

Scientific American.

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Agricultural Implements.

We remember very well, in the early years of the SCIENTIFIC AMERICAN, of the complaint being often made that improvements in agricultural machines had not kept pace with those of machinery for manufacturing purposes. Since the time we first commenced to direct attention to such machines, we may fairly claim for their inventors an intensity of application, and a success in adaptation, equal to if not surpassing all other kinds of machinery. All our farmers realize, with pride and satisfaction, the vast number of improvements that have been made within a few years on old agricultural machines, and the introduction of a great number of entirely new ones. This also affords us a great amount of sincere satisfaction; we having labored in our own way to bring about such happy results.

Our agricultural readers will perceive that we have illustrated two agricultural machines this week—a cultivator and a hand seed planter. The SCIENTIFIC AMERICAN being the only true repository of American inventions, it is the source to which our inventors go to have their inventions illustrated and brought before the world, and the only source to which our people look for such information. Since the commencement of this volume, no less than twenty-five new patented agricultural machines have been illustrated in our columns, and these embrace almost every variety, from an ox-yoke to a churn. This, independent of fifty-nine figures of reapers and mowers, makes over two engravings of agricultural implements which we have illustrated and described every week. The SCIENTIFIC AMERICAN is therefore one of the best farmers papers in our country, and it gives us sincere pleasure to know that our agricultural contemporaries appreciate the good that it has done and is doing in this department of the useful arts. Every new machine which we illustrate and describe sets a number of inventors thinking and planning. It is thus that a periodical devoted to inventions and improvements, rouses to activity minds that would otherwise have lain dormant, and thus it tends to advance every useful interest and elevate every inventive mind.

Uniform Weights and Measures.

The suits at law in our courts, caused by different standards of weights and measures, show the necessity of having one uniform standard fixed by the United States Government, and of repealing all State laws on the subject. The State of Pennsylvania, by fixing 2,000 pounds as a ton weight, acted consistently with the policy which ought to govern the United States authorities on this subject. Congress has gone one great step towards adopting decimal quantities when it fixed the dime at ten cents, the dollar at one hundred cents, the eagle at one thousand. It ought to go the whole distance now in a matter of so much public convenience, making all the weights and measures of the country conform to one uniform standard, and that based upon decimal quantities. This is far more important to the true interests of business than one-half the legislation of Congress, and we hope that some liberal-minded Member will introduce the subject into that body at the next session. How much more admirably the business of the world would be transacted, and with what a relief from mistakes and losses, if every government were to adopt the same standard of weights and the same measures of capacity and value, by adopting the decimal system throughout.—[Philadelphia Ledger.

[This is an important question, and one which has been agitated among merchants and scientific men in our country for a number of years. It would be a great benefit to commerce and science, if there were a uniform system of weights and measures established throughout the whole world. We cannot

