

derlying cause of sectarianism in medicine, just as theology results in sectarianism in religion. It results in making faces one at another, condemning those who differ in opinion and praising those of like notion. It is, therefore, particularly refreshing to hear a paper read that contributes knowledge and fact. It leaves with the individual the exercise of free thought and is written in the best manner possible to apply this to presenting conditions. Dr. Beates said that when he hears of a person advocating some concoction, when he does not know what it may represent, and is prompted by the statements of a representative to employ it, from the point of view of therapeutics, he feels that such men are subversive to scientific progress. Exceptional results by no means establish a principle. A gentleman remarked, he continued, that because an experiment on dogs conducted with a view of proving the antidotal power of permanganate of potash proved negative, his belief was upset in the efficacy of physiologic investigation; and when this same gentleman belittled physiologic research and vivisection, Dr. Beates could not help but remember that, if he is not mistaken, the canine species can without any toxic effects indulge in quantities of morphia that would kill many individuals of the human race, and that, therefore, a statement affirmed on such premises is scientifically without any value whatsoever, indeed, positively pernicious, because it appeals to the sentimental side of those who, in ignorance, do not know to what degree they are obligated to the wonderful disclosures and discoveries of scientific truth, which vivisection alone supplies.

If a body of scientific men will adhere exclusively to presenting papers that deal with facts and fundamental principles, intelligently and scientifically demonstrated, and not endeavor to claim that with a dose of castor oil, or what not, the wonderful ego can do something that Drs. A, B and C can not do, and then avoid mistaking the Xs and Ys in the proposition, we will progress more rapidly than we otherwise can do. Such a spirit of convention, Dr. Beates said, will avoid the indulgence in invective, invidious distinction and the class of mental perturbation, which should be foreign to broad-minded, scientific bodies. Physicians will learn to conform with the stern facts of existence and definitely established laws. They will then acquire knowledge that can be utilized in many pursuits in life in which the physician is an active factor. In Pennsylvania, this year, opposition to progressive medical legislation, having in view the well-recognized corrective necessities on which laws depend, was successfully interposed by effort of the sectarians and that class who lack in knowledge of fundamental principles and scientific fact, as the weather vane is swayed and points to every breeze that wafts across its surface.

DR. GEORGE F. BUTLER, Chicago, has obtained results from hydragris and considers it a good drug. It may, he said, prove of but little value in some men's hands and of great value in the hands of others.

DR. ROBERT A. HATCHER, New York City, felt that Dr. Williams' paper affords an admirable illustration of the fact that there are certain drugs which should be expunged from the Pharmacopeia until we have more knowledge of their value.

Diagnostic Importance of Cutaneous Reaction to Tuberculin.
—Since C. von Pirquet announced last May his *Allergie* test, as he calls it, numerous communications have been published abroad on this subject of the skin reaction to tuberculin. He relates in the *Wien. klin. Wochschr.*, September 19, his experience in 100 cases in which the clinical findings were supplemented by autopsy. During the final stage the cutaneous reaction was generally negative, but in the 31 cases of clinical and in 1 of suspected tuberculosis, the cutaneous reaction was positive, while it was constantly negative in the 52 cases in which no tuberculous lesions could be discovered at autopsy. In some cases in which the lesion was very small, the cutaneous reaction was not positive until the test was repeated. His cases were all in children from 6 months to 13 years old. The test can be made more sensitive by reducing the concentration of the tuberculin, from 25 to 10 per cent. The former strength is liable to rouse up even old and inactive foci, while a weaker dilution will reveal only recent and active lesions.

THE UNITED STATES PHARMACOPEIA.*

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It is not my present purpose to add to the many reviews or criticisms of the Pharmacopeia, but to call attention to two conditions, hoping that steps may be taken by this Section looking to their improvement.

The first is the general loss of interest on the part of physicians in the revision of the Pharmacopeia. The Pharmacopeia was called into being by physicians in 1820, and in 1850 pharmacists were admitted to the convention; since then physicians have gradually relinquished control to pharmacists, and to-day we are confronted with an anomalous condition, in that the committee of revision of 1900, consisting of twenty-five men, numbered nineteen pharmacists or men identified with pharmaceutical institutions, and but six whose interests were entirely with medicine. For example, Dr. Squibb was almost universally known as a manufacturing pharmacist. Only ten members of the committee of revision had the title of M.D.

