hours it was reduced to a heap of ruins, and it was taken possession of by the French on the following morning. The Mexican government, in no wise daunted at this energetic proceeding, declared war against France, and directed General Santa Aña, who had been allowed to depart freely from Texas, to take the command on the exposed part of the coast. He arrived at Vera Cruz on the 4th day of December, and on the same day announced to Admiral Baudin the rejection of the proposed ultimatum. Baudin, acting with his former energy, on the very next day, December 5th, made a sudden irruption into the city of Vera Cruz itself, and nearly succeeded in capturing Santa Aña. A few days after this event, a British fleet arrived in the Gulph of Mexico, having on board Mr. Packenham, as minister plenipotentiary to the Mexican republic. This gentleman immediately undertook to mediate between the contending parties; and a treaty, through his instrumentality, was concluded between them, on the 9th of March 1839, in which France reduced its pecuniary demands from 800,000 to 600,000 dollars, and did not insist on the privilege of the retail trade being granted to its citizens. — While the dispute, thus terminated, was pending, the Mexican government recognised the expediency of entering into a compromise with its political adversaries, and of forming a more "liberal" ministry. As soon, however, as it had no longer any foreign enemy to contend with, it sought to retrace its steps, and to act again on the system of "centralization." Others of the states, in consequence, besides Texas, especially Yucatan, have attempted to break loose from the Mexican Union; and the efforts of the central power to subdue them, and to cause its authority to be respected, have often proved unavailing. Bustamente was succeeded in the chief magistracy by Santa

Aña, who, in his turn, has been forced to yield up his place to another, without producing any material change in the character of the government, which now seems to be on the point of entire dissolution. See *United States*, (Sup.)

MEYER\* died in December 1834.

MEYERBEER.\* Shortly after returning from Italy to Germany, in 1825, he went to Paris, where he remained for a period of six years without giving to the public any new composition. At the close of the year 1831, appeared his opera of "Robert le diable," which produced a great sensation in the musical world; and another opera of his, "The Huguenots," obtained an equal degree of success four years afterwards. Besides operas, Meyerbeer has composed a number of pieces of sacred music. He is a foreign associate of the Institute of France, and a member of the Academy of the Fine Arts of Berlin.

MEZZOPANTE succeeded Angelo Mai, in 1833, in the charge of the library of the Vatican, and, in February 1838, was promoted to the dignity of cardinal priest.

MIAULIS\* was born in the island of Negropont, in the year 1772. — He resigned, in 1827, his command in the Greek fleet, being dissatisfied with his treatment by Lord Cochrane, and with the measures of the latter, under whom he had consented at first to serve. He lived at Poros, and then at Hydra, in retirement, till the arrival in Greece of Count Capo d'Istria, who, in the beginning of his administration, appointed him to the office of commander-in-chief over the whole of the naval forces of the country. The good understanding between them, however, was not of long duration. Discontented on account of the dilapidated condition in which the government allowed the navy to remain, Miaulis threw himself into the ranks of opposition, and, at length, putting himself, in 1831, at the head of the revolted Hydriotes, he set fire to the vessels in the harbour of Poros, to prevent them from falling into the hands of his adversaries. A prosecution, after this act, was instituted against him for high treason, but was suspended on the death of Capo d'Istria; and early in the following year, 1832, he was restored to the command of the fleet by the commission of government, in session at Perachoros, and appointed, besides, inspector of all the naval stations of the Greeks in the Archipelago. On the election to the throne of prince Otho of Bavaria, Miaulis was one of the deputation sent to Germany to announce it to him in form. He was re

spected and honoured by the new king, and continued to discharge the duties of his office at the head of the Greek marine, until the decline of his health obliged him to give in his resignation and retire from the unhealthy station of Poros, where he had chiefly resided, to Athens. There he died, June 24th 1835.

MICALI (Giuseppe) is a native of Leghorn in Italy, and travelled, when a young man, through his native country, France, and Germany. On his return home, he devoted himself almost exclusively to archaeological studies, the fruit of which was his great work, entitled "L'Italia avanti il dominio dei Romani" (Florence, 4 vols. 1810), which found in M. Raoul Rochette an able translator into the French language. After the lapse of 22 years, the author recast this work into his "Storia degli antichi popoli italiani" (Florence, 3 vols. 1832). Along with it, the author published a curious collection of engravings of ancient Italian monuments, in the preparation of which, although he makes no acknowledgment to this effect, it is easy to perceive that he has profited not only by the recent discoveries made at Chiusi, Vulci, Perugia, &c., but likewise by the labours of various writers of celebrity, who had preceded him in the same career of investigation. If we are not able to subscribe to all his conclusions, or to admit, without restriction, his theory of the origin of the people of ancient Italy, his work is unquestionably a very remarkable one; and he has the merit of having excited in no ordinary degree a taste among his countrymen for archaeological pursuits.—M. Micali is understood to have been, for a considerable time past, engaged in writing a history of the commercial states of Italy during the middle ages.

MICHAUD\* (Joseph). After his return from the East, in 1836, he published an edition of the "Abrégé chronologique de l'Histoire de France" of the president Hénault, with a continuation from the death of Louis XIV. in 1715, down to the revolution of 1830. In the same year, 1836, he commenced the publication, jointly with M. Poujoulat, of a new and extensive "Collection de Mémoires pour servir à l'Histoire de France depuis le XIIIe siècle" (20 vols.): the text of the different authors is restored to its original purity; and the whole is accompanied with explanatory remarks, and learned introductory notices.—Michaud was admitted a member of the Academy of Belles Lettres in 1837. For several years previous to his death, he lived in retirement at Passy, and

with his health steadily, though slowly, declining. He died on the 30th of September 1839.

MICHELET (Jules) was born at Paris, on the 21st of August 1798. After pursuing his studies with great diligence and success, in the "Collège Charlemagne" and the University, he obtained, in 1821, by means of a brilliant competition (*concours*), an appointment as an adjunct professor; and a short time afterwards, he sustained two theses before the Faculty of Letters, which procured for him the diploma of a "docteur de lettres." Until 1826, he taught successively the ancient languages, philosophy, and history, in the "Collège Rollin;" he was then appointed to the office of "maître de conférences" in the "École normale;" in 1834 and 1835, he occupied the chair of M. Guizot in the Faculty of Letters; shortly after the revolution of July 1830, he was named chief of the historical section of the archives of the kingdom; and, in March 1838, he was elected a member of the Royal Academy of the Moral and Political Sciences, in the section of general history and philosophy. Since the year 1838, he has been a professor of history and ethics in the "Collège de France."—While, as a lecturer, M. Michelet enjoys a very high reputation, he is entitled also to rank among the most eminent historians of the present age. He is the author of a "Tableau chronologique de l'histoire moderne" (1825); of "Tableaux synchroniques de l'histoire moderne" (1826); and of a "Précis historique" (1828) of the same period of history. These elementary works were followed by a translation into French of the "Philosophy of History" and the "Scienza nuova" of Vico (1828). He next published the first part of a "Histoire de la république romaine" (1831, 2 vols.); a "Histoire de France," of which 6 volumes have appeared; and an "Introduction à l'Histoire universelle" (1834), which passed rapidly to a second edition. In 1835, appeared his "Mémoires de Luther" (2 vols.); and in 1837, the "Origines du droit français." He has also written the article *Zenobia* in the "Biographie universelle," and has contributed a number of articles to the "Encyclopédie des gens du monde."—And besides all these works, M. Michelet has been latterly compelled, or has conceived himself to have been compelled, by the attacks made upon him and upon the university by some of the Catholic clergy, to descend from his dignified position as a philosophic historian, into the arena of controversy. The *jeuets*,

It is said, were not content with making free use of the press on this occasion, but, by means of some of their more zealous adherents, attempted to disturb the lectures of the professors. M. Michelet, and his colleague M. Quinet, conceived the most effectual mode of replying to their adversaries to be by the delivery of courses of lectures on the history of the jesuits. These lectures produced an extraordinary sensation, and were almost universally regarded as a satisfactory and masterly exposition of the views of the professors. They were subsequently published in a volume entitled "The Jesuits," which has obtained a vast circulation.—Another work of M. Michelet has very recently appeared under the title of "Priests, Women, and Families," imbued with the same spirit as that just mentioned, and which has also been very extensively read, in the United States and Great Britain, and other countries, as well as in France.

MIGNET (François Auguste) was born at Aix, in the S. of France, May 6th 1796. After pursuing his preparatory studies at the lyceum of Avignon, he studied law in his native city, and was admitted to the bar in 1818. He, however, did not practise his profession, but devoted himself earnestly to historical inquiries. Having obtained the prize proposed by the Academy of Aix for the best "eulogy of Charles VII." (of France), he hastened to seek his fortune on a more extended field. He arrived at Paris in 1821, where he and his fellow-townsmen, M. Thiers, took lodgings for some time together. In the same year, he shared with another the prize, bestowed by the Academy of Inscriptions, on the question, "To examine what was the condition of the government and legislation of France at the period of the accession of St. Louis to the throne, and what effects were produced, at the close of his reign, by the institutions of that prince." His essay upon it was published, in 1822, with important additions, and accompanied by explanatory notes and justificatory documents, under the title "De la féodalité, des institutions de St. Louis, et de la législation de ce prince." In 1823 and 1824, M. Mignet delivered a successful course of historical lectures at the Athenæum of Paris; and, in the course of the last-mentioned year, he published his "Histoire de la révolution française de 1789 à 1814." The deserved success of this work, which appeared simultaneously with that of Thiers on the same subject, at once raised very high the reputation of its author. After having co-operated for a considera-

ble time in the editing of the "Courrier français," he founded, in conjunction with Messrs. Thiers and Armand Carrel, the "National." His name was subscribed to the protest, issued by the editors of that journal, against the ordinances of July 1830. In 1832, he was elected a member of the Academy of the Moral and Political Sciences, and appointed by the king a counsellor of state. In the capacity of commissioner of the king, he discussed the budgets of 1832 to 1835 inclusive, before the chambers. When M. Thiers was for the first time made minister of foreign affairs, he confided the curatorship of the archives of this department of the government to his friend Mignet. The researches which the latter was, in consequence, now led to engage in, enabled him to prepare his "Négociations relatives à la succession d'Espagne sous Louis XIV., ou Correspondances, Mémoires et actes diplomatiques, concernant les prétensions et l'avènement de la maison de Bourbon au trône d'Espagne" (1835-42, 4 vols. 4to.), with an introduction prefixed, that is regarded as a masterpiece of sagacity, clearness, and style. Just before the publication of the first volume, M. Mignet had proceeded on a mission to Madrid, for the special purpose of congratulating the queen regent on the accession to the Spanish throne of her daughter Isabella II. In 1837, the French Academy selected him to fill the place vacated by the death of M. Raynouard; and, in the course of the same year, he was appointed perpetual secretary of the Academy of the Moral and Political Sciences. The last office devolved upon him the duty of preparing biographical memoirs of the deceased members of the Academy; an office which, in the case of Siéyes, Roederer, Broussais, Edward Livingston, and others, he has performed in a manner highly creditable to himself, not only for the merit of the composition of the different memoirs, but also for the extent and variety of the attainments indicated by them on the part of their author. Among other contributions of M. Mignet to the transactions of the Academy, the following are the most remarkable:—a "Mémoire sur l'établissement de la réforme religieuse et sur la constitution du calvinisme à Genève;" an "Essai sur la formation territoriale et politique de la France, depuis la fin du onzième siècle, jusqu'à la fin du quinzième;" and a memoir with the title, "Comment l'ancienne Germanie est entrée dans la société civilisée de l'Europe occidentale et lui a servi de barrière con-



tre les invasions du Nord." All the *academical* labours of this writer have been collected and published together in two 8vo volumes, entitled "Notices et mémoires historiques."

**MIGUEL\*** (Dom). Dom Pedro landed in Portugal, accompanied by a considerable armed force, in July 1832. He speedily possessed himself of Oporto, and, a year afterwards, of Lisbon. Dom Miguel, at length apprehensive of his retreat being entirely cut off by his brother, consented, on the 26th of May 1834, to sign the capitulation of Evora, by which he renounced all his pretensions to the crown of Portugal, and engaged never again to disturb the tranquillity of the Peninsula. But scarcely had he arrived at Genoa, on the 23d of June, when he hastened to protest against this act. Since this period, he has resided in Italy, in a very retired manner, and sometimes, it is said, almost deprived of pecuniary resources.

**MILAN.\*** The population of this city, in 1837, was 145,500, including only the inhabitants of the city proper, but, with the immediate suburbs, 171,268, and including the garrison and strangers, about 185,000.—It is an archbishop's see; it has 2 lycæums, 6 gymnasiums, a seminary for teachers, an institute for the deaf and dumb, schools of medicine, midwifery, veterinary surgery and architecture, a musical conservatorio, a zoological museum, and an institute of science and art; and there are numerous charitable establishments.—Milan is the centre and most important emporium of the silk trade of Lombardy. Many of the neighbouring states either sell their silk there, or remit it thither in transit to foreign countries; and this is the case not for raw silk alone, but also for organzine and tran. English houses, in particular, frequently make their advances at Milan to the consignees of silk. The spinning and throwing of silk is also extensively carried on in the city and its immediate neighbourhood, and many of its throwing-mills have steam-engines.

**MILL** (James) was a native of Kincardineshire in Scotland, and studied at Edinburgh. He was licensed as a clergyman in the Scottish Church, and went to London as a tutor in the family of Sir John Stuart, on whose estate his father occupied a farm. He did not return with his pupils to the north, but remained in the metropolis, devoting himself to literary and philosophical pursuits. His "History of British India" was published in 1818, in 3 vols. 4to., and abounds with enlarged and liberal views in politics, politi-

cal economy, and legislation. He was the author also of "Elements of Political Economy" (1821); of an "Analysis of the Human Mind;" together with a number of very able articles in the "Supplement to the Encyclopædia Britannica," and in the Edinburgh and the Westminster and London Reviews. He fell a victim to consumption, on the 23d of June 1836. For 5 years previous to his death, he held the office of Chief Examiner to the East India Company, the duties of which were to prepare despatches and other state papers, to be submitted for the consideration of the Board of Directors.—His son, *John Stuart Mill*, is the author of a profound and masterly treatise on Logic; of a volume of "Essays on some Unsettled Questions of Political Economy;" and of several able articles in the London and Westminster Reviews.

**MINA\*** (Don Francisco Espoz y) went to London in 1831, and remained there until the end of the year 1833, when, in consequence of the insurrection in the Basque provinces in favour of Don Carlos, he once more proceeded to the Spanish frontier. He was now not only permitted to re-enter his country, but was appointed Captain-general of Navarre, and commander-in-chief of the army of the North. The violent and severe measures which he adopted against the Carlists, far from putting an end to the civil war, only tended, by the exasperation which they produced against the party in power, to prolong it. He resigned his command in April 1835, on account of his bad health; and in the month of October, of the same year, was appointed Captain-general of Catalonia. His death took place at Barcelona, December 24th 1836.—By a royal decree his widow was raised to the rank of a countess, and the Cortes bestowed a considerable pension both on her, and on Mina's mother, who was still living at the age of 90.

**MINUTE-GUNS** are guns fired at intervals of a minute, as a signal from a vessel in distress, and also in mourning for great persons.

**MINUTOLI\*** (baron de). After his return from Egypt to Berlin, he became a member of the Academy of Sciences in that city, and shortly afterwards retired from the army, with the rank of a lieutenant-general. He has since resided at Lausanne in Switzerland.

**MIRBEL** (Charles François Brisseau de), an eminent botanist, was born at Paris, in 1776. He accompanied the celebrated mineralogist Ramond, in his excursion to

the Pyrenees in 1794, and was on his return appointed superintendent of the gardens of Malmaison. He subsequently went to Holland with Louis Bonaparte, when the latter was made king of that country. But he did not remain there long, for we find him, about the year 1806, a member of the Institute, and professor of vegetable physiology and botany in the Faculty of Sciences of Paris. In the beginning of the year 1817, he was appointed a counsellor of state, and in June of the same year, he replaced M. Bertin de Vaux as secretary-general in the ministry of police, a department of the administration then filled by M. Decazes. When the latter became minister of the Interior, he was transferred to the office of secretary-general of that department; and on the fall of the minister, M. Mirbel retired altogether from public life. — He is the author of a "Traité de physiologie végétale" (1802, 2 vols.); an "Exposition de la théorie de l'organisation végétale" (1808); and "Éléments de physiologie végétale et de botanique" (1815, 2 vols.), with a volume of plates.

MITCHELL (Thomas) M. A., an eminent English scholar, was born in London, May 30th 1783. He was educated, first at Christ's Hospital, and then at Pembroke College, Cambridge, where he received his degree of B.A. in 1806, as "senior optime" and "first classical medallist." Subsequently, he won, and held for some years, a fellowship in Sidney Sussex College. In 1813 he commenced the series of articles, in the Quarterly Review, on Aristophanes and Athenian manners, which led to his admirable translations from the *Old Comedian*, published in 1820 and 1822. Besides several more humble, but laborious and important literary undertakings, Mr. Mitchell published editions of five comedies of Aristophanes and of all the tragedies of Sophocles, with English notes. He died of apoplexy, May 6th 1845, in his 62d year, while engaged in preparing a minor *Pentalogia Aristophanica*, with notes in Latin. Mr. Mitchell deserves the credit of being among the earliest to make a proper use of the Attic authors, and of Aristophanes and the orators in particular, in studying the character of Athenian society and the actual working of the Athenian democracy. He pursued this study under some prepossessions derived from the politics of his own time; but his articles, and his prefaces, notes, &c., on Aristophanes, are peculiarly rich in the learning of this department, while they are recommended even to the discursive reader

by great beauty of style, and a delightful vein of humour.

MITSCHERLICH (Christopher William) was born, in September 1760, at Weissensee in Thuringia. He studied at the universities of Leipsic and Göttingen, and at the last-mentioned place attracted in a particular manner the notice of Heyne, by the diligence and success with which he applied himself to philological pursuits. To that eminent scholar he, in return, dedicated his first literary production, the "Epistola critica ad Apollodorum" (1782). In 1785, he was appointed "extraordinary" professor of Philosophy, and curator of the library of the university of Göttingen, and soon became distinguished among his colleagues for his ability as a lecturer and instructor. His curatorship he resigned in 1794, when he was advanced to the rank of an "ordinary" professor. He succeeded his friend Heyne, in 1809, in the professorship of Eloquence, the duties of which office he performed down to the year 1833. Subsequent to this date, he became the director of the theological seminary. — He has published "Lectiones in Catullum et Propertium" (1786); an edition of Homer's Hymn to Ceres (1787); one of Ovid's Metamorphoses (2 vols. 1796-98); and another of Horace (2 vols. 1800.)

MITSCHERLICH (Eilard) was born at Neurede, near Jever in Germany, in January 1794. He was a pupil at the gymnasium of Jever, under the especial charge of the present professor Schlosser of Heideberg. In 1811, he became a student in the university of the latter town, his attention being directed to the subjects of history, philology, and the oriental languages. In 1813, he went to Paris, and, in 1814, to Göttingen, still prosecuting the same studies. At Göttingen, however, he also attended lectures on mineralogy, geology, natural philosophy, and chemistry. He went to Berlin in 1818, and devoted himself there exclusively to chemical researches, with so much success as to attract the particular notice of Berzelius, who paid a visit to the Prussian capital in the course of the year 1819. Mitscherlich accompanied the great Swedish chemist to Stockholm, and remained in that city until 1821. Through the recommendation of Berzelius, he was then appointed a professor of chemistry in the university of Berlin, and he was, about the same time, selected to fill the place, vacated by the death of Klaproth, in the Royal Academy of Sciences. — The only systematic work of which Mitscherlich is the author, is an elementary treatise of Chemistry (2 vols.

1829-35); his other writings consisting of scientific papers, inserted for the most part in "Poggendorff's Annals." These contain an account, among other matters, of his investigations respecting isometric bodies and the crystallizations of sulphur, his improvement of the goniometer, together with his experiments on the unequal expansions, by heat, of certain crystals not belonging to the regular system, and a series, also, of very remarkable experiments on the relations which the volumes and specific heats of bodies bear to their atomic weights.

**MOHAIR** is the hair of a variety of the common goat, which inhabits the mountains in the neighbourhood of Angora, in Asiatic Turkey. It is remarkable for being as soft and fine as silk, and of a silvery whiteness.—The exportation of this beautiful and valuable article, unless in the shape of yarn, was formerly prohibited; but it may now be exported unspun. The production, preparation, and sale, of mohair, have long engrossed the principal attention of the inhabitants of Angora; and it used to form an important article of Venetian commerce. It is manufactured into camlets and other expensive stuffs.

**MOHAMMED ALI.\*** See articles *Egypt* and *Turkey*, (Sup.)

**MOHS\*** died in 1839, at Agordo near Belluno, in the Lombardo-Venetian kingdom, where he had gone to examine some copper-mines.

**MOLDAVIA.\*** See *Wallachia*, (Sup.)

**MOLÉ** (Matthieu Louis, comte) was born at Paris, January 24th 1781. His father, who was president of the parliament of Paris, and a descendant of the celebrated Matthieu Molé, noticed in one of our previous volumes, suffered under the axe of the guillotine during the revolution. His youth till the age of 16 was passed in exile from his own country, in Switzerland and in England. He then devoted himself assiduously to study, to make up for lost time; and first appeared as an author in 1806, by the publication of his book, entitled "Essais de morale et de politique." A very commendatory notice of it, by M. de Fontanes, appeared in the "Journal des débats." It attracted the attention of Napoleon, who was, no doubt, quite as much pleased with the doctrines of the writer, as with the literary merits of his performance. After inquiring into the nature of the problem of the constitution of government best suited to his nature; and, most fortunately for his own advancement in life, he had arrived at the conclusion, that

it was precisely such a government as that which France then had the happiness to enjoy. The emperor appointed him successively auditor of the council of state, "maître des requêtes," prefect of the department of Côte-d'Or, a counsellor of state in extraordinary service, director of bridges and roads, and a count of the empire. Nor did his advancement stop here. We find him, in 1813, occupying the post of minister of justice, and, in the absence of the emperor, presiding in the council of regency.—From the period of the first restoration of the Bourbons till the return of Napoleon from Elba, M. Molé lived in retirement in the capital. During the 100 days, either through prudence, or a presentiment of the future course of events, or some more honourable motive, he was lukewarm to the cause of his former benefactor. He declined to accept of the ministry of Foreign Affairs, of the Interior, and of Justice, all of which were, in turn, offered to him; as a member of the council of state, he refused to affix his signature to the declaration issued by that body against the Bourbons; and, on being created a peer of France, he found excuses for not taking his seat in the Chamber as such. He complied, however, with the wishes of the emperor, by provisionally discharging the duties of his former office of director of bridges and roads of the empire.—This course of conduct, on the part of M. Molé, contributed to his being taken into favour by the government, after the second restoration. He was retained in the office just named, and renominated a counsellor of state and a peer. In 1817, he became minister of the Marine, but quitted the ministry, little more than a year afterwards, with the duke of Richelieu. Thenceforth down to the revolution of 1830, he took no part in public affairs, excepting as a member of the Chamber of Peers; and his speeches and votes in that body rank him in the class of the "constitutional royalists."—Since 1830, not only has M. Molé, by his experience in public affairs, his eloquence, and his moderate opinions, exercised a great influence on the proceedings of the peers, and indirectly, in consequence, on the government, but he has made a part of several administrations, in which, faithful at all times to his conciliatory policy, he has endeavoured to combine into harmonious action the monarchical and the liberal principles of parties. During that administration (of the 15th of April 1837) in which he held the office of president of the council, and of which he was the *premier*, the amnesty

was granted to those individuals who had been condemned for political offences, and various laws were enacted, of a nature to meliorate the internal condition of the kingdom. But his adversaries, selecting his foreign policy (see *France*, Sup.) as their chief object of attack, contrived nevertheless, by a combination of all the elements of opposition in the Chamber of Deputies against him, to reduce his majority in that body, so as to render it desirable for him to appeal to the electors in his support, by a dissolution of the chamber. The appeal was made; and the result was such as to produce the resignation of the ministers. Though M. Molé, since this event, which took place on the 7th of March 1839, has continued to possess a great influence in the chamber of peers, and even among the deputies, he has rarely mingled in the discussion of political questions.—In March 1840, he was chosen a member of the “French Academy.”

MOLLIER (Gaspard Théodore) is the son of count Mollien, formerly minister of the treasury under the empire, and was born at Paris in August 1796, and entered the French navy in 1816. He was on board the frigate *Medusa* when she was shipwrecked, but had the good fortune to gain the coast of Africa in a small boat. On reaching the colony of Senegal, which had not long before been restored to France, he conceived the project of exploring the interior of the African continent, and after some time spent in diligently qualifying himself for executing it with the best advantage,—having also, in the mean time, obtained the sanction of his government,—he set out from the town of St. Louis, on the 28th of January 1818. Instructions were given him:—1st, to endeavour to discover the sources of the Senegal, the Gambia, and the Niger; 2dly, to ascertain whether or not any communication existed between the two first-mentioned rivers; 3dly, to determine the distance between the Senegal and the Niger; 4thly, to observe the mountains, the nature of the soil, and the windings of the rivers; 5thly, to ascertain the means of descending the stream of the Niger as far as its mouth; and 6thly, to visit the mines of Bambouk. He returned to St. Louis in January 1819, after nearly a year's absence; whence he immediately embarked for Europe. An account of his journey (*Voyage dans l'intérieur de l'Afrique, aux sources du Sénégal et de la Gambie, fait en 1818*) was published at Paris in 1820, in 2 volumes. The extent in which he had fulfilled the instructions

given him, besides obtaining the approbation of the government, gained for him the consideration of all who took an interest in the progress of geographical discovery. He was thus encouraged to undertake another journey. He travelled, in 1823, through the republic of Colombia, in S. America; and in the following year appeared his “*Voyage dans la république de Colombie, en 1823*,” in 2 vols.—In 1825, M. Mollien was appointed vice-consul of France at Cape Haitien, in the island of Haiti. He was acting, in 1830, as consul for that port *ad interim*, when he was commissioned, jointly with M. Picbon, to conclude the negotiation with the Haitian government, which had been for some time pending relative to the indemnity demanded by France in behalf of the former colonists. M. Mollien's next appointment was that of consul-general of France at the Havana.

MOMPOX; a city in the republic of New Granada, and the second place in importance in the province of Carthagena, on the river Magdalena, about 25 miles above the confluence of the Cauca. Its population is estimated at 10,000, or, with the neighbouring villages, 15,000. It is a place of some commerce. The chief exports are corn, hides, and Brazil wood. Some tobacco, sugar, and chocolate, are transmitted to it, as a place of *entrepôt*, from Pamplona and Cuenca: gold is brought from Antioquia; and the produce of the upper Magdalena from Bogota. The surrounding country is wholly in a state of nature. Mompox, too, is surrounded by swamps, and liable to inundations; and alligators come up to the very banks of the river, to feed on the offal thrown from the city.

MONTE VIDEO.\* See *Uruguay*, (Sup.)

MONTHOLON\* (count de). On his return to France from St. Helena, he was induced by a desire to repair his fortunes, which had suffered in consequence of his long absence, to engage in commercial speculations. These proved unsuccessful; and in July 1829, he was declared a bankrupt. From this period, he lived in obscurity, until he once more re-appeared to the notice of the public, as a partaker in the attempt made by prince Louis Napoleon Bonaparte in the month of August 1840, by landing with a small party near Boulogne, on the French coast, to excite an insurrection of the inhabitants in favour of his family. Montholon was arrested and tried by the chamber of peers for high treason against the existing government, and in despite of his own efforts, and those

of M. Berryer in his defence, was sentenced to an imprisonment of 20 years in the castle of Ham.

**MONTLOSIER\*** (count de). His memoir, directed against the jesuits in 1826, besides exciting in a very considerable degree the public attention, conferred upon him the honour of being subjected to the persecution of the government. The pension which was originally conferred upon him by Napoleon, and which till then had been regularly paid, was now withdrawn. So far, however, from being daunted by this proceeding, he followed up his assault upon his clerical adversaries by several additional publications, such as his "Pétition à la chambre des pairs," his "Lettre d'accusation," and a "Mémoire à M. de Villèle," all of which were enthusiastically received by the great majority of the public. At length, in 1828, under the administration of M. de Martignac, he saw his efforts crowned with success; the establishments of the jesuits were closed.—After the revolution of 1830, M. de Montlosier was advanced to the dignity of the peerage; but he took scarcely any part in the deliberations of the peers. The remainder of his life was spent chiefly in agricultural pursuits, in the midst of the mountains of Auvergne. He died there in 1838, at the age of 83.—At the period of his decease, he was the president of the French Academy. And besides the works already mentioned, he was the author of an "Essai sur la théorie des volcans d'Auvergne" (1789); an "Essai sur l'art de constituer les peuples" (1791); "Nécessité d'une contre-révolution" and "Des moyens d'opérer cette contre-révolution;" "Observations sur le projet du code civil" (1801); "Des désordres actuels de la France, et des moyens de les remédier" (1815); the "Monarchie française" (1814-15) in 4 volumes; and lastly, of "Mémoires sur la révolution française, le consulat, l'empire, la restauration, et les principaux événements qui l'ont suivie," a work of which 2 volumes only have hitherto appeared.

**MONTPELLIER.\*** Population in 1841, 35,628. — The school of Medicine is one of the best conducted establishments of its kind in France, and is all that now remains of the once famous university of Montpellier. The botanic garden, which dates from the reign of Henry IV., was the first established in France; and, though small, contains 8000 species of plants: it is one of the 4 principal and best arranged botanic gardens in the kingdom; which distinction it owes to its having been the

scene of the labours of Decandolle.—One of the principal attractions in Montpellier is the museum, founded, in 1825, by the baron Fabre, a native of the town. It occupies 4 spacious and well-lighted halls, and comprises collections of paintings, engravings, statues, medals, and other objects of *virtu*, a library of 15,000 volumes, &c., the whole estimated to be worth 2,000,000 of francs.—Montpellier is a bishop's see, the capital of the 9th military division of the kingdom, and the seat of a royal court for 4 departments. It has a college, and schools of veterinary medicine, engineering, drawing, architecture, &c.—It is now connected with the port of Cette by a railway.—Of late years, it has almost ceased to be resorted to by invalids in search of health; Nice, in the S.E. corner of the kingdom, having superseded it in this respect.

**MONTREAL,\*** in 1840, contained 27,297 inhabitants, about three-fourths of whom were of French descent. — The most remarkable public edifice is the Roman Catholic cathedral, opened in 1829, and superior to any other church in British America. It is of Gothic architecture, 255 feet in length, by 134 in breadth. The principal English church is a handsome building, in the Grecian style, surmounted by a high and beautiful spire.—Among the educational institutions in this city, besides the M'Gill college, and the other college, noticed in a previous volume of the present work, may be mentioned the seminary of St. Sulpice, a large and commodious building, which adjoins the cathedral, and is surrounded by spacious gardens. A handsome additional building, considerably more extensive than the former, has been lately erected. In these establishments, students in most of the higher branches of learning are taught at very moderate charges. The *Sœurs Noires*, too, have an extensive convent, founded in 1650; its inmates consist of a superior and 60 nuns, whose duties are directed to the education of young girls. There are also a royal grammar school, parochial, union, national, and other public schools.—The Montreal General Hospital, erected in 1821-2, by voluntary subscription, is said to be one of the best regulated institutions of the kind in America. The *Hôtel Dieu* is a large conventual structure, occupied by a superior matron and 36 nuns, and appropriated to the reception of the sick and indigent. And the convent of the Grey Sisters partly serves as an asylum for the aged and infirm, the insane, foundlings, &c.—In 1838, 98 ships,

of the aggregate burden of 22,289 tons, entered, and 99 ships, of the burden of 21,901 tons, left the port. The trade in furs, of which Montreal was formerly the centre, has greatly declined.

**MOOR**; an uncultivated surface without trees, and with few grasses or other herbage fit for pasture, and generally containing scattered plants of heath, with a dark peaty soil.

**MORATIN** (Martin Leandre Fernandez di) was born at Madrid, in 1758, and received an excellent education under the immediate direction of his father, Nicolas Fernandez di Moratin, who was distinguished, among his contemporaries, as a lyrical poet. The son commenced his literary career with a poem on the conquest of Granada, which procured for him an honourable mention from the Spanish Academy. In 1782, he acquired no little reputation by his "Leccion poetica," a satire on the Spanish poetry of the day. Encouraged then by the success which he had achieved, he directed his attention to the drama. His plays are remarkable for the simplicity of their plots, for the skill they display in the delineation of character, as well as for their animated dialogue; and the author has been, accordingly, regarded as the restorer of the Spanish theatre. As a lyric poet, Moratin has not been equally successful; but he has been very happy in the choice of his subjects, and has exhibited much skill in his versification. Don Manuel de Godoy bestowed upon him two ecclesiastical benefices, though he had never taken orders in the church; and after he came back from an extensive tour through France, England, Italy, and Germany, he was appointed, by Charles IV., secretary in the department of the minister of Foreign Affairs. Joseph Bonaparte, when king of Spain, made him his librarian. On the return of Ferdinand, he retired from the capital to Valencia, where the violent proceedings of General Elio obliged him to seek refuge first at Barcelona, and subsequently in France. He died at Paris, in the month of June 1828, before he had finished a history of the Spanish theatre, with which he had been for some time busily occupied. In 1825, he published at Paris an edition of his dramatic and lyrical productions, in 3 volumes.

**MORE**\* (Hannah) died at Clifton, in September 1833, aged 89. She is said to have realized upwards of £30,000 by her writings; and she left in charitable bequests about £10,000.

**MORGAN**\* (Lady). Her most recent

publications are "The Dramatic Scenes of Real Life" (1835) and "Woman and her Master" (1841).

**MORIER** (James), born in England about the year 1780, was descended from a Swiss family which had many years before settled in that country. He early directed his attention to the languages and literature of the East. In 1808 and 1809, he visited Persia, Armenia, Asia Minor, and Constantinople, and, on his return home, published an account of his travels. In 1810, he went again to Persia, as the chargé d'affaires of Great Britain to that country. He remained there in this capacity during 6 years; and the observations which he made, while abroad, were recorded in a work entitled a "Second Journey to Persia, Armenia, Asia Minor, &c." (1818). Subsequently, he was charged with a mission to Mexico; and, of late years, he has resided in London.—Mr. Morier is the author of a number of tales, written with considerable ability, and describing with much fidelity the manners and customs of the Orientals. Of these the most successful was the "Adventures of Hajji Baba of Ispahan."

**MORILLO**\* In 1832, this distinguished officer was recalled to Spain, and once more appointed Captain-General of Castile. After the death of Ferdinand VII., in 1834, he commanded for a time the Christians against the forces of Don Carlos, but without success, and was, in consequence, superseded. He was next appointed Captain-General of Galicia, and died at Madrid in 1838.

**MOROCCO**\* The estimate of the population of this empire by Gräberg von Hemsö, an estimate perhaps more accurate than those made by other travellers, makes it to amount to 8,500,000 persons. Of this number he states that 3,550,000 are Moors; 2,300,000 Berbers and Tuarics; 1,450,000 Shellucks (chiefly devoted to agricultural and pastoral pursuits); about 700,000 Bedouin and other Arabs; 230,000 Jews (in a very degraded and oppressed condition); 4500 Europeans; and 120,000 negroes.—The climate is not so hot as might be expected from the latitude, and wheat and barley are extensively raised; sheep are numerous, and produce the wool which is manufactured into a coarse fabric, forming the chief dress of the inhabitants. An active inland trade is carried on with Soudan, Egypt, and Arabia, by caravans. The maritime commerce has increased considerably of late years. The imports consist chiefly of cotton, woollen, and silk manufactures, and yarn, with raw silk.

sugar, spices, dye-stuffs, metals, cutlery, tea, and earthenware; the exports, of fruits, wool, olive-oil, wax, hides, corn, live-stock, gum, bark, and leeches. In 1839, the regular importations by sea amounted to £560,880, including £94,400 in specie. But there is besides an extensive contraband trade, which it is estimated will swell these values one-fourth. Almost the whole of the maritime trade of Morocco is in the hands of Great Britain, France, the United States, Spain, and Portugal. This trade is conducted on the Atlantic side of the country at Mogadore (the port of the capital), Saffee, Mazagan, Rabat (the port of Fez), and Laraiiche; and on the Mediterranean side at Tangier and Tetuan. In 1839, the entries from foreign countries at all ports amounted to 372 ships, of the burden of 20,003 tons; of which 13,664 were British. — The internal history of Morocco has, of late years as before, presented little of interest to the general reader. And in respect to its relations with other countries, these have been for the most part of an amicable a nature as was consistent with the piratical and semi-barbarous character of the inhabitants. In 1830, however, the Austrian government, and in 1839 the Sardinian, judged it expedient to support their requisitions on the emperor, for damages on account of deprivations committed on their commerce, by a naval armament. More lately, too, the French have made war on that monarch to compel him to cease from giving any aid or encouragement to Abdel-Kader, in his attempts to repossess himself of his lost territory and influence in Algeria.

MORRISON\* died at Macao, in 1834.

MORTALITY (Law of). A question of some interest is, whether the law of mortality is the same for both sexes. From some of the English tables of mortality, the inference has been drawn that females live, on an average, longer than males. This indication, too, of the greater longevity of females, is confirmed by the observations of De Parcieux on the monks and nuns in the French convents; of Kerseboom, on the Dutch annuitants; and by the tables constructed from the mortality in Sweden, at Montpellier in France, and in the cities of Amsterdam and Brussels. It is still, however, open to doubt, whether the superiority shown in the above instances holds generally true. Over the whole population of Belgium, the greater part consisting of peasantry and labourers, it is found that the lives of females are shorter than those of males; while in the towns the advantage is on the side of the

females. The experience, likewise, of some of the English assurance offices, it is believed, shows no superiority in the duration of female life. See *Longevity*.

MORTIER\* (Marshal) took very little part in the political events which led to the revolution of July 1830. He, however, cordially adhered to the order of things which was then introduced. In the month of October 1834, he became minister of war and president of the council of ministers. The latter office he resigned to the duke de Broglie in the following March, and, in about six weeks afterwards, Marshal Maison succeeded him in the war department. On the 28th of the following July, he accompanied the king (Louis Philippe) to the review of the national guards of Paris and its vicinity; when he fell a victim to the explosion of the infernal machine of Fieschi. The chambers signified their respect for him by voting a pension of 20,000 francs to his widow, with the reversion of it to his children.

MOZAIC GOLD is a bisulphuret of tin, formed by heating the peroxide with its weight in sulphur. It is produced in small, soft, shining flakes, of a golden yellow colour. It is chiefly imported from Germany, and under the name of *bronzes powder* is much used for ornamental work, particularly paper-hangings.

MOSAMBIQUE.\* This Portuguese colony has continued to decline. The administration of it is vested in a governor, aided by a council, comprising the bishop, the commander of the troops, and the chief civil minister; but it is extremely corrupt, and nearly all the functionaries, both civil and military, are criminals exiled from Portugal. The irregular life led by the Europeans, and the insalubrity of the climate, prevent any increase in the white population; and, at an average, of 100 soldiers 7 only survive a residence of five years. — The commerce of Mosambique has greatly decreased, in consequence of the exertions of the British to suppress the traffic in slaves; but though much diminished, this trade is still carried on to a considerable extent, both with Brazil and Arabia.

Moscow.\* The number of inhabitants, in 1838, was 348,562, of whom 5154 were of the clerical order, 15,436 were nobles, and 26,283 belonged to the army. In the winter season, when the city is the residence of the higher and wealthier nobility, its population may amount to 50,000 or 60,000 more. — Manufactures are prosecuted here on a much larger scale than in St. Petersburg; but a large proportion of

the works, for the account of the manufacturers and capitalists of Moscow, are not in the city, but in the towns and villages adjoining, or even at a considerable distance from the capital. The principal establishments are those for the manufacture of cotton, woollen, and silk fabrics, many of which are upon a very large scale, and are fitted up with steam-engines and other improved machinery. Hats, also, are extensively produced; and there are numerous tanneries, breweries, distilleries, &c. Moscow is the grand entrepôt of the internal commerce of the Russian empire. It has a water communication with St. Petersburg and Riga, on the Baltic, Astrakhan, near the Caspian, and Odessa, on the Black Sea. In spring, or after the breaking up of the ice, the Moskwa is navigable for barks; but during the rest of the season it is navigable for rafts only. A great deal of the commercial intercourse between the city and the distant, as well as adjacent provinces, is carried on in winter by sledges.—The university possesses at present a library of 40,000 volumes, and is provided with an astronomical observatory, a museum of anatomical preparations and one of natural history, a botanic garden, collections of models and coins, &c. It has upwards of 100 professors and other officers, and 800 students. There is connected with it an institute for the education of the sons of the nobility, and three gymnasiums.

**MOSTOWSKI\*** (count) did not fail, in the Polish insurrection of 1830, to associate himself with his patriotic countrymen. After the victory of the Russians, he once more found an asylum in France. He died at Paris, in 1842.

**MOUNIER\*** (Claude Edouard Philippe, baron). When the duke of Richelieu was charged with the office of forming a new cabinet, in 1821, M. Mounier was appointed director-general of the departmental administration, and of the police. Under the ministry of M. de Villèle, he was intendant of the edifices belonging to the crown, an office which he had once before held. After the revolution of July, he quitted all connexion with the executive branch of the government, but took a very active part in the discussions of the peers. He delivered his opinions at length, and in general with great ability, on almost every important question. The French chamber of peers is, indeed, said to have contained few individuals who commanded a greater degree of attention when they addressed it, or who exercised a greater influence on its decisions, than the baron

Mounier.—He died at Passy, near Paris; in May 1843, a few weeks only after his return from a special mission with which he had been charged to the court of London.

**MOUSELINE DE LAINE** is a fine, thin, woollen fabric, manufactured in France, and much used for the dress of ladies. An inferior fabric, bearing the same name, and of similar appearance, though composed of wool mixed with cotton, is now extensively made in Great Britain.

**MOZAMBIQUE.** See *Mosambique*.

**MUCILAGE**, a viscous substance of sufficient consistence to hold together; as, for example, a solution of gum or any tenacious liquid, or a lubricous extract from the roots or other parts of vegetables.—Mucilaginous glands, in anatomy, are glands about the joints, that separate the slimy matter necessary for their lubrication.

**MULL**; a term used in Scotland almost synonymously with cape. It is applied to various projecting points of the Scottish coast; as, for example, the Mull of Galloway, of Cantyre, &c.

**MÜLLER\*** (Charles Ottfried). Besides the works of this distinguished writer already noticed, several others remain to be mentioned, which have contributed to his wide-spread reputation as an historian and antiquarian. The following are the most important of these, in the order of their publication. 1. An inquiry into the "Abodes, the Origin, and the Early History, of the Macedonians" (Berlin, 1825). 2. "The Etrurians" (2 vols. Berlin), a work which is regarded as one of the best that has been written on the history and language of ancient Italy. 3. A "Manual of Archæology and Art" (Breslau, 1830; 2d ed. 1835), which was translated into French, and published at Paris, in 1841, in 2 vols. 18mo., under the title of "Nouveau manuel complet d'archéologie, ou traité sur les antiquités grecques, étrusques, égyptiennes, indiennes," &c. It is likewise decidedly superior to every other production of the kind previously existing. Müller, in addition to these works, is the author of an essay entitled "Minervæ Poliadis sacra et ædem in arce Athenarum illustravit, etc." (Göttingen, 1820), and of another "De Phidias vitâ et operibus" (Göttingen, 1827), together with many articles in the public journals. He also published an edition of the "Eumenides" of Æschylus (Göttingen, 1833, in 4to.) accompanied with an elegant translation of it into German, and with a learned and copious commentary; an edition of Teren-



tius Varro "De linguâ latinâ (Leipsic, 1833); and one of Festus "De verborum significations" (Leipsic, 1839). Both of these last were accompanied by Latin notes, much esteemed by the learned. The writings of Müller are remarkable for perspicuity, curious research, and the importance of the results arrived at; and they charm the reader by the force and elegance of their style.—In 1839, he undertook a journey to Italy and Greece, prompted by an extreme desire to visit those regions, the history and literature of which had occupied so much of his attention. He died at Castri in Livadia, on the 31st of July 1840, in consequence of his exposure to the heat of the sun in endeavouring to explore the ruins of the temple of Delphi.

**MUNICH.\*** Population, in 1840, including the military, 106,537.—Munich has no very important manufactures, but comprises establishments for bronze-casting, iron-works, sugar-refineries, silk-throwing mills, and tobacco manufactories. Its telescopes are highly celebrated; and its porcelain is exported, like that of Dresden, to different parts of Europe. The last branch of industry is under royal patronage, and is carried on in a large establishment at Nymphenburg, about three miles distant from the city.—The university is attended by about 1300 students, almost exclusively Bavarians, and has a library of 160,000 volumes.

**MUSCAT**, a fortified sea-port town on the E. coast of Arabia, and chief commercial emporium of the Persian Gulph, and situated in 23° 38' N. lat., and 59° 41' E. long. Its population is estimated by Fraser at from 10,000 to 12,000, of whom 1000 are Hindoos, and the remainder a mixed race, the descendants of Arabs, Persians, Kurds, Affghans, and Belooches, settled here for the purposes of commerce. It is the capital of a *sultan*, whose patrimonial dominion is the surrounding territory of Oman, but who claims the whole coast from Cape Aden to Cape Ras al Had, and thence northwards as far as Bassorah, including the islands of Bahrein, with all the African shore and adjacent islands from Cape Delgado to Cape Guardafui. He rents, besides, sulphur mines and several estates in Persia.—The town is remarkable for its extreme heat; the thermometer (Fahrenheit's) ranging from 90° to 115° in July and August.—Besides having an extensive intercourse with the interior by means of caravans, Muscat is frequented by vessels from the shores of the Persian Gulph, the Red Sea, and the E. coast

of Africa; and the produce of all the countries adjoining these places is generally found in the market. Trade is also carried on with Mauritius, India, China, and the Eastern Islands. The chief exports are dates, horses, raisins, wheat, salted and dried fish, sharks' fins, pearls, and drugs. The imports are rice, cotton, and woollen goods, iron, lead, sugar, and some spices; and the value annually imported is estimated at £900,000.—By a treaty concluded in September 1833, it is stipulated that no duty exceeding 5 per cent. shall be levied in the sultan's dominions on American merchandise imported in American vessels; and a like stipulation has been since (July 1839) made with respect to British merchandise imported in British vessels.—The present sultan is said to be distinguished for energy and intelligence; and the protection he affords to property is so efficient that the Banyans have formed a marine insurance company, of which the Arab traders generally avail themselves. He possesses a considerable navy, and his subjects are excellent seamen.

**MUSICAL GLASSES;** a musical instrument consisting of a number of glass goblets, resembling finger-glasses, which are tuned by filling them more or less with water, and played upon with the end of a finger damped. The less the quantity of water in glasses of similar forms and equal capacity, the lower will be the tone of the scale; and hence the facility of forming a complete scale by the quantity of water contained in each.

**MUSLIN;** a fine thin kind of cotton cloth with a downy nap on the surface. The name is derived from the town of Mosul in Asia, where it was originally manufactured. The first muslin was imported into England in 1670; and 20 years afterwards, it was manufactured in considerable quantities both in France and England. Muslins are now manufactured in immense quantities at Manchester and Glasgow, in France, Germany, Switzerland, and the United States, of a fineness and durability that rival those of India, at the same time that they are considerably cheaper. The fineness of some Indian muslins is such that when laid on the grass upon which a little dew has fallen, they are scarcely visible.

**MUSSULMAN** is the general appellation for all who embrace the faith of Mohammed. The term signifies "resigned to God," and is the dual number of the singular *moslem*, of which *muslimim* is the plural. The appellation is said to have been first given to the Saracens.

## N.

**NANKING.\*** Besides the articles before mentioned, Indian ink is manufactured in large quantities both in Nanking and its neighbourhood, forming an important article of commerce. This city is also celebrated for its manufacture (from the pith of a shrub) of artificial flowers, which are sold very extensively. — The commerce of Nanking is very considerable, owing to its position in the centre of the empire, and on the Yang-tse-kiang, which is navigable for small boats to the ports of Soo-cheo-foo and Shang-hae, its great entrepôts for corn, manufactured goods, and other articles. Its communication with Peking is effected by the imperial canal, which leaves the river about 40 miles below the city. The principal traffic with that capital is during April and May, when fast boats, that accomplish the distance in about 9 days, are constantly employed in exporting to the imperial court the produce of the Nanking fishery packed in ice. It was the seizure of this communication by the British, which enabled them, in 1842, to dictate the conditions of peace to the emperor of China. See *United Kingdom of Great Britain and Ireland*, (Sup.)

**NAPOLI DE ROMANIA, OR NAUPLIA.\*** The trade of this town is very considerable, the principal exports being oil, wine, gall-nuts, wax, silk, wool, and cotton; while the imports comprise corn, manufactured and colonial goods, with timber, &c. The commerce is principally carried on in Greek bottoms. In 1836 there arrived 86 vessels of 6026 tons; and 53 vessels of 3728 tons left the port in the same year. In comparison with the rest of Greece, the town is well provided with literary establishments. They comprise a military academy, a gymnasium, a circulating library, several book societies, two lithographic establishments, and five printing-houses, one of which is the property of the government, and exclusively employed in printing their official paper. The population of Nauplia may be estimated at present at 12,000 or 13,000: it comprises a considerable number of Germans, French, and Italians. — Nauplia was the seat of the new government of Greece from 1829 to 1834, when it was transferred to Athens.

**NARCOTICS** are medicines which produce drowsiness, sleep, and stupor. They appear, in the first instance, to act as stimulants, quickening the pulse, and rousing

the energy of the nervous system; and, in very small doses, this is their most obvious operation. In larger doses, these effects are followed by a tranquil state of mind, torpor, and even coma. Considerable skill and experience are required in the successful administration of these medicines, both as regards the cases in which they are to be prescribed, the doses in which they are to be given, and the peculiarities of habit which often interfere with and modify their usual effects. They are to be distinguished from *sedatives*, which do not produce preliminary excitement. Opium is a narcotic, henbane a sedative.

**NARCOTINE** is a crystallised substance, obtained by digesting the aqueous extract of opium in ether, and evaporating the ethereal solution. It was discovered in 1803 by Derosne, and supposed to be the narcotic principle of opium; but this has since been shown to reside more exclusively in *morphia*, and narcotine is possessed rather of stimulant qualities, and is the cause, perhaps, of the excitement which opium occasions. It consists of 65 parts of carbon, 5½ of hydrogen, 2½ of nitrogen, and 27 of oxygen.

**NAVIGATION LAWS.\*** The first deviation, of any moment, from the system of the British navigation laws, was effected by a treaty concluded by Mr. Vansittart (afterwards Lord Bexley), in 1815, with the United States of America, which, soon after the establishment of their independence, had enacted a navigation law copied from that of the mother country. By this treaty, the ships of the two countries were placed reciprocally upon the same footing in the ports of Great Britain and the United States, and all discriminating duties, chargeable upon the goods which they conveyed, were mutually repealed. In a few years afterwards, the progress both of opinions and of events forced on further modifications of the system in question. In 1822, Mr. (now Lord) Wallace, then president of the Board of Trade, introduced five bills, which mitigated to a large extent many of the provisions of the existing law; and, in the following year, circumstances arose which compelled a still further relaxation. From various causes, foreign countries had up to this time, in general, submitted to the discriminating duties imposed upon their vessels in the English ports. But it now clearly appeared that this forbearance was

to be continued no longer. It was notified by Prussia, in 1823, that until an alteration of the system pursued by the government of Great Britain was made in favour of her vessels, similar heavy duties would be imposed upon British shipping that should enter any of her ports; and it was obvious that a corresponding movement would have soon followed in other countries. The merchants having, in consequence, become clamorous for the removal of the retaliatory duties, Mr. Huskisson carried through Parliament the celebrated Reciprocity Acts. These statutes authorised the crown to permit the importation and exportation of merchandise in foreign vessels at the same duties as were chargeable when imported in British vessels, in favour of all such countries as should not levy discriminating duties upon merchandise carried into their ports in British vessels; and also to levy upon the vessels of such countries, when frequenting the ports of Great Britain, the same rates of tonnage as are chargeable upon the vessels of the country itself. At the same time, the crown was empowered to impose additional duties upon goods and shipping against any countries which should levy higher duties, in the case of the employment of British vessels in the trade with those countries. Under these acts, reciprocity treaties were concluded, in 1824, with Prussia, Hanover, Denmark, and Oldenburg; in 1825, with Mecklenburg, Bremen, Hamburg, Lubec, the States of La Plata, and Colombia; in 1826, with France, Sweden and Norway, and Mexico; in 1827, with Brazil; in 1829, with Austria; in 1834, with Venezuela; and in 1837, with Greece, Holland, and Bolivia. Other relaxations, too, of the navigation laws of Great Britain have, since the last-mentioned date, been granted to particular states by treaty, particularly Austria and the Hanse towns.

NEANDER.\* As many as 9 volumes of his "General History of Religion and the Church" have appeared. In 1832-33, he published a "History of the Planting and Training of the Christian Church by the Apostles," in 2 volumes; and in 1836-37, his "Life of Jesus Christ" (*Das Leben Jesu*), also in 2 volumes.

NECKER (Albertine Adrienne de Sausure) was born in 1766 at Geneva, where she died in the month of April 1841. She was the daughter of the naturalist de Sausure, and married a nephew of the celebrated financier, Necker. Her husband was the professor of Botany in the Academy of Geneva. Connected as she was by marriage with Mme. de Staël, she became

her intimate friend and had her own attention, in consequence, directed to literary pursuits. She has published a French translation of A. W. Schlegel's "Course of Dramatic Literature" (1814); a "Notice sur le caractère et les écrits de Mme. de Staël" (1820), prefixed to an edition of Mme. de Staël's works, but subsequently printed in a separate form; and also a work entitled "L'éducation progressive, ou Etude du cours de la vie" (1828-38, 3 vols.), which is imbued with a religious feeling and a pure morality; and it obtained for her from the French Academy one of the prizes founded by Montyon for the publication of works useful to morals.

NEEDLES are made from the best steel, reduced by a wire-drawing machine to the suitable diameter. The manufacture is supposed to have originated in Spain, and to have been introduced into England about the year 1565, by Elias Krause, a German, who then settled in London. Dr. Ure, in his "Dictionary of Arts," states that "the construction of a needle requires about 120 operations; but they are rapidly and uninterruptedly successive. A child can trim the eyes of 4000 needles per hour. When we survey a manufacture of this kind, we cannot fail to observe, that the diversity of operations which the needles undergo bears the impress of great mechanical refinement. In the arts, to divide labour is to abridge it; to multiply operations is to simplify them; and to attach an operative exclusively to one process, is to render him much more economical and productive."

NESSELRODE.\* The accession of the emperor Nicholas to the throne of Russia made no alteration in the position of the count de Nesselrode; he still continued to direct the diplomatic relations of his country with consummate ability. He contrived to draw closer together the connexion of the French and Russian governments, as a means of securing the non-interference of Austria with the projects of the latter to extend its influence in the direction of Turkey. But the French revolution of July 1830 caused a material alteration in his policy. The count de Nesselrode then sought anew to conciliate the Austrian cabinet, to which he had previously given umbrage; and the extreme coldness of the relations which he continued to maintain with France extended itself even to England, with whose interests and wishes he came into collision, especially in respect to the affairs of the East. By the treaty of Unkiar-Skelessi (July 8th 1833), he succeeded in completely chaining the

Porte to the interests of Russia; and his emissaries in Persia intrigued with success against the designs of England in that quarter. In 1840, also, he accomplished, through the instrumentality of the baron de Brunnow, the rupture of the intimate alliance which had, until then, subsisted between England and France, and which had so much facilitated the final separation of Belgium from Holland.

**NETHERLANDS.\*** This country, which was divided, in consequence of the revolution of 1830, into the separate kingdoms of Holland, or the *Netherlands*, and of Belgium, has, from this very circumstance, attracted in no ordinary degree the general attention. The former kingdom (exclusive of Dutch Limburg and Luxemburg) is situated between 51° 12' and 53° 30' N. lat., and between 3° 22' and 7° 12' E. long.; and is bounded on the W. and N. by the German Ocean, on the E. by Hanover and Prussia, and on the S. by Belgium. Its length, from N. E. to S. W., is about 200 miles; its average breadth about 65 miles. The W. half of Limburg, which belongs to Holland, joins this territory on the S. E., and is enclosed by Belgium on the W. and S., and Rhenish Prussia on the E. That part of the grand duchy of Luxemburg which belongs to Holland, is situated between 49° 28' and 50° 13' N. lat., and between 5° 45' and 6° 30' E. long. It is detached from the rest of the Dutch dominions, and surrounded by those of Prussia, Belgium, and France.—The area and population of the provinces composing the kingdom are as follows:—

| Provinces.            | Area<br>in sq. m. | Pop.<br>(Jan. 1838.) | Pop.<br>to sq. m. |
|-----------------------|-------------------|----------------------|-------------------|
| N. Brabant .....      | 1,976             | 306,160              | 155               |
| Guelderland .....     | 1,965             | 330,401              | 171               |
| N. Holland .....      | 954               | 423,873              | 442               |
| S. Holland .....      | 1,173             | 501,661              | 434               |
| Zealand .....         | 671               | 145,548              | 217               |
| Utrecht .....         | 535               | 140,574              | 262               |
| Friesland .....       | 1,264             | 227,415              | 179               |
| Over-Usel .....       | 1,290             | 191,062              | 146               |
| Groningen .....       | 1,000             | 174,437              | 173               |
| Drenthe .....         | 1,023             | 70,271               | 68                |
| January 1837.         |                   |                      |                   |
| Dutch Limburg .....   | 763               | 178,000              | 233               |
| Dutch Luxemburg ..... | 795               | 154,000              | 153               |
| <b>Total,</b>         | <b>13,598</b>     | <b>2,915,306</b>     | <b>214</b>        |

The population is stated by Cannabich to have amounted, in the beginning of the year 1840, to 2,947,319.—Of about 7,600,000 acres, which the surface of Holland (exclusive of Limburg and Luxemburg) comprises, there were estimated to be, in 1833, 5,310,000 acres of cultivated land; 2,000,000 uncultivated; 220,000 occupied by canals, ponds, &c.; and the residue by roads, buildings, and public walks. The richest lands are in the S. and cen-

tral provinces; the poorest, for the most part, in the N. E.: in Over-Yssel and Drenthe especially, heath and waste lands prevail to a great extent. A good deal of waste land, originally of a very unpromising quality, has of late years been brought into cultivation by the pauper population settled upon it.—The humidity of the climate, and the demand for animal food for the numerous cities, have connected their rural industry chiefly with pasturage; and the produce of the dairy is brought to such perfection as to form an important object of exportation. The number of horned cattle is estimated at 1,000,000; of sheep, at 700,000; and of horses at 200,000: and swine also are numerous. The corn raised, however, is insufficient for the home consumption. Sir A. Ferrier, in a communication made by him to the British government in 1842, states the produce of the grain crop of 1841, which was about an average one, to have been, in Imperial quarters, as follows:—Wheat, 645,000; rye, 537,500; barley, 322,500; oats, 344,000; beans, 86,000; pease, 64,500; and buckwheat, 193,500.—The fisheries have of late years continued to decline. Only about 80 *busses* are now employed in the herring fishery. The cod-fishery on the Doggerbank, and the whale-fishery, are also on a much smaller scale than formerly.—The imports into Holland consist at present chiefly of tropical and colonial produce; corn, salt, tea, wine, timber, coal, and hides; British, German, and French manufactures; together with freestone and granite blocks for the dikes. The exports consist mostly of cheese, butter, flax, hemp, madder, geneva, oak-bark, rape and linseed oils, oil-cake, tobacco-pipes, and seeds. But they likewise embrace the re-shipment of a large portion of the commodities imported, and more especially of those brought from the Dutch colonies, and from the Baltic, and the Rhenish States, which are carried to the ports of Holland as a convenient entrepôt for their distribution. The port which shares most largely in this transit trade is Rotterdam, owing to its position near the mouth of the Rhine, and its general accessibility. No account has been met with of the aggregate amount of the imports and exports; but the commerce of the kingdom has of late years benefited greatly from the improved administration of Java, which, with the other colonies, was retained by Holland, on the dissolution of its union with Belgium. According to a recent statement, the shipping cleared out amounts annually to,

nearly 6000 vessels, having a burden of 400,000 tons; of which about 330,000 tons were under the national flag, 200,000 under the British, and 100,000 under that of Norway. The number of vessels trading to the E. Indies from the different ports is 320, in burden 185,000 tons.—The states-general consist, as before the dissolution of the former kingdom of the Netherlands, of 2 chambers: the first is composed, as before, of from 40 to 60 members, nominated for life by the king; but the second chamber now consists of only 55 deputies of the nobility, towns, and rural districts, of the several provinces,—Holland sending 22, N. Brabant 7, Guelderland 6, Friesland 5, Over-Yssel and Groningen 4 each, Zealand and Utrecht 3 each, and Drenthe 1. Luxemburg has its own separate *diet*. The mode of choosing the members of the second chamber of the states-general is indirect, and far from being popular. In towns, for example, the plan is, for the higher order of rate-payers to elect a certain number of persons called *kiesers*, or choosers, who elect the members of the *raad*, or town-council, and elect them for life; the town-councils send deputies to the different provincial governments; and the latter elect the members of the states-general, or commons of the kingdom. It is clear that these members, elected as they are by individuals holding their offices for life, can scarcely be regarded with any propriety as representatives of the people, and cannot be expected to have much sympathy with the public. The system tends, in fact, to establish a government by an oligarchy, and is, in many respects, most objectionable. The financial budget is voted for 10 years; so that during the intermediate period, the chamber is, as it were, deprived of its most important function.—The different provinces have their own local magistracy and laws, established by their own states; the judges are nominated by the king for life, on the recommendation of the provincial states, or the states-general. In each canton there is a court of justices of the peace, and in each arrondissement one of original jurisdiction; and there are tribunals of commerce in the principal commercial districts. The supreme judicial court sits at the Hague. The trial by jury is not in operation. Perhaps no country has so little crime: only 3195 persons were in confinement throughout 1836. The systems of prison discipline and correctional police are admirable. No mendicants or disorderly persons are suffered to offend the public eye, and education is

carefully administered to juvenile offenders. There is no imprisonment for debt, except in the case of dishonoured bills.—Very nearly two-thirds of the population are Protestants, and of these almost the whole, including the king and royal family, belong to the Calvinistic or Reformed Church of Holland. The clergy, however, of all denominations of Christians, receive salaries from the public purse.—Education has been an object of great attention in Holland. In 1835, there were 2832 primary schools, attended by 304,459 pupils, and 62 Latin schools, attended by 1255 students. There are also two normal schools for the education of teachers, one at Groningen, and the other at Haerlem. In the poor-schools, a small sum is generally paid, and in many instances daily, by the parents of the children. This circumstance, it is said, does not retard the progress of education among the poor, but has perhaps rather a contrary effect, inasmuch as it removes that sense of degradation which frequently associates itself with the notion of receiving eleemosynary instruction. No law, as in Prussia, exists in Holland, directly compelling parents to send their children to school; but the poor are not allowed relief from the public funds unless they comply with this regulation. Holland has three universities,—those of Leyden, Utrecht, and Groningen,—which, with the “Athenæum” of Franeker, in Friesland, had, in 1835, 1571 students.—Though pauperism be discouraged, and mendicancy punished, the Dutch are very liberal in their support of the poor. The institutions for their relief consist of *hospices* for the aged and infirm, orphan-houses, workhouses for towns and districts, the poor colonies, and private charitable institutions. An institution worthy of particular mention is the “Society for the Promotion of the Public Good,” having 220 branches throughout Holland. Under the direction of this society, savings’ banks, libraries, schools of various kinds, including those of the higher branches of knowledge, &c., are established; prizes and rewards are given for superior essays, works of art, or acts of humanity; and in the winter season, public lectures on literary, scientific, or moral subjects, are delivered.—The military force amounted, in 1839, to about 42,000 men; but in time of war it may be readily raised to 70,000. The navy consisted at the same period, of 8 ships of the line, the largest carrying 84 guns, 21 frigates, 15 corvettes, 21 brigs, and 95 gunboats. There were 472 officers; and the crews in active service amounted to about 5000 men.—The

budget for the year 1842 estimated the receipts into the public treasury at 71,353,551 florins (£5,946,129), and the expenditures at 71,338,103 fl., including 33,481,341 fl. on account of the public debt. But we are not informed whether the ways and means are confined to the produce of the taxation of Holland, or include, besides, new loans, or anticipated receipts from the colonies. The mode of preparing the Dutch budgets has latterly been a subject of complaint. The capital of the debt consists of 768,858,300 fl. of old 2½ per cents., and of 362,657,850 fl. of new debt, bearing interest at 3½, 4, 4½, and 5 per cent.; making together 1,151,516,150 fl. Deducting from this 200,000,000 fl., the capital of the old debt corresponding to 5,000,000 fl., the interest stipulated to be annually paid by Belgium, by the treaty of April 19th 1839, leaves the debt of Holland 951,516,150 fl. (£79,293,012); the present annual charge on which, including the sinking fund, is 33,994,250 fl. This is exclusive of 236,000,000 fl. contracted in 1836, 1837, and 1838, on the credit of the colonial revenues, the interest on which, at 4 and 5 per cent., is guaranteed by the state, and also of the sum of 45,000,000 fl. due to the Maatschappij, a society, formed in 1825, for carrying on trade with the colonies.—Holland has followed the example of other nations in the improvement of her internal communications, by the constructing of railroads. The first was begun in 1838 from Amsterdam to the Rhine, which has the remarkable peculiarity of not being constructed by, and therefore not belonging to either the state or a company, but to an individual,—the king. When the plan for its construction was proposed to the states-general (February 1838), it was rejected by that body. Upon this the king resolved at once to construct it at his own expense, and on his own responsibility. The part between Amsterdam and Utrecht was opened in December 1843; and the work on the other sections of the road is now proceeding, how rapidly we are not told. Another railroad, from Amsterdam to Haarlem, having been completed in 1839, the company at whose expense it was made obtained the privilege of carrying it on by the Hague to Rotterdam. The section from Haarlem to the Hague was finished in 1841; and the number of persons who were conveyed on the road from Amsterdam to the Hague, in the course of the year 1844, is stated to have amounted to 632,568, paying for their conveyance the sum of 589,230 florins. Other railroads

are projected to connect the city of Utrecht with the Belgian system of railroads, by way of Vianen, Gorcum, and Breda, and from Maastricht to the Rhenish Prussian line, extending eastward from Aix-la-Chapelle to Cologne and Bonn.—The French army, under the command of Marshal Gérard, laid siege to the citadel of Antwerp, and compelled its surrender, at the close of the year 1832. Although after this event further hostilities between the Dutch and Belgians, or between the former and the mediating or intervening powers, were suspended, and a preliminary treaty even concluded on the basis of a complete separation between Holland and Belgium, the terms of the separation were with so much difficulty adjusted, owing in a great measure to the obstinacy of the king of Holland in insisting upon greater advantages than even his own allies were disposed to concede to him, that they were only brought to a final settlement by the treaty of the 19th of April 1839, concluded under the mediation of the five great powers. On the 7th of October 1840, the then reigning king, William I., abdicated the throne, tired of royalty, and desirous of taking for his second wife the countess Henrietta d'Oultremont, a Roman Catholic, a step, on this account, exceedingly unpopular with his subjects. He took up his residence at Berlin, with his favourite daughter, married to Prince Albert of Prussia, and died there of an attack of apoplexy, about the end of the year 1843. He was succeeded on the throne, in 1840, by his son the prince of Orange, under the style of William II.

The kingdom of *Belgium* is situated between 49° 27' and 51° 31' N. lat., and between 2° 37' and 6° E. long. It is bounded N. by Holland, E. by Prussia, S. by France, and W. by the German Ocean. Its area is estimated at 11,351 square miles. The provinces and population in 1839 were as follows:—Antwerp, 365,173; Brabant, 604,950; W. Flanders, 636,890; E. Flanders, 769,407; Hainault, 643,410; Liege, 400,780; Limburg, 151,617; Luxemburg, 167,885; Namur, 232,825; total, 3,972,937. Almost the entire population are Roman Catholics. The Protestants do not amount to 13,000; and the Jews are about 1100. The fullest liberty is allowed in the expression of religious opinions, and the choice of modes of worship. The incomes of the ministers of each denomination of religionists are derived from the national treasury.—The principal agricultural products are wheat, rye, barley, oats, buckwheat, potatoes, turnips, hemp, flax, beets, hops,

and chicory, with artificial grasses. A variety of fruits are also grown, and some tobacco. About 9-11ths of the country are under cultivation, and the greater part of the remainder is occupied by forests, towns, roads, canals, and railways, which cannot be deemed unproductive. The most highly cultivated provinces are those of the N. and W., which in their flatness, fertility, dikes and canals, closely resemble Holland, and are so thickly inhabited as to present the appearance of one continuous village.—Of the mineral products, the first in point of importance is coal, the extraction of which, in 1836, employed 31,190 men; and there were produced 22,000,000 hectolitres, worth 32,000,000 francs. The three great centres of the coal-mines are Mons, Charleroi, and Liege. Iron-mines are numerous, especially in the district between the Sambre and the Meuse; and in 1836, the quantity of prepared ore worked up was 456,000 tons, corresponding to double that quantity taken from the mines. Lead is found in Liege, in Namur, and in Luxemburg, especially at Longrilly; copper in Hainault and Liege; zinc in Namur and Hainault; besides which, the mineral products of the S. and E. provinces embrace manganese, calamine, sulphur, and alum; and also, various kinds of stone, slate, marble, and clay fitted for the manufacture of porcelain.—Great attention has latterly been paid to the breeds of horses and cattle. The whole number of horses in the kingdom is estimated at 250,000; that of horned cattle is about 900,000; of sheep only 750,000. Hogs are raised in great numbers.—Since the revolution of 1830, a new impulse has been communicated to all branches of manufacturing industry. One of the most important manufactures is that of woollen cloths (particularly black cloth), the chief seats of which are at Verviers, Liege, and Dalhem; carpets are made at Tournay; linens at Ghent, St. Nicolas, Termonde, Courtray, Ninove, and other places. The cotton manufacture, in which a fixed capital in buildings and machinery is invested of about 60,000,000 francs, employs upwards of 120,000 hands; Ghent, St. Nicolas, Antwerp, and Mechlin, contain the principal factories. The breeding of the silk-worm was introduced in 1826; and the silk manufacture is rising into importance in Antwerp, Siene, and Uccle near Brussels. The lace of Brussels and Mechlin has long been celebrated; and ribands of every kind are made in large quantities at Antwerp, Tournay, and Ypres. The smelting and manufacture of iron, copper, and tin, is

carried on extensively, from the abundance of these metals and of coal, and charcoal from the forests; the principal groups of forges are between the Meuse and the Sambre, at Charleroi, and on the banks of the Meuse, extending from its entrance into Belgium to the limits of Namur and Liege, at which last place the coke furnaces, which have been doubled in number since 1837, are of greater dimensions and power than any in Europe: the iron manufactures comprehend steam-engines, cannons and fire-arms, all made on a great scale at Liege; and cutlery and iron utensils in various localities. Much of the rapid progress observable in almost every branch of industry of late years is due to the facilities and encouragements afforded by the government; but individual enterprise has been likewise conspicuous. Mr. John Cockerill of Liege has exhibited the most remarkable instance of this description. He is concerned in upwards of 50 manufacturing establishments; some of them in Germany, France, and Poland, but the greater number in Belgium. Of these, the most remarkable for vastness and solidity, as well as from its being the seat of government, so to call it, of Mr. Cockerill's scattered empire of mechanical enterprise, is that of Seraing, on the banks of the Meuse, near Liege, where no fewer than 3700 men are employed in coal-mines, iron-works, blast furnaces, and in the manufacture of steam-engines and other machines.—The internal commerce of the kingdom suffered from the revolution of 1830; but it has again revived, and shows a progressive improvement, corresponding with that which has occurred in the other branches of industry. The exports chiefly consist of bark from the trees of the Belgian forests, of which nearly 350,000 cwt. are annually exported to Great Britain alone; seeds, especially clover; coal, of which immense quantities are annually sent to France, where it is received on more favourable terms than that from England; spelter, flax, hops, linens, lace, carpets, and fire-arms,—the last being sent in large quantities to Brazil, whence they are again exported to Africa in exchange for slaves. The imports are chiefly composed of tropical produce, especially coffee, tobacco, and cotton, British manufactures, wool to the annual value of £550,000, chiefly from Germany, Poland, Hungary, and the southern provinces of Russia, and wine. The total value of the imports, in 1838, was 238,052,659 francs, that of the exports, in the same year, was 193,579,520 francs.—The only sea-ports

of any consideration are Antwerp and Ostend. The former, however, of these is one of the finest in Europe, and affords reception to vessels of the largest tonnage. The number of merchant-vessels belonging to the ports of Belgium is quite inconsiderable. In 1833, not including those of the fisheries, there were only 137, of which the tonnage was 19,535, and the number of men composing the crews 1093. Steamboats are increasing, and are gradually "being established" on all the principal lines of communication by water, as well within the country as to foreign ports.—Belgium possesses four universities; two belonging to the state, at Ghent and Liege, the Catholic university of Louvain, and the free university of Brussels,—the last of which was founded by an association of individuals. Besides the faculties of law, medicine, science, philosophy, and literature, the university of Liege contains a school for teaching the useful arts, manufactures, and mining. That of Ghent gives a course of civil engineering; and the university of Louvain a course of theology. Each of the universities possesses a chemical laboratory, cabinets of physical science, of mineralogy, zoology, and comparative anatomy, a theatre of anatomy, botanic garden, and chambers for clinical practice. The number of students who attend the collegiate courses at Liege is usually about 400, at Ghent 300, and at Brussels about 320. The largest classes are those of law and medicine. About 420 students of divinity attend the Catholic university of Louvain. A system has been established in Belgium for examining students and conferring degrees, similar to that adopted by the university of London. A body of examiners, composed of professors and other highly distinguished men of learning and science, holds its sessions in Brussels, and awards honourable certificates and titles to those possessed of the greatest scientific and literary knowledge and ability, without inquiring whether these requisite qualifications have been acquired from professional teachers in the public halls of a chartered college, or from solitary perseverance in a private study. There is a military school at Brussels which furnishes annually a number of well-instructed officers to the army, and also a veterinary school. This last institution, though styled a veterinary school, affords the means of complete instruction, not only in that department of science, but in all the different branches of agricultural knowledge, theoretical and practical, together with the

principles of brewing, distilling, &c. Several of the larger towns possess each an *Athenæum*, or *gymnasium*, for supplying a middle course of instruction between that of the school and the university, comprehending, however, the ancient and modern languages, history, geography, and the elements of the mathematical and physical sciences. The Athenæum of Brussels has a theatre for lecturing, capable of accommodating 1200 persons; and all the lectures are gratuitous. Besides these establishments, which are supported by the state, or by the communes, some of the provinces have *Catholic colleges*, which, as well as the university of Louvain, are under the direction of the clergy. Four of these ecclesiastical institutions are possessed by the corporation of Jesuits; namely, one at Brussels, one at Namur, one at Alost, and one at Ghent. There is also a theological seminary in the diocese of each of the six Catholic bishops. *Industrial and commercial schools* are established at Brussels and at Verviers, where courses of instruction are given in every department of science and practical knowledge that is, or may be, subservient to the purposes of commerce and the manual arts. At Tournay, a school has been especially formed for teaching the most useful arts and trades; and in the cities of Mons and Namur, schools are opened for giving instruction in the various operations appertaining to mining. The fine arts are still objects of much emulation in Belgium, and academies of painting are very numerous attended in Brussels, Antwerp, Liege, Ghent, Louvain, and Tournay. The average of young men who are receiving gratuitous instruction in the different academies of painting and schools of design, throughout the kingdom, is 5550. The Royal Academy of Fine Arts at Antwerp is the principal school of painting; and it produces every year several artists of the highest distinction. It is supported by the public, and is usually attended by at least a thousand students. Brussels possesses a royal establishment for *lithography*, and an excellent school of engraving, where designing is taught, and the different kinds of engraving on copper and wood. Belgium is remarkable for its large and numerous schools of music, called *conservatoires*, of which the most important is at Brussels, and is attended by 400 pupils. Schools of navigation are established at Ostend, Antwerp, and Nieuport. *Primary instruction* in Belgium has made no perceptible progress since the revolution of 1830. The *com-*



*pulsory* and *normal* system of Holland was then rejected by the Belgic authorities, who adopted, in its stead, the *voluntary* principle; but this has not secured either the competency of teachers or the attendance of scholars. A comparison of the returns for 1826, when the Dutch system was in operation, with those for 1836, when it had been discontinued six years, shows that the schools had increased to more than double the number, in consequence of no test of qualifications being required for becoming a teacher; but the proportion of scholars to the population remained exactly the same. Catholic Sunday schools for religious instruction are very numerous attended in the provinces of Flanders and Antwerp. The principal Sunday school in Ghent contains about 3000 children of both sexes. Evening schools for the working classes are established in several of the principal towns; and also some excellent institutions for instructing the deaf and dumb.—Belgium possesses a great number of charitable institutions, consisting of richly-endowed hospitals and almshouses, for the relief of every kind of misfortune, misery, and want, and for individuals of all ages; the annual amount of money devoted to public charities exceeding 10,500,000 francs. There are also a number of workhouses for the reception, confinement, and maintenance of the poor, and a pauper colony near Hoogstraeten, in the N. extremity of the province of Antwerp.—In Belgium, the punishments of death and of branding, although still written in her laws, are practically abolished. Criminals are placed in four central prisons; namely, at Ghent, for those condemned to forced labour; at Vilvorde, solely for confinement; at St. Bernard, near Antwerp, for correction; and at Alost, for military offences. The average population of these prisons, during the year 1836, was 3691, of whom 3366 were kept at work. They work exclusively for the equipment of the army, and for the supply of necessary clothing, &c., for prison use. Prisoners, on their liberation, are placed under the inspection of the prison commissioners, in order to facilitate the obtaining of honest occupation, and prevent a relapse into crime. The amount of crime, with regard to the population, and to the criminal records of France and England, is comparatively small. M. Ducpéjiaux, in a work published by him in 1835, gives the following results from official returns: of England, from 1827 to 1833, taking the population at 18,500,000; of France, from 1825 to

1832, pop. 32,500,000; and of Belgium, from 1826 to 1832, pop. 4,000,000.

## ANNUAL AVERAGE.

| Countries.   | Total accused. | Acquitted. | Condemned. | Pop. to<br>1 acc'd. |
|--------------|----------------|------------|------------|---------------------|
| England..... | 16,924         | 3,556      | 13,368     | 797                 |
| France.....  | 7,340          | 2,954      | 4,386      | 4,427               |
| Belgium..... | 766            | 141        | 624        | 5,228               |

In Belgium, too, the proportion of criminal offenders is constantly diminishing, while in England it is greatly augmenting.—The public revenue in 1839 amounted to £4,163,821; the expenditure to £4,476,613. The national debt consists, 1st, of 100,000,000 francs, borrowed in 1831–32, at 5 per cent., chiefly for the organization of the army; 2d, of 30,000,000 francs, borrowed in 1836, at 4 per cent., for railways and other means of communication; 3d, of a floating debt of 25,000,000 francs, at 3½ per cent., principally for railways and roads; total, 155,000,000 francs, or £6,200,000. This is exclusive of the Belgian portion of the debt of the former kingdom of the Netherlands, mentioned above when treating of *Holland*.—The regular army in time of peace consists of 48,000 men of all arms, but admits of being easily raised to 100,000 men, or upwards, in the event of a war. Belgium, on her separation from Holland, was left entirely without an armed navy. In 1838, she possessed only a small flotilla of gun-boats, manned by about 600 seamen and officers.

NEUILLY; a village of France, in the department of the Seine, near Paris, with a population of about 4000. It is noted for its bridge, a *chef-d'œuvre* of the architect Peronnet, and for its *château*, built in the time of Louis XV., a favourite summer residence of Louis Philippe, king of the French.

NEUWIED\* (Maximilian, prince of) visited the United States, and ascended the Upper Missouri, in 1832–33. An account of this journey was published by him in 1841.

NEWFOUNDLAND.\* The area of this island is estimated at about 57,000 square miles; and its population in 1836 was 73,705, mostly of Irish or Scotch origin.—The government of it was long administered by naval commanders appointed to cruise on the fishing station, who returned to England in winter. Subsequently, it was deemed more eligible to have a resident governor, who was assisted by a council, appointed, like himself, by the crown. At length, in 1832, in consequence of a petition from the inhabitants, a representative legislature was constituted, whose powers are similar to those exercised by the legislative bodies in the other British

colonies. The administration is, accordingly, now vested in a lieutenant-governor (subordinate to the governor-general of British America), with executive and legislative councils, and a house of assembly of 15 members.—The cod-fishery attained so high an importance during the last war, that the exports of cod and cod-oil were valued, in 1814, at £2,604,000; but the English fishery has since rapidly declined, so that the average annual value of the fish exported, during the years 1837–39–39, amounted only to £507,264. As the English have for some years abandoned the bank-shoals to the Americans and French, the Newfoundland fishery is principally carried on close to the shore, in small boats, manned by 2 or 4 persons. In 1839, there were 6159 of these boats. Besides the cod-fishery, and the seal-fishery (already mentioned), there is a pretty extensive salmon-fishery, the value of which, in 1839, amounted to £11,692.—The total value of the exports is about from £300,000 to £350,000.—The shipping which entered inwards, in 1839, amounted to 861 vessels, of the aggregate burden of 91,661 tons.

NEW GRANADA has an area of about 380,000 square miles; and its population, in 1834, is stated to have amounted to 1,687,100; of whom 1,058,000 were whites,—376,050, Indians,—168,700, free coloured,—and 84,350, slaves. Besides the long unsettled condition of this country, no cause has prevented its prosperity in a greater degree than the want of roads and other means of internal communication. There are no roads passable for wheel-carriages; and every species of commodity is conveyed on mules. The ways generally are mere tracks, formed by the tread of successive travellers; and even in what were formerly called royal roads, all that has been done is to cut down the trees. Bridges are few, and, with two or three exceptions only, consist of merely of few rough planks, with branches, &c., laid across, or of ropes, on which a suspended basket is made to run from one end to the other. The inland regions are so situated that none can communicate with any of the ports without very extraordinary expense, except the valley of the Upper Magdalena, the produce of which is sent down that river to Carthagena and Santa Martha. This is more especially the case with the valley of the Upper Cauca, the most fertile tract of the republic, which is everywhere surrounded by high mountains. Its produce is mostly sent to Buenaventura, over the Western Andes, some parts of which are

so steep that the merchandise has to be carried by men. The produce of the most populous district, the mountainous country of Boyaca, is sent by the river Zulia to the Venezuelan harbour of Maracaybo. The canal, now constructing by Mr. G. M. Totten, an engineer from the United States, and which is destined to connect the river Magdalena with the harbour of Carthagena, cannot fail to augment, in a very considerable degree, the commerce of the country.—In 1835, the total value of the exports was 2,566,206 dollars; and of the imports 3,292,625 dollars.

NICE\* (on the Mediterranean). Very different accounts have been given by travellers of the climate of this town, according, probably, to the different periods of the year when they visited it. During the months of November, December, and January, when it is most resorted to by invalids, the weather is generally delightful. But at other seasons, it is less suitable for this description of persons; and in February, the *mistral*, or *vent de Bise*, which is often keen and piercing, and very trying to delicate constitutions, begins to blow.—A noble road, constructed at a vast expense, leads over the Maritime Alps from Nice to Turin. Another road, begun by Napoleon, but not completed till 1827, leads along the sea-coast from Nice to Genoa; and a third road is now about being opened from Lyons to Nice, which will be a shorter and better way of entering Italy than by Mount Cenis.

NICKLIN (Philip H.) A.M. was born in the city of Philadelphia, in the early part of the year 1786. After receiving the usual elementary instruction in the best private schools which this city then afforded, he went in the autumn of 1800, to Princeton College, in New Jersey, where he pursued his studies with diligence and credit for four years, and was graduated A.B. in September 1804.—Mr. Nicklin then returned to Philadelphia, and in the year 1805 commenced the study of the law in the office of the late Mr. Jared Ingersoll, one of the most eminent practitioners of the Philadelphia bar; and after prosecuting this study with assiduity until the death of his father in 1807, he was obliged to relinquish it, and, for his immediate support, at once to devote himself to active employment. To enable him to embark in some profitable business, he paid a visit, in the summer of 1808, to a wealthy uncle in England, who readily supplied him with the necessary means; and shortly after his return to the United States, in 1809, he became established as

a bookseller in the city of Baltimore. He remained in business in Baltimore until the year 1814, when he returned to Philadelphia. Here he continued in the book-selling business with various success; and, after the year 1827, confined himself exclusively to the sale of law books. In the spring of 1830, finding that he had acquired what he deemed a competency for himself and family, he retired from business.—In his retirement, Mr. Nicklin always found full employment for his time. He was a trustee of the University of Pennsylvania, a member of the American Philosophical Society, and a zealous and efficient member, also, of the Missionary and other Societies, of the American Protestant Episcopal Church, to which he was warmly and sincerely attached. Mr. Nicklin, moreover, from the deep interest he always took in the doctrine of the freedom of trade, wrote able articles in support of it for the public journals, and was an active member of the Free Trade Convention, which assembled from all parts of the United States in the city of Philadelphia, in the month of September 1831; and, it must be added, was the author of the *Exposition of the Operation of the Tariff System*, in relation to books, bookbinding, printing, and printing paper, which was published among the documents annexed to the public report of that convention. He was also an ardent and successful cultivator of some branches of Natural History, and contributed various papers on American Conchology to *Silliman's Journal*. Among the works, on different subjects, of which he was the author, we may mention: "A report made to the Board of Trustees of the University of Pennsylvania, on the 4th of November 1834, on the Universities of Oxford and Cambridge, in England," after visiting England during the previous year; "Letters descriptive of the Virginia Springs—the roads leading thereto, and the doings thereat" (1834); "A Pleasant Peregrination through the prettiest part of Pennsylvania, performed by Peregrine Prolix" (1836); "Letters descriptive of the Virginia Springs, &c., a second edition, containing Eight more Letters" (1837); and "Remarks on Literary Property" (1838). This work, on the question of copyright, was well received by the public, and favourably noticed by the reviews both at home and abroad.—In the midst of apparent health and active usefulness, Mr. Nicklin died very suddenly in Philadelphia, on the 2d of March 1842, when he had just completed his 56th year.

NICOLAS (St.); a town of Belgium, pro-

vince of E. Flanders, on the high road between Ghent and Antwerp, 19 miles from the former, and 12 from the latter, having, in 1836, 16,153 inhabitants. It is one of the most flourishing manufacturing towns of Belgium. It has, perhaps, the largest market for flax in Europe, and large annual fairs for cattle and horses.

NIMCEWICZ\* found an asylum in France in 1831, after the disastrous issue of the Polish revolution; and he continued to reside in that country till his death, which took place at Montmorency, near Paris, in May 1841, at the age of 65. He left behind him voluminous memoirs of his life and times.

NIGER.\* The termination of this river in the gulf of Benin having been ascertained by the Landers in 1830, Mr. M'Gregor Laird, and some other gentlemen of Liverpool, entered into an association for forming a settlement, and opening a trade, on the Upper Niger. Two steamers, accompanied by a larger sailing vessel, which was laden with goods, were fitted out (1832) for this purpose. Much additional information was derived respecting the nature of the country, and the character of its inhabitants with whom Mr. Laird and his companions had intercourse; but, in a commercial view, the expedition was unfortunate, the only valuable article produced being ivory, in too small quantity, however, to pay the expense of the voyage. The party suffered exceedingly from the unhealthiness of the region of the Lower Niger, through which they passed: of 40 persons, only 11 lived to return to England. The inhabitants were among the most degraded in the scale of human beings: the slave-trade is extensively carried on; and wars being continually waged between the different tribes, travellers are exposed to the greatest dangers. Three steamers, well fitted up for the purpose, were despatched to the Niger in 1841, by the British government, with full powers to form commercial treaties with the natives, and to concert measures for the extinction of the slave-trade. The results of this expedition, like those of the former, were far from meeting the expectations of its projectors. Mercantile enterprise has yet found no enticing field of operation in the interior of the African continent; and the slave-trade continues to be carried on there as extensively as ever.

NIJNII-NOVGOROD, the capital of the Russian government of the same name, is situated in the angle formed by the confluence of the Oka with the Wolga; in 56° 20' N. lat. and 41° 29' E. long.—

Population, 25,000.—With the exception of the principal public buildings, and a few private houses, this city is constructed of wood. Among the establishments are 3 convents, a bazaar, a gymnasium, an ecclesiastical seminary, and a large military school.—Nijnii-Novgorod has various manufactures; but it owes its importance almost entirely to its commerce. It is the grand entrepôt for the trade of the interior of the empire, and has, in fact, a greater command of inter-navigation than any other city of the old world. A great fair is annually held here. It begins on the 1st of July, and continues for a month or six weeks, and is well known, not only over all Russia, but over most other countries of Europe and Asia. The concourse of strangers, during the fair, is very large; so much so, that the population is then increased, according to the lowest estimates, by from 150,000 to 200,000 individuals. Dealers collect here from India, China, Tartary, Bokhara, Persia, Circassia, Armenia, and Turkey; and from Italy, Poland, Germany, France, and England, and even America.

NILSTON (Sven), the most distinguished among the living zoologists of Sweden, was born at Schonen, in that country, in 1787. He pursued his studies with so much profit and credit to himself in the university of Lund, that, immediately upon ceasing to be a student, he became a teacher of Natural History in that institution (1811). In 1818, he obtained the degree of doctor of medicine; in 1819, he was appointed superintendent of the Museum of Natural History; and in 1821, he received the title of a professor. In 1828, he took the charge of the zoological collections of the Academy of Sciences at Stockholm, but accepted, in 1832, the appointment to a professorship of Natural History at Lund. At this period, he became also a minister of the gospel.—His most important works are "Ornithologia suecica" (2 vols. 1817-21); "Skandinavisk fauna" (4 vols. 1820, and 1-20 parts. 1829-39); "Historia molluscorum Suecicæ" (1822); "Petrefacta suecica formationis cretaciæ" (fol. 1827); "Prodrromus ichthyologiæ scandin." (1832); &c.

NING-PO is one of the five ports of China lately opened to the British. It is situated in the province of Che-kiang, in 30° 10' N. lat., and 120° 30' E. long., about 180 miles S. E. of Nanking, and about 100 miles S. from Shang-hai, another of the five ports. It is separated from the latter by a bay, enclosed between the main land and the island of Chusan; and it lies

about 14 miles up the river Ta-hae, at the mouth of which, contiguous to Chin-hae, there is anchorage for shipping of any size. A little to its N. lies Cha-poo, the principal seat of the Chinese trade with Japan.—The population of Ning-po is estimated very variously, at from 200,000 to 400,000.—It is intersected by numerous canals: the streets are broad and long; and the shops are said to surpass those of Canton in elegance and splendour.—Ning-po may be considered the third or fourth emporium of the Chinese empire; and its trade to the N. and S. districts of China, as well as to Siam, is of the highest importance.

NIZAM is the title of one of the native sovereigns of India, between whom and the E. I. Company many subsidiary treaties exist. This title is derived from Nizam-ul-Mulk, who, in the beginning of the last century, obtained possession of the Mohammedan conquests in the Deccan; his successors in the sovereignty having assumed his name as their title of dignity, which they have retained to the present day.

NODIER (Charles) was born at Besançon, April 29th 1783. His intellectual development was exceedingly precocious. When quite a child, he became an enthusiastic student of natural history; and when only 15 years of age, he published his first work, entitled "Dissertation sur l'usage des antennes dans les insectes et sur l'organe de l'ouïe dans ces mêmes animaux." This was speedily followed by several others on entomological subjects. It was not long, however, before he abandoned the study of natural science, and, going to Paris, devoted himself henceforth to philology and literature. After the revolution of the 18th of Brumaire, he published "La Napoléone," an ode in which he exhibited the First Consul in no very favourable light. The latter revenged himself on the poet, by causing him to be arrested, and incarcerated in the prison of Sainte-Pélagie. He was, after having been detained there several months, exiled to his native city; whence, disgusted with being constantly under the surveillance of the imperial police, he passed into Switzerland. He wandered about for a time in that country, until he at length obtained permission, through the instrumentality of his friends, to re-enter France, and to reside in a village in the department of the Jura. We next find him at Amiens, in the capacity of a literary assistant to an English gentleman, of the name of Croft, who had projected the

publication of a collection of the ancient classics. About this period, he published his first philological work, his "Dictionnaire raisonné des onomatopées françaises." He quitted Amiens to become a librarian at Laybach, in Illyria, and to be an editor of the "Télégraphe Illyrien," a journal which appeared in that city by the authority of the French government. This appointment was procured for him by the interference in his behalf of Marshal Berthier; and he retained it till near the fall of the empire, when Laybach was once more taken possession of by the Austrians. Returning to France, he pursued his literary labours, and was attached successively to the editorship (*rédaction*) of several of the principal journals of the capital. Several honorary distinctions were bestowed upon him by Louis XVIII.: in 1824, he was appointed librarian at the Arsenal; and in 1833, he was elected a member of the French Academy.—M. Nodier is one of the most gifted, as he is one of the most fertile novelists of Modern France, and likewise one of the most elegant of her poets. He enjoys a high reputation, besides, as a philologist,—a reputation, however, perhaps more owing to his ingenuity in the exhibition of his particular views, than to the justness of them.—His literary productions have been exceedingly numerous. The most important of them are:—"Questions de littérature légale" (1812); "Jean Sbogar" (1818); "Thérèse Aubert" (1819); "Smarra, ou les Démons de la nuit" (1821); "Trilby, ou le Lutin d'Argail" (1822); "Mademoiselle de Marsan;" "Le Nouveau Faust et la Nouvelle Marguerite;" "Le Songe d'or" (1832); "Contes en prose et en vers" (1835); "Examen critique des dictionnaires de la langue française, ou Recherches grammaticales et littéraires sur l'orthographe, l'acception, la définition et l'étimologie des mots" (1828); "Archéologie, ou Système universel des langues;" "Prologomènes (1810), et Dictionnaire de la langue écrite," which extends, however, only as far as Acc.; and "Le Dernier Banquet des Girondins," an historical study, followed by a dissertation on the revolutionary eloquence (1833).

NORMANBY\* (Lord), not long after the death of his father had given him a seat in the House of Lords, accepted of an appointment as governor of the island of Jamaica; an appointment, just then, of peculiar importance, on account of the transition state of the coloured population from a condition of slavery to that of freedom, and the dissatisfaction of the planters

with the measures of the British parliament. By the good sense and moderation with which he discharged the duties of his office, if he did not altogether content the colonists, he at least very much allayed the spirit of opposition which had prevailed among them, upon his arrival in the island.—Lord Normanby (then Lord Mulgrave) held the office of Lord Privy Seal in the first Melbourne ministry. At the formation of the second Melbourne ministry, in April 1835, he was appointed to the delicate post of Lord Lieutenant of Ireland. As such he succeeded, in a degree far beyond that of any of his predecessors, in gaining the confidence of the Irish people, and, by so doing, in maintaining tranquillity and order among them. He was created Marquis of Normanby on the occasion of the coronation of Queen Victoria, in June 1838; and in the February following, he succeeded Lord Glenelg as secretary of state for the Colonies, which office he exchanged, in August 1839, for that of secretary of state for the Home Department. Since the fall of the Whig ministry, of which he was a part, his course has been one of moderate opposition to their Tory successors.

NORTHCOTE\* died at London in January 1837.

NORWAY.\* The population of this kingdom, in 1835, amounted to 1,200,000; and it has been lately estimated as high as 1,350,000.—The principal commodities exported are timber (mostly pine), fish, and iron and copper. In 1835, the quantity of timber exported amounted to 225,772 lasts; of which 64,039 were sent to Holland,—62,737, to France,—55,995, to Great Britain and Ireland,—and 32,176 to Denmark. Previously to 1810, the exports to Great Britain were much larger; but in that year a heavy duty was imposed in the latter country on Baltic timber above Canadian, which led to the substitution for it of this, though much inferior. The timber duty was, however, modified by Sir Robert Peel in 1842, so as to encourage an increased importation of the article from Norway and the neighbouring countries. *Fishing* is the chief branch of industry along the W. coast. The principal station is the Lofoden Isles, especially E. Vagoe; but the produce is exported from Bergen, Drontheim, Christiansand, and other western ports on the mainland. In 1835, the shipments consisted of 29,733,313 lbs. dried cod, &c., and 16,074,141 lbs. lub-fish, sent chiefly to the S. of Europe; 470,712 barrels of herrings, mostly to the Baltic states; 749,302 lobsters, to London;

4,227,524 pots of train oil, to Holland, Prussia, Hamburg, &c.; besides salmon, anchovies, and other fish. Iron occurs in immense layers in the E. declivity of the Norska Fiellen, in the province of Christiansand; and in 1835, 3,440,170 lbs. were shipped in bars, besides 330,083 lbs. in pig, mostly to Denmark, from Oesterussœer, Langesund, and Christiania. Copper abounds in the Doffefeld range, at Roraas, Medal, and Selby; and in 1835, 2,460,000 lbs. of ore were exported at Hammerfest, chiefly to Great Britain; besides 759,384 lbs. of refined metal at Drontheim, to the Netherlands and Altona. The imports consist principally of corn, butter, cheese, and provisions, from Denmark; colonial produce, from Altona, Hamburg, and Great Britain, the last likewise furnishing earthenware and other manufactures; wine, brandy, fruit, and dressed leather, from France; cheese, iron pots, hoops, flax, and rape and linseed oil, from Holland; and hemp, flax, and sailcloth from Russia. In 1835, the shipping which entered the ports of Norway from foreign countries amounted to 6,599 vessels, of the burden of 234,989 lasts. The shipping belonging to Norway is slowly on the increase: in 1835, there belonged to it 2272 vessels, of the burden of 75,459 lasts, navigated by 11,279 men.—In Norway, the legislative body, called the "Storthing," consists of from 75 to 100 members; about one-third of whom are returned by the towns, and the rest by the rural districts. Every native Norwegian of 25 years of age, who is a burgess of any town, or possesses property or the life-rent of land to the value of £30, is entitled to elect and be elected; but for the latter privilege he must not be less than 30 years of age, nor an officer of the crown, and he must have resided in Norway for 10 years. The mode of election is double, being performed through the intervention of election-men. The Storthing meets for three months once in three years, *suo jure*, and not by any writ from the king or his representative. It may be convened at other times, but in that case it can pass only temporary acts, which must be ratified during the next ordinary session, otherwise they do not become laws. Its members, when elected, divide themselves into two houses. One, called the *Laything*, has functions corresponding to those of the British House of Lords, or French Chamber of Peers, and is composed of one-fourth of the whole number of members of the Storthing: the other three-fourths constitute the *Odelsting*,

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or lower house, and all proposed enactments must originate in this division. A bill which has passed both houses usually becomes a law by receiving the sanction of the king. But the Norwegian Storthing enjoys a right which no other legislative assembly in Europe possesses. If a bill pass through both divisions in three successive Storthings, on the third occasion it becomes the law of the land without the royal assent; and this right was exerted when the Norwegians abolished their hereditary nobility in 1821.—Judges in Norway are responsible in damages for their decisions. Capital punishment has been abolished; slavery in chains, for a longer or shorter period, being the ordinary sentence for all kinds of crimes.—The religion is the Lutheran; but much ceremony still remains in the forms of worship. The parish clergymen are paid by means of rents from glebe lands, a small tithe of corn from each farm, or of fish in some parts, and fees, and other unfixed sources of revenue. All sects of Christians are tolerated; but Jews are excluded from settling in Norway, nor are they even suffered to remain in the country for more than a few hours at a time.—In 1837, about one-seventh part of the population were receiving public instruction. In 13 of the principal towns there is a college or gymnasium; and at Christiania there is a university, modelled on the system of the German universities, but differing from them in the professors not receiving fees. The number of students varies from 600 to 800. There are, also, schools of drawing and architecture, commerce and navigation, and other special schools. Sunday-schools have been widely established; and the "Society of Public Good" maintains a public library in most parishes of the kingdom. The press in Norway is altogether free; but every person is responsible for what he has published.—The Norwegian army consists of about 12,000; the naval force is inconsiderable.

NUBIA.\* Since 1821, this country has been subjected to the dominion of the viceroy of Egypt, Mehemed Ali. The people, in consequence, are not more heavily taxed than they formerly were by their petty chiefs, while in other respects their condition has been improved.

NUTMEG.\* The Dutch East India Company possesses a monopoly of the spices of the Moluccas; and the cultivation of the nutmeg-tree is confined by it to four of those islands only, viz., Banda-Neira, Way, Run, and Gounong. In all the others it has been carefully extirpated, because

being at a distance from the seat of government, they were supposed to afford better opportunities for smuggling. The tree has been introduced into Sumatra, Mauritius, and other parts of the East, and attempts have also been made to introduce it into Cayenne and Trinidad; but the greater expense attending its cultivation in these places has hitherto prevented any reduction of the monopoly prices charged by the Dutch.—Nutmegs contain two oils; one a fixed oil, and the other volatile. Both of them are used for medical purposes.

**NUTRIA, NEUTRIA**; the commercial name for the skins of the *Myopotamus Bonariensis*, the *Coyou* of Molina, an aqua-

tic rodent little quadruped, inhabiting S. America, especially Chile, Buenos Ayres, and Tucuman. It is valued on account of its fur, which, like that of the beaver, is of two kinds, — the long ruddy hair, and the brownish ash-coloured fur at its base. The latter is now largely used in the hat manufacture.—The habits of the nutria or coy-pou are much like that of most of the other aquatic rodent animals. Its principal food, in a state of nature, is vegetable. It affects the neighbourhood of water, swims perfectly well, and burrows in the ground. It is easily domesticated, and its manners in captivity are very mild. The female brings forth from 5 to 7 at a time; and the young always accompany her.

## O.

**OBSERVATORY.\*** The following is a list of the principal public observatories, with their latitudes, and longitudes (in time), from that of Greenwich, as given in the Nautical Almanac for 1843:

| Observatory.                     | Latitude. |    |         | Longitude. |    |         |
|----------------------------------|-----------|----|---------|------------|----|---------|
|                                  | °         | '  | "       | A.         | m. | sec.    |
| Abo (Finland).....               | 60        | 26 | 57 N.   | 1          | 39 | 8.6 E.  |
| Altona.....                      | 53        | 29 | 45 N.   | 0          | 39 | 46.6 E. |
| Armagh.....                      | 54        | 21 | 19.7 N. | 0          | 26 | 25.5 W. |
| Berlin.....                      | 52        | 31 | 13.5 N. | 0          | 53 | 35.5 E. |
| Bremen.....                      | 53        | 4  | 36 N.   | 0          | 35 | 15.9 E. |
| Cambridge.....                   | 52        | 12 | 51.8 N. | 0          | 6  | 23.5 E. |
| Cape of Good Hope.....           | 33        | 56 | 3 S.    | 1          | 13 | 55 E.   |
| Copenhagen.....                  | 55        | 40 | 53 N.   | 0          | 50 | 19.8 E. |
| Dorpat (Russia).....             | 56        | 22 | 47 N.   | 1          | 46 | 55 E.   |
| Dublin.....                      | 53        | 23 | 13 N.   | 0          | 25 | 22 W.   |
| Edinburgh.....                   | 55        | 57 | 23.2 N. | 0          | 12 | 43.6 W. |
| Geneva.....                      | 46        | 11 | 59.4 N. | 0          | 24 | 37.5 E. |
| Göttingen.....                   | 51        | 31 | 46 N.   | 0          | 30 | 46.5 E. |
| Greenwich.....                   | 51        | 28 | 39 N.   | 0          | 0  | 0       |
| Königsberg (Prussia).....        | 54        | 42 | 50 N.   | 1          | 22 | 0.5 E.  |
| Madras.....                      | 13        | 4  | 9.2 N.  | 5          | 21 | 3.6 E.  |
| Marseilles.....                  | 43        | 17 | 50.1 N. | 0          | 21 | 39 E.   |
| Munich.....                      | 48        | 8  | 45 N.   | 0          | 46 | 26.5 E. |
| Oxford.....                      | 51        | 45 | 40 N.   | 0          | 5  | 1.5 W.  |
| Palermo.....                     | 36        | 6  | 44 N.   | 0          | 53 | 25.4 E. |
| Paramatta (New South Wales)..... | 33        | 48 | 49.8 S. | 10         | 4  | 6.25 E. |
| Paris.....                       | 48        | 50 | 13 N.   | 0          | 9  | 21.5 E. |
| Petersburg (St.).....            | 59        | 56 | 31 N.   | 2          | 1  | 15.6 E. |
| Rome.....                        | 41        | 53 | 52 N.   | 0          | 49 | 54.7 E. |
| San Fernando (near Cadiz).....   | 36        | 27 | 45 N.   | 0          | 24 | 49.1 W. |
| Turin.....                       | 45        | 4  | 6 N.    | 0          | 30 | 48.4 E. |
| Vienna.....                      | 48        | 12 | 35 N.   | 1          | 5  | 31.9 E. |

**O'CONNELL.\*** See *United Kingdom of Great Britain and Ireland*, (Sup.)

**ODESSA.\*** Its population had, in 1838, increased to 69,023. — As a commercial port, it is the second in rank in the Russian empire; being surpassed, in this respect, only by St. Petersburg. From the year 1817 it has been a free port, receiving its imports, which consist chiefly of tropical produce, oil, wine, spirits, timber, cotton-twist and raw cotton, silks, woollens, and other manufactured goods, exempt from

duty. It is the great emporium of the produce of S. Russia destined for exportation. Its principal staple is wheat, which is mostly brought from the Ukraine in carts, owing to the difficult navigation of the Dneiper and Dneister; and these carts, on account of the badness of the roads, are drawn by oxen instead of horses. The quantity of wheat exported in 1842 was 621,664 quarters, of which 200,592 quarters were for England, and the remainder chiefly for Genoa, Leghorn, Marseilles,

and other ports of the Mediterranean. Tallow was exported, in the same year, to the amount of 9256 tons, and wool to that of 45,858 cwt. The total value of the exports was £1,881,505.—The amount of the shipping despatched from Odessa in 1838 (exclusive of about 600 coasters), was 781 vessels, of the aggregate burden of 206,568 tons; and the amounts since have been still more considerable.—One of the causes which has contributed latterly to the rapid growth of the commerce of Odessa, is the removal of all restraints to the navigation of the Black Sea, through the straits of Constantinople and the Dardanelles, by the treaty between the Turks and Russians in 1829. From the vast quantity, however, of fresh water poured into the Black Sea, the saline particles are so much diluted, that, with a slight frost, the surface becomes covered with ice; hence, during a great part of the year, hardly any navigation is attempted. The vessels that resort to Odessa seldom arrive at that port before the latter end of May; and those whose cargoes are not completed before the end of October, more frequently wait the return of spring, than adventure to encounter the dangers of an autumnal or winter voyage.

ODILON-BARROT (Camille Hyacinthe) was born at Villefort, in the French department of the "Lozère," in July 1791. His father was successively a member of the National Convention, of the Council of Five Hundred, and of the Legislative Body (*corps législatif*). After pursuing his studies, first at the "Prytanée" of St. Cyr, and afterwards at the "lycée Napoléon." Odilon-Barrot selected the law as his profession, and was admitted to the bar when only 19 years of age. He was first brought conspicuously into public notice by his successful defence of Wilfrid Regnault, on an appeal by the latter to the court of cassation from a sentence of death, pronounced against him, for alleged political crimes, by the court of assizes of the department of the "Eure." He distinguished himself also, in a remarkable manner, in the following year, by his advocacy in behalf of certain Protestants of the S. of France, who were prosecuted for refusing to adorn their houses on the passing by of the Catholic procession of the "Fête-Dieu." It was on occasion of the acquittal of the parties accused in this instance, that the abbé de la Mennais uttered the exclamation, "the law is then atheistical in France." But his ability and success as an advocate constitute the smallest portion of M. Odilon-Barrot's title to the reputa-

tion which he has acquired. The revolution of 1830 opened to him a new career. During the "three days" he was the secretary of the municipal committee sitting at the "Hotel de Ville," and concurred in the different steps which led to a change of dynasty. It is said that he was mainly instrumental in persuading General La Fayette to turn a deaf ear to the solicitations made to him from various quarters, to consent to the scheme of making him the president of a new republic. Previously to the period of which we are speaking, in 1827, Odilon-Barrot had, as a member of the society "*Aide-toi, le ciel t'aidera*," resisted the republican tendencies of many of his fellow-members; and after it, too, he continued faithful to the principles which he had maintained. His opposition to the measures of the government of Louis Philippe has ever been restrained within constitutional limits. He was one of the three commissioners appointed, in 1830, to accompany Charles X. and his family to Cherbourg, on their way to England; and on his return to Paris, he became prefect of the department of the "Seine,"—an office which he held until just before the fall of the Lafitte ministry. Chosen, in 1831, a member of the Chamber of Deputies, he took a decided stand against the administration of Casimir Périer; voting, however, against the extreme "*gauche*" of the chamber, on the question relating to the insurrection of Lyons. In 1833, he earnestly opposed the hereditary peerage, and proposed the selection of the peers by the municipal councils of the kingdom. He took a prominent part in the discussions which took place in reference to the revision of the penal code; presented a report on a proposed alteration in the law of divorce; and protested against the employment of the word *subject*, as applied to the people of France, declaring it to be unconstitutional, &c. He soon became the acknowledged leader of that portion of the *opposition*, which aimed at a change of measures on the part of the government, but did not seek its overthrow,—of those who continued to prefer a monarchy in France, surrounded by republican institutions, to the substitution, in place of the monarchy, of a republic itself. In 1840, he and his friends gave their support for a time to the administration of M. Thiers. He spoke against the "secret fund" voted to the government; resisted the passage of the "laws of September;" voted in 1842 against the regency bill; made a personal attack, in the discussion on the address at the open-



ing of the session of 1843, on M. Guizot, on account of his course in relation to the question of the right of search; and he has subsequently exerted all his efforts to overthrow the administration of the latter, — endeavouring, more especially, at every opportunity that offered, to render it suspected by the French people of a partiality to England.

OGDEN (Aaron) was born on the 3d of December 1756, at Elizabethtown in New Jersey. He graduated at Princeton college in 1773, and after leaving that institution was for a time an assistant teacher in a school in his native town, taught by Mr. Francis Barber. In the spring of 1777, the school was discontinued, both principal and assistant entering the army, the former as a major, and the latter as a captain. Throughout the revolutionary contest, Mr. Ogden served with distinction; and he was present at the battles of Brandywine, Monmouth, and Springfield, and at the siege of Yorktown. At the peace, he studied the law, and was in due season admitted to the bar. He rose rapidly in his new profession, and acquired an extensive practice. This, however, he did not hesitate to quit, when, on the prospect of a war with France in 1790, his country again required his military services. Until the army was disbanded, he held the appointments of a colonel of infantry and a deputy quarter-master-general. In 1800, he was appointed by the Legislature of New Jersey to be one of the electors of president and vice-president of the United States, and likewise one of the commissioners for adjusting the disputed boundary between that state and the state of New York. From 1801 to 1803, he was one of the senators from New Jersey in the Congress of the United States. He then returned to the practice of his profession, in which he continued to be employed down to the year 1812, when he was elected governor of New Jersey. During the war with Great Britain which was begun at this period, the president (Mr. Madison) tendered to him a commission as a major-general in the U. S. army; an appointment which he declined on the ground, that, being invested, by virtue of the office that he held, with the command of the militia of his state, he might, quite probably, be able to do more service to his fellow-citizens by remaining where he was, than by complying with the wishes of the president. In 1815, being no longer governor, and having become engaged in a speculation in steamboats, the success of which was interfered with by the ex-

clusive privilege bestowed on Mr. Fulton to navigate with steam the waters comprehended within the limits of the state of New York, he directed all his energies to effect its repeal, on account of its alleged unconstitutionality. The argument which he delivered in support of a petition for this purpose, before the Legislature at Albany, though opposed by several eminent members of the New York bar, came very near overthrowing the monopoly against which he contended; the bill introduced, in accordance with his views, after passing the House of Assembly by a large majority, being rejected in the Senate only by a single vote. Subsequently to this occurrence, Governor Ogden lived very much in retirement, holding no public office, and appearing on public occasions merely as a spectator or auditor. He died on the 19th of August 1839, in the 83d year of his age, respected and honoured by all who knew him.

OGINSKI\* (Michael Casimir) passed the latter years of his life in Italy, at Florence, where he died in 1833. Besides his memoirs on Poland and the Poles, previously mentioned, he is the author of "Observations sur la Pologne et les Polonais, pour servir d'introduction aux Mémoires de Michel Oginski," published, with some additions, by Leonard Chodzko.

