

in the transaction of all business requiring the use of weights and measures, excepting in completing the survey of public lands, shall employ and use only the weights and measures of the metric system; and on and after the first of January, 1907, the weights and measures of the metric system shall be the legal weights and measures of the United States.

This is a very radical measure, one which, if it should become a law, would revolutionize all our business methods, and work immense harm.

The question "What is the Metric System?" is considered by Prof. T. J. Chapman in an article in the *Pittsburg Gazette* as follows:

The proposition now before Congress to change our present system of weights and measures for what is called the metric system is certainly not well understood by the people, or a protest would go up that would call a halt to such a proceeding. This proposition contemplates the abolition of our entire system of weights and measures and the substitution of another of which the very terms are so long and difficult as to be startling. The old familiar inch, foot, mile, etc., are to disappear, and in their places we are to have the metre, millimetre, centimetre, dekametre, kilometre; instead of the old-time bushel, peck, quart, etc., we shall buy and sell by the litre, centilitre, dekalitre, etc.; and instead of ton, pound, ounce, etc., we shall deal in grams, milligrams, kilograms, quintals, tonneaus, etc.

To most reflecting minds this invasion of our English language by a host of foreign words, and the displacement of the terms familiar from our childhood, by a string of difficult words of Latin, Greek, and French origin, is very distasteful. Apart from mere sentiment, however, there are very grave objections of a practical character. For one thing, to all succeeding generations all our present literature and science would be largely unmeaning, or at least difficult to be understood. Every line of poetry in which any term of distance, weight, or measure occurs would have to be reconstructed. To every present book a glossary of obsolete terms would have to be added. Just as the ancient terms homer, hin, and cubit, used occasionally in our translation of the Bible, are indefinite or unmeaning to the average reader, so, only on an infinitely greater scale, would be all the terms now used in millions of instances in our present literature.

Another objection is that all our appliances for determining weights and measurements would be rendered useless. All our scales, yardsticks, quart measures, and so on, would have to go to the junk heap. Millions of dollars would be required to replace them with standards of the new system. These are considerations, that one would think ought to give our legislators reason to pause. Yet men of whom one would have expected wiser counsel have been using their influence to have this enormity imposed upon the people.

The inconvenience of this system for practical purposes is appalling. An inch is 2.54 centimetres; an acre is .4047 of a hektare. A peck of beans is .0881 of a hektoliter. Shylock's 'pound of flesh' becomes a demand for .4536 of a kilo. The area of Pennsylvania expands into a territory of 119,140 square kilometres. From Carnegie to Pittsburg is 12.8744 kilometres. Does all this add any clearness to our ideas of size and distance? Milton's fallen angel drops plumb down not '10,000 fathoms deep,' but a distance of one myriametre 8 kilometres 2 hektometres 8 dekametres and 8 metres. Only think of it! These are only a few specimen beauties of the proposed scheme.

The metric system may have, and likely has, some advantages, but they can never counterbalance the enormous disadvantages which we have mentioned.

The attitude of various important organizations in the United States on the question is noticeable. Another bal-

lot on the system has recently been taken by the National Association of Manufacturers. A ballot taken two years ago resulted in a large majority against any legislation to make the use of the system compulsory in any of the Government Departments. Since that ballot was taken the adverse vote then expressed has been concurred in by the following associations: American Society of Mechanical Engineers, Railway Master Mechanics' Association, Master Car Builders' Association, Furniture Association, National Metal Trades Association. Similar action has already been taken by the Association of Machine Tool Builders, Engine Builders' Association, the Society of Naval Architects and Marine Engineers, the Society of Heating and Ventilating Engineers, and the Providence, (R.I.) Society of Mechanical Engineers.

The members of the Manufacturers' Club, of Cincinnati, at a recent meeting adopted a resolution opposing the adoption by Congress of the metric system of weights and measures. Mr. J. C. Hobart, of the Triumph Electric Co., who brought the matter to the attention of the members, stated that it was a subject of vital importance to manufacturers; that it would mean an expense of about 33 1/3 per cent. of the equipment of each shop to put in the metric system, and also a conflict in the maintenance of the two systems. It was the opinion of Mr. Wm. Lodge, of the Lodge & Shipley Machine Tool Co., that the other nations would have to abandon the metric system and come to the English method of measurements. He said that despite the fact that the nations of continental Europe had adopted the metric system, there at least were ten times as many machines built on the English measurements as there were by the metric system, and this after that system had been in vogue for about 30 years.

This indicates the views of American manufacturers of iron and steel tools, machinery, etc., the consensus being decidedly against the adoption of the system.

Mr. Samuel S. Dale, a well-known American expert in the manufacture of textile fabrics, appeared a few days ago before the committee on coinage, weights, and measures of the United States House of Representatives and showed the entire inapplicability of the metric system to textile industries. He showed that the strands of textile materials vary from a few yards to a thousand miles per pound, and the varying ratios between the weight and length are expressed by counts or numbers, which indicate the number of lengths, called hanks, per pound of spun yarn, or the weight of a fixed length of reeled silk. Four lengths are used in the United States for gauging the size of spun yarn and one for silk, and these five are the standards for the United States and the British Empire, including a population of 475,000,000 people. We have for spun yarn the cotton length of 840, the worsted of 560, the linen of 300, and the woolen of 1,600 yards, and for reeled silk the length of 1,000 yards. Each of these systems of yarn numbering, with one unimportant exception, is confined to one kind of textile material. The woolen standard (100 yards per ounce), and the silk standard (1,000 yards) are decimal. All these Anglo-American systems of yarn numbering are based on the English yard-pound.

The English yarn system is the world's standard for linen. The 840-yard English system is the standard for