

## PREFACE TO THE TENTH EDITION.

This edition, the tenth, is practically a new book; the former text having been largely re-written, expanded by the introduction of much new matter, and corrected to conform with the recent changes in the U. S. Pharmacopœia. One hundred and thirteen new articles and paragraphs have been inserted, and nearly four hundred articles have been re-written. Material considered obsolete, or of slight comparative importance, has been removed, and a larger page adopted, thus keeping the size of the volume within its former limit. A change of type has greatly improved the appearance of the book.

The new matter includes a List of Incompatibles for each important drug, also articles and paragraphs on Acetozone, Adrenalin, Agurin, Appendicitis, Aspirin, Atoxyl, Barium, Bromipin, Camphoric Acid, Carbon Monoxide, Chlorotone, Cotarnine, Cundurango, Dysentery (Tropical), Echinacea, Enteroclysis, Ethyl Chloride, Euphthalamine, Ferropyrin, Filmaron, Gambir, Hedonal, Iodipin, Kaolin, Mercuriol, Nitrous Oxide, Nutrient Serum, Orexin, Oxalic Acid, Oxycamphor, Sabal, Salts, Scopola, Spinal Sclerosis, Stovaine, Sublamin, Sulphaminol, Taka-diastrase, Tannalbin, Tannocol, Tannoform, Tetranitricin, Theocin, Theocol, Thigenol, Trichloroacetic Acid, Veronal, Yohimbine, and sixty-five other drugs and preparations.

The subjects formerly discussed under the titles Toxins and Antitoxins are now brought together under the title SERA, and their text has been carefully revised. Other re-written articles are those on Acetanilide, Acetphenetidine, Acids, Alkalies, Alkaloids, Aconite, Animal Extracts, Antiseptics, Argentum, Belladonna, Benzoin, Bromides, Caffeine, Calcium, Chloral, Chloroform, Cinchona, Coca, Cuprum, Ergot, Formaldehyde, Gelsemium, Glycerin, Hydrargyrum, Hyoscyamus, Opium, Phenol, Physostigma, Potassium, Salicin, Sulphur, Veratrum; and thirty-six others in the section on Materia Medica; also thirty-four in the section on Pharmacy, and two hundred and ninety-one in the section on Therapeutics. The last-named section has been expanded by the incorporation of many hundred items from current medical literature, and from the author's personal experience.

The nomenclature of the eighth revision of the U. S. Pharmacopœia has been strictly followed in the sections on Materia Medica and Pharmacy, but in the section on Therapeutics the familiar trade-names of some drugs (Salol, Sulphonal, Trional, Urotropin, etc.) have been retained instead of their cumbersome and unfamiliar official titles. Many preparations of the British Pharmacopœia are mentioned.

In preparing this edition the author has earnestly striven to merit the continued favor of teachers, students and practitioners, which favor has been so markedly shown to his book during the nineteen years in which it has been before the medical profession.

SAMUEL O. L. POTTER.

SAN FRANCISCO, CALIFORNIA.

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#### EXTRACTS FROM THE PREFACE TO THE FIRST EDITION.

The author's intention has been to produce a book which would embrace in a single volume the Essentials of practical *Materia Medica* and Therapeutics, treating of each subject in as concise phraseology as possible consistent with the delineation of every important feature. He has also endeavored to formulate such minute and definite directions for the framing of Prescriptions as might elucidate what to many is a very difficult problem. Furthermore, he has tried to present as much information upon the subject of Pharmacy as every physician should possess, in order to handle the implements of his profession with confidence and to direct their use by others with pharmaceutical accuracy.

The complete fulfilment of these aims would be realized if the book should take rank as a working companion to the advanced student and the junior practitioner, and be deemed by them a reliable guide through the forest of observations and experiments on drug actions and uses, which make progress slow for the already over-burdened mind, when ploughing through the more exhaustive and exhausting text-books.

Although this book is essentially a compilation, as all books of its class must be, there will be found in its pages much original matter derived from the writer's own experience in professional life. The arrangement of the matter will be found to be in some respects unique. After full consideration of the many arrangements of the *Materia Medica* in vogue, a modified alphabetical plan was adopted, by which the advantages of the alphabetical order might be retained, while permitting the grouping together of agents which are closely related, physiologically and therapeutically, under the title of the principal member of the class—the chief, as it were, of that particular clan. Thus, under the title *AMYLIS NITRIS* will be found mention also of the Ethyl, Sodium and Potassium Nitrites, and their congener Nitro-glycerin, all of which are closely

allied to the first-named and to each other, in respect of their actions and uses. A very elaborate section on Drug Classification is placed before the *Materia Medica*, in order to supplement such deficiencies in grouping as are inevitable in an alphabetical arrangement.