OHSSON (Ignace Mourdja d') was born at Constantinople, of an Armenian family, in 1740. He entered at an early age into the service of the Swedish legation in his native city, and was successively secretary, first interpreter of legation, and chargé d'affaires of the king of Sweden to the Ottoman Porte. His acquaintance with the Arabic and Turkish languages led him to conceive the plan of his great work, giving an account of the Turkish empire at the period when it was written. It was published at Paris, and in the French language, under the title of "Tableau général de l'empire Othoman," in two parts, one relating to the Mohammedan religion and legislation, and the other containing the history of the empire (1787-90, 2 vols. in fol.). A third volume was added by his son (1820) from the manuscripts left behind him by the author, and which contained the civil, political, criminal, and military codes of the Turks. The work possesses a high order of merit, and is distinguished by the elegance of the type and engravings, but is still incomplete, though the materials for continuing it are said not to be yet exhausted. M. d'Ohsson resided in France from the year 1784 till the progress of the revolution in

that country induced him to transfer his residence for a time to Constantinople, where he was favourably received by the Grand Seignior (Selim III.). On returning to France, he there published, in 1804, an introduction to his former work, entitled "Tableau historique de l'Orient" (2 vols., 8vo.). The author died in August 1807. — His son, the baron *Constantine Mouradja d'Ohsson*, minister of Sweden, first at the Hague (1816), and subsequently at Berlin (1834), and a member of the Asiatic Society of Paris, was born at Constantinople, about the year 1780. He has written the "Histoire des Mongols, depuis Tchinguis-Khan jusqu'à Tímeer-Lane" (1824—2d ed. 1834-35, 4 vols.), and another work entitled "Des peuples du Caucase et des pays au nord de la mer Noire et de la mer Caspienne dans le X<sup>e</sup> siècle, ou voyage d'Abou-el-Cassim" (1827), an imitation in some sort of the journey of Anacharsis into Greece, and as faithful to the truth as it is interesting.

**OEN.\*** This distinguished naturalist accepted, in 1833, an appointment to a professorship in the new university of Zurich, in Switzerland.—His last work is entitled "A general view of Natural History for all classes" (*Allgemeine Naturgeschichte für alle Stände*). Several volumes of it have been published, between the years 1833 and 1842.

**OLBERS.\*** In the "Annuaire du Bureau des longitudes" for the year 1832, there is a dissertation by this eminent astronomer and physician, entitled "De l'influence de la lune sur les saisons et sur le corps humain." He had been already a long time a corresponding member of the Academy of Sciences of Paris, when in 1829 he was chosen to be a foreign member of that learned body, in the room of Wollaston. He had previous to this, too, become an honorary or corresponding member of almost all the other scientific societies of Europe; and the monarchs of Denmark and Prussia had signified the sense which they entertained of his merits, by conferring upon him orders of knighthood. And in 1833, the Senate of Bremen, in the vicinity of which city he was born, and where he resided, decreed that his bust should be placed in the public library.—He died at Bremen, on the 2d of March 1840.

**OLFACTORY NERVES;** the pair of nerves which, proceeding from the brain, are distributed over the mucous membrane of the nose, and are subsidiary to the sense of smell.

**OLIVER (Daniel) M. D., LL. D.,** was

born at Marblehead, Mass., September 9th 1787. He was graduated at Harvard University, with high honours, in 1806, and, after taking his degree in Medicine at the University of Pennsylvania in 1810, commenced practice at Salem, Mass. In 1815 he was appointed lecturer in Chemistry at Dartmouth College. In 1820, he was appointed professor of the Theory and Practice of Physic, Physiology, and Materia Medica, and thereupon became a resident of Hanover. He was also made professor of Intellectual Philosophy in 1823, and published his inaugural address, an acute and learned discourse, but delivered only one course of lectures. In 1837, Dr. Oliver removed to Cambridge, where he resided until his death, June 1st 1842. He had been appointed a professor in the Ohio Medical College at Cincinnati, and delivered one course of lectures, but resigned the office on account of his declining health. Dr. Oliver held a high rank in his profession; and his instructions were distinguished for the extent and accuracy of the learning which they presented in a simple, clear, and forcible manner. He published his valuable "First Lines in Physiology" in 1835. He was an eminent classical scholar, his earliest work having been the Greek-English Lexicon, which he prepared in conjunction with Mr. Pickering, while both were residents of Salem. Besides an extensive knowledge of modern literature, he was conversant with Hebrew, and was accustomed daily to read the Scriptures in their original languages. He was a man of untiring benevolence, inflexible integrity, and exemplary piety.

**OLMÜTZ.\*** Population in 1840, 12,782. It is the seat of a university, which was founded in 1581, suspended in 1784, and restored in 1827. In 1833, it had, in all, 682 students. Olmütz has, besides, a gymnasium, a military school, an academy for the children of the nobility, an episcopal seminary, and numerous inferior schools. It has also a library of about 50,000 printed volumes, and many hundred MSS. It is the residence of an archbishop.

**OPIUM.\*** In Turkey and Persia, opium-eating, once very common, is on the decline, owing to the less rigid observance of Mohammed's injunctions against inebriating liquors; but in China, the use of it is on the increase. In the last country, however, it is smoked, a custom less pernicious than eating, on account of the preparations which the drug has to undergo before being fitted for the pipe. Indeed, taken in moderation in this way, it is said

to have no bad consequences; and in regard to China, opium debauchees are said not to be more common there than are drunkards in other countries.—The opium trade with China, though prohibited so far back as 1796, attracted little notice from the Chinese government before the year 1820. Macao was for some time its centre; but in consequence of the misconduct of the Portuguese, it was removed to the small island of Lintin, in the estuary of the Canton river. There, notwithstanding many paper prohibitions, it was conducted with regularity, under the immediate notice of the imperial functionaries,—who, indeed, are the chief opium-smokers,—until the arrival of Commissioner Lin at Canton in 1839, when the British superintendent, Captain Elliot, and a number of merchants, were seized, and retained (for about 6 weeks) until the delivery of the stock then on hand, consisting of 20,283 chests, valued at £3,000,000. Since this occurrence, the trade has been pursued in a more irregular manner; mostly by armed clippers, who, braving every danger, beat up the China seas even in the very height of the monsoon, and, wandering along the coast, dispose of their cargoes to junks, who bring out dollars and sycee silver in exchange. The quantity thus sold is said to be as great as ever,—a circumstance which can occasion little surprise, when it is considered that, besides the weakness and corruption of the imperial government, the drug, while its cost in India is under 400 rupees per chest, finds a market in China at from \$400 to \$500.—The motive commonly assigned for the prohibition of this traffic is the demoralizing tendency of the use of opium. Yet the poppy is cultivated in China in six different provinces, in one of which the opium prepared is said to amount annually to several thousand chests. But the moral reason is not the only one. Formerly, a large portion of the British imports were paid for in bullion; but since the expansion of the opium trade, the balance has been reversed, and there is now a constant drain of treasure from China. The imperial government, viewing the precious metals as the only true riches of a state, regard this as a national grievance; and the trade is accordingly denounced, in their state papers, as one which occasions “an oozing out of silver, whereby the fathomless gulf of the outer sea will soon be the receptacle of the easily exhaustible wealth of the central spring.” It is, moreover, quite probable that the increased rigour of the Chinese, in respect to the trade carried on by

the English with its subjects, may in some degree be attributed to a growing jealousy of the influence exercised, or attempted to be exercised, by Great Britain over the nations of Central Asia.

**OPORTO.\*** The exports of port wine have varied in latter years from 26,000 to near 40,000 pipes. England continues to be much the largest consumer of it. The high discriminating duties on French wines, imposed in the reign of William III., originally introduced it into the British markets, and gave it a preference, to which, though an excellent wine, it had no just title: this preference first generated, and its long continuance has since so confirmed, the taste for port among the great bulk of the population, that it bids fair to maintain its ascendancy as an after-dinner wine, notwithstanding the equalization of the duties. At an average of the 8 years ending with 1841, there were shipped from Oporto for England 26,370 pipes, a year. Next to England, Brazil, the United States, Russia, and the north of Europe, are the principal consumers of port; but the total exports to them do not amount to a fourth part of those to England.—The Oporto Wine Company have the monopoly of the wine trade, and likewise of the brandy trade of the Douro.—Though wine is the great staple, the exports of fruit are also considerable.—From 80,000 to 90,000 tons of shipping enter annually, of which one-fourth are British. Oporto, like Lisbon, has a regular steam communication with England.—The population of Oporto in 1827, including Villanova and Gaya, on the opposite side of the Douro, amounted to 80,000.

**ORANGEMEN.\*** The Orange lodges were finally suppressed, by act of parliament, in 1836.

**ORATORY** signifies commonly a room in a private house set apart for prayer. It differs from a chapel, inasmuch as it does not contain an altar, nor may mass be celebrated in it.

**ORDER OF THE DAY.** In parliamentary usage, one method of superseding a question, already proposed to a deliberative or legislative body, is by moving “for the order of the day to be read.” This motion, to entitle it to precedence, must be for the order generally, and not for any particular order; and if this is carried, the orders must be read and proceeded on in the course in which they stand. But it can, in its turn, be superseded by a motion to adjourn.

**OREGON.\*** See *United States*, (Sup.)

**ORENBURG**, the chief city of the govern-

ment of the same name, in Asiatic Russia, at the confluence of the Sakmara and the Oural rivers, in  $51^{\circ} 46'$  N. lat., and  $55^{\circ} 5'$  E. long. It has about 20,000 inhabitants, of whom 5000 are Tartars. It is well built, and regularly fortified. In 1825, a school was established here for the special use of the Mohammedans, and the study of their language. A considerable commerce is carried on with the neighbouring Kirghises, and the place is frequented by merchants from Bokhara, and even from parts still more remote. In 1833, there arrived here 14 caravans, with 2547 camels; and during the same year there were despatched 13 caravans, with 4769 camels and 264 draught-horses. The value of the imports was 3,551,198, and of the exports 3,577,921 roubles.

ORFILA (Matthieu Joseph Bonaventura) was born at Mahon, in the island of Minorca, in April 1787. He studied medicine, and the physical sciences generally, at Valencia in Spain, and with so much success as to be sent to Paris, in 1806, at the expense of the government, to complete his education, and to qualify himself especially to occupy a professorship of chemistry, on his return to his own country. Circumstances, however, interfered with this arrangement. M. Orfila formed connexions in France, which he became unwilling to break asunder. He remained there permanently, and was even naturalized as a French citizen. He took his doctor's degree in 1811, and began at once to deliver private lectures on chemistry, particularly in its application to medicine. These lectures, which procured for him reputation, pecuniary profit, and the acquaintance and patronage of some of the leading scientific men of Paris, he continued to deliver until the year 1819, when he was appointed professor of legal medicine in the faculty of medicine. In 1823, he was transferred to the professorship of chemistry in that faculty, an office which he still continues to hold. In the same year, he was appointed consulting physician to the king; and in 1832, a member of the council of the university, and of the "conseil général des hopitaux," and likewise perpetual dean of the medical faculty, and president of the "Jurys médicaux."—The first work published by M. Orfila was a treatise on poisons, under the title of "Toxicologie générale" (1811), a work remarkable for its perspicuity, for the precision of the experiments detailed, and for the justness of the conclusions deduced. After the publication of a second edition of it (3 vols. 1818), it was merged by the author in his "Traité de médecine

légale" (2 vols. 1828). Among his scientific productions may also be mentioned here his "Chimie médicale," which appeared first in 1816, but has reached a 6th edition (2 vols.); his treatise (jointly with his brother-in-law, M. Lesueur) "des exhumations juridiques;" together with his various memoirs on poisonings by mineral substances, such as arsenic, antimony, &c.

ORIANI (Bernabé), an eminent Italian astronomer, was born at Garignano, a village near Milan, in July 1752. He distinguished himself, at a comparatively early age, by the zeal with which he prosecuted his astronomical studies; and, in 1786, he was sent by his government to London, to procure a mural quadrant and other instruments, to be made there with the greatest accuracy, under the direction of Ramsden, for the observatory of Milan. On his return home, he took part in the measurement of a degree of the meridian in Italy, as also in the triangulations requisite for the construction of an improved map of Lombardy. On the organization of the Italian Institute, he was selected to be one of the first 30 members; and he was subsequently dignified by Napoleon with the title of count, and appointed a senator of the kingdom of Italy. He was the first person that determined the orbit of Uranus; and when Piazzi discovered the planet Ceres, in 1801, which he supposed to be a comet, it was Oriani who ascertained it, by the calculation of the elements of its orbit, to be a planet.—The principal works of Oriani are his "Tables of Uranus" (1783); his "Theoria planetæ Mercurii" (1798); and his excellent "Trigonometria spherica" (1806). He died at Milan, on the 12th of November 1832, leaving behind him a large estate, which he bequeathed to scientific purposes.

ORSEBOW (Ger. *Flittergold*) is an article resembling gold-leaf, and is made of copper and zinc, chiefly at Manheim in Germany, whence it is also called *Manheim gold*. It is largely imported into England. It is there chiefly used in tinselling dolls and toys. But the greater portion is reshipped to the East Indies, where it is in demand by the natives for decking their gods, priests, and dancers.

OTTOMAN EMPIRE.\* See *Turkey*, (Sup.)  
ODINOT\* (Marshal). After the revolution of 1830, he gave a steady support to the government of Louis Philippe, who appointed him, in May 1839, to the office of grand-chancellor of the Legion of Honour, and subsequently to succeed Marshal Moncey as governor of the Hotel of the Invalids, in 1842.

## P.

**PACKET**, in Navigation, meant originally a vessel appointed by the government of a country to carry the mails between it and its dependencies, or between it and foreign countries. It is now used to signify any ordinary vessel, sailing regularly, or at stated times, from one port to another.

**PACKFONG**; the Chinese name of the alloy of nickel and copper, commonly called German silver. It is an alloy of 7 parts of zinc, 2.5 parts of copper, and 6.5 of nickel.

**PADUA**.\* The population of the city proper is stated to be 34,000; but, including the suburbs, it may perhaps amount to 50,000. The university, though at present much declined from its former importance, has still to boast of several distinguished professors, and ranks as the second institution of the kind in Italy; that of Pavia being the first. It has the usual four faculties of the European (continental) universities, and 35 professors, with from 400 to 500 students. It is governed by a senate, composed of a rector and 12 other individuals chosen from its general assembly; which includes, with the directors, deans, and professors, all the doctors who have graduated at Padua in the different faculties, and reside in the city. The university library contains 70,000 volumes; and there is also an episcopal library, with 55,000 volumes and 800 MSS.

**PAER**.\* After the peace of Tilsit, Napoleon took Paer with him to Paris, where, besides being a professor in the Conservatoire, he succeeded Spontini, in 1812, in the direction of the Italian Opera. He also directed the music of the emperor, and gave lessons to the empress in singing. — He died at Paris in 1839.

**PAEZ**.\* During his presidency over the republic of Venezuela, beginning in 1830, and continuing four years, he did every thing in his power to improve the condition of that country, and, for a time after its expiration, he lived in retirement on his estate, when the revolt which broke out against his successor Vargas, constrained him to reappear once more on the political arena. Putting himself at the head of the army for the defence of the constitution that he had established, he made a rapid march upon Caraccas, the capital city of the republic, which opened its gates to

him without resistance; and having restored the president to his office, he again retired to private life. In 1838, he was once more elected president of Venezuela.

**PAGANINI**.\* The latter part of the life of this celebrated artist was passed in Italy. He died at Genoa, of the cholera, in October 1835.

**PAISLEY**.\* The total sales of *shawls* in 1834 were estimated at £1,000,000; and the trade has greatly increased since. Machinery has been advantageously employed in finishing the shawls, in the operation of *clipping*, which was formerly performed, in a comparatively clumsy way, by the hand. The Jacquard loom has also been recently introduced. All the trades too, depending on and subordinate to the shawl branch have been increased, and, in particular, that of dyeing. Other trades, however, must have proportionably declined, since, during the last 12 or 15 years, Paisley has done little more than keep its ground. Its population in 1831 was 46,199, and in 1841, 48,828. We are informed that, in the interval between these two dates, its manufacturing population has frequently been involved in extreme distress; occasioned, as we are likewise informed, by fluctuations of demand, but more frequently, perhaps, originating in the improvident loans made by the banks to individuals without capital, which have tempted the latter to engage in the most hazardous speculations, generally to their own ruin, and in most instances, also, to the great injury of the town.

**PALERMO**.\* Population at present about 160,000. The university is attended by about 600 students, and comprises several eminent names among its professors. Few lectures are, however, said to be delivered; and the education given is stated to be worthless in the extreme.

**PALMELLA**.\* See *Portugal*, (Sup.)

**PALM OIL**; a fatty substance obtained from the *Elaeis Guineensis*, a species of palm common on the western shore of Africa. It has the consistency of honey or butter, a golden yellow colour, the smell of violets, and sweetish taste. It is made use of by the negroes for anointing the skin, and in cooking.—It is used in the manufacture of toilet soap and perfumery. Candles have been made of its stearine,

and it is sometimes burned in lamps, and made into ointments.

**PANAMA** \* (Isthmus of). The railroad across it which was decreed by the Legislature at Bogota in 1834, at the suggestion of an English engineer of the name of Lloyd, was never carried into execution. Public attention, both in Europe and America, has, however, been more and more directed to the project of constructing a canal across the isthmus, as the most desirable mode of connecting the waters of the Atlantic with those of the Pacific Ocean. A proposition for this purpose was made by an English company in 1843, but rejected by the government of New Granada. Some further delay, too, may take place before this great undertaking shall be begun, owing to the difficulty of adjusting satisfactorily the conflicting claims of the local government and of the parties who may furnish the necessary capital.

**PANCKOUCKE** (Charles Louis Fleury), a son of *Charles Joseph Panckoucke*, noticed in a preceding volume, was born at Paris, in December 1780. He early exhibited a taste for literary pursuits, and then applied himself to the study of jurisprudence, with such diligence and effect as to be distinguished for his acquirements, among the students of the Academy of Legislation. But the career of a practising lawyer had no attractions for him. About the year 1803, he resolved to adopt the occupation of his father, viz., that of a bookseller and publisher. His publications were, in general, remarkable either for their extent, or the elegance of the style in which they were executed. Among the most important may be mentioned the "Dictionnaire des sciences médicales," in 60 volumes 8vo.; the "Victoires et Conquêtes des Français," in 34 volumes 8vo.; an edition of the great work on the French expedition to Egypt, in 26 volumes, with 12 folio volumes of plates; the "Barreaux français et anglais," in 19 volumes 8vo. (a collection of the *chefs-d'œuvre* of the eloquence of the bar); and especially the "Bibliothèque latine-française," in 174 volumes 8vo. *M. Panckoucke* himself was the translator of the works of Tacitus for this edition; and his translation has a high rank among the 49 different translations which have been made of Tacitus into the French language. He published, from 1803 to 1838, no less than 18 editions of this author, either in whole or in part: among them is a splendid edition, consisting only of 80 copies, executed, in 1826-27, by order of the minister of the interior. — *M. Panckoucke* was the author,

when quite young, of an essay, entitled "Études d'un jeune homme adressées à un vieillard;" next, in 1807, of a pamphlet which attracted some attention, and was honoured by the encomiums bestowed upon it in public by Lanjuinais and François de Neufchâteau, under the title of "De l'exposition, de la prison, et de la peine de mort;" and, in 1827, of another pamphlet, giving an account of the life and writings of his father, with the letters addressed to the latter by Voltaire and Jean Jacques Rousseau.

**PANCREAS**, in Anatomy, a glandular viscus of the abdomen; in certain animals called the sweetbread. It secretes a fluid very like the saliva, and pours it into the duodenum. Its use appears to be to dilute the bile, and render it more miscible with the food.

**PANOPTICON**; a term coined by Jeremy Bentham to denote the plan of the prison which he designed, and recommended for adoption in his "Theory of Punishments." Its principal peculiarity consisted in its form, and in the disposition of its cells, which were so constructed that the inspector could see each prisoner, at all times, without himself being seen; and hence the origin of the term.

**PAPINEAU** (Louis Joseph) was born at Montreal, in Lower Canada, in October 1739. His family had emigrated into Canada, towards the end of the 17th century, from the neighbourhood of Bordeaux, in the south of France. His father, Mr. Joseph Papineau, was mainly instrumental in obtaining for his native province the constitution bestowed upon it, by the British government, in 1790; and from 1791 to 1810 or 1811, he was the most influential member of the House of Assembly. — Mr. L. J. Papineau was sent at an early age to Quebec, to be educated at the seminary under the superintendence of the Catholic clergy of that city, and remained there until he was 17 years of age. He next entered on the study of the law, and was called to the bar about the year 1811-12. He had, however, been previously to this (in 1809) elected to the Assembly from the county of Kent, now the county of Chambly, after a severe contest, in which he was opposed by all the strength of the government party. This county he represented during two parliaments; after which he went in for the west ward of Montreal, for which place he was elected uninterruptedly for 20 years. — At the period of his entrance into the Assembly, Mr. Papineau not merely took the popular side in the dispute then pend-

ing, between that body and the official party, for the control of the public expenditure, but, by the ability and eloquence which he displayed, gave an augmented force to the demands of the Assembly. In 1812, he was one of those who endeavoured, though in vain, to save the province from any collision with the United States. The war proceeded, and he served as a captain in the militia until the return of peace. In the year 1817, he was chosen Speaker of the House of Assembly. In 1820, Lord Dalhousie, then newly appointed to be governor of Lower Canada, made Mr. Papineau an executive counsellor, with a view to soften the opposition of the latter to the system of administration that was pursued. But this step had not the slightest effect; Mr. Papineau resisted as earnestly as before every attempt to procure from the Assembly a permanent civil list, a civil list for the king's life, and even a vote of supplies without specific appropriations. When, in 1822, it was proposed by the ministers in England, in order to destroy the influence of the French Canadian population of the Lower province, to unite both Upper and Lower provinces under a single government and a single legislative assembly, he was one of the three deputies who were appointed to go to Europe to remonstrate against the measure; and before his departure he was dismissed from the executive council. The projected union was successfully opposed; and the deputies, on their return in 1824, were enabled to state to the Assembly, "that the measure of an union was dropped, and that, in case of its revival, the subject would be communicated to the colony, and time would be allowed to enable the colonists to be heard in parliament."—From the period of his return, Mr. Papineau gave up his practice at the bar, that he might devote himself exclusively to his legislative duties. He continued to be the leader of the opposition to the provincial administration; and Lord Dalhousie had the indiscretion to resent the course which he pursued, by refusing, in 1827, to sanction the House's choice of him as their speaker, and by depriving him, at the same time, of his commission as a captain in the militia. For this last indignity, amends were some time afterwards attempted to be made, by appointing him a major,—an appointment which he resigned in 1837, when Lord Gosford, who was then the governor-general, thought proper to demand of him his reasons for attending a public meeting.—In 1831, Mr. Papineau, finding it hopeless to ex-

pect a reform of abuses in detail, demanded that the members of the Legislative Council, like those of the Assembly, should be elected by the people. This demand was resisted by the British government; and the Assembly, in consequence, adopted, in 1834, the famous 92 resolutions (of which it is understood that Mr. Papineau was for the most part the author), and stopped the supplies. The British Parliament having, in its turn, adopted a series of resolutions condemnatory of the course pursued by the Canadian Legislature, and determined in one of them to vote away the money collected in the province, the greatest excitement pervaded the population; who, in this emergency, looked to Mr. Papineau to suggest to them the steps it was most expedient for them to take. He accordingly came forward, and recommended to the people, among other measures, to abstain everywhere from the use of taxed articles, to withdraw all confidence from the government and those who held office under it, and to elect their own justices of the peace and militia officers. He also travelled from county to county, from one extremity of the province to the other, rousing the inhabitants to a constitutional opposition to their rulers. The non-consumption system was carried into execution so extensively, that a serious falling off soon became perceptible in the public revenue.—Lord Gosford, alarmed at this state of things, accused Mr. Papineau, in his despatches to the British minister, of desiring to effect "a separation of the province from England, and the establishment of a republican form of government;" and he wrote again,—“We can now make no terms with Mr. Papineau. You must either put him down, or submit to let him put you down. There is no halting between two opinions.” In accordance with these views, in the first week of November 1837 a warrant was issued for the arrest of the obnoxious patriot, on a charge of high treason; and a proclamation was issued a few days afterwards, offering a reward of 1000 pounds sterling for his capture.—Mr. Papineau, however, succeeded in making his escape to the United States. After some time spent here, chiefly in the city of Philadelphia, he went to France, and resided several years in Paris. It is only lately that he has been permitted to return to Canada. His former friends in that province have received him with open arms, and continue to repose in him an unabated confidence; while the opposite party, now convinced that the charges

preferred against him, of a desire to excite his countrymen to insurrection against the government, with the object of rendering themselves altogether independent of Great Britain, were utterly unfounded,—and that he in reality aimed, as he all along asserted, only at an opposition and agitation, such as Mr. O'Connell's in Ireland, confined within the limits of the constitution,—are disposed to respect his motives, and to concede to him the possession of talents as well as virtues, of so high an order, as to render him an honour and an ornament to his country.

**PARAGUAY.\*** On the death of the dictator Francia, in September 1840, his system of government was in a great measure persevered in, though in a less arbitrary and tyrannical manner than heretofore. In 1844, however, a revolution is said to have occurred, which once more subverted the nominally republican constitution of the state, and conferred all power for 10 years on an individual of the name of Lopez.

**PARAMO** (sometimes rendered incorrectly by *desert* or *heath*) is the name given in S. America to a mountainous district covered with stunted trees, exposed to the winds, and in which a damp cold perpetually prevails. Under the torrid zone, the paramos are generally from 10,000 to 12,000 feet in height. They are almost constantly enveloped in a cold thick fog; and snow often falls on them, remaining, however, only a few hours. In this respect, they are distinguished from the *nevados*, which are situated within the limits of perpetual snow.

**PARIS.\*** Since the revolution of 1830, great activity has been evinced by the government in the improving of this metropolis. The church of the Madeleine, the ministerial hotel on the Quai d'Orsay, the triumphal arch "de l'Étoile," the School of the Fine Arts, and other edifices, till then unfinished, have since been completed; the "Hotel de Ville," by the alterations which have been made in it, has become a palace; the Garden of Plants has been extended and embellished; the "column of July" has been erected on the site of the Bastille; the streets have been lighted with gas, many of them have been widened, others have been opened, and convenient side-walks have been generally constructed. Paris, too, has now become a fortified city, being surrounded by a rampart and ditches, and by a chain of detached forts placed on the heights which command it. And the introduction of railroads promises speedily to augment the

facility and amount of its intercourse with every other part of the globe.

**PARNELL** (Sir Henry Brooke) was born July 3d 1776, and was educated at Eton and Cambridge. After being for some time abroad, he obtained, by means of his family influence, a seat in the Irish parliament. In 1802 he was elected a member of the British House of Commons; in which body he continued to sit until 1841, with the exception only of a short interval in 1832-33. By the death of an elder brother in 1812, he became a baronet. And in 1841, he was created a peer, with the title of baron Congleton.—Sir Henry Parnell's political course was throughout that of an adherent to the most liberal section of the Whig, as distinguished from the Radical party. Upon the accession of the Whig ministry, he was, in 1806, made a Lord of the Treasury in Ireland. He made the motion on the Civil List which dissolved the ministry of the duke of Wellington in the end of 1830, and on his friends coming into power, which followed, he was appointed secretary at war. In 1832, however, he resigned, on account of a difference with his colleagues on some financial points, and remained out of office till the formation of Lord Melbourne's administration in 1835, when he was made paymaster of the forces and treasurer of the ordnance and the navy. Both these offices he retained till the breaking up of the ministry to which he belonged, in August 1841. He had also served as chairman of the finance committee appointed by the House of Commons in 1823; and in 1833 he was made a member of the government commission appointed to inquire into the excise. On each of these occasions he took a leading part.—Besides corrected reports of speeches delivered by him in parliament on the Irish currency, on Irish tithes, on the Bullion report, on the state of Ireland, and on unlawful societies in Ireland, Sir Henry Parnell published "Observations on the Currency of Ireland, and upon the Course of Exchange between London and Dublin" (1804), the "Principles of Currency and Exchange, illustrated by Observations on the state of Ireland" (1805), an "Historical Apology for the Irish Catholics" (1807), a "History of the Penal Laws against the Irish Catholics, from the Treaty of Limerick to the Union" (1806), a "Treatise on the Corn Trade and Agriculture" (1809), "Observations on the Irish Butte Acts" (1825), "Observations on Paper Money, Banking, and Overtrading" (1827), "On Financial Reform" (1830), and a



"Treatise on Roads" (1833). — He had been for some months in a state of health which made it necessary that he should be carefully watched; but on the 8th of June 1842, having been left for a few minutes alone, he put an end to his life by hanging himself. He was a person of singular equanimity and mildness of manners, and might therefore have been supposed to be the very last man likely to commit such an act. The mind, however, had doubtless lost its balance, and he had ceased to be master of his own actions.

PARRISH (Joseph), M. D., was born at Philadelphia, on the 2d of September 1779. He received a good English education, and was taught Latin at a "Friends' school," which was at that time in considerable repute as a place of instruction in the learned languages. He afterwards paid some attention to French, and still later in life to the Hebrew, which he cultivated exclusively in reference to the study of the Bible. The subject of medicine attracted his attention at an early age. He was fond of reading medical books, exhibited an instinctive disposition to visit and nurse the sick, and, in the absence of other modes of indulging his propensity towards the healing art, is said to have exercised his skill upon the inferior animals. His parents, however, objecting to his choice of it as a profession, from "a belief much more common at that time than at present among the Friends, that a strict observance of their peculiar views and customs as a sect was incompatible with the various temptations to which the student of medicine was subjected," he entered the shop of his father with the view of qualifying himself for conducting the business of a hatter. In this position he continued till his 22d year, when, as his own inclinations remained unaltered, and the objections of his parents had yielded to more mature reflection, and perhaps also to an increased confidence in his stability, he felt himself at liberty to engage in the study of medicine, and entered as a private pupil into the office of Dr. Wistar. — Dr. Parrish graduated in the medical department of the University of Pennsylvania in June 1805, and, about the close of summer or beginning of autumn, entered upon the duties of his profession as resident physician in the Yellow Fever Hospital, where he distinguished himself by a devoted attention to the duties of his station. The favourable impression made by his services in this situation was increased by the publication of some experiments in relation to a worm

which frequents the Lombardy poplar tree. By proving conclusively that it was harmless, he contributed to allay a panic that had arisen respecting it, and that threatened the destruction of the poplar trees throughout the city. But the event which, in the early career of Dr. Parrish, made him most favourably known to the public, was the delivery of a course of popular lectures on chemistry, in the winter of 1807-8 and the two following years; popular lectures on scientific subjects being then a novelty in Philadelphia. — His practice as a physician and surgeon speedily extended itself: indeed, we are told that "there has, perhaps, been no example in Philadelphia of more rapid professional success than that which fell to the lot of Dr. Parrish." He was one of the physicians of the Philadelphia Dispensary from 1806 to 1812; a consulting physician of the same institution from 1835 to the time of his death; surgeon to the Philadelphia Alms House from 1806 to 1822; and surgeon to the Pennsylvania Hospital, as successor to Dr. Physick, from 1816 to 1829. — From the year 1814 or 1815, the number of his private pupils rapidly increased, till they amounted at length to about 30; a number at that time quite unprecedented in this country among physicians not immediately connected with the great medical schools, and equalled, as is stated, only in one instance where this advantage was possessed by the teacher. He was in the habit of lecturing to the young gentlemen in his office twice a week during almost the whole year, in the winter upon surgery, and in the summer on the practice of medicine; giving in his lectures not so much what elementary knowledge which is to be derived from books, as the result of his own experience and reflection. About the year 1818, he was induced by the great increase of his pupils, and by his almost oppressive engagements, to procure assistance in the instruction of his class; which aid was gradually increased, till at length courses of lectures were delivered every year on each of the several branches of medical science that are separately taught in our schools of medicine. This system was sustained down to the year 1830. But he subsequently lectured in an association of physicians, styled the "Philadelphia Association for Medical Instruction." — In the midst of his private engagements, Dr. Parrish participated largely in the proceedings of the "College of Physicians" and of the "Medical Society of Philadelphia," and was an active member of va-

rious philanthropic or benevolent institutions. He contributed, also, a number of medical and surgical papers to the journals. They are contained chiefly in the "Eclectic Repertory," of which he was one of the editors, and in the "North American Medical and Surgical Journal." He republished Lawrence's work on "Hernia" with an appendix, and, a few years before his death, put forth a work of his own upon Hernia and Diseases of the Urinary Organs. — The mind of Dr. Parrish was eminently practical. He resisted with earnestness the theories of Broussais and of others, which, after extensively superseding the older opinions in medicine, in their turn have rapidly passed away. In the treatment, too, of his patients, he was guided, in a peculiar degree, by experience, rather than by the analogy which rests on speculative considerations. It may be added here that he possessed a kind and amiable disposition, which endeared him to all who knew him, and that his conduct in all the relations of life was ever under the influence of a strong sense of the obligations of religion. — Dr. Parrish died on the 18th of March 1840, in the 61st year of his age.

PARRY\* (Captain) left England in June 1829, as agent of the Australian Agricultural Society, and resided at Port Stephens, 90 miles N. of Sidney in Australia, until some time in the year 1832, when he returned to Europe.

PARSNEP\* is next in value to the white beet as a saccharine root, containing 9 per cent. of sugar. An ardent spirit, regarded as of excellent quality, is obtained from it.

PASCALIS (Felix) was born in the French province of Provence, about the year 1750. He studied medicine at Montpellier, and then emigrated to Saint-Domingo (Hayti), where he practised his profession with great success, and made extensive acquisitions in botany and other branches of natural history. After the insurrection of the blacks in that island in 1793, he found a refuge in the United States, where he earned a respectable livelihood as a physician. He went first to Philadelphia, and afterwards to New York; and in the latter city, he resided for a period of more than 30 years. In 1805, he visited Cadiz and Gibraltar, for the especial purpose of examining into the nature of the fever (yellow fever) then prevailing in those cities. The observations which he made produced in him a conviction that the disease was not contagious, — a conviction which he expressed in various publications, although he had previously maintained the contrary opi-

nion. — He died at New York about the year 1840, at a very advanced age. — His writings are all in the English language, and it is believed that none of them were ever translated into his mother tongue. They consist of an "Account of the contagious and epidemic yellow fever which prevailed at Philadelphia in 1797" (Philadelphia, 1798); an "Essay on syphilitic diseases" (New York, 1812); of articles in the "Medical Repertory," a journal edited by himself, jointly with Drs. Mitchell and Ackerly; together with a number of reports and memoirs, published in different medical collections, on the yellow fever, on the dark colour of the African races, &c. He also published a translation into English of Vicq-d'Azir's work "Sur les enterrements," with notes.

PASCO, or CERRO DI PASCO; the principal mining town of Peru, in the province of Huanaco, in an irregular hollow on the table land of Bombon, nearly 14,000 feet above the level of the sea, and 60 miles S. by W. of Huanaco. Its population varies at different seasons from 4000 to perhaps 12,000. It is a mean, wretched place, which, previously to the establishment of the Peruvian Mining Company, in 1825, had not a house with a chimney, fire-place, or glazed window; and even now, its dwellings are principally covered with thatch, a frequent cause of destructive fires. The town, — of which the very *adobes*, or unburned bricks, partly used in some of the houses, contain silver — is so burrowed under, that a person is in no small danger of inadvertently falling into old mines, or rather pits, sometimes superficial, sometimes deep and fathomless, and half filled with water. There are several hundred well-known mines, from which silver has been and still could be extracted in large quantities, provided a perfect drainage were effected. But during the revolution, a great many of the mines were allowed to fill up with water, and only about 30 are now wrought for 8 months in the year. From 1825 to 1836 inclusive, 2,190,555 marcs of silver were reduced to bars in the foundry at Pasco; the produce in the latter year having been 237,840 marcs. — The gambling nature of the business of mining here, as has often happened elsewhere, has had the worst effects on the parties engaged in it. The miners are almost universally profligate, and involved in debt; and but few of the undertakers have made fortunes.

PASKEWITCH (Ivan Feodorovitch), prince of Warsaw and count of Erivan, was born in May 1762, at Pultowa, in the S. of Eu-

ropean Russia. He entered the Russian army at an early age, and serving with distinction in the various wars in which his country was engaged, he passed rapidly through the different military grades, until he attained to that of a general officer in 1812. In the memorable campaign of that year, he fought conspicuously at Smolensk and Borodino; he was present at the battle of Leipsic, in the following year; and commanded a division of the Russian grenadiers in the campaign of 1814 in France. He held a command in 1826, under General Yermalof, in the war which the Russians then waged against the Shah of Persia, and gained a number of important advantages over the enemy. In 1827, he was appointed to succeed Yermalof in the chief command of the army; and by his repeated victories, and especially by the storming of the fortress of Erivan, compelled the Shah to accept of the prescribed terms of peace. For the last-mentioned exploit it was, that he had the title bestowed upon him, by the emperor, of count of Erivan. In 1828 and 1829, he commanded, with extraordinary ability and success, the Russian force which penetrated into Asia Minor, and was, in consequence, elevated to the rank of a field-marshal. In June 1831, after the death of Marshal Diebitsch, he took the command of the army acting against the Poles; whose heroic efforts to recover their national independence proved unavailing against the numbers and skill now opposed to them. Paskewitch, become prince of Warsaw, was nominated governor-general of the kingdom of Poland. In this post, which he still occupies, he has been the instrument for carrying into execution the harsh measures, adopted by the emperor Nicholas, in reference to the unfortunate Poles.

**PASQUIER.\*** After the revolution of July 1830, M. Pasquier was nominated by Louis Philippe to the presidency of the Chamber of Peers; in which office he acted with great ability and prudence, often allaying the excitements that occurred in that body, and rendering essential service to the new dynasty. He was appointed chancellor of France in 1837; and he was elected in 1842 a member of the French Academy. In the course of the same year, he published the "Discours et opinions de M. Pasquier," in 4 volumes 8vo., a work containing useful materials for the history of the times.

**PASSING-BELL;** the bell that is tolled at the hour of death, or immediately after death. It was originally intended to drive

away any demon that might seek to take possession of the soul of the deceased; on which account it was sometimes called the *soul-bell*.

**PASSOW** (Francis Lewis Charles Frederic), one of the most distinguished lexicographers of Germany, was born at Ludwigslust, in the duchy of Mecklenburg-Schwerin, September 20th 1786. After attending the lectures of Jacobs at Gotha, and Hermann at Leipsic, he was appointed in 1807 one of the instructors in the gymnasium of Weimar. In 1810, he was invited to the institution styled the Conradium, at Jenkau, near Dantzick, a post from which he was dislodged by the military operations which occurred in that vicinity in the course of 1813-14. Passow, in consequence, established himself in Berlin, where he was one of the most assiduous attendants on the lectures of Wolff, till he was appointed to a professorship in the university of Breslau. The philological seminary of that city having been re-established in 1815, he was intrusted with the office of its superintendent or rector, at the same time, however, retaining his position in the university. He died on the 11th of March 1833.—The labours of Passow have acquired for him an honourable place in the history of philology. He has rendered especially important services to Greek lexicography, by his treatise on the plan, arrangement, &c., of Greek lexicons (1812), as well as by his Greek and German lexicon. Among his other publications, may be mentioned his "Elements of Greek and Roman literature, with an account of the progress of the arts among the ancients" (1829, 4to.); and likewise his editions of Joannes Secundus (1807), Persius (1806), Musæus (1820), Longus (1811), the Germania of Tacitus (1817), the Greek erotic writers (1824), Dionysius Periegetus (1825), and the paraphrase of Nonnus (1834). Some of these editions are accompanied by commentaries, and a German translation. He published, jointly with Jachmann, the "Archives of German National Education," and with Schneider, the "Museum criticum Vratislaviense." He communicated a great number of learned articles to various journals; and his academical discourses have been collected and given to the public, since his death, under the title of "Opuscula academica" (1835).

**PASSPORT.\*** It is said that Austria is the only European state which, at this time, requires absolutely the visa of an ambassador or minister of her own for travellers entering her domains by land.

In France, and in many countries on the continent of Europe, home passports are necessary for the native traveller. According to the letter of the French law (since 1796), a Frenchman cannot pass the limits of the canton in which he is domiciled without a passport; but in practice, it is not required within the extent of the department. A Frenchman travelling without a properly authenticated passport, is liable to arrest and detention for a period not exceeding a month.

**PASTIL**; in Pharmacy, a kind of lozenge. It is a compound of charcoal with odoriferous substances, which diffuses an agreeable perfume during its slow consumption.

**PASTORET**\* died in September 1840. His principal works are "Zoroastre, Confucius et Mahomet" (1787); "Moïse considéré comme législateur et comme moraliste" (1787); "Traité des lois pénales" (1790, 2 vols.); "Histoire de la législation des anciens peuples" (1817-27, 9 vols.); and he took part in the publication of the "Recueil des ordonnances," from the 15th volume, and of the "Histoire littéraire de la France," from the 13th volume.

**PATENT YELLOW**; a pigment obtained by fusing a mixture of oxide and chloride of lead.

**PAULUS**\* has continued to reside at Heidelberg, and has been very active with his pen. The most important of his works, in addition to those already mentioned in a former volume, are a treatise on the "Origin of the Ancient Hebrew Literature" (1823); a "Life of Jesus, intended to serve as a foundation of a true history of primitive Christianity" (2 vols. 1828), a work which produced, at the time of its publication, a great sensation among the theologians of Germany, but which has fallen into comparative neglect since the appearance of Strauss' "Life of Jesus," written in a similar spirit, and a similar boldness of inquiry and inference; "Explanatory Notes on the history of dogmas, churches, and religion" (1830); an "Exegetical Manual on the first three Evangelists" (3 vols. 1840-33); together with his translations, accompanied by notes, of the three epistles of St. John (1829), and of the epistles of St. Paul to the Galatians and Romans.

**PAUPERISM**\* An important change took place in the administration of the English poor-laws, by the passage in 1834 of the Poor Law Amendment Act. Under this act, the country has been divided into *unions* of more or fewer parishes, according to circumstances; the administration

of all matters relating to the poor in these unions being intrusted to a board of guardians elected by the rate-payers. But these guardians are themselves controlled by, and are, in fact, merely the executive officers of, a central board of three commissioners established in London, who have power to issue rules and regulations as to the management of the poor, which all guardians, and other inferior officers, are bound to obey. The central board is assisted by deputy-commissioners, who attend at meetings of guardians, explain the law, and adjudicate or report upon extraordinary cases, and see that the rules laid down by the central board are complied with. Since the introduction of this act, the poor-rates in England have been materially reduced.

**PAVIA**\* Population in 1837, 23,531.—The university of this city has faculties of Law, Medicine, and Philosophy, but none of Theology. It has at present 38 professors, 3 adjuncts, and 11 assessors; and in 1837 had 1307 students, of whom 287 belonged to the philosophical, 438 to the legal, and 562 to the medical faculty. Pavia has also a gymnasium and other schools of a higher order, 2 hospitals, numerous asylums and charitable institutions, a *monte di pietà*, &c. It is a bishop's see, the seat of the superior court of the delegation, and of a chamber of commerce. It has some silk manufactures, and a considerable trade in agricultural produce with Milan and the cities on the Po. A good deal of the cheese, called Parmesan, is made in this neighbourhood. A canal connects Pavia with Milan.

**PEARL**\* The value of pearls has now fallen, chiefly owing to the great improvement which has taken place in preparing them artificially. The best imitation ones are, perhaps, those made by a Frenchman named Jacquin, by covering the inside of hollow glass beads with essence d'orient. Roman pearls are prepared with the purest and finest alabaster.

**PEDOMETER**; an instrument for the purpose of registering the number of paces taken by a man in walking, whence the distance he has accomplished is ascertained. It is usually in the form of a watch, and receives its movement from the motion of the body, so that it advances one division at each step. The number of divisions may be noted by an index or hand, in the same manner as the number of vibrations of a watch-balance. A similar contrivance, too, is employed to mark the revolutions of the wheels of a carriage. This is effected by means of wheels with

teeth, and a chain or string fastened to the carriage-wheel; those wheels advancing a notch at every revolution of the latter.

PEDRO\* (Dom), on returning to Europe from Brazil in 1831, organized in England an expedition against his brother Dom Miguel, the king *de facto* of Portugal. In the command of the military portion of his forces, he was assisted by the count of Villafior, subsequently duke of Terceira; and his navy was placed under the orders of the English captain Napier. After a protracted contest with the Miguelites, he was ultimately successful in obtaining possession of the crown of Portugal in the name of his daughter, Donna Maria da Gloria. He did not long survive his triumph, dying at Lisbon of exhaustion, on the 24th of September 1834, when only 36 years of age.—See *Portugal*, (Sup.)

PEEL (Sir Robert.) See *United Kingdom of Great Britain and Ireland*, (Sup.)

PEERESS is a woman, in England, who is noble by descent, creation, or marriage. If a peeress by descent or creation marries a person under the degree of nobility, she still continues noble; but if she has obtained the dignity by marriage only, by a subsequent marriage with a commoner she loses it; though, by the courtesy of England, she always retains her title.

PELLICO (Silvio), one of the most distinguished among the later Italian poets, and one of the most interesting victims of political intolerance, was born, in 1789, at Saluzzo in Piedmont. He was educated at Pignerol, under the eye of his father, who possessed a silk manufactory in that place, and who was himself a man of letters and a poet. When 16 years old, he accompanied a married sister to her home in Lyons, where he not only acquired an intimate acquaintance with the language and literature of France, but also imbibed a preference for the manners and customs of its inhabitants. He had almost forgotten his own country, when a perusal of Foscolo's poem, "I sepolcri," awakened in him a patriotic feeling, which induced him to return to Italy. At Milan he met with a friendly reception from Foscolo, and also from Monti, with the latter of whom he formed an intimate friendship. He obtained there an appointment as instructor of the French language in the school of military orphans; an office, however, which he subsequently resigned to become the tutor of the children of the count Luigi Porro Lambertenghi, at whose house he mingled, on familiar terms, with the most

distinguished residents and visitors of the city. He now commenced his career as an author. His tragedy of "Laodicea," and especially his "Francesca di Rimini," conferred upon him no small degree of reputation. He next presented his countrymen with a happy translation of Lord Byron's *Manfred*. In connexion with his literary friends, he established a journal in Milan, under the title of "Il conciliatore." Besides Pellico, the names of Sismondi, Romagnosi, Gioja, Manzoni, and others of the prominent literary men of Italy, were enrolled among the contributors. Notwithstanding the professedly literary character of this publication, the Austrian government very soon, on account of the previous political career of several of the writers, as well as the liberal spirit which pervaded it, suspected it of having secret designs against the existing order of things, and first subjected it to a strict censorship, and at length, in 1820, a year after it began to appear, suppressed it altogether. It was not long, too, before the breaking out, at the two extremities of Italy, of the insurrections of Naples and Piedmont, gave to the Austrians, in the Lombardo-Venetian kingdom, the signal for the persecution of individuals. Nearly all who had contributed to the pages of the "Conciliatore" were successively arrested, and thrown into prison. The turn of Silvio Pellico came on the 13th of October 1820. On the 21st of February 1822, placed on a scaffold erected in the Piazza of Venice, he heard the sentence of death pronounced upon him. An imperial rescript, however, commuted his punishment into 15 years of severe imprisonment (*carcere duro*). Nothing has ever transpired in the slightest degree to justify, or to palliate, the atrocity of this procedure, or of the cruel treatment which he endured during his imprisonment at Spielberg in Moravia, not to speak of his previous imprisonment at Milan and at Venice, for a period of 16 months before his trial. For the details of the subject, the reader is referred to Pellico's work, entitled "Le mie prigioni," originally published at Turin, and since translated into all the languages of Europe.—After 8½ years of suffering (*carcere duro*), his liberation was announced to Silvio Pellico. The order for it had been signed on the very day of the breaking out of the revolution of July 1830 at Paris. It is not improbable that, if this order had been delayed for only a few days longer, the unfortunate victim might have continued to languish out several years more of his

life, or very possibly the whole of it, in his dungeon.—He was conducted to Milan, and thence to the Piedmontese frontier. There his Austrian escort left him, after recommending him to the surveillance of the Sardinian police. Since then, Pellico has resided at Turin, leading a very retired life, devoted to religion and the pursuits of literature, and solicitously avoiding the slightest expression of political opinion.—In addition to his "Prigione," and the two tragedies already mentioned, Pellico is the author of six other tragedies; of 12 "Cantiche," short narrative poems, on moral or romantic subjects drawn from Italian history; of a treatise on the duty of man; and lastly, of a collection of detached poetical pieces (1837).

**PELTRY** is the name given to the skins of different kinds of wild animals found in high northern latitudes, particularly in America, such as the beaver, sable, wolf, bear, &c. When the skins of such animals have received no preparation, they are termed *peltry*; but when the inner side has been tanned by an aluminous process, they are denominated *furs*.

**PEN\*** Steel-pens were little used until 1830, when their rigidity was modified by Mr. Perry, by introducing apertures between the shoulder and the point; and other improvements have since been made by him, as well as by others. The quantity used in Great Britain, the United States, and elsewhere, is now very considerable. The steel employed is the best, made from Danemora or hoop iron.

**PENINSULA** is a portion of land nearly surrounded by water, as the Morea, California, &c. In England, by the *Peninsula* is usually meant Spain and Portugal.

**PERISTALTIC**; a term applied to the peculiar motion of the intestines, by which their contents are gradually propelled from one end of the canal to the other.

**PERSIA.\*** Population probably about 9,000,000, composed chiefly of Mohammedans of the Shiite sect; which circumstance renders them rancorously hostile in their feelings to the Turks, who belong to the sect of the Sunnites.—Besides insecurity of property, the commerce of Persia has to contend with various natural obstacles; roads have scarcely ever existed, navigable rivers are unknown, and the seaports are few and unimportant. The only means of transport is on the backs of camels, mules, or small horses; hence the prices of all commodities are greatly enhanced by the expense of carriage. The principal raw exports are silk, cotton, tobacco, rice, and grain, dried fruits, sulphur,

horses, wax, and gall-nuts. Of manufactured goods Persia sends out only a few,—almost entirely to Russia,—consisting of a considerable quantity of silk and cotton stuffs, with some gold and silver brocade. Besides Russia, the principal intercourse is with Turkey, Bagdad, Arabia, the Usbecks and Turkomans on their northern frontier, and India. The total imports are said to exceed in value £3,000,000. The British trade with Persia by way of the Black Sea and the port of Trebizond, and thence overland by Bajbout, Erzeroum, and Tabriz, is on the increase. The most important part of that trade, however, is conducted at Bushire, which, since the decline of Gombroon, has become the chief emporium for the maritime commerce of Persia. A treaty of commerce was concluded between Persia and Great Britain in October 1841.—After the treaty of Tourkmanchai, in 1828, by which all the country beyond the river Araxes was ceded to Russia, the only other events in the reign of Feth Ali Shah which attracted public attention, beyond the limits of the Persian territory, was the massacre of the Russian ambassador Griboidoff and his suite in a tumult at Teheran (1829), and the death of Abbas Mirza, the favourite son of the Shah and the intended successor to the throne (1833), shortly after his return from St. Petersburg, where he had gone to propitiate the resentment of the emperor, on account of the crime just stated to have been committed. (See *Abbas Mirza*, Sup.) Feth Ali Shah followed his son Abbas to the tomb in October 1834. Previously to his death, he had fixed upon his grandson Mohammed Mirza, the son of Abbas, to the prejudice of his own surviving children, to be his successor, and had taken the precaution, in order to render the succession to the throne more secure, of placing the latter under the protection of England and Russia. The utility of this precaution was very soon apparent. Several of his uncles contested the claims of Mohammed, but were defeated by a British auxiliary force, under the command of Colonel Sir H. B. Lindsay; and although these competitors were barbarously put to death by the orders of the young Shah, this did not prevent others from following their example, as opportunity offered. The disordered condition of the kingdom was also aggravated by the opposing intrigues of the Russian and English diplomatic agents. After a time, the influence of the former seemed to prevail; and Mohammed, notwithstanding the earnest representations made by the Eng

lish resident, McNeill, undertook an expedition (1837) against Herat, a small state to the E. of Persia, having friendly relations with the government of British India. Every attempt, however, on the part of the Persians, to gain possession of the city of Herat, proved unsuccessful, in consequence of the ability with which its means of defence were turned to account by a number of British officers, who had introduced themselves into the place for that purpose. The appearance of a British armament in the Persian Gulph, in the month of September 1836, at length induced the Shah to raise the siege of Herat, and to put an end altogether to the war; and not only were amicable relations with England gradually restored, but the influence exerted by the latter country over the Shah has of late been at least equal to that exerted by its great oriental rival, Russia. In 1843, a war was threatened between Persia and Turkey, on account of some dispute relating to the boundary line between these two countries, and probably only prevented by the mediation of their powerful northern neighbour.

**PERSIAN GULPH.\*** Owing to the number of small islands, and the number and extent of its reefs, the navigation of this gulph, especially along the coast of Arabia, is hazardous, difficult, and tedious. The trade carried on in the ports, or on connected with the gulph, is very considerable. Bussorah is the principal inlet through which Indian and other Eastern products find their way into the Turkish empire; and Bushire, in the Persian territory, is the chief entrepôt of the trade between that country and Bombay, whence it receives the products of Europe, China, and the Eastern Archipelago. The chief interest, however, that attaches to the Persian Gulph, is its pearl fishery (at Bahrein), on which the inhabitants of the S. coast mainly depend, as the land produces only a few dates, and is insufficient to support the population. The climate round the shores of the gulph is extremely hot; and notwithstanding the prevalence of the N.W. winds, the thermometer in some parts stands at a higher elevation than perhaps in any other locality.

**PERU.\*** An active intercourse is maintained by Peru with the adjoining maritime states, to which sugar, wine, braudy, salt, and other commodities, are sent; but the most important is that with Europe and the United States, to which Peruvian and Bolivian produce were exported in 1838 to the amount (exclusive of \$250,023 of Colombian and Central American pro-

duce) of \$3,061,598. Of this, \$6,542,003 consisted of bullion. About two-thirds of the bullion, and the great bulk of the other articles, were sent to Great Britain; the remainder mostly to the United States and France.—The public revenue of Peru is commonly stated at \$5,000,000; but there is no recent account of it, or of the domestic debt, that can be relied on. The foreign debt consists of three British loans, —£450,000, contracted in 1822, at 88 per cent.; £750,000, in 1824, at 82 per cent.; and £616,000, in 1825, at 78 per cent. The interest, at 6 per cent. per annum, has remained unpaid from October 1st 1825.—After the treaty of peace concluded with Colombia in September 1829, General Gamarra contrived to maintain his authority for a time, as president of the republic. In 1836, however, he found it necessary to call in the assistance of General Santa Cruz, the president of Bolivia, to sustain him against the *Federalists*, who aimed at his overthrow, as the avowed head of the party in favour of *centralization*. Santa Cruz was ready enough to interfere between the contending parties; but he did so with the object in view of promoting his own personal advantage. He divided the whole of Peru into two separate republics, N. Peru and S. Peru, in the former of which the *Federalists* had the ascendancy, and in the latter the party opposed to them; and disregarding altogether the interests of Gamarra, had himself declared protector of both states. This arrangement involved Peru in a war with Chile, which was carried on with variable success, until the end of the year 1838, when peace was re-established between the two countries, in consequence of the formal withdrawal of his pretensions by Gamarra. Santa Cruz, in his turn, was obliged, in the course of the year 1839, to retire to Bolivia; and a war then ensued between that republic and Peru, which was only terminated by the treaty of Puno, concluded on the 7th of June 1842, under the mediation of Chile. In August 1842, General Vidal assumed the government of Peru (both N. and S. Peru) under the title of a president pro tem. His administration is said to have done much for restoring the finances and commerce of the country. But before it had lasted a single year, he was defeated by a body of insurgent *Federalists* under General Torrico, near Pisco, and obliged to quit Peru, and take refuge in Chile. One individual after another has since risen to temporary possession of the reins of government, without being able to allay the feuds of

party in the Peruvian republic; with respect to the future destinies of which it is exceedingly difficult to form any thing like a probable conjecture.

**PESTH.\*** The population of this city, in 1839, was 64,500; but in the edition of Pierer's "Universal-Lexikon," now in course of publication, we find it stated as high as 90,000,—of this number 64,000 being Roman Catholics, 7000 of the Lutheran persuasion, 2000 Reformed Protestants, 1000 of the Greek church, and 14,000 Jews. — The university has at present a president, a vice-president, 49 professors, 4 adjunct, and 9 assistant professors, and 1250 students. The instruction rendered is wholly gratuitous; and a number of "stipends," or scholarships, are bestowed by the university. In addition to the educational establishments already existing in Pesth, a military school is about going into operation, calculated for 80 pay, and 120 non-paying pupils. Pesth manufactures a great variety of articles; but its principal manufacture is that of *meerschaum* pipe-bowls. These, which consist of the species of earth called *kaf-kil*, dug in the Crimea, are first rudely fashioned in Constantinople, but are finished for the German markets in Pesth. They are thence conveyed to Vienna, and ultimately to the fairs of Leipsic, Frankfurt, Mannheim, &c.; where the best fetch from £3 to £5, and even £7 sterling.

**PETERSBURG\*** (St.), in 1844, had 475,000 inhabitants, of whom as many as 30,000 are stated to have been Germans, and 70,000 more to have been foreigners of other nations, European and Asiatic. Of the population, also, 110,000 were serfs, and 70,000 of the military profession. And the two sexes were divided in the very unequal proportion of 315,000 males to 160,000 females. — There are a great variety of institutions for the promotion of education and literature. The *university*, founded so lately as the year 1819, has, including 11 professors of the languages of Asia, 64 instructors and other functionaries, and 300 students. The *medico-chirurgical academy*, founded by Peter the Great, and reorganized by the emperor Alexander, for the instruction of medical men, is also deserving of particular mention: two hospitals on a large scale are attached to it; the instruction is gratuitous; and the number of pupils amounts to 520. A sum of 386,000 roubles a year is appropriated to the support of this establishment. The Imperial library contains no less than 425,000 printed volumes, and 7000 manuscripts. The Academy of Sciences, which

owes its origin to Peter the Great in 1724, has long occupied a distinguished place among such bodies: it is furnished with an observatory, whence the Russian geographers reckon their longitude. The Imperial Russian Academy, the Academy of the Fine Arts, &c., are widely celebrated. — St. Petersburg has the most extensive foreign trade of any city in the N. of Europe. This arises mainly from its being the only great maritime inlet on the Gulf of Finland, and from its vast and various communications with the interior. By means partly of canals, but principally of rivers, St. Petersburg is connected with the Caspian Sea, goods being conveyed from the latter to the capital, a distance of 1434 miles, without once landing them. The iron and furs of Siberia, and the teas of China, are received at St. Petersburg in the same way; but, owing to the great distance of these countries, and the short period during which the rivers and canals are navigable, they take 3 years in their transit by water. Immense quantities of the less bulky and more valuable species of goods are also brought to the city during the winter upon the ice in sledges. The principal article of export is tallow; and next to it, are hemp and flax, iron, copper, grain, particularly wheat, timber, potashes, canvass and coarse linen, &c. The principal imports are sugar and other colonial products; cotton yarn, raw cotton, and cotton stuffs; dye stuffs, wines, silks, woollens, &c. In 1839, the total value of the exports was £6,650,000, and of the imports £9,075,000, embracing together about two-thirds of the external commerce of the empire. This great trade is principally conducted by foreigners, especially the English. Cronstadt, 20 miles lower down the gulf, is properly the port of St. Petersburg. All ships drawing more than 8 or 9 feet of water stop at the former, their cargoes being conveyed to and from the city by means of lighters. The amount of shipping despatched from Cronstadt, in 1838, was 1314 vessels, in burden 261,582 tons; of which 765 vessels, in burden 173,292 tons were to Great Britain, and the remainder chiefly to the Hanse towns, the Netherlands, Sweden, and Prussia. — The great drawback on St. Petersburg consists in its little elevation above the level of the sea and the river Neva, and its consequent exposure to the most dreadful inundations. These are generally occasioned by a W. or S. W. wind, accumulating the water of the gulf at the mouth of the river, and preventing the free exit of the latter. The year



1726, 1752, 1777, and 1824, have been particularly distinguished by these inundations. The last of these visitations was the most appalling and destructive. The whole city was laid under water; above 8000 individuals perished, and property to a large amount was destroyed.

**PEYRONNET.\*** M. de Peyronnet, with the other prisoners in the castle of Ham, his former colleagues in the last ministry of Charles X., was liberated from his captivity on the 17th of October 1836; since which time he has lived in retirement. During his imprisonment, he composed "Les pensées d'un prisonnier," published in 1834, in 2 volumes 8vo., and a "Histoire des Francs," published in 1835, also in 2 volumes 8vo.

**PHILIPPINES.\*** The whole of these islands are claimed by Spain; but several of them are independent of its authority. In 1837, the population subject to that kingdom was estimated to amount to 3,202,760 persons, of whom 2,204,807 were in the island of Luzon. They are chiefly Papua negroes, Malays, and other Eastern tribes, with about 3000 Europeans. The government is vested in a captain-general, who has extensive powers. The principal object of cultivation is rice, which, with fish, forms the ordinary food of the natives. Of late years the demand for opium in China has led to the introduction and cultivation of the poppy, for which the soil is well adapted.—The geographical position of the Philippines is most favourable for commercial intercourse with India, China, America, and Australia; and the limited extent of their trade heretofore is to be attributed entirely to the wretched policy of the Spanish government, which persevered until very recently in excluding all foreign ships from the ports of the Philippines, confining the trade between them and Mexico and South America to a single ship. Ships of all descriptions and nations are now admitted into Manilla, and the other ports. With some exceptions, foreign commodities, imported in foreign vessels, pay 14 per cent., and in national vessels from 7 to 9 per cent., *ad valorem*: Spanish products, imported by Spanish vessels, pay 3, and by foreign vessels, 8 per cent. Exports pay from 1 to 1½ per cent. *ad valorem*, by Spanish, but from 2 to 3 by foreign ships.

**PHILOLOGY.\*** Philological studies seem to be pursued at present everywhere with undiminished activity, but especially in Germany. An unequivocal evidence of this, in the country just mentioned, is afforded by the annual meetings of its phi-

lologers, which have been held, since the year 1838, at Munich, Mannheim, Gotha, Bonn, Ulm, Cassel, and Dresden. An evidence, also, of the wider range which those studies are now taking, was afforded by the formation, at the annual meeting of 1844, at Dresden, of an "Oriental section," and whose attention was to be particularly directed to inquiries concerning the relations of the languages of the East with the classical languages of antiquity, and with those of modern Europe,—relations long regarded as having a very doubtful existence, but now very generally admitted by those who are competent to form a judgment in the case.

**PHYSICK (Philip Syng), M.D.**, was born in Philadelphia, on the 7th of July 1768. His father, Mr. Edmund Physick, was a native of England, who, previously to the separation of the United States from Great Britain, held the office of Keeper of the Great Seal of the Colony of Pennsylvania, and, subsequently to the Revolution, took charge of the estates belonging to the Penn family, as their confidential agent. When 11 years of age, the son was placed at "the academy belonging to the Society of Friends in South Fourth street, under the tuition of Mr. Robert Proud." Here he was remarkable for those habits of order and method which adhered to him so closely throughout his life. And, from this institution, he was in due season transferred to the University of Pennsylvania, where he was graduated A. B. in 1785.—Almost immediately afterwards, he commenced the study of medicine, under the superintendence of the late Dr. Adam Kuhn, a most distinguished and successful practitioner, and then professor of the theory and practice of medicine. He also attended the medical lectures delivered in the university. In November 1788, he embarked for Europe, with the sole object in view of acquiring further medical information. By the influence which his father, who had accompanied him from America, was enabled to enlist in his behalf, he was so fortunate as to become the private pupil, in London, of the celebrated John Hunter. "By dint of constant and unwearied application to his studies, aided also by a course of unceasing and untiring dissections, he soon made rapid advancement in the attainment of his objects, and, what was also of much consequence, secured to himself the approbation and esteem of his great master." He continued to prosecute his studies with the most exemplary perseverance, under the immediate superintendence of Mr. Hunter

throughout the year 1780; and by the earnest recommendation of that gentleman, he was appointed, January 1st 1790, House Surgeon to St. George's Hospital for one year, being the usual period of this service in the institution. On leaving it, which he did with the warmest testimonials from the proper authorities, he received his diploma from the Royal College of Surgeons in London.—Mr. Hunter now invited Dr. Physick to take up his residence with him, and to assist him in his professional business; holding out to him, at the same time, inducements to establish himself permanently in the British metropolis. These offers, however, did not comport with either his own designs, or those of his father; and he resided with Mr. Hunter, assisting him as well in his physiological experiments, and the making of anatomical preparations, as in the business of his profession, only until May 1791, when he left London for Edinburgh. In the last-mentioned city, he attended very diligently the medical lectures delivered in the university; besides which, he visited constantly the Royal Infirmary, and was a careful observer of the practice pursued in that institution, and witnessed all the operations which were there performed. Having complied with all the requisitions of the university, he obtained the degree of M. D. in May 1792. The subject of his thesis was apoplexy; and conformably to the established regulations, it was written by him in the Latin language.—Dr. Physick returned to his own country in September 1792, and commenced the practice of his profession in Philadelphia. On the appearance of the yellow fever in this city in the summer of the following year, he offered his services to the Board of Health, which elected him physician to the yellow fever hospital at Bush Hill. The singular ardour and ability with which he performed the duties of this station secured to him the approbation and esteem of the community at large, and contributed to introduce him rapidly into practice.—In 1794, Dr. Physick was elected one of the surgeons of the Pennsylvania Hospital; during the prevalence of the yellow fever in 1798, he was again resident physician at the Bush Hill Hospital; and in 1801, he received an appointment of “surgeon extraordinary” to the Philadelphia Alms House Infirmary.—In the year 1800, he complied with a request made by a number of gentlemen engaged in the study of medicine, to deliver a course of lectures on surgery. These lectures met with the most complete success, and Dr. Physick

very soon became exceedingly popular as a teacher. They co-operated with the general reputation which he had acquired to procure for him in 1805 the appointment to the chair of Surgery, then for the first time made distinct from that of Anatomy, in the University of Pennsylvania. In 1819, he was transferred to the chair of Anatomy, which had become vacant by the death of his nephew, Dr. John Syng Dorsey. His manner as a public lecturer is stated to have been grave, dignified, and impressive to an extraordinary degree; and his lectures were all carefully prepared, and written out in a clear and simple style.—In 1821, Dr. Physick was appointed consulting surgeon to the Institution for the Blind. He was elected, in 1824, president of the Philadelphia Medical Society, a situation which he held till the time of his death; in 1825, a member of the Royal Academy of Medicine of France, having been, as is believed, the first American who ever received that honour; and in 1836, an honorary fellow of the Royal Medical and Chirurgical Society of London. In 1831, in consequence of his declining health, Dr. Physick resigned his professorship in the University of Pennsylvania, and was immediately, as an acknowledgment on the part of the trustees of the extraordinary services which he had rendered in elevating the character of the medical school, elected by them unanimously “Emeritus Professor of Surgery and Anatomy.” The constitution of Dr. Physick had, at different periods of his life, received several shocks from severe attacks of disease, particularly of the yellow fever in 1793, and again in 1797, and of typhus fever in the winter of 1813–14. The incessant professional labours which he was called upon to undergo contributed also to undermine his health; and the very enfeebled and prostrated condition of his system, during the latter years of his life, was in a measure perhaps produced by the excessively reducing system of treatment to which he had recourse. The immediate cause of his death was an attack of hydrothorax. He died on the 15th of December 1837.—Dr. Physick was the author of several communications to the medical journals, relating to surgical cases that he had treated, or to processes or instruments of which he was the inventor. He shrunk, however, from the labours of authorship; and, although his improvements in surgery were numerous and important, he in general left the task of describing and explaining them to others. As a practical surgeon, it is scarce-

ly necessary to state that he stood without a rival in this country, and that patients were, for a long series of years, continually arriving in Philadelphia from almost every part of the Union in hopes of benefiting from his surgical, and also, it may be added, in very numerous instances from his medical skill.

**PiPBOCH**; martial music produced by the bagpipe of the Highlanders. It is said to signify also the instrument itself; but the former meaning has received the sanction of Byron and Scott; and it is doubtful whether any instances of the latter are to be found in any classical writer. The effects, or supposed effects, of the martial strains of this music, are admirably depicted in the 17th stanza of the 2d canto of the *Lady of the Lake*.

**PICKERING** (John), LL D., president of the American Academy of Arts and Sciences, and first president of the American Oriental Society, an eminent scholar, philologist, and jurist, was the eldest son of Col. Timothy Pickering, and was born at Salem, Massachusetts, February 7th 1772. He graduated with honour at Harvard University in 1796, and soon afterwards was appointed secretary to Mr. William I. Smith, our minister to Portugal. In 1799, he went to London as secretary to Mr. Rufus King, and returned to America in 1801. Resuming his residence at Salem, he was admitted to the bar, and attained great eminence in his profession. In 1827, he was induced to remove to the city of Boston; and in 1829 he was made city solicitor, and continued in that office until a short time before his death. He died May 5th 1846. Although Mr. Pickering was constantly engaged in the practice of a laborious and exacting profession, such was his intellectual power and activity, that he made acquisitions in various departments of learning, so extensive and accurate as to compare favourably with those of the professed scholars in each. He was one of the first Greek scholars this country has yet produced; he had mastered as many languages as any other American has studied; and became an accomplished mathematician in the highest walks of that most abstruse of sciences. He also found opportunity to make the most various and dissimilar inquiries in history, political economy, medicine, telegraphic language, and manufactures. He was, moreover, a scientific musician, in the best sense of the term. The results of his studies, however, were necessarily communicated to the public, for the most part, in the form of articles for periodical

publications, with the exception of the Greek and English Lexicon, on the basis of Schrevelius, published, in conjunction with Dr. Oliver, in 1826, and his Vocabulary of Americanisms (1816). To the Memoirs of the American Academy he contributed articles "on the adoption of a uniform orthography for the Indian Languages of North America," "on the pronunciation of the Greek Language," on Father Rasle, and on Lord North's Island. In the North American Review are to be found his "Observations on the importance of Greek Literature" (1820), a review of Mr. Duponcean's Dissertation on the Chinese System of Writing, and a paper on the Cochinchinese Language. To the Encyclopædia Americana (inserted in the Appendix) he contributed his invaluable article on the Indian Languages of America. The Collections of the Massachusetts Historical Society, the New York Review, the American Quarterly Review, and the American Jurist, each, on repeated and different occasions, derived important assistance from his pen. His principal juridical publications consist of an article on the Agrarian Laws in this Encyclopædia, and in the Reviews a paper on Egyptian Jurisprudence, a Lecture on the alleged uncertainty of the Law, and a most masterly review of the case of M'Leod. Amongst his occasional publications, may be mentioned his Eulogy on Mr. Bowditch, and his Address before the American Oriental Society. His extensive correspondence with the learned men of our own country, and of Europe, included many of the most distinguished names of this century. Mr. Pickering was a member of all the most prominent scientific and literary societies in America, and of many of those in Europe, including the Berlin Academy of Sciences and the Royal Society of Northern Antiquarians at Copenhagen. He was, at the time of his death, one of the vestry of Trinity Church, in Boston, and enjoyed through life the respect and affectionate regard that were due to the uprightness and purity of his character, and the kindness of his heart.

**PICET**\* died at Geneva in 1825.

**PILCHARD**\* This fish is called *sardine* by the French and Italians, and by this name also it is known in the United States. The fishery is perhaps of less comparative importance now than it was 70 years ago. It employs at present about 3500 men at sea, and 5000 men and women on shore. The consumption of pilchards in England is said to be almost entirely confined to Devon and Cornwall, on the coasts

of which they are taken. They are chiefly exported to Naples, Leghorn, Genoa, Ancona, Venice, and Trieste.

**PILLORY.\*** The punishment of the pillory was finally abolished in England in 1837. In France, though not now specifically appropriated to particular crimes, it accompanies, in aggravated cases, the sentence of imprisonment or forced labour.

**PILOT** is one who directs the navigation of a ship. In a stricter sense, he is a person whose profession it is to direct a ship's course when near the coast, and into and out of the harbours, bays, roads, or rivers, &c., within his peculiar district. His proceedings must not be controlled by the master. On the other hand, the presence of a pilot does not absolve the master from the consequences of injury caused by his own carelessness or want of skill.

**PISA.\*** Its population, in 1836, was 20,943.—The university was formerly among the most celebrated in Italy, and was remarkable for its tolerance; its degrees, except in divinity and the canon law, being attainable by persons of all creeds. In 1836, it had 545 students; 255 in jurisprudence, 173 in medicine and surgery, 39 in the mathematical and physical sciences, and 26 in theology.—Pisa is the winter resort of the grand duke of Tuscany and his court, as well as of numerous invalids, attracted thither by the mildness of its climate. On the shore near the city, amidst an extensive forest, is a farm belonging to the grand duke, where a number of camels have been reared, it is said, from the time of the crusades; and whence most of the zoological collections of Europe are supplied with these animals.

**PISTACHIO NUTS** are the fruit of a small tree, the *Pistacia vera*, a kind of turpentine tree, which grows naturally in Arabia, Persia, and Syria, but is now naturalized in the S. of Europe, particularly in the island of Sicily. They are oblong and pointed, of a reddish or yellow colour, and contain a greenish kernel, having a pleasant, sweet, unctuous taste, resembling that of almonds. Pistachios imported from the East are superior to those raised in Europe.

**PITCAIRN'S ISLAND.\*** The colony on this island, which was transferred in 1830 to Otahete, on account of the scarcity of water, soon afterwards returned to their former home. They numbered, in 1837, 92 individuals.

**PLATA\*** (United Provinces of the). The population of this republic has been commonly very much exaggerated. Sir W. Parish estimates it at not more than

675,000, exclusive of Indians, spread over an area of 726,000 square miles.—The external commerce of the country is conducted entirely at the town of Buenos Ayres, which is the outlet for the produce not only of the whole valley of the river Plata, but also of large districts of Peru and Chile. The exports consist chiefly of ox hides, with jerked beef and sheep's wool. Antwerp is the principal market on the continent of Europe for the hides of Buenos Ayres; and the jerked beef goes to Cuba and Brazil. According to Parish, the whole of the exports, in 1837, were stated to amount in value to \$5,637,138; to which he thinks about 20 per cent. should be added on account of short manifests by the shippers. The imports, which consist for the most part of manufactured goods for the white inhabitants, amounted, in the same year, to about \$7,000,000. About 240 vessels enter the port of Buenos Ayres annually.—The government is nominally a representative republic or confederation, each of the provinces being, to a certain degree, independent of the rest, as in the United States, Mexico, &c. But in 1835, General Rosas, who was unanimously called to the presidency, refused to act, unless invested for a period with extraordinary powers. These were accordingly granted him, so that the government became nearly an absolute dictatorship, presenting, however, a favourable contrast to the dictatorship in the neighbouring state of Paraguay. There is a *junta* or parliament of 44 deputies, half annually renewed by popular election, and a senate of 2 deputies from each province. Each provincial government consists of a popular assembly, which nominates the governor. But though democratic in theory, they are quite otherwise in practice; the lower classes bowing with obsequious deference to the nominees of the upper.—Owing to the civil wars which have been carried on for many years, as well as the hostilities of late years with Brazil and France, the finances of the republic are in a deplorable condition. In 1836, the revenue was estimated at \$12,000,000 currency, which was quite insufficient to meet the ordinary expenditure of the state. The amount of funded debt unredeemed, in the same year, was \$35,917,166 currency; besides the amount of the English loan for £1,000,000 sterling, the interest on which (6 per cent.) has been unpaid since January 1823; and the amount of the bank issues in circulation, amounting to \$20,000,000. These bank issues or dollars currency were not

long since depreciated to one-tenth of their nominal value.

**PLATE.** Vessels or utensils of gold or silver are so called, from the Spanish word "plata" signifying silver; but which application of the word seems to be itself derived from the practice of forming silver into flat or shallow articles for the table.—Plated wares are articles made, in imitation of the preceding, of base metal, coated with gold or silver.

**PLYMOUTH\*** (in England). The population of the different towns and districts popularly included under the term Plymouth, to wit, Plymouth, Devonport, and East Stonehouse, was, in 1831, 75,534, and in 1841, 80,060.—From the commencement, in August 1812, of the construction of the breakwater, down to the end of July 1841, no less than 3,777,063 tons of stone, procured from quarries on the banks of the Plym, and consisting of rough cubical blocks, each weighing from 1½ to 2 tons and upwards, had been employed in this great work. The top presents a flat surface, about ten yards in width, whence it slopes on both sides to the bottom, the principal slope being on the side next the sea. A light-house has been erected on its W. extremity.

**POINSON (Louis)**, born at Paris in 1777, was educated at the Polytechnic School of that city, and became successively a professor of Mathematics in the Lyceums of Paris, professor of Analytical Science in the Polytechnic School, and "Inspector of the University." In 1813, he was chosen a member of the first class of the Institute, in the room of La Grange.—M. Poinson is the author of a work entitled "Éléments de statique" (1803), on which a high eulogy has been pronounced by those best qualified to judge, and of a number of memoirs on mathematical subjects, remarkable on account both of their originality, and the lucid and logical manner in which they are written.

**POISSON (Denis Siméon)**, one of the most eminent mathematicians of the present age, was born at Pithiviers, in the French department of Loiret, June 21st 1781. Owing to the narrow circumstances of his parents, his early education was very much neglected. An uncle, who was a surgeon, residing at Fontainebleau, undertook to teach him his own profession. The experiment, however, proved to be a failure. The nerves of the young student failed him on witnessing even the simplest surgical operations; and no efforts on his part were availing to overcome the obstacle thus presented to

his advancement. At length, in the year 1796, when a "central school" was established at Fontainebleau, some problems given by M. Billy, the professor of Mathematics, as an exercise to his pupils, fell accidentally into Poisson's hands. With comparatively little previous knowledge of the subjects to which they related, he attempted to resolve them, and succeeded. His destination in life was, in consequence, at once decided. After prosecuting for a time his mathematical studies under the direction of M. Billy, who predicted his future eminence, he went to Paris and became a student of the Polytechnic School, where he had the benefit of the instructions of La Grange and Laplace, as well as of others of the most distinguished men of France. Before he had completed the 26th year of his age, he had already held the offices of "répétiteur" of the course of Analysis given by M. Fourier in the polytechnic school; of assistant professor to the latter; and of professor in his stead. He was next assistant professor to M. Biot in the College of France; and subsequently, a counsellor of the University, professor of Mechanics in the Faculty of Sciences of Paris, and a member of the Board of Longitude. He was elected a member of the first class of the Institute in 1812. In 1837 he was raised to the dignity of a peer of France; and he became dean of the Faculty of Sciences, and president of the Academy of Sciences. He died on the 25th of April 1840.—M. Poisson was the author of a "Traité de mécanique" in two volumes 8vo., first printed in 1811: a third edition appeared in 1833. It is unquestionably one of the most masterly treatises on the subject to which it relates that have hitherto appeared. Another work of M. Poisson is his "Recherches sur la probabilité des jugemens en matière civile et en matière criminelle, précédées des règles générales du calcul des probabilités," published in 1837, in 4to. He communicated, also, a great number of papers on mathematical and physical subjects to the "Memoirs" of the Academy of Sciences, the "Annales de chimie et physique," the "Journal de l'École polytechnique," &c.

**POLACCA**; a vessel with three masts, each of one piece, so that the top-sails, on being lowered, can slide down without interruption. This form of rigging originated in the suddenness and frequency of squalls in the Mediterranean, where alone vessels of this kind are used.

**POLAND.\*** This kingdom had, in 1836,

the population of 4,251,344; of which number, 3,362,778 were Roman Catholics, 199,998 Lutherans, 7866 Reformed Protestants or Calvinists, 234,445 United and 879 Not United Greeks, 4752 Mennonists and 179 Moravian Brethren, 312 Mohammedan Tartars, and 440,155 Jews. The Lutherans and Calvinists were principally Germans. By a census taken in 1838, the population was found to reach the number of 4,293,962 persons, of whom 292,320 were nobles.—Under the republic, the Polish peasants were slaves, the absolute property of their masters. Down to 1768, a lord who had killed his slave was merely amerced in a small fine; and though in that year the offence was made capital, such an accumulation of evidence was required to prove the fact, that the enactment was rendered quite nugatory. It was customary to make the peasants work five days a week on the estates of their lords; the latter, also, might seize on whatever wealth the peasants had accumulated, might inflict on them corporal punishment, and might sell them, with the land on which they worked, as if they had been so many head of cattle. This servitude was modified by the constitution of 1791; and it was wholly abolished in the grand duchy of Warsaw (nearly identical with the existing kingdom), in 1807, the labour and services due by the peasants to their lords having been since regulated and defined by law.—The constitution granted to Poland by the emperor Alexander in 1815 was abolished after the suppression of the insurrection of 1831; and the country is governed nearly in the same way as the other portions of the Russian empire. The council of administration for the kingdom consists of 3 directors-general (of the Interior, Justice, and Finance), a comptroller-general, and other persons appointed by the sovereign. The reports of this council are submitted to the emperor by a secretary of state for Poland, residing in St. Petersburg. There is also in that capital a department for Polish affairs, established since 1832, to which the government of Poland is confided. The legislative power is vested in the sovereign; and the proposed laws for this kingdom are submitted for his sanction by the Russian council of state. The local administration, in each of the 8 governments (formerly woiwodeships) into which Poland is now divided, is exercised by civil governors, with the same powers as those appointed in the different governments of Russia Proper. The Polish army, which before 1831 amounted, in

time of peace, to 85,000 men, has ceased to constitute a distinct body, and is incorporated into the Russian.—Among the measures adopted by the Russian government to secure its hold over Poland, none was better adapted for the end in view than the order issued by it in 1838, directing that there shall be a teacher of the Russian language in every primary school, and that all children attending such schools shall be obliged to learn it. It was also, at the same time, ordered that no individual should be employed as a tutor, unless he possessed a testimonial signed by the proper authorities, certifying his ability to give instruction in the Russian language, and that no person unacquainted with Russian should be promoted to any civil or military employment.—Poland is an agricultural country; and except a few of the more bulky and coarser articles, it would, were the people permitted to resort to the cheapest markets, derive almost all its manufactures and articles of luxury from other countries, in exchange for corn, wool, timber, tallow, flax, spirits, &c. Spirits, it may be mentioned, are distilled in every village from rye and potatoes; but their sale is still, as formerly, a manorial right, each lord of a manor having the exclusive sale of spirits within his domain.—The trade of Poland is almost wholly in the hands of the Jews. The internal commerce is carried on chiefly by means of fairs, at which, too, a considerable portion of the foreign trade is conducted. The latter is principally with Russia, Prussia, Austria, and the republic of Cracow. In 1830, the value of the exports to these states was 45,073,137 Polish florins, and that of the imports from them, 47,713,694 florins. Goods are conveyed in summer by heavy wagons, and in winter by sledges; and merchandise is also forwarded down the rivers, by flat-bottomed boats, to the Prussian ports. But Russia has been endeavouring to put a stop to the intercourse between Poland and the Prussian ports on the Baltic, by constructing a great commercial road from the S. W. angle of Poland to the Baltic; and a railway is now in process of being constructed, if not already constructed, to convey to the harbours of Windau and Libau the goods which would otherwise go to Tilsit or Memel, or by the Pregel to Königsberg. A similar purpose is served by the canal of Augustow, connecting the Narew and Vistula with the Niemen, and which is to be continued to the Baltic by the Windau canal, in the government of Wilna. The canal of Augustow is 96

miles in length, and from 5 to 6 feet in depth, and of sufficient breadth for two large boats to pass each other with ease. It has 17 locks, and several convenient basins in different parts of its course. It was wholly completed between 1821 and 1829, and is now the means of an active traffic.

**POLARIZATION OF LIGHT.\*** This subject has been investigated with great care by Malus, Biot, Arago, Dr. Young, Seebeck, Sir David Brewster, Sir John Herschel, and many others. But the individual who has contributed most to connect the facts with theory, by showing their mutual relations and dependencies, was Fresnel, whose success in deriving them, by a priori reasoning, from the principles of the undulatory hypothesis of light, was so complete as to place the evidence of the truth of that theory on a very strong footing of credibility.—Analogous phenomena to those of the polarization of light have been found to belong also to radiant heat. Professor Forbes, of Edinburgh, has shown that heat is polarized both by reflection and refraction. He has also succeeded in depolarizing heat, and thereby proved that heat possesses the property of double refraction.

**POLIGNAC\*** (prince) was liberated from imprisonment by the amnesty of November 29th 1836. Since then he has resided in England.

**PÖLITZ\*** died in 1838. From 1820 till the time of his death, he filled the chair of the political sciences in the university of Leipsic.

**PONS (Louis)** was born at Peyre, in the French department of the "Upper Alps," in December 1761. In 1789, he was employed as an "assistant" in the observatory of Marseilles, and evincing a peculiar aptitude for practical astronomy, he was before long appointed "adjunct astronomer." His discoveries had already made him extensively known, when, in 1819, he was charged by the ex-empress Maria Louisa with the superintendence of the new observatory of Parma. In 1825, he became the superintendent, or director, of the observatory of the museum at Florence; in which city he resided till the period of his death, in October 1831.—Between the years 1801 and 1827, he discovered not fewer than 37 comets, and calculated the orbits of many of them. In the last-mentioned year, his eye-sight altogether failed him.

**POONAH**; a city of British India, in the presidency of Bombay, formerly the capital of the Mahratta dominions, 80 miles E.S.E.

of the city of Bombay. It is in lat. 18° 30' N., and in long. 74° 2' E. Its population is estimated at about 110,000. There is little remarkable in its appearance, and, according to Bishop Heber, has as few evidences as can well be conceived, of its having been, till lately, the residence of a powerful sovereign.—This city has a Hindoo college, established in 1821, for 100 students, with classes for Hindoo divinity, medicine, metaphysics, mathematics and astronomy, law, logic, rhetoric, grammar, &c., which costs 15,250 rupees a year.—Poonah is the residence of the British collector and judge for the district of the same name, and has a well-conducted district jail, several English schools, a Roman Catholic church, &c.

**PORTER\*** (Sir Robert Ker) was appointed Consul at Venezuela, in S. America, in 1826; and he continued to reside there until the spring of 1841, when he left his post on leave of absence. Having visited his friends at St. Petersburg, in Russia, he died of an attack of apoplexy, May 4th 1842, just as he was about to return to England.

**PORTO RICO.\*** The population of this island, which amounted, in 1778, only to 80,650 individuals, was, according to a census taken in 1834, 357,086, of whom 188,669 were whites, 101,275 free mulattos, 41,818 free blacks, and 25,124 slaves. It probably exceeds at present 400,000 individuals of all descriptions.—The impulse to the augmented prosperity of Porto Rico was given in 1815. In that year, the entire value of the exports amounted to only \$65,274. A royal decree then appeared which exempted the trade between Spain and the Spanish colonies and Porto Rico from all duties for 15 years; and the island was then also permitted to trade, under reasonable duties, with other countries. In consequence of these measures, but partly, also, of a considerable immigration of rich Spanish colonists from S. America, Porto Rico has latterly made a most extraordinary progress. Great improvements have been effected in the police and internal administration, and roads have been constructed in all parts of the island. The imports into Porto Rico amounted, in 1839, to \$5,462,206; and the exports to \$5,516,611. The shipping which arrived, in the same year, consisted of 1392 vessels, in burden 116,398 tons. The duties on imports, in 1839, produced \$734,761; articles imported in Spanish vessels pay one-third less duty, and Spanish produce imported in Spanish bottoms pays a half less. The duties on ex-

ports produced \$241,062, and the dues on shipping \$38,758.

PORTUGAL.\* The population is stated to have amounted, in 1843, to 3,412,500 persons.—The imports and exports of Portugal may each amount annually to £2,000,000. Formerly, Lisbon had about 400 large ships employed in the trade with S. America, but now she has not more than 50 or 60 ships in all departments of her foreign trade, and those, too, of comparatively small burden. The internal traffic is inconsiderable, as might be inferred, not only from the absence of all canals and railroads, but from the fact also of there not having been, until of late years, a single road in the kingdom practicable for carriages for more than 20 or 30 miles from Lisbon. Indeed, the only mode of travelling by land from Lisbon to Oporto is in a litter, or on the back of a mule or horse; and in the wine country of the Douro, or in the province of Minho, two oxen sometimes take a whole day to convey a pipe of wine 5 or 6 miles; and to prevent the cart from being overturned, it is attended by two men.—The constitution granted by Dom Pedro in 1826, after having been suppressed in 1836, was again restored in February 1842. Great abuses have been said to exist in every department of both the administrative and judicial branches of the government, the inadequacy of the salaries paid leading to the acceptance of bribes. Assassination is more frequent here than it has ever been in Italy; the law and the police being impotent alike either to secure property or life. It was stated in an official return published by the Cortes, that in 1837 there were no fewer than 176 assassinations, and 226 robberies, in the district of Oporto; and 166 assassinations, and 234 robberies, in that of Guarda!—The Portuguese army consists nominally of 32,000 men, but scarcely half this number are at any one time in service: the navy is inconsiderable; it consisted, in 1835, of 2 sail-of-the-line, 4 frigates, and 18 smaller vessels.—The finances are in great disorder. In 1838, the revenue amounted to £2,091,000, and the expenditure to £2,524,000; leaving a deficit of £433,000. The foreign debt in the same year amounted to £11,375,300; and the internal debt to £4,087,039; making a total of £15,462,339, the interest on which amounted to £621,448. The foreign debt consists of various loans raised in England between the years 1831 and 1837, the dividends on which have been rarely paid.—A national bank, established in 1822, with a capital of

£700,000, issues notes, payable in specie.—Dom Pedro, having completed his preparations for attempting the expulsion of his brother Miguel from the throne of Portugal, and for placing upon it his daughter, Donna Maria da Gloria, effected a landing near Oporto, on the 8th of July 1832. He gained possession of that city without opposition, and maintained himself there against all the efforts of the opposite faction to retake it. This state of things continued until the summer of the following year, 1833, when Sir Charles Napier (July 5th) annihilated the fleet of Dom Miguel in an engagement off Cape St. Vincent, and the count de Villafior, afterwards duke of Terceira, having landed in the Algarves, defeated the enemy in that quarter. These two officers then co-operated in gaining possession of Lisbon (July 24th). Dom Pedro arrived from Oporto in that capital a few days afterwards, and assumed the administration of the kingdom, in the name of Donna Maria da Gloria, his daughter. The Miguelite forces, in the mean time, under the orders of the French general Bourmont, made a last and desperate attempt (July 25th) to take the city of Oporto. But this proving unsuccessful, they retired to a position supported by the fortresses of Elvas and Estremoz; from which, it is not improbable that they might long have been able to protract the contest, had it not been for the advance into Portugal of a Spanish corps commanded by General Rodil, destined to co-operate with their opponents. On the 26th of May 1834, Dom Miguel was reduced to the necessity of signing the capitulation of Evora, by which he engaged to quit the Portuguese territory. The Cortes, which Dom Pedro hastened to convoke, re-established the constitution of 1826, and gave their sanction (August 16th) to his holding the regency of the kingdom during the minority of the queen, his daughter. The suppression of the convents, and the appropriation of the property that hitherto belonged to them to supply the wants of the government, had scarcely been determined upon, when a premature death (August 17th) arrested the career of the regent, and prevented the tranquil settlement of the country. During his illness, however, Dom Pedro had caused his daughter to be declared of age by the Cortes, and had selected the dukes of Palmella and Terceira to be the leading members of her cabinet. But the young queen soon disagreed with these faithful supporters of her cause in the contest



which had only so shortly before been brought to a close, and the Marshal Saldanha, who had placed himself at the head of the more "liberal" or democratical party, became prime minister. It was hoped that this step would tend to render the new government popular with the mass of the people, and to allay the party disputes which had begun to agitate the kingdom. The event was different from what was anticipated. No sooner did Saldanha undertake to control the violence of his friends, than he lost his own popularity, and the agitation in the community became more violent than before. — A short time after her accession to the throne, Donna Maria had married the duke Augustus of Leuchtenberg, who died in March 1835. In April 1836, she was married again to the duke Ferdinand of Saxe-Coburg-Cohary. The latter did not make a favourable impression on the Portuguese; and the rejection of the queen's nomination of him to the Cortes, as commander-in-chief of the army, was the occasion of two successive dissolutions of that body, which, in their turn, contributed to aggravate exceedingly the prevailing discontents. An insurrection, at length, broke out, on the 9th of September 1836, and the greater portion of the troops passing over to the side of the insurgents, the queen was constrained to dismiss her ministers, and to abrogate the existing constitution of government in favour of that of the year 1822. An attempt by some of the leaders of the aristocracy to produce a counter-revolution failed, November 4th, from which date the government was entirely controlled by the national guard of Lisbon and the clubs. It was in vain that the "chartists," or adherents of the constitutional charter of Dom Pedro, under Saldanha and the duke of Terceira, organized their forces in the N. of the kingdom, and threatened the capital. These were obliged to capitulate to their adversaries, on the 20th of September 1837. In the mean while, the extraordinary Cortes were assembled to form a new constitution; and they performed their task in a moderate and compromising spirit. Retaining the modes of election, and other democratic elements, of the constitution of 1822, they conceded, nevertheless, to the queen an unqualified veto in all matters of legislation. — A difficulty next arose with England, on account of an enhancement of the duties on certain articles imported from that country. The British government, irritated by this measure, in return held Portugal strictly to the letter

of the existing treaties between the two countries in relation to the suppression of the slave-trade. So great did the excitement in the Cortes become, in consequence of this proceeding, that the advisers of the queen judged it most prudent to dissolve that body (February 25th 1840), in order to guard against the adoption by it of some rash measure, of a nature to precipitate the country into an unequal war with Great Britain. Partaking of like apprehensions with the executive branch of the government, the electors chose for their representatives to a new Cortes a majority of members favourable to the views of the more aristocratical or moderate (*moderados*) portion of the party heretofore opposed to the system of Dom Miguel, and who were far more anxious than their opponents to preserve the external peace of the country. The threatened storm now rapidly passed over; and a difference with Spain, relating to the navigation of the river Douro, which occurred soon afterwards, was accommodated through the mediation of the British government. The reconciliation of the Pope with the court of Lisbon, as well as the acknowledgment of Donna Maria as queen of Portugal by Russia, Prussia, and Austria, in 1841, were events that contributed to give stability to her throne. In the beginning of the following year, the *moderados* judged the general tranquillity which prevailed to offer a favourable opportunity to attempt the re-establishment of the constitution of Dom Pedro, abrogated in 1836. The attempt was made, and succeeded at Lisbon, by the co-operation of the troops stationed in that city, on the 10th of February 1842. A new administration was immediately formed, having the duke of Terceira and Costa Cabral (the principal agent in the revolution which had been achieved) at its head. It has aimed to strengthen the alliance of Portugal with England, by means of a new treaty of commerce between the two countries, and by assenting to the wishes of Great Britain in reference to the slave-trade; and it has endeavoured to repair the disordered condition of the public finances, on the one hand by economising the public expenditure, and on the other by the imposition of additional taxation. Among the instances of economy referred to, may be mentioned the reduction by the Cortes, in the summer of 1843, of the number of bishops, and of the salaries paid to those who were retained, — a measure which could scarcely fail to excite much dissatisfaction in a considerable portion of the community; and no govern-

ment can impose additional burthens on its subjects, whatever may be the emergency, without incurring, in consequence, a greater or less degree of unpopularity. Hence, it is not a matter of surprise that the Portuguese government should have had to encounter latterly several attempts to effect its overthrow. Thus far, however, these have all been successfully resisted. The most formidable was that of the month of February 1844. It broke out at Torres Novas. A regiment of dragoons quartered there revolted, with its colonel at its head, and was soon joined by other portions of the military force. The count Bomfin, a person of consideration, became the leader of the insurgents, who obtained possession of the fortress of Almeida, and made it the centre of their operations. In the mean time, also, another insurrection occurred at Coimbra, on the part of a regiment of troops in garrison at that place, united with a number of the students of the university. But the government was true to itself, and adopted the most energetic measures to meet the crisis. It lost no time in assembling the part of the army on which it could still rely, and directing it against the insurgents. Those at Coimbra were defeated and dispersed with comparative ease; but Almeida was taken, and the insurrection finally suppressed, only after a protracted siege, at the end of April. As may well be supposed, the expenditure necessarily incurred by the government, on this occasion, did not contribute to remedy those financial difficulties with which it had to contend, and which may again be the source of fresh discontents, and of renewed attempts at insurrection.

POSTS.\* The following table, from the "Annuaire de l'économie politique" for 1844, exhibits a comparative view of the receipts and expenditures of the "administration of the poste" in France, at different periods between the years 1791 and 1844:

| Years.              | Receipts, France. | Expenditures, France. | Net Receipts, France. |
|---------------------|-------------------|-----------------------|-----------------------|
| 1791 .....          | 16,277,000.       | 4,609,000.            | 11,668,000            |
| 1815 .....          | 19,304,000.       | 11,076,000.           | 7,228,000             |
| 1829 .....          | 30,754,000.       | 16,471,000.           | 14,283,000            |
| 1836 .....          | 42,070,000.       | 22,510,000.           | 19,560,000            |
| 1844 (estimated) .. | 49,676,000.       | 31,723,571.           | 17,952,429            |

These receipts and expenditures, it is proper to mention, do not relate merely to the conveyance and delivery of letters and journals. The receipts comprehend, besides the amounts received for what in the United States and England is understood by the term postage, the fare paid for the conveyance of passengers in the "malles-postes," or, as we would say,

mail stages, and in the "paquebots" or government packets, and also the per centage levied for the transportation, by the department, of specie or bullion. The expenditures, too, are augmented by the maintenance of the means of conveyance just mentioned, the compensation paid to couriers, &c. The number of letters, transmitted by the department, was estimated to amount, in 1821, to 45,000,000; in 1830, to 62,000,000; in 1836, to 79,000,000; in 1841, to 94,000,000; and in 1842, to 104,000,000. It is curious to observe that the number of unclaimed letters in the post offices of France, during the year 1841, amounted to as many as 2,118,941. Of these, 1,400,000 are stated to have been refused simply because the parties to whom they were addressed were unwilling, or unable to afford, to pay the postage charged upon them; 680,000 were addressed to persons unknown or deceased; 60,000, which were addressed "poste restaute" were never called for; 3000 were put into the post offices without any address whatever; and 40,000 were addressed in an illegible or imperfect manner. The whole number of journals, and printed books or pamphlets, expedited from Paris, in 1821, was 23,209,000; in 1830, 32,334,000; in 1835, 38,778,000; in 1841, 43,676,000. Those expedited from the provinces, in the same years, were respectively 4,618,000, 7,610,000, 10,523,000, and 13,145,000. It may be mentioned that the other printed matters referred to were very inconsiderable in number, when compared with that of the journals expedited by the *poste*.— Since the publication of the preceding volumes of this encyclopædia, an important change has taken place in the post office regulations of Great Britain. In accordance with the plan of Mr. Rowland Hill, first brought forward by that gentleman in 1837, a uniform penny postage was adopted by Parliament in the year 1839. The charge for inland letters, not exceeding  $\frac{1}{2}$  oz. in weight, is one postage; from  $\frac{1}{2}$  oz. to 1 oz., 2 postages; from 1 oz. to 2 oz., 4 postages; and so on, adding 2 postages for every oz. up to 16 oz., beyond which no packet subject to postage is received. Parliamentary papers and petitions are an exception. The price of a postage is a penny, which must be paid in advance either in money or the use of a stamp, or it is charged double; and if the weight of the letter should exceed the value of the stamps attached, the excess is charged double. Stamped envelopes are sold at the rate of 1s. 1½d. per dozen of penny, and 2s. 2d. per dozen of twopenny

kinds. Colonial, India, and United States letters, when not exceeding  $\frac{1}{2}$  oz., are charged 1s. when sent by packet. Various rates are charged for other foreign letters, according to the route and distance. Letters conveyed by private ships to parts beyond sea, uniformly pay 8d. Newspapers, published in the United Kingdom, pass free from one post town to another. British and colonial newspapers also pass free to and from the colonies in the post office packets. Foreign newspapers received in Great Britain, and British newspapers sent to foreign countries, are charged 2d., unless there be a convention with the foreign post office. Money orders, for sums not exceeding £5, are granted by every post town on every other post town in the kingdom, on application. For any sum not exceeding £2, a commission of 3d. is charged; and on those from £2 to £5, the charge is 6d. A preparatory four-penny rate for general post letters was introduced December 5th 1839, and at the same time the London district rates were reduced to a penny. The uniform penny rate came into operation on the 10th of January, and stamps on the 6th of May, 1840. The following table exhibits the financial movement of the British post office (omitting denominations lower than pounds) in the five years ending January 5th 1843:

| Year to Jan. 5. | Gross Revenue. | Cost of Management. | Net Revenue. |
|-----------------|----------------|---------------------|--------------|
| 1839            | £2,346,278     | £267,768            | £1,659,509   |
| 1840            | 2,390,763      | 756,099             | 1,633,764    |
| 1841            | 1,349,604      | 858,677             | 483,927      |
| 1842            | 1,495,540      | 938,168             | 557,371      |
| 1843            | 1,578,145      | 977,504             | 600,641      |

In the United States, a great and important alteration was made in the post office regulations by a law passed by Congress March 3d 1845, and which went into operation on the 1st of July of that year. The rates of postage established by it are, for any letter not exceeding  $\frac{1}{2}$  oz. avoirdupois in weight, carried a distance not exceeding 300 miles, 5 cents; and for a greater distance, 10 cents. For every  $\frac{1}{2}$  oz., and for any excess above an exact number of half-ounces, the same rates are charged. All "drop letters" (not to be mailed) pay 2 cents each. Newspapers of 1900 square inches or less, sent by editors or publishers, from their offices of publication, a distance not exceeding 30 miles, are free; for any newspaper of the same size, carried over 30, and not over 100 miles, or for any distance within the same state, 1 cent is charged, and for a greater distance,  $1\frac{1}{2}$  cents; and newspapers of a larger size pay 2 $\frac{1}{2}$  cents. Pamphlets of all kinds that are transmissible by mail, and have no written communication on them, weighing

1 oz. or less, are charged 2 $\frac{1}{2}$  cents, and for each additional ounce, or excess greater than a half-ounce, 1 cent. For any printed circular, handbill, or advertisement, on quarto-post, or single cap, or paper not larger than single cap, folded and directed, but not sealed, 2 cents. Bound books are not "maillable matter," unless sent by governors of states; and no packet can be mailed that weighs more than 3 pounds. Private expresses, for conveying letters from one place to another, are prohibited. The privilege of franking is not as extensively enjoyed as heretofore. It is retained by the presidents and ex-presidents of the U. S., by Mrs. Madison and Mrs. Harrison, as regulated by former laws. The vice-president, members of Congress, and delegates from territories, may transmit public documents free during their official terms; may send and receive free letters, newspapers, or packets, weighing under 2 oz., during the session of Congress, and for 30 days before the commencement and 30 days after the close of any session; may receive letters free, not weighing more than 2 oz., during the recess (by this term it is not meant to denote the interval from one session of Congress to another); and may transmit free written letters from themselves the whole year, that is from 60 days before the commencement of any session until the meeting of the next Congress. The secretary of the Senate and the clerk of the House of Representatives may send free public documents during their official terms; may send and receive free letters, newspapers, and packages, not weighing over 2 oz., during the session of Congress, and for 30 days before and after; and may send free letters written by themselves during their official terms. The governors of states may send free laws, records, and documents of the legislature of their own state, to the governors of the other states. The three assistant postmasters-general may send free letters, packages, or other matters, relating exclusively to their official duties, or the business of the post office department; and may receive all such letters and documents as relate to their own duties or that of the department, and have the postages afterwards remitted at the Washington city post office. Deputy postmasters may send free all such letters and packages as may relate exclusively to the business of their respective offices, and may have the postages for these allowed in the settlement of their accounts. Exchange newspapers between editors are permitted to go free. Communications addressed to

the officers of the government, heretofore possessed of the franchising privilege, relating to the business of their respective offices, are to be paid for out of the contingent fund provided for their offices, or

out of the public treasury.—The following table shows the number of post-offices, the amount of postage paid to postmasters, expense of transporting the mail, extent in miles of post-roads, &c.

| Years. | Number of Post-Offices. | Amount of Postage, Dollars. | Amount paid to Postmasters, Dollars. | Transportation of the Mail, Dollars. | Expenses of the Department, Dollars. | Extent of Post Roads, Miles. |
|--------|-------------------------|-----------------------------|--------------------------------------|--------------------------------------|--------------------------------------|------------------------------|
| 1872   | 9,205                   | 2,258,570                   | 715,481                              | 1,482,507                            | 2,966,171                            | 104,406                      |
| 1873   | 10,137                  | 2,617,011                   | 896,283                              | 1,894,638                            | 2,930,414                            | 119,916                      |
| 1874   | 10,693                  | 2,823,749                   | 817,317                              | 1,925,544                            | 2,910,605                            | 119,916                      |
| 1875   | 10,770                  | 2,993,356                   | 945,418                              | 1,719,007                            | 2,757,350                            | 113,774                      |
| 1876   | 11,091                  | 3,406,323                   | 819,803                              | 1,638,032                            | 5,841,766                            | 118,264                      |
| 1877   | 11,767                  | 4,100,605                   | 891,352                              | 1,996,727                            | 3,303,428                            | 141,242                      |
| 1878   | 12,510                  | 4,235,078                   | 933,948                              | 3,131,306                            | 4,621,833                            | 134,818                      |
| 1879   | 12,780                  | 4,477,814                   | 980,000                              | 3,285,692                            | 4,654,718                            | 133,999                      |
| 1880   | 13,468                  | 4,539,265                   | 1,028,925                            | 3,290,876                            | 4,759,110                            | 155,739                      |
| 1881   | 13,778                  | 4,379,206                   | 1,018,645                            | 3,159,375                            | 4,443,768                            | 155,026                      |
| 1882   | 13,733                  | 4,546,246                   | 1,147,256                            | 3,087,796                            | 4,235,052                            | 149,732                      |
| 1883   | 13,814                  | 4,285,925                   | 1,496,394                            | 2,947,319                            | 4,374,713                            | 143,295                      |
| 1884   | 14,103                  | 4,227,265                   | 1,358,316                            | 2,936,551                            | 4,297,868                            | 144,687                      |

POTTER (Louis Joseph Antoine de) was born at Bruges, in the Netherlands, on the 26th of April 1786. During a residence at Rome and in Tuscany, he collected materials for the works which he completed after his return to Brussels, in 1817. He became known by his "Esprit de l'Eglise," and by several other publications in which he attacked the pope and the Roman Catholic church. His *Life of Scipio de Ricci* (1825, 3 vols.) especially attracted in a considerable degree the public attention. In 1828, he placed himself at the head of an association to which the principal "collaborateurs" of the *Courrier des Pays-Bas* belonged; and he began, in the columns of that journal, a systematic opposition to the government. An article written by him, and in which he animadverted severely on the exceptional law which gave to the ministers the power of punishing arbitrarily the authors of libels against the government, and another on the banishment of two young Frenchmen who published a journal that was regarded as too independent and liberal in its character, led to his being condemned to 18 months' imprisonment, and to pay a fine of a thousand florins. From this time M. de Potter, from having been an avowed enemy of the Catholic church, became the leader of the party in opposition to the government, formed by the union of the republicans and the Roman Catholics. His "Projet d'association pour réaliser les libertés écrites dans la loi fondamentale des Pays-Bas," published in the "Courrier," led to his banishment (April 30th 1830) from the country for 8 years. M. de Potter was at Aix-la-Chapelle when he received the intelligence of the French revolution of July; he immediately wrote to the king of the Netherlands, advising him to profit, before it should be too late,

by the lessons taught by that extraordinary event to all constitutional monarchs. Being at Paris when the revolutionary movements occurred at Brussels in the following September, he hastened to Lille, from which place he proceeded to Brussels as soon as the victory of the people there was ascertained. Scarcely had he arrived in that city, when he was named a member of the provisional government. On the meeting of the Congress of Belgium (November 10th), he in vain urged the formation of a republican constitution. Dissatisfied with the comparatively small degree of influence which he possessed in the government, he resigned his office three days afterwards; and his resignation having been received with indifference, he quitted Brussels, and proceeded to Paris. Before the election of a regent of Belgium, he returned once more to Brussels; but when the election was decided, he took up his residence again at Paris, and thenceforth took no part in political life. In 1836-37, he published an extensive work, the result of great research, but which produced little or no impression on the public mind, under the title of "Histoire philosophique, politique et critique, du christianisme depuis Jésus-Christ jusqu'au XIX<sup>e</sup> siècle" (8 vols. 8vo.)

POUILLET (Claude Servais Mathias) was born at Cuzance, in the French department of the Doubs, in 1791. He entered the Normal School in 1811; and he was subsequently appointed "maître de conférences" in that institution, as well as professor of Physics in the "Collège Bourbon." He was next an assistant professor (*professeur suppléant*) in the Faculty of Letters, and after some years a full professor. In 1829, he obtained the appointment of sub-director of the "Conservatoire des arts et métiers," where he occupied

at the same time the chair of *Physics*. He succeeded Dulong in 1831, as professor of *Physics* in the Polytechnic School; but this professorship he very soon resigned, on account of the delicate state of his health. At the end of the year just mentioned, however, he was invited to perform the functions of "professeur administrateur" in the "Conservatoire des arts et métiers." He was chosen a member of the Academy of Sciences in 1837. — M. Pouillet is the author of a number of memoirs on physical subjects, the most important of which are:—1. A memoir on the coloured rings which are formed by the reflection of light at the second surface of thick metallic laminae (1816). 2. A memoir on certain newly discovered facts relating to heat (1822). 3. Two memoirs on the electro-magnetic phenomena (1822–27). 4. A memoir on the solar heat (1824). 5. Two memoirs on the electricity of elastic fluids, and on the source of the electricity of the atmosphere (1825). 6. A memoir on the determination of thermo-electric currents, and on a new method of determining the magnetic intensity of the earth. 7. A memoir on the temperatures at which different substances lose their magnetical properties, and on a relation which seems to exist between the magnetic appearances exhibited by these substances and the number of their constituent atoms (1829).—He has also published a "Traité de physique et de météorologie" (1825–30).

POUQUEVILLE (François Charles Hugues Laurent) was born in 1770, at Merlerault, in the French department of the Orne. After prosecuting his studies at Caen, he went to Paris to attend the lectures on medicine of the celebrated Dubois, whom he afterwards accompanied in the expedition to Egypt. The vessel which conveyed him, on his return to France, was captured by a Barbary corsair. He was taken to the Morea, and subjected to a severe imprisonment of ten months at Tripolizza. He was then removed to Constantinople, and there confined for two years in the castle of the Seven Towers. Restored at length to liberty, he returned to Paris in 1801, and took his degree of M. D. In 1805, appeared his "Voyage en Morée, à Constantinople, etc." (3 vols.) Napoleon appointed him consul at Janina, where he resided near the famous Ali Pacha, until the year 1815. He was then transferred to Patras; which post he quitted in 1817. In 1820–22, he published his "Voyage en Grèce" (5 vols.), a work which owed its success in part to the existing political

condition of the countries which he described, and in the preparation of which the author profited largely, without any acknowledgment, by the labours of former travellers. He partly recast it in his "Histoire de la régénération de la Grèce, comprenant le précis des événements depuis 1740" (1825, 4 vols.). He is the author, besides, of the "Histoire de la Grèce" in the *Univers pittoresque*; of several memoirs in the collection of the Academy of Inscriptions; and of numerous articles in the public journals.—M. Pouqueville died at Paris in 1838.

POZZO DI BORGIO\* continued to reside at Paris, as the ambassador of Russia, until the year 1835, when he was appointed to take the place of Prince Lieven, as Russian ambassador in England. This removal of Pozzo from Paris to London has been attributed by some simply to the desire of the government at St. Petersburg to have at the time a representative well skilled in all the arts of diplomacy at the court of St. James, and by others has been regarded as a sort of disgrace inflicted on him, by withdrawing him, contrary to his own inclination, from an official position and a place of residence to which he had become familiar, and which he had, indeed, come to look upon as his home for life. Accordingly, he remained in England little more than two years. He resigned his embassy in 1837, and returned to spend the remnant of his days, as a private individual, in the metropolis of France.—He died there on the 15th of February 1842.

PRADT.\* This fertile but superficial writer was, in November 1827, elected a member of the Chamber of Deputies from Clermont. He sat on the *côté gauche* until April 1828, when, dissatisfied with the little respect shown to his opinions, and despairing to make a prominent figure as a practical politician, he resigned his seat, and once more endeavoured to make himself conspicuous by his pen. He produced, in 1830, "Un chapitre sur la légitimité;" in 1832, "De la presse et du journalisme;" in the same year, "Du refus général de l'impôt;" in 1834, "De l'esprit actuel du clergé français," &c. All these, however, made very little impression on the public mind.—M. de Pradt died of an attack of apoplexy, March 18th 1837.

PRESBURG.\* Population in 1837 (exclusive of the garrison), 37,380.—The hall of the diet, or *Landhaus*, is a plain, unpretending edifice, both externally and internally. The two chambers, which constitute the Hungarian Diet, meet in apart-

ments furnished simply with long tables, round which are benches for the members, who speak, as in the British Parliament and the legislative bodies of the United States, from their places, and not, as in France, from a tribune. The members attend the Diet armed, in full national costume; and, since 1835, the debates have not been carried on in Latin, but in the Hungarian language. — Presburg is the residence of the archbishop of Gran, who is primate of Hungary. It has a Roman Catholic academy, and a Calvinistic lyceum, both possessing good libraries; a Catholic gymnasium, a Catholic theological seminary, a college for poor students, and various other public schools. A fine library, belonging to count Appony, is open to the public.

**PRESTON.\*** The population of this town has rapidly augmented. In 1831, it amounted to 33,871; and in 1841, to 50,073. It is not only one of the principal seats of the cotton manufacture of Great Britain, but it has an extensive manufacture of linen cloth, with numerous tanneries, iron foundries, and establishments for making machinery and other articles. There is also a fishery on the Ribble, which abounds with salmon, smelts, and eels. — There is an institution in Preston for the Diffusion of Useful Knowledge, which has a library of about 2500 volumes, and an excellent museum. Several libraries, besides, are open to all classes of the public.

