

to show that further progress was possible in both. The polish, point, and concentration of Pope remain unsurpassed, as do the amenity of Addison and the daring yet severely logical imagination of Swift; while the *History of John Bull* and the *Pseudologia* place their friend Arbuthnot in the first rank of political satirists. The 18th century was, indeed, the age of satire. Serious poetry had for the time worn itself out; the most original geniuses of the age, Swift, Defoe, and Richardson, are decidedly prosaic, and Pope, though a true poet, is less of a poet than Dryden. In process of time imaginative power revives in Goldsmith and Rousseau; meanwhile Fielding and Smollett have fitted the novel to be the vehicle of satire and much beside, and the literary stage has for a time been almost wholly engrossed by a colossal satirist a man who has dared the universal application of Shaftesbury's maxim that ridicule is the test of truth. The world had never before seen a satirist on the scale of Voltaire, nor had satire ever played such a part as a factor in impending change. The parallel with Lucian is in some respects very close. Toleration was Voltaire's idol, as truth was Lucian's; and thus, aiming more than his predecessor at the practical reformation of manners and institutions, his work was less purely negative. He was nevertheless a destroyer, and as utterly out of sympathy with the positive spirit of science for which he was preparing the way as Lucian could possibly be with Goths or Christians. As a master of sarcastic mockery he is unsurpassed; his manner is entirely his own; and he is one of the most intensely national of writers, notwithstanding his vast obligations to English humorists, statesmen, and philosophers. English humour also played an important part in the literary regeneration of Germany, where, after Liscow and Rabener, direct imitators of Swift and the essayists, Lessing, imbued with Pope but not mastered by him, showed how powerful an auxiliary satire can be to criticism,—a relation which Pope had somewhat inverted. Another great German writer, Wieland, owes little to the English, but adapts Lucian and Petronius to the 18th century with playful if somewhat mannered grace. Kortum's *Jobstiad*, a most humorous poem, innovates successfully upon established models by making low life, instead of chivalry, the subject of burlesque. Goethe and Schiller, Scott and Wordsworth, are now at hand, and as imagination gains ground satire declines. Byron, who in the 18th century would have been the greatest of satirists, is hurried by the spirit of his age into passion and description, bequeathing, however, a splendid proof of the possibility of allying satire with sublimity in his *Vision of Judgment*. Moore gives the epigram a lyrical turn; Béranger, not for the first time in French literature, makes the gay chanson the instrument of biting jest; and the classic type receives fresh currency from Auguste Barbier. Courier, and subsequently Cormenin, raise the political pamphlet to literary dignity by their poignant wit. Peacock evolves a new type of novel from the study of Athenian comedy. Miss Edgeworth skirts the confines of satire, and Miss Austen, the most refined and delicate of all observers of manners, seasons her novels with the most exquisite satiric traits. Washington Irving revives the manner of *The Spectator*, and Tieck brings irony and persiflage to the discussion of critical problems. Two great satiric figures remain,—one representative of his nation, the other most difficult to class. In all the characteristics of his genius Thackeray is thoroughly English, and the faults and follies he chastises are those especially characteristic of British society. Good sense and the perception of the ridiculous are amalgamated in him; his satire is a thoroughly British article, a little over-solid, a little wanting in finish, but honest, weighty, and durable. Posterity will go to him for the humours of the age of Victoria, as they

go to Addison for those of Anne's. But Heine hardly belongs to any nation or country, time or place. He ceased to be a German without becoming a Frenchman, and a Jew without becoming a Christian. Only one portrait really suits him, that in Tieck's allegorical tale, where he is represented as a capricious and mischievous elf; but his song is sweeter and his command over the springs of laughter and tears greater than it suited Tieck's purpose to acknowledge. In him the satiric spirit, long confined to established literary forms, seems to obtain unrestrained freedom to wander where it will, nor have the ancient models been followed since by any considerable satirist except the Italian Giusti. The machinery employed by Moore was indeed transplanted to America by Russell Lowell, whose *Biglow Papers* represent perhaps the highest moral level yet attained by satire. In no age has the spirit of satire been so generally diffused as in the 19th century, but many of its eminent writers, while bordering on the domains of satire, escape the definition of satirist. The term cannot be properly applied to Dickens, the keen observer of the oddities of human life; or to George Eliot, the critic of its emptiness, when not inspired by a worthy purpose; or to Balzac, the painter of French society; or to Trollope, the mirror of the middle classes of England. If *Sartor Resartus* could be regarded as a satire, Carlyle would rank among the first of satirists; but the satire, though very obvious, rather accompanies than inspires the composition. The number of minor satirists of merit, on the other hand, is legion, and but few can be mentioned here. Poole, in his broadly farcical *Little Pedlington*, has rung the changes with inexhaustible ingenuity on a single fruitful idea; Jerrold's comedies sparkle with epigrams, and his tales and sketches overflow with quaint humour; Mallock has made the most of personal mimicry, the lowest form of satire; Samuel Butler holds an inverting mirror to the world's face with imperturbable gravity; Courthope reproduces the airy grace and sonorous melody of the Attic comedy; and the anonymous writer of the "Barquum" Christmas number of *Truth* has resuscitated with equal effect its reckless fun and personality. One remarkable feature of the age is the union of caricature with literature to a degree inconceivable before the improvements in wood-engraving. All large capitals now have their comic illustrated journals, destined for the most part to be the marvels and stumbling-blocks of posterity. *Punch*, however, has become almost a national institution, and has fostered the genius of two pictorial satirists of the first rank, Leech and Tenniel. The present tendencies of the civilized world seem highly favourable to the influence of satire as a factor in human affairs, but unfavourable to the production of satiric masterpieces. Satire is the inevitable concomitant of freedom of speech, which must continue to prevail and diffuse itself unless checked by military or socialistic despotism. But as the privilege of the many it is less likely to be the resource of the few; and it may happen that the press, dealing with follies of the day as they arise, will more and more forestall the satire that springs from meditation and study. The principal security is the originality and robustness of true satiric genius, which, having defied prisons and scaffolds in the past, may find the means of eluding public impatience and satiety in the future. (R. G.)

SATRÁP. See PERSIA, vol. xviii. pp. 569, 583.

SATURN, an ancient Italian god, whom the Romans, and till recently the moderns, identified with the Greek god Cronus.

