

beings; but his final goal is to rise above the toils and comforts of the visible creature into the vast bosom of a peaceful Nirvana.

**Bibliography.**—The works of Schopenhauer were published after his death by J. Frauenstädt in 6 volumes (Leipzig, 1874). Besides these, several papers and aphorisms appeared in 1834, *Aus Schopenhauer's handschriftlichem Nachlass*, by the same editor. The best biography of Schopenhauer is that by Gwinner, second and much enlarged edition in 1878. See also Frauenstädt and Lindner, *Arthur Schopenhauer; von ihm; über ihn* (1865); O. Busch, *A. Schopenhauer* (1878); K. Peters, *Schopenhauer als Philosoph* (1880), and *Willenswelt und Weltwille* (1888); and Koerber, *Schopenhauer's Erlösungslehre* (1881). A list of works on Schopenhauer is given by Balan, *Schopenhauer-Literatur* (1880). See also **FRAGMENT**.

**SCHRÖTER, JOHANN HIERONYMUS** (1745-1816), amateur astronomer, principally known by his physical observations of the moon and planets (see **OBSERVATORY**, under *Lilienthal*).

**SCHUBERT, FRANZ PETER** (1797-1828), composer of vocal and instrumental music, was born at Vienna 31st January 1797. For the foundation of his general education he was indebted to his father, a schoolmaster in the Leopoldstadt; but the beauty of his voice attracted so much attention that in 1808 he was received into the choir of the imperial chapel, and during the five years which followed he was taught to sing and to play the violin in the choristers' school called the "Convict." No attempt seems to have been made to teach him composition, but, through the kind intervention of an older chorister, he was supplied with music-paper, and thenceforward he wrote incessantly, as his fancy dictated, without any help whatever, always carefully signing and dating his MSS., which extend back as far as 1810. When his voice broke in 1813 Schubert left the "Convict," and, to avoid the conscription, taught for three years in his father's school. This, however, in nowise damped his zeal for composition. Even at this early period his invention was inexhaustible and the rapidity of his pen almost incredible. In 1815 he composed 2 symphonies, 5 operas, and no less than 137 songs (67 of which have been published), besides a multitude of other important pieces. Yet so little was his genius appreciated that when in 1816 he applied for an appointment at a Government music school, with a salary equal to about twenty guineas a year, he was rejected as "imperfectly qualified."

In 1818 Count Johann Eszterhazy secured the services of Schubert as resident teacher of music to his daughters, for one of whom the young composer has been supposed—on very insufficient authority—to have entertained a romantic, and of course utterly hopeless, affection. The appointment was of great importance to him, for he was poor, almost to starvation; yet it led to no permanent improvement in his prospects: in fact his life was one long bitter disappointment from beginning to end. He wrote on, year after year, producing music of indescribable beauty in such enormous quantities that but for the dated MSS. we should refuse to believe the accounts transmitted to us by his biographers. He wrote because, when his genius inspired him with an idea, he could not refrain. Yet he scarcely ever looked at his compositions after they were finished, and very rarely heard any of them performed. Very little of his dramatic music was given to the world. Two little operettas—*Die Zwillingbrüder* and *Die Zauberharfe*—barely escaped failure in 1820; and the beautiful incidental music to Madame von Chezy's *Rosamunde* survived but two representations in 1823. Of his greater operas not one was placed upon the stage during his lifetime. With his songs he was more fortunate. Many of them were published, and their fresh bright melodies were irresistible. They were produced by hundreds, and with a rapidity bordering upon the miraculous. Among the MSS. seven or eight may be found dated on the same day; yet even in these he never repeated himself: every one was the result of a new inspiration, committed to paper at the moment of conception, laid aside immediately afterwards, and so completely forgotten that

he has been known to ask who was the composer of one of his own *Lieder* not very long after he had composed it. And this wonderful facility of production led to no unworthy form of treatment. The original MS. of *Hark, Hark, the Lark* was written at a "beer-garden," on the back of a bill of fare, the moment after the composer had read the words for the first time; and there are strong reasons for believing that *Who is Sylvia?*—one of the most perfectly finished songs on record—and *Come, thou Monarch of the Vine*, were produced on the same occasion. But the success of the songs did not make Schubert a prosperous man. All his life long he suffered from grinding poverty. Though he received an actual commission to write his greatest dramatic work, *Fierabras*, for the court theatre at Vienna, it was rejected in 1824 for the weakness of its *libretto*. Once, and once only, a chance seemed open to him. He was accepted in 1826 as a candidate for the vacant post of conductor to the court theatre, and requested to compose some music as a test of his powers. At the rehearsal the part he had designed for the prima donna was found too trying for her voice, and he was requested to alter it. "I will alter nothing," said Schubert; and his refusal to listen to reason cost him the coveted appointment.

Of Schubert's ten symphonies not one made its mark during his lifetime; yet the stamp of genius is upon these as plainly as upon his songs. It is true that in works of large dimensions genius loses half its power if unsupported by learning; and Schubert was not learned enough to turn his inspirations to the best account. His ideas came so quickly that the knowledge he possessed was not sufficient to enable him to arrange them in that perfect order which forms the chief charm of the symphonies of Mozart and Beethoven. And the same element of weakness is discernible in his sonatas and other long pieces of chamber music. But these are all true works of genius, precious and imperishable.

It was not to be wondered at that under his heavy trials Schubert's health failed rapidly. After recovering from more than one serious attack of illness, he was seized with a sudden access of delirium while at supper on 13th October 1828; and on 19th November he died, leaving behind him a few clothes and other possessions, which were officially valued at sixty-three Vienna florins (= £2, 10s.). His grave at the Ortsfriedhof, bought by the scanty savings of his brother Ferdinand, lies within a few feet of that of Beethoven.

Schubert's works, now (1886) in course of publication in a complete series by Messrs Breitkopf & Härtel of Leipzig, include 18 dramatic pieces, 8 sacred compositions, 10 symphonies, 24 pianoforte sonatas, a vast collection of songs, of which 457 are already published, and a multitude of other works which are too numerous to mention.

**SCHULTENS.** Three Dutch Orientalists of this name have an honourable place among the scholars of the 18th century. The first and most important, ALBERT SCHULTENS (1686-1750), was born at Groningen in 1686. He studied for the church at Groningen and Leyden, applying himself specially to Hebrew and the cognate tongues. His dissertation on *The Use of Arabic in the Interpretation of Scripture* (1706) indicates the point of view which prevailed with the school of Arabists of which he was founder, and which differentiates his aims from those of REISKE (*q.v.*). After a visit to Reland in Utrecht, he returned to Groningen (1708); then, having taken his degree in theology (1709), he again went to Leyden, and devoted himself to the study of the MS. collections there till in 1711 he became pastor at Wassenaar. Parochial work was little to his taste, and in 1713 he took the Hebrew chair at Franeker, which he held till 1729, when he was transferred to Leyden as rector of the *collegium*

*theologicum*, or seminary for poor students. From 1732 till his death (at Leyden on 26th January 1750) he was professor of Oriental languages at Leyden. Schultens was the chief Arabic teacher of his time, and in some sense a restorer of Arabic studies, but he differed from Reiske and De Sacy in mainly regarding Arabic as a handmaid to Hebrew. His chief work was to vindicate the value of comparative study of the Semitic tongues against those who, like Gousset, regarded Hebrew as a sacred tongue with which comparative philology has nothing to do. Schultens, on the other hand, certainly went much too far in his appeals to Arabic for the interpretation of the Old Testament; the laws of comparative Semitic philology were not yet known, so that the comparison of roots was often guesswork, and the value of the exegetical tradition in Hebrew was not accurately determined. Hence he did not leave so much of permanent value for Hebrew grammar and lexicography as might have been expected from his learning; but the systematic illustration of phrases and modes of thought from Arabic literature, *e.g.*, in his *Liber Jobi*, has a higher value, which has been too much overlooked in the reaction against the extravagances of the school he founded.<sup>1</sup>

Albert's son, JOHN JAMES SCHULTENS (1716-1778), became professor at Herborn in 1742, and afterwards succeeded to his father's chair. He was in turn succeeded by his son, HENRY ALBERT SCHULTENS (1749-1793), a man of great parts, who, however, left comparatively little behind him, having succumbed to excessive work while preparing an edition of Meidani, of which only a part appeared posthumously (1795).