**PRINCE** is a title varying very much in its signification in different countries. In England it is applied only to members of the royal family; and in no case, except that of the eldest son of the reigning monarch (prince of Wales), is it connected with a territorial distinction. In France, under the old régime, the title belonged only to certain families of high distinction, connected with the royal blood. It ranks in Germany below that of duke.

**PROFESSOR** is the recognised title, in all universities, of the public and authorized teachers in the various faculties.

**PRONY.\*** This eminent mathematician and natural philosopher died at Paris in the year 1839, at a very advanced age.

**PRUSSIA.\*** The population of Prussia in 1837, exclusive of the canton of Neufchâtel in Switzerland, was, according to Berghaus, 13,884,109. Of this number, 3,614,644 resided in the towns; and the rural population amounted to 10,269,465. The same author states the number of Protestants at 8,449,867; of Roman Catholics, at 5,285,815; of members of the

Greek church, at 1278; of Mennonists, at 14,495; and of Jews, at 183,154. In Pierer's "Universal-Lexikon" (2d ed.), the population of the entire monarchy was estimated to amount, at the close of the year 1844, to somewhat more than 15,500,000 persons. — Agriculture has of late years very much improved. Rye, which, with potatoes, constitutes the principal food of the poorer classes, is the grain most extensively cultivated. Large quantities of flax and hemp are raised; also chicory and beets, which last yield about a fourth part of the sugar consumed. Tobacco, hops, and madder, are likewise cultivated; and wine is made in the Rhenish districts. In 1837, the number of horses in the kingdom was 1,472,901; cattle, 4,838,622; sheep, 15,011,452; goats, 327,525; and hogs, 1,936,304. Of the sheep, 3,617,469 were pure merinos, and 7,165,068 half-bred: these fine kinds are principally in the provinces of Saxony, Silesia, and Brandenburg; and their wool forms the great staple of the kingdom. The small occupiers of land are for the most part proprietors; the larger owners generally cultivate their estates through stewards. — The Prussian monarchy is richer in minerals than might have been anticipated from the general flatness of its surface. Iron is the most generally diffused. It is very extensively wrought in Silesia, principally on account of the crown, but also by private individuals. The iron-works in the Rhenish provinces, near Dortmund, Solingen, Iserlohn, &c., and those near Schmiedeberg, Tarnowitz, Sprottau, &c., in Silesia, are very extensive. Coal is very abundant in the Rhenish provinces, Saxony, and parts of Silesia, and large quantities are annually produced. Salt, which is a government monopoly, is produced chiefly in Saxony, which province also yields considerable quantities of copper, and some silver. Silesia furnishes annually large quantities of zinc, lead, and tin; but the last-mentioned metal is partly, too, supplied by Brandenburg. Amber is principally found along the low narrow tongue of land between the Curische Haff and the Baltic Sea. — The most important manufacturing district of Prussia, and probably of the European continent, is in the Rhenish province, on the Wupper, having Elberfeld and Solingen for its principal towns. It is well supplied with coal and water-power; and the inhabitants are distinguished for their ingenuity and industry. The population of Elberfeld has increased during the present century from 11,720 to 38,162; and the progress of many of

the other towns and villages in the vicinity has been hardly less remarkable. Large quantities of silk and cotton goods, linens, &c., are manufactured in this district. Linens are also made for exportation in and around Hirschberg in Silesia, in Westphalia, and in Ermeland in E. Prussia. Very superior broadcloth is made at Eupen, Malmédy, Berlin, Aix-la-Chapelle, &c. The articles of hardware, cutlery, &c., made at Læriohn, Hagen, Solingen, Olpe, Essen, &c., enjoy a high reputation; but are inferior to the cast-iron articles, whether of fancy, ornament, or utility, produced at Berlin. These, as regards beauty and delicacy of execution, are unequalled by any made either in England or any other country. Porcelain, jewellery, watches, coaches, &c., are largely produced at Berlin and other towns. Beer is extensively brewed in all parts; and the consumption of spirits is estimated at the very extraordinary amount of 45,000,000 gallons a year. Vast quantities of books annually issue from the presses of Berlin and Halle. — The external commerce of the kingdom is likewise considerable, and rapidly increasing; though, since the establishment of the Customs' Union, its amount cannot be ascertained. It extends to almost all parts of Europe, and to America; but the chief intercourse is with the other German states, Great Britain, Russia, Sweden, Denmark, and the Netherlands. The imports embrace sugar, coffee, cotton wool, twist and stuffs, and English manufactures of various kinds, dyeing substances, spices, wines, salt, and coals. The exports consist principally of raw produce, mostly corn, wool, timber, zinc, flax, of hams and salted provisions, and bristles; the manufactured exports are chiefly linens, woollens, hardware, jewellery, watches, wooden clocks, Prussian blue, spirits, and beer. — The Prussian or German Customs' Union, or *Zollverein*, has for its object to assimilate, unite, and simplify, the fiscal arrangements of the numerous states of Germany. Though it naturally arose out of the advancing civilization of that country, it derived its immediate origin partly from the circumstances resulting from the European war. For a series of years prior to 1814, the "continental system" of Napoleon, and other hostile obstructions, by nearly excluding British merchandise, had the effect of creating and extending manufactures in every part of Germany. None of the tariffs of the different states being then prohibitory, except that of Austria, their manufactures became exposed, on the return of peace, to the crushing competition

of England, and great distress was produced, particularly in the Rhenish provinces, which had, at the same time, the vast markets of France withdrawn from them by their transfer from that power to Prussia. Influenced partly by the discontent of these provinces, and partly by the exclusion of all her leading staples, except wool, from the markets of Great Britain, Prussia, in 1818, issued a new tariff, which raised the duties on the imports into her dominions. This new tariff, however, though amply protective to her own subjects, aggravated the difficulties of the manufacturers of the smaller German states, whose products it excluded, and who also, shut out from France and Austria, and having their internal trade impeded by numerous and conflicting customs and transit regulations, were now each nearly confined to the narrow limits of their respective domestic markets. The distressed manufacturers naturally sought a remedy for these evils; and in 1819 an association was formed at Nuremberg, which, by its numbers and activity, succeeded in forcing the subject upon the attention of the German governments. Many negotiations took place: at length, in 1827, a Customs' Union was formed between Wurtemberg and Bavaria; next followed the treaty between Prussia and Hesse, in 1828; and about the same time, a third union, the *Mittel Verein*, took place between Saxony, Hanover, and some minor states. The former two were soon united by the exertions of Prussia; through whose influence likewise several states were detached from the *Mittel Verein*, which was afterwards dissolved. And in 1833, nearly the whole of the members of these unions were associated into one great league, the *Zollverein*, which came into operation January 1st 1834; and which, being joined in 1835 by Nassau and Baden, — in 1836 by Frankfurt, — in 1841 by Brunswick and Lippe-Schaumburg, — and in 1842 by Luxemburg, — now comprises the whole of Germany, except the parts subject to Austria, Hanover, Oldenburg, Mecklenburg, Holstein, and the Hanse Towns. By the convention of the *Zollverein*, all restrictions to communication and transit are removed, internal custom-houses abolished, and a common system and collection of export, import, and transit duties, established, to be levied at the exterior boundaries of the frontier states, and divided among the members of the league according to their population. A common system of weights and measures was to be provided for; and it was agreed that there should

be a meeting of representatives of the associated governments, in June of every year, at which the affairs of the league are to be discussed. The duration of the convention was provisionally fixed until January 1st 1842; but if not then terminated (by two years' previous notice), it

was to be considered as prolonged for 12 years, and so on, from time to time, for a further period of 12 years. The following table shows the area and population of the several members of the Zollverein, the amount of the duties raised, and the shares of the net receipts in the year 1841.

|                                                                 | Sq. Miles. | Population. | Duty levied.<br>Pruss. Doll. | Share of Net Rechs.<br>Pruss. Doll. |
|-----------------------------------------------------------------|------------|-------------|------------------------------|-------------------------------------|
| Prussia and the states which have come to an agreement with her | 100,126    | 15,189,031  | 14,701,855                   | 10,925,229                          |
| Bavaria.....                                                    | 31,859     | 4,375,566   | 1,681,171                    | 3,158,691                           |
| Saxony.....                                                     | 5,749      | 1,796,276   | 1,878,176                    | 1,889,727                           |
| Wurtemberg.....                                                 | 8,150      | 1,703,258   | 474,448                      | 1,991,234                           |
| Baden.....                                                      | 8,915      | 1,894,131   | 846,304                      | 936,847                             |
| Electorate of Hesse.....                                        | 3,853      | 666,280     | 408,673                      | 480,193                             |
| Grand duchy of Hesse.....                                       | 3,793      | 850,907     | 515,444                      | 637,415                             |
| Thuringian association.....                                     | 4,040      | 952,421     | 348,912                      | 666,418                             |
| Nassau.....                                                     | 1,750      | 396,095     | 35,141                       | 268,622                             |
| Frankfort on the Maine.....                                     | 92         | 66,338      | 1,026,460                    | 1,026,498                           |
|                                                                 | 174,627    | 27,142,223  | 21,915,944                   | 20,660,804                          |

Raw materials, and materials serving the ends of agriculture and manufactures, are admitted into the states of the Zollverein without any, or with very low duties. Thus, raw cotton, wool, coal, pig-iron, ores, raw hides and skins, potashes, turpentine, chalk, rags, manure, earthen, black lead, wood, seed, and such like articles, are exempt from duty; and low rates are imposed on twist and yarn, metals in the earlier progress of manipulation, and all articles to which more labour is to be applied. But the duties press heavily, or rather prohibitively, on articles entering into competition with the manufactures of Germany, which are generally of a coarse heavy kind. This is effected by the imposition of a fixed rate on the *weight* of the goods imported, without any reference to quality or fluctuation of prices; so that it falls lightest on fine goods, and heaviest on the common kinds. Estimated *ad valorem*, the duty on cotton varies in this way from 34 to 120 per cent., and on woollens from 20 to 50 per cent. The necessary operation of this system is the exclusion from the markets of almost all the commoner articles of foreign manufacture, that is, of all those largely consumed in Germany, for which a complete monopoly has been created in favour of the home producer. — One of the articles of the convention constituting the Zollverein, and the mention of which ought not to be omitted here, is that the tolls, or other charges in lieu thereof, shall, in all cases, whether they belong to the public or to private individuals, be limited to the sums required to keep the roads in a proper state of repair; and that the tolls existing in Prussia shall be considered as the highest that are to be levied, and shall not in any case be exceeded. This arrangement alone has

conferred a vast benefit on the people of Germany. — Of the different members of the Zollverein, Saxony is that which, on the whole, has profited most by the league; for in that country, manufacturing industry having been previously most developed, it had the vantage ground in competing with the others; and new and extensive markets were opened to her, and at the same time closed to a great extent against foreign rivals. Frankfort on the Maine is that which has experienced the least benefit from the league. Prussia, though the leading and most zealous member, is, in a financial view, situated less advantageously than she would have been, had her independent tariff been continued; many of her protected classes have likewise suffered from the competition of Saxony. This has led to a very general impression that the ostensible object of the Zollverein is not the only motive which has influenced that power, but that it has been in a certain degree influenced by political views, extending beyond the interests of the present day, and tending to its own aggrandizement. Indeed, political consequences of the greatest importance cannot fail to arise from the external relations of the league; since whatever so completely unites the interests of different bodies of people, must combine their policy, their diplomacy, and, in the event of danger, their strength. — Considering the extent of sea-coast possessed by Prussia, and the facilities for ship-building, the shipping is not very considerable. In 1833, there were 604 ships, in burden 73,696 lasts, of 4000 lbs. each. Stettin has the largest amount of shipping, and next to it Dantzick. Prussia has entered into reciprocity treaties with most foreign powers. — The "Prussian State Bank" issues



paper money, which circulates on a par with silver: it has offices at Berlin, Königsberg, Elbing, Dantzick, Stettin, Frankfurt on the Oder, Breslau, Magdeburg, Munster, and Cologne.—The net revenue of the government, in 1844, amounted to 57,877,194 *Thalers*; of which 48,860,000 *Thalers* were derived from imposts, and 4,090,163 *Th.* from the domains and forests. The expenditure was about the same, including for the army 24,604,208 *Th.*, and 7,253,920 *Th.* for the charge on the public debt, which amounted to 150,103,434 *Th.*—Among the improvements which have been introduced into the Prussian monarchy, since the year 1815, none is more striking than that of the roads and other means of communication between the different provinces. Previously to the year just mentioned, the roads in Prussia were, with few exceptions, about the very worst in Europe. They were, in fact, mere pathways, without any artificial construction; and owing to the loose sandy nature of the soil, the wheels not unfrequently sunk in them up to the axle, and the carriage was drawn rather through than over the ground. At present, roads constructed on the most approved principles, macadamized, and equal to any in England, reach from Berlin to all the most distant parts of the kingdom. Mail coaches, which travel at the rate of about 6 miles an hour, are established along the principal lines of road: they are under the direction of functionaries appointed by the government, and are well conducted; all travelling charges are regulated by a fixed tariff. Railways have been opened, and others are in the course of being constructed, or are projected (see *Germany*, Sup.) Owing to the flatness of the country through which they flow, none of the great rivers are interrupted by cataracts, and they are all navigable, the Rhine, Elbe, and Vistula, throughout their whole course in the Prussian dominions,—the Oder (for barges) as far as Ratibor in S. Silesia,—and the Pregel and Niemen to a considerable distance inland. The establishment of steam packets on these rivers, as well as the freeing of the navigation of the Rhine and the Elbe from the oppressive tolls and regulations by which it was formerly obstructed, have been of vast service to the country. Canals also exist, connecting the Elbe, the Oder, and the Vistula; so that goods may be conveyed, by their means, all the way through the interior of the country from Hamburg to Dantzick.—Prussia is, however, in no

respect more distinguished among the European nations than for the attention bestowed on the instruction of the different classes of the people. It can boast, indeed, of possessing a more perfectly organized and complete system of national education than had ever before existed in any country. This system derived its origin from Frederick the Great, who introduced it into Silesia, after the conquest of this province from Austria. From Silesia it has been gradually extended to the other provinces, and is now in full vigour in every part of the monarchy. It was brought to maturity under the auspices of the late king, Frederick William III. Attendance at school is *enforced by law*. Every child, whether male or female, rich or poor, must attend a public school, from the age of five years till such time as the clergyman of the parish affirms that the child has acquired all the education prescribed by law for an individual in its station: generally speaking, the school time extends from 8 to 14 years complete. Should a child not attend, its parents or guardians must satisfy the public authorities that it is receiving an appropriate education at home or in a private seminary. The school fees are exceedingly moderate; and the children of such poor persons as are unable to pay them, are instructed gratuitously at the public expense. Nothing has been neglected to render the instruction given in the schools as efficient as possible; and schools have been especially provided for the proper education of the masters, whose qualifications, besides, are tested by examinations before a competent board. No particular religious creed is allowed to be taught in any school; but on particular days, set apart for the purpose, the children are instructed by the clergymen of the different sects to which they belong. Their religious instruction is not, therefore, neglected; while the intermixture of the different sects from their earliest years, on a perfect footing of equality, removes all asperities and religious animosities. Besides the six universities of Berlin, Halle, Breslau, Bonn, Königsberg, and Greifswalde, and the semi-university of Munster, Prussia had, in 1844, 113 gymnasiums, several schools for the deaf and dumb and the blind, and a number of schools of a higher order, destined for the thorough education of young men for particular professions in life.—Although the king and royal family are Protestants, all denominations of Christians enjoy the same privileges, and are equally eligible to places of trust or emolument. The Protestant church is governed by *consistories*,

or boards appointed by the government, one for each province. The constitution of the Catholic church differs in different provinces. In the Rhenish provinces it is fixed by the concordat entered into between the French government and pope Pius VII. But in every part of the monarchy, the crown has reserved to itself a control over the election of bishops and priests. In the entire kingdom, there were, in 1837, 5740 ordained Protestant clergymen, and 140 assistant clergymen: there were, at the same time, 3510 Catholic priests, and 2033 vicars, chaplains, &c.; so that the proportion of Catholic clergymen rather exceeded that of Protestants. The incomes of the clergy of both sects mostly arise from peculiar endowments. Generally, government does not guaranty the stipend either of Protestant or Catholic clergymen; but in many parishes, the clergy enjoy a public provision from the state. This is especially the case in the Rhenish provinces, in virtue of the concordat already alluded to. Proselytism, whether by force or by persuasion, is prohibited by law; and all controversial sermons, or *peculiar* displays of religious zeal, would certainly attract the notice, and incur the displeasure of the authorities. With the exception of the Rhine province and a portion of Westphalia, perhaps there is in no country less of religious acrimony and contention than in Prussia.—The question as to a provision for the poor has only become of importance since the abolition of feudal vassalage, in 1810. Previously to that epoch, they were provided for by their lords. At present, poor persons, or those unable to provide for themselves, have a legal claim to support. But it is rarely necessary to resort to compulsory proceedings to enforce this claim, the really necessitous being generally provided for by voluntary subscriptions. There are work-houses in most large towns.—The Prussian army is stated to have consisted, in 1844, of 118,669 men, of whom 78,700 were infantry, 23,907 cavalry, and 13,826 artillery. This force is so organized as to admit, in the event of a war, of being promptly augmented to 217,720 men, of whom 138,650 will be infantry, 27,968 cavalry, and 45,000 artillery. This, too, does not comprehend the *gens d'armes* and the invalids, who amount to upwards of 5000 men more. The *landwehr*, or militia of the first class (see *Militia*), amounted, also, in 1844, to 93,442 men, and, on the war establishment, to 133,316 men. And as this portion of the *landwehr* is destined to be necessarily called into activity

on the occurrence of a war, the efficient military array of the Prussian monarchy may be estimated as exceeding the number of 350,000 men, of all descriptions of arms. Prussia has no navy.—Bordering, however, as the kingdom does on Russia, Austria, and France, each of them maintaining a standing army still more numerous than its own, the Prussian government has steadily aimed at the preservation of the peace of Europe. It has, since 1815, sought for no farther aggrandizement of territory, and has been content to extend its influence through the instrumentality of the Customs' Union. Occupied of late years with the negotiations necessary for the formation and extension of this commercial league, and with the improvement of the internal interests of the country, as well as, for a time, with an awkward ecclesiastical quarrel with the archbishop of Cologne and other Roman Catholic dignitaries, and another, in consequence, with the pope, the history of its proceedings has offered but few events to fix the attention of the general reader. Frederick William III., who enjoyed in a high degree the respect and affection of his subjects, notwithstanding his failure to realize the expectations held out to them of a representative constitution, died on the 7th of June 1840, and was succeeded by his eldest son, Frederick William IV. The new reign began with the pardon of a number of political refugees, and the appointment to professorships and to high stations in the administration of the government of several individuals distinguished for the "liberality" of their political sentiments. But although formally reminded by the States of East Prussia, assembled at Königsberg, September 7th 1840, of the promises made by his father, and again repeatedly reminded of them, since then, from other parts of his dominions, especially the Rhenish province, the new king has as yet not moved in the matter, and the government of Prussia still retains its despotic, or nearly despotic form. How long this state of things will endure, it is difficult to conjecture. The opinion, however, seems to be prevalent very generally that the concessions demanded cannot be much longer withheld. When the Prussian government is spoken of as a despotism in its outward form, it is proper to add that, in reality, there is, perhaps, no European (continental) government to which that term can be with less propriety applied. For though the king be all-powerful so long as his conduct is approved by the bulk of the people, he would, on the

contrary, be quite powerless were he to lose their confidence and support. The king of Prussia has no extrinsic resources, or peculiar interests, on which to fall back in the event of his becoming unpopular. There is neither a powerful church, nor a powerful aristocracy, in Prussia: the army, too, is merely a portion of the citizens; and where every man is educated and every man a soldier, the acts of the government cannot, speaking generally, be other than the acts of the public.—The following are the principal towns of the kingdom, with their population (exclusive of the military stationed in them) in 1837:

|                                |         |
|--------------------------------|---------|
| Berlin.....                    | 365,394 |
| Breslau.....                   | 88,869  |
| Cologne (including Deutz)..... | 69,051  |
| Königsberg.....                | 64,200  |
| Dantzick.....                  | 56,257  |
| Magdeburg.....                 | 51,344  |
| Aix-la-Chapelle.....           | 36,878  |
| Stettin (including Damm).....  | 33,736  |
| Posen.....                     | 32,456  |
| Barmen.....                    | 28,975  |
| Eiberfeld.....                 | 26,776  |
| Halle.....                     | 26,447  |
| Potsdam.....                   | 25,560  |
| Erfurt.....                    | 24,308  |
| Frankfort (on the Oder).....   | 23,378  |
| Crefeld.....                   | 23,006  |
| Düsseldorf.....                | 21,858  |
| Münster.....                   | 19,703  |

**PRUSSIC ACID.\*** The antidotes for prussic acid, where it has been taken as a poison, are solution of chlorine, by which it is chemically decomposed, and ammonia, which combines with it, and acts as a stimulant.

**PUBLICANS.** The farmers of the public revenue at Rome were so called. They formed two distinct classes; the farmers-general of the revenues, who were regarded as belonging to one of the most honourable grades of citizens,—and deputies, or publicans of an inferior caste, whose reputation was on a par with that of the most degraded portion of the community.

**PÜCKLER-MUSKAU** (Hermann Lewis Henry, prince of) was born at Muskau in Lusatia, October 30th 1765. After having been instructed for a time at a school under the charge of the Moravian brethren, he was placed by his friends in the "pædagogium" of Halle. From 1800 to 1803 he studied jurisprudence at the university of Leipsic. Soon afterwards, he entered the Saxon army. Dissatisfied, however, with the monotony of a military life in time of peace, he retired from the service with the rank of captain of cavalry. He then employed several years in travelling through Austria, France, and Italy. In 1811, on the death of his father, he succeeded to the castle and estate of Muskau.

There he resided during a year or more, directing his attention to the improvement and embellishment of his property, and enjoying the society of a select number of friends,—men of genius and refinement,—whom he induced to visit him. When the Russians, in the winter of 1813, penetrated into the north of Germany, he joined their army with the rank of major. He distinguished himself on various occasions, and was promoted to the rank of a lieutenant-colonel. On the conclusion of peace, he felt himself once more at liberty to consult his own tastes; and, resigning his commission, he paid a visit to England, and then returned to Muskau to resume his former mode of life there. He made, however, occasional excursions to Berlin and Dresden. At the former place, in 1817, he rendered himself conspicuous by ascending with a balloon, of which ascent he published an account. In the same year he married a daughter of the prince of Hardenberg, who had been divorced from her first husband, and who was also, after a period of 8 years, divorced from her second husband. Subsequently to this, prince Pückler-Muskau once more indulged his passion for travelling. He passed the years 1828 and 1829 in England. Thence he proceeded to Ireland, and next to France. From the latter country he embarked for Algiers in 1835. In 1837, we find him in Egypt and in Greece, whence he did not return to his own country till 1840. His winters have been since spent in Berlin, and his summers at Muskau.—Prince Pückler-Muskau is most extensively known by the account published by him of his travels in England, Ireland, &c., above mentioned, a work in which he has depicted the manners of the aristocracy and of fashionable life, with great freedom and sprightliness. Among his other literary productions, may be mentioned his "Tutti Frutti," a miscellany, containing observations made by the author during his wanderings in France and Germany, his reflections on various subjects, an account of his æronautic excursion at Berlin, &c. The "Next to the Last (*Vorletzten*) Journey of Semilasso" describes his residence in Algiers. And the "Rambles of a young man" (*Jugendwanderungen*) relate his travels in France and Italy.

**PUSCHKIN** (Alexander, count Mussin), a distinguished Russian poet, was born on the 26th of May 1799, and at 13 years of age was a pupil in the lyceum of Tsarskoselo, at which time he produced his first poem, entitled "Reminiscences of Tsar-

koselo." The commendation which it received determined the future direction of his mind. His productions, consisting mostly of odes and satires, were, for a time, strongly impressed with liberal sentiments. An ode to "Liberty" is said to have caused his removal from St. Petersburg, where he had resided since he left the lyceum. The emperor Alexander, however, who was partial to him personally, appointed him to an office in the southern part of the Russian empire, which afforded him the opportunity of visiting the Crimea, the Caucasus, and other portions of that extensive region. On the accession of Nicholas, he was once more allowed to reside at St. Petersburg, or anywhere else in Russia that he might think proper. It was also intimated to him, as an encouragement to pursue his literary avocations, that his writings should be thenceforth subjected to no other censorship but that

of the emperor himself. In 1828, he accompanied General Paskévich, as a volunteer, in his march into Asiatic Turkey, visiting, in the course of the expedition, Georgia, Armenia, and the neighbouring countries. After this, he scarcely ever quitted St. Petersburg. Having been appointed historiographer of the crown, it became the chief aim of his subsequent writings to defend and celebrate the honour of his country. The last years of his life were particularly employed in collecting materials for an elaborate account of the reign of Peter the Great.—He died, in February 1837, from a wound received in a duel with his brother-in-law, an officer of the imperial guards.—A splendid edition of his works, consisting, besides his satires and odes, of some narrative poems, a tragedy, and several novels, was published, by order of the emperor Nicholas, in 1837–38.

## Q.

QUATREMÈRE (Étienne Marc), one of the most eminent oriental scholars of the present age, was born at Paris, July 12th 1782. Being placed in very narrow circumstances by the death of his father, in the year 1794, he applied himself at first to the study of the exact sciences, with the hope of gaining admission to the Polytechnic School. He was, however, soon induced to abandon this design; when he turned his attention to the study of the oriental languages. It was not long before he obtained an honourable rank among scholars, by his "Recherches critiques et historiques sur la langue et la littérature de l'Égypte." In 1809, he was appointed professor of Greek literature in the Faculty of Letters of Rouen. In 1811, he published "Mémoires géographiques et historiques sur l'Égypte et sur quelques contrées voisines," and in the following year a supplementary volume, under the title of "Observations sur quelques points de la géographie de l'Égypte." These productions opened to him the doors of the Institute. He was chosen a member of the Academy of Inscriptions and Belles Lettres in 1815. Four years later, he was appointed professor of the Hebrew, Chaldaic, and Syriac languages, in the College of France, and, in 1832, succeeded M. de Chezy in the professorship of the Persian language and literature, in the School of Oriental Living Languages.—M. Quatremère is one of the contributors to the

"Collection orientale," in which he has published the first volume of "Reshid ed Dins' "History of the Mongols of Persia," accompanied by an excellent French translation and valuable notes. He has also translated from the Arabic the "History of the Mamelouk sultans of Egypt" of Makrizi, and the "Historical Prolegomena" of Ebn Khaldoun. And he has, besides, enriched the principal European journals devoted to oriental literature with a number of valuable articles; not to mention his communications, from time to time, to the memoirs of the Institute.—M. Quatremère is said to have collected the materials of a dictionary of the Arabic, Persian, and Turkish languages, on the plan of Stephens and Ducange; and to have in manuscript Syriac, Coptic, and Armenian lexicons.

QUEBEC.\* Population in 1842, 31,800.—The conveyance of emigrants to Quebec constitutes an important branch of the trade between Great Britain and Canada. In 14 years, ending with 1842, the number of persons of all descriptions who arrived in this city amounted to 366,181; of which number 96,324 were from England and Wales, 222,415 from Ireland, 42,424 from Scotland, and 4518 from New Brunswick and Nova Scotia and ports on the river St. Lawrence. Only 500 arrived from ports on the continent of Europe. This immense mass of emigrants proceed principally to Upper Canada, whence a con-

siderable portion of them find their way into the United States.—The imports into Quebec have of late years been very much augmented. In 1839, 1175 ships, with an aggregate burden of 363,844 tons, arrived there. The St. Lawrence is seldom frozen over below the city; but the masses of floating ice, kept in constant agitation by the flux and reflux of the tide, render its navigation impracticable from the end of November, or beginning of December, to some time in the month of April.

QUETELET (Lambert Adolphe) was born at Ghent, in the Netherlands, in February 1796, and received his education in the university of that city. Through the recommendation of the mathematician Garnier, whose personal acquaintance he had the good fortune to make, he was, at a comparatively early age, appointed professor of the mathematical and physical sciences in the Athenæum of Ghent. He next became the director of the observatory there, a post which he yet occupies. He is the author of various scientific papers that have appeared in the *Memoirs of the Brussels Academy*, of which learned association he is the perpetual secretary, or in the "*Correspondance mathématique et physique*," edited at first conjointly with Garnier, and subsequently by himself alone. But he has also published a number of popular works on science which are very meritorious in their way, and have passed through several editions. The works referred to are his "*Astronomie populaire*" and "*Astronomie élémentaire*," the "*Résumé d'un cours de physique générale*," his "*Physique populaire de la chaleur*," his "*Instructions populaires sur le calcul des probabilités*," &c.—The attention of M. Quetelet has latterly been very much directed to statistical inquiries. These have been prosecuted in a philosophical spirit, and with a constant reference to utility in the conclusions to be arrived at. His statistical works are the following:—"Recherches statistiques sur le royaume des Pays Bas;" "*Recherches sur la loi de croissances de l'homme aux différents ages*;" "*Recherches sur le penchant au crime aux différents ages*;" "*Recherches sur la reproduction et la mortalité de l'homme aux différents ages*;" and the most important of all, that entitled "*Sur l'homme et le développement de ses facultés, ou essai de physique sociale*" (2 vols., Paris, 1835).—M. Quetelet is at present editor of the "*Annuaire*" and the "*Annales de l'observatoire*" of Brussels.

QUINET (Edgar) was born at Bourg, in the French department of the Ain, in

February 1803. His father was a Frenchman and a Roman Catholic; his mother a native of Germany and a Protestant. He received an education preparatory to being admitted into the Polytechnic School. But his admission to it being postponed unexpectedly, on account of the extraordinary number of candidates who presented themselves, his friends procured for him at Paris an appointment (*surnuméraire des finances*) in the financial department of the government. The duties assigned him were of a nature far from being congenial with his tastes, and left him no leisure for the prosecution of literary pursuits. He accordingly resigned the appointment, and engaged in the study of the law, while at the same time occupying himself much with literature. Immediately after being admitted to the bar, he commenced his career as an author by the publication of a small work called the "*Wandering Jew*." His health having suffered from long-continued mental application, he travelled for the restoration of it, first to England, where he changed his intention of coming to the United States, and next to Germany, for the purpose of completing with advantage a translation into French of Herder's "*Ideen zur Philosophie der Geschichte der Menschheit*." At Heidelberg he remained for more than a year (1827-28), enjoying the advantage of daily intercourse with Creuzer and other eminent German scholars. Here, too, an earnest desire to visit the classic land of Greece was excited in him by the literary atmosphere in which he lived. He wrote, accordingly, to M. de Martignac, then at the head of the administration in France, suggesting to him the plan of a scientific expedition to the Morea. The expedition, as is well known, took effect; and M. Quinet was selected by the Institute to be one of its members. On his return to France, he published his work "*De la Grèce moderne et de ses rapports avec l'antiquité*." He visited Italy during the years 1830-31, to collect materials for a treatise on the fine arts which he projected, and then went once more to Germany, where he continued for several years, chiefly at Heidelberg. In 1839, he quitted that city to become a professor in the Faculty of Letters at Lyons; and towards the end of 1840, he was invited to Paris to fill the new chair of the Literature of the South of Europe, in the College of France. His inaugural lecture, the subject of which was the Revival of Letters and Italian civilization, was delivered in the beginning of 1842.—Besides the works already mentioned, M. Quinet

is the author of a "rapport" made to the French minister of the Interior "sur les épopées françaises du XII<sup>e</sup> siècle" (1831); the "poem in prose" of "Ahasvérus" (1831); the "poems in verse" of "Napoléon" (1836), and "Prométhée" (1838); "L'Allemagne et l'Italie," a poetical narrative of his travels in those countries; &c. He has also contributed a great number of valuable and interesting articles to the "Revue des deux mondes." And very lately he has distinguished himself as one of the prominent champions of the University in its contest with the clergy or the "Jesuits," on the question of the liberty of instruction claimed by the latter.

QUINTANA (Manuel Jose) was born at Madrid in 1772. He received his preparatory education in that capital, and then prosecuted his studies at Cordova and Salamanca. The profession which he had chosen for himself was that of the law; but he was diverted from the practice of it by the various public offices to which he was successively appointed. He took an enthusiastic part on the side of the Spanish patriots in their contest against Napoleon, for the establishment of their national independence; and, during its continuance, he drew up most of the proclamations and manifestos issued by the Cortes, wrote a number of patriotic songs, and, besides editing a literary journal, he contributed largely to a political one. For these services rendered by him to his country, when Ferdinand VII. resumed his absolute authority in 1814, Quintana was thrown into prison; whence he was only

liberated by the revolution of the Isle of Leon, in 1820. He again filled different public offices, until the events of the year 1823 obliged him to consult his safety by retiring to his estate in Estremadura. In 1828, he received a formal permission from the government to return to Madrid. He was, in the following year, named to be one of the "proceres" of the kingdom and a member of the council of state; and, subsequently, he became a senator, and secretary of the senate. — Quintana published a volume of lyrical poems in 1802. The best and most complete edition of his poems, however, appeared in 1825, under the title of "Poesias inclusas las patrióticas y las tragedias: El duque de Viseo y El Pelayo" (Madrid, 2 vols. 1821). As an editor, he has distinguished himself by the publication of the "Poesias selectas castellanas desde el tiempo de Juan de Mena hasta nuestros dias" (Madrid, 3 vols. 1808; 2d ed., much enlarged, 4 vols. 1830), accompanied by biographical and critical notices, and by the publication also of select specimens from the Spanish epic poets (2 vols. 1833). And besides being one of the most popular poets of his country, he has earned for himself, by the publication of his "Vidas de españoles célebres" (1st vol. 1807; 2d and 3d vols. 1830–33), the reputation of being one of her best prose writers.

QUIROGA.\* From 1830, with the exception only of a few months of the year 1836, when he held the appointment of Captain-General of Arragon, General Quiroga lived in retirement, till his death, which took place at St. Jago in 1841.

## R.

**RADIATION.** The sun and all luminous and heated bodies produce sensible effects at a distance; and these are of various kinds, although in the present state of science they are all referred to four distinct principles, which have received the names of the *luminiferous*, the *calorific*, the *chemical*, and the *phosphorogenic* radiations.—1. The phenomena of the luminiferous radiation have been sufficiently described under the heads of Light, Optics, Polarization, &c., in the preceding volumes of this Encyclopædia; and the additions which have been made to this branch, since the publication of those volumes, are not of much popular interest.—2. The additions, however, which have been made to our knowledge of the calorific radiation, or, in other words, to the subject of radi-

ant heat, are highly important. The labours of Melloni, Forbes, and others, with the aid of the delicate thermo-electrical apparatus, have shown that there is as great a diversity in the rays of heat as in those of light. Bodies, at different temperatures, emit rays of heat possessing different physical properties, which are manifested by their different capacities of penetrating different substances. Thus, of 100 rays of heat from the flame of a lamp, 54 are transmitted through a plate of glass of a given thickness; while out of the same number of rays from copper heated to 732 degrees of Fahr., only 12 pass through the same glass; and from the same piece of metal heated to 212 degrees, not a single ray is transmitted. The heat from the sun principally consists of rays of the

greater penetrating power, although it contains a small quantity of those of the opposite kind. It is also found that the heat which has passed through one plate of glass loses a less per centage by absorption in passing through a second plate. The permeability of different substances for light and heat are very different; a plate of black glass, perfectly opaque, will transmit a considerable portion of heat; while, on the other hand, a plate of perfectly transparent alum stops all the rays of heat from a source of low temperature. The substance which intercepts the least amount of heat is transparent rock-salt; and hence lenses of this substance are used instead of those of glass for concentrating rays of heat. It is also proved that the rays of heat are capable of single and double refraction, dispersion, and polarization, and, in short, that they possess all the mechanical properties of the rays of light.—3. It has long been known that the rays of the sun possess the power of producing chemical transformations. If moist chloride of silver be exposed to the different parts of a spectrum, produced by passing a solar beam through a prism, it will be more rapidly darkened in the violet than in the red ray; and the effect will also be produced in the space occupied by an invisible ray beyond the violet. But the most interesting discovery in reference to the chemical emanation, is that of M. Daguerre, of fixing the picture of the camera obscura. For this purpose, a plate of silvered copper, highly polished on the silvered side, and cleansed from all grease or foreign matter, is held for a short time over the vapour of iodine, which combines with the metal, and forms over the surface a film of iodide of silver. The plate thus prepared is transferred to the camera; and the image of an external object, produced by an achromatic lens, is thrown upon it; the chemical radiation from the object decomposes the iodide at the points where the light is most intense, and leaves the silver in its metallic state. The plate is next submitted to the vapour of mercury, which condenses, in the form of very minute globules, on the places where the iodide has been decomposed; and when the remaining iodide is washed off by a solution of hyposulphite of soda, the parts which had been exposed to the more intense radiation are marked by the white appearance of the globules of mercury, which thus form the light parts of the picture, while the parts which had been less acted on by the chemical rays exhibit, in greater or less degree, the original dark

polish of the silver, and thus produce the darker shades of the picture. The impression is rendered permanent by coating the surface of the plate with a very thin transparent film of gilding, which is applied in the liquid way. The chemical radiation, like that of the calorific, possesses the mechanical properties of reflection, refraction, dispersion, &c.—4. When a diamond is exposed to the direct light of the sun, and then removed to a dark room, it is observed to shine with a pale bluish light, which has received the name of phosphorescent. The same effect is produced by exposing the diamond to the radiation from a spark of electricity, produced by the discharge of a Leyden jar. Although that which renders the diamond visible in the dark is ordinary light, yet the emanation from the spark which is the exciting cause of the luminousness, is not itself light, but a peculiar radiation, differing in its physical properties from the other emanations we have mentioned. That it is not light, is readily proved by the following experiment of Becquerel and Biot. Two diamonds being equally exposed to the emanation from the same electrical spark, the one being placed under a thick plate of glass, and the other under a plate of transparent quartz, after the discharge of the jar the diamond under the quartz is observed to glow as brilliantly as if nothing had been interposed between it and the spark, while that under the equally transparent plate of glass exhibits little or no sign of a similar excitement. The emanation, therefore, which produces the glowing, cannot be light, since it does not penetrate glass, although it is readily transmitted through quartz. For the same reason, it is not identical with the chemical emanation; and it also differs from heat in not being screened by a plate of alum. It however agrees with the other emanations in possessing the mechanical properties of reflection, refraction, polarization, &c.—The effects of the several radiations we have described cannot be referred, as has sometimes been supposed, to a simple action at a distance, like that of gravitation, or magnetic attraction and repulsion. The phenomena are essentially different. Gravitation, for example, is an instantaneous action between bodies at the greatest distance from each other, while, in the phenomena of light, time is required to transmit the action of something through the intervening space. Again, the action of this something, whether it be matter or motion, is not continuously uniform, but consists of a combination of direct and

lateral motions, such as can be best represented by the undulations which pass along a tended cord, agitated at one end. Such a motion cannot be referred to the ordinary laws of mechanics, unless we assume it to take place in a highly elastic medium, consisting of inert particles held in a state of normal equilibrium by attraction and repulsion. The simple explanation of all the phenomena we have mentioned, is to refer them to different undulations in a medium of this kind, which fills celestial space, and exists between the particles of gross matter. The adoption of this hypothesis has not only given a rational explanation of the phenomena previously known, but has also led by logical deductions to some of the most interesting physical discoveries of the present century. According to this hypothesis, which, from the precision with which it represents the phenomena, is now called a theory, the different colours of light are due to undulations of different lengths, continually excited in the medium by the constant agitation of the particles of the luminous body. In order to explain the phenomena of polarization, we are obliged to admit that the vibrations are like those of a stretched cord, namely, at right angles to the direction of propagation of the wave; a polarized beam, according to this conception, is one in which all the vibrations are turned into the same, or parallel planes. A beam, thus constituted, will more readily be transmitted through crystals in some directions than in others, and will exhibit different physical properties on different sides. It is evident, however, since all the emanations exhibit similar mechanical actions, that whatever hypothesis we adopt for the explanation of one of them, must be applied, with proper modifications, to the others. We may suppose the difference between them to consist in different lengths of vibrations, and also in the form of the undulations. The remarkable fact discovered by Fresnel, that two rays of light can be so thrown on each other as to produce darkness, is apparently entirely incompatible with the supposition of the materiality of light; while it is a logical consequence of the theory of undulations. It is probable that an analogous fact will be established in reference to each of the other radiations; and, indeed, Professor Henry of Princeton has lately found indications of a reduction of temperature in the case of the interference of two rays of heat.

RAFN (Charles Christian), born in 1795 at Brahesborg in the island of Funen, in

Denmark, is at present a professor in the university of Copenhagen, and has distinguished himself by the attention with which he has studied the subject of the antiquities of the north of Europe. Among a number of memoirs and other works published by him, some of them under the auspices of the Society for Northern Antiquarian Researches, which was founded by him in 1825, may here be mentioned, as the most remarkable, his "Antiquitates Americane" (Copenhagen, 1837. 4to.). It consists of a selection from the writings still extant of the northern historians in the original Icelandic, accompanied by a Latin and a Danish translation, together with explanatory dissertations and remarks. The editor regards the testimony rendered in this volume as establishing conclusively the fact, often before confidently enough asserted without the requisite proof, that the ancient Scandinavians discovered America in the 10th century, and several hundred years, therefore, before the voyage of Columbus. But farther, he thinks that there is now no longer any doubt of their having, from the 11th to the 14th century, repeatedly visited the coasts of N. America, and even established settlements in the territory of the present states of Massachusetts and Rhode Island. Another publication, closely connected with the preceding, is the "Historical Monuments of Greenland," issued by Rafn conjointly with Finn Magnusen (Copenhagen, 1838. 2 vols.)—In addition, too, to his literary labours, Rafn has rendered himself conspicuous in effecting the establishment of public libraries in Iceland, in the Faroe Islands, and in the Danish colony of Godthaab in Greenland.

RAGUET (Condy) LL.D. was born in Philadelphia, on the 28th of January 1784. He was the only son of Claudius Paul Raguet, an enterprising French merchant, who arrived in the United States during the revolutionary war, and married and settled in Philadelphia. Mr. Raguet, as he has often been heard to say, was the first son of a Frenchman born in Pennsylvania. He passed through his college studies in the University of Pennsylvania with some distinction, as a Latin and Greek scholar, and in after life so far kept up his acquaintance with these languages as, to use his own observation, "to have a good command of the Greek Testament, of which he daily read a chapter, and occasionally also to apply himself to the best Latin authors." After leaving the University, he read law for about 18 months, with his maternal uncle, Mr



Jonathan W. Condy, at that time a successful practitioner at the Philadelphia bar, but better known as the first clerk of the United States House of Representatives, in the Congress then sitting in Philadelphia.—Mr. Raguet, owing to the reduced pecuniary circumstances of his mother, (his father having died in France, in 1793,) was obliged, about the year 1802, to give up the study of the law, and was placed in the counting-house of a respectable merchant, with whom he continued to the end of 1803, actively and assiduously devoting himself to business, and enjoying the confidence of his employer. Young as he then was, not being quite twenty years of age, a voyage to the West Indies, as supercargo, was offered to him. He accepted it, and entered on a commercial career, which he pursued in after life with systematic diligence, steadiness, and probity.—Cape François, in the island of St. Domingo or Hayti, the first port he visited, was then in the possession of the recently emancipated negroes and mulattoes, under a military government. Having a vigorous and active mind, with an ardent temperament, and all the advantages of a liberal education, the opportunities for observation which this visit afforded Mr. Raguet were soon turned to profitable account; and after remaining at Cape François about four months, he published in one of the Philadelphia journals, on his return to the United States, what he styled “A Short Account of the present State of Affairs in St. Domingo.” This was his earliest literary production given to the public.—In the latter part of the year 1805, Mr. Raguet once more visited St. Domingo, and remained nearly eight months at Cape François, chiefly occupied with commercial affairs, but always finding time to note down the interesting events daily passing under his eyes. Constant intercourse, and even intimacy with the principal officers of the government, enabled him to collect much valuable information relative to the state of the island; and, on his return home, having also had access to the best published accounts of St. Domingo extant, he published a memoir, entitled “A Circumstantial Account of the Massacre in St. Domingo, in May 1806.”—His contributions to the public journals were so well received, that, between the month of June 1809 and that of January 1812, he contributed to the “Port Folio” a regular series of papers, under the title of “Memoirs of Hayti,” which embodied a more detailed history of the revolution and inde-

pendence of the island of Hayti than had yet been given to the public.—In the year 1806 he embarked in commercial business in Philadelphia, and for many years afterwards found himself fully and prosperously occupied in its pursuit. He enjoyed the respect and confidence of his fellow-citizens, and was selected by them for the discharge of various important civic trusts. He was one of the founders, and a manager, of the Philadelphia Savings' Fund Society; and he became president of the Pennsylvania Life Annuity Company, and also president of the Philadelphia Chamber of Commerce.—During the war of 1812 with England, Mr. Raguet took an active part in the measures adopted for the defence of Philadelphia. He was elected captain of a company of volunteers, and, in the summer of 1813, performed a tour of duty with this and other companies, which were embodied for the protection of Philadelphia and its neighbourhood. In August 1814, a large force was raised for the defence of the shores of the Delaware, when he was elected and served as a lieutenant-colonel in one of the volunteer corps.—In 1815, Mr. Raguet was chosen a member of the House of Representatives, and afterwards a member of the Senate, in the State Legislature. During his whole legislative career, of 6 years, he enjoyed the confidence of his constituents, and established for himself a high reputation for statesmanship. Although never considered an orator, or even a leader in debate, the information he possessed, and the calm and modest manner in which he communicated it, secured for his speeches not only the ear of the House, but an attention that gave them great weight. Moreover, his uniform mildness of demeanour, and polished courtesy towards all, everywhere made him friends, without in any way impairing a firmness of purpose, which proved the sincerity and directness of his objects. He enjoyed the confidence and support of his political friends, without embittering the feelings or exciting the hostility of his political opponents. His reports to the Legislature, from various committees, furnish the best evidence of his ability as a statesman.—In the spring of 1822, Mr. Raguet was appointed by president Monroe consul at Rio Janeiro, in Brazil, where he arrived on the 8th of September following. Shortly afterwards, our government intrusted to him the negotiation of a commercial treaty with that country; and Mr. J. Q. Adams, then secretary of state, was so well satisfied with the ability with which he had

conducted the negotiation, that, when the treaty was ratified by the two governments, he was appointed, upon Mr. Adams's subsequent elevation to the presidency, to be the first *Chargé d'Affaires* of the United States to Brazil. He remained there about 5 years; and his conduct as a diplomatist was noticed by the president, in his message to Congress, of December 4th 1827, with much approbation.—During Mr. Raguet's absence from the United States, he was elected a member of the American Philosophical Society; and a short time after his return home the degree of LL.D. was conferred upon him by St. Mary's College in Baltimore.—After his return to the United States, Mr. Raguet became the editor of several journals devoted to the advocacy of the doctrines of free trade; which he believed, in their practical application, to be essentially conducive to the prosperity of his own, as of every other country. These works were:—the "Free Trade Advocate" (Philadelphia, 1828-29); the "Banner of the Constitution" (Washington, 1830-31-32); the "Examiner and Journal of Political Economy" (Philadelphia, 1833-34-35); and the "Financial Register" (Philadelphia, 1837-39). He also published a treatise on "Currency and Banking" (Philadelphia, 1839), which was republished the same year in London, and also translated into French by M. Lemaitre (1840). He will always be ranked among the distinguished American political economists. He urged his views with clearness, simplicity, and force, and made numerous converts to the doctrines which he taught.—Mr. Raguet died in Philadelphia, on the 22d of March 1842, in the 50th year of his age.

**RAISINS** (dried grapes) are distinguished by the places where produced or exported,—as Malaga, Valencia, and Smyrna; or from the variety of grape or mode of preparation,—as muscatels, blooms, sultanas, lixias, and raisins of the sun. The latter are dried by solar heat alone; inferior kinds are dried in ovens; but the most common way is to dip the grapes in a hot lixivium of water and wood ashes (those of the vine branches or tendrils being preferred) and a little olive oil, and afterwards expose them to the sun. In the ley used for the Valencia lixias, a little slacked lime is also used. The finest in quality are the Malaga muscatels; the lowest, the black Smyrna raisins.

**RAMAYANA** is the oldest of the two great Sanscrit epic poems, and describes the life and actions of the hero Rama and his wife Sita, and especially Rama's expedi-

tion to Ceylon to rescue Sita from the tyrant Rawana. The poem is thought to have been composed before the Christian era; but there is no certain indication of its age. A translation of it was begun by Messrs. Carey and Marshman (printed at Serampore), and another by A. W. v. Schlegel (Bonn, 1829).

**RAMBERG**\* died in 1840.

**RAMMOHUN ROY**\* was received in England with every mark of distinction and respect. His attainments, philanthropy, and pleasing manners, rendered him a welcome guest in every kind of assemblage, religious, political, literary, and social. His advice, too, was sought by the government on topics connected with India. He died at Bristol in 1833.

**RANDOLPH** (John), or, as he was in the habit of styling himself, John Randolph of Roanoke, was born in June 1773, in Chesterfield county, Virginia. His father was a highly respectable planter of that state; and he was descended in the 7th degree from Pocahontas, the daughter of the Indian chief Powhatan,—a descent which he always took great pride in claiming. He lost his father when he was an infant; and his mother contracted a second marriage when he was only 10 years of age, with Judge St. George Tucker, who became his guardian.—Mr. Randolph, according to his own account, laboured under very great disadvantages in his preparatory education. When, at length, sufficiently advanced in his studies, he went first to Princeton College, then a short time to Columbia College in the city of New York, and afterwards to William and Mary's, in his native state. When he had completed the usual course of study in the literary department of the last-mentioned institution, he attended there a course of lectures on law; and he next proceeded to Philadelphia, in 1798, to prosecute his legal studies in the office of his uncle, Mr. Edmund Randolph, who, in the following year, was appointed to the office of secretary of state.—But Mr. Randolph never engaged in the practice of the profession which he had chosen. In 1799, three years only after his return to Virginia, he was elected to represent the inhabitants of the district in which he resided in Congress, which was a field far better suited than the bar for the exercise of his peculiar mental qualities. He was a member of the House of Representatives during the long period of 30 years, with the exception only of three intervals of two years each, in one of which (1825-27) he represented Virginia in the Senate of

the United States. He was a member of the convention which met at Richmond to revise the constitution of Virginia, in October 1829. In the course of its proceedings he spoke but once, and voted, in every instance, against the proposed innovations on the existing constitution. General Jackson appointed him, in 1830, to be minister to Russia; but his stay at St. Petersburg was extremely short. Having accepted of his appointment on condition that, if his health required it, he might spend the ensuing winter in the south of Europe, he had scarcely been presented to the emperor when he quitted the Russian capital. Instead, however, of proceeding, as had been his original intention, to the shores of the Mediterranean, he retraced his steps to England, and thence embarked for America. On his return home, he was once more elected to Congress. His health had long been declining, when, being on his way to embark from New York for Europe, in hope of receiving benefit from the voyage, he died at Philadelphia, on the 19th of May 1833.

—From the period of his entering on public life, in 1799, until the spring of the year 1806, Mr. Randolph acted a conspicuous and a leading part in the ranks of the "republican" party. The occasion on which he first withdrew his support from Mr. Jefferson's administration, was on the resolution offered by Mr. Gregg for the non-importation of goods from Great Britain and Ireland. He was a vehement opponent of the measures of Mr. Madison while president. He was in favour of the election of Mr. Crawford to the presidency, in 1825; and, in 1829, was warmly enlisted in behalf of General Jackson, as a candidate for that office in opposition to Mr. J. Q. Adams. — Mr. Randolph's speeches have been more fully and correctly reported, and have been more generally read, than those of any other member of Congress. In a notice of him in the "New York Journal of Commerce," the following account of his eloquence is given. "He never spoke without commanding the most intense interest. At his first gesture or word, the house and galleries were hushed into silence and attention. His voice was shrill and pipe-like, but under perfect command; and, in its lower tones, it was music. His tall person, firm eye, and peculiarly 'expressive fingers,' assisted very much in giving effect to his delivery. His eloquence, taking its character from his unamiable disposition, was generally exerted in satire and invective; but he never attempted pathos without

entire success. In quickness of perception, accuracy of memory, liveliness of imagination, and sharpness of wit, he surpassed most men of his day; but his judgment was feeble, or rarely consulted." The same writer adds respecting him, that "he was capable of kindness, generosity, and courtesy. He was a kind master, a good neighbour, and, amongst his immediate constituents, was even popular. His friends have said that he possessed a deep vein of piety, which was, on some occasions, strongly developed. One of his most striking characteristics was, perhaps, his economy, which he rigidly practised, and, both in public and private affairs, diligently inculcated."

RANKE (Leopold), a professor in the university of Berlin, and one of the most eminent living historians of Germany, was born at Wiehe, in Thuringia, on the 21st of December 1795. Having been educated with a view to make the business of teaching his profession for life, he accepted, in 1818, the appointment of principal instructor in the gymnasium of Frankfort on the Oder. Here he devoted his leisure to historical studies. The first-fruits of these (1824) were a history of the people of Roman and Germanic descent (*Geschichte der romanischen und germanischen Völkerschaften*) from 1494 to 1535; which was speedily followed by an essay "On the Later Historians" (*Zur Kritik neuerer Geschichtschreiber*). Though these works were severely criticised in some of the German journals, they procured for him in 1825 an "extraordinary" professorship in the university of Berlin. Not long after his arrival in that city, he was permitted to absent himself for a time from his post, and was furnished by the Prussian government with the pecuniary means necessary for travelling in Germany, France, and especially in Italy, to collect materials in the libraries of those countries for additional historical works which he had projected, relating to the 15th, 16th, and 17th centuries. The first of these works appeared in 1827, under the title of "History of the Princes and People of S. Europe in the 16th and 17th centuries," in which the affairs of Turkey and Spain are presented in quite a novel light. But however remarkable this work might be, it was far surpassed in importance by the "History of the Popes during the 16th and 17th centuries" (1834-36, 3 vols., 2d ed. 1837-39). Next came the "History of Germany during the period of the Reformation." And to these works, all of which have at-

tracted general attention, in other countries as well as in Germany, are to be added the "Conspiracy at Venice in 1688" (1831); the "Servian Revolution" (1829), the result of a visit which he made to Servia; numerous articles published in the "Historico-Political Gazette," a journal established and edited (1831-36) by Ranke, together with others inserted in the "Annals of the German Empire, under the House of Saxony" (vols. 1-3, 1837-40); and lastly, a dissertation, read by him to the Academy of Sciences of Berlin, on the "History of Italian Poetry."—The productions of Ranke are defective in their proportions. To one, indeed, not already, in a certain degree, familiar with the events of the times to which they relate, they cannot fail to appear often obscure and unsatisfactory, on account of the haste and carelessness with which he treats of matters already exhibited with sufficient ability and correctness by other authors; and which he even supposes his readers to be sometimes so well acquainted with, as to allow of his passing them over altogether without notice. Nevertheless, the extent of his researches, the honest and skillful use which he has made of his materials, and the interest of his narrative, have placed him in the first rank of the living historians of Germany.

RAOUL-ROCHETTE.\* This distinguished archæologist travelled through Italy and Sicily in 1826-27, examining the monuments of antiquity which they contain, with the eye of an artist. A new impulse was thus given to his labours. In 1828, he published the "Monuments inédits d'antiquité figurée grecque, étrusque et romaine" (in fol.); in 1828-30, "Pompéi, choix d'édifices inédits, 1re partie" (in fol.); and in 1836, "Peintures antiques inédites, précédées de recherches sur l'emploi de la peinture dans la décoration des édifices sacrés et publics chez les Grecs et les Romains" (in 4to). These different works, together with a "Mémoire sur les représentations figurées du personnage d'Atlas" (1835), are merely fragments of a history of ancient art, for which M. Raoul-Rochette has been for more than 15 years preparing materials, and for the sake of which he made an excursion to Greece so late as the year 1842. Besides the works, too, already mentioned, M. Raoul-Rochette is the author of a great number of memoirs, dissertations, and articles, inserted in various learned collections and journals, and in the "Biographie universelle." He is the "perpetual secretary" of the "Académie des Beaux-Arts,"

and is, besides, a member of the "Société asiatique de Paris," and a corresponding member of most of the learned societies of the continent of Europe.

RASK\* made an attempt in 1826, by his "Essay of a scientific system of (Danish) Orthography," to alter the existing mode of writing of his countrymen, but without success. In the following year, he published a dissertation on the Egyptian chronology, and another on that of the Hebrews; and, about this period, he also published a dissertation on the age and authenticity of the Zendavesta. Having been elected president of the Iceland Society of Literature, and of the Society of Northern Antiquities, he took an active part in their publications, though occupied, besides, with an Armenian dictionary, a theory of the parts of speech in the Italian language, a grammar of the Low German, and with an English grammar. In 1828, he published a concise grammar and vocabulary of the Acra tongue, spoken by the negroes on the W. coast of Africa, in the neighbourhood of the Danish settlement of Christianborg. He next applied himself to the preparation of a Meso-Gothic dictionary, and a sketch of the Malabar languages; at the same time investigating the affinities between the Laplandic language and those of N. Asia. He was appointed professor of Oriental Languages, and (1829) principal librarian, in the university of Copenhagen. His edition of the fables of Lokman, which appeared in 1832, evinced only a limited acquaintance with the Arabic; and, indeed, his merits as a linguist consisted in a comparative knowledge of the different languages which he had studied, rather than in an intimate acquaintance with any one of them.—He had just completed his Lapland Grammar, when he died at Copenhagen, on the 4th of November 1832.

RASPAIL (François Vincent) was born in January 1794, at Carpentras, in the French department of Vaucluse. He was educated in the seminary (theological) of Avignon, and the "Restoration" found him a Roman Catholic priest. Obnoxious to the new government, because, when France was invaded by the allied armies, he had urged upon his flock the necessity of rallying around the standard of the emperor he became an object of royalist persecution. Quitting the exercise of his ecclesiastical functions, he went to Paris, aiming to obtain there eventually a professorship of Natural History or Chemistry, subjects to which he had long devoted a considerable portion of his leisure moments,

and for the investigation of which he had the greatest predilection and aptitude. His first scientific memoir was presented to the Institute in 1824. In 1825, he became generally known as the editor of the Natural History part of Ferrussac's "Bulletin des sciences;" and he continued to be occupied in this capacity until 1829, when he seceded from it, in consequence of a quarrel with some of the other parties engaged in the Bulletin. Jointly with Saigey, he then established a separate journal, styled the "Annales des sciences d'observation;" which, however, owing to the limited capital at the disposal of the publishers, was suspended in the course of the following year. Besides his contributions to the journals just mentioned, Raspail composed, at the same period, a number of very valuable "memoirs" for the "Annales des sciences naturelles," and the "Mémoires du Muséum d'histoire naturelle"—Raspail had already shown, by his pamphlet, published in 1822, and entitled "Sainte liberté! ton nom n'est pas blasphème," how susceptible he was of being seized with a political enthusiasm. But the revolution of July excited his feelings to the highest pitch. During the conflict of the three days, he was one of the combatants in the ranks of the people. Nor did his interest in politics cease with the victory which he had contributed to achieve. Disappointed, like so many others of his associates on this occasion, in the expectations which he had formed from the new government, then substituted in place of the monarchy of Charles X., he became one of its most zealous and active opponents. He wrote against it in the public papers, and in 1834-35 was the editor in chief of the republican journal, styled the "Réformateur." He was one of the founders of the society of the "Amis du peuple;" and when this association was obliged to dissolve itself, he joined that of the Rights of Man. He was several times placed under arrest, and once condemned to six months' imprisonment. At length, his republican zeal was cooled by the utter fruitlessness of the efforts and sacrifices which he had made; and he confined himself, subsequent to the year 1835, almost exclusively to his scientific pursuits. These had, indeed, not been wholly intermitted, even in the midst of his greatest political activity. In 1831-32, he published a "Cours élémentaire d'agriculture et d'économie rurale" in 5 volumes (2d ed. 1837); in 1833, his "Système de chimie organique;" in 1837, his "Système de physiologie végétale" (2 vols.); in 1839, the

"Cigarettes de camphre" and "Lettres sur les prisons de Paris" (2 vols.). His last work is entitled "Histoire naturelle de la santé et de la maladie chez les végétaux, chez les animaux en général, et en particulier chez l'homme" (2 vols. 1843).

RATISBON.\* Population in 1839, 21,904.—At Donaustauf, on the Danube, about 6 miles distant, is the *Valhalla*, a fine Doric marble temple, built by the present king of Bavaria, for the reception of statues and busts of the distinguished men of Germany. This edifice was commenced in 1830, and finished in 1842.

RAU (Charles Henry); a professor in the university of Heidelberg in Germany, and distinguished by his writings on political economy, as well as the prominent part which he has acted in the Chambers of the grand duchy of Baden. In his legislative capacity, he drew up several reports in relation to the German Customs' Union. His most important work is his "Manual of Political Economy" (Heidelberg, 1826-37). Since the year 1834, he has been one of the editors of the "Archiv der politischen Oeconomie und Polizeiwissenschaft."

RAUCH.\* The reputation of this eminent artist has suffered no diminution from his later works, either statues or busts.—During the year 1844, he was still residing in Berlin, diligently occupied with the preparation of an equestrian statue of Frederick the Great.

RAUMER.\* To the writings of Raumer before mentioned, are to be added the "History of Europe since the end of the 15th Century" (8 vols., 1832-43); the "Fall of Poland" (1832); "England in the Year 1835;" "Queen Elizabeth and Mary Stuart" (1836); "Frederick II. and his Time" (1836); "Europe, from the close of the Seven Years' till that of the American War" (3 vols., 1839); "Italy" (2 vols., 1840); a translation of the "Orations of Æschines and Demosthenes on the Crown;" and another of "Sparks' Life and Correspondence of Washington" (2 vols., 1839).

RAWLE (William); an eminent lawyer and jurist. He was descended from an ancient and respectable family, resident in the county of Cornwall, in England, from a very early period. Francis Rawle, the first of the name in this country, arrived in Philadelphia, from Plymouth, on the 23d of June 1636. He belonged to the Society of Friends, and appears to have emigrated in consequence of his opposition to the established church. He was accompanied by his only son Francis,

who, soon after, married one of the two daughters of Robert Turner, a wealthy and influential person, who was high in the confidence of William Penn, a member of the provincial council, and filled various other offices of great trust. Francis Rawle, jun., who was a man of strong mind and considerable attainments, published a pamphlet, entitled "*Ways and means for the inhabitants on the Delaware to become rich: wherein the several growths and products of these countries are demonstrated to be a sufficient fund for a flourishing trade.*" This work was remarkable, as well for having been (it is believed) the first original work, on any subject of general interest, which had appeared in Pennsylvania, as for having been the *first book* printed by Franklin, as he informed the subject of this article at his table at Passy, near Paris, in the presence of a company of high rank and consequence. The third son of Francis Rawle, jun., was William, whose only son was Francis. Both these gentlemen were merchants, and possessed enlarged and cultivated minds.—William Rawle, the son of the last-named Francis, was born in Philadelphia, on the 28th of April 1759. He was educated principally at the Friends' Academy in this city, where he pursued his studies with an assiduity and devotion to literature, which terminated only with his life. His immediate relations and connections, who were adherents of the royal cause, having been obliged to leave Philadelphia, he accompanied his mother and step-father to New York, where he read law under the direction of Mr. Kempe, an eminent member of the bar in that place. In further prosecution of his legal studies, he sailed for England, by way of Ireland, on the 13th of June 1781; and, on the 17th of the following August, was admitted into the Society of the Middle Temple. He returned to Philadelphia on the 17th of January 1783, after having passed several months in France. He immediately declared his allegiance to the existing government, to the principles of which he had always been sincerely attached; though the circumstances in which he was placed had prevented him from following the dictates of his own inclination and judgment. He began his professional career on the 15th of September 1783, by being admitted to practise in the Court of Common Pleas of the county of Philadelphia. On the 25th of July 1786, he was chosen a member of the American Philosophical Society; and in October 1789, a member of the Legislature of Pennsylvania. This

was his only appearance on the stage of politics. Though frequently solicited, at subsequent periods, to accept public appointments, and enter into political life, he uniformly declined. The only public office he was ever induced to hold, was that of Attorney of the United States for the District of Pennsylvania, which, without solicitation, was conferred on him by General Washington. His commission was dated on the 18th of July 1791; and he resigned it, voluntarily, on the 6th of May 1800, in the administration of Mr. Adams. During his term of office, it became his duty to prosecute the offenders against the authority of the general government in the insurrections of 1794 and 1798; one of whom, John Fries, was capitally convicted and sentenced to death, but afterwards pardoned. Though engaged in the arduous duties of a very extensive practice, he was a member of most of the scientific, literary, and benevolent institutions of the day, to several of which he devoted much time and attention. In the year 1822, he was chosen Chancellor of the Associated Members of the Bar of Philadelphia, before whom he delivered several interesting and instructive discourses, which were published by the association. The commission of President of the District Court for the City and County of Philadelphia was twice tendered to him by Governor Heister, and respectfully declined. In June 1825, the Historical Society of Pennsylvania was established, of which he was unanimously chosen president. He delivered, in the month of November following, the inaugural address before its members, and from time to time made other contributions to it, which have been preserved in its printed transactions. In the course of this year (1825), he published "*A View of the Constitution of the United States of America,*" which has passed through several editions, and has been spoken of in terms of high commendation by those best qualified to give an opinion relating to it. In September 1827, the degree of LL.D. was conferred upon him by the College of New Jersey. In the year 1830, Governor Wolfe appointed him, in conjunction with Thomas L. Wharton, Esq., and the Hon. Joel Jones, a commissioner "to revise, collate, and digest all public acts and statutes of the civil code of this state as are general and permanent in their nature, and to consider and report what alterations and improvements are required therein." Though undertaken at the advanced age of upwards of seventy years, yet, during the four years

he was engaged in this work, he devoted himself to it with remarkable assiduity and energy. He contributed his full proportion to the labours of the commission, and brought to it a diligence and experience which proved of the highest value in the prosecution of its arduous and responsible duties. — For some years before his death, he suffered from painful and distressing complaints, which undermined his constitution; but the activity and vigour of his mind remained until within a short time before his death, which took place on the 12th of April 1836. — Mr. Rawle was an able lawyer, an accomplished jurist, an excellent scholar, and a man of great taste and general acquirements. His professional learning was not confined to the jurisprudence of England and America, but embraced much of the ancient and modern law of the continent of Europe. For twenty years, his practice at the bar was very extensive and lucrative. He was engaged in most of the principal causes of the period, many of which involved the most important questions of the law of nations, growing out of the Berlin and Milan decrees and the British orders in council, as they affected neutral commerce. His arguments were distinguished by great learning, force of thought, and perspicuity of language, and were received with the highest respect by the court. His classical knowledge, particularly in Roman literature, was extensive and accurate; and he continued to cultivate it until near the close of his life.

**RAYNOUARD.\*** Two additional volumes of his selections from the poetry of the Troubadours appeared in 1835, which was the year of his death. He was the author also of a work published in 1829, with the title of "Histoire du droit municipal en France sous la domination romaine et sous les trois dynasties," in 2 volumes.

**RÉAL\*** (count) took an active part, on the popular side, in the revolution of July 1830. He died at Paris, in May 1834.

**REICHENBACH** (Henry Gottlieb Lewis) was born at Leipzig, in Germany, in January 1793, where he studied medicine, and began to deliver medical lectures in 1816. In 1819, he was appointed professor of Natural History in the medico-chirurgical academy, and "inspector" of the zoological museum and mineralogical cabinet, at Dresden; and subsequently, also "director" of the botanic garden of that city. His numerous publications are nearly all of them on botanical subjects. The most important one is the "Iconographia botanica seu plantæ criticæ," in 10 volumes

(1823–32). This was followed (1833–40), by the "Icones floræ germanicæ," which may be regarded as a continuation of it. In his "Flora germanica" (1830) he explained, more clearly than he had previously done, his peculiar system of the classification of plants; and a yet more detailed exposition of it is to be found in his "Manual of the Natural System of Plants," published in 1837.

**RÉMUSAT\*** (Jean Pierre Abel) died of an attack of the Asiatic cholera in 1832. A history of Buddhism, which he left behind him in manuscript, has been published since his death, at the expense of the French government.

**RHEIMS.\*** Population in 1841, 39,185. — Rheims is the centre of the manufacture of woollen stuffs, which extends over nearly the whole department of the Marne, and the adjacent departments of the Aisne and the Ardennes. In 1834, these manufactures were estimated to employ 50,000 hands, of whom 12,000 were settled in Rheims. This city is a principal dépôt for the wines of Champagne, large quantities of which are stored up in cellars. It has also a considerable trade in cotton goods, flour and other agricultural products, &c. — The vice of drunkenness is said to be very prevalent among the workmen of Rheims; and morals are as bad or worse, perhaps, than in most manufacturing towns of France. From 1825 to 1835, the proportion of illegitimate to the whole number of births amounted to about 1 in 4. — Rheims is the seat of an archbishop, of various courts of law, of a royal college, &c.; and it has a public library of 24,000 printed volumes with 1000 MSS., a botanic garden, schools of mutual instruction, a *mont de piété*, and a savings' bank.

**RICE** (John Holt) was born in Bedford county, Virginia, November 28th 1777, and was educated at Liberty Hall Academy, now Washington College, at Lexington, in that state. In 1796, he was elected a professor in Hampden Sydney College, in Prince Edward county. He was licensed as a preacher, by the presbytery of Hanover, in September 1803, and became pastor of a church in Charlotte county, about a year afterwards. Thence he removed, in the same capacity, to Richmond, in 1812. In September 1822, he was elected president of the College of New Jersey, an honour which he, however, declined; but he soon afterwards accepted the professorship of theology in the "Union Theological Seminary," in Prince Edward county, Virginia, in which office he con-

tinued until the 3d of September 1831, when he died, after a lingering illness. — During the period of his residence at Richmond, he established the "Virginia Evangelical and Literary Magazine," and conducted it with much ability for 10 years. Besides a number of articles inserted in it of a religious or theological character, he wrote a series of letters on what may be called the philosophy of Christianity. The subject of common school education was an object of great interest to him, and one to which many pages of his magazine were devoted. And he was a strenuous advocate for the combination of religious and moral culture with that of literature and science.

**RICE PAPER** is said to be a membrane of the *Artocarpus incisa*, or bread-fruit tree. It is brought from China in small dyed pieces, and is used in the manufacture of several fancy and ornamental articles. It is sometimes erroneously stated to be prepared from rice.

**RIBMER** (Frederick William) was born at Glatz in Silesia, in April 1774. After pursuing the study of theology, and also of philology, at the university of Halle, he became a lecturer in that institution in 1798, but quitted it (1801) to become a private tutor to the children of William de Humboldt. He accompanied the latter, in 1802, in a tour through Italy. On his return to Germany in the following year, he took charge of the education of Goethe's children. After a residence of nine years in the family of the latter, he was appointed to be one of the instructors in the gymnasium of Weimar, and an assistant librarian in the grand ducal library at that place. In 1820, he retired from his post in the gymnasium, that he might have more leisure for the prosecution of his literary labours; and in 1838, he was promoted from the office of assistant to that of principal librarian. — His most important work is his Greek and German Lexicon (Jena, 1802; 2 vols. 4th ed. 1824). He is the author, besides, of several volumes of minor poems, which are regarded by his countrymen as possessing considerable merit; of the 3d part of Henry Meyer's "History of the Arts of Design among the Greeks and Romans;" and of "Communications concerning Goethe, from oral and written sources" (Berlin, 1841; 2 vols.). He was the editor of Goethe's correspondence with Zelter (6 vols.); and, jointly with Eckerman, he edited Goethe's works in a single volume (1836).

**RICE** \* died at Frankfort on the Maine, in 1638.

**RIGA**. \* Population in 1838, including the garrison of about 10,000 men, 71,228. — In the same year, the value of the exports from Riga was £2,078,000. The imports, consisting principally of tropical produce, manufactures, and wine, are stated to be in value only one-third of the exports. The amount of shipping which left the port was 1348 vessels, of the aggregate burden of 180,968 tons; of which 468 vessels, with a tonnage of 77,220 tons, went to Great Britain; and the rest for the most part to Denmark, the Netherlands, and Sweden.

**RIGNY** (Henri, comte de) was born at Toul, in the French department of the "Meurthe," in February 1782. He entered the naval service of his country at an early age, and, though only a second-lieutenant, was already entrusted in 1803 with the command of a corvette. In 1806 and 1807, he held an appointment in the "marines of the guard," and was present with that corps at the battles of Jena and Pultusk, and the sieges of Stralsund and Graudentz. In 1808, he was one of the aides-de-camp of Marshal Bessières in Spain, taking part in the battle of Rio-Seco, and the action at the pass of Samosierra, where he was wounded. In the following year, he fought at the battle of Wagram. After this, he returned to his proper department of the navy, and became captain of a frigate in 1811. We find him in 1822 commanding the French naval force in the Levant, when, by the judgment as well as humanity which he displayed, he contributed essentially to mitigate the horrors of the warfare carried on between the Greeks and Turks. He was promoted, in 1825, to the rank of a rear-admiral. Two years afterwards, in September 1827, France, England, and Russia, having resolved upon fixing the independence of Greece upon a permanent basis, made proposals for this purpose to the Porte, which were rejected. The battle of Navarino was the consequence. His conduct on this occasion earned for de Rigny the rank of a vice-admiral, with a number of honorary distinctions conferred on him by the British and Russian governments. He returned to France in 1829; was elevated to the dignity of a count; was appointed maritime prefect; and in August of the same year declined the office of minister of the Marine, offered to him under the administration of the prince of Polignac. In 1830, he resumed the command of the French fleet in the Levant. In the spring following the accession of Louis Philippe to the throne,



he became the minister of the Marine; and in the month of April 1834, he took charge of the department of Foreign Affairs. This post he occupied only about a year. In August 1835, he accepted a special mission to Naples; on returning from which, he was attacked by an illness which carried him off in November 1835.

**RIO DE JANEIRO.\*** The population of this city has been latterly estimated to amount to as many as 200,000 persons of all descriptions.—Its harbour is one of the finest in the world; and, besides having an extensive inland trade, it is the seat of more than one-half of the foreign commerce of Brazil. It is the key to the mining districts, furnishing all their supplies, and receiving all their produce for shipment or other disposal.—The trade of Rio Janeiro has increased rapidly of late years. It is now by far the greatest mart for the export of coffee. The shipments of this important article, which in 1830 amounted to 369,785 bags, amounted in the year 1842–43 to 1,176,136 bags, or, taking the bag at 154 lbs., to 181,125,252 lbs., or 80,859 tons; being nearly equal to the exports of coffee from all the other ports in the world! The principal article of import consists of cotton goods, the value of which amounts to full one-third of the total value of the imports. In 1839, the value of all the exports was 23,362,295 *reis*, and that of all the imports, 29,450,696 *reis*. These imports are exclusive of negroes, of whom vast numbers continue to be brought from Africa to this port or the neighbouring coast. During the year 1840, 858 ships arrived at Rio from foreign ports, and 812 sailed.

**RITTER** (Augustus Henry) was born at Zerbst, in Germany, in 1791. He studied at Halle, at Göttingen, and at Berlin; and, like so many others of the German students, fought against the French in what they styled "the war of liberation" (1813). His attention at the universities had been primarily directed to theology; but he soon relinquished this, to devote all the energies of his intellect to philosophical inquiries. Satisfied that the philosophy of the moderns has its source in that of the ancients, he resolved to begin by rendering himself thoroughly acquainted with everything on the subject that has been transmitted to us from a remote age. His publications relating to some of the speculations of the Greek philosophers, earned for him an appointment to an "extraordinary" professorship in the university of Berlin; and he became, in 1832, a member of the Academy of Sciences in that city. He did not

subscribe to the doctrines of Hegel, which at the period prevailed in the capital of Prussia, and conceiving that, on this account, his own labours might not be fully appreciated there, he accepted the offer made to him in 1833 of a professorship in the university of Kiel, in Holstein; and four years afterwards he removed to Göttingen, where he now resides, in the enjoyment of a very high reputation, the fruit of his various profound and learned works, especially those of an historical character. Of these, the most remarkable is his "General History of Philosophy" (1829–34; 2d ed. vols. 1–6, 1836 and following years). He is also the author of a "Scheme of a Philosophical Logic" (1824, 2d ed. 1829); an essay on "The Semi-Kantians and Pantheism" (1827); another on "The Relations of Philosophy to a Scientific Life" (1835); "God manifested in the World" (1836); "On the Origin of Evil" (1839); together with two volumes of "Minor Philosophical Writings," in which he discusses the principles of jurisprudence, of politics, and of aesthetics.—While Ritter has not pretended to the very equivocal honour of being the founder of a new system of philosophy, he displays at all times so much good sense and sound thinking, and he occasionally exhibits his opinions in such novel and striking points of view, as to furnish his readers with abundant materials for their own reflection.

**RITTER** (Charles), who has in our day given a dignity and importance to the subject of geography, as a distinct branch of human knowledge, was born at Quedlinburg, in Germany, August 7th 1779. He was educated at Schnepfenthal, under Niemeyer, for the profession of a teacher, and commenced his career as such in 1796, as a private tutor in the family of a wealthy inhabitant of Frankfort on the Maine. After completing the prescribed course of instruction with his pupils, he travelled with them through Switzerland, France, and Italy. In 1809, he was appointed one of the assistant teachers in the gymnasium of Frankfort, and 10 years afterwards professor of History in the same institution. Not long before this, he had published the first edition of his "Geography, in its relations with Nature and the History of Man" (Berlin, 1817–18, 2 vols.). In 1820, he was invited to a professorship of Geography in the university of Berlin. On removing accordingly to that city, he set about the preparation of a new edition of his geographical treatise, which has already extended to 10 large octavo volumes, the

first relating to Africa, and the remaining 9 to Asia. It has, however, not even yet reached its conclusion; Arabia, the region of the Caucasus, and the northern portion of Asiatic Russia, still remaining to be described. The science and erudition of the author, as well as the scale on which he has executed his undertaking, render his work one *sui generis*, and far surpassing every other of the same general character. Ritter, conjointly with major Oetzel, has published an "Atlas of Asia," to facilitate the understanding of his Geography. And he is the author, besides, of 6 beautiful maps of Europe (1806); some valuable dissertations on geography and the sciences connected with it, inserted among the Memoirs of the Berlin Academy of Sciences, of which he is a member; and several other works, such as "A Geographical, Historical, and Statistical Account of Europe" (1807, 2 vols.), and the "Propyleums of the history of the people of Europe before the time of Herodotus" (1820).—The Institute of France (Academy of Inscriptions and Belles-Lettres) admitted Ritter, in 1843, into the list of its corresponding members.

**ROASTING**, in Chemical Metallurgy, means the protracted application of heat to metallic ores, below their fusing points. It is generally employed to expel volatile matters, especially sulphur, arsenic, carbonic acid, water, &c.

**RODS\*** died at Bordeaux, in 1830.

**RODGERS** (Commodore John) was born in what is now Harford county, in the state of Maryland, July 11th 1771. His father was a Scottish gentleman who emigrated to America many years previous to the revolutionary war, at which period he zealously espoused the cause of liberty, and, as a colonel of militia, gave on more occasions than one signal proofs of his gallantry and patriotism.—The desire of the son to go to sea amounted to a passion, which his friends very reluctantly consented to gratify; and, when 13 years old, he made his first voyage, under the care of Captain Folger, who was the master of a vessel of which his father was in part owner. After several other voyages made by him in subordinate capacities, he was, at the age of 19, entrusted with the command of a ship, called the *Jane*, sailing from Baltimore, and trading to the North of Europe. He continued to command vessels in the merchant service until the year 1797; he then received a commission as a lieutenant in the navy, and joined the frigate *Constellation*, under Commodore Truxton, as her first lieutenant.—In Feb-

ruary 1796, the *Constellation* having captured the French frigate *L'Insurgente*, Lieutenant Rodgers, with Midshipman Porter and 11 men, were sent on board of the latter as a prize crew. Before the decks could be cleared of the dead and wounded, or the prisoners secured, a sudden gale separated her from the *Constellation*; and in a stormy sea, with a ship much disabled in her spars and rigging, and as many as 173 Frenchmen unconfined, Lieutenant Rodgers, by means of great firmness and the most undaunted courage, as well as untiring perseverance and watchfulness, succeeded in reaching the island of St. Kitts in safety.—On his return to the United States, Lieutenant Rodgers obtained a furlough, and proceeded to the West Indies in a small brig which he had purchased. While at St. Domingo, he distinguished himself by his activity in saving the lives, and rescuing the property of the unfortunate white inhabitants, from their insurgent slaves, at the greatest hazard to his own safety. In attempting to put off from the wharf his boat, which was filled with fugitive women and children, he fell, and was seized, and detained as a prisoner, by the infuriated negroes. Having contrived, however, soon afterwards, to make his escape, he received, on the arrival from France of the expedition under General Le Clerc, the thanks of the latter; who requested him, besides, to return to the United States in his brig, and reload her with supplies for the French troops, promising him a liberal compensation. He did so accordingly; but on re-appearing with the expected supplies, his cargo was confiscated, for no other reason which he could possibly conjecture excepting the part he had taken in the capture of the *Insurgente*; and it was only after a confinement of 12 days that he was permitted to leave the island.—In March 1799, Lieutenant Rodgers was promoted to the rank of a post-captain in the navy, and ordered to the command of the sloop-of-war *Maryland*, destined to cruise on what was then called the Surinam station. He returned from it in September 1800, and in March 1801 was ordered to proceed to France with despatches.—In the autumn of 1802, Captain Rodgers sailed in the *John Adams*, one of the squadron destined to act against Tripoli, under the command of Commodore Morris. On the 21st of the following June, he attacked, and, after an action of 45 minutes, blew up, the largest cruiser of the Tripolitans, although she was moored near the shore, and defended by a large

force on the beach as well as by her own crew. At the close of the year 1803, he returned in the *John Adams* to the United States. He sailed once more for the Mediterranean in the frigate *Congress*, in July 1804, and served again for some time in the American squadron before Tripoli, then under the orders of Commodore Barron. When this officer, on account of bad health, was obliged to relinquish his command, in May 1805, his place was occupied by Captain Rodgers, who, on the 3d of June, in conjunction with Colonel Lear, signed the treaty with the Bey, on board the *Constitution* frigate, which put an end to the Tripolitan war. Having next imposed conditions upon the Bey of Tunis, he returned to America.—In July 1807, Commodore Rodgers was appointed to take the charge of the gunboats in the harbour of New York, and continued at this station until February 1809, when he was directed to prepare the *Constitution* for sea. From this period to the declaration of war against Great Britain in June 1812, he was engaged in repeatedly cruising, first in the *Constitution* and then in the *President* frigate, for the purpose of protecting our commerce from the depredations, or insults, of the English ships-of-war on our coast. The most remarkable event that occurred to him, during this interval, was the affair of the *Little Belt*. This was a British sloop-of-war, which, appearing to the American commodore, when first descried from the *President*, to be of a suspicious character, was given chase to, and on being approached by the latter, fired into her a shot, whether intentionally or accidentally cannot be pronounced with any certainty, which led to an action that only ceased after the *Little Belt* had thirty of her men killed or wounded, and had otherwise suffered a considerable amount of injury,—the damage to the *President* having been very trifling, and only one individual on board of her having been wounded. A different statement, making the American ship the aggressor, having been given by the commander of the *Little Belt*, and the British government having required a reparation of the injury sustained, a Court of Inquiry, composed of Captains Decatur, Stuart, and Chauncey, was appointed, which confirmed the truth of the account rendered by Commodore Rodgers. His conduct throughout met with the entire approbation of the President of the United States, as well as that of the country generally.—But war was, at length, declared by our government; and in one hour after the re-

ceipt of his orders from the secretary of the navy, on the 21st of June 1812, Commodore Rodgers sailed from the harbour of New York, with a squadron, composed of his own ship, the *President*, the frigates *United States* and *Congress*, together with the *Wasp* and *Argua*. He gave chase to the British frigate *Belvidera*, and directed in person the fire of the first gun discharged against the enemy during the war. He next proceeded in the track of a valuable British convoy from the West Indies to within a few hours' sail of the Irish Channel; and recrossing the Atlantic by way of Madeira, the Azores, the Banks of Newfoundland, and Cape Sable, he arrived in Boston Bay, after a cruise of 70 days. Although unsuccessful in attaining the object aimed at by so long an absence from the American coast, the impunity with which so large an extent of ocean was traversed did much to encourage the government in the vigorous prosecution of the contest with its formidable adversary.—Commodore Rodgers left Boston in the *President*, on the 6th day of October, and after parting a few days afterwards with the other vessels of his squadron, the *Congress* only excepted, he captured the British packet *Shallow*, having on board \$200,000 in specie; and the two frigates continued their cruise for 80 days, sailing during that period a distance of more than 8000 miles without meeting any of the enemy's ships-of-war.—On the 3d of April, the *President* and *Congress* again went to sea. They parted company on the 8th of the following month; when Commodore Rodgers in the former, after crossing the track of the British colonial trade, sailed for the Azores, off which he remained till the 6th of June, and then shaped his course for the North Sea, for the purpose of intercepting the trade of the enemy out of St. George's Channel. Having put into the port of Bergen to procure a supply of water, he returned to the neighbourhood of the British islands, making his escape, in his progress thither, from a hostile line-of-battle-ship and frigate by which he was pursued. The latter being at one time in advance of its companion, Commodore Rodgers offered battle to it, trusting to be able to obtain a victory, before it should derive any aid from the other; but the offer was declined. By means of several captures now made by him, the Commodore became aware that the measures which were taken to intercept him were such as to render it expedient for him to return to the United States without further delay. This he

accordingly did; and, by means of the greatest vigilance and adroitness, he succeeded in evading the overwhelming naval force which the enemy had on our coast, and entering the harbour of New York, on the 26th of September 1813.—Commodore Rodgers made one more cruise during the war in the President frigate, from December 5th 1813 to February 18th 1814, in which interval he repeatedly encountered very great risk of capture by a superior force, while in vain seeking for an opportunity of a contest with a single British ship.—In August 1814, we find him conducting with great vigour and intrepidity the naval operations on the Potomac against the enemy, after the retreat of his forces from Washington; and in the following month, he participated in the defence of Baltimore. By causing a line of vessels to be sunk across the entrance of the harbour, he contributed essentially to the failure of the attack made upon that city. And by the cool determination with which all his measures were taken, as well as by his untiring activity, he afforded no small degree of encouragement to the brave but inexperienced militia, with whom he was, on that occasion, called upon to act.—From shortly after the close of the war to the year 1836 (a period of 21 years) Commodore Rodgers was principally occupied in the performance of the duties of president of the Board of Naval Commissioners. But for a period of about two years, from 1825 to 1827, he commanded the American squadron in the Mediterranean; where the high state of discipline which he maintained, and the general efficiency of the squadron, especially of his own ship, the North Carolina, attracted the admiration of the officers of the different naval powers whose fleets frequent that sea; and where he was, in every port that he visited, treated with the most gratifying marks of personal respect.—In the summer of 1832, he had an attack of the Asiatic cholera, from which he recovered, but with his constitution permanently impaired. A voyage to England in 1836 proved unavailing for the restoration of his health. And he continued to linger on till the 1st of August 1838, when he expired at Philadelphia, in the 67th year of his age.—Commodore Rodgers twice declined the office of secretary of the navy, tendered to him by Mr. Madison in 1815, and afterwards by Mr. Monroe. To him, in no small degree, may be attributed that high state of discipline, and those regulations generally, of the American navy, which enabled it

to contend successfully in the last war with that of England. It may be added that, by his firmness and energy, as well as indefatigable perseverance in the accomplishment of his purposes, he on several occasions preserved the ship and men entrusted to his command from impending destruction; and that, in various trying instances also, he maintained the honour of his country's flag by the exercise of the same qualities.

**RÆDERER.\*** After the revolution of July 1830, he was restored to his seat in the Chamber of Peers, and in the Institute, of which he had been deprived at the Restoration. He succeeded, too, in attracting anew in some degree the public attention by some political publications, and a book on the "Influence of polished Society."—M. Ræderer died at Paris, in December 1835, in his 82d year. We are informed by M. Quérard, in "La France littéraire," that he left behind him memoirs of his life, of which the government contrived to obtain possession, and which have been committed to the flames.

**ROMBERG\*** (Bernard) died at Hamburg, whither he had removed a few years before from Berlin.

**ROPE;** a larger kind of cordage, generally formed by a combination of vegetable fibres. Except for ship cables, for which iron chain is now much used, hemp is the substance principally employed in the manufacture of rope. Of late years, hemp mixed with caoutchouc has attracted some attention; likewise cordage made of wire.

**ROSELLINI** (Ippolito), born at Pisa in Italy, in the year 1800, was appointed professor of the oriental languages in the university of that city in 1824, and in 1828-30, made one of the scientific expedition fitted out at the suggestion of the duke de Blacas, by the French and Tuscan governments conjointly, for exploring the hieroglyphical monuments of Egypt. As his colleague, Champollion the Younger, died soon after their return from Africa, the preparation of the great work, which was destined to communicate to the public an elaborate description of the observations which they had made, was entrusted to Rosellini. Nine volumes of it have appeared under the title of "I monumenti dell' Egitto e della Nubia disegnati dalla spedizione scientifico-letteraria toscana in Egitto, distribuiti in ordine di materie, interpretati ed illustrati" (Pisa, 1832, and the following years; fol.). Among his other works, we may mention here his "Tributo di riconoscenza ed amore alla memoria de G. F. Champollion il minore"

(Pisa, 1832); and his "Elementa linguæ ægyptiacæ vulgo copticæ" (Rome, 1837), which is decidedly the best grammar that has yet appeared of the Egyptian language. — Rosellini was appointed to the professorship of Archeology at Pisa in 1839, and died there in 1843.

ROSEN (Frederic Augustus) was born in 1805, at Hanover in Germany, and was a student successively in the gymnasium of Göttingen and the universities of Leipsic and Berlin. At the last-mentioned place, patronized and stimulated by William de Humboldt, he pursued with diligence the study of the Sanscrit language under the celebrated Bopp, applying himself, at the same time, to acquire a knowledge of the elements of the Persian. He next went to Paris, that he might have the benefit of the instructions of Silvestre de Sacy, and other distinguished orientalists, in that capital. During his stay there, he was invited to the professorship of Oriental Literature in the newly established London University. He died in London in 1837. — He was the author of "Corpora radicum sanscritarum" (Berlin, 1826); "Radices sanscritæ" (Berlin, 1827); "The Algebra of Muhamed ben Musa," in Arabic and English (London, 1831); "Rig-Vedæ specimen," in the original Sanscrit, with an English version (London, 1831); a Bengalee and Sanscrit dictionary, with the meaning of the words in English (London, 1833); the "Rigveda-Sanhita, in Sanscrit and Latin" (London, 1838); and "Catalogus codicum manusccriptorum syriacorum et carshunicorum" (London, 1839, fol.). The manuscripts which he left behind may, it is said, afford materials for additional publications.

ROSENMÜLLER \* (Ernest Frederic Charles) died in 1835.

ROSSI (Pellegrino) was born in 1787, at Carrara in Italy, and pursued the study of jurisprudence at Bologna. After practising there for a time as a lawyer, he was appointed, in 1809, to a professorship in the juridical faculty of the university. Having accepted an appointment from Murat, on the occupation by him of Bologna and the other "legations" in 1815, he judged it expedient, on the fall of the latter, to quit the papal territory. He went to Geneva, where he delivered private courses of lectures on history and legislation, which were so much approved of as to lead to his appointment, in 1819, to be a professor of criminal law in the Academy of that city. He was also admitted a citizen of Geneva, and chosen a member of the "great council." The re-

putation which he had acquired led, at length, through the instrumentality of Guizot and the duke of Broglie, to his being invited to a professorship in Paris. His lectures in the French metropolis have been equally successful with those delivered by him elsewhere. In 1839, he was elevated to the dignity of a peer of France. — His principal works are a "Traité du droit pénal" (3 vols. 1829); his "Cours de droit constitutionnel" (1836); and his "Cours d'économie politique" (2 vols. 1839).

ROSSINI.\* To the list of the principal operas of this celebrated composer, given in a preceding volume, are to be added the "Siege of Corinth" (1825), and "William Tell" (1829). He died in 1840.

ROTTECK\* failed of being re-elected, in 1825, a deputy to the first chamber of the states of Baden, but sat from 1831 to 1840 among the representatives of the people in the second chamber. In this body, he was distinguished by his able support of liberal opinions, and especially of the liberty of the press. Not satisfied with the field thus opened to him for the expression of his political sentiments, he established a journal at Freiburg, under the title of "Der Freisinnige." The government, at length, irritated at the course of opposition to its measures which he had pursued, suppressed his journal, and forbade him to edit any periodical whatever, within the limits of the grand duchy of Baden, during a period of five years. It did more; it reorganized the university of Freiburg (1832), and, in the new arrangement, left Rotteck, and his colleague Welcker, who had steadily co-operated with him in his labours for the political improvement of his country, off the list of professors. His townsmen exhibited their sympathy for him on this occasion by electing him to the office of their burgomaster. The government, however, persisting in their personal hostility to him, refused to confirm the election; whereupon, he was immediately re-elected. What consequences might have ensued, it is difficult to say, had not Rotteck now had the moderation or prudence to decline the office in question altogether. He was restored to his professorship in 1840; and died in the month of November of the same year. — The most important of his literary productions in the latter part of his life was the "Staats Lexikon" (edited by himself and Welcker); a work of great merit and research, in the preparation of which the editors were assisted by some of the most distinguished men of Germany. The ninth

volume was completed at the period of Rotteck's death: Welcker was the sole editor of the remaining six.

**ROTTECK-STONE**; an earthy mineral found in Derbyshire in England, Wales, near Albany in the state of N. York, and elsewhere. It is of a dirty gray or reddish-brown colour, passing into black; it is soft, meagre to the touch, and emits an unpleasant odour when rubbed; and it is used for all sorts of finer grinding and polishing, for cleaning metallic substances, and sometimes for cutting stones.

**ROTTERDAM**.<sup>\*</sup> About 10,000 persons were added to the population of this city in the ten years from 1830 to 1840; in which last year it amounted to 78,098. In 1840, the number of vessels that entered the port was 1968, and the number that departed from it was 2054; the burden of the latter was 265,000 tons. In the same year, the total imports amounted in value to £7,186,240, and the total exports to £5,932,200.—A very extensive intercourse is carried on between Rotterdam and the towns on the Rhine on the one hand, and between it and the ports of Great Britain on the other.

**ROUEN**.<sup>\*</sup> Population in 1841, 90,580. Rouen is so eminent for its cotton manufactures, that it has been styled the French Manchester; and checked printed cotton cloths, for women's dresses, are commonly known in France by the name of *rouenneries*. As many as 50,000 persons, men, women, and children, are said to be engaged in this branch of industry.

**ROUNDELAY** is properly a short poem of 13 verses, 8 in one rhyme, and 5 in another.

**ROUND HEADS**; a nickname given to the Puritans at the time of the civil wars of England in the 17th century, by the Cavaliers, from the close black scull-cap, reaching down to the ears, which was then worn by staid and serious persons; or, more probably, from the custom that prevailed among them of wearing the hair closely cut to the head.

**ROWAN** (John), eminent as a jurist and statesman, and one of the most distinguished men in the western portion of the United States, was born about the year 1773. His parents emigrated to Kentucky at the close of the revolutionary war, in the month of March 1783; and after remaining until the spring of the following year at Louisville, then an insignificant village, they removed, in company with five other families, to the Long Falls of Green River, a hundred miles distant from any other settlement. Here, in a

region which constituted a portion of the hunting-grounds of the Shawnee tribe of Indians, with whom the settlers had many encounters, young Rowan was soon noted for his sprightliness, energy, and courage, and his physical constitution was invigorated by the pursuit of the deer and the buffalo in the wilderness.—When 17 years of age, he entered the classical school of Dr. Priestley at Bardstown, where the progress which he made in his studies, and the corresponding development of his intellect, were so remarkable as to attract the attention of several prominent individuals in the state, by whom he was advised to engage in the study of the law. He went for this purpose, accordingly, to Lexington, and was admitted to the bar in 1795.—Mr. Rowan rose rapidly in his profession; and as an advocate in criminal cases, he was before long acknowledged to have no equal in Kentucky. On these, as well as other suitable occasions, he exhibited a commanding eloquence, that obtained for him the admiration of his fellow-citizens. In the performance, too, of his professional duties, he was always actuated by a high moral sense. He declined, for example, to prosecute any land claims on the contingency of receiving, as a compensation for his services, a part of the land in the event of its recovery. Many lawyers in the state acquired wealth by means of such speculations; but he regarded them as affording an undue temptation to engage in litigation, and as oppressive to the existing occupants, and therefore to be unbecoming the character of the profession.—In 1799, Mr. Rowan was a member of the convention which formed the present constitution of Kentucky; in 1804, he was appointed secretary of state; and in 1806, he was elected to the House of Representatives in Congress, by the voters of a district in which he did not reside. He took his seat in this body in 1807, and served during the 11th Congress. Afterwards, he was repeatedly a member of the State Legislature; and in 1819, he was appointed a judge of the Court of Appeals. His judicial career was chiefly remarkable for a learned and forcible argument which he delivered on the power of Congress to pass the bill incorporating the Bank of the United States in 1816. The confinement of the bench, however, not being agreeable to him, he resigned his seat upon it in 1821.—He was appointed by the Kentucky Legislature, in 1823, to be a commissioner, jointly with Mr. Clay, to defend what were called the Occupying Claimant laws of the state,

before the Supreme Court of the United States. The uncertainty of titles to land, arising under the legislation of Virginia, when Kentucky was a part of that state, had induced the passage of the laws referred to, which were more favourable to the occupant than the common law of England. They were attacked, before the Supreme Court, on the ground that they violated the compact between Virginia and Kentucky. The petition of the commissioners was written by Mr. Rowan, and is considered to be a very able document.—In 1824, Mr. Rowan was elected a member of the Senate of the United States, and served as such for the term of 6 years. Of the speeches which he delivered during this period, there are two that are deserving of especial mention; the first, on the 10th of April 1826, on the bill further to amend the judiciary system, to which he offered an amendment having for its object to conform the final process of the courts of the Union to that of the highest courts of the respective states, so far, at least, as this could be effected without impairing the proper authority bestowed by the constitution on the former courts; and the other, at a later day, in which he urged the justice and expediency of abolishing all imprisonment for debt by the process of the U. S. courts, a measure which had been adopted in his own state in 1821. A principal motive with him, in both these instances, was, by softening the action of the general government upon the people, and assimilating it as much as possible with that of their own state governments, to fortify their attachment to it as much as possible.—The last public office entrusted to him was that of commissioner under the convention for the adjustment of claims of citizens of the United States against Mexico, of the 11th of April 1839. In this he laboured with great assiduity; but when, upon an adjournment of the commission, he had returned to his family in Kentucky, and from a temporary indisposition was unable to return to Washington at the time expected, he was led, from a delicate sense of duty, to resign his office, that there might be no delay or disappointment to the parties having business before the tribunal. He died at his residence in Louisville, July 13th 1843, at the age of 70.—We are told that “he was devoted in his friendships, and hated no man; exceedingly urbane in his manners; hospitable and kind; of uncommonly interesting colloquial powers; and dignified and commanding in his person and presence.”

**ROYER-COLLARD.\*** Although M. Royer-Collard continued a member of the Chamber of Deputies until the year 1842, he has avoided acting a conspicuous part in politics since the revolution of 1830. He was, very lately, living in retirement altogether from public affairs, at the advanced age of more than 80 years.

**RUDBERG (Frederic)** was born at Stockholm in Sweden, in the year 1800; became an instructor in Mathematics in the university of Upsal, in 1822; and was appointed professor of Natural Philosophy there, in 1828. He has rendered himself known by his investigations relating to the polarization of light, the expansion of atmospheric air, and the temperature of the earth. His works consist of memoirs inserted in the transactions of the Swedish Academy of Sciences, and of communications to Poggendorf's Annals of Natural Philosophy and Chemistry.

**RUSSIA.\*** From a classified account of the population of the Russian empire in 1836 (including the kingdom of Poland), according to the official statement published by the minister of finance, the number of males amounted to 28,896,223,—of females to 30,237,343; making a total, of both sexes, of 59,133,566. Another statement of the population, in 1838, published in 1840 by M. de Koepen, an officer in the employment of the Russian government, and on which much reliance is put, makes the entire population to be 59,673,260. In neither of these estimates, however, are the soldiers of the army, or their wives and children, included; so that the whole number of inhabitants, in 1838, may be stated, for this reason, in round numbers, at 61,000,000. In addition to which must likewise be reckoned the inhabitants of the mountains between the Black Sea and the Caspian, amounting to nearly 1,500,000. And there are, besides, some wandering tribes of Circassians and others, whom it is impossible to number. The population of the empire, in 1844, is given in the 2d edition of Pierer's "Universal-Lexikon," now in course of publication, at 63,500,000.

—Russia is rich in minerals. The chief mines are situated in the Ural and Altai mountains, and those which occupy the vicinity of Nertschinsk in Siberia. In 1837, the produce of gold from the Ural and Siberian mines was about 470 poods, equal in value to nearly £1,000,000; that of silver, from the Altai and Siberian mountains, 3,000 poods, in value £330,000; and the annual product of platina, chiefly in the Urals, is about 140 poods. Copper is produced to the extent of 210,000 poods

a year, chiefly in the government of Olo-netz and the Ural and Altai ranges; lead, 40,000 poods; and iron, about 170,000 tons, chiefly in the Urals, but also in the Altai, Caucasus, Valdai Hills, &c. Salt is procured in the Urals, the Crimea, and other places, chiefly in the E. and S. provinces; it is deficient in the Baltic provinces, where it is imported from England and Austria.—The S. Baltic provinces, Poland, and the governments nearest to Moscow, have the greatest proportion of cultivated land. The grain produced in the empire is much more than sufficient for the consumption of its inhabitants; and hemp and flax are produced more extensively in Russia than in any other country. Both of these succeed up to the 65° N. lat.; but the chief localities are those adjoining the upper course of the Volga, in the governments of Tver, Jaroslav, and Kostroma: they form, with linseed and hempsed, staple exports from the Baltic ports and Archangel. Tobacco is much cultivated in the Ukraine.—The fisheries of most value are those of the rivers Volga and Ural, and of the sea of Azof; but, except some caviar and isinglass from the S. ports, scarcely any of their produce is sent to other countries.—The manufacturing establishments of Russia in 1839, exclusive of mines, furnaces, and smelting-houses, were 6,855 in number, employing 412,931 work-people; which, according to the official report, was an increase in 3 years of 840 manufactories, and of 50 per cent. on the workmen. Of these manufactories, 616 were for woollen goods; 227 silk; 467 cotton; 267 linen; and 486 metallic wares: the rest consisted chiefly of tanneries, tallow melting-houses, candle and soap works. The chief seat of manufactures is Moscow and its government; and next, the governments of Vladimir, Nijnii-Novgorod, Saratov, St. Petersburg, and Tula. The Russians excel in the manufacture of leather; and from their advantages in respect to raw material, their canvases, strong linens, cordage, felt, mats, potashes, soap, candles, caviar, and isinglass, are quite as good as those made elsewhere; but in almost all other branches their products cannot compete with those of Western Europe, more especially Great Britain, as to finish, durability, and cheapness; and their existence is, therefore, dependent upon the continuance of a system of high or prohibitory duties on foreign imports. The annual value of the Russian manufactures was estimated in 1837 at £23,000,000, and in 1841 at £30,000,000.—The inland trade is very extensive; and

it is facilitated by the vast means of internal communication afforded by the Volga, Dwina, Niemen, Duna, Don, Neva, and their tributaries, which, from the level nature of the country, are nearly all navigable. This navigation, too, has been improved by canals, by means of which the Volga is connected with the Dwina and the Neva, so that goods may be sent by water from St. Petersburg or Archangel to Astracan and the Caspian. The Volga has also been united with the Don, which falls into the sea of Azof; and the Pripet, a branch of the Dneiper, is joined to the Bug, an affluent of the Vistula, thus connecting the Black Sea and the Baltic. The frost interrupts this navigation during a considerable portion of the year; but it affords, in its turn, great facilities to land-carriage and travelling by means of sledges. There are few good roads, excepting the magnificent macadamized one, nearly 500 miles in length, between St. Petersburg and Moscow, and a few other principal lines. Moscow is the principal entrepôt of the inland trade. But a great portion of it is carried on by means of annual fairs; the most remarkable of which is that of Nijnii-Novgorod, the centre of the immense system of inland navigation just noticed, situated at the confluence of the Oka with the Volga.—The principal branch of the Russian foreign trade is that with Great Britain, chiefly through the northern ports; that with Italy and Turkey, through the southern ports, ranks next in importance; and there is also an active intercourse with the neighbouring Baltic states, the Netherlands, France, and the Hanse towns; but, except with the United States and the island of Cuba, there is little intercourse with more remote countries. Besides her maritime commerce with foreign nations, Russia, however, carries on a considerable trade across her Asiatic frontiers. In this way tea and other articles are procured from the Chinese, with whom an exchange of commodities takes place at Kiachta. In 1839, the total of the exports from Russia was 330,000,000 rubles, or £14,780,000; and the shipping despatched (exclusive of coasters) amounted to 6562 vessels, in burden 1,184,636 tons; of which only 1051 vessels, in burden 165,920 tons, were Russian. Of the shipping entered, nearly two-thirds were in ballast, arising from the coarse and bulky nature of the exports compared with the imports.—The integer of account is the silver rouble, which is divided into 100 copecs, and is equal in value to 3s. 1½d. sterling, or ¾ of a dollar



of our money. Accounts were formerly kept in paper or bank rubles similarly divided; but this practice was abolished by an imperial ukase in 1839, which established the silver ruble as the only legal measure of value throughout the empire. This ukase fixed the exchange of paper into specie at the rate of 350 copecs in paper for 100 copecs in silver. — The annual amount of the public revenue is estimated at about 380,000,000 paper rubles; of which 40,000,000 are derived from a capitation tax of 4 rubles a head on all male boors belonging to individuals, and on some descriptions of freemen; 90,000,000 from the *obrok* or rent, paid by all male boors on the crown estates; 92,000,000 from the customs' duties; 100,000,000 from the duties levied on spirits; 10,000,000 from the salt monopoly; 16,000,000 from the crown mines; 8,000,000 from a tax of  $1\frac{1}{2}$  per cent. on the declared capital of merchants; 8,000,000 from the seignorage on coins; 7,000,000 from stamps, licenses, and similar imposts; and 9,000,000 from miscellaneous items. The taxes are partly farmed. Of the expenditure very little is known. — The national debt was officially stated to have amounted, on the 29th of June 1844, to the sum of 299,862,232 silver rubles. This is, however, exclusive of the paper money in circulation, for the redemption of which the government is pledged, and which amounted, at the end of the year 1843, to 562,358,310 paper rubles. A considerable portion of the debt was contracted in Amsterdam and London. — It is a curious fact that, notwithstanding the despotical nature of the government, all the provincial courts of justice consist partly of elective functionaries. Thus, the superior court for a circle consists of a judge and secretary appointed by the emperor, and of two assessors chosen annually by the nobles, and two by the peasants; and the superior court of justice for a government, which is divided into a civil and criminal chamber, consists of a president, secretary, and four assessors, two of the assessors being chosen by the nobility, and two by the burghers. It is, in fact, a principle in Russia, that a portion of the judges in every court should belong to the same class as the party whose interests are under discussion, and be elected for that purpose by his compeers. In the case of the nobility and burghers, this is a most valuable privilege; but in the case of the peasantry, who stand most in need of protection, this privilege is quite illusory; their slavery and ignorance rendering them utterly incapable of profiting by

it. Capital punishments are rare in Russia, treason being the only crime visited with death. In cases of murder, and some other offences of a high order, the criminal, after receiving a certain number of lashes from the *knout* (under the infliction of which he sometimes expires), is condemned for life to forced labour in the mines of Siberia. The nostrils of criminals used also to be slit, and their faces branded with a red-hot iron previously to their banishment to Siberia; but this needless aggravation of punishment was put an end to by the emperor Alexander. According to an official return, there were, on the 1st of January 1835, 97,121 criminals in Siberia, of whom 23,264 were females. Of the convicts, about 10,000 are condemned to forced labour in the mines, and otherwise; the others being mostly employed in agriculture. Those sent thither for political offences are mostly confined in the N.E. part of Siberia, the climate of which is especially severe. There is in Russia, particularly in the great towns, a very efficient system of police. Crimes are not frequent; and property is as well protected as in any other country. — The universities are the same as mentioned in a previous volume of this work, with the exception that the one at Wilna was suppressed by the emperor Nicholas after the Polish insurrection in 1832, and the former university of Kiev revived in its stead. There are at present, in all the Russian universities, upwards of 300 professors and 3500 students, — 900 of the latter being at Moscow. Each of the governments has at least 1 gymnasium; several have two or more; St. Petersburg and Moscow have each 3; so that in the whole empire, there are about 70 gymnasia, besides 3 lyceums. In addition to these institutions, upwards of 500 private academies have been established; and there are about 450 circle and burgher schools. Primary schools, or those in which only an elementary instruction is communicated, have been in a great measure neglected. Indeed, the schools of this description are stated to be only 900 in number. And it is reckoned that, not including Poland and Finland, the whole number of children at school in the empire does not exceed 245,000. But besides the schools already mentioned, many others have been established in different parts of the empire, for various special purposes: such as medical, surgical, and veterinary schools; military academies; schools of civil engineering, navigation, and of min-

ing, for the education of teachers, and for the children of the nobility; together with a considerable number of theological seminaries, for the instruction of the clergy, Greek, Roman Catholic, and Protestant. The Jews have a sort of seminary of their own at Brzesc-Litewsky: the Mohammedans, too, have their separate schools; and schools have been established among the tribes of Tartars subject to the dominion of Russia.—In her exterior relations since the peace of Adrianople, while Russia has shown no disposition to disturb the peace of Europe by any projects of farther aggrandizement, she has embraced every opportunity offered to her by the weakness of Turkey, to extend her influence over that country. See *Turkey*, (Sup.) She has also made repeated efforts to balance the influence of Great Britain over the Shah of Persia. It was probably through the intrigues of her agents that this prince was induced, in 1837, to make an unsuccessful attempt to obtain possession of Herat. See *Persia*, (Sup.) The expedition also against Khiva, in 1839, which failed from the severity of the cold, and the difficulties encountered

in its march, had the same general object in view, of impressing upon the Asiatic nations a conviction of the far-reaching power of Russia. And there is another quarter in which the Russian standards have met with repeated defeat and disgrace. In 1827, the region of the Caucasus was seemingly entirely subjected to the dominion of the emperor; but the mountains of the interior, and the valleys which they enclose, continued to serve as a retreat to the Circassians and other kindred tribes. In despite of the magnitude of the forces sent against them, and of the resources of European tactics displayed by the Russian generals, they have maintained their rude independence down to the present day. For the policy pursued by the emperor Nicholas towards Poland, since the capture of Warsaw by his armies in September 1831, the reader is referred to the article *Poland*, in this volume.

**Ryots**; the name given to the cultivators of the soil in Hindostan, who hold their land by a lease which is considered as perpetual, and at a rate fixed by ancient surveys and valuations.

## S.

**SACY.\*** M. de Sacy was promoted to the dignity of a peer of France, in October 1832. A short time afterwards, he was appointed inspector of the oriental types in the "Imprimerie royale," and conservator of the oriental manuscripts in the "Bibliothèque royale;" and he became also perpetual secretary of the Academy of Inscriptions. He published, in 1838, the first two volumes of the "Tableau des doctrines religieuses des Druzes," a work which he was not spared to complete. He died, February 21st 1838, of an attack of apoplexy, at the age of 80.

**SAPFLOWER**; the flowers of an annual plant (*Carthamus tinctorius*) growing in Egypt, and in the warmer parts of Asia, Europe, and America. They are of an orange-red colour. They are chiefly used for dyeing silk; producing different tints of red and orange, according to the alterations employed in combination. The dye is sometimes extracted and made up into cakes, termed *stripped safflower*. It forms the basis of *rouge*.

**SAINT-MARTIN** (Jean Antoine), an eminent oriental scholar, and distinguished especially by his acquaintance with Armenian literature, and by researches respecting ancient chronology, was born at

Paris in January 1791. He was a pupil of Silvestre de Sacy. When, in 1814, the "Académie Celtique" was re-organized under the title of the Royal Society of Antiquaries, he was appointed to be its secretary. Several memoirs, relating to the history and geography of Armenia, obtained for him, in 1820, a seat in the Academy of Inscriptions. In 1822, he undertook the editorship of the monthly Journal of the Asiatic Society of Paris. The king appointed him, in 1824, librarian of the Arsenal, and bestowed upon him other favours of a more lucrative character; and in the year 1827, he became the editor of the royalist journal entitled "L'Universel." It ceased to be published at the period of the revolution of July 1830; which event also deprived him of his office and pecuniary allowances, he having been one of the most uncompromising supporters of the ancient dynasty. He died of the cholera, on the 20th of July 1832.—His principal works are the "Mémoires historiques et géographiques sur l'Arménie" (2 vols., 1818–22); "Nouvelles recherches sur l'époque de la mort d'Alexandre et sur la chronologie des Ptolémées" (1820); "Notice sur le zodiaque de Dendérah" (1822), and a "Histoire de Palmyre" (1823). He

likewise undertook the publication of an edition of the "Histoire du Bas-Empire" of Lebeau, with copious notes, and corrections from oriental sources, but left it at his death unfinished. It has since been completed by his pupil, M. Brosset.

SALFI\* died at Passy, near Paris, in 1832, of an attack of the cholera.

SALM-DYK\* (princess of) died at Paris, in 1845.