This condition is not creditable to the medical profession, for it is obviously not the province of pharmacists to decide for physicians what remedies they are to use.

I do not think it is generally realized to how great an extent the medical profession has neglected its manifest obligations in connection with the Pharmacopeia, leaving the work almost wholly to pharmacists. Less than half the states had medical delegates accredited to the Pharmacopeial convention in 1900. Six states named pharmaceutical, but no medical, delegates. Ohio had three medical delegates and New Jersey had one, accredited, but not one from either state attended the convention. Besides these two great states and many of less importance, Iowa, Virginia and North Carolina were wholly without medical representation in that convention, and the following states each had but a single medical delegate: Missouri and Indiana, the fifth and sixth states in the Union in population and importance (Dr. Whelpley's interests are mainly pharmaceutical), Georgia, Minnesota, Connecticut, Nebraska, Kentucky, Tennessee and Wisconsin.

In contrast with this showing it may be mentioned that the pharmaceutical organizations of New York named twenty delegates and those of Ohio named fifteen. From these figures one may gain some idea of the preponderance of pharmaceutical over medical influence in that convention.

So far from finding fault with the pharmacists for this condition of affairs, I think their spirit is worthy of emulation, and I think they may point with pride to their share of the work. It is with the members of our own profession that the blame rests for this condition.

The second point to which I wish to draw attention is the want of a genuinely progressive spirit in the matter of admissions and dismissals. A very important object of the Pharmacopeia is to provide an authoritative list of remedial agents. It should represent all that is best in therapeutics. In order that the Pharmacopeia should command the respect of physicians in the highest degree and secure the earnest support of the leading

* Read in the Section on Pharmacology and Therapeutics of the American Medical Association, at the Fifty-eighth Annual Session, held at Atlantic City, June, 1907.

men of the profession it should, so far as possible, embrace every non-secret medicinal agent of unquestioned merit, regardless of its nature, while every article of doubtful value should be dismissed.

It is hardly necessary for me to add in this connection that I do not advocate the admission of every astringent, nauseant, diuretic, cathartic and bitter, but only of those of each type which possess distinct advantage over others in some particular condition.

If we can rid the book of all useless material and fill it with all that is best, and only the best, and maintain it at that high standard of excellence, it must inevitably command the admiration and enthusiastic support of the ablest men in the profession. For, while I recognize its imperfections and shortcomings, it seems to me that the greatest need at the present time is a strictly progressive attitude toward the question of admissions.

I shall not soon forget the fine contempt and scorn with which one of the most respected practitioners of New York—a firm supporter of the Pharmacopeia and one but little given to prescribing unofficial remedies—spoke of the admission of an “imitation of antikamnia.” Is there any one in this audience who will maintain that antikamnia represented a distinct advance in therapeutics? If it did not, the best excuse for its imitation by the Pharmacopeia is still only a very poor excuse.

Is there a physician worthy of his degree who is unable to write a prescription for acetanilid and caffeine? Doubtless the inclusion of this imitation antikamnia aroused the enthusiasm of many whose therapeutics are taken from the wrappers of nostrums or some manufacturer's pocket therapeutics, but for each friend so gained it lost the respect, to that extent, of such a man as the one to whom I have referred, and the good opinion of one such man is better for the cause of permanent progress than is the enthusiasm of a host of the other kind.

While this compound acetanilid powder represents the most objectionable of the admissions to the Pharmacopeia, there is another type, the elimination of which will cause much greater opposition—I refer to the many hoary representatives of obsolete or useless substances which have been retained wholly out of deference to the sentiments of a goodly number of very respectable, but not progressive, practitioners who use the remedies which their honored preceptors used before them without any definite idea of just what they expect to accomplish thereby.

The representatives of this class of substances are so numerous that I fear to mention one member lest every one present should name a better (or worse), but sarsaparilla, syrup of lactucarium, cannabis Indica and its preparations, lappa and calendula, may be cited as examples. There are numerous official substances which are not even mentioned by the standard text-books on therapeutics and pharmacology. I should be glad to have a clear and concise exposition of the pharmacology of the compound syrup of hypophosphites.

It has been argued with much reason that it was necessary to have an authoritative standard for many articles in domestic use; this argument has lost much of its force, so far as it applies to the Pharmacopeia, since the National Formulary has been clothed with legal authority, and that work should relieve the Pharmacopeia of this hindrance to its upward progress.