**SCHULTZE, MAX JOHANN SIEGMUND** (1825-1874), German microscopic anatomist, was born at Freiburg in Breisgau (Baden) on 25th March 1825. He studied at Greifswald and Berlin, and was appointed extraordinary professor at Halle in 1854 and five years later ordinary professor of anatomy and histology at Bonn. He died at Bonn 16th January 1874. His contributions to biology were numerous and varied. He founded and edited the important *Archiv für mikroskopische Anatomie*, to which he contributed many papers, and advanced the subject generally, by refining on its technical methods. He also contributed to the knowledge of the *Protozoa* (see **FORAMINIFERA, PROTOZOA**). He will be longest remembered, however, by his reform of the cell theory. Uniting Dujardin's conception of animal sarcode with Von Mohl's of vegetable protoplasm, he pointed out clearly their identity, and included them under the common name of protoplasm. He thus reorganized the theory as established by Schwann, diminished the importance of the cell-wall and nucleus, and laid down the modern definition of the cell as "a nucleated mass of protoplasm with or without a cell-wall" (see **PROTOPLASM** and **SCHWANN**). An obituary notice of Schultze is given in *Arch. mikr. Anat.*, 1875.

**SCHUMACHER, HEINRICH CHRISTIAN** (1780-1850), astronomer, born at Bramstedt in Holstein, 3d September 1780, was director of the Mannheim observatory from 1813 to 1815, and then became professor of astronomy in Copenhagen. From 1817 he directed the triangulation of Holstein, to which a few years later was added a complete geodetic survey of Denmark; the latter was left incomplete by Schumacher, but was finished after his death. For the sake of the survey an observatory was established at Altona (see **OBSERVATORY**) and Schumacher resided there permanently, chiefly occupied with the publication

<sup>1</sup> A. Schultens's chief works are *Origines Hebraeae* (2 vols., 1724, 1738), 2d ed., 1761, with the *De defectibus linguæ Hebraeae* (1st ed., 1731); *Com. on Job*, 1737; *Com. on Proverbs*, 1748; Hebrew grammar (*Institutiones*), 1737; *Vetus et regia via Hebraicandi*, 1738; *Monumenta vetustiora Arabum* (1740—extracts from Nowairi, Mas'udi, &c.); ed. of Beha-ed-din's *Life of Saladin*; his *Opera Minora* (1769) and a *Sylloge Dissertationum* (1772, 1775) appeared posthumously.

of *Ephemerides* (11 parts, 1822-32) and of the journal *Astronomische Nachrichten*, of which he lived to edit thirty-one volumes, and which still continues to be the principal astronomical journal. Schumacher died at Altona on 28th December 1850.

**SCHUMANN, ROBERT** (1810-1856), musical critic and composer, was born at Zwickau, Saxony, on 8th June 1810. In deference to his mother's wish, he made a pretence of studying for the law, until he had completed his twentieth year; but in reality he took so little pains to acquaint himself with the mysteries of jurisprudence and so much to master the technical difficulties of the pianoforte that when the day of examination drew near it was evident that he could not hope to pass with credit. His mother therefore wisely gave up her cherished project, and in the summer of 1830 permitted him to settle for a time in Leipzig that he might receive regular instruction from Friedrich Wieck, the most accomplished and successful teacher of the pianoforte then living in North Germany. Under Wieck's superintendence Schumann would doubtless have become a pianist of the highest order had he not endeavoured to strengthen the third finger of his right hand by some mechanical contrivance the secret of which he never clearly explained. But the process failed most signally, and the hand became so hopelessly crippled that the young artist was compelled to give up all thought of success as a performer and to devote himself thenceforward to the study of composition, which he cultivated diligently under the guidance of Heinrich Dorn.

This change of purpose led him to direct his attention to subjects connected with the higher branches of art which he had previously very much neglected. Moreover, it gave him time and opportunity for the development of a peculiar talent which he soon succeeded in turning to excellent account,—the talent for musical criticism. His first essays in this direction appeared in the form of contributions to the *Allgemeine musikalische Zeitung*; but in 1834 he started a journal of his own, entitled *Die Neue Zeitschrift für Musik*, and to this from time to time he contributed critiques of the most profound character, sometimes openly written under his own name, sometimes ostensibly emanating from an imaginary brotherhood called the *Davidbund*, the members of which were living men and women, Schumann's most intimate friends, though the society itself existed only in his own fertile imagination. His time was now fully occupied. He composed with inexhaustible ardour, and by the exercise of his extraordinary critical faculty struck out for himself new paths, which he fearlessly trod without a thought of the reception his works were likely to meet with from the public. The habit of passing a just judgment upon the works of others led him to judge his own productions with relentless severity; and it may be safely said that he was harder upon himself than upon any candidate for public favour whose attempts he was called upon to criticize.

Schumann's first great orchestral work was his *Symphony in B♭*, produced in 1841,—the year after his marriage with Clara Wieck, now so well known to the world as Madame Clara Schumann, the accomplished pianiste, to whose faultless interpretation of her husband's works we are indebted for our fullest appreciation of their inherent beauty. Another symphony, in D minor, and an orchestral overture, scherzo, and finale, appeared in the same year; and from this time forward works on an equally grand scale appeared in rapid succession, culminating with his first and only opera, *Genoveva*, which, though completed in 1848, was not produced until 1850. In 1843 Schumann was appointed professor of composition in Mendelssohn's newly founded conservatory of music at Leipzig. Two years after Mendelssohn's death he endeavoured to obtain the appoint-

ment of director of the Gewandhaus concerts, but was rejected in favour of J. Rietz. In 1850 he was invited to Düsseldorf as musical director—a post in which Mendelssohn had greatly distinguished himself many years previously. Schumann retained this until 1853, when his mental powers began to decline rapidly through a disease of the brain from which he had long suffered, and of which he died at Emden, near Bonn, 29th July 1856.

Schumann's position in the history of German music is very important and marks the last stage but one of its progress towards its present condition. His style was very advanced and strikingly original. His published works include one opera, four symphonies, five overtures, a series of scenes from *Faust*, and other choral and orchestral works written on a very extensive scale, and a large quantity of songs, pianoforte pieces, and other smaller works of the highest excellence and beauty.

