

(The solution will contain acetate of strychnine and brucine. The brucine is another alkaloid present in the nux vomica seeds.)

The rest of the substance, such as the colouring matter, and igasuric acid will be precipitated by the lead.

To the filtrate containing the alkaloids, ammonia or solution of potash, or soda, is added to precipitate them. The precipitate is then dissolved in alcohol. The bulk of the spirit is distilled off. The solution is then set aside, when the strychnine is the first to crystallise out, leaving the brucine in the mother-liquid.

The liquor is then poured off, and the strychnine is well washed to get rid of all trace of brucine.

The washings are occasionally tested with nitric acid. If no red colour is seen, brucine is proved to be completely removed. The strychnine is again dissolved in alcohol, and then set aside to crystallise out.

Strychnine is in colourless crystals inodorous. It is soluble in alcohol, very sparingly soluble in water (but imparts to it an intensely bitter taste), soluble in chloroform, but insoluble in ether. There is a salt of strychnine officially called the hydrochloride. It used to be called hydrochlorate. It is soluble 1 in 35 parts of water; soluble in alcohol. The dose of the pure alkaloid and its salt is the same,  $\frac{1}{40}$  to  $\frac{1}{15}$  of a grain.

There is a solution made from the hydrochloride, of which 2 to 8 minims may be taken. It contains 1 grain of hydrochloride of strychnine in 110 minims of the solution.

There is also a syrup of phosphate of iron, with quinine and strychnine. It contains the pure alkaloid,  $\frac{1}{32}$  of a grain in a fluid drachm, which is the dose; it resembles Easton's syrup. When strychnine is ordered in a prescription it is generally the official liquor which is used—unless for a pill.

There is no commercial use for strychnine except in vermin-killers, but in medicines it is one of the drugs in frequent use.

It is a bitter tonic and stomachic; increases the digestive power, favourably affects the appetite, improves the muscular system. Often found of use when combined with expectorants in bronchitis.

An unofficial salt, the nitrate, is used in the treatment of the morphine habit.

In Australia it is used in cases of snake-bite, when it is administered hypodermically.

In cases of poisoning from strychnine, its salts, or preparations, the stomach-pump must be used and emetics administered. Chloral, bromide of potassium, tincture of iodine should be given. Tannin and vegetable substances containing it may be freely administered. Chloroform and ether may be used to inhale (for convulsions). Artificial respiration.

The effects of the poison take place very rapidly. Characteristic symptoms follow in a few minutes.

But the rapidity with which the poison acts will be affected by the state of the stomach, as to food and the presence of tannic acid, and also fats. The state of the blood-vessels may also influence the rate of absorption. It may begin at once or be delayed an hour or more.

#### *Savin and its Oil.*

The fresh and dried tops of *Juniperus sabina*, natural order Coniferae, collected in the spring from plants cultivated in Britain. Although no longer recognised by the British Pharmacopoeia, it is still used for medicinal purposes. The twigs are densely covered with minute leaves, dark green, but when dry are of a yellowish-green; they have a depressed central gland at their back. The odour is very strong, and the taste bitter. The leaves contain an essential oil, tannin, resin, and chlorophyll. The oil is the most important active principle, and on account of its presence the savin tops are used. The chief preparations are the oil itself, a tincture made from the tops with alcohol, and an ointment also made from the savin tops with wax and lard.

The oil is obtained by distilling the fresh branches with steam, when about 2.5 per cent. is obtained. It is a colourless or pale yellow oil, with the odour of the plant. Oil can also be obtained from the fruit. The dose of the oil is 1 to 4 minims, that of the tincture 20 minims up to 1 fluid drachm.

Savin is very little employed for internal use. It is a stimulant to the system. For external use it is applied as a vesicant, used to maintain a discharge from a blistered surface, as a caustic to wounds and ulcers. It is employed for criminal purposes, so occasionally becomes the subject of medico-legal inquiries.

In a case of poisoning from savin or its preparations the stomach-pump must be used, castor-oil should be given, and other emetics, such as mustard and water or powdered ipecacuanha, will be of use, as on these substances or other emetics one must depend, there being no chemical antagonists.

### Indian Army Nursing Service.

It has now been decided not to amalgamate the Home and Indian Nursing Services, but steps are being taken to strengthen the Indian Nursing Service. Funds have been set aside for quarters for the sixteen additional nurses whose appointment has been recently sanctioned, and provision is being made for a further increase in the coming year. It is reported that a lady is to be appointed at home to assist the Secretary of State in selecting candidates.

The Matron and nurses of the London Homoeopathic Hospital, Great Ormond St., will hold a Sale of Work on Wednesday and Thursday, April 1st and 2nd, in the Nurses' Home, for the benefit of the Children's Ward and the Samaritan Fund.

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