Another strong argument used in support of the retention of many substances which the committee of revision would hardly commend individually is based on

the wishes and sentiments of many men of a great diversity of interests, education and ideas.

If we are to strive only for the best we shall be forced to do some violence to the ideas of those who, through sloth, incompetence or misfortune, are unable to keep step with the march of therapeutic progress.

It is true that the Pharmacopeia must serve a diversity of interests, all of which are represented in the direction of its affairs, but with the spread of scientific training we are coming to a better appreciation of the fact that independence is not incompatible with deference to the opinions of those better informed than ourselves, and with each revision we should approach nearer to the ideal.

With the progress of this idea it will be increasingly improbable that a substance shall be admitted to the Pharmacopeia before it has been carefully considered by competent pharmacologists and clinicians.

If we accept rational progressive therapeutics as the touchstone by which we are to decide all questions concerning admissions to the Pharmacopeia, it will be comparatively easy to eliminate most of the dead matter, and it will aid in the selection of all that represents actual progress in therapeutics.

It is imperative that effective provisions, not mere authorization, be made for additions as fast as new remedies are proved beyond reasonable doubt to possess actual merit, for more progress is now possible in one year than was made in the ten years from 1820 to 1830.

It is of almost equal importance that an official article which has been superseded by a manifestly better one should be dismissed. This would serve notice to the practitioner that the article in question had failed to measure up to the standard of the best then in vogue. There are not many who would prefer to employ a remedy so discredited if the merits of the Pharmacopeia were more generally esteemed.

Physicians will employ whatever appears useful to them, but at present we have no legally authorized guide in the matter of very many agents, and amid all the misrepresentations there is little cause for wonder that the physician should be duped occasionally, but it is remarkable how systematically, persistently and amazingly he allows himself to be cheated, humbugged and even disgraced by the wily swindlers.

If such a thoroughly progressive policy should be adopted it would place a greater burden of responsibility on the committee of revision, for on the wisdom which that committee displayed would depend the use of Pharmacopeial substances instead of the most skilfully vaunted nostrums.

Should that committee not be progressive it would leave the door wide open in the future, as it has been in the past, for the introduction of a host of compounds for each new substance which might come into deserved notice. Thus the early admission of urotropin would have done much to prevent the flooding of the market with the same product under a variety of names which added much to the confusion of the nostrum-guided practitioner.

If, on the other hand, there is not painstaking care and wisdom displayed in the selection of substances to be admitted, the good opinion of the ablest men in medicine will be forfeited.

This is exemplified by what has been said with regard to compound acetanilid powder. This also illustrates the type which has served its doubtful purpose and should now be promptly dismissed.

So great would be the responsibilities of the therapeutic committee charged with this duty that it would be necessary to have a number of men of great ability, breadth of view and undoubted integrity who could give much time to the subject, for it must be conceded that in the effort to keep the Pharmacopeia in the van of therapeutic progress the way would be left open for great scandal if the men charged with this duty were not above the least suspicion either as to personal integrity or the faithful and painstaking performance of exacting obligations.

Medical education is making such rapid strides that we have every reason to demand a higher standard of usefulness for the articles to be admitted to the next Pharmacopeia.

There are at present several well known pharmacologic laboratories in operation in charge of such men as Abel and Sollmann, and there is no excuse for the clinical use of new agents before they have been thoroughly tested on animals, and the evidence is not lacking that this branch of medical research will make considerable progress in the near future.

The great medical colleges, with their ample hospital facilities, are making strenuous efforts to secure capable clinicians—men trained to accurate observation—and their work, supplementing that of pharmacologists, can not fail, in the vast majority of cases, to possess advantages over that of the man in private practice not nearly so well situated for controlling his patients and not usually so well trained in accurate observation.

We should look to men with such advantages—clinicians and pharmacologists—for guidance in the choice of the official materia medica, rather than to the preponderating numbers entitled to representation in the Pharmacopeial convention, if we are to place the Pharmacopeia in the forefront of therapeutics.

The committee of revision was empowered to secure expert advice in matters pertaining to chemistry, and there is every reason why this policy should be so extended as to embrace the results of pharmacologic and clinical research, for many clinicians and laboratory workers are deterred from investigating proprietary remedies by the fact that notorious methods are so commonly pursued by nostrum makers in securing pharmacologic and clinical reports. I may recall to your minds the exposure¹ in *THE JOURNAL* of the American Medical Association of recent date of the pretended clinical study of Gude's pepto-mangan in anemia by Mateo M. Guillen at the City Hospital on Randall's Island.

