

THE DECIMAL SYSTEM OF WEIGHTS AND MEASURES.

The Secretary of the Treasury, in his recent report, thus speaks of this important matter:—

"On the 21st of January last, I submitted to the House of Representatives, in answer to resolutions of that body, a report in reference to the export and import trade of the United States with Great Britain and France. The investigation which I was required to make for that purpose brought to my attention the various systems adopted by different countries of obtaining and keeping commercial statistics. These systems are so various that I found it impracticable to institute any comparison of the facts exhibited in the tables of the different governments, which could be regarded as accurate and reliable. Every commercial man will pronounce such a state of things an evil of great magnitude, and one which demands a prompt remedy, if it can be found. To avoid a recapitulation of the views presented in that report, and for the purpose of bringing the subject to the attention of the present Congress, I append to this report a copy of that communication, and would ask for it a consideration at this time. I do not know a greater benefit that could be conferred upon the commercial interest of the country, at so small an expense, than the adoption by the leading commercial governments of the world of a uniform system of commercial statistics—a uniform unit and currency, and uniform weights and measures. Upon one branch of the subject, valuable suggestions will be found in the accompanying report of the Director of the Mint. The importance of the subject cannot be over-estimated, and it is hoped that it will receive the careful consideration of Congress at its present session."

For sixty years the civilized nations of the world have been discussing the subject of a common system of weights and measures for all. And all this time one of the largest of these nations has had a perfect decimal system in operation which would, no doubt, have long been adopted by the others, had it not been for the peculiar circumstances of its origin. It was during the intellectual activity of the first French Revolution that the French decimal system of weights and measures was introduced; and with the ardent hopes of that period they anticipated its speedy adoption by the other nations of the earth, for, besides being as perfect as any system that could be devised, its general adoption would secure the immense advantages of common weights and measures throughout the world. But unfortunately it so happened that, for the twenty years succeeding the change in France, the English government, which was then under the absolute control of the nobility and aristocracy, was warring with all its powers against the ideas of the French Revolution. The intellect of the nation was enlisted against these ideas, and in the general sweep of prejudice against the enemy, even the admirable system of weights and measures was condemned by the learning and talent of the English people. The prejudice has now abated, but the literature with which it was filled remains, and exerts its influence over the present generation. The several scientific societies in England, at their annual meetings, generally introduce the subject of weights and measures and moderately discuss it in their solid elephantine way, when it is quietly laid on the shelf to slumber for another year. Unfortunately our own societies have caught this same habit; and if this great reform is left to them it will never be accomplished.

Now, there is an opportunity for some member of Congress to distinguish himself more, and to render a greater service to the country and the world, than he is likely to do in any other way, by practically obtaining this great desideratum, for which the first intellects of the world have been so long working. Let him just introduce and carry through a short bill for the establishment, in this country, of the French system of weights and measures. No better system than this is likely ever to be devised, it has the great advantage of being in use by one of the leading commercial nations of the world; and with the plastic character of our people, the effort of making the change would hardly be felt. In this system the standard of linear measure is the *metre* which is 39.37-100 inches in length. Ten metres make a decametre, 100 a hectometre, 1000 a kilometre, and 10,000 a myriametre; the 1-10th part of the metre is a decimetre, and the 1-100th part is a centimetre. The unit for liquid measure is the *litre*, which is equal to the cubic decimetre. Ten litres make a decalitre, 100 a hectolitre, and so on. The unit of weight is obtained by filling a cubic centimetre with pure water of the temperature of melted ice; this is called the *gramme*. Ten grammes make a decagramme, 100 a hectogramme, and 1,000 a kilogramme. Thus the measures and weights are

bound together, and the nomenclature is rendered as simple as possible. To either metre, litre or gramme, the prefix deca means 10 times, hecto, 100 times, kilo, 1,000 times, and myria, 10,000 times; while, for the fractions, deca means the 10th part, centi, the 100th, and milli, the 1,000th part; the Greek numerals being used for the multiples, and the Latin for the fractions.

In adapting the system to this country, the French words should be anglicized; this is already done with *metre* and *gramme*, which have become "meter" and "gram," and we should change *litre* to "leter;" this class of monosyllables being the most difficult words in the French language for the tongues of foreigners.

Which one of our members of Congress will send his name all over the world, and down to distant posterity, linked with the practical adoption of this great reform?

COMBINATION LAMP AND MATCH BOX.

The adjoining pretty little picture illustrates an invention (made by Thomas Shanks, of Baltimore, Md., and patented Jan. 19, 1858) which is designed for the convenience of all those hundreds of thousands of persons who have occasion to light a lamp in the night.



The base, A, of the lamp is made hollow to receive the drawer, B, which is drawn into its receptacle and held in place by a spiral spring. The button, C, by which the drawer is pulled forward, is on the end of a small rod which has the bent catch, D, at its opposite end, which may be turned up by turning the button, to hold the drawer open as long as may be desired. The drawer has a sand or emery plate in front for lighting the matches, and a longitudinal partition separating it into two compartments—one for the matches and the other for the burnt sticks.

