broken, the mother-liquor, still holding a large amount of soda, is run off for future use, and the crystals are broken up, drained, and dried for packing and use. Soda crystals contain 63 per cent. of water, and their principal employment is for domestic washing, for which their comparative non-causticity well fits them.

Sulphur Recovery.—Of the several raw materials of the Le Blanc process, sulphur, now always used in the form of pyrites, is by far the most expensive. The sulphuric acid employed passes out in valueless combination as crude sulphide of calcium, and accumulates in huge mounds. Under the influence of rain sulphide of calcium in these heaps gradually assumes the forms of sulphide of hydrogen and hydrated oxide of calcium,—$CaS + 2H_2O = CaOH_2O + H_2S$. The hydrogen sulphide combines in its turn with another quantity of sulphide of calcium into CaS_2H_2, which being soluble in water runs off as yellow liquor to contaminate streams and give off sulphuretted hydrogen gas with its disgusting smell. By the action of atmospheric oxygen part of the CaS_2H_2 loses its hydrogen as water, and the remaining CaS_2 passes into thiosulphate of calcium, CaS_2O_3, with simultaneous formation of polysulphides. Upon this latter tendency Mond founded his original method for recovering sulphur. He hastened the oxidation by blowing air through the moist waste till a certain proportion of the sulphide was converted into thiosulphate, and the residue into sulphhydrate CaH_2S_2, or polysulphide. The mass is lixiviated with water, the liquor decanted off, and mixed with excess of hydrochloric acid, which produces H_2S, and in general sulphur, from the sulphhydrate and sulphides of calcium, with SO_2 and sulphur from the thiosulphate. But $2H_2S + SO_2$ decompose each other into $3S + 2H_2O$. Hence it is obvious that, if the process of oxidation is stopped at the right point, the whole of the sulphur will be recovered as such. The precipitated sulphur is mixed with water placed in a closed cylinder and fused by raising the temperature of water round it in an outer casing above the melting point of sulphur. The sulphur then runs together in the lower part of the cylinder, whence it is drawn off by a pipe and cast into rolls. The Mond process, of all the many sulphur-recovery processes yet introduced, is the best; but even it no more than pays working expenses, and enables the manufacturer to end his process with an innocuous chloride of calcium ($CaCl_2$) without actual loss of money.

About 1880 considerable excitement was caused by a sulphur-recovery process patented by Schaffner and Helbig in 1878, which was expected to revolutionize the soda trade. As these hopes have not been realized, we merely state the principle of the process. The soda waste is digested with a solution of chloride of magnesium, which in the first instance leads to the formation of $CaCl_2$ and MgS. But the latter is at once decomposed, with formation of magnesia and sulphuretted hydrogen,—$MgS + 2H_2O = MgOH_2O + H_2S$. The sulphuretted hydrogen is caused to act on sulphurous acid within a solution of chloride of calcium, when the sulphur settles in a filtrable form. The liquor remaining after the expulsion of H_2S from the mixture of waste and chloride of magnesium consists of a precipitate of magnesia and a solution of chloride of calcium. By blowing carbonic acid into the mixture the following decomposition is effected—$MgO + CO_2 + CaCl_2 = CaCO_3 + MgCl_2$—so that the magnesium is recovered in its original form and the calcium of the waste obtained as carbonate, which may again be returned to the black ash roaster. This very pretty and complete process might probably have been worked out as a practical success had the conviction not arisen that even with profitable sulphur recovery the Le Blanc process will not long be able to hold its own against the ammonia process.

