

tents of this volume, we are convinced that the best interests of pharmacy, as well as of the American Pharmaceutical Association demand that the publication of this work be continued.

Not long ago a well-known pharmaceutical educator declared at one of our State Association meetings that a large proportion of the queries he is called upon to answer for students and pharmacists can be answered most satisfactorily by referring to the Year Book of the A. Ph. A. Those who are familiar with past editions of the Year Book will readily bear out this statement. It is a compliment to both the Reporter on the Progress of Pharmacy and the Association itself.

The 1915 Year Book represents the same high order of work as its predecessors. The abstracts are sufficiently elaborate to convey the gist of articles appearing in the various foreign and American publications, yet they are concise.

For the busy pharmacist who has little time to more than "skip" through his journals as they come in from time to time, the Year Book is an important asset, as the Reporter on the Progress of Pharmacy acts as a "Reading Editor" for him, culling out the essentials from the non-essentials and giving him necessary references in case he wants to look up the originals.

It has been stated that the Year Book is so far behind as to detract from this feature but there were good reasons why the publication was behind and from the present outlook it will not be long before the Year Book will have "caught up" and then even this objection will have been overcome.

For the laboratory worker, teacher and scientist, the book is indispensable and has always been considered so.

In a brief review it is difficult to single out and comment on the many excellent features of this work which deserve extended comment. It will perhaps suffice to say at this point that every member of the A. Ph. A. and many non-members will find information of great value in the Year Book and even a brief perusal

of its contents will convince anyone with an open mind of its great worth.

In conclusion, credit must be given Prof. J. A. Koch, under whose tenure as Reporter on the Progress of Pharmacy much of the work in this volume was completed and to Prof. H. V. Arny, the present Reporter on the Progress of Pharmacy who completed the task but who in the preface modestly assumes credit only for possible errors. It is important for the future of pharmacy that the Year Book of the American Pharmaceutical Association continue to appear.

ROBERT P. FISCHELIS.

*Practice of Pharmacy**. Remington.--- Only by contrasting the past with the present, can one obtain a balanced view of the progress the professions and sciences are making, in the passing along. In this connection, this reviewer well recalls the announcement of the first issue (in 1885) of Professor Remington's great publication, *Practice of Pharmacy*, and the interest it excited in the pharmaceutical world, which so anxiously awaited this contribution to American pharmaceutical literature. With reflective thought, this writer, for contrasting purposes, before attempting his review, sought that old volume, thumb-worn and much stained by laboratory splatterings. As its pages were turned, came the pleasure one experiences when, after an absence of years, one meets an old friend, and yet that publication, so complete in itself at the time of its first appearance in one volume, has been five times revised, each revision being so amplified as to present at the time of issue, the acme of pharmaceutical art. Notwithstanding this, the author, Professor Joseph P. Remington, in the enthusiasm of his profession, was ever on the lookout for opportunities for revision betterments. Searching current literature of the passing day, active in scientific and society problems, ever eager to catch what was best in the passing along, he thus made each successive edition the last word in pharmaceutical advancement. Needless to say, Volume I of the fifth revision,

**The Practice of Pharmacy*. Vol. I, Parts I and II. A Treatise on the Modes of Making and Dispensing Official, Unofficial, and Extemporaneous Preparations, and Descriptions of Medicinal Substances, their Properties, Uses, and Doses. Intended as a Hand-Book for Pharmacists and Physicians, and a Text-Book for Students. Sixth Edition. By Joseph P. Remington, Ph.M., Ph.D., F.C.S., Chairman of the Committee of Revision of the Pharmacopoeia of the United States of America; Dean Professor of Theory and Practice of Pharmacy, and Director of the Pharmaceutical Laboratory, in the Philadelphia College of Pharmacy; Pharmaceutical Editor of the United States Dispensary; Honorary Member of the Pharmaceutical Society of Great Britain, etc. Assisted by E. Fullerton Cook, P.D., Associate Professor of Operative Pharmacy and Instructor in Commercial Pharmacy in the Philadelphia College of Pharmacy; Member of the Committee of Revision of the National Formulary. With over Eight Hundred Illustrations. Published by the J. B. Lippincott Company, Philadelphia. Prices, Volumes I and II, regular Cloth binding, each, \$4.50; complete in one volume, bound in Buckram, \$8.00.

now before us (*Sixth Edition, 1917*), far excels all preceding editions.