1. Cronus was the youngest of the Titans, the children of Sky (Uranus) and Earth (Gæa). Besides the Titans, Sky and Earth had other children, the Cyclopes and the Hundred-handers. When the Cyclopes and the Hundred-handers proved troublesome, Sky thrust them back into

the bosom of Earth. This vexed Earth, and she called on her sons to avenge her on their father Sky. They all shrank from the deed save Cronus, who waylaid and mutilated his father with a sickle or curved sword. From the drops of blood which fell to the earth sprang the Furies and the Giants. Cronus now reigned in room of Sky. His wife was Rhea, who was also his sister, being a daughter of Sky and Earth. Sky and Earth had foretold to Cronus that he would be deposed by one of his own children, so he swallowed them one after another as soon as they were born. Thus he devoured Hestia, Demeter, Hera, Hades, and Poseidon. But when Rhea had brought forth Zeus, the youngest,¹ she wrapped up a stone in swaddling clothes and gave it to Cronus, who swallowed it instead of the babe. When Zeus, who had been hidden in Crete, grew up, he gave his father a dose which compelled him to disgorge first the stone and then the children whom he had swallowed. The stone was preserved at Delphi; every day it was anointed and on festivals it was crowned with wool. Zeus and his brothers now rebelled against Cronus, and after a ten years' struggle they were victorious. Cronus and the Titans were thrust down to Tartarus, where they were guarded by the Hundred-handers. According to others, Cronus was removed to the Islands of the Blest, where he ruled over the departed heroes, judging them in conjunction with Rhadamanthus. Plutarch (*De Def. Orac.*, 18) mentions a story that the dethroned monarch of the gods slept on an island of the northern seas guarded by Briareus and surrounded by a train of attendant divinities. The reign of Cronus was supposed to have been the happiest time of the world, the golden age, when men lived like gods, free from toil and grief and the weakness of old age (for death was like sleep); and the earth too brought forth abundantly without cultivation. There are few traces of the worship of Cronus in Greece. Pausanias, in his description of Greece, mentions only one temple of Cronus; it stood at the foot of the Acropolis at Athens and was sacred to Cronus and Rhea jointly. The Athenians celebrated an annual festival in his honour on the 12th of Hecatombæon. A mountain at Olympia was called after him, and on its top annual sacrifices were offered to him at the spring equinox.

The idea that Cronus was the god of time—an idea which appears in antiquity—seems to have arisen from a simple confusion between the words Cronus and Chronus ("time"). Curtius derives Cronus from the root *kra*, meaning "to accomplish." Cronus may perhaps have been a god of some aboriginal half-savage tribe which the Greeks conquered. Hence the savage traits in his legend, his conquest by Zeus, and the scanty traces of his worship in Greece. The myth of the mutilation of Sky by Cronus may be a particular form of the widespread story of the violent separation of Sky and Earth by one of their children (compare MYTHOLOGY). Other forms of this myth are found in New Zealand, India, and China. Parallels to the swallowing and disgorging incident are to be found in the folk-lore of Bushmen, Kaffres, Basutos, Indians of Guiana, and Eskimo.

2. Saturn and his wife Ops were amongst the oldest deities of ancient Italy. He is said to have had an altar at the foot of the Capitol before Rome was founded. Saturn was a god of agriculture, his name being derived from *serere*, "to sow." The identification of Saturn with Cronus gave rise to the legend that after his deposition by Zeus (Jupiter) Saturn wandered to Italy, where he ruled as king in the golden age and gave the name Saturnia to the country. Janus, another of the most ancient gods of Italy, is said to have welcomed him to Rome, and here he settled at the foot of the Capitol, which was called after him the Saturnian Hill. His temple stood at the ascent from the Forum to the Capitol and was one of the oldest buildings in Rome, but the eight remaining columns of

¹ So Hesiod. But according to Homer Zeus was the eldest of the children of Cronus and Rhea.

the temple probably formed a portion of a new temple built in the imperial times. The image of Saturn in this temple had woollen bands fastened round its feet all the year through, except at the festival of the Saturnalia; the object of the bands was probably to detain the deity. Similarly there was a fettered image of Enyalios (the War God) at Sparta, and at Athens the image of Victory had no wings, lest she might fly away. The mode of sacrifice at this temple was in so far peculiar that the head of the sacrifice was bare as in the Greek ritual, instead of being covered, as was the usual Roman practice. Legend said that the Greek ritual was introduced by Hercules, who at the same time abolished the human sacrifices previously offered to Saturn. Others said that the rule had been observed by the Pelasgians before. Under or behind the temple was the Roman treasury, in which the archives as well as the treasures of the state were preserved. Dionysius Halicarnensis (*Ant. Rom.*, i. 34) tells that there were many sanctuaries of Saturn in Italy and that many towns and places, especially mountains, were called after him. The oldest national form of verse was known as the Saturnian. Like many other figures in Roman mythology, Saturn is said to have vanished at last from earth. His emblem was a sickle. The substitution of a great scythe for the sickle, and the addition of wings and an hour-glass, are modern. Ops ("plenty"), wife of Saturn, was an earth-goddess, as appears from the custom observed by her suppliants of sitting and carefully touching the earth while they made their vows to her. As goddess of crops and the harvest she was called Consiva, and under this name had a sanctuary at Rome, to which only the Vestals and the priest were admitted. As Saturn was identified in later times with Cronus, so was Ops with Rhea. Another goddess mentioned as wife of Saturn was Lua, a goddess of barrenness. She was one of the deities to whom after a victory the spoils of the enemy were sometimes dedicated and burned.

Saturnalia.—This, the great festival of Saturn, was celebrated on the 18th, but after Cæsar's reform of the calendar on the 17th, of December. Augustus decreed that the 17th should be sacred to Saturn and the 19th to Ops. Henceforward it appears that the 17th and 18th were devoted to the Saturnalia, and the 19th and 20th to the Opalia, a festival of Ops. Caligula added a fifth day, "the day of youth" (*dies juvenalis*), devoted no doubt to the sports of the young. But in popular usage the festival lasted seven days. The time was one of general joy and mirth. The woollen fetters were taken from the feet of the image of Saturn, and each man offered a pig. During the festival schools were closed; no war was declared or battle fought; no punishment was inflicted. In place of the toga an undress garment was worn. Distinctions of rank were laid aside: slaves sat at table with their masters or were actually waited on by them, and the utmost freedom of speech was allowed them. Gambling with dice, at other times illegal, was now permitted and practised.² All classes exchanged gifts, the commonest being wax tapers and clay dolls. These dolls were especially given to children, and the makers of them held a regular fair at this time. Varro thought that these dolls represented original sacrifices of human beings to the infernal god. There certainly was, as we have seen, a tradition that human sacrifices were once offered to Saturn, and the Greeks and Romans gave the name of Cronus and Saturn to a particularly cruel Phœnician Baal, to whom, e.g., children were sacrificed at Carthage. The Cronus to whom human sacrifices are said to have been offered in Rhodes was most probably a Baal, for there are unmistakable traces of Phœnician worship in Rhodes. It may be conjectured that the Saturnalia was originally a celebration of the winter solstice. Hence the legend that it was instituted by Romulus under the name of the *Brumalia* (*bruma* = winter solstice). The prominence given to candles at the festival points to the custom of making a new fire at this time. The custom of solemnly kindling fires at the summer solstice (Eve of St John) has prevailed in most parts of Europe, notably in Germany, and there are traces (of which the yule-log is one) of the observance of a similar custom at the winter solstice. In ancient Mexico a new fire was kindled, amid great rejoicings, at the end of every period of fifty-two years. The designation of the planets by the names of gods is at least as

² It is curious to find a similar rule with a similar exception in Nepal. See H. A. Oldfield, *Sketches from Nepal*, vol. ii. pp. 353 sq. XXI. — 41

old as the 4th century B.C. The first certain mention of the star of Cronus (Saturn) is in Aristotle (*Metaphysics*, p. 1073b, 35). The name also occurs in the *Epinomis* (p. 987b), a dialogue of uncertain date, wrongly ascribed to Plato. In Latin, Cicero (1st century B.C.) is the first author who speaks of the planet Saturn. The application of the name Saturn to a day of the week (*Saturndi dies*, Saturday) is first found in Tibullus (l. 3, 18).