Ammonia Soda Process.—This process is based on the fact that bicarbonate of ammonia, when added to a strong solution of common salt, decomposes the salt with formation of a precipitate of bicarbonate of soda and a solution of ammonium chloride (sal-ammoniac), thus $NaCl + (NH_4)HCO_3 = NH_4Cl + NaHCO_3$. The ammonia is recoverable from the sal-ammoniac by distillation with lime, and, supposing no waste to occur, is usable *ad infinitum*. From bicarbonate the normal salt is easily prepared by the application of heat —$2NaHCO_3 = Na_2CO_3 + CO_2 + H_2O$. Thus by theory one-half of the carbonic acid is recovered, and, supposing the quicklime for the decomposition of the sal-ammoniac to be made by heating limestone, the loss of carbonic acid is made up incidentally from that source. The only waste product which remains for disposal is the entirely innocuous chloride of calcium made in recovering ammonia by means of lime from sal-ammoniac. The ammonia process was first enunciated and patented in England by Dyar & Hemming in 1838; and works on the system were established in Cheshire and some localities on the Continent, where it attracted great attention. Numerous patents, both English and Continental, followed, and many experimental works were erected, which all failed to sustain themselves in competition with the Le Blanc works. The principal difficulties to be overcome were imperfect conversion of the salt, and more especially the loss of ammonia; and it was not till 1861 that real economical success in the ammonia recovery apparatus was attained by Ernest Solvay of Couillet near Charleroi, Belgium. Works on the Solvay principle were established at Couillet in 1863; and since that date by the inventor and others, among whom ought to be mentioned Ludwig Mond, the process has been so perfected that its general adoption now appears to be only a matter of time. Already on the Continent it has practically displaced the Le Blanc process, but in the United Kingdom there is as yet only one establishment manufacturing ammonia soda.

The first essential stage in Solvay's process consists in saturating the brine with ammonia. The brine, treated with milk of lime and ammonium carbonate to precipitate magnesium and calcium salts, and of proper density, is placed in two cylindrical close iron tanks, which communicate by pipes at top and bottom with the ammonia dissolver placed between them. The ammonia dissolver is a cylindrical vessel having the same height as the tanks and provided with a perforated false bottom, down to which a tube is led through the centre of the vessel, and by this tube the ammonia gas is introduced. Coiled within the cylinder is a worm pipe, through which cold water circulates. Each brine tank is put alternately in connexion with the dissolver. Circulation from the brine tank into the dissolver is kept up by mechanical agitation. As the ammonia becomes absorbed by the brine the temperature of the liquid rises rapidly, and the cold water circulating within the coiled pipe keeps the temperature down. As soon as sufficient ammonia has been passed into the brine the stirrers in the brine tank are stopped; the sludge of lime and magnesia precipitate is drawn off as it settles at the bottom of the brine tank, or when such precipitate is abundant it is settled and withdrawn in a special decanting tank. The decanted liquor is filtered through fine cloth by pressure, and the filtrate is cooled down in a refrigerating apparatus previous to the next operation.

Treating the Ammoniacal Brine with Carbonic Acid.—For this purpose a cylindrical tower is employed, divided internally into a series of superimposed segments by diaphragms consisting of perforated dome-shaped plates. The tower is about 40 to 50 feet in height and is kept nearly full of liquid, which is introduced by a pipe half way up its side. Carbonic acid under a pressure 1·5 to 2 atmospheres is forced in at the bottom of the tower and works its way gradually upwards through the perforations in the diaphragms, thus coming into intimate contact with the ammoniacal brine. Every half hour a part of the pasty mixture of bicarbonate of soda and ammonium chloride solution is drawn off and replaced by fresh liquor. The solid bicarbonate is separated out either by centrifugal action or by a vacuum filter; as thus obtained it is still contaminated with ammonia, of which it smells. To free the bicarbonate from this impurity water is squirted over it till the smell almost entirely disappears.

Conversion into Soda Ash of the bicarbonate is essential, because there is a comparatively limited demand for bicarbonate, and that salt, moreover, obstinately retains an ammoniacal odour, which lessens its value. The preparation of soda ash is attended with considerable practical difficulties, owing to the necessity of retaining the contained ammonia. The bicarbonate is first exposed to a comparatively low heat in a closed roaster, after which it is finished in a muffle furnace at a bright red heat. The gases given off are drawn by an air-pump into a washing apparatus, where the ammonic is retained, and the carbonic acid, which passes on, is conducted to the absorption tower for again impregnating the ammoniacal brine. By this process the whole of the chlorine of common salt comes away as waste in the form of chloride of calcium. To obtain that body in combination as hydrochloric acid, Solvay proposed in his patent of 1872 to employ magnesia in place of lime in the decomposition of the sal-ammoniac, the solution of chloride of magnesium remaining after the distillation is boiled to dryness, and being by the action of steam separated into magnesia and hydrochloric acid,—$MgCl_2 + H_2O = MgO + 2HCl$. The magnesia theoretically works in a circle, being changed into chloride on the liberation of the ammonia from the sal-ammoniac, and recovered again as magnesia with the formation of hydrochloric acid, as above indicated. But the expense of the process has hitherto been greater than the value of the product obtained, and the one weak point of the Solvay process is the loss of the hydrochloric acid, which forms an important element in the Le Blanc cycle. The loss of ammonia calculated as sulphate in the early days of the Solvay process was as much as 9 per cent. on the carbonate of soda produced; but by successive improvements it has been reduced to not more than 5 per cent. The Solvay plant is very expensive, amounting, according to his own estimate, to £1600 per ton of soda ash produced daily; but other authorities put the capital expenditure as high as £2400 per ton worked daily.

