should make his own chemicals? Is it not just as ridiculous to expect the retailer to make galenicals that require even more complicated and expensive apparatus and more accurate manipulations?

When the question of assay enters into the value of a galenical, is it not better to rely on the expert chemists than to risk the health and even lives of the public by attempting to apply that part of our theoretic knowledge which is so little used that we cannot become expert?

We believe the answers to these questions by practicing pharmacists can be only in the affirmative. If a galenical requires apparatus for making or facilities for assaying or testing that are beyond the reach of the pharmacist, he is justified in purchasing such galenicals from the large manufacturer just as he purchases the alkaloids, and other chemicals.

THE PHYSICIAN AND THE PHARMACIST.*

W. A. PUCKNER.

Physicians need pharmaceutical advisers—those whom they may consult concerning desirable methods of preparing medicines for administration, their incompatibilities and similar questions, upon which it is difficult for physicians to keep posted. During recent years many physicians have been inclined to forsake their corner druggist, because he has been tried and too often found wanting, and have pinned their faith to pharmaceutical manufacturers and promoters of specialties and their detail men. Dependence on the specialty proprietors has, however, been disastrous—so disastrous that well informed physicians will have no more of the detail men.

The recent reports of Council on Pharmacy and Chemistry of the American Medical Association and of the Association's chemical laboratory demonstrate amply that entire dependence cannot be placed on manufacturing pharmacists and their endless assortments of ready-made tablets, elixirs and syrups.

While it has not been the aim of the American Medical Association in its propaganda for honest medicines to specially favor the retail pharmacist and to work in his interests, its publications are such that the retail pharmacist could use a large part of them as arguments that he deserves the confidence of the practicing physician. The recent reports from the Association's chemical laboratory giving the results of examinations of tablets of bismuth, phenol and opium and of certain compound digestive tablets might well be used by the pharmacist as an argument to physicians, that instead of using the thousand and one ready made tablets offered by manufacturers, it would be to the advantage of the physician as well as the patient if, instead, he would prescribe remedies to be put up by the pharmacist. Again, the reasons given by the Council on Pharmacy and Chemistry for not recognizing the chemical substance, quinine arsenate, can be used by the pharmacist as another argument why the physician should write prescriptions. Quinine arsenate, it should be stated, was rejected

^{*}Read at the Meeting of the City of Washington Branch, December 20, 1911.

by the Council because it was held that this compound containing both quinine and arsenic was such that it could not be used in quantity to get an efficient dose of quinine without getting too much arsenic, or if used for its arsenic value, its quinine content was too small to be of any use. Instead, it was suggested that physicians had better combine quinine and arsenic in their prescriptions in the quantities that are adapted to the needs of the individual patients. While quinine arsenate is a definite chemical substance the arguments given against its use will apply to most proprietary mixtures. As another illustration of the possibilities which lie before pharmacists, a recent discussion in the Journal of the American Medical Association regarding the investigation of Ergot preparations carried out by Edmunds and Hale in the Hygienic Laboratory of the United States Public Health and Marine Hospital Service may be taken. This examination showed in the first place that the proprietary preparations of Ergot claimed to be wonderfully reliable, potent and permanent, possessed none of these qualities. The examination further showed that fluidextracts made by different firms, although claimed to have been standardized physiologically, on the other hand did not compare favorably with a fluidextract made in a small way by the authors. It is interesting to note that the Journal of the American Medical Association in commenting on this work editorially, suggested that

"Such results suggest that a reliable pharmacist following the official method may be able to supply the physician with as good preparations as the large manufacturing houses, or even better."

In other words, the editor evidently believes that the time when the pharmacist might with advantage make his own fluidextracts has not passed, even in the case of such a drug as Ergot.

Happily, there are signs that pharmacists are awake to the tendency of the times and are making efforts to devote more attention to the professional side of their profession; and, as a result, there is a tendency on the part of physicians to go back to the old times, and once more get in touch with their druggist. The pharmacist, however, must realize that physicians need real pharmacists as advisers and not druggists, who, while prominent at "get-together dinners" with talk of U. S. P. and N. F. Propaganda, neglect their prescription counters to prepare grewsome "patent medicine" displays and advertising dodges in their front windows.

An illustration that pharmacists do not always appreciate the needs and demands of physicians was given some time ago by an editorial discussion in a drug journal in which was lauded as a shining light, one of the class of druggists who would "work" the doctor as did the detail men in the past. This drug seller decorated his front window with a sign which read:

"IF YOU HAVE NO FAMILY PHYSICIAN, LET US RECOMMEND ONE."

To supply the desired name of the proposed physician to the unwary passer-by who might be attracted by the sign, this seller of drugs placed the name of all doctors in his neighborhood on cards, shuffled them and then "dealt," so to say, "from the top of the deck," when his advice was asked. The drug journal says:

"The list of doctors in the store includes about a score of names and addresses

of efficient physicians residing in the vicinity of the store, and, in recommending them, a system of rotation and alternation is employed. Having recommended one doctor, the clerk crosses off that physician's name, and when the next request for a good physician is made, he selects the doctor whose name appears next on the list."

It appears that the drug seller feels proud of his Paris-like judgment and the drug journal apparently believed that physicians were devoutly thankful for the recommendation thus given. This much may be said of this seller of drugs: His advice is on a par with that which he gives when he recommends a "patent medicine," the composition of which he is ignorant, for a disease that he does not understand.

The plan proposed by this druggist is, of course, an insult to the medical profession, and it is evident that this has been generally appreciated, for the scheme does not appear to have found favor.

I am convinced that physicians fully appreciate the help which pharmacists can give them, and it only remains for the individual pharmacist to go to the individual physician and demonstrate that he is the one that may be relied on. This plan of procedure, I am sure, promises much good both for the pharmacist and the physician, and is my excuse for presenting this thought at this time.

PHYSICAL CONSTANTS OF THE U.S. P.*

G. H. MEEKER, PH. D., LL. D.

The historical and other introductory matter of the eighth revision of the U. S. P., together with the current federal and state pure food and drug legislation and the miscellaneous evidences of collaboration between the federal government and the revision committee, permit us to perceive how the pharmacopoeia has grown from the modest empiric beginning of 1820, then representing the more progressive pharmacologists of the Atlantic seaboard states, to its present position as the official scientific definer of the drug standards for the whole American public.

The present Pharmacopoeia bears internal evidence that the revision committee has spared no pains in endeavoring to produce scientific accuracy throughout; yet improvements can be, and no doubt will be, made in the ninth revision. It is the purpose of the present paper to point out certain important general improvements and some minor specific improvements which, in the author's opinion, should be made with reference to the physico-chemic data of the ninth revision as compared with the eighth revision.

A treatment of the subject, "The Physical Constants of the U. S. P.," would directly or indirectly require the consideration of:

- 1. The fundamental unit of length.
- 2. The fundamental unit of mass.
- 3. Other units related to 1 and 2—especially of volume and mass.

^{*(}Prepared at request of the Scientific Section of the Philadelphia Branch A. Ph. A., and read before that body December 5, 1911.)