SATYR. In ancient Greek mythology the satyrs were spirits, half-human, half-bestial, that haunted the woods and mountains, companions of Pan and Dionysus. Fancy represented them as strongly built, with flat noses, pointed ears, and the tails of horses or goats. They were a roguish and wanton but faint-hearted folk, lovers of wine and women, ever roaming the wild to the music of pipes and cymbals, castanets and bagpipes, dancing with the nymphs or pursuing them, striking terror into men, whose cattle they killed and whose women they made love to. In the earlier Greek art they appear as old and ugly, much like wild apes; but in later art, especially in works of the Attic school, this savage character is softened into a more youthful and graceful aspect. There is a famous statue supposed to be a copy of a work of Praxiteles, representing a graceful satyr leaning against a tree with a flute in his hand. In Attica there was a species of drama known as the Satyric drama; it parodied the legends of gods and heroes, and the chorus was composed of satyrs. Euripides's play of the *Cyclops* is the only extant example of this kind of drama. The symbol of the shy and timid satyr was the hare. In some districts of modern Greece the spirits known as Calicantsars offer points of resemblance to the ancient satyrs; they have goats' ears and the feet of asses or goats, are covered with hair, and love women and the dance. The herdsmen of Parnassus believe in a demon of the mountain who is lord of hares and goats.

In the Authorized Version of Isa. xiii. 21, xxxiv. 14 the word "satyr" is used to render the Hebrew *š'rtm*, "hairy ones." A kind of demon or supernatural being known to Hebrew folk-lore as inhabiting waste places is meant; a practice of sacrificing to the *š'rtm* is alluded to in Lev. xvii. 7, where E. V. has "devils." They correspond to the "shaggy demon of the mountain-pass" (azabb al-akaba) of old Arab superstition. But the satyrs of the gloomy Semitic deserts, faith in which is not yet extinct, are much more terrible than those of Greece.

SAUL, son of Kish, king of Israel. (See ISRAEL, vol. xiii. p. 403 sq.) The name of Saul's father Kish (כיש) seems to be identical with the Arabic proper name and god-name Kais.

SAUMAISE. See SALMASIUS.

SAUMAREZ, JAMES SAUMAREZ OR SAUSMAREZ, BARON DE (1757-1836), English admiral, was descended from an old family, and was born at St Peter Port, Guernsey, 11th March 1757. Many of his ancestors had distinguished themselves in the naval service, and he entered it as midshipman at the age of thirteen. For his bravery at the attack of Charleston in 1775 on board the "Bristol" he was raised to the rank of lieutenant, and he was promoted commander for his gallant services off the Dogger Bank, 5th August 1781, when he was wounded. In command of the "Russell," he contributed to Rodney's victory over De Grasse, 12th April 1782. For the capture of "La Réunion," a French frigate, in 1793 he received the honour of knighthood. While in command of a small squadron he was on 5th June 1794 attacked by a superior French force on the way from Plymouth to Guernsey, but by his seamanship and coolness succeeded in gaining a safe anchorage in the harbour of that island. After being promoted to the "Orion" of 74 guns in 1795, he took part in the defeat of the French fleet off L'Orient, 22d June, distinguished himself in the battle of Cape St Vincent in February 1797, and was present at the blockade of Cadiz from February 1797 to April 1798, and at the battle of the Nile, 1st August 1798, where he was wounded. On his return from Egypt he received the

command of the "Cesar," 84 guns, with orders to watch the French fleet off Brest during the winters of 1799 and 1800. In 1801 he was raised to the rank of rear-admiral of the blue, was created a baronet, and received the command of a small squadron which was destined to watch the movements of the Spanish fleet at Cadiz. To prevent a fleet of British merchantmen from falling into the hands of the enemy, he engaged the French and Spanish fleets, which outnumbered his own small squadron by two to one, inflicting on them a severe defeat with a loss of 3000 men. Regarding this achievement Lord Nelson remarked that "a greater action was never fought." For his services Saumarez was rewarded with the order of the Bath, and he also received the freedom of the city of London, together with a magnificent sword. In 1803 he received a pension of £1200 a year. On the outbreak of the war with Russia in 1809 he was entrusted with the command of the Baltic fleet, and in recognition of his services Charles XIII. of Sweden bestowed on him the grand cross of the military order of the Sword. At the peace of 1814 he attained the rank of admiral; and in 1819 he was made rear-admiral, in 1821 vice-admiral of Great Britain. He was raised to the peerage as Baron de Saumarez in 1831, and died at Guernsey, 9th October 1836.

See *Memoirs of Admiral Lord de Saumarez*, by Sir John Ross 2 vols., 1838.

SAUMUR, a town of France, at the head of an arrondissement in the department of Maine-et-Loire, is situated on an island and on the left bank of the Loire, 38 miles south-west of Tours, and 27 miles south-east of Angers. A large metal bridge connects the Tours-Angers railway with that of Montreuil-Bellay by which Saumur communicates with Poitiers and Niort. Two stone bridges (755 and 905 feet long) also unite the town on the island with the two banks of the river. Several of the Saumur churches are interesting. St Pierre, of the 12th century, has a 17th-century façade and a Renaissance nave; and Notre Dame of Nantilly (often visited by Louis XI.) has a remarkable though greatly damaged façade, a doorway and choir of the 12th century, and a nave of the 11th. Both these churches contain curious tapestries, and in the latter, fixed in the wall, is the copper cross of Gilles de Tyr, keeper of the seals to St Louis. St Jean is a charming little building in the Angevine Gothic style. Notre Dame of Ardilliers, of the 16th century, was enlarged in the following century by Richelieu and Madame de Montespan. The town-house is an elegant 16th-century edifice; and the whole town is rich in graceful and interesting examples of the best period of French domestic architecture. The castle, built between the 11th century and the 13th, and remodelled in the 16th, is used as an arsenal and powder magazine. There is also an interesting almshouse, with its chambers in part dug out in the rock. The cavalry school, founded in 1768, and after various interruptions reorganized in 1824 and 1853, has at the present time (1886) 400 pupils, of whom 125 are officers. Other establishments are a public library, a museum of natural history and local Roman and Celtic antiquities, a horticultural garden, with a school of vines in which eight hundred kinds of grapes are cultivated. Saumur carries on a large trade in sparkling white wines grown in the neighbourhood, as well as in brandy, grain, flax, and hemp; and it manufactures enamels and rosaries. The population in 1881 was 13,439 (14,186 in the commune).