Cryolite Soda.—Of the many processes other than those above mentioned, which have been proposed for soda-making, the only one practically employed is that in which cryolite forms the raw material. Cryolite, a fluoride of aluminium and sodium, $AlF_3 + 3NaF$, is a mineral substance found in extensive deposits at Ivikat (Ivigtut) (61° 34′ N. lat.) in south-west Greenland. For soda-making the mineral is treated by a process discovered in 1850 by Professor Julius Thomsen of Copenhagen. It is ignited with chalk or limestone, whereby carbonic acid is driven off and fluoride of calcium and aluminate of soda are formed—$2(AlF_3 + 3NaF) + 6CaCO_3 = 6CaF_2 + 3Na_2O, Al_2O_3 + 6CO_2$. The aluminate of soda is separated from the artificial fluoride of calcium by lixiviation, and the solution so obtained is decomposed by treatment with carbonic acid, which produces a precipitate of alumina available for alum-making, &c., leaving a solution of carbonate of soda. About 8000 tons of cryolite are annually treated in Pennsylvania and in Denmark.

Statistics of Soda Trade.—No means exist for obtaining an accurate statement of the extent of the soda trade; and such estimates as are published can only be accepted as approximations based on knowledge of the productive capacity of existing works and the general course of trade. Speaking at the Society of Chemical Industry (London section) in January 1883, the late Walter Weldon gave the following estimate (in tons) of the soda production of the world at that date:—

	Le Blanc Soda.	Ammonia Soda.	Total.
Great Britain	380,000	52,000	432,000
France	70,000	57,125	127,125
Germany	56,500	44,000	100,500
Austria	39,000	1,000	40,000
Belgium	..	8,000	8,000
United States	..	1,100	1,100
	545,500	163,225	708,725

In these figures the whole of the products made—soda ash crystals, bicarbonate, caustic soda, &c.—are calculated in terms of pure carbonate, $NaCO_3$. Assuming the fairness of the calculation, we are warranted in stating the present (1887) production of alkali, as pure carbonate, to be not less than three quarters of a million of tons annually. (W. D.—J. PA.)

SODOM AND GOMORRAH. See DEAD SEA, vol. vii. pp. 1-3; comp. PHŒNICIA, vol. xviii. p. 803, and LOT.

