still *m*ix it with their rice. As a perfume it was strewn in Greek halls, courts, and theatres, and in the Roman baths. The streets of Rome were sprinkled with saffron when Nero made his entry into the city.

It was, however, mainly used as a dye. It was a royal colour in early Greek times, though afterwards perhaps from its abundant use in the baths, and as a scented salve, it was especially appropriated by the hetairæ. In ancient Ireland a king’s mantle was dyed with saffron, and even down to the 17th century the “ lein-croich,” or saffron-dyed shirt, was worn by persons of rank in the Hebrides. In mediaeval illumination it furnished, as a glaze upon bur­nished tinfoil, a cheap and effective substitute for gold. The sacred spot on the forehead of a Hindu pundit is also partly composed of it. Its main use in England was to colour pastry and confectionery,—hence “ I must have saffron to colour the Warden pies ” (*Winter’s Tale,* act iv. sc. i.),—and it is still often added to butter and cheese. One grain of saffron rubbed to powder with sugar and a little water imparts a distinctly yellow tint to ten gallons of water. This colouring power is due to the presence of polychlorite, a substance whose chemical formula appears to be C48H60O18, and which may be obtained by treating saffron with ether, and afterwards exhausting with water. Under acids it yields the following reaction—

C48H60O18 + H2O = 2(C16H18O6) + c10h14o + c6h12o6·

Polj’clilorite. Crocin. Essential oil. Sugar.

Crocin, according to Watts, *Dict, of Chem.,* has a composi­tion of C29H42O15 or C58H42O30. This crocin is a red colouring matter, and it is surmised that the red colour of the stigmas is due to this reaction taking place in nature.

At present saffron is chiefly cultivated in Spain, France, Sicily, on the lower spurs of the Apennines, and in Persia and Kashmir. The ground has to be thoroughly cleared of stones, manured, and trenched, and the corms are planted in ridges. The flowers are gathered at the end of October, in the early morning, just when they are beginning to open after the night. The stigmas and a part of the style are carefully picked out, and the wet saffron is then scattered on sheets of paper to a depth of 2 or 3 inches ; over this a cloth is laid, and next a board with a heavy weight. A strong heat is applied for about two hours so as to make the saffron “sweat,” and a gentler temperature for a further period of twenty-four hours, the cake being turned every hour so that every part is thoroughly dried. It is calculated that the stigmas of about 4300 flowers are required to give an ounce of saffron ; but the experiments of Chappellier indicate a possibility of greatly increasing the yield by the cultivation of monstrous forms.

The drug has naturally always been liable to great adulteration in spite of penalties, the severity of which suggests the surviving tradition of its sacred character. Thus in Nuremberg a regular saffron inspection was held, and in the 15th century we read of men being burned in the market-place along with their adulterated saffron, while on another occasion three persons convicted of the same crime were buried alive. Grease and butter are still very frequently mixed with the cake and shreds of beef dipped in saffron water are also used. Good saffron is distinguished by its deep orange-red colour ; if it is light yellow or blackish, it is bad or too old. It should also have a peculiar and rather powerful odour, and a bitter pungent taste. If oily it is probably adulterated with butter or grease.

See Flückiger and Hanbury, *Pharmocographia,* and Maw, *Monograph of the genus Crocus,* upon which the preceding account is essentially based; also Pereira, *Materia Medica,* and the pharmacopoeias.

SAFFRON WALDEN, a market-town and municipal borough of Essex, England, is finely situated near the Cam in a valley surrounded by hills, on a branch of the Great Eastern Railway, 44 miles north-north-east of London and 14 south of Cambridge. It has a somewhat ancient ap­pearance and possesses good streets and a spacious market­place. Of the old castle, dating probably from before the Conquest, the keep and a few other portions still remain. The church of St Mary the Virgin, a beautiful specimen of the Perpendicular style, dating from the reign of Henry VII., but frequently repaired and restored, contains the tomb of Lord Audley, chancellor to Henry VIII. There is an Edward VI. grammar-school, for which new buildings have recently been erected. Amongst the modern public