SCHWABE, SAMUEL HEINRICH (1789-1875), German amateur astronomer, was born on 25th October 1789 at Dessau, where he died on 11th April 1875; he observed the sun-spots regularly from 1826 and pointed out (in 1843) the periodicity in the number of these objects.

SCHWALBACH, or LANGENSCHWALBACH, a favourite German health resort, in the Prussian province of Hesse-Nassau, is pleasantly situated in the deep valley of the Münzenbach near its junction with the Aar, 12 miles north-west from Wiesbaden, with which it has regular communication by diligence. Besides a large kursaal, the town has four churches, a synagogue, a real school, and a higher school for girls. The three principal springs, which are largely impregnated in varying proportions with iron and carbonic acid (compare MINERAL WATERS), are connected by promenades. The permanent population of the town was 2811 in 1880, and the number of visitors reaches about 5000 annually.

About 4½ miles to the south of Schwalbach is SCHLANGENBAD (360 inhabitants), the thermal springs of which are efficacious in nervous complaints and attract about 2000 visitors (chiefly ladies) every year. The water is used externally only.

SCHWANN, THEODOR (1810-1882), author of the cell theory in physiology, was born at Neuss in Rhenish Prussia on 7th December 1810. His father was a man of great mechanical talents; at first a goldsmith, he afterwards founded an important printing establishment. Schwann inherited his father's mechanical tastes, and the leisure of his boyhood was largely spent in constructing little machines of all kinds. He studied at the Jesuits' college in Cologne and afterwards at Bonn, where he met Johannes Müller, in whose physiological experiments he soon came to assist. He next went to Würzburg to continue his medical studies, and thence to Berlin to graduate in 1834. Here he again met Müller, who had been meanwhile translated to Berlin, and who finally persuaded him to enter on a scientific career and appointed him assistant at the anatomical museum. Schwann in 1838 was called to the chair of anatomy at the Roman Catholic university of Louvain, where he remained nine years. He then went as professor to Liège, where, in spite of brilliant offers from many German universities, he led a very quiet uneventful life, broken only by the international commemoration of the fortieth anniversary both of his professoriate and the publication of his *magnum opus*, till his death on 11th January 1882. He was of a peculiarly gentle and amiable character and remained a devout Catholic throughout his life.

It was during the four years spent under the influence of Müller at Berlin that all Schwann's really valuable work was done. Müller was at this time preparing his great book on physiology, and Schwann assisted him in the experimental work required. His attention being thus directed to the nervous and muscular tissues, besides making such histological discoveries as that of the envelope of the nerve-fibres which now bears his name, he initiated those researches in muscular contractility since so elaborately worked

out by Du Bois Reymond and others. He was thus the first of Müller's pupils who broke with the traditional vitalism and worked towards a physico-chemical explanation of life. Müller also directed his attention to the process of digestion, which Schwann showed to depend essentially on the presence of a ferment called by him pepsin, thus not only practically bringing the subject up to its modern state but preparing for the subsequent advances in medical treatment made by Roberts. Schwann also examined the question of spontaneous generation, which he aided greatly to disprove, and in the course of his experiments discovered the organic nature of yeast. His theory of fermentation was bitterly attacked and ridiculed by Liebig, but has been, after the lapse of a quarter of a century, triumphantly confirmed. In fact the whole germ theory of Pasteur, as well as the antiseptic application of Lister, is thus traceable to the influence of Schwann. Once when dining with Schleiden, in 1837, the conversation turned on the nuclei of vegetable cells. Schwann remembered having seen similar structures in the cells of the notochord (as had been shown by Müller) and instantly seized the importance of connecting the two phenomena. The resemblance was confirmed without delay by both observers, and the results soon appeared in the famous *Microscopic Investigations on the Accordance in the Structure and Growth of Plants and Animals* (Berlin, 1839; trans. Sydenham Society, 1847), and the cell theory (see MORPHOLOGY) was thus definitely constituted.—In the course of his verifications of the cell theory, in which he traversed the whole field of histology, he proved the cellular origin and development of the most highly differentiated tissues, nails, feathers, enamels, &c. Although mistaken in his view of the origin of new cells, his generalization at once became the foundation of all modern histology, and in the hands of Virchow (whose cellular pathology is an inevitable deduction from Schwann) has afforded the means of placing modern pathology on a truly scientific basis.

An excellent account of Schwann's life and work is that by Léon Frédéricq (Liège, 1884).

SCHWANTHALER, LUDWIG MICHAEL (1802-1848), German sculptor, was born in Munich on 26th August 1802. His family had been known in Tyrol by its sculptors for three centuries; young Ludwig received his earliest lessons from his father, and the father had been instructed by the grandfather. The last to bear the name was Xaver, who worked in his cousin Ludwig's studio and survived till 1854. For successive generations the family lived by the carving of busts and sepulchral monuments, and from the condition of mechanics rose to that of artists.

From the Munich gymnasium Schwantaler passed as a student to the Munich academy; at first he purposed to be a painter, but afterwards reverted to the plastic arts of his ancestors. His talents received timely encouragement by a commission for an elaborate silver service for the king's table. Cornelius also befriended him; the great painter was occupied on designs for the decoration in fresco of the newly erected Glyptothek, and at his suggestion Schwantaler was employed on the sculpture within the halls. Thus arose between painting, sculpture, and architecture that union and mutual support which characterized the revival of the arts in Bavaria. Schwantaler in 1826 went to Italy as a pensioner of King Louis, and on a second visit in 1832 Thorwaldsen gave him kindly help. His skill was so developed that on his return he was able to meet the extraordinary demand for sculpture consequent on King Louis's passion for building new palaces, churches, galleries, and museums, and he became the fellow-worker of the architects Klenze, Gärtner, and Ohlmüller, and of the painters Cornelius, Schnorr, and Hess. Owing to the magnitude and multitude of the plastic products they turned out, over-pressure and haste in design and workmanship brought down the quality of the art. The works of Schwantaler in Munich are so many and miscellaneous that they can only be briefly indicated. The new palace is peopled with his statues: the throne-room has twelve imposing gilt bronze figures 10 feet high; the same palace is also enriched with a frieze and with sundry other decorations modelled and painted from his drawings. The sculptor, like his contemporary painters, received help from trained pupils. The same prolific artist also furnished the old Pinakothek with twenty-five marbles, commemorative of as many great painters: likewise he

supplied a composition for the pediment of the exhibition building facing the Glyptothek, and executed sundry figures for the public library and the hall of the marshals. Sacred art lay outside his ordinary routine, yet in the churches of St Ludwig and St Mariahilf he gave proof of the widest versatility. The Ruhmeshalle afforded further gauge of unexampled power of production; here alone is work which, if adequately studied, might have occupied a lifetime; ninety-two metopes, and, conspicuously, the giant figure of Bavaria, 60 feet high, rank among the boldest feats of physical force. A short life of forty-six years did not permit serious undertakings beyond the Bavarian capital, yet time was found for the groups within the north pediment of the Walhalla, Ratisbon, and also for numerous portrait statues, including those of Mozart, Jean Paul Richter, Goethe, and Shakespeare. Schwantaler died at Munich in 1848, and left by will to the Munich academy all his models and studies, which now form the Schwantaler Museum. The sculptor's style may be designated as romantic-classic or modern-antique, and its conventional ideal stands far removed from the schools of naturalism and of realism.