SODOMA, IL, or, more properly, SODONA (*c.* 1479-1549), Italian painter. GIANNANTONIO BAZZI (who until recent years was erroneously named RAZZI) appears to have borne also the name of "Sodona" as a family name; it is signed upon some of his pictures. While "Bazzi" was corrupted into "Razzi," "Sodona" was corrupted into "Sodoma"; and Vasari, followed by other writers on art, accounts for the latter name by giving various and explicit details which we leave undiscussed, for, if the painter did not really pass by the appellation of "Sodoma," we may fairly infer that explanations which would have been germane to that appellation are not germane to the man himself. Bazzi was born at Vercelli in Piedmont towards 1479, and appears to have been in his native place a scholar of the painter Giovenone. Acquiring thus the strong colouring and other distinctive marks of the Lombard school, he was brought to Siena towards the close of the 15th century by some agents of the Spannocchi family; and, as the bulk of his professional life was passed in this Tuscan city, he counts as a member of the Sienese school, although not strictly affined to it in point of style. He does not seem to have been a steady or laborious student in Siena, apart from some attention which he bestowed upon the sculptures of Jacopo della Quercia. Along with Pinturicchio, he was one of the first to establish there the matured style of the *Cinquecento*. His earliest works of repute are seventeen frescos in the Benedictine monastery of Monte Oliveto, on the road from Siena to Rome, illustrating the life of St Benedict, in continuation of the series which Luca Signorelli had begun in 1498; Bazzi completed the set in 1502. Hence he was invited to Rome by the celebrated Sienese merchant Agostino Chigi, and was employed by Pope Julius II. in the Camera della Segnatura in the Vatican. He executed two great compositions and various ornaments and grotesques. The latter are still extant; but the larger works did not satisfy the pope, who engaged Raphael to substitute his Justice, Poetry, and Theology. In the Chigi palace (now Farnesina) Sodona painted some subjects from the life of Alexander the Great; Alexander in the Tent of Darius and the Nuptials of the Conqueror with Roxana are more particularly noticed. When Leo X. was made pope (1513) Bazzi presented him with a picture of the Death of Lucretia (or of Cleopatra, according to some accounts); Leo gave him a large sum of money in recompense and created him a cavaliere. Bazzi afterwards returned to Siena, and at a later date went in quest of work to Pisa, Volterra, and Lucca. From Lucca he returned to Siena, not long before his death, which took place on 14th February 1549 (the older narratives say 1554). He had squandered his property and died in penury in the great hospital of Siena. Bazzi had married in youth a lady of good position, but the spouses disagreed and separated pretty soon afterwards. A daughter of theirs married Bartolommeo Neroni, named also Riccio Sanese or Maestro Riccio, one of Bazzi's principal pupils.

It is said that Bazzi jeered at the *History of the Painters* written by Vasari, and that Vasari consequently traduced him; certainly he gives a bad account of Bazzi's morals and demeanour, and is niggardly towards the merits of his art. According to Vasari, the ordinary name by which Sodona was known was "Il Mattaccio" (the Madcap, the Maniac),—this epithet being first bestowed upon him by the monks of Monte Oliveto. He dressed gaudily, like a mountebank; his house was a perfect Noah's ark, owing to the strange miscellany of animals which he kept there. He was a cracker of jokes and fond of music, and sang some poems composed by himself on indecorous subjects. In his art Vasari alleges that Bazzi was always negligent,—his early success in Siena, where he painted many portraits, being partly due to want of competition. As he advanced in age he became too lazy to make any cartoons for his frescos, but daubed them straight off upon the wall. Vasari admits, nevertheless, that Bazzi produced at intervals some works of very fine quality, and during his lifetime his reputation stood high.

The general verdict is that Sodona was an able master in expression, motion, and colour. His taste was something like that of Da Vinci, especially in the figures of women, which have grace, sweetness, and uncommon earnestness. He is not eminent for drawing, grouping, or general elegance of form. His easel pictures are rare. His most celebrated works are in Siena. In S. Domenico, in the chapel of St Catherine of Siena, are two frescos painted in 1526, showing Catherine in ecstasy and fainting as she is about to receive the Eucharist from an angel,—a beautiful and pathetic treatment. In the oratory of S. Bernardino, scenes from the history of the Madonna, painted by Bazzi in conjunction with Pacchia and Beccafumi (1536 to 1538)—the Visitation and the Assumption—are noticeable. In S. Francesco are the Deposition from the Cross (1513) and Christ Scourged; by many critics one or other of these paintings is regarded as Bazzi's masterpiece. In the choir of the cathedral at Pisa is the Sacrifice of Abraham, and in the gallery of Florence a St Sebastian.

SOEST, an ancient industrial town in Westphalia, Prussia, is situated in a fertile plain (*Soester Börde*), 27 miles to the east of Dortmund and 34 to the south-east of Münster. Its early importance is borne witness to by its six fine churches, of which the most striking are St Peter's, St Mary-in-the-Fields, founded in 1314 and restored in 1850-52, and the Roman Catholic cathedral, founded in the 10th century by Bruno, brother of Otho the Great, though the present building was erected in the 12th century. This last, with its very original façade, is one of the noblest ecclesiastical monuments of Germany. Remains of the broad wall (now partly enclosing gardens and fields) and one of the gates still remain; but the thirty-six strong towers which once defended the town have disappeared and the moats have been converted into promenades. Iron-working, the manufacture of soap, hats, cigars, and bricks and tiles, linen-weaving, tanning, and brewing, together with market-gardening and farming in the neighbourhood, and trade in cattle and grain, are the leading industries. The population in 1880 was 13,985, and in 1885 14,848, of whom about 6000 were Roman Catholics.