In detailing the characteristics of an important drug, its physical properties and chemical constituents are first briefly enumerated, then its preparations are described in the official language of the pharmacopœia, usually somewhat abbreviated; any important unofficial preparations are also noted, and the compounds into which it enters are enumerated. Next the physiological action is taken up, its characteristic features being first described; then the actions resulting from an ordinary medicinal dose, next those produced by small doses continued, and finally those from a toxic dose. A concise summary of its therapeutical applications closes the article,—the whole presenting, it is hoped, a clearly defined word-picture of the drug under consideration. Every article and preparation comprised in the last edition of the U. S. Pharmacopœia is fully noticed, while all the prominent unofficial agents receive such mention as their respective importance seems to demand.

The second part of the book is devoted to Pharmacy, and has been written from the standpoint of a conviction that many young practitioners would gladly dispense their own medicines, if provided with a few practical directions on the subject; thereby saving many a dollar from the drug store, preventing in their own practices at least the "renewals" which constitute so bad a feature of modern pharmaceuticals, and gaining for themselves a practical acquaintance with their professional weapons which cannot but make them better physicians and more accurate prescribers. In this section of the book Prescription Writing receives full consideration, and many standard formulæ are given as samples of prescriptions of each kind in extemporaneous use.

In the third part the subject of Special Therapeutics is treated of elaborately, in the form of an alphabetically arranged Index to the treatment of diseases, as laid down by the accepted authorities. Every indication for the use of a drug is referred to its author by his name or initial, and to the most prominent articles are appended a few selected formulæ, to serve as guides to the neophyte in prescribing.

The Appendix contains numerous Tables, comprising diagnostic hints, Latin terms and phrases, formulæ for hypodermic use, and metric equivalents.

The Index has received special attention, from a conviction that, if well made, it is the best part of a good book. Every title, synonym and other reference of importance is included therein, double and treble entries being made in every instance which seemed to require such repetition.

COOPER MEDICAL COLLEGE, SAN FRANCISCO,  
DECEMBER, 1886.

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## EXPLANATION.

For Signs and Abbreviations used, see pages 503 to 515, and page 568.

Average Adult Doses of the U. S. Pharmacopœia, for each drug and preparation, are given in brackets, thus—[av. gr. x.].

Unofficial Synonyms are placed in parentheses after the official synonyms.

Numerals unqualified, under the subtitles *Preparations* in Part I, denote grammes for solids and cubic centimeters for liquids.

## INTRODUCTION.

**Drugs** (*drugan*, to dry),—is a term which was formerly applied to dried medicinal plants, and is still employed by writers and others in that sense. By extension, however, it has been made to cover all material substances used for the treatment of disease, including remedial agents from the animal and mineral kingdoms as well as those belonging to the vegetable kingdom.

**Pharmacology** (*φάρμακον*, a drug, *λόγος*, a discourse),—is the science which treats of drugs and therefore properly embraces in its scope all of materia medica and therapeutics relating to drugs. By some writers this term is employed in a more restricted sense, including only the physiological action of drugs, a subject which is more correctly designated by the word *Pharmacodynamics* (see below).

**Pharmacy** is the name of the art which supplements the science of pharmacology, namely—the art of preparing drugs according to the requirements of the pharmacologist and of dispensing them on the prescriptions of the therapist. It includes a thorough knowledge of the materia medica, an acquaintance with the theories and manipulations of chemistry and an intimate practical experience in many operations peculiar to itself.

**Materia Medica** is the branch of Pharmacology which treats of the substances used as medicines and describes their origin, composition, physical characteristics, chemical properties, modes of preparation and administration, also their physiological and toxicological actions. Two of its divisions are—

**Pharmacodynamics** (*φάρμακον*, a drug, *δύναμις*, power), means the discussion of the physiological action of drugs, which is their modifying power upon the normal physiological activity of the human organism.

**Toxicology** (*τοξικόν*, a poison, *λόγος*, a discourse), describes the effects of drugs administered in poisonous doses, and treats of the antagonists and antidotes by which their effects may be neutralized or the poisons themselves rendered innocuous and removed from the organism.

**Therapeutics** (*θεραπεύειν*, to attend upon), comprises all the science and art of healing, and includes the use of medicines and all other agents and measures which are known to alleviate or cure disease. The operations of Nature herself are properly embraced in the general term Therapeutics, which may be subdivided as follows:—

**NATURAL THERAPEUTICS**, includes the operations of the *Vis Medicatrix Natura*, the healing power of Nature,—those modes and processes of heal-