SCHWARZ, or SCHWARTZ, CHRISTIAN FRIEDRICH (1726-1798), Protestant missionary to India, was born on 8th October 1726 at Sonnenburg, in the electorate of Brandenburg, Prussia. After attending the grammar school of his native town and an academy at Küstrin, he in 1746 entered the university of Halle. Having learned Tamil to assist in a translation of the Bible into that language, he was led to form the intention of becoming a missionary to India. He received ordination at Copenhagen on the 8th August 1749, and, after spending some time in England to acquire the English language, embarked early in 1750 for India, and arrived at Trichinopoly on the 30th July. Tranquebar was for some time his headquarters, but he paid frequent visits to Tanjore and Trichinopoly, and in 1766 removed to the latter place. Here he acted as chaplain to the garrison, who erected a church for his general use. In 1769 he secured the friendship of the rajah of Tanjore, who, although he never embraced Christianity, afforded him every countenance in his missionary labours. Shortly before his death he committed to Schwarz the education of his adopted son and successor. In 1779 Schwarz undertook, at the request of the Madras Government, a private embassy to Hyder Ali, the chief of Mysore. When Hyder invaded the Carnatic, Schwarz was allowed to pass through the enemy's encampment without molestation. After twelve years in Trichinopoly he removed to Tanjore, where he spent the remainder of his life. He died on 13th February 1798. Schwarz's direct success in making converts exceeded that of any other Protestant missionary in India, in addition to which he succeeded in winning the esteem of Mohammedans and Hindus. The rajah of Tanjore erected a monument, executed by Flaxman, in the mission church, in which he is represented as grasping the hand of the dying missionary and receiving his benediction. A splendid monument to Schwarz by Bacon was placed by the East India Company in St Mary's church at Madras.

See *Remains of Schwarz*, with a sketch of his life, 1826; *Memoirs of Life and Correspondence*, by H. N. Pearson, 1834, 3d ed. 1839; *Life*, by H. N. Pearson, 1855.

SCHWARZBURG-RUDOLSTADT, a small Thuringian principality and an independent member of the German empire, shares with Schwarzburg-Sondershausen the possessions of the old house of Schwarzburg, consisting of the upper barony (Oberherrschaft) in Thuringia, on the Gera, Ilm, and Saale, and the lower barony (Unterrherrschaft), an isolated district on the Wipper and Helbe, about 25 miles to the north, surrounded by the Prussian province

of Saxony. See plate V. As the dignity of prince is held in virtue of the Oberherrschaft alone, a share of both baronies was given to each sub-line of the main house. The total area of Schwarzburg-Rudolstadt is 363 square miles, of which 283 are in the upper and 80 in the lower barony; the chief towns in the former district are Rudolstadt (8747 inhabitants), the capital, and Blankenburg (1889), and in the latter Frankenhäusen (4985). Both baronies are hilly, but no great height is anywhere attained. The scenery of the Thuringian portion of Schwarzburg-Rudolstadt attracts many visitors annually, the most beautiful spots being the gorge of the Schwarza and the lovely circular valley in which the village of Schwarzburg nestles at the foot of a curiously isolated hill, crowned by the ancient castle of the princely line. Cattle-rearing and fruit-growing flourish in the lower barony, while the upper barony is finely wooded. Of the whole country 44 per cent. is under forest (mainly coniferous trees), and 41 per cent. is devoted to agriculture. The chief grain crops are rye, oats, and barley, but in 1883 thrice as much ground was occupied by potatoes as by all these three together. The live-stock returns in 1883 showed 19,831 cattle, 39,024 sheep, 19,544 pigs, 14,420 goats, and 2813 horses. Agriculture and forestry support about 35 per cent. of the population, and mining and cognate industries about 10 per cent. Trade and manufactures are insignificant; iron, lignite, cobalt, alum, and vitriol are among the mineral productions. In 1880 the population was 80,296 (an increase of 1779 since 1875); or about 221 to the square mile. Of these 79,832 were Protestants.

Schwarzburg-Rudolstadt is a limited hereditary sovereignty, its constitution resting on laws of 1854 and 1870, though a diet has met at intervals since 1816. The present diet consists of sixteen members elected for six years, four chosen by the highest taxpayers, the others by general election. The diet must be summoned every three years. The budget for 1885-87 estimated revenue and expenditure each at £101,210; £57,670 was the estimated income from the public lands and forests. The public debt was £230,350. The troops of Schwarzburg-Rudolstadt have been incorporated with the Prussian army since the convention of 1867. The principality has one vote in the Reichstag and one in the federal council.

Schwarzburg-Rudolstadt is the cadet branch of the family. In 1710 the count was made a prince, in spite of the remonstrances of the elector of Saxony, although he was prevented from taking his seat in the imperial college until 1754. The principality entered the Confederation of the Rhine in 1807 and the German League in 1815. In 1819 it redeemed the Prussian claims of superiority by surrendering portions of its territory.

SCHWARZBURG-SONDERSHAUSEN, a small Thuringian principality and an independent member of the German empire, shares the old Schwarzburg lands with Schwarzburg-Rudolstadt, as explained in the preceding article. Its total area is 333 square miles, of which 133 are in the upper and 200 in the lower barony. The chief towns are Arnstadt (10,516 inhabitants), which at one time gave name to a line of counts, in the latter district, and Sondershausen (6110), the capital, in the former. The general description of the nature and resources of Schwarzburg-Rudolstadt applies also to this principality, except that 58 per cent. of the whole is devoted to agriculture and 30 per cent. to forests, only about two-fifths of which are coniferous trees. The chief crops are oats, barley, wheat, and rye; but here also by far the most land is planted with potatoes. In 1883 the principality contained 21,205 cattle, 54,276 sheep, 22,884 pigs, 11,372 goats, and 4283 horses. About 39 per cent. of the population are supported by agriculture and forestry, and about 5 per cent. by mining. In 1880 the population was 71,107 (an increase of 3627 since 1875), or about 213 to the square mile. Of these 70,450 were Protestants.

Schwarzburg-Sondershausen is a limited hereditary sovereignty, its constitution resting on a law of 1857. The diet consists of five representatives elected by the highest taxpayers, five by general election, and not more than five nominated for life by the prince.

The first ten members are elected for four years, which is also the financial period. There is a ministry with five departments—for the prince's household, domestic affairs, finance, churches and schools, and justice. The budget for each year in the period 1884-87 estimated the income at £112,475 and the expenditure at £1000 less. The public debt in 1885 was £199,625. The troops of Schwarzburg-Sondershausen have been incorporated with the Prussian army by convention since 1867. The principality has one vote in the Reichstag and one in the federal council.

The house of Schwarzburg is one of the oldest and noblest in Germany; and tradition traces its descent from Witkind and the kings of the Franks. Its historical ancestors were the counts of Käfernburg, from whom the counts of Schwarzburg sprang about the beginning of the 13th century. The name Günther became the distinctive name for the members of this house (corresponding to Heinrich in the Reuss family), the various Günthers being at first distinguished by numbers and afterwards by prefixed names. Various subdivisions and collateral lines were formed, but by 1599 all were extinct but the present two. Count Günther XL, who died in 1552, was the last common ancestor of both lines. Schwarzburg-Sondershausen is the senior line, although its possessions are the smaller. In 1697 the count was raised to the dignity of imperial prince by the emperor Leopold I. The prince had to pay 7000 thalers to the elector of Saxony and 3500 to the duke of Saxe-Weimar, and numerous disputes arose in connexion with the superiorities thus indicated. In 1807 Schwarzburg-Sondershausen entered the Confederation of the Rhine and became a sovereign state. In 1816 it joined the German League, and redeemed with portions of its territory all rights of superiority claimed by Prussia. Its domestic government has gradually, though not very quickly, improved since that time,—the oppressive game-laws in particular having been abolished. A treaty of mutual succession was made between the two families in 1718.

