

## EDITORIAL

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### THE CONFERENCE IDEA.

**W**E must think straight these days in matters that concern us and our profession and work together for the attainment of desirable objects; progress is only possible when there is honest and fair coöperation. Consideration of others while thinking of ourselves is the basis of service. Discussion and agreement bring better results, at least more effectual and permanent results than can be obtained by more forcible means; one develops understandings and sympathies, the other creates misunderstandings and contentions. The fiercest individual is not independent, as he pretends and asserts. We must in some way relate ourselves to what goes on around us, and join with others in our tasks and duties.

There are many matters in which the preceding statements are applicable today—in affairs of Congress, in business and in professional life. That the conference idea is the thing has recently been demonstrated; it matters not how much or how little was accomplished, it is a fact that it brought the nations into a better understanding, if not into a closer relationship. So it should be with business and the Government and the people; big business should not be considered unlawful or be hampered just because it is big, nor little business subjected to measures which will interfere with its development, just because it is little; laws relating to business should be for its encouragement—to help legitimate business and punish criminals.

The confidence of the public is vitiated when the aim of one trade or profession is to destroy the other, provided it has the right to exist, or belittle its worthy activities; both are injured by such action. Coöperation to bring about higher standards of professional and business life indicates a desire and determination to progress, to extend and improve the service rendered by its votaries.

The conference idea is being more generally adopted; the professions that have in the past held themselves aloof are gaining a broader vision and realizing they can do more effective work; are establishing themselves more firmly in the esteem of the people, and helping their own profession through mutual interest by coöperation with those who have a part in the work in which they are engaged. Some still hold tenaciously to the belief that force will insure the results they are after; this may be true in certain cases and under certain conditions, but not with the thinking classes of this day—a consistent policy of coöperation is more effective and certainly productive of more satisfactory and more permanent results.

E. G. E.

## OPPORTUNITIES OF THE LABORATORY.

**I**N an article of above title, in the *American Druggist*, Dr. Henry Kraemer deals with the subject most interestingly and instructively. He states that no one can conduct a laboratory unless he has the research spirit and a desire to be of service. "In the past," he says, "there were a few isolated examples of the power of penetration; to-day we have a great world of science, and there are many master minds, each doing his share to break down customs and traditions." In defining the laboratory spirit the author of the paper states:

"The laboratory mind is typical of the men of practical achievements. Up to within fifty years it has been considered to be the peculiar property of men of genius. Now we know that it can be developed by contact with men and teachers who are capable of accurate thinking, honest statement of fact and observation, and sane interpretations.

"\* \* \* \* From the time I was a student in pharmacy I have witnessed hundreds of earnest students carrying on their thesis work in the store and delving into the secrets of pharmacy and medicine. There is no pharmacist who does not have this spirit or he would not have selected pharmacy as his calling."

He brings out three essentials in the making of a laboratory man. "The first thing is the possession of a good pair of eyes. Then he must be intellectually honest. It goes without saying that he needs moral strength."

Editor Ivor Griffith, in an editorial of the February *American Journal of Pharmacy*, discusses the subject, at the conclusion of which he names such laboratory men as Hawk, Dakin, Benedict and the greatest among the laboratory workers, M. Louis Pasteur, whose divining mind (we are quoting Dr. Kraemer) "enabled him to deal the final blow at fallacy of spontaneous generation, and brought to light a world of organisms upon a complete understanding of which the future of the human race depends." Editor Griffith makes use of the following quotation:

"Heaven trained a pure scientist, who had never handled a scalpel nor written a prescription, took this non-medical man of science and set him to be the head of all the heads of the medical profession, to have them all obedient to his teachings and proud of the very sound of his beloved name."

The opportunities for laboratory work were well presented at the February Chicago Branch A. Ph. A. meeting, when pictures were shown of various pharmacies and laboratories in different sections of the country. G. Boyd Law, of Savanna, Ill., gave a practical demonstration of a blood examination; Prof. Willis K. Weaver, of methods for determination of creatinine, urea, etc., in the blood. While E. von Hermann, who owns one of the largest drug stores of the country, contended that a laboratory in the pharmacy is not advisable, Mr. Testin, of Joliet, Ill., speaking from experience, presented the advisability and the possibility of success in such a venture, and Prof. Frank J. Zuck spoke of the success of pharmacist Fred Skeyhan of Rockford, Ill., who has a well-equipped laboratory in connection with his pharmacy. The comment, therefore, is for the purpose of pointing out the opportunities of the laboratory. Pharmacy and medicine should and must work together to give best service; the opportunities are not only in the laboratories of the physician, the pharmacist, and the pharmaceutical and chemical manufacturers, but coöperatively through the laboratories of the schools and the hospitals.

