credited with dispensing poor medicine, or the medicine itself may be held accountable, and no longer prescribed.

Since it is seldom practicable for the pharmacist to follow his preparations to the bedside it would seem that out of consideration for the patient's welfare, and for the good of his reputation, he should endeavor to encourage the use of active medicines by stating upon the label the proper method for conserving, and the approximate date beyond which they should not be used.

Medication in the hospitals is supposed to be under somewhat better control than is the case in the physician's private practice, but even here such a check is desirable for the reason that drugs and their preparations, after leaving the drug department, are in charge of, and administered by students under the supervision of head nurses who, sometimes, are undergraduates themselves. All these are expected to acquire a rudimentary knowledge of pharmacy, but few possess more than this, except in those hospitals where the pharmacist interests himself in their education.

In any institution there is no reason why the pharmacist should not consider it a part of his duty to prevent the administration of deteriorated medicines. In fact, it may almost be said that only by so doing will he be rendering the full service which he is capable of, and the service which his position demands of him. Taken in connection with his periodic inspection of the medicine closets throughout the house, such a system of labeling would materially increase the efficiency of the treatments and would enhance the reputation of the pharmacist.

THE IDEAL HOSPITAL PHARMACY.*

BY FRANCES M. GREENWALT.1

To the casual observer one hospital pharmacy is about like another, but to us who are interested chiefly in that phase of our profession there is almost as much individuality about each drug room as there is about its dispenser.

I do not claim that I operate a perfect pharmacy, nor have I the privilege of making every change deemed advisable, but I have endeavored to arrange our pharmacy as well as possible under the existing conditions in our hospital. I have been rewarded in no small degree by such comments as these from the doctors—"I have never seen a more complete stock of drugs in any drug store," and "I have never had so little trouble in having my prescriptions filled with promptness and without substitution as I have here." I have heard nurses say, "We never have to wait for our drugs very long in this hospital." Salesmen, too, have made very complimentary remarks relative to the well-arranged stock and its neat appearance. Such appreciation helps to advertise our hospital, satisfies management and makes us happy.

The ideal hospital pharmacy should be centrally located. The first or main floor is perhaps the most convenient for such location. It is then near the office, convenient for deliveries, special phone calls, and communication with superintendent, bookkeeper and office employees. Our pharmacy is near the elevator, easily located by special nurses, who are often unacquainted with the hospital,

^{*} Parts of a paper read before Section on Practical Pharmacy and Dispensing, A. Ph. A., New Orleans meeting, 1921. For discussion see Minutes of the Section, November Journal.

¹ Pharmacist St. Luke's Hospital, St. Paul, Minn.

and thus saves their time in emergency orders. It advertises the drug department to visitors and patients, because in passing to the elevator their attention is attracted to the well-stocked pharmacy, cleanly and orderly, and gives prompt service at all times. The doctors in making their rounds must pass by the pharmacy, and very often they wish to communicate with the dispenser regarding some preparation, new or old, with which they are not thoroughly familiar. Perhaps they want to know something about dosage, incompatibility or form of medication, and if they are promptly informed by the pharmacist it leaves a very good impression relative to the hospital pharmacy. They are influenced to patronize that hospital, valuable advertising for the hospital.

The dispensing room should be well lighted and well ventilated. Unfortunately the average hospital pharmacy has only artificial light. This is one of the objectionable features of our drug room. A well-lighted and well-ventilated room is conducive to good cheer, lessens fatigue, and is more inviting to the observant visitor or patient. Outside windows that can be opened without creating a draught, that blows away the powders being dispensed, are necessary.

The equipment should be complete but need not be very extensive. The following are essential—a good, accurate balance for weighing drugs in quantities less than an ounce and a more substantial one for heavier weights; three or four sizes of steel spatulas; a rubber or horn spatula; glass stirring rods; pill tile; glass plate; five or six mortars, assorted; about eight assorted graduates; percolators; infusion pot; thermometer; water-bath; large granite kettle; and two or three smaller granite pans.

