

tivity against pneumococci. To do this one simply substitutes compound gargle of guaiac (N. F.) for the water of formula No. 10.\*

5. Infusion of coca may be substituted for water in all the formulas with advantage as to palatability, but owing to the tannin it contains, it precipitates some of the quinine. This may, perhaps, lessen slightly the germicidal activity, but it has been shown elsewhere<sup>6</sup> that even insoluble quinine tannate in small proportions will inhibit the growth of pneumococci in test-tube cultures.

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## A PLEA FOR A CLOSER STUDY OF PHARMACEUTICAL PREPARATIONS IN THE LIGHT OF THE CRITICISMS OF THE MEDICAL PROFESSION.†

BY L. E. SAYRE.

In the Epitome of the U. S. P. and N. F., published by the American Medical Association, these words occur in the introduction: "Both the Pharmacopoeia and the National Formulary include many drugs and preparations which are irrational, superfluous or worthless."

As these works are supposed to be largely the creation of the medical and pharmaceutical professions it has occurred to the writer that special coöperative effort might lead to some constructive scheme of elimination and possibly to a better feeling and understanding as to: Where lies the responsibility for these drugs and preparations—who stands sponsor for them and why? As it is, a small, uninformed number of the medical profession believes that pharmacists are responsible for the so-called irrational preparations, and some members of the pharmaceutical profession believe that they were brought into existence principally by physicians. Neither view is tenable. As a member of the Committee on Miscellaneous Formulæ I have never considered it my province to pass judgment on the therapeutical merit of any preparation, but to prepare a pharmaceutical product of the indicated ingredients. The same attitude has been taken with formulas sent to the laboratory by individual physicians, merely extracting the

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\* Clinically I have obtained excellent results by simply adding phenol, menthol, and quinine and urea hydrochloride, each one grain to the fluidounce (1 : 500) and glycerin one fluidrachm to the fluidounce (1 : 8) to the guaiac gargle. This, however, can be bettered by getting rid of the tannin, which tends to precipitate some of the quinine. As a general disinfectant for all pathogenic organisms the addition of formaldehyde solution, 1 drop to the ounce, improves it further and the taste is not made worse.—S. S. C.

† Read before Section on Practical Pharmacy and Dispensing, A. Ph. A., Chicago meeting, 1918.

drugs indicated in the formula and blending them into an acceptable preparation. Not long ago such a formula (of ten ingredients) was received; many of the ingredients would have, perhaps, been considered as superfluous. It would have been discourteous, to say the least, to pronounce upon the therapeutic status of the finished product. Pharmaceutical manufacturers frequently receive private formulas of the same character, such as would not pass censorship, but they likewise do not pass upon their clinical value—whether certain ingredients are superfluous, irrational or useless.

We have had some able and constructive criticisms of existing pharmaceuticals by eminent physicians and some very caustic ones by medical critics.

Dr. H. C. Wood's able criticisms were published in the *American Journal of Pharmacy* a few months ago; in the *Journal of the American Medical Association* for March, 1918, a rather caustic one appeared. Quoting the author of the latter: "It is safe to say that there is not a physician in one of the Army posts, who, if the question were put to him frankly, would admit that the Compound Syrup of Hypophosphites belonged to the armamentarium of a scientific physician, yet 6000 pounds of this relic of the past generation are called for, are to be paid for and are to occupy valuable freight space in shipping to the various Army posts. What utter waste! and what a reflection!" This caused me to refer to the Epitome. On page 49 it states: "This preparation is an antiquated, complex and irrational tonic." It has taken many years since Churchill's time to find this preparation so valueless that its shipping needlessly occupies valuable freight space. Who is party to the crime for its existence?

As a member of the pharmaceutical profession I have always held that the pharmacist, through his experience, his training, his contact with physicians and his access to medical literature, was not incapable of judging as to what is irrational and useless. It may be said in passing that one of our eminent pharmacists is director of the chemical laboratory of the American Medical Association and many of our State pharmaceutical chemists have assisted him in the work of eliminating misbranded and worthless material.

However, neither the pharmacist nor the physician can wholly regulate what physicians may employ in their practice. I told a medical friend that pharmacological investigation seemed to show that tincture of cactus had no virtue as a cardiac tonic; he replied "to accept such a statement would drive me to drink." Another medical friend was told that Echinacea was not regarded as a valuable drug by the American Medical Association; he replied: "I am only sorry for the association." Whether it is scientific or not, physicians as a rule will use drugs and preparations in which their clinical experience has led them to have confidence. The practice of medicine, they say, is not all theory. The pharmacist's attitude is a neutral one by virtue of his position. He supplies what is demanded and, if he uses his business and pharmaceutical skill, will create and improve preparations to meet his patrons' wants. He will promote his branch of medicine to the extent of his business and scientific ability. He risks the fate of his efforts which he knows may be unremunerative and unappreciated. His products may be even regarded as unworthy of freight space. As pharmacists we are obliged to face the fact that, as medical science progresses, new points of view arise and agents which to-day are scientific and rational may to-morrow be relegated to the

scrap pile, by medical authority. Still, if the demand keeps up, the medical profession should not unwillingly bear part of the responsibility of their continuance. Physicians continue to prescribe Syrup of Sarsaparilla Compound (denounced as irrational, etc.) as a vehicle. Compound Syrup of Hypophosphites—a physician said to me only recently, "It is absurd to denounce this preparation."