SALONICA.\* According to the latest accounts, the population of this city amounts to 70,000. Of this number, about three-fifths are Turks, and the rest chiefly Jews and Franks; the Greek population having greatly diminished since the war of independence. The Jews are for the most part of Spanish descent, and obtain a livelihood by trade, particularly the retail trade in the bazaars; those of the lower orders being employed as porters on the quays or in similar offices. The Franks consist almost exclusively of French and Germans, who have establishments for the management of the transit trade.—During the period of the last European war, when the anti-commercial system of Napoleon was at its height, Salonica became an important dépôt for British goods, whence they were conveyed to Germany, Russia, and other parts of Europe. They were transported on pack-horses, by long and laborious journeys, the time occupied in travelling from Salonica to Vienna, for example, being 35 days.—The number of vessels which entered the port in 1837 was 329, of which 243 were Greek and 86 Turkish: the vessels cleared were 306, and of these 235 were Greek, and 29 Turkish. The Greek vessels, it is proper to state, were of small, and the Turkish of comparatively large burden. The value of the inward cargoes amounted to £90,809, and of the outward to £136,614.

SALVANDY (Narcisse Achille, comte de) was born at Condom, in the French department of the "Gers," in June 1795. He was a pupil of the "Lycée Napoléon" when, in the early part of the year 1813, he enlisted in the French army as a volunteer. He was several times wounded, particularly at the battle of Brienne in the following year, and earned by his talents and bravery the rank of adjutant-major, as well as the cross of the legion of honour, which he received from the hands of Napoleon at Fontainebleau. On the abdication of Napoleon, M. de Salvandy commenced the study of the law at Paris; without, however, resigning his commission in the army, the pay connected with which was necessary for his support. He

was attached, in his military capacity, to the household troops of the king (*maison militaire du roi*), and on the return of Napoleon from Elba, in March 1815, escorted Louis XVIII. to the frontier. During the "100 days," he remained without any active employment; and, after the defeat of Waterloo, he made his debut as an author, by the publication of a pamphlet entitled "Sur la nécessité de se rallier au roi." This was followed, in 1816, by another, "La coalition et la France," written with great force and ability, in which he earnestly protested against the occupation of a portion of the French territory, for a number of years, by the allies. So great was the sensation produced by the writer, that the ambassadors of some of the great European powers demanded his prosecution of the government; a demand, however, which they did not press, on account of the inconsistency, as was stated to them by the government in reply, of such a step with one of the articles of the Charter. By the advice of the ministers, Salvandy, nevertheless, remained silent during the remainder of the period of the foreign occupation, and was rewarded for his silence by being appointed, in 1819, to be a "maître de requêtes" in the council of state. In 1820, when it was proposed to restrict the right of suffrage, by the passage of a new law of elections,—a proposition sanctioned by the ministry of the time,—he published his pamphlet "Sur les dangers de la situation présente," which caused him to be dismissed from his office. Thenceforth, until the revolution of 1830, he devoted himself chiefly to literary pursuits; having, in 1823, resigned his commission in the army, on account of his unwillingness to serve against the constitutionalists of Spain, and occupying for a short time only, during the administration of M. de Martignac, the post of a counsellor of state. Among the fruits of this leisure may be mentioned his novel of "Don Alonzo, ou l'Espagne," which exhibits a vivid portraiture of the condition of Spain, when visited by him after his dismissal from office in 1820; "Isaïor, ou le barde chrétien," being the story of a military tribune, who is imagined to have been compelled to quit the army, in the reign of the emperor Julian, on account of his having embraced Christianity, and to have sought a refuge from persecution in Gaul; together with a "Histoire de Pologne, avant et sous le roi Jean Sobieski" (3 vols.). Besides these works, M. de Salvandy was the author of a number of powerfully written articles inserted in the co-

lumes of the "Journal des Débats," as well as of several pamphlets published during the administration of M. de Villèle, which contributed, in no inconsiderable degree, to the fall of the latter. He was also active in his opposition to the Polignac ministry; and without being an immediate partaker in the revolution which placed Louis Philippe on the throne of Charles X., he acquiesced in its results, and supported the new government, in a spirit of moderation, and as a decided "doctrinaire." As such he exhibited himself in the Chamber of Deputies, and in his "Seize mois, ou la révolution et les révolutionnaires" (1831), republished in a second edition, under the title of "Vingt mois, &c." (1832); and likewise in the continuation of this last, entitled "Paris, Nantes et la session" (1832). In 1837, he was entrusted with the department of Public Instruction, under the administration of M. Molé. He was subsequently one of the vice-presidents of the Chamber of Deputies; he went in 1841 as French ambassador to Madrid, but quitted this post in the following year on account of a dispute with Espartero concerning a point of etiquette; and in November 1843, he became ambassador to the king of Sardinia, at Turin. Previously to setting out on the last-mentioned mission, he was elevated to the dignity of a count; and shortly after having entered upon its duties, he returned to Paris, where, by voting against the *address* of the chamber, which reflected severely on the conduct of the legitimist deputies who had just returned from a visit to the young duke of Bordeaux in London, he gave offence to the government. He was, in consequence, induced to resign his diplomatic appointment in the early part of the year 1844. His differences with the government were, however, very soon healed; for in January 1845, we find him succeeding M. Villemain as minister of Public Instruction.

SALVERTE (Anne Joseph Eusèbe Baconnière) was born at Paris on the 18th of July 1771. He chose the law for a profession, and practised as an advocate (*avocat*) in the court of the Châtelet, till its suspension in the course of the revolution, when he was appointed to an office first in the department of the minister of foreign affairs, and afterwards in that of finance. In 1795, he was condemned to death on a charge of conspiring against the National Convention. For some reason that does not appear, the sentence was not carried into execution; but he was detained in prison, until liberated in the following year

by a revolution in the government. From this period down to the year 1828, when he was elected a member of the Chamber of Deputies, he held no public appointment, but found sufficient occupation for himself in literary pursuits, and political speculation. He was one of the 221 deputies who, in 1830, voted the famous address to Charles X., which led the way to the revolution of July and the loss of his crown. He belonged also to the society "Aide toi, Dieu t'aidera," and took a decided stand against the government of Louis Philippe, for not carrying out, as was alleged by the republicans and the more strenuous "liberals," the principles on which it was established. His death took place in 1839.—Besides some poems, tales, and a tragedy published in 1813, M. Salverte was the author of the following works:—"Entretien de Junius Brutus et de Caius Mucius" (1793); "Idées constitutionnelles présentées à la Convention" (1794); "De la balance du gouvernement et de la législation" (1798); "Des rapports de la médecine avec la politique" (1808); "Tableau littéraire de la France au 18ième siècle" (1809); "Des pétitions" (1819); "Un Député, doit il accepter des places?" (1820); "De la civilisation depuis les premiers temps historiques jusqu'à la fin du XVIII siècle" (1813-35); "Essai historique et philosophique sur les noms d'hommes, de peuples, et de lieux, considérés principalement dans leurs rapports avec la civilisation" (1824, 2 vols.); "Horace et l'empereur Auguste" (1823); and "Des sciences occultes" (1829, 2 vols.).

SALZBURG\* had, in 1840, about 12,000 inhabitants. The university was, in 1809, reduced to a lyceum of two faculties, medicine and jurisprudence, with a library of 36,000 volumes, a botanic garden, zoological museum, &c. In the Benedictine convent there is another considerable library, with collections of coins, &c. The town has also a gymnasium, an Ursuline female school, a spacious public cemetery, a public museum, and a theatre.

SAMOS\* is estimated to contain at present about 32,000 inhabitants, all of them Greeks. Since 1833, it is governed by a Greek governor and municipal council, and is subjected to the payment of an annual tribute to the Porte. It is the most productive island of the Greek Archipelago, and exports annually considerable quantities of corn and oil, from 25,000 to 30,000 cantars of grapes, and about 15,000 barrels of raisins.

SANA, the capital town of Yemen in Arabia, and the residence of the Imâm.

It is situated about 150 miles N.N.E. of Mocha, near the head of the Shab river, 4000 feet above the level of the ocean. In 1836, its population was estimated at 40,000. A part of the city is appropriated to the Jews, who amount to about 3000. Each pays about a dollar a year for permission to reside; and a sheikh is appointed, who is responsible for the regular payment of this impost, and of the heavy taxes laid upon their vineyards, gardens, &c. The Jews subsist chiefly by the sale of silver ornaments, gunpowder, and spirituous liquors, and many of them by working as common artisans. There are also many Hindoos among the population, who, like the Jews, are obliged to conceal as much as possible the property they possess, for fear of exaction. The Mohammedan merchants are in general wealthy, and live well. The principal trade of Sana is in coffee, the city being in the heart of the coffee country of Yemen. It is, however, little used at home, the favourite beverage being *kasher*, an infusion of the husk. The coffee-husk, accordingly, fetches here the higher price of the two.

SAND (George). Aurora, marchioness Dudevant, so celebrated as an author under the designation of *George Sand*, was born in 1804, in the French department of the Indre. Her father is said to have been a natural son of the famous Marshal Saxe. After having been brought up in the strictest and most secluded manner, she was married for convenience, at 18 years of age, to a man with whom she had no sympathies in common, and to whom she brought an estate of 500,000 francs. In 1831, she left her husband and went to Paris, where, after several literary attempts in the public journals, she published, jointly with her friend *Jules Sandeau*, "*Rose et Blanche*," a novel (5 vols. 1832), under the assumed name of *George Sand*, a name intended to continue common to them both. But the *friends* soon parted; and *George Sand* was thenceforth the designation only of the lady. This first experiment of *Mad. Dudevant*, as a novelist, could scarcely have been regarded as a successful one, since it is only in a few passages, here and there, that it evinces any extraordinary talent in the writer. In her next, however, she developed the powers as a novelist which she possessed, in the most unequivocal manner. Her "*Indiana*" (2 vols. 1832) at once entitled her to take rank with the prominent French novelists of the day; and her reputation was still further enhanced by her "*Valentine*" (2 vols. 1832), "*Leila*" (3 vols.

1833), "*Jacques*" (2 vols. 1834), "*André*" (1835), "*Léone Léoni*" (1835), and other subsequent works. Her productions usually appeared first in the "*Revue des deux mondes*." Some dispute, however, with the editors of that journal, led to the commencement by her of the "*Revue indépendante*," assisted by P. Leroux and Viardot. Independently of her skill in the delineation of her characters, and of the circumstances in which she represents them as acting, she has a perfect command over the language she employs as the vehicle of her sentiments. She expresses herself in the *purest* French with the utmost ease and felicity. When Arago, accordingly, spoke of *George Sand*, in the Chamber of Deputies, as "one of our first, and perhaps the very first, of our living prose writers," he probably only pronounced a very prevalent opinion. But with all *Mad. Dudevant's* merits as a writer, the tendency of her books is in a high degree immoral, much more so, indeed, than that generally of the works of lighter literature, bad as these may be, which are every day issuing from the Paris press. She pays little or no respect to obligations and principles, consecrated by religion, and held in respect by the mass of mankind, and makes war on the institution of marriage itself, as unduly restricting the natural and legitimate liberty of man, and of woman also. Hence, when one is told of her frequenting places of public resort, dressed in male attire, and affecting to show her *manliness* by the smoking of segars, he cannot be in the least surprised; and he must, moreover, be quite prepared to believe in the truth of much else that is occasionally insinuated concerning the habits of so eccentric and lawless a personage.

SANDERSON (John), distinguished as a writer and as a scholar, was born near Carlisle, in Pennsylvania, in the year 1785. At a very early age, he evinced such a passion for learning, that his father (a revolutionary soldier who was then a farmer in moderate circumstances) determined to give him a liberal education, and he accordingly studied the humanities with a clergyman in the valley of the Juniata, for three years riding every morning between seven and eight miles through summer's heat and rain, and winter's frost and snow; to recite his lessons. In 1806, he entered the office of William Moore Smith, of Philadelphia, as a student of law; but, upon being admitted to the bar, the prospects of pecuniary reward were so unpromising, that he accepted the situation

of assistant teacher in the Clermont Seminary, then under the charge of Mr. John T. Carré, whose daughter he subsequently married, and with whom he was several years associated as partner in that popular school, then one of the best in the United States. In this period, he was a frequent contributor to Dennie's Port Folio, and occasionally a writer of political articles in the Aurora newspaper. In 1820, he wrote the first and second volumes of the *Lives of the Signers of the Declaration of Independence*; a work which was completed in eight volumes, and which was projected and published by his brother, Mr. James M. Sanderson. It has passed through numerous editions, and maintains its popularity as one of the most valuable collections of historical biography produced in this country. He soon after wrote a masterly defence of classical learning, by which he overthrew a plan for the establishment of a college in Philadelphia, from which was to be excluded the study of the Greek and Latin languages and literatures. About the year 1833, in consequence of the failure of his health, Mr. Sanderson sailed for Europe, remaining there several years, principally in Paris, where his *bontomnie* and scholarship made him a general favourite with wits and men of learning. His "American in Paris," in two volumes, written at this time, is the work upon which principally rests his reputation as a man of letters. It is distinguished for vivacity, humour, and accuracy of observation and analysis of character. Before he left Europe, he commenced another work, which he afterward finished, and of which parts were printed in the Knickerbocker Magazine, entitled the "American in London." Upon his return home, he was elected to the professorship of the Greek and Latin languages in the Philadelphia High School. This office he held until his death, which occurred suddenly, on the 5th of April 1844, when he was in the 58th year of his age. — To natural abilities of a high order, Mr. Sanderson added a calm, chaste scholarship, an intimate acquaintance with men, a singularly amiable disposition, and a frank and highbred courtesy. In his humour were happily blended the characteristics of Rabelais, Sterne, and Lamb. To his appreciation of the comic was added a most delicate perception of the beautiful. He knew society, its selfishness, and its want of honour, but looked upon it less in anger than in sadness. Yet he was no cynic, no Heracitus. He deemed it wisest to laugh at the follies of mankind. Through all

his experience he lost none of his natural urbanity, his freshness of feeling, his earnestness, and sincerity. He was equally brilliant in his conversation and writings; but he never summoned a shadow to any face, or permitted a weight to lie on any heart.

SANDS (Robert C.) was born in the city of New York, May 11th 1799. He was remarked at an early age for the quickness of his apprehension, and his facility in acquiring knowledge. When 7 years old, he began the study of the Latin language, and when only 13, was admitted to the Sophomore class of Columbia College. After graduating in 1815, he entered upon the study of the law in the office of Mr. David B. Ogden, an eminent member of the New York bar. In 1820, he commenced the practice of his profession. His first attempt, however, as an advocate, was unsuccessful, or at least did not approach the standard of excellence at which he had aimed; and he was, in consequence, so much discouraged, that he made no second attempt of any moment before a jury, and gradually withdrew himself from practicing as an attorney. He thenceforth devoted himself exclusively to literary pursuits, and depended upon his pen for the means of support, — a support which, at length, was rendered less precarious by his becoming assistant-editor of the "New York Commercial Advertiser," with a liberal salary. He died from an attack of apoplexy, which he experienced, while engaged in composition, on the 17th of December 1832, in the 34th year of his age. — Although, while a student in college, Mr. Sands had performed in a highly creditable manner the exercises assigned to him in every branch of the course of instruction, it was to classical and general literature that his attention was in preference directed; and his tastes for these studies were further extended and improved in the future period of his career. He became, also, conversant with the French, Italian, Spanish, and Portuguese languages and literatures. A selection from his writings was published after his death, with a memoir of the author prefixed by Mr. Gulian C. Verplanck, in 2 volumes 8vo. These contain: — an "Historical notice of Hernan Cortes, Conqueror of Mexico," which was translated into Spanish, and circulated extensively in Mexico, South America, and the Spanish West Indies; an essay on "Domestic Literature;" "Isaac, a Type of the Redeemer;" a notice of the "Caio-Gracco" of Monti; the "Garden of Venus," from

the Italian of Politian; "Yamoyden, a Tale of the Wars of King Philip," a poem in 6 cantos, the joint production of Mr. Sands and the Rev. James Wallis Eastburn; and a number of minor pieces, concluding with the lines entitled "The Dead of 1832," which appeared in the Commercial Advertiser only about a week before the death of Mr. Sands.

**SANDWICH ISLANDS.\*** Honolulu, in the island of Oahu, is the capital of this group of islands, and has a population of about 6500. Some of the houses are built of stone; but the natives still prefer living in their huts, so that the town has a very irregular appearance. The principal public building, we are told, is the "English school," in which instruction in English reading and writing is given to children of both sexes: there are, also, 2 churches, numerous boarding-houses, and many well-stocked shops. The harbour (formed by a barrier-reef of coral, having a single opening) has accommodation for between 60 and 70 vessels of 500 tons. In 1831, there belonged to the islands 14 ships of 2630 tons, of which 4 brigs and 7 sloops were the property of the natives; and in 1836, from the 1st of July to the 13th of December, there were 154 arrivals at the port, of which 80 were brigs and schooners belonging to the country, 56 from the United States, and 17 from England. The government has negotiated commercial treaties on a liberal footing with the United States, England, and France. — The Protestant missionaries, from the United States chiefly, have continued their labours of late years, with great zeal and success; and we are also informed that the Catholic missionaries have likewise been very active. The latter reported the number of their converts to have amounted, in 1842, to no less than 10,000. The history of their introduction into these islands is somewhat remarkable. In a treaty, concluded between the king and M. Dupetit-Thouars, in 1837, it was stipulated that all Frenchmen, who should arrive in the dominions of the former, should be equally protected, and should enjoy the same advantages and privileges, with the most favoured nations. Nevertheless, when, not long afterwards, the Catholic missionaries made their appearance, they were not permitted to address themselves to the people, but even ordered to quit the islands. In consequence of this proceeding, a French frigate presented itself at the port of Honolulu in 1839, the commander of which demanded, in the name of the king of the French, that the Roman Catholic worship should be unre-

stricted throughout the Sandwich islands, — that a suitable piece of ground should be allotted for the erection upon it of a Catholic church, — and that, as a pledge of his good faith, the king (Tamehameha III.) should deposit in the hands of the representative of the French government the sum of \$20,000, — and all this under the penalty of an immediate attack on the town, in case of refusal. These conditions were, however, accepted, and a new treaty formed between the parties, under the safeguard of which the Catholic missionaries have since carried on their operations without being disturbed.

**SANTA ANA.\*** See *Mexico*, (Sup.)

**SANTANDER\*** (General) died at Carthagena, in New Grenada, in 1840.

**SAPAN WOOD;** a dye-wood similar to Brazil-wood, but containing much less colouring matter. It is the product of a thorny tree, a species of *Cassipina*, indigenous to S. India, Siam, Pegu, and the Eastern Islands.

**SARAGOSSA.\*** Present population of this city estimated at 43,000. — A university was founded here on the expulsion of the Moors in 1118, but was not incorporated till 1474: it was well attended at the close of the last century, but is now comparatively deserted. Among the other establishments, may be mentioned a royal economic society, with professors of chemistry and agriculture, botany, rural economy, &c.; a royal academy of the fine arts, a public library, and a *monte de piedad*; together with 5 *hospicios*, or public almshouses, one of which, the *Casa de Misericordia*, has accommodation for 700 sick and aged persons of both sexes, and another affords a refuge for upwards of 1000 orphans and foundlings.

**SARDINIA.\*** The population of the kingdom of Sardinia, according to a census taken in 1838, was as follows: — Savoy, 564,150; Turin, 873,300; Coni, 566,200; Alexandria, 565,600; Novara, 542,700; Nice, 230,000; Aosta, 73,100; Genoa, 675,000; Island of Sardinia, 524,600; total, 4,650,350. — The island of Sardinia, though exceeded by few regions in natural fertility, is at present the least valuable portion of the kingdom; both the country and the population being, from a variety of causes, still in a semi-barbarous state. There is, however, a surplus of corn for exportation; the chief other products being wine, skins, linseed, flax, olive-oil, wool, and barilla. The fisheries on the coast are of some importance, particularly those of coral and tunnies. — Of the continental part of the kingdom, the most

important and fertile portion is Piedmont, consisting of the upper basin of the Po, from which and its affluents, the country, though naturally parched by heat, is so extensively and skilfully irrigated, that it yields a surplus of corn, cattle, French beans, and hemp: its chief other products are wine, fruit, and, above all, silk of the finest quality. Savoy, separated from Piedmont by the Alps, is a poor hilly country; and the narrow maritime districts of Genoa and Nice, divided from Piedmont by the Apennines, are also hilly and rocky, but have a south aspect highly favourable for the olive. The mineral wealth of these territories has been little explored. Iron, lead, copper, and other metals are said to abound; and marble and alabaster are both plentiful and largely exported. There are some iron-works; but the principal manufactures are those of silk, velvets, and hosiery, mostly consumed in Italy, coarse woollens and linens, canvases, cables, paper, glass, and works of art. — The maritime commerce of the Sardinian states centres in Genoa, which, besides being the great seat of their export and import trade, is the channel through which much of the foreign trade of Switzerland and other neighbouring countries passes, and is, next to Leghorn, the chief entrepôt for the commerce of the Mediterranean generally; to which facilities are afforded by the abolition of transit dues on goods passing through the states, low duties on consumption, and the establishment at Genoa of *porto franco* or bonded warehouses. In this way, olive-oil, wheat, sugar, coffee, cottons, woollens, linens, cotton wool and yarn, silks, indigo, salt fish, drugs, hides, tobacco, wine, cheese, and other principal articles of trade, appear on the public accounts both as imports and exports. In 1835, the maritime imports amounted to £4,800,000; the exports to £3,440,000; and the aggregate amount of shipping entered was 2,927 vessels, in burthen 268,109 tons. — The revenue of the kingdom, in 1839, was about £2,960,000; and the expenditure nearly the same. The debt amounted to £5,800,000; bearing interest at 4 and 5 per cent. The public credit is high, owing to the progressive liquidation of the debt, and the punctual payment of the interest. — The Sardinian army, on the peace establishment, consists of about 22,000 men; but in time of war it may be raised to 132,600 men, of whom 67,200 are infantry of the line, 50,000 depot and reserve infantry, 6000 cavalry, and 6300 artillery. The navy is composed of 6 frigates and 3 corvettes, besides smaller ves-

sels. — Notwithstanding the absolute nature of the government, it has constantly aimed at restraining the extravagant privileges of the nobility, clergy, and corporations, and enlarging the rights and immunities of its subjects. So long ago as 1729, it abolished nearly the whole system of feudal authority and personal service, leaving scarcely any but honorary privileges in force. It then also limited the rights of primogeniture and entail, and consequently gave greater scope to the free cultivation of the soil; and diminished the powers of the clergy, more particularly that of investing land in mortmain. The king is assisted in his administration by five ministers, or secretaries of state, for the Interior, War and Marine, Finance, Justice, and Foreign Affairs; and by a council of state, consisting of a president, 14 ordinary, and an unlimited number of extraordinary members. — In 1838, a new code of laws for the Sardinian states was adopted, which, though an improvement on the heterogeneous code it replaced, exhibits some glaring defects. Among others, the use of torture is retained in certain cases; the most arbitrary means are used to extend the Roman Catholic religion; and Jews are subjected to the most illiberal restrictions. — There is a rigid censorship of the press; and foreign books pay an oppressively high duty. The Sardinian government has, nevertheless, of late evinced a very enlightened spirit, and done much for the improvement of its subjects; and the schools and colleges, as well as most branches of the public service, have been materially ameliorated. Various new and wholesome laws have been enacted for the regulation of communes, roads, weights and measures, sanitary police, vaccination, prisons, forests, the game laws, &c. A good many canals, roads, and bridges have been constructed, and hospitals, museums, baths, and public establishments of all kinds, have been founded; the harbours have been improved; light-houses built; and the army has been thoroughly re-organized.

**SASSARI**; a city of the island of Sardinia, and the capital of its northern division. It is situated on the Turritano, about 10 miles from its mouth at Porto Torres in the gulf of Sassari, and 100 miles N.N.W. of Cagliari. Its population in 1838, including its commune and port of Torres, was 24,406. It has a massive cathedral, with a disproportioned and elaborate façade, and numerous other churches and convents. The university, founded in 1765, is established in the former Jesuits' college.



Though its port is a very bad one, it has a considerable trade in tobacco, oil, fruits, &c.

SAVARY\* died at Paris in June 1833, of a disease contracted by him from exposure to the climate of Algiers.

SAVIGNY.\* The 6th volume of this eminent jurist's "History of the Roman Law in the Middle Ages" appeared in 1831; and a second edition of it has since been published. Since the accession to the throne of the present king of Prussia, M. de Savigny has been entrusted, jointly with M. Müller, with the charge of the ministry of justice at Berlin; in which office, he is chiefly occupied in the task of revising the existing laws of the kingdom.

SAXONY.\* The population of this kingdom, in 1844, is stated to have amounted to about 1,770,000; all of them Lutherans, with the exception of 32,000 Roman Catholics, 2000 Reformed Protestants, 130 persons of the Greek church, a small number of Herrnhütters, and 900 Jews.—Every spot of ground which seems capable of giving a return is cultivated; and the meadows are mowed twice or thrice in the course of each summer. A common or waste is seldom or never to be met with, while the forests are guarded with a strictness proportioned to their value. But notwithstanding the improvement of agriculture, and the industry of the people, considerable quantities of corn have to be imported; and no agricultural produce is exported, except wool,—Saxony being celebrated for her breeds of sheep which are among the finest in Europe. The late king, when elector of Saxony, introduced the breed of Merino sheep into his dominions, and exerted himself to promote the growth of this valuable race of animals with such success, that they are now found to succeed better in central Europe than in Spain; and notwithstanding the rapidly increasing importations from Australia, the greater portion of the immense quantity of wool imported into Great Britain still continues to be brought from Saxony and other German states. The cattle of Saxony are also of a superior description; and vast quantities of butter are made and consumed.—Upwards of 500 mines are wrought, which are said to employ 11,000 workmen. The total annual value of the metals obtained is estimated, by Berghaus, at 1,760,000 dollars (*thalers*); the silver producing nearly 930,000, and the iron and iron-wares 400,000 dollars. The neighbourhood of Meissen yields the fine porcelain clay, of which the "Dresden China" is made. About 1½ million *schef-*

*fels* of coal are annually produced.—The most important branch of manufacturing industry is that of cotton, which, as well as every other, has greatly expanded of late years, owing partly to the extraordinary cheapness of labour which has attended the extension of the potato cultivation, and partly to the markets of Prussia and other parts of Germany having been opened to the manufacturers by the Customs' Union (*Zollverein*), which has benefited Saxony beyond any other of its members. Most kinds of cotton fabrics are now produced; printing works are on the increase; and the cotton hosiery now competes with that of England in the foreign markets. The chief other manufactures are those of linens and woollens; but almost every article of luxury is made.—The commerce of Saxony centres chiefly in Leipsic, to the fairs of which city immense quantities of foreign commodities are likewise brought for the supply of other parts of the European continent. Besides merchants from all parts of Europe, as many as 600 booksellers are said to have been assembled at some of these fairs, from all parts of Germany, to dispose of their publications and adjust their accounts. With a view to facilitate the mercantile operations of Leipsic, a joint-stock bank, with a capital of 1,500,000 *thalers*, was established there in 1839.—The Estates which Saxony possessed, previously to the year 1830, had comparatively little power; and the imposition of taxes and other public burdens, and the regulation of the public expenditure, mostly depended on the pleasure of the king. But the French revolution of 1830 was speedily followed, in Saxony, by some very important political changes. The king was obliged to associate his nephew, the present sovereign, with him in the government; a representative system was organized on a new principle; and the abuses incident to the feudal system were suppressed. There is a senate consisting of 52, and a house of representatives of 300 members. But owing to the high qualification required for deputies, and other causes, the new constitution has not obtained any great degree of popularity.—The public revenue, according to the last accounts, amounted to 5,681,002 *thalers*, and the expenditure to 5,662,239 *thalers*. The public debt, at the end of the year 1842, is stated at 10,142,020 *thalers*; it is in a regular course of reduction.

SAY (Thomas) was born in the city of Philadelphia, on the 27th of July 1757. He was the son of Dr. Benjamin Say, a

respectable physician, and a member of the Society of Friends. He received his early education, first at a Friends' school in the city, and afterwards at an academy belonging to the same sect at Westtown in its vicinity. His father not perceiving in him a predilection for any of the learned professions, and aware of the importance of occupation, took him into his own drug store, and subsequently established him in business as a druggist. But Thomas Say, while in the country, had imbibed a taste for the study of natural history, which he could not resist the temptation to gratify. Instead of attending to his business, he was often more pleasantly occupied with collecting and arranging the insects which he met with. He became imprudently responsible for the pecuniary engagements of others, and was before long deprived of all the capital which he had invested. — Satisfied with having thus far complied with the wishes of his father, and convinced, besides, of his being out of his proper province when engaged in any mercantile employment, Mr. Say now resolved to devote himself to the study of natural history. He was one of the members of the Academy of Natural Sciences at its formation, in January 1812; and when the Academy began the publication of its journal, in May 1817, he became one of its most active contributors. — In the early part of the year 1818, in company with Messrs. Maclure, Ord, and Peale, he visited the islands and adjacent coast of Georgia, and penetrated into East Florida, then under the dominion of Spain, for the purpose of studying the natural history of those interesting regions. This journey, however, although productive of much valuable information, was shortened in consequence of the hostilities which still existed between the people of the United States and the native tribes of Florida; the exploring party having been, indeed, advised by the Spanish governor of that territory to return, as it would not be in his power to afford them any assistance, in the event of an attack by the Indians. — Mr. Say held the office of chief zoologist in the expedition under the conduct of Major Long, in 1819–20, to the Rocky Mountains, and, in that of 1823, to the sources of the St. Peter's river, &c.; and he contributed largely to the accounts which were subsequently published of these expeditions. In 1825, he was induced to accompany Messrs. Maclure and Owen to their settlement of New Harmony, in Indiana, where, through the munificence of the first-mentioned gentleman, he enjoyed "the advantages of

a splendid library, abundant facilities for making collections, and a ready printing-press." But in a few months the parties associated in this undertaking disagreed among themselves, and separated. Mr. Maclure went to Mexico, and Mr. Owen to England; Mr. Say having in the mean time married, and having no other means of support, accepted the agency of the property, which compelled him to remain where he was. — The constitution of Mr. Say had been for a long time undermined by habits of severe and long-continued study, extreme abstinence, both as respects food and sleep, and, during his residence at New Harmony, by repeated attacks of fever and dysentery. He was, at length, carried off by a fever, on the 10th of October 1834, in the 47th year of his age. — His principal work, entitled "American Entomology," is the most beautiful publication of the kind which has ever been issued from the American press. It is illustrated by well-executed plates, coloured from nature; which plates, in conjunction with the descriptions, leave nothing to be desired on the score of certainty as regards species. The publisher at whose request it was undertaken, Mr. S. A. Mitchell, was resolved to spare no exertion on his part, to render the book as acceptable to the lovers of the fine arts as useful to the student of nature; and that he fully succeeded will not admit of a doubt. Two volumes appeared before, and one only after, the author's removal to the West. All of them were published in Philadelphia. His "American Conchology," only 6 numbers of which had been issued at the date of Mr. Say's death, was printed and published at New Harmony. In this work, he derived no slight advantage from the knowledge and skill of his intelligent wife, all the illustrations being the product of her pencil. His other contributions to the cause of science were inserted in the "Journal of the Academy of Natural Science," and other journals. — His discoveries of new species of insects were, perhaps, greater than ever had been made by a single individual. And the naturalists of Europe, fully sensible of his rare qualifications, were not backward in acknowledging his merits, for his name is to be found in the list of Foreign Members of the Linnean Society of London, and in that of the Zoological Society of the same capital; distinctions which our countryman must have justly valued, especially as the former list is restricted to the number of 50, and the latter to only 25 individuals. — The virtues of Mr. Say in private

'life, it may be added, are represented, by those who had the best opportunity of knowing him, to have been beyond all eulogy. His disposition was so truly amiable, and his manners so bland and conciliating, that no one, after having formed his acquaintance, could cease to esteem him. He was remarkable for his modesty, which led him to decline, on two several occasions, very advantageous offers that were made him; and he was ever actuated by the most scrupulous integrity and regard for truth.

SCHÄFER\* died at Leipsic, in March 1840.

SCHELLING.\* The only literary production of this philosopher that has appeared for many years is a preface of his to a German translation of Cousin's essay on the philosophy of France and Germany, in which he defends the latter against the attacks made upon him by some of his critics. Schelling has, however, long ago announced his intention of giving to the world an elaborate historical work, to be called "The four ages of the world;" and some portions of it are reported to be in the press.

SCHIEDAM; a town and port of S. Holland, on the Schie, a tributary of the Maese, 3 miles W. of Rotterdam. It had, in 1837, a population of 11,815. It is the chief seat of the manufacture of Dutch gin, or Hollands. The quantity of this spirit produced here annually is very great, there being in the town as many as 100 distilleries; while many thousands of pigs are supported by the refuse of the malt employed in the manufacture.

SCHINKEL\* died at Berlin, in October 1841.

SCHLEGEL\* (Augustus William v.). He delivered at Berlin, in 1827, a course of lectures on the fine arts, which were afterwards (during the same year) published under the title of "Lectures on the Theory and History of the Arts of Design." These were followed (1828) by his "Critical Essays," and (1832) by his "Reflections on the study of the Asiatic Languages." He died on the 12th of May 1845.

SCHLEIERMACHER\* died at Berlin, February 12th 1834.

SCHLOSSER.\* Besides his works already mentioned, he has published a sketch of the history of the "Ancient World and its Civilization" (1826-34, 3 vols.), and a "Judgment of Napoleon and of his later detractors and admirers, in relation particularly to the period from 1810 to 1813" (1832-35, in 3 parts). His "History of the 18th century" has been translated into

English, and republished in this country. And a new edition of his "Universal History" is now in course of publication in Germany, with a continuation by another individual, under his superintendance.

SCHÖLL\* died on a visit to Paris, in August 1833. His most extensive and most important work is the "Cours d'histoire des états européens, depuis la chute de de l'empire romain d'Occident jusqu'en 1789" (Paris, 1830-36, 46 vols.)

SCHOOLS.\* Such information as we have been able to collect respecting the schools in different countries, in addition to what was given in our former volumes, will be found in this under the heads of the separate countries. Here, it is proposed merely to say a word or two on the subject of institutions for the *blind*, and for the *deaf and dumb*; and since little has reached us of any importance concerning these beyond their increase in number elsewhere, our notice of them will chiefly relate to our own country.

There are at present 6 institutions for the instruction of the blind in the United States. That at Boston, the first established, was incorporated in 1829, but did not go into operation till 1833. The number of pupils, at the close of the year 1845, was 91, supported for the most part by the New England states. North Carolina has in it one or two beneficiaries. At this institution are two *blind mutes*, who, by the indefatigable exertions of Dr. S. G. Howe, have made considerable advances in knowledge. To this gentleman and Mr. J. R. Friedlander, the founder of the Pennsylvania Institution, is mainly due the credit of establishing in this country the fact of the capability of the blind to receive education.—The New York Institution, in the city of New York, was founded in 1831, and commenced its instructions in 1832. The number of pupils is 125, all from New York and New Jersey.—The Pennsylvania Institution, in Philadelphia, was organized in March 1833, and received its charter from the State Legislature in 1834. Provision for the education of indigent pupils from Pennsylvania, New Jersey, Delaware, and Maryland, at this institution, has been made by these states respectively. There are 73 pupils.—The Ohio Institution, at Columbus, was incorporated in 1836, and opened its school in the following year. It has at present about 70 pupils.—In March 1838, the Legislature of Virginia made provision for the education of the deaf and dumb and blind, and, in the succeeding year, established the institution for this

purpose at Staunton. The number of pupils in the department for the blind is nearly 30.—The institutions of Kentucky and Tennessee are of recent date. The former, at Louisville, founded in 1842, has 24 pupils; the latter, at Nashville, founded in 1844, had, by the last report, 11 pupils.—The above 6 institutions receive appropriations from 16 states for the support and instruction of indigent pupils. They are authorized to admit pay pupils from any part of the country. The three older institutions, at Boston, New York, and Philadelphia, are supported in part by legacies and private contributions, and are not controlled, in their management, by the states in which they are situated; the others are state institutions.—The government in each is vested in a board of managers, who select the officers to whom the internal affairs of the institution are more immediately entrusted. These consist of a principal or superintendent, of one or more teachers in the literary, musical, and mechanical departments, of a matron, physicians, &c. In the larger institutions, there are 3 or 4 teachers, male and female, in every department.—Greater attention is paid in the United States to the mental improvement of the pupils than in most European institutions for the blind, which are generally asylums where totally blind adults may acquire and pursue some trade for a livelihood. Here, however, young blind persons, who do not possess sufficient sight to acquire knowledge in the usual way, are fitted for becoming teachers or mechanics.—Considerable efforts were made during the earlier periods of the Boston and Philadelphia institutions, to increase the number of books for the blind; but a want of funds, to meet the great expense of printing in the requisite embossed characters, has kept the two or three presses for this purpose in the country almost idle. About 11 volumes, of the largest folio size, have been printed, in various languages, for the use of the blind, of which 6 were issued from the Boston press, and 2½ from that of Philadelphia. Among these works are the Bible, the Guide to Devotion, published by the Presbyterian Board of Publication, the Book of Common Prayer, a volume of sacred music, a treatise on Natural Philosophy, one on Natural History, &c.

The number of institutions for the education of the deaf and dumb in Europe and America, at present, is 172. In Great Britain there are 16; in France 44; Italy 9; Switzerland 10; Austria 9; Prussia 22; Bavaria 10; Wurtemberg and

Baden 6; Saxony, Hanover, and the other German states, 15; German Free Cities 4; Belgium and Holland 8; Denmark, Norway, and Sweden, 4; Russia and Poland 2; the United States 10. Of the European institutions, that of Paris (founded in 1760) now has 175 pupils; that of Vienna (in 1779) has 75 pupils; Bordeaux (1786) has 60; Berlin (1788) has 70; Groningen (1790) has 161; London (1792) has 280. Of American institutions, that of Hartford, Conn., (founded in 1817), now has 182 pupils; New York (1818) has 200; Philadelphia (1821) has 110; Danville, Ky., (1822) has 35; Columbus, Ohio, (1826) has 104; Staunton, Va., (1839) has 30; Indianapolis, Indiana, (1843) has 16. That at Knoxville, Tenn., was founded in 1844; Raleigh, N. C., in 1845; and Jacksonville, Ill., in 1845. The whole number of deaf mutes under instruction in the United States is nearly 700; in the world about 53,000. It is probable that the United States contains at least 10,000 mutes. In the whole world it is supposed there are 500,000. A large proportion of the European institutions are supported by subscriptions; those of America by annual legislative appropriations.—The signs which the deaf-mutes use in their intercourse with their friends and with each other, have been called natural signs; principally from the fact of their originating with themselves. These signs, as modified by their teachers, are universally used as the medium of communicating with them in the commencement of their instruction. In most of the German institutions, however, they are dispensed with as soon, and as much as possible, in favour of articulation and reading from the lips; the main object being to qualify the pupil for communicating orally with others. On the other hand, almost all the institutions of Great Britain, France, and America, reject articulation as a medium of instruction, and make use of signs extensively, and principally, as a means of communicating a knowledge of written language, imparting information, and developing the faculties of the mind; the end aimed at being to enable the pupil to converse by writing, and to read books with facility. To give speech to the dumb seems to many little short of miraculous; and the recent statements of the wonderful success said to have been obtained in Europe in accomplishing this object have excited considerable interest and curiosity. Mr. Lewis Weld and the Rev. George E. Day were, in consequence, commissioned to visit the schools of Europe with a special reference

to this subject. They have given the results of their extensive and careful investigations in two able and valuable reports.—Mr. Weld says, on comparing the results of the American system of instruction, "as exhibited by the mass of the pupils trained in it, with those of the German schools, so far as this has been in my power, I think I find in the latter less of intellectual and moral development, less by far of general knowledge, and less preparation for efficient action as members of the community;" and again, "I scarcely met with an intelligent person of any rank, even in Germany, who spoke of the articulation of the deaf and dumb with approbation. It was rather with disgust, as a matter very repulsive and disagreeable." An eminent clergyman in Germany said, "what is truly valuable in the instruction of our deaf and dumb, is the ability to read and write they acquire. Their ability to speak and read on the lips is trifling and of little value." The teaching of articulation is very laborious and painful, both to the teacher and the pupil; the number of pupils to one teacher must be limited to a very few; a long time is required before ideas on abstract subjects can be communicated; success in teaching useful articulation is limited to a small number compared with the whole number of pupils; and the cases of success are those principally who had once been able to articulate.—Mr. Day says of articulation, "as a regular part of a system of public education, its introduction into our (American) institutions, I am persuaded, would be a serious misfortune to the cause of deaf and dumb instruction." Again, "The German method has advantages for the few, the American method for the mass." "The great body of the (American) pupils succeed in acquiring a knowledge of written language, become able to read books, and to hold intercourse, through writing, with friends and acquaintances. That this, as a practical acquisition, is greatly superior to the slow, imperfect, and unpleasant articulation of the deaf and dumb in Germany, does not, in my own mind, admit of a doubt." "The German method of instruction is attended with a great increase of expense. It involves a great loss of time, and secures less progress in the pupil's acquaintance with language and general knowledge than our own (the American)." It is, also, more difficult to teach articulation in the English than in the French or German languages.—There is, however, always among the deaf and dumb a number

who lost their hearing after they had become able to speak, and had acquired some knowledge of language. Experiments are now in progress, in several institutions, to ascertain how far, in such favourable cases, it may be desirable to give instruction in articulation, in addition to the ordinary course of instruction; which experiments thus far are promising.—The formation of cabinets containing objects for illustration, apparatus for experiments, curiosities, &c., is a recent feature of our institutions. Trades have also been introduced, inducing habits of industry, and preparing the pupil for the practical duties of life.

SCHOPENHAUER (Joanna Frosina), a celebrated German novelist, was born at Dantzick in Prussia, in 1770. She exhibited at an early age a great facility in the acquirement of languages, and also much taste for the fine arts. Soon after her marriage, she accompanied her husband on a tour through Germany, the Netherlands, England, Scotland, France, and Switzerland; and, at his death, which took place in 1806, she fixed her residence at Weimar, where her house soon became the centre of a very select society. She commenced her literary career by a description of the portraits of Goethe, Wieland, Herder, and Schiller, painted by Kugelgen. She next wrote the "Life of Fernow" (1810); which was speedily followed by her "Travels through England and Scotland" (1813; 3d ed. 1826), a volume of "Tales" (1816), a "Journey through the south of France as far as Chamouny" (1817, 2 vols.; 2d ed. 1824), and an "Excursion to the Rhine and the districts bordering upon it" (1818). Delicate observations, united with a flowing and attractive style, obtained for these works an extensive and well-merited circulation. But the work which did more than any other to establish the literary reputation of Mad. Schopenhauer is her novel of "Gabrielle" (1819-20; 2d ed. 1826), in which the female character is exhibited with the greatest skill and truth to nature, and the "great world" is described in an interesting and charming manner. She is the author also of several other novels, of a work on "John Van Eyck and his successors" (1822, 2 vols.), and of an "Excursion to the Lower Rhine and Belgium" (1831). A complete edition of her writings was published, at Leipsic and Frankfurt, in 1830 and following years, in 24 volumes.—Mad. Schopenhauer died at Jena, in April 1838.

SCHUBERT (Gotthilf Henry von) was born in April 1780, at Hohenstein, in Sax-

ony, where his father was the pastor of a congregation. He was intended by his parents for the ecclesiastical profession, and was sent, in 1800, to study theology at the university of Leipsic. This, however, was little in accordance with his own tastes; and in the following year, he quitted Leipsic, and went to Jena, where he engaged in the study of medicine. After taking his doctor's degree, he became a practitioner at Altenburg; but after a residence there of only two years, in which time he had met with considerable success as a physician, he was induced, by a desire to prosecute his mineralogical studies, to go to Freyberg, in 1805. From this place he went, in 1806, to Dresden, where he delivered several courses of lectures on Natural Philosophy, and published the substance of them in 1808. Here, too, he commenced the publication of his work entitled "Glimpses of a general history of Life." He was appointed, in 1809, director, or principal, of the "Real Institut" at Nuremberg; an office which he held until that institution was dissolved in 1816. He then accepted an offer to take charge of the education of the children of the grand duke of Mecklenburg-Schwerin. But the climate of Mecklenburg, with the mode of living, proving injurious to his health, he returned to Bavaria, and occupied successively there a chair of Natural History in the universities of Erlangen and of Munich. His writings are very voluminous, and embrace a wide range of investigation and of thought,—the natural sciences, metaphysics, theology. He is also the author of several volumes of travels, of a biography of Oberlin, and a collection of tales (1840).

SCHUMACHER (Henry Christian), born on the 3d of September 1780, at Bramstedt in Holstein, was, in 1810, appointed "extraordinary" professor of Astronomy in the university of Copenhagen. In 1813, he became the director of the observatory at Manheim in Germany; but returned to Copenhagen, in 1815, as an "ordinary" professor of Astronomy, and director of the observatory in that city. He was charged in 1817, by the king of Denmark, with the surveys necessary for the construction of a new map of that kingdom; and in 1821, by the Royal Society of the Sciences in Copenhagen, with the superintendence of a new survey of the duchies of Holstein and Lauenburg. Since the last-mentioned period, he has resided at Altona, where a small but well-furnished observatory has been provided for his use, by the

Danish government. He co-operated, in 1824, with the English Board of Longitude in determining the exact difference of longitude between the observatories of Altona and Greenwich, for which purpose a steamer, having on board 28 English and 8 Danish chronometers, was employed by the British Admiralty to make several passages between Greenwich and Altona. In 1830, he made a series of experiments on the length of the seconds' pendulum, to serve as a basis for a new system of measures in Denmark.—Mr. Schumacher has published a series of astronomical tables (*Astronomische Hülftafeln*), from 1820 to 1829; also, since 1822, the exact distances from the moon of the planets Venus, Mars, Jupiter, and Saturn, to be used in the determination of the longitude at sea; together with the "Astronomical News" (*Astronomische Nachrichten*), which first appeared in 1813,—a series of "Astronomical Transactions" (*Astronomischen Abhandlungen*),—and, since 1838, his "Astronomical Annals" (*Astronomischen Jahrbuchs*).

Schürz (Christian Godfrey) was born in May 1747, at Dederstädt, in the county of Mansfeld in Germany. In 1768, he was an instructor of Mathematics in the "Ritteracademie" at Brandenburg; in 1769, "inspector" of the Theological Seminary at Halle; in 1776, an "ordinary" professor in the Theological Faculty of the university of that city; and in 1779, a professor of Poetry and Eloquence at Jena. Here, in 1785, he founded the well-known journal, entitled the "Allgemeine Literaturzeitung." In 1804, he returned to Halle, as a professor of Literary History and Eloquence; to which office was added, in 1807, that of director of the Philological Seminary attached to the university. He died in May 1832.—Schütz edited the "Nubes" of Aristophanes (1770), the "Phœnissæ" of Euripides (1772), Xenophon's "Memorabilia" (1790), Æschylus (5 vols. 1782–1800), "Ciceronis Rhetorica" (2 vols. 1804), "Cic. Epistolæ" (6 vols. 1809–12), "Cic. Opera" (20 vols. 1814–21), and "Aristophanes" (1821). He published also an edition of Hoogveen's "Doctrina particularum græcarum" (1782). And he was the author of the "Principles of Logic" (1773), of an "Introduction to Speculative Philosophy" (1775), of a work on "The cultivation of the Understanding and the Taste" (2 vols. 1776–78), of an essay on the "Genius and Writings of Lessing" (1782), of a treatise "De doctrina particularum latinæ linguæ" (1784), besides a number of elementary works for the use of schools.

SCIACCA; a town and sea-port of the island of Sicily, on the S. coast, about 30 miles N.W. of Girgenti, with about 13,000 inhabitants. It is one of the principal ports, in the S. part of the island, for the exportation of corn; and the rock, on which the town stands, is, in numerous places, hollowed out into *caricatori*, or corn-cellar. Some of the famous hot-springs, whence the town had its ancient name,—*Thermæ Seluntinæ*,—are a little without the walls. But the steam-baths, the construction of which was ascribed, in antiquity, to Dædalus, are on the summit of an isolated mountain, about 3 miles N.E. of the town, and correspond exactly with the description of Diodorus Siculus. They continue, as of old, to be frequented by patients, and consist of several sudorific grottoes, or caverns.

SCREW-PROPELLERS; contrivances for propelling vessels, acting entirely, or for the most part, under water. The idea of using such contrivances for this purpose appears to be nearly coeval with the attempt to move boats by means of machinery. They were found in use in China by the Jesuit missionaries who visited that country, and in Europe may be traced back as far as the year 1792. Since the introduction of the steam-boat, various attempts have been made, both in this country and in Europe, to use them; but so long as steam-navigation was chiefly confined to rivers, the greater velocity derivable from paddle-wheels prevented their introduction. When, however, the steam-engine began to be applied to oceanic navigation, the great objections to which paddle-wheels are liable turned the attention of inventors again to the propellers. In 1837, the successful experiments with the screw, patented in England by Mr. J. P. Smith in 1836, led to its adoption in many steamers; and since that time, contrivances of this kind have been extensively introduced into marine navigation.—The advantages proposed by the substitution of the propeller for the paddle-wheel at sea may be thus enumerated. 1st. The production of an equal effect with a less cumbersome apparatus. 2d. The greater regularity of action when the vessel is exposed to the waves; the propeller being always submerged, while the paddles, by the motion of the vessel, incessantly vary the depth of their immersion, and thus produce great irregularity of action. 3d. The constant efficiency of the propeller in any position of the vessel: whereas, if the wind be abeam, the windward paddles may be nearly or entirely out of the water, and the lee-

ward so deeply immersed as to be inefficient; this disadvantage being, moreover, greatly increased by the large surface necessarily exposed to the action of the wind by the paddle-boxes. 4th. The consequent availability of the vessel's sails in all winds. 5th. Much less resistance to the progress of the vessel when the engines are not in action. 6th. Less liability to accident or derangement, either by the violent action of the waves, or, in case of war, from an enemy's shot. And 7th. The possibility of using a much greater propelling surface, and thus increasing the useful effect of the power.—All the successful propellers have been formed upon the principle of causing a helix or spiral to revolve rapidly about an axis parallel to the keel of the vessel, the resistance of the water to this motion, constituting the effective force to propel the vessel. The propeller of Mr. Smith, before alluded to, presents the principle in its simplest form. It consists of one turn of a helix or screw-thread, raised upon an axis parallel to the keel of the vessel, and placed at its stern. To this axis a rapid motion of rotation is given by the engines (the velocity of the piston being, when necessary, multiplied by appropriate gearing). As the screw revolves, the water is necessarily forced astern, and its resistance to this motion furnishes the propelling force.—The less the angle which the thread makes with the axis, the greater will be the length of axis necessary for one turn of the screw; consequently, the greater the distance over which the water will be forced during one rotation; and therefore, other things being the same, the greater the effect of the propeller. This length of axis, corresponding to one turn of the screw, is technically called "the pitch." If the water were perfectly incapable of the motion which the screw tends to impart to it, the whole motion of the screw, reduced to the direction of the axis, would be transmitted to the vessel. But this can never be the case; a certain amount of motion is actually communicated to the water, and this causes a loss of power (which is proportionable to the difference of the velocities of the screw and the vessel), called "the slip." The slip of the screw (the velocity remaining the same) may be diminished by increasing the diameter; but in so doing, the surface-friction will be increased. The practical rule is evident, that the screw should be so proportioned, that the sum of its slip and its surface-friction should be a minimum, but we believe that the dimensions thus indicated have never been ap-

proached in practice.—If no motion were communicated to the water by the screw, it is evident that an increase of length must be accompanied by a corresponding increase of propelling force; but in fact the water rapidly acquires a rotary or helical motion, which prevents any farther propulsive action from the screw. Hence it has never been found advantageous in practice to extend the length beyond that necessary for a single turn of the thread.—In Mr. Smith's original apparatus, there was but a single thread, of 8 feet pitch, which was of course the length of the propeller; but the action of this having been found unsatisfactory, this length was reduced one-half, by bringing the latter portion of the thread upon the forward part of the axis, where it formed a second and opposite thread. By this means, greater velocity was obtained, and the motion rendered more steady. In a similar way, the length of the propeller may be reduced at pleasure, different portions of the thread being transferred in their proper position and direction to the part of the axis retained. Screw-propellers of this description are very numerous.—The propeller of Captain Ericsson (patented in England in July 1836) consists of a short open cylinder or ring, secured upon the axis by two or more radial arms or *spokes*, and carrying upon its outer periphery the *blades*, which are portions of one turn of a helix. The object of this arrangement is to get rid of those portions of the thread near the axis, which are found to diminish rather than to increase the propelling effect.—The propeller of Mr. Loper, much used upon our waters, differs from the others in the form of its blades, which are not portions of a regular helix, but present warped surfaces of a peculiar form; the object being to increase the effect of the propeller, by allowing its kinder parts to act upon the water, already put in motion by the forward parts of the screw.—In 1839, Mr. Rennie proposed a new form of propeller, the chief peculiarity of which consists in the inclined plane being wound around a cone, instead of around a cylinder. In this propeller, the pitch is not uniform, but constantly increases; the object of which is to enable the propeller to exert its action upon the water for a longer time than it otherwise would. Mr. Rennie also increased the breadth of the thread from the front to the hinder part of the screw, so that the edge moving through the water presented to it an inclined plane, and thus diminished the ineffective resistance. The projection of this propeller

upon a plane passing through the keel of the vessel bears a strong resemblance to the figure of the tails of some of the fast-swimming fishes.—There are many other forms of propellers; but we have made mention only of the best known and most approved of them. Nor can we say anything here of the various modes of propulsion by jets of water, by oscillating paddles, or horizontal wheels, except that they have all failed in practice.

SCOTLAND.\* See *United Kingdom of Great Britain and Ireland*, (Sup.)

SCRIBE (Augustin Eugène), the most prolific of French dramatic writers, was born at Paris, in December 1791. After receiving his preparatory education at the college of Sainte-Barbe, he commenced the study of the law; from which, however, he was soon drawn aside by his literary propensities. The facility with which he could strike off, as it were at a heat, those lively dramatic pieces, so popular in France under the name of *vaudevilles*, was altogether extraordinary; and the number of them which he composed, during a period of more than 30 years, and which were represented at various theatres in Paris, for the most part with very brilliant success, has earned for him a reputation far surpassing that of any preceding writer in the same department. In 1836, he was admitted a member of the French Academy, in the room of Arnault. Since then, he has almost entirely abandoned the vaudeville, and applied himself to the composition of comedies of a higher order.—M. Scribe has also written several novels or tales. More than any other of his contemporaries, he may be regarded as the literary representative of the French metropolis; and he will go down, if not to a remote posterity, at least to the next generation or two, as one of the best delineators of the manners of its inhabitants.

SCUD is the name given by seamen to loose, vapoury clouds, driven swiftly along by the winds. *To scud* signifies to run directly before the wind in a gale.

SCULL; an oar so short that one man can work a pair. It most generally implies an oar placed over the stern of a boat, and worked from side to side; the blade, which is turned diagonally, being always in the water.

SCURVY.\* Late researches have rendered the propriety of acid diet in this disease somewhat doubtful.

SEA-SICKNESS.\* The ancient writers recommend, for this disorder, acid fruits,



or bread and vegetables soaked in vinegar, after the stomach has been cleansed by vomiting, and not before. An old remedy, also, for sea-sickness, and a very common one among sailors, is a draught or two of sea-water, which, though disagreeable enough, generally produces the desired effect. The most effective antidote or remedy, however, consists in lying in the horizontal position. In some persons its violence is prevented by small doses of opium, or by soda-water, or saline draughts in the act of effervescence. And liniments and plasters containing opium, applied to the pit of the stomach, are also recommended, as mitigating, or even preventing, this most annoying malady.

**SEAL.\*** The seal-fishing is chiefly prosecuted from Newfoundland, Nova Scotia, and the United States; but whalers take out seal-clubs as part of their equipment, the animal being most readily despatched by a blow on the nose; and one ship has been known to obtain a cargo of from 4000 to 5000, yielding nearly 100 tuns of oil. When taken in the spring of the year, at which time they are fattest, a full-grown seal will yield from 8 to 12 gallons of oil, and a small one from 4 to 5 gallons.

**SEALING-WAX\*** was formerly made of bees-wax and resin, but since the introduction into use of shellac, the most adhesive of the gum resins, the finer kinds have been principally composed of that material, with some other substances added, to make it ignite freely, and to colour it.—The best *red* sealing-wax is made by melting in a very gentle heat 48 parts of shellac, with 19 of Venice turpentine and 1 of Peruvian balsam; 32 parts of the finest cinnabar, thoroughly levigated, are then stirred in, and the whole well mixed. When it has cooled down, it is either rolled into sticks, or shaped in brass moulds. The best *black* sealing-wax is a mixture of 60 parts of shellac and 30 of ivory-black; it may be perfumed with a little Peru balsam or styrax. The great seals applied, in tin boxes, to certain legal documents, are made of a mixture of 15 parts of Venice turpentine, 5 of olive oil, and 8 of wax melted together, and coloured with red lead.

**SÉBASTIAN\* (San).** This city has been almost entirely rebuilt since the year 1813; and it is now one of the neatest and most regularly constructed towns in the peninsula, presenting a favourable contrast to most other Spanish cities. It has always been a place of considerable trade, and was the seat of the Philippine Company.

It is the port whence Pampeluna, Vittoria, Logroño, &c., obtain most part of their supplies of colonial and other foreign goods; and at which the greater part of the French and English manufactures destined for Madrid, and other towns in the interior, are imported. Its exports are chiefly iron and wool.

**SÉBASTIANI,\*** while minister of Foreign Affairs during the administration of Casimir Périer, had the difficult task assigned to him of defending in the Chambers the foreign policy of the French government, which was vehemently attacked by the opposition; and on one occasion particularly, he rendered himself obnoxious to the severest animadversions on the part of his political adversaries, as well as became generally unpopular, by indiscreetly and coldly declaring that "order once more reigned in Warsaw," meaning that the Russians were again in the undisturbed occupation of that city, and that the insurrection of the Poles, for the re-establishment of their national independence, was suppressed. Partly, it is probable, on account of the disagreeable and embarrassing position in which he found himself placed, but also because of his impaired health, he resigned the department of Foreign Affairs, continuing, nevertheless, to be a member of the cabinet. In November 1832, however, he resumed the charge of that department, and retained it till the change of ministry, consequent on the death of Casimir Périer, in the following summer. But he was not, by this event, altogether deprived of the confidence of the king. He was permitted to retain the title of a minister of state, although obliged, by the condition of his health, to absent himself for a time from Paris, first at a watering-place in France, and then in Italy. On his return, he resumed his seat in the cabinet council, which he resigned in the beginning of April 1834, when the Chamber of Deputies refused to sanction the treaty negotiated by him with the United States, by which France engaged to pay to the latter the sum of 25 millions of francs, as an indemnity for depredations committed on American commerce, during the period of her last war with England. As a compensation, in some degree, for the sacrifice which he had felt himself in honour bound to make, M. Sébastiani was then appointed, by Louis Philippe, his ambassador to Naples. From Naples he was transferred to London, in January 1835; and remained there a little more than 5 years, constantly occupied with important negotiations, relating to the settlement of the affairs of

Belgium, the mutual right of visiting vessels suspected of carrying on the African slave-trade, and the pacification of the *East*. Even while absent from France on this mission, he was several times re-elected to the Chamber of Deputies, and he has since continued to be a member of that body; in which, too, he has always exercised a certain degree of influence, although of late years it is seldom, only, that he has taken a share in the discussions. In October 1840, he was promoted to the rank of a marshal of France; in 1841, he took a decided stand in favour of the plan for fortifying the city of Paris; and in 1842, he was the president, or chairman, of the committee appointed to report to the Chambers on the "projet de loi" respecting the regency, in the very probable event of the death of Louis Philippe before the majority of his grandson, the heir apparent to his throne.

SÉDAN; a fortified town of France, on the river Meuse, in the department of the Ardennes, in 49° 42' N. lat., and 4° 58' E. long. Population in 1841, 12,235. It has long been noted for its woollen manufactures, consisting principally of fine black cloths, and kerseymeres. In 1836-37, the work-people employed in them amounted to from 11,000 to 12,000; of whom from 3000 to 4000 belonged to the town. A favorable report has been made of the condition of these work-people, as compared with that of the same class of persons in other manufacturing towns of the kingdom. Instruction is more extensively diffused among them, and they have generally the signs of good health; circumstances said to be chiefly consequent on the non-introduction of children into the factories at too early an age.

SEDGWICK (Theodore), the eldest son of Theodore Sedgwick, one of the judges of the Supreme Court of Massachusetts (noticed in a previous volume of the present work), was born at Sheffield, Massachusetts, in December 1780. He was educated at Yale College, and then studied law under the eye of his father. On being admitted to the bar, he removed to Albany. Here he practised his profession, from about the year 1801 until 1822, in partnership with Mr. Harmanus Bleecker, who was afterwards Chargé d'Affaires of the United States in Holland. In the last-mentioned year, he was compelled by the impaired state of his health to withdraw from business. He retired to Stockbridge, in his native state, which had been formerly the place of residence of his family, and continued there, occupied in literary and

agricultural pursuits, down to the period of his death. He was twice a member of the Legislature of Massachusetts, and one of the first advocates and most earnest promoters of the rail-road from Boston to Albany.—Mr. Sedgwick was twice the candidate of the Democratic party for the Berkshire District to Congress, and once the candidate of the same party for the office of Lieutenant-Governor.—During his residence at Stockbridge, he published two works, entitled "Hints to my Countrymen," and "Public and Private Economy;" in which, exploring regions of thought, far beyond the limits of mere party considerations, he sought to promote the greatest good of the whole number of the people.—He died at Pittsfield, Massachusetts, in November 1839, aged 59, of an attack of apoplexy, which he experienced just after he had addressed a political meeting.

SEDITION, in law, is a general and not strictly technical word, comprising, in common language, offences against the state which do not amount to treason. It is of the like tendency with treason, but without the overt acts which are essential to the latter.

SÉOUR\* (Paul Philippe de) published, in 1829, a "History of Russia and of Peter the Great." In March 1830, he was chosen a member of the French Academy, while his father was still living and a member of the same learned body, a circumstance which had never before occurred. He was promoted after the revolution of July 1830, to the rank of a lieutenant-general, and, towards the close of the same year, was called to the Chamber of Peers. In the course of the year 1835 appeared his "History of Charles VIII. (3 vols.)," being a continuation of a history of France, written by his father, and prepared by the aid of his father's papers.

SEIDELMANN died at Dresden, in 1829.

SENEGAL.\* This name is given to some small French colonial establishments on the W. coast of Africa, comprising several islands, and small portions of the African continent, between the Senegal and Gambia rivers. It is divided into two *arrondissements*; the N. consisting of the isles of St. Louis, Bavaghé, Safal, and Gheber, near the mouth of the Senegal, with some few establishments on the banks of that river, and trading stations along the coast between Capes de Verd and Blanco; and the S. *arrondissement*, comprising the islands of Goree, Albréda, on the bank of the Gambia, and the other stations S. of Cape de Verd. The total population of these dependencies amounted, in 1841, to 17,960,

of whom 10,260 were slaves. They are exceedingly unhealthful; but a considerable trade is carried on in gum senegal, raw hides, gold, wax, elephants' teeth, &c., which are exchanged for linen and cotton fabrics, brandy, wines, liqueurs, and other provisions. The total value of the exports, in 1838, was 4,051,268 francs, and of the imports 6,961,894 francs.—Senegal is governed by a superior naval officer, who resides at St. Louis: Goree is the seat of a lieutenant-governor. There appears to be neither a representative assembly, nor a colonial council.

**SENNAAR.\*** The negro kingdom of Sennaar has been subjected by the viceroy of Egypt, and is ruled by a governor of his appointment residing at Kartoum, a town containing about 15,000 inhabitants. Sennaar, the former capital, has very much declined from its former importance.

**SENNA**; a well-known medicine, composed of the leaflets, and occasionally of the leaf-stalks and pods, of several species of *cassia*. It is cultivated chiefly in Arabia, Upper Egypt, and Syria; and is often largely mixed with the leaves of the *Cynanchum oleafolium*, or *Argel*, which are thick, and not ribbed like the genuine senna leaves. They have a nauseous, mucilaginous, bitter taste, and yield a pale brownish-green infusion. The true senna leaves are distinctly ribbed, thin, generally pointed, and when chewed have a peculiar nauseous flavour, and yield a dark-brown infusion.

**SENNEFELDER\*** died at Munich, in February 1834.

**SERP**, derived from the Latin *servus*, is the French name for the lowest class of slaves in the dark ages; those who were incapable of holding property were attached to the land, and liable to feudal services of the lowest description. They were, in short, the same class of persons who, in England, were styled *villains*.

**SERVIA.\*** In the war between Russia and Turkey, in the years 1828 and 1829, both of the belligerents summoned the Servians to arm in their cause. Prince Milosch, however, observed a strict neutrality between them, during the whole of the contest; and in the treaty of Adrianople, it was stipulated in favour of the Servians, that certain districts which had been separated from the province in 1813, should be reannexed to it, and the various privileges bestowed upon them by the treaties of Bucharest and Ackerman were confirmed to them. The Porte hesitated for some time to fulfil these conditions. It was, indeed, only in 1834 that they were fully

complied with, on occasion of the formal constitution of Prince Milosch as the delegated sovereign over his countrymen. It was then settled that the Servians should, in future, pay to the Porte an annual tribute of 2,300,000 Turkish piastres. They were to be independent in all other respects; and nowhere else but in Belgrade were the Turks to enjoy equal privileges with them. After organizing the different departments of the public administration, Prince Milosch founded, in 1835, a gymnasium at Kragujewacz, and employed properly qualified persons to explore the country, with a view to ascertain its mineral resources. A constitution was adopted by a popular assembly, convened for the purpose, on the 10th of February of the same year, which proved to be of so *liberal* a character as to meet with the disapprobation of the Russian and Austrian governments, as well as of the sultan. Another and more aristocratical one was, in consequence, substituted for it in 1838. The popular representative bodies, which had been originally proposed, were replaced by a senate, on which was conferred the right of voting the taxes, of fixing the pay of the troops and the salaries of all persons in the employment of the government, of discussing and giving or refusing their sanction to the measures brought forward by the executive branch of the government, and of preferring articles of accusation against the ministers. It was easy to foresee that, in the event of any collision between the prince and a body invested with all these powers, the latter, though appointed (for life) by the former, would almost of necessity triumph. This was what accordingly happened in 1839. Prince Milosch was forced to abdicate. The senate permitted him to retire into Wallachia, and proclaimed, in his stead, his son Milan Obrenowitsch. But this prince dying a few weeks afterwards, a younger son, Michael Obrenowich, who had accompanied his father in his exile, was appointed to succeed him. Milosch, who had protested against the force that had been practised against him by the senate, at first refused to allow his son to depart from Bucharest, where he was residing, but was at length obliged to yield to the positive commands of the Porte. Michael proceeded first to Constantinople, and thence to Belgrade, where he arrived in March 1840. In the mean time, the leaders of the party who had deposed Prince Milosch, and who had hoped to govern in the name of his son, had found their mistake, and set about plotting an-

other change in the government. Having obtained information of a conspiracy which had been formed against him, Michael put himself promptly at the head of a body of troops in order to suppress it; but it was already too late. The conspirators had taken their measures in anticipation of this step, and, encountering him successfully, obliged him to seek a refuge in the Austrian town of Semlin, accompanied by his mother and uncle. On the 16th of September 1842, a representative assembly elected in his place the grandson of the celebrated Czerny George, Alexander Petrowich, a young man who had received an excellent education, and who assumed the direction of affairs under the name of Alexander Georgewich. Although, however, his election had been made with the assent and in the presence of the Turkish commissioner and the pacha of Belgrade, the emperor of Russia required that it should be annulled. The Porte at first refused to comply with this demand, and sent the "herat" of investiture to the new prince of Servia; but Austria not deeming it expedient to oppose the pretensions of Russia to dictate in the case, the other great European powers likewise did not interfere; and a new assembly was, at length, convoked, to proceed to another election. Having thus far carried its point, the Russian government now insisted farther on the exclusion of the leaders in the late insurrection from the assembly. This was refused; and Alexander Georgewich was again chosen. His authority has since been universally acknowledged. — This prince has an accredited agent residing in Constantinople, through whom alone his communications with the Porte are maintained. He is under an obligation to furnish to the latter, when required, a contingent force of 12,000 men, and to pay an annual tribute of 2,300,000 Turkish piastres. The pacha of Belgrade occupies that city with a garrison of 5,000 men, but exercises no influence whatever on the administration of public affairs in Servia. There are 4 ministers, who compose the prince's council, to wit, the ministers of the Interior, of Foreign Affairs, of the Finances, and of Justice. The senate consists of a president and 16 senators; and there is a national representative assembly. The Servians enjoy an unlimited religious freedom. The standing army is very inconsiderable, not exceeding 1750 men; but all males capable of bearing arms are enrolled in the militia, and a force of 40,000 men may be collected on an emergency. — Kragujewacz is the seat of government.

**SESTINI.\*** In 1828–30, this learned numismatist published a description of the museum at Herderwar, in 7 volumes, and in 1831, that of the Greek medals in the Chaudoir collection. He died in June 1832, after having been the author of about 50 volumes on the subject of numismatics.

**SEVASTOPOL;** a fortified town and sea-port of European Russia, on the W. coast of the Crimea, in 44° 36' N. lat., and 33° 30' E. long. It is situated on one of the finest bays in the world. The bottom is clay and mud, and is quite free from rocks and shoals. The bay, too, is defended by strong forts, on both sides of the entrance. Merchantmen are excluded from Sevastopol; and it is the principal station of the Russian fleet in the Black Sea.

**SEYFFARTH.\*** To his works already mentioned are to be added his "Observations on the Egyptian Papyrus in the Royal Library at Berlin" (1826), and his "Systema astronomiæ Egyptiacæ quadripartitum" (4 parts, 1833). He was lately residing at Dresden.

**SHARK.\*** Sharks' fins are imported in large quantities from India into China, where they are esteemed a very strengthening food. They are chiefly collected in the Arabian and Persian Gulphs; but they are likewise prepared on the coast of India. The largest are considered the best; those under nine inches long are estimated at half the value of the others.

**SHEATHING;** the covering laid on a ship's bottom to defend it from the worms. Thin sheets of copper nailed on with copper nails constitute, at present, the sheathing of all the better kinds of vessels. Sir Humphrey Davy suggested the application of pieces of zinc or iron upon different parts of the copper surface, which, by the action of the sea-water, render the latter metal electro-negative, and capable, therefore, of resisting the oxidizing and corrosive agencies of the substances held in solution. The pieces of iron or of zinc so applied have been properly called *protectors*; but by occasioning the precipitation of earthy matters upon the copper, while they effectually protect it, they render its surface favourable to the adhesion of weeds, barnacles, &c., and sometimes to such an extent as to interfere with the passage of the ship through the water. It is upon such grounds that Sir Humphrey Davy's suggestion has been neglected.

**SHEERNESS;** a sea-port town of England, in the county of Kent, on a low tongue of land at the N.W. extremity of the Isle of Sheppy, at the confluence of the Thames and Medway, 36 miles E. by

S. of London. Its population, in 1831, including the parish, was 7983. It is noted for its dockyard, which covers an area of about 50 acres. It comprises a wet dock or basin of about  $3\frac{1}{2}$  acres, capable of accommodating 10 sail-of-the-line, and in which they may take on board their stores, ammunition, and provisions, and be, in all respects, equipped ready for sea. There are also three dry docks, each suitable for the accommodation of a line-of-battle-ship. Numerous convicts are employed in the dockyard and on the hulks, chiefly in the improvement and repairs of the former. — Sheerness has also become, to a certain extent, a resort for sea-bathing.

SHEFFIELD\* contained in 1841, including the parish, 110,891 inhabitants. — In addition to its manufactures of cutlery and plated goods, this city is celebrated for the great extent to which the conversion of iron into steel is carried on; most of the steel used at Birmingham, and elsewhere in Great Britain, being prepared here. The manufacture of files is also one of the staple trades of Sheffield. — In later years, an augmented attention has been bestowed on the education of all classes of the community. There is a Mechanics' Institute, furnished with a library of 3000 volumes. The Literary and Philosophical Society, established in 1822, has a good collection of minerals, fossils, plants, &c., with apparatus for experiments; and the botanical society has a garden comprising 18 acres, tastefully laid out, and a glass conservatory, 300 feet in length, filled with rare exotic plants.

SHERIFF-DEPUTE, in Scotland, is the principal sheriff of a county. He is named by the crown, and must be an advocate of three years' standing. He is entitled to name sheriff substitutes; executes writs, returns juries, &c.; decides on claims for enrolment in the county lists for parliamentary voters; and exercises a certain criminal jurisdiction. He holds also civil courts for the recovery of small debts, and a court of record, the jurisdiction of which extends to all personal actions, and possessory actions for the recovery of real property.

SHIP'S PAPERS are certain papers or documents descriptive of a ship, its owners, the nature of the cargo, &c. They consist of the certificate of registry, license, charterparty, bills of lading, bill of health, &c.; and also of those documents required by the law of nations to be on board neutral ships, to vindicate their title to this character.

SIAM.\* Rice is the chief vegetable product of Siam. Its price is lower there than, perhaps, in any other country, owing, in part, to the natural richness of the soil, and the fact of its being annually overflowed by the Menam, or Nile of Siam, but, in part also, to the lowness of the land-tax, when compared with the amount of this tax in British India and other Asiatic countries. Besides rice, Siam yields nearly all the most valuable vegetable products of the East. Sugar, pepper, tobacco, and the finest fruits, are the principal articles of culture; and the forests, which cover a large proportion of the surface of the country, produce teak, sandal, sapan, rose, and other variegated and perfumed woods, with numerous gums, &c. The teak is floated down 300 miles from the interior to the capital, and is there almost wholly employed in the construction of native junks, very little being exported. — Mines exist in different places, but they are yet almost wholly unexplored. Tin, copper, lead, zinc, antimony, with small quantities of gold, are found; but the metal which occurs in the greatest relative abundance is iron. — The animals are similar to those of Hindostan and the adjacent countries. The elephant is most abundant; and a very rare, or white variety of the elephant, is sometimes found here, and is held in the highest estimation. Indeed, one of the titles of the Siamese monarch is "lord of white elephants," several of which are maintained as state appendages at the royal court. — The inland and coasting trades are considerable. The former is principally conducted on the Menam and its branches, in flat-boats and bamboo rafts; but a large portion is likewise carried on by means of elephants, which are generally used for land-carriage. The latter embraces a considerable traffic with the countries on the shores of the Straits of Malacca and Bay of Bengal, whence opium, cotton goods, and other commodities, are imported. The maritime commerce with foreign countries is almost wholly concentrated at Bangkok, which, after Canton, is the greatest shipping port in Asia not settled by Europeans. The most important branch is that with China; the staple exports consisting of black pepper, sugar, stick lac, sapan wood, cotton-wool, rice, hides, gamboge, and wood for furniture; and the imports of coarse china-ware, teas, and raw and wrought silks, with a quantity of Chinese silver in ingots: in this trade there are employed about 35,000 tons of junks, which arrive in January or February, and leave in June

or July. Considerable intercourse exists also with the ports of Cambodia and Cochinchina; but the most extensive branch, after that with China, is conducted with Singapore, Malacca, Penang, Batavia, and other places in the Malayan Archipelago. Malcolm, who visited Siam in 1837, speaks of the practice of opium-smoking as very common, and on the increase. In 1839, however, the importation of opium into the country was prohibited, conformably, as is said, to the wishes of the Chinese government. Since that period, but little trade in that article has been carried on with Siam. The trade in several of the most valuable products is a royal monopoly; but that in sugar and pepper, the two great staples of the country, is free,—the annual exports of sugar being estimated at 10,000 tons, and those of pepper at 3500 tons.—The government is of the most despotic character. Under the sovereign, the nobility absorb every post of honour or profit; and the same chiefs who are charged with the military, civil, and revenue administration, are the only judges and magistrates. The penal code of Siam bears a strong analogy to that of China, especially in the liberal and indiscriminate use of the bamboo for the punishment of all minor offences. For crimes of magnitude, the punishments, as in the Birman empire, are of the most savage description: torture may also be used to extort evidence. They have, too, the same sort of ordeals for determining the guilt or innocence of accused parties that were common in Europe during the middle ages. And La Loubère and Crawford mention that, in the event of goods being stolen, should suspicion fall on different parties, it is customary to administer emetics to them all; in which case, the person with the weakest stomach, or who vomits first, is held to be the culprit. As in other Asiatic countries, slavery is common, and some chiefs have hundreds, or even thousands, of slaves. Some of the conquered districts have been almost depopulated to bring their inhabitants to Siam; and at all times an active slave-trade is carried on along the Birman frontier. Persons are sold into slavery for debt; and men may sell their wives and children at pleasure. Children inherit their parents' bondage.

**SICCA**; a weight for gold and silver in India, equal to 179½ troy grains. This was the weight of the ancient standard rupee of Hindostan, while the Mogul emperor was the sole sovereign, and which was thence denominated the *sicca rupee*. In course of time, this standard, though

professed to be followed, was gradually altered by the powers established in different parts of India; some *sicca* rupees being lighter, and others, as those of Calcutta, heavier, than the Mogul money. To remedy the confusion thence arising, an ideal standard, called the *current rupee*, was introduced, to which all others were to be compared before they were entered into accounts. 116 current rupees are equivalent to 100 Calcutta *sicca* rupees.

**SICILIES\*** (THE KINGDOM OF THE TWO). According to a recent statement, published in the Royal Almanac of Naples for the year 1842, the population of the provinces of this kingdom is as follows:—

|                      |           |                         |                  |
|----------------------|-----------|-------------------------|------------------|
| Naples .....         | 784,431   |                         |                  |
| Terra de Lavoro ..   | 707,073   |                         |                  |
| Principato Citer ..  | 525,901   |                         |                  |
| Basilicata .....     | 491,876   |                         |                  |
| Principato Ulter ..  | 380,823   |                         |                  |
| Capitanata .....     | 376,393   |                         |                  |
| Terra di Bari .....  | 468,797   |                         |                  |
| Terra d'Otranto ..   | 383,284   |                         |                  |
| Calabria Citer ..... | 413,134   |                         |                  |
| Calabria Ulter ..... | 642,398   |                         |                  |
| Molise .....         | 349,371   |                         |                  |
| Abruzzo Citer .....  | 285,613   |                         |                  |
| Abruzzo Ulter .....  | 513,959   |                         |                  |
|                      | 6,906,873 |                         |                  |
|                      |           | <i>Sicily (Island).</i> |                  |
|                      |           | Palermo .....           | 467,615          |
|                      |           | Messina .....           | 329,070          |
|                      |           | Catania .....           | 350,681          |
|                      |           | Girgenti .....          | 219,634          |
|                      |           | Noto .....              | 233,330          |
|                      |           | Trapani .....           | 174,969          |
|                      |           | Caltanissetta ..        | 171,538          |
|                      |           |                         | 1,949,457        |
|                      |           |                         | 6,906,873        |
|                      |           | <b>Total.</b>           | <b>8,156,210</b> |

Comparatively little has yet been done to develop the great natural resources of the country. Agriculture continues in a rude condition; scarcely any attempt has been made to extract from the earth the rock-salt, coal, and other minerals which abound; and the roads are neglected, and rendered insecure by banditti. A miserable cotton manufactory, a sort of government monopoly established at Salerno, the iron-forge and mine at Stilo, the glove and hat manufactories at Naples, with coarsely made linens and cloths, are stated, by Mr. Macgregor, to comprise nearly all the branches of manufacturing industry. This low state of productive labour, joined to oppressive duties both on imports and exports, confines the external trade within relatively narrow limits.—The Bank of the Two Sicilies is a government deposit bank, the orders or checks on which, being paid in cash on demand, circulate extensively in Naples, on the same footing as specie. There is also a government discount office; and most of the principal merchants engage more or less in banking operations.—The annual revenue of the kingdom amounts to about £4,350,000, derived partly from direct and partly from indirect taxes, the most important of the former being a land-tax of 25 per cent. The principal other sources of revenue are the customs, tolls, a salt monopoly, lotteries, and registrations. The

national debt is estimated at £20,000,000. —The military force, in 1838, amounted to nearly 45,000 men. In time of war, the effective force amounts to 64,237 men, independently of the militia. The soldiers of the regular army have, at different times, been employed in useful public works, such as paving the streets, &c.: they are ill paid, and deficient in courage, morale, and most of the qualities that constitute good soldiers. The naval force consisted, very lately, of 2 ships of the line, 5 frigates, 2 corvettes, besides smaller craft. —The monarchy, in respect to the continental portion of the kingdom, was formerly quite unlimited, while Sicily had a parliament of its own. But in 1821, a *consulta* was established for each separate division of the Neapolitan dominions; that for the continental portion consisting of 16 members, and that for Sicily of 8 members, appointed by the government from lists of candidates named by the inhabitants of the different provinces. Each *consulta* was presided over by a vice-president nominated by the king; and both assemblies frequently met in one, termed the *consulta generale*, in which a minister of state, also appointed by the king, sat as president. In 1837, these *consulta particolari* were permanently amalgamated into one parliament, which sits at Naples. But the functions of this body are of the most restricted description; and it has hitherto implicitly obeyed every dictate of the monarch. —Justice is administered by judges who, like most other functionaries, hold their appointments for 3 years. Trials are public, and the code of laws, as well as the judicial forms, established by the French, have been generally adopted, except that trials by jury are unknown. Some late statistics and details show that the average of persons accused is as 1 to 1020, and of those convicted as 1 to 1438 of the population. Of 5813 accusations, in a given period, 104 were for offences against religion, 996 for homicide, intentional or otherwise, and 1703 for violations of property. Capitanata is a province distinguished for crime; and both it and Molise have been noted for brigandage on a large scale. Mr. Craven states, that even the favourite amusements of the children, in some districts in these provinces, consist in mock representations of attacks by brigands on travellers, &c., in which the former invariably gain the advantage. The country bordering on the Papal territories is also infamous for robberies. Under the French, the police was well organized, but it is now extremely corrupt and inefficient. Popular feeling,

too, in the capital at least, is generally in favour of the offender.—The inhabitants are Roman Catholics, excepting only about 75,000 Greeks (chiefly the descendants of Greek colonists, who settled in the south of Italy after the destruction of the Greek empire by the Turks), about 800 Protestants, and a few Jews. According to the *concordat* concluded with the Papal court in 1818, the pope has the sole privilege of confirming the archbishops and bishops of the Neapolitan dominions in their sees, with other important privileges. Still, however, as we are told by Raumer, the Neapolitan government does not allow the publication and application of any papal rescripts without its own consent being in every case first obtained, and displays such firmness, and sometimes even severity, in matters concerning the bishops and clergy, as the court of Rome would scarcely suffer a Protestant sovereign to exercise without reprimand.—Public instruction, generally, is in a very miserable state; and in some of the provinces, scarcely one in 150 or 160 persons are said to learn to read or write. The city of Naples, however, has a university, attended by about 1500 students: there are royal lyceums in Naples, Salerno, Bari, Catanzaro, and Aquila; royal colleges in all the other provincial capitals; and 42 secondary schools. Yet, with the exception of mathematics, antiquities, and perhaps physic, all the higher branches of science and philosophy are in the most degraded state; and even the fine arts have not escaped the general paralysis. The censorship of the press prevents native talent, if it exist, from distinguishing itself; and the oppressive duties on foreign books hinder the people from acquiring that information from abroad which they cannot obtain at home.

SIEBOLD (Philip Francis von) was born at Würzburg, in Germany, in February 1796. He became a pupil, in 1809, of the gymnasium of that place, and a student of the university there in 1815. Besides acquiring a knowledge of the different branches of medicine, his attention was directed to the assiduous study of natural history, especially botany. Having taken his doctor's degree in 1820, he was, not long afterwards, on the point of undertaking a journey to Brazil, under the patronage of the "Senkenberg society" at Frankfort on the Maine, when he obtained, through the instrumentality of a friend of his father, a medical appointment in Holland, of so advantageous a nature that he deemed it expedient to accept of it, and to abandon his intended project. Scarcely,

however, had he arrived in the Netherlands, when a desire was awakened in him to explore the natural history of the Dutch possessions in the East Indies; and he succeeded in obtaining an order to proceed to the island of Java. A few months after his arrival at Batavia, he was attached, in the double capacity of physician and naturalist, to the expedition fitted out by the Dutch E. I. Company for extending its commerce with Japan, as well as enlarging the knowledge already possessed by Europeans concerning that singular empire. The expedition set sail from Batavia on the 28th of June 1823, and reached the harbour of Nangasaki on the 12th of August. Owing to the restrictions imposed by the Japanese authorities on the Dutch at their factory of Desima, Siebold's researches into the natural history, and the condition generally of the country, were begun under the greatest disadvantages. But by his skill as a physician, as well as by the amenity of his manners, he gradually gained the confidence of the natives, and even at length succeeded in imbuing some of the more intelligent among them with tastes kindred with his own. Through their co-operation, he was enabled to make extensive collections of plants and other natural objects. Having also, in the mean time, made himself acquainted, as far as his opportunities permitted, with the language, and the manners and customs of the Japanese, he accompanied the Dutch ambassador to the capital, Jeddo, in the year 1826. Here he became favourably known to many of the most important personages, and the way seemed open to him to obtain every information which he desired to have without any farther hindrance. But an occurrence now took place that for a while threatened him with the most disastrous consequences. The emperor's astronomer and chief librarian, with whom Siebold had formed the most friendly relations, had communicated to him a copy of a map which had been constructed by the authority of the government. This transaction becoming known, it was regarded as a high crime or misdemeanor on the part of the astronomer, and the receiver of the map was suspected of being a Russian spy. During the investigation which ensued, very little freedom of intercourse with the natives was allowed to him; but though, in a measure, a prisoner, and his situation a very irksome one, not to speak of the personal risks to which he was subjected;—when given to understand that he might purchase the liberty of quitting Japan by yielding up his

papers, and making disclosures, relating to the intercourse which he had maintained with his Japanese friends, of a nature to involve them with the government, he took high ground, and absolutely refused to comply with either of these conditions. His courage and magnanimity produced a favourable impression; and his difficulties were at length brought to a close by the passage against him, in October 1829, of a sentence of banishment from Japan, leaving him at the same time free to take with him all his collections and papers. He accordingly returned with them to Europe in the summer of 1830. His collections were deposited by him in the museum at Leyden, and consist, first, of specimens of most of the natural productions of the Japanese islands, — and secondly, of his numerous manuscripts relating to the history, mythology, language, manners and customs, of their inhabitants. He has the merit of having transplanted the tea of Japan into the island of Java, and of having also introduced the cultivation into Europe of several hundred Japanese plants.—Siebold has since returned to Java, where he holds the office of chief of the medical staff in the army of the Dutch E. I. Company.—He is the author of a work "De historiae naturalis in Japonia statu," of an "Epitome linguæ Japonicæ," a "Synopsis plantarum in Japoniâ usitatarum," and of an essay "On the origin of the Japanese." All these were inserted in the "Transactions of the Batavian Society." He has published, also, "Nippon, or Archives for the description of Japan, &c." in 12 numbers (1832-42), and a Chinese-Japanese Dictionary (1841); and he is the author, jointly with Temminck, H. Schlegel, and de Haan, of a "Fauna Japonica" (1833), of "Tsian Dsū Wên, sive mille literæ ideographicæ, &c." (1833), and "Sin Zoi Zi Lin Gjok Ben, novus et auctus literarum ideographicarum Thesaurus" (1834).

SIENNA.\* Population, in 1836, 18,975. Its university has a library of 25,000 volumes, and had formerly 60 professors. Its importance has greatly declined; but it is still celebrated as a school of medicine, and may have about 300 pupils. It has also an ecclesiastical and several other seminaries, and various academies and learned societies, among which are the *Rozzi* and *Intronati*, considered the oldest establishments of their kind in Europe. The Siennese pique themselves on speaking the Italian language in its greatest purity.

SIERRA LEONE.\* The population of



this colony, in 1839, was 39,133, of which, however, only 99 were white.—All the W. India products have been introduced, and generally succeed, especially coffee; but the exports still consist mainly of timber, palm-oil, and cam-wood. The chief imports are Manchester and India goods, provisions, tobacco, spirits, arms and ammunition. In the years 1837, 1838, and 1839, the exports amounted in value respectively to £108,366, £64,996, and £58,440; and the imports to £79,472, £91,198, and £103,086.—Sierra Leone is said to be probably the most unhealthy situation in which Europeans have ever attempted to establish a settlement. The principal characteristic of the climate is its extreme humidity. The enormous quantity of 314 inches of rain appears to have fallen at Sierra Leone during three months of 1838, and it is stated that more fell in two successive days, the 22d and 23d of August, than in Great Britain throughout the entire year.—The government of Sierra Leone is vested in a lieutenant-governor, assisted by a legislative council of 5 official members. The public revenue of the colony, and of the British settlements on the Gambia, amounted, in 1839, to £20,000, while the public expenditure was £103,056. Great Britain has, in fact, expended, from first to last, in maintaining them, several millions of pounds, independently of the enormous sacrifice of life.

**SILK.\*** In 1824, the British government, at the suggestion of Mr. Huskisson, reduced the duties of 4s. per lb. imposed upon raw silk, and of 1s. 8d. per lb. upon undyed thrown silk,—the former to 3d., and the latter to 7s. 6d. per lb.; and in 1829, they were reduced to the rates of 1d. and 3s. 6d. respectively. Foreign manufactured silk goods were allowed to be imported on the payment of duties equivalent to 30 per cent. *ad valorem*. In the tariff of 1842, the duty on undyed thrown silk was farther reduced to 1s. the lb.; but no alteration was made on the rates on manufactures. When the duties were reduced, the manufacturers, as was to have been expected, suffered at first severely from foreign competition; but this evil was partial and temporary. Stimulated by that rivalry, such improvements were effected in the several processes employed, and these came, besides, to be conducted on principles of so great economy, as to render the British silks in some cases equal, and even superior, to those of the French. The British excel in the plainer and heavier goods: the French in

the light and fancy articles, the work on which is proportionably greater with reference to their value than where a larger quantity of material is used. Another reason why the Lyons manufacturer is entitled to a preference for his fancy goods is the superior taste and ingenuity displayed by him in the invention of patterns and the combination of colours; a superiority which is owing chiefly to the gratuitous instruction afforded to the work-people in drawing and designing in the school of arts in that city.—The declared value of British manufactured silk goods exported from Great Britain and Ireland, which amounted in 1827 to only £236,344, had reached, in 1835, to the sum of £972,031; after which it rather diminished, being, in 1841, £768,894. The manufacture of silk in France has also been materially improved of late years; and a large increase has taken place in the value of the silks exported, which amounted, in 1841, to about 162,000,000 francs, or about £6,500,000. The quantity exported from France to England, in 1827, was 224,860 lbs., of which only 104,040 were entered at the custom-houses; in 1841, the quantity exported was 624,260, and the quantity entered at the custom-house 254,120 lbs. This remarkable discrepancy is attributable to the facility of smuggling goods, especially those possessed, like silks, of a considerable value in proportion to their bulk, from one country to another, situated as near to each other as the distance across the British Channel, encouraged as such an illicit trade is by the high import duty of 30 per cent. imposed by the British government. It may be added, that by far the greater part of the raw and thrown silk, imported from France into England, is not the growth of the former country, but of Italy; being principally conveyed by the canal of Languedoc and the Garonne to Bordeaux, whence it is shipped for its destination.—The silk exported from China consists of two leading varieties, known in commerce by the names of Canton and Nanking. The first is raised in the province of Canton; and, the second, which is very superior to the other, and usually fetches more than double its price, is produced in the province of Kiangnan.—East India native silk comes wholly from Bengal. About the year 1760, the E. I. Company introduced the Italian mode of reeling silk, which was productive of a very great improvement in the quality of the article. The silk goods, however, brought from India, are not only inferior, in point of quality, to those of Europe, but

also to those of China.—Turkey silk wholly consisted, some years back, of what is termed long reel and short reel brutia, a rather coarse description, suited to few buyers; but of late it has been produced of a very far superior texture and quality, coming successfully into competition with Italian and China silk. The principal seat of the Turkish silk-trade is at Brussa, in Asia Minor. The adjacent country produces different kinds of silk, varying considerably in the size of the thread, in colour, and quality. The village of Demirdaak produces the finest, owing to the care taken by the natives in selecting the best cocoons, and attending carefully to the evenness of the thread throughout the process of reeling. It is said that the brightness and glossiness by which this silk is distinguished is owing to some peculiarity in the water of the place.—The attempts made in the United States, of late years, to cultivate the mulberry-tree (*morus multicaulis*), were productive of no beneficial results, and served, indeed, no other purpose than to excite a reckless spirit of gambling in the purchase and sale of the trees, as soon, or even before, they had begun to exist,—a spirit by no means confined to the professional speculator, but extending its pernicious influence, in many cases, into quarters the most remote from the ordinary pursuits of business.

**SIMONIANISM** \* (St.) The dissensions among the leaders of the St. Simonians produced a state of anarchy among them, which affected even their doctrines. These assumed, in general, more and more of a disorganizing and immoral character. At length, on the 22d of January 1832, the "family" was dispersed by the government. *Enfantin* and *Rodriguez* were tried on various charges, and imprisoned for a year. The former afterwards collected again a part of the society at *Ménilmontant*; but it broke up for want of funds. Some former members of the St. Simonian association are now in places of rank and consideration: some of the most extravagant are said to have gone to the East; and *Enfantin* is without followers.

**SINGAPORE**,\* or more properly *Singapore*, derives its importance from being an *entrepôt* for the commerce between Eastern and Western Asia, and also between the former and Europe. For this it is admirably suited by its geographical position, being in the direct track of vessels going betwixt the Indian and Chinese seas, and in the immediate vicinity of the Malay peninsula, and the richest of the Indian Islands. It is, in every respect, a free port, there

being neither import or export duties, nor harbour or shipping-dues. But notwithstanding the absence of all such imposts, the revenue of Singapore amounted, in 1842–43, to 509,000 rupees, while its expenditure, civil and military, amounted to only 494,029 rupees. The value of the exports from it, in the year just mentioned, was 11,386,138, and of the imports 13,152,888 dollars. The population was estimated, in 1843, to exceed 45,000, of whom about a half were Chinese, and the remainder for the most part Malaya.

**SISMONDI**\* died in June 1842, at his seat in the neighbourhood of Geneva. During the latter portion of his life, he was a member of the representative council of Geneva, and in the year of his death, of the constituent assembly which formed a new constitution for that canton, a project to which he was decidedly and earnestly opposed, as uncalled for by any practical evils growing out of the former organization of the government. His principal occupation, however, was the continuation of his "*Histoire des Français*," of which he lived to correct the proofs for the 20th volume, bringing it down to the close of the reign of Louis XV.—In addition to the important work just mentioned, and the other works enumerated in the previous article in this encyclopædia concerning Sismondi, he is the author of a "*History of the Italian Republics*," published originally in English, in Lardner's Cabinet Cyclopædia, and afterwards (1832, 2 vols.) in French; a "*History of the Fall of the Roman Empire*," also in English, for Lardner's Cyclopædia, and then (1835, 2 vols.) in French; a "*Précis*" of the history of the French, in 3 volumes, the first two of which appeared in 1839, and the third subsequently; together with various articles contributed by him to the "*Atti della Accademia Italiana*," the "*Bibliothèque universelle*" of Geneva, the "*Encyclopédie des gens du monde*," &c.

**SIZE**; a gelatinous substance, obtained from parchment shavings, fish-skin, and several animal membranes. It is less adhesive than glue; and is used by bookbinders, paper-hangers, and painters. It is sometimes mixed with flour and gum.

**SLAG**; the imperfect glassy or vitrifiable compounds which are produced during the reduction of metallic ores by various fluxes. In the neighbourhood of large smelting works, especially of iron and copper, the slags, which are abundantly produced, are sometimes used as building materials, and for making or mending roads.

They often contain a considerable relative proportion of metal.

**SLAVERY.\*** The most important event connected with the subject of slavery, to be added to those mentioned in the article *Slavery* in a preceding volume, is the passage by the parliament of Great Britain, in 1834, of an act, by which, on the 1st of August of that year, slavery was to cease throughout the British dominions, and the then existing slaves to become apprenticed labourers; the term of their apprenticeship to cease partly on the 1st of August 1839, and partly on the 1st of August 1840. But a clamour having been raised against the duration of the apprenticeship, its period was subsequently shortened, and the blacks became universally free in 1838. To attain this object the sum of £20,000,000 was distributed in certain proportions, and according to certain conditions, among the planters, as a compensation for the loss of their slaves.—The slave-trade is now prohibited by most of the maritime powers; and by Portugal it is allowed only within certain geographical limits. Nevertheless, it is extensively carried on by contraband dealers; and the engagements entered into by the European states to enforce the strictest measures in regard to the right of search on the coast of Africa, and to regard those concerned in the trade as pirates, have been inadequate to materially diminish its amount. This illicit trade exists chiefly on the part of the African coast situated between the Niger and Angola.—Since the slave-trade has been declared illegal, there can be little doubt that the sufferings of the negroes have been greatly increased, owing to its being necessary to coop them up in a small compass in their passage across the Atlantic, the better to avoid the British cruisers, while a pursuit by the latter often leads to their being thrown overboard. The loss of life in the middle passage is supposed to average one-fourth of the cargo; which is exclusive of that produced by the wars among the African tribes, in order to procure captives for the slaves, and by the "seasoning" of the negroes, after their reaching the West Indies, or South America. The commodities given in exchange for the slaves in Africa consist chiefly of coarse arms and gunpowder, imported into Brazil and other places expressly for this traffic, from England and Belgium, and the common cotton fabrics, known in the British manufacturing districts under the name of "coast goods." The negroes, seized on board slave-vessels by the English cruisers, are

generally carried to the British settlement of Sierra Leone.—In addition to the trade in slaves on the western coast of Africa, there is a periodical exportation of them by caravans from Soudan to the Barbary states and to Egypt. Many of these, according to Dr. Bowring, are boys who have been cruelly mutilated in Kordofan for employment in the harems. And there is also a considerable slave-trade carried on by the subjects of the Sultan of Muscat from Zanguebar, as well as by the Portuguese from Mozambique, for the supply of various parts of the East.

**SLOOP;** a vessel of one mast, the mainsail of which is attached to a gaff above, to a boom below, and to the mast on its foremost edge; differing from a *cutter* by having a fixed bowsprit and a jib-stay. It is also a general name for ships of war below the size of frigates.

**SMACK** is a vessel with one mast, commonly rigged as a sloop, and used in the coasting trade of Great Britain, or as a tender in the British navy.

**SMITH** (Sir James Edward), an eminent naturalist, was born at Norwich in England, in the year 1759. He studied medicine at Edinburgh, and took his degree of M. D. in 1786. Having next visited France and Italy, he published, on his return to England, his "Sketch of a Tour on the Continent," in 3 volumes, a work which contains much information on subjects of natural history. He founded the Linnæan Society, and was its first President. He was knighted by George IV., and died in 1828, at his native city, where he had long practised as a physician.—Besides his "Tour" before mentioned, he was the author of a "Natural History of the Lepidopterous Insects of Georgia" (2 vols. fol.) "English Botany" (36 vols. 8vo.); a "Flora Botanica" (3 vols. 8vo.); the "English Flora" (4 vols. 8vo.); and an "Introduction to Botany."

**SMITH** (General Samuel), a distinguished officer of the Revolution, was born in Lancaster county, Pennsylvania, July 27th 1752. Disposing of his patrimonial estate, the general's father, Mr. John Smith, removed to Carlisle, where he engaged successfully in business as a merchant, and was for several years elected a member of the Legislature. In 1760, he removed to Baltimore, and contributed to give an impulse to the commerce of that city. He was a member of the body which formed the constitution of Maryland in 1776, and was a representative in the Legislature of that state during a number of years.—The general, after being educated first at

Carlisle, and next, on the removal of his father to Baltimore, in an academy at Elkton, was placed, when 14 years of age, in his father's counting-house, where he remained till he was 19. He embarked, in May 1772, in one of his father's vessels for Havre, as supercargo, and subsequently travelled extensively in Europe. On his return home, he engaged in commerce with his father. In the mean time, however, the disputes with the mother country had reached their height; and being of an ardent and generous temperament, he took an active part in the measures adopted for resisting the British government, in its attempt to maintain by force the authority which it claimed the right to exercise over its American colonies. In January 1776, he obtained a captaincy in Colonel Smallwood's regiment, and shortly after a majority.—It was on the retreat of the American army through the Jerseys that he first attracted the notice of General Washington; and before long he received the appointment of lieutenant-colonel in the regiment commanded by Colonel Josias C. Hall. In September 1777, he distinguished himself by his defence of Fort Mifflin, on Mud Island, in the Delaware, for a period of 7 weeks, against a formidable British force. His gallantry on this occasion extorted the admiration even of the enemy; and Congress voted him, on the 4th of November following, a sword as a testimonial of its approbation. General Smith participated, also, in the battles of Brandywine and Monmouth, and underwent the hardships and privations of the encampment at Valley Forge.—As a brigadier-general of militia, he commanded the Maryland quota of troops in the "Whiskey Insurrection." When the government under the newly adopted constitution was organized, he was very instrumental in removing the prejudices of its opponents against it, and in reconciling the different parties in Baltimore. During the last war with Great Britain, he held the rank of a major-general in the militia, and was appointed to the chief command of the forces assembled for the defence of Baltimore. His energy, prudence, and bravery, were signally manifested on the occasion of the attack made by the enemy on that city, in the month of September 1814. The last time his military services were put in requisition was in the summer of 1836, during a popular commotion in Baltimore, consequent on the failure of a banking institution. The laws were trampled upon by an enraged mob, the public authorities contemned, and the property of the mayor

and other citizens wantonly destroyed. After all efforts on the part of the municipal authorities to suppress the outbreak had proved unavailing, the aged general made his appearance carrying the U. S. flag, and rallying the overawed inhabitants, placed himself at their head, charged the rioters, and restored tranquillity. In October of the same year, he was chosen to be mayor of the city, nearly by acclamation; and he held the office till near the time of his decease, which took place on the 22d of April 1839, in the 87th year of his age.—The facts which have been stated relate almost exclusively to the military character and life of General Smith. But he acted, besides, a conspicuous part in the civil affairs of his country. He was a member of the House of Representatives in Congress, from Baltimore, for 16 years, and represented the state of Maryland in the Senate of the United States for so long a period as 28 years. And in the discharge of his legislative duties, he was distinguished for his indefatigable business habits, his energy of character, and close reasoning in debate.

SMITH (Rev. Sydney) was born at Woodford, near London, about the year 1768. He was educated at Winchester college, and thence elected in 1790 to New College, Oxford, where, 10 years after, he obtained a Fellowship. He was ordained to a curacy at Netheravon, in Wiltshire, where he resided nearly 2 years, and then relinquished his charge, for the purpose of travelling on the continent with the son of one of his parishioners. This purpose, however, was not carried into execution, on account of the disturbed condition of the countries which they intended to visit; and we find Mr. Smith spending, instead, some time with his pupil at Edinburgh. There he became intimately associated with Jeffrey, Murray, and Brougham, to whom he proposed to set up a "Review." The proposition being acceded to (as he himself tells us) by acclamation, he was appointed editor, and remained long enough in Edinburgh to edit the first number of the "Edinburgh Review." "The motto I proposed for the Review," he tells us further, "was: *Tenui musam mediæam avenæ* (We cultivate literature on a little oatmeal). But this was too near the truth to be admitted, and so we took our present grave motto from Publius Syrus, of whom none of us had, I am sure, ever read a single line; and so began what has since turned out to be a very important and able journal. When

I left Edinburgh, it fell into the stronger hands of Lord Jeffrey and Lord Brougham, and reached the highest point of popularity and success. I contributed from England many articles, which I have been foolish enough to collect and publish with some other tracts written by me." Of these articles many were replete with a humour and satire of so effective a kind as to excite, in an extraordinary degree, the public attention, as well as to promote in an essential manner the interests of the review.—During the five years of his residence in Edinburgh, Mr. Smith became the minister of the Episcopal church there. From Edinburgh he removed to London, where he was an exceedingly popular preacher; the chapels in which he preached being "crowded by the wealthy, the dignified, and even with the learned inhabitants of this great city." His popularity as a preacher led to his appointment as a lecturer on the "belles lettres" at the Royal Institution, where his prolusions were attended by "overflowing and fashionable audiences."—One of the Whig ministers of 1806 conferred upon Mr. Smith the living which he held in Yorkshire. But he was not long settled in his new situation, when the cry of "No Popery" expelled the government of that day from the councils of the king; and it was then that the most popular of Mr. Smith's works made its appearance, namely, his "Letters of Peter Plymley," by means of which it has been asserted, though probably with some exaggeration, that he did more than any other individual for the relief of the Roman Catholics. In 1829, he received a rectory in Somersetshire, a living of the value of about £300 per annum; and in 1831, he became one of the canons residentiary of St. Paul's. In the latter years of his life, he was induced to take up his pen only on two occasions, and those when his own private interests were injuriously affected or threatened; one was when a bill had been introduced into parliament by Lord John Russell, very materially affecting the property and rights of Deans and Chapters, which as a member of one of those corporations he had sworn to defend; and the other when the interest on the Pennsylvania state debts ceased for a time to be paid. It may be added here that the intellectual power of Mr. Smith was exhibited with equal effect in the intercourse of private society as in his writings or public performances. The conversational witticisms reported of him would fill a volume.—Not long before his death, he gave the following account

of himself in a letter to a correspondent:—"I am 74 years old; and being a canon of St. Paul's in London, and rector of a parish in the country, my time is equally divided between town and country. I am living amidst the best society in the metropolis; am at ease in my circumstances; in tolerable health; a mild Whig; a tolerating churchman; and much given to talking, laughing, and noise. I dine with the rich in London, and physic the poor in the country; passing from the sauces of Dives to the sores of Lazarus. I am, upon the whole, a happy man, have found the world an entertaining world, and am heartily thankful to Providence for the part allotted me in it." He died in London, February 21st 1845.

SMITH\* (Sir William Sydney), after the conclusion of the European war in 1815, resided chiefly in France. He died at Paris on the 26th of May 1840.

SMITHSONIAN INSTITUTION. On the 23d day of October 1826, James Smithson, "son of Hugh, first duke of Northumberland, and Elizabeth, heiress of the Hungerfords of Audley, and niece of Charles the Proud, duke of Somerset," made a will, bequeathing his property, in the first instance, to his nephew, Henry James Hungerford. In the event, however, of the latter dying without leaving any children, or of the death of "the child or children he may have had under the age of 21 years, or intestate," the property in question was bequeathed "to the United States of America, to found, at Washington, under the name of the Smithsonian Institution, an establishment for the increase and diffusion of knowledge among men." Accordingly, on the death of the testator, Mr. Hungerford received the income arising from the property. He died in the summer of 1835, leaving no child surviving him. This fact, as well as the rights in consequence accruing to the United States, were promptly made known to our government, through the American legation in London. When Congress met in December following, a special message was communicated by the president on the subject to the House of Representatives; and a committee, of which Mr. J. Q. Adams was the chairman, reported, January 19th 1836, in favour of the acceptance of the bequest. The proper measures were taken to obtain the amount of it without delay, and every facility was afforded in England for this purpose. That amount was, in fact, speedily obtained; but, instead of being applied, as soon as the nature of the case would admit, to the

object intended by the testator, it was *invested*, and seemed for a considerable time to have been almost forgotten by the national legislature. During the last and present years (1845-46), the subject has been, at length, seriously agitated, without, however, leading to any practical result.—It would be wrong, we may mention, to attribute the delay of 10 years, which has occurred in organizing the "Smithsonian Institution," to any indifference, on the part of our leading political men, to the "increase and diffusion of knowledge among men." It has been owing in a degree, doubtless, to their attention being diverted from the performance of the functions that have devolved upon them as the patrons of science and literature, to the more exciting topics of the day; but it has also been, in a great measure, owing to the extreme difficulty of a majority of Congress coming to an agreement on the scheme to be carried into execution. Among a hundred men, all professing to be anxious for the increase and diffusion of knowledge, there may be a hundred favourite modes of accomplishing this object; and not 10 years only, but 10 times 10 might elapse before 51 of their number could be brought to unite on the details of any one mode of proceeding.—The amount of the Smithsonian fund was stated, in December 1844, at 690,000 dollars.

**SMOKE** is the visible vapour or exhalation which is expelled from a substance while burning; or the rarefied, but undecomposed part of a combustible. It is always proportioned in quantity to the incombustible matter within a substance, that is to the matter with which oxygen does not readily combine. The word *smoke* is, however, particularly applied to the volatile vapour expelled from coal, wood, vegetable matter, &c.; that which exhales from metallic substances being more generally called *fume*.

**SMUT**; a disease in corn, when the grains, instead of being filled with flour, contain a black, soot-like powder. Some attribute the smut to the richness of the soil, while others consider it as an hereditary disease transmitted by one generation to another through the seed. Wildenow and Mirbel regard it as a small fungus; but Bauer believes it to be a proper disease, indicated by a morbid swelling of the ear. Some cultivators steep the grain of smutty corn in a weak solution of arsenic before sowing; but others deny the efficacy of this preparation. Smutty grain is separated from such as may be used for seed, or for

grinding into flour, by being rapidly whirled round in a cylinder lined with brushes; or by steeping in water, when the smut, from its lightness, floats on the surface. The safest mode, however, for the farmer to pursue is never to sow grain from a field in which the smut has prevailed.

**SOANE\*** This eminent architect was elected, in 1806, professor of architecture to the Royal Academy; and, in 1824, architect to the Royal College of Surgeons, and a member of the Royal Society. After having passed his 80th year, and been engaged, during a period of 60 years, in the erection or improvement of numerous public edifices in London and elsewhere, he retired from his profession, and set seriously about the idea which he had long formed of bequeathing his large and valuable collection of works of ancient and modern art (estimated to be worth upwards of £50,000) in perpetuity to his country, for the benefit of students in the arts, and especially for the advancement of architectural knowledge. This he lived to see completed by act of Parliament; and at his death, which occurred in January 1837, his splendid house and museum became the property of the public.

**SOCIETIES.** There is no circumstance more characteristic of the present age, as contrasted with the times which preceded it, than the disposition of individuals to associate together for the accomplishment of a common object. In some instances, indeed, this disposition may have led to the formation and chartering of various companies to do what could far better, and at a much less expenditure of money and labour, be separately performed by the members composing them; while in others, there cannot be a doubt that such associations as we have reference to constitute engines of very extraordinary efficiency. Some of these have been, and still are, powerfully instrumental in the improvement of the religious, moral, and social condition of mankind; as, for example, the Bible, Missionary, Temperance, &c., societies. But though we should confine ourselves to institutions of the last mentioned description, our limits would prevent us from treating at any length even of their more recent operations. And all that is proposed to be done here, is to give a few of the latest statistics respecting the Bible, Missionary, and Temperance societies, in the United States and elsewhere.

1. *Bible Societies.*—Their number and activity, in various parts of the world, have, of late years, been considerably augmented.

The "British and Foreign Bible Society," the institution of which preceded that of all the others, had, in Great Britain, its colonies, and other dependencies, at the close of the year 1844, no fewer than 493 auxiliaries, together with 616 branches, and 2417 associations. Its issues in that year were from the depository at home 605,600 copies, and from depôts abroad 310,211 copies; being in all 915,811 copies of the Scriptures, in whole or in part. The entire issues, since the society was instituted, in March 1804, have been 26,000,000 copies, in 160 versions. The money contributed to it, in the year ending in May 1845, was \$229,108.03, and that received from the sale of the society's books was \$229,919.02; being a total of \$459,027.10. The expenditures incurred, during the same period, amounted to \$411,925.38.—In May 1845, the "American Bible Society" had 972 auxiliary societies, 70 having been added to it in the course of the year preceding that date. During this period, it printed 136,000 English Bibles and 231,350 English Testaments; also 16,000 German Bibles and 4000 French Testaments; and of Testaments and Psalms in English, besides, it printed 30,000; making a total of 417,350 copies, a larger number than had been printed in any previous year. Besides the books thus published, various kinds of Bibles and Testaments in foreign tongues were purchased from the British and Foreign, and the French and Foreign Bible Societies. During the same period, too, the number of copies issued by the American Bible Society was 429,092; being an increase over the issues of the previous year of 114,510 copies; and making an aggregate, since the formation of the society in 1816, of 4,013,392 volumes. The receipts of the year, from all sources, amount to \$166,652, being an increase over those of the previous year of \$12,212, and a larger sum than was ever before furnished in a single year.—The following statement of the principal Bible Societies, with the amount of their issues, since the times of their being respectively instituted, is given in the report of the British and Foreign Bible Society for 1845.

## WESTERN EUROPE.

|                                                                                            | Bibles and<br>Testaments. |
|--------------------------------------------------------------------------------------------|---------------------------|
| 1. Protestant Bible Society at Paris, instituted in 1818, with 133 auxiliaries.....        | 219,440                   |
| 2. French and Foreign Bible Society at Paris, instituted in 1833, with auxiliaries.....    | 94,395                    |
| 3. Strasburg Bible Society, instituted in 1815 (chiefly German Bibles and Testaments)..... | 66,067                    |
| Issued from the British and Fo-                                                            |                           |

reign Society's depôt in Paris, from April 1830, 2,069,211 copies.

