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ORIGINAL ARTICLES.

THE NEW PHARMACOPŒIA.

Read in the Section on Materia Medica and Pharmacy, at the Forty-fifth Annual Meeting of the American Medical Association, held at San Francisco, June 5-8, 1894.

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The wide-spread interest in the last revision of the United States Pharmacopœia, both in this country and abroad, and the fact that the AMERICAN MEDICAL ASSOCIATION and the American Pharmaceutical Association are especially represented in the Decennial Convention for revising the book, seem to be good reasons for the presentation in this Section of certain information regarding the work which may be of especial interest to physicians. The Convention which met in Washington on May 7, 1890, was by far the largest and most representative body ever assembled for the purpose of revising a National work of this character. All incorporated universities, medical and pharmaceutic colleges, medical and pharmaceutic State Associations and bodies connected with both professions with the United States Army, Navy and Marine-Hospital Service sent delegates to prove the interest which existed in providing a representative and authoritative guide for the selection and preparation of the armamentarium of the physician. The most important change recommended by the Convention was the entire abandonment of the antiquated, confused and unscientific system of weights and measures which has harassed the souls of pharmacists and physicians for centuries, and the acceptance of the metric system with the principle now thoroughly established in English-speaking countries of weighing solids and measuring liquids. This change received the almost unanimous vote of the Convention; the previous convention having largely paved the way for the action by adopting the principle of parts by weight in the Pharmacopœia of 1880. The fears that many expressed at the time, that the Pharmacopœia would not be accepted by pharmacists because of the introduction of the metric system have fortunately not been realized; there have been up to this time many more of the books disposed of than in any previous revision, and every day witnesses an increase in the number of pharmacists using the metric system in making preparations. There can be no question of the ultimate acceptance of the metric system, for its simplicity, conciseness and freedom from confusing characters must finally win the support of all.

The action of the Convention in excluding from the book those synthetic remedies which can not be produced otherwise than under patented process, or which are protected by proprietary rights has been probably more criticised from a medical point of view than any other.

It is difficult to convince those not engaged in commercial pursuits and not understanding the principle involved, of the evils which would follow if official sanction were bestowed on the immense number of remedies now exploited, and at present in favor with the medical profession. America has proved easy prey for the synthetic operations of European chemists who have flooded the country with their products which in many cases have realized enormous profits to the monopolies controlling them. One of the principal objects of a Pharmacopœia is to establish standards, to prove the identity and purity of the substances admitted; in order to make such operative, it is necessary to have more than one source of supply or manufacture. The manufacturer controlling a specialty is a law unto himself and can change the standard of purity of his product whenever he wishes. If the Pharmacopœia were to admit a proprietary remedy, and fix a standard of purity for it, and the manufacturer to suit any purpose that he might have in his mind chose to market an inferior product, no redress whatever could be secured. With all other remedies not so controlled, a preparation not conforming to the official standard may be rejected and a purchaser can buy a better article from other sources, but in the case of patented or proprietary substances the maker's authority is greater than that of the Pharmacopœia, and it would be a case of "take what I give you, or go without." If the Pharmacopœia of 1890 had given its official sanction to 50 synthetic remedies in common use, the Pharmacopœia of 1900 would probably have to admit 500 of equal standing, owing to the precedent having been established. Those who use proprietary specialties must take them on the *ipse dixit* of the maker, and stand or fall by what he chooses to give them.

The new Pharmacopœia contains now nearly 1,000 articles, 92 which were previously official having been dismissed, while 89 new ones have been introduced; the duty of deciding the admission and dismissals devolved upon the members of the committee who were physicians, it being the opinion of the general committee that they were the best judges of the relative importance and value of the various remedies in common use, while the pharmacists were better able to establish the standard of purity and contrive the formulas for the various preparations of the drugs which the physicians had selected. It will be readily conjectured that it was no easy task to determine upon the articles to be admitted and place the ban upon others which the march of progress had doomed to dismissal. To aid them in arriving at just conclusions, reports had been presented to the previous committee from various parts of the country, and from a number of incorporated medical and pharmaceutic bodies throughout the United States, and although a criticism like this is occasionally heard from a physician: "I never used in my life such

and such an article," it will undoubtedly be found that the substance in question is placed in the Pharmacopœia because it was shown to have been in demand in some part of the country; and the name on the title page of the book: "The Pharmacopœia of the United States of America" must be constantly borne in mind, for if this title is to be justified it must represent the demands of the whole country and not those of one particular section.

