

APPLIED PRINCIPLES OF PROFESSIONAL PHARMACY.*

BY MAX N. LEMBERGER.

Many papers have been read before state and national organizations and numerous articles have been published in professional journals on Pharmacy and the relationship between pharmacist and physician. After careful study of these, many questions naturally present themselves. The most frequent thought is probably, "What is a professional pharmacy?"

A professional pharmacy, as has been variously stated, is that type of pharmacy in which 60 per cent of the volume consists of prescriptions and drug sales, an establishment that promotes a more intimate contact and feeling of interdependence between physician, dentist and pharmacist. It is well to mention here that one must bear in mind that the major support of a professional pharmacy must come from the medical and allied professions.

A professional store can never straddle the fence by attempting to solicit the support of the physician while entering into competition with him by counterprescribing. As pharmacists, we are equipped to prepare medicinal preparations but not to diagnose and practice Medicine.

When the professions coöperate, the pharmacist comes into his true functioning power as an important helper and both physician, dentist and pharmacist are in better position to render an invaluable service to the community. The professional pharmacy offers a trained pharmacist dignified employment and full opportunity to develop his capabilities.

The professional pharmacist realizes the responsibility placed upon him in preparing, compounding and dispensing medicinal products. The commercial aspect is secondary and the honest desire to carry on as a professional man inspires him in his undertaking. His knowledge of the purity and quality of the products dispensed is important both to the physician and to the welfare of the patient. The pharmacist's familiarity with modern remedies, specialties of pharmaceutical manufacturers, the variety of synthetic chemicals and biological products, and his fundamental acquaintance with scientific research, methods of standardization, storage and handling delicate and complex compounds are wonderful factors in establishing complete confidence between pharmacist, allied professions and patient.

The professional pharmacist must continue his studies after leaving college; he finds it helpful to attend pharmaceutical, chemical and allied educational meetings. He must keep abreast of all current professional literature and consequently must maintain a complete file of it and an up-to-date library for quick reference in order to fulfil such specialized demands as are made upon him from time to time.

The stock of a professional pharmacy must be keyed to the prescribing habits of local physicians. It should consist of the newer specialties, vitamin products, allergenic extracts, biologicals, ampuls, chemicals and the usual tinctures and fluid-extracts of the U. S. P. and N. F. sick-room accessories, clinical laboratory,

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¹ 13th Floor, Wells Bldg., Milwaukee, Wis.

equipment and glassware, reagents and stains. With the recognition by the N. F. VI of the importance of these reagents and stains, the pharmacist has reliable authority under which to seek this type of business.

Equipment should be extensive; analytical balance, torsion balance, chemical glassware, beakers, flasks, pipettes and burettes, refrigerator for storage of biologicals and autoclave for preparing special ampul medication and sterile dressings. Many other pieces of equipment might be mentioned which from our experience have been proved to be essential; however, I mention these few to bring my thought of needed equipment to a better and clearer picture.

Personality and individuality are important. Identification of the pharmacy is likewise worthy of much thought and I know of no better expression and advertising than the packaging of prescription products of liquid nature in carton enclosures, and the adoption of distinctively designed boxes and labels. These are silent advertisers and reflect the character of the proprietor, and indicate interest and painstaking precision in prescription preparing.

This all may seem elementary and appear as repetition of dissertations previously read and heard at pharmaceutical conventions and meetings; however, before a presentation of some of the applied practices of professional pharmacy can be given one must first have a clear picture of the type of pharmacies to which these practices are applicable. Therefore with this thought in mind, having first covered this subject in a general manner, I shall endeavor to cover separately some of the most important practices that have proved profitable in their application.

Library and Literature File.—The library should be as extensive as finances permit. Standard reference books, required by law in most states, such as U. S. P. XI, N. F. VI, U. S. Dispensary, New and Nonofficial Remedies, Remington's Practice of Pharmacy, Pharmaceutical Recipe Book, A. PH. A. YEAR BOOKS, Gutman's Encyclopedia of Drugs, Accepted Dental Remedies, Todd and Sanford's Laboratory Methods, Merck's Index and Manual, are all indispensable. The physician soon realizes that any references needed in his practice are available and obtained more conveniently at your store than at the medical library, with a saving of much time.

A literature file in a few years' time will consist of thousands of pieces of descriptive material of specialty products, house organs of pharmaceutical manufacturers' clippings from various medical journals and the *American Medical Association Journal*. Many physicians do not subscribe to this journal because they limit themselves to a particular specialized field of Medicine and feel that journals published covering their special field are ample, but will, however, occasionally hear about some article appearing in the *American Medical Association Journal* and then will interest themselves in the particular journal, and yet are prone to ask fellow practitioners. The AMERICAN PHARMACEUTICAL ASSOCIATION JOURNAL and YEAR BOOK are used equally as much for valuable data, as these books in abstract form usually give the information desired. All of this type of material should bear a rubber stamp stating "from the Library" using the pharmacy's name or title by which known in the community. When more than one piece of the enumerated references are available from your files stamp same with "compliments of," again using the store name, in addition suggesting they file same for

themselves for future reference. All journals should be kept for the current and preceding year, keeping the index numbers for a period of five years or more.