Fortunately for all interests concerned (except those of the nostrum maker) the reaction against the truly disgraceful condition which has prevailed in therapeutics, and which had grown steadily and rapidly worse, has resulted in the awakening of physicians to the importance of the Pharmacopeia, and it is becoming much better known to the medical profession. Owing to this increasing interest in, and popularity of, the Pharmacopeia there should be a large sum available for research in the preparation of the next revision, and it may be considered as certain that any expenditure in that direction will yield a return many times greater than the expense incurred.

If the reaction is to gain impetus we must arouse in physicians a livelier sense of responsibility in the matter of revision. This was argued by Mr. Wilbert in a paper²

presented to this Section a year ago, and I can do no better than to reiterate what he said then.

It must come to be considered a distinction, a privilege and a duty on the part of delegates to be present and to participate actively in the deliberations of the Pharmacopeial convention.

That this has not been true in the past is shown by what has already been said and by the fact that of the physicians actually named as delegates to the convention in 1900 more than fifty failed to attend. Indeed, it may be safely stated that less than one-tenth as many medical delegates participated in the deliberations as would have been eligible had a proper interest been aroused.

This Section and its officers can not escape just censure if no steps are taken to prevent such a wholesale neglect of duty on the part of pharmacologists, at least at the time of the next convention.

Despite all of this indifference on the part of physicians, many of whom know practically nothing of the Pharmacopeia, its origin and its many excellent features, we constantly hear them sneer at its imperfections.

The American Medical Association can use its vast influence to no better purpose than in getting the best men in medical circles to give heed to the claims of the Pharmacopeia on their interest and their efforts. Then, and only then, will it cease to be the fashion to sneer at the defects of the work—but rather will it be held in the highest esteem as representing the best in medical, even as it does now in pharmaceutical, circles.

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DISCUSSION.*

DR. J. P. REMINGTON, Philadelphia, thinks that every one will admit that the medical profession has been grossly negligent of its duties in the past, although the physicians who were members of the Committee of Revision of the Pharmacopeia did their duty. He said that it is a common thing nowadays to "take it out of the Pharmacopeia." If any man wants a subject for discussion, and one which he can hit with safety, there is always the Pharmacopeia. The authors of the papers, he said, failed to make any definite charges; they were condemnatory in only a general way: "The names are too long; the average doses are good for nothing; the work is ancient and antiquated, and it pleases but a very few physicians; the compound syrup of hypophosphites is an abomination; physicians do not buy or use it," and so on. Dr. Remington quoted one of the speakers as having said that there were nineteen pharmacists and six physicians on the committee. As a matter of fact, some of the men on the committee were pharmacists who were also graduates in medicine so that the number of physicians and pharmacists was almost the same. Dr. Remington also emphasized the fact that the United States Pharmacopeia is made for the United States of North America. It is more important that the Pharmacopeia be recognized as an authority and used by the country doctor who is not a professor in a medical college, than by a professor in a college, because the professor knows more of the study of pharmacology than the country doctor. Physicians, he said, want a preparation on which they can depend, and of which they know the ingredients. They want something which is non-secret. By placing tables of incompatibles after each article the Pharmacopeia, he asserted, would be larger than the dispensatory.

DR. WARREN B. HILL, Milwaukee, Wis., a member of the 1900 Committee of Revision of the Pharmacopeia, said that some doctors on the committee were eloquent, but the pharmacists would not heed them because they were doctors. The medical men are so outnumbered that anything they had to say was absolutely useless. Dr. Hill said that he himself had the temerity to say that he wanted to show the committee what

1. *THE JOURNAL*, April 6, 1907, p. 1197.

2. *THE JOURNAL*, Dec. 15, 1906, p. 1989.

