

NECESSARY APPARATUS IN A RETAIL PHARMACY.

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The subject of this paper has been discussed so often from its many sides in recent years, that it may seem a wasted effort to spend any further time in bringing it before this Association.

Agreeable to Mr. Lascoff's request, I will limit myself as much as possible to the chemical side of the question, he having made this suggestion knowing that I spent fifteen years in the retail drug business previous to my connection with the Department of Chemistry of the New York College of Pharmacy.

Having had considerable experience in testing and assaying prescriptions that had been compounded in New York City and Newark, as well as ordinary everyday counter samples, the writer believes that, although there exists, and always will exist, many cases of wilful adulteration and sophistication, that many a pharmacist who is hauled over the coals by Boards of Pharmacy, Health, Food Commissioners, and newspapers, is guilty only so far in that he has been lacking in giving the proper care to the kind of drugs he is purchasing as well as neglecting absolutely to convince himself that what he purchases is really up to the official requirements. It may seem very radical to suggest that every pharmacy should have as an adjunct to an up to date Prescription Department, a complete set of chemical apparatus, such as is necessary to perform the simpler tests and assay methods of the U. S. P., but the writer can see no other way in which the real pharmacist can protect himself from unnecessary trouble and expense except by not only making such installation as well as employing it faithfully and continuously.

It may be easier to buy from responsible firms and simply take their guarantee as being all that is required but this, at the best, is risky. Only recently, the writer in using some hydrogen peroxide sold by a firm possessing the highest reputation, discovered that it contained a considerable amount of barium; in another case, a sample of alcohol, labeled U. S. P. not only responded very vigorously to the aldehyde test, but also contained 10.5% of water. These examples prove conclusively that it is imperative that the pharmacist must protect himself and the only way he can do this is by being in a position to make the simpler tests himself.

The initial expense will not be very large, and will repay the owner many times in a short space of time.

I take it for granted that every pharmacy ought to be equipped with a real prescription balance in good order as well as accurate weights and graduates. The lack of these is the cause of much trouble. Impossible as it may seem, many pharmacists in a penny-wise-pound-foolish policy, purchase cheaply, never regarding quality. I have come across weights as much as 15% out of the way, and graduates run still worse. This is uncalled for as standard graduates can now be secured at very reasonable prices.

The above are necessary parts of a prescription department and as far as the

necessary chemical utensils are concerned, they will not take up very much space nor will the cost be prohibitive. I will mention a few that I consider absolutely necessary:

A rack of test tubes, a bunsen burner, a small assortment of beaker glasses and evaporating dishes, a water bath, some separatory funnels of various sizes, two burettes, a small assortment of pipettes, a set of metric weights from one milligram up and a balance sensitive thereto, test paper as well as the indicators employed in official methods. The U. S. P. list of reagents is very complete and the majority require no more than usual care in their preparation; for the making of volumetric solutions a few measuring flasks are absolutely needed. The majority of the reagents are fairly stable and if made up in small quantities, the more or less unstable ones will last the required time if conscientiously used. Of course, if they are prepared and placed upon the shelf and not made use of, they will naturally deteriorate and become useless.

With some glass tubing of various bores, a file, a cork-borer and some rubber stoppers, many pieces of apparatus can be prepared in short time and with little expense. An assortment of chemical flasks of various sizes is as necessary from a pharmaceutical as a chemical standpoint. A few crucibles—porcelain is adapted for most work—are also necessary as well as supports for same. A microscope magnifying to at least 350 or 500 diameters I consider absolutely essential, not so much for chemical as for pharmacognostical purposes.

Some few small glass funnels and small filters, particularly some of the quantitative kind, should be at hand.

The determination of specific gravity of many substances is of such very great importance that the necessary apparatus must be at hand. The principal one of course is the pycnometer or specific gravity bottle.

The specific gravity and solubility of substances being determined at certain stated temperatures, one or two accurate chemical thermometers must be at the worker's disposal.

I think that the above list covers the most important and needed pieces of apparatus although undoubtedly some have been forgotten.

Considering the time spent in getting the methods of tests of identity and for impurity and strength, as well as the assay methods for galenicals, given in the Pharmacopœia in such splendid working shape specially adapted to the pharmacist and also considering the high class and thorough education received by students in the better class of colleges of pharmacy to-day fitting him particularly for such work, it seems almost a crime that so few pharmacists are making proper use of the knowledge at their disposal in such a way that could not but raise their professional standing as well as increase the financial returns of their business.

In view of the fact that there is a continuous discussion being carried on as to whether pharmacy is going backward or forward, it appears to the writer, that there are many pharmacists scattered throughout our country who are making not only an enviable, country-wide reputation, but also getting large monetary returns from the professional side of pharmacy as practiced by them as real pharmacists, principally by employing the highly scientific knowledge at the disposal of every pharmacist who chooses to make use of it.

The writer's ideas will probably be regarded by many as radical, but he thinks that in the very near future it will become necessary to compel the pharmacist to have the proper chemical apparatus essential to carrying out the tests and assays mentioned above, just as it is now compulsory by law in certain states, that every pharmacy possess a U. S. P. and N. F. When this time arrives and the pharmacists perform the necessary work, we will hear much less about saturated solutions being deficient in strength, and many other cases now quoted, showing or trying to show the offending pharmacist as a law breaker and offender, in many cases unknowingly, will disappear.

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DISCUSSION.

Otto Raubenheimer said it seemed a pity that, after a pharmacist had received his training in a college, and in chemical and analytical work, he should forget all about it, and should not any more handle burettes or pipettes, but devote himself to the commercial end of the business. How much more profitable it was to devote a little time in the store to the professional study of the business, and do a little analytical work, especially as, when once commenced, he would come to like it. Another object, after the wholesaler once came to know that the pharmacist kept track of him, he would send him the best he had. He would not advise anyone to keep his chemical apparatus in the back of the store, but it should be kept in front.

F. W. Nitardy, of Denver, said his experience had been that, whereas the jobbers did not at first carry such things as U. S. P. alcohol, turpentine and linseed oil, they were now obtainable, as the result of shipping back a few things not of standard quality.

SELLING AN ANTISEPTIC.

Every household ought to have a harmless antiseptic on hand for emergency use, and every druggist ought to have the same on sale as a leader and business builder. In this day of wide information, everybody knows about germs, and a great many people believe in being prepared. These people will buy your antiseptic without any urging on your part. All you have to do is to put the stuff on display. Other people may be easily educated into keeping an antiseptic constantly on hand. If they don't know, teach them. You are doing them a good turn and building business for yourself.

A POUND OF PREVENTION MAY BE WORTH A TON OF CURE.

Such is the sign one enterprising druggist has posted over a pyramid of pound bottles containing a harmless and popular antiseptic. His reading matter explains how an antiseptic applied in time renders a cut or wound aseptic, hastens the process of healing, may prevent lockjaw, and so on. This simple arrangement increased his sales over 500 percent. This is the way to build business. Help the community, and at the same time build business for yourself.—W. S. Adkins in *The National Druggist*.