buildings are the corn exchange (1848) and the new town- hall (1879). The town possesses a museum, a literary institute, and a horticultural society. The benevolent institutions include the hospital and the Edward VI. alms­houses. In the neighbourhood is the fine mansion of Audley End, built by Thomas, first earl of Suffolk, in 1603 on the ruins of the abbey, converted in 1190 from a Benedictine priory founded by Geoffrey de Mandeville in 1136. The town is an important centre of agricultural industry and has large corn, cattle, and sheep markets. Brewing and malting are carried on. The population of the municipal borough (area, 7416 acres) in 1871 was 5718, and in 1881 it was 6060.

The original name of the town was Wealdenberg, and when it received a grant of a market in the time of Geoffrey de Mandeville it was called Cheping Walden. The substitution of the prefix Saffron is accounted for by the former culture of Saffron *(q.v.)* in the neighbourhood. The town has existed for more than 500 years as a guild, and the government is now vested in a mayor, four aldermen, and twelve 'councillors.

SAGAN, a manufacturing town in Prussian Silesia, situated on the Bober, a tributary of the Oder, lies 60 miles south-south-east of Frankfort-on-the-Oder and 102 miles south-east of Berlin. It contains the handsome palace of the dukes of Sagan, several interesting churches, a Roman Catholic gymnasium, and a large Gothic hospital, named after its founder, the duchess Dorothea (1793-1862). The leading industry of the town is cloth-weaving, with wool and flax spinning; it has also some trade in wool and grain. The population in 1880 was 11,373.

The mediate principality of Sagan, formed in 1397 out of a portion of the duchy of Glogau, has several times changed hands by purchase as well as by inheritance, One of its most famous pos­sessors was Wallenstein, who held it for seven years before his death in 1634. Bought by Prince Lobkowitz in 1646, the principality remained in his family until 1786, when it was sold to Peter, duke of Courland, whose descendant, the duke of Talleyrand-Périgord and Valençay in France, now owns it. The area of the principality is about 467 square miles, and its population is about 65,000.

SAGAR, or Saugor, a British district of India, situated in the extreme north-west of the Central Provinces, and comprised between 23° 4' and 24° 27' N. lat., and between 78° 6' and 79° 12' E. long., with a total area of 4005 square miles. It is bounded on the N. by the Lálitpur district of the North-Western Provinces and the native states of Bijáwar, Panná, and Charkhári; on the E. by Panná and Damoh district; on the S. by Narsinhpur dis­trict and the native state of Bhopal; and on the W. also by Bhopal. Ságar district is an extensive, elevated, and in parts tolerably level plain, broken in places by low hills of the Vindhyan sandstone. It is traversed by numerous streams, chief of which are the Sunar, Beás, Dhupan, and Bina, all flowing in a northerly direction towards the valley of the Ganges. In the southern and central parts the soil is black, formed by decaying trap; to the north and east it is a reddish-brown alluvium. Iron ore of excellent quality is found and worked at Hirapur, a small village in the extreme north-east. The dis­trict contains several densely wooded tracts, the largest of which is the Ramna teak forest preserve in the north. Roads are the only means of communication; of these the total length is 134 miles, 50 being returned as first class. The climate is moderate; the average temperature is 75°, and the average rainfall is about 46 inches.

By the census of 1881 the population numbered 564,950 (294,795 males and 270,155 females). Hindus numbered 498,071, Moham­medans 25,396, Buddhists and Jains 16,432, Christians 1034, and aboriginals 19,144. The only town except the capital (sec below) with a population exceeding 10,000 is Garhakota, which contains 11,414 inhabitants. Of the total area only 1396 square miles are cultivated, and of the portion lying waste 1220 are returned as cultivable. Wheat forms the principal crop, which is produced in large quantities all over the district; other products are food grains, rice, oil-seeds, cotton, and sugar-cane. Cattle and buffaloes are bred to a large extent both for draught and carnage, and also