## NORTHERN EUROPE.

|                                                                                                         |         |
|---------------------------------------------------------------------------------------------------------|---------|
| 4. Icelandic Bible Society, instituted in 1815 .....                                                    | 10,445  |
| 5. Swedish Bible Society, instituted in 1809, with auxiliaries.....                                     | 564,378 |
| The agency of the British and Foreign Society at Stockholm, formed in 1832, has issued 231,900 copies.  |         |
| 6. Norwegian Bible Society, instituted in 1816 .....                                                    | 36,995  |
| The agency of the British and Foreign Society at Christiania, formed in 1832, has issued 26,240 copies. |         |
| 7. Stavanger Bible Society, instituted in 1839 .....                                                    | 6,093   |
| 8. Finnish Bible Society, instituted in 1812, at Abo, with many branches .....                          | 110,561 |
| 9. Danish Bible Society, instituted in 1814, with auxiliaries.....                                      | 178,544 |

## CENTRAL EUROPE.

|                                                                                                           |         |
|-----------------------------------------------------------------------------------------------------------|---------|
| 10. Netherlands Bible Society, with auxiliaries.....                                                      | 974,728 |
| The agency of the British and Foreign Society at Amsterdam, appointed in 1843, has issued 47,639 copies.  |         |
| 11. Belgian and Foreign Bible Society, at Brussels, instituted in 1834.....                               | 7,692   |
| 12. Belgian Bible Association, instituted in 1830 .....                                                   | 3,903   |
| 13. Antwerp Bible Society, instituted in 1834 .....                                                       | 439     |
| 14. Ghent Bible Society, instituted in 1834 .....                                                         | 8,960   |
| 15. Sleswick-Holstein Bible Society, instituted in 1815, with auxiliaries.....                            | 107,213 |
| 16. Eutin Bible Society, instituted in 1817, for the territory of Lübeck .....                            | 5,996   |
| 17. Lübeck Bible Society, instituted in 1814 .....                                                        | 11,473  |
| 18. Hamburg Bible Society, instituted in 1814, with branches .....                                        | 83,732  |
| 19. Bremen Bible Society, instituted in 1815, with an auxiliary .....                                     | 30,163  |
| 20. Lauenburg Ratzeburg Bible Society, instituted in 1816 .....                                           | 10,675  |
| 21. Rostock Bible Society, instituted in 1816 .....                                                       | 19,154  |
| 22. Hanover Bible Society, instituted in 1814, with auxiliaries .....                                     | 99,239  |
| 23. Lippe-Detmold Bible Society, instituted in 1816 .....                                                 | 3,569   |
| 24. Waldeck and Pyrmont Bible Society, instituted in 1817 .....                                           | 2,800   |
| 25. Hesse-Cassel Bible Society, instituted in 1816 .....                                                  | 30,000  |
| 26. Hanau Bible Society, instituted in 1818 .....                                                         | 3,316   |
| 27. Marburg Bible Society, instituted in 1825 .....                                                       | 7,065   |
| 28. Frankfurt Bible Society, instituted in 1810 .....                                                     | 73,565  |
| The agency of the British and Foreign Society at Frankfurt, appointed in 1830, has issued 701,027 copies. |         |
| 29. Hesse-Darmstadt Bible Society, instituted in 1817, with auxiliaries.....                              | 31,484  |
| 30. Grand-duchy of Baden Bible Society, instituted in 1820, with auxiliaries.....                         | 18,585  |
| 31. Württemberg Bible Society, instituted in 1812, with auxiliaries .....                                 | 464,576 |
| 32. Bavarian Protestant Bible Institution, at Nuremberg, instituted in 1821, with auxiliaries.....        | 108,990 |
| 33. Saxon Bible Society, instituted in 1814, with auxiliaries .....                                       | 159,536 |
| 34. Anhalt-Bernburg Bible Society, instituted in 1824.....                                                | 4,796   |
| 35. Anhalt-Desauw Bible Society.....                                                                      | 3,310   |
| 36. Weimar Bible Society, instituted in 1821 .....                                                        | 3,773   |
| 37. Eisenach Bible Society, instituted in 1812 .....                                                      | 4,928   |
| 38. Brunawick Bible Society, instituted in 1815 .....                                                     | 709     |

Bibles and  
Testaments.

|                                                                                 | Bibles and Testaments. |
|---------------------------------------------------------------------------------|------------------------|
| 39. Prussian Bible Society at Berlin, instituted in 1805, with auxiliaries..... | 1,271,194              |
| Issued to the Prussian troops, since 1830 .....                                 | 235,916                |

SWITZERLAND AND ITALY.

|                                                                                   |         |
|-----------------------------------------------------------------------------------|---------|
| 40. Basel Bible Society, instituted in 1804.....                                  | 336,184 |
| 41. Schaffhausen Bible Society, instituted in 1813.....                           | 8,369   |
| 42. Zurich Bible Society, instituted in 1819, with an auxiliary at Winterthur.... | 14,656  |
| 43. St. Gall Bible Society, instituted in 1813                                    | 34,429  |
| 44. Aargovian Bible Society, instituted in 1815 .....                             | 13,802  |
| 45. Berne Bible Society .....                                                     | 40,841  |
| 46. Neuchâtel Bible Society, instituted in 1816 .....                             | 6,430   |
| 47. Lausanne Bible Society, instituted in 1814 .....                              | 32,000  |
| 48. Geneva Bible Society, instituted in 1814                                      | 36,651  |
| 49. Glarus Bible Society, instituted in 1819                                      | 5,000   |
| 50. Coire Bible Society, instituted in 1813                                       | 12,267  |
| 51. Waldenses Bible Society at La Tour, instituted in 1816 .....                  | 4,238   |

GREECE AND TURKEY.

|                                                                                     |       |
|-------------------------------------------------------------------------------------|-------|
| 52. Ionian Bible Society, instituted in 1819, at Corfu, with three auxiliaries..... | 7,377 |
|-------------------------------------------------------------------------------------|-------|

RUSSIA.

|                                                                                                                                                                                                                                 |         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| 53. Russian Bible Society, at St. Petersburg, previous to its suspension by an Imperial Ukase in 1826, had 269 auxiliaries, and had printed the Scriptures in various languages; the circulation of which is still allowed..... | 861,103 |
| 54. Russian Protestant Bible Society, at St. Petersburg, instituted in 1826, with numerous auxiliaries .....                                                                                                                    | 132,464 |

INDIA.

|                                                                             |         |
|-----------------------------------------------------------------------------|---------|
| 55. Calcutta Bible Society, instituted in 1811, with various branches ..... | 491,567 |
| Serampore Missionaries.....                                                 | 206,000 |
| 56. Madras Bible Society, instituted in 1820                                | 402,503 |

|                                                                                | Bibles and Testaments. |
|--------------------------------------------------------------------------------|------------------------|
| 57. Bombay Bible Society, instituted in 1813                                   | 139,928                |
| 58. Colombo Bible Society, instituted in 1812, with various branches in Ceylon | 36,114                 |
| 59. Jaffna Bible Society.....                                                  | 62,625                 |

AMERICA.

|                                                         |           |
|---------------------------------------------------------|-----------|
| 60. American Bible Society, instituted in 1816.....     | 3,534,260 |
| 61. Pennsylvania Bible Society, instituted in 1808..... | 233,039   |

Total of copies of Scriptures, 11,062,942

2. *Missionary Societies.*—The operations of these societies continue to be conducted in every quarter of the world with unabated activity, and in some instances with more than usual success, especially in the islands of the Pacific Ocean.—The following tabular view of the Protestant missions is copied from the "Foreign Missionary Chronicle," for January 1845. "Ministers of the Gospel are classed as Missionaries; all others as Assistant Missionaries. Female Missionaries are not included. The column headed 'Native Assistants' requires explanation, the usage of the Societies not being uniform in reporting this class of labourers. Some report all in their service, converted or pagan; others, only native preachers. Some use vague titles, such as 'native assistants,' 'subordinate agents,' &c. It may be presumed, however, that most of the persons reported in this column are members of the church, and that a small part of them are preachers of the Gospel."

TABULAR VIEW OF PROTESTANT MISSIONS.

|                          | Missionaries. | Assistant Missionaries. | Native Assistants. | Communicants. | Schools. |
|--------------------------|---------------|-------------------------|--------------------|---------------|----------|
| <b>AMERICAN INDIANS.</b> |               |                         |                    |               |          |
| American Board.....      | 24            | 19                      | 6                  | 1146*         | 903*     |
| Baptist .....            | 12            | 9                       | 10                 | 1600*         | 262*     |
| Episcopal .....          | 1             | —                       | 1                  | 120           | —        |
| Methodist .....          | 14            | 6                       | —                  | 4303          | —        |
| Presbyterian .....       | 4             | 3                       | —                  | 25*           | 106*     |
| Moravian .....           | 4             | —                       | —                  | 68            | —        |
| British Baptist.....     | 1             | —                       | —                  | 102           | —        |
| Episc. Church Miss. Soc. | 3             | 3                       | 8                  | 451           | 669      |
| Wesleyan.....            | 9             | 1                       | 9                  | 442           | 151      |
| <b>TEXAS.</b>            |               |                         |                    |               |          |
| Baptist .....            | 3             | —                       | —                  | 940           | —        |
| Episcopal.....           | 3             | —                       | —                  | —             | —        |
| Methodist .....          | 40            | —                       | —                  | 4970          | —        |
| Presbyterian .....       | 4             | —                       | —                  | —             | —        |

\* Returns not given, or imperfect.



TABULAR VIEW OF PROTESTANT MISSIONS—CONTINUED.

|                                                 | Missionaries. | Assistants. | Native Assistants. | Communicants. | Schools. |                                                                                        |
|-------------------------------------------------|---------------|-------------|--------------------|---------------|----------|----------------------------------------------------------------------------------------|
| <b>AFRICA.</b>                                  |               |             |                    |               |          |                                                                                        |
| American Board                                  | 6             | 9           | 5                  | 15            | 125*     | Zulus—Gaboou.                                                                          |
| " Baptist                                       | 2             | 1           | 9                  | 94            | 31       | Bassas.                                                                                |
| " Episcopal                                     | 3             | 3           | 4*                 | 21            | 187      | Capo Palmas.                                                                           |
| " Methodist                                     | 16            | 3           | 9                  | 874           | 273      | Liberia.                                                                               |
| " Presbyterian                                  | 2             | 1           | 12                 | 20            | 100      | Liberia—Kroos.                                                                         |
| British Baptist                                 | 3             | —           | 32                 | 44            | 70       | Fernando Po.                                                                           |
| " Epis., Church Miss. Soc.                      | 12            | 8           | 5                  | 1275          | 5473     | Sierra Leone—Timmanee country.                                                         |
| " Ind., Lond. Miss. Soc.                        | 23            | 5           | 1*                 | 3704*         | 4199*    | South Africa.                                                                          |
| " Wesleyan                                      | 53            | —           | 34                 | 6798          | 8576     | South Africa—Sierra Leone—Aabant, &c.                                                  |
| French Protestant                               | 10            | 3           | 2                  | 209*          | 670      | South Africa.                                                                          |
| German                                          | 2             | 2           | *                  | —             | —        | Guinea coast—Aquapim mountains.                                                        |
| Glasgow (two Societies)                         | 9             | 1           | 0                  | 86            | 144      | South Africa.                                                                          |
| United Brethren                                 | 22            | —           | —                  | 589*          | —        | South Africa.                                                                          |
| <b>COUNTRIES ADJACENT TO THE MEDITERRANEAN.</b> |               |             |                    |               |          |                                                                                        |
| American Board                                  | 31            | 4           | 29                 | —             | 1706     | Greece—Syria—Armenians—Nestorians [Ac.]                                                |
| " Baptist                                       | 2             | —           | 1                  | —             | —        | Greece.                                                                                |
| " Episcopal                                     | 4             | —           | —                  | —             | *        | Greece—Constantinople—Mesopotamia.                                                     |
| British Epis., Church Miss. Soc.                | 9             | —           | 10                 | —             | 804      | Asia Minor—Egypt—Abyssinia.                                                            |
| " Independent                                   | 1             | —           | —                  | —             | —        | Corfu.                                                                                 |
| <b>INDIA AND CEYLON.</b>                        |               |             |                    |               |          |                                                                                        |
| American Board                                  | 27            | 5           | 97                 | 544           | 8318     | India, West and South—Ceylon.                                                          |
| " Baptist                                       | 2             | 2           | 3                  | *             | *        | Teelooos, South India.                                                                 |
| " Presbyterian                                  | 16            | 2           | 12                 | *             | 860      | North India.                                                                           |
| British Baptist                                 | 37            | —           | 92                 | 1439          | 2804     | North India—Ceylon.                                                                    |
| " General                                       | 4             | 1           | 17                 | *             | 139      | Orissa, North India.                                                                   |
| " Epis., Church Miss. Soc.                      | 65            | 15          | 645                | 2334          | 2,577    | India, North, West, South—Ceylon.                                                      |
| " Gospel Prop. Soc.                             | 36            | 2           | 3*                 | 1076*         | 1181*    | India, North, West, South.                                                             |
| " Independent                                   | 54            | 3           | 354                | 593           | 7942     | India, North, West, South.                                                             |
| " Wesleyan                                      | 36            | 21          | 193                | 1415          | 6578     | South India—Ceylon.                                                                    |
| German                                          | 24            | —           | 13                 | —             | 1300     | West India.                                                                            |
| Irish Presb. Church                             | 5             | —           | —                  | —             | —        | West India.                                                                            |
| Scotch, Free Church                             | 13            | 3           | *                  | *             | 1400*    | India, North, West, South.                                                             |
| Welsh                                           | 1             | —           | —                  | —             | —        | North India.                                                                           |
| <b>FARTHER INDIA.</b>                           |               |             |                    |               |          |                                                                                        |
| American Board                                  | 17            | 1           | 1                  | 20            | —        | Siam—China—Borneo.                                                                     |
| " Baptist                                       | 28            | 4           | 59                 | 2445          | 294*     | Burma—Arrakan—Assam—Siam—China.                                                        |
| " Episcopal                                     | 4             | —           | —                  | —             | —        | China.                                                                                 |
| " Presbyterian                                  | 8             | 3           | 1                  | —             | —        | China—Siam.                                                                            |
| British Baptist                                 | 2             | —           | —                  | —             | —        | Java—Sumatra.                                                                          |
| " Independent                                   | 9             | 3           | —                  | —             | —        | China—Singapore—Penang.                                                                |
| <b>SOUTH SEAS.</b>                              |               |             |                    |               |          |                                                                                        |
| American Board                                  | 29            | 13          | 1                  | 23,804        | 20,000   | Sandwich Islands.                                                                      |
| British Epis., Church Miss. Soc.                | 12            | 22          | 321                | 1222          | 10,345   | New Zealand.                                                                           |
| " Independent                                   | 36            | 4           | 13*                | 2045*         | 5673*    | Georgian—Society—Hervey—Navigators*                                                    |
| " Wesleyan                                      | 29            | 25          | 925                | 10,461        | 7044     | New-Zealand—Friendly—Feejee.                                                           |
| <b>WEST INDIES.</b>                             |               |             |                    |               |          |                                                                                        |
| British Baptist                                 | 47            | —           | 93                 | 36,371        | 6744     | Jamaica—Trinidad, &c.                                                                  |
| " Epis., Church Miss. Soc.                      | 7             | 7           | 4                  | 533           | 1248     | Jamaica—Trinidad.                                                                      |
| " Independent                                   | 25            | 9           | 19                 | 2519*         | 3046*    | Demerara—Jamaica—Berbice.                                                              |
| " Wesleyan                                      | 94            | 9           | 123                | 58,144        | 7934     | Jamaica—Antigua, &c.                                                                   |
| Scottish                                        | 7             | 11          | —                  | 1952          | 785      | Jamaica.                                                                               |
| United Brethren                                 | 114           | —           | *                  | 14,000        | *        | Danish and British Isles.                                                              |
| <b>LABRADOR AND GREENLAND.</b>                  |               |             |                    |               |          |                                                                                        |
| United Brethren                                 | 32            | —           | —                  | 783           | —        |                                                                                        |
| <b>THE JEWS.</b>                                |               |             |                    |               |          |                                                                                        |
| American Board                                  | 1             | —           | —                  | —             | —        | Constantinople.                                                                        |
| Associate Reformed Synod                        | 1             | 1           | —                  | —             | —        | Probably Damascus.                                                                     |
| British Episcopal, Jews                         | 23            | 47          | —                  | —             | —        | { Great Britain—Continent of Europe.<br>Countries in Asia near the Mediter-<br>ranean. |
| Scotch, Free Church                             | 5             | 1           | —                  | —             | —        | Feeth—Jassy—Damascus.                                                                  |
| Irish Presbyterian Church                       | 2             | —           | —                  | —             | —        | Holy Land.                                                                             |

3. *Temperance Societies.*—The efforts of these associations, also, have been prosecuted with unabated vigour and extraordinary success in nearly every civilized and Christian country. In several of the United States, the strongest evidence of the magnitude of the results obtained has been rendered by the legislative measures that have been adopted in relation to the granting of licenses for the retailing of spirituous liquors. This question has been submitted to the people in Massachusetts, Connecticut, New York (with the exception of the city of New York), Michigan, in Marion county in Indiana, and perhaps elsewhere, for their decision; and in the great majority of the towns they have voted that no licenses should be granted. The vote in the state of New York was taken so late as the 19th of May of the present year (1846). Of 731 towns, as many as 603 were opposed to the granting of any licenses. The improvement, too, of the habits of the community in respect to temperance is very apparent at all public celebrations, and especially at such as are in no manner connected with the party politics of the country. Thus, at the late inauguration of the newly appointed president of Harvard College, we are told that "six hundred distinguished citizens of Massachusetts, with numerous literary gentlemen from other states, sat down to dinner without any wine or intoxicating drinks."—The cause of temperance has of late made some progress in England and Scotland; but in Ireland it has obtained the most signal triumphs, chiefly through the instrumentality of "Father Matthew," who often administers the temperance pledge to many thousands. In Norway, the government, in order to put a stop to the progress of drunkenness, has appointed a missionary for each of the four provinces of the kingdom, to travel through them, preaching abstinence from strong liquors, and promoting the establishment and extension of temperance societies; and compensation is offered to all such distillers as shall resign their licenses for making brandy, and entirely relinquish their business. No fewer than 300 temperance societies exist in Germany, with about a million of members, pledged to total abstinence from ardent spirits. From other parts of Europe, from the European possessions in the East and the West, from the islands of the Pacific, and, in short, from every region of our globe where the Christian missionary has penetrated, we also hear of the persevering efforts of the apostles of temperance, of the formation

of temperance associations, and of the consequent diminution of the previously existing amount of misery and crime.

**SOCIETY ISLANDS.\*** Their population, according to the latest estimates, is only 7000.—In 1842, the French Admiral Dupetit-Thouars, after having taken possession of the Marquesas Islands, appeared before Otaheite, and demanded an indemnity for injuries alleged to have been sustained by certain Frenchmen, at the hands of the authorities or natives of the Society Islands. The queen, Pomare, being utterly unable to comply with what was required of her, offered to place herself and her subjects under the protection of France; and a treaty to this effect was concluded between her and the admiral, on the 9th of September (1842). After causing a peculiar flag, indicative of the protectorship of his country over the islands, to be hoisted in conjunction with that of the queen, the admiral took his departure. On returning to Otaheite, on the 1st of November 1843, he found that, through the influence which had, in his absence, been exerted on the queen, by the British consul, Mr. Pritchard, and, possibly, by some of the Protestant missionaries, she had repented of the step she had taken, and had caused the protecting flag of France to be removed from association with her own. M. de Petit-Thouars did not content himself with announcing to the queen and the foreign consuls the acceptance by the king of the French of the office of protector, agreeably to his instructions, nor with simply insisting on the faithful execution of the treaty of the preceding year, but took formal possession of the Society Islands, in the name of his sovereign. When the news, however, of this proceeding reached Europe, the British government remonstrated against it, and Louis Philippe judged it expedient to disavow the act of his subordinate, and to rest satisfied with the protectorship, instead of the sovereignty, over the islanders. But the relations existing between the latter and their protectors are far from being clearly defined; and several hostile collisions have taken place between them and the French,—the precursors, there can scarcely be a doubt, of the ultimate reduction of the islands to the condition of a French colony. Such, at least, would seem to be their destination, unless the British government should undertake, what is quite improbable, to interfere in their behalf more effectually than it has hitherto evinced any disposition to do.

**SODA-WATER.** This common and re-

freshing beverage is, as usually prepared, a supersaturated solution of carbonic acid gas in water. True *soda* water was formerly, and is still occasionally prepared, for medical use, chiefly as a remedy for heartburn, and certain forms of dyspepsia and calculous complaints; and consisted of one, two, or three drachms of carbonate of soda, dissolved in a pint of water highly impregnated with carbonic acid. This is often a valuable remedy; but would sometimes be attended with mischievous results, especially if indulged in to the extent to which some persons indulge in the use of soda-water. The mere aqueous solution of carbonic acid, which is made by forcing the gas into water by a condensing pump, and under a pressure of six or eight atmospheres, is an agreeable and, generally speaking, harmless diluent.

**SOUlié** (Melchior Frédéric), one of the most prolific writers of the present age, was born in the year 1800, and was for a time a lawyer, then a custom-house officer, next the business-man (*Dirigent*) of a cabinet-making establishment, and, at length, he received the appointment of assistant librarian to the arsenal at Paris. He commenced his literary career, in 1828, as a dramatic writer. His tragedy of "Romeo and Juliet" was favourably received by the public, and was rapidly followed by a number of other plays. The most successful among these was his "Clotilde," which was performed no less than 100 times at the "Théâtre français." In 1832, he made his *débüt* as a novelist; and although he has since published many novels, the merit of which does not reach beyond mediocrity, or fall even far below it, others deserve a very high commendation for the faithful and skilful delineation which they contain of the existing modes and manners of French society.—In the summer of 1840, Soulié made an excursion to Baden and the Rhine, publishing an account of it in the "Journal des débats," which the Germans have pronounced to be replete with the most ridiculous errors.

**SOULT**.\* On the formation of the ministry of the 11th of October 1832, Marshal Soult was appointed president of the council, and minister of war. His health becoming affected by the labours and fatigues of office, he felt himself obliged, in July 1834, to retire for a time from public life. He represented his country at the coronation of Queen Victoria in June 1838, and, during his visit to England, was not only treated by the prominent individuals of that country with all the respect and courtesy due to his official station and his

eminent military reputation, but was every where, when he presented himself in public, to his own astonishment, warmly, and even enthusiastically, greeted by the populace. On the 12th of May 1839, Marshal Soult resumed the presidency of the council of ministers, taking charge of the department of Foreign Affairs; and again, when a new ministry was organized, on the 29th of October 1840, the presidency of the council, and the department of war, were assigned to him.

**SOUND**.\* The number of vessels which passed the Sound, and cleared at Elsinour, in 1837, was 13,102, in burden 2,033,706 tons; including 3417 British vessels, in burden 655,447 tons. The number of ships which passed the Sound in 1839 was 16,175.

**SOUTH POLAR ISLANDS**.\* See *Voyages of Discovery*, (Sup.)

**SOUTHAMPTON**; a sea-port town of England, situated where the river Itchen discharges itself into an inlet of the sea, called Southampton-water, 12 miles S. by E. of Winchester, and 70 miles W. S. W. of London. It forms a county of itself, in Hampshire, with a population, in 1841, of 26,952. It has an agreeable aspect, is well paved, lighted with gas, and is exceedingly clean. From its position on the inlet of the sea just mentioned, Southampton is the emporium of a considerable district, and enjoys a pretty extensive trade. In 1841, no fewer than 555 ships, of the aggregate burden of 78,038 tons, entered inwards with foreign cargoes. Owing, also, to its position with respect to the opposite coast of France, Southampton has been, for a good many years, an important station for travellers to and from the continent. In this respect, however, its importance has been vastly increased since the opening of the "South-Western Railway," by which the town has been brought within a three hours' journey of the metropolis. It has now, in fact, become the principal station of the steamers from England for Havre, Dieppe, and other French ports, as well as of those for Lisbon, the Mediterranean, &c.

**SOUTHARD** (Samuel L.) was born at Baskingridge, in New Jersey, June 9th 1787. He received his early education in his native village, at a school in high repute, of which the Rev. Dr. Finley was the principal; and he entered the junior class of the College of New Jersey, at Princeton, in the month of October 1802. He was graduated there in 1804, participating in the highest "honour" of the institution. In the following year, he acted as

assistant teacher in the classical school at Mendham, in Morris county, N. J., and, in April 1806, went to Virginia, where he was for several years engaged as a private tutor in the family of Mr. John Taliaferro. During this time, he also prosecuted the study of the law; and he was admitted to the bar in March 1809. He returned to New Jersey in 1810, and was licensed there as an attorney in May 1811, and counsellor a year afterwards. He fixed his residence at Flemington, in Hunterdon county, but was appointed by the attorney-general of the state, prosecutor of the pleas for Morris county. In January 1815, he was associated with the late Judge Hopkinson, in opposition to Mr. Thomas Addis Emmet, and other eminent counsel, in the discussion before the New Jersey Legislature, of the great "steamboat case," which originated in the claim of Fulton to the invention of steamboats, and the conflicting legislation of the states of New York and New Jersey upon the subject of steam navigation. The speech which he made on this occasion acquired for him a high reputation with his fellow-citizens. He was elected a member of the Legislature in October 1815, and on the last day of that month, when only 28 years of age, he was appointed by the Legislature to be one of the associate justices of the Supreme Court of New Jersey. The tenure of the judicial office being, however, of a very limited nature, Mr. Southard, before long, returned to the bar. He was appointed reporter of the laws of the state, in 1817; recorder of the city of Trenton, whither he had previously removed his residence, in 1818; and again reporter of the laws, in 1819 and 1820. — In November 1820, he was elected to represent the state of New Jersey in the Senate of the United States, for the constitutional term of 6 years, commencing on the 4th of March 1821. He soon distinguished himself in that body by his ability and eloquence as a debater, and was, in December 1823, selected by Mr. Monroe to be secretary of the navy, in the room of Mr. Smith Thompson, who had been appointed a judge of the Supreme Court of the United States. Mr. Southard continued to hold a seat in the cabinet until the close of Mr. Adams's administration, occasionally discharging, *ad interim*, the duties of another of the departments of the administration besides that properly his own. From 1829 to 1832, he filled the office of attorney-general of New Jersey; and, in the last mentioned year, he was elected governor of the state. He was elected a U. S.

senator for the term of 6 years from the 4th of March 1833, and afterwards re-elected for the next term of 6 years. On the 11th of March 1841, he was appointed the president *pro tem.* of the Senate, and became the permanent presiding officer of that body by the death, of President Harrison. While occupying this position in the government, he died at Fredericksburg, Virginia, on the 26th of June 1842. — Mr. Southard was far from suffering his attention to be absorbed by the political contentions of the day, or by his official duties, although in their performance he was ever most indefatigable. He took an active interest in the cause of knowledge, and of benevolent and Christian enterprise: delivered several literary addresses, which have been much commended; suggested the late "exploring expedition;" and urged the prosecution of the "coast survey."

SOUTHER\* died at Keswick, aged 68, on the 21st of March 1843. — Since 1835, he had enjoyed a pension of £300 from the government.

SPAIN.\* The population of this country, according to a statement made by the government in November 1833, and which is the latest that is entitled to any reliance, amounted, exclusive of that of the Balearic or Canary Islands, and of its colonies, to 12,087,991. — From the official returns published in 1803, it appears that the surface of the country was distributed nearly as follows:—cultivated lands and fallows, 4310 square leagues; pastures and commons, 11,658; forests and copses, 1580; mountains and rivers, 1342. It is inferred, however, from the nearly total cessation of the importation of agricultural products, and from the increase of the population since 1803, that the proportion of cultivated lands is at present much greater than it was at that date, though they constitute little more, perhaps, than about a fourth part of the entire surface. — The wars, which have of late years been waged in Spain, have very seriously interfered with the attention which was bestowed on the rearing of sheep; these are supposed to have been materially reduced in number, and were estimated in 1841 not to exceed 13,000,000, or, at most, 14,000,000. — Manufactures are mostly at a very low ebb. Silks, cottons, and woollens, are made in Catalonia and Valencia, for the most part of an inferior quality. Biscay has many iron-works; and the northern provinces generally are noted for their tanneries. The only other manufactures, of any consequence, are those of soap, paper, hats,

linen, and pottery. Saltpetre, gunpowder, brass cannon, tobacco, porcelain, tapestry, and mirrors, are made exclusively by the government.—The internal commerce of Spain is inconsiderable, being impeded by the want of sufficient means of communication, to which great obstacles are presented by the unfavourable structure of the country, which has comparatively few navigable rivers, and the central provinces of which are separated from those on the coast by high ridges of mountains. Few of the roads are fit for wheel-carriages; and merchandise is conveyed by muleteers, who traverse the country in all directions, along beaten tracks, which are often accessible only to them. Railroads are not thought of; and the only canal of any importance at present in progress of construction is the canal of Castile, intended to open a communication between the vast and fertile plains of Old Castile and Leon and the Bay of Biscay, and to afford an outlet for their surplus produce. It was begun so long ago as 1753; and it is difficult to conjecture when it will be completed.—The external commerce of the kingdom is restrained within very narrow limits by the high duties imposed by the government on almost all foreign commodities; which are indeed so exorbitant as to give rise to a system of smuggling on the largest scale. A half, or more, of the trade in question, is estimated to be in the hands of the “contrabandistas,” as the smugglers are styled. The exports and imports, both legal and illegal, probably amount each to from £4,000,000 to £4,500,000 per annum.—Banking, as the term is usually understood, is unknown in Spain; and in ordinary transactions there are no substitutes for cash. There is, however, an extensive circulation of inland bills of exchange, through the medium of the higher class of merchants; who all call themselves bankers, and who have agents and connexions in the different towns to facilitate their operations.—The revenue was stated in the budget of 1839 at 715,096,838 reals, or £7,448,925, — a sum greatly exceeded by the expenditure. The public debt in 1840 amounted to £187,062,253, of which about £75,000,000 constituted the foreign debt, contracted in Great Britain, France, and Holland.—By a royal decree, dated the 30th of November 1833, the Spanish territory in the Peninsula and adjacent islands was divided into 49 provinces, taking their names from their respective capitals, except Navarre, Biscay, Alava, and Guipuscoa, which retained their ancient denominations; but

for military purposes, these are arranged into 12 captain-generalships.—The next event of importance in the later history of Spain, after those which were noticed in a former volume of the present work, was the sickness of Ferdinand VII., in 1832; when advantage was taken of the weakness of his mind by the minister Calomarde, to induce him to revoke the decree of March 29th 1830, which rendered the crown hereditary in the female line, in default of male heirs, and consequently transferred the right of succession from the Infanta Maria Isabella to the king's brother, Don Carlos. But the latter did not derive any advantage from this transaction. The king unexpectedly recovered his faculties sufficiently to perceive that he had been imposed upon by his minister, whom he dismissed; and, to guard effectually against any future attempts of a similar nature that might be made upon him during his declining health, he appointed the queen, Maria Christina, the mother of the princess, to be regent of the kingdom. After having, for a short time, resumed his authority in the early part of 1833, he died in the following September, leaving the throne to his daughter, under the title of Isabella II., and the regency, during her minority, to the queen. By the advice and direction of the minister, Zea Bermudez, every thing was done, but in vain, to reconcile the opposite factions. Don Carlos, who at the time was with Dom Miguel in Portugal, in the spring of 1833 protested formally against his exclusion from the throne, and thus gave the signal of insurrection to his adherents against the existing government of Spain. These were more numerous in the *Basque* provinces than elsewhere in the kingdom, on account of Zea Bermudez persisting, with a view to the increase of the public revenue, in the design long entertained under Ferdinand, of abolishing the peculiar privileges enjoyed by their inhabitants under the name of *fueros*, and of which they were extremely tenacious. The first movement in his favour, accordingly, took place at Bilbao, in Biscay. This was on the 3d of October 1833; and the contest was carried on with varying success until the autumn of the year 1839, when it was terminated in favour of Isabella II., chiefly through the vigour and ability displayed by the commander-in-chief of her forces, Don Baldomero Espartero, created on account of his victories, first count of Luchana, and subsequently a grandee of Spain of the 1st class, with the title of duke of Victoria.—In the mean time, important political

events had occurred at Madrid, and in the kingdom generally. Zea Bermudez had been succeeded in the ministry by Martinez de la Rosa, who was followed by Isturitz, Calatrava, and several others, each in his turn; so that, at length, no sooner was the accession of any individual to the management of affairs announced, than his fall was looked for by the public; and persons at a distance, without pretending to be able to unravel the confused and almost chaotic condition of Spanish affairs, scarcely believed it possible that the government could be much longer carried on, at least without the aid of a foreign intervention to sustain it. Yet the changes in question were such as might naturally have been expected by any one aware of all the circumstances of the case. The practical difficulties which every ministry had to encounter, especially those of a financial nature, were of themselves sufficiently discouraging; and to these difficulties must be added those arising from the unsettled state of public opinion in respect to the organization of the government itself, among those who were agreed in supporting the throne of Isabella II., or among the party of the *Christinos*, so denominated from the regent, Maria Christina. The latter attempted, for a while, to govern the kingdom without sharing her authority with any representative assembly. But becoming sensible that she could not, in her contest with the *Carlists*, dispense with the aid of the constitutionalists, one minister was substituted for another who was obnoxious to the party just mentioned, for the purpose of giving a more popular form to the government. This was effected by a decree issued on the 10th of April 1834, and entitled the "Estatuto Real." But the decree did not go far enough in its provisions to satisfy those whom it was designed to conciliate; and another minister was before very long appointed. The popular dissatisfaction at length reached its height, and communicated itself to the soldiery. Maria Christina was constrained, by a military insurrection which took place at La Granja, where she was residing, on the 13th of August 1836, to issue a decree pledging herself to adopt the constitution of the year 1812, with such modifications as the Cortes might agree to; and this constitution having, in consequence, been subjected to a careful revision, and deprived of its more liberal or democratic provisions, was promulgated at Madrid, on the 16th of June 1837. But even after this event, frequent changes of administration con-

tinued to occur, one ministry after another being obliged to give way before the opposition of the extreme liberals, now styled the "exaltados," as distinguished from the more moderate constitutionalists, or "moderados." At length, when the Cortes enacted the law of the "ayuntamientos," as it was called, by which it was hoped to check the irregular action, and limit the powers of the municipal authorities throughout the kingdom, it met on all sides with such a degree of resistance as to render its execution altogether impossible. Maria Christina, in her embarrassment, now had recourse to Espartero, whose successes against the Carlists had obtained for him an immense popularity, and confided to him the formation of a new ministry. Espartero, on his part, required her consent to the repeal of the law above mentioned, and the dissolution of the existing Cortes, and also the removal from her person of certain obnoxious individuals. Unwilling to comply with these conditions, and despairing of being otherwise able to carry on the government any longer, she resigned the regency, and retired into France, in October 1840.—The regency *de facto* now devolved, as a matter of course, on Espartero; and it was formally conferred upon him, on the 8th of May 1841, by the Cortes, who at the same time decreed that he should continue to hold it until the young queen should be of age. But the task which devolved on him was one beset on every side with difficulties. He encountered them with ability and firmness. He promptly repressed the insurrections at Pampeluna and Madrid, in favour of Maria Christina, in the month of October 1841. The severe measures, however, which he deemed it to be necessary to adopt on these as well as on other occasions, very soon affected his popularity. Louis Philippe, too, showed a decided leaning to the ex-regent; which circumstance made Espartero the more solicitous to cultivate the most friendly relations with England. By admitting British goods into the ports of Spain on more favourable terms than before, the manufacturers of Catalonia were injuriously affected, and a spirit of dissatisfaction with the measures of the regent diffused itself throughout that province. Barcelona openly revolted, and was only subdued by a bombardment directed against it, December 3d 1842, by order of Espartero, from the citadel of Monjuich. On his return from Barcelona to the capital, so great was the irritation against him evinced by the larger portion of the Cortes, and even by many who not long before

had been his zealous supporters, that he judged it expedient at once to dissolve that body. When the new Cortes met, he appointed a ministry which was calculated, as he supposed, to conciliate his former friends, but which soon resigned their places on account of his refusal to dismiss two general officers, his warm adherents, who had become, in an especial degree, odious to the public. The resignation of the ministers was followed by another dissolution of the Cortes, on the 26th of May 1843. And this, in its turn, served as a signal for the breaking out of insurrections against the government in every part of Spain, that resulted in the fall of Espartero, and his embarkation at Cadiz, July 30th, on board an English ship for England, where he was received with marks of great respect, and where he has since continued to reside.—The victory over Espartero had been achieved by a combination of the two extreme factions into which the country was divided. This circumstance naturally led, in the first instance, to a spirit of conciliation on their part, and especially on the part of their leaders, to each other, which, again, resulted eventually to the advantage of the “*moderados*.” Latterly, nevertheless, the government of Spain has not been conducted in a less irregular and extra-legal manner than heretofore; and instead of aiming to carry out with fidelity the principles of the constitution of 1837, its rulers have substituted for it another, much more aristocratical in its provisions. Among the most important events that have occurred since the summer of 1843, may be mentioned the declaration by the Cortes, on the 15th of October 1843, of the queen having attained her majority (a measure adopted to weaken still further the friends of Espartero, who, not having resigned the regency, still claimed the right to hold that office for a year longer, that is until the queen should have completed her 14th year).—the return of Maria Christina,—the enacting of a law for limiting the powers of the municipalities of the kingdom, very similar in its character to that of the “*ayuntamientos*,” which caused the departure or expulsion of that princess from the Spanish territory,—the suspension of the sale of ecclesiastical property, formerly sequestrated for the benefit of the nation,—the making of an extraordinary provision for the support of the clergy,—and the formation, under the auspices of General Narvaez, the principal opponent of Espartero, and the most influential individual in the existing condition of things,

of the new constitution above referred to, which was almost entirely modelled after the present French charter (*charte*).—Isabella II., it may be added, has been acknowledged as queen of Spain, by most, if not by all, of the European powers; and, under the energetic administration of Narvaez, Spain has enjoyed an unusual degree of internal tranquillity.

SPENCER\* (earl) died November 10th 1835, and was succeeded in his title and estate by his eldest son, viscount Althorp.

SPIRIT OF WINE. See *Alcohol*.

SPONTINI.\* The popularity of this distinguished musical composer seems to have declined at Berlin, and to have given place, first to that of Meyerbeer, and then to that of Mendelssohn-Bartholdy. He has, in consequence, spent latterly much of his time away from that capital, and chiefly at Paris. One of his latest operas, “*Agnes of Hohenstauffen*,” was represented there in 1837 with the most brilliant success. Two years afterwards, he was admitted a member of the Institute (Academy of the Fine Arts); and he is, besides, a member of almost all the other academies of Europe. His native town has placed him in the number of its “*patricians*;” the university of Halle has conferred upon him a doctor’s diploma; and he has been decorated with several orders of knighthood.

SPRENGEL\* (Kurt) died in March 1833.

STANHOPE\* (lady Hester) died at her villa of d’Joun, on Mount Lebanon, in Syria, on the 23d of June 1839, aged 63. A full account of her singular life has been published in England during the present year (1846).

STEAM. The number and tonnage of steam-vessels have been vastly augmented of late years, especially in the United States, Great Britain, and France. They now cross the ocean in all directions; and not a few of them have been equipped, in the last two of the countries which have just been mentioned, for warlike purposes. Such, indeed, is the prevailing opinion as to their efficiency in this respect, that it is not improbable they will, by in a great measure superseding the vessels of war heretofore employed, induce an almost entire revolution in the operations of attack and defence at sea. We are told, in Waterston’s *Cyclopedia of Commerce*, that, at the close of the year 1841, “the registered mercantile steam-marine of the British islands amounted to 95,795 tons; but adding to this the engine-room tonnage, and allowing for colonial and unregistered vessels, the aggregate must have

amounted fully to 200,000 tons, exclusive of steam mail-packets, and vessels of war, of which a large and yearly increasing fleet is now maintained." And in the "Annuaire de l'Économie Politique," for 1846, it is stated that, in 1843, there were 242 French steamers, or 13 more than in the preceding year. The number of the steam-engines employed in the propelling of these was 394, or 57 more than in 1842, exerting a force equivalent to 38,244 horse power. For the steam navigation of the United States, and between the United States and Europe, the reader is referred to the article *United States*, in the present volume.

STEFFENS\* removed, in 1831, from the university of Breslau to that of Berlin. Since then he has published a small work on "Secret Societies in the Universities" (1835), and an autobiography (*Was ich erlebte, aus der Erinnerung niedergeschrieben*) in two volumes (1840).

STEIN\* died in July 1831.

STOCKHOLM\* had, in 1839, 83,885 inhabitants. The mortality of this city is very great, the deaths exceeding the births by above 1200 a-year; a result which has been ascribed in part to the poverty and damp lodgings of a considerable portion of the lower classes, but in part, also, to the prevalence of dram-drinking, and the mortality occasioned by the foundling hospital. This institution, there can be no doubt, is the source of such of the profligacy of the city. In the country parts of Sweden, the proportion of legitimate to illegitimate children is about 20 to 1; in the towns, as 6½ to 1; whereas in Stockholm, it is under 2½ to 1.

STOCKTON (Richard), a son of one of the signers of the Declaration of Independence, of the same name, was born at Princeton, in the state of New Jersey, on the 17th of April 1764. He received his education at Nassau Hall, and was graduated in September 1779, when only in his 16th year. In April 1784, at the age of 20, he was admitted to the bar, and soon rose to the very highest rank in his profession. In November 1792, he was chosen an elector of president and vice-president of the United States. In 1796, he was, by an unanimous vote of the Legislature of New Jersey, elected to a seat in the Senate of the United States, and while a member of that body, was one of the ablest and most judicious supporters of Washington's administration. He was elected, in January 1813, a member of the House of Representatives of the United States, and was a distinguished leader of the Federal party

in the 13th Congress. It is not, however, upon his political services, great as they were, that his fame chiefly rests. It was as a profound lawyer, and an eloquent advocate, that he shone most conspicuously. To the duties of his profession he applied all the powers of a vigorous and capacious mind, and devoted the labours of a long and useful life. For more than a quarter of a century, he stood confessedly at the head of a bar comprising not a few men of distinguished learning and ability. In 1825, he was appointed one of the commissioners on the part of the state of New Jersey, to negotiate the settlement of an important territorial controversy with the state of New York; and the profound and elaborate argument appended to the report of the New Jersey Commissioners, was the production of his pen. He was much addicted to agricultural pursuits; and they were the only relaxation which he allowed himself from the severe duties of his profession. He died at Princeton, on the 7th of March 1828, in the 64th year of his age.

STONE (William Leet) was born at Esopus, in New York, in 1793, and was the son of the Rev. William Stone, a clergyman of the Presbyterian church. When quite young, he removed to the western part of that state, where he used to assist his father in the care of a farm, and where he acquired a fondness for agricultural pursuits, which he always retained.—At the age of 17, he left home and placed himself with Colonel Prentiss, the proprietor of the "Cooperstown Freeman's Journal," to learn the printing business; and from this time he began to write newspaper paragraphs. In 1813, he became the editor of the "Herkimer American." He next edited a political newspaper at Hudson, then one at Albany, and then again one at Hartford, in Connecticut. At length, in the spring of 1821, Mr. Stone succeeded Mr. Zachariah Lewis in the editorship of the "New York Commercial Advertiser," becoming also one of its proprietors. He continued in charge of this journal till his death, which took place at Saratoga Springs, August 15th 1844.—The attention of Mr. Stone, during his career as an editor, was very far from having been absorbed by the party contentions of the day. While residing at Hudson, he was the editor of a literary periodical styled the "Lounger," which was distinguished for sprightliness and frequent sallies of wit. Subsequently, he furnished a number of tales to the "annuals," some of which, with additions, he republished in



1834, under the title of "Tales and Sketches" (2 vols.) Many of the characters and incidents in these are historical, being founded on traditions respecting the revolutionary or still earlier history of the United States, that he had listened to when a boy from the lips of his father. In 1832, he published his *Letters on Masonry and Anti-masonry*;" then followed his "Matthias and his Impostures;" and in 1836 appeared a little work from his pen styled "Ups and Downs in the Life of a Gentleman," and intended as a satire on the follies of the day, although the main facts stated actually occurred in the life of an individual well known to him. It had been the purpose of Mr. Stone, also, from an early period of his life to gather up and preserve what remained concerning the traits and character of the "red-men" of America, and to connect with an account of these an authentic history of the life and times of the prominent individuals who figured immediately before the Revolution, more especially of Sir William Johnston. His main design was never executed; but the materials which he had collected, enabled him to prepare and give to the public several works on the general subject to which they had reference. These were the "Memoirs of Joseph Brant" (1838); a "Memoir of Red-Jacket" (1841); the "Life of Uncas;" and "Wyoming."

STORCH (Henry Frederic) was born at Riga, February 15th 1766, and studied jurisprudence at the university of Jena, which he quitted in 1786. After making a tour through Germany and France, of which he shortly afterwards published an account, he stopped at Heidelberg with the design of prosecuting his studies in the university there. At the suggestion, however, of the Russian count Romanzow, he was induced to go to St. Petersburg, where he succeeded in obtaining an appointment as an instructor to the corps of cadets. In 1789, he published, for the use of his pupils, a work under the title of "General Principles of the belles-lettres." He obtained an office, in the following year, in one of the departments of the public administration, and thenceforth directed his attention, for a considerable time, to inquiries concerning the history and existing condition of Russia. The Academy of Sciences of St. Petersburg admitted him among the number of its "corresponding" members, in 1796; and in the same year, he published at Riga his "Historical and Statistical View of the Russian Empire at the end of the 18th Century" (1796-1803), in 8 parts. The

success which this production met with contributed to his being invited, in 1799, to take charge of the education of the young grand-duchesses, the daughters of the emperor Paul. In 1800, he was elevated to the rank of a "counsellor of the court" (Hofrath), which implies also that of nobility. He was next appointed "reader" to the empress-mother; and in 1804, he was received as a member of the Academy of Sciences, in the section of statistics, and promoted to the rank of a "counsellor of state." Some years afterwards, he was charged by the emperor Alexander with the instruction of his brothers, the grand-dukes Nicholas and Michael, in the principles of political economy. The lessons which Mr. Storch gave to his pupils on this subject constituted the basis of his celebrated "Course of Political Economy," which was published at St. Petersburg, in 6 volumes 8vo., in 1815, at the expense of the emperor. An edition of it appeared at Paris in 1823 (4 vols. 8vo.), with explanatory and critical notes by M. J. B. Say, to which Mr. Storch thought proper to print a reply, under the title of "Considerations on the nature of the national revenue" (Paris, 1824). In addition, too, to the works of Mr. Storch already mentioned, he was the author of a number of papers inserted in the "Memoirs of the Academy of Sciences," as well as of several other productions in a separate form, on various branches of the same general subject. In 1823, he was made a "privy counsellor," and, in 1830, vice-president of the Academy. His death occurred at St. Petersburg, on the 13th of November 1835.

STORMS. Much attention has latterly been paid to the circumstances attending these violent commotions of the atmosphere; and several less or more plausible attempts have been made to refer them to their proper causes. The following general phenomena appear to be established:—1. It is in the torrid zone that storms display the greatest violence, and rage with most destructive fury. In the temperate latitudes they are comparatively rare; and in the polar regions they seldom amount to more than a strong wind. The severest hurricanes originate to the north or east of the West India islands. 2. These hurricanes cover simultaneously an extent of surface from 100 to 150 miles in diameter, acting with diminished violence towards the exterior, and with increased energy towards the interior of that space. 3. The hurricane does not advance always in the same direction. South of the parallel of

30° N. lat. it proceeds in a westerly course inclined to the north; but when it comes to this parallel, it changes rather abruptly to the north and eastward, and continues to incline gradually more to the east. The average progressive velocity appears to be from 15 to 25 miles per hour. 4. The duration of a storm at any particular place depends, of course, on the extent of the mass of agitated air, and the progressive velocity; and storms of smaller extent move with even greater rapidity than large ones. 5. The direction of the wind in a hurricane is not in the direction of its progress. When the progressive motion of the storm is westward, the wind at the commencement is from a northern quarter, and during the latter part of the gale, from a southern quarter of the horizon. When the progressive motion is eastward, the phenomena are reversed; the wind blows at first from a southern quarter, and towards the end of the gale from a northern quarter of the horizon.—From this summary of the principal facts relating to violent storms or hurricanes, which we have given very nearly in the language of the article *Storm* in Brande's Dictionary of Science, and especially from the facts most stated, Mr. Redfield "concludes that the great body of the storm whirls in a horizontal circuit round a vertical or somewhat inclined axis of rotation, which is carried forward with the storm; and that to a spectator placed at the centre the direction of the rotation is invariably from right to left." A fact that has been considered as affording of itself a strong proof of the rotary character of the motion is, that the barometer, in all latitudes, sinks during the first half of the storm in every part of its track, and rises during the second, a phenomenon extremely regular in occurrence, and which is ascribed to the effects of the centrifugal force of rotation in diminishing the bulk or density of the superincumbent air. Colonel Reid, in his work entitled "An Attempt to develop the laws of Storms," &c., has given the results of an immense number of details, obtained from an examination of ships' logs furnished to him by the British admiralty, and other sources. These results, in his opinion, confirm the principal conclusions of Mr. Redfield. He has also given an account of several great hurricanes in the southern hemisphere, from which it appears that the southern storms follow exactly the same laws as the northern, but in a reversed order, the direction of the rotation being from left to right, instead of from right to left.—But the rotary or

whirling character of storms has been controverted by our countryman, Mr. Espy, who states "that he had found, by examining simultaneous observations in the middle of storms, and all round their borders, that the wind blows inward on all sides of a storm towards its central parts; towards a point if the storm is round, and towards a line if the storm is oblong, extending through its longest diameter. He had been able to investigate, within the last 5 years, 17 storms, without discovering one exception to the general rule." Professor A. D. Bache sustains Mr. Espy in this view of the nature of storms, and has stated in an account of the tornado which occurred at New Brunswick, in New Jersey, in 1835, that he could find in it no proof of rotation, the objects thrown down by the wind being all directed to a centre. For an explanation of Mr. Redfield's views, the reader may consult his communications respecting them in Silliman's Journal; and for those of Mr. Espy reference may be had to the elaborate exposition of them contained in his book entitled "Philosophy of Storms."

STORY (Joseph), LL.D., was born at Marblehead, in the state of Massachusetts, September 18th 1779. After receiving his preparatory education in the academy of his native town, then under the superintendence of the Rev. Dr. Harris, who was at a later period president of Columbia College, in the city of New York, he became a student of Harvard University in 1795, and was graduated in that institution in 1798. He then engaged, without any loss of time, in the study of the law, first at Marblehead, and next at Salem, which place he selected for his residence after his admission to the bar, in 1801. The respect already very generally entertained for his talents, attainments, and integrity, soon caused business to flow in upon him, and we are told that the circumstance of his having attached himself to the democratic party, in the political contest then maintained with the greatest zeal and activity between them and the federalists, may have led, young as he was, to his being opposed in important cases to the most eminent lawyers of the day, and to a favourable opportunity being thus afforded him of exhibiting his powers as an advocate before the public.—From the year 1805 until his appointment to a seat on the bench of the Supreme Court of the United States in 1811, he was annually elected a member of the Legislature of Massachusetts from the town of Salem, and served as such, with the ex-

ception only of a few months in 1809-10, when he was the representative in Congress of the district in which he resided. In the Legislature, he acquired an extraordinary share of influence, which was, on various occasions, exercised by him for the public good without reference to party considerations, and sometimes, indeed, in direct opposition to the opinions or prejudices of the party with which he generally acted. Of this last nature was the course adopted by him in reference to the salaries of the judges of the Supreme Court. He laboured strenuously and successfully to carry into effect the provision in the constitution of Massachusetts, that the judges should have "honourable salaries, ascertained and established by standing laws." Mr. Story's congressional career, though one only of a few months, was eminently distinguished by the ability with which he urged the repeal of the famous "Embargo Act," and by his firmness in resisting the solicitations of Mr. Jefferson to induce him to take a different course. Mr. Jefferson has himself attributed mainly to Mr. Story the repeal of that measure, and has, in consequence, applied to him, in a letter written to General Dearborn in 1811, the epithet of "pseudo-republican." In 1811, Mr. Story was the Speaker of the House of Representatives in Massachusetts; the duties of which office, by the testimony of all parties, he discharged with "dignity, ability, and impartiality."—But whatever were his merits as a politician or statesman, it was to the studies and labours of his profession that Mr. Story's attention was principally directed; and the great aim of his aspirations was to attain to a high eminence as a jurist. With this object in view, he found leisure, in the midst of his other avocations, to publish, in 1809, an edition of Mr. Chitty's treatise "On Bills of Exchange and Promissory Notes," accompanied by many notes of his own, and, in 1810, one of the treatise "On the Law of Shipping," by Mr. Abbott, afterwards Lord Tenterden, also with notes by the American editor. And in November 1811, when only 32 years of age, his reputation as a lawyer was altogether such as to authorize his appointment, by Mr. Madison, to be one of the associate justices of the Supreme Court of the United States.—Thenceforth, Mr. Story abstracted himself entirely from a concern with the politics of the day; and devoting himself with diligence to the new field of exertion opened to him, he became a deserving coadjutor of the illustrious Marshall, in giving form and consistency to American com-

mercial and constitutional law, and added in each succeeding year to his judicial fame.—In 1829, Judge Story consented to become the professor of law in the Law School in connexion with Harvard University; which school was at that time founded by the late Mr. Nathan Dane, on the express condition of his doing so. Accordingly, when not engaged in the performance of his judicial functions, he applied himself, at Cambridge, with great zeal, to the task of instruction; and such, indeed, was the interest which he took in the school, and the importance which he attached to the duties of his office in it, that he intended, ultimately, to resign his seat on the bench of the Supreme Court, for the purpose of bestowing upon it his undivided strength. An enthusiast himself in the subjects which he taught, he did not fail to excite in his pupils a kindred spirit; and the learning, ability, and eloquence, displayed in his lectures and conversation with his pupils, were productive of abundant fruits.—Judge Story was a member of the convention which met in 1820 for revising the constitution of Massachusetts, after the separation of Maine from that state. He spoke on several of the important questions that were the subjects of discussion, and distinguished himself especially by his speech on representation in the Senate, and by that in which he argued against a proposed amendment of the constitution authorizing the Legislature to increase or diminish, at its pleasure, the salaries of individuals holding judicial stations, a proposition which he was chiefly instrumental in defeating.—He died at Cambridge, on the 10th of September 1845.—Among his numerous writings the most important, in the order of their publication, were his "Commentaries on the Law of Bailments;" his "Commentaries on the Constitution of the United States" (3 vols., 1833), followed by an abridgment of it in one volume, as a text-book for students; his "Commentaries on the Conflict of Laws" (1834); his "Commentaries on Equity Jurisprudence" (2 vols.); a treatise on the "Science of Pleading in Courts of Equity" (1839); one on the "Law of Agency" (1839); another on the "Law of Partnership" (1841); another on the "Law of Bills of Exchange" (1843); and another treatise again on the "Law of Promissory Notes" (1845). The volumes of the "North American Review" contain a succession of able articles from his pen. He contributed, also, largely to the preceding volumes of this Encyclopædia, and to the earlier num-

bers of the "American Jurist;" and he was the author, besides, of many addresses or discourses on juridical, literary, or other subjects, pronounced by him on various occasions; of a number of biographical notices of eminent American judges and lawyers, and of elaborate notes, in some of the volumes of "Wheaton's Reports;" of the memorials to Congress from the town of Salem against the British Orders in Council, in 1807, and on the subject of the tariff, in 1820, &c.—Judge Story lived and died respected by all who knew him for his singleness and integrity of character. "To the young, and especially to students," says his friend and colleague in the Law School, Professor Greenleaf, "his example is of great value. He was the artificer of his own fortune. His early and untiring diligence in study, his regular deportment in college, the purity of his character and conduct, his habit of self-discipline and restraint, and of self-culture, will inspire them with the resolution, like him, to excel in whatsoever adorns the character of man, and animate them, not only to the love, but to the practice of virtue."

STOWELL\* (Lord) retired from the Court of Admiralty in 1828, and died on the 28th of January 1836, at the age of 90.

STRASBURG,\* according to the census of 1841, had a population, exclusive of its garrison, of 61,150 souls. The Protestants were about equally numerous with the Roman Catholics; and there were several thousand Jews. The prevailing language of the inhabitants is a corrupt German; but the French, which is the language of society and of public business, has, since the revolution, been gradually gaining upon it. The "Academy," referred to in a preceding article, consists of five faculties, viz., law, medicine, the sciences, literature, and protestant theology. It has taken the place of the former protestant university, which was founded in 1621, and closed during the revolutionary period. Besides the protestant *gymnasium*, which dates from the year 1538, and a royal college of the first class, Strasburg possesses a catholic theological seminary, a school of pharmacy, a normal school, and numerous primary schools for both sexes. The extensive public library, the anatomical museum, and the cabinet of natural history, are among the principal objects in the city to attract the curiosity of the stranger.

STRAUSS (David Frederic) was born at Ludwigsburg, in the kingdom of Würtemberg, in January 1808. At 13 years of age he was sent to the theological semi-

nary at Blaubaern; and he subsequently prosecuted his studies at Tübingen. He next went to Berlin, where, in the winter of 1831, he attended the lectures of Schleiermacher. In 1832, he was appointed an instructor in the theological seminary at Tübingen, and delivered also lectures on philosophy in the university of that town. In 1835, he published his "Life of Jesus," in 2 volumes, a work which, by the boldness of its author in going far beyond the most extravagant or sceptical of the German rationalists in their interpretations of the Scriptures of the New Testament, as well as by the ingenuity and learning displayed in it, produced an extraordinary sensation among theologians, and which has called forth elaborate replies to it, not in Germany only, but likewise in England and France. On account of the opinions thus promulgated by Strauss, he was removed from his post in the seminary at Tübingen, and appointed an instructor in the lyceum at Ludwigsburg. He remained here only a short time, and then delivered lectures at Stuttgart. His friends procured for him, in 1839, an appointment to a professorship of didactic theology and ecclesiastical history, in the university of Zurich, in Switzerland. But the magistrates, by whom the appointment had been made, deemed it expedient, after a short time, in consequence of the popular excitement that ensued, to retrace their steps, and to dismiss Mr. Strauss, granting him, however, as a compensation for the loss which he sustained, a pension of 1000 francs. This sum has been since regularly paid to him, and has been as regularly appropriated by him to the support of the poor of the city of Stuttgart, where he has continued to reside. In 1839, Mr. Strauss published his "Polemical Writings," addressed to his various theological adversaries in defence of his peculiar views, and, in 1840-41, a work entitled "Christian Doctrines," considered in reference to their historical development and their struggle with modern science, in 2 volumes, in which he makes equal havoc with many of the most extensively received doctrines of Christianity as he had previously done with the foundations on which it is generally believed to rest. Mr. Strauss is the author, besides, of a number of articles inserted in different journals, which have since been collected and published in a separate form.

STRUVE (Frederic George William) has, since the year 1814, been a professor in the university, and director of the observatory, at Dorpat in Russia, and has distin-

guished himself by his discoveries and investigations concerning double stars, nebulae, &c. The emperor Nicholas appointed him, in 1838, a counsellor of state. His works, which are numerous, for the most part consist of an account of his astronomical observations and their results, and of a description of the instruments (among the best hitherto constructed) which the munificence of the government had placed at his disposal.

SŒZ (Eugene), the celebrated author of the "Mysteries of Paris," was born at Paris, on the 10th of January 1804. His ancestors, for three generations, were all distinguished surgeons. His father was the chief of the medical staff of the Imperial Guard; and after the Restoration, he was appointed to the same office in the household troops (*maison militaire*) of the king. The empress Josephine and prince Eugene Beauharnois were the godmother and godfather of the future novelist, who was, however, in the first place destined for the profession of his family. After the regular course of study, he obtained an appointment as a surgeon in the army; and in this capacity he made the campaign of Spain in 1823, and was present at the siege of Cadiz and the capture of the Trocadero. He was afterwards transferred from the land to the naval service, and made several voyages to the West Indies and the Levant, and was present, on board the Breslau, at the battle of Navarino, in 1828.—Wearied, at length, with the life which he led, on returning before long to Paris he resolved on becoming a painter, and commenced, accordingly, his studies with this object in view, under M. Gudin, an eminent artist. But in the course of the year 1830, a friend who had become the editor of one of the minor journals of the capital, charmed with the manner in which he narrated in conversation, induced him to make a trial at writing a tale founded on his naval reminiscences. M. Sue produced "Kéroc le pirate." The success which it met with encouraged him to occupy himself exclusively with authorship. He acquired considerable reputation, by a number of other tales of the sea, which appeared in the course of 1831 and the three following years; and his admirers have even ventured to compare his descriptions of maritime occurrences and adventures with those of our distinguished countryman, Cooper. In 1835-37, M. Sue published, also, a "Histoire de la marine française" (17th century, reign of Louis XIV., 5 vols. 8vo.) About the same period, too, he commenced the publication of

a series of novels, in which he aimed at delineating the manners of society as they fell under his daily observation. Although this was effected very frequently with much exaggeration and extravagance, and with extreme violations of probability in the incidents and plot of his story, his popularity steadily increased; and such, indeed, was, at length, the avidity with which every thing from his pen was looked for by the public, that the proprietors of the Parisian journals found it for their advantage to present to their readers the future works of M. Sue in chapters, as they were produced. "Matilda" appeared, in the mode just mentioned, in 1842. The "Mysteries of Paris" followed, in the "Journal des débats," in 1842-43, and next, in 1844-45, the "Wandering Jew," for the manuscript of which the author is said to have received the sum of 100,000 francs from the "Constitutionnel." The last two works have not only met with immense success in France, but have been translated into the principal languages of Europe, and have been everywhere extensively read. They have, in fact, almost entirely cast into the shade the former works of M. Sue, who is now very commonly designated as "the author of the Mysteries of Paris and of the Wandering Jew." That these remarkable productions are possessed of no ordinary merits cannot be denied. The characters and incidents of both, though in many instances utterly improbable and even monstrous, are exhibited with great distinctness and force; and a most intense interest is kept up in the story from first to last. They have contributed, in no slight degree, to supply the demand of the existing generation of readers for strong excitement, but deviate too far from truth and nature to have any enduring reputation.

SUEZ.\* Its population has been recently estimated at 1500; but this must be independent of the numerous pilgrims and merchants, who are continually passing through the town; Suez being on the main route between Cairo and Mecca, as well as on that by which the commerce of Egypt with the countries to the eastward is carried on. The port is accessible only by boats of from 30 to 60 tons. Steamers, and other vessels belonging to the East India Company, moor outside a sand-bar at a distance of 2 miles from the town.—Since the establishment of what has been called the overland route to India, Suez has become a place of considerable importance, and is the residence of an agent for the E. I. Company, and of se-

veral commercial agents. Camels ordinarily perform the journey between Suez and Cairo in three days; and goods are conveyed on the route with the utmost regularity and safety.

**SUGAR.\*** The importance of sugar as an article of consumption may be estimated by the quantity of it exported from the different countries from which the European market is chiefly supplied. This, in 1839, was as follows:—British West Indies and Mauritius, 3,571,378 cwts.; British India, 519,125; Danish West Indies, 450,000; Dutch West Indies, 260,060; French Sugar Colonies, 2,160,000; United States, 900,000; Brazil, 2,400,000; Spanish West Indies, 4,481,342; and Java, 892,475: total, 15,634,380 cwts. Fully one-fourth of this amount was sent to Great Britain and Ireland, where sugar is more generally used than in any other part of Europe.—The produce of the British sugar colonies formerly exceeded the wants of the home market, and the surplus was generally shipped to Hamburg and other ports on the European continent; but of late years the ratio of the supply to the demand has been entirely changed, partly through the increased wants of the augmented population of Great Britain, and partly owing to the falling off of the sugar crop of the British West India colonies, in consequence of the disinclination of the emancipated negroes to the hard labour requisite for the cultivation of the cane. Through the latter cause mainly, the imports from these colonies into the mother country, gradually declined from 4,103,800 cwts. in 1831, to only 2,151,217 cwts. in 1841. The consequence of this difference was a rise in the price of the article. Foreign sugar, nevertheless, continued to be virtually excluded from the British markets by the prohibitory duty with which it was loaded.

**SULPHUR.\*** The chief supply of this mineral is obtained in Sicily; and a great increase of the export of it from that island has taken place of late years. In July 1838, the Sicilian government, in consideration of a bonus of 400,000 Neapolitan ducats a-year, granted to a French company a monopoly of the sulphur-mines, the produce of which was to be limited to 600,000 quintals, to be supplied to them at fixed prices. But this monopoly, after an armed remonstrance from Great Britain, in consequence of its being at variance with existing treaties, was abolished in July 1840; and the trade is now on its former footing.

**SUNDERLAND.\*** Population in 1841, Vol. XIV.—72

17,022.—The staple employments of the town continue to be the building of ships and the shipment of coal. The former is carried on to a greater extent here than anywhere else in Great Britain. In 1840, for example, there were built in Sunderland no fewer than 302 vessels, of the aggregate burden of 87,023 tons. During the same year, there belonged to the port 918 vessels, of the aggregate burden of 188,769 tons, being a greater amount of shipping than belonged to any other port in the kingdom, London and Liverpool only excepted.—Sunderland is a good deal resorted to in the bathing season. It has a subscription library, a mechanics' institute, at which lectures are delivered, and several other literary institutions.

**SURVEY (COAST)** of the United States. The object of this great national work is the formation of an accurate map of the outline of our extended sea-board, giving the latitude and longitude of the principal points,—a minute delineation of all the bays, harbours, inlets, rocks, bars, and shoals,—the nature of the bottom, whether of sand, clay, or gravel, within the space limited by the greatest depth of ordinary soundings,—the variation of the needle,—the direction and velocity of the currents, &c.—The importance of such a survey must be evident to every one acquainted with the art of navigation; it affects the interest not only of this country, but also that of the whole civilized world. In order, however, that it may be of value, it should be conducted with the utmost degree of accuracy; and, indeed, an imperfect work of this kind would be worse than useless. The superintendence of it should, therefore, be entrusted only to persons of established reputation in the physical and mathematical sciences, who would engage in the work with a proper appreciation of the responsibility which they incur, and of the honour, or disgrace, which must attend the manner of its execution. A survey of this kind is based on astronomical and trigonometrical observations and measurements. It consists, generally, in measuring with great precision, in some convenient place, a straight line of several miles in length, called the base line, and starting from this, on either side, a slip of country, along the whole coast, is covered with a net-work of triangles, by erecting signals on elevated points. Of these triangles, the angles are accurately measured by a large circular instrument; and with a knowledge of these, and of the length of the base-line which forms one side of the first triangle, the sides of all the triangles

are calculated, and thus the distances of the principal points from each other are determined in air-lines with a precision unattainable by any other means. The triangles of this series, which is called the primary triangulation, are next divided into small triangles that form the secondary triangulation, and these again into still smaller ones, forming the tertiary triangulation. This last forms the immediate basis for the minute topography which completes the delineation of the peculiarities of the surface, and the smallest indentations of the coast. The hydrographical determinations consist of a series of soundings founded on the triangulations, and which represents the nature and variations of the surface under water. Surveys of this kind have been made, or are now in progress, in almost every part of the civilized world.—The United States coast-survey was recommended to Congress by President Jefferson in 1807; and an appropriation of \$50,000 for the work was made in the same year. But on account of the war with England, the survey was not actually commenced until 1816. In the mean time, however, Mr. Hassler, a native of Switzerland, had been appointed superintendent of it, and had been sent to Europe to procure the necessary instruments. In the spring of 1817, a base-line was measured near the lower part of the Hudson River, behind the perpendicular rocks well known by the name of the Palisades; and a series of triangles from this was spread over New York Bay and the adjoining country. Unfortunately, however, on account of a want of a proper appreciation of the importance of the work, Congress failed, in this year, to make the requisite appropriation for its continuance. The survey, consequently, was suspended. In 1832, after a lapse of 15 years, it was again renewed under the superintendence of Mr. Hassler, and was prosecuted with variable success until his death in 1843, when he was succeeded by Professor A. D. Bache, LL.D., of Philadelphia. The general plan of the survey adopted by Mr. Hassler was such as to call forth the approbation of the scientific world; but the difficulty and delay which he experienced, in reducing the details to practice, were so great, that the proper organization of the work was scarcely established at the time of his death. Since the appointment of Professor Bache, the survey has been rapidly advanced; and the nation has just cause of gratulation in the fact that the work has been committed to the superintendence of a gentleman so well qualified

to discharge all the duties pertaining to it.—The following is the present state of the survey. The primary triangulation has been finished from the neighbourhood of Boston to the mouth of the Potomac. Also a primary triangulation has been commenced from a new centre in North Carolina, and from another in the Gulf of Mexico. The secondary triangulation is finished from Cape Cod to Sharpe's Island, in the Chesapeake Bay, and has also been carried on contemporaneously with the primary triangulation from the two centres before mentioned. The topography, or minute filling up of the survey on the land, is completed from Martha's Vineyard, in Massachusetts, to Kent Island, in Maryland. The hydrography, or sounding operations, is completed from Martha's Vineyard to Kent Island, and has also been carried on, as nearly as was practicable, with the extension of the primary triangulations in the Gulf of Mexico and in North Carolina. The survey is, therefore, in progress in four different parts of our coast. Professor Bache proposes, next, to make a reconnaissance for a base-line in South Carolina or Georgia, and also in Florida and Texas, and to begin the work simultaneously at these different points as soon as the appropriations will allow. It is to be hoped that Congress will in due time properly appreciate the importance of a more liberal appropriation of means for accelerating the progress of the work. The plan matured and adopted by the present superintendent allows of an indefinite increase in the rapidity of the extension of the survey without a corresponding increase in the cost, provided the requisite appropriation is made.—The immediate assistance which the survey offers to the navigation of our coast, is shown by the discovery of a new channel into the harbour of New York, another into Delaware Bay, three over the ridges of Cape May (only partially explored before), and one into Mississippi Sound, the existence of which had previously been denied; and also of a shoal off the Vineyard Sound, another off the coast of Massachusetts, together with a number of dangerous sunken rocks along different parts of our coast.—In the progress of the survey, a number of problems will be solved essentially connected with the work, but which are also highly interesting in a purely scientific point of view.

SUSSEX\* (duke of) took an active interest in the passage, in 1829, of the bill for the emancipation of the Catholics, and in that of the reform bill in 1832. His

death occurred on the 21st of April 1843.

SVANBERG (Jöns), an eminent mathematician, was born, July 6th 1771, at Nederalix in Sweden. His aptitude for the exact sciences was exhibited at a very early age. When 16 years old, he went to the university of Upsal, and, by the zeal and success with which he pursued his mathematical and physical studies, attracted the particular attention and obtained the patronage of his professors. In 1796, he obtained an appointment of assistant-secretary to the Academy of Sciences at Stockholm, and two years afterwards was elected a member of that learned body, as well as of the Scientific Society of Upsal. He became the secretary of the Academy of Sciences in 1809, and professor of mathematics at Upsal in 1811. The Institute of France placed his name in the list of its members in 1816; and its example has since been followed by many other associations for the prosecution of science, in Europe and America. — Svanberg, besides an account of experiments with the pendulum made by him, jointly with professor Cronstrand, is the author of a number of papers inserted in the Transactions of the Academy of Sciences of Stockholm, on "Analytical Series," "the fundamental formulæ of Physical Astronomy," "the theory of the Planets and Comets," and of two others, inserted among the Memoirs of the Upsal Society, and entitled "Disquisitiones analyticæ in theoriâ refractionum astronomicarum," and "Nouvelles considérations sur la résolution des équations algébriques."

SWAMP; ground habitually so moist and soft as not to admit of being trod on by cattle, but at the same time producing particular kinds of trees, bushes, and plants. A swamp differs from a bog and a marsh in producing trees and shrubs, while the latter produce only herbage, plants, and mosses.

SWARD, or the green turf, is the surface of land under pasture grasses. A fine sward is regarded by the people of Great Britain as a characteristic feature of their landscape, not being found, as is alleged by them, in Ireland, or in any other country.

SWEDEN.\* The population of Sweden, in 1839, amounted to 3,109,772 persons. Its increase, during a period of 86 years, is exhibited in the following table, given by Berghaus.

| Year.      | Pop.      | Year       | Pop.      |
|------------|-----------|------------|-----------|
| 1751 ..... | 1,785,727 | 1773 ..... | 2,012,772 |
| 1760 ..... | 1,893,246 | 1780 ..... | 2,118,281 |

|            |           |            |           |
|------------|-----------|------------|-----------|
| 1785 ..... | 2,142,273 | 1815 ..... | 2,465,066 |
| 1790 ..... | 2,130,493 | 1820 ..... | 2,584,690 |
| 1795 ..... | 2,220,441 | 1825 ..... | 2,771,959 |
| 1800 ..... | 2,347,303 | 1830 ..... | 2,868,042 |
| 1805 ..... | 2,419,975 | 1839 ..... | 3,109,772 |
| 1810 ..... | 2,377,851 |            |           |

These statements, it should be mentioned, relate to the present kingdom of Sweden, exclusive of Norway, and also exclusive of Finland and the portion of Lapland ceded by Sweden to Russia in 1808.

The following list of the principal towns of Sweden, with the number of their inhabitants in 1839, is derived from Forsell, a Swedish writer of authority.

|                  |        |                     |      |
|------------------|--------|---------------------|------|
| Stockholm .....  | 63,285 | Christianstad ..... | 4710 |
| Gottenburg ..... | 19,400 | Linköping .....     | 4500 |
| Norrköping ..... | 12,820 | Wisby .....         | 4448 |
| Carlskrona ..... | 12,850 | Ystad .....         | 4325 |
| Malmö .....      | 9720   | Jönköping .....     | 4215 |
| Gefle .....      | 8200   | Orebro .....        | 4198 |
| Kalmar .....     | 5920   | Carlskrona .....    | 4106 |
| Zund .....       | 4970   | Falun .....         | 4030 |
| Upsala .....     | 4800   |                     |      |

It is estimated by Forsell that 7-9ths of the whole population are employed in agriculture: peasants who are proprietors of the soil they cultivate have been reckoned at 147,974; those who live on land not their own at 1,688,717; husbandry labourers holding houses and lands under proprietors at 470,091; and servants living in the house with their employers at 277,466. — The chief agricultural products are rye in the S., and barley in the N.; and the supply of the different species of grain has been, of late years, quite equal to the demand. According to the official returns, Sweden had, in 1837, 365,000 horses; 1,657,976 head of horned cattle; 1,412,680 sheep; and 513,692 hogs. The horses are everywhere small; and, in general, all kinds of domestic animals are inferior. The herring-fishery began to decline about the year 1798, and since 1805, the average produce has not exceeded 2000 barrels, the place of the herring being now supplied by the stremming, a small fish of excellent flavour. It is cured like the herring, and is often eaten raw out of the pickle. The principal stremming-fisheries are on the coasts of the Gulfs of Finland and Bothnia. There are, also, salmon-fisheries of some importance at Dyefors, on the Klarely, a river which falls into the lake Wener, and at Norrköping, Gefle, and Hernosand. — The chief articles for export, however, are derived from the mines and forests, particularly the former, which are mostly situated in the central provinces. Their chief product is iron; copper and lead are worked to some extent, but there is no coal. The forests, though covering nearly one-half of the surface, contain a compa-



ratively small quantity of timber; and the export of wood is, from this cause, not so considerable as might be supposed.—The manufactures are chiefly domestic, the peasantry supplying themselves, as winter employment, with nearly all the coarse woollens, linens, and cottons, required by them. There are, besides, a good many cloth-factories, with sugar-refineries, distilleries, leather, paper, soap, tobacco, and glass-works: the other manufactures are trifling.—The foreign commerce of Sweden is principally with Great Britain, the United States, Holland, the Hanse Towns, and Denmark. In 1840, the exports were officially valued at 20,434,000 rixdollars banco, or £1,700,000; and the imports at nearly the same.—Gold and silver coins are now rarely used, the circulating medium being composed almost entirely of copper and a depreciated paper-money. This paper is of two kinds: *Banco*, consisting of the notes of the National Bank, is that in which merchants' accounts are generally reckoned; *Riksgald*, or government paper, is that commonly taken by shopkeepers, and in small payments. Since 1835, rixdollars banco are exchanged for rixdollars specie at the rate of  $2\frac{1}{2}$  of the former for one of the latter. *Riksgald* is only  $\frac{2}{3}$  the value of *banco*. The paper money includes notes so low as about 6 cents of our money.—The revenue, according to the budget of 1842, amounted only to 10,742,880 rixdollars banco, or £795,240, the country being very lightly taxed.—The Swedish army comprises three different kinds of troops; viz., enlisted soldiers, always on pay and duty, *indelta* soldiers, and the conscription or local militia. The first two of these amount respectively to 8346 and 39,846 men; the militia is roughly estimated at about 95,000 men. The *indelta* force is peculiar to Sweden. It is furnished by the landholders; and the men of which it is composed are quartered on the land, which they cultivate for its owners at the current rate of daily wages. The landholders are bound to transport the men, with their baggage, to the annual reviews, and to allow them a certain sum per day for their expenses. Government provides the uniforms, and in time of war gives the men higher pay, which is afterwards raised from the landholders. In time of peace, these soldiers are employed in the construction of roads and other public works. The militia consists entirely of foot-soldiers, provided with clothing, arms, &c., by the government.—The naval force of Sweden consisted, in 1840, of 10 ships of the line,

8 frigates, 5 sloop-of-war, a considerable number of gunboats, with, likewise, several steam-vessels. A later account, probably exaggerated, represents it as consisting of 21 ships of the line, 8 frigates, and 8 smaller vessels. The seamen are maintained in the same way as the *indelta* troops, by assignments of lands. The chief naval stations are Carlsrona, Stockholm, and Gottenburg.—Much attention has been latterly bestowed on the public roads of the kingdom. Those which lead to and from Stockholm are generally excellent and well kept; but the cross-roads continue to be in a bad condition. The canal of Götha was completed in 1828; and several other canals have since been constructed.—Since 1834, the proceedings of the 4 chambers, composing the diet of the kingdom, have been open to the public. In 1840, it was decreed that the diet should meet every 3 years instead of every 5, as had previously been the case. And a reform of both the civil and criminal law is at present in active preparation.—Charles XIV. died on the 8th of March 1844, at the age of 80, after a long and prosperous reign, and was succeeded by his son Oscar I.

SWITZERLAND.\* The following is one of the most recent estimates of the population of this country that have been obtained. It is from a volume of the "Encyclopédie des gens du monde," published in the course of the year 1844.

| Customs.           | Pop.    | Customs.          | Pop.      |
|--------------------|---------|-------------------|-----------|
| Basle .....        | 65,000  | Neuchâtel .....   | 62,000    |
| Soleure .....      | 63,000  | Friburg .....     | 90,000    |
| Aargau .....       | 183,000 | Berne .....       | 408,000   |
| Zurich .....       | 232,000 | Lucerne .....     | 125,000   |
| Schaffhausen ..... | 32,000  | Zug .....         | 15,000    |
| Thurgau .....      | 84,000  | Schwytz .....     | 40,000    |
| St. Gall .....     | 160,000 | Uri .....         | 14,000    |
| Appenzell .....    | 52,000  | Unterwalden ..... | 23,000    |
| Grisons .....      | 90,000  | Glarus .....      | 30,000    |
| Ticino .....       | 113,000 |                   |           |
| Valais .....       | 75,000  |                   |           |
| Geneva .....       | 60,000  |                   |           |
| Vaud .....         | 184,000 |                   |           |
|                    |         | Total, .....      | 2,200,000 |

The principal towns, with the number of inhabitants which they contain, are, according to the same authority,—

|                |        |                    |        |
|----------------|--------|--------------------|--------|
| Geneva .....   | 21,000 | Basle .....        | 62,000 |
| Berne .....    | 22,400 | Neuchâtel .....    | 6,400  |
| Basle .....    | 22,000 | Schaffhausen ..... | 6,000  |
| Lausanne ..... | 15,000 | Coire .....        | 5,500  |
| Zurich .....   | 14,000 | Schwytz .....      | 5,300  |
| St. Gall ..... | 10,000 | Soleure .....      | 5,000  |
| Friburg .....  | 9,000  | Aarau .....        | 4,100  |
| Lucerne .....  | 8,300  | Glarus .....       | 4,100  |

In a lately published volume of the 2d edition of Pierer's "Universal-Lexikon," we are told that the population of Switzerland, in the beginning of the year 1844, amounted to 2,221,000 persons, of whom 1,318,710 were Protestants, 900,500 Ro-

man Catholics, and 1790 Jews. — The principles on which the Swiss Confederation, and the constitutions of the several cantons, were organized in 1815, after the final overthrow of Napoleon, were very far from giving general satisfaction to the people of Switzerland. Internal tranquillity was, however, for a considerable period maintained, by means of the predominating influence exercised in the affairs of Europe by the members of the Holy Alliance. The censorship of the press was even, through that influence, for a time introduced into the country; and not a few of the cantonal governments resumed their oligarchical tendencies. But, on the other hand, in Lucerne, the Ticino, and the Pays de Vaud, the opposition to existing abuses became so strong, that, even before the French revolution of 1830, changes of more or less importance were introduced into their respective constitutions; and in most of the remaining cantons, the democratic spirit pervaded the community to such an extent as to require only an event similar to the revolution just mentioned to rouse it into activity. At the beginning of the year 1831, the popular party had, accordingly, accomplished the objects which they aimed at throughout the greater portion of the country; aristocratic Berne itself yielded to the prevailing current. The three forest cantons (Schwytz, Uri, and Unterwalden), together with Basle, Neuchâtel, the Valais, and Geneva, alone adhered to their existing institutions. The lower Schwytz, which had separated itself from the upper part of the canton, and which desired to form itself into a distinct canton, was constrained to retain its former political relations (September 1833). But in the canton of Basle, where the contest between the city and the country assumed the character of a civil war, and fixed, during a period of two years, the attention of the federal diet, which interposed in the quarrel in behalf of the peasantry, the latter succeeded in obtaining, in the month of August 1833, an entire separation from the city. Many of the leaders of the democratic party in every part of Switzerland were anxious to form a closer union among the different cantons than that which subsisted under the Confederation, and brought forward a proposition to that effect in the summer of 1833, which was, however, coldly received and rejected by the cantons. Great political excitement, after this, continued to prevail among the Swiss population; which cir-

cumstance, with the great influx into the country of political refugees, Germans, Italians, Poles, and even Frenchmen (republicans), attracted, in a marked degree, the attention of the governments of the neighbouring states. Their representatives in Switzerland demanded of the diet the expulsion of such among these as were charged with plotting against their security. After some hesitation, the demand was at length substantially acceded to; resolutions were adopted by the diet of a nature to induce the departure from the country, towards the end of the year 1836, of the individuals referred to. Next followed, in 1838, the dispute with France relating to prince Louis Napoleon Bonaparte. Though M. Molé, then at the head of the French ministry, supported by a military demonstration his demand for the expulsion of this personage from the territory of Switzerland, it was refused; and preparations for defending themselves against the threatened invasion of their country were made by the Swiss. The actual occurrence of a war seemed to have been only prevented by the voluntary departure of prince Louis Napoleon from the asylum which he had selected, and where he had unquestionably employed himself in forming schemes for the overthrow of the government of Louis Philippe. In the same year (1838) a new quarrel took place between the upper and the lower portions of the canton of Schwytz, concerning a common right of pasture. Bloodshed between the parties was with great difficulty prevented, and tranquillity only very slowly restored. More lately, religious controversies have contributed largely to disturb the peace of the country; especially in the cantons of Aargau and Zurich; in the former between the Roman Catholics and Protestants, and in the latter between the orthodox Protestants and the rationalists;—and also in the canton of Lucerne, by an attempt made by an armed body of Protestants, irregularly collected in some of the adjacent districts, to compel the authorities to dismiss certain jesuits who had been permitted to establish a seminary of education in the town of Lucerne,—an attempt which was repelled with great loss to the assailants. —The condition of Switzerland continues to be very unsettled; and it is quite probable that serious disturbances are only prevented by the conviction (a well-founded one) of their being speedily quelled by the intervention of the great European powers

## T.

**TABARD**; a sort of tunic or mantle, covering the body before and behind, reaching below the loins, but open at the sides from the shoulders downwards. It was an ordinary article of dress in England and France during the middle ages, and was first used by the military, and afterwards by other classes. The tabard, with coats of arms blazoned before and behind, is the state-dress of heralds in Europe to this day. It is the dress worn by the knaves in cards. Long tabards, reaching to the mid-leg, were a peculiarly English fashion.

**TABLE-LANDS**; the name given to an extensive system of plains with steep acclivities on every side. Some of these are at a level of several thousand feet above the sea. They are not unfrequently bordered by chains of mountains which are much less elevated on the side towards the table-land than in the opposite direction; and sometimes they have surfaces that are much undulated or broken. The chief table-lands are in Central Spain, Southern Africa, Central Asia, Persia, Southern India, Mexico, and the Southern Andes.

**TAFFETY** is a thin glossy silken fabric, formerly much used in England. It is extensively used on the continent of Europe for window-curtains.

**TALLEYRAND**.\* The last act of the political life of prince Talleyrand was the signature, at London (April 22d 1834), of the treaty of the Quadruple Alliance between England, France, Spain, and Portugal, which drew closer together the bonds that already connected these *constitutional* monarchies. On obtaining leave to return to France from his embassy to England, his retirement from the public view was only interrupted by his appearance in the Academy of the Moral and Political Sciences, in January 1838, to deliver the "éloge" of count Reinhard; whom he was destined to follow to the tomb on the 17th of May of the same year, at the advanced age of 84.

**TABLETON**\* (General) died January 23d 1833.

**TAUCHNITZ**,\* in his latter years, published two stereotyped editions of the Hebrew Bible; and he also stereotyped the Koran in the original Arabic (1834, in 4to.) One of the most remarkable, also, of his publications was his edition of Homer (1828), the correctness of which was insured by the payment, on his part, of a

ducat for every error to be detected by the reader.—Tauchnitz died in January 1836. His son succeeded to his business.

**TAYLOR**\* (Thomas). The last two publications of Mr. Taylor were "Proclus on Providence and Evil" (1833), and "Plotinus on Suicide, with Extracts from Olympiodorus, and two books on Truly Existing Being, &c., with Notes from Porphyry and Proclus" (1834). His death took place on the 1st of November 1835, in the 78th year of his age.

**TEA**.\* Formerly, all the black tea was brought from the Chinese province of Fokien, and the green from that of Kiangnan; but the culture of the first for exportation is now extended to Quang-tung, and of the other to Tche-kiang. From these provinces it has hitherto been conveyed, mostly by land-carriage, to Canton for shipment; but, under the late treaty with Great Britain, it will doubtless find its way to nearer ports.—The quantity of tea, of all kinds, annually imported into the United States, amounts to from 15,000,000 to 16,000,000 lbs.; the imports into the British empire (in 1841) to 36,396,078 lbs.; and the imports into Russia, in 1841, to 173,540 poods, or 6,247,440 lbs., in chests, and 76,104 poods in bricks, the former consisting almost entirely of the finest varieties of black tea. The consumption of teas in Holland amounts to about 3,000,000 lbs. a-year. That of France does not exceed 350,000 lbs. The importations into Hamburg vary between 1,500,000 and 2,000,000 lbs., the greater part of which is forwarded to the interior of Germany. The imports into Venice and Trieste do not exceed a few cwt. a-year.—In the United States, teas are at present imported duty free; in Holland, the duty varies from 3 to 9 cents per lb.; and in England, since the 1st of July 1836, a fixed duty of 2s. 1d. per lb. has been imposed on all teas.

**TEFLIS**.\* Population at present about 32,000, of whom the majority are Armenians. A portion of the inhabitants are Mohammedans, who have two mosques; and there are some Germans, who worship in a Protestant chapel. Teflis has many remarkable sulphurous springs, their temperature varying from 100° to 112° Fahr. Since its occupation by the Russians, its trade has greatly increased, and it is now quite extensive. It is mostly in the hands of the Armenians. In 1830, the Russians founded a school in Teflis, which has since

been erected into a gymnasium; and there are some other schools.

TEIGNMOUTH\* (Lord) died on the 14th of February 1834.

TELEGRAPH (Electric and Electro-Magnetic). The discovery of the great velocity with which electricity is propagated, through a conducting medium, at once suggested the use of it for conveying signals from one place to another. In fact, this was the method used by Dr. Watson, in 1747, for the purpose of ascertaining this velocity. But the first electric telegraph, in the true sense of the term, appears to have been that of Lesage, at Geneva, in 1774. This consisted of 24 wires, each properly insulated, and terminating at one end in a pith-ball electroscope. When the other end of either of these wires was put into communication with the prime conductor of an electrical machine, the ball was repelled, and a corresponding letter thus indicated. Various instruments of a similar character were, from time to time, proposed (some of which indicated the signal by means of the spark); the last and most ingenious of which was that of Mr. Ronalds, who, in 1816, worked his electrical telegraph, in the presence of a number of scientific gentlemen, over a distance of 8 miles. But, from the irregularity in the development of statical electricity by the best machines, and from the tendency of electricity of this kind to be dissipated during its passage through long conductors of small diameter, instruments of this nature could never have superseded the telegraphic method then in use. The discovery of galvanism, or dynamical electricity, and the formation of the pile by Volta, in 1800, completely overcame the latter difficulty, and materially lessened the former.—In 1810, Dr. Coxe, of the University of Pennsylvania, having wound a wire a mile in length around his lecture-room, passed signals by a galvanic current through it, noted their instantaneous passage, and proposed to use it as a telegraph by producing chemical changes upon prepared paper. His proposal was published in 1816, in Thomson's *Annals of Philosophy*.—In 1811, Sæmmering proposed to the Academy of Munich a plan for a galvanic telegraph, founded upon the property of the current to decompose water. This very ingenious instrument was modified and improved by Schweigger, who reduced the number of wires necessary to two, by which different signals, denoting each separate letter of the German alphabet, and the ordinary numerals, were indicated.—Shortly after

the discovery by Oersted, in 1820, of the action of a galvanic current upon a magnet, Ampère proposed a form of electro-magnetic telegraph, which was the same in principle with that of Sæmmering, the signals being made, however, by the deflection of a needle in place of the decomposition of water. This instrument was constructed long afterwards by Mr. Alexander, but had the great disadvantage of requiring a wire for each separate signal, and one to return the current to the battery.—Various other instruments were, from time to time, proposed, but none of any practical value until the year 1837.—In this year, new forms of the electric telegraph were proposed in England, Germany, and America.—In Germany, Steinheil had the merit of first using the ground as a part of the circuit, by which he was enabled to work with a single wire; his system of signals was, however, extremely imperfect. In England, Messrs. Cooke and Wheatstone patented a plan for a telegraph, in which, by ingeniously using two needles at once, they were enabled to make the whole of the alphabetical and numerical signals by means of only five wires. The signals were noted, as made, by an observer, whose attention was first called by ringing a bell, by means of an electro-magnet.—In 1840, Professor Wheatstone patented another form of telegraph, in which a disc, upon the circumference of which the signals are printed, is caused to rotate interruptedly (like the second-hand of a watch) by means of an electro-magnet. A screen is placed before the disc, having a notch cut out of it, through which one of the signals can be seen. As the disc rotates, the signals present themselves in succession before the notch, and the motion is arrested, when the proper signal has made its appearance. Every time the circuit is completed, the disc moves forward one signal. The completing and breaking of the circuit is effected at the station from which the message is transmitted, by means of a very beautiful instrument contrived by Professor Wheatstone, and called by him the "Rheotone," or current-cutter. A very simple modification of this apparatus allows him, also, to print the message by the machine itself.—In 1842, Mr. Alexander Bain patented, in London, an electro-magnetic printing telegraph of very ingenious construction; of which, however, the details are too complicated to be well understood without a drawing of the machine. The most important novelty in this apparatus, is the working of the ma-

chinery by ordinary clock-work, and the using of the electrical current to check its motion at the proper time. Mr. Bain also first made the curious discovery that a plate of zinc buried in the earth at one station, and connected by means of a wire with a copper plate similarly buried at the other station, would give a sufficient current to work the telegraph.—But the best and simplest of all the forms of the electromagnetic telegraph is that patented in the United States by Professor Morse, in 1837; which, however, he claims to have invented in 1832. This was the first telegraph which recorded its message, and thus dispensed with the uncertain attention of an assistant. The signals are not made by showing the letters of the common alphabet, but by an arbitrary alphabet, consisting of variously arranged dots and lines. The operation of this telegraph is as follows, viz.: the electrical current generated by any constant battery, passes from the transmitting to the receiving station by means of a wire, which, at the latter station, is coiled in the usual manner around the legs of an U-shaped bar of soft iron; which bar is, of course, rendered magnetic during the passage of the current. The keeper of the magnet is placed upon one end of a lever, the other end of which carries one or more points or studs, which, when the keeper is suddenly drawn downwards by the magnetic action, strike upwards into a groove or grooves in a steel roller placed above them. Under this roller passes a slip of paper, which is unrolled by machinery from a cylinder, while the machine is acting, and receives the blow of the points attached to the keeper. The circuit is completed or broken by means of a metal spring or key, connected with one pole of the battery, which may be pressed down by the finger upon a metal stud connected with the other pole. When it is so pressed down, the metallic circuit is complete between the stations; but the moment the finger is withdrawn, the spring rises by its elasticity, and the metallic circuit being broken, the electrical current can no longer pass. When the current is not passing, the keeper of the magnet is raised from it by means of a spring, and the points at the opposite end of the lever are consequently removed from the paper; but the instant the key is pressed down upon the stud beneath it, and the circuit thus completed, the current passes, the wire becoming magnetic attracts the keeper, and the points attached to it strike the paper smartly with the grooves of the roller,

thus producing an indentation. If the finger be instantly withdrawn from the key, the effect is but momentary, and the indentation of the paper is a point; but if the key be kept pressed down for a greater or less time, a line of corresponding length will be made upon the paper. Of a combination of these points and lines of various lengths the alphabet is composed. The first blow of the machine starts the clock-work, by which the paper is wound off from the cylinder; and by a very ingeniously arranged friction-brake, this motion stops as soon as the signals cease to be made. This perfectly simple apparatus has now been for a considerable time working with perfect success between the cities of Washington, Baltimore, Philadelphia, and New York; and the connection with Boston is now completed. At present, the communicating wires are stretched upon poles at some distance above the surface of the earth, according to the method proposed by Messrs. Cooke and Wheatstone. But great inconvenience has been experienced from the breaking of the wires, and from the interruption of the telegraphic communication during thunder-storms, and even when the electrical state of the atmosphere at the two stations is different. An effectual plan for insulating the wires under ground has been proposed and patented by Mr. Bain.

TELFORD (Thomas) was born on the 9th of August 1757, at Westerkirk, in the pastoral district of Eakdale, in Dumfriesshire, in Scotland, where his father was a shepherd. The latter died while he was yet an infant, and the care of his early years devolved upon his mother. He received the rudiments of his education in the parish school of Westerkirk; and while engaged during the summer season as a shepherd-boy, in assisting his uncle, he made diligent use of his leisure in studying the books furnished by his village friends. At the age of 14, he was apprenticed to a stone-mason, in the neighbouring town of Langholm. The construction of plain bridges, of farm buildings, and of simple village churches, afforded him good opportunities for obtaining practical knowledge. We are told that, during this period of his life, Mr. Telford was remarkable for the neatness with which he cut letters upon gravestones. In 1780, being then about 23 years old, he visited Edinburgh, apparently with the view of procuring employment; and he seems to have applied himself during a stay of two years in that city, with great diligence, both to architecture and drawing. He next removed to London,

where he was employed upon the quadrangle of Somerset House, then erecting by Sir William Chambers. From 1784 to 1787, he was engaged upon various buildings at the Portsmouth dockyard. In the last mentioned year, he superintended some alterations at Shrewsbury Castle, and was also employed to erect a new gaol in the town of Shrewsbury. This was completed in 1793, when he was appointed county-surveyor, in which office he had to furnish plans for, and oversee the construction of bridges and similar works. The first bridge which he designed and built, was that over the Severn, at Montford, about four miles west of Shrewsbury, consisting of three elliptical stone arches, one of 58, and the others of 55 feet span. His next was the iron bridge over the Severn, at Buildwas, consisting of a very flat iron arch of 130 feet span. And 40 smaller bridges were erected in Shropshire under Mr. Telford's direction.—All these works, however, were merely introductory on his part to still more important labours as a civil engineer; such as the Ellesmere Canal, a series of navigations intended to unite the Severn, the Dee, and the Mersey, and the Caledonian Canal in Scotland, besides a great number of other canals and bridges. He executed, also, some important harbour-works at Aberdeen and Dundee; but his most striking performance of this class was the St. Katharine Docks, London. And he superintended the construction of the Götha Canal, in Sweden.—Before leaving his native district, Mr. Telford acquired some distinction as a poet. He wrote in the homely style of Ramsay and Fergusson, and contributed small pieces to Ruddiman's "Weekly Magazine," under the signature of "Eskdale Tam." He wrote a short poem, entitled "Eskdale," descriptive of the scenes of his earlier years; and another pleasing fragment of his composition is given at the end of the first volume of Dr. Currie's "Life and Works of Burns," being an extract from a poetical epistle sent by Telford, when at Shrewsbury, to the Ayrshire poet, recommending him to take up other subjects of a serious nature, similar to the "Cotter's Saturday Night." He taught himself Latin, French, Italian, and German, so as to read them all with facility, and to converse readily in French; and he has left valuable contributions to engineering literature, in the articles Architecture, Bridge, Civil Architecture, and Inland Navigation, in Brewster's "Edinburgh Encyclopædia." He became a member of the Royal Society of Edin-

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burgh, in 1803, and of that of London, in 1827. On the formation of the Institution of Civil Engineers, in 1820, he was selected to be its president. His death occurred on the 2d of September 1834, at the age of 77. He was buried in Westminster Abbey.

TEMPERANCE SOCIETIES.\* See *Societies*, (Sup.)

TENTERDEN (Charles Abbott, lord), born October 7th 1762, was the son of a barber who resided at Canterbury. He distinguished himself at school, and in 1781 was elected a scholar of Corpus Christi College, Oxford, with an allowance of £50 a-year. He was subsequently elected a fellow of his college, and appointed junior tutor to Mr. (afterwards bishop) Burgess.—In 1788, by the advice of Mr. Justice Buller, whose son was one of his private pupils, Mr. Abbott entered himself of the Inner Temple; and he was called to the bar in 1795. He soon acquired an extensive and lucrative business. In 1802, he published his "Treatise of the Law relative to Merchant-ships and Seamen," which has passed through many editions, and is one of the best works on English law. He declined a seat on the bench, in 1808, from prudential motives, his professional income far exceeding his salary as a judge, but accepted, in 1816, when his fortune had increased, an appointment as a puisne judge in the Court of Common Pleas; and, after a few months, he consented to supply a vacancy in the Court of King's Bench. On the 4th of November 1818, he succeeded Lord Ellenborough as chief-justice of this court.—Mr. Abbott was knighted in 1816, and raised to the peerage in 1827, by the title of baron Tenterden. While he continued thenceforth to discharge assiduously the duties of his high office, he took an active part in the business of legislation. His political opinions were of the tory stamp. He pertinaciously opposed the passing of the Corporation and Test Act Repeal Bill; he was the most impressive speaker against the Roman Catholic Relief Bill; and he recorded his protest against the Reform Bill.—His favourite recreations were the perusal of the classics, the study of botany, and the composition of Latin verses. He founded and endowed, in the grammar-school of his native city, two annual prizes; the one for the best Latin verse, the other for the best English essay.—Lord Tenterden died on the 4th of November 1832.

TERNAUX.\* The baron Ternaux was one of the 221 deputies who subscribed their names to the famous address to

Charles X. for the dismissal of the Polignac ministry; and he took an active part in the revolution of July 1830. Shortly after this event, and in consequence of the shock given to the business relations of the community by the disturbed condition of public affairs, he sustained an extraordinary reverse of fortune. From being one of the wealthiest individuals of the French capital, it was only by the most strenuous exertions that he was enabled to meet all his pecuniary engagements, a short time only before his death, which took place on the 2d of April 1833.

TEXAS.\* The continued influx of emigrants from the United States into Texas having given to the Anglo-Saxon race a preponderating influence over its other inhabitants, the desire to emancipate it from its connexion with Mexico very naturally grew up among the former. No open expression, however, of this desire took place previously to the accession of Santa Aña to the Mexican presidency. But no sooner had that general, in October 1835, overthrown the federal system of government which had hitherto subsisted, than the Texans refused to abide by the constitution introduced in its stead. In December of the year just mentioned, a declaration of their independence as a separate state was issued by a body of about 90 individuals, assembled at La Bahia, or Goliad; which was followed by a more formal declaration, in the month of March 1836, by a convention of delegates assembled at Washington (in Texas). A provisional government had organized the means of defence at its disposal with great activity and energy, and had appointed General Houston to the office of commander-in-chief. Hostilities between the Mexicans and Texans had, indeed, already commenced as early as the preceding November. General Cos had advanced with a detachment of the former, and after gaining possession of the town of San Antonio de Bexar, was obliged to capitulate to his opponents. Santa Aña marched in person against the Texans, in January 1836, at the head of a force of 7000 men. Having taken the fort of the Alamo, in the town of San Antonio de Bexar, after a desperate resistance by the garrison, the Mexicans entered the capital of the new state, San Felipe de Austin, without opposition, the members of the government retiring before them. They also succeeded in cutting off a body of 300 men under Colonel Fanning. In full confidence of reducing the country without the necessity of striking any farther blow, Santa

Aña ventured to pursue his march with only about 1500 men. He was attacked by 800 Texans, under General Houston, and totally defeated and taken prisoner in the memorable battle of San Jacinto. See *Mexico*, (Sup.) This event was decisive of the question at issue between the contending parties. The remaining portion of the Mexican army retired beyond the limits of Texas; and the attempts which were subsequently made by Mexico to recover her lost territory were very feebly prosecuted. For the later history of Texas, as well as for an account of its present condition, the reader is referred to the article *United States*, in this volume.

THARR (Albert) was born in 1752, at Celle, in Germany, where his father was a practising physician. After studying medicine at Göttingen, he also practised his profession, for a number of years, at Celle. But, at length, notwithstanding his continually extending reputation as a practitioner, he was induced, by the enfeebled state of his health, and a growing disinclination to encounter the distresses of the sick-room, to devote himself exclusively to agricultural and horticultural pursuits; and this he did as well theoretically as practically. He became extensively known in Germany by his work entitled "Introduction to a knowledge of English Agriculture" (3 vols., 1796-1804. 3d edition, 1816). In 1799, he founded the agricultural institution of Celle, and in 1804, the celebrated one at Mögelen, near Potsdam. Subsequently to this, he produced a number of agricultural works, which obtained a great degree of success. At the time of his death, which occurred in October 1828, he was a member of the Academy of Sciences of Berlin, and a corresponding member of the French Institute (Academy of Sciences).

THÉNARD\* was elected a member of the Chamber of Deputies in 1827. After a report made by him on the subject, a law was passed in June 1829, by which the former French coins were to cease to circulate as money after the year 1833. He was one of the 221 deputies who voted the famous address to Charles X., and was re-elected a deputy after the dissolution of the chamber, and again at the close of 1830, after his appointment as a member of the "Council of Public Instruction." He failed in being re-elected in the following year; but, in October 1832, he was advanced by the king (Louis Philippe) to the dignity of a peer.—In 1836, M. Thénard completed the publication of the 6th edition of his "Traité de chimie élémén-

taire, théorique et pratique;" and in 1844, he presided at the exposition of the products of French industry, pronouncing the annual discourse on the occasion of the distribution of prizes to the successful competitors.

**THISAUDEAU.\*** The time and place of his death is uncertain.—His "Mémoires sur le Consulat et l'Empire" were published in 1835, in 10 volumes, and form a continuation to his "Mémoires sur la Convention et le Directoire." He was the author (jointly with Bourdon de la Croisnière), also, of a "Histoire du terrorisme dans le département de la Vienne" (1795), and of a "Recueil des actes héroïques et civiques des républicains français" (1794 and following years).

**THIBAUT\*** (Anthony Frederick Justus) died at Heidelberg, in March 1840.

**THIERRY** (Jacques Nicolas Augustin) was born at Blois, in France, on the 10th of May 1795. He became a pupil of the Normal School in 1811, and quitted it in 1813 to be a professor in one of the provincial colleges. In the following year, however, he returned to Paris, where he soon afterwards formed an intimate friendship with St. Simon. Their names are attached jointly to several pamphlets which appeared about this time, with the titles "De la réorganisation de la société européenne," "Opinion sur les mesures à prendre contre la coalition de 1815," and "L'Industrie littéraire et scientifique." In the last mentioned of these, M. Thierry even assumed the designation of an adopted son of St. Simon. In 1816, he was the author of a production under the title of "Des nations et de leurs rapports mutuels," written in the same spirit as the preceding. But before very long the two friends disagreed in the inferences which they drew from the principles held by them in common. A quarrel ensued, and they parted.—M. Thierry then became one of the contributors to the "Censeur Européen," a journal conducted by MM. Comte and Dunoyer, and subsequently to the "Courrier français." It was in the latter journal that he inserted, in 1820, 10 "letters on the history of France," which constituted the nucleus of the work published by him under this title in 1827. But it is to his "History of the Conquest of England by the Normans" (4 vols., 1825) that M. Thierry is chiefly indebted for his high reputation as a writer and an historian. Shortly after its appearance he was affected by a weakness of the eyes, which resulted in his becoming entirely blind; and to this again was added, three

years afterwards, a nervous disease, by which he has continued to be very seriously affected. Yet his intellectual activity was not altogether prevented. From 1831 to 1835, he published, in the "Revue des deux mondes," several portions of a work that appeared in 1840, under the title of "A Narrative of the Merovingian Times," for which the French Academy bestowed upon him the "Gobert" prize. M. Thierry was elected, in 1826, a member of the Academy of Inscriptions; and in 1835, M. Guizot, who was then the minister of Public Instruction, charged him with the publication of a "Collection de documents inédits relatifs à l'histoire du tiers état," which, we were informed a year ago, was in a state of very forward preparation, although no part of it had yet been issued from the press.

**THIERRY** (Amédée), a brother of the former, born at Blois in 1797, has also acquired a considerable reputation as a man of letters. He is the author of a number of articles in the "Revue Encyclopédique" (1820), and of a "Résumé de l'histoire de Guienne," inserted in the collection of M. Félix Bodin. His "Histoire des Gaulois" procured for him a professorship of history at Besançon. The lectures delivered by him there gave offence to the government, and he was suspended from his post by the Polignac ministry. On the occurrence of the revolution of July 1830, he was appointed prefect of the department of the Upper Saône, which office he held until 1838, when he went to Paris as a "maître des requêtes" to the council of state. Since this period, M. Amédée Thierry has published two volumes of his "Histoire de la Gaule sous l'administration romaine," which is, in fact, a continuation of his former work relating to the Gauls. In 1841, he was elected a member of the Academy of the Moral and Political Sciences.

**THIERS** (Louis Adolphe) was born at Marseilles, April 16th 1797, of humble parentage. After the usual college education, he went to the city of Aix to engage in the study of the law. From the law, however, his attention was very soon, in a great measure, diverted to politics and literature. He became a candidate for a prize proposed by the Academy of Aix, the subject of which was a eulogy on Vauvenargues. The essay which he presented was about to obtain the prize, when the author being inadvertently made known to the judges, a majority of whom were prejudiced against him on account of the liberality of his political opinions, they



declared that none of the essays presented were deserving of the prize, and proposed the subject anew for the following year. M. Thiers was again a competitor for the prize. But besides an essay laid before the judges, which he took care should be known by them as having been written by him, he prepared another, and contrived to have it transmitted to them, in the handwriting of a friend, through the Paris post-office. To this essay the prize in question was now awarded, to the extreme mortification of the academicians, when, on breaking the seal of the paper containing the name of the author, they found that he had so adroitly outgeneralled them.—M. Thiers, in company with his friend M. Mignet, went to Paris, to seek their fortunes as political or literary adventurers, as opportunity might offer. Through the instrumentality of Manuel, at the time in the height of his popularity, and to whom he brought letters of introduction, M. Thiers was engaged as one of the "collaborateurs" of the "Constitutionnel." His contributions to the columns of this journal attracted very general attention, and led to his becoming speedily and intimately acquainted with most of the leading members of the party of whose opinions it was the expositor, and to a high appreciation by them of his abilities. But, according to him, the "Constitutionnel" did not carry out the "liberal" principles of the day to a proper extent; confining its opposition to the government, as it uniformly did, within the limits of the charter granted to the people of France by Louis XVIII., at the period of the Restoration. Hence he transferred his labours as a journalist to the "Globe," which was originally established by the "doctrinaires," but which subsequently became the organ of the St. Simonians. In the mean time, too, his "History of the French Revolution," which was published in 1823-27, in 10 volumes, acquired for him a very extended reputation. In 1830, jointly with MM. Armand Carrel and Mignet, he founded the "National," and rendered it a powerful engine in the overthrow of the government of the Restoration.—M. Thiers was one of the journalists who subscribed the famous protestation against the ordinances of Charles X., in the month of July 1830. The revolution of that month having been accomplished, he became, in the administration of Laffitte, under-secretary of state, in the department of finance; and Louis Philippe appointed him, besides, a member of the Council of State. He was, also, elected a

deputy from the city of Aix. In these different stations, he exhibited an extraordinary degree of industry and talent, and came to be looked upon as a candidate for the highest offices of the country. He went out of office, with Laffitte, in March 1831. On the 11th of October 1832, however, he was appointed to the charge of the department of the interior, in the doctrinaire ministry which was then constituted; on the 22d of December following, he was transferred to the department of commerce and of public works; and he returned to that of the interior on the 4th of April 1834. The ministry (of which Marshal Soult was the president) was dissolved on the 10th of October in the same year, and was succeeded by another, at the head of which was the duke of Bassano (Maret). But this, in its turn, gave place, so soon as the 18th of the next month, to a ministry in which the duke of Treviso (Marshal Mortier) was president of the Council, and M. Thiers held the office of minister of the interior and of public works. With the substitution of the duke of Broglie for Marshal Mortier, this ministry continued to hold their places until the 22d of February 1836, when M. Thiers was appointed president of the Council, and was entrusted with the formation of a new ministry. He went out of office again, however, with his colleagues, on the 6th of September following; became then the uncompromising opponent of the administration of M. Molé; and resumed the presidency of the Council, taking charge, at the same time, of the department of foreign affairs, on the 1st of March 1840. The ministerial career of M. Thiers was, on this as on the former occasion, of only a comparatively short duration. Aiming to involve France in a war with the other great European powers, on account of the "eastern question," and being unable, after very extraordinary military preparations had been made, to induce the king to commit himself irrevocably to the contest, he gave place, on the 29th of October (1840), to M. Guizot. M. Thiers has since then continued to act, in general, with moderation and dignity, a distinguished part in the Chamber of Deputies, patiently awaiting his turn to lay hold again of the helm of power.—He has latterly published his long-expected "Histoire du consulat et de l'empire,"—a work which has met with the most splendid success among his countrymen. In 1833, he was elected a member of the French Academy. See *France*, (Sup.)

THIERSCH\* was appointed professor of

Greek literature, in the university of Munich, in 1831, the year in which he went to Greece. He obtained in that country a considerable influence after the assassination of count Capo-d'Istria, and contributed, in a certain degree, to the selection of prince Otho to fill the throne. He returned to Bavaria in 1832. In 1836, he once more quitted his post in the university at Munich, and proceeded on a tour through France, Belgium, and Holland, directing his attention, more especially, to the institutions of education in those countries.—Professor Thiersch is a member of the Academy of Munich, a corresponding member of the Institute of France (Academy of Inscriptions and Belles Lettres), as well as of many other learned societies. In addition to his works mentioned in a previous article, he is the author of a treatise on Grecian sculpture (1816-25, 2d ed. 1829); of a remarkable work, written in the French language, and entitled "De l'état actuel de la Grèce et des moyens d'arriver à sa restauration (1833, 2 vols.); and of a work, the fruits of his journey last mentioned, "On the existing condition of Public Instruction in the Western States of Germany, in Holland, France, and Belgium" (1838, 3 vols.)

THOMSON\* (Dr. Thomas). To the works of this distinguished chemist already mentioned, are to be added "An attempt to establish the first principles of Chemistry by experiment" (2 vols., 1825); "The History of Chemistry" (1830); and "The Chemistry of Organic Bodies" (2 vols., 1838).

THORWALDSEN\* was born on the 9th of November 1770.—After his long residence at Rome, he returned to Denmark, to spend there the remainder of his days; which, however, were destined to be comparatively few. On the 24th of March 1844, he had been occupied with the model of a bust of Luther. In the evening he went to the theatre, and a few moments after he had entered the house he was struck down by an apoplexy. By his will, he bequeathed his fortune, estimated at nearly a million of dollars, to the founding of a museum at Copenhagen, which now bears his name.

TIÉCK\* (Louis) collected around him, at Dresden, a select society of men of letters and artists, whom he charmed by his conversational powers, as well as by his reading of the choicest dramatic compositions, ancient and modern, which he is said to have performed with an effect that reminded many of his auditors of that produced upon them by the recitations of Talma. Not-

withstanding his advanced age, he continues to write novels; and the critics generally have ranked his "Victoria Accossombona" (2 vols. 1840) among the best of his productions. Some have objected to the main plot as too loosely connected; to the characters as not always sufficiently discriminated; and to the various digressions, or under-plots, which too frequently interrupt the progress of the main story. But its moral tendency is much more questionable than its literary merits; being of all the author's works that which is most imbued with the spirit of the modern French novelists. His notions relating to marriage, and the female sex, are especially such as to remind us of the moral heresies of George Sand, and of the most corrupt individuals of her school.—Three or four years since, Tieck removed his residence from Dresden to Berlin, on the invitation of the king of Prussia, who has provided for him in a manner suited to his high reputation. By his instrumentality, the Antigone of Sophocles has been represented at the theatres of Berlin and Potsdam, and it would seem with a degree of success sufficient to render it probable that other specimens of the classic drama either have been already, or will before long, be exhibited before a German audience.

