

REPORT OF COMMITTEE ON WEIGHTS AND MEASURES, AMERICAN PHARMACEUTICAL ASSOCIATION.

To the American Pharmaceutical Association :

Your Committee on Weights and Measures begs leave to submit the following report of its activities during the year.

Appreciating that the primal purpose of this committee when created by the Association over twenty years ago, was the furtherance of activities designed to promote legislation in favor of the metric system in this country, your chairman felt the best work that could be done this year was the re-opening of the question of a campaign of publicity on behalf of the metric system.

Accordingly, as soon as the president of the American Association for the Advancement of Science, and the president of the American Chemical Society were elected for the current year, the following letter was sent to each of these gentlemen.

Dear Sir: As chairman of the Committee on Weights and Measures of The American Pharmaceutical Association, I take the liberty of writing you to ask whether the time is not ripe for those national associations interested in the metric system to start a systematic and persistent campaign toward the ultimate adoption of the metric system as the official standard of weights and measures in this country.

I am not unmindful of former legislative action in this direction culminating in the Stone Bill of 1896. Having assisted in a modest way in the work on the part of the pharmacists to secure such legislation, I fully realize the difficulty in approaching the problem of legislation on the subject unless backed by intelligent public opinion and my thoughts just now turn to a campaign of education as a prelude to a campaign of legislation.

Some six years since, when a metric bill was before Congress, I wrote, as secretary of a pharmaceutical association to Congressman (now Senator) Burton of Ohio, and received from him a very courteous reply expressing interest in, if not approval of the adoption of metric units by our country but also stating that he had received many more protests against the bill than requests for its passage.

And, in closing, he put his finger right on the weak spot of such legislation by saying the opposition came chiefly from manufacturers of machinery whose thread-cutting devices were on the inch basis instead of gauged to millimeters. He further intimated that the education of manufacturers was pre-requisite to the passage of metric legislation.

What I have in mind is something like this.

We pharmacists have, during the last twenty years, been educated to the metric system by the adoption of metric units in the Pharmacopœia of 1890 and their retention in the edition of 1900 and in the one of 1910, which we are now preparing. While there was much opposition at first, (even to the extent of the dispensaries providing alternate recipes with quantities in the old systems.) I have reason to believe that 90% of the druggists are now preparing their pharmaceuticals by metric recipes. Of course, all chemists and physicists use the metric system, so, in the organization of which you are president, in the American Chemical Society and in the American Pharmaceutical Association we have three organizations that believe firmly in the metric system and whose members practice what

they preach by daily use of metric units. And, likely, you can suggest other national bodies who, like us, favor the metric system.

If Senator Burton's view is a correct one, we must secure the co-operation of the national engineering societies and in order to win and to do this, these national bodies favoring the metric system should through a joint committee first attempt the winning of the engineering societies to our side and then, the combined forces should start a campaign of education through the manufacturers' associations, through chambers of commerce and through the press. The three associations—A. C. S., the A. A. S., and the American Pharmaceutical Association—could conduct such a campaign with great efficiency through local committees, since, in practically every important city, such organizations have local branches or sections to which members of the A. A. S. belong. We might also secure the coöperation of the American Medical Association with its powerful network of local sections. Certainly, we can get the help of those A. M. A. members who belong to the A. A. S.

The appeal to commercial organizations should be made on a dollars-and-cents basis. The great South American continent has been barely scratched by the American business man who has permitted the Germans to largely monopolize the trade. And that, if reports are to be credited, largely because the South American merchant, familiar with the metric system, prefers to get his goods marked in that system rather than in our cumbersome system of units.

Winning the coöperation of the commercial bodies, the passage of a metric bill by Congress will be practically assured.

Very sincerely yours,

A similar letter was sent to the President of the American Chemical Society on Jan. 8th, and the replies to the two communications are given below:

Dear Sir: I have your letter of Dec. 29th relating to the question of the metric system. The matter is certainly a very important one and I should think that it might very well be taken up by the American Association for the Advancement of Science. I will place your letter on file and bring the matter up before the Council of the Association when the opportunity offers. It is probably impracticable to take any further action at present but the Council meets in April, when perhaps something can be done.

Very truly yours,

(Signed) EDMUND B. WILSON.

Dear Sir: Your letter interests me, and I shall be glad to bring the matter before the Council of the Society in September. There is not much opportunity for doing anything in the summer when everybody is away, in the country or in Europe. The points which you make are good.

Although of course on the whole I favor the metric system, especially for scientific work, I can't help feeling that the nomenclature is very cumbrous. The names of common measures ought to be monosyllabic or at least not more than disyllabic, whereas "cubic centimeter" has six syllables. I think that this difficulty has militated seriously against the use of the system. For many purposes also the metric system is inconvenient because of the complication in computing quarters, thirds, sixths, and eighths.

Very sincerely yours,

(Signed) T. W. RICHARDS,

(President American Chemical Society.)

An interesting report of Chairman F. R. Drake, of the Committee on the Metric System of the National Wholesale Grocers' Association led not only to correspondence with this gentleman, but also to a personal interview with him and his colleagues, Mr. A. W. Beckmann, secretary of the Association, and Mr. Dana T. Ackerly, the Association's counsel. These three gentlemen were found to be very enthusiastic over the metric system and pointed out that the National Wholesale Grocers' Association passed, two years since, a resolution directing that the proper committee take up work for the metric system along educational lines with the eventual purpose of the compulsory adoption of the metric system in the United States; that this action was approved at the meetings of wholesale grocers of Pennsylvania, New Jersey, Delaware, West Virginia, Ohio, Indiana, Illinois, Iowa, Missouri, Kansas, Nebraska and Wisconsin, and that the National Retail Grocers' Association went on record this year favoring the metric system.

