

ADDRESS BY DR. GEORGE FREDERICK KUNZ,
President of the American Metric Association.

Appreciating the honor conferred upon me in being asked to present a paper before the members of the National Wholesale Grocers' Association at their Liberty Convention, I deeply regret that circumstances prevent me from being present. Permit me, as president of the American Metric Association, through its Secretary, to extend most cordial greetings and best wishes for the entire success of the Liberty Convention and the future welfare of the National Wholesale Grocers' Association.

Thirty-four nations unite in the testimony that the temporary inconvenience involved in making the change to metric weights and measures is many times repaid by the great advantages secured. There is no longer any question about the superiority of the metric system for accounting, calculations and for general use of all kinds. Let us, therefore, pass on to the practical means by which we can bring about its general use for the permanent welfare of our country.

I shall endeavor to present the essentials of the metric system as concisely as possible for the approval or suggestions of you gentlemen who are already advocates of, and in many cases, actually using metric weights and measures.

The following table, containing the most convenient metric units, illustrates the relation between United States currency and the international weights and measures:

Currency

1 dollar, the principal unit=
1000 mills, or 100 cents.

Length

1 meter, the principal unit=
1000 millimeters, or 100 centimeters.
1000 meters=1 kilometer.

Capacity

1 liter, the principal unit=
1000 milliliters.
1000 liters=1 kiloliter.

Weight or Mass

1 gram, the principal unit=
1000 milligrams.
1000 grams=1 kilogram.

The legislation which led to the appointment of the International Commission and the subsequent adoption of metric weights and measures was proposed by Talleyrand in 1790. The international unit of length,

the meter, was carefully constructed to represent the ten-millionth part of the quadrant of a meridian, or the distance from the equator to the North Pole. A cubic measure one-tenth of a meter on each edge was taken as the fundamental unit of capacity and named the liter. One one-hundredth of a meter, or one centimeter, was used to obtain the unit of weight, or technically of mass. Under certain conditions one cubic centimeter of water weighs one gram. The international metric standards have been constructed with the greatest care and are to-day most serviceable and satisfactory as the standards for the world.

One notable result of the great demand for supplies of all kinds for the European nations has been the introduction of the metric measurements in a large number of the factories within the United States. This not only refers to guns, rifles, shells, etc., but also to locomotives, rails, parts of bridges, many tools and pieces of machinery, etc. The increased demand for our goods in Europe and South America works in the same direction. For our manufacturers are learning the important lesson that, if we wish to render the most effective service and increase our trade in foreign lands, we must endeavor to conform to the standards and usages current therein. When the war is over other opportunities will present themselves; but we must prepare now to use intelligently the universal language of weights and measures.

A not unimportant step in furtherance of the complete adoption of the metric system has recently been taken in the gem dealers' industry, and although this particular application may appear to many at first sight as being of comparatively slight consequence, its educational effect is more far-reaching than is generally supposed. This concerns the adoption in precious stone commerce of an international metric carat. When we reflect that there are some 36,000 jewelers in the United States, and that because of the popularity of their wares they come into constant contact with a large section of our population, we can realize the good work they are necessarily performing in demonstrating to their customers the usefulness of the metric system, and thus attracting public attention to its signal merits. This is merely typical of the steps of metric progress in other lines, so well brought out in the report of your own Metric System Committee.

Our adhesion to the metric standard should be encouraged when we consider that as early as May 20, 1790, Thomas Jefferson, as Secretary of State, formulated a decimal system of weights and measures, and embodied the scheme in a report. The adoption of the decimal system in our coinage, so ably advocated by Gouverneur Morris in 1782, probably caused Jefferson to favor its extension to weights and measures as well. Therefore, in adopting the metric system we would only be realizing one of the brilliant and inspirational ideas of the most original thinker among the founders of our Republic.

The American Metric Association was organized December 27, 1916, with the hearty co-operation and assistance of members of the National

Wholesale Grocers' Association, who we number among our most active members. Mr. Arthur P. Williams has served as treasurer from the beginning. Major Fred R. Drake is a leader among the members of our Executive Committee. The National Wholesale Grocers' Association was the first organization member of the American Metric Association. An office was secured at 156 Fifth Avenue, New York, and through the volunteer efforts of our officers and members, many organizations, firms and individuals of national importance have already joined and in most cases are rendering useful service in furthering the metric cause. All are invited to come, telephone or write for accurate information regarding metric weights and measures.

I believe it entirely feasible to arrange legislation, either by optional use of the two systems of weights and measures for a certain term of years, or by temporary exemption of certain types of machinery manufacture, so that the change can be made with a minimum amount of loss or trouble. I believe that such work is a patriotic duty for all of us to-day.

We have before us the inspiring opportunity of uniting all trades and industries of the United States in the metric movement.

The list of members of the American Metric Association is becoming the roll of those who will achieve the final victory in bringing America's measurements into harmony with the rest of the world. As president of the American Metric Association, I wish to express my hearty appreciation for the co-operation and active support of the National Wholesale Grocers' Association of the United States and its many members.

President Whitmarsh: I am sure we will all be glad to hear from Major Drake on the metric system. (Applause.)

(Mr. Drake then read the following report:)

REPORT OF METRIC SYSTEM COMMITTEE.

Mr. President and Members of the National Wholesale Grocers' Association of the United States:

The success which has attended the labors of your Committee has far surpassed the fondest hopes we entertained when launching our campaign of education on the Metric System at the annual meeting in St. Louis in 1912.

In addition the past year has brought to fruition plans thought out in the early years of the Committee, namely, the formation of a national organization to carry on the work entirely independently of our Association. Naturally we refer to the American Metric Association formed last December in New York, with our active aid and support, as the outcome of the metric conference held at the time of, and in connection with the