The Saumur caves along the Loire and on both sides of the valley of the Thouet (a left-hand tributary) must have been occupied at a very remote period. The Tour du Trone (9th century) served as a place of refuge for the inhabitants of the surrounding district during foreign invasions, and became the nucleus of a monastery built by monks escaped from St Florent le Vieil. On the same site rose the castle of Saumur two hundred years later. The town fell into the hands of Foulques Nerra, duke of Anjou, in 1025, and

passed in the 13th century into the possession of the kings of France, to whom it remained constantly faithful. The English failed to capture it during all the course of the Hundred Years' War. After the Reformation the town became the metropolis of Protestantism in France and the seat of a theological seminary, illustrated by many distinguished names. The school of Saumur, as opposed to that of Sedan, represented the more liberal side of French Protestantism (Cameron, Amyrant, &c.). In 1623 the fortifications were dismantled; and the revocation of the edict of Nantes reduced the population from 25,000 to 6000.

SAUNDERSON, NICHOLAS (1682-1739), mathematician, was born at Thurlstone, Yorkshire, in January 1682. When about a year old he lost his sight through small-pox; but this did not prevent him from acquiring, by the help of kind friends, a good knowledge of Latin and Greek, and pursuing with assiduity and success the study of mathematics. In his twenty-fifth year he commenced lecturing in Cambridge on the principles of the Newtonian philosophy, and, though he was not a member of any of the colleges, the university authorities placed no impediment in his way. In November 1711 he was selected to succeed Whiston, the Lucasian professor of mathematics in Cambridge, after having had the degree of master of arts conferred upon him to render him eligible for the appointment. He was created doctor of laws in 1728 by command of George II., and in 1736 was admitted a member of the Royal Society. He died of scurvy on the 19th of April 1739.

Saunderson possessed the friendship of many of the eminent mathematicians of the time, such as Newton, Halley, De Moivre, Cotes, and for the first of these he entertained a profound veneration. Whether from an inflexible love of truth, or from a motive less exalted, he was accustomed to speak his sentiments regarding persons very freely, and friends as well as enemies were criticized without reserve. As is frequently the case with the blind, his senses of hearing and touch were extraordinarily acute, and he could carry on mentally long and intricate arithmetical or algebraical calculations. He devised for his own use a palpable arithmetic, an account of which is given in his elaborate *Elements of Algebra* (2 vols. 4to, Cambridge, 1740), which he did not live to publish. Of his other writings, prepared for the use of his pupils, the only one which has been published is *The Method of Fluxions* (1 vol. 8vo, London, 1756). At the end of this treatise there is given, in Latin, an explanation of the principal propositions of Sir Isaac Newton's philosophy.

SAURIANS. See REPTILES.

SAURIN, JACQUES (1677-1730), one of the group of great French preachers of the 17th century (see FRANCE, vol. ix. p. 662), was born at Nîmes on January 6th 1677, studied at Geneva, settled in London in 1701 as one of the pastors of the Walloon church, and died at The Hague, on December 30, 1730, whither he had gone to defend himself before the synod against a trumped-up charge of heterodoxy. Besides collections of *Sermons*, on miscellaneous texts, he wrote *Discours sur les événements les plus mémorables du Vieux et du Nouveau Testament* (Amsterdam, 1720-28), a work which, as continued by Beausobre and Roques, became popular under the name of *Saurin's Bible*.

SAUROPSIDA. This name was introduced by Huxley in his *Introduction to the Classification of Animals*, 1869, to designate a province of the *Vertebrata* formed by the union of the *Aves* with the *Reptilia*. In his *Elements of Comparative Anatomy*, 1864, he had used the term "Sauroids" for the same province. The five divisions of the *Vertebrata*—*Pisces*, *Amphibia*, *Reptilia*, *Aves*, and *Mammalia*—are all distinctly definable, but their relations to one another differ considerably in degree. The *Amphibia* are more similar to the *Pisces* than to any of the other divisions, and the *Aves* are closely allied to the *Reptilia*, and thus three provinces—*Ichthyopsida*, *Sauropsida*, and *Mammalia*—are formed.

The characters which distinguish the *Sauropsida*, that is, which are common to birds and reptiles, and not found combined in the other classes, have been thus summarized by Huxley:—no

branchiæ at any period of existence; a well-developed amnion and allantois present in the embryo; a mandible composed of many bones and articulated to the skull by a quadrate bone; nucleated blood-corpuscles; no separate paraspine bone in the skull; and a single occipital condyle. In addition to these principal characters, others exist which are found in all birds and reptiles, but are not exclusively confined to them. The oviduct is always a Müllerian duct separate from the ovary and opening from the body cavity. The adult kidney is a metanephros with separate ureter; the mesonephros and mesonephric duct become in the adult male the efferent duct of the testis. The intestine and the reproductive and urinary ducts open into a common cloaca. There is usually an exoskeleton in the form of scales; in the birds the scales take the form of feathers. There are two aortic arches in reptiles, in birds only one,—the right. The heart is usually trilobular, becoming quadrilobular in crocodiles and birds. In all the eggs are meroblastic and large, possessing a large quantity of yolk; in all the egg is provided in the oviduct with a layer of albumen and outside this with a horny or calcareous shell. In a few cases the egg is hatched in the oviduct, but in these cases there is no intimate connexion between the embryo and the walls of the duct. Fertilization takes place internally, occurring at the upper end of the oviduct previously to the deposition of the albuminous layer and egg shell.

Comparative anatomy clearly shows that birds are reptiles which have become specialized in adaptation to the function of flight. This conclusion has been confirmed in the most surprisingly complete manner by the discovery of fossil forms intermediate between birds and reptiles. Two points of specialization, in addition to the transformation of the fore limbs into wings are conspicuous in birds,—the reduction of the tail and the absence of teeth. *Archæopteryx* is a flying feathered animal with a long reptilian tail. In the Rocky Mountain region numerous toothed birds have been recently discovered, and have been studied and described in a masterly fashion by Prof. O. C. Marsh. These forms belong to the Mesozoic period. For further details see REPTILES and BIRDS.

SAUSSURE, HORACE BENEDICT DE (1740-1799), one of Switzerland's most celebrated physicists, was born in Geneva on February 17, 1740.¹ His youth was passed at his father's farm, where he early acquired a love for the study of nature. Following the example of his father and of his uncle Charles Bonnet, with whom he was associated in a research on the leaves of plants, he devoted himself at first to botany. Thus he was led to make the acquaintance of Haller, who was not long in discerning and appreciating his rare powers as an observer. In 1762, when only twenty-two years of age, Saussure was elected to the chair of philosophy at Geneva, where, along with another professor, he taught logic and physics alternately. But his natural leanings were all towards the study of external nature; and he took advantage of all available opportunities of travelling to thoroughly explore the mountains, valleys, and lakes of his native land, and to visit those of foreign countries, with the view of widening and deepening his conception of the constitution of the world. The Society of Arts of Geneva was founded by Saussure in 1772, and in 1774, at the invitation of the Government, he elaborated a plan for the reform of the system of teaching in his native town; but this was too radical in its nature to be adopted. In 1786 he resigned his professorship to his friend and fellow-worker Pictet. While honouring his country by his devotion to laborious scientific investigations, he exhibited his patriotism by

¹ His father, Nicolas de Saussure (1709-90), an agriculturist of unusually liberal opinions and wide sympathies, when a young man had applied himself to literary pursuits, and especially to the study of writings bearing on farming. He resided all his life at his farm of Conches, on the Arve, near Geneva. As a member of the council of Two Hundred he took part in public affairs. Most of his writings were of a practical character, bearing on the growth and diseases of grain and other farm produce. His last work, *On Fire, the Principle of Fecundity in Plants and of Fertility in the Earth*, published in 1782, was more speculative in its nature.

untiring diligence in the exercise of his duties as a member of the council of Two Hundred, and afterwards of the National Assembly. In consequence of over-exertion in this work his health began to fail in 1794; but, although deprived of the use of his limbs, he continued to revise the concluding volumes of his great work on Alpine physiography, which were published in 1796. Latterly his mind became enfeebled, and when he was offered a chair of philosophy by the French Government in 1798 he had lapsed into a condition of partial imbecility. He died on January 22, 1799, at the age of fifty-nine, leaving two sons and a daughter.

