EDITORIAL

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THE NEW PHARMACOPŒIA.

THE Eleventh Revision of the United States Pharmacopœia was released for national distribution on December 16, 1935, and will become official on June 1, 1936. It is approximately ten years since the U. S. P. X, which it supersedes, was similarly released (August 15, 1925) and about one hundred and fifteen years since the First Edition of the United States Pharmacopœia was presented to the medical and pharmaceutical professions by Dr. Lyman Spalding. It is proper that we should pause at this time to honor Dr. Spalding. He was a pioneer in the profession he represented, being among the first in this Country to advocate the use of smallpox vaccine. He was an unselfish, wise and skilful leader of men, his vision was nation-wide and his culture and professional skill were reflected in the United States Pharmacopœia of 1820.

It is remarkable that the underlying principles which he developed and incorporated in the Pharmacopœia of 1820 are to-day the fundamental policies of the Pharmacopœia of 1936 and only in the degree to which they have been realized is the new Revision to merit approval.

On the first page of the Preface of the U. S. P. 1820, Dr. Spalding wrote: "It is the object of a Pharmacopœia to select from among substances which possess medicinal power, those, the utility of which is most fully established and best understood."

In the next paragraph he wrote: "The value of a Pharmacopœia depends upon the fidelity with which it conforms to the best state of medical knowledge of the day."

It has been the earnest purpose of the sub-committees of the U. S. P. XI to accomplish exactly this objective, that the Pharmacopœia of to-day might recognize, standardize and provide official titles for the important and approved medicines of 1936. In addition, the National Formulary has been developed to provide formulas and standards for many important preparations. These should reach every therapeutic need of the modern physician.

In one of the letters issued by Dr. Spalding to his colleagues in 1818, urging their participation in the development of a National Pharmacopœia, his appeal was for "Gentlemen willing to act, and men distinguished for their ability and learning." This phrase of his is destined to become classic and is the basic factor if so gigantic a task is to be accomplished with honor and credit.

A review of the long list of those distinguished men of the professions of medicine and pharmacy and of the underlying sciences supporting these professions, will evidence the fact that in the past and also in our generation this standard of excellence has been maintained by those who have carried the burden of Pharmacopœial revision.

The members of both professions believe in these standards for the Pharmacopœia, which are our rich inheritances from the past, and are determined that they shall be maintained in the future.

There are to-day many splendid pharmacists and scientific workers in this field who are conducting researches and contributing their support to the per-

fection of official medicines that the quality of the book may be improved. Their names and activities are being carefully compiled for those who are interested in the future revisions of the Pharmacopœia.—E. FULLERTON COOK.

THE NEW NATIONAL FORMULARY.

THE National Formulary, Sixth Edition, was released for National distribution on December 16, 1935, and will become official June 1,1936. It marks a distinct advance in this country in standardization of medicinal agents and in the contributions of pharmacy to public health.

Fifty years ago, at the Pittsburgh meeting of the AMERICAN PHARMACEUTICAL ASSOCIATION, Charles Rice, as chairman of a committee, presented a proposition for a "National Formulary of Unofficial Preparations" under the auspices of the AMERICAN PHARMACEUTICAL ASSOCIATION. The first edition was published in 1888 under the foregoing title; the second edition was published in 1896, under the chairmanship of C. Lewis Diehl, who continued as chairman of the two succeeding revisions, and the Fifth Edition was published in 1926 under the chairmanship of W. L. Scoville. The history of the National Formulary is included in the text of N. F. VI, together with the "General Principles" followed in the latter edition, Edmund N. Gathercoal, chairman.

The following quotations are from pages 492–499 of the Sixth Edition and indicate the broad scope of revision: "The Chairman of the Committee of Revision of the United States Pharmacopœia was made an associate member of the N. F. Revision Committee. . .The National Dental Association appointed a special associate committee of its members for the consideration of dental formulas, and an associate committee was appointed by the American Veterinary Medical Association for the consideration of veterinary formulas. Thus were established direct contacts with these associations. An associate committee was also appointed by the American Pediatric Society." Officials of the Food and Drug Administration, U. S. Department of Agriculture and several State food and drugs departments gave valuable suggestions and advice.

