

operations, toxological and adulteration analysis, microscopy.

In Italy, a four years' university course is combined with practical pharmaceutical studies. There is no regular apprenticeship. Henry Grove, an Englishman having his business in Florence, states that notwithstanding "United Italy," no Italian pharmacopeia has made its appearance until now, and that legal regulation of pharmacy is equally wanting.

In Switzerland, maturity for Upper Prima in a college confers the right of entering on a three-years' apprenticeship, but in most cases college is absolved to enter on a two years' apprenticeship. Apprenticeship is followed by an examination for assistant. After the period of practical service, two years' university course takes place, then government examination, which includes mineralogy, analysis of alimentary substances and microscopy.

Leeches and How to Keep Them.

An inquiry on leech-keeping comes to us and asks practical advice on the subject. We give our own experience as carried through some twenty-five years. The first ten years, during clerkship period, it was the custom of the stores in which the writer was employed to keep them in a jar of water with a piece of muslin tied over it, changing the water every two or three days, and the jar placed in a cool, dark location. Later experience tried a large broad stone jar; a tightly-fitting cover of tin was made slightly conical and perforated with numerous fine holes. The jar had native earth or muck in which the leeches were imported, which was kept quite damp, while an inner jar contained water and a coarse sponge in it. The use of this was beneficial apparently in cleansing the leeches as they crawled through it. In the fifteen years during which the latter method was used the loss of leeches was almost nothing—not 1 per cent.—while by the former method, as far as my observation and memory serve me, it was certainly over 10 per cent.—*Pharm. Record.*

Bromide of Potassium as an Antidote to Iodoform.

A case of resection of a carcinomatous rectum is referred to in the *Wiener Medizinische Blätter* for July 11, 1889, in which symptoms of poisoning were produced through the use of iodoform. Under the use of bromide of potassium rapid relief was obtained. This condition is explained by Sampter and Retzlaff as due to the fact that bromide of potassium exceeds all other salts in its power for dissolving iodine compounds. They state that if a test-tube be half filled with a solution of potassium bromide (1 to 3), fifty drops of tincture of iodine may be added without the iodine being displaced from its solution with the potassium bro-

mide. This condition persists for several days, and bromide of potassium, of all the different salts recommended in iodoform-poisoning, is the only one which is capable of retaining the iodine in permanent solution.

Sugar-Coated Pills of Creasote.

A simple method of sugar coating pills composed of creasote or other acrid tasting drugs, is recommended in the *Apotheker Zeitung*. Two mixtures are prepared, one containing equal parts of albumen and spirit of ammonia; the other a powder made from thirty five parts of sugar and sixty five of starch-flour. The pills, after being thoroughly dried, are rolled, first in a wooden rolling-box (such as would be used for silvering them), with some of the albumen mixture, and then with the starch and sugar in another box. The boxes must be dry on the inside, and the rolled pills almost dry. A little practice in this way will suffice to make one expert.

Lactate of Quinine.

Lactate of quinine, which is a good form of quinine for hypodermic use, is best made as recommended by Vigier: 320 grains of quinine sulphate are dissolved in 12½ fluid-ounces of water containing 6¼ fluidrachms of a 10 per cent. sulphuric acid; this solution is then precipitated with 4½ to 6 fluidrachms of ammonia, the precipitate washed with water, then warmed with water to 80° C., adding lactic acid (about 75 grains) to neutralization. The solution is then diluted to 3½ fluidounces.—*Runds.*

Pills of Balsams, Resins and Oils.

These are at present made either with calcined magnesia or wax. When the former is used they soon become as hard as stone, and hence—as is also the case with wax, whose melting point is very high, 60° to 65° C.—often pass unchanged through the digestive organs. On this account Stoffel (*Pharm. Weckblad*) recommends preparing the above pill-masses as follows: Substances like copaiba, creasote, oil of turpentine, extract of fern, etc., are first rubbed up with a few drops of glycerin, after which is added a sufficient quantity of a mixture of equal parts of powdered liquorice root and powdered extract of liquorice. This makes a mass which is easily kneaded, and does not harden.

"BLACK EYE."—There is nothing to compare with the tincture or a strong infusion of capsicum annum mixed with an equal bulk of mucilage of gum arabic and with the addition of a few drops of glycerin. This should be painted all over the bruised surface with a camel's-hair pencil and allowed to dry on, a second or third coating being applied as soon as the first is dry. If done as soon as the injury is inflicted, this treatment will invariably prevent the blackening of the bruised tissue. The same remedy has no equal in rheumatic, sore or stiff neck.—*N. Y. Med. Times.*

Exalgin.

Exalgin (Methyl acetanilid) occurs in two forms in long colorless prisms and in large colorless prismatic plates. The first form is considered the purer article.

Methyl acetanilid is fatal to dogs in the dose of 3½ grains per pound of body weight. It causes spasms and relaxation of the respiratory muscles.

In doses not fatal it acts mostly upon the sensarum without affecting the nerve centers.

According to Bardet, Exalgin in doses of 6 to 12 grains is equal as a sedative to antiprin in doses of 22 to 30 grains. It is excreted through the urine, occasioning a diminution of the daily quantity, and when diabetes is also present causing a reduction in the quantity of sugar passed.

Exalgin is slightly soluble in cold water, more easily in hot water and very easily soluble in weak alcohol. Its melting point is 101° C.

Bardet gives the following formula for its administration:—

Methylacetanilid (Exalgin)	-	2 ¼ parts.
Spiritus Menthe	15 "
Syrup simp.	30 "
Aque	105 "

Each dessertspoonful contains four grains Exalgin.

Dose—One to three dessertspoonfuls during twenty-four hours.—Bardet in *Nouv. Remed.*

Disinfecting Infectious Fæces, such as of persons having cholera, typhoid fever or other contagious diseases, has occupied the time of Uffelmann, and as a result of his studies he publishes the following, which merits attention, as it is the first work of its kind giving definite directions: To thoroughly disinfect liquid or nearly liquid fæces, the author recommends to mix them either with an equal amount of sulphuric acid diluted with two parts of water and allow to stand for two hours, or to mix them with an equal volume of hydrochloric acid diluted with two parts water and allow to stand for twelve hours. If it is desired to use five per cent. carbolic acid, an equal part should be added and allowed to stand twenty-four hours; if sublimate solution, an equal volume of a solution of 2 g. sublimate, 0.5 g. hydrochloric acid to 1,000 c. cm. water is allowed to remain in contact with the fæces for at least half an hour, but rather twenty-four hours. Quicklime recommends itself sometimes for practical reasons, but a fresh preparation is necessary and in quantities of 2.5 g. to 100 c. cm. and twenty-four hours contact. The quantities of the above disinfectants to be used to disinfect more solid fæces and the length of time contact is necessary is yet to be ascertained. Hot water, which has been proposed as an appropriate disinfectant, is not reliable.—*Pharmaceutica Record.*