**SCHWARZENBERG, KARL PHILIPP, PRINCE OF (1771-1820)**, Austrian field-marshal, was born on 15th April 1771 at Vienna. He fought in 1789 under Lacy with distinction against the Turks and became major in 1792. In the French campaign of 1793 he held command of a portion of the advanced guard under the duke of Coburg, and in 1794 his impetuous charge at the head of a cavalry regiment greatly contributed to the victory of Cateau-Cambrésis. After the battle of Würzburg in September 1796 he was raised to the rank of major-general, and in 1799 to that of field-marshal in command of a division. At the defeat of Hohenlinden in 1800 his promptitude and courage saved those under his command from being surrounded and taken prisoners. In the war of 1805 he held command of a division under General Mack, and when Ulm capitulated to Napoleon in October he cut his way through the hostile lines with some cavalry regiments. At the special request of the emperor Alexander he undertook an embassy to St Petersburg in 1808, but two days before the battle of Wagram he arrived in the camp and assumed command as general of the cavalry. After the peace of Vienna he was sent to Paris to negotiate a marriage between Napoleon and the duchess Maria Louisa. From this time he secured Napoleon's special confidence and esteem, and at his request took command of the Austrian auxiliary corps in the Russian campaign. In August he received the command of the seventh or Saxon army corps; after gaining some slight advantages over the Russians, he was compelled to retreat before superior forces to the duchy of Warsaw, where, according to instructions from Napoleon, he remained for some months inactive at Pultusk. In 1813 he was appointed commander-in-chief of the allied forces, and, after defeating Napoleon at Leipsic in October, carried the campaign to a successful issue by entering Paris in March 1814. On the conclusion of the war he became president of the Aulic Council. He died from paralysis at Leipsic on 15th October 1820.

See Prokesch-Osten, *Denkwürdigkeiten aus dem Leben des Feldmarschalls Fürsten Schwarzenberg*, Vienna, 1823; Berger, *Das Fürstenhaus Schwarzenberg*, Vienna, 1866.

**SCHWEGLER, ALBERT (1819-1857)**, historical, philosophical, and theological writer, one of the first and most distinguished of the pupils of F. C. Baur and of the *dei minores* of the Tübingen school. He was born at Michel-

bach in Württemberg on 10th February 1819, the son of a country clergyman, and entered the university of Tübingen in 1836 as a student of theology, though with a predominant liking for classical philology. Under Baur's influence he devoted himself to the study of ecclesiastical history, and his first work was *Der Montanismus u. die christliche Kirche des 2ten Jahrhunderts* (1841), in which he was the first to point out that Montanism was much more than an isolated outbreak of eccentric fanaticism in the early church, though he introduced fresh misconceptions by connecting it with Ebionitism as he conceived the latter. This work, with other essays, brought Schwegler into conflict with the authorities of the church, in consequence of which he gave up theology as his professional study and chose that of philosophy. In 1843 he commenced in the Tübingen university the career of a teacher (*privat-docent*) of philosophy and classical philology, and in 1848 was made extraordinary professor of the latter subject and soon after ordinary professor of history. His death took place on 5th January 1857.

His principal theological work was *Das nachapostolische Zeitalter* (2 vols., 1846). It was this book which first put before the world, with Schwegler's characteristic boldness and clearness, the results of the critical labours of the earlier Tübingen school in relation to the first development of Christianity. Carl Schwarz says of it, "This work—full though it was of youthful exaggerations and provocations, partisan as it was in its line of argument, untrue and abstract as its contrast of Paulinism and Petrinism was, and arbitrary as was its use of those party names—produced nevertheless by its masterly literary form (which reminds us of Strauss), and by its easy handling and presentation of all the important data, a powerful impression, and, although in many points of detail it is out of date, it may still be regarded as one of the 'standard works' of the school." Schwegler published also an edition of the *Clementine Homilies* (1847), and of Eusebius's *Ecclesiastical History* (1852). In the department of philosophy we have an edition of the *Metaphysics* of Aristotle, with a translation and commentary (4 vols., 1847-48), the well-known sketch of the *History of Philosophy* (1848), and a posthumous *Geschichte der Griech. Philosophie* (1859). In history he commenced a *Römische Geschichte* (vols. i.-iii., 1853-58, 2d ed., 1869), which he brought down only to the laws of Licinius.

**SCHWEIDNITZ**, a manufacturing and trading town of Lower Silesia in Prussia, is picturesquely situated on the left bank of the Weistritz, 28 miles south-west of Breslau. Well built, with wide streets, the town contains several old churches (one of which has a tower 338 feet high) and an ancient town-house with a tower 130 feet high. The surrounding country is fertile and highly cultivated, and the large quantities of flax and hemp there raised encourage an active weaving industry in the town. Beetroot for sugar, grain, and fruit are also grown. The manufacture of furniture, leather gloves, machinery and tools, carriages, nuts and screws, and other hardware goods is carried on. The beer of Schweidnitz has long been famous under the name of "Schwarze Schöps," and in the 16th century it was exported as far as Italy. Schweidnitz is the chief grain market of the district. The population in 1885 was 23,775 (an increase of 6 per cent. since 1880); in 1816 it was 10,046.

Schweidnitz, dating from about the 11th century, received town rights in 1250. About 1278 it became the capital of a principality, with an area of 935 square miles, which belonged to Bohemia from 1353 till 1741, when it passed into the possession of Prussia. The "Polerei of Schweidnitz" is the name given to the riotous revolt of the town, in 1520-22, against a royal edict depriving it of the right of coining its own money. The town was four times besieged and taken in the Seven Years' War; and in 1807 it was captured by the French, who demolished the fortifications. In 1816 new works were raised, but in 1864 they were converted into a public park.

**SCHWEINFURT**, a manufacturing town of Lower Franconia in Bavaria, is situated on the right bank of the Main, 22 miles north-east of Würzburg. The Renaissance town-house in the spacious market-place dates from 1570; it

contains a library and a collection of antiquities. St John's church is a Gothic edifice with a lofty tower; St Salvator's was built about 1720. Schweinfurt is well furnished with benevolent and educational institutions, including a gymnasium founded by Gustavus Adolphus. The Main is here spanned by two bridges. The chief manufacture is paint ("Schweinfurt green" is a well-known brand in Germany), introduced in 1809; but beer, sugar, machinery, soap and other drysalt-ries, straw-paper, vinegar, &c., are also produced. Cotton-spinning and bell-founding are carried on; and the Main supplies water-power for numerous saw, flour, and other mills. Schweinfurt carries on an active trade in the grain, fruit, and wine produced in its neighbourhood, and it is the seat of an important sheep and cattle market. Rückert the poet (d. 1866) was born here in 1788. The population in 1880 was 12,601, of whom one-fourth were Roman Catholics.