TLEDGE\* died at Dresden in March 1841. TILGHMAN (Edward); an eminent lawyer of the state of Pennsylvania, at the bar of Philadelphia. He was born at Wye, on the eastern shore of Maryland, on the 11th of December 1750, of an old and respectable family, which in the paternal line emigrated to the province of Maryland from Kent county in England, about the year 1662.—His academical education was received in the city of Philadelphia, under teachers who were successful in accomplishing him in the ancient classics, to an extent which, at a subsequent time, now happily passed away, it was the poor fashion to undervalue or deprecy.—His education in the law was obtained principally in the Middle Temple, of which he was entered a student about the year 1771; and in the years 1772 and 1773 he became an assiduous attendant upon the courts of Westminster Hall, taking notes of the arguments in chancery before Lord Apsley,—and of such men as Wallace, Dunning, Davenport and Mansfield, before Lord Mansfield and the judges of the King's Bench. His notebooks are still extant in the possession of his descendants, and one of them was of remarkable use upon the argument of

*Clayton* against *Clayton*, in the Supreme Court of Pennsylvania, in explaining an obscure report by Sir James Burrow, of Lord Mansfield's judgment, in *Wigfall v. Brydon*, which was cited before the same judges, in *Goodright v. Patch*, in 1773, and then put upon its true ground.—After finishing his course at the Middle Temple, he returned to Philadelphia, and was admitted to the Bar, at which he continued until his death, on the 1st of November 1815, in the sixty-fifth year of his age.—There are two very different methods of acquiring a knowledge of the law of England, and by each of them men have succeeded in public estimation to an almost equal extent. One of them, which may be called the old way, is a methodical study of the general system of law, and of its grounds and reasons, beginning with the fundamental law of estates and tenures, and pursuing the derivative branches in logical succession, and the collateral subjects in due order, by which the student acquires a knowledge of principles that rule in all departments of the science, and learns to feel, as much as to know, what is in harmony with the system, and what is not. The other is to get an outline of the system by the aid of commentaries, and to fill it up by desultory reading of treatises and reports, according to the bent of the student, without much shape or certainty in the knowledge so acquired, until it is given by investigations in the course of practice. A good deal of law may be put together by a facile or flexible man in the second of these modes, and the public are often satisfied with it; but the profession itself knows the first by its fruits to be the most effectual way of making a great lawyer.—Edward Tilghman took the old way, and acquired in it not only great learning, but the most accurate legal judgment of any man of his day, at the bar of which he was a member. No one of his cotemporaries would have felt injured by his receiving this praise. Upon questions which to most men are perplexing at first, and continue to be so until they have worked their way to a conclusion by elaborate reasoning, he seemed to possess an instinct, which seized the true result before he had taken time to prove it. This was no doubt the fruit of severe and regular training, by which his mind became so imbued with legal principles, that they unconsciously governed his first impressions.—In that branch of the law which demands the greatest subtlety of intellect, as well as familiarity with principles, the chapter of contingent remain-

ders and executory devises, he had probably no superior anywhere. An eminent judge has said of him, "that he never knew any man who had this branch of the law so much at his finger ends. With all others with whom he had had professional intercourse, it was the work of time and consideration to comprehend; but he took in with one glance all the beauties of the most obscure and difficult limitations. With him it was intuitive; and he could untie the knots of a contingent remainder or executory devise as familiarly as he could his garter."—When this can be justly said of a lawyer—and it was said most justly of Edward Tilghman—nothing is wanting to convey to professional readers an adequate notion of the extent of his learning, and the grasp of his understanding; for the doctrines upon these subjects are the higher mathematics of the law, and the attainment of them by any one implies that the whole domain lies at his feet.—Mr. Tilghman was also an advocate of great powers—a master of every question in his causes—a wary tactician in the management of them—highly accomplished in language—a faultless logician—a man of the purest integrity and of the brightest honour—fluent without the least volubility—concise to a degree that left every one's patience and attention unimpaired—and perspicuous to almost the lowest order of understandings, while he was dealing with almost the highest topics,—how could such qualities as these fail to give him a ready acceptance with both courts and juries, and to make him the bulwark of any cause which his judgment approved!—An invincible aversion to authorship and to public office, has prevented this great lawyer from being known as he ought to have been, beyond the limits of his own country. He has probably left nothing professional behind him but his opinions upon cases, now in various hands, and difficult to collect, but which, if collected and published, would place him upon the same elevation with Dulany of Maryland, or Fearn, the author of the work in which he most delighted. The chief justiceship of the Supreme Court of Pennsylvania was offered to him by Governor M'Kean, upon the death of Chief Justice Shippen; but he declined it, and recommended for the appointment his kinsman, William Tilghman, who so much adorned that station by his learning and virtues.—It is instructive to record, that the stern acquirements and labours of this eminent man never displaced the smiles of benevolence from his countenance, nor

put the least weight upon his ever-buoyant spirit. His wit was as playful and harmless, and almost as bright as heat lightning upon a summer's evening. It always lit up the edges of the clouds of controversy that surround the Bar, and sometimes dispersed the darkest and angriest. A more frank, honourable, and gentlemanly practitioner of the law, and one more kind, communicative, and condescending to the young students and members of the Bar, never lived. The writer of this article, thirty years his junior, regards it as his greatest good fortune to have been admitted to the familiar intimacy of Edward Tilghman, and to have enjoyed not only instruction from his learning and wisdom, but an example of life in his cheerfulness and serenity, during the vicissitudes of health and fortune which chequered his declining years.

**TITICACA\*** (Lake of) is partly comprised in the Bolivian republic, and partly in that of Peru. It is not only the largest, but also the most elevated lake in S. America; its height above the ocean being estimated at 12,795 feet.

**TOMPKINS** (Daniel D.) was born, June 21st 1774, at Scarsdale, in Westchester county, N. Y. He was educated in Columbia College, in the city of New York, where he was distinguished among his companions by the progress which he made in knowledge. He next studied law, and was admitted to the bar in 1797. In 1801, he was chosen to be a member of the convention for revising the constitution of his native state; in 1802, a member of its Legislature; and, in 1804, one of its representatives in Congress. In the last-mentioned year, he was, also, appointed to a seat on the bench of the N. Y. Supreme Court; and, in 1807, he was elected to fill the office of governor, which he continued to do until 1817, when he resigned it in consequence of his election to be vice-president of the United States. In 1821, he was one of the delegates to the convention which was convened at Albany for the framing of a new state constitution, and was selected to preside over the deliberations of that body. His death occurred on the 11th of June 1825, at his residence on Staten Island.

**TÖPLITZ**; a town and watering-place of Bohemia, 47 miles N. W. of Prague. It has about 2700 inhabitants; but in the months of July and August it is sometimes visited by 15,000 strangers. The springs are saline, with some iron. The hottest has a temperature of about 122° of Fahrenheit. It emerges from a porphyry rock,

and so abundantly that its supply per hour has been estimated at 1,190,670 cubic feet of water. The waters are particularly esteemed in gout, in rheumatic affections, diseases of the joints, &c. There are, in all, about 90 private baths, each of which is let out for not more than an hour at a time. The principal baths are distributed in 4 distinct buildings in the centre of the town. In one of these there are 3 baths for the gratuitous use of the public; one for the men, a second for the wives and daughters of citizens, and the third for the female peasantry, &c.: the first and last are under ground, and may be compared to large inundated cellars.

**TORENO** (Don Jose Maria Queypo de Llano Ruiz de Saravia, count of) was born in December 1786, in the Spanish province of the Asturias. He took an active part in the insurrection of the Spaniards against the French in 1808, was elected a deputy to the Cortes in 1810 and in 1812, and distinguished himself in that body by his financial ability and the measures which he proposed for restricting the privileges of the monks. On the return of Ferdinand VII. to Spain, in 1814, Toreno was proscribed, and took refuge in France. The revolution of the Isle of Leon, in 1820, recalled him from his exile; and, from 1820 to 1823, he acted a prominent part in the proceedings of the Cortes. But when the absolute monarchy was re-established through the intervention of the French army under the orders of the duke of Angoulême, in 1823, he was once more obliged to leave Spain, and remained absent from it, chiefly at Paris, until the death of Ferdinand. In 1834, he was appointed minister of finance at Madrid; and, on his resignation of this post in September 1835, he went again to Paris, where he resided till his death, in the month of August 1843.—He was the author of a valuable history of his country since 1808 (*Historia del levantamiento, guerra y revolucion de España*), in 5 volumes, 4 of which were published in 1830, and the remaining one 8 years afterwards.

**TORNADO** is a violent hurricane or gust of wind, which, arising suddenly, veers round to all points of the compass; or, as some suppose, with a high degree of probability, blows from all points at once. They are usually accompanied by thunder-storms, and are generally of short duration. They are most frequent at sea, especially in the Chinese seas and the West Indies, but sometimes occur on land. One of the most remarkable instances of a tornado on the land, is that which took place at New

Brunswick, in New Jersey, in 1835. The phenomena connected with it have been minutely observed, and are to be found recorded in "Silliman's Journal," vol. 32d. See *Storms*, (Sup.)

TORONTO. See *York*.

TORRENS (Colonel) was a native of Ireland. He was appointed a first-lieutenant in the marine service, at the age of 14, in 1797, and a captain in 1806. In March 1811, he commanded the marine garrison in the Isle of Anholt, where he succeeded in repulsing an attack of the Danes, and for this exploit was promoted to the brevet rank of major. He afterwards served in the Peninsula, where he was appointed colonel of a Spanish legion. His last military employment was in India.—Colonel Torrens was the author of "The Economists Refuted; or, an Inquiry into the nature and extent of the benefits conferred by Trade and Commerce;" "Celibia choosing a Husband, a Novel;" "The Victim of Intolerance, a Romance;" "An Essay on Paper-Money and Currency;" "Thoughts on the Catholic Question;" "An Essay on the External Corn Trade;" together with other essays or pamphlets on subjects of political economy.—His death took place in London, in 1840.

TOULON.\* Population in 1841, 34,663.—The arsenal of Toulon is one of the finest in Europe. It occupies a surface of 87 acres, and has dry-docks, and every accommodation for the construction, repair, and outfit of ships. In general, from 3000 to 4000 free workmen are employed within its walls; but in 1840, when an unusual activity prevailed in all the French ports, there were between 5000 and 6000 labourers employed, exclusive of above 3500 criminals.—The trade of the port has heretofore been inconsiderable; but it has materially increased since the conquest of Algiers. In 1841, 8 steamers were continually plying between Toulon and Africa, Corsica, Italy, and the East.

TOULOUSE.\* The number of inhabitants in this city was, in 1836, 77,372: according to the census of 1841, they amounted to 76,965.—Previously to the Revolution it was the seat of one of the leading French universities; which still exists with the faculties only of law, the sciences, and literature. There are here, also, a school of artillery, a royal college, two public libraries, schools for instruction in medicine and the veterinary art, an institution for the deaf and dumb, several learned or literary societies, the most remarkable among these being the "Academy of the Floral Games," which grants

prizes in the beginning of May of every year to successful candidates, after the example set at the floral games of an earlier period. The botanic garden at Toulouse is the largest and finest in France, after that of Paris.

TRACY (Antoine Louis Claude Destutt, comte de) was born on the 20th of July 1754, in the province of the Bourbonnais, in France. He chose the profession of arms, and had attained to the rank of a colonel at the outbreak of the revolution in 1789. He was one of the deputies of the nobility of his native province to the States General, which met in that year, and distinguished himself by the liberality of his political opinions. Subsequently, he held the rank of a "maréchal de camp" in the "army of the north," commanded by General Lafayette. But after the overthrow of the monarchy, on the memorable 10th of August 1792, he resigned his commission in the army, and, living in retirement, devoted himself to the pursuits of philosophy and literature, until the month of November 1793, when he was arrested as a suspected person, and confined for the period of a year in the prison of the Abbaye.—M. de Tracy was a member of the National Institute when it was established, in the class of the Moral and Political Sciences. This class was abolished in 1803; and five years then elapsed before he re-entered the institute, on the death of Cabanis. He was, for a time, a member of the Committee of Public Instruction, and then became a senator. As such, he voted, in 1814, for the creation of the provisional government and the forfeiture of the crown by Napoleon. He was nominated a peer of France in June of the same year, and occupied a prominent place in the ranks of the constitutional party during the entire period of the government of the Restoration. His death occurred on the 9th of March 1836.—The principal literary productions of M. de Tracy are his "Observations sur le système actuel d'instruction publique" (1801); the "Éléments d'idéologie," comprehending "Idéologie proprement dite" (1801), "Grammaire" (1803), and "Logique" (1805); a "Traité de la volonté et de ses effets" (2 vols., 1815); an "Essai sur le génie et les ouvrages de Montesquieu" (1808); and a "Mémoire sur Kant," printed in the Memoirs of the Institute.

TRAPANI; a sea-port town of Sicily, on a projecting point of land on the W. coast of the island, 46 miles W. of Palermo. In 1831, the population was 24,735. Its trade is very considerable. There are

extensive *salinas* in its vicinity; and the salt, which is of good quality, is largely exported. The inhabitants carry on the coral fishery on the coast of Africa; and the cutting and polishing of coral is one of the principal branches of industry in the place. Besides salt and coral, the exports comprise soda, alabaster, rough or cut into vases, statues, &c., and a variety of other articles. In 1839, the port was entered by 114 foreign vessels, 73 of which were Austrian.

**TREBISOND.\*** Previously to 1830, the trade of this town had dwindled to the export of a few products of the country to Constantinople, the import of iron from Taganrog, and a traffic with Abassah, carried on in small craft, which took away salt, sulphur, lead, and Turkish manufactures, bringing in return the raw productions of the Caucasus, slaves, &c. But the treaty of Adrianople, by opening the Black Sea to European vessels, restored the old channel of communication between Europe and India, Persia, &c., through Trebisond; and the Russian policy of 1831, by putting an end to the immunities enjoyed by the Russian ports S. of the Caucasus, has given to this port an importance it did not before possess. In 1843, there arrived 354 vessels, in burden 72,335 tons, more than a half of which were Turkish. The chief articles of import are manufactured cottons, sugar, coffee, rum, salt, tin, wine, &c. The exports consist of silk, wool, tobacco, carpets, shawls, drugs of various sorts, &c. More than half the articles imported are destined for Persia.

**TREVIRANUS** (Gottfried Reinhold), born at Bremen, in July 1776, was eminently distinguished as a naturalist and physiologist. After the usual preparatory education, he went to the university of Göttingen. In 1797, he was appointed professor of mathematics in the Lyceum of his native city; and while he assiduously performed the duties of this office, he also practised medicine with a constantly increasing reputation. He first became known as a writer by a work entitled "*Physiological Fragments*" (2 vols. 1797-99), which, however, was merely the precursor of his "*Biology, or Philosophy of Living Nature*" (6 vols. 1802-22), on which his reputation is chiefly founded. The period of 20 years, which intervened between the appearance of the first and last volumes, necessarily left the earlier portion of it in many respects defective. This circumstance induced the author to publish an additional treatise, abridging, and at the same time supplying

a statement of what was wanting to complete the former, under the title of the "*Phenomena and Laws of Organic Life*" (2 vols. 1831-32). Treviranus was the author, also, of several other works relating to the same general subject as those that have been mentioned. He died at Bremen, on the 16th of February 1837.

**TRIESTE.\*** In 1836, the population of this town was 51,346; and that of the town and its district, comprising about 40 square miles, is stated by Dr. Bowring to have amounted, in 1839, to 75,551, having increased to that amount from 45,323 in 1821.—Trieste is a free port, to the extent that goods destined for its consumption, and that of the adjoining territory, pay no duties. The commerce of Trieste has of late years been rapidly increasing, and between the years 1826 and 1838 it had nearly doubled in amount. This arose chiefly from a more extended intercourse with Turkey, South America (especially Brazil), Great Britain, and the United States. The number of sailing vessels engaged in foreign trade which arrived in 1839 was 1858, in burden 228,253 tons, and of steam vessels 24, in burden 7748 tons; the number of vessels of all descriptions which arrived in the same year was 12,657, in burden 567,841 tons. At an average, the value of the imports into Trieste may amount to \$20,000,000. The value of the exports is considerably less.

**TRUMBULL** (Colonel John) was born on the 6th of June 1756, at Lebanon, in Connecticut. His father, Jonathan Trumbull, was governor of that state during the whole of the revolutionary war. At the beginning of it, John Trumbull entered the army. He acted for a short time as an aide-de-camp of General Washington, and was rapidly promoted, but quitted the service in February 1777, with the rank of colonel, on a point of honour relative to the date of the confirmation by the government of an appointment which he had received from General Gates, to act as deputy adjutant-general in the northern department.—Colonel Trumbull then applied himself to painting (chiefly at Boston), until he went to Europe, in May 1780; excepting only for a short period in the summer of 1778, when he accompanied, as a volunteer, the expedition under General Sullivan for the recovery of Rhode Island from the enemy. Previously to embarking for Europe, Colonel Trumbull, through the instrumentality of Mr., afterwards Sir John Temple, with whom he had become acquainted at Boston, had

obtained permission from the British government to reside in London, in order that he might have the benefit of his countryman West's instructions in painting. Besides spending some time in England, he also visited the neighbouring parts of the European continent; and he returned to America in January 1783. He was now tempted, by a favourable offer made to him by some of his friends, to engage in a mercantile employment; while his father urged him earnestly to select the law as his occupation for life. It was only at the close of the year that he decided, in preference to either of these courses, to become an artist by profession. With this object in view, he embarked again for Europe, and arrived in London in January 1784. His absence from his native country was protracted for a period of 20 years, which was not altogether occupied with the practice of his art. He found leisure to travel in France, Germany, and the Netherlands, and to act as a fifth commissioner, under "Jay's treaty," for the settlement of American claims upon England.—On his return to the United States, in 1804, Colonel Trumbull established himself as a portrait painter in New York. Here, however, he continued only until the 15th of December 1808, when he embarked, for the third time, for Europe. At London, he resumed his profession, and executed several large pictures and many portraits; but his pecuniary receipts were not equal to his expenses. He became embarrassed, and resolved to return to America. But before he had made his arrangements to do so, the war between the United States and Great Britain intervened, and constrained him to remain abroad until after its close. He reached New York in September 1816.—In 1817, Colonel Trumbull was employed by the U. S. government to paint four pictures, to be placed in the Rotunda of the Capitol at Washington, and the subjects of which were to be the Declaration of Independence, the Surrender at Saratoga, the Surrender of Cornwallis, and the Resignation of General Washington at Annapolis. They were completed in 1824, and are preserved in the place for which they were destined. The whole, or the greater part, of the sum of \$32,000, which was paid for these paintings, seems to have been appropriated to the payment of Colonel Trumbull's debts. He had the world, as he tells us, to begin anew, and lost no time in commencing a new series of his paintings on historical subjects, on a diminished scale. In the mean time,

however, he was unable to earn a present subsistence, being reduced to the necessity, for this purpose, of disposing piecemeal of his furniture, plate, &c. From this state of embarrassment he was at length relieved, by an arrangement which he made with the corporation of Yale College, in the month of December 1831, and by which he bestowed upon this institution his unsold paintings, in exchange for an annuity of \$1000 for the remainder of his life. These paintings are deposited for exhibition in the "Trumbull Gallery," in New Haven: the most remarkable among them are "The Battle of Bunker's Hill;" "The Death of General Montgomery at Quebec;" "The Declaration of Independence;" "The Battle of Trenton;" "The Battle of Princeton;" "The Surrender of General Burgoyne;" "The Surrender of Lord Cornwallis;" "Washington resigning his commission;" "Our Saviour with little children;" "The woman accused of adultery;" "Peter the Great at Narva;" &c.—Colonel Trumbull, during the latter years of his life, resided at New Haven. His death took place in the city of New York, on the 10th of November 1843, in the 68th year of his age.

**TÜBINGEN.\*** The university of this town has continued to flourish. It was attended, in 1835, by 734 students; of whom 289 studied theology, 82 law, 166 medicine and surgery, and 181 attended lectures in the faculty of philosophy. The number of students was stated to amount, in 1841, to 740. The university library contains 140,000 volumes, and a large annual appropriation is made for its increase.

**TUNNEL;** a passage constructed under ground. Some tunnels are cut through hills to continue the lines of canals; and others are formed on the lines of railroad, where steep hills render them necessary. The most extraordinary undertaking of the kind, however, which has hitherto been executed, is the tunnel under the bed of the Thames, from Rotherhithe to Wapping. The engineer, Mr. Brunel, proposed the plan of it in 1823; the act of parliament authorizing its construction was obtained in June 1824; and shortly afterwards the work was begun at Rotherhithe. The excavation is 88 feet in breadth, and 22½ feet in height, presenting a sectional area of 850 feet; and the base, at the deepest part of the river, is 76 feet below high-water mark. The body of the tunnel is of brickwork, in Roman cement. Its entire length is 1300 feet; and the expense is said to have been £1200 per yard.

**TURKEY.\*** In the article *Ottoman Em-*

pire, in a previous volume, a sketch was given of the history of Turkey down to the treaty of Adrianople, in September 1829. By the terms of it, the sultan, Mahmoud II., besides formally acknowledging the independence of the Greeks, recognised the protectorship of Russia over the principalities of Moldavia and Wallachia; and he also ceded to his powerful northern neighbour a district of Asiatic Turkey, at the eastern extremity of the Black Sea. But the results of the treaty were, in fact, far more important than those which appeared on the face of it; for the influence of the Russian counsels in the affairs of the Porte became thenceforth almost unlimited. On the return of peace, Mahmoud lost no time in resuming his schemes of civil and military reform; and thus rendered his government to such a degree unpopular that insurrections broke out against his authority in different parts of his empire, in Albania, in Bosnia, at Bagdad, and elsewhere. It required nearly two years to reduce the rebels to subjection. Scarcely, too, had this been accomplished, when the sultan became involved in a conflict with the pacha or viceroy of Egypt, Mehemed Ali, which speedily threatened his entire overthrow,—a result that was, not improbably, only prevented by the intervention of the great European powers, and especially of Russia. The demands made on Mehemed Ali for arrears of tribute were refused, on the ground of the extraordinary expenses incurred by him in the equipment and support of the Egyptian force under his son Ibrahim, in the Morea, during the Greek war. On the other hand, the Porte declined to comply with the request of Mehemed Ali to be permitted to fight out his own quarrel with the pacha of Acre, without interference from Constantinople. The irritation between the parties in question now became extreme; and the viceroy did not hesitate to attempt the accomplishment of his designs, in despite of the opposition to them which he had met with. An Egyptian army, commanded by Ibrahim, invaded Syria.—Having besieged and taken Acre, Ibrahim advanced, by Damascus, upon Aleppo, defeating, on his way to the latter city, a body of 25,000 Turks. The campaign was terminated by the total defeat of the Turkish army in the battle of Konieh, on the 21st of December (1832). Then followed the convention of Kutaieh, and the cession, by the Porte, to Mehemed Ali, of the whole of Syria, together with the district of Adana. As a reward to Russia for its prompt and effective intervention for the protection of Constantinople

(a Russian squadron having entered the Bosphorus, and a Russian military force having been landed at Bujukdere for this purpose), that power acquired, by means of a secret treaty concluded on the 8th of July 1833, at Unkiar Skelessi, the privilege, for her vessels, of passing through the straits dividing Europe from Asia; and the Porte engaged, besides, to keep these straits closed against every nation that should become engaged in a war with Russia.—Hostilities between the Porte and the viceroy of Egypt were renewed in 1839; and a decisive battle was fought on the 23d of June of that year, at Nezib, not far from the city of Aleppo. Ibrahim inflicted another severe defeat on the Turkish arms. This event was followed, on the 1st of July, by the death of Mahmoud II., and the accession to the throne of his eldest son, Abdul Medjid, a youth of only 16 years of age. And a fortnight afterwards, another terrible blow was given to the Turkish power by the desertion of the Capudan pacha, who went over to Mehemed Ali, with the fleet under his command.—The five great powers now again proposed to mediate between the contending parties, and to constrain them to conclude a peace, on such terms as those powers should dictate. But the mediators very soon disagreed among themselves; France evincing a disposition to espouse the interests of the Egyptian viceroy, to an extent altogether at variance with the views of either Russia, Prussia, Austria, or Great Britain. A treaty was, in consequence, signed at London, on the 15th of July 1840, by the representatives of these powers only, by which it was determined that the whole of Syria should be ceded back to the Porte, and that Mehemed Ali should thenceforth be obliged to content himself with ruling over Egypt. At this proceeding, great umbrage was taken by France; and vast preparations were made in that country in anticipation of a European war. But the promptitude with which the allies of Turkey, as the parties to the "treaty of July" may be called, acted, and especially Great Britain, brought matters to an issue, before the French ministry, then presided over by M. Thiers, could take any effectual step to furnish assistance to Mehemed Ali. A British and Austrian naval armament appeared on the coast of Syria, which, cooperating with a Turkish land force, in a very short time compelled the troops of the viceroy to evacuate Syria, and retire into the pachalic of Egypt, as well as exacted from him a restitution of the Turkish fleet, which had been delivered up to



him by the Capudan Pacha. The Porte retained permanent possession of Syria; but was induced, in January 1841, by the urgent requests preferred to it by the French ambassador at Constantinople, to concede to Mehemed Ali the hereditary government of Egypt. Harmony was, also, completely restored between France and the other great powers, by a treaty concluded at London, July 13th 1841, which once more excluded foreign vessels of war of all descriptions, Russian as well as of every other nation, from the Darda-

nelles. Since then, the external relations of Turkey have continued undisturbed.—Not so, however, the internal condition of the country. The attempts, of late repeatedly made at innovation or improvement on the ancient usages of the Turks, have hitherto borne comparatively little fruit; while, by rendering them dissatisfied, and diminishing their reverence for their rulers, those attempts have contributed not a little to the disorder, and even anarchy, exhibited in many of the provinces of the empire.

U.

UHLAND\* published, in 1822, an account of the Minnesinger, Walther von der Vogelweide; in 1836, an essay on "the Scandinavian myth of Thor;" and, since then, his "Researches concerning Poetical Traditions."

UNITED KINGDOM OF GREAT BRITAIN AND IRELAND. According to the census of 1841, the population of Great Britain and Ireland, including the army and navy, was as follows:—

|                                  |            |
|----------------------------------|------------|
| England.....                     | 14,995,138 |
| Wales.....                       | 911,603    |
| Scotland.....                    | 2,620,184  |
| Ireland.....                     | 8,175,124  |
| Army, Navy, &c.....              | 193,469    |
| Islands in the British Seas..... | 124,040    |

Total, 27,019,558

The increase of the population in the 10 years from 1831 to 1841, was:—

|              |           |
|--------------|-----------|
| England..... | 1,904,133 |
| Wales.....   | 105,421   |

|                                  |         |
|----------------------------------|---------|
| Scotland.....                    | 255,076 |
| Ireland.....                     | 467,723 |
| Islands in the British Seas..... | 20,330  |

Total, 2,692,677

The army, navy, &c., was, in the same time, diminished from 277,017 to the number stated above. Deducting therefore the amount of this diminution from the preceding 2,692,677, the actual increase of population from 1831 to 1841 will be found to have been 2,609,129.

The emigration in the same period, from England and Wales, is stated to have amounted to 429,775. The number of emigrants from Ireland to the British colonies and the United States was 453,459, and to Great Britain 104,814.

The following is a statement of the number of emigrants that left the United Kingdom of Great Britain and Ireland during each of the 20 years ending with 1844, and also of their destination.

| Years.    | N. American colonies. |         | United States. |        | Australian colonies and New Zealand. |       | All other places. |  | Total. |
|-----------|-----------------------|---------|----------------|--------|--------------------------------------|-------|-------------------|--|--------|
|           | Emig.                 | Emig.   | Emig.          | Emig.  | Emig.                                | Emig. | Emig.             |  |        |
| 1825..... | 8,741                 | 5,351   | 485            | 114    | 14,891                               |       |                   |  |        |
| 1826..... | 12,818                | 7,063   | 903            | 116    | 20,900                               |       |                   |  |        |
| 1827..... | 12,648                | 14,526  | 715            | 114    | 28,003                               |       |                   |  |        |
| 1828..... | 13,084                | 19,817  | 1,056          | 135    | 26,092                               |       |                   |  |        |
| 1829..... | 13,307                | 15,678  | 2,016          | 197    | 31,198                               |       |                   |  |        |
| 1830..... | 30,574                | 24,887  | 1,212          | 204    | 56,907                               |       |                   |  |        |
| 1831..... | 58,067                | 23,418  | 1,561          | 114    | 83,160                               |       |                   |  |        |
| 1832..... | 66,339                | 32,872  | 3,733          | 196    | 103,140                              |       |                   |  |        |
| 1833..... | 28,808                | 20,109  | 4,093          | 517    | 63,527                               |       |                   |  |        |
| 1834..... | 46,000                | 33,074  | 2,800          | 298    | 76,262                               |       |                   |  |        |
| 1835..... | 15,573                | 26,720  | 1,860          | 325    | 44,478                               |       |                   |  |        |
| 1836..... | 34,226                | 37,774  | 3,124          | 293    | 75,417                               |       |                   |  |        |
| 1837..... | 29,884                | 36,770  | 5,054          | 326    | 72,034                               |       |                   |  |        |
| 1838..... | 4,577                 | 14,332  | 14,021         | 292    | 31,922                               |       |                   |  |        |
| 1839..... | 12,658                | 33,536  | 15,786         | 227    | 62,207                               |       |                   |  |        |
| 1840..... | 32,293                | 40,642  | 12,850         | 1,958  | 90,743                               |       |                   |  |        |
| 1841..... | 28,164                | 45,017  | 32,625         | 2,786  | 118,592                              |       |                   |  |        |
| 1842..... | 54,123                | 63,852  | 8,534          | 1,635  | 126,344                              |       |                   |  |        |
| 1843..... | 23,518                | 28,335  | 3,478          | 1,261  | 57,212                               |       |                   |  |        |
| 1844..... | 22,924                | 43,680  | 2,229          | 1,873  | 70,686                               |       |                   |  |        |
| Total,    | 551,386               | 569,833 | 121,165        | 12,791 | 1,255,975                            |       |                   |  |        |

This result gives an average annual emigration of 62,799.

In 1841, the principal towns of England and Wales, with the number of their inhabitants, were,

|                                        |           |
|----------------------------------------|-----------|
| London.....                            | 1,873,676 |
| Manchester (with Salford).....         | 296,183   |
| Liverpool.....                         | 286,487   |
| Birmingham.....                        | 182,922   |
| Leeds.....                             | 152,054   |
| Bristol.....                           | 123,246   |
| Plymouth, Devonport, and Stonehouse .. | 80,050    |
| Sheffield.....                         | 68,186    |
| Rochdale.....                          | 67,869    |
| Norwich.....                           | 62,344    |
| Nottingham.....                        | 53,091    |
| Portsmouth.....                        | 53,033    |
| Preston.....                           | 50,131    |
| Newcastle on Tyne.....                 | 49,860    |
| Leicester.....                         | 46,167    |
| Brighton.....                          | 46,661    |
| Stoke upon Trent.....                  | 46,342    |
| Ashton under Lyne.....                 | 46,304    |
| Oldham.....                            | 42,595    |

|                    |        |
|--------------------|--------|
| Hull.....          | 41,689 |
| Bath.....          | 38,304 |
| Blackburn.....     | 36,029 |
| Wolverhampton..... | 36,382 |
| Merthyr Tydwi..... | 34,977 |

The principal towns of Scotland, with the number of inhabitants, were,

|                |         |
|----------------|---------|
| Glasgow.....   | 274,533 |
| Edinburgh..... | 138,113 |
| Aberdeen.....  | 63,288  |
| Dundee.....    | 62,794  |
| Paisley.....   | 60,487  |
| Gretnock.....  | 36,136  |

Those of Ireland, with the number of their inhabitants, were,

|               |         |
|---------------|---------|
| Dublin.....   | 228,695 |
| Cork.....     | 80,720  |
| Belfast.....  | 63,623  |
| Limerick..... | 48,391  |

The total annual value of the agricultural produce of Great Britain and Ireland has been lately estimated at—

|                                   | England and Wales.  | Scotland.          | Ireland.           |
|-----------------------------------|---------------------|--------------------|--------------------|
| Crops and gardens.....            | £33,656,071         | £30,327,144        | £34,038,323        |
| Pasture and wood-land.....        | 27,750,000          | 7,500,000          | 20,000,000         |
| Uncultivated land and wastes..... | 2,000,000           | 1,000,000          | 1,500,000          |
| <b>Total,</b>                     | <b>£143,406,071</b> | <b>£38,827,144</b> | <b>£55,538,323</b> |

These three results being added together, we shall have for the aggregate annual agricultural produce of the United Kingdom £227,771,548.—The chief mineral products of Great Britain are coal, iron, lead, copper, tin, salt, &c. The total produce of coal, in 1845, was estimated to be 34,000,000 tons; and supposing this quantity to cost the consumer 10s. a ton at an average, it will cost in all £17,000,000. The Tyne and Wear districts, in Northumberland, supply above 1-5th of the whole quantity produced. Iron ranks next in importance to coal; the produce of it in England and Wales is not under 1,200,000 tons a year, worth on an average about £6,000,000; and adding to this £2,600,000 for the labour required to convert the pig iron into bar iron, the total value of the iron produced in England and Wales will amount to £8,600,000 a year. About 255,000 tons are exported; and about 20,000 tons a year of foreign iron, principally Swedish, is imported for conversion into steel, for which purpose it is better fitted than British iron. The most productive lead mines in England are in the northern counties: their total produce is estimated at about 50,000 tons, of which from 10,000 to 15,000 tons are exported. Salt is procured in immense quantities from both fossil beds and brine springs, in Cheshire and Worcestershire. The consumption of Great Britain only, exclusive of Ireland, amounts to about 1,800,000 tons, and the foreign exports to about 300,000 tons a year, mostly sent to the United

States, British N. America, the Netherlands, Russia, Denmark, &c. The total value of the mineral produce of Great Britain falls probably little short, if at all, of £27,000,000.—In the 2d edition (published during the present year) of his Geographical Dictionary, Mr. M'Culloch gives the following estimates, as mere approximations, of the gross annual produce of some of the most important articles of manufacturing industry; though he is disposed to think that "in most cases they come pretty near the mark."

|                             |             |
|-----------------------------|-------------|
| Cotton.....                 | £35,000,000 |
| Woollen.....                | 24,000,000  |
| Iron and hardware.....      | 20,000,000  |
| Watches, Jewellery, &c..... | 3,000,000   |
| Leather.....                | 13,500,000  |
| Linens.....                 | 8,000,000   |
| Silk.....                   | 10,000,000  |
| Glass and earthenware.....  | 4,250,000   |
| Paper.....                  | 2,000,000   |
| Hats.....                   | 2,400,000   |

The value of the enumerated articles amounts to a gross sum of £121,750,000. But exclusive of these, there are other branches of manufacturing industry of great value and importance; such, for example, as the manufacture of spirits and beer, cabinet-makers' goods, ship-building, &c.

The official and declared value of the exports of British and Irish produce and manufactures, the official value of the exports of foreign and colonial merchandise from Great Britain, and the official value of imports into the same, for the years 1843, 1844, and 1845, were as follows:—

| Years ending Jan. 6th. | Value of Imports at the official valuation. | Value of Exports at official valuation. |                                                        |
|------------------------|---------------------------------------------|-----------------------------------------|--------------------------------------------------------|
|                        |                                             | Domestic produce and manufactures.      | Foreign and colonial merchandise.                      |
| 1843                   | 63,569,060                                  | 99,911,012                              | 13,577,000                                             |
| 1844                   | 68,483,089                                  | 117,374,563                             | 13,947,513                                             |
| 1845                   | 73,547,786                                  | 131,336,347                             | 14,367,518                                             |
|                        |                                             | Total Exports.                          | Dom. Prod. and Manuf. exported, and to declared value. |
|                        |                                             | 113,468,012                             | 47,012,651                                             |
|                        |                                             | 131,339,076                             | 51,933,956                                             |
|                        |                                             | 145,725,666                             | 58,316,319                                             |

In 1848, the number of merchant vessels belonging to the British empire was 30,963, in burden 3,568,367 tons, and navigated by 213,977 men; and there were, besides, 942 steamers, in burden 121,455 tons. The following table exhibits the number and tonnage of vessels employed in the foreign trade of the United Kingdom, in the year 1844, distinguishing the countries to which they belonged, which entered inwards, and cleared outwards, exclusive of vessels in ballast.

| Countries to which the Vessels belonged.      | Entered inwards. |           | Cleared outwards. |           |
|-----------------------------------------------|------------------|-----------|-------------------|-----------|
|                                               | Ships.           | Tonnage.  | Ships.            | Tonnage.  |
| United Kingdom and its Dependencies.....      | 14,681           | 3,067,437 | 13,842            | 2,604,943 |
| Russia.....                                   | 190              | 53,279    | 136               | 37,421    |
| Sweden.....                                   | 267              | 35,346    | 237               | 33,930    |
| Norway.....                                   | 671              | 147,959   | 766               | 45,949    |
| Denmark.....                                  | 1,539            | 115,967   | 1,527             | 115,307   |
| Prussia.....                                  | 1,104            | 307,490   | 681               | 145,735   |
| Other German States.....                      | 1,003            | 85,535    | 1,132             | 107,264   |
| Holland.....                                  | 565              | 46,169    | 641               | 39,319    |
| Belgium.....                                  | 280              | 41,479    | 350               | 51,865    |
| France.....                                   | 631              | 34,570    | 1,206             | 102,337   |
| Spain.....                                    | 75               | 9,722     | 97                | 13,069    |
| Portugal.....                                 | 31               | 3,105     | 27                | 2,698     |
| Italian States.....                           | 56               | 14,394    | 63                | 17,115    |
| Other European States.....                    | 1                | 196       | —                 | —         |
| United States of America.....                 | 600              | 348,548   | 572               | 342,254   |
| Other States in America, Africa, or Asia..... | 6                | 865       | 4                 | 665       |
| Total.....                                    | 21,990           | 4,231,334 | 21,042            | 3,680,066 |

Ship-building is principally carried on at the ports of London, Sunderland, Newcastle, Hull, Liverpool, &c. The cost, including outfit of the new ships annually sent to sea, is estimated at from £10 to £12 a ton.

The charter of the "Bank of England" was renewed by an act of Parliament, passed August 29th 1833, of which the following are some of the most important provisions:—No company of more than 6 persons are to issue notes payable on demand within London, or 65 miles thereof: banks beyond that limit may issue bills and notes payable on demand, or otherwise, at the place where these shall be issued, and also in London; but no such bill or note shall be under £5, the amount to which the notes of the Bank of England is itself restricted, or shall be re-issued in London, or within 65 miles of it.—Any company of more than 6 persons may carry on banking in London, or within 65 miles of it, provided it do not issue its bills or notes payable on demand, or at any less time than 6 months.—All notes of the Bank of England payable on demand, which shall be issued out of London, shall be payable at the place where issued.—The exclusive privileges of the bank may be terminated upon a year's notice, given within six months after August 1st 1845, and upon repayment to it of the debt which may be due to it by the public.

—Bank of England notes are a legal tender (except with respect to the bank itself), so long as the bank shall pay such notes in coin.—Bills not having more than 3 months to run are not subject to the usury laws. (This period has since, by temporary acts, been extended to 12 months.)—Accounts of bullion, and of notes in circulation, are to be sent weekly to the Chancellor of the Exchequer; and an average state of the bank accounts of the preceding 3 months shall be published every month in the London Gazette.—The public are to repay to the bank one-fourth part of the debt due to it of £14,686,800.—If the proprietors shall so determine, the capital stock of the bank shall be reduced from £14,553,000 to £10,914,750, and the difference shall be divided amongst them on October 5th 1834. (The proprietors, however, have not availed themselves of this privilege.) And at any time, upon 12 months' notice, to be given after August 1st 1855, and upon repayment of the public debt, the exclusive privileges of banking, conferred by the act, shall cease and determine.—The real capital of the bank, it should be stated, exceeds the sum of £14,553,000, above mentioned, by £2,944,000, the amount of the undivided profits, or rest, on the 31st of March 1840, making its total amount £17,497,000. This permanent capital, or stock, is

exempted from taxes, accounted personal estate, assignable by unstamped transfer, and not subject to forfeiture, or liable to be taken in execution. The *disposable* capital, under the management of the directors, consists of the amount raised by the issue of notes, that held by depositors from government and private parties, and, lastly, undivided profits. The whole is generally about £30,000,000, of which part is vested in coin and bullion, but a larger part in securities producing interest—such as exchequer bills and mercantile acceptances. The bank is prohibited from engaging in any commercial undertaking other than the legitimate operations connected with banking, such as the buying and selling of coin or bullion, and bills of exchange. But being authorized, like the banks of Amsterdam and Hamburg, to make advances on the security of merchandises lodged with it, or pledged to it by written documents, a power is given to sell the same for their reimbursement.—The amount of the sums deposited with the bank by private parties has, of late years, fluctuated from about 4 to about 8 millions of pounds sterling. That they do not amount to more, arises from the fact that the bank directors do not give the same facilities to their customers as is received from private bankers. At present, the public deposits fluctuate, commonly, between 3 and 4 millions. Since the peace, the average amount of discounts has seldom exceeded 3 millions, in consequence of the abundance of money possessed by private bankers, and their charge being ordinarily lower than that of the Bank of England, which is therefore chiefly resorted to for discounts during periods of commercial embarrassment. Since the 5th of April 1829, no bank in England can issue any note under £5. The paper circulated by the Bank of England, at present, consists of notes of £5 and upwards, and of blank post-bills, drawn commonly at seven days' sight. The amount of the whole is generally about £18,000,000.—There are at present 54 private banking-houses in London. Their business chiefly consists in acting as depositaries of money, discounting bills, and officiating as agents of banks out of London; but, on the other hand, they charge no commission for paying the drafts of those who keep accounts, or for the trouble of presenting their checks and bills for payment. They not only discount the bills held by their customers, but aid them by temporary loans, with or without security, according to circumstances. The *clearing-house* was insti-

tuted by the London bankers, about the year 1775, in order to save the time, risk, and inconvenience of sending round to each other for payment of the numerous checks which they daily receive from their customers. Here, once every day, and latterly twice, clerks from every banking-house in the metropolis, assemble and exchange with each other their respective checks, and pay or receive the balances due. The advantages to the several parties concerned in this operation are so obvious, that it is not surprising the institution of the clearing-house should have become entwined with the general commerce of the country. The stock-brokers, for instance, now settle all their receipts and payments by checks to be paid through the clearing-house; the checks which a broker draws on his banker being paid by the checks of other brokers, which he lodges to his credit.—Of late years, several extensive joint-stock banks have been established in the capital, which conduct their business, in some respects, differently from the private bankers, particularly in reference to deposits, on which they allow interest, charging, likewise, a commission on the drawing of accounts, instead of requiring a balance. They are viewed with jealousy by the Bank of England as well as the private bankers, by whom they are excluded from the clearing-house; but being powerfully supported, they have been enabled successfully to meet this opposition; and it is considered probable that their number will increase.—In 1826, the government became convinced of the defective constitution of the English provincial banks, especially of the restriction of the number of the partners concerned in them to 6, and set itself seriously about reforming the existing system. The details of the changes which it was thought expedient to introduce, must necessarily be here omitted; and we can only state the leading enactments concerning them, to wit: that “copartnerships, or societies, though consisting of more than 6 persons, may be bankers in England, and may issue notes, provided such copartnerships shall have the whole of their banking establishments beyond 65 miles from London, and that all the partners are liable for the whole debts of the bank, and that a return be made to the stamp-office, before commencing business, and between the 28th of February and 25th of March, annually, of the name of their firm, of the names and places of abode of all their partners, of the places where the banks are established, and of two or more of their num-

ber who shall have been appointed public officers, which returns shall be open for the inspection of the public on payment of one shilling for every search," and that "special returns must be made of any additional public officers, of all retiring and newly-appointed partners, and of any new agencies." By a subsequent act, in 1833, the provincial banks were allowed to tender Bank of England notes, instead of gold, in exchange for their notes.—The *Scottish banks* have mostly numerous bodies of partners, as the act of 1708, limiting the number in English banks to 6, did not extend to Scotland. Five of them possess charters, which, however, confer upon them no privileges, in regard either to the issue of notes or any other department of business. The charters of the three oldest are by some said to restrict the liability of the partners to the amount of their shares; but however this may be, no doubt is entertained that the responsibility of the partners of all the others extends to the full amount of their property, both real and personal; this circumstance has contributed powerfully to the solidity of the Scottish banks. When Parliament, in 1826, prohibited one pound notes in England, a similar attempt was made in regard to North Britain; but a committee being called for by the Scottish members, the result was a determination not to interfere with the existing system. The principal parts of this system are the following: Deposits are received of sums from £10 upwards, which are repaid on demand, with interest at a rate varying from 2 to 3 per cent. They are composed, in nearly equal portions, of *deposit receipts*, granted for money allowed to lie for considerable periods, and of *deposit accounts*, or drawing accounts, which are balanced yearly. The banks make no charge for keeping these accounts, but are supposed to be remunerated by the note-circulation connected with the operations upon them. No overdrafts are allowed as in England.—*Cash-credit accounts* form a characteristic feature in the Scottish system. The sureties, commonly two in number, are bound jointly and individually with the principal, for the balance which shall ultimately arise, including all his liabilities to the amount of the bond. These credits are also granted on the security of real property, and occasionally, under certain restrictions, of the bank-stock. The interest charged on the current balances is commonly the same as the market rate of discount on bills; but no commission is

ever charged, the banks looking, as in the case of deposit, to the note-circulation arising out of the operations on the accounts, as their remuneration for the trouble of keeping them.—Bills are discounted at a rate varying, in general, from 4 to 5 per cent.; and comparatively few of them are made payable in London, as is the practice in England.—The notes issued at present are for sums of £1, £5, £10, £20, and £100. They are convertible into gold, or notes of the Bank of England. The average circulation is nearly £3,250,000, about one-half of which consists of £1 notes.—The Scottish banks also negotiate bills on all parts of the United Kingdom, and on many places abroad; buy and sell for their customers stock in the public funds, draw the dividends thereon, and facilitate remittances from one part of the kingdom to another, as well as to many other countries.—An organized system of exchanges has long been rigorously acted upon by the whole of the Scottish banks, under which all their mutual claims, arising out of the possession of notes, drafts, or checks, are settled at short intervals. The practical operation of this system is to drive from the field any establishment extending its business in a manner disproportionate to its resources; and it thus contributes powerfully, in connexion with the personal liabilities of numerous bodies of partners, and large paid up capitals, to the security of the whole. In a few instances only, accordingly, have heavy losses been sustained by the partners; but the only banks of issue by which the public have suffered losses, since the introduction of banking into Scotland, in 1695, are the Stirling Merchant, and Falkirk Union Banks, two small concerns, the aggregate amount of whose deficiencies did not exceed £36,344.—The *Bank of Ireland*, and all the joint-stock banks in Ireland, excepting the Hibernian and Royal banks, issue notes for £1 and upwards; and their total circulation, according to the Bank Report for 1840, fluctuates from about £5,500,000 to £6,500,000. The three banks which have been mentioned receive deposits and discount bills; but the first does not allow interest, and not one of them grants cash credits. The other joint-stock banks conduct business on the Scottish system, or a modification of it.

The amount raised by taxation, and appropriated to the use of the government, was in 1845 about £59,500,000; about 2-3ds of which were derived from the cus-

tons, and the rest from the property and income tax, the duties on stamps, the assessed taxes, and the post-office.—Of the total expenditure of the kingdom during the year 1844, amounting to £50,647,648, no less than £30,495,459 were required to defray the interest and expense of managing the national debt. This amounted, on the 5th of January 1845, to the enormous sum of £794,196,643.

The British army consisted, in the beginning of 1845, exclusive of the ordnance, of 114,116 men, distributed as follows:—Great Britain 30,850; Ireland 18,368; abroad (not in India) 38,783; and India 26,116.—The British navy consisted in 1835 of 1 first rate ship, 3 second rates, 5 third rates, 8 fourth rates, 6 fifth rates, 13 sixth rates, and 136 small vessels, in commission,—and of 14 first rates, 16

second rates, 50 third rates, 14 fourth rates, 75 fifth rates, 13 sixth rates, and 89 small vessels, in ordinary. In the same year, the number of men employed was 17,500 seamen, and 9000 marines. And in 1845, the seamen and marines were respectively 29,500 and 10,500.

Among the improvements which have of late years been introduced into Great Britain, there is none which is calculated to promote in a greater degree the material interests of the people than the increased facility and rapidity of communication between the different parts of the kingdom, in consequence of the construction of numerous roads, canals, and especially railways. The following is a statement of the length in miles, cost, revenue, and annual expenditure of some of the principal British railways, in 1842.

| Railways.                   | Miles in length. | Cost per mile. | Total Cost. | Revenue for 1842. | Expenditure. |
|-----------------------------|------------------|----------------|-------------|-------------------|--------------|
|                             |                  | £              | £           | £                 | £            |
| London and Birmingham       | 112½             | 52,760         | 5,993,000   | 809,500           | 272,300      |
| Great Western               | 118½             | 45,330         | 6,540,800   | 670,900           | 277,100      |
| South Western               | 92½              | 27,750         | 2,581,000   | 314,800           | 141,000      |
| Grand Junction              | 83½              |                |             |                   |              |
| Chester and Crewe           | 18               | 23,740         | 2,319,000   | 413,900           | 162,500      |
| Liverpool and Manchester    | 304              | 49,280         | 1,315,000   | 232,700           | 110,600      |
| London and Brighton         | 40½              | 64,370         | 2,608,000   | 108,500           | 77,400       |
| Manchester and Leeds        | 51               | 39,800         | 3,050,000   | 298,800           | 101,400      |
| North Midland               | 79½              | 45,700         | 3,332,000   | 216,500           | 90,800       |
| Midland Counties            | 57               | 39,700         | 1,998,000   | 138,500           | 76,000       |
| Edinburgh and Glasgow       | 46               | 34,630         | 1,513,000   | 93,700            | 20,300       |
| Glasgow and Ayr             | 40               | 24,780         | 989,000     | 56,700            | 25,400       |
| North Union                 | 29               | 27,680         | 612,600     | 65,800            | 21,400       |
| Stockton and Darlington     | 25               | 22,400         | 560,000     | 65,400            | 25,000       |
| Stockton and Hartlepool     | 15               | 22,000         | 330,000     | 67,000            | 27,300       |
| York and North Midland      | 27               | 24,100         | 651,000     | 85,900            | 32,700       |
| Newcastle and Carlisle      | 60½              | 17,400         | 1,068,000   | 77,600            | 30,400       |
| Dublin and Kingstown        | 6                | 56,660         | 340,000     | 49,400            | 30,500       |
| Ulster                      | 25               | 13,800         | 345,000     | 21,100            | 10,200       |
| Branding Junction           | 25               | 17,400         | 435,000     | 40,400            | 18,300       |
| Chester and Birkenhead      | 14½              | 37,480         | 538,000     | 39,000            | 15,300       |
| Newcastle and North Shields | 7                | 34,550         | 242,000     | 20,500            | 8,400        |
| Banvier and Arbroath        | 162              | 8,600          | 1,440,000   | 13,100            | 4,900        |
| Sheffield and Rotherham     | 7½               | 9,470          | 71,000      | 18,700            | 10,900       |
|                             | 1,014            |                | 37,376,000  | 3,201,600         | 1,530,600    |

A duty is paid to the government, by the railway companies, of 5 per cent. of all the sums received by them for the conveyance of passengers. In 1842, this duty produced about £166,000; but about £140,000 was repaid by the government to the different railway companies for the conveyance of the mails. When the post-office and a railway company differ as to the sum to be paid to the latter for conveying the mail, the matter is referred to arbitration.

—To the information which has been given, concerning the “British railways in 1842, and which is derived from the last edition of Mr. McCulloch’s Commercial Dictionary, we add the following statements from the “Companion to the (British) Almanac” for 1844, 1845, and 1846: From that for 1844:—Lines completed since the appearance of our last volume, the first and third of which were partially opened before that time:—

|                                                              | Total length. |        | Opened since Nov. 1, 1842. |
|--------------------------------------------------------------|---------------|--------|----------------------------|
|                                                              | Miles.        | Miles. |                            |
| Eastern Counties                                             | 51½           | 33½    |                            |
| Kilmarnock Branch of the Glasgow, Paisley, and Ayr Railway   | 11            | 11     |                            |
| Bolton and Preston                                           | 14½           | 5      |                            |
| Hartford and Waze Branch of the Northern and Eastern Railway | 6½            | 5½     |                            |

Lines partially opened before, and farther so since November 1, 1842:—

|                               | Total length. |  | Length open. |  | Opened since Nov. 1, 1842. |  |
|-------------------------------|---------------|--|--------------|--|----------------------------|--|
|                               | Miles.        |  | Miles.       |  | Miles.                     |  |
| Sheffield and Manchester..... | 40            |  | 11           |  | 4                          |  |
| Bristol and Exeter.....       | 75½           |  | 53½          |  | 8½                         |  |
| Maryport and Carlisle.....    | 23            |  | 30           |  | 11½                        |  |
| South-Eastern (Dover).....    | 86            |  | 61           |  | 36                         |  |
|                               |               |  |              |  | 50                         |  |

From the "Companion to the Almanac" for 1845:—The railways which have been completed since the publication of our last volume are as follow:—

|                               | Total length. |  | Opened 1844. |  |
|-------------------------------|---------------|--|--------------|--|
|                               | Miles.        |  | Miles.       |  |
| Manchester Junction.....      | 2½            |  | 2½           |  |
| South-Eastern (Dover).....    | 67            |  | 6            |  |
| Dalkey Extension.....         | 1½            |  | 1½           |  |
| Yarmouth and Norwich.....     | 30½           |  | 30½          |  |
| Bristol and Exeter.....       | 75½           |  | 53½          |  |
| Bricklayer's Arms Branch..... | 1½            |  | 1½           |  |
| Dublin and Drogheda.....      | 32            |  | 32           |  |
| West London.....              | 3             |  | 3            |  |
| Oxford Branch.....            | 9½            |  | 9½           |  |
| Newcastle and Darlington..... | 52½           |  | 52½          |  |
| Halifax Branch.....           | 1½            |  | 1½           |  |
| Bristol and Gloucester.....   | 37½           |  | 37½          |  |
| Maldstone Branch.....         | 10            |  | 10           |  |
|                               |               |  | 173½         |  |

The Sheffield and Manchester Railway was, also, opened in August 1844, for a further distance of about 7 miles, from Dinting to Woodhead; making, with the previous partial openings, a length of about 18 miles. This raises the total length of new railway opened during the year to 180 miles.

From the "Companion to the Almanac" for 1846.—The railway openings during the past year, arranged in chronological order, were as follow:—

|                                                     | Total length. |  | Opened since Nov. 1, 1844. |  |
|-----------------------------------------------------|---------------|--|----------------------------|--|
|                                                     | Miles.        |  | Miles.                     |  |
| Warwick and Leamington Branch.....                  | 8½            |  | 8½                         |  |
| GraveSEND and Rochester.....                        | 7             |  | 7                          |  |
| Maryport and Carlisle.....                          | 23            |  | 8                          |  |
| Cheltenham and Great Western.....                   | 48            |  | 23                         |  |
| Northampton and Peterborough Branch.....            | 47½           |  | 47½                        |  |
| York and Scarborough.....                           | 43            |  | 43                         |  |
| Sheffield and Manchester.....                       | 40            |  | 18                         |  |
| Eastern Counties: Extension to Ely and Brandon..... |               |  | 58                         |  |
| Norfolk: Norwich and Brandon Line.....              |               |  | 36½                        |  |
| Tunbridge and Wells Branch.....                     | 4½            |  | 4½                         |  |
|                                                     |               |  | 341½                       |  |

In the article Great Britain, in a previous volume of the present work, the historical notice given was brought down to the fall of the Wellington ministry, in November 1830; and some account will be found under the head of Parliamentary Reform, in the appendix in the 13th volume, of the different steps which resulted in the passage of the Reform Bill, in the

month of May 1832. It is proposed to add, in this place, a succinct account of the most remarkable events which have since occurred in the history of the British empire.—The first session of the reformed parliament was opened on the 29th of January 1833, and was brought to a close on the 29th of the following August. Among the most important of its acts was the statute relative to the temporalities of the Irish church, by which the number and revenues of the bishops were reduced, and the clergy generally were placed, in respect of their incomes, altogether out of the way of collision with the mass of the population. Acts were also passed for the reform of grand and petty juries in Ireland, the former exercising far greater powers there than in England. Another act was that known as the "Irish coercion act," empowering the lord-lieutenant of Ireland to prohibit public meetings considered dangerous, subjecting the inhabitants of proclaimed districts to martial law, prohibiting them from leaving their houses between sunset and sunrise, suspending the writ of habeas corpus, and authorizing domiciliary visits by magistrates; and this act was to continue in force until August 1st 1834. By two acts for reforming the election of magistrates and councils in the "royal and parliamentary burghs of Scotland," and a third for the improvement of the police of the burghs, a vast improvement was made in the municipal government of that portion of the United Kingdom. In this session of parliament, too, was passed the act for the abolition of slavery in the British West India colonies: all children under six years of age, or born after August 1st 1834, were declared free; all registered slaves above the age of six were to become, from the same date, apprenticed labourers, divided into two principal classes, prædial, or those employed in agriculture, and the non-prædial,—the apprenticeships of the former to expire August 1st 1838, and of the latter August 1st 1840. The sum of £20,000,000 was granted to the West India proprietors, with a view, by this means, of securing their co-operation, and that of the colonial legislatures, in the execution of the pro-

posed scheme. The charter of the East India Company was renewed for the term of 20 years, from April 30th 1834, under certain restrictions:—that the trade with China should be thrown open; that on the transfer by the Company to the crown of all their effects and claims, the latter would take upon itself the Company's obligations, and pay them a certain sum annually from the Indian revenue; and the political government of India was to be continued to the Company for 20 years, the Company abandoning their commercial pursuits. Parliament, also, in the same session, renewed the charter of the Bank of England, on conditions which have been already stated in a former part of the present article.—The second session of the reformed parliament was distinguished by the passage of the "poor law amendment act," and also by the proceedings relative to Ireland, which led to a change in the ministry. Mr. Stanley, Sir James Graham, the earl of Ripon, and the duke of Richmond, resigned their seats in the cabinet because they could not assent to a motion made by Mr. Ward, in the House of Commons, May 27th 1834, "that the temporal possessions of the church of Ireland, as now established by law, ought to be reduced," the surplus, beyond what was necessary for supplying the spiritual wants of the Protestant population, being intended to be applied to *lay* or ecclesiastical purposes, as Parliament might judge to be most expedient; nor could they assent to the project of a majority of their colleagues to issue a commission with instructions to inquire into the actual condition of the Irish church, both with regard to its ministers and members. The following appointments were then made:—colonial secretary, Mr. Spring Rice; first lord of the admiralty, lord Auckland; lord privy seal, earl of Carlisle; master of the mint, Mr. Abercrombie; postmaster-general, marquis of Conyngham; president of the board of trade, Mr. Poulet Thompson; secretary of the treasury, Mr. Francis Baring; and Mr. Ellice, the secretary at war, was introduced into the cabinet. But a still more important ministerial change was at hand. On the 1st of July, Earl Grey proposed in the House of Lords the renewal of the Irish Coercion Bill, with the exception of the court-martial clauses, which were omitted. In the mean time, however, it having become known that the lord-lieutenant of Ireland had advised the dispensing with the clauses in the bill against public meetings, and that there was a difference of opinion in

the cabinet on the necessity of their retention, Lord Althorp found himself, in consequence, unable to carry the measure through the commons, and for this reason thought proper to resign his office as a minister. Without the assistance of Lord Althorp, as the ministerial leader in the House of Commons, Earl Grey then considered himself unable to carry on the government, and in his turn resigned, on the 9th day of July.—Lord Melbourne now became first lord of the treasury and premier in place of Earl Grey, being succeeded in his post of home secretary by Lord Duncannon. The Irish Coercion Bill, in a mitigated form, was passed by the commons on the 26th, and by the lords on the 30th, of July; but, on the other hand, the latter, on the 1st of August, rejected the bill for the admission of dissenters into the universities, and on the 11th of this month the Irish Tithe Bill, on account of the "appropriation clause," or clause for appropriating the surplus ecclesiastical revenue to secular purposes. Parliament was prorogued on the 15th. Lord Althorp was removed to the House of Peers, by the death of his father, Earl Spencer, which took place on the 10th of November. The outcry which had been raised against the Whig ministers by their political adversaries, of endangering, by their measures and their alliance with the "radicals," the stability of the existing constitution in church and state, had meanwhile produced its effect on William IV., who thought the time had arrived to select a conservative ministry, whose duty it should be to arrest, or at least to moderate as far as might be possible, the spirit of farther change which so extensively pervaded the community. Accordingly, when Lord Melbourne waited on the king, on the 14th of November, to take his commands on the appointment of a chancellor of the exchequer and leader of the House of Commons, in the room of Lord Althorp, he informed that nobleman that he would not impose upon him the task of completing his ministerial arrangements, but would send for the Duke of Wellington. The latter, on being applied to, advised the king to place Sir Robert Peel at the head of the administration.—Sir Robert Peel, on receiving the royal summons, hastened back to England from Italy, where he then was, and set about the formation of a new ministry by making proposals to Lord Stanley and Sir James Graham; but both declined to pledge themselves to the extent they might be considered bound by accepting office. In consequence, the minister was left en-



tigely to his tory connexions who had opposed the reform bill, and now acted on conservative principles. The new cabinet consisted of Sir Robert Peel, First Lord of the Treasury; Lord Lyndhurst, Lord Chancellor; Earl of Rosslyn, President of the Council; Lord Wharnccliffe, Lord Privy Seal; Henry Goulburn, Home Secretary; Duke of Wellington, Foreign Secretary; Earl of Aberdeen, Colonial Secretary; Lord de Grey, First Lord of the Admiralty; Sir Henry Hardinge, Secretary for Ireland; Lord Ellenborough, President of the India Board; Alexander Baring, Master of the Mint, and President of the Board of Trade; Sir Edward Knatchbull, Paymaster of the Forces; Mr. Hertz, Secretary of War; and Sir George Murray, Master General of the Ordnance. A dissolution of parliament was the necessary consequence of the change of ministry. The results of the elections showed that this change had been premature, and that the electors still preferred the whig ministers to their tory adversaries. Indeed, the dismissal of the former seems, by reconciling in a measure the differences between the whigs and radicals, to have given them a firmer hold than before on public opinion. When parliament met, February 9th 1835, Mr. Abercromby was elected speaker of the House of Commons, by a majority of 10, out of 626 members, in opposition to the ministerial candidate, Sir C. M. Sutton. The supporters of Sir Robert Peel found themselves a second time in a minority on the question of the address; and the fall of the ministry was decided by the adoption by the House, by a vote of 265 to 258, on the 7th of April, of a resolution approbatory in the strongest terms of the appropriation of any surplus, that might remain: "after fully providing for the spiritual wants of the members of the established church of Ireland," to the "general education of all classes of Christians."—On the resignation of Sir Robert Peel, the king sent in the first place for Earl Grey, who, however, declined the forming of a new administration; and the task devolved upon Lord Melbourne. The members of the new cabinet were:—Viscount Melbourne, First Lord of the Treasury; Marquis of Lansdowne, President of the Council; Lord Palmerston, Foreign Secretary; Lord John Russell, Home Secretary; Mr. Charles Grant, Colonial Secretary; Mr. Spring Rice, Chancellor of the Exchequer; Viscount Duncannon, Lord Privy Seal; Lord Auckland, First Lord of the Admiralty; Sir John Hobhouse, President of the India Board; Mr. C. Poulett Thom-

son, President of the Board of Trade; Lord Howick, Secretary at War; and Lord Holland, Chancellor of the Duchy of Lancaster. The chief differences between this and Lord Melbourne's former cabinet were the incorporation into it of Lord Howick, the eldest son of Earl Grey, and the omission of Lord Brougham, who was personally obnoxious to the king, and likewise of Lord Althorp, who had become, by the death of his father, Earl Spencer. The great legislative act of the year 1835 was the reform of the English municipal corporations. It did not preserve the form in which it was introduced into the House of Commons by Lord John Russell, but was made to undergo various amendments by the Lords, rendering it a less acceptable measure to its friends, though still an act of effective reform. The Irish Tithe Bill was rejected by the Upper House, on account of the appropriation clause.—During the parliamentary session of 1836, the Lords continued their system of resistance to the measures of reform or improvement proposed by the Commons. Thus the Irish tithe and municipal bills, and the bill for governing charitable trusts in England by popular election, were lost through the inability of the Commons to agree to the amendments of the Lords. Among minor failures, was the loss or abandonment of bills for amending the English municipal act, for improving the court of chancery, for removing the civil disabilities of the Jews, &c. Of the acts that were passed, the most remarkable were:—the act for the commutation of tithes in England and Wales, by which provision was made for the final extinction within two years of the vexatious right of exacting tithes in kind, and for commuting them into a corn rent-charge payable in money, according to the value of a fixed quantity of corn, as yearly ascertained by the average of the preceding seven years; the *Established Church Act*, by which the heads of the church and certain ministers of state were incorporated for effecting a new distribution in England and Wales of episcopal dioceses and incomes; the *Marriage Act*, which put an end to one of the principal grievances of the dissenters, by allowing every person to be married with whatever religious ceremonies he may prefer, or without any religious ceremony, or any other form except that of making a declaration of the act before a public officer; the act for *registering births, deaths, and marriages*, which, besides removing another of the complaints of the dissenters, esta-

lished a greatly improved machinery for a matter of high interest and social importance to the community; and an inconsistency in the administration of justice which allowed counsel in civil actions, in misdemeanor, and in high treason, but not in felony, was removed, and all persons tried for felonies were allowed to make their defence by counsel.—The meeting of parliament in 1837 took place on the last day of January; and it was dissolved on the 17th day of July following, in consequence of the death of the king, which happened on the 20th of June. Of the events that occurred during the session, besides that which has just been mentioned, one of the most important was the adoption by parliament, on the 6th of March, of a series of resolutions respecting Lower Canada, deemed necessary by the discontented and agitated state of that province, and the refusal of the colonial legislature to vote the supplies of money requisite to the administration of justice and the carrying on of the government. See *Canada*, (Sup.) And we may also mention the act, passed shortly before the dissolution of parliament, to make provision for conducting the affairs of the kingdom, in the event of the death of the new sovereign, during the interval which might elapse until the arrival in England of the presumptive heir to the crown, the king of Hanover.—The foreign policy of the British Empire, during the reign which had just terminated, presented to the world the singular spectacle of Great Britain and France in alliance with each other, and exercising their united influence in the affairs of Europe, in opposition, on several occasions, to the views of the absolute governments of that quarter of the globe. Instances of this were repeatedly presented in the settlement of the differences between Holland and Belgium, and in the assistance afforded, or permitted to be afforded, to the constitutionalists of Spain and Portugal, against the attempts of the absolute party. See article *Belgium*; and the articles *Spain* and *Portugal*, (Sup.)

William IV. was succeeded on the throne of the United Kingdom of Great Britain and Ireland (June 20th 1837) by his niece, the princess Alexandrina Victoria, then only in the 19th year of her age, under the title of Victoria I.; and the immediate effect of a female reign, was the separation of Hanover from the rest of the kingdom, the throne of that country descending to the male, in preference to the female, surviving members of the royal family.—The personal predilections of the young queen

were in favour of the whigs, and her accession might be supposed to have a tendency to strengthen the hands of the existing ministry. But the little progress which they had been able to accomplish in the reforms that had been sanguinely expected by the mass of the people, as a necessary consequence of the passing of the Reform Bill (though this, it might be supposed, would be attributed to its true cause, the impossibility, on their part, of overcoming the resistance offered to the measures proposed by them by the peers), did not fail to detract from their reputation, and to make them be regarded, very generally, not only as having been guilty of the offence of undertaking a task beyond their power to perform, but as wanting in the decision and energy requisite for their station. To these considerations, affecting so disadvantageously the position of the ministers, were added the embarrassments arising from the insurrection which broke out in Lower Canada (see *Canada*, Sup.); the great commercial revulsion of the period, the commencement of which may be dated in the course of the summer of 1837; the unsettled and troubled condition of Ireland; and the growing desire among the lower classes of the people for the introduction of organic changes in the constitution of the government.—The result of the new elections in Great Britain was unfavourable to the whigs, who lost ground in several places, through the falling off or lukewarm support of the radicals; and the tories would have succeeded in obtaining a majority of the members in the House of Commons, but for the earnest efforts, in behalf of the existing administration of the government, of Mr. O'Connell and his friends in Ireland. He evinced his zeal in its cause by procuring, at its suggestion, the voluntary dissolution of the "Catholic Association," the proceedings of which body were regarded with an unfavourable eye by most of the Irish Protestants, and also by exerting to the utmost the vast influence which he possessed with his countrymen to defeat the conservative candidates. Even, however, with the aid of Mr. O'Connell, the majority which the ministers could command in the House of Commons was exceedingly small; and as, in these circumstances, his continued support was indispensable to their remaining in office, they might thenceforth be said to be almost under his control, and for this very reason were likely to lose, before long, the degree of popularity which they still retained with the more moderate or conservative portion of their own party.—The first object

that occupied the attention of parliament in the session which ensued, after the voting of the civil list for the new reign, was the affairs of Canada. The propositions of the ministry, including the appointment of Lord Durham to be governor-general of that province, clothed with almost dictatorial powers, were adopted by a nearly unanimous vote. (For further particulars concerning the Canadian insurrection, see the article *Canada*, Sup.) And when this business was disposed of, the affairs of Ireland came up once more for discussion, in May 1838. The Irish Tithe Bill, without the famous appropriation clause, was sanctioned by both houses of parliament and became a law; and an Irish poor law was also enacted. By abandoning the appropriation clause, the ministers had hoped to conciliate the lords, and to induce them to yield their assent to the municipal corporation bill for Ireland; but in this they had miscalculated; this bill, when sent to them by the commons, being rejected as heretofore.—During the year 1838, the discontents of a large portion of the population were expressed in a more systematic form; and from a charter, or fundamental law, which they sought to have adopted, they came to be denominated *chartists*. The principal points of the proposed charter were universal suffrage, vote by ballot, annual parliaments, the division of the country into equal electoral districts, the abolition of all property qualification in members of the House of Commons, and paying them for their services. A petition was prepared at a meeting of “the working classes” from all parts of the kingdom, held at Birmingham, August 6th, urging the adoption of these measures upon the government; and a bill was subsequently framed for this purpose by six members of parliament and six members of the “London Working Men’s Association.”—In this year, also (1838), originated the “Anti-Corn-Law League.” The men who composed it were of a far different stamp, generally speaking, from those that have just been mentioned. They comprehended in their ranks individuals of every class and order of society; and instead of looking to organic changes in the government for an improvement, in any remarkable degree, in the condition of the labouring population, they aimed at accomplishing this object by giving the utmost scope to the application of the capital and labour of the country. They were, in other words, earnest advocates of the doctrines of “free trade.” As members, however, of the Anti-Corn Law League, as its name

denotes, they restricted themselves, in a great measure, to the advocacy, only, of a free trade in corn; the obvious effect of which would be, by the admission of the cheap corn of other countries into the ports of the kingdom, to lower the price of bread, and to the same extent to add to the comforts of the community. And this end was to be attained simply by a well-contrived system of “agitation,” that is, by frequent addresses to the people in every part of the country, to explain the benefit to ensue to them from the proposed total repeal of the existing corn laws, and to urge upon them to make their voices heard in favour of such repeal, as well as to aid in the election to parliament of such individuals only, whether styled tory, whig, or radical, who were prepared to carry out their wishes, immediately and to the full extent.—The resistance of the assembly of the island of Jamaica to the measures which had been adopted by the British government, relating to the abolition of negro slavery, was of such a character as to induce the ministers to lay before parliament, May 7th 1839, a proposition for suspending, for three years, the constitution of that colony. On its being approved by a majority of only five votes in the House of Commons, against the combined opposition of the tories and radicals, Lord Melbourne despaired of being any longer able to carry on the government, and he and his colleagues accordingly resigned their places.—Sir Robert Peel was charged with the formation of a new cabinet; but, not content with the places in this being occupied exclusively by members of the tory party, he ventured to require of the queen that she should substitute tories for whigs in the offices of her household. At this she was offended; and sending for Lord Melbourne, the result was that the former ministers, in a few days after their resignation, resumed their seats.—On the 10th of February 1840, Queen Victoria was married to prince Albert of Saxe-Coburg-Gotha, to whom parliament had previously voted an annual sum of £30,000, instead of £50,000, asked for by ministers.—The Melbourne ministry passed through the year 1840, and the early part of 1841, without any direct attack upon its existence. At length, however, Sir Robert Peel moved a resolution, on the 27th of May of the last-mentioned year, that ministers no longer possessed the confidence of the House of Commons. This motion was only lost by a majority of five votes. A dissolution of parliament was the immediate consequence. The elections took

place without delay for the succeeding parliament, which met on the 19th of August, and on the same day responded to a renewed motion of want of confidence in ministers, in like manner as its predecessor had done. Upon this the ministers felt themselves at last compelled to resign their places.—During the latter portion of Lord Melbourne's administration, the government found its chief occupation in the management of its foreign relations, namely,—the difficulties with the United States, growing out of the sympathy expressed, and in some cases acted upon, by certain of the inhabitants on their northern border, with the Canadian insurgents (see articles *Canada* and *United States*, Sup.); the settlement of the "Eastern question" (see *Turkey*, Sup.); the war with the Afghans (see *India*, Sup.); and lastly, the war with China, for a short notice of which see the Appendix to this volume.—The new members of the cabinet were:—Sir Robert Peel, First Lord of the Treasury; Lord Lyndhurst, Lord Chancellor; Lord Wharncliffe, President of the Council; Earl of Haddington, First Lord of the Admiralty; Duke of Buckingham, Lord Privy Seal; Sir James Graham, Home Secretary; Earl of Aberdeen, Foreign Secretary; Lord Stanley, Colonial Secretary; Lord Ellenborough, President of the Board of Control; Sir Henry Hardinge, Secretary at War; Earl of Ripon, President of the Board of Trade; Mr. Goulburn, Chancellor of the Exchequer; Sir Edward Knatchbull, Paymaster-General; Lord Eliot, Chief Secretary for Ireland; and the Duke of Wellington, without office. Nothing of moment occurred during the remainder of the session of parliament, which was prorogued in the beginning of October. On the 20th of December following, a convention was concluded between Great Britain and the other four great European powers, granting to each other the right of searching and visiting the vessels sailing under their respective flags, with a view to the more effectual suppression of the slave trade. The parliamentary session of 1842 was distinguished by the enacting of a new corn law; the duties previously imposed were in some degree reduced, but the sliding scale was still retained. To provide for the deficit which existed in the public revenue, to the amount of £3,000,000, an income-tax of 3 per cent. was imposed. In the course of the year (1842), both the Afghanistana and Chinese wars were brought to a successful issue, and the dispute with the United

States relating to their N.E. boundary adjusted by treaty in a manner satisfactory to both parties.—The year 1843 presented less of interest than usual in the proceedings of parliament. Of the events which took place, one of the most noted was the secession from the established church of Scotland of no fewer than 400 of its ministers, or one-third of the whole number, who were not any longer willing to sanction the principle of the intervention of the civil authority in the affairs of the church, or to allow of the right of patronage, as it had heretofore subsisted in Scotland as well as in England. After their secession, they associated themselves together as a distinct ecclesiastical body, under the denomination of the "Free Church of Scotland." This year was, also, remarkable for the extended application of the practice of "agitation," as a means of operating with effect on public opinion, and, through that opinion, on the acts of the government. While the anti-corn-law league was making rapid advances to the attainment of the triumph which ultimately awaited it, Mr. O'Connell was addressing vast assemblages of his countrymen, to rouse them to demand of the British parliament a repeal of the act of union of Ireland with Great Britain, as a measure indispensable for their relief from the evils by which they were oppressed. For a time, the Irish government suffered this agitation to proceed without any attempt to interfere with it. At length, however, it issued (October 7th) a proclamation prohibiting a great relief meeting which was intended to be held at Clontarf, in the neighbourhood of Dublin, at which there was to be a parade of horsemen, under the name of the "Repeal Cavalry." The proclamation, too, not only forbade the meeting in question, but declared such meetings, the language that had been held at them, and the intimidating display of numbers, illegal. Mr. O'Connell also issued a proclamation, recommending the people to repair to their own dwellings, and not place themselves in danger of a collision. Notwithstanding this, and the studied moderation of his measures and language on most occasions, he was, a few days afterwards, arrested, with a number of the leading repealers, on a charge of sedition and of unlawfully conspiring against the government. On the 28d of May 1844, the Irish judges by whom they were tried, having refused the motion for a new trial, pronounced the sentence of the court upon them. The sentence on

Mr. O'Connell was—imprisonment for 12 months, with a fine of £2000; and he was bound in his own recognisance in the sum of £5000, and two sureties of £2500, to keep the peace for 7 years. Writs of error, in which Mr. O'Connell and his associates were plaintiffs, were taken to the House of Lords; and on the 4th of September 1844, the Lords gave their verdict against the decision of the Irish judges, deciding that the "judgment of the court below in this case ought to be reversed."—Sir Robert Peel continued to hold office until December 10th 1845. At this period the anti-corn law league had manifestly succeeded in gaining over the great mass of the people to the cause which it had so zealously advocated; and the adoption in this state of things by Lord John Russell, Lord Morpeth, and others of the leading whigs, of the principle of a total repeal of the corn laws, in place of that of a gradual repeal, which they had previously held to be the most expedient course to be pursued by the legislature, seemed to render the speedy and total repeal of those laws no longer doubtful. This was the view of the matter that was taken by Sir Robert Peel, who, in accordance with his avowed doctrine of yielding his own convictions of expediency to the public opinion, when this could no longer be resisted by him, rather than on this account to quit office,—a doctrine which he had strikingly exemplified in the case of the Catholic Emancipation bill,—was prepared to assume the initiative in proposing to parliament the repeal in question. A disagreement, however, in the cabinet, as to the propriety of such a step, led first to the resignation of the Duke of Wellington, and then to that of the entire cabinet (December 10th 1845), Sir Robert Peel and those of the ministers who adhered to him despairing to be able to carry through the House of Lords the measure proposed, and of the necessity of which they had become satisfied, without the powerful aid of the duke and his friends.—The task of organizing a new cabinet was now entrusted to Lord John Russell. But the difficulties of accomplishing it, arising from the unwillingness expressed by Lord Grey to take office in the event of Lord Palmerston being appointed to the foreign secretaryship, appeared to him to be insuperable, and he returned the commission which he had received into the hands of the queen.—In consequence, Sir Robert Peel once more resumed the direction of affairs, to

resign his post in June 1846; not, however, before he had rendered his administration, of the year 1846, memorable by the settlement by amicable negotiation with the United States of the "Oregon Question," and by the so ardently desired repeal of the British Corn Laws. The whigs are again in power, and disposed to carry out the policy of removing the restrictions on trade and industry, bequeathed by the past to the present generation; the anti-corn law league has dissolved itself, and agitation in England is at an end; and Mr. O'Connell, in Ireland, appears to have ceased, for the present, to press for organic changes, in the renewed expectation of justice being rendered to his countrymen without them,—leaving the business of agitation to others less confiding, or more inflexible in their purposes, than himself.

UNITED STATES OF NORTH AMERICA.\*  
—According to the census of 1840, the population amounted to 17,068,666, exhibiting an increase, since 1830, of 4,201,746. The following tables exhibit the population of the several states and territories, in different points of view:

COMPARATIVE INCREASE OR DECREASE OF THE POPULATION OF THE SEVERAL STATES AND TERRITORIES, FROM 1830 TO 1840.

| States.                | Free      |           | Slaves.   | Total.    |
|------------------------|-----------|-----------|-----------|-----------|
|                        | White.    | Col'd.    |           |           |
|                        | Per cent. | Per cent. | Per cent. | Per cent. |
| Michigan.....          | 374.      | 170.      |           | 570.      |
| Arkansas.....          | 300.      | 229.      | +325.     | 221.      |
| Illinois.....          | 204.      | 119.      | -55.      | 302.      |
| Mississippi.....       | 154.      | 163.      | +197.     | 174.      |
| Missouri.....          | 182.      | 176.      | +132.     | 173.      |
| Indiana.....           | 90.       | 97.       | 0.        | 99.       |
| Alabama.....           | 76.       | 29.7.     | +115.     | 90.       |
| Louisiana.....         | 77.       | 22.       | +53.      | 63.       |
| Ohio.....              | 61.       | 81.       |           | 62.       |
| Georgia.....           | 37.3.     | 10.7.     | +29.1.    | 37.7.     |
| Pennsylvania.....      | 27.9.     | 18.9.     | -24.      | 27.8.     |
| New York.....          | 27.3.     | 11.4.     | -94.      | 36.5.     |
| Maine.....             | 25.6.     | 13.8.     |           | 25.6.     |
| Tennessee.....         | 19.5.     | 21.2.     | +29.9.    | 21.6.     |
| Massachusetts.....     | 20.8.     | 23.       |           | 20.8.     |
| New Jersey.....        | 17.0.     | 14.9.     | -70.      | 16.3.     |
| Kentucky.....          | 13.9.     | 42.8.     | +10.3.    | 13.3.     |
| Rhode Island.....      | 12.7.     | -9.       | -70.      | 11.9.     |
| New Hampshire.....     | 5.6.      | -11.      | -66.      | 5.6.      |
| Maryland.....          | 9.3.      | 17.9.     | -12.6.    | 5.1.      |
| Connecticut.....       | 4.2.      | 0.7.      | -32.      | 4.7.      |
| Vermont.....           | 4.        | -17.1.    |           | 4.0.      |
| Virginia.....          | 6.7.      | 5.9.      | -4.4.     | 2.3.      |
| South Carolina.....    | 0.4.      | 4.7.      | +3.6.     | 2.2.      |
| North Carolina.....    | 2.5.      | 16.3.     | 0.        | 2.0.      |
| Delaware.....          | 1.6.      | 6.7.      | -26.8.    | 1.7.      |
| Florida.....           | 51.       | -3.2.     | +65.      | 56.       |
| Dist. of Columbia..... | 11.2.     | 35.9.     | -5.2.     | 9.7.      |
|                        | 34.6.     | 20.8.     | 23.8.     | 32.6.     |

GENERAL TABLE OF PERSONS.

| States and Territories.                                                                               | Free White Males. | Free White Females. | Free Col'd Males. | Free Col'd Females. | Male Slaves.     | Female Slaves.   | Total.            |
|-------------------------------------------------------------------------------------------------------|-------------------|---------------------|-------------------|---------------------|------------------|------------------|-------------------|
| Maine                                                                                                 | 259,990           | 247,449             | 730               | 635                 | —                | —                | 507,434           |
| New Hampshire                                                                                         | 139,004           | 145,031             | 949               | 829                 | —                | —                | 284,874           |
| Massachusetts                                                                                         | 300,879           | 306,451             | 4,854             | 4,015               | —                | 1                | 722,399           |
| Rhode Island                                                                                          | 51,363            | 54,325              | 1,413             | 1,225               | —                | 6                | 106,880           |
| Connecticut                                                                                           | 148,400           | 151,556             | 3,691             | 4,214               | 1                | 9                | 293,978           |
| Vermont                                                                                               | 146,778           | 144,340             | 204               | 266                 | —                | —                | 291,649           |
| New York                                                                                              | 1,207,357         | 1,171,333           | 21,809            | 26,219              | —                | 4                | 2,426,921         |
| New Jersey                                                                                            | 177,625           | 174,333             | 10,780            | 10,994              | —                | 371              | 373,808           |
| Pennsylvania                                                                                          | 849,770           | 831,345             | 22,754            | 25,102              | —                | 39               | 1,724,089         |
| Delaware                                                                                              | 39,759            | 39,302              | 8,626             | 8,293               | —                | —                | 76,080            |
| Maryland                                                                                              | 158,436           | 159,011             | 20,173            | 32,247              | 45,950           | 43,331           | 409,232           |
| Virginia                                                                                              | 371,323           | 360,745             | 23,818            | 26,094              | 926,601          | 220,291          | 1,228,797         |
| North Carolina                                                                                        | 240,047           | 244,223             | 11,327            | 11,505              | 121,546          | 122,271          | 753,419           |
| South Carolina                                                                                        | 136,496           | 136,586             | 3,264             | 4,412               | 158,678          | 168,361          | 694,398           |
| Georgia                                                                                               | 210,334           | 197,101             | 1,374             | 1,373               | 139,315          | 141,039          | 691,282           |
| Alabama                                                                                               | 176,892           | 136,228             | 1,040             | 1,009               | 127,300          | 138,172          | 570,786           |
| Mississippi                                                                                           | 97,256            | 81,818              | 715               | 651                 | 98,003           | 97,216           | 375,651           |
| Louisiana                                                                                             | 89,747            | 68,710              | 11,526            | 13,076              | 146,329          | 81,323           | 382,411           |
| Tennessee                                                                                             | 325,134           | 315,193             | 2,706             | 2,728               | 91,477           | 91,342           | 829,210           |
| Kentucky                                                                                              | 305,321           | 299,430             | 3,761             | 3,556               | 91,004           | 91,254           | 779,638           |
| Ohio                                                                                                  | 775,760           | 730,762             | 8,740             | 8,002               | —                | 1                | 1,516,467         |
| Indiana                                                                                               | 359,773           | 323,925             | 3,731             | 3,434               | —                | 9                | 686,995           |
| Illinois                                                                                              | 355,525           | 317,019             | 1,676             | 1,732               | —                | 163              | 674,345           |
| Missouri                                                                                              | 173,470           | 150,118             | 681               | 691                 | 29,742           | 29,438           | 363,702           |
| Arkansas                                                                                              | 42,211            | 34,963              | 243               | 217                 | 10,119           | 9,316            | 97,574            |
| Michigan                                                                                              | 113,095           | 99,165              | 393               | 314                 | —                | —                | 212,267           |
| Florida Territory                                                                                     | 16,156            | 11,467              | 399               | 1419                | 13,008           | 12,079           | 54,477            |
| Wisconsin Territory                                                                                   | 18,757            | 11,924              | 101               | 84                  | —                | —                | 30,945            |
| Iowa Territory                                                                                        | 24,226            | 14,828              | 24                | 79                  | —                | —                | 43,118            |
| District of Columbia                                                                                  | 14,322            | —                   | 3,453             | 4,908               | 9,056            | 2,436            | 48,712            |
| <b>Total</b>                                                                                          | <b>7,249,276</b>  | <b>6,930,943</b>    | <b>186,457</b>    | <b>199,778</b>      | <b>1,346,408</b> | <b>1,340,705</b> | <b>17,082,566</b> |
| Total number of persons on board of vessels of war in the United States' naval service, June 1, 1840. |                   |                     |                   |                     |                  |                  | 6,100             |
| Grand total of the United States                                                                      |                   |                     |                   |                     |                  |                  | 17,088,666        |

THE POPULATION CLASSED ACCORDING TO AGES.

FREE WHITE PERSONS.

| MALES.                          |                  | FEMALES.                                  |                   |
|---------------------------------|------------------|-------------------------------------------|-------------------|
| Under five years of age         | 1,270,790        | Under five years of age                   | 1,303,849         |
| Of five and under ten           | 1,024,072        | Of five and under ten                     | 986,121           |
| Of ten and under fifteen        | 879,499          | Of ten and under fifteen                  | 860,598           |
| Of fifteen and under twenty     | 736,022          | Of fifteen and under twenty               | 704,169           |
| Of twenty and under thirty      | 1,322,420        | Of twenty and under thirty                | 1,248,366         |
| Of thirty and under forty       | 1,068,481        | Of thirty and under forty                 | 779,067           |
| Of forty and under fifty        | 538,568          | Of forty and under fifty                  | 522,142           |
| Of fifty and under sixty        | 314,506          | Of fifty and under sixty                  | 304,810           |
| Of sixty and under seventy      | 174,228          | Of sixty and under seventy                | 170,789           |
| Of seventy and under eighty     | 80,051           | Of seventy and under eighty               | 80,522            |
| Of eighty and under ninety      | 21,679           | Of eighty and under ninety                | 23,994            |
| Of ninety and under one hundred | 2,507            | Of ninety and under one hundred           | 3,221             |
| Of one hundred and upwards      | 476              | Of one hundred and upwards                | 815               |
| <b>Total number of males</b>    | <b>7,949,266</b> | <b>Total number of females</b>            | <b>8,989,842</b>  |
|                                 |                  | <b>Total number of free white persons</b> | <b>14,198,107</b> |

FREE COLOURED PERSONS.

| MALES.                              |                | FEMALES.                                     |                |
|-------------------------------------|----------------|----------------------------------------------|----------------|
| Under ten years of age              | 88,528         | Under ten years of age                       | 85,059         |
| Of ten and under twenty-four        | 82,738         | Of ten and under twenty-four                 | 86,592         |
| Of twenty-four and under thirty-six | 25,038         | Of twenty-four and under thirty-six          | 24,673         |
| Of thirty-six and under fifty-five  | 29,258         | Of thirty-six and under fifty-five           | 30,828         |
| Of fifty-five and under one hundred | 13,493         | Of fifty-five and under one hundred          | 15,738         |
| Of one hundred and upwards          | 286            | Of one hundred and upwards                   | 361            |
| <b>Total number of males</b>        | <b>186,457</b> | <b>Total number of females</b>               | <b>199,778</b> |
|                                     |                | <b>Total number of free coloured persons</b> | <b>386,235</b> |

SLAVES.

| MALES.                              |                  | FEMALES.                            |                   |
|-------------------------------------|------------------|-------------------------------------|-------------------|
| Under ten years of age              | 422,569          | Under ten years of age              | 421,470           |
| Of ten and under twenty-four        | 391,131          | Of ten and under twenty-four        | 390,075           |
| Of twenty-four and under thirty-six | 326,873          | Of twenty-four and under thirty-six | 289,789           |
| Of thirty-six and under fifty-five  | 145,264          | Of thirty-six and under fifty-five  | 168,201           |
| Of fifty-five and under one hundred | 81,283           | Of fifty-five and under one hundred | 46,632            |
| Of one hundred and upwards          | 758              | Of one hundred and upwards          | 680               |
| <b>Total number of males</b>        | <b>1,346,408</b> | <b>Total number of females</b>      | <b>1,240,805</b>  |
|                                     |                  | <b>Total number of slaves</b>       | <b>2,587,213</b>  |
|                                     |                  | <b>Total persons</b>                | <b>17,082,566</b> |
|                                     |                  | <b>U. S. Navy</b>                   | <b>6,100</b>      |
|                                     |                  | <b>Grand Total</b>                  | <b>17,088,666</b> |



TABLE IN WHICH THE FOREGOING RESULTS ARE ANALYSED AND CLASSED IN EACH STATE.

| States and Territories. | STATISTICS OF EDUCATION.      |              |           |                          |                       |                         |                      |                                         |           |           |          |              |        |                                       |                                        |                |        |                                       |                                        |                           |           |                              |           |                         |           |                          |                                          |        |       |  |
|-------------------------|-------------------------------|--------------|-----------|--------------------------|-----------------------|-------------------------|----------------------|-----------------------------------------|-----------|-----------|----------|--------------|--------|---------------------------------------|----------------------------------------|----------------|--------|---------------------------------------|----------------------------------------|---------------------------|-----------|------------------------------|-----------|-------------------------|-----------|--------------------------|------------------------------------------|--------|-------|--|
|                         | COLOURED.                     |              |           |                          |                       |                         |                      |                                         |           |           |          |              |        |                                       |                                        |                |        |                                       |                                        |                           |           |                              |           |                         |           |                          |                                          |        |       |  |
|                         | Whites.                       | Whites.      |           |                          | Whites.               |                         |                      | Whites.                                 |           |           |          |              |        |                                       |                                        |                |        |                                       |                                        |                           |           |                              |           |                         |           |                          |                                          |        |       |  |
| States and Territories. | Number of Persons employed in |              |           |                          |                       |                         |                      |                                         |           |           |          |              |        |                                       |                                        |                |        |                                       |                                        |                           |           |                              |           |                         |           |                          |                                          |        |       |  |
|                         | Mining.                       | Agriculture. | Commerce. | Manufactures and Trades. | Navigating the Ocean. | Nav. Canals, Lakes, &c. | Learned Professions. | Revolutionary and mil. Lary Pensioners. | Under 14. | 15 to 25. | Over 25. | Deaf & Dumb. | Blind. | In sane and Idiots, at public charge. | In sane and Idiots, at private charge. | Deaf and Dumb. | Blind. | In sane and Idiots, at public charge. | In sane and Idiots, at private charge. | Universities or Colleges. | Students. | Academies and Gram. Schools. | Students. | Primary & Com. Schools. | Scholars. | Scholars at pub. charge. | Whites over 50 unable to read and write. |        |       |  |
| Maine                   | 36                            | 101,630      | 1,921     | 17,879                   | 10,091                | 539                     | 1,889                | 1,408                                   | 47        | 73        | 102      | 190          | 307    | 330                                   | 36                                     | 38             | 13     | 10                                    | 36                                     | 11                        | 4         | 296                          | 86        | 8,477                   | 3,855     | 164,477                  | 60,212                                   | 16,447 | 3,291 |  |
| N. Hampshire            | 13                            | 77,949       | 3,719     | 17,296                   | 452                   | 198                     | 1,640                | 1,408                                   | 43        | 41        | 107      | 153          | 180    | 306                                   | 9                                      | 3              | 3      | 3                                     | 3                                      | 3                         | 4         | 433                          | 69        | 5,799                   | 2,127     | 160,257                  | 7,715                                    | 942    | 942   |  |
| Massachusetts           | 499                           | 87,837       | 3,003     | 85,176                   | 27,153                | 372                     | 3,804                | 4,462                                   | 56        | 63        | 154      | 308          | 471    | 600                                   | 17                                     | 22             | 97     | 22                                    | 27                                     | 173                       | 4         | 769                          | 251       | 16,746                  | 3,302     | 160,257                  | 158,351                                  | 4,448  | 4,448 |  |
| Rhode Island            | 35                            | 16,617       | 1,348     | 91,371                   | 1,717                 | 928                     | 457                  | 601                                     | 35        | 25        | 34       | 63           | 117    | 86                                    | 3                                      | 1              | 8      | 5                                     | 2                                      | 284                       | 52        | 2,664                        | 434       | 17,355                  | 10,749    | 1,614                    | 1,614                                    |        |       |  |
| Connecticut             | 151                           | 56,955       | 9,743     | 97,932                   | 9,700                 | 431                     | 1,697                | 1,666                                   | 60        | 141       | 108      | 143          | 114    | 384                                   | 8                                      | 13             | 20     | 24                                    | 4                                      | 832                       | 127       | 4,865                        | 1,619     | 65,789                  | 10,912    | 526                      | 526                                      |        |       |  |
| Vermont                 | 77                            | 73,150       | 1,303     | 13,174                   | 41                    | 146                     | 1,563                | 1,320                                   | 27        | 19        | 89       | 101          | 144    | 254                                   | 2                                      | 9              | 4      | 3                                     | 323                                    | 46                        | 3         | 323                          | 46        | 4,113                   | 2,402     | 82,817                   | 14,701                                   | 2,270  | 2,270 |  |
| New York                | 1,808                         | 452,954      | 28,468    | 173,193                  | 5,511                 | 10,167                  | 14,111               | 4,080                                   | 300       | 302       | 408      | 875          | 683    | 1,463                                 | 68                                     | 91             | 138    | 56                                    | 12                                     | 1,285                     | 563       | 34,715                       | 10,357    | 502,267                 | 97,075    | 44,452                   | 44,452                                   |        |       |  |
| New Jersey              | 206                           | 56,701       | 2,253     | 97,004                   | 1,143                 | 1,625                   | 1,627                | 472                                     | 33        | 29        | 102      | 136          | 144    | 225                                   | 15                                     | 26             | 46     | 27                                    | 3                                      | 443                       | 66        | 3,027                        | 1,207     | 92,563                  | 7,128     | 6,355                    | 6,355                                    |        |       |  |
| Pennsylvania            | 4,603                         | 297,333      | 15,338    | 105,823                  | 1,815                 | 3,651                   | 6,706                | 1,231                                   | 225       | 225       | 331      | 540          | 469    | 1,477                                 | 51                                     | 96             | 132    | 55                                    | 20                                     | 6,034                     | 290       | 15,970                       | 4,968     | 179,990                 | 73,008    | 33,940                   | 33,940                                   |        |       |  |
| Delaware                | 5                             | 16,015       | 467       | 4,060                    | 401                   | 235                     | 199                  | 4                                       | 18        | 15        | 12       | 15           | 22     | 30                                    | 6                                      | 18             | 21     | 7                                     | 1                                      | 23                        | 30        | 764                          | 132       | 6,924                   | 1,571     | 4,822                    | 4,822                                    |        |       |  |
| Maryland                | 313                           | 69,851       | 3,249     | 21,225                   | 721                   | 1,519                   | 1,647                | 94                                      | 43        | 58        | 77       | 163          | 133    | 254                                   | 66                                     | 91             | 99     | 42                                    | 813                                    | 127                       | 4,178     | 1,322                        | 16,923    | 6,565                   | 11,053    | 11,053                   |                                          |        |       |  |
| Virginia                | 1,995                         | 318,771      | 6,361     | 54,147                   | 522                   | 2,052                   | 3,666                | 993                                     | 133       | 111       | 209      | 426          | 317    | 731                                   | 160                                    | 466            | 326    | 58                                    | 13                                     | 1,097                     | 322       | 11,083                       | 1,561     | 35,331                  | 9,791     | 36,787                   | 36,787                                   |        |       |  |
| N. Carolina             | 1,589                         | 217,065      | 1,734     | 14,322                   | 327                   | 379                     | 1,086                | 609                                     | 82        | 80        | 118      | 223          | 152    | 428                                   | 74                                     | 167            | 192    | 29                                    | 2                                      | 1,388                     | 141       | 4,398                        | 632       | 14,937                  | 124       | 56,609                   | 56,609                                   |        |       |  |
| S. Carolina             | 51                            | 108,363      | 1,938     | 10,225                   | 381                   | 348                     | 1,481                | 318                                     | 40        | 41        | 59       | 133          | 91     | 285                                   | 78                                     | 156            | 121    | 16                                    | 1                                      | 1,681                     | 117       | 4,286                        | 566       | 12,320                  | 3,824     | 50,015                   | 50,015                                   |        |       |  |
| Georgia                 | 574                           | 209,353      | 2,428     | 7,984                    | 292                   | 352                     | 1,250                | 325                                     | 78        | 62        | 53       | 136          | 51     | 943                                   | 64                                     | 151            | 108    | 23                                    | 11                                     | 622                       | 176       | 7,878                        | 601       | 1,333                   | 30,717    | 30,717                   |                                          |        |       |  |
| Alabama                 | 96                            | 177,439      | 2,212     | 7,195                    | 256                   | 758                     | 1,514                | 192                                     | 72        | 53        | 48       | 113          | 39     | 193                                   | 53                                     | 96             | 100    | 23                                    | 2                                      | 1,522                     | 114       | 5,018                        | 639       | 16,343                  | 3,213     | 22,592                   | 22,592                                   |        |       |  |
| Mississippi             | 14                            | 138,734      | 3,543     | 4,151                    | 33                    | 100                     | 1,506                | 63                                      | 25        | 16        | 23       | 43           | 14     | 102                                   | 28                                     | 69             | 66     | 16                                    | 7                                      | 454                       | 71        | 2,353                        | 382       | 8,236                   | 1,197     | 8,061                    | 8,061                                    |        |       |  |
| Louisiana               | 103                           | 227,728      | 2,217     | 17,815                   | 55                    | 302                     | 662                  | 1,018                                   | 12        | 14        | 11       | 37           | 6      | 49                                    | 17                                     | 36             | 38     | 7                                     | 12                                     | 989                       | 52        | 1,993                        | 179       | 3,572                   | 1,190     | 4,841                    | 4,841                                    |        |       |  |
| Tennessee               | 331                           | 197,728      | 3,448     | 23,217                   | 44                    | 968                     | 2,487                | 895                                     | 102       | 93        | 96       | 255          | 103    | 296                                   | 67                                     | 99             | 124    | 28                                    | 8                                      | 492                       | 122       | 3,539                        | 953       | 6,907                   | 36,331    | 36,331                   |                                          |        |       |  |
| Kentucky                | 704                           | 275,579      | 9,201     | 68,965                   | 212                   | 3,231                   | 5,633                | 875                                     | 167       | 168       | 194      | 373          | 363    | 832                                   | 32                                     | 33             | 103    | 62                                    | 18                                     | 1,419                     | 116       | 4,906                        | 952       | 34,641                  | 429       | 40,010                   | 40,010                                   |        |       |  |
| Ohio                    | 523                           | 148,806      | 3,076     | 50,590                   | 819                   | 627                     | 2,327                | 3,012                                   | 112       | 91        | 134      | 110          | 370    | 372                                   | 13                                     | 19             | 47     | 28                                    | 4                                      | 322                       | 54        | 2,946                        | 1,291     | 45,158                  | 51,812    | 35,394                   | 35,394                                   |        |       |  |
| Indiana                 | 722                           | 165,327      | 2,506     | 13,185                   | 63                    | 310                     | 2,021                | 1,285                                   | 54        | 48        | 53       | 86           | 36     | 177                                   | 24                                     | 10             | 65     | 14                                    | 5                                      | 311                       | 42        | 1,967                        | 1,241     | 34,876                  | 1,053     | 38,109                   | 38,109                                   |        |       |  |
| Illinois                | 742                           | 92,406       | 2,522     | 11,100                   | 39                    | 1,855                   | 1,469                | 1,222                                   | 48        | 32        | 46       | 82           | 42     | 169                                   | 27                                     | 42             | 50     | 18                                    | 6                                      | 495                       | 47        | 1,986                        | 642       | 16,788                  | 6,836     | 19,437                   | 19,437                                   |        |       |  |
| Missouri                | 41                            | 96,353       | 218       | 1,173                    | 3                     | 369                     | 301                  | 24                                      | 18        | 11        | 11       | 36           | 9      | 36                                    | 2                                      | 8              | 13     | 8                                     | 3                                      | 300                       | 300       | 113                          | 26,014    | 698                     | 6,067     | 6,067                    |                                          |        |       |  |
| Arkansas                | 40                            | 56,521       | 715       | 6,890                    | 24                    | 166                     | 904                  | 90                                      | 7         | 9         | 11       | 35           | 2      | 2                                     | 2                                      | 10             | 12     | 3                                     | 3                                      | 45                        | 3         | 45                           | 975       | 5,172                   | 5,172     |                          |                                          |        |       |  |
| Michigan                | 1                             | 12,117       | 481       | 1,177                    | 14                    | 509                     | 259                  | 9                                       | 1         | 4         | 4        | 0            | 1      | 7                                     | 0                                      | 1              | 7      | 0                                     | 1                                      | 732                       | 51        | 953                          | 51        | 1,923                   | 14        | 1,303                    | 1,303                                    |        |       |  |
| Florida Territory       | 794                           | 7,047        | 479       | 1,814                    | 14                    | 509                     | 259                  | 9                                       | 1         | 4         | 4        | 0            | 1      | 7                                     | 0                                      | 1              | 7      | 0                                     | 1                                      | 732                       | 51        | 953                          | 51        | 1,923                   | 14        | 1,303                    | 1,303                                    |        |       |  |
| Iowa Territory          | 217                           | 10,409       | 355       | 2,578                    | 13                    | 78                      | 363                  | 2                                       | 3         | 2         | 3        | 2            | 3      | 2                                     | 3                                      | 2              | 3      | 2                                     | 3                                      | 3                         | 3         | 3                            | 3         | 3                       | 3         | 3                        | 3                                        | 3      |       |  |
| Wisconsin Ter           | 384                           | 240          | 240       | 240                      | 240                   | 240                     | 240                  | 240                                     | 240       | 240       | 240      | 240          | 240    | 240                                   | 240                                    | 240            | 240    | 240                                   | 240                                    | 240                       | 240       | 240                          | 240       | 240                     | 240       | 240                      | 240                                      | 240    |       |  |
| D. of Columbia          | 15,302                        | 3,717,756    | 117,575   | 791,543                  | 56,023                | 32,007                  | 65,226               | 90,767                                  | 19,191    | 20,656    | 27,071   | 50,024       | 4,926  | 10,179                                | 977                                    | 1,892          | 3,003  | 833                                   | 173                                    | 10,938                    | 39,942    | 164,139                      | 47,809    | 1,845,944               | 468,364   | 640,692                  | 640,692                                  |        |       |  |

**The Chief Cities and Towns of the United States, with the Number of their Inhabitants, from the official returns of 1840:**

|                    |         |
|--------------------|---------|
| New York           | 312,710 |
| Philadelphia       | 205,850 |
| Baltimore          | 102,212 |
| New Orleans        | 102,193 |
| Boston             | 93,383  |
| Cincinnati         | 46,338  |
| Brooklyn           | 36,233  |
| Albany             | 33,731  |
| Charleston (S. C.) | 29,361  |
| Washington City    | 23,864  |
| Providence         | 23,171  |
| Louisville         | 21,210  |
| Pittsburgh         | 21,115  |
| Lowell             | 20,796  |
| Rochester          | 20,191  |
| Richmond           | 20,153  |
| Troy               | 19,334  |
| Buffalo            | 18,212  |
| Newark (N. J.)     | 17,390  |
| St. Louis          | 16,469  |
| Portland           | 15,318  |
| Salem (Mass.)      | 15,002  |
| New Haven          | 12,969  |
| Utica              | 12,769  |
| Mobile             | 12,672  |
| New Bedford        | 12,067  |

to 1845; every year, excepting 1843 and 1844, ending on the 30th of September. By the year called 1843, in this and the succeeding tables, is meant the period of 9 months, ending on the 30th of June 1843; and by that called 1844, is meant the period comprehended between the date just mentioned and the 30th of June 1844.

| Year. | Value of Exports. | Value of Imports. |
|-------|-------------------|-------------------|
| 1831  | \$61,310,583      | \$103,191,124     |
| 1832  | 87,178,943        | 101,029,366       |
| 1833  | 90,140,433        | 106,118,311       |
| 1834  | 104,336,973       | 136,521,332       |
| 1835  | 121,692,577       | 149,868,742       |
| 1836  | 128,663,040       | 189,960,825       |
| 1837  | 117,419,376       | 140,969,217       |
| 1838  | 108,486,616       | 113,717,404       |
| 1839  | 121,028,416       | 162,092,132       |
| 1840  | 138,065,946       | 107,141,519       |
| 1841  | 121,851,893       | 127,946,177       |
| 1842  | 104,691,534       | 100,163,087       |
| 1843  | 100,063,266       | 89,360,283        |
| 1844  | 111,200,046       | 108,433,035       |
| 1845  | 114,646,606       | 117,254,564       |

In the table which follows, we have a statement of the *commerce* of the United States, both exports and imports, from 1831

to 1845, ending June 30th 1845, the exports of domestic produce amounted in value to \$99,299,776, and those of foreign produce to \$15,346,830.