He who enters the field must be imbued with the spirit of the laboratory. Quoting the eminent research worker, J. U. Lloyd, "He who engages in research should be so bold as to question orthodox theoretical rules and formulas, and in the face of authority create images and plans of procedure of his own. If concerned in the exactions of science, he should expect resistance from those whose idols he touches with even the kindest interest."

F. G. E.

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#### PUBLICITY AS GUARANTEE OF GOOD FAITH.

**M**UCH publicity has been given to correspondence between Secretary of Commerce Hoover and Attorney General Daugherty and published in many daily papers. The correspondence deals with what trade associations may or may not do. An editorial in the *New York Commercial* of February 17 considers the matter in a way that will prove of interest to the members who are affiliated with trade associations, and therefore the liberty is taken to reprint the larger part of the editorial.

"Most trade associations have limited the dissemination of statistical data and other trade information to their own members, while those giving it immediate publicity are in the minority. Such restriction of information naturally places non-members at a disadvantage and the policy of our laws is to give everyone engaged in business an equal chance. It may seem to some an extreme view that no one may, by his greater effort or expenditure of additional capital, secure an advantage over his less progressive rival. He who refuses to bear any share of the expense of collecting information because he knows he can get the information anyway should not, as a matter of simple justice, be the recipient of the Government's solicitude. In this respect our policy is one that puts a premium on narrowness and selfishness. On the other hand, men who have become trade leaders are usually men of broad vision and are therefore qualified to make better use of trade information than these narrower ones. What they may lose to these smaller rivals will be but trifling in comparison with what they will gain for themselves by a more intelligent ordering of trade practice. In other words, it will help them more than it will hurt them. \* \* \* \*

"The underlying thought in the discussion seems to be that associations that make honorable use of their information should be permitted to operate, although there is danger of violating the spirit of our laws in one or two practices that have been mentioned. Uniform cost accounting, for example, is likely to be a long step toward eliminating competition, and while the Attorney General was correct in his argument in regard to cooperative advertising as having the tendency to give the impression of uniform quality where such is not the case, later correspondence revealed that the proposition had not been correctly stated by Mr. Hoover, who eliminated that part of his question which tended to give a wrong impression.

"The Attorney General naturally had to be conservative in stating his position because of cases that might later have to be prosecuted, and also because of pending cases. Hence, he was obliged to qualify his statements as being only tentative, so that if in actual practice it should develop that competition is suppressed or prices materially enhanced, the cases would have to be treated on their merits.

"The Department of Commerce can make excellent use of these trade organizations when properly conducted, and both Secretary Hoover and Attorney General Daugherty have performed excellent public service in trying to clear up the situation. It is another indication of the present Administration's desire to maintain a constructive attitude toward business."

## METHODS OF COÖPERATION AMONG MUNICIPAL, STATE AND FEDERAL OFFICIALS ON PHARMACEUTICAL PREPARATIONS.\*

BY W. S. HUBBARD, PH.D.<sup>1</sup>

There is to my mind no more fertile field for intensive work in the interest of health than the enactment and enforcement of state and municipal laws intended to control the purity of drug products. Many states have passed laws similar to the Federal Food and Drugs Act, and some cities have ordinances and organizations controlling the quality and purity of drugs. Many of these measures have been beneficial. However, some states and cities have no laws and many of the state and municipal governments having authority are not able to enforce their drug laws in as efficient a manner as they undoubtedly desire. The chief cause is, perhaps, a lack of knowledge of this class of products and the lack of properly trained chemists to determine the quality and strength of drug preparations. As strange as it may seem, many men trained in the enforcement of food laws and in the analysis of food products seem to think it is beyond their ability to understand the assumed mysteries of drug composition. Herein is found one of the main reasons, in my judgment, why existing state and city drug laws are not more intensively enforced. Many state analysts have not felt themselves qualified to examine drug preparations and their executive officers have shared this viewpoint. It may be assumed that executive officers entrusted with the enforcement of state and municipal drug laws have thought it essential to have specially trained analysts for drug work, and because of lack of funds and scarcity of pharmaceutical chemists, they have in many cases made inadequate use of the drug laws on the statute books. While very desirable, it is not necessary to have specially trained men for this work. In so far as the analysis of straight pharmaceuticals is concerned, any food analyst can soon become proficient in the methods of analysis as given in the United States Pharmacopoeia and National Formulary. The methods and standards as set forth in these authoritative works are easy of accomplishment and interpretation.

