

cured in France in 1821 for the United States by Albert Gallatin, Minister of the United States to France. Prior to 1890, this kilogram was used as one of the standards of the United States.

Silbermann Kilogram.—A gilded brass standard of mass, cylindrical, with knob. This standard was presented to the United States by France in 1852, and became a secondary standard in the Office of Standard Weights and Measures of the U.S. Coast and Geodetic Survey, used particularly in connection with the adjustment and verification of metric standards supplied to the States.

Grave.—A cylindrical knob weight, one of six made in 1793 by the French Temporary Commission on Weights and Measures as representing the unit of weight of a proposed system of weights and measures. Originally called the "grave", in 1795 the unit was renamed the "kilogram." This weight is from a set of weights brought to the United States in 1793, and it appears that the set came into the possession of one Andrew Ellicott, at one time an assistant to Major Pierre Charles L'Enfant who planned the city of Washington. The subsequent history of this set of weights

is somewhat obscure, but it seems probable that the set remained in private hands, probably within the Ellicott family, until 1952, when what remained of the set was donated to the National Bureau of Standards by its owner at that time, Dr. A. Ellicott Douglass of the University of Arizona.

"Star" Avoirdupois Pound.—A cylindrical knob weight marked on the top surface of the knob with a star. Although positive identification cannot be made, it appears not unreasonable to assume that this standard is the actual weight "made by Mr. Hassler from the troy pound in the United States mint, and marked with a star (commonly designated as the *star pound*)," as referred to by A. D. Bache, Superintendent of Weights and Measures, in his report of December 30, 1856, to the Secretary of the Treasury.

Imperial Avoirdupois Pound, Copy No. 5.—A gold-plated brass standard of mass, cylindrical in form with a circumferential groove (instead of a knob) to facilitate handling. This standard was received in 1856 as a gift from Great Britain to the United States. It was used as the standard representing the United States avoirdupois pound from 1856 to 1893.

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12. Addendum (The period 1963–1975)

Three Laws that have been enacted since 1963, the original date of publication of Miscellaneous Publication 247, are worthy of note:

Public Law 89-755, the Fair Packaging and Labeling Act. This Act, signed into law on November 3, 1966, became effective July 1, 1967. Section 2 of this Act reads as follows:

"Informed consumers are essential to the fair and efficient functioning of a free market economy. Packages and their labels should enable consumers to obtain accurate information as to the quantity of the contents and should facilitate value comparisons. Therefore, it is hereby declared to be the policy of the Congress to assist consumers and manufacturers in reaching these goals in the marketing of consumer goods."

The authority to promulgate regulations under the Act was vested in the Secretary of Health, Education, and Welfare and the Federal Trade Commission. The Secretary of Commerce was authorized to furnish to state officers and agencies information and assistance to promote to the greatest practicable extent uniformity in State and Federal regulation of the labeling of consumer commodities.

Recognizing the need for compatibility with the Federal Act, the Committee on Laws and Regulations of the 53rd National Conference on Weights and Measures in 1968 amended the Model State Packaging and Labeling Regulation (first adopted in 1952) to parallel regulations adopted by Federal agencies under the Fair Packaging and Labeling Act. The process of amending and revising this model regulation is a continuing one, in order to keep it current with practices in the packaging field and make it compatible with appropriate Federal regulations.

Federal and State mandatory provisions require that all packages shall declare the identity of the commodity and the name and place of business of the manufacturer, packer or distributor; and the net quantity of contents (in terms of weight, measure or numerical count) shall be separately and accurately stated in a uniform location upon the principal display panel. In 1974, the model regulation was amended to provide for uniformity in the use of metric symbols and is currently being revised to fully accommodate the conversion to the metric system.

Public Law 93-380, "the Education Amendments of 1974," enacted August 21, 1974 includes a Section (403.(a)(1)) which states that "It is the policy of the United States to encourage educational agencies and institutions to prepare students to use the metric system of measurement with ease and facility as a part of the regular education program." The Office of Education, Department of Health, Education, and Welfare is responsible for implementing this policy.

Public Law 94-168, the "Metric Conversion Act of 1975," enacted December 23, 1975 declares that "the policy of the United States shall be to coordinate and plan the increasing use of the metric system in the United States and to establish a United States Metric Board to coordinate the voluntary conversion to the metric system." PL 94-168 thus recognizes that increasing use of the metric system as of 1975 is an actuality in the United States and places responsibility for coordinating this increasing use in a U.S. Metric Board appointed by the President.

Both PL 93-380 and PL 94-168 provide that "metric system of measurement" means the International System of Units (commonly referred to as SI) as established by the General Conference on Weights and Measures in 1960 and as interpreted or modified for the United States by the Secretary of Commerce. On behalf of the Secretary of Commerce the National Bureau of Standards has implemented this responsibility by having published a Federal Register Notice dated June 19, 1975 which is reproduced as Appendix 7.

Two Federal Register Notices related to our customary system of weights and measures have been published since 1963.

A Federal Register Notice of July 27, 1968 (see appendix 8), issued in response to a request of the House Committee on Science and Astronautics lists the weights and measures used in normal commerce and relates them to the standards developed in accordance with existing law.

A Federal Register Notice of February 3, 1975 (see appendix 9) supplements the July 27, 1968, Notice; it explains the difference between the survey mile and international mile on the one hand and the survey foot and the international foot on the other. It is of interest to note that the international foot and mile are exactly 0.999 998 as long as the survey foot and mile, respectively. Although the term statute mile (5280 feet) can be interpreted to be either the survey mile or the international mile, in the United States, the U.S. statute mile remains the same as the U.S. survey mile.

Starting in 1965 with the enactment of Public Law 89-164 the Congress, over a ten-year period, appropriated a total of 1.8 million dollars to the National Bureau of Standards for the specific purpose of supplying standards of weight and measure to the States. These funds have been used to supply sets of customary and metric standards of weight (mass), length, and volume, as well as precision balances to practically all of the 50 States and also to the District of Columbia, the Commonwealth of Puerto Rico, and the Virgin Islands.