The Alps formed the centre of Saussure's investigations. They forced themselves on his attention as the grand key to the true theory of the earth; but, as year by year his mass of facts assumed ever-growing dimensions, his generalizations became more guarded, until finally he came to consider a simple recording of observations as the only justifiable course. As a young man he had roamed in search of plants through many remote valleys and over the "montagnes maudites" as his unappreciative fellow-dwellers by the lakes called the snow-capped summits around them. It had been his dream, he says, since he was twenty to ascend Mont Blanc; and he accomplished the feat on 3d August 1787. This was the second time that the ascent of that mountain, until then deemed inaccessible, was made in that year.

Saussure found among the Alps opportunity for studying geology in a manner never previously attempted. The inclination of the strata, the nature of the rocks, the fossils, and the minerals received his closest attention. He acquired a thorough knowledge of the chemistry of the day, watching for the brilliant series of discoveries and the improvements in processes of analysis that brought the science into such dazzling prominence during the last quarter of the eighteenth century; and he applied all to the study of minerals, water, and air. Saussure's geological observations made him a firm believer in the Neptunian theory: he regarded all rocks and minerals as deposited from aqueous solution or suspension, and in view of this he attached much importance to the study of meteorological conditions. He carried barometers and boiling-point thermometers to the summits of the highest mountains, and estimated the relative humidity of the atmosphere at different heights, its temperature, the strength of solar radiation, the composition of air and its transparency. Then, following the precipitated moisture, he investigated the temperature of the earth at all depths to which he could drive his thermometer staves, the course, conditions, and temperature of streams, rivers, glaciers, and lakes, even of the sea. He invented a great number of instruments for these purposes, tested them, and investigated the theory of their action. The most beautiful and complete of his subsidiary researches is described in the *Essai sur l'Hygrométrie*, published in 1783. In it he records experiments made with various forms of hygrometer in all climates and at all temperatures, and supports the claims of his hair-hygrometer against all others. He invented and improved many kinds of apparatus, including the magnetometer, the cyanometer for estimating the blueness of the sky, the diaphanometer for judging of the clearness of the atmosphere, the anemometer, and the mountain eudiometer. His modifications of the thermometer adapted that instrument to many purposes: for ascertaining the temperature of the air he used one with a fine bulb hung in the shade or whirled by a string, the latter form being converted into an evaporimeter by inserting its bulb into a piece of wet sponge and making it revolve in a circle of known radius at a known rate; for experiments on the earth and in deep water he employed large thermometers wrapped in non-conducting coatings so as to render them extremely sluggish, and capable of long retaining the temperature once they had attained it. By the use of these instruments he showed that the bottom water of deep lakes is uniformly cold at all seasons, and that the annual heat wave takes six months to penetrate to a depth of 30 feet in the earth. He recognized the immense advantages to meteorology of high-level observing stations, and whenever it was practicable he arranged for simultaneous observations being made at different altitudes for as long periods as possible. It is perhaps as a geologist that Saussure worked most; he examined all the formations he met with much care and exactness; and although his ideas on matters of theory were in many cases very erroneous he was instrumental in greatly advancing that science.

Saussure's work is collected and summarized in his four large volumes of *Voyages dans les Alpes*. This book is arranged in the form of a narrative of the author's various journeys, interspersed with accounts of the observations made and descriptions of the apparatus employed. At the end there is a long list of "agenda," or subjects for investigation, which he anticipated would throw light on the theory of the earth. These agenda are of value as

exhibiting not only the scope and definite focussing of Saussure's mind but his almost prophetic foresight, since subsequent scientific work has advanced in each department very nearly on the lines they laid down.

His life was written by Senéquier in 1801, by Cuvier for the *Biographie Universelle*, and by De Candolle in *Decade Philosophique*, No. xv., translated in the *Philosophical Magazine*, [i.] iv. 96.

SAUSSURE, NICOLAS THÉODORE DE (1767-1845), eldest son of Horace Benedict de Saussure, was born on October 14, 1767, at Geneva, and is known chiefly for his work on the chemistry of vegetable physiology. He was a shy man, who lived quietly and avoided society; yet like his ancestors he was a member of the Genevan representative council, and gave much attention and thought to public affairs. He took a deep interest in the improvement of education, but deprecated the introduction of science teaching into schools, on the ground that it would divert the children's minds from the study of the classical languages and mathematics. He latterly became more of a recluse than ever, and died in April 1845.

When a young man Nicolas Théodore accompanied his father in the Alpine journeys and assisted him by the careful determination of many physical constants. He was attracted to chemistry by Lavoisier's brilliant conceptions, but he did not become great as an originator. He took a leading share in the rapid succession of improvements which rendered the processes of ultimate organic analysis trustworthy. He fixed the composition of ethylic alcohol, ether, and some other commonly occurring substances, thereby advancing the knowledge of pure chemistry. He also studied fermentation, the conversion of starch into sugar, and many other processes of minor importance. The greater number of his 36 published papers deal with the chemistry and physiology of plants, the nature of soils, and the conditions of vegetable life. These were published under the title *Recherches Chimiques sur la Végétation*, and were acknowledged to display remarkable ability.

SAVAGE, RICHARD (1697-1743), a mediocre poet and notorious literary character of the time of Pope, associated with Pope in the publication of the *Dunciad*. He had nearly reached the end of his career when Johnson went up to London, made his acquaintance, and was fascinated by his vivacity and knowledge of the world. After his death, Johnson gave his romantic history of himself in one of the most elaborate and best of the *Lives of the Poets*—a fine example of the great moralist's searching analysis and tolerant judgment of eccentric character. Johnson apparently accepted Savage's account of himself and his strange persecution by his alleged mother, the countess of Macclesfield, without hesitation, describing her as a "wretch who had, without scruple, proclaimed herself an adulteress, and who had first endeavoured to starve her son, then to transport him, and afterwards to hang him." Boswell was less credulous, made inquiries after his cautious manner in various quarters, and indicated pretty clearly that he considered Savage an impostor, although he could not explain why, if the unnatural story were not true, the countess could have allowed it to be put three times in print unchallenged during her lifetime (see Boswell's *Life*, chap. v.). After Boswell, Malone and Bindley nibbled at the paradox, but it was not subjected to thorough examination till 1858, when Mr Moy Thomas discovered the original manuscript depositions in the earl of Macclesfield's divorce suit at Doctors' Commons, and also the proceedings in the House of Lords. The results of Mr Thomas's researches, prosecuted with rare acuteness and industry, appeared in *Notes and Queries*, November and December 1858. To Johnson's *Life* and these papers the reader may be referred for the strange story and the elaborate and complete exposure of its inconsistencies and improbabilities. The conclusion which Boswell hinted at, but was prevented by his reverence for Johnson from expressing, that Savage was an impostor, is irresistible.