Every proprietary and patent medicine, however, presents an individual problem, but not an insurmountable difficulty by any means. There are no standards or methods of examination for this class of preparations. In view of these facts, the analyst whose experience has been entirely or largely with food products will require training for a short period in the essentials of work on such articles. The Bureau of Chemistry of the United States Department of Agriculture will co-

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[EDITOR'S NOTE.—The article by our fellow-member, Dr. W. S. Hubbard, is reprinted because it contains some suggestions for drug officials relative to which pharmacists and pharmaceutical organizations should be consulted. Unfortunately there is not invariably strict observance of the ethics of advertising among advertisers and agencies. The article on "Pharmaceutical Ethics" by Charles H. LaWall (November and December issues 1921, *JOUR. A. PH. A.*) contains much information along the lines discussed in the paper here presented. The review on the subject of "Pharmaceutical Ethics" has been reprinted, and drug officials and advertisers may obtain copies by addressing the author, 636 South Franklin Square, Philadelphia, Pa.]

\* Read before the Food and Drugs Section, Fiftieth Annual Meeting, American Public Health Association, New York City, November 18, 1921. Approved for publication by the Secretary of Agriculture. Reprinted from the December 1921 issue of the *American Journal of Public Health*.

<sup>1</sup> Associate Chemist, New York Laboratory, U. S. Bureau of Chemistry.

operate with all state and municipal authorities in lending assistance in such analysis. The Bureau has laboratories in fourteen different cities of the United States, some laboratory being accessible in any part of the country. It is therefore possible for state and municipal officials to obtain aid from the Bureau of Chemistry laboratory situated nearest to them. When inquiry is made concerning specific products, it is necessary that the Bureau be furnished with a copy of the label and all accompanying literature, together with any other facts at hand as to how the product is sold and used. It may then be possible for the Bureau to suggest what particular ingredients to look for and, if necessary, the methods of analysis to use when such methods are known, as well as the amount of sample necessary for analysis.

Another means by which the Bureau of Chemistry can cooperate with state and city drug officials is by the detailing of a state or city analyst to one of the government laboratories for a period of intensive training, and where it is possible to do so the latter procedure is highly desirable. It seems to me that the greatest cooperation the Bureau of Chemistry can give to states and municipalities in their drug work is this training of analysts.

The Bureau of Chemistry has done considerable work under what is called the Sherley Amendment to the Food and Drugs Act, which is the amendment which prohibits false and fraudulent claims on all labels of patent medicines. It is this type of product that I have been considering as more or less difficult of analysis and interpretation. It is to control this class of preparations that most states need better laws and assistance in more efficient enforcement.

The Sherley Amendment of the Federal Food and Drugs Act has been extensively applied to certain classes of patent medicines. The labels on most of the venereal disease remedies and abortifacients—ordinarily called female pills—which enter into interstate commerce have been completely revised, with the elimination of practically all therapeutic claims. It is perhaps needless for me to remind you that female pills are almost always used in connection with immorality. However, there are still some of these goods on the market, and the federal government is not able to deal with them for the business is done interstate. The venereal remedies and female pills are among the most vicious things on the market, but the Bureau of Chemistry will have considerable difficulty in completely cleaning them out unless the state and city authorities join with us energetically in a cooperative way to bring about the desired results. We must have your cooperation. And to my mind, the most effective law, not only for these two classes of preparations, but for all so-called patent medicines, is a law which will cover advertising. The federal government needs an advertising law too, but it would be just as effective and perhaps more effective if each state and city had such a law. I am talking now of a law covering all false and fraudulent claims in advertising medicinal preparations.<sup>1</sup> The label of itself may be unobjectionable, but the advertising gives to the wording on the label an entirely new and often quite a false meaning. Many of the venereal remedies are still advertised broadcast as a cure for gonorrhoea, although the label may state only the name of the preparation and nothing more. This also holds

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<sup>1</sup> There are 23 states having the *Printers' Ink* model statute and 13 other states with an amended statute which covers all false statements in advertising.

good for many patent medicines which are advertised as cures for consumption, diphtheria and all the rest of the diseases known by man and some yet to be discovered.

I shall now refer briefly to pharmaceutical preparations which are used by physicians for administration to their patients—preparations which go to make up their prescriptions or that they may give direct to the patient. This certainly is a very fertile field for state and city control. State and city control is essential also to supplement the federal law, for in some cases the federal authorities are unable to take action where a doubt exists because of the fact that we cannot secure evidence of interstate shipment, or because we find products removed from their original packages—circumstances which, however, do not prevent state or municipal action.