Mentioned in documents as early as the 9th century, Soest was one of the largest and most important Hanseatic towns in the Middle Ages, with a population estimated at from 30,000 to 60,000. It was one of the chief emporiums on the early trading route between Westphalia and Lower Saxony. Its code of municipal laws (*Schran*; *jus susatense*), dating from 1144 to 1165, was one of the earliest and best, and served as a model even to Lübeck. On the fall of Henry the Lion, duke of Saxony, Soest passed with the rest of Angria to Cologne. In the 15th century the strife between the townsmen and the archbishops broke out in open war, and in 1444

the strong fortifications of the town withstood a long siege by an army of 60,000 men. The women of Soest are said to have distinguished themselves in this contest (*Soester Fehde*). Papal intervention ended the strife and Soest was permitted to remain under the protection of the dukes of Cleves. The prosperity of the town waned in more modern times: in 1763 its population was only 3800; in 1816 it was 6687.

SOFÁLA, a seaport town on the east coast of Africa, at the mouth of a river of the same name to the south of 20° S. lat., the seat of a Portuguese commandant. It is now a wretched place of about 1000 inhabitants, with not more than twenty European residents, and, as its port is obstructed with sandbanks, there is only a small coasting trade with Chiluan and Inhambane. But Sofála was formerly a town of considerable importance, with a harbour capable of holding a hundred large vessels. Previous to its conquest by the Portuguese in 1505 it was the chief and populous centre of a wealthy Mohammedan state; and the first governors of the Portuguese East African possessions were entitled captains-general of Sofála. The identification of Sofála with Solomon's Ophir, to which Milton alludes (*Par. Lost*, xi. 399-401), is untenable.

See *Bull. Geogr. Soc. Mozambique* (1882) for an account of the Sofála mines; and, generally, Edrísí, *Climate* i., 8th section; Dapper; Baines, *The Gold Regions of South Africa* (1877); and Burton's notes to his edition of Camoens.

SOFIA, since 1878 the capital of Bulgaria, though previously only a district town of the Tuna (Danube) vilayet of Turkey, is situated 1755 feet above the sea, in the midst of a dreary plain between the Stara Planina or main range of the Western Balkans and the bare but imposing granite mass of the Vitosh Mountains (3400 feet). It stands at the meeting of five great routes from Nish and Belgrade, Lom and Vidin, Plevna and Rustchuk, Philippopolis and Constantinople, and Köstendil and Salonica. At present (1887) it is two days' journey from the nearest railway station (Tatar-bazarjik), and as the seat of government is inconveniently near the south-west extremity of the kingdom; but it lies on the prospective great railway route between Constantinople and Belgrade, and was in the eyes of those who selected it the prospective capital of a much more extensive territory. The climate of Sofia is subject to severe seasonal and diurnal changes: in January the thermometer sinks 4° below zero and in August approaches 100°, and the daily range is frequently 27 or 28 degrees. Minarets and gardens give a certain beauty to the aspect of the town itself, but the outskirts are painfully destitute of foliage. In an eastern suburb stands the royal palace, a vast building which cost more than 4,000,000 francs; and in that neighbourhood, on the site of an abandoned Turkish quarter, quite a new "European" town has sprung up. The rest of Sofia retains its Turkish character, with tortuous streets and mean wooden houses. The modern cathedral and the archbishop's palace are both large edifices of no special note. Of the many mosques the most striking is the Buyuk-Jami, with its nine metal cupolas; but more historical interest attaches to the Sophia mosque, occupying the highest point in the town to which it gave its name. It is now completely in ruins (the result of an earthquake), but tradition, which in this case is confirmed by the architecture of the building, asserts that it was a Christian church erected by a certain Byzantine princess Sophia. Kanitz in 1871 still observed remains of old Byzantine frescos in the narthex. The public baths occupy a very extensive building, with separate suites of apartments for different nationalities or rather religions. The water as it issues from the springs has a temperature of 117°. Sofia exports hides and skins to Vienna, &c., and especially goat-skins to Marseilles; its principal imports are Indian corn, wheat, and alcoholic liquors—the last a very large item. Formerly the population was 50,000. In 1870 Kanitz found 19,000—a liberal estimate—8000 being Bulgarians, 5000 Turks, 5000 Jews (a colony dating from the expulsion from Spain), 900 Gipsies. At present (1887) the total is 20,000. Close to the north of the town are extensive remains of strong Roman fortifications.