Schweinfurt is mentioned in 790, and in the 10th century was the seat of a margrave. It fell later to the counts of Henneberg; but, receiving town rights in the 13th century, it maintained its independence as a free imperial city with few interruptions until 1803, when it passed to Bavaria. Assigned to the grand-duke of Würzburg in 1810, it was restored to Bavaria in 1814. In the Thirty Years' War it was occupied by Gustavus Adolphus, who erected fortifications, remains of which are still extant.

**SCHWELM**, a town of Westphalia, in Prussia, is situated on the river of the same name, 22 miles east of Düsseldorf and 27 north-east of Cologne. Lying close to the Harkort iron and sulphur mines, within the populous and rich mineral district on the lower Rhine, it carries on iron-founding, wire-drawing, and the manufacture of machinery of various kinds, besides an active trade in iron, steel, and brass goods. Scarcely less important are its manufactures of ribbons, damask, cord, and paper. In the neighbourhood are chalybeate springs, resorted to by invalids. The population in 1880 was 12,127, one-fourth of whom were Roman Catholics. Schwelm is said to have existed as early as 1085, though it did not receive town-rights until 1590.

**SCHWENKFELD, CASPAR (1490-1561)**, of Ossing, as he called himself from his property at this place in the principality of Liegnitz in Silesia, one of the first and noblest representatives of Protestant mysticism in the 16th century, was born in 1490. He was of noble descent, and acquired at Cologne and other universities an education greatly superior to that possessed by most noblemen of his time. After leaving the university he served in various minor courts of Silesia, finally entering the service of the duke of Liegnitz, over whom his influence was great. Though he was educated as a strict Catholic, the writings of Tauler and Luther produced a profound impression upon him, so that in 1522 he visited Wittenberg, where he made the acquaintance of Carlstadt and Thomas Münzer, spirits destined to be more congenial to him than Luther himself. On his return to Liegnitz he joined in an active propagation of the principles of the Reformation in the principality and in Silesia. But very early Schwenkfeld uttered warnings against the abuse of the doctrine of justification by faith. The Protestant controversy as to the Eucharist (1524) revealed his disagreement with Luther on that critical point. He sought to establish a *via media* between the doctrines of Luther and Zwingli, and vainly hoped to obtain for it Luther's acceptance. He as vainly sought to secure Luther's adoption of a strict rule of church discipline, after the manner of the Moravian Brethren. Meanwhile the Anabaptists obtained a footing in Silesia, and suspicions of Schwenkfeld's sympathy with them were aroused. Letters and writings of his own (1527-28) proved him to hold strongly anti-Lutheran heresies, and both Catholics and Lutherans urged the duke of Liegnitz to dismiss him. He voluntarily left Liegnitz in 1529 and

took up his abode at Strasburg for five years amongst the numerous Reformed clergy there. In 1533, in an important synod, he defended against Bucer the principles of religious freedom as well as his own doctrine and life. But the heads of the church carried the day, and, in consequence of the more stringent measures adopted against dissenters, Schwenkfeld left Strasburg for a time. While residing in various cities of south Germany he kept up a wide correspondence with the nobility particularly, and in Württemberg propagated his views personally at their courts. In 1535 a sort of compromise was brought about between himself and the Reformers, he promising not to disturb the peace of the church and they not to treat him as a disturber. The compromise was of only short duration. His theology took a more distinctly heterodox form, and the publication (1539) of a book in proof of his most characteristic doctrine—the deification of the humanity of Christ—led to the active persecution of him by the Lutherans and his expulsion from the city of Ulm. The next year (1540) he published a refutation of the attacks upon his doctrine with a more elaborate exposition of it, under the title *Grosse Confession*. His book was very inconvenient to the Protestants, as it served to emphasize the differences between the Lutherans and Zwinglians as regarded the Eucharist at a moment when efforts were being made to reconcile them. An anathema was accordingly issued from Schmal-kald against Schwenkfeld (together with Sebastian Franck); his books were placed on the Protestant "index"; and he himself was made a religious outlaw. From that time he was hunted from place to place, though his wide connexions with the nobility and the esteem in which he was held by numerous followers and friends provided for him secure hiding-places and for his books a large circulation. An attempt in 1543 to approach Luther only increased the Reformer's hostility and rendered Schwenkfeld's situation still more precarious. He and his followers withdrew from the Lutheran Church, declined its sacraments, and formed small societies of kindred views. He and they were frequently condemned by Protestant ecclesiastical and political authorities, especially by the Government of Württemberg. His personal safety was thereby more and more imperilled, and he was unable to stay in any place for more than a short time. At last, in his seventy-second year, he died at Ulm, on 10th December 1561, surrounded by attached friends and declaring undiminished faith in his views.

Schenkfeld left behind him a sect (who were called subsequently by others Schwenkfeldians, but who called themselves "Confessors of the Glory of Christ") and numerous writings to perpetuate his ideas. His writings were partially collected in four folio volumes, the first of which was published in the year 1564, containing his principal theological works. Erbkam states that his unprinted writings would make more than another four folios. His adherents were to be found at his death scattered throughout Germany. In Silesia they formed a distinct sect, which has lasted until our own times. In the 17th century they were associated with the followers of Jacob Böhme, and were undisturbed until 1708, when an inquiry was made as to their doctrines. In 1720 a commission of Jesuits was despatched to Silesia to convert them by force. Most of them fled from Silesia into Saxony, and thence to Holland, England, and North America. Frederick the Great of Prussia, when he seized Silesia, extended his protection to those who remained in that province. Those who had fled to Philadelphia in Pennsylvania formed a small community under the name of Schwenkfeldians; and Zinzendorf and Spangenberg, when they visited the United States, endeavoured, but with little success, to convert them to their views. This community still exists in Pennsylvania, and according to information obtained from their ministers by Robert Barclay consisted in 1875 of two congregations of 500 members, with three meeting-houses and six ministers. Their views appear to be substantially those of the English Society of Friends. See Robert Barclay's *Inner Life of the Religious Societies of the Commonwealth*, London, 1876, pp. 226-247.

Schenkfeld's mysticism was the cause of his divergence from Protestant orthodoxy and the root of his peculiar religious and

theological position. It led him to oppose the Lutheran view of the value of the outward means of grace, such as the ministry of the word, baptism, the Eucharist. He regarded as essential a direct and immediate participation in the grace of the glorified Christ, and looked on an observance of the sacraments and religious ordinances as immaterial. He distinguished between an outward word of God and an inward, the former being the Scriptures and perishable, the latter the divine spirit and eternal. In his Christology he departed from the Lutheran and Zwinglian doctrine of the two natures by insisting on what he called the *Vergottung des Fleisches Christi*, the deification or the glorification of the flesh of Christ. The doctrine was his protest against a separation of the human and the divine in Christ, and was intimately connected with his mystical view of the work of Christ. He held that, though Christ was God and man from His birth, from the Virgin. He only attained His complete deification and glorification by His ascension, and that it is in the estate of His celestial *Vergottung* or glorification that He is the dispenser of His divine life to those who by faith become one with Him. This fellowship with the glorified Christ rather than a less spiritual trust in His death and atonement is with him the essential thing. His peculiar Christology was based upon profound theological and anthropological ideas, which contain the germs of some recent theological and Christological speculations.