The operating room can do the sterilizing that is necessary for our compounding, and the laboratory can supply us with freshly distilled water for sodium citrate solutions for transfusion, and for salvarsan treatment. If the hospital is not equipped with a still in the laboratory, a glass condenser may be used in the pharmacy for preparing small quantities of freshly distilled water. All the smaller utensils may be kept in a drawer in the prescription case, and the larger ones in a cupboard near the sink and prescription case. All used utensils are placed in the sink until there is a pause in the routine work, but an effort should be made to have all utensils cleaned and in their proper place soon after the pharmacist has finished with them. A clean sink adds to the appearance of any drug room.

The stock should be as small as possible without causing delay in filling orders. Keeping the amount invested in stock at a minimum, without creating loss or delay, is as important in the hospital as in the down-town pharmacy. Everything that can be conveniently and economically manufactured should be prepared by the pharmacist. What these items should include depends on the size of the drug room and the laboratory; some can manufacture green soap, compound cresol solution, zinc oxide ointment, others cannot. Most tinctures, elixirs, syrups, etc., should be prepared by the pharmacist.¹

When there is a sudden demand for a new proprietary, as is often the case after a detail man has visited the doctors, I buy that preparation in as small an amount as possible. We should avoid overstocking; no one realizes better than pharmacists that there are fads in medicine.

¹ Here the question of selling preparations made with tax-free alcohol came up. See page 884, November Jour. A. Ph. A.—Editor.

Personal acquaintance with the staff of doctors is necessary for the welfare of the hospital pharmacy. Every doctor has his hobby, particularly the specialists, and we must coöperate with them; I have in mind certain heart specialists, who have found in their study of digitalis that they have better success with Digitalis lutea than with D. purpurea. They also have a preference for the tincture made from leaves grown at our State University. Since the University is not allowed to sell the tincture, I make it from the leaves obtained at the College of Pharmacy. Our doctors have pronounced it a very good preparation. They also prefer a tincture made from Veratrum album to one of V. viride and, since the tincture Veratrum album cannot be purchased through the manufacturer or jobber, I make it for them. The above examples are cited as opportunities for coöperation with the doctors.

Last of all we must be careful about our drug charges to the patient; there is a belief, current among the laity, that higher prices are charged by the hospitals than at retail pharmacies. With this idea in mind, we should have our prices agree with those of nearby pharmacies, and also be careful not to make our charges lower than the current fees, for we should remember that we are closely allied to and really not competitors of retail pharmacists.

HOSPITAL PHARMACY—A PLEA FOR THE FORMATION OF A SPECIAL GROUP WITHIN THE AMERICAN PHARMACEUTICAL ASSOCIATION.*

BY EDWARD SWALLOW.1

When we hear of those good old times of years ago, let us remember the progress made in medicine and surgery and realize on the conditions which now obtain through the efforts of men who were not contented to leave things as they found them.

Hospital pharmacists are professional men in every sense of the word; they occupy the unique position in our profession of not being affected by profits and loss, their business is professional service only, and not concerned with selling problems. They are concerned only in doing the work accurately and conscientiously, so the patient may get the full benefit of the doctor's treatment.

Grave responsibilities rest upon the shoulders of a hospital pharmacist. He must see that the drugs and chemicals he uses arc of the highest quality, and employ methods strictly according to art and science in preparing and compounding them. He is in the "stop, look and listen" attitude of mind all day so that mistakes do not get by him; he must be certain that the hypodermic solutions supplied to the wards are sterile, the Dakin solution absolutely correct and, in fact, everything must be just right or trouble will result.

The physicians attending a hospital would err in their deductions when giving certain treatments if the pharmacist used anything but standard drugs and accuracy in his work. Slip-shod methods are a crime in hospitals, as physicians base their treatment in certain diseases upon the result obtained in the wards of the hospital—

[•] Parts of a paper presented to the Section on Practical Pharmacy and Dispensing, A. Ph. A., New Orleans meeting, 1921.

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