## THE PHARMACY OF USEFUL DRUGS.\*

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Soon after the organization of the Council on Pharmacy and Chemistry of the American Medical Association in the early spring of 1905, it became evident that much of the then existing misuse of proprietary remedies was due to the fact that by far the greater number of medical practitioners had received but inadequate instruction regarding the possible uses and limitations of official and other widely used medicines. It was also recognized that with the limited amount of time that could be devoted to materia medica subjects in the already overcrowded curriculum of medical schools, is would be practically impossible to present even a superficial view of the four or five thousand drugs and preparations in every-day use.

As the fundamental object of the Council on Pharmacy and Chemistry is to develop and to foster the intelligent, scientific use of medicinal preparations in the treatment of disease, it became necessary to consider the practicability of bringing about a change in the then existing condition. At the meeting of the American Medical Association in Boston in 1907 the problems involved were discussed and on the recommendation of the Section on Pharmacology and Therapeutics, a subcommittee of the Council was appointed to consider ways and means to bring about more efficient instruction in materia medica subjects. The subcommittee, after due consideration, came to the conclusion that teachers in materia medica subjects in medical schools felt that it was necessary to impart a smattering of information in regard to a large number of medicines and drugs and their preparations because members of State Medical Examining and Licensing Boards were likely to ask questions regarding them. Members of State Medical Examining and Licensing Boards, on the other hand, thought it desirable to ask questions regarding the many thousands of official and nonofficial drugs and preparations because teachers of materia medica subjects referred to them in their lectures and discussed them in their textbooks. From this conclusion it became evident that if the members of State Medical Examining and Licensing Boards could be induced to restrict their examinations in materia medica subjects to a more limited list of articles more time could be devoted to their study. Conversely, if instruction in materia medica subjects could be restricted to the comprehensive consideration of a reasonably limited number of widely used and thoroughly well established articles the student could be given a thorough grounding in the properties and uses of the several drugs and preparations and this would go far toward eliminating many, if not all, of the then existing abuses.

The acceptation of such a list of useful drugs, it was further thought, might '

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serve as an added incentive for the development of international standards for purity and strength of widely used medicaments.

The original list was compiled in co-operation with the Council on Medical Education of the American Medical Association and was subsequently submitted to members of the National Confederation of State Medical Examining and Licensing Boards. It was later submitted to teachers of materia medica and therapeutics in medical schools and to members of State Medical Examining and Licensing Boards, and finally, through the columns of the Journal of the American Medical Association, to medical practitioners generally.

The principles guiding the inclusion of articles in the list of useful drugs were primarily based on the continued extensive use of a drug or preparation, on the reports of clinical experiments as reflected in current literature and on the reports of experimental work done in pharmacologic laboratories and in hospitals equipped with proper laboratory facilities.

Recognizing the influence of current medical literature even when evidently of an advertising nature, the Council has included in the list of useful drugs a number of articles not now included in the Pharmacopæia of the United States or to be included in the revision now in press.

In round numbers the present list of useful drugs includes 450 titles, of which 231 may be classed as drugs and chemicals, 173 as preparations, 43 as definitions of forms of drugs, and 13 as cross references.

As suggested above the list is primarily intended to be educational and to reflect as nearly as is practical the best medical practices of the time. The object is not to restrict teaching in medical schools to this list but to make sure that medical students are given a comprehensive and satisfactory training regarding the properties and uses of the several articles and are duly impressed with their shortcomings and limitations.

It is satisfactory to note in this connection that teachers in medical schools generally have evidenced an appreciation of the need for devoting an additional amount of time to the consideration of the more important medicaments and there is now a fair prospect that future graduates in medicine will be given ample instruction to develop an efficient therapeutic aramentarium.

The pharmacy of this list of useful drugs has as yet not received the care and attention that is properly due it. Pharmacists generally do not appear to realize that much, if not all, of the dissatisfaction with established or well-known drugs is due to the fact that as these drugs reach the patient they are frequently not strictly in accord with the requirements of established standards.

The compilation of data from the reports of State Boards of Health and of State Food and Drug Inspectors, as presented in the several volumes of the "Digest of Comments on the Pharmacopæia of the United States and on the National Formulary," clearly shows that fully 50 percent of the more widely used preparations do not comply within reasonable limits with official requirements. The chemist of the Maine Agricultural Experiment Station in a recent comment on this shortcoming, says in part:

"It is rather startling to find that half of the pharmaceutical preparations examined, which are as simple to make as a batch of biscuit, differ more than 10 percent from the standard."

The object of pharmacy is to exercise control over the identity and purity of articles used as medicine and while it is generally admitted that the average pharmacist cannot well be expected to systematically examine all of the thousands of articles carried in stock, there is practically no reason why he should not concentrate his efforts and ability on the limited number of articles included in the list of useful drugs so as to assure physicians and others that the articles included in this list will uniformly comply with the official requirements.

As noted above the list is intended to include only such drugs and preparations as are in general use or are accepted as having well established medicinal value or demonstrated superiority. The list at the present time includes practically all of the preparations of the Pharmacopæia of the United States for which standards and assay processes are included and also includes practically all of the widely used household remedies that are frequently examined and reported on by officials entrusted with the enforcement of food and drug laws and for these reasons alone pharmacists would do well to consider the practicability of devoting additional attention to the systematic examination and control of the several articles.

With the impending revision of the Pharmacopæia and of the National Formulary, the Council is about to revise the list and teachers in medical schools, members of State Medical Examining and Licensing Boards and others are being consulted at the present time in regard to the practicability or desirability of omitting from and adding to the list of useful drugs.

In this connection it should be remembered that the members of the Council fully realize that individually or as a body they are neither omniscient nor infallible. From its very origin the Council has courted the co-operation and assistance of not alone medical men but also pharmacists.

In the revision of the list under discussion it is particularly important that pharmacists should be given an opportunity to record their criticisms and opinions of the list and its objects and to suggest ways and means for inducing pharmacists generally to prepare and to dispense the preparations included in the list in accord with official requirements.

As has been pointed out before we, in this country, are sadly in need of more energetic and more effective control of all drugs and medicines. The only really safe and efficient control involves honesty, knowledge, intelligence and care on the part of the person dispensing the medicine to the consumer so that unless pharmacists as a class can be induced to devote special attention to the systematic examination and control of drugs and preparations widely used in the treatment of disease, the manufacturers of specialities or proprietaries will continue to have a reasonable argument with which to approach the physician. In conclusion it may be stated that pharmacists as a class may well endeavor to secure for themselves and for their craft the recognition and respect that is properly their due for services rendered but it will be practically impossible to do this unless they collectively and individually insist that all members of their craft live up fully to the requirements that may be reasonably made of them.