

It must not be supposed that the education afforded by the School of Pharmacy of the Pharmaceutical Society has hitherto neglected these subjects. In the old days when Professor Bentley occupied the chair of Botany, some teaching in histological botany was imparted, sufficient in numerous cases to enable a student to apply himself further with the subject.

Perhaps the greatest drawback to further work on histology by students is the expense of a really good microscope. In an American contemporary I notice an article advocating higher education in this branch and at the same time recommending a microscope of a certain maker at the price of \$75. At a time when pharmaceutical students are carefully calculating the expense of a curriculum at college or school, it is ridiculous to saddle them with such an expensive instrument. At the society's school microscopes with $\frac{1}{4}$ -inch object glasses are provided for histological work for the students, whilst two or three instruments with higher powers are to be obtained in the library. With these all the necessary work of microscopical examination of cells, spores, stomata, spiral vessels, etc., can be easily performed.

Having recently spent a short time in the south of England, a few notes on the state of pharmacy with description of some of the chemists' shops may be of interest. We, in London, have become quite accustomed to the competition of the large stores, and also of cutting chemists so that we hardly realize the depth of feeling on the subject as found in the provinces. But, as a rule, the provincial chemist has little need to grumble as prices are rarely "cut" to any grievous extent. The opposition too often comes most seriously from large grocers who do not hesitate to dabble in pharmacy as much as they dare.

Thus, in several towns I found these grocers selling all the pharmacopæial preparations which do not contain poisons. Of course, there is no law at present that can prevent this unsatisfactory state of affairs. Lately they have been discovered in attempting to evade the provisions of the Pharmacy Act by selling paregoric without the opium. Our lynx-eyed public analysts, however, speedily put an end to this piece of fraud by summoning the offenders, there being no difficulty of obtaining medical evidence to show that opium was the essential and principal ingredient in compound tincture of camphor. It was noticeable that in those towns which possessed a cutting chemist or drug store, the majority of pharmacies were far more elegantly fitted up than in others. Evidently the spirit of competition tends to the evolution of elegant pharmacies. The shops were fitted with mahogany or walnut, with mirrors between the shelves and mosaic flooring. Bottles were of the latest designs, having burnt-in enamel labels in black and gold. Windows often contained tall handsome cut glass stoppered bottles with elixir of coca, essence of sea-weed, liquid extract of cascara, tincture of myrrh and borax, and other spec-

ialties of the proprietor. The number of pharmacists in three towns 34,000, 64,000 and 140,000 population was 16, 34 and 66 respectively. In most cases a few chemists have one or more branches, but the average is fairly near 1 pharmacy to every 2,000 inhabitants.

FORMULÆ.

Lip Salve.—Almond oil, $4\frac{1}{2}$ ozs.; spermaceti, 6 drms.; white wax, $2\frac{1}{4}$ ozs.; carmine, 18 grs.; balsam of Peru, 45 drops; otto, 30 drops. Melt the spermaceti and wax, add the oil and balsam and lastly the carmine and otto.—*British and Colonial Druggist.*

Lime Juice and Glycerine.—Borax, powdered, 4 drms.; distilled water, 4 ozs.; olive oil, 12 ozs.; oil of bergamot, 80 m.; oil of rose-geranium, 20 m.; essence of lemon, 30 m. Mix.

Prepared Fuller's Earth.—Fuller's earth powdered, 3 lbs.; oxide of zinc, 4 ozs.; French chalk, 1 lb.; starch, $1\frac{1}{2}$ lbs. Mix and pass through a very fine sieve.

Dentifrice Water.—Carbolic acid, 2 ozs.; glycerine, 2 ozs.; oil of wintergreen, 6 drms.; oil of cinnamon, 3 drms.; powdered cochineal, 30 grs.; rectified spirit, 40 ozs.; distilled water, 40 ozs. Mix, allow to stand a week and filter.—*Ibid.*

London Market Report.

Both chemical and drug markets have been very quiet during the past month, although there have been several important alterations in value. Particularly is this the case with jalap, ergot, ipecacuanha and several essential oils. The soda syndicate maintain all their compounds at old rates with surprising firmness. Opium bids fair to decline and quinine is unsettled at 19c.

The current rates are as follows:—

CHEMICALS.			
Acid citric	per lb	.....	\$ 34
" oxalic	"	.....	6
" tartaric	"	.....	27
Borax	"	.....	6
Cream of tartar	"	.....	19
Mercury	"	.....	60
Calomel	"	.....	74
Corrosive sublimate	"	.....	48
Soda caustic	per cwt.	.....	2 65
" crystals	"	.....	84
" bicarbonate	"	.....	1 75
DRUGS.			
Camphor refined	per lb	.....	\$ 49
Cinchona	"	.....	10 @ 20
Ergot Spanish	"	.....	35
Gentian root	per cwt.	.....	4 20
Ipecacuanha	per lb	.....	1 86
Jalap	"	.....	49
Opium	"	.....	2 36
Oil peppermint H G H	"	.....	3 42
Shellac T N	"	.....	20
" Button	"	.....	18

Antikamnia.

Massillon, Ohio, Sept. 14th, 1891.

Antikamnia Chemical Co., St. Louis, Missouri.

GENTLEMEN,

"In the characteristic and excruciating frontal headache accompanying influenza, I immediately prescribe Antikamnia in

five or six grain doses, repeated once in one or two hours, with the happiest results. I have learned to look upon it as almost a specific in counteracting this form of pain."

The above is an extract from an article on Influenza read by me before the "Stark County Academy of Medicine," at Canton, O., Sept. 1st, 1891.

Very respectfully,

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Crystallized Glycerin.

THAT highly concentrated glycerin under certain circumstances (extreme cold combined with long continued agitation, as on a railway journey) becomes crystalline throughout has long been known; but little is known of the nature of this change, or of the properties of the crystals. A writer in *l'Union Pharmaceutique* thinks, therefore, that a collation of the facts that are known should be made. He contributes the following:

Glycerin concentrated to 31° B., under persistence of a low temperature, and subjected to a jolting or even tremulous motion, becomes a solid crystalline mass. Such, at least, were the conditions under which a consignment of 1,500 kgm. (about 3,000 pounds), from the house of Armandy-Conturier, of Lyons, became solidly crystalline last winter. The fact that such a metamorphosis could occur being unknown to the consignee, he thought that an error had been made by the shippers, or that he was the victim of some maladroitness falsification. However, he had the forethought to try the effect of heat on the crystals, and soon found that pure glycerin was the result. By experiments made on this lot of crystallized glycerin the following facts were developed.

1. Glycerin once crystallized and reduced to the liquid form by heat cannot again be crystallized, even when subjected to intensely low temperatures and agitation, for a very long time.

2. When, however, to this same glycerin a few crystals of frozen glycerin are added, and the whole is subjected to a low temperature, crystallization in mass at once takes place.

3. Crystals introduced into pure glycerin of a density greater than 30° B., and the whole subjected to cold, cause crystallization *en masse*.

4. Crystalline glycerin resumes its liquid state very slowly at from 13° to 15° C. It retains its crystalline condition indefinitely at 10° C. and under. It is therefore easy to preserve specimens in the ordinary refrigerators, etc., in schools of pharmacy and medicine for demonstration purposes.—*National Druggist.*

To detect cottonseed oil as an adulterant of castor oil, add to ten grams of the sample six grams of a solution consisting of five grams of silver nitrate, one gram nitric acid and 100 grams alcohol, and heat to 100 degrees C. on a water bath. If cottonseed oil be present, a red color is produced after a few minutes.