Our part is not, however, to linger over Professor Remington's past contributions to the cause of pharmacy (this masterpiece of one friend of old), but to review (the work that is now appearing in two volumes), Volume I of the 1917 edition. In this we find a successful effort both to amplify past subjects, where needed, and to condense those not now important. The first object is accomplished by wisely selected additions and explanations of advances made in pharmaceutical processes, pharmaceutical compounds and pharmaceutical problems, fortified liberally with unofficial formulae; the second by the introduction of condensed tables and classified arrangements, showing at a glance formulas that would otherwise require pages of detail.

Pharmacists will be pleased to find that preparations dismissed from past Pharmacopoeias and yet much prescribed by physicians, are not by Professor Remington considered obsolete, but that, with discriminative selection, he has given proper recognition to such as are important. This is a very essential feature of a work on general pharmacy, because the dismissing of a preparation from the Pharmacopoeia by action of a Committee, neither dismisses it from therapeutic use, nor absolves the pharmacist from its recognition and preparation. Indeed, many preparations dropped from Pharmacopoeias of times gone by (as well as many drugs reported upon adversely by authoritative vote), might well be reintroduced if (as some of us believe), the object of a Pharmacopoeia is to give to the medical and pharmaceutical professions standards that should be at their command, where the object is the preparing of legitimate prescriptions, or a knowledge of the ingredients of a compound that is being prescribed. Professor Remington's revised publication thus especially appeals, as it overcomes many shortcomings in this direction, supplying the needful formulas and processes. We find also in this volume, formulas for making numerous Fluidextracts and other preparations, such as emulsions, that have never been awarded a position in any Pharmacopoeia, but which are ever in more or less demand, through physicians' prescriptions.

Each successive edition of "*Remington's Pharmacy*," as is known to all practical pharmacists, has been prolific in illustrations. This is a much valued feature, for few will deny that illustrations are all-important, the "eye-touch"

being, with many persons, even more effective as an instructor, than the ear. Indeed, what word description could intelligently represent such figures as 327, 327*a*, and 327*b* (pages 242-243), illustrative of the "international disk filter," the "centrifugal filter," and the "centrifugal filter, interior?" The present volume has been much enriched in this direction by the art of Professor Remington's son, Mr. J. Percy Remington, B.S., P.D., whose outline drawings and cuts, a dozen at least, add a feature that will be much appreciated.

Recognizing that the majority of the physicians of America still use (and will long continue to use), quantity expressions of the past, to the neglect of the metric system, the present work gives, in each official formula, parallel amounts, the metric system being expressed in black-face type, the apothecary's system, formerly official (designated as "old form"), being printed in light-face type. Every possessor of the work is thus fortified to prepare these compounds, without resorting to tedious calculations, with connected liability to error. Let us present verbatim from page 566 one such compound, official in the Eighth Edition of the Pharmacopoeia, and much used at the present time:

FLUIDEXTRACTUM APOCYNI. N. F. Fluidextract of Apocynum
[Fluid. Apocyn.]

Apocynum, in No. 30 powder,	Metric 1000 Gm.	Old form 50 oz. av.
Glycerin,		
Alcohol,		
Water, each, a sufficient quantity,		
To make,	1000 mils	3 pils

Prepare a Fluidextract by Type Process B (see page 521), using a mixture of 100 mils [old form 4 fl. oz. 384 minims] of glycerin, 600 mils [old form 28 fl. oz. 384 minims] of alcohol, and 300 mils [old form 14 fl. oz. 192 minims] of water as Menstruum I, and a mixture of 3 volumes of alcohol and 2 volumes of water as Menstruum II.

The term "cubic centimeter (Cc.)," so long in use in chemical and pharmacopoeial practice (officially introduced 1890), has been replaced throughout by the abbreviation "mil" or "ml" (a contraction of the term *milliliter*), this being adopted and authorized by the present (*Ninth*) edition of the *United States Pharmacopoeia*, the *National Formulary*, and the *United States Bureau of Standards*. These terms, however, are but symbolic expressions, without appreciable differences, the *mil* being practically equivalent to the cubic centimeter, the variation being about 1½ minims to the gallon.