**Summary statement of the value of the exports of the growth, produce, and manufacture of the United States, during the year commencing on the 1st day of July, 1844, and ending on the 30th day of June, 1845.**

| THE SEA.                                                           |             |           |             |
|--------------------------------------------------------------------|-------------|-----------|-------------|
| Fisheries—                                                         |             |           |             |
| Dried fish, or cod fisheries                                       | .....       | \$303,353 |             |
| Pickled fish, or river fisheries (herring, shad, salmon, mackerel) | .....       | 208,654   |             |
| Whale and other fish oil                                           | .....       | 1,530,363 |             |
| Spermaceti oil                                                     | .....       | 973,195   |             |
| Whalebone                                                          | .....       | 762,642   |             |
| Spermaceti candles                                                 | .....       | 226,917   | \$4,507,124 |
| THE FOREST.                                                        |             |           |             |
| Skins and furs                                                     |             | 1,948,365 |             |
| Ginseng                                                            |             | 177,146   |             |
| Product of wood—                                                   |             |           |             |
| Staves, shingles, boards, hewn timber                              | \$1,953,322 |           |             |
| Other lumber                                                       | 369,505     |           |             |
| Masts and spars                                                    | 26,692      |           |             |
| Oak bark, and other dye                                            | 70,616      |           |             |
| All manufactures of wood                                           | 677,430     |           |             |
| Naval stores, tar, pitch, rosin, and turpentine                    | 814,969     |           |             |
| Ashes, pot and pearl                                               | 1,910,696   |           |             |
|                                                                    |             | 5,194,920 | 6,550,421   |
| AGRICULTURE.                                                       |             |           |             |
| Product of animals—                                                |             |           |             |
| Beef, tallow, hides, horned cattle                                 | 1,926,609   |           |             |
| Butter and cheese                                                  | 678,865     |           |             |
| Pork (pickled), bacon, lard, live hogs                             | 2,991,284   |           |             |
| Horses and mules                                                   | 365,498     |           |             |
| Sheep                                                              | 23,948      |           |             |
|                                                                    |             | 6,306,204 |             |
| Vegetable food—                                                    |             |           |             |
| Wheat                                                              | 326,779     |           |             |
| Flour                                                              | 5,398,593   |           |             |
| Indian corn                                                        | 411,741     |           |             |
| Indian meal                                                        | 641,532     |           |             |
| Rye meal                                                           | 112,906     |           |             |



## SUMMARY STATEMENT—CONTINUED.

|                                                   |           |             |              |
|---------------------------------------------------|-----------|-------------|--------------|
| Rye, oats, and other small grain and pulse .....  | \$177,953 |             |              |
| Biscuit, or shipbread.....                        | 306,284   |             |              |
| Potatoes .....                                    | 193,926   |             |              |
| Apples .....                                      | 81,306    |             |              |
| Rice .....                                        | 2,160,456 |             |              |
|                                                   |           | \$0,810,508 |              |
| Tobacco .....                                     |           |             | \$16,016,988 |
| Cotton.....                                       |           |             | 7,469,819    |
| All other agricultural products—                  |           |             | 81,790,643   |
| Flaxseed .....                                    |           | 81,978      |              |
| Hops.....                                         |           | 90,341      |              |
| Brown sugar .....                                 |           | 11,107      |              |
| Indigo .....                                      |           | 70          |              |
|                                                   |           |             | 183,496      |
| <b>MANUFACTURES.</b>                              |           |             |              |
| Soap and tallow candles.....                      |           | 693,946     |              |
| Leather, boots and shoes.....                     |           | 393,091     |              |
| Household furniture.....                          |           | 277,498     |              |
| Coaches and other carriages .....                 |           | 53,821      |              |
| Hats.....                                         |           | 70,597      |              |
| Saddlery.....                                     |           | 20,847      |              |
| Wax .....                                         |           | 234,794     |              |
| Spirits from grain.....                           |           | 73,108      |              |
| Beer, ale, porter, and cider.....                 |           | 69,523      |              |
| Snuff and tobacco.....                            |           | 538,498     |              |
| Linseed oil and spirits of turpentine.....        |           | 92,614      |              |
| Cordage .....                                     |           | 55,016      |              |
| Iron—pig, bar, and nails.....                     |           | 77,689      |              |
| castings.....                                     |           | 118,948     |              |
| all manufactures of.....                          |           | 649,100     |              |
| Spirits from molasses .....                       |           | 216,118     |              |
| Sugar, refined.....                               |           | 164,093     |              |
| Chocolate.....                                    |           | 1,461       |              |
| Gunpowder.....                                    |           | 123,599     |              |
| Copper and brass.....                             |           | 94,736      |              |
| Medicinal drugs.....                              |           | 912,537     |              |
|                                                   |           |             | 4,069,832    |
| Cotton piece goods—                               |           |             |              |
| printed and coloured.....                         | 516,943   |             |              |
| white.....                                        | 2,343,104 |             |              |
| nankeen.....                                      | 1,174,038 |             |              |
| twist, yarn, and thread.....                      | 14,379    |             |              |
| all other manufactures of.....                    | 280,164   |             |              |
|                                                   |           | 4,327,028   |              |
| Flax and hemp—bags and all manufactures of.....   |           | 14,762      |              |
| Wearing apparel.....                              |           | 59,653      |              |
| Combs and buttons .....                           |           | 23,794      |              |
| Brushes.....                                      |           | 2,906       |              |
| Billiard tables and apparatus.....                |           | 1,551       |              |
| Umbrellas and parasols .....                      |           | 2,583       |              |
| Leather and morocco skins not sold per pound..... |           | 16,363      |              |
| Fire engines and apparatus .....                  |           | 13,669      |              |
| Printing presses and type .....                   |           | 96,774      |              |
| Musical instruments.....                          |           | 18,989      |              |
| Books and maps .....                              |           | 43,908      |              |
| Paper and stationery.....                         |           | 106,190     |              |
| Paints and varnish.....                           |           | 50,165      |              |
| Vinegar.....                                      |           | 14,375      |              |
| Earthen and stone ware.....                       |           | 7,393       |              |
| Manufactures of glass.....                        |           | 96,760      |              |
| "    tin.....                                     |           | 20,114      |              |
| "    powder and lead .....                        |           | 14,404      |              |
| "    marble and stone .....                       |           | 17,696      |              |
| "    gold and silver, and gold-leaf.....          |           | 3,229       |              |
| Gold and silver coin.....                         |           | 844,446     |              |
| Artificial flowers and jewelry .....              |           | 70,435      |              |
| Molasses .....                                    |           | 30,771      |              |
| Trunks.....                                       |           | 3,326       |              |
| Brick and lime.....                               |           | 8,701       |              |
| Domestic salt.....                                |           | 45,151      |              |
|                                                   |           |             | 5,804,977    |
| Lead.....                                         |           |             | 342,646      |
| Articles not enumerated—                          |           |             |              |
| Manufactured.....                                 | 1,969,338 |             |              |
| Other articles.....                               | 1,315,578 |             |              |
|                                                   |           |             | 2,284,916    |
|                                                   |           |             | 80,989,776   |

Statistical View of the Commerce of the United States; exhibiting the Value of Imports and Exports, and also the amount of Tonnage employed in Foreign Trade, annually, from 1831 to 1845.

| Years ending Sep-<br>tember 30. | VALUE OF EXPORTS.          |                           |             | Value of Im-<br>ports. | TONNAGE.          |           |                  |          |
|---------------------------------|----------------------------|---------------------------|-------------|------------------------|-------------------|-----------|------------------|----------|
|                                 | Domestic pro-<br>duce, &c. | Foreign Mer-<br>chandise. | Total.      |                        | American vessels. |           | Foreign vessels. |          |
|                                 |                            |                           |             |                        | Cleared.          | Entered.  | Cleared.         | Entered. |
|                                 | Dollars.                   | Dollars.                  | Dollars.    | Dollars.               | Tons.             | Tons.     | Tons.            | Tons.    |
| 1831                            | 61,977,057                 | 20,053,526                | 81,310,583  | 103,191,124            | 972,504           | 922,952   | 371,984          | 281,948  |
| 1832                            | 63,137,470                 | 24,023,473                | 87,176,943  | 101,629,966            | 974,865           | 941,682   | 367,305          | 333,038  |
| 1833                            | 70,217,698                 | 19,229,735                | 90,140,433  | 108,118,311            | 1,149,160         | 1,111,441 | 497,039          | 496,705  |
| 1834                            | 81,024,162                 | 25,312,811                | 104,336,973 | 126,261,322            | 1,136,020         | 1,074,670 | 577,700          | 568,059  |
| 1835                            | 101,188,082                | 20,504,495                | 121,692,577 | 149,265,742            | 1,400,517         | 1,353,653 | 630,824          | 641,310  |
| 1836                            | 106,916,680                | 21,746,360                | 128,663,040 | 169,980,035            | 1,315,323         | 1,255,343 | 674,721          | 680,913  |
| 1837                            | 95,564,414                 | 21,551,903                | 117,419,376 | 140,989,217            | 1,206,682         | 1,209,750 | 736,802          | 765,703  |
| 1838                            | 96,033,821                 | 12,452,795                | 108,486,616 | 113,717,304            | 1,408,761         | 1,302,974 | 604,166          | 592,110  |
| 1839                            | 103,533,891                | 17,494,525                | 121,028,416 | 121,028,416            | 1,622,092         | 1,477,928 | 611,889          | 624,814  |
| 1840                            | 113,895,034                | 18,190,312                | 132,085,346 | 107,141,519            | 1,647,009         | 1,576,946 | 706,486          | 712,363  |
| 1841                            | 106,382,722                | 15,469,081                | 121,851,803 | 127,946,177            | 1,634,155         | 1,631,900 | 736,949          | 736,444  |
| 1842                            | 92,969,906                 | 11,721,538                | 104,691,534 | 100,162,087            | 1,536,451         | 1,510,111 | 740,467          | 779,775  |
| 1843                            | 77,793,793                 | 6,552,607                 | 84,346,480  | 64,753,790             | 1,268,083         | 1,143,322 | 323,949          | 534,752  |
| 1844                            | 99,715,179                 | 11,484,807                | 111,300,046 | 108,435,035            | 2,010,984         | 1,977,438 | 996,814          | 916,992  |
| 1845                            | 99,298,778                 | 15,346,830                | 114,646,608 | 117,254,564            | 2,063,977         | 2,085,486 | 999,275          | 910,563  |

Values of the Principal Articles imported into the United States, from 1831 to 1845, inclusive.

| Years. | ARTICLES.    |             |             |                                       |                         |                                      |                                       |                      |             |
|--------|--------------|-------------|-------------|---------------------------------------|-------------------------|--------------------------------------|---------------------------------------|----------------------|-------------|
|        | Cottons.     | Woolens.    | Silks.      | Linen, and<br>manufacture<br>of flax. | Manufacture<br>of iron. | Manufacture<br>of iron and<br>steel. | Earthen,<br>stone, and<br>China ware. | Spices and<br>hides. | Wines.      |
| 1831   | \$10,990,224 | \$4,637,229 | \$1,117,648 | \$3,790,111                           | \$1,477,149             | \$4,837,839                          | \$1,624,604                           | \$7,395,945          | \$1,678,058 |
| 1832   | 10,296,633   | 9,992,444   | 9,248,907   | 4,078,164                             | 1,640,619               | 5,359,345                            | 2,024,020                             | 5,507,509            | 2,387,479   |
| 1833   | 7,650,440    | 14,282,509  | 9,498,368   | 3,122,557                             | 2,039,033               | 4,135,437                            | 1,818,187                             | 7,070,395            | 2,239,497   |
| 1834   | 10,145,191   | 11,873,329  | 10,968,904  | 5,485,380                             | 1,679,996               | 4,746,621                            | 1,591,418                             | 17,911,692           | 2,944,388   |
| 1835   | 15,387,585   | 17,814,424  | 16,677,547  | 6,472,021                             | 2,555,847               | 5,351,618                            | 1,697,682                             | 18,131,447           | 3,730,809   |
| 1836   | 17,876,067   | 21,080,030  | 22,980,212  | 9,307,453                             | 3,365,867               | 7,880,969                            | 2,794,187                             | 18,400,881           | 4,332,034   |
| 1837   | 11,150,844   | 5,560,204   | 14,352,823  | 5,544,761                             | 1,561,628               | 6,526,683                            | 1,833,459                             | 10,516,418           | 4,138,741   |
| 1838   | 6,608,880    | 11,513,849  | 9,371,249   | 3,374,059                             | 1,591,757               | 6,613,289                            | 1,265,598                             | 17,747,119           | 2,818,282   |
| 1839   | 14,998,181   | 19,375,945  | 21,742,969  | 7,739,085                             | 2,098,716               | 6,537,510                            | 2,484,259                             | 15,595,178           | 3,441,697   |
| 1840   | 6,824,484    | 9,071,184   | 9,836,737   | 4,614,499                             | 1,588,155               | 3,184,900                            | 2,010,381                             | 9,562,813            | 2,509,176   |
| 1841   | 11,757,036   | 11,001,949  | 15,554,807  | 6,846,807                             | 2,508,981               | 4,255,900                            | 1,536,450                             | 4,988,639            | 2,091,411   |
| 1842   | 9,378,616    | 8,375,723   | 9,457,347   | 3,650,184                             | 1,278,684               | 3,672,081                            | 1,557,961                             | 4,087,018            | 3,271,019   |
| 1843   | 2,868,702    | 2,474,154   | 2,704,013   | 1,494,321                             | 548,601                 | 1,012,099                            | 589,096                               | 32,320,335           | 801,825     |
| 1844   | 18,641,479   | 9,475,792   | 9,493,179   | 4,482,526                             | 1,003,428               | 3,318,798                            | 1,638,492                             | 8,830,429            | 909,035     |
| 1845   | 19,863,292   | 10,980,176  | 9,649,114   | 4,843,109                             | 967,945                 | 5,077,798                            | 2,439,615                             | 4,070,242            | 1,470,160   |

Values of the Principal Articles imported into the United States—continued.

| Years. | ARTICLES.   |             |             |             |             |           |           |          |                      |
|--------|-------------|-------------|-------------|-------------|-------------|-----------|-----------|----------|----------------------|
|        | Spirits.    | Molasses.   | Teas.       | Coffee.     | Sugar.      | Salt.     | Spices.   | Lhd.     | Hemp and<br>cordage. |
| 1831   | \$1,037,737 | \$2,479,488 | \$1,418,037 | \$6,317,666 | \$4,931,824 | \$515,138 | \$279,045 | \$62,410 | \$315,372            |
| 1832   | 1,265,018   | 2,524,261   | 2,788,353   | 9,099,464   | 2,936,619   | 634,910   | 306,013   | 124,632  | 957,553              |
| 1833   | 1,537,326   | 2,807,046   | 5,484,603   | 10,567,299  | 4,755,856   | 696,418   | 919,493   | 89,010   | 634,054              |
| 1834   | 1,319,345   | 2,969,020   | 6,317,949   | 8,702,657   | 5,538,102   | 839,315   | 493,932   | 183,762  | 609,307              |
| 1835   | 1,632,661   | 3,074,173   | 4,522,806   | 10,715,496  | 6,806,435   | 655,097   | 712,648   | 54,112   | 616,341              |
| 1836   | 1,917,381   | 4,077,312   | 5,342,811   | 9,653,053   | 12,514,718  | 724,522   | 1,018,134 | 37,521   | 904,163              |
| 1837   | 1,470,802   | 3,144,701   | 5,303,054   | 8,657,760   | 7,203,806   | 862,617   | 847,617   | 17,574   | 500,180              |
| 1838   | 1,476,918   | 2,865,285   | 3,497,156   | 7,640,217   | 7,546,831   | 1,028,418 | 438,329   | 8,766    | 397,665              |
| 1839   | 2,222,428   | 4,364,324   | 2,428,419   | 9,744,103   | 9,924,632   | 887,092   | 839,341   | 20,755   | 716,990              |
| 1840   | 1,592,594   | 2,910,791   | 5,427,010   | 8,546,282   | 5,581,128   | 1,015,420 | 555,940   | 19,455   | 786,115              |
| 1841   | 1,743,217   | 2,628,319   | 3,466,245   | 10,444,882  | 8,492,742   | 621,495   | 498,993   | 3,702    | 742,770              |
| 1842   | 886,866     | 1,942,575   | 4,527,108   | 8,938,638   | 6,503,563   | 841,572   | 568,636   | 579      | 353,388              |
| 1843   | 973,616     | 1,134,830   | 3,849,862   | 6,309,189   | 2,532,618   | 710,459   | 284,650   | 227      | 292,778              |
| 1844   | 878,977     | 2,813,253   | 4,120,785   | 9,764,554   | 7,196,091   | 911,512   | 364,034   | 302      | 345,331              |
| 1845   | 1,191,190   | 3,154,782   | 5,701,728   | 6,243,332   | 4,780,720   | 898,063   | 533,055   | 517      | 234,809              |

STATISTICAL VIEW OF THE COMMERCE OF THE UNITED STATES, EXHIBITING THE VALUE OF EXPORTS TO, AND IMPORTS FROM, EACH FOREIGN COUNTRY; ALSO, THE TONNAGE OF AMERICAN AND FOREIGN VESSELS ARRIVING FROM, AND DEPARTING TO, EACH FOREIGN COUNTRY, DURING THE YEAR ENDING ON THE 30TH OF JUNE, 1845.

| COUNTRIES.               | COMMERCE.         |                  |            | NAVIGATION.                |                                 |                            |                                 |
|--------------------------|-------------------|------------------|------------|----------------------------|---------------------------------|----------------------------|---------------------------------|
|                          | Value of exports. |                  |            | American tonnage.          |                                 | Foreign tonnage.           |                                 |
|                          | Domestic produce. | Foreign produce. | Total.     | Entered the United States. | Cleared from the United States. | Entered the United States. | Cleared from the United States. |
| Russia.....              | \$536,845         | \$180,493        | \$727,337  | 13,603                     | 9,109                           | 1,763                      | 1,906                           |
| Prussia.....             | 503,017           | 65,114           | 567,131    | 413                        | 947                             | 90                         | 9,521                           |
| Sweden and Norway.....   | 520,507           | 92,761           | 613,268    | 2,125                      | 2,949                           | 13,439                     | 6,948                           |
| Swedish West Indies..... | 88,886            | 1,463            | 90,349     | 351                        | 2,125                           | .....                      | .....                           |
| Denmark.....             | 194,066           | 90,501           | 384,567    | .....                      | 1,040                           | 1,157                      | 2,116                           |
| Danish West Indies.....  | 183,503           | 100,996          | 284,499    | 13,009                     | 28,090                          | 1,699                      | 1,457                           |
| Hanse Towns.....         | 4,106,927         | 838,063          | 4,944,990  | 90,907                     | 27,559                          | 50,825                     | 30,007                          |
| Holland.....             | 2,753,780         | 988,987          | 3,742,767  | 3,944                      | 4,892                           | 5,023                      | 16,547                          |
| Holland.....             | 189,151           | 75,007           | 264,158    | .....                      | .....                           | .....                      | .....                           |
| Dutch East Indies.....   | 304,080           | 33,706           | 337,786    | 15,041                     | 5,025                           | .....                      | .....                           |
| Dutch West Indies.....   | 47,757            | 1,879            | 49,636     | .....                      | .....                           | .....                      | .....                           |
| Dutch Guiana.....        | 1,468,754         | 385,319          | 1,854,073  | 11,740                     | 30,269                          | 2,696                      | 4,548                           |
| Belgium.....             | 41,518,934        | 4,767,244        | 46,286,178 | 377,196                    | 874,846                         | 196,778                    | 196,921                         |
| England.....             | 5,611,874         | 54,938           | 5,666,812  | 11,955                     | 14,728                          | 31,847                     | 50,810                          |
| Scotland.....            | 103,471           | .....            | 103,471    | 907                        | 1,413                           | 94,136                     | 987                             |
| Ireland.....             | 498,671           | 163,364          | 662,035    | 4,071                      | 11,691                          | 1,905                      | 1,067                           |
| Great Britain.....       | 18,009            | .....            | 18,009     | 560                        | .....                           | .....                      | .....                           |
| Mexico.....              | 69,251            | 124,067          | 193,318    | 9,500                      | 10,314                          | 1,163                      | .....                           |
| British East Indies..... | 23,743            | 790              | 24,533     | .....                      | .....                           | .....                      | .....                           |
| Cape of Good Hope.....   | 18,935            | .....            | 18,935     | .....                      | .....                           | .....                      | .....                           |
| Mauritius.....           | 189,464           | 51,481           | 240,945    | 4,548                      | 2,869                           | 887                        | 863                             |
| British Guiana.....      | 416,746           | 1,861            | 418,607    | 4,673                      | 12,305                          | 4,872                      | 8,791                           |
| British West Indies..... | 4,067,400         | 26,790           | 4,094,190  | 84,990                     | 189,604                         | 29,313                     | 26,123                          |

|                                            |                   |                   |                    |                    |                  |                  |                |                |
|--------------------------------------------|-------------------|-------------------|--------------------|--------------------|------------------|------------------|----------------|----------------|
| British North American colonies.....N..... | 4,644,966         | 1,989,969         | 6,064,966          | 2,690,065          | 694,389          | 677,968          | 463,748        | 218,694        |
| France on the Atlantic.....                | 11,550,433        | 9,973,853         | 14,382,658         | 30,141,550         | 10,643           | 191,615          | 9,505          | 10,036         |
| France on the Mediterranean.....           | 979,739           | 197,980           | 1,177,719          | 1,414,175          | 10,677           | 19,317           | 4,390          | 600            |
| French West Indies.....                    | 548,453           | 31,648            | 564,103            | 415,038            | 94,709           | 33,150           | 4,564          | 1,364          |
| Miquelon and French fisheries.....         | .....             | .....             | .....              | 151                | 927              | 1,985            | .....          | .....          |
| French Guiana.....                         | 57,053            | 444               | 57,498             | 59,306             | 1,310            | 1,547            | .....          | .....          |
| French African ports.....                  | .....             | .....             | .....              | .....              | .....            | .....            | 330            | 364            |
| Bourbon.....                               | 5,508             | .....             | 5,508              | .....              | 193              | 368              | .....          | 672            |
| Spain on the Atlantic.....                 | 16,493            | 530               | 271,783            | 177,198            | 10,643           | 6,588            | 1,076          | 373            |
| Spain on the Mediterranean.....            | 171,533           | .....             | 271,783            | 177,198            | 10,643           | 3,909            | 6,074          | 1,886          |
| Teneriffe and other Canaries.....          | 53,700            | 98,606            | 84,506             | 654,628            | 10,127           | 3,600            | 1,054          | 367            |
| Manilla and Philippine Isles.....          | 3,849             | .....             | 3,849              | 35,038             | 703              | 467              | .....          | .....          |
| Cuba.....                                  | 119,363           | 35,315            | 154,578            | 663,059            | 4,025            | 3,520            | 9,335          | 16,182         |
| Other Spanish West Indies.....             | 6,303,095         | 360,946           | 6,664,114          | 2,064,414          | 192,163          | 173,822          | .....          | .....          |
| Porto Rico.....                            | 663,149           | 30,775            | 708,194            | 2,026,533          | 31,190           | 28,573           | 1,109          | 682            |
| Madeira.....                               | 3,419             | 1,784             | 131,781            | 266,905            | 10,866           | 9,063            | 1,000          | 990            |
| Payal and other Azores.....                | 36,313            | 31                | 6,068              | 108,074            | 613              | 1,389            | .....          | 491            |
| Cape de Verd Islands.....                  | 60,369            | 31                | 2,623              | 25,373             | 2,330            | 4,264            | .....          | 170            |
| Italy.....                                 | 507,369           | 2,584             | 513,33             | 1,201,579          | 5,199            | 5,584            | 2,144          | 914            |
| St. Italy.....                             | 32,697            | 32,697            | 871,951            | 1,201,577          | 58,711           | 5,584            | 6,032          | 3,688          |
| Sardinia.....                              | 149,827           | 59,470            | 184,797            | 39,389             | 1,131            | 4,339            | 1,104          | 1,411          |
| Turkey and other Austrian ports.....       | 1,433,103         | 368,775           | 1,801,578          | 381,530            | 4,680            | 15,470           | 2,101          | 9,198          |
| Turkey.....                                | 115,553           | 40,546            | 165,609            | .....              | 5,915            | 1,897            | .....          | .....          |
| Tyrrhy, Levant, and Egypt.....             | 1,317,550         | 77,649            | 1,405,740          | 791,517            | 5,015            | 1,897            | 2,784          | .....          |
| China.....                                 | 3,070,341         | 164,654           | 2,975,985          | 1,394,367          | 34,377           | 97,919           | 2,784          | 534            |
| Texas.....                                 | 183,056           | 183,056           | 2,975,985          | 7,984,914          | 91,504           | 17,477           | 473            | .....          |
| Mexico.....                                | 794,154           | 368,177           | 1,162,331          | 755,394            | 15,740           | 18,930           | 1,997          | 8,991          |
| Central America.....                       | 48,717            | 30,590            | 79,307             | 1,709,938          | 16,157           | 16,939           | 3,023          | 4,540          |
| New Granada.....                           | 535,545           | 189,935           | 725,480            | 63,989             | 1,690            | 1,040            | 889            | 167            |
| Venezuela.....                             | 3,413,567         | 494,383           | 2,837,950          | 1,791,991          | 3,599            | 1,563            | .....          | .....          |
| Argentine Republic.....                    | 349,473           | 16,159            | 365,632            | 1,864,973          | 18,394           | 10,733           | 1,798          | 1,117          |
| Chile.....                                 | 1,947,631         | 300,831           | 1,546,191          | 1,153,600          | 50,320           | 40,716           | 9,481          | 2,077          |
| Peru.....                                  | 33,494            | .....             | 33,494             | 90,572             | 11,653           | 10,667           | 1,680          | 843            |
| South America generally.....               | 75,359            | 9,910             | 85,269             | 336,112            | 4,873            | 8,973            | .....          | 614            |
| Asia generally.....                        | 171,903           | 140,945           | 319,746            | 106,110            | 943              | 1,001            | .....          | .....          |
| Africa generally.....                      | 523,543           | 79,543            | 603,106            | 573,196            | 15,065           | 11,731           | 10,539         | 9,352          |
| Europe generally.....                      | 31,573            | .....             | 31,573             | .....              | .....            | .....            | .....          | 400            |
| West Indies generally.....                 | 168,598           | 378               | 169,976            | .....              | .....            | .....            | .....          | .....          |
| East Indies generally.....                 | .....             | .....             | .....              | .....              | .....            | .....            | .....          | .....          |
| South Seas and Pacific ocean.....          | .....             | .....             | .....              | .....              | .....            | .....            | .....          | .....          |
| Northwest coast of America.....            | 418,085           | 57,064            | 473,069            | 136,365            | 57,218           | 70,393           | .....          | .....          |
| Sandwich Islands.....                      | .....             | .....             | .....              | .....              | .....            | .....            | .....          | .....          |
| Uncertain places.....                      | .....             | .....             | .....              | .....              | .....            | .....            | .....          | .....          |
| <b>Total.....</b>                          | <b>90,399,776</b> | <b>13,346,830</b> | <b>114,646,606</b> | <b>117,354,564</b> | <b>2,035,486</b> | <b>2,633,977</b> | <b>910,503</b> | <b>939,575</b> |

STATEMENT OF THE COMMERCE OF EACH STATE, &C., FROM THE 1st OF JULY, 1844, TO THE 30TH OF JUNE, 1845.

| STATES.                   | VALUE OF EXPORTS.    |                     |                  |            | VALUE OF IMPORTS.                      |                      |                     |            |             |
|---------------------------|----------------------|---------------------|------------------|------------|----------------------------------------|----------------------|---------------------|------------|-------------|
|                           | Domestic produce.    |                     | Foreign produce. |            | Total of American and foreign produce. | In American vessels. | In foreign vessels. | Total.     |             |
|                           | In American vessels. | In foreign vessels. | Total.           | Total.     |                                        |                      |                     |            |             |
| Maine.....                | \$1,054,506          | \$133,324           | \$1,167,640      | \$80,415   | \$7,050                                | \$87,465             | \$654,746           | \$160,807  | \$855,645   |
| New Hampshire.....        | 1,480                | 965                 | 2,374            | .....      | 10                                     | 10                   | 18,919              | 3,770      | 22,689      |
| Vermont.....              | 213,976              | .....               | 213,976          | 386,631    | .....                                  | 386,631              | 61,997              | .....      | 81,997      |
| Massachusetts.....        | 6,918,733            | 857,063             | 7,754,396        | 1,571,110  | 722,524                                | 2,293,634            | 18,150,505          | 4,636,739  | 22,787,244  |
| Rhode Island.....         | 190,141              | .....               | 190,141          | 891        | .....                                  | 891                  | 273,390             | 930        | 274,320     |
| Connecticut.....          | 47,085               | .....               | 47,085           | 8,945      | .....                                  | 8,945                | 358,421             | 13,654     | 372,075     |
| New York.....             | 20,837,757           | 5,062,147           | 25,900,904       | 7,907,018  | 9,236,276                              | 10,245,294           | 63,460,079          | 7,446,206  | 70,906,085  |
| New Jersey.....           | 3,879,169            | 950,569             | 3,139,679        | 395,545    | 52,140                                 | 444,685              | 7,900,165           | 659,069    | 8,559,237   |
| Pennsylvania.....         | 135,048              | 3,147               | 138,195          | .....      | .....                                  | .....                | 138,195             | .....      | 138,195     |
| Delaware.....             | 3,884,306            | 1,061,731           | 4,946,037        | 521,284    | 54,416                                 | 575,740              | 3,469,317           | 573,587    | 2,741,804   |
| Maryland.....             | 418,002              | 90,527              | 508,529          | 735        | .....                                  | 735                  | 510,164             | 8,943      | 519,107     |
| District of Columbia..... | .....                | .....               | .....            | 3,536      | .....                                  | 3,536                | .....               | .....      | .....       |
| Virginia.....             | 1,903,018            | 106,097             | 2,101,045        | .....      | .....                                  | .....                | 961,501             | 6,187      | 967,688     |
| North Carolina.....       | 339,763              | 40,197              | 379,960          | .....      | .....                                  | .....                | 940,415             | 9,433      | 949,848     |
| South Carolina.....       | 6,699,848            | 2,184,923           | 8,884,770        | 968        | 5,699                                  | 5,878                | 2,000,046           | 592,343    | 1,743,186   |
| Georgia.....              | 2,752,983            | 1,833,493           | 4,586,476        | .....      | .....                                  | .....                | 156,318             | 55,069     | 201,387     |
| Alabama.....              | 6,615,308            | 3,899,706           | 10,515,014       | .....      | .....                                  | .....                | 126,177             | 998,314    | 473,491     |
| Louisiana.....            | 18,267,819           | 7,573,486           | 25,841,311       | 649,363    | 673,769                                | 1,316,154            | 6,381,024           | 1,003,373  | 7,384,527   |
| Mississippi.....          | .....                | .....               | .....            | .....      | .....                                  | .....                | .....               | .....      | .....       |
| Tennessee.....            | .....                | .....               | .....            | .....      | .....                                  | .....                | .....               | .....      | .....       |
| Missouri.....             | .....                | .....               | .....            | .....      | .....                                  | .....                | .....               | .....      | .....       |
| Ohio.....                 | 64,079               | 937,033             | 381,114          | .....      | .....                                  | .....                | 6,959               | .....      | 7,958       |
| Kentucky.....             | .....                | .....               | .....            | .....      | .....                                  | .....                | 64,629              | .....      | 64,629      |
| Michigan.....             | 521,830              | .....               | 521,830          | .....      | .....                                  | .....                | 71,730              | 6,466      | 78,196      |
| Florida.....              | 1,190,046            | .....               | 1,190,046        | .....      | .....                                  | .....                | 17,469              | .....      | 17,469      |
| Total.....                | 75,463,129           | 32,616,063          | 99,269,776       | 11,459,319 | 3,867,511                              | 15,366,830           | 102,428,481         | 14,816,083 | 117,244,564 |

4 Comparative View of the Registered and Enrolled Tonnage of the United States; showing the Registered Tonnage employed in the Whale Fishery; also, the Proportion of the Enrolled and Licensed Tonnage employed in the Coasting Trade, Cod Fishery, Mackerel Fishery, and Whale Fishery, from 1831 to 1845, inclusive.

| Year.           | Registered tonnage. | Enrolled and licensed tonnage. | Total tonnage. | Registered tonnage employed in the whale fishery. | Proportion of the enrolled and licensed tonnage employed in the |              |                   |                |
|-----------------|---------------------|--------------------------------|----------------|---------------------------------------------------|-----------------------------------------------------------------|--------------|-------------------|----------------|
|                 |                     |                                |                |                                                   | Coasting trade.                                                 | Cod fishery. | Mackerel fishery. | Whale fishery. |
| Tons and Casks. |                     |                                |                |                                                   |                                                                 |              |                   |                |
| 1831....        | 620,451 92          | 647,394 32                     | 1,267,846 99   | 62,315 79                                         | 539,753 74                                                      | 60,977 81    | 46,210 80         | 461 82         |
| 1832....        | 686,969 77          | 752,406 30                     | 1,439,375 91   | 72,868 84                                         | 649,637 40                                                      | 54,027 70    | 47,427 73         | 377 47         |
| 1833....        | 750,126 72          | 856,123 22                     | 1,606,249 94   | 101,158 17                                        | 744,198 60                                                      | 62,720 70    | 48,725 43         | 478 39         |
| 1834....        | 857,438 42          | 901,408 67                     | 1,758,847 14   | 108,080 14                                        | 783,618 65                                                      | 56,403 70    | 61,025 11         | 364 16         |
| 1835....        | 965,231 60          | 939,118 49                     | 1,904,349 14   | 97,640 00                                         | 732,301 20                                                      | 72,274 18    | 64,443 11         | .....          |
| 1836....        | 867,774 51          | 964,326 14                     | 1,832,102 65   | 144,880 50                                        | 856,980 60                                                      | 80,551 89    | 46,624 25         | 1,573 26       |
| 1837....        | 810,447 39          | 1,046,328 40                   | 1,856,685 69   | 127,211 81                                        | 956,980 60                                                      | 80,551 89    | 46,610 90         | 1,994 98       |
| 1838....        | 663,511 86          | 1,173,047 89                   | 1,836,558 85   | 119,629 80                                        | 1,041,105 18                                                    | 70,064 00    | 58,640 10         | 5,239 55       |
| 1839....        | 834,244 54          | 1,359,324 27                   | 2,193,568 81   | 131,845 25                                        | 1,153,551 60                                                    | 72,258 68    | 35,983 67         | 439 69         |
| 1840....        | 893,704 70          | 1,280,999 35                   | 2,174,703 16   | 134,036 64                                        | 1,176,694 46                                                    | 76,038 65    | 39,269 19         | .....          |
| 1841....        | 945,903 43          | 1,184,940 50                   | 2,130,844 37   | 157,408 17                                        | 1,107,067 39                                                    | 66,551 84    | 11,231 13         | .....          |
| 1842....        | 973,358 74          | 1,117,631 50                   | 2,090,989 69   | 151,612 74                                        | 1,045,733 39                                                    | 54,804 03    | 16,036 63         | 377 31         |
| 1843....        | 1,009,305 91        | 1,149,207 92                   | 2,158,601 93   | 152,374 36                                        | 1,076,155 59                                                    | 61,324 28    | 11,775 70         | 149 33         |
| 1844....        | 1,068,764 91        | 1,211,330 11                   | 2,280,095 07   | 166,263 63                                        | 1,109,614 44                                                    | 65,324 77    | 16,170 66         | 320 14         |
| 1845....        | 1,005,173 44        | 1,321,629 57                   | 2,326,802 06   | 190,645 65                                        | 1,190,696 37                                                    | 69,625 06    | 31,413 10         | 906 92         |

Recapitulation of the Number and Class of Vessels built, and the Tonnage thereof, in each State and Territory of the United States, for the year ending the 30th of June, 1845.

| STATES                    | Class of vessels. |        |            |                         |             | Total number of vessels built. | Total tonnage. |
|---------------------------|-------------------|--------|------------|-------------------------|-------------|--------------------------------|----------------|
|                           | Ships.            | Brigs. | Schooners. | Sloops and canal boats. | Steamboats. |                                |                |
| Maine.....                | 43                | 33     | 62         | .....                   | 2           | 160                            | 31,105 04      |
| New Hampshire.....        | 4                 | 1      | .....      | .....                   | .....       | 5                              | 2,561 08       |
| Vermont.....              | .....             | .....  | .....      | .....                   | .....       | .....                          | .....          |
| Massachusetts.....        | 42                | 16     | 54         | 1                       | 9           | 115                            | 25,961 50      |
| Rhode Island.....         | 3                 | .....  | 2          | 2                       | 1           | 8                              | 1,661 26       |
| Connecticut.....          | 1                 | 2      | 10         | 9                       | 1           | 22                             | 2,007 76       |
| New York.....             | 18                | 7      | 35         | 153                     | 17          | 230                            | 29,348 60      |
| New Jersey.....           | 1                 | 4      | 9          | 45                      | 5           | 64                             | 4,465 06       |
| Pennsylvania.....         | 6                 | 4      | 7          | 107                     | 54          | 178                            | 15,610 17      |
| Delaware.....             | .....             | .....  | 8          | .....                   | 1           | 9                              | 668 91         |
| Maryland.....             | 4                 | 15     | 47         | .....                   | .....       | 66                             | 7,257 44       |
| Virginia.....             | 2                 | 1      | 5          | 3                       | 3           | 14                             | 2,056 59       |
| North Carolina.....       | .....             | .....  | 10         | 3                       | 1           | 14                             | 858 73         |
| South Carolina.....       | .....             | .....  | 2          | .....                   | .....       | 2                              | 102 10         |
| Georgia.....              | .....             | .....  | 1          | .....                   | .....       | 1                              | 63 14          |
| Florida.....              | .....             | .....  | 3          | .....                   | .....       | 1                              | 957 04         |
| Alabama.....              | .....             | .....  | 1          | .....                   | .....       | 4                              | 79 70          |
| Mississippi.....          | .....             | .....  | .....      | .....                   | .....       | .....                          | .....          |
| Louisiana.....            | .....             | .....  | 6          | 2                       | 6           | 14                             | 636 63         |
| Tennessee.....            | .....             | .....  | .....      | .....                   | 1           | 1                              | 141 47         |
| Kentucky.....             | .....             | .....  | .....      | .....                   | 26          | 26                             | 5,681 01       |
| Missouri.....             | .....             | .....  | .....      | .....                   | .....       | .....                          | .....          |
| Ohio.....                 | .....             | 4      | 10         | .....                   | 42          | 56                             | 11,590 39      |
| Michigan.....             | .....             | .....  | 24         | 9                       | 4           | 37                             | 2,735 65       |
| District of Columbia..... | .....             | .....  | .....      | 15                      | .....       | 15                             | 416 22         |
| Total.....                | 194               | 87     | 322        | 342                     | 163         | 1,036                          | 146,018 92     |

The Produce of the Fisheries of the United States, in 1840, is exhibited in the following Table.

| STATES AND TERRITORIES.   | Smeared or dried fish. | Pickled fish.   | Spermaceti oil.  | Whale and other fish oil. | Whalebone, and other produce. |
|---------------------------|------------------------|-----------------|------------------|---------------------------|-------------------------------|
|                           | Quintals.              | Barrels.        | Gallons.         | Gallons.                  | Value in dollars.             |
| Maine.....                | 979,150                | 54,071          | 1,044            | 117,597                   | \$9,354                       |
| New Hampshire.....        | 28,257                 | 1,714½          | .....            | 15,254                    | .....                         |
| Massachusetts.....        | 369,715                | 194,755         | 3,030,972        | 3,364,725                 | 442,974                       |
| Rhode Island.....         | 4,034                  | 2,908           | 487,368          | 633,860                   | 45,523                        |
| Connecticut.....          | 1,364                  | 6,596           | 183,207          | 1,909,047                 | 157,573                       |
| Vermont.....              | .....                  | .....           | .....            | .....                     | .....                         |
| New York.....             | 5                      | 22,224          | 400,251          | 1,989,541                 | 344,053                       |
| New Jersey.....           | .....                  | 1,314           | 12,000           | 80,000                    | 74,000                        |
| Pennsylvania.....         | .....                  | 2,012           | .....            | .....                     | 12,240                        |
| Delaware.....             | .....                  | 25,000          | 49,704           | 142,575                   | 7,267                         |
| Maryland.....             | .....                  | 71,222          | .....            | .....                     | 12,167                        |
| Virginia.....             | .....                  | 20,315          | 302              | .....                     | 4,150                         |
| North Carolina.....       | 2,365                  | 73,360          | .....            | 2,367                     | 23,600                        |
| South Carolina.....       | .....                  | 425             | .....            | .....                     | .....                         |
| Georgia.....              | .....                  | 14              | .....            | .....                     | .....                         |
| Alabama.....              | 2                      | .....           | .....            | .....                     | .....                         |
| Mississippi.....          | 9                      | .....           | .....            | .....                     | .....                         |
| Louisiana.....            | .....                  | .....           | .....            | .....                     | .....                         |
| Tennessee.....            | .....                  | 97              | .....            | .....                     | .....                         |
| Kentucky.....             | .....                  | .....           | .....            | .....                     | .....                         |
| Ohio.....                 | .....                  | 3,506           | .....            | 14                        | .....                         |
| Indiana.....              | .....                  | 14              | .....            | .....                     | 1,150                         |
| Illinois.....             | .....                  | 1               | .....            | 26                        | .....                         |
| Missouri.....             | .....                  | .....           | .....            | .....                     | .....                         |
| Arkansas.....             | .....                  | .....           | .....            | .....                     | .....                         |
| Michigan.....             | .....                  | 16,635          | .....            | 60                        | .....                         |
| Florida.....              | 69,000                 | 73              | .....            | .....                     | 6,000                         |
| Wisconsin.....            | .....                  | 9,021           | .....            | 1,500                     | 155                           |
| Iowa.....                 | .....                  | .....           | .....            | .....                     | .....                         |
| District of Columbia..... | .....                  | 24,300          | .....            | .....                     | 15,500                        |
| <b>Total.....</b>         | <b>774,047</b>         | <b>472,359½</b> | <b>4,764,708</b> | <b>7,536,778</b>          | <b>1,153,237</b>              |

Mineral Products of the United States in 1840.

| STATES AND TERRITORIES. | Coal.          |                   | Salt.            | Granite, marble, and other stones. | Iron.          |                | Lead.             | Gold.          | Other metals.  |
|-------------------------|----------------|-------------------|------------------|------------------------------------|----------------|----------------|-------------------|----------------|----------------|
|                         | Anthracite.    | Bituminous.       |                  |                                    | Cast iron.     | Bar iron.      |                   |                |                |
|                         | Tons.          | Barrels.          | Barrels.         | Val. in Dollars.                   | Tons.          | Tons.          | Lbs. produced.    | Val. in dolls. | val. in dolls. |
| Maine.....              | .....          | 50,000            | .....            | \$107,506                          | 6,129          | .....          | .....             | .....          | \$ 1,600       |
| N. Hampshire.....       | .....          | 29,990            | 1,900            | 16,038                             | 1,280          | 125            | 1,000             | .....          | 10,200         |
| Massachusetts.....      | .....          | 376,596           | .....            | 790,855                            | 9,332          | 6,001          | .....             | .....          | 2,500          |
| Rhode Island.....       | 1,000          | .....             | .....            | 17,000                             | 4,126          | .....          | .....             | .....          | .....          |
| Connecticut.....        | .....          | 38,000            | 1,500            | 313,469                            | 6,495          | 6,823          | .....             | .....          | .....          |
| Vermont.....            | .....          | .....             | .....            | 33,855                             | 6,743          | 653            | .....             | .....          | 70,500         |
| New York.....           | .....          | .....             | 2,867,844        | 1,541,480                          | 29,088         | 53,693         | 670,000           | .....          | 84,564         |
| New Jersey.....         | .....          | .....             | 500              | 35,721                             | 11,114         | 7,171          | .....             | .....          | 29,520         |
| Pennsylvania.....       | 859,626        | 11,620,654        | 549,478          | 228,631                            | 98,305         | 87,944         | .....             | .....          | 109,500        |
| Delaware.....           | .....          | .....             | 1,160            | 16,000                             | 17             | 449            | .....             | .....          | .....          |
| Maryland.....           | .....          | 222,000           | 1,900            | 22,750                             | 8,876          | 7,900          | .....             | .....          | 22,800         |
| Virginia.....           | 900            | 10,622,345        | 1,745,618        | 84,489                             | 18,810½        | 5,866          | 678,648           | 651,768        | .....          |
| North Carolina.....     | 50             | 75                | 4,423            | 3,350                              | 968            | 963            | 10,000            | 225,616        | 1,000          |
| South Carolina.....     | .....          | .....             | 2,250            | 3,000                              | 1,250          | 1,165          | .....             | .....          | 37,418         |
| Georgia.....            | .....          | .....             | .....            | 51,990                             | 494            | .....          | .....             | .....          | 121,661        |
| Alabama.....            | .....          | 23,650            | .....            | 13,700                             | 30             | 75             | .....             | 61,220         | .....          |
| Mississippi.....        | .....          | .....             | .....            | .....                              | .....          | .....          | .....             | .....          | .....          |
| Louisiana.....          | .....          | .....             | .....            | .....                              | 1,400          | 1,326          | .....             | .....          | .....          |
| Tennessee.....          | .....          | 13,942            | .....            | 30,100                             | 16,128½        | 9,673          | .....             | 1,500          | .....          |
| Kentucky.....           | 2,125          | 568,167           | 219,695          | 19,529                             | 29,206         | 3,627          | .....             | .....          | .....          |
| Ohio.....               | 296            | 3,513,409         | 227,350          | 128,631                            | 35,226         | 7,466          | .....             | .....          | 16,000         |
| Indiana.....            | .....          | 242,040           | 6,400            | 35,021                             | 810            | .....          | .....             | .....          | .....          |
| Illinois.....           | 122            | 424,187           | 20,000           | 74,228                             | 158            | .....          | 8,755,000         | 200            | .....          |
| Missouri.....           | .....          | 242,202           | 13,150           | 28,110                             | 160            | 118            | 5,225,453         | .....          | 15,600         |
| Arkansas.....           | .....          | 5,500             | 8,700            | 15,500                             | .....          | .....          | .....             | .....          | .....          |
| Michigan.....           | .....          | .....             | 12,000           | 2,650                              | 601            | .....          | .....             | .....          | .....          |
| Florida.....            | .....          | .....             | .....            | 2,650                              | .....          | .....          | .....             | .....          | .....          |
| Wisconsin.....          | .....          | .....             | .....            | 268                                | 3              | .....          | 15,129,350        | .....          | .....          |
| Iowa.....               | .....          | 10,000            | .....            | 350                                | .....          | .....          | 500,000           | .....          | .....          |
| D. of Columbia.....     | .....          | .....             | .....            | .....                              | .....          | .....          | .....             | .....          | .....          |
| <b>Total.....</b>       | <b>863,469</b> | <b>27,603,191</b> | <b>6,179,174</b> | <b>3,665,884</b>                   | <b>226,203</b> | <b>197,223</b> | <b>31,229,453</b> | <b>529,665</b> | <b>370,614</b> |

AGRICULTURAL STATISTICS.

Extract from the Agricultural Statistics, as returned by the Marshals under the 18th Section of the Act for taking the Sixth Census.

| States and Territories. | Bovine and Meline. | Next Cattle. | Sheep.    | Swine.    | Produce Value &c. | Wheat.     | Barley.   | Oats.      | Rye.      | Dist. Corn. | Wheat.     | Blaze.    | Wheat.  |
|-------------------------|--------------------|--------------|-----------|-----------|-------------------|------------|-----------|------------|-----------|-------------|------------|-----------|---------|
| Maine                   | 59,208             | 327,255      | 649,264   | 117,386   | \$ 123,171        | 648,166    | 355,161   | 1,076,409  | 137,941   | 51,843      | 950,428    | 1,455,551 | 36,940  |
| N. Hampshire            | 39,850             | 261,086      | 606,891   | 120,167   | 97,862            | 442,954    | 121,400   | 1,198,949  | 395,530   | 115,463     | 1,252,572  | 1,260,988 | 242,765 |
| Vermont                 | 60,374             | 350,106      | 1,393,420 | 297,952   | 176,437           | 652,293    | 55,635    | 3,432,487  | 447,318   | 158,509     | 1,047,601  | 3,237,795 | 49,714  |
| Massachusetts           | 62,484             | 371,760      | 378,226   | 143,021   | 540,295           | 158,923    | 166,419   | 1,899,530  | 341,956   | 87,011      | 1,809,395  | 1,055,591 | 254,795 |
| Rhode Island            | 8,074              | 36,700       | 90,146    | 29,669    | 61,492            | 3,068      | 63,790    | 169,925    | 54,921    | 2,979       | 428,893    | 173,630   | 173     |
| Connecticut             | 34,751             | 233,969      | 406,955   | 132,222   | 176,659           | 86,980     | 33,789    | 1,456,523  | 736,865   | 229,470     | 1,468,534  | 893,675   | 4,573   |
| New York                | 476,115            | 2,642,438    | 381,225   | 2,116,933 | 2,373,029         | 11,853,507 | 2,498,170 | 20,728,738 | 2,984,913 | 2,244,338   | 10,195,142 | 4,012,144 | 363,762 |
| New Jersey              | 69,769             | 1,149,548    | 218,555   | 259,051   | 473,467           | 774,023    | 12,601    | 3,096,516  | 1,293,576 | 866,970     | 4,311,381  | 396,573   | 4,429   |
| Pennsylvania            | 338,565            | 2,136,418    | 396,431   | 1,450,531 | 1,933,172         | 13,029,756 | 178,100   | 18,053,477 | 6,293,447 | 1,971,928   | 13,696,619 | 3,076,783 | 26,027  |
| Delaware                | 14,421             | 54,863       | 39,247    | 74,228    | 47,465            | 215,165    | 5,260     | 937,405    | 33,560    | 11,299      | 2,099,361  | 64,404    | 746     |
| Maryland                | 93,954             | 240,432      | 262,909   | 421,520   | 219,159           | 3,511,433  | 3,594     | 3,579,950  | 894,333   | 74,948      | 8,470,165  | 500,499   | 2,368   |
| Virginia                | 243,173            | 1,008,313    | 1,240,736 | 1,916,230 | 752,467           | 10,066,809 | 208,152   | 14,124,634 | 807,441   | 683,130     | 24,207,584 | 3,666,844 | 39,106  |
| North Carolina          | 166,608            | 617,371      | 538,279   | 1,649,716 |                   | 1,960,885  | 3,574     | 3,193,941  | 213,971   | 15,391      | 23,893,763 | 625,044   | 38,445  |
| South Carolina          | 130,826            | 573,840      | 232,664   | 868,513   | 590,594           | 705,926    | 3,967     | 1,446,158  | 44,530    | 72,147,721  | 785        | 289,202   | 93      |
| Georgia                 | 134,748            | 755,060      | 254,947   | 1,288,314 | 473,158           | 1,732,956  | 13,345    | 1,290,048  | 69,851    | 269,173,229 | 797        | 363,340   | 634     |
| Florida                 | 411,041            | 1,196,713    | 1,975,100 | 2,103,209 | 734,931           | 16,292,951 | 207,590   | 13,993,624 | 801,943   | 681,335     | 83,954,162 | 3,650,970 | 62,146  |
| Ohio                    | 395,853            | 787,098      | 1,008,240 | 2,310,533 | 536,439           | 4,803,152  | 17,491    | 7,155,974  | 1,321,373 | 8,169,939   | 847,120    | 1,786,847 | 840     |
| Kentucky                | 397,596            | 777,390      | 748,459   | 2,795,630 | 881,531           | 4,547,273  | 4,758     | 6,770,116  | 297,033   | 6,187       | 42,467,349 | 1,029,596 | 810     |
| Tennessee               | 59,067             | 348,708      | 100,056   | 344,685   | 273,314           | 106        |           | 1,110,013  | 1,812     |             | 3,990,473  | 49,234    | 115     |
| Louisiana               | 128,515            | 607,560      | 144,372   | 701,160   | 839,220           | 746,165    | 6,682     | 1,427,992  | 36,632    | 52          | 18,690,663 | 173,400   | 735     |
| Alabama                 | 109,227            | 623,157      | 128,376   | 995,739   | 369,283           | 196,576    | 1,544     | 598,604    | 15,642    | 61          | 13,161,232 | 186,859   | 154     |
| Mississippi             | 157,578            | 367,623      | 288,235   | 1,072,813 | 230,483           | 946,077    | 9,771     | 1,937,573  | 63,185    | 16,347      | 15,591,433 | 462,644   | 489     |
| Indiana                 | 243,767            | 614,489      | 673,962   | 1,580,051 | 393,298           | 4,154,256  | 25,778    | 5,785,449  | 127,586   | 49,681      | 28,008,051 | 1,202,209 | 37,742  |
| Illinois                | 195,186            | 604,693      | 377,963   | 1,394,266 | 330,968           | 2,740,380  | 68,455    | 4,598,507  | 95,963    | 63,950      | 22,116,627 | 600,366   | 2,591   |
| Michigan                | 30,144             | 185,190      | 99,618    | 235,890   | 82,730            | 2,157,108  | 127,802   | 2,114,057  | 34,236    | 113,592     | 2,227,039  | 153,375   | 7,041   |
| Arkansas                | 39,068             | 135,927      | 41,877    | 393,004   | 93,549            | 1,122,200  | 85        | 167,452    | 5,925     | 58          | 3,993,149  | 63,034    | 119     |
| Florida                 | 12,043             | 118,061      | 7,196     | 92,680    | 61,007            | 212,216    | 11,062    | 406,514    | 1,965     | 10,654      | 379,359    | 6,777     | 84      |
| Wisconsin               | 5,735              | 30,269       | 3,462     | 51,363    | 16,167            | 154,737    | 739       | 216,385    | 5,787     | 6,217       | 1,326,241  | 23,026    | 2,132   |
| Iowa                    | 10,801             | 37,449       | 15,354    | 104,891   | 17,101            | 12,147     | 294       | 15,731     | 5,081     | 272         | 39,385     | 707       | 28      |
| District Columbia       | 2,145              | 3,274        | 572       | 4,673     | 1,557             |            |           |            |           |             |            |           | 44      |



TABLE OF AGRICULTURAL STATISTICS CONTINUED.

| States and Territories. | Bushels of Potatoes. | Tons of Hay. | Tons of Hemp and Flax. | Pounds of Wool gathered. | Pounds of Hides. | Pounds of Cotton gathered. | Pounds of Sugar made. | Value of the production in this State. | Value of the production for the United States. | Quantity of Wool made. | Value of the Lard produced. | Burials of Twp, Pritch, Turpentine and Millin. | Tons of Per and Pearl shells. |
|-------------------------|----------------------|--------------|------------------------|--------------------------|------------------|----------------------------|-----------------------|----------------------------------------|------------------------------------------------|------------------------|-----------------------------|------------------------------------------------|-------------------------------|
| Maine                   | 10,392,350           | 691,053      | 38                     |                          |                  |                            | 238,230               | \$1,493,718                            | \$148,249                                      | 2,236                  | \$1,808,683                 |                                                | 260                           |
| N. Hampshire            | 6,234,901            | 496,647      | 53,040                 | 115                      |                  |                            | 1,097,398             | 1,585,955                              | 220,056                                        | 94                     | 401,358                     |                                                | 743                           |
| Vermont                 | 8,206,784            | 734,047      | 244                    | 585                      |                  |                            | 4,220,541             | 4,892,097                              | 1,109,387                                      | 100                    | 366,146                     |                                                | 598                           |
| Massachusetts           | 5,385,652            | 569,495      | 23,132                 | 64,932                   |                  |                            | 579,927               | 2,273,219                              | 389,177                                        | 1,905                  | 476,845                     |                                                | 6                             |
| Rhode Island            | 3,904,773            | 63,417       | 16,383                 | 307                      |                  |                            | 30                    | 216,922                                | 32,098                                         | 745                    | 44,455                      |                                                |                               |
| Connecticut             | 3,414,227            | 426,160      | 147,481                | 471,657                  |                  |                            | 51,764                | 1,365,653                              | 302,953                                        | 5,243                  | 147,831                     |                                                |                               |
| New York                | 30,000,508           | 3,160,916    | 763                    | 6,567                    |                  |                            | 10,093,991            | 10,497,032                             | 1,732,357                                      | 14,700                 | 3,788,173                   |                                                | 2,924                         |
| New Jersey              | 2,074,118            | 326,496      | 33,710                 | 1,922                    |                  |                            | 56                    | 1,315,676                              | 562,863                                        | 9,416                  | 297,956                     |                                                | 2,200                         |
| Pennsylvania            | 8,625,923            | 1,199,963    | 170,760                | 350,861                  |                  |                            | 1,555,977             | 2,271,430                              | 554,957                                        | 19,182                 | 566,607                     |                                                | 1,807                         |
| Delaware                | 200,712              | 21,880       | 602                    | 272                      | 347              |                            |                       | 232,445                                | 25,914                                         | 529                    | 5,562                       |                                                |                               |
| Maryland                | 1,058,919            | 110,836      | 34                     | 18,916,012               | 5,673            |                            | 36,266                | 466,558                                | 114,539                                        | 7,623                  | 230,965                     |                                                |                               |
| Virginia                | 2,873,470            | 288,740      | 92,123                 | 74,157,841               | 2,610            |                            | 1,530,541             | 1,454,861                              | 668,921                                        | 37,233                 | 516,412                     |                                                | 5,262                         |
| N. Carolina             | 2,609,239            | 101,369      |                        | 16,772,359               | 2,820,388        |                            |                       | 674,349                                | 386,046                                        | 28,752                 | 506,766                     |                                                |                               |
| S. Carolina             | 2,697,713            | 20,008       | 35                     | 51,518                   | 59,929,671       |                            | 30,000                | 577,849                                | 52,276                                         | 643                    | 504,884                     |                                                | 735                           |
| Georgia                 | 1,184,386            | 9,264        | 1,787                  | 164,551                  | 12,199,412       |                            | 231,140               | 552,805                                | 135,446                                        | 6,319                  | 100,006                     |                                                | 153                           |
| Ohio                    | 5,629,784            | 1,029,321    | 252,520                | 6,023,309                | 134,322,755      |                            | 6,989,088             | 1,705,134                              | 461,191                                        | 161,844                | 303,519                     |                                                | 430                           |
| Kentucky                | 1,055,085            | 88,306       | 9,992                  | 53,446,909               | 16,376           |                            | 1,877,835             | 931,363                                | 434,953                                        | 2,209                  | 130,329                     |                                                | 212                           |
| Tennessee               | 2,373,034            | 30,512       | 45,053                 | 26,542,448               | 7,729            |                            | 251,745               | 930,603                                | 366,767                                        | 653                    | 200,266                     |                                                | 3,119                         |
| Louisiana               | 845,935              | 36,308       |                        | 120,174                  | 3,604,534        |                            | 249,937,720           | 150,818                                | 11,869                                         | 2,884                  | 111,405                     |                                                | 12,238                        |
| Alabama                 | 1,560,700            | 13,933       | 6                      | 214,307                  | 108,187,940      |                            | 10,135                | 197,442                                | 33,161                                         | 11,253                 | 233,628                     |                                                | 197                           |
| Mississippi             | 1,538,628            | 171          |                        | 83,451                   | 273,190,289      |                            | 70                    | 389,177                                | 41,119                                         | 12                     | 152,094                     |                                                | 2,248                         |
| Missouri                | 684,491              | 44,870       | 20,071                 | 8,450,727                | 50               |                            | 252,560               | 69,230                                 | 76,305                                         | 22                     | 68,150                      |                                                |                               |
| Indiana                 | 1,548,190            | 191,156      | 97,657                 | 1,821,406                | 180              |                            | 3,720,166             | 751,441                                | 90,324                                         | 3,495                  | 213,471                     |                                                | 19,070                        |
| Illinois                | 1,956,887            | 156,442      | 50,326                 | 4,155,706                | 28,421           |                            | 394,446               | 433,873                                | 118,638                                        | 471                    | 198,070                     |                                                | 392                           |
| Michigan                | 2,109,205            | 130,805      | 765                    | 145,706                  |                  |                            | 1,329,784             | 301,052                                | 16,905                                         |                        | 392,325                     |                                                | 20                            |
| Arkansas                | 290,887              | 579          | 1,039                  | 143,889                  | 927              |                            | 2,535                 | 34,577                                 | 7,454                                          |                        | 161,685                     |                                                |                               |
| Florida                 | 419,608              |              |                        | 75,274                   | 481,420          |                            | 275,317               | 35,677                                 | 50                                             |                        | 202,293                     |                                                |                               |
| Wisconsin               | 234,063              | 17,953       | 813                    | 12,627                   |                  |                            | 135,288               | 23,609                                 | 50                                             |                        | 50,305                      |                                                |                               |
| Iowa                    | 21,035               | 1,231        |                        | 55,550                   |                  |                            | 41,450                | 75,566                                 | 3,507                                          | 25                     |                             |                                                |                               |
| Dist. Columbia          |                      |              |                        |                          |                  |                            |                       |                                        |                                                |                        |                             |                                                |                               |

Statement showing the Number and Class of Vessels built in the several States and Territories of the United States from 1831 to 1845, inclusive.

| YEARS.   | Class of vessels. |        |            |                         |           | Total number of vessels built. | Total tonnage. |        |
|----------|-------------------|--------|------------|-------------------------|-----------|--------------------------------|----------------|--------|
|          | Ships.            | Frigs. | Schooners. | Sloops and canal boats. | Steamers. |                                | Tons.          | 95ths. |
| 1831.... | 72                | 95     | 416        | 94                      | 34        | 711                            | 85,962         | 68     |
| 1832.... | 132               | 143    | 568        | 122                     | 100       | 1,065                          | 144,539        | 16     |
| 1833.... | 144               | 169    | 625        | 185                     | 65        | 1,189                          | 161,626        | 36     |
| 1834.... | 16                | 94     | 497        | 180                     | 68        | 937                            | 118,330        | 37     |
| 1835.... | 25                | 50     | 302        | 100                     | 30        | 507                            | *46,238        | 52     |
| 1836.... | 93                | 65     | 444        | 164                     | 124       | 890                            | 113,627        | 49     |
| 1837.... | 67                | 72     | 507        | 166                     | 135       | 949                            | 122,967        | 22     |
| 1838.... | 66                | 79     | 510        | 153                     | 90        | 898                            | 113,135        | 44     |
| 1839.... | 83                | 89     | 436        | 122                     | 125       | 855                            | 120,988        | 34     |
| 1840.... | 97                | 109    | 378        | 224                     | 64        | 872                            | 118,399        | 23     |
| 1841.... | 114               | 101    | 342        | 157                     | 78        | 762                            | 118, 93        | 71     |
| 1842.... | 116               | 91     | 273        | 404                     | 137       | 1,021                          | 126,083        | 64     |
| 1843.... | 58                | 34     | 136        | 173                     | 79        | 482                            | *63,617        | 77     |
| 1844.... | 73                | 47     | 204        | 279                     | 163       | 766                            | 103,537        | 29     |
| 1845.... | 124               | 87     | 322        | 342                     | 163       | 1,038                          | 146,018        | 00     |

\* For nine months.

After the statements which have been given of the commerce and principal products of the United States, we come naturally to speak of the money, by means of which those products have been exchanged. A succinct sketch, however, of the later monetary history of the country, together with an account of the actual condition of the American system, or systems, of banking, is all that will be attempted.—In anticipation of an application to Congress, on the part of the Bank of the United States, for a renewal of its charter, General Jackson, in his first annual message, intimated that its constitutionality, as well as expediency, was very questionable, and suggested the establishment of another institution, founded on the security of the government and its revenues; and in his message of December 7th 1830, he again proposed a bank, which should be a branch of the treasury, without liberty to issue notes, make loans, or purchase property. The various interests involved in the fate of the Bank of the United States were of so much importance, that its recharter, very naturally, now assumed the character of a party question. The whole country, from one extremity to the other, was violently agitated concerning it; and the people were called upon, at the elections, to decide in favour of the bank or of General Jackson. At length, in the spring of 1832, a bill for the extension of its charter, with certain modifications in the power of issuing notes and

holding real property, was introduced into Congress, and, after long debates, carried through both the Senate and House of Representatives: the bill, however, failed to become a law by the interposition of the president's veto.—The president, having, in the mean time, been re-elected for a second term, in the beginning of the session 1832–33 invited Congress to make enquiry whether the public money deposited in the bank could be considered entirely safe in its keeping. A committee was, accordingly, appointed to make the enquiry suggested; and it made a voluminous report, concluding with a resolution "that the government deposits might safely be continued in the Bank of the United States." But the president was far from being satisfied with this result. Impressed with a belief, from a report made by the government directors of the institution, that its means had been employed to influence the elections, and for political purposes, he directed the Secretary of the Treasury to remove the deposits and place them in certain of the state banks. The secretary refused to take this step, and was dismissed from office. His successor complied (October 1st 1833), and at the next meeting of Congress, in December following, made to it a report, as required by law, of the proceeding, and of its motives. The Senate thereupon declared those motives to be wholly insufficient, and adopted a resolution, by a vote of 26 to 20, that the president, in directing a removal of the deposits, had assumed an authority "not conferred by the constitution and laws, but in derogation of both." The president, in his turn, sent to the Senate a protest, complaining that he had been condemned unheard, and that they had no constitutional right to pass censure on his conduct otherwise than in consequence of an impeachment of him by the House of Representatives; and the Bank of the United States continued to be deprived of the government deposits.—It seemed now to be on the eve of extinction; when, by one of those sudden changes in the relative strength of political parties, to which all governments founded on a popular basis are incident, it succeeded in obtaining a new charter, but on very onerous conditions, from the legislature of Pennsylvania. To compensate for these, the temptation became the greater, on the part of those who were invested with the direction of its affairs, to incur imprudent risks, with the expectation, in the event of success, of making extraordinary profits. It sought in various ways to extend its

discounts, reissuing its old paper, and contracting large foreign loans, especially in England, to enable itself to hold its ground at home. It embarked in speculations in cotton, and in the purchase of various stocks. In short, it participated, or led the way, in the career of over-banking and undue expansion of the system of credit, generally pursued by the moneyed institutions of the country, and which produced the suspension of specie payments of the year 1837, and the renewed suspension of 1839. — The number of banks, and the amount of banking capital, had been for a series of years rapidly augmenting in the different states, and in a proportion far greater than that of the business transactions of the country. This tendency, which is incident to every system of banking, unless kept in check by the habits of the mercantile community, aided by proper legislative measures, was, there can be no doubt, greatly aggravated by the relation in which the Bank of the United States had stood to the national government. According as the probability of the latter being rechartered diminished, the legislatures of the several states seemed to vie with each other in creating local banks to supply its place, and, in this competition, very naturally created many more banks than were necessary to effect the purpose that has been stated, all of them, of course, equally anxious with those previously existing, to push their notes into circulation. Again, there were two measures, one of them the act of the executive of the Union, and the other of Congress, in its legislative capacity, which co-operated, at least, in hastening the contraction of the currency, and in the production of the embarrassments, to relieve which, in a certain degree, is always one of the reasons assigned for the expediency of suspending the payment of bank-notes,—and co-operated in doing so by withdrawing from the banks a portion of the funds on which their operations were based. The first of the measures referred to was the requiring of payment, for sales of the public lands, exclusively in gold or silver coin. The other was the apportionment, agreeably to the act of Congress of June 23d 1836, of the surplus revenue of the United States, remaining in the Treasury, that is, deposited in certain of the banks selected by the Secretary of the Treasury, on the 1st of January 1837, with the exception of \$5,000,000 kept in reserve, among the several states; the whole sum distributed, which amounted to \$37,468,860, being paid over to the states, in four quarterly

instalments, in proportion to the number of electoral votes given by each in the choice of president.—The suspension of specie payments of 1837 began with the banks in the city of New York, on the 10th of May; and the example was followed, in rapid succession, by those of Boston, Providence, Philadelphia, Baltimore, Albany, and others in every quarter. On the 16th of the same month, the Legislature of New York passed an act authorising the suspension of specie payments, by the banks of that state, for a year. The New York city banks, acting in accordance with the judicious views of Mr. Gallatin, who was the president of one of their number, were earnest in their endeavours to resume specie payments at the close of that period; and already, in August 1837, sent round circulars to the principal banking institutions in the other cities, proposing a convention of delegates to make arrangements for accomplishing the object. This body met at New York, in the November following, without being productive of any general results; the project of the New Yorkers being objected to as premature by the Pennsylvania Bank of the United States and others. In May 1838, when the year allowed by the Legislature had expired, the New York banks, nevertheless, took the step proposed without the slightest difficulty; and the Boston banks first, and next those of Pennsylvania, and elsewhere, were, in consequence, induced to do the like. The United States Bank, in the meanwhile, continued to speculate beyond its resources; and large drafts upon Europe having been dishonoured, it once more suspended payments, on the 9th of October 1839. The same course was immediately pursued in all the southern and western states, in several of which the Legislatures had imprudently, themselves, engaged in the business of banking. By borrowing large sums of money in Europe, the Bank of the United States, however, still contrived to get along; and it ventured to resume specie payments, in the beginning of 1841. But its credit was so far gone, that in the course of three weeks, it was obliged to pay \$5,630,000,—a drain which obliged it again to stop; and an investigation was then instituted that proved the bank to be decidedly insolvent.—The following statement of the loans and discounts, amount of specie, circulation, and deposits, of all the banks in the United States, near the commencement of each year, from 1834 to 1839, inclusive, will exhibit distinctly the course pursued by them:—

|                        | 1834.       | 1835.       | 1836.       | 1837.       | 1838.       | 1839.       |
|------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Loans and Discounts .. | 394,119,499 | 365,163,834 | 457,506,070 | 525,115,798 | 475,631,667 | 492,977,015 |
| Amount of Specie.....  | 40,019,594  | 43,037,633  | 40,019,594  | 37,915,340  | 35,184,112  | 49,132,873  |
| Circulation .....      | 94,859,570  | 103,692,415 | 140,301,038 | 149,185,790 | 116,138,910 | 135,170,945 |
| Deposits .....         | 75,666,986  | 83,061,365  | 115,104,440 | 137,397,185 | 84,691,184  | 90,340,146  |

After 1839, the items above mentioned underwent a general diminution; until in 1843, they were,—loans and discounts, \$287,875,152; amount of specie, \$37,114,208; circulation, \$70,666,038; deposits, \$64,290,972. In 1843, the amount of the notes of the several banks which was held by other banks was somewhat more than \$20,000,000, leaving a net circulation of about \$50,000,000 only, with \$37,000,000 in specie at hand for redeeming them; a remarkably favourable relation of the two to each other.—There is, at present, no general system of banking in the United States; but every state has latterly been more or less employed in contriving expedients for preventing the recurrence of the evils, which the mismanagement of the banking institutions, within their respective limits, have inflicted, though with very doubtful success. Opinions, notwithstanding the varied and multiplied experience of the past, range from the extreme of a blind adherence to the system heretofore adopted, to the wildest schemes of untried experiment. Unfortunately for the interests of the community, the questions relating to our circulating medium have been, for a long period, involved in the contentions of party politics, and so it would seem they are likely to continue; a most unpropitious condition of things to obtain a proper degree of public attention to the principles on which our circulating medium should be most safely, as well as most steadily, constituted.—

The subjoined table exhibits a statement of the Coinage of the Mint of the United States, including that of the branch mints, from 1831 to 1844, inclusive.

| Year. | GOLD.         |                |             | SILVER.        |        |        | COPPER. |        |  | Whole Value. |
|-------|---------------|----------------|-------------|----------------|--------|--------|---------|--------|--|--------------|
|       | Value.        | Value.         | Value.      | Value.         | Value. | Value. | Value.  | Value. |  |              |
| 1831  | \$714 270 00  | \$8,175,800 00 | \$38,803 80 | \$3 928 473 80 |        |        |         |        |  |              |
| 1832  | 759 485 00    | 2 879 000 00   | 24 630 00   | 8 301 085 00   |        |        |         |        |  |              |
| 1833  | 978 580 00    | 2 879 000 00   | 24 630 00   | 7 710 100 00   |        |        |         |        |  |              |
| 1834  | 8,994 320 00  | 3 415 002 00   | 19 151 00   | 7 388 424 00   |        |        |         |        |  |              |
| 1835  | 2 196 175 00  | 3 443 009 00   | 39 499 00   | 6 998 687 00   |        |        |         |        |  |              |
| 1836  | 4 126 700 00  | 3 606 100 00   | 23 100 00   | 7 764 500 00   |        |        |         |        |  |              |
| 1837  | 1 149 303 00  | 2 006 010 00   | 55 593 00   | 3 299 998 00   |        |        |         |        |  |              |
| 1838  | 1 979 596 00  | 2 338 213 00   | 63 702 00   | 4 308 50 00    |        |        |         |        |  |              |
| 1839  | 1 355 985 00  | 2 199 298 00   | 81 298 81   | 3 478 467 81   |        |        |         |        |  |              |
| 1840  | 875 302 90    | 1 739 703 00   | 24 627 00   | 3 426 832 50   |        |        |         |        |  |              |
| 1841  | 1 091 867 50  | 1 182 750 00   | 15 973 67   | 2 240 821 17   |        |        |         |        |  |              |
| 1842  | 1 834 170 90  | 2 382 750 00   | 23 635 90   | 4 190 784 40   |        |        |         |        |  |              |
| 1843  | 8 108 797 50  | 3 844 750 00   | 24 283 20   | 11 967 830 70  |        |        |         |        |  |              |
| 1844  | \$ 429 280 00 | 2 226 560 00   | 23 967 82   | 7 697 767 82   |        |        |         |        |  |              |

The branch mints are at Charlotte

(N. C.), Dahlonega (Ga.), and New Orleans; and they went into operation in 1838.

An alteration was made in the standard of American coins, by an act of Congress passed January 18th 1837. It was enacted that the standard for both the gold and silver coins shall be such, that of 1000 parts by weight, 900 shall be of pure metal and 100 of alloy; and that the weight of the eagle shall be 258 grains, and of the dollar 412½ grains.

The following is a statement of the Revenue of the National Government, from 1831 to 1845 inclusive.

| Year.         | Customs.     | Internal and direct taxes. | Sales of lands and miscellaneos. | Aggregate of Receipts. |
|---------------|--------------|----------------------------|----------------------------------|------------------------|
| 1831          | \$24,224 442 | \$7 144 000                | \$3 210 815                      | \$37 432 067           |
| 1832          | 26 463 237   | 13 422                     | 2 623 861                        | 31 107 040             |
| 1833          | 29 032 509   | 3 153                      | 3 067 082                        | 35 002 644             |
| 1834          | 16 214 937   | 4 216                      | 4 857 001                        | 21 076 774             |
| 1835          | 19 391 311   | 14 728                     | 4 737 601                        | 24 185 655             |
| 1836          | 23 408 940   |                            | 4 877 180                        | 28 286 219             |
| 1837          | 11 165 970   | 1 029                      | 6 989 558                        | 19 020 628             |
| 1838          | 16 153 455   |                            | 3 214 184                        | 19 367 639             |
| 1839          | 23 136 397   |                            | 7 381 118                        | 30 597 515             |
| 1840          | 13 498 894   |                            | 3 494 266                        | 16 993 161             |
| 1841          | 14 461 908   |                            | 1 470 295                        | 15 932 203             |
| 1842          | 18 178 721   |                            | 1 484 878                        | 19 611 599             |
| 6 mos. of '43 | 7 048 644    |                            | 1 018 462                        | 8 066 235              |
| * 1844        | 26 181 571   |                            | 2 320 946                        | 28 502 519             |
| 1845          | 27 828 112   |                            | 2 241 020                        | 29 769 133             |

\* For the year ending June 30, 1844.

The following table exhibits the expenditures of the United States, exclusive of payments on account of the public debt and from trust funds.

| Year.  | Civil list, foreign intercourse and miscellaneous. | War department. | Navy department. | Aggregate of Expenditures. |
|--------|----------------------------------------------------|-----------------|------------------|----------------------------|
| 1831   | \$3 064 346                                        | \$ 9 943 399    | \$ 3 956 193     | \$18 963 769               |
| 1832   | 4 374 841                                          | 7 982 677       | 3 956 870        | 16 314 088                 |
| 1833   | 6 061 789                                          | 13 006 182      | 3 901 317        | 22 099 288                 |
| 1834   | 4 299 779                                          | 10 064 429      | 3 956 360        | 18 440 467                 |
| 1835   | 3 720 167                                          | 9 420 318       | 3 961 939        | 17 002 419                 |
| 1836   | 6 693 371                                          | 16 466 110      | 5 203 673        | 29 659 047                 |
| 1837   | 5 624 253                                          | 19 417 374      | 6 852 080        | 31 793 627                 |
| 1838   | 5 696 703                                          | 19 936 312      | 5 973 771        | 31 578 786                 |
| 1839   | 4 994 562                                          | 14 298 991      | 6 245 003        | 25 498 547                 |
| 1840   | 5 581 578                                          | 11 621 438      | 6 124 456        | 23 327 772                 |
| 1841*  | 943 257                                            | 2 124 061       | 724 262          | 3 819 850                  |
| 1842 † | 6 215 946                                          | 13 203 958      | 6 246 803        | 25 666 747                 |
| 1843 ‡ | 6 805 452                                          | 13 249 016      | 7 303 673        | 27 078 047                 |
| 1844 § | 6 967 259                                          | 4 169 354       | 3 672 718        | 10 809 281                 |
| 1844 ¶ | 5 281 747                                          | 8 221 317       | 6 456 991        | 19 969 055                 |
| 1845   | 6 618 207                                          | 6 529 202       | 6 226 629        | 21 393 048                 |

\* From January 1, to March 3, 1841.

† From March 4, 1841, to March 4, 1842.

‡ From March 4, 1842, to March 4, 1843.

§ From January 1, 1843, to July 1, 1843.

¶ For the year ending June 30, 1844.

The following is a statement of the Public Lands sold, and the amount re-

ceived for them, from 1831 to 1845, inclusive.

| Years.      | Acres.     | Dollars.   |
|-------------|------------|------------|
| 1831        | .....      | 3,210,815  |
| 1832        | .....      | 2,623,381  |
| 1833        | 3,856,227  | 4,972,284  |
| 1834        | 4,658,218  | 6,099,961  |
| 1835        | 12,564,478 | 15,999,904 |
| 1836        | 20,074,871 | 25,167,833 |
| 1837        | 5,601,103  | 7,007,523  |
| 1838        | 3,414,907  | 4,305,564  |
| 1839        | 4,976,382  | 6,404,556  |
| 1840        | 2,236,889  | 2,789,637  |
| 1841        | 1,164,796  | 1,463,364  |
| 1842        | 1,120,217  | 1,417,972  |
| 1843        | 1,605,264  | 2,016,044  |
| 6 mos. 1844 | 766,167    | 964,329    |
| 1845        | .....      | 2,077,113  |

The table which follows exhibits the most important facts relating to the Post Office Department, from 1831 to 1844, inclusive.

| Year. | Number of Post Offices. | Extent of Post Roads. | Revenue of the Department. |           | Expenditures of the Department. |                                 | Amount paid for               |  |
|-------|-------------------------|-----------------------|----------------------------|-----------|---------------------------------|---------------------------------|-------------------------------|--|
|       |                         |                       | Miles.                     | Dollars.  | Dollars.                        | Compen- sation of Post-masters. | Transpor- tation of the Mail. |  |
| 1831  | 8 656                   | 115 480               | 1 897 311                  | 1 939 122 | 635 026                         | 1 252 226                       |                               |  |
| 1832  | 9 305                   | 104 490               | 2 258 570                  | 2 293 171 | 715 481                         | 1 492 507                       |                               |  |
| 1833  | 10 127                  | 119 916               | 2 617 011                  | 2 630 414 | 826 261                         | 1 804 638                       |                               |  |
| 1834  | 10 651                  | 119 916               | 2 523 719                  | 2 810 005 | 867 317                         | 1 923 544                       |                               |  |
| 1835  | 10 770                  | 112 774               | 2 598 856                  | 2 757 860 | 945 418                         | 1 719 007                       |                               |  |
| 1836  | 11 081                  | 116 264               | 3 408 242                  | 3 811 765 | 812 501                         | 1 636 082                       |                               |  |
| 1837  | 11 787                  | 141 242               | 4 103 378                  | 3 303 426 | 801 282                         | 1 996 727                       |                               |  |
| 1838  | 12 519                  | 184 519               | 4 235 076                  | 4 621 854 | 984 948                         | 1 811 308                       |                               |  |
| 1839  | 12 780                  | 183 999               | 4 577 814                  | 4 651 718 | 997 003                         | 1 285 622                       |                               |  |
| 1840  | 13 468                  | 155 739               | 4 539 265                  | 4 759 110 | 1 058 945                       | 1 291 875                       |                               |  |
| 1841  | 12 778                  | 155 040               | 4 379 206                  | 4 443 789 | 1 019 645                       | 1 159 375                       |                               |  |
| 1842  | 13 783                  | 146 732               | 4 516 246                  | 4 235 052 | 1 147 256                       | 1 097 799                       |                               |  |
| 1843  | 13 814                  | 144 265               | 4 255 925                  | 4 374 718 | 1 426 864                       | 1 947 819                       |                               |  |
| 1844  | 14 103                  | 141 265               | 4 227 265                  | 4 287 867 | 1 358 316                       | 1 929 551                       |                               |  |

The army of the United States was composed, in 1845, of a corps of engineers, 4 regiments of artillery, 8 regiments of infantry, and 2 regiments of dragoons. And the Navy consisted of 10 ships of the line, 13 first class frigates, 2 second class frigates, 23 sloops of war, 8 brigs, 8 schooners, 9 steamers, and 4 store-ships.

We proceed to give such additional facts respecting the several States composing the American Union, as are likely to be of most general interest.

*Maine.*—The long dispute of the United States with Great Britain, concerning the boundary between the state of Maine and the British province of New Brunswick, was brought to a close by the treaty concluded at Washington, on the 20th of August 1842. It was agreed that the boundary line in question should proceed from the Atlantic up the river St. Croix to the monument at its source; thence due north, following the exploring line run and marked by the surveyors of the two governments in the years 1817 and 1818, to its intersection with the St. John's river; thence up the main channel of this river, to the mouth

of the St. Francis; thence up the main channel of the latter river, and through the lakes through which it flows, to the outlet of Lake Pohenagamook; thence south-westerly, in a straight line, to a point in the north-west branch of the river St. John, which point shall be ten miles distant from the main branch of the St. John, in a straight line, and in the nearest direction,—but if the said point shall be found to be less than seven miles from the nearest point, or crest of the highlands, that divide the rivers which empty themselves into the River St. Lawrence from those which fall into the River St. John, to a point seven miles in a straight line from the said summit or crest; thence in a straight line in a course south, about 8 degrees west, to the point where the parallel of latitude of 46 degrees 25 minutes north intersects the south-west branch of the St. John; thence southerly by the said branch to its source, in the islands at the Metjarquette portage; thence down along these islands, which divide the waters that empty themselves into the St. Lawrence from those that fall into the Atlantic Ocean, to the head of Hall's stream; thence down the middle of this stream till the line run at the 45th degree of north latitude, which constitutes the line of actual division between the states of New York and Vermont on the one side, and the British province of Lower Canada on the other; and lastly, from this point of intersection west, along the said dividing line, to the Iroquois, or St. Lawrence River.—Population, in 1840, 501,739; and has 7 representatives in Congress.—The receipts into the treasury of the state, during the year 1844, were \$366,885; and the amount expended was \$363,058. The state debt amounted to \$1,590,931. Of the receipts, \$92,151 were derived from the sale of public lands; \$213,681 from direct taxation; and \$41,438 from the school funds. The expenditure comprehended \$97,886 of interest on the debt; \$72,500 of debt paid off; \$27,194 for common schools; \$4970 for educating the deaf and dumb and the blind; \$1257 to the hospital for the insane; \$10,615 on account of the state prison at Thomaston, &c.—In 1839, Maine had 50 banks, with a capital of \$1,959,000, a circulation of \$2,036,640, and \$303,605 in specie.—Bowdoin College, at Brunswick, had, in 1845, 8 instructors, and 182 students; Waterville College (under the direction of the Baptists) had 7 instructors, and 70 students; and the Bangor Theological (Congregationalist) Seminary had 3 in-

structors and 43 students. The Maine Medical School, at Brunswick, had 4 instructors and 60 students.—This state possesses the Cumberland and Oxford, and the Bangor and Orono canals. The former was noticed in the article *Canals*; the latter extends from Bangor to Orono, a distance of 12 miles, and was completed in 1836. The Portland, Saco, and Portsmouth railroad is 50 miles long, and connects with the railroad from Portsmouth to Boston.—The principal towns, with their population, according to the census of 1840, are:—Portland, 15,218; Bangor, 8027; Thomaston, 6227; Bath, 5741; Augusta, 5314; Hallowell, 4654; Brunswick, 4259; Belfast, 4186; &c. Augusta is the seat of government; and Portland is the chief port, ranking in respect to commercial importance as the third town in New England.

*New Hampshire.*—Population in 1840, 284,574; and has 4 representatives in Congress.—The receipts into the treasury, during the year ending June 4th 1845, amounted to \$147,167; and the expenditure was \$138,855. There is no public debt. Of the receipts, \$63,000 were the product of temporary loans: \$2083 were expended for the instruction of the deaf and dumb and the blind; \$5000 for the asylum for the insane; and \$3051 for the geological survey of the state.—The insane asylum was founded at Portsmouth, in 1842. The prison is at Concord; its income exceeded its expenditure, during the year ending on the 31st of May 1845, by the sum of \$356.—There were, in 1839, 23 banks in this state, with an aggregate capital of \$2,939,503, a circulation of \$1,510,691, and \$187,961 in specie.—The sum of \$90,000 is annually assessed for the support of the common schools; and a tax of a half per cent. levied annually on the capital stock of the banks, and amounting to \$12,000, is appropriated for the same purpose.—Dartmouth College had, in 1845, 15 instructors and 331 students. The Congregationalists have a theological seminary at Gilmanton, which was founded in 1835, and in 1845 had 3 instructors and 23 students. The New Hampshire Medical School, at Hanover, had 6 instructors and 80 students.—The canals are chiefly *cuts* with locks, for the improvement of the navigation of the Merrimac River. The Massachusetts railroads pass over New Hampshire to Portsmouth, a distance of 15½ miles, and from Lowell to Nashua; and the Boston and Maine railroad, 14 miles to Exeter. The Concord railroad, 35 miles in length, was

constructed at a cost of \$750,000.—Among the most important towns are, with their population in 1840:—Portsmouth, 7787; Concord, 4897; Nashua, 6054; Dover, 6458; Hanover, 2613; &c.

*Vermont.*—Population in 1840, 291,948; and has 4 representatives in Congress.—The receipts into the treasury of the state, in 1844, amounted to \$95,788, and the expenditure to \$90,054. There is no state debt. The sum of \$4004 was paid to the deaf and dumb asylum at Hartford, and \$1955 to the Vermont asylum for the insane at Brattleborough. The expenditure of the state prison (at Windsor) was \$6903, exceeding the income \$1867. There is a school fund which has never been applied to the purposes for which it is professedly intended, having been continually accumulating; it amounts at present to more than \$200,000. In 1839, there were 19 banks, with a capital of \$1,304,530, a circulation of \$2,043,843, and \$157,033 in specie.—The University of Vermont, at Burlington, has 7 instructors and 125 students; Middlebury College, 7 instructors and 97 students; and Norwich University, founded in 1834, 7 instructors and 104 students. There are two medical schools, styled the "Castleton Medical College," and the "Vermont Medical College;" the former, founded in 1818, is situated in the village of Castleton, is connected with Middlebury College, and has 7 instructors and 104 students; the latter is at Woodstock, was founded in 1835, and has 7 instructors and 94 students. The chief towns, with the number of their inhabitants in 1840, were:—Burlington, 4271; Montpelier, 3725; Bennington, 3429; Woodstock, 3315; Middlebury, 3162; Windsor, 2744; &c. The constitution of this state was amended in 1836, by adding to the legislature a senate of 30 members.

*Massachusetts.*—Population, 737,699; and has 10 representatives in Congress.—The receipts into the treasury of the state, exclusive of money borrowed, amounted, in 1844, to \$471,776, and the expenditure in the same year to \$461,097. The public debt amounted to \$6,134,245; the credit of the state having been loaned to railroads for \$5,049,555. Of the moneys expended, \$3782 were for the asylum for the blind, \$4072 for the deaf and dumb, \$5000 for the lunatic hospital, and \$3000 for normal schools. The Massachusetts school-fund amounted, January 1st 1845, to \$754,014; and there was also a school-fund for Indians of \$2500.—In 1839, the number of banks was 118, having a capital

of \$34,485,600, a circulation of \$7,875,322, and \$1,838,272 in specie.—Harvard University had, in 1845, 30 instructors and 290 students; Williams College, at Williamstown, 8 instructors and 144 students; and Amherst College, 12 instructors and 142 students. The (Congregationalist) Theological Seminary at Andover had, in the same year, 5 instructors and 86 students; the Divinity School of Harvard University (Unitarian), 2 instructors and 35 students; and the Theological institution (Baptist) at Newton, 3 instructors and 33 students. There is a Law School and a Medical School connected with Harvard University: the former with 2 instructors and 154 students; and the latter with 6 instructors and 157 students. The Berkshire Medical School, at Pittsfield, has 5 instructors and 157 students.—When the article *Railways*, in a previous volume, was published, the only work of the kind that had been constructed was the short railroad of 3 miles, known as the Quincy railroad, in the neighbourhood of Boston. Massachusetts now has also the following railroads:—the Boston and Maine, 72½ miles in length, and cost \$1,941,163; the Boston and Lowell, length 26 miles, cost \$1,902,555; the Boston and Providence, length 41 miles, cost \$1,886,134; the Boston and Worcester, length 44 miles, cost \$2,914,078; the Charleston Branch, 6 miles in length, and cost \$280,259; the Eastern railroad, length 55 miles, cost \$2,388,044; the Fitchburg railroad, length 50 miles, cost \$992,433; the Nashua and Lowell, length 14½ miles, cost \$380,000; the Berkshire railroad, length 21 miles, cost \$250,000; the Northampton and Springfield, length 20 miles, cost \$300,000; the New Bedford and Taunton, length 21 miles, cost \$430,961; the Taunton Branch, length 11 miles, cost \$250,000; the West Stockbridge, length 3 miles, cost \$41,516; the Western railroad, length 156 miles, cost \$7,686,202; the Norwich and Worcester, length 62 miles, cost \$2,170,365; the Old Colony, length 37 miles, cost \$1,000,000; the Stoughton Branch, length 4 miles, cost \$63,075; and the Worcester Branch, length 3 miles, cost \$431.—The principal towns, with their population, according to the census of 1840, are:—Boston, 93,383; but including Charlestown, 11,484, — Cambridge, 8409, — Chelsea, 2390, — Roxbury, 9059, — Dorchester, 4875, — and some other places in the immediate vicinity,—the actual population of Boston may be stated as exceeding 160,000; Lowell, 20,796; Salem, 15,062; New Bedford, 12,087; Springfield, 10,965;

Worcester, 7497; Newburyport, 7161; Marblehead, 6575; Plymouth, 5281; Andover, 5207; &c. An amendment to the constitution of this state was adopted in 1840, the chief provisions of which are:—a census to be taken every 10 years, commencing in May 1840; which census shall determine the apportionment of the senators and representatives in the legislature for the term of 10 years; the senate to consist of 40 members; every town or city of 1200 inhabitants to send one representative, and 2400 inhabitants to be the mean increasing number for an additional representative; and 9 councillors are to be annually chosen from among the people on the first Wednesday in January, or as soon after as convenient, by a joint vote of the senators and representatives.

*Rhode Island.*—Population in 1840, 108,830; and has 2 representatives in Congress.—The receipts into the public treasury, during the year ending April 30th 1845, and including a loan of \$25,000, amounted to \$89,268; and the expenditures in the same period to \$7,460. The state debt is inconsiderable, since the interest upon it constituted only \$352 of the whole expenditure. Of this \$25,589 were for the public schools, and \$7359 were on account of the state prison. The permanent school-fund at present amounts to \$50,000; and much attention has latterly been given to the improvement of the system of public instruction.—In 1839, Rhode Island had 62 banks, with an aggregate capital of \$9,868,773, a circulation of \$1,886,108, and \$462,002 in specie.—The Providence and Boston railroad, noticed above, passes through a part of this state, and the Providence and Stonington is situated almost entirely within it: the length of the latter is 47 miles, and its cost was \$2,600,000.—Brown University, at Providence, is under the direction of the Baptists, and had, in 1825, 9 instructors and 157 students.—The chief towns, with their population in 1840, are:—Providence, 23,171; Newport, 8333; Smithfield, 9534; Warwick, 6726; Bristol, 3490; &c.—A new constitution went into operation in this state in May 1843. It provides that the Senate shall consist of the Governor, Lieutenant-governor, and a member from each of the 31 towns in the state; that the House of Representatives shall consist of 69 members, chosen by the towns according to their population; each town, however, to have at least 1, and none to have more than 12 representatives; that the senators and representatives, with the governor, lieutenant-governor, secretary



of state, general treasurer, and attorney-general, shall be chosen annually; that every male native citizen of the United States shall be entitled to vote who has resided in the state 2 years, and in the town where he claims to vote 6 months, who has been registered at the town-clerk's office at least 7 days before the election, and who has paid a tax of one dollar within a year, or has been enrolled and performed military duty at least one day within the preceding year; and that every male naturalized foreigner shall be entitled to the same privilege, who, besides the preceding qualifications, possesses real estate, in the town or city, of the clear value of \$134, or which rents for \$7 a-year.

*Connecticut.*—Population, 309,978; and has 4 representatives in Congress. For the year ending April 1st 1845, the public receipts and expenditures amounted, respectively, to about \$90,000. As much as \$10,000 of the receipts were derived from the state prison, being the excess of the income of the institution above its expenses. There is no debt; and the state, in addition to the school-fund, owns bank-stock to the value of \$400,000. The school-fund amounted, in 1844, to \$2,051,423.—The number of banks and branches of banks in the state, in 1839, was 34, with \$3,832,223 capital, \$3,987,815 circulation, and \$502,180 in specie.—Yale College, at New Haven, had, in 1845, 24 instructors and 394 students; Trinity College, at Hartford, which is an Episcopalian institution, had 8 instructors and 80 students; and the Wesleyan University (Methodist), at Middletown, had 8 instructors and 105 students. In the theological (Congregationalist) department of Yale College there were 4 instructors and 64 students; in the medical department, 6 instructors and 43 students; and in the law school, 3 instructors and 36 students. The Congregationalists have another theological institution, founded at East Windsor in 1834; it has 3 instructors and 29 students.—The Farmington canal has been extended from the borders of Connecticut to Northampton, in Massachusetts. Its entire length, between New Haven and Northampton, is 78 miles, 56 of which are within the limits of the state of Connecticut; its cost was \$1,500,000.—The railroads that have been constructed are the Norwich and Worcester, length 58½ miles, cost \$2,170,366; the Hartford and New Haven, length 36 miles, cost \$1,100,000; the prolongation of this from Hartford to Springfield, length 25½ miles, cost about

\$600,000; and the Housatonic railroad, from Bridgeport to North Canaan, a distance of 73 miles, whence it has been continued to meet the Western railroad through Massachusetts at West Stockbridge.—The chief towns, with the number of their inhabitants in 1840, are:—New Haven, 14,390; Hartford, 12,793; Norwich, 7239; Middletown, 7210; New London, 5528; Bridgeport, 4570; Danbury, 4543; Litchfield, 4038; &c.

*New York.*—Population, in 1845, 2,604,495; and has 34 representatives in Congress.—The receipts into the state treasury, in the year ending on the 30th of September 1844, amounted to \$1,073,249; of which sum \$492,501 was the product of the "mill tax." Since \$278,197 of the last-mentioned sum was added to the "Canal Fund," the amount of the receipts really applied to the support of the government was only \$858,743, falling short of the expenditures for the year by \$203,702. It became therefore necessary to increase the debt of the state by the amount of this deficit. This debt consists of two distinct portions,—the Canal Debt and the General Fund Debt. The former amounted, on the 1st of October 1844, to \$20,713,905; and the latter to \$5,634,507, or rather to \$4,622,019, the difference between these sums having been borrowed from certain funds owned by the state itself. The amount of the tolls received on the canals during the year ending September 30th 1844, was \$2,398,225, and that of the nett receipts, after deducting the expense of maintaining the canals, \$1,803,768, or a sum exceeding the interest on the whole debt of the state by \$367,235. The sums referred to above, as being owned by the state, are the Common School Fund, amounting to \$1,992,916, and yielding an annual revenue of \$133,826; the Literature Fund, of \$268,990, with a revenue of \$13,490; and the United States Deposit Fund, of \$4,014,520, and a revenue of \$237,304, which, like the revenues derived from the former two, is appropriated to the purposes of education.—In 1839, the number of banks was 96, with an aggregate capital of \$36,501,450, a circulation of \$19,373,149, and \$6,602,708 in specie.—In 1845, Columbia College, in the city of New York, had 12 instructors and 104 students; Union College, at Schenectady, 11 instructors and 242 students; Hamilton College, at Clinton, not far from Utica, 9 instructors and 128 students; Geneva College (Episcopalian), 8 instructors and 70 students; and the University of the City of New York, 12 instructors and 143



students. The theological schools are the following:—the Theological Institution of the Episcopal Church, in the city of New York, with 5 instructors and 70 students; the Hamilton Literary and Theological Institution (Baptist), at Hamilton in Madison county, with 9 instructors and 138 students; the Theological Seminary at Auburn (Presbyterian), with 4 instructors and 71 students; the Union Theological Seminary (Presbyterian), in the city of New York, with 6 instructors and 112 students, founded in 1836; the Theological Seminary of the Associate Reformed Church, at Newburgh, with 3 instructors and 11 students; together with the Lutheran Seminary at Hardwick in Otsego county, which has, however, only 1 instructor and 5 students. There are 4 medical schools in the state,—the College of Physicians and Surgeons, in the city of New York, having 6 instructors and 193 students; the Medical Institution of Geneva College, founded in 1835, and having 6 instructors and 183 students; the Medical School connected with the University of the City of New York, founded in 1837, and having 6 instructors and 378 students; and the Albany Medical College, founded in 1839, and having 8 instructors and 104 students.—The Erie canal has, since 1835, been enlarged to meet the augmented transportation of commodities, at a cost of \$13,291,616; and in addition to the canals noticed in a preceding volume, under the head of *Internal Navigation*, the following have been constructed:—the Chemung canal, from the head waters of the Seneca lake to Tioga point, a distance, including its feeder, of 39 miles, at a cost of \$641,600; the Crooked Lake canal, from Crooked lake to Seneca lake, 8 miles long, and cost \$156,776; the Chenango canal, extending a distance of 97 miles, from Binghamton to Utica, and having cost \$2,417,000; the Black River canal, from the Erie canal at Rome to Leyden on Black river, 35 miles in length, with a navigable feeder of 11 miles, at a cost of \$1,511,967; the Genesee Valley canal, from Rochester to Olean, on the Allegheny, a distance of 107 miles, at a cost, including that of a branch of 15 miles, of \$3,555,000; the Oneida Lake Canal, 8 miles long, and cost \$50,000; and the Delaware and Hudson canal, beginning at Eddyville on the Rondout creek, near the Hudson river, and extending across the Delaware to Honesdale, on the Lackawaxen, a distance of 103 miles, and cost \$2,400,000.—The railroads in the state

are:—the Mohawk and Hudson railroad, between Albany and Schenectady, length 17 miles, and cost \$1,053,248; the Utica and Schenectady railroad, length 77 miles, and cost \$2,200,815; the Syracuse and Utica railroad, length 53 miles, and cost \$1,180,219; the Auburn and Syracuse railroad, length 26 miles, and cost \$761,058; the Auburn and Rochester railroad, length 78 miles, and cost \$1,728,361; the Tonawanda railroad, from Rochester to Attica, length 43 miles, and cost \$600,000; the Attica and Buffalo railroad, which completes the communication by railroad between Albany and Lake Erie, length 31 miles, and cost \$268,275; the Saratoga and Schenectady railroad, length 21½ miles, and cost \$302,785; the Troy and Saratoga railroad, length 25 miles, and cost \$475,864; the Troy and Schenectady railroad, length 20½ miles, and cost \$633,519; the railroad from Troy to Greenbush, length 6 miles, and cost \$180,000; the Albany and West Stockbridge railroad, length 39 miles, and cost \$1,752,544; the Hudson and Berkshire railroad, from Hudson to West Stockbridge in Massachusetts, length 32 miles, and cost \$590,000; the Harlem railroad, from the city of New York through Harlem, length 26 miles, and cost \$2,300,000; the Long Island railroad, from Brooklyn to the eastern extremity of the island, a distance of 96 miles, and cost about \$2,000,000; the Lockport and Niagara railroad, length 22 miles, and cost \$200,000; the Buffalo and Niagara railroad, length 23 miles, and cost about \$200,000; the Ithaca and Owego railroad, length 29 miles, and cost about \$500,000; and the New York and Erie railroad, commencing at Piermont on the Hudson, about 20 miles from New York, and destined to extend through the southern counties of the state to Dunkirk on Lake Erie. A distance of 53 miles of this road, at its eastern extremity, has been completed.—The chief towns, with their population in 1840, are:—New York, city, 371,223; Brooklyn, city, 59,574; Albany, city, 41,139; Buffalo, city, 29,673; Rochester, city, 25,465; Troy, 21,109; Salina, 15,804; Utica, city, 12,190; Poughkeepsie, 11,791; Water-vliet, 11,209; Fishkill, 10,651; Lockport, 9314; Newburg, 9001; Schenectady, city, 6555; Hudson, city, 5657; Canandaigua, 5627; &c.

*New Jersey*.—Population, in 1840, 373,306; and has 5 representatives in Congress.—The revenue of this state, from October 10th 1843 to February 7th 1845, was \$170,375, and the expenditure

\$164,276. Among the sources of the revenue were \$4000 constituting the excess of the earnings of the state prisoners above the expense of maintaining them, and a tax paid by the canal and railroad companies, amounting to \$55,964; and among the expenditures were \$4329 for the deaf and dumb and the blind, and \$80,000 in part payment of the debt owing by the state to the school fund. The portion of this debt which still remained unpaid amounted to \$25,595. On the other hand, the property of the state in railroad stocks, and the debts due to it by incorporated companies or individuals, were estimated at about \$250,000; so that the debt to the school fund was in reality only a nominal one. The school fund amounted to \$377,391; but the interest of this is not the only sum appropriated by the public to the support of common schools, twice as much besides being contributed by the townships for this purpose. — In 1839, New Jersey had 22 banks, with an aggregate capital of \$4,009,930, a circulation of \$1,795,188, and \$433,778 in specie. — The Morris canal, extending from Jersey city, opposite New York, through Newark and Paterson, by a somewhat circuitous route, to the Delaware opposite Easton, is 102 miles long, and cost \$4,000,000. The Delaware and Raritan canal extends from Bordentown through Trenton to New Brunswick, and is 43 miles long, 75 feet wide, and 7 feet deep, admitting vessels of 100 tons burden: it was constructed at a cost of \$3,000,000. — New Jersey has the following railroads: — the Camden and Amboy railroad, with two branches connecting it with New Brunswick and Trenton, the length of the whole being 95 miles, and its cost \$3,200,000; the Paterson railroad, from Paterson to Jersey city, length 15 miles, and cost \$500,000; the New Jersey railroad, extending from Jersey city through Newark to New Brunswick, 31 miles long, and cost \$2,000,000; the Morris and Essex railroad, from Newark to Morristown, length 20 miles, and cost \$400,000; and the Elizabethtown and Somerville railroad, length 28 miles, and cost \$500,000. — The chief towns, with their number of inhabitants in 1840, are, — Newark, 17,290; New Brunswick, 8693; Paterson, 7596; Elizabethtown, 4184; Trenton, 4035; &c. — The College of New Jersey, at Princeton, had in 1845, 13 instructors and 190 students; and Rutgers' College, at New Brunswick, 9 instructors and 85 students. The Theological Seminary of the Dutch Reformed Church, at New Brunswick, had 3 instructors and 36

students; and the Theological Seminary of the Presbyterian Church of the United States, at Princeton, 4 instructors and 105 students. — A new constitution was adopted by the people of this state on the 13th of August 1844, and went into operation on the 2d of September following. Some of its most important provisions are; — that every white male citizen of the United States, who has lived one year in the state, and five months in the county where he claims to vote, shall be entitled to this privilege; paupers, idiots, insane persons, and criminals being excepted, — that the Legislature shall consist of a Senate and General Assembly, which are to meet on the 2d Tuesday of every January; — that the Senate shall consist of a member from each county of the state, elected for three years, one-third of the whole body being renewed yearly; and the General Assembly of not more than 60 members, elected annually by the people of the different counties, the number of the members from each county being in proportion to the population, according to the preceding general census; — that the Governor shall be chosen for three years, shall receive a salary which must continue unaltered during his term of office, shall have a veto on the acts of the Legislature, which may nevertheless become laws if, on reconsideration, they are again passed by a majority of both houses; — that the common school fund, with any additions to be hereafter made to it, shall never be alienated to any other purpose; — that no charters shall be granted for banks or other money corporations, without the assent of 3-5ths of the members of each house, and that all such charters shall, when granted, be limited in duration to a period of 20 years or under; — and that the Legislature should not create any debts or liabilities to "exceed \$100,000, except for the purposes of war, to repel invasion, or to suppress insurrection, unless the same shall be authorized by a law for some single object or work, to be distinctly specified therein," which law shall provide the means for the regular payment of the interest upon the debt incurred, with the means also of paying off the principal within 35 years of the contracting of the debt; and such law, besides, must be submitted to the people for their approval, before it can have any force. Provision was also made for amendments to the constitution.

*Pennsylvania.* — Population, 1,724,022; and 24 representatives in Congress. Revenue in 1844, \$2,331,705; expenditure, \$1,847,385. Among the items conste-

tuting the latter, there were \$254,453 for purposes of "internal improvement;" \$290,917 for education; \$13,308 for the penitentiaries; \$4000 for the "House of Refuge;" \$2000 for the geological survey of the state; and only \$50,542 for the payment of the interest on loans, while the annual interest due on the public debt, which amounted to no less a sum than \$40,703,866, was \$2,035,013.—The number of banks and branches of banks, in January 1839, was 50, having an aggregate capital of \$23,866,211, a circulation of \$11,384,151, and \$3,282,213 in specie.—The University of Pennsylvania, at Philadelphia, in 1845, had 7 instructors and 120 students; Dickinson College (Methodist), at Carlisle, 8 instructors and 97 students; Jefferson College at Canonsburg, 8 instructors and 170 students; Washington College, 6 instructors and 191 students; Alleghany College (Methodist) at Meadville, 5 instructors and 100 students; the Western University of Pennsylvania, at Pittsburgh, 5 instructors and 64 students; the Pennsylvania College, at Gettysburg, founded in 1832, 4 instructors and 76 students; Lafayette College, at Easton, founded also in 1832, 7 instructors and 130 students; and Marshall College, at Mercersburg, founded in 1836, 4 instructors and 49 students.—There are 5 theological seminaries in Pennsylvania:—the German Reformed Seminary, at York, with 2 instructors and 20 students; the Lutheran Seminary, at Gettysburg, with 3 instructors and 26 students; the Western Theological Seminary (Presbyterian) at Alleghany Town, with 3 instructors and 54 students; the Seminary of the Associate Reformed Church, at Pittsburg, with 1 instructor and 19 students; and the Theological School of the Associate Church, at Canonsburg, with 2 instructors and 30 students. There are, also, 4 medical schools in the state, all of them at Philadelphia:—the Medical Department of the University of Pennsylvania, with 8 instructors and 446 students; the Jefferson Medical School, with 7 instructors and 409 students; the Medical Department of the Pennsylvania College, founded in 1839, with 6 instructors and 60 students; and the Franklin Medical School, which obtained a charter from the Legislature at its last session (1846). And a law school exists at Carlisle, in connexion with Dickinson College.—The Pennsylvania canals are:—the Delaware section of the Pennsylvania canal, extending along the Delaware from Bristol to Easton, length 60 miles, and cost \$1,374,-

744; the Eastern section, from Columbia, along the left bank of the Susquehanna, to Duncan's Island, length 44 miles, and cost \$1,734,958; the Juniata section, from Duncan's Island, along the valley of the Juniata, to Hollidaysburg, length 129 miles, and cost about \$3,500,000; the Susquehanna section, from Duncan's Island, along the western bank of the Susquehanna, to Northumberland, length 39 miles, and cost \$1,040,000; the North Branch, from Northumberland, along the north branch of the Susquehanna, to the mouth of the Lackawana, above Wilkesbarre, length 73 miles, and cost \$2,090,000; the Western Branch, from Northumberland, along the west branch of the Susquehanna, to Farrandville, length 73 miles, and cost \$1,708,579; the Western section, from the western termination of the Alleghany Portage railroad, near Johnston, down the Conemaugh and the Kiskiminetas to the Alleghany, and down this river to Alleghany city, opposite Pittsburg, length 105 miles, and cost \$2,823,192; the Erie and Beaver canal, from the town of Beaver, on the Ohio, to that of Erie, in the N. W. corner of the state, length 136 miles, and cost \$4,000,000; the Schuylkill, Lackawaxen, Lehigh, Union, Conestoga, Conewago, and French creek feeder canals, noticed in a previous volume; the Franklin Line canal, from the latter, above Meadville, to the Erie canal at Conneaut lake, length 22 miles, and cost \$442,558; the Codorus canal, from the town of York to the Susquehanna river, length 11 miles, and cost \$100,000; the Wiconisco canal, along the east bank of the Susquehanna, from Clark's ferry, near Duncan's Island, to Millersburg, at the mouth of Wiconisco creek, length 12 miles, and cost \$400,000; the canal from Wrightsville to Havre de Grace, along the Susquehanna, length 45 miles, and cost \$3,500,000; and the Bald Eagle canal, from the West Branch canal to Bellefonte, length 25 miles, and cost \$225,000.—The principal railroads of this state are:—the Philadelphia and Trenton, length 30 miles, and cost \$500,000; the Philadelphia and Pottsville, length 95 miles, and cost \$9,457,570; the Philadelphia and Columbia, length 62 miles, and cost \$4,200,000; the Philadelphia and Wilmington, length 27 miles; the Harrisburg and Lancaster, length 36 miles, and cost \$860,000; the Cumberland Valley, from Harrisburg, through Carlisle, to Chambersburg, length 50 miles, and cost \$1,250,000; the Danville and Pottsville, from Pottsville to Sunbury, length 44 miles; the Bloesburg and Corning, from

the bituminous coal region of Blossburg to the Chemung canal in New York, length 40 miles, and cost \$600,000; the Alleghany Portage, length 37 miles, and cost \$1,753,000; the Williamsport and Elmira, completed only from the former of these places to Ralston, a distance of 25 miles, at a cost of \$400,000; the Beaver Meadow, from Parryville, on the Lehigh, below Mauch Chunk, to the Beaver Meadow coal mines, length 20 miles, and cost \$150,000; the Mauch Chunk, from the coal landing at Mauch Chunk to the summit mines, length 9 miles, and cost \$100,000; another railroad, 5½ miles long, from Mauch Chunk to the coal mines on Rhume run; the Lehigh and Susquehanna, from Whitehaven, on the Lehigh, to Wilkesbarre, on the Susquehanna, length 20 miles, and cost \$1,250,000; the Hazleton, which branches off from the Beaver Meadow railroad, is 8 miles long, and cost \$120,000; the Little Schuylkill, between Port Clinton and Tamaqua, length 23 miles, and cost \$326,500; the Carbonale and Honesdale, length 17 miles, and cost \$504,000; the Mine Hill and Schuylkill Haven railroad, on the west branch of the Schuylkill, length 20 miles, and cost \$400,000; the Philadelphia and Norristown, length 17 miles, together with a branch of 3 miles to Germantown, cost of the whole road \$800,000; the Lykens' Valley, from Millerstown, on the Susquehanna, to the Wiconisco coal mines, in Dauphin county, length 16½ miles, and cost \$170,000; and also the Philadelphia and Westchester railroad, from the Columbia railroad to the town of Westchester, a distance of 10 miles; the Franklin, from the Cumberland Valley railroad, at Chambersburg, to Williamsport, in Maryland, length 30 miles; the York and Wrightsville, length 13 miles; the Strasburg, from the Cumberland Valley road to Strasburg, length 7 miles; the Mount Carbon, from Mount Carbon to Norwegian creek, length 7½ miles; the Schuylkill Valley, from Port Carbon to Tuscarora, and branches, the whole 25 miles long; the Mill Creek, from Port Carbon to coal mines, length 9 miles; the Mine Hill and Schuylkill Haven, length 20 miles; &c.—The chief towns, with their population in 1840, are:—Philadelphia, 220,423; Pittsburg, 21,115; Lancaster, 8417; Reading, 8410; Harrisburg, 5960; Easton, 4985; York, 4479; Carlisle, 4351; Pottsville, 4345; &c.—An amended constitution of Pennsylvania was adopted in 1838. The chief alterations from the former were:—that the Legislature should meet on the 1st

Tuesday of January in each year; that the senators should be chosen for three years; that the governor should not hold his office for longer than two consecutive terms of three years each; that white freemen only shall vote; that county officers shall be elected by the people; that the senate shall confirm the appointment of judges made by the governor; that the judges of the supreme court shall hold office for 15 years, and the judges of the common pleas and other courts of record, for 10 years, instead of for life, as heretofore.

*Delaware.*—Population, in 1840, 78,085; and 1 representative in Congress.—The receipts into the state treasury, in 1844, amounted to \$42,352; the expenditure to \$33,071. There is no public debt; and there is a school-fund of \$200,700.—The sum of \$3276 was appropriated by the state, in 1844, to the fund for the support of Delaware College, at Newark. This institution had, in 1845, 7 instructors and 112 students.—A railroad has been constructed, in continuation with that from Philadelphia to Wilmington, from the last mentioned place to Havre de Grace, on the Susquehanna, 32 miles in length.—In 1839, this state had 4 banks, and 4 branches of banks, with an aggregate capital of \$1,071,318, a circulation of \$706,053, and \$141,569 in specie.—The population of the three principal towns, Wilmington, Dover, and Newcastle, according to the census of 1840, was, respectively, 8367, 3790, and 3661.—A new constitution of government was adopted in 1831. The legislative power is vested in a General Assembly, consisting of a Senate and House of Representatives. The members of the former body are chosen for 4 years, 3 from each county; those of the latter for 2 years, 7 from each county. A session of the Legislature is held every 2 years. The Governor is elected by the people for the term of 4 years, and is ever afterwards ineligible. The right of suffrage belongs to every white male citizen of the age of 22, who has resided one year within the state, and paid a county tax; and every white male citizen under the age of 22 years, and of the age of 21, is entitled to vote, though not having paid a tax. The judges are appointed by the governor, and hold office during good behaviour. It is provided that no act of incorporation shall be passed without a vote of 2-3ds of each branch of the Legislature, unless in the case of the renewal of an existing corporation; and every act may be repealed at the pleasure of the Legislature. And it is also provided that no

act of incorporation which shall be hereafter passed shall continue in force longer than 20 years, without being re-enacted, unless it be for the purpose of public improvement.

*Maryland.*—Population, in 1840, 469,232; and has 6 representatives in Congress.—Revenue in 1844, \$743,479; and expenditure \$635,524. Among the items constituting this last were for the payment of the interest on the state debt, \$395,052,—for common schools, \$34,069,—for colleges and academies, \$18,400,—and for charitable institutions, \$16,665. The debt of the state amounted to \$11,936,784, the annual interest on which is \$355,341. In December 1844, nearly \$1,500,000 of interest remained unpaid.—In 1839, Maryland had 24 banks, and branches of banks, with an aggregate capital of \$11,419,999, a circulation of \$3,798,067, and \$1,679,066 in specie.—In 1845, St. John's College, at Annapolis, had 5 instructors and 27 students; St. Mary's College (Rom. Catholic), at Baltimore, 16 instructors and 160 students; and Mount St. Mary's College (Rom. Catholic), at Emmetsburg, 12 instructors and 130 students. The Medical School of the University of Maryland, at Baltimore, has 6 instructors and 100 students; and the Washington Medical College, also at Baltimore, 6 instructors and 25 students.—The Chesapeake and Ohio canal has been completed from Georgetown to Cumberland, a distance of 185 miles, at a cost of \$12,370,000. The Baltimore and Ohio railroad is, also, completed from Baltimore to Cumberland, length 181 miles, and cost \$7,624,000. The other railroads are,—the Baltimore and Washington, 30½ miles long, and cost \$1,700,000; the Annapolis branch of this, 20 miles long, and cost \$200,000; the Baltimore and Susquehanna, between Baltimore and York, 57 miles long, and cost \$3,000,000; that from Baltimore to Havre de Grace, 36 miles long, and completing the line of railroad between Philadelphia and Baltimore through the state of Delaware; and the Reistertown Branch railroad, from the Baltimore and Susquehanna railroad to Reistertown, a distance of 8 miles.—The chief towns with the number of their inhabitants in 1840, are:—Baltimore, 102,313; Hagerstown, 7197; Fredericktown, 5182; and Annapolis, 2792.—Amendments to the constitution of this state were adopted in 1838, according to which the senate is to consist hereafter of 21 members, elected for 2, 4, and 6 years,—one-third to be elected every 2d year; the house of delegates to consist of 79

members, elected annually,—to be increased in number with the increase of the population. The governor is to be elected by the people every three years; and the state being divided into three districts, he is to be elected from each district in turn. The relation of master and slave cannot be altered without the unanimous consent of two successive legislatures; and not then, without a full restitution to the master for his property.

*Virginia.*—Population, in 1840, 1,239,797; and has 15 representatives in Congress.—The amount received into the public treasury, in 1844, was \$1,508,743; and the amount expended, in the same year, was \$1,526,358. Among the items composing the latter, were included \$350,000 for the refunding of a temporary loan incurred during the preceding year; \$15,000 for the University of Virginia; \$10,000 for the Medical College at Richmond; \$69,252 for the common schools; \$6000 for the Military School at Lexington; \$10,000 for the Deaf and Dumb, and Blind Institutions; \$68,382 for lunatics and lunatic asylums; and \$12,571 for penitentiary expenses. The nominal amount of the state debt was \$7,360,932; but as \$1,392,884 of this debt was owned by the state itself, its real amount was the difference of these sums, or \$5,968,048.—There were, in 1839, 6 banks, and 21 branches of banks, having an aggregate capital of \$8,074,456, a circulation of \$8,231,918, and \$2,360,423 in specie.—In 1845, the College of William and Mary, at Williamsburg, had 4 instructors and 98 students; Hampden-Sidney College, in Prince Edward county, 5 instructors and 65 students; Washington College, at Lexington, 6 instructors and 136 students; the University of Virginia, at Charlottesville, 9 instructors and 170 students; Randolph-Macon College (Methodist), at Boydton, founded in 1832, 8 instructors and 73 students; and Emory and Henry (Methodist), at Glade Spring, founded in 1839, 4 instructors and 46 students. The Episcopal Theological School of Virginia, in Fairfax county, had 4 instructors and 53 students; the Union Theological Seminary (Presbyterian), in Prince Edward county, 3 instructors and 20 students; and the Virginia Baptist Seminary, at Richmond, founded in 1832, 3 instructors and 67 students. The Law School of William and Mary College had 1 instructor and 33 students; the Law School in the University of Virginia, 1 instructor and 72 students; the Medical School in the same institution, 3 instructors and 45 students;

and the Richmond Medical College, founded in 1833, 6 instructors and 75 students.—The James river improvements and canal have been completed from Richmond to Buchanan, a distance of 175 miles, at a cost of \$5,000,000. The principal railroads are:—the Richmond, Fredericksburg, and Potomac, length 75 miles, and cost \$800,000; the Louisa, branching off from this 24 miles from Richmond, and extending to Gordonsville, length 50 miles, and cost \$350,000. The Portsmouth and Roanoke, from Portsmouth to Weldon (N.C.), length 79 miles, and cost \$1,500,000; the Greensville and Roanoke, from near Hicks to Gaston (N.C.), length 18 miles, and cost \$285,000; the Richmond and Petersburg, length 23 miles, and cost \$700,000; the Petersburg and Roanoke, from Petersburg to Weldon, length 62 miles, and cost \$970,000; the Winchester and Potomac, between Winchester and Harper's Ferry, length 92 miles, and cost \$500,000; the City Point, extending from Petersburg to City Point, a distance of 13½ miles; and the Chesterfield, from coal mines to Richmond.—The chief towns, with their population, are:—Richmond, 20,153; Petersburg, 11,136; Norfolk, 10,920; Wheeling, 7885; Lynchburg, 6395; Fredericksburg, 3974; Winchester, 3454; &c.