Sofia is the *Serdica* or *Sardica* of the Romans and Greeks (so called after the Serds or Sards), the *Triaditza* of the Byzantine writers, and the *Sredec* of the Slavs. "Sardica is my Rome," said Constantine before he thought of his new capital on the Bosphorus. It had already been made the capital of Dacia Ripensis by Aurelian, and about 343 it became famous as the seat of a church council. The town was plundered by Attila; and in 809 it was captured by the Bulgarians, who held it until the Turks got possession of it by stratagem in 1378, or more probably 1382. In 1443 Sofia was for a brief period occupied by the Hungarian John Hunyady (Corvinus), and on the defeat of his enterprise was laid waste by the retreating army. In 1829 it was the headquarters of Mustapha Pasha of Scutari, whose ravages have made the name of Albanian a word of terror to the children in Sofia even now. The Russians entered Sofia on 4th January 1878, after Gourko's passage of the Balkans.

See Kanitz, *Donau Bulgarien*, 1877; Laveleye, *La Péninsule des Balkans*, 1886.

SOGDIANA, or SOGDIANE, in Old Persian *Sughuda*, a province of the Achæmenian empire, the eighteenth in the list in the Behistun inscription of Darius (i. 16), corresponded to the modern districts of Samarkand and Bokhara; that is, it lay north of Bactriana between the Oxus and the Jaxartes and embraced the fertile valley of the Polytimetus or Zarafshan. Under the Greeks Sogdiana was united in one satrapy with Bactria, and subsequently it formed part of the Bactrian Greek kingdom till the "Scythians" (the Yue-chi) occupied it in the middle of the 2d century B.C. (comp. vol. xviii. pp. 586 *sq.*, 592 *sq.*). The valley of the Zarafshan about Samarkand retained even in the Middle Ages the name of the Soghd of Samarkand. Arabic geographers reckon it as one of the four fairest spots in the world.

ṢOḤÁR, the second port of 'Omán, Arabia, situated on the Gulf of 'Omán in 24° 22′ N. lat. and 56° 45′ E. long. It is a place of considerable trade and industry, well built, fortified with walls and a castle, and inhabited by a hospitable and far from bigoted population of the 'Ibádí sect. The anchorage is good, sheltered between two promontories, and the surrounding country is populous and fertile. Indeed the coast-land of 'Omán is naturally the most favoured part of Arabia.

The town of Ṣoḥár is older than Islam, and its cloths are mentioned in the life of Mohammed (Ibn Hisham, p. 1019). Before the Moslem conquest it was in the hands of the Persians, and the Persian name Mazún is not uncommonly applied to it by older Arabic writers. Under Islam it became the capital of 'Omán, and it is sometimes called 'Omán, from which fact it has sometimes, but very precariously, been identified with the Omana of classical writers. In the earlier Middle Ages Ṣoḥár was one of the first commercial cities of Islam on the Indian Ocean and had an active part in the China trade. This prosperity was unabated when Mokaddasí wrote of it (p. 92) towards the close of the 10th century; in the 12th century, when Edrísí wrote, the China trade was a thing of the past; and about 1230 Ibn Mojáwir describes it as a ruin inhabited by the demons of the desert. Its decay appears to be connected with the rise of other ports—Kalhát on the Arabian and Ormuz on the Persian side of the Persian Gulf—but more especially with the political convulsions of 'Omán. This district, which has always had an isolated position in Eastern history, early became a stronghold of the Khawárij ('Ibáḍíya) and paid very intermittent obedience to the caliphs till it was reduced by Mo'tadid about the year 900. Even after this conquest the native imáms held their ground in the mountainous inland country at Nazwa (Istakhrí, p. 26), and renewed the struggle for independence with the Buwaihid and Seljúk sovereigns of Fars, who succeeded in these regions to the power of the caliphate. Ibn Mojáwir connects the destruction of Ṣoḥár with these struggles, and, though he seems to imply a later date, it is possible that his statement is to be combined with what Ibn al-Athír (ix. 387) tells of the rising of Al-Ráshid billáh about 1050. After this event there is a period of obscurity in the annals of 'Omán; the independence of the country was ultimately secured under the native (Azdite) princes of Nazwa, but Ṣoḥár never recovered its importance. It is mentioned, however, by Marco Polo, under the name of Soer, as trading in horses with Malabar, and also by Ibn Batúta, and must therefore have been resettled soon after the time of Ibn Mojáwir. Ṣoḥár was seized by