The history of the remedies in common use would, if written, contribute many pages of interest to members of both professions; many galenical preparations, for instance, trace their origin from some favored prescription of a well-known practitioner. A particular combination of remedies proving valuable to a physician is communicated to some of his friends and before long it has a local reputation; in time this extends beyond the city or town and it may, before its life-work is over, enjoy the distinction of admission to the National authority. Having been accepted in this way, it must not be supposed that its time of probation is over; it can not be said of it, in the language of the poet-laureate:

"Men may come and men may go,
But I go on forever."

A preparation remains in the Pharmacopœia only as long as it proves useful and until it is displaced by something better, but it often happens that preparations which have been of great service in the past and have been replaced in the more progressive centers of therapeutic knowledge can not be safely dismissed from the Pharmacopœia because of their extensive use in other parts of the country, which have not yet thrown off the old and taken up the new. These considerations must be taken into account before condemning the admissions or rejections. It is not within the scope of this paper to refer to that portion of the revision which especially concerns pharmacists, yet even a cursory examination of the work would indicate the amount of labor expended upon the chemical descriptions, assays, the experimental work upon the strictly pharmaceutical preparations and the botanic researches. The committee have been guided by a conservatism which, while holding fast to the proved and the true, has not been so obstructive as to prevent the acceptance of progressive subjects where these were justified by results.

It will doubtless be a source of congratulation to the members of this Section to know that financially the work has been equally successful, the plan of having the committee publish the work at its own expense, and then putting the price at as low a figure as could be afforded has had the effect of largely increasing the use of the book, and a sufficient balance has been left in the hands of the committee to expend for research work and for settling a number of mooted points for the next revision.

In concluding this brief summing up of the work performed in the revision of the last Pharmacopœia, it will not escape the observation of the members of this Section that the successful character of the work which has been done proves the necessity for the continued effort of those who have been laboring for years for closer scientific and professional relations between physicians and pharmacists; during the whole time of revision entire harmony has existed; the opinion of the majority has always prevailed, but the minority have always been given a respectful hearing and, in almost every case, after

thorough consideration was given a subject under discussion the minority cheerfully joined the majority. If such results proceed from the work of a committee, composed almost equally of physicians and pharmacists in a work of this important character, the question may be most pertinently asked: Why can not physicians and pharmacists solve in the future the many perplexing problems which confront both professions, by adopting the methods used in the revision of the Pharmacopœia of the United States of America?

THERAPEUTIC ACTION OF POTASSIUM PERMANGANATE.

Read in the Section on Materia Medica and Pharmacy, at the Forty-fifth Annual Meeting of the American Medical Association, held at San Francisco, June 5-8, 1894.

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In bringing this subject before the Section it is not the object or aim of this paper to consider the relative value of this salt, but to present a summary of how we stand in regard to the advantage which may be derived from the application of it to the cure of disease. Singleness of action in a drug is as valuable as singleness of purpose in a man. The profession has become tired of empiricism; it is anxious to know the pathology of disease, because its therapeutics can then become rational.

Permanganate of potash is, as you all know, a dark purple prismatic crystal, freely soluble in water, forming a rich purple solution. It is often objected that permanganate of potash is so quickly decomposed on coming in contact with organic matter that its action is feeble and transitory; this objection can not be maintained, as in reality a very definite influence is exerted on the blood. When it is injected locally for the bite of a venomous serpent the poison is destroyed by a process of oxidation. Given internally in small doses, say two or three grains, well diluted, it exerts no irritating effect on the mucous membrane of the stomach, but if administered in a large dose, or in a concentrated form it produces local heat and a sense of burning pain. It was once stated that it can not act beyond the stomach, because its oxygen must then be appropriated by the organic matter contained in that viscus, but there is good evidence that it does produce a marked systemic effect. The investigations of Binz, of Berlin, and others, have cleared the matter up. Binz, in personally experimenting on the action of this salt, found his respiration deeper and easier, and a general feeling of well-being and exhilaration after medicinal doses, and attributes them to the liberation of nascent oxygen, or rather ozone, during its decomposition. Sydney Ringer and others have shown by their writings, the stimulating powers of this salt. In amenorrhea, due to deficient activities, it promotes the function in a very remarkable degree. It is best adapted for those cases characterized by torpor and anemia.

Dr. Robert Bartholow, in his excellent clinical lecture some years ago, finds as the result of a large practical experience, that it is best given in the form of compressed tablets without any excipient. A small dose repeated at short intervals, a grain or two every half-hour until four to six grains have been