The outstanding features of the Sixth Edition are summarized:

1. The admission of monographs for drugs and chemicals which are not included in U. S. P. XI or in the N. F. VI.

2. The admission of items on the basis of a definite extent of use in medical practice in the United States.

Four surveys were undertaken: In a survey of 1930, carefully prepared checklists on the extent of use of preparations of N. F. V were returned by 213 prescription pharmacies, 75 hospital pharmacies and 625 drug stores, representing nearly every state in the Union. A similar survey determined the use of a large list of unofficial preparations and a Maryland survey accounted for the number of prescriptions filled annually, showing two prescriptions per inhabitant.

The "Prescription Ingredient Survey" is based on a total of 121,924 prescriptions, the ingredients of which were listed and read by expert pharmacists in New York, Maryland, Missouri and California. On this extensive study it was decided that items to be admitted to the National Formulary must be used in at least 20 per cent of the drug stores in the United States or must be an ingredient in at least

one of each 10,000 prescriptions compounded in the United States. It is thus evident that the recognition of N. F. materia medica is based on the needs of the physicians.

3. Formulas were omitted from many monographs of simple preparations, such as extracts, fluidextracts, ampuls, tablets, etc. Ample directions in detail are included to guide in the manufacture of larger or smaller quantities of the preparation.

4. Extensive developments of ampul and tablet monographs and the section of materials and preparations for diagnostic use are of interest. The Combined Contact Committee of the American Drug Manufacturers' Association and the American Pharmaceutical Manufacturers' Association has rendered helpful services in the ampul and tablet monographs, the tolerance statements and assay processes.

5. A forward step is evidenced by the admission of glandular powders and histological description of them; for their excellence, credit is given to the subcommittee and particularly to Dr. H. W. Youngken for the histological descriptions, which insure adequate means for the determination of their identity and purity.

6. Attention is called to the development and use of many additional assays of the chemical, proximate and biological types. The monographs are arranged alphabetically.

National Formulary VI contains 481 preparations' monographs, and 208 monographs on drugs and chemicals; 232 are new to this edition, 84 are items from U. S.-P. X; the total number of monographs not admitted from N. F. V is 321—of these 246 are monographs of preparations and 75 are monographs of drugs and chemicals.

The last paragraph of the "History of the National Formulary" is quoted in full in closing the brief résumé of the new National Formulary, in which pharmacists may have pride; the medical professions will recognize the work as an essential contribution to their practice, and the Federal and State departments concerned with public health matters, food, drug and narcotic regulations, will value it as a necessary and very helpful service.

"During this period (1888–1935) fluidglycerates, glycerogelatins, mulls, and wines have had their day and have been replaced. Formulas for preparations have steadily decreased in the Pharmacopœia, and a diminishing demand is indicated in the National Formulary. Biological products have replaced some of the old drugs and remedies. The National Formulary now functions under very different conditions and purposes from those which it faced in its beginning."

The chairmen and members of the committees have rendered distinctive services, representing achievement and accomplishment.

ADDICTION LIABILITY OF CODEINE.

Seven men addicted to morphine were stabilized on four daily hypodermic injections of 0.05 to 0.15 Gm. of morphine sulphate over a period of from ten to thirty days. This stability was maintained when codeine was substituted gradually over three days and entirely over the subsequent eight to fourteen days. The average effective substitution dose of codeine was five times that of morphine. After the period of stabilization of codeine the administration was abruptly and completely stopped. The effects of abstinence differed only in the delay of their onset from the results of abrupt morphine deprivation. The subjects were aware of the substitution, and asked for the substituted product after its withdrawal. The author concludes that codeine possesses definite addiction liability.—C. K. HIMMELSBACH (*J. A. M. A.*, 103, 1420).