One feature of the present edition is a classified development of past arrangements of formulae. See, for example, the tables that include the Syrups (pages 321-325), of the Pharmacopoeia (*Ninth* Edition), the *National Formulary*, and the unofficial syrups, such as *Cascara Aromaticus*, of the *British Pharmacopoeia*.

Where possible, such a class is arranged in the order of "relative strengths." This is important, because, for example, among the Pharmacopoeial Tinctures, the student can at once catch the fact that *Tinctura Opii Camphorata* is of low relative strength, representing but four-tenths of one percent (0.4) of opium, and that, progressively increasing, other tinctures fall in their proper places, till the list closes with *Limonis Corticis*, which represents fifty percent fresh lemon peel. The same arrangement applies to the preparations of the National Formulary, and to the unofficial preparations. Other classes, as Fluidextracts, are classed according to their method of preparation, or their alcoholic strength, while such substances as "Extracts, Pilulae, or Powdered Extracts," are grouped according to the menstruum strength used in their manufacture.

Pages 215 to 219, inclusive, are devoted to the solubility of official substances in water and in alcohol, a feature of immense importance to everyone concerned in medicinal pharmacy and chemistry, which so largely dominates pharmaceutical "compounds," and which, under the headings, "*Colloidal Solutions*" (see pages 220-221), and "*Dialysis*" (pages 266-268), are so aptly described by the author. In this reviewer's opinion, one feature of what is now known as "*Physical Chemistry*" (which includes "*Colloidal Chemistry*") is now opening a door, too long closed, that in the field of legitimate science will give ever-widening opportunities to one concerned in the art of pharmacy.

A comprehensive view of the scope of Volume I of this *Practice of Pharmacy* is afforded by the chapters heading its two great subdivisions: Part I (*Theoretical and Practical Pharmacy*), devoted to theory, methods, apparatus, etc., contains twenty chapters beginning with *Metrology*, and closing with *Percolation*. Part II (*Official Pharmacy*), devoted chiefly to manipulative processes and desirable unofficial products, contains eleven chapters, beginning with "*Aqueous Solutions*," and closing with "*Solid Official Preparations Made without Percolation*."

But enough has been said concerning the principal features of a work that soon will be in the hands of every progressive American pharmacist, physician and student concerned in either pharmacy or medicine. To attempt to enter into discursive details would be to write a volume. Sufficient is it now to an-

nounce that we have here the culmination of the pharmaceutical research of its author, Professor Joseph P. Remington, known world wide, for decades, as a pharmaceutical authority, twice Chairman of the Committee of Revision of the Pharmacopoeia of the United States, ably assisted by his collaborer, Professor E. Fullerton Cook, and by B. A. Heims, who is credited in the Preface as having "given valued assistance in every part of the revision."

From some special viewpoint, an enthusiast might probably desire to see a certain section amplified, or conversely, another section shortened. Perhaps a different view than that presented, might even be held concerning some of the theoretical phases that, presenting two viewpoints, admit of discussion. In every work touching science such opportunities are thus afforded a reviewer to advance his personal opinions on questions that, had the author recorded the opposite of what is presented, would not have prevented adverse criticism. The present reviewer does not propose to indulge such opportunities as these, if any there be, for fault finding, in the direction of this admirable publication.

Briefly, in this reviewer's opinion, Volume I of Remington's "*Practice of Pharmacy*" carries all the features of the past publications embodied in its scope; each section is made complete, where the science and the art of pharmacy has progressed sufficiently to warrant additions; obsolete formulas and processes have been revised or excluded; desirable tables and classified sections have been added; chemical nomenclature and pharmaceutical theories have been brought to date; formulas and processes have, by permission, been included of desirable portions of the text of the U. S. Pharmacopoeia and the National Formulary, etc., etc. The book is one that should undoubtedly be in the hands of every active pharmacist and student, as well as of every progressive physician.

JOHN URI LLOYD.

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