SAVANNAH, a city of the United States, the capital of Chatham county, Georgia, and the largest city in th

State, is situated on the right or southern bank of the Savannah river, 12 miles in a straight line and 18 miles by water from the ocean. By rail it is 104 miles southwest of Charleston, S.C. Stretching about three miles along the river, opposite Hutchinson's Island, and extending inland $1\frac{1}{2}$ miles, Savannah has an area of $3\frac{1}{2}$ square miles. The site is partly formed by a bold bluff of sand about a mile long, which lies 40 feet above low-water mark, ending abruptly at either extremity, but "slopes inland for several miles with a very gentle and regular declivity." Though laid out in parallelograms, Savannah has less than usual of the monotony of system, no fewer than twenty-four small public parks or gardens being distributed throughout the city, and most of its streets being well shaded with trees. In the south is Forsyth Park (30 acres), with a fountain after the model of that in the Place de la Concorde, Paris, and a monument to the memory of the Confederate slain. Johnson Square contains a Doric obelisk, in memory of General Nathaniel Greene and Count Pulaski, the corner stone of which was laid by Lafayette in 1825; and in Monterey Square, on the spot where Pulaski fell in 1779, rises a more elaborate monument—a statue of Liberty displaying the national banner, on the top of a marble shaft 55 feet high. The focus of commercial life in Savannah is the so-called Bay, a narrow street built at the foot of the river bluff, with its top stories opening on the higher level behind. Among the more conspicuous buildings are the custom-house and post office, the city exchange, the court-house, Oglethorpe United States barracks, Chatham academy, St Andrew's hall, the library hall of the Georgia Historical Society, the Savannah medical college, the Roman Catholic cathedral, and St John's Episcopal church. Besides being the second cotton port in the States, Savannah has a large trade in rice, timber, resin, and turpentine, the value of its exports being \$29,850,275 in 1873, and \$21,527,235 in 1880. Planing mills, foundries, and flour-mills are the chief industrial establishments. The harbour has in Tybee Roads a depth of 31 feet and 38 feet at mean low and high water, and the bar 19 and 26 feet. The population, 5195 in 1810, was 15,312 in 1850, 28,235 in 1870, and 30,709 (15,654 coloured) in 1880.

Savannah was settled in February 1733 under General Oglethorpe. A British attack in 1776 was repulsed; but it was captured in 1778, and though the French and American forces made an attempt to recover it in 1779 it was held by the British till July 1783. The first session of the legislature of the State was held in Savannah in January 1784. A city charter was granted in 1789. A great fire in 1796 and another in 1820 did damage to the amount of \$1,000,000 and \$4,000,000 respectively. During the Civil War Savannah was held by the Confederates; but it was ultimately captured by General Sherman on 21st December 1864.

SAVARY, ANNE JEAN MARIE RENÉ (1774-1833), duke of Rovigo, was born at Marq, in the canton of Grandpré and department of Ardennes, on 26th April 1774. He was educated at the college of St Louis in Metz, where he gained a scholarship. When a youth of sixteen he became a volunteer in a cavalry regiment. His first military experiences were with the army of the Rhine under Custine; he distinguished himself under Moreau and Férino, and by 1797 had reached the rank of major. In the next year, under Desaix, he took part in the Egyptian expedition, and he followed the same general in the second Italian campaign, and at the great battle of Marengo (14th June 1800). He had by this time attracted the favourable notice of Napoleon, who detected not only his soldierly powers but his singular gifts in the region of diplomacy and intrigue. For Savary the plans and will of Napoleon formed a law which obliterated every other, and in presence of which political and moral scruple had no place. So early as 1800, while only twenty-six years of age, he was appointed a colonel and the commander of that legion

which was afterwards to form the picked bodyguard of the emperor. In 1803 he was general of brigade, and in 1804 he was charged with the execution of the Duc d'Enghien. Savary in his *Memoirs* (published in Paris in 1828, 8 vols. 8vo) avows that all he did was to convey to Vincennes a letter whose contents he did not know, and early next morning, in obedience to the orders of a superior officer, to have the duke shot. The other side of the story is that he knew all about it,—that of set purpose, and in order to prevent an appeal to Napoleon's clemency, he hastened the execution; and it is certain that, unlike a man merely under orders, he himself went straight to Bonaparté to report the death. Savary was the hand which Napoleon employed in the delicate negotiations with the emperor Alexander about the time of the battle of Austerlitz in 1805. At Jena in 1806 he distinguished himself by his successful pursuit of the retreating Prussians; he rendered signal service by the siege of Hameln, which he forced to capitulate on 20th November; and, finally, the severe defeat which he inflicted upon the Russian forces at Ostrolenka, on 16th February 1807, was his crowning victory. Among other honours and rewards, he received a pension of 20,000 francs. After the peace of Tilsit he was despatched to St Petersburg; but shortly thereafter—the Napoleonic scheme for the crown of Spain being now apparently complete—he was recalled, was created duke of Rovigo, and started for Madrid. His deceitful intrigue was soon successful, and Joseph Bonaparte ascended the Spanish throne. From 1808 to 1810 he was again beside Napoleon in the many and changing scenes of his exploits; but on the 8th of June of the latter year France itself, now fully alive to the vast and mysterious power he had learned to wield, was startled by his appointment as successor to Fouché in the ministry of police. His administration, however, was not a success. After the overthrow of Napoleon, he desired to accompany his master to St Helena, but this was refused, and he was imprisoned at Malta. He escaped thence to Smyrna, thereafter wandered about the east of Europe, and finally embarked for England, which he reached in 1819. Three years before he had been condemned to death by default; and, learning this, he proceeded to Paris to clear himself of the sentence, in which he succeeded, being also reinstated with his rank and dignities. He retired to Rome, where he remained till 1831, when he was appointed commander-in-chief of the African army, and entrusted with the administration of Algeria. His duties were successfully performed, but he returned in March 1833 in weak health to Paris, where he died on the 2d of June.

SAVIGLIANO, a city of Italy, in the province of Cuneo, $31\frac{1}{2}$ miles by rail south of Turin, lies in a plain between the Maira and the Mellea (head-streams of the Po) 1081 feet above the sea. It still retains some traces of its ancient walls, demolished in 1707, and has a fine collegiate church (Sant' Andrea, dating at least from the 11th century, but in its present form comparatively modern), a triumphal arch erected in honour of the marriage of Victor Amadeus I. with Christine of France, and in the Taffini palace paintings by the 16th-century local artist Giovanni Mollineri (Mulinari, Il Caraccino). Savigliano has long been a place of considerable industrial activity; its modern manufactures comprise paper, silk, and beer. The population was 9332 in 1881 (commune 17,150).