See Arnoldt, *Kirchen- und Ketzere-Historie* (Frankfurt, ed. 1700); Salig, *Historie der Augsburg. Confession*; Erbkan, *Gesch. der prot. Sekten* (1848); Dörner, *Gesch. d. prot. Theol.* (1867); also Erbkan's article in *Herzog's Realencyclopädie*, Robert Barclay's work quoted above, and Beard's *Hibbert Lectures* (1883).

SCHWERIN, the capital and one of the most attractive cities of the grand-duchy of Mecklenburg-Schwerin, is prettily situated at the south-west corner of the Lake of Schwerin (14 miles long and 3½ miles broad), 110 miles north-west of Berlin. The town is closely surrounded and hemmed in by a number of lakelets, with high and in some cases well-wooded banks; and the hilly environs are occupied by meadows, woods, and pretty villas. The old and new towns of Schwerin were only united as one city in 1832; and since that date the suburb of St Paul and another outer suburb, known as the Vorstadt, have grown up. Though Schwerin is the oldest town in Mecklenburg, its aspect is comparatively modern,—a fact due to destructive fires, which have swept away most of the ancient houses. The most conspicuous of the many fine buildings is the ducal palace, a huge irregularly pentagonal structure with numerous towers (the highest 236 feet), built in 1844-57 in the French Renaissance style. It stands on a small round island between Castle Lake and the Lake of Schwerin, formerly the site of a Wendish fortress and of a later mediæval castle, portions of which have been skilfully incorporated with the present building. The older and much simpler palace; the opera-house, rebuilt after a fire in 1882; the Government buildings, erected in 1825-34 and restored in 1865 after a fire; and the museum, in the Greek style, finished in 1882, all stand in the "old garden," an open space at the end of the bridge leading to the new palace. Among the other secular buildings are the palace of the heir-apparent (built in 1779 and restored in 1878), the large arsenal, the ducal stables, the gymnasium, the town-house, the artillery-barracks, the military hospital, &c. The cathedral was originally consecrated in 1248, though the present building—a brick structure in the Baltic Gothic style, with an unfinished tower—dates for the most part from the 15th century. Since 1837 Schwerin has been once more the residence of the grand-duke, and the seat of government and of various high tribunals,—a fact which has had considerable influence on the character of the town and the tone of its society. Neither the manufacturing industry nor the trade of Schwerin is important. In 1885 the population was 32,031—including about 700 Roman Catholics and 400 Jews—an increase of 6.4 per cent. since 1880.

Schwerin is mentioned as a Wendish stronghold in 1018, its name (*Zwarin* or *Swarin*) being a Slavonic word equivalent to "game-preserve." The Obotrite prince Nielot, whose statue is placed above the portal of the palace as the ancestor of the present reigning family, had his residence here. The town, founded in 1161 by Henry the Lion in opposition to this pagan fortress, received town-

rights in 1167. From 1170 to 1624 it gave name to a bishopric; and it was also the capital of the duchy of Schwerin, which forms the western part of the grand-duchy of Mecklenburg-Schwerin. Destructive fires, the hardships of the Thirty Years' War, and the removal of the court to Ludwigslust in 1756 seriously depressed the town. It owes its revival and many of its chief buildings to the grand-duke Paul Frederick (1837-42), to whom a statue by Rauch was erected in 1859.

SCHWIND, MORITZ VON (1804-1871), a painter of the romantic school, was born in Vienna in 1804. He received rudimentary training and led a joyous careless life in that gay capital; among his companions was the musician Schubert, whose songs he illustrated. In 1828 he removed to Munich, and had the advantage of the friendship of the painter Schnorr and the guidance of Cornelius, then director of the academy. In 1834 he received the commission to decorate King Louis's new palace with wall paintings illustrative of the poet Tieck. He also found in the same palace congenial sport for his fancy in a "Kinder-fries"; his ready hand was likewise busy on almanacs, &c., and by his illustrations to Goethe and other writers he gained applause and much employment. In the revival of art in Germany Schwind held as his own the sphere of poetic fancy. To him was entrusted in 1839, in the new Karlsruhe academy, the embodiment in fresco of ideas thrown out by Goethe; he decorated a villa at Leipsic with the story of Cupid and Psyche, and further justified his title of poet-painter by designs from the *Nibelungenlied* and Tasso's *Gerusalemme* for the walls of the castle of Hohenschwangau in Bavarian Tyrol. From the year 1844 dates his residence in Frankfurt; to this period belong some of his best easel pictures, pre-eminently the Singers' Contest in the Wartburg (1846), also designs for the Goethe celebration, likewise numerous book illustrations. The conceptions for the most part are better than the execution. In 1847 Schwind returned to Munich on being appointed professor in the academy. Eight years later his fame was at its height on the completion in the castle of the Wartburg of wall pictures illustrative of the Singers' Contest and of the History of Elizabeth of Hungary. The compositions received universal praise, and at a grand musical festival to their honour Schwind himself played among the violins. In 1857 appeared his exceptionally mature "cyclus" of the Seven Ravens from Grimm's fairy stories. In the same year he visited England to report officially to King Louis on the Manchester art treasures. And so diversified were his gifts that he turned his hand to church windows and joined his old friend Schnorr in designs for the painted glass in Glasgow cathedral. Towards the close of his career, with broken health and powers on the wane, he revisited Vienna. To this time belong the "cyclus" from the legend of Melusine and the designs commemorative of chief musicians which decorate the foyer of the new opera-house. Cornelius writes, "You have here translated the joyousness of music into pictorial art." Schwind's genius was lyrical; he drew inspiration from chivalry, folk-lore, and the songs of the people; his art was decorative, but lacked scholastic training and technical skill. Schwind died at Munich in 1871, and his body lies in the old Friedhof of the same town.

SCHWYZ, one of the forest cantons of Switzerland, ranking fifth in the confederation. It extends from the upper end of the Lake of Zurich on the north to the middle reach of the Lake of Lucerne on the south; on the west it touches at Küsnacht the northern arm of the latter lake, and at Arth the Lake of Zug, while on the east it stretches to the ridges at the head of the Muottathal, which divide it from Glarus. Its total area is 350.7 square miles, of which 254.9 are classed as "productive land" (193.3 of this being pasture or arable land) and 95.8 as "unproductive land" (glaciers and lakes occupying 21 square

miles). The highest point is the Grieseltstock or Faulen (9200 feet); the summit of the Rigi (Rigi Kulm) is also within its limits. In 1880 the population (nearly equally divided between the two sexes) was 51,235, an increase of 3530 since 1870. The only towns of any size are Einsiedeln (population, 8401) and the capital, Schwyz (6543). German is the mother-tongue of 49,631 of the inhabitants, and there is an Italian colony of 1377. The Roman Catholics number 50,266, the Protestants but 954. Till 1814 the canton formed part of the diocese of Constance; since that time it is practically (though not formally) included in that of Chur. Besides a monastery of Capuchin friars and four nunneries, the canton boasts of the great Benedictine abbey of Einsiedeln, which grew up round the cell of the hermit St Meinrad (d. 863); it received its first charter in 946 from Otho I., and contains a black statue of the Virgin, which attracts about 150,000 pilgrims annually. In Schwyz primary education is free and compulsory, the state also giving grants in aid of secondary instruction. The population are mainly engaged in pastoral occupations, the chief article of export (largely to north Italy) being a special breed of cattle, which enjoys a very high reputation in the confederation. The only railways in the canton are the portion of the St Gotthard line between Küsnacht, Immensee, and Sisikon, and the line from Arth to the summit of the Rigi.

