

For poisonous drugs, there is the poison closet, a very safe necessity. An excellent plan is to have on the door a table of doses, maximum and minimum, with antidotes. For weighing poisonous drugs or chemicals, we have the specially delicate balance. This should never rest on the prescription counter, but so supported as to be entirely free from all jarring, which is almost as detrimental to the life of a good balance as careless handling.

There is always a certain place in the drug store reserved for drugs, chemicals, and odds and ends that are only occasionally called for. An excellent plan to adopt when the number is large is to have a book properly indexed, and have all alphabetically arranged. This saves much time and annoyance, as we all know how exasperating it is to have a call for something and know you have it, but can't just remember where it is. You don't like to keep the customer waiting, or he won't wait, so a sale is lost.

A good scheme for keeping track of the cost of and date of purchase of certain goods generally kept in drawers is to have a tin slot frame made suitable to receive an ordinary stiff card, which can be slipped in properly marked when the drawer is refilled.

Last, but not least—a place for everything and everything *always* in its place. There is nothing so annoying as to be in a hurry and going to look for something, to find the place where it always has been kept occupied with something entirely different. — *Pacific Drug Review*.

Pharmaceutical Analysis.

(Continued from page 22, January 1895.)

SOME SPECIAL TESTS FOR DRUGS AND CHEMICALS.

SULPHATE OF ZINC.—Boiled with excess of caustic potash it should entirely dissolve. A blue coloration on the addition of ammonia indicates copper. Add sulphhydrate of ammonia; if white precipitate, the sample is free from iron. Should the precipitate be gray or dark in color, it indicates the presence of iron.

SCAMMONY.—Starch may be detected by adding tincture of iodine to a little of the powdered scammony shaken up with boiling water, and allowed to cool. If it turns blue, it indicates the presence of starch. If adulterated with common resin or guaiacum, the addition of sulphuric acid will turn it red; if the latter alone, it will change to green on mixing with water. It should not change on the addition of chloride of soda or perchloride of iron. The presence of jalap resin may be detected by shaking up scammony with ether. Jalap resin remains undissolved.

SPIRIT OF NITROUS ETHER.—Should have a specific gravity of 0.840 to 0.845; should not effervesce, or but feebly, when shaken up with bicarbonate of soda. The presence of aldehyde is indicated by a brown coloration on heating with caustic

potash. It should yield not much less than five times its volume of the gas on keeping. The spirit may be tested with accuracy by the nitrometer, or the following simple method. Prepare two solutions as follows:

No. 1.

R.—Sodii hyposulph. gr. iv.
Sodii chloridi. gr. xl.
Potass. iodid. gr. xx.
Aq. ad. 5 ii.
Solve.

No. 2.

R.—Spt. ather. nitros. 5 ii.
Acid. sulph. dil. 5 i.
Misce.

Place No. 1 solution in a small porcelain dish—a two-ounce ointment pot will answer the purpose. Pour into this 5ss of No. 2 solution, and stir till effervescence ceases. The mixture should be free from iodine color; if not so, the spirit of nitre is stronger than should be used; if no iodine has remained free after the effervescence has passed off, add another 5ss of the No. 2 solution. This should now produce a permanent brown color, if the spirit of nitre is up to its normal strength. If a second addition of 5ss (total 3iiss) is required, it is below its normal, but not unfit for use; but if this second 5ss fails to produce a permanent brown color, the spirit of nitre is too weak to be sanctioned.

VOLATILE OILS.—Volatile or essential oils are sometimes adulterated with fatty oils, resins, balsams, and alcohol, etc. A spot of the sample placed on paper and allowed to evaporate should leave no grease behind if pure. If diluted with alcohol, on shaking up with a few small pieces of chloride of calcium the chemical will become partly dissolved.

WAX.—Boil a small quantity of beeswax with water, any mineral impurities present will settle to the bottom. Add a few drops of tincture of iodine to the water in which the sample has been boiled, and, if it turns blue, it proves the presence of starch. Resin and fats may be dissolved out, if present, by shaking a portion of the wax up with chloroform. If more than 25 per cent. be dissolved, it indicates adulteration. — *British and Colonial Druggist's Diary*.

A Local Remedy for Diphtheria.

Professor Loeffler, of Greifswald, the discoverer of the diphtheria bacillus, has suggested a new remedy for the disease. The mixture recommended is said to consist of alcohol, 60 parts; toluol, 36; and solution of ferric chloride, 4. Menthol is added to deaden the pain caused by the application, which is effected by means of pieces of wadding, the affected parts being at first treated every three or four hours. Of seventy-one patients treated by this method from the outset, all have been saved, while only one death occurred out of twenty-six cases treated after the second day of the attack.

Oil Emulsions.*

By STEPHEN J. CLARK.

In making a good oil emulsion, it has always been considered by pharmacists in general as an operation requiring a skillful manipulation, and to manage the operation so as to be successful in producing a perfect emulsion in every case was considered a high accomplishment by the ordinary pharmacist. The pharmacists of this country have paid too little attention to making first-class emulsions. Physicians, as we all know, very seldom prescribe oil, gum, and water in their proper proportions. Consequently, the pharmacist is compelled to use his own judgment in dispensing a perfect emulsion. Emulsions are deserving of a great deal of attention. In fact, the physician, as well as the pharmacist, should be more familiar with this class of preparations.

Two methods are employed in the manufacture of such emulsions. One consists in making a thick mucilage, to which the oil is added gradually in small proportions until it is all thoroughly incorporated, and lastly, the other ingredients. The second method, which is, no doubt, universally employed in the leading pharmacies of this country, and its process, most all druggists are well versed in. Nevertheless, to accomplish a perfect success, I wish to suggest and impress a few very important points on this subject.

First of all, cleanliness, like in all other manipulations, is one of the agents which should never be lost sight of, and especially so in this case. A most convenient and advisable shape of a mortar employed during this process is one of a shallow form with a flat pestle properly adjusted to its shape. The powder, should be of absolute purity, should be placed into the mortar, its dust covering the sides of the vessel, keeping the oil from greasing them. Now, the oil should be added in the proportion of one to two of the gum, and, after being well mixed, add a certain amount of water. Most any apprentice, after following these rules, should be able to turn out a first-class preparation. As it is in these days of progress, druggists should provide themselves with an emulsifier, which would be a very useful machine to them if they are in a community where emulsions are very frequently prescribed. A perfect emulsion should be as white as milk and its fat globules too small to be visible to the naked eye. In fact, it should be a homogeneous compound. — *Pacific Drug Review*.

IODOPHENOCHELORAL.—This is a mixture of equal parts of tincture of iodine, carbolic acid, and chloral hydrate, and has been recommended as an application in certain skin diseases. The brown liquid must be carefully preserved.

*Read before the O.S.P.A., 1894.