First mentioned in 981 as Villa Savilliani, Savigliano appears in the 12th century as a member of the Lombard league. Its name perpetually crops up in the history of Piedmont and Savoy. It was besieged and taken by the duke of Savoy in 1347 and again in 1367; and in the 16th and 17th centuries it suffered severely from French garrisons. Charles Emmanuel I. died in 1630 at Savigliano, where the Piedmontese senate had met to escape the pestilence.

SAVIGNY, FRIEDRICH CARL VON (1779-1861), was born at Frankfort-on-the-Main on February 21, 1779. He was descended from an ancient family, which figures in the history of Lorraine, and which derived its name from the castle of Savigny near Charmes in the valley of the Moselle. When Lorraine passed into the possession of France, his family attached itself to Germany, and his ancestors filled important official posts in Nassau and other German states. His great-grandfather wrote a work, *La Dissolution de la Réunion*, as a protest against the conquests of Louis XIV.; his grandfather was "Regierungsdirector" at Zweibrücken, and his father was a noble of the empire and "Kreisgesandter" of several princes of the diet of the circle of the Upper Rhine. His father, Carl Ludwig von Savigny, died in 1791, his mother in 1792, and he was brought up and educated by his guardian, Herr von Neurath, assessor of the Reichskammergericht or imperial chamber at Wetzlar, a master of the "Staatsrecht" of the time.

In 1795 Savigny went to study at Marburg, and derived great advantage, as is gratefully recorded by him, from the teaching and friendship of Professors Weis and Bauer. For six months he studied at Göttingen. It is noted as a curious circumstance that, though Hugo, the great civilian, was there lecturing, Savigny did not attend his course. He suffered much for two or three years from ill-health. Savigny visited, after the fashion of German students, Jena, Leipsic, and Halle; and he returned to Marburg, where, on December 31, 1800, he took his doctor's degree. His inaugural dissertation was entitled *De Concursu Delictorum Formali*.¹ At Marburg he lectured as privat-docent on criminal law, the pandects, the law of succession, obligations, and the methodology of law. In 1803 he published his famous treatise, *Das Recht des Besizes*, or the right of possession. It was at once hailed by Thibaut as a masterpiece; jurists recognized that the old uncritical study of Roman law was at an end. It quickly obtained a European reputation, and still remains a prominent landmark in the history of jurisprudence. It was the fountain-head of a stream of literature which has not yet ceased to flow. Austin, no partial judge, pronounced it to be "of all books upon law, the most consummate and masterly." In 1804 Savigny married Kuni-gunde Brentano, the sister of Bettina von Arnim and Clemens Brentano the poet. In that year he visited Paris, chiefly with a view to make researches in the National Library into the life of the jurist Cujas, whom he greatly admired. In a letter to be found in his miscellaneous works he explains the ground of his admiration. "Dans l'histoire de la jurisprudence moderne, il n'y a pas d'époque plus brillante que celle du 16^{me} siècle. C'est alors que la science du droit eut véritablement un grand et noble caractère qu'elle n'a pas retrouvé depuis." A story not without significance as to his character relates to this period of his life. On his way to Paris, a box containing papers in which were the results of laborious researches was stolen from his carriage. He bore the loss with equanimity, and managed with the assistance of Jacob Grimm, his wife, and one of her sisters to do much to repair the loss.

In 1808 he was appointed by the Bavarian Government ordinary professor of Roman law at Landshut, where he remained a year and a half, and where he left many pleasant memories. In 1810 he was called, chiefly at the instance of William von Humboldt, to Berlin to fill the chair of Roman law, and assist in organizing the new university. One of his services was to create, in con-

¹ The object of his investigation is thus described: "Delicta concurrere dicuntur, ubi de pluribus legum violationibus, quarum nonnisi unus est reus, in eodem iudicio puniendis agitur."

nexion with the law faculty, a "Spruch-Collegium," or university court, competent to deal with cases remitted to it by the ordinary courts; and he took an active part in its labours. This was the busiest time of his life. He was engaged in lecturing, in the government of the university (of which he was the third rector), and as tutor to the crown prince in Roman, criminal, and Prussian law. Not the least important consequence of his residence in Berlin was his friendship with Niebuhr and Eichhorn. In 1814 appeared his pamphlet *Vom Beruf unserer Zeit für Gesetzgebung und Rechtswissenschaft*. It was a protest against the demand for codification, and in particular against the extension of the Code Napoléon to Germany. Fired with the hope that a day of resurrection for the national life of Germany was at hand, Thibaut had written a pamphlet urging the necessity of forming a code for Germany. Savigny wrote a reply, in which were laid down some principles with which wise advocates of codification might well agree. "I regard," he said, "the law of each country as a member of its body, not as a garment merely which has been made to please the fancy, and can be taken off at pleasure and exchanged for another." He laid stress upon the connexion of the present and the past and the consequent limitations of the power of legislation. But in the course of his argument he confounded the errors of codifiers in France, Austria, and Prussia, and especially the defects in the Code Napoléon, with the necessary incidents of codification. Put at its highest, his argument comes to little more than others had before crudely expressed by saying, "We are not wise enough to compose a code."²

In 1815 he founded, with Eichhorn and Göschel, the *Zeitschrift für geschichtliche Rechtswissenschaft*, the organ of the new historical school, of which he was the representative. In 1816, while on his way to Rome as envoy of Prussia, Niebuhr made at Verona the celebrated discovery of the lost text of Gaius. He communicated to Savigny the fact, and also his conjecture that it was the work of Ulpian. Savigny made known the discovery to the world in an article in the *Zeitschrift*, and pointed out Gaius as the real author. Göschel, Bekker, and Hollweg actually deciphered the manuscript; but there is some truth in Hugo's saying, "Without Savigny one would not have had Gaius."

The record of the remainder of Savigny's life consists of little else than a list of the merited honours which he received at the hands of his sovereign, and of the works which he published with indefatigable activity.

In 1815 appeared the first volume of his *Geschichte des Römischen Rechts im Mittelalter*; the last did not appear until 1831. This work, to which his early instructor, Weis, had first prompted him, was originally intended to be a literary history of Roman law from Irnerius to the present time. His design was in some respect narrowed; in others it was widened. He saw fit not to continue the narrative beyond the 16th century, when the separation of nationalities disturbed the foundations of the science of law. His treatment of the subject was not merely that of a bibliographer; it was philosophical. It revealed the continuity in the history of Roman law; and it was an emphatic protest against the habit of viewing the law of a nation as an arbitrary creation, not connected with its history and condition. It was the parent of many valuable works which continued Savigny's investigations.³ In 1817 he was appointed a member of the commission for organizing the Prussian provincial estates, and also a member of the department of justice in the Staatsrath, and in 1819 he

² See Austin's criticisms in *Lectures*, ii. 698.

³ See Von Mohl's *Staatswissenschaft*, vol. iii. p. 55. For a somewhat less favourable view, see Gans's *Vermischte Schriften*.

became a member of the supreme court of cassation and revision for the Rhine Provinces. In 1820 he was made a member of the commission for revising the Prussian code. In 1822 a serious nervous illness attacked Savigny, and compelled him to seek relief in travel. He always considered that he had benefited much by the homœopathic treatment of Dr Necker, and he remained a firm believer in homœopathy. In 1835 he began his elaborate work on the modern system of Roman law. The eighth and last volume appeared in 1849.