the Portuguese in 1508 and held by them till about 1650. In the 18th century Niebuhr speaks of it as a quite unimportant place; Wellsted in 1836 assigned to it a population of 9000; Palgrave in 1863 estimated the population at 24,000, an estimate the more remarkable that in the interval the town had suffered severely from the Wahhábís. The *Red Sea Pilot* (1883) gives the more probable figure of 4000 to 5000.

SOISSONS, a city of France, in the department of Aisne, the seat of a bishopric and a fortified post on the left bank of the Aisne at the junction of the Crise, lies 65 miles north-east of Paris by the railway to Laon. The population in 1881 was 10,895 (11,112 in the commune). The cathedral of Notre Dame St Gervais and St Protais, begun in the second half of the 12th century and finished about the end of the 13th, is 328 feet long and 87 wide; the vaulting of the nave is 100 feet above the pavement. The single tower dates from the middle of the 13th century and is a fairly good imitation of those of Notre Dame of Paris, which it equals in height (216 feet). The transepts are of different dates and dissimilar in their arrangement. In the north transept there is a very fine door on the east; the south transept is the oldest and most graceful portion of the whole edifice. The choir is surrounded with eight square chapels, and the apse with five large polygonal chapels, of which the three in the middle (as well as the high windows of the choir) still retain their fine 13th-century glass. The rose-window of the north transept represents the life of the Virgin in twelve medallions. The high altar is flanked by two marble figures representing the annunciation and above it is an Adoration of the Shepherds ascribed to Rubens; the cathedral also has some rich 16th-century tapestries. Considerable remains still exist of the magnificent abbey of St Jean des Vignes, where Thomas a Becket resided from 1161 to 1170, and which was rebuilt in the 13th century; these include the ruins of two cloisters (the smaller dating from the Renaissance), the refectory, and above all the cathedral-like façade of the church (recently restored). Of the three portals with twisted columns the central one is adorned with statues; above them runs a gallery, over which again is a large window; the two unequal towers (230 and 246 feet) of the 15th and 16th centuries are surmounted by beautiful stone spires, which command the town. The ruins of this fine building are unfortunately occupied by the military authorities. The church of St Léger, erected in 1139 and rebuilt at the beginning of the 13th century, was formerly attached to an abbey of the Génovéfains. Beneath are two crypts of the 12th and 13th centuries. Of the abbey church of St Pierre, built in the 12th century in the Romanesque style, the only remains are the façade and two bays of the choir. The royal abbey of Notre Dame was founded in 660 for monks and nuns by Leutrade, wife of Ebroin, the celebrated mayor of the palace. The number of the nuns (216 in 858), the wealth of the library in manuscripts, the valuable relics, the high birth of the abbesses, the popularity of the pilgrimages, all contributed to the importance of this abbey, of which there exist only some inconsiderable remains. The wealthiest of all the abbeys in Soissons and one of the most important of all France during the first two dynasties was that of St Médard, on the right bank of the Aisne, founded in 560 by Lothaire I., beside the villa of Syagrius, which had become the palace of the Frankish kings. St Médard, apostle of Vermandois, and Kings Lothaire and Sigebert were buried in the monastery, which became the residence of 400 monks and the meeting-place of several councils. It was there that Childeric III., the last Merovingian, was deposed and Pippin the Short was crowned by the papal legate; and there Louis the Pious was kept in captivity in 833. The abbots of St Médard coined money, and in Abelard's time (12th century) were lords of 220 villages, farms, and manors. At the battle of Bouvines (1214) the abbot commanded 150 vassals. In 1530 St Médard was visited by a procession of 300,000 pilgrims. But the religious wars ruined the abbey, and, although it was restored by the Benedictines in 1637, it never recovered its former splendour. Of the seven churches and the conventual buildings of the ancient foundation there hardly remains a trace. The site is occupied by a deaf and dumb institution, the chapel of which stands over the crypt of the great abbey church, which was altered in the 12th century. In the crypt is a stone coffin, said to have been Lothaire's, and close at hand is an underground chamber, reputed to have been the place of captivity of Louis the Pious. The civil buildings of Soissons are not of much interest. The hôtel de ville contains a museum with scientific and archæological collections; the hôtel dieu goes back to the 13th century; the library contains 40,000 volumes and curious manuscripts. Among the industrial establishments are tanneries, saw-mills, and foundries and factories for the production of stoves, agricultural implements, candles, and chocolate. Grain, flour, haricot beans of exceptional quality, pease, wool, hemp, flax, cattle, timber, and charcoal are the principal articles of trade. There is also a large bottle factory, and work is done for the flannel and blanket factories of Rheims.