Any further information in relation to this lamp and match box combination may be obtained by addressing the inventor as above.

MANUFACTURE OF CIDER IN CONNECTICUT.—Very few are aware of the extent to which the manufacture of cider is carried within a few miles of New Haven. In conversation with a gentleman from Cheshire, a few days ago, we were surprised to learn that, in that town, 5,000 barrels have been made the past season from apples raised in that and adjoining towns, nearly all of which is now in process of clarification and will be ready for market early in the spring. Four establishments alone have made from 1,500 to 2,000 barrels each, which are already disposed of, and will be sent to market as soon as ready for use. This, when clarified, is as pure as wine, and is sold readily in New York, to bottle, for \$4 per barrel for the liquid, and when bottled is in great demand at the South at \$5 per dozen. The business is rapidly increasing, and the cultivation of the apple is likely to prove as profitable as that of the grape in the West, where thousands of dozens of wine are put up yearly. The cultivation of the grape at Cincinnati has increased within a year or two extensively, and although attended with a much greater expense, is now the most profitable crop of that locality. The fruit-growers of Connecticut can cultivate the apple with but little expense, and can realize at least 20 cents a bushel for all they can raise. The past season those who have mills at Cheshire have paid from 18 to 20 cents per bushel for all they could find; taking them from the orchards in which they have been collected, the raiser being subjected to no expense except that of picking and piling in heaps.—*New Haven Journal*.

CHINESE SUGAR CANE AS CATTLE FEED.

In regard to the use of this plant for feeding cattle, the following opinions are given in a late number of the *Irish Agricultural Review*. They deserve attention because they are quite opposed to the general opinion entertained in America:—

"We have been favored by some of our correspondents with the results of their experience in the culture of the above-named recently-introduced forage plant; but, with the exception of an occasional observation that cattle do not refuse it, we have as yet learned little of its economical value. The sorgham has been cultivated on the continent for a longer period than with us, and some of the statements in foreign agricultural periodicals are anything but favorable. Thus in the *Journal d'Agriculture Pratique* for January last, the Marquis de Vibrave, in a communication to the editor, states that it injuriously affects scattle that are fed upon it. He refers more especially to an experiment in which 25 milch cows were fed for a month exclusively on sorgham, in which period the milk given by them only averaged half the quantity they were giving at the commencement of the experiment. He further states that some of his acquaintance's cows which were fed principally on this plant became sterile; and in one instance he knows of its having caused the distention of the paunch, known as hoven; and therefore, with much regret that the truth compels him to report so unfavorably of a plant which by its abundant productiveness promised to prove an invaluable auxiliary to the other means of providing green food for cattle, he cautions farmers against the too liberal use of it, and solicits at their hands renewed experiments with respect to it."

TO CURE LOCKJAW.—A discussion has been going on among the medical men of France, on the advantages of the use of the woorali poison in cases of lockjaw. Woorali is obtained indifferently from various lianas or vines proper to South America. The plant is boiled in water, which is afterwards slowly evaporated, until the residue assumes a viscous, gummy form. This may be swallowed with impunity, but when introduced into the circulation by wounds is most deadly. The natives of Demerara poison with it the delicate bamboo arrows blown from hollow reeds, wherewith they kill game in the vast tropical forests of that region. The animal struck by one, however slight the wound inflicted, is sure to die painlessly in a few minutes by a species of paralysis. Should the hunter accidentally graze himself with the evenomed point, ignorant of a remedy, he resigns his weapons to his companion, and lies down calmly to await death. The Indians of the Orinoco assert that salt taken internally is a specific against this poison. They use it both in the chase and in war. Humboldt states that, though seemingly unarmed, the Indian of the Orinoco kills with a poisoned thumbnail, impregnated with the woorali, so that a scratch from it would be fatal to his enemy. This poison appears to have nearly the same constituent as strychnine, though affecting the animal organization differently, since strychnine convulses, while woorali paralyzes the system. They neutralize each other. It is on the theory of counteracting the convulsions of tetanus, by the paralyzing power of woorali, that the use of this dangerous agent has been advocated by some as warmly as it has been deprecated by others. Sufficient data have not yet been accumulated to justify a decision, though certainly some cures of this dreadful disease seem to have been effected by it.

ROSA BONHEUR'S HORSE FAIR.—Messrs. J. M. Emerson & Co., No. 37 Park-row, this city, have published a lithograph engraving of this famous painting, 13x25 inches in size, which they give as a premium to each of the subscribers to the *United States Journal*. Any person inclosing \$1.15 to the publishers, as above, will receive the engraving by return mail, carefully rolled in a strong tube and prepaid, and the *Journal* for one year. The lithograph was executed by Sarony, Major & Knapp, 449 Broadway. It seems to us that the outlines are not well defined, but it is a very spirited and, on the whole, admirable lithograph, richly worth the money that it costs, to say nothing of the *Journal*. The painting is in the fine gallery of its owner, that eminent patron of art—Mr. Wright, of Hoboken.