In March 1842 he ceased to perform his duties as professor in order to become "Grosskanzler" of Prussia; and in that position he carried out several important law reforms in regard to bills of exchange and divorce (a subject on which he had meditated much). He held that office until 1848, when he resigned, not altogether to the regret of his friends, who had seen his energies withdrawn from jurisprudence without being able to flatter themselves that he was a great statesman. In 1850, on the occasion of the jubilee of his obtaining his doctor's degree, appeared in five volumes his *Vermischte Schriften*, consisting of a collection of his minor works published between 1800 and 1844. This event gave rise to much enthusiasm throughout Germany in honour of "the great master" and founder of modern jurisprudence. Professor Scheurl, in his *Einige Worte über Savigny*, notes the fact that on the 31st of October Luther first revealed to the world the light of evangelical truth, and Savigny on that day began his work as a law reformer. In 1853 he published his treatise on *Obligations*, a supplement to his system of modern Roman law. Savigny died at Berlin on October 25, 1861. His son, Carl Friedrich von Savigny, born September 19, 1814, was Prussian minister of foreign affairs in 1849. He represented Prussia in important diplomatic transactions, especially in 1866, and died February 11, 1875.

In the history of jurisprudence Savigny's great works are the *Recht des Besizes* and the *Beruf unserer Zeit für Gesetzgebung*. The former marked an epoch in jurisprudence. Prof. Ihering says: "With the *Recht des Besizes* was the juridical method of the Romans regained, and modern jurisprudence born." It marked a great advance both in results and method, and it rendered obsolete a large literature. Savigny sought to prove that in Roman law possession had always reference to usucapion or to interdicts, that it is not a right to continue in possession, but to immunity from violence, and that possession is based on the consciousness of unlimited power. These and other propositions were maintained with great acuteness and unequalled ingenuity in interpreting and harmonizing the Roman jurists. The book also seeks to solve the problem of general interest, common to almost every system of jurisprudence, why possession, rightful or wrongful, as distinguished from property, should be protected. This general problem suffers by being almost solely discussed with reference to Roman law. His leading principle, that every "exercise of force" is illegal, is not incontestable, and, if true, it does not clear up the whole problem. The attempt to treat the historical accidents of Roman law as juridical necessities is the weak side of a work in other respects masterly; and there is a difficulty in understanding Austin's eulogy that it was of all books he knew "the least alloyed with error and imperfection." The controversy which has been carried on in Germany by Ihering, Baron, Gans, and Bruns shows that many of Savigny's conclusions have not been accepted.¹ The *Beruf unserer Zeit* expresses the idea, unfamiliar in 1814, that law is part and parcel of national life, and combats the notion, too much assumed by French jurists, especially in last century, and countenanced in practice by Bentham, that law might be arbitrarily imposed on a country irrespective of its state of civilization and past history. Of even greater value than his services in founding or consolidating "the historical school of jurisprudence" is the emphatic recognition in his works of the fact that the practice and theory of jurisprudence cannot be divorced without injury to both. Writing at a time when the influence of Hegel was in the ascendant, and in a city where he was official philosopher, Savigny was not carried away by metaphysical theories. In all his writings there is not a word betraying acquaintance with the labours of his great contemporary, Bentham; nor had Bentham more than the most superficial knowledge of

¹ See Windscheid, *Lehrbuch des Pandektenrechts*, i. 439.

him (see Gans's *Rückblicke auf Personen*). Perhaps a study of both would do more than anything else to aid in the construction of a true science of jurisprudence, consisting neither of platitudes and logomachies nor of a worthless catalogue of legal curiosities. (J. M.)

SAVILE. See HALIFAX, vol. xi. p. 386.
SAVILE, SIR HENRY (1549-1622), a learned Englishman, was the second son of Henry Savile, and was born at Over Bradley, near Halifax, Yorkshire, 30th November 1549. He entered Brasenose College, Oxford, whence he was elected to Merton College in 1561, where he took his degree in Arts and was chosen fellow. After graduating M.A. in 1570, he voluntarily read lectures on mathematics in the university. He was proctor in 1575 and 1576, travelled on the Continent collecting MSS. in 1578, and on his return was tutor to Elizabeth in Greek and mathematics. He was warden of Merton College from 1585 until his death, and in 1596 was chosen provost of Eton College. He was offered preferment by James I. after his accession in 1604, but would accept nothing more than the honour of knighthood. After the death of his son Henry he devoted his fortune to the promotion of learning. In 1619 he founded lectures on mathematics and astronomy at Oxford, and he also made various other benefactions to the university, including the foundation of a mathematical library for the professors, and the gift of several rare MSS. and printed books to the Bodleian. He died at Eton College 19th February 1622, and was buried in the chapel there. In recognition of his great services to the university, a public speech and verses were made in his praise, which were soon afterwards published under the title *Ultima Linea Savilii*.

Savile was held in the highest esteem by all the learned of his time. He published *Four Books of the Histories of Cornelius Tacitus*, and the *Life of Agricola*, with Notes, dedicated to Queen Elizabeth (1581); *A View of Certain Military Matters, or Commentaries concerning Roman Warfare* (1598); *Rerum Anglicarum Scriptores post Bedam* (1596); an excellent edition of Chrysostom, 8 vols. (1613); *Mathematical Lectures on Euclid's Elements* (1621); and *Oratio coram Elizabetha Regina Ozonia habita anno 1592* (1658). In 1618 he published, with a Life, Bradwardin's work *De Causa Dei contra Pelagium et de Virtute Causarum*; and he translated into Latin King James's *Apology for the Oath of Allegiance*.⁴ He also left several manuscripts written by order of King James, all of which are in the Bodleian library.

SAVINGS BANKS (Fr. *caisses d'épargne*; Germ. *Spar-kassen*) are institutions for the purpose of receiving small deposits of money and investing them for the benefit of the depositors at compound interest. They are, in general, managed by benevolent persons, who seek no remuneration for their services. They originated in the latter part of the 18th century—a period marked by a great advance in the organization of provident habits in general (see FRIENDLY SOCIETIES). They had been, however, one of the many excellent projects suggested by Daniel Defoe in 1697. The earliest institution of the kind in Europe was one established at Brunswick in 1765; it was followed in 1778 by that of Hamburg, which still exists, in 1786 by one at Oldenburg, in 1790 by one at Loire, in 1792 by that of Basel, in 1794 by one at Geneva, which had but a short existence, and in 1796 by one at Kiel in Holstein. In Great Britain, in 1797, Jeremy Bentham revived Defoe's suggestion under the name of "Frugality Banks," and in 1799 the Rev. Joseph Smith put it in action at Wendover. This was followed in 1801 by the addition of a savings bank to the friendly society which Mrs Priscilla Wakefield had established in 1798. Savings banks were shortly after established in London, Bath, Ruthwell in Dumfriesshire, Edinburgh, Kelso, Hawick, Southampton, and many other places. By 1817 they had become numerous enough to claim the attention of the legislature, and Acts of Parliament were passed for their management and control. Their progress in the United Kingdom since that date is shown by the following statement;—