The valley of Schwyz first appears in history in 970. Later a community of free men is found settled at the foot of the Mythen, possessing common lands and subject only to the count of the Zurich *gau*, as the representative of the emperor; from the Hapsburgs Steinen in 1269 and Arth (completely) in 1354 bought their freedom and became part of the free community of Schwyz. The early history of Schwyz consists mainly of struggles with the abbey of Einsiedeln about rights of pasture. In 1240 the inhabitants obtained from Frederick II. the "Reichsfreiheit," i.e., direct dependence on the emperor, being thus freed from the Hapsburg counts of the Zurich *gau*. In 1273 the younger branch of the house of Hapsburg sold all its property and rights in the valley to the elder branch, which a few months later obtained the empire, and in April 1291 bought the rights of the Alsatian abbey of Murbach over Lucerne. Schwyz took the lead in making the famous league of 1st August 1291 with the neighbouring districts of Uri and Unterwalden, for which its position and the free spirit of its inhabitants specially fitted it. An attack by Schwyz on Einsiedeln was the excuse for the Austrian invasion which on 15th November 1315 was gloriously beaten back in Morgarten Pass. In the history of the league Schwyz was always to the front, so that its name in a dialectal form (Schwyz) was applied by foreigners from the 14th century onwards to the league as a whole, though it formed part of its formal style only from 1803. Soon after the victory of Sempach (1386) the men of Schwyz began to extend their borders. In 1394 they acquired the town of Einsiedeln (becoming in 1397, and finally in 1434, the "protectors" of the great abbey) and in 1402 Küsnacht, while in 1412-37 they won the "March," and in 1440 Wollerau and Pfälikon,—all on or near the Lake of Zurich. All these districts were governed by Schwyz as subjects, not as equals or allies, supreme power resting with the "Landsgemeinde" (or assembly of all citizens of full age) of Schwyz, which is first mentioned in 1294. Schwyz joined the other forest cantons in opposing the Reformation, and took part in the battle of Cappel (1531), in which Zwingli fell. In 1586 it became a member of the Golden or Borromean League, formed to continue the work of Charles Borromeo in carrying out the counter-Reformation. In 1798 Schwyz, including Gersau (free since 1390), formed part of the "Tell *gau*" or "République Telliane," set up by the French, which a week later gave way to the "Helvetic republic," though the free men offered a valiant resistance under Aloys Reding. In 1799 it was the scene of the disastrous retreat from Aldorf to Glarus made over the Kinzigkum and Prugel Passes by the Russians under Suwaroff in face of the French army. Schwyz steadily resisted all proposals for the revision of the federal constitution of 1815, joined the league of Sarnen in 1832, and, when religious disputes had further complicated matters, the "Sonderbund" (1843 and 1845), which was only put down by the war of November 1847. The constitution of 1848 was revised in 1855, 1876 (when membership of one of the twenty-nine "Gemeinde" of communes became the political qualification), and 1884.

SCIACCA, a town of Italy, in the province of Girgenti, Sicily, 28 miles south-east of Castelvetrano (Selinus) and 37 north-west of Girgenti, lies on the south coast on a steep

rocky decline, and with its walls and castles has from a distance an imposing appearance. The cathedral was founded in 1090 by Julia de Hauteville, daughter of Roger I., who had presented her with the lordship of Sciacca on her marriage with Perollo; and two other churches, S. Salvatore and S. Maria delle Giummare, date from the same period. In the cliffs are excavated granaries in which under the Spanish viceroys the grain used to be stored under Government control. To the east of the town, at the foot of Monte S. Calogero, are the hot wells (sulphurous and saline) of Sciacca; and the steam that breaks forth from the top of the hill seems to have been used (as it still is) for vapour baths from a remote (possibly Phœnician) period. The population was 21,451 (22,195 including Marina) in 1881.

Sciacca was the birthplace of Tommaso Fazello (1498-1570), the historian of Sicily. In the 15th century it was the scene of a terrible feud between the Perollos (lords of Sciacca) and the counts of Luna.

SCIATICA. See NEURALGIA, vol. xvii. p. 364.  
SCILLY ISLES, a group of islands, about forty in number, in the county of Cornwall (see vol. vi. plate IX.), England, are situated about 25 miles west by south of Land's End and 40 west from Lizard Point, in 50° N. lat. and 6° W. long. They are composed wholly of granite,—outliers of the granite highlands of Cornwall. There are some metalliferous veins or lodes, but none that could ever have yielded much iron. On account of the mild climate the vegetation is remarkably luxuriant. The mean average temperature in winter is about 45° and in summer about 58°. Fuchsias, geraniums, and myrtles attain an immense size, and aloes, cactus, and the prickly pear grow in the open air. The inhabitants devote their attention principally to the cultivation of early potatoes for the London market. Asparagus and other early vegetables, as well as flowers, are also largely cultivated. Lobsters are caught and sent to London, but the fishing industry is of comparatively minor importance.

The total area of the islands is 3560 acres, with a population in 1871 of 2090, and in 1881 of 2320, including 276 persons on board vessels. The inhabited islands are St Mary's (area about 1600 acres), Treco (700), St Martin's (550), St Agnes (350), and Bryher (300). The principal town, Hugh Town in St Mary's, occupies a sandy peninsula crowned by the height called the Garrison, with Star Castle, erected in the time of Elizabeth. It possesses a harbour and pier with a roadstead affording anchorage for large vessels. The coast-line is wild and picturesque, with precipitous headlands and many extensive caves. On Treco there are remains of an abbey; and St Agnes has a lighthouse 72 feet in height. On the islands there are numerous rude pillars and circles of stones, similar to those in Cornwall.

The Scilly Isles are probably the *Cassiterides* or "Tin Islands" of the Greeks (see vol. xviii. p. 806). The islands were granted in 936 by Athelstan to the monks settled at Treco, but on the endowment of the abbey of Tavistock the greater portion of them were included amongst its possessions. In the reign of Elizabeth they were divided amongst several proprietors. During the Civil War Hugh Town held out for the king, and in 1645 afforded shelter for a time to Prince Charles until he escaped to Jersey. In 1649 they were taken possession of by Sir John Grenville, a Royalist, who made use of them as a convenient shelter, whence he issued to sweep the neighbouring seas, until in 1651 he was forced to surrender to a fleet under Blake and Sir John Ayscue. In ancient times a frequent haunt of pirates, the islands were afterwards notorious for smuggling. On the suppression of smuggling Mr Augustus J. Smith did much to introduce order and encourage habits of industry amongst the inhabitants.

SCINDE. See SIND.  
SCIO, the Italian name of an island on the west coast of Asia Minor, called by the Greeks Chios (ἡ Χίος, ἡ Ἰχίος) and by the Turks Saki Adasi; the soft pronunciation of  $\chi$  before  $\iota$  in Modern Greek, approximating to  $sh$ , caused  $\chi\iota\omicron$  to be Italianized as Scio. Scio, which is about 30 miles long from north to south, and varies in breadth from 8 to 15 miles, is divided into a larger northern part and a smaller southern part, called respectively *apanomeria*