* This discussion, which took place after the article by Dr. Hatcher, has more or less reference also to the four papers read previously (by Drs. Wood, Remington, Hallberg and Osborne).

the doctors needed, and he was told: "We don't care what the doctors need. This is a book made by the druggists for the druggists and we don't care what the doctors need." This alteration was expunged from the records. Dr. Hill urged that physicians be stimulated to greater interest in the Pharmacopeia. Medical societies do not know the importance of representation. By sending good delegates from each state and society to the next convention, it may be possible to influence the druggists. A matter to be considered, however, is whether the Pharmacopeia should be a little book—a text-book, as it were—for the use of the doctor and the medical student, or a larger book, one to be used only as a reference book. Dr. Hill believes that it should be a large book, a reference book, one that could be used anywhere. That would be the kind of Pharmacopeia best adapted to the needs of the country, and, then, by making a syllabus or brief of it, the other purpose might be carried out also.

Dr. WILLIAM J. ROBINSON, New York City, said that he long ago concluded that 99 per cent. of all quarrels and disagreements originate in misunderstandings. And this, he thinks, is well illustrated by what Professor Remington said, because if he had listened carefully to the report of the committee, he would not have made the statements he did. Dr. Robinson said that there is no desire to make a smaller Pharmacopeia for the pharmacist. So far as the pharmacist is concerned, the Pharmacopeia may be as big as the dispensatory; but it should be made more attractive to the physician, more available for his uses. The physician is not interested in the process for making spirit of nitrous ether; he does not care to know the assayed process for determining the amount of strychnin and extract of nux vomica in the crude drug, nor does he care to know how to detect impurities in various chemical salts. All this is entirely out of his sphere. What he does care to know is the general appearance of the drug or chemical, its solubility, its average dose, its antidotes, and its most common incompatibilities. And this is what the Pharmacopeia should give to the physician. If one book will not do for both pharmacist and physician, then a special abstract should be made for the physician's use.

Dr. OLIVER T. OSBORNE, New Haven, Conn., thought the points made by Dr. Robinson were well taken. As to members on the Committee of Revision, he said that the mere title of M.D. has nothing to do with it. It is practicing physicians that are wanted. The question is, What is the man doing with his M.D.? If he is connected with a pharmaceutical concern he is not in practice. Dr. Osborne commended the report received from Professor Remington from the Pharmaceutical Association.

Dr. HENRY R. SLACK, La Grange, Ga., feared that Dr. Hill created a wrong impression by not qualifying his statement. The discussion, he said, was on the question of doses and whether medicinal properties should be mentioned in the Pharmacopeia. A professor of chemistry in one of the colleges stated that the object of the Pharmacopeia was to furnish the pharmacist with a book by which he could make his drugs and test them, and that it was not intended to teach therapeutics and materia medica to the medical profession. It was not intended to be a treatise on therapeutics. To say that the physicians had no voice in this, Dr. Slack said, is not exactly correct, because no man wielded a greater influence in that convention than Dr. H. C. Wood of Philadelphia.

Dr. GEORGE F. BUTLER, Chicago, said that the Pharmacopeia is not intended for any other purpose than to furnish a reliable authority for the purity of drugs and the proper preparation of pharmaceuticals. It is not so much a book for doctors as for druggists. When a certain remedy is prescribed it must be pure and properly prepared. The Pharmacopeia is chiefly a recipe book for the druggist, and never can be anything else. Dr. Butler agreed with Dr. Hatcher that all drugs should be tested pharmacologically on animals, but the results should be corroborated on sick human beings. The mere fact that a drug produces a certain action on a dog is no reason why it should produce such an effect on a sick person. It is, after all, the remedies doctors have used clinically, and from which they have derived good results that should find a place in the Pharmacopeia.

Dr. H. G. PIFFARD, New York City, one of the members of the Committee of Revision of 1880, said that the discussion so far is almost a repetition of the discussion which occurred at the meeting of the Committee of Revision for 1880. He was chairman of the subcommittee on titles. After a year's labor a report was agreed on. More than two-thirds of the report was cut out by the action of the pharmacists led by Dr. Squibb. Dr. Charles Rice, he thought, stated the matter clearly when he said that the doctors should say what kind of drugs they want and the pharmacists should decide the best means of preparing them.

Dr. J. J. TAYLOR, Philadelphia, called attention to the three drugs which Dr. Hatcher would exclude from the Pharmacopeia. One of them was cannabis indica. He felt that the practicing physician would be willing to drop everything official, if he could but have cannabis indica. Cannabis indica is probably dearer to the heart of the doctor than to that of the pharmacist, because of the extreme pharmaceutical difficulties in its manipulation. The crux of the matter is, he continued, that the physician who has been in practice a number of years, when he takes up the Pharmacopeia and finds that the majority of his favorite drugs are out of it, has but little, if any, further use for the book. So that, in his opinion, the drugs we have been accustomed to using with good results should with great hesitation be eliminated from the list.