Soissons is generally believed to occupy the site of the oppidum of Gallia Belgica called *Noviodunum* by Cæsar; but some writers identify this place with Noyon, Noyant, or Nouvion. One thing is clear, that this oppidum was the capital of the Suessiones, who occupied twelve towns and whose king, Divitiacus, one of the most powerful in Gaul, had extended his authority even beyond the sea among the Britons. In 58 B.C. Galba, king of the Suessiones, separated from the confederation of the Belgians and submitted to the Romans. At the beginning of the empire Noviodunum took the name of *Augusta Suessionum*, and afterwards that of *Suessiona*, and became the second capital of Gallia Belgica, of which Rheims was the metropolis. The town was before long surrounded with a regular wall and defended by a citadel; and it became the starting-point of several military roads (to Rheims, Château-Thierry, Meaux, Paris, Amiens, and St Quentin). Christianity was introduced by St Crispin and St Crispinian, men of noble birth, who, however, earned their livelihood by shoemaking, and thus became patrons of that craft. After their martyrdom in 297 their work was continued by St Sinitius, the first bishop of Soissons. After the barbarians had crossed the Rhine and the Meuse Soissons became the metropolis of the Roman possessions in the north of Gaul, and on the defeat of Syagrius by Clovis the Franks seized the town. It was at Soissons that Clovis married Clotilde, and, though he afterwards settled at Paris, Soissons was the capital of his eldest son Lothaire, and afterwards of Chilperic I., king of Neustria. It was not till the time of Chilperic's son, Lothaire II., that the kingdom of Soissons was incorporated with that of Paris. In 752 Pippin the Short was at Soissons proclaimed king by an assembly of *leudes* and bishops, and he was there crowned by the papal legate St Boniface before being crowned at Saint Denis by the pope himself. Louis the Pious did penance there after being deposed by the assembly at Compiègne. Under Charles the Fat (886) the Normans failed in an attempt against the town, but laid waste St Médard and the neighbourhood. In 923 Charles the Simple was defeated outside the walls by the supporters of Rudolph of Burgundy, and Hugh the Great besieged and partly burned the town in 948. Under the first Capets Soissons was held by hereditary counts, frequently at war with the king or the citizens. Thus the latter bought in 1131 a communal charter from Louis VI. and their bishop. In 1155, at an assembly of prelates and barons held at Soissons, Louis VII. issued a famous decree forbidding all private wars for a space of ten years; and in 1325 Charles the Fair replaced the mayor of Soissons by a royal provost dependent on the bailiwick of Vermandois, the inhabitants retaining only the right of electing four *échevins*. Louis of Châtillon, count of Soissons, was killed at Crécy, and his son, a hostage for King John in England, sold his countship to Enguerrand de Coucy to obtain money for his ransom in 1367. Finally the last count of Soissons, sprung from a branch of the house of Bourbon, rebelled against Louis XIII., and defeated the royal troops at La Marfée in 1641, but perished in the battle. The town had to suffer severely during the war of the Hundred Years; in 1414, when it was held by the Burgundians, it was captured and sacked by the Armagnacs under the dauphin; and this same fate again befell it six times within twenty years. The treaty of Arras (1435) brought it again under the royal authority. It was sacked by Charles V. in 1544 and in 1565 by the Huguenots, who