In order that a better feeling may prevail regarding the continuance of these so-called unworthy remedial agents and promote their replacement or elimination, would it not be a wise move for this Section to consider a plan of coöperation leading to a closer scrutiny and oversight of questionable agents and preparations, helpful to physicians and pharmacists alike? Incidentally it might remove, to some extent, the prejudice referred to, which retards or restrains efficient coöperative work and coördination.

The American Medical Association has opened the way and made progress in the direction indicated, having pronounced its own point of view, which should be duly recognized. It is natural that the point of view of the American Pharmaceutical Association differs from that of the former association, and the pharmacists' views should be respectfully considered.

If the plan suggested would more rapidly bring about coördination in necessary reforms and elimination of useless or needless materia medica, it certainly would be worth while. I realize that in making this suggestion I am only emphasizing what has been said before, in another form, by others of this Association. One of the results of this coöperation would, I feel sure, be to promulgate the idea which the Pharmacopoeia expresses: Because certain drugs and preparations are admitted into our standard works, they are not thereby necessarily recommended therapeutically. We should understand that the admission of an article does not imply a recommendation. But its recognition means a frequently used or prescribed drug or preparation, and, as far as possible, a standard has been supplied so that a uniform product is made available.

Clinical Evidence: Rule 5 of the Council on Pharmacy and Chemistry of the A. M. A. states: "To be acceptable, the clinical evidence must offer objective data with such citation of authority as will enable the Council to confirm the facts and establish the scientific value of the conclusions drawn, etc. This rule would be helpful in the coöperative work.

As to unscientific and useless articles, Rule 10 of the Council should be expanded and made more definite. A basis might be discovered whereby one could more definitely determine whether an article or preparation is unscientific or useless.

Rule 10 reads as follows: The use of articles which are unessential modifications of official or established non-proprietary articles is unscientific and serves no useful purpose. \* \* \* \* \*. This class includes mixtures containing an excessive number of ingredients; those which contain substances of no probable therapeutic assistance to each other; those of no therapeutic value. The combination of two or more remedies in a mixture must be considered contrary to scientific medicine unless a distinct reason exists for such a combination, etc.

In closing let me restate what was said in the beginning of this paper: Coöperative work of this Section with representative members of the medical profession would be productive of better feeling, would lead to a mutual under-

standing relative to the drugs and preparations complained of, and be helpful in their elimination, when desired. The result of the efforts in this special direction would also aid the revisers of the United States Pharmacopoeia and National Formulary.

#### DISCUSSION.

THE CHAIRMAN: I think that all of us, who are closely associated with the practice of pharmacy, realize that if physicians would tell us just what they want in scientific compounds they would relieve us of a great deal of responsibility in the matter of preparing remedies. It is to be regretted that we have so many unscientific compounds, but they exist because there is a demand for them, and unfortunately these are multiplied by others. The success of one proprietary is considered sufficient reason for trying to make another even more successful. Co-operation of physicians and pharmacists as outlined by Professor Sayre would, no doubt, accomplish a great deal of good.

BERNARD FANTUS: This is certainly one of the constructive moves that I believe should be made. It is only to be hoped that the physicians will meet the pharmacists as they ought to. You know doctors have quite a way of being autocrats in the sick-room, and they get to feel that they have a right to be autocratic in all respects, and many of us here, I suppose, including myself, are opinionated. The fact Hippocrates discovered and published, that experience is fallacious and judgment difficult, is so true of medical practice that the opinion of any one physician or any number of us, on such questions as the desirability of certain preparations, should not be regarded altogether too seriously. I am convinced that pharmacists could be of great help to physicians in their learning about the value of preparations. I believe that humanity is not so foolish as to use a certain material indefinitely unless there is some good in it. I am, perhaps, not a fit person to discuss the other view that has the upper hand with our medical editors, namely, the conservative view, as they see it. The trouble with our *materia medica* has been that nearly everything has been recommended for nearly everything. The scientific physician was, in the past, so helpless in handling this enormous mass of handed down material that he wanted to start with a clean slate. Let us remind you that five thousand remedies were at one time carried in the *materia medica* of the educated physician and he was supposed to know them. Professor Sayre's idea is an excellent one and one which should receive action. I hope, as I said before, the medical profession will cooperate as it should in arriving at a cooperative understanding. The perniciousness of having in the Pharmacopoeia endless preparations that are known to be unscientific is one the medical teacher can appreciate.

Others participated in the discussion, emphasizing the need of cooperation by physicians and pharmacists to bring about a reform and also in order to arrive at a better understanding relative to unnecessary and useless *materia medica*. The paper was referred to the Publication Committee.

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### PUBLICATION OF POTENT CONTENT ON ALL READY-MADE MEDICINES. IS IT DESIRABLE?\*

BY OSCAR DOWLING.<sup>1</sup>

The topic for discussion, selected from the list sent me by your Committee, is one in which you and your confreres, health officers and physicians are vitally concerned. The signs of the times are clear—the patent “cure-all” with its flaring, sensational, lying appeal is doomed. A few years more and these will be known only as the relics and antiquities of the patent medicines' lurid and dishonorable past. This is not a prophecy; it is a conclusion borne out by the history of recent legislation.

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\* Read before Section on Education and Legislation, A. Ph. A., Chicago meeting, 1918.

<sup>1</sup> President Louisiana State Board of Health.