Dr. M. CLAYTON THRUSH, Philadelphia, said that it must be remembered that the Pharmacopeia was never intended to be a text-book. It is simply a standard for the identification and purity of certain medicinal products. It is the Pharmacopeia of the whole United States, and no matter how many preparations are added, it will not please everyone. It is impossible to satisfy all, for what is popular in one section of the country is practically obsolete in another. The committee is trying to adopt preparations that will satisfy the majority of the profession. Dr. Thrush commended Dr. Osborne's suggestion, that when the next committee meets, there should be on it an equal number of physicians and druggists. It is the physician's duty, he said, to select the preparation he prescribes, and it is the pharmacist's duty to prepare it.

Mr. M. I. WILBERT, Philadelphia, asked why, if the Pharmacopeia is the Pharmacopeia of the United States, should it not be restricted to drugs that are used in the United States, and why should it include drugs used only in one particular section of the United States? If drugs that are not widely used can be demonstrated to have advantages, they will soon be more widely used and will then be eligible for inclusion in the Pharmacopeia. Mr. Wilbert claimed that if the Pharmacopeia can be brought to the attention of every practicing physician in this country, it will prove to be the greatest educator that they have ever had, and that, after all, appears to be the greatest use for or the most important function of the Pharmacopeia.

Dr. J. P. REMINGTON declared that the physicians of this country do not quite grasp the fact that the U. S. Pharmacopeia is the law of the land, and that its first valuation and its greatest function is to provide a standard for purity and for strength, and that while it is of use to the physician in the matter of providing a standard for the Food and Drugs Act, there is no other book that the U. S. Government relies on to provide a standard of purity for drugs but the Pharmacopeia. If average doses can be provided, the physician should say what the average dose is. Dr. Remington hopes that the American Medical Association and the Section on Pharmacology and Therapeutics will have a splendid record, and that it will be the report that will go into the next convention and that medicine will be well represented. After the Food and Drugs Act passed and was signed by the President, Dr. Remington received many letters from manufacturing chemists offering criticism, because for the first time in 100 years the Pharmacopeia touched their pocketbooks. Dr. Remington asked them to get together and give the Committee on Revision a report of what they wanted. They did so, and the work of correction and addition has been easy. With the approval of the Bureau of Agriculture in Washington, the Secretary of the Treasury and the Secretary of Commerce and Labor, the committee had to make some corrections in the

Pharmacopeia in order to make a book on which prosecutions can be based. Dr. Remington pointed out that the very fact that one can get from any drug store in the United States an unadulterated potassium iodid or bromid, or anything in the Pharmacopeia, is a tremendous advantage to the medical profession. The medical men in the last Committee on Revision were given entire charge. Dr. Squibb, Dr. Hare and Dr. H. C. Wood were on that committee, and while Dr. Lyon of Detroit is an analytical chemist, he is also a physician. A report from the American Medical Association, he said, would certainly receive respectful consideration, and will stand a very good chance of being adopted because it comes from the American Medical Association.

PROF. HENRY KRAEMER, Philadelphia, said that he was pleased to witness this awakening on the part of the medical profession. He agreed to the fundamental principle enunciated by Dr. Charles Rice, that the members of the medical profession should select the substances which enter into the Pharmacopeia, and that the pharmaceutical profession should provide the descriptions of these substances, necessary tests, and methods for making preparations. With the work thus apportioned, there is not the necessity for an equal numerical representation of the two professions on the Committee on Revision. He feels that five or six medical men on the committee would be sufficient to represent the interests of medicine. This number would constitute a large subcommittee.

DR. FRANK M. READE, Richmond, Va., believes that the work of revision of the Pharmacopeia has been most excellently done by the pharmacists and chemists; and that the bad work, if there is any, has been done by physicians. They have failed to show what physicians want. The pharmacists have done their work well. They have provided tests for purity, and they have provided standards which have been adopted by the U. S. Government. They have given physicians that which enables them to get medicines from any drug store where medicines are dispensed. Dr. Reade suggested that the Section on Pharmacology should appoint men on the next Committee on Revision of the Pharmacopeia who will indicate what physicians want. The other men have shown that they will do their part as it should be done.