Correspondence with Dr. S. W. Stratton, Director of the Bureau of Standards has not yet brought a response.

The present revival of interest in the metric system in this country, as shown above, is encouraging and it is hoped that the campaign that is now beginning will be along sane lines of education for some years to come, rather than an attempt to rush legislation before the public opinion has been shaped to accept metric units.

The American Association for the Advancement of Science and the American Chemical Society can likely be counted on for support in a campaign of education; our association has worked for the system for almost a score of years; the grocers, both wholesale and retail, at their national conventions have gone on record in favor of the system and it should not be difficult to enlist the aid of the National Wholesale Druggists' Association. These bodies acting together should wield considerable influence among the chambers of commerce and similar business bodies throughout the country and if the coöperation could be secured—which is by no means impossible—a long step will be made toward putting this country among the metric nations of the world.

As some of the members of the committee think we should submit a summary of legislative activities during the past year that affected weights and measures, information concerning the Federal Net Weight Law and the new Massachusetts law is appended.

THE FEDERAL WEIGHT LAW passed last year is the topic discussed in Food Inspection Decision No. 154, in which are published regulations for the carrying out of the law.

These regulations apply to foods shipped in interstate commerce or sold in the District of Columbia or the territories, and become effective at once, although the law, passed March 3d, 1913, as an amendment to the food and drugs act, defers the exacting of penalties for violations until September 3d, 1914.

The regulations in general require that the manufacturer of foods shall plainly mark all packages, bottles or other containers holding more than 2 ounces avoirdupois, or more than 1 fluid ounce, to show the net weight or volume of the contents. The measure must be stated in avoirdupois pounds and ounces, U. S. gallons, quarts, pints, or fluid ounces, U. S. standard bushels, half bushels, pecks, quarts, pints, or half pints. The contents by a like method may be expressed in terms of metric weight or measure. The volume of liquids must be computed at 68° F.

The quantity stated on the container must represent the actual quantity of food exclusive of wrappings and container.

In general solids must be stated in terms of weight and liquids in terms of volume, except that where there is a definite trade custom otherwise any marking of the package in terms that are generally understood to express definite quan-

tities will be permitted. The quantity of viscous or semi-solid food or of mixtures of solids and liquids may be stated either by weight or measure, but the statement must clearly indicate whether the quantity is expressed in terms of weight or measure.

In the case of certain articles the contents may be stated by numerical count, provided such numerical count gives accurate information as to the quantity of food in the package. Under this requirement it would not be enough to state that a package of candy contained 24 cream peppermints, as candies vary in size, and this would not be a statement of the actual quantity of candy in the package.

The regulations also permit the statement of minimum volume or weight as "Minimum weight, 12 ounces," "Minimum volume, 1 gallon;" "Not less than 4 ounces." In such cases the amount stated must approximate the actual quantity. No variations below the stated minimum quantity will be permitted.

The statement of weight or measure must be marked in terms of the largest unit contained in the package; for example, if the package contains a pound and a fraction, the contents must be expressed in terms of pounds and fractions thereof, or pounds and ounces, and not merely in ounces.

As to tolerances and variations from quantity of contents marked on the package, the following are allowed: Unintentional errors in packing; discrepancies in capacity of bottles, when it can be shown that as many bottles are over size as under size; discrepancies in weight due to effervescence.

Packages containing 2 avoirdupois ounces or less, 1 fluid ounce or less or six units or less are exempt from the labeling of the law.

MASSACHUSETTS' WEIGHT LAW.

As a result of the sensational statements made by the Sealer of Weights and Measures of Massachusetts relative to the large number of inaccurate weights and measures found by him and his deputies, the legislature of that state recently passed a law providing for the testing of weights and measures used by apothecaries. So far reaching is the scope of the bill that it applies to the graduates and weights and measures of any and all kinds used by hospitals, private sanatoriums and other retreats, physicians and district nurses.

The act takes effect immediately. This is the salient section: "Apothecaries and all other persons dealing in or dispensing drugs or medicines or merchandise sold or given away, by apothecaries' weights and measures so used to be tested and sealed by the sealers of weights and measures in the respective cities and towns in which they carry on business; provided, however, that if a graduated glass measure has once been sealed by a sealer of weights and measures, it shall not in any case be necessary to have it sealed again at any time while it remains in the same conditions in which it was first sealed."

The bill provides that any person who uses apothecaries' weights and measures in any form and who does not comply with the provision of this law in having the weights tested shall be punished by a fine of not less than \$5 nor more than \$50.

Resolved, That the American Pharmaceutical Association is pleased to hear of a revival of a campaign aiming to make the metric units the official system of weights and measures in this country.

Resolved, That this Association, now, as in the past, stands ready to aid in accomplishing this purpose and hereby direct the next committee on weights and measures to cooperate with the American Association for the Advancement of Science, the American Chemical Society, the National Wholesale Grocers' Association and all other interested bodies in an educational campaign in interest of the metric system.

Resolved, That this Association take steps to enlist the support of the National Wholesale Druggists' Association in the proposed campaign on behalf of the metric system.

H. V. ARNY, Chairman.