Stock.—Before placing any items on the shelves, a general knowledge of their uses should first be obtained. All efforts should be made to have a round table discussion at regular intervals with all pharmacists employed, so that all will have equal knowledge of any product available for prescription dispensing. Each item should be marked with the date of placing in stock, net cost, physicians' cost and retail selling price. The dating of items promotes excellent stock control and facilitates elimination of slow-moving specialties. One can use his own judgment as to length of time before dropping from inventory. I find a three-month period very practical.

Biological products must be thoroughly understood by every employee, and each package in addition to above marking, can be stamped "reorder from," again using store name. At regular intervals this stock should be checked to avoid stocking of outdated biologicals. Encourage the writing of prescriptions for biological products whether therapeutic or prophylactic, protein extracts, pollen treatment sets and ampul medication; in this manner the patient's appreciation for the individualized service and care the physician renders is greatly enhanced.

Equipment.—This equipment might be classified as the tools of the trade. A mechanic is usually judged by the tools he possesses and the manner and familiarity with which he uses them, so also should the pharmacist be proud to possess the necessary equipment. No greater impression is created with the physician and patient, no greater advertising medium is available than the knowledge and confidence invested in these persons you serve, that you can properly prepare the products demanded in present-day practice. Not only for prescription practice is this expected but also in the preparation of special products such as dilution of Old Tuberculin for the Mantoux test, B. E. Tuberculin for therapeutic use, pollen dilution in various dilutions for treatment, daily pollen counting of pollens prevailing in your city during the principal hay fever season, vanishing creams and protective creams for industrial institutions to mitigate certain skin conditions that may be classed as industrial or occupational, and clinical laboratory for the medical profession to assist in diagnosis of disease.

Other practices which can be put into operation, follow.

Do not permit detailing on your premises, as most physicians prefer an occasional chat other than business, or enjoy a smoke and are likely to use your store for this purpose. This is particularly true of those in office or medical buildings.

Do not hesitate having your dispensing room open for inspection by the physician and the public at any time.

Do not counter prescribe.

Do not discuss the prescription with the patient.

Do not guess at prescription prices; calculate them by using some uniform prescription-pricing schedule.

Do not hesitate to cooperate with the physician when he has in mind improving or preparing some pet medication, or assist him with a compounded preparation that may be primarily experimental.

Do not use medical terms when discussing products with the physician; use pharmaceutical terms.

Do not yourself, or permit your assistants to conduct themselves in any such manner so that professional atmosphere will be destroyed, or reflect on the professional integrity of the store.

In conclusion may I state that each of these practices has been found practical in its application and am confident can readily be applied in any professional pharmacy whose practices should whole-heartedly and sincerely engross a professional atmosphere. The professional pharmacy of to-day has a great responsibility in the program of public health service. With the endorsement of the medical profession, patronage of the public and recognition by the pharmaceutical societies, this type of pharmacy will become more and more recognized as a preferable outlet of pharmaceutical service.

CALCIUM LINOLENATE.*

BY KATHRYN GLENNON.¹

Since the work of G. O. and M. M. Burr, at the University of Minnesota, which clearly discloses that some fats contain indispensable unsaturated fatty acids called Vitamin F, and that linseed oil and lard are characterized by varying yet large amounts of the Vitamin F ingredient, it seemed possible that an entirely new concept could be reached in a better understanding of the pharmacologic action of official lard and official linseed oil used as bases in ointment, liniment and the like.

It will be recalled that they conclusively demonstrated that animals reared on diets free from indispensable unsaturated fatty acids developed typical lesions of the skin which amounted to a dryness and roughness eventuating in eczema; and that the hair and nails similarly suffered dryness, roughness, brittleness and other changes suggesting atrophic disorders. Also, it will be recalled that the administration of exceedingly small amounts of indispensable unsaturated fatty acids, or Vitamin F, could either prevent or cure the lesions in rats subjected to this type of diet.

Lard has been an official ointment base for many years, and a review of the dermatologic literature reveals that much of the standard medication used in the external treatment of certain eczemas has remained the same for the past fifteen or twenty years, excepting that the base, generally lard, has been displaced with petrolatum or one of its many equivalents. Similarly, it would appear that the report of two decades ago clearly suggested far more favorable response to the earlier ointments than is now recorded for the present-day ointment; and since the medication has remained the same, it would seem, in the light of the discovery of the Burrs, that the lessened efficiency of the treatment might probably be ascribed to the change in the ointment base.

With these considerations in mind Dr. Weinstein and I prepared an ointment which had for its principle the blending of the natural lipids of the skin in-

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¹ Pharmacist, Chicago Memorial Hospital, Chicago, Ill.