DR. C. S. N. HALLBERG, Chicago, said that the Pharmacopeia has always assumed the position to the medical and pharmaceutical profession that the statutes do to the profession of law. Since it has become a legal standard, it has assumed that position fully because it is now a law, and being legal it must be simply a code and statute. Nothing extraneous should be added because it may not be desirable. Dr. Hallberg defined the Pharmacopeia as being a book which provides standards for the identity, purity, quality and strength of drugs, chemicals and medicinal substances, and gives directions for the preparation and valuation, compounding and preservation of these substances. The Pharmacopeia can not go into all the details that every one wants. With regard to the doses, comparing these doses with those given in the works on materia medica, Dr. Hallberg said that quite a discrepancy will be found. The doses in the Pharmacopeia, of the pharmaceutical preparations, that is, the preparations from drugs, approach mathematical correctness. Thus, for example, if the dose of opium powder is 1 grain, the dose of the tincture of opium containing 10 per cent. of opium is 10 minims; but it is put at 8 minims as equivalent to 0.5 c.c. The doses of the extracts and tinctures in the dispensaries and in similar works often have been designed without reference to their drug-strength. In some instances the dose of the drug and of the extract is the same, though the extract is from four to five times the strength of the drug. These discrepancies pharmacists endeavored to correct in the last revision of the Pharmacopeia. The Pharmacopeia of the United States assumes more nearly the character of an international pharmacopeia than any other. Physicians of every school in the world practice here. Their wants have to be regarded. The pharmacists of the Philippines have the right to demand that some of the medicines they use shall be incorporated in the Pharmacopeia of their country. Porto Rico is also entitled to consideration in the Pharmacopeia of the United States. Dr. Hallberg believes the plan proposed by Dr. Remington a good one. There ought to be a

list of drugs that are really being prescribed by physicians in this country. The pharmacists can secure statistical reports between now and the Decennial Convention of perhaps a million prescriptions distributed throughout various parts of the United States. The convention on assembling would know what articles are used sufficiently to warrant their retention in the Pharmacopeia.

DR. ROBERT A. HATCHER, New York City, stated that his plea was that more interest in the Pharmacopeia be manifested on the part of the physician, not because six instructed men are not sufficient—one instructed medical man, if he had the instruction after thorough discussion by the medical bodies of the United States, would be sufficient. It seems incredible, he said, that in the entire state of Ohio there was not one physician to make a plea for the profession; not one was instructed to make it. If, he said, the country doctor is as benighted as some of the representatives of two cities in the eastern part of the United States, which he could mention, God help the country. He believes in making clinical tests of drugs, and, if possible, pharmacologic tests. He teaches his students that they must under no circumstances accept a pharmacologic test as final, as in the use of quinin, for example, but that the final test is the clinical result.

EVACUATION AND DEPLETION OF THE TYMPANIC CAVITY AS AIDS TO DRAINAGE IN ACUTE MIDDLE-EAR SUPPURATION.

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Notwithstanding the numerous advances in pathology and surgical technic which have, as it were, crystallized into a definite form represented by the modern simple mastoid and radical operations, the question of the minor surgical procedures in acute otitis, and the detail of their application, is still as open now as was a few years ago the question whether or not they should be applied at all. As a matter of fact, acute otitis media is to this day considered a self-limited disease with typical, cyclical course and critical defervescences like pneumonia, by no less an authority than Zaufal. His school, in common with other German otologists, has statistics to show or, more properly, to make it appear, that spontaneous perforation is preferable to that made by the knife, that paracentesis is generally unnecessary, and that the results of expectant treatment are at least equal to those obtained by early surgical interference. The fallacy and the folly of these views need not be pointed out to American otologists, nor need they be reminded that the conscientious surgeon will not be consoled by any percentages for the loss of a single life through needless waiting when a simple, safe and rapid procedure would have averted the danger of death. Any one who has seen acute otitis involve the mastoid in a virulent process over night and lead to death in less than twenty-four hours, in spite of operation, or who has seen meningitis develop in a child in less than a day after the initial symptoms of pus retention in the tympanum, will take with a more than usually large grain of salt any suggestion for the treatment of acute purulent otitis media which fails to take into consideration the vital and essential facts that this process is one fraught with the most ominous potentialities for mastoid bone disease, cerebral or meningeal infection, general sepsis and death. Delay is more dangerous in this particular disease and in this region than in any