Physicians in every state, through the medical associations, should demand protection from the unscrupulous manufacturer and unscrupulous dispenser, and work for laws and enforcement of laws which will afford that protection. The great trouble is, however, that the physician is apt to rely on the brand or manufacturer's name that appears on the label. It is well known by some of us that there are preparations made by reputable manufacturers that are not what you might expect from the labels. Take a very simple thing like fluidextract of cascara. The Canadian Government has shown that there are practically no two extracts thus named which are alike, and this applies also to those made in the United States. Again, in the case of another example—paregoric—I know of my own personal knowledge, outside of any connection with the Government, of a large firm that has in the past made paregoric from morphine sulphate colored with caramel. I do not believe the physician who prescribes paregoric is desirous of giving his patient colored morphine sulphate. Take pills and tablets: the physician certainly prescribes these with a definite idea in mind, and that is to get a certain result from a given amount of certain ingredients. Yet, unfortunately, it frequently happens that some ingredient is missing entirely or is very deficient, or perhaps two or three times the amount supposed to be present is found. This, of course, is a menace to health in the case of such potent drugs as heroin, cocaine, morphine, etc.

Many manufacturers make a pretense of having analytical control of their products. Do not be misled by a fine chemical laboratory into believing that all products are as carefully analyzed as the fixtures might indicate. Find out the qualifications of the chemists employed, and then review the analytical cards of a number of different preparations and ascertain whether the laboratory is for the protection of the people or for the pocketbook of the manufacturer only. Very frequently you will find it for the protection of the pocketbook of the manufacturer and the dividends of the stockholders. There are many good and reliable coöperative physicians' supply houses, and pharmaceutical manufacturers, but regrettably some such houses have come into existence as a result of the activities of promoters conceived in a Wallingford's mind and born to line with gold the pockets of a Ponzi. It is unfortunate that some physicians buy stock in such pharmaceutical establishments or physicians' supply houses. It makes a physician a party to the scheme and he is inclined to buy the products of this profit-sharing concern to the exclusion

of all others. Since price and profit are the two uppermost thoughts in the minds of these particular manufacturers, they are, of course, reluctant to hire chemists to control their raw ingredients or the finished products.

The matter of factory sanitation to include sterility of products should be covered by law and by enforcement. To my mind this is of great importance. Tomato products are considered unfit for food when they contain more than 100,000,000 bacteria per cubic centimeter, and milk when it contains a much smaller number, to mention only two products; yet I have seen drug preparations on the market containing ten times that many bacteria, which preparations were to be administered to the sick, a class who have a well-recognized low resistance to bacteria of all kinds.

And let me emphasize again that more effective control of drug products by the state and city governments is urgently needed. The city and state should take up this question more actively than has been done in the past; they should pass laws that will cover patent medicines and crude drugs as well as pharmaceuticals.

In conclusion, therefore, it is desirable for state and municipal drug officials to enlarge their field of activity and not limit their efforts to a consideration of comparatively simple products, such as tincture of iodine and spirits of camphor, but to join with us, who are operating under the federal law, in our efforts to ever widen the circle of effective drug control. The Bureau of Chemistry regards it not only as a duty but as a pleasure to lend assistance by suggesting specific lines of work to be undertaken or by giving intensive training in so far as our funds will permit to such investigators as may be assigned to this most important regulatory undertaking.

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DOMESTIC AND IMPORTED VERATRUM (HELLEBORE), *VERATRUM VIRIDE* AIT., *VERATRUM CALIFORNICUM* DURAND, AND *VERATRUM ALBUM* L. II. CHEMICAL STUDIES.\*

BY ARNO VIEHOEVER AND JOSEPH F. CLEVINGER.

**Chemical Studies.**

The work on the different species of *Veratrum*, reported in Part I,† has been continued. The first paper dealt with the botanical characteristics and the microchemical tests useful in the differentiation of the species. The object of the present studies was to ascertain the amount of alkaloids occurring in two commercial forms, *Veratrum album* L. and *Veratrum viride* Ait., and the amount of total and acid-insoluble ash present. Some preliminary consideration has been given to the isolation of the active principles and to pharmacological data reported in literature.

CHARACTER OF ALKALOIDS.

The character of the alkaloids of *Veratrum album* and *Veratrum viride* has received much attention in the past, but apparently no chemical work has been

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\* A brief discussion of literature on comparative pharmacological work is included.

† A. Viehoever, L. Keenan, and J. F. Clevinger, "Domestic and Imported *Veratrum* (Hellebore), *Veratrum viride* Ait., *Veratrum californicum* Durand, and *Veratrum album* L. I. Botanical Studies," *Jour. A. Ph. A.*, 10, 581-593 (1921).