*North Carolina.*—Population in 1840, 753,419; and 9 representatives in Congress.—The chief receipts into the treasury of the state, in 1844, amounted to \$84,796; and the chief expenditures to \$141,407. There is no public debt.—In 1839, there were 10 banks and branches of banks, with a capital of \$3,100,750, a circulation of \$2,114,140, and \$723,875 in specie.—The University of North Carolina, at Chapel Hill, had, in 1845, 9 instructors and 150 students; Davidson College, in Mecklenburg county, founded in 1838, 3 instructors and 44 students; and Wake Forest College (Baptist), also founded in 1838, 3 instructors and 24 students.—The railways which have been constructed in this state are the Wilmington and Raleigh, which extends from Wilmington to Weldon, on the Roanoke, length 161½ miles, and cost \$1,800,000; and the Raleigh and Gaston, uniting at the latter place with the Petersburg and Roanoke railroad, length 86 miles, and cost \$1,600,000.—The principal towns, and their population in 1840, are:—Wilmington, 4744; Fayetteville, 4235; Newbern, 3690; Raleigh, 2244; &c.—The constitution was amended in 1835. The governor, senate, and house of commons,

are to be chosen by the people every 2 years, and the council of state is to be elected by the joint vote of the two houses. The right of voting for senators is confined to persons possessing a freehold property of 50 acres. And the 32d section of the old constitution, "that no person who shall deny the being of God, or the truth of the Protestant religion, or the divine authority of either the Old or New Testaments, or who shall hold religious principles incompatible with the freedom and safety of the state, shall be capable of holding any office, or place of trust or profit, in the civil department, within this state," was amended by substituting for the word *Protestant* the word *Christian*.

*South Carolina.*—Population in 1840, 504,399; and has 7 representatives in Congress.—The public receipts, during the year ending on the 30th of September 1844, amounted to \$306,831; and the moneys expended to \$347,704. The debt was \$3,021,672.—In November 1838, S. Carolina had 11 banks, and 2 branches of banks, with a capital of \$3,952,343, a circulation of \$4,566,327, and \$2,000,149 in specie.—Charleston College, in the city of Charleston, had, in 1845, 4 instructors and 40 students; and the College of South Carolina, at Columbia, 7 instructors and 150 students. The Southern Theological Seminary (Presbyterian), at Columbia, founded in 1831, had 2 instructors and 16 students; the Lutheran Theological Seminary at Lexington, founded in 1835, 2 instructors and 10 students; and the Furman Theological Seminary (Baptist), in Fairfield district, 2 instructors and 30 students. The Medical College of the state of S. C., at Charleston, founded in 1833, had 8 instructors and 158 students.—The South Carolina railroad, extending from Charleston to Hamburg, a distance of 136 miles, was completed in 1834, at a cost of \$1,700,000. It has since been disposed of to the Charleston, Louisville, and Cincinnati Railroad Company, to constitute a part of their projected route. The Columbia Branch railroad extends from Branchville, on the S. C. railroad, to Columbia, and is 66 miles long.—The only towns of any importance are Charleston, with 29,261 inhabitants, and Columbia, with 4340

*Georgia.*—Population in 1840, 691,392 and has 8 representatives in Congress.—The revenue of this state, in 1843, was \$314,905; and the expenditure \$267,764. The state debt amounted to \$1,600,000.—Georgia had, in October 1838, 37 banks and branches of banks, with a capital of \$15,025,971, a circulation of \$5,121,604,

and \$3,232,274 in specie.—Franklin College, at Athens, in 1845, had 9 instructors and 116 students; Oglethorpe College, at Midway, founded in 1836, 6 instructors and 65 students; Emory College (Methodist), at Oxford, founded in 1837, 5 instructors and 70 students; and Christ College (Episcopalian) at Montpelier, founded in 1839, 4 instructors and 35 students. The Medical College of Georgia, at Augusta, founded in 1830, had 7 instructors and 115 students.—The Savannah and Ogeechee canal was completed at an expense very little exceeding the estimated cost; the Brunswick canal, from Brunswick to the river Altamaha, a distance of 12 miles, was constructed at a cost of \$500,000.—The railroads of this state are:—the Georgia, from Augusta to De Kalb county, length 165 miles, and a branch, 33 miles long, to Athens, both together having cost \$3,300,000; the Western and Atlantic, from De Kalb county to Chattanooga, on the Tennessee river, length 136 miles, and cost \$3,600,000; the Central, from Savannah to Macon, length 194 miles, and cost \$2,600,000; and the Monroe, from Macon to Forsyth, length 25 miles, and cost \$300,000.—The chief towns, with their population, are:—Savannah, 11,214; Augusta, 6,403; Macon, 3927; and Columbus, 3114.—An amendment to the constitution was adopted in 1839, reducing the number of the members of the two houses composing the legislature.

*Alabama.*—Population 590,756; and has 7 representatives in Congress.—Revenue, during the year 1844, \$243,646; expenditure, \$120,098. This state has engaged largely in the business of banking on its own account, having a bank at the seat of government, Tuscaloosa, with branches at Mobile, Huntsville, Montgomery, and Decatur; and to provide for the capital of these institutions, a public debt has been contracted of nearly \$10,000,000.—In October 1838, there were 7 banks and branches of banks, having a capital of \$11,996,332, a circulation of \$3,779,678, and \$1,687,046 in specie.—The University of Alabama, at Tuscaloosa, in 1845, had 8 instructors and 80 students. La Grange College (Methodist), at La Grange, founded in 1831, 3 instructors and 106 students; and the Roman Catholic College, at Spring Hill, near Mobile, founded in 1839, 3 instructors and 70 students.—A canal has been constructed around the Muscle Shoals of the Tennessee river, from the head of the falls to Florence, a distance of 35½ miles, at a

cost of \$571,835; and the Huntsville canal reaches from Triana, on the Tennessee, to Huntsville, and is 16 miles long, and cost \$100,000. The principal railroads are:—the Tusculumbia and Decatur, extending round the Muscle Shoals of the Tennessee river, length 45 miles, and cost \$450,000; the Florida, Alabama, and Georgia, from Pensacola to Montgomery, length 156 miles, and cost \$2,500,000; the Montgomery and Chattahoochee, from Montgomery to West Point, in Georgia, length 85 miles; and the Wetumpka and Coosa, length 10 miles.—The chief towns, with their population in 1840, are Mobile, 12,672; Montgomery, 2179; and Tuscaloosa, 1949.

*Mississippi.*—Population in 1840, 375,651; and has 4 representatives in Congress.—The revenue of this state, during the year ending on the 1st of March 1843, was \$311,180; and the sums expended to \$304,428. The public debt amounted to \$2,615,050.—In June 1838, there were 38 banks and branches of banks, with an aggregate capital of \$21,900,081, a circulation of \$12,410,308, and \$751,035 in specie.—The college at Oakland, founded in 1831, had, in 1845, 5 instructors and 105 students; and Centenary College (Methodist), at Brandon Springs, founded in 1841, 6 instructors and 170 students.—Mississippi has the following railroads:—the Vicksburg and Jackson, length 45 miles, and cost \$460,000; the Woodville and St. Francisville, from Woodville to the Mississippi, in Louisiana, length 29 miles, and cost \$170,000; the Port Gibson and Grand Gulph, length 7½ miles, and cost \$50,000; the Jackson and Brandon, length 14 miles, and cost \$100,000; and the Mississippi railroad, which is to extend from Natchez, through Jackson, to Clinton, in Madison county, a distance of 150 miles, has been completed to Malcolm, 40 miles from Natchez.—The two most important towns, with their population, are:—Natchez, 4800; and Vicksburg, 3104.—The constitution of the state was revised and amended in 1832. The senate is to be chosen for 4 years, and the house of representatives for 2 years. The governor is elected for a term of 2 years; the superior judges for 6 years, and the inferior judges for shorter terms. All these legislators and magistrates are chosen by the people; and suffrage is universal. The legislature meets once in 2 years.

*Louisiana.*—Population in 1840, 352,411, and has 4 representatives in Congress.—The receipts into the treasury of the state, during the year 1843, amounted

to \$746,794; and the expenditures to \$652,560. — The state debt, in February 1844, amounted to \$20,398,000. — At the close of the year 1838, Louisiana had 47 banks and branches of banks, with an aggregate capital of \$40,990,976, a circulation of \$6,290,568, and \$3,987,697 in specie. — The Louisiana College, at Jackson, in 1845, had 9 instructors and 109 students; Jefferson College, at Bringiers, founded in 1831, 14 instructors and 122 students; St. Charles College (Roman Catholic), at Grand Coteau, 9 instructors and 65 students; the Baton Rouge College, founded in 1838, 4 instructors and 45 students; and the Franklin College, at Opelousas, founded in 1839, 4 instructors and 70 students. The Medical College of Louisiana, at New Orleans, founded in 1835, had 7 instructors and 30 students. — The Barataria, or New Orleans and Teche canal, from New Orleans to Berwick bay, is 85 miles in length; and a canal has been constructed from New Orleans to Lake Pontchartrain, a distance of 6 miles, called the Orleans Bank canal, at a cost of \$1,000,000. — The railroads of the state, besides the Pontchartrain railroad, are: — the West Feliciana, from St. Francisville to Woodville, in the state of Mississippi, length 20 miles; the New Orleans and Carrollton, 4½ miles of which have been completed, from the former place to Lafayette; the Orleans Street, extending from New Orleans 4½ miles to the Bayou St. John; the Mexico Gulf, from New Orleans to Pascagoula Sound; and 80 miles of the projected New Orleans and Nashville railroad. — The chief towns, with their population in 1840, are: — New Orleans, 102,193; Opelousas city, 10,706; Fayette city, 3207; and Baton Rouge, 2269.

*Tennessee.* — Population, in 1840, 829,210; and has 11 representatives in Congress. — The receipts into the treasury, in 1844, were \$271,823; and the expenditure \$261,416. Of the latter \$47,618 were for common schools; \$22,320 for academics; \$10,859 for charitable institutions; and \$20,461 for internal improvements. The debt of the state amounted to \$3,244,417. — In 1839, the banks and branches of banks in Tennessee were 22 in number, having an aggregate capital of \$6,498,192, a circulation of \$2,607,830, and \$1,177,969 in specie. — Greenville College had, in 1845, 2 instructors and 41 students; Washington College, in Washington county, 1 instructor and 43 students; the University of Nashville, 6 instructors and 86 students; the East Ten-

nessee College, at Knoxville, 6 instructors and 70 students; the Cumberland College, at Lebanon, 4 instructors and 49 students; and the Franklin College, near Nashville, founded in 1844, 7 instructors and 90 students. The South-Western Theological Seminary (Presbyterian), at Maryville, had 2 instructors and 24 students. — The railroads of the state are: — the Hiwassee, from Knoxville to the Western and Atlantic railroad of Georgia, a distance of 96 miles; the La Grange and Memphis, 50 miles long; and the Somerville branch of this, from Moscow to Somerville, 16 miles long. — Nashville, the seat of government, has 6929 inhabitants. — The constitution of this state was amended in 1835, when the number of representatives in the legislature was restricted to 75, until the population should reach 1,500,000, and afterwards not to exceed 90. The senators are not to exceed 2-3ds of the representatives. Ministers of the gospel are not eligible to a seat in either house; and no person who denies the being of a God, or who may be concerned in a duel, can hold a civil office. Lotteries are prohibited.

*Kentucky.* — Population, in 1840, 779,828; and has 10 representatives in Congress. — The public revenue, during the year 1843, was \$543,739; and the expenditure \$470,948. The amount of the debt was \$3,065,000. — In 1839, there were 16 banks and branches of banks, having an aggregate capital of \$8,918,004, a circulation of \$5,418,320, and \$1,613,133 in specie. — Transylvania College, at Lexington, had in 1845, 7 instructors and 215 students; St. Joseph's College (Roman Catholic), at Bardstown, 11 instructors and 69 students; Centre College, at Danville, 5 instructors and 185 students; Augusta College (Methodist), at Augusta, 6 instructors and 75 students; Georgetown College (Baptist), founded in 1830, 6 instructors and 132 students; Bacon College, at Harrodsburg, founded in 1836, 8 instructors and 203 students; and St. Mary's College (Roman Catholic), in Marion county, founded in 1837, 9 instructors and 150 students. The Medical Department of Transylvania College had 7 instructors and 214 students; and the Law School connected with that institution, 3 instructors and 75 students. The Louisville Medical Institute, founded in 1837, had 6 instructors and 242 students. — The Louisville and Portland canal has been completed at an expense of \$1,000,000, and is wide enough and deep enough to admit of the passage through it of steamboats of the largest size navigating the



Ohio river; and the navigation of the Kentucky, Licking, Green, and Barren rivers, has been improved at an expense of upwards of \$3,000,000.—The Lexington and Ohio railroad extends from Lexington to Frankfort, is 29 miles long, and cost \$400,000: it is intended to be continued to the Ohio river, at Louisville.—The chief towns, with their population in 1840, are:—Louisville, 21,210; Lexington, 6697; Maysville, 2741; and Frankfort, 1917.

*Ohio*.—Population, in 1840, 1,519,467; and has 21 representatives in Congress.—The receipts into the public treasury, in the year ending on the 15th of November 1844, were \$277,155; and the expenditures \$239,141. The amount of the state debt was \$19,276,751.—In 1839, this state had 39 banks and 1 branch bank, with a banking capital of \$10,299,165, a circulation of \$6,685,263, and \$2,944,955 in specie.—The University of Ohio, at Athens, in 1845, had 8 instructors and 166 students; the Miami University, at Oxford, 6 instructors and 105 students; the Cincinnati College, 8 instructors and 84 students; Franklin College, at New Athens, 7 instructors and 51 students; the Western Reserve College, at Hudson, 6 instructors and 62 students; Kenyon College (Episcopalian), at Gambier, 8 instructors and 57 students; Granville College (Baptist), at Granville, founded in 1832, 5 instructors and 12 students; Marietta College, founded in the same year, 8 instructors and 50 students; the Oberlin Institute, at Oberlin, founded in 1834, 10 instructors and 70 students; and the St. Xavier College (Roman Catholic), at Cincinnati, founded in 1840, 5 instructors and 50 students. The Theological Department of Kenyon College (Episcopalian), had 5 instructors and 4 students; the Lane Theological Seminary (Presbyterian), at Cincinnati, founded in 1832, 3 instructors and 64 students; the Theological Department of Granville College (Baptist), 2 instructors and 8 students; the Theological Department of the Oberlin Institute (Presbyterian), 4 instructors and 58 students; and the Theological Department of the Western Reserve College (Presbyterian), 3 instructors and 12 students. The Cincinnati Law School had 3 instructors and 25 students; the Medical College of Ohio, at Cincinnati, had 8 instructors and 130 students; the Willoughby Medical College, at Willoughby, in Lake county, founded in 1834, 6 instructors and 126 students; and the Western Reserve Medical College, at Cleveland, founded in 1844, 7 in-

structors and 111 students.—The Ohio canals are:—the Ohio canal, from Portsmouth on the Ohio to Cleveland on Lake Erie, length 307 miles, and cost \$5,000,000; the Columbus Branch, from the Ohio canal to Columbus, 10 miles; the Lancaster Branch, from the same to Lancaster, 9 miles; the Zanesville Branch, 14 miles; the Walhonding Branch, to the Walhonding river, 25 miles; together with the Eastport and Dresden branches, the former of 4, and the latter of 2 miles in length; the Hocking Valley canal, from Lancaster to Athens, 56 miles long; the Miami canal, from Cincinnati to its junction with the Wabash and Erie canal at Defiance, a distance of 178 miles, cost \$3,750,000; the Warren branch of this, from Middletown to Lebanon, length 20 miles; the Sandy and Beaver canal, from Bolivar on the Ohio canal to the influx of Little Beaver creek into the Ohio river, length 76 miles; the Mahoning canal, from Akron on the Ohio canal to Beaver river in Pennsylvania, length 80 miles, and cost \$1,900,000; the Milan canal, from Huron 4 miles to Milan; and 69 miles of the Wabash and Erie canal.—Railroads have been completed from Sandusky city to Mansfield on the route to Cincinnati, a distance of 53 miles, at a cost of \$600,000, and from Sandusky city, a distance of 65 miles to Mad river.—The chief towns of this state, with their population in 1840, are:—Cincinnati, 46,338; Cleveland, 6071; Dayton, 6067; Columbus, 6048; Steubenville, 5203; Zanesville, 4766; Chillicothe, 3977; and Lancaster, 3272.

*Indiana*.—Population, in 1840, 665,866; and has 10 representatives in Congress.—The revenue of this state, during the year ending on the 31st of October 1843, amounted to \$213,716; and the money expended to \$90,897. The state debt in 1845 amounted to \$13,839,262.—In November 1838, Indiana had 1 bank with 10 branches, and a banking capital of \$2,216,700, a circulation of \$2,951,795, and \$1,345,832 in specie.—The Indiana State University, at Bloomington, in 1845, had 6 instructors and 104 students; the Madison University, at South Hanover, 3 instructors and 120 students; the Wabash College, at Crawfordsville, founded in 1833, 5 instructors and 23 students; the Indiana Asbury University (Methodist), at Greencastle, founded in 1839, 5 instructors and 112 students; and St. Gabriel's College (Roman Catholic), at Vincennes, founded in 1843, 7 instructors and 50 students. The Presbyterians have a Theo-

logical Seminary at South Hanover, which had 2 instructors and 10 students; and there is a Law School at Bloomington, with 1 instructor and 13 students.—Of the Wabash and Erie canal, 100 miles are in this state; the entire length of it, from Lafayette on the Wabash to Toledo on the Maumee bay, is 167 miles. The White-water canal extends from Lawrenceburg to Brookeville, a distance of 30 miles. The Madison and Indianapolis railroad is 95 miles in length.—The towns of most importance, with their population, are:—New Albany, 4226; Madison, 3798; Indianapolis, 2692; Richmond, 2070.

*Illinois.*—Population, in 1840, 476,183; and has 7 representatives in Congress.—The state debt amounted, in 1845, to \$14,633,969.—In 1839, there were 2 banks and 6 branches of banks, having a capital of \$5,435,055, a circulation of \$3,729,518, and \$969,172 in specie.—The Illinois College, at Jacksonville, in 1845, had 5 instructors and 54 students; M'Kendree College (Methodist) at Lebanon, founded in 1834, 4 instructors and 47 students; Shurtleff College (Baptist) at Upper Alton, founded in 1835, 6 instructors and 43 students; and the Knox Manual Labour College, at Galesburg, founded in 1837, 4 instructors and 24 students.—The Illinois and Michigan canal extends from Chicago to the head of steamboat navigation on the river Illinois, not far from the town of Peru, a distance of 106 miles. A railroad has been constructed from Meredosia to Springfield, 53 miles in length; and there is one of 6 miles in length from the coal mines to Coal Mine bluff on the Mississippi river.—The principal towns, with their population in 1840, are:—Chicago, 4470; Springfield, 2578; Alton, 2340; Quincy, 2313; and Galena, 1843.

*Missouri.*—Population in 1840, 383,702; and has 5 representatives in Congress.—The debt of this state, in October 1842, was \$997,000.—In 1839, there was 1 bank with 1 branch in Missouri, with a banking capital of \$1,027,870, a circulation of \$371,950, and \$691,070 in specie.—The University of St. Louis (Roman Catholic), at St. Louis, founded in 1832, had, in 1845, 13 instructors and 146 students; and Kemper College (Episcopalian), at the same place, founded in 1840, 6 instructors and 19 students; the Masonic College, in Marion county, founded in 1831, 5 instructors and 45 students; and St. Charles College (Methodist), at St. Charles, founded in 1839, 5 instructors and 85 students. The Medical College connected with St. Louis University, founded at St. Louis in

1836, had 8 instructors and 50 students; and the Medical Department of Kemper College, founded in 1841, also at St. Louis, had 9 instructors and 50 students.—The only town of any importance is St. Louis, with a population, in 1840, of 16,469.

*Arkansas.*—Population in 1840, 97,574; and has 1 representative in Congress.—The receipts into the public treasury, for the two years preceding the 1st of October 1844, were \$49,640; and the expenditures for the same period \$164,415. The state debt amounted to \$3,500,000.—At the close of 1838, there was a state bank with 2 branches, having a capital of \$628,105, a circulation of \$461,775, and \$316,045 in specie.—Arkansas was admitted into the Union in 1836. The legislature, styled the General Assembly, consists of a Senate, chosen for the term of 4 years, and a House of Representatives, chosen every 2 years. The Governor holds his office for the term of 4 years. The superior judges are appointed by the General Assembly, those of the Supreme Court holding office for 8, and those of the Circuit Courts for 4 years. Every white male citizen of the age of 21 years, who has resided within the state during the 6 months preceding the election, has the right of suffrage. All votes are to be given viva voce. In the prosecution of slaves for crime, it is provided that they shall have an impartial jury; and slaves convicted of a capital offence shall suffer the same degree of punishment as free whites, and no other. No lotteries can be established; and the sale of lottery tickets within the state is prohibited. No debtor is allowed to be imprisoned, except on strong presumption of fraud. Laws for the emancipation of slaves shall not be passed without the consent of their owners.

*Michigan.*—Population in 1840, 212,267; and has 3 representatives in Congress.—The estimated public revenue, for the year 1845, was \$71,608; and the estimated expenditure \$71,200. On the 1st of July 1845, the debt of the state amounted to the sum of \$4,077,177.—This state had, in 1837, 28 banks and branches of banks, with an aggregate capital of \$3,018,701, a circulation of \$969,544, and \$290,058 in specie.—The University of Michigan, at Ann Arbor, was founded in 1837, and in 1845 had 5 instructors and 72 students; and St. Philip's College (Roman Catholic), near Detroit, was founded in 1839, and in 1845 had 4 instructors and 30 students.—The railroads of this state are:—the Central, extending a distance of 112 miles from Detroit to

Marshall, and intended eventually to be carried forward to St. Joseph, on Lake Michigan; the Erie and Kalamazoo, reaching from Toledo to Adrian, 30 miles, and destined to be extended, so as to connect at one extremity with the railroad just mentioned at Kalamazoo, and to terminate at the other at Allegan; the Ypsilanti and Tecumseh, uniting with the Erie and Kalamazoo railroad at the latter place, length 25 miles; the Detroit and Pontiac, length 25 miles; and the Southern railroad, from Monroe to Hillsdale, 68 miles. The principal towns, with their population in 1840, are:—Detroit, 9102; Ypsilanti, 2419; Marshall, 1763; and Monroe, 1703. —Michigan was admitted into the Union in 1836. The legislative power is vested in a Senate and House of Representatives; the members of the former being elected for the term of 2 years, and those of the latter annually. The Governor and Lieutenant-Governor are elected by the people, and hold office for the term of 2 years. The judges are appointed by the governor with the consent of the Senate, their term of office being 7 years. Suffrage is universal. It is provided that neither slavery, nor involuntary servitude, shall ever be introduced into the state, except for the punishment of crimes; and that no lottery shall be authorized by the state, nor shall the sale of lottery tickets be allowed. And it is a provision of the constitution that the Legislature shall encourage by all suitable means the promotion of intellectual, scientific, and agricultural improvement; shall provide for a system of common schools, by which a school shall be maintained in each school district at least 3 months in every year; and, as soon as the circumstances of the state will permit, shall provide for the establishment of libraries, one at least in each township.

*Florida.*—Population in 1840, 54,477; and has 1 representative in Congress. — In the beginning of the year 1839, Florida had 7 banks and branches of banks, with an aggregate capital of \$2,322,552, a circulation of \$567,009, and \$188,288 in specie.—This state has the following railroads:—the Pensacola and Montgomery, 40 miles of which have been constructed; the railroads from St. Joseph's to Lake Wicomico, and from St. Joseph's to Iola, on the Appalachicola, the former 12, and the latter 30 miles in length; and the Tallahassee and St. Mark's railroad, 22 miles long.—The two largest towns, with their population in 1840, are St. Augustine, 2459; and Tallahassee, 1616.—Flo-

rida was admitted into the Union in 1845. The constitution provides that the Legislature shall consist of a Senate elected for 2 years, and a House of Representatives elected annually. The Governor is elected for 4 years. He may veto an act of the Legislature, but if a majority of the members of the two houses shall pass the act again, it will nevertheless become a law. The judges are appointed by the Legislature, at first for 5 years, and afterwards during good behaviour. Every free white male, who has attained the age of 21 years, has resided in the state for 2 years, and in the county where he claims to vote for 6 months, and who has been enrolled in the militia, unless by law exempted from serving in it, possesses the right of voting. No minister of the gospel, and no officer of a banking company, while in the service of the bank, or for a year afterwards, is eligible to the office of governor, senator, or representative; and both the principals and seconds in any duel are declared to be incapable of holding any public office. It is provided that no laws shall be passed for the emancipation of slaves, or to prohibit the entrance into the state of persons bringing slaves with them: laws, however, may be passed for preventing the entrance into the state of free coloured persons. The credit of the state is not to be pledged in aid of any corporation; and no act of incorporation shall be either passed or amended, except by a vote of 2-3ds of each branch of the legislature. And with respect to banking corporations in particular, it is provided that no bank charter shall be granted for a period longer than 20 years, nor can it be renewed or extended; that the capital of no incorporated bank is to exceed the sum of \$100,000; that the annual dividends are not to exceed 10 per cent. upon the capital; that no bank-notes shall be issued of a less denomination than 5 dollars; and moreover, that the stockholders of a bank shall be individually liable for its debts.

*Texas.*—This state was admitted into the Union during the present year (1846). Some of the most important provisions of its constitution are the following.—Every free male person, 21 years of age, who shall be a citizen of the United States, or who is, at the time of the adoption of the Texas constitution by the Congress of the United States, a citizen of the Republic of Texas, and shall have resided in the state one year next preceding an election, and the last six months within the election district in which he offers to vote, is to be deemed a qualified elector; Indians not

taxed, Africans, and descendants of Africans, excepted.—The Legislature, which is to hold its sessions biennially, is composed of a Senate and a House of Representatives; the members of the former being chosen for 4 years, one half of them biennially; and those of the latter for 2 years.—No minister of the gospel is eligible to the Legislature.—The Governor is elected for 2 years, and is not eligible for more than 4 out of every 6 years.—The oath of office is so formed, that, in addition to the usual provisions, one must swear that since the adoption of the constitution he has not fought a duel within or without the state, nor sent or accepted a challenge, nor in any way aided any person thus offending; and any person so offending, after the adoption of the constitution, shall be deprived of holding any office of trust or profit.—No lottery can be authorized by the state; and the buying and selling of any lottery tickets is prohibited.—No divorce can be granted by the Legislature. All property of the wife before marriage, and that acquired by her afterwards, by gift, devise, or descent, shall be her separate property.—No corporate body shall be created, renewed, or extended, with banking or discounting privileges.—The Legislature shall prohibit by law individuals from issuing bills, checks, promissory notes, or other paper to circulate as money.—In no case can the Legislature authorize the issue of treasury warrants or treasury notes, or paper of any description, to circulate as money.—No private corporation shall be created, unless by 2-3ds of both branches of the Legislature; and 2-3ds of the Legislature shall have power to revoke and repeal all private corporations, by making compensation for the privileges withdrawn. And the state shall not be part owner of the stock or property belonging to any corporation.—The pardoning power is vested in the executive, except in cases of treason and impeachment. The Governor possesses also the veto power, qualified as in the constitution of the United States.—The Legislature cannot contract debts to exceed in the aggregate the sum of \$100,000, except in case of war, to repel invasions, or suppress insurrections; and in no case shall any amount be borrowed, except by a vote of 2-3ds of both branches of the Legislature.—The governor is to nominate the judges of the supreme and district courts, and with the consent of 2-3ds of the Senate to commission them for 6 years. The attorney-general is appointed in the same manner for 2 years.—The Legislature shall

have no power to pass laws for the emancipation of slaves, without the consent of the owners, nor without paying their owners, previous to such emancipation, a full equivalent in money for the slaves so emancipated; and it shall have no power to prevent emigrants to the state from bringing with them their slaves. In the prosecution of slaves for crime of a higher grade than petit larceny, the Legislature shall have no power to deprive them of a trial by an impartial jury. And any person who shall maliciously dismember or deprive a slave of life, shall suffer such punishment as would be inflicted, if the like offence had been committed upon a free white person, and upon like proof, except in case of insurrection of such slaves.

*District of Columbia.*—Population, in 1840, 43,712.—In 1839, there were in the district 6 banks, having an aggregate capital of \$1,855,700, a circulation of \$950,132, and \$415,573 in specie.—Georgetown College (Roman Catholic), had, in 1845, 15 instructors and 140 students; and the Columbian College (Baptist), at Washington, 10 instructors and 25 students. The Medical School, in connection with the latter, had 6 instructors and 40 students.—A canal has been constructed from Alexandria to Georgetown,  $7\frac{1}{2}$  miles in length, which is in fact a continuation of the Chesapeake and Ohio canal.—The principal towns, with their population in 1840, are:—Washington, 23,864; Alexandria, 8459; and Georgetown, 7312. The town of Alexandria has lately been ceded back to the state of Virginia.

The vast tract stretching from Lake Michigan to the Missouri and White Earth rivers, and from the northern frontier of Missouri and Illinois to the boundary of the American and British possessions, was erected in 1836 into a *territory*, under the name of the Wisconsin Territory; and in 1838 it was divided into the two distinct territories of *Wisconsin* and *Iowa*, the former situated on the east of the Mississippi, and the latter on the west of that river. Their population is already sufficiently large to allow of their being admitted into the Union as independent states. Indeed, a law bestowing this position upon Iowa, was passed by Congress in February 1844. The boundaries, however, assigned in the act to the new state, not proving acceptable to the people for whose benefit it was framed, they preferred to continue somewhat longer under their territorial form of government.—

Madison is the seat of government of Wisconsin; but Milwaukie, which contained in 1840 a population of 1712, is the largest town. Iowa is the seat of government of Iowa.

The *Indian territory* is the region which has been set apart by the general government as a permanent home for the Indian tribes who have of late years been removed from within the states, and chiefly the southwestern states, of the Union. It extends from Red river on the south to the Running Water river and the North Fork of the Platte on the north, and is situated between the western boundary line of Arkansas and Missouri on the east, and the Mexican territories on the west. It lies between 33° 30' and 42° 40' N. lat., and between 94° 20' and 107° W. long. The western portion of this territory has been called the American or Arkansas desert. It is probably wholly unfit for the abode of civilized man, and unsusceptible of cultivation. Yet it affords pasture for troops of wild animals, and is frequented by tribes of Indians who roam from place to place in pursuit of game. On the other hand, the eastern portion, which is about 200 miles in breadth from east to west, is represented as in general productive and well adapted to agricultural operations; and here is the abode of the Indian tribes who have been removed from the other side of the Mississippi, as well as of a number of others indigenous to this region, over whom the government of the Union exercises a certain control, with a view chiefly of preventing them from engaging in hostilities with each other. The number of the Indians for removal originally is stated, in a report of the commissioner of Indian affairs, to have been 100,790, and of those removed, down to November 1st 1838, 81,282; leaving at this date only a comparatively small number still to be removed. Of the whole number to be removed originally, it may be added that 18,500 were Choctaws, 22,000 Creeks, 22,000 Cherokees, and the remainder belonged to as many as 20 other tribes. There were still to be removed only 3323 Choctaws, 750 Creeks, and none of the Cherokees.

We add here a comparative view of a few of the most important particulars concerning some of the principal commercial cities of the United States.—*New York*. Population in 1830, 203,007; in 1840, 312,710. In 1840, there were 417 commercial and 918 commission houses engaged in foreign trade, with an aggregate capital estimated to amount to \$45,941,-

200, and 3620 retail drygoods, grocery, and other stores, with a capital of \$14,648,595. The tonnage belonging to the port, in 1845, amounted to 550,359 tons.—*Philadelphia*. Population in 1830, 167,811; and in 1840, 220,423. In 1840, there were 186 commercial and 63 commission houses engaged in foreign trade, with a capital of \$2,119,501, and 2078 retail stores, with a capital of \$17,865,993. The tonnage of the port, in 1845, amounted to 130,406 tons.—*Boston*. Population in 1830, 61,391; and in 1840, 93,383. In 1840, there were 142 commercial and 69 commission houses engaged in foreign trade, with a capital of \$11,676,000, and 572 retail stores, with a capital of \$4,181,220. The tonnage of the port, in 1845, amounted to 227,994 tons.—*Baltimore*. Population in 1830, 80,625, and in 1840, 102,313. In 1840, there were 70 commercial and 108 commission houses engaged in foreign trade, with a capital of \$4,404,500, and 1254 retail stores, with a capital of \$6,706,611. The tonnage of the port, in 1845, amounted to 83,601 tons.—*New Orleans*. Population in 1830, 46,310; and in 1840, 102,193. In 1840, there were 8 commercial and 375 commission houses engaged in foreign trade, with a capital of \$16,490,000, and 1861 retail stores, with a capital of \$11,018,225. The tonnage of the port, in 1845, amounted to 169,771 tons.

Few towns in the United States, however, have augmented more rapidly since 1830, or have exhibited more striking marks of prosperity, than those whose inhabitants are extensively occupied with manufacturing pursuits; such, for example, as Lowell, Providence, and Pittsburg, as will be perceived from the following statistical notices concerning them.—*Lowell*. Population in 1830, 6477; and in 1840, 20,796. The capital stock of the incorporated manufacturing companies was in 1840 \$10,500,000; in 1845, \$10,850,000: the number of mills, exclusive of print-works, in 1840, was 32; in 1845, 33; spindles in 1840, 166,044; in 1845, 204,076; looms in 1840, 5183; in 1845, 6304; females employed in 1840, 6430; in 1845, 6320; males employed in 1840, 2077; in 1845, 2415: pounds of cotton consumed in 1840, 19,255,000; in 1845, 24,128,000: yards of cloth produced in 1840, 58,263,000; in 1845, 75,873,200.—*Providence*. Population in 1830, 16,832; and in 1840, 23,171. In 1840, the capital employed in manufactures was estimated to amount to \$3,012,588. The principal manufactures were those of cotton, employing 76,554

spindles; of machinery, to the value of \$270,300; of the precious metals, \$257,900; of various metals, \$147,550; &c. In the same year, there were 23 commercial and 55 commission houses, with a capital of \$1,582,850, and 392 retail stores, with a capital of \$1,758,040. The lumber business employed a capital of \$170,500; and the fisheries a capital of \$130,000.—The tonnage of the port amounted, in 1845, to 21,090 tons.—*Pittsburg*. Population in 1830, 12,542; and in 1840, 21,115.—It is, at the same time, an important manufacturing and commercial town. The

capital invested in manufactures, chiefly of iron, was estimated, in 1840, to amount to \$2,057,852. There were, in the same year, 7 commercial and 32 commission houses, with a capital of \$1,241,110, and 403 retail stores, with a capital of \$4,165,190. The tonnage of Pittsburg, in 1845, amounted to 13,283 tons.

The following table, exhibiting a statistical view of the greater number of the religious denominations in the United States, is copied from Dr. Baird's work entitled "Religion in America," published in 1845.

|                                                | Churches.     | Ministers.          | Communicants.    | Population.      |
|------------------------------------------------|---------------|---------------------|------------------|------------------|
| <b>I. EPISCOPAL.</b>                           |               |                     |                  |                  |
| Protestant Episcopalians.....                  | 1900          | 1176                | 100,000          | 800,000          |
| Moravians.....                                 | 23            | 27                  | 3,000            | 12,000           |
| <b>Total.....</b>                              | <b>1923</b>   | <b>1203</b>         | <b>103,000</b>   | <b>812,000</b>   |
| <b>II. CONGREGATIONAL.</b>                     |               |                     |                  |                  |
| Orthodox Churches.....                         | 1500          | 1350                | 180,000          | 1,000,000        |
| <b>III. BAPTIST.</b>                           |               |                     |                  |                  |
| Regular Baptists.....                          | 8428          | 4036                | 637,477          | } 4,000,000      |
| Free-Will Baptists.....                        | 1165          | 771                 | 61,372           |                  |
| Seventh Day Baptists.....                      | 59            | 46                  | 6,077            |                  |
| Disciples of Christ, or Campbellites.....      |               |                     |                  |                  |
| Winebrethren.....                              |               |                     |                  |                  |
| <b>Total.....</b>                              | <b>9706</b>   | <b>4853</b>         | <b>704,926</b>   | <b>4,000,000</b> |
| <b>IV. PRESBYTERIAN.</b>                       |               |                     |                  |                  |
| Regular Presbyterians—Old and New Schools..... | 3584          | 2679                | 270,782          | } 4,500,000      |
| Cumberland Presbyterians.....                  | 550           | 550                 | 75,000           |                  |
| Dutch Reformed Church.....                     | 967           | 259                 | 29,322           |                  |
| Associate Synod.....                           | 200           | 100                 | 15,000           |                  |
| Associate Reformed.....                        | 300           | 165                 | 26,000           |                  |
| Reformed Presbyterians.....                    | 94            | 57                  | 10,500           |                  |
| Lutherans.....                                 | 1371          | 420                 | 146,303          |                  |
| German Reformed.....                           | 600           | 180                 | 100,000          |                  |
| <b>Total.....</b>                              | <b>6966</b>   | <b>4406</b>         | <b>681,897</b>   | <b>4,500,000</b> |
| <b>V. METHODIST.</b>                           |               |                     |                  |                  |
| Methodist Episcopal Church.....                | 25,109        | { 3689 T. M.*       | 1,068,525        | } 4,500,000      |
|                                                |               | { 7730 L. M.†       |                  |                  |
| Protestant Methodists.....                     | 2,000         | { 500 T. M.         | 60,000           | } 300,000        |
|                                                |               | { 700 L. M.         |                  |                  |
| Welsh Calvinistic Methodists.....              | 90            | { 20                | 2,500            | } 12,500         |
|                                                |               | { 250 T. M.         |                  |                  |
| United Brethren in Christ.....                 | 2,900         | { 350 L. M.         | 50,000           | } 200,000        |
|                                                |               | { 112 T. M.         |                  |                  |
| Evangelical Association.....                   | 900           | { 200 L. M.         | 14,000           | } 40,000         |
|                                                |               | { 1870 T. M.        |                  |                  |
| <b>Total.....</b>                              | <b>30,029</b> | <b>{ 8960 L. M.</b> | <b>1,198,025</b> | <b>5,052,500</b> |
| MEHNONISTS.....                                | 200           |                     |                  |                  |
| ORTHODOX QUAKERS.....                          | 300           |                     |                  |                  |

\* Travelling Ministers. † Local Ministers.

To the above we add a statement, of like nature, concerning other religious denominations, according to the estimate given in the "American Almanac" for 1826.

|                                      | Churches. | Ministers. | Communicants. | Population. |
|--------------------------------------|-----------|------------|---------------|-------------|
| ROMAN CATHOLICS.....                 | 675       | 709        |               | 1,071,200   |
| UNITARIAN CONGREGATIONALISTS.....    | 300       | 250        | 30,000        |             |
| CHRISTIAN BAPTISTS (Unitarians)..... | 650       | 782        | 35,000        |             |
| SWEDENBORGIANS.....                  | 49        | 30         | 5,000         |             |
| UNIVERSALISTS.....                   | 576       | 800        | 80,000        |             |

Our limits will allow of a mere notice of some of the principal events that have occurred in the United States since the original publication of the Encyclopædia Americana.—The session of Congress of 1829-30, which was the first after the

induction of General Jackson into the presidential chair, was signalized by the passage of the bill for the removal of the Indians from the states on the eastern side of the Mississippi, to the territory assigned to them as their permanent abode beyond

that river.—In July 1832, the bill for the recharter of the Bank of the United States, after passing both the Senate and House of Representatives of the United States, failed to become a law, through the application of the president's veto. This year was, however, especially remarkable for the attitude assumed by South Carolina in relation to the general government, to induce it to retrace the steps which it had taken for the encouragement, or protection, of American manufactures. A convention of delegates, assembled at Columbia in that state, declared the acts of Congress imposing duties on commodities from abroad, for any other purposes than that of revenue, to be unconstitutional, and of no binding force upon their constituents,—a measure which has received the name of nullification. The general government, on the one hand, prepared to maintain the authority of the laws of the Union by force, should this become necessary; and, on the other, the people of South Carolina seemed to have made up their minds deliberately to resist, by every means in their power, any attempt that might be made to coerce them into submission. Everything, indeed, portended the outbreak of a civil war, when tranquillity was restored, by the enactment by Congress in March 1833, of the famous "compromise act," which gradually reduced the tariff of duties on imported commodities to a certain rate, at which it was intended they should afterwards be continued.—A bill for distributing the proceeds of the public lands among the states, passed the U. S. Senate in January, and the House of Representatives in March 1833, but did not receive the signature of the president. And it was in this year, that the measure was adopted of the removal of the government deposits from the Bank of the United States, already noticed in a previous part of the present article. The resolution of the senate, condemning the course pursued by the president, remained on the records of that body, notwithstanding the president's protest, until *expunged* by a resolution passed by it in January 1837, a few weeks only before the termination of General Jackson's presidential career.—In 1834, a danger arose of a hostile collision between the U. S. and France, on account of the refusal of the French Chamber of Deputies to make the appropriation required for the execution of the treaty concluded in 1831, by which the French government stipulated to make indemnity for spoliations committed on American commerce during the reign of Napoleon. In

December, the president, in consequence, recommended reprisals to be made upon French commerce, in the event of the indemnity being any longer withheld; in January 1835, the French government, offended with this recommendation, and with the language of the president respecting France, in his message to Congress, recalled its minister from the United States; and, on the 2d of March following, on the motion of Mr. J. Q. Adams, the House of Representatives unanimously resolved, "that in the opinion of this house, the treaty with France, of the 4th of July 1831, should be maintained, and its fulfilment insisted upon." Fortunately, a change about this time occurred in the French ministry, and the indemnity bill passed the Chamber of Deputies on the 18th of April, but, with the condition annexed, that the money (25,000,000 francs) was not to be paid until the French government should have received satisfactory explanations, with regard to the president's message of the preceding December. This condition, however, having been complied with, the treaty was executed without any further delay, and a good understanding was restored between the two countries.—The principal event of the year 1836 was the incorporation of the Bank of the United States by the state of Pennsylvania. (See a preceding part of this article).—In 1837, Michigan was admitted into the Union. But the year was chiefly remarkable for the extraordinary commercial embarrassments which pervaded every part of the country, and, connected with these embarrassments, the general suspension (in the month of May) of payments for their notes by the banks. The government experienced the greatest difficulties, in this condition of things, on the one hand, in enforcing the payment of all moneys due to it in specie, which it persisted in doing, and on the other, by the non-payment to it by the suspended banks of its own deposits; and the new president, Mr. Van Buren, deemed it, on this account, expedient to call an extra session of Congress. It met, accordingly, in September; and, besides authorizing the issue of treasury notes to the amount of \$10,000,000, to be receivable by the government in payment of public dues, it passed a law postponing to January 1st 1839 the payment to the states of the next instalment of the surplus revenue. The recommendation, however, of the president, that the fiscal operations of the government should henceforth be separated from those of corporations or individuals,

by placing the public money in charge of certain officers especially appointed for this purpose, and subjected to the control of the treasurer of the United States, did not meet with the sanction of Congress. This scheme, which has been denominated the "sub-treasury system," though again earnestly recommended by the president, was once more rejected by Congress in 1838. It was, at length, adopted by an act passed in the summer of 1840, about 7 or 8 months before Mr. Van Buren went out of office.—Among the facts or events most worthy of notice in the year 1838, besides the proceedings of the states, and of the directors of the banks situated within their respective limits, in reference to the resumption of specie payments by these institutions, we may mention here the *sympathising* spirit with the Canadian insurgents which prevailed to a considerable extent along the northern boundary of the United States, and which, in despite of the efforts of the government to check it, threatened, in more than one instance, to involve the country in serious difficulties with Great Britain,—and the commencement given to the transatlantic navigation by steam, by the arrival at New York from England, in the month of April, of the steamers "Great Western" and "Sirius."—When all was tranquil on the northern frontier of the Union, an occurrence took place, of a nature altogether unforeseen, which once more put at hazard the continuance of peace between Great Britain and the United States, namely, the arrest, in the state of New York, on the 27th of January 1841, of an individual named M'Leod, on a charge of having been one of the parties engaged in burning the American steamboat *Caroline*, on the Niagara river, in 1837. He was at first admitted to bail in the sum of \$5000; but this bail having been withdrawn in consequence of the excitement which occurred among the people of Lockport, he remained a prisoner, until, fortunately for the peace of the country, acquitted by a jury, after having been subjected to a regular trial, on the 12th of October. The year 1841 was distinguished by the death of President Harrison, only one month after he had entered on the duties of his office. He had a short time previously called an extra session of Congress. This body assembled on the 31st of May, and, after passing a number of important bills, adjourned on the 13th of September. Among the bills referred to may be mentioned an act repealing the sub-treasury law; an act authorizing a loan of \$12,000,000 to meet

the immediate exigencies of the treasury; an act to establish a uniform system of bankruptcy throughout the United States; an act to distribute the proceeds of the public lands among the states; an act establishing a "fiscal bank;" and another establishing a "fiscal corporation." The two last received the veto of Mr. Tyler, who, having been chosen to be the vice-president, had become on the death of General Harrison, by the provisions of the constitution, the president of the United States.—In August 1842, the treaty was concluded between the United States and Great Britain, which, by determining the boundary line between the state of Maine and the British territory, removed a cause of growing irritation between the two countries, and furnished thus an additional guarantee for the continuance of peaceful relations between them. And in August of the same year a new tariff law was enacted, increasing the amount of the duties imposed on imported commodities.—The years 1843 and 1844 passed without any very important action, legislative or executive, on the part of the general government; a condition of things which was the natural result of the want of harmony in the political views of the president and of a majority of one or both houses of Congress.—Among the most important events of the year 1845, may be mentioned the ratification (January 10th) of the treaty negotiated during the preceding year with China; the passage of a bill (February 29th) for the admission of Florida and Iowa into the Union (see concerning Iowa above); together with the joint resolutions adopted (March 1st) by the senate and house of representatives, and approved by the president, in favour of the annexation of Texas to the United States.—The present year (1846) has been distinguished by the formal annexation of Texas to the American Union, and the settlement by treaty of the dispute between the United States and Great Britain relative to the possession of the Oregon territory. The continued unwillingness of Mexico, under the successive administrations of Santa Aña, Herrera, and Paredes, to acknowledge the independence of Texas, the repeated threats which were put forth of a determination to reconquer it, as well as the occasional attacks made upon the settlers upon its borders by parties of Mexicans, and Indians acting under their instigation, naturally co-operated with other obvious causes to render the great majority of the Texans desirous of a union with the United States; and the



loud expression of this desire, and especially the actual adoption of the preliminary measures necessary for accomplishing the object in view, as naturally led to a serious demonstration on the Texan frontier by the Mexican government. Next followed the advance from the state of Louisiana into Texas of a detachment of U. S. troops, with the avowed purpose of protecting the Texans against any attempt of the Mexicans to invade their territory. The Americans, under General Taylor, pushed forward to the Rio Grande del Norte and took up a position directly opposite the town of Matamoras, which was occupied by a superior force of Mexicans. This near approach of the two parties could scarcely fail to lead to hostilities between them. In the beginning of May, the Mexicans crossed the Rio Grande and marched against General Taylor. The result was their defeat in two successive battles; and Matamoras was subsequently taken possession of by the American army without opposition. After a repose of several months, and after receiving large reinforcements of volunteers from the United States, this army made a forward movement, still under the command of General Taylor, upon Monterey, of which place, though strongly fortified, and obstinately defended by the enemy, it obtained possession on the 25th of September.—The treaty between the United States and Great Britain was ratified by the Senate on the 18th of June. It places the boundary line of the United States and British territories on the parallel of the 49th degree of N. latitude, till it reaches Queen Charlotte's Sound, and then through the straits of Fuca to the Ocean, giving to Great Britain Vancouver's Island. The navigation of the Columbia river up to where it crosses the parallel of the 49th degree of latitude is to be free to the Hudson's Bay Company, during the continuance of its charter. And the rivers and harbours north of the 49th degree may be freely visited by citizens of the United States.—In addition, too, to the proceedings of Congress in relation to Texas and Oregon, it passed several important bills

during the session which has lately terminated, such as the bill reducing the tariff of duties on imported commodities, the warehousing bill, and the sub-treasury bill.

UPSAL.\* The number of students in the university of this city, in 1845, was 1367, of whom 512 were absent. In the winter session of 1837, we are told, there were in all 1376 students, of whom only 874 were resident. Of the entire number, 269 attended the theological, 305 the legal, 142 the medical, and 406 the philosophical classes. As many as 150 students are maintained free of expense, from endowments left by Gustavus Adolphus. There are 26 professors, besides 19 adjuncts, and 24 *privatim docentes*.

URUGUAY, or the Banda Oriental. Its population is very variously estimated, from 150,000 to 300,000, Indians included. It possesses a republican form of government, adopted in July 1830. The legislative power is vested in a senate, consisting of 9 members, and a chamber of representatives of 29 members. Religious liberty, the freedom of the press, and the trial by jury, are guaranteed to the citizens; and the privileges of citizenship are bestowed upon every foreigner who takes up his abode in the country. The *code Napoleon*, with some modifications, has been introduced as the judicial code of Uruguay. Common school instruction is imparted at the public expense. Slavery was abolished in 1842. Uruguay, like most of the other South American republics, has continued to be agitated by civil dissensions, or foreign wars. Buenos Ayres, contrary to express treaty stipulations, has persisted in regarding it as in a state of rebellion against its authority, and has made various attempts to reduce it to subjection, but hitherto without success, partly on account of the vigorous resistance made by its inhabitants, and partly also of the intervention of Brazil, or of France and England, in their behalf.

UTZSCHNEIDER\* died in 1840.

UWAROFF\* was appointed in 1832 minister of public instruction in Russia, a post which he still continues to occupy.

## V.

VALENCIA.\* In this city there are manufactures of woollen fabrics, camlets, hats, table-linen, gauzes, artificial flowers, &c. But the chief article produced is the "Valencia tiles," which are

used for the flooring of the houses of the wealthy throughout Spain: they are at once cool and highly ornamental, but are said to be much more expensive than the most sumptuous carpeting. The univer-

sity was attended, in 1841, by 1600 students. There are 70 professors, who are all friars, except those who give instruction in law.

**VAN DIEMEN'S LAND.\*** Since the notice of this island given in the 4th volume of this work, it has attracted much attention in Europe, and the number of settlers has very considerably augmented. The population in 1838 amounted already to 45,758; of whom, exclusive of the military force, 30,591 were males, and 13,591 females: of the males, too, as many as 15,825, and of the females, 2064 were transported convicts. The number of the savage natives was reduced to 130.—The imports into the island, in 1840, amounted to £988,356, and the exports to £867,077. The public revenue, in the same year, was £185,243, more than £10,000 of which were appropriated to the support of the public schools.—The laws of England are generally administered; but special acts may be passed by the legislative council, consisting of the lieutenant-governor, the chief-justice, colonial secretary and treasurer, the commander of the troops, and from 10 to 15 other persons appointed by the sovereign. All acts of the council are initiated by the lieutenant-governor, with whom a majority of the members present, there being at least 2-3ds of the whole number, must concur in passing them. Civil causes are tried before a judge and 2 assessors, and criminal cases by a jury of 7 naval or military officers.

**VANILLA** is the succulent fruit or pod of a parasitical plant found in the tropical parts of America. It is of a yellow or darkish-brown colour, corrugated, about 8 inches long, containing in its cavity, besides numerous minute shining black seeds, a black, oily, and balsamic substance. Its fragrance is owing to the presence of benzoic acid, crystals of which form upon the pod if left undisturbed. It is employed in confectionary, the preparation of liqueurs, and in flavouring chocolate.

**VENEER;** a thin piece of a material of a more valuable kind laid on another of a more common sort, by which the whole substance appears to be of the more valuable sort. Veneering is most usually applied to furniture.

**VENEZUELA.\*** The territory belonging to this republic, is stated to have contained, in 1844, a population of 1,052,400 individuals, composed in the following manner:—whites, 298,000; mixed races, 480,000; slaves, 48,000; Indians of all descriptions, 226,400. The slave trade is strictly prohibited; and on the 14th of

October 1830, it was decreed that all persons who were slaves in the year 1821 should continue in the condition of slavery, but that their children, born after that date, should be free.—The principal towns are Caracas, with 35,000 inhabitants; Valencia, with 16,000; Maracaibo, with 14,000; Barquisimeto, with 12,000; and Cumana, with 8000.—The imports into Venezuela chiefly consist of cottons and linens, with woollens, silks, flour, pork, and wine, and their value in 1843 was \$5,107,837; the exports are coffee, cacao, tobacco, indigo, cotton, jerked beef, hides, mules, drugs, dye-woods, &c., valued at \$6,772,155. The principal commercial relations are with the United States, Great Britain, Denmark, Germany, Spain, France, and Holland.—The estimated revenue for 1844 was \$2,579,242; and the expenditure, \$2,933,236. In 1843, the foreign debt amounted to \$20,475,650; the domestic debt to \$2,650,156; and the floating debt to \$142,888;—making a total debt of \$23,268,694.—The republic is divided into 13 provinces, each having its particular governor; each province is subdivided into cantons, each of these having its own political chief (*Cefe politico*); and the cantons are again subdivided into parishes. There are two *alcaldes*, or justices of the peace, in every parish; and tribunals in the first instance are established in all the cantons, whose decisions are subjected to the revision of three superior tribunals. The legislative body, or National Congress, consists of a senate of 26 members (2 from each province), and a house of representatives of 46 members. Religious liberty is guaranteed by the constitution, although the Roman Catholic faith universally prevails. The dignitaries of the church are appointed by the Congress; such appointment, however, requiring to be confirmed by the pope. Tithes were abolished in 1833; and the clergy are paid out of the public treasury.—General Paez was the first president of Venezuela, after its erection into a separate republic; and, by the vigour and ability of his administration, he prevented any attempt from being made to interrupt the peaceful action of the government. At the expiration of the term of 4 years for which he had been elected, and after having been in vain solicited by his fellow-citizens to consent to his re-election, he retired to private life. Vargas, his successor, was a civilian, who gave offence to the army, and was, in consequence, driven from his post, and obliged to seek refuge in exile. General Paez then reappeared, and assert

ing successfully the authority of the constitution and the laws, enabled the president to resume the duties of his office. Since this period, Venezuela has enjoyed a season of uninterrupted tranquillity, which has largely contributed to its increasing prosperity.

**VERA CRUZ.\*** The present population of Vera Cruz does not much, if at all, exceed 16,000. The castle of St. Juan de Ulloa, which commands the town, surrendered to a French squadron in 1839, after a vigorous bombardment, but was soon after restored to the Mexicans. It is said to have been latterly very much strengthened.

**VERNET.\*** *Antoine Charles Horace Vernet* died at Paris, November 27th 1836.—*Horace Vernet*, the son of the former, has continued his very successful career as a painter, by his pictures of "the arrest of the prince of Conti, the prince of Condé, and the duke of Longueville, at the Palais Royal," of "Judith and Holophernes," the "confession of a brigand," a "combat between the pope's dragoons and a party of banditti," of "the duke of Orleans going to the Hôtel de Ville on the 31st of July 1830," of "the battle of Fontenoy," of "Judah and Thamar," of "the taking of the town of Constantine," &c. The emperor of Russia, and the king of Prussia, have twice invited him to their respective capitals; and in 1839, he went to Syria, by the invitation of the viceroy of Egypt, to paint the battle of Nezip.

**VICTOR\*** (Marshal), after the revolution of July 1830, was suspected of conspiring for the overthrow of Louis Philippe, and the restoration of the expelled Bourbons, and, on more than one occasion, only escaped a judicial prosecution, by living in a very secluded manner at Paris, where he died on the 1st of March 1841.

**VICTORIA\*** (Alexandrina) became queen of Great Britain and Ireland, upon the death of her uncle, William IV., on the 20th of June 1837. See *United Kingdom of Great Britain and Ireland*, (Sup.)

**VIENNA** contains at present 358,000 inhabitants. Its university had, in 1832, from 70 to 80 professors, and 1619 students: of these, 309 studied divinity, 332 law, 519 medicine and surgery, and 459 attended the lectures of the philosophical faculty. According to Cannabich, there were, in 1838, 2620 students; and the Weimar Almanack for this year (1846) states them to have amounted in 1844 to as many as 5258.—The Polytechnic Institute in this city was founded by the emperor Francis in 1816, and a few years since had 85 instructors and 750 pupils.

Its chief object is to afford instruction in the applications of science to the arts and commerce. Besides the ordinary branches of knowledge, the pupils are taught the history of commerce, the knowledge of merchandise, mercantile law, natural history and chemistry, as applied to commerce, mathematics, drawing, &c. The Latin, English, French, and Italian languages are also taught. Among other collections, this school has a museum of the products of arts and manufactures, both Austrian and foreign, and a valuable library.

**VILLEMEN.\*** This distinguished individual was appointed in 1832 vice-president of the royal council of public instruction, the acceptance of which office vacated his seat in the Chamber of Deputies. Failing, however, to be re-elected, he was promoted by the king to the dignity of a peer. On the 12th of May 1839, he became minister of public instruction, but quitted this office on the 1st of March 1840. He returned to it on the following 29th of October; and he signalized his administration of the department entrusted to him, during the 4 years that it continued, by the enlightened patronage which he bestowed upon literature, by the scientific expeditions which he originated, and especially by the zeal with which he promoted the cause of primary and secondary education in France.

**VINCENT\*** (St.) The population of this island, by the last census, was 26,533; of whom 22,977 were blacks. Notwithstanding the humidity of the climate, St. Vincent is regarded as being one of the most healthful of the West India islands. The government is vested in a governor, a council of 12, and an assembly of 19 members.—The sum awarded, in 1835, for the manumission of the slaves in St. Vincent, amounted to £592,509.

**VOYAGES OF DISCOVERY.\*** Among the later of these voyages (some of the most important of which have been noticed in this volume under other heads) there is one of especial interest to the American reader. We refer to the "exploring expedition" fitted out by our government in the year 1838. It consisted of the sloops of war Vincennes and Peacock, the brig Porpoise, the schooners Sea Gull and Flying Fish, and the Relief store-ship, and was entrusted to the command of Lieutenant Wilkes, an officer not only of acknowledged professional ability, but possessing attainments which pointed him out to the government as eminently qualified for the station assigned him. He was ac-

accompanied by a "scientific corps" composed of the following gentlemen, all of them eminently qualified to fill the several departments to which they were appointed:—Mr. Hale, philologist; Messrs. Pickering and Peale, zoologists; Mr. Couchou, conchologist; Mr. Dana, mineralogist; Mr. Rich, botanist; Messrs. Drayton and Agate, draughtsmen; and Mr. Brackenridge, horticulturist.—The *general* course of the vessels of the squadron (for they were not always together) was from Norfolk, which they left on the 18th of August 1838, in the first place to the island of Madeira; thence to Rio Janeiro, Orange Harbour in Terra del Fuego, and, after an exploration of the Antarctic Ocean and the islands which it contains, along the Western coast of South America to Valparaiso and Callao. The squadron then sailed for Tahiti, visiting by the way the Paumotu cluster, situated to the east of the Society islands. From the latter, it proceeded to the Samoan or Navigator's group, and to Australia. At Sydney, where the officers and scientific men were hospitably treated by the British authorities, preparations were made for a second cruise in the Antarctic regions; and after this had been accomplished, they returned to Sydney. New Zealand was next visited, next the Friendly islands, and then the Feejee islands. After this, we find the squadron assembled at the Sandwich islands; whence Captain Wilkes sailed to explore the coasts of Oregon and

Upper California. He next crossed the Pacific Ocean to the Philippine Islands, proceeded then through the Sooloo sea to Singapore, and from this port shaped his course homewards, by way of the Cape of Good Hope and the island of St. Helena. He arrived at New York on the 10th of June 1842, after an absence from the United States of 3 years, 9 months, and 23 days.—Among the fruits of the voyage, in addition to the valuable labours of the scientific men, may be mentioned:—in the first place, the rectification of many errors in the existing charts, both of the Atlantic and Pacific Oceans, in some cases by making known to the navigator the dangers, before unapprehended, to be avoided in his path, and in others by showing that not a few of the rocks he has been fearful of encountering are altogether fictitious; secondly, by the more accurate accounts in many instances which have been rendered of the countries that were visited, and of the people who inhabit them; and lastly, by the *very probable* discovery of a great Antarctic continent,—a discovery which, if it should be confirmed by future explorers, will confer enduring honour on the officer who commanded the expedition, and on the country that sent it forth.—A narrative of it, by Captain Wilkes, has been published in Philadelphia, in 5 large volumes, and in a style of execution in a very high degree creditable to the American press.

## W.

**WALCKENAER.\*** Among his later works, may be mentioned his "Géographie ancienne, historique et comparée, des Gaules cisalpine et transalpine" (3 vols. 1839); the "Histoire de la vie et des poésies d'Horace" (2 vols. 1840); the "Notice historique sur la vie et les ouvrages de M. Daunou" (1841); and "Mémoires touchant la vie et les écrits de Mme. de Sévigné" (2 vols. 1842-43).

**WALLACHIA AND MOLDAVIA.** Since the year 1829, these two principalities have been placed under the sole protection of Russia. The prince, or hospodar, in both, is elected for life from among the boyars of the first rank, by an assembly composed of those boyars, and of deputies of the inferior boyars, the academic bodies, and the merchants; but his election must be approved by Russia, and the investiture is then given by Turkey. A diet of the

clergy and boyars (classes which contribute nothing to the state) meets to vote the supplies, and to discuss such propositions as may be laid before it by the prince; but no organic changes can be made without the sanction of Russia. Wallachia is divided into 18, and Moldavia into 13 districts, each of which has a prefect or governor, a receiver-general of taxes, and a civil tribunal, consisting of a president and two other judges; and Moldavia has a director of police, and a town council, in each municipality. Judges are removable at the pleasure of the superior authorities; and the administration of the laws, as might be supposed from this dependent condition of the judiciary, is exceedingly corrupt.—The population of Wallachia is upwards of 2,000,000; its revenue, \$1,350,000, and expenditure \$1,275,000; the imports upwards of

\$2,850,000, and the exports upwards of \$3,150,000. Moldavia has a population, within the limits to which it was reduced by the treaty of Bucharest, concluded in 1812, of only 630,000, comprising in this number 66,000 Jews. Both the principalities pay an annual tribute to the Porte, and to the latter, besides, a sum equal in amount to this tribute, on the election of every new hospodar.

**WAREHOUSING SYSTEM;** a system under which certain warehouses are appointed, under the direction of officers of the customs, in which goods may be deposited without being chargeable with duty until they are cleared for consumption. By this arrangement, the merchant pays the tax on the goods imported just at the time when they are wanted, and when it is therefore least inconvenient for him to pay it. If, on the contrary, he is required to pay the tax immediately, and before he has found a market for the goods, he must either pay the tax and hold the goods, in which case the consumer will have to repay not only the tax, but the interest upon it; or he must sell the goods, and if he parts with them at a loss or inconvenience, trade is injured, and the general wealth and consequent productiveness of the taxation in question proportionally diminished. Besides, the necessity of having to pay duties immediately on importation has an injurious effect on the carrying trade of a country.

**WARSAW,\*** in 1839, had 139,671 inhabitants. It was the principal seat of the ill-fated insurrection of 1831. Since then the university has been suppressed, and its library of 150,000 volumes removed to St. Petersburg.

**WASHINGTON** (Bushrod) was a son of Mr. John A. Washington, of Bushfield, in the county of Westmoreland and state of Virginia, who was the oldest brother of General Washington, and enjoyed the respect of all who knew him for his intellectual powers and great moral worth. After receiving an excellent preparatory education from a private tutor, first in the house of Mr. Richard Henry Lee, and then in his own father's family, Mr. Bushrod Washington was sent to the college of William and Mary, at Williamsburg. But Virginia, in the progress of the revolutionary struggle, had now become the seat of war; and his patriotic feelings prompted him, in consequence, to join a volunteer troop of horse, commanded by Colonel John F. Mercer, which constituted a portion of the force placed under the orders of General Lafayette for the defence of the state

against the army of Lord Cornwallis. He continued in this service until after the battle of Jamestown. The British general having then recrossed the James river, it was generally supposed that it was his intention to return to South Carolina, whence he had advanced; and the volunteers, on this account, were disbanded. In the winter of this year (1781), after the surrender of Cornwallis, Mr. Washington went to Philadelphia to study the law. Here he entered the office of Mr., afterwards Judge, Wilson, a gentleman eminently distinguished for his legal attainments, and having an extensive practice at the bar; and the opportunities for improvement afforded to the young student were turned by him to such good account, that, on his return to his native state and county, he was enabled at once to commence his professional career in a highly creditable manner. His business and reputation were rapidly extended.—In 1787, Mr. Washington was chosen a member of the Virginia House of Delegates, and in the following year a member of the Convention which ratified the present constitution of the United States. The part which he performed on these occasions was marked by great judgment and decision, as well as integrity of purpose. His attachment, however, to juridical pursuits prevented him from making himself prominent as a politician, as it was in his power to have done. But he could not long remain satisfied with the limited sphere of a country practice. Leaving Westmoreland, he removed to Alexandria, in the District of Columbia, and, after some years' residence in that town, to the city of Richmond. Here, besides practising his profession with great industry and success, he undertook to report the decisions of the Supreme Court of the state,—a task which he executed with much ability. And the reputation which he had acquired led to his appointment by President Adams, in 1798, to be one of the judges of the Supreme Court of the United States.—The duties of this office he performed with honour to himself and benefit to his country, till his death, which took place at Philadelphia, on the 26th of Nov. 1829, in the 71st year of his age.—It may be added that Judge Washington inherited from his uncle, General Washington, the estate of Mount Vernon, where he resided during the latter period of his life.

**WEBSTER** (Noah) was born in West Hartford in Connecticut, October 16th 1758. He was instructed in the classics by the clergyman of that place, and be-

came a student of Yale College in 1774, where he graduated in 1778. During the intervening period, he served for several months as a volunteer in the army. After completing his college course, he studied law, engaging likewise in the business of instruction, as a means of immediate support. He was admitted to the bar in 1781, but was obliged to continue teaching, for the same reason as before. In 1782, he taught a classical school at Goshen, in Orange county in the state of New York, and about the same time commenced the preparation of elementary books for the use of schools. The principal of these was his Spelling Book. It is without doubt the most successful book, as a pecuniary speculation, which has ever issued from the American press. We are told by the writer of the biographical notice of Mr. Webster in the "National Portrait Gallery," that between 13 and 14 millions of copies of it "have been published in the different forms which it assumed under the revision of its author, and that during the 20 years in which he was employed in compiling his American Dictionary, the entire support of his family was derived from the profits of this work, at a premium for copyright of less than a cent a copy." — Mr. Webster returned to Connecticut in 1783, and entered there zealously on the discussion of the political questions of the day. He wrote essays for the newspapers, and published (in 1784) also a pamphlet entitled "Sketches of American Policy;" in which he was one of the first to maintain the necessity of establishing a government for the United States, of a nature to act directly upon the people, instead, as under the Old Confederation, through the state legislatures. In 1796, he delivered a course of lectures on the English language in the chief cities of the country, which were subsequently published under the title of "Dissertations on the English Language." In 1787, we find Mr. Webster in Philadelphia in the office of principal of an academy; and in the same year, he published a pamphlet styled an "Examination of the leading principles of the Federal Constitution," which had just been framed by the convention assembled in Philadelphia, and which was about to be submitted to the people of the several states for their approbation. — Mr. Webster returned once more to his native state in 1789, and practised the law at Hartford until 1793. He was then induced to become the editor of a daily paper, at first called the "Herald," and afterwards the "Commercial Adver-

tiser," in the city of New York. From New York, he removed in 1796 to New Haven, thence in 1812 to Amherst in Massachusetts, and in 1822 back again to New Haven. His American Dictionary, the preparation of which he had begun in 1807, was by this time nearly completed; and in 1824 he visited Europe, in order to consult, in the public libraries of France and England, a number of works not to be procured in this country, before putting it to press. It was published in 1823, and, by the ample testimony which it bears to the learning and ability of its author, has earned for him an enduring reputation. In addition to the works of Mr. Webster, already mentioned, he was the author of a pamphlet under the title of "The Revolution in France" (1794); of a treatise in 2 volumes on the history of pestilential diseases (1799); of "Historical Notices of the origin and state of Banking Institutions, and Insurance Offices" (1802); a "Synopsis of Words in Twenty Languages;" &c. — Mr. Webster died on the 28th of May 1843, at his residence in New Haven, in the 85th year of his age.

WELLESLEY (Marquis), in November 1830, was appointed Lord Steward of the Household, and he retained that office until September 1833; when, on the accession of Earl Grey and the Whigs to power, he a second time became Lord Lieutenant of Ireland, and remained there until the close of that administration in December 1834. On the formation of the second Melbourne ministry, in April 1835, he accepted the appointment of Lord Chamberlain, but resigned it in the course of the same year. His death took place on the 25th of September 1842, at the age of 82.

WELLINGTON (Duke of), after resigning his premiership in December 1830, remained out of office until December 10th 1834, when he accepted the post of Foreign Secretary in the ministry of Sir Robert Peel, which then succeeded to that of Lord Melbourne, and which endured only till the 8th of the following April. And on Sir Robert Peel's return to power, in September 1841, the duke re-entered the cabinet, but without taking upon himself the charge of any particular department of the administration. See *United Kingdom of Great Britain and Ireland*, (Sup.)

WESTALL (Richard), an eminent draughtsman and designer, was born in 1765, and was apprenticed in 1779 to an engraver of heraldry on silver, &c.; but excelling his fellows in this humble department of the arts, he aspired to a higher

order of distinction. By working an additional time in the morning, he obtained the permission of his employer to draw at the Royal Academy in the evenings. He commenced his career as an artist in 1786, imparting to his water colour paintings a brilliancy and vigour before unknown. He took a house jointly with Mr., afterwards Sir Thomas Lawrence, and lived in this manner for several years, until their successes justified their forming separate establishments. — Mr. Westall produced many excellent historical paintings; but he is best known as the designer of Boydell's superb editions of Milton and Shakspeare, and as the illustrator of numerous other works. From the great facility with which his ready talent enabled him to produce book designs, he was led into a greater degree of mannerism than any of his contemporaries, which detracted not a little from his reputation; but still many of his works indicate the possession by him of very uncommon taste and judgment. — In

1806, Mr. Westall published a volume of poems of considerable merit, entitled "A day in Spring, and other Poems, embellished with 4 plates engraved by James Heath, A. E. R. A. and Charles Heath, from designs by R. Westall." — By his professional exertions Mr. Westall attained a handsome competence; which, unfortunately, was subsequently absorbed in an unsuccessful speculation in foreign pictures, and some improvident partnership engagements; and he was secured from indigence in the latter period of his life, only by the assistance which the Royal Academy assigns to its reduced members. — Mr. Westall died on the 4th of December, 1837.

WEST INDIES.\* The following table, from Waterston's Cyclopaedia of Commerce, exhibits the population of the several British West India colonies, with the quantities of sugar, rum, and coffee, exported from them in the years 1831 and 1841.

|                       | Population. | 1831.     |           |            | 1841.     |           |           |
|-----------------------|-------------|-----------|-----------|------------|-----------|-----------|-----------|
|                       |             | Sugar.    | Rum.      | Coffee.    | Sugar.    | Rum.      | Coffee.   |
|                       |             | Cwt.      | Gals.     | Lbs.       | Cwt.      | Gals.     | Lbs.      |
| Jamaica .....         | 370,000     | 1,429,693 | 3,522,463 | 15,044,072 | 528,583   | 1,276,351 | 7,618,690 |
| Barbadoes .....       | 102,500     | 379,052   | 96,733    | 2,420      | 257,109   | 949       | 1,513     |
| St. Vincent .....     | 26,530      | 221,692   | 160,911   | 44         | 110,205   | 28,920    | .....     |
| St. Lucia .....       | 16,000      | 72,378    | 12,622    | 80,249     | 51,115    | 13,037    | 18,967    |
| Grenada .....         | 22,500      | 185,771   | 328,471   | 5,863      | 84,270    | 83,704    | 123       |
| Tobago .....          | 13,700      | 121,249   | 408,717   | .....      | 48,164    | 153,614   | 76        |
| Trinidad .....        | 30,330      | 227,167   | 64,833    | 3,008      | 224,605   | 2,297     | 26,622    |
| Antigua .....         | 35,000      | 193,177   | 163,249   | 212        | 144,103   | 14,006    | 7,848     |
| St. Christopher ..... | 23,500      | 101,968   | 256,832   | .....      | 63,936    | 55,118    | 12        |
| Dominica .....        | 18,820      | 56,329    | 63,007    | 612,360    | 42,242    | 8,011     | 127,600   |
| Nevis .....           | 11,500      | 49,924    | 147,750   | 4          | 12,124    | 2,226     | .....     |
| Montserrat .....      | 7,600       | 26,137    | 40,629    | .....      | 10,839    | 9,281     | .....     |
| Tortola .....         | 7,720       | 15,559    | 68        | .....      | 8,207     | 834       | .....     |
| Sabana .....          | 20,000      | .....     | .....     | 25,716     | 100       | 4,266     | 4,120     |
| Demerara .....        | 76,000      | 802,134   | 2,232,070 | 1,991,352  | 415,961   | 935,735   | 745,631   |
| Berbice .....         | 76,000      | 122,088   | 224,579   | 1,585,402  | 90,063    | 120,301   | 1,363,236 |
|                       |             | 4,103,696 | 7,443,990 | 20,030,804 | 2,151,217 | 2,779,120 | 9,927,620 |

The great falling off between 1831 and 1841 is attributable mainly to the change produced by the measure of negro emancipation; but during several of the last years of this decennial period, the crops had also been deficient from ordinary causes.

WHITE (William) was born at Philadelphia on the 24th of March, the last day of the year 1747, old style, and corresponding with the 4th of April 1748, according to the new style. His father, Thomas White, a native of London, came to America in early life, and settled in Maryland, where he studied and practised law. He removed to Philadelphia, where his son William received his education, partly from Mr. Kinaersley, whose name is known

in connection with Franklin's early electrical experiments, and partly from Paul Jackson, a thorough teacher of the Latin and Greek languages. William White received his collegiate education in the Philadelphia College, when it was under the Prorectorship of the Rev. Dr. William Smith. His earliest religious impressions he attributed to the instructions of a pious and judicious mother. His thoughts were early directed to the Christian ministry; and after his graduation in 1765, he began the study of theology, under the direction of the Rev. Dr. Peters, the Rev. Mr. Duché, and Provost Smith. In 1770 he embarked for England, with recommendations for holy orders to the Bishop of London, who was Diocesan of all the Episcopal Churches

in America; and after examination, he was ordained a Deacon by the Bishop of Norwich. He remained in England the requisite time for his ordination as Priest, which took place in 1772. During his stay, he improved his time by travel and by intercourse with the learned and literary men of the day, and formed an acquaintance, among others, with Dr. Johnson, whom he found engaged on his Dictionary, and with the Poet Goldsmith. Mr. White returned home in 1772, and was chosen an Assistant Minister of Christ Church and St. Peter's, Philadelphia. In 1773 he was married to Mary Harrison. When the colonial difficulties began, Mr. White's mind having been prepared by careful study of the principles of the British Constitution, he did not hesitate in forming opinions favourable to the colonial cause, on the subject of taxation. A sense of professional propriety prevented his preaching sermons before the city battalions, and he continued to use the prayer for the king, in the Liturgy, until the 4th of July 1776, soon after which he took the oath of allegiance to the United States. On the approach of the British army in September 1777, he withdrew from Philadelphia to Maryland, where he soon received information that the Congress, then at York, had elected him one of their chaplains. He immediately repaired to that place, to discharge the duties of his appointment. He continued chaplain to Congress, until its removal to New York, and on its return to Philadelphia was again chosen, and continued to be chosen, at each successive Congress, by the Senate, until the removal of the seat of government to Washington in 1801. In 1779, Mr. White was elected Rector of Christ Church and St. Peter's, Philadelphia, in which station he continued until his death. He took an active part in forming the Constitution of the Episcopal Church in the United States; and in 1786 he was chosen by the Convention in Pennsylvania, to proceed to England for consecration to the Episcopate. On the 4th of February 1787, he and the Rev. Dr. Provost of New York were consecrated at Lambeth, the first American Bishops who received consecration from the Church of England. He returned to Philadelphia, where he arrived on Easter Sunday. In compiling the Liturgy and the Canons, Bishop White had an important share. During his long Episcopate, which reached the duration of very near half a century, he participated in the councils and the measures attending the spread of the Church in America, and

twenty-six Bishops received consecration at his hands. As a citizen, his life was distinguished for a constant and active beneficence, which, with the great purity and gentleness of his character, procured in a very eminent degree the universal respect and affection of his fellow-citizens and his countrymen. He scrupulously exercised his civic privileges, as if discharging a public duty. In his political views he was a decided Federalist. A man of deep and accurate learning, he continued his habits of constant and systematic study in the most advanced period of his life, and was a voluminous author. His principal works are his "Lectures on the Catechism," "Memoirs of the Protestant Episcopal Church," "Comparative Views of the Controversy between the Calvinists and Arminians," and "Commentary on the Ordination Offices." Many of his sermons, charges, and pastoral letters are in print, besides numerous contributions to various Church periodicals. He left in manuscript an elaborate and complete work, which was the careful production of many years, on the subject of Quakerism, under the title of "A Counter-Apology for the Divinity of the Holy Scriptures, in a Review of the Apology of Robert Barclay." Bishop White died on Sunday, the 17th of July 1836, having retained the possession of his faculties to the last hours of his long life. A memoir of him by his friend, the Rev. Dr. Bird Wilson, was published in 1839.

WIFFEN (Jeremiah Holme), a distinguished poet, was born in 1792, of a respectable family of the Society of Friends, and was brought up to the profession of a schoolmaster, in which he was for some years engaged. The work on which his poetical fame is mainly founded, is a translation of Tasso, in which he adopted the Spenserian stanza; but he wrote many other works, and was a contributor of poetry to some of the most popular annuals. Among his productions may be mentioned his "Aonian Hours, and other Poems;" a translation from the Spanish of the poems of Garcilasso de la Vega; a series of stanzas, illustrative of the portraits of the Russells at Woburn Abbey; and his prose work, the "History of the Russell Family." The duke of Bedford, the living head of this family, appointed him to be his private secretary and librarian.—Mr. Wiffen died at Woburn Abbey, May 2d 1836.

WILBERFORCE\* died on the 29th of July 1833, at Chelsea near London, in the 74th year of his age.

WILKIE\* (Sir David). The principa.



pictures which were painted by this eminent artist since his "John Knox Preaching," first exhibited in 1832, are:—"Spanish Monks," exhibited in 1833; "Not at Home," and "Spanish Mother and Child," in 1834; "Columbus," in 1835; "Peep-o-day-boys' Cabin," in 1836; "Mary, Queen of Scots, escaping from Lochleven Castle," "The Cottar's Saturday Night," and "The Empress Josephine and the Fortune-teller," in 1837; "Queen Victoria's First Council," in 1838; "The Discovery of the Body of Tipoo Saib," and "Grace before Meat," in 1839; "Benvenuto Cellini and the Pope," and "The Irish Whiskey Still," in 1840; together with portraits of a number of distinguished personages. He was knighted by William IV. in 1836. And in 1840, he proceeded through Germany, &c., to Constantinople; whence, after painting the portrait of the sultan, he continued his journey to Smyrna, Jerusalem, the other parts of Palestine, and Egypt. On the 21st of May 1841, he embarked at Alexandria for England. He had for three months previously felt slightly unwell, and when he arrived off the island of Malta he grew materially worse. He expired just before reaching Gibraltar, on the 1st of June, aged 56.

WILKINS (Sir Charles), an eminent oriental scholar, was a native of Somersetshire, in the south of England. He went to India, in the civil service of the East India Company, in 1770; and while thus employed, he directed his attention to the study of the Sanscrit language, which was up to that time unknown, and even supposed to be unattainable, by Europeans. His translation of the "Bhagavad Gita" into English, was sent to the Court of Directors by Warren Hastings, then governor-general, who likewise prefixed to it a dissertation of singular elegance from his own pen. The Court of Directors published and distributed it in 1785. Mr. Wilkins possessed great mechanical ingenuity, and prepared with his own hands the first Bengali and Persian types employed in Bengal. On his return to England in 1786, he resided at Bath, where he continued to pursue his oriental studies. He published a translation of the "Hitopadesa," or the fables of Vishnoo Sarma, the Indian original of the fables of Pilpay, and another of the story of Dushmanta and Sacontala. In 1800, he became the librarian of the collection of manuscripts obtained by the E. I. Company through the conquest of Seringapatam; and he was also appointed a visitor in the oriental department of the Company's colleges at

Haileybury and Addiscombe. In 1808, Sir Charles Wilkins (he had been previously knighted) published his Sanskrit Grammar, and in 1815, a list of the roots of the Sanskrit language. He besides edited and enlarged Richardson's Dictionary of the Persian and Arabic languages. His merits as an oriental scholar were acknowledged abroad by his being chosen a member of the French Institute. His death occurred May 13th 1836.

WILLIAM I.,\* king of the Netherlands, desirous of contracting a marriage with the countess d'Outremont, a Roman Catholic, to which, on this account, his subjects were opposed, abdicated the throne in October 1840, and retired to Berlin, where he died on the 12th of December 1843.

WILLIAM IV.,\* king of England, died on the 20th of June 1837, and was succeeded on the throne by his niece Victoria I. See *United Kingdom of Great Britain and Ireland*, (Sup.)

WIRT (William) was born at Bladensburg in Maryland, November 8th 1772. His father was a native of Switzerland, and his mother of Germany; and both of them died before he had reached his 8th year. He was thus thrown upon the guardianship of his uncle, Mr. Jasper Wirt, who placed him first at an academy in Charles county, of which Mr. Dent was the principal, and subsequently, when he was 11 years old, removed him to a school of some reputation in Montgomery county, kept by a presbyterian clergyman of the name of Hunt, a gentleman of high literary attainment and cultivated taste. Here he remained until 1787, when the school was broken up. Though only 15 years of age, such was the progress which he had made in his studies, and such the character for ability and correctness of deportment which he had established, that he obtained a necessary support for himself for about a year and a half, as a private tutor in the family of Mr. Benjamin Edwards, the father of Mr. Ninian Edwards, who afterwards became governor of the state of Illinois.—Mr. Wirt began the study of the law at Montgomery courthouse, under the direction of Mr. William P. Hunt, the son of his former preceptor, and completed his studies in the office of Mr. Thomas Swann, at Leesburg in Virginia. He was admitted to the bar in 1792, and entered upon the practice of his profession in Culpepper county, in that state, in the autumn of the same year. In 1799 he removed to Richmond, where he was elected clerk of the House of Dele-

gates. This office he held for two years, during which time he also appeared occasionally as an advocate in the courts. The Legislature appointed him in 1802 to be chancellor of the eastern district of the state, upon which he took up his residence at Williamsburg. Finding, however, his salary inadequate for the support of his family, he soon resigned the chancellorship, and returned to the bar at Norfolk. Here he continued for about 3 years with a steadily increasing professional reputation. He removed to Richmond in 1807, and shortly afterwards acquired great distinction at the trial of Aaron Burr. In 1816, Mr. Madison appointed him to the office of United States attorney for the district of Virginia; and in the following year, under the administration of Mr. Monroe, he became attorney-general of the United States. This post he occupied until the close of Mr. Adams's presidency, and exhibited in it an ability and legal acquirements of the highest order. His reputation, too, as an advocate and jurist, grew with his successive appearances before the Supreme Court at Washington. — In 1830, Mr. Wirt went to Baltimore, and continued to reside there until his death, which took place at Washington city, on the 18th of February 1835, when he was in the 62d year of his age. — The only time that Mr. Wirt was a member of a legislative body was in the winter of 1807-8, when he sat in the House of Delegates as a representative from the city of Richmond. He nevertheless at all times took much interest in the political events of his day, and wrote a number of essays in reference to them for the public papers. His reputation as a writer, however, rests upon the purely literary productions of his pen. The principal of these are the letters first published in 1803 in the Richmond Argus, and which subsequently passed through 10 or more editions, under the title of the "British Spy," — the essays which appeared originally in 1812 in the Richmond Enquirer, and which also passed subsequently through several editions, under the title of the "Old Bachelor," — and his "Life of Patrick Henry," which was first published in 1817.

WISBADEN\* had, in 1840, 10,000 resident inhabitants; but during the height of the watering season, the total number of persons in the town has sometimes exceeded 25,000. The mineral waters contain muriate and sulphate of soda, muriate and carbonate of lime, muriate of magnesia and potassa, with some silica, oxide of iron, and free carbonic acid. They are

efficacious in cases of gout, rheumatism, paralysis, &c.

WITTGENSTEIN (Louis Adolphus Peter, prince of) was born at Berleburg in Germany, January 6th 1769. He entered into the military service of Russia at an early age, and was rapidly promoted. In the campaign of 1812, he commanded the army of the Duna, and acted with vigour on the left flank and the rear of the grand French army, in its advance to Moscow. In 1813, he was for a short period the commander-in-chief of the combined Russian and Prussian armies, and distinguished himself at the battles of Lützen, Bautzen, and Leipsic. He acted also a conspicuous part in the campaign of 1814 in France. The emperor Nicholas, on coming to the throne, conferred upon Wittgenstein the rank of a field-marshal, and, in 1728, appointed him to command the army acting against the Turks. Owing to his advanced age, however, the military operations were not conducted with his accustomed vigour and activity; and he was permitted to retire in the following year to his estate of Kumenka in Podolia. There he occupied himself chiefly with agricultural pursuits, and plans for the improvement of the condition of his serfs. He died on the 11th of June 1843, when on a journey to Wisbaden in Germany, for the restoration of his health.

WRADE\* (Marshal) died on the 12th of December 1838.

WRIGHT (Benjamin) was born in the township of Weathersfield in Connecticut, October 10th 1770. His parents, who were poor but respectable, could only afford to send him to a common school during the winter months. He went, when 16 years of age, to live with an uncle at Plymouth in Litchfield county, where he acquired a knowledge of surveying; and in his 19th year, he left his native state, in company with all his father's family, to make a settlement at Fort Stanwix, now called Rome, in Oneida county, in the state of New York. This place was then on the very borders of the territory occupied by the white population, and Mr. Wright soon found abundant employment in the surveying of the lands in his neighbourhood, as they were sold to the newly arrived settlers. We are told, that from 1792 to 1796, he had laid out into farms not less than 500,000 acres of land, in the counties of Oneida and Oswego. From 1796 to 1801, he found still more extensive occupation as a surveyor, in the central and northern counties of the state; and a part of 2 years was spent by him, in

the service of the "Western Inland Lock Navigation Company," in making plans and estimates for the construction of a water communication between Lake Oneida and the Hudson river,—which, however, the limited means of the Company never permitted them to execute. About this time also, he became the agent of the chief proprietors whose lands he had surveyed; and by the ability and faithfulness with which he fulfilled this trust, he enhanced the respect and confidence already bestowed upon him by his immediate fellow-citizens. In 1801, and again in 1807 and 1808, they elected him their representative in the state legislature.—In the last mentioned year, the feasibility of a canal through the Mohawk valley, and to connect the waters of Lake Erie with those of the Hudson, was frequently discussed between Mr. Wright, General McNeil, his colleague from Oneida county, and Judge Forman, of Onondaga county. Their deliberations resulted in a motion in the House of Assembly, made by Judge Forman and seconded by Mr. Wright, to appropriate \$600 for a preliminary survey. By the adoption of this proposition, the first legislative step was taken towards the construction of the great work in question. The report of Judge Geddes, who made the required survey, led in 1810 to the appointment of a board of canal commissioners, and to an appropriation for additional surveys. The canal commissioners, after examining the route from Lake Erie to the Hudson, reported in favour of a canal unbroken through the whole distance by locks, on an inclined plane of 6 inches to the mile. Their report was referred to Mr. Wright and Mr. Geddes, who reported against it. The war with Great Britain now intervened, and prevented any progress in, while it furnished irresistible evidence of, the necessity of such a work of internal navigation. But in 1816 a canal board was efficiently organized, and Mr. Geddes and Mr. Wright were charged with constructing the canal,—the former with the western, the latter with the eastern section: and from that time forth the work proceeded, under their direction, to its completion in the year 1825.—It may be mentioned that Mr. Wright had, during the war, been appointed one of the judges for the county in which he resided; but from this office, as well as from all his other employments, he withdrew on receiving the appointment of canal engineer.—Although the services rendered by Mr. Wright in the construction of the Erie canal, constitute his prin-

cipal claim to be remembered by posterity, he was also either consulting or chief engineer of a number of other "internal improvements," of the highest importance to the material interests of the United States;—such as the Farmington canal, in Connecticut; the Blackstone canal, in Rhode Island; the Chesapeake and Ohio canal; the canal from Richmond westwards; the Chesapeake and Delaware canal; the Delaware and Hudson canal; the Haerlem railroad; the Welland canal, in Canada; the New York and Erie railroad; the Tioga and Chemung railroad; and the Chicago and Illinois river canal.—In 1835, he was invited to Cuba, to consult as to a railroad from Havana to the interior of the island; and his approval of the projected road decided its construction.—Mr. Wright died in the city of New York, which had been his residence during several years, on the 24th of August 1842, in the 72d year of his age.—It may be added, that in all the various enterprises with which he was connected, Mr. Wright sustained the same reputation of zeal, industry, and probity, avoiding the reality, and even escaping the suspicion, of ever using the opportunities afforded him by his station, for any undue advantage of his own fortune.

**WURTEMBERG.\*** The population of this kingdom, in 1843, was 1,725,167. Of this number, 1,170,509 were Protestants, 518,425 Roman Catholics, and 11,584 Jews.—The chief towns, with their population (also in 1843), are:—Stuttgart, 43,877; Ulm, 18,375; Reutlingen, 12,742; Esslingen, 12,004; Heilbronn, 11,686; Ludwigsburg, 10,726; Tübingen, 9016; &c.—The university at Tübingen has 64 professors and other instructors, and in the summer of 1845 had 867 students, 77 of whom were not from Wurtemberg.—The receipts into the public treasury during the financial period of 3 years, from 1841 to 1844, amounted to 30,798,863 florins; the expenditure amounted to 30,678,902 florins. The estimated receipts for the next period of 3 years, from 1845 to 1848, were 28,489,567 florins; and the estimated expenditure was 28,311,210 florins. This last mentioned sum included an annual appropriation of 5,866,666 florins for the construction of railroads.—The army, on the peace establishment, amounts to 9000 men; in case of war, to 21,000 men.

**WURZBURG.\*** Population in 1844, 27,000.—The number of students in the university, in 1842, was 485, 100 of whom were not from the kingdom of Bavaria, in which Wurzburg is situated.

## X.

**XERES DE LA FRONTERA.\*** Though much Sherry wine is imported into the United States, Great Britain continues to be the principal market for it; no less than 2,412,821 gallons having been entered for home consumption in the United Kingdom in 1841, being considerably more than the whole quantity of wines, of every description, entered for consumption in that year. A great part of the trade of Xeres has latterly been transferred to Port St. Mary, where the wine-merchants have the additional advantage of being able to superintend the shipping of their wines,

## Z.

**ZEALAND\* (New).** In 1833, a British resident, subordinate to the government of New South Wales, was sent to New Zealand, but with very limited powers; in 1840, it was constituted a colony, dependent on New South Wales; and, in 1841, it was freed from this dependence. A governor was then appointed, with whom the colonial secretary and treasurer, the attorney-general, and 3 senior justices of the peace, compose the legislative council. Besides a bishop and 12 clergymen of the church of England, 62 other Christian missionaries are established in the country. The European population was stated to amount, in May 1840, to 9500, distributed as follows:—4500 at Port Nicholson; 1500 at Port Nelson; 1000 at New Plymouth; 1500 at Port Auckland; and 1000 at the Bay of Islands. The indigenous population was estimated at 107,200.

**ZENTNER\*** resigned his office of minister of justice in 1832, on account of his advanced age, and died October 21st 1835.

**ZINGARELLI** died at Naples on the 5th of May 1837.

**ZUMALACARREGUI\* (Don Tomas)** was born in 1780, in a village in the Spanish province of Guipuscoa. At the breaking

out of the insurrection of his countrymen in 1808 against Napoleon, he was a student of law at Pampeluna. He at once enlisted in their ranks, and served with distinction under Mina. In 1822, he joined the "army of the Faith," under Quesada, and on the restoration of the absolute authority of the king in 1823, he was promoted first to the rank of a lieutenant-colonel, and soon after to that of colonel. On the death of Ferdinand VII., Zumalacarregui raised a regiment of volunteers in the cause of the Infant Don Carlos, and was, before very long, deemed by the leaders of the party to which he had attached himself to be the individual among themselves best qualified for the office of commander-in-chief. With comparatively inconsiderable means he repeatedly discomfited the Christiano generals; and he became at length sufficiently formidable to threaten the speedy overthrow of the throne of Queen Isabella II., when he died, on the 25th of June 1835, of a wound which he had received, ten days previously, at the siege of Bilbao.

**ZÜRICH.\*** A university was founded in this city in 1833, which was attended in 1845 by 125 students.

## APPENDIX.

**CHINESE WAR.** In a preceding article, reference was made to this appendix for some notice of the war waged by the British government against the Chinese in 1840, 1841, and 1842, and which was terminated by the treaty of the 26th of August of the last mentioned year,—a treaty by which, in addition to receiving a sum of \$21,000,000 as an indemnification for the expenses of the war, Great Britain obtained possession of the island of Hong-kong, and admission for her vessels into several other of the ports of China, besides Canton. See *China*, (Sup.) But all that can be stated here is a few only of the most important facts, with the dates of their occurrence.—The prohibition to import opium into Canton having been constantly disregarded by the English and other foreigners, the Chinese government resolved at length on adopting extraordinary measures to put an end to this illicit trade. Commissioner Lin issued a proclamation, March 13th 1839, requiring the opium contained on board the British vessels, or in their store-houses on shore, to be delivered up. Captain Elliot, who was at the time the authorized British Superintendent in China, after protesting in vain against this measure, saw himself constrained to advise the merchants and shipmasters to comply with it, and look for a compensation for their loss to their own government. As many as 20,283 chests of opium, valued at about £4,000,000, were accordingly delivered up to the Chinese, and by them at once destroyed or rendered useless. On the 7th of July following, a collision took place at Hong-kong between some English sailors and a number of Chinese, in which one of the latter was killed. On the refusal of Captain Elliot to surrender the offender, Commissioner Lin issued another proclamation, forbidding the people everywhere to furnish the English with provisions, who, in consequence, abandoned Macao and went on board of their ships, which lay before Hong-kong. A skirmish next occurred between the English and the inhabitants on shore, on an attempt which they made to supply themselves with such articles as they most needed.

The efforts of Captain Elliot to re-establish a good understanding between the parties at variance were altogether fruitless; Lin insisting as a necessary condition of this, that the masters of all vessels, before entering the river of Canton, should make a declaration that they had no opium on board, and also that, in the event of a search being made, should any opium be found, it should be confiscated, and the individual guilty of the attempted fraud should forfeit his life.—A sudden attack was made, September 7th, by a fleet of Chinese war junks on the English armed vessels, which was repelled with considerable loss to the assailants; and an attempt to set fire to the English vessels, on the 28th of February of the following year (1840), was equally unsuccessful. In the meantime, war had been declared by the British government against China. The river of Canton was blockaded by the English on the 28th of June; and a few days afterwards they took possession of the island of Chusan. After some further successes obtained on this part of the Chinese coast, a squadron under the command of Admiral Elliot sailed for the Gulf of Petchelee, and entered the mouth of the Peiho, the river on which Peking is situated, on the 11th of August. The admiral gained the object he had immediately in view, which was to induce the emperor to receive the despatches of the British superintendent, Captain Elliot, which Lin, at Canton, had refused to transmit to Peking. The emperor not only received the despatches, but, anxious to remove the English to a greater distance from his capital, he did not hesitate to disavow the proceedings of his officers at Canton, and to promise to send to that city a commissioner duly authorized to conclude a treaty with Captain Elliot. This was on the 7th of September; but the promised negotiator did not make his appearance at the place appointed until the 29th of November; and even after his arrival there, very little progress was made towards the conclusion of a treaty. It indeed became very apparent that the promises of the emperor had been altogether illusory, and that delay had been, and still was, his real

design. The British naval force, now under the orders of Commodore Bremer, made, in consequence, an attack, on the 9th of January 1841, on the forts at the Bocca Tigris, and inflicted much damage on the enemy. The Chinese commissioner, Keshan, at length deemed it expedient to come to the point, and on the 20th of January signed a preliminary treaty, in which it was agreed that the port of Canton should be opened on the same terms to the English as before, that the island of Hong-kong should be ceded to them, that the sum of \$6,000,000 should be paid to them as an indemnification for the expenses to which they had been subjected, and that the relations between Great Britain and China should hereafter be placed on a footing of perfect equality.—But a month and more having elapsed, without any indication on the part of the Chinese of carrying its provisions into effect, hostilities recommenced on the 25th of February. The English gained possession of the forts at the Bocca Tigris, and destroyed the Chinese fleet of junks; and on the 18th of March, they appeared before Canton, and established themselves in the suburb containing the factories. The effect of this movement was to cause the Chinese authorities to solicit an armistice, which was acceded to on condition of the trade with the city being in the mean time open to the English, and that their merchants should be protected from injury or insult.—But peace was in reality less intended by the Chinese than ever. Whoever should even pronounce the word was threatened by the emperor with instant death; Keshan, the negotiator of the late treaty, was condemned to lose his life; and 50,000 men, under the Tartar general Yeshan and the minister Hu, were collected before long at Canton. In this state of things, Major-general Sir Hugh Gough, on the 24th of May, once more took possession of the factories, and on the following day, at the head of 2500 men, defeated before the city the entire army of the enemy.—He was about to storm Canton itself, when the minister Hu made his appearance, and offered to negotiate. Captain Elliot, again mistaking the motives of the parties with whom he had to deal, consented to the proposal, and two days afterwards, on the 27th of May, the former treaty, somewhat modified, was agreed upon. On the part of the Chinese, a beginning was made in the execution of the treaty, by the payment of a portion of the indemnity money; and the British forces, both naval and military, withdrew

to Hong-kong.—Suddenly, however, new difficulties were interposed by the Chinese authorities; upon which it was resolved by the British to change the system of operations hitherto pursued, and as a more certain means of making such an impression on the emperor, as would induce him not merely to consent to the terms that were desired, but likewise to adhere to them subsequently, to transfer the seat of war from the neighbourhood of Canton to a more vital part of the empire. Before this was done, Sir Henry Pottinger was substituted for Captain Elliot in the office of superintendent, and Admiral Parker assumed the command of the fleet. Sir Hugh Gough continued to command the army. The expedition left Hong-kong on the 21st of August (1841.) Amoy, Chusan, Chinhae, and Ningpo, fell successively into the hands of the English, after more or less resistance. At Ningpo, the expedition made a considerable stay, waiting for reinforcements which were expected. While there, the Chinese made an attack upon it, but were repelled with great loss to themselves. From Ningpo, the expedition proceeded to Chapoo, the chief seat of the trade of China with Japan, which was taken after only a slight opposition, on the 18th of May 1842. It arrived at the mouth of the Yang-tse-kiang on the 13th of June, and on the next day reached the confluence of the Wosung with this river. Here the enemy had made the most formidable preparations for preventing the further progress of the British force; no fewer than 250 pieces of cannon having been, as it is stated, mounted on their batteries. The position was, nevertheless, carried after a cannonade of only two hours duration. The important commercial city of Shanghai was taken, after a still feebler resistance, on the 19th of June; and on the 21st of July, the British obtained possession by assault, after an obstinate and bloody contest, of the city of Ching-kiang-foo, situated where the Imperial canal crosses the Yang-tse-kiang. The moral effect produced by the capture of this place was decisive. When, therefore, on the 6th of August the victors presented themselves before the great city of Nanking, the second in the empire, an armistice was earnestly solicited by the Chinese, as a measure preliminary to the conclusion of a treaty of peace. Three envoys from the emperor, accordingly, arrived at Nanking a few days afterwards; and the war was at length brought to a close by the treaty concluded on the 26th of August (1842).

**DELAWARE BREAKWATER.\*** The "breakwater" has been constructed for a distance of 862 yards, and the "ice-breaker" for a distance of 467 yards. The design is likewise necessarily incomplete in the width of the entrances at Cape Henlopen and between the works, which are now 780 yards and 455 yards, respectively. The whole amount which has been appropriated for the works is \$1,880,000; the last appropriation having been made by Congress in the session of 1837-38. The first stone was deposited in 1829, and the last in 1839. — The average number of 22 vessels received shelter on each day of the 4 years, from September 30th 1839 to September 30th 1843. As many as 60 or 70 vessels are frequently seen in the harbour at the same time; and on one occasion, their number was 108. Of the whole number of vessels resorting to the harbour, 2-5ths are bound along the coast, and the remaining 3-5ths up or down the Delaware.

**HOSACK (David), M. D. and LL.D.,** was born in the city of New York, on the 31st of August 1769. After receiving his preparatory classical education, first in the school of the Rev. Dr. McWhorter at Newark in New Jersey, and next in that of Dr. Peter Wilson at Hackensack in the same state, he became a student at Columbia College, in his native city, in the year 1786. There he continued during the space of two years and a-half, when he went to Princeton College; where he was graduated A. B. in 1789. On his return to New York, he studied medicine under the direction of Dr. Richard Bayley. He subsequently attended the medical lectures in the University of Pennsylvania, in Philadelphia. The degree of M. D. was conferred upon him by this institution in 1791. — Dr. Hosack commenced the practice of his profession at Alexandria, in the District of Columbia; but quitted that place about a year afterwards, although he had made a very favourable impression on its inhabitants, with the design of fixing his residence in the city of New York. Not long, however, after his arrival there, he changed his plans, and went to Europe to prosecute his medical studies more extensively and profitably than it was, at that period, supposed could be done in his own country. He heard lectures, and attended the hospitals, at Edinburgh and London; and he did not confine his attention exclusively to subjects strictly professional. His attainments in natural history, and especially in botany, led to his being elected a member of the

Linnæan Society. During his stay in London, he obtained some distinction by a series of interesting facts communicated by him to Dr. Pearson, and subsequently published by the latter in the Commentaries of Dr. Duncan, relating to the transmission of the small-pox virus from the mother to the fœtus in utero, and also by a paper presented by him to the Royal Society, the purpose of which was to show that the eye adapts itself to view objects at different distances by means of the external muscles. This paper was published in the transactions of the society in 1794. — Dr. Hosack returned to New York in the course of the year just mentioned, and immediately entered on the duties of his profession. Through his own merits, as well as the patronage of Dr. Samuel Bard, then an eminent practitioner of medicine, who took him into partnership, his reputation rapidly grew; and when Dr. Bard in 1800 retired to his country-seat at Hyde Park on the banks of the Hudson, Dr. Hosack was left in the possession of an extensive and valuable practice. Such a practice, too, he continued to enjoy until he himself, thirty years afterwards, retired to the same Hyde Park, which he had purchased. — But Dr. Hosack was equally distinguished as a professor or lecturer and as a practitioner of medicine. His first professorship was that of botany in Columbia College, to which he was appointed in 1795, the year following that in which he returned from Europe. In 1797, he became professor of materia medica as well as of botany. On the establishment of the college of physicians and surgeons of the state of New York, he was chosen by the regents to the chair of materia medica and midwifery. In 1811, he was transferred to the chair of the theory and practice of physic and clinical medicine; and to the duties of this office were subsequently added those of the professorship of obstetrics and the diseases of women and children. And again, on the organization of the Rutgers' Medical College, in 1826, he became the professor of the theory and practice of physic in that institution, and remained such until its operations were suspended, in 1830, by the action of the state legislature in behalf of the rival medical school under the superintendance of the regents of the university. — As an author, Dr. Hosack is also entitled to public notice. His medical writings consist of a number of essays or discourses, for the most part inserted in the medical journals, which were collected and published by him in 3 volumes 8vo., under the title

of "Medical Essays;" together with a "System of Practical Nosology," the first edition of which appeared in 1819, and a second in 1821. His other writings are a discourse on Horticulture, one on Temperance, biographical notices of Dr. Rush and Dr. Wistar, and an elaborate memoir of De Witt Clinton. — Dr. Hosack was a Fellow of the Linnæan Society of London, of the Royal Society of London and of the Royal Society of Edinburgh, and also a member of the American Philosophical Society. — He died of an attack of apoplexy, on the 23d of December 1835, in the 67th year of his age.

MACON (Nathaniel) was born in North Carolina, in the year 1758, and was educated at Princeton, New Jersey. While at college in 1776, he performed a short tour of duty against the British who had invaded that part of the country; and on his return home in the spring of 1780, he joined the militia troops of his native state, and continued with them till the provisional articles of peace were signed, in the autumn of 1782. While yet in the army, and when scarcely 24 years of age, he was elected by his fellow-citizens a member of the Legislature, without his solicitation or even knowledge. After serving 8 years in this capacity, he was chosen a representative in Congress, and took his seat as such at the 1st session of the 2d Congress, in 1791. He occupied it uninterruptedly till the winter of 1816, when he was transferred to the United States Senate, of which body he continued a member down to the month of November 1828; at which time his advanced age and infirmities induced him to resign his seat. — During his congressional career, Mr. Macon was elected in 1801 speaker of the House of Representatives, at the 1st session of the 7th Congress; and he continued to preside over its deliberations till the 10th Congress. The duties of the chair were discharged by him with ability, and with an impartiality acknowledged by his political adversaries. He was several times chosen president *pro tem.* of the Senate; and the office of postmaster-general was twice offered to him and declined. In 1835, his fellow-citizens called him from his retirement, by electing him a member of the convention for revising the constitution of N. Carolina; of which body, too, he was chosen to be the president by a unanimous vote; and the last public duty which he performed was that of an elector of president and vice-president of the United States, in 1836. — The death of Mr. Macon occurred at his residence in

Warren county, N. C., on the 29th of June 1837, in his 79th year.

SMITHSONIAN INSTITUTION. Congress, towards the close of its late session, passed an act, which was approved by President Polk on the 10th of August, establishing this institution. Its provisions, however, go very little farther than the appointment of a board of regents to conduct the business of the institution at the city of Washington. The board is to be composed "of the vice-president of the United States, the chief justice of the United States, and the mayor of the city of Washington, during the time for which they shall hold their respective offices; three members of the Senate, and three members of the House of Representatives; together with six other persons, other than members of congress, two of whom shall be members of the National Institute in the city of Washington, and resident in the said city; and the other four thereof shall be inhabitants of states, and no two of them from the same state." The board of regents are authorized to select a proper site for the institution; and as soon as they "shall have selected the said site, they shall cause to be erected a suitable building, of plain and durable materials and structure, without unnecessary ornament, and of sufficient size, and with suitable rooms or halls for the reception and arrangement, upon a liberal scale, of objects of natural history, including a geological and mineralogical cabinet; also a chemical laboratory, a library, a gallery of art, and the necessary lecture rooms." An important provision of the act is, that all expenditures and appropriations, to be made from time to time to the purposes of the institution, shall be exclusively from the accruing interest, and not from the principal of the Smithsonian fund.

STEAM BOILERS (Explosion of). The constantly increasing use of steam as a moving power in the arts, and the many painful accidents connected with the employment of this agent, render important the general diffusion of all knowledge relative to the causes of the bursting of steam boilers. The most valuable set of experiments ever instituted on this subject, was made by a committee of the Franklin Institute of Philadelphia, at the expense of the secretary of the treasury of the United States, i. e. the expense of the apparatus was defrayed by the general government. The services of the committee were gratuitous, although they were rendered at the expense of much time and labour; and the chairman, Dr. A. D. Bache,



now of the coast survey, devoted the greater part of all his leisure hours during four years to the investigation. Previous to commencing the experiments, the committee addressed a circular to every engineer known to them as connected with the practical application of steam, and who had any personal knowledge of the explosion of a boiler. The answers to these circulars, though containing many crude hypotheses, furnished a valuable collection of facts and suggestions, which served to guide the researches of the committee. The causes of explosion were considered under the following heads:

I. *Explosion from gradually increasing pressure of steam.*—It was ascertained in several of the answers to the circulars, that a mere rupture, and not an explosion, is produced in boilers, particularly of copper, by gradually increasing the quantity of steam. The committee, however, proved by the most conclusive experiments, that violent explosions are produced in boilers, both of copper and iron, by a gradual increase of the tension of the steam.—Explosion from this cause can only take place on account of some defect in the action of the safety apparatus; and the circumstances which may lead to this are—(1) designedly loading the safety valve, to increase the power of the engine—(2) the adhesion of the valve, from rust, or some other cause—(3) the obstruction of the free motion of the lever, such as the falling of a piece of timber across it, &c.—(4) also the form of the valve may have some influence.

II. *Explosion from the presence of unduly heated metal within the boiler.*—The researches of the committee show that this is a frequent cause of explosion, and that the effect is neither due, as many suppose, to the production of gas from the decomposition of the water, nor to the flashing of the liquid into vapour when thrown into surcharged steam, but to the sudden generation of a great quantity of steam when the water comes in contact with the heated metal. The increase of pressure in this case is so rapid that the sides of the boiler give way before the resistance, and the inertia of the safety-valve can be overcome. The circumstances which attend explosions from this cause are as follows:—(1) A deficiency of water, which exposes a portion of the naked metal to the fire. This may be produced by a defective action of the feed-pump, or by blowing off steam while the engine is at rest; when the pump is again set in motion, the water is thrown on the heated metal; or the mo-

tion of the vessel may “swash” the water over the heated surface; and also when a head of steam is allowed to blow off, the water foams up, and in this way it may come in contact with the heated metal.—(2) Metal may become unduly heated by a deposit of earthy matter, which incrusts with a bad conductor the bottom of the boiler. When a crack is produced in this, the water is let down on the heated surface. The whole crust may thus be blown off, and the bottom suddenly exposed.—(3) From the careening of the vessel the water may be thrown on the lower side of the boiler, leaving the opposite side uncovered; when the vessel returns to its horizontal position, the water is thrown on the heated metal. Explosion is most liable on this account in vessels provided with a number of parallel boilers connected together. When the boat stops at a wharf to land passengers, the weight is thrown on one side; and at the moment of starting, the return of the water gives rise to the explosion. It should be observed under this head that the tenacity of the metal is diminished by increase of temperature; and hence the boiler, when highly heated in any part, is less able to withstand a high pressure.

III. *Explosion from defective construction of the boiler.*—The cylindrical form is the strongest; and with the same capacity and thickness of metal, the less the diameter the greater is the pressure it will sustain. The committee condemn the use of connected parallel boilers (unless divided into pairs) on account of their liability to expose metal uncovered with water to the heat. They consider also all boilers furnished with flues less safe than those without them. The flue passing through from end to end is the least objectionable, while the L flue, the vertical part of which passes out of the upper side of the boiler through the steams, and not surrounded with water, is considered the most dangerous. All irregularities in the form of the boiler are attended with a weakening effect; and hence tubes and other appendages projecting into the interior of the boiler to increase the fire surface are objectionable. The material should be wrought-iron or copper. The former is however more liable to be corroded with salt water, and hence the latter should be preferred in situations exposed to this action.

IV. *Collapse of boilers.*—Accidents properly referable to this cause are of rare occurrence; they sometimes happen in large low-pressure boilers, when the pres-

sure of the steam within is less than that of the atmosphere without.—In one case, the partial vacuum produced in the smoke flue of a boiler, by the explosion of a quantity of coal gas, was attended with a collapse of the flue: this fact should suggest care in avoiding the explosion of gases from the combustibles under the bottom of the boiler. The collapse of an interior flue is sometimes produced by the gradual increase of the pressure of the steam. This however may be considered as an instance of internal bursting.

V. *Explosion from carelessness, ignorance, &c.*—The management of the steam-engine cannot safely be entrusted to a person who has not at least a general knowledge of the nature of the power with which he is entrusted, or who does not possess the requisite feeling of moral responsibility to exercise his knowledge with prudence. The engineer should in all cases perform his duties under an assurance of the infliction of a severe penalty

in case of accident. The custom of employing incompetent engineers, because they can be procured at a low price, cannot be too strongly reprobated.

The committee recommends the use of fusible metal, contained in a tube closed at the bottom, and inserted into the interior of the boiler, so as to be surrounded with steam. When the temperature increases to a given degree, the metal melts in the tube, and thus unsolders the end of a rod; which, by means of a falling weight, may ring a bell, or throw a load from the safety-valve. The suggestion of this method of employing the fusible metal is separately due to Dr. A. D. Bache, and Mr. Evans of Pittsburgh. The latter has taken out a patent for a safety apparatus on this plan, which is the best contrivance for the purpose we have ever seen described. Nothing, however, but caution and attention, with requisite knowledge, will prevent accidents from steam explosion.



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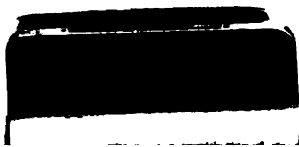




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