expect any such reform in barbarous nations, but we think that all the civilized nations of the earth should adopt one system. It is surprising to us that our government has done nothing to carry out the above recommendation of the *Ledger*, knowing, as we do, the subject has been repeatedly pressed upon its attention for a number of years. We humbly believe that if a greater number of farmers, merchants, manufacturers, and mechanics were sent to Congress, there would be less time spent in party and personal recriminations, and more useful laws would be enacted. We want a number of lawyers in Congress, to be sure, but there are always too many of them sent there. This is not their fault, by any means; it is their bad fortune, and people should not impose such duties upon them. Petitions have been sent to Congress again and again, praying for the adoption of a metrical decimal system of weights and measures; and in 1853, Alexander Vattemare, of Paris, addressed a letter to Senator Hamlin, Chairman of the Committee on Commerce, recommending this all important subject to his attention, and yet, for all we or the public knows, he might as well have written to a stone wall. Already some of the most insignificant nations of the earth have distanced the United States and England, with all our boasted Anglo Saxon spirit of progress, in this matter. Belgium, Spain, Holland, Greece, Lombardy, Sardinia, Modena, Chili, Columbia, New Granada, and Mexico, have adopted the French metrical system of weights and measures, and why should not we, if it is the best system. If it is not the best system, let us have the best, for assuredly our present system is, to use an Irishism, "no system at all." We have Troy weights, and Avoirdupois weights, wet measures, and dry measures, each having its inconsistencies, and all their defects. We long to see the day when all these will be swept away, and a uniform system, as recommended by the *Ledger*, adopted. We have already done so in our currency, why not in weights and measures. It is a shame to us that we have not done so long ago; and that we have suffered ourselves to be surpassed in this respect by such nations as Spain and Mexico. We ought to be the first nation in the world in every thing; we ought to lead the legislation of the world in national reforms, and not be led by any. But when any nation does adopt an *improvement*, let us not delay adopting it also, if it will be beneficial, no matter whence it comes or who is its author. The inquiry should be, "is it a good thing." If the answer is the affirmative, let no delay prevent its introduction. We never can adopt any *improvement* too soon. We hope this subject, as suggested by the *Ledger*, will come up before next Congress. Will some Senator, in the interval, study the subject carefully, and prepare a Bill, so as to introduce it at an early part of the next session, in order that it become a law as soon as possible. We believe that but little if any opposition will be raised against it. The subject cannot but commend itself to the good sense of all. It will be a popular measure with our people, and will meet with their hearty support.

Clay for Fuel.

The New York *Tribune* of the 19th inst., contained a slashing article on the above-named subject, against some scheme which it says "is now being carried out in New Orleans, by which clay is to be made to drive steamboats and locomotives, warm houses, and perhaps to furnish light." It condemns this scheme justly, although, in doing so it exhibits but a limited knowledge of the nature and uses of clay. It is right on the main point, however, viz: that clay is an incombustible substance. Still, we must say, that while it condemns the *gullibility* of the public mind respecting reported new discoveries, it should have done so with a modest confession of its own weakness in this respect, and its agency in gulling the public by the positive assertions which it made respecting the success of a number of schemes far more wild and unscientific than the use of clay for fuel (which really can be employed

in many cases as an economical agent in using fuel.) It speaks of the Paine light, and asserts that Mr. Paine, by his statements, so far influenced the public mind as to affect the value of the Hudson & Delaware stock, and other coal property, and that "these statements were certified by some of the most respectable names in New England." This we believe is true, but why leave out New York? Some very respectable names in this city certified to those statements—one of them a professor of chemistry. "And yet," says the *Tribune*, "all he taught was opposed to very simple philosophical principles." True, but where did our cotemporary learn this? There are some kinds of prophets who are great upon predicting events after they come to pass. The following extract from the *Tribune* is exceedingly appropriate: "Two years since, a Cincinnati inventor drove a grist mill with as many wood shavings as he could carry in his hat, and promised to take a steamboat of the largest size to New Orleans with a bushel or two of coal; and this too was certified by men of the highest respectability, who had seen the machine in motion. The object of the inventor, we presume, was accomplished, for, from that day to this we have heard no more of him or his engine." If we change the words Cincinnati and New Orleans, and substitute New York and Washington for them, and then add "one of these respectable names was that of an Editor of the *Tribune*," we will have a positive fact staring out before us. Come neighbor, make an honest fair confession.

The Street Sweeping Machines.

On the 18th inst. Joseph E. Ebling, Commissioner of Streets and Lamps, who has employed the street sweeping machines for sometime in this city, reported against these machines as being incompetent to the work, and unfit to clean the streets satisfactorily.

We are surprised at this report. Can it be possible that in England some of the cities have been cleansed economically for years by machinery, while we in this land of inventive genius confess inability to do so? We cannot believe that American mechanical genius can be discomfited thus. We have no doubt but our streets can be cleansed by machinery at less cost than by manual labor, and the time will yet come when this will be conclusively demonstrated.

Camels for the Western Wilderness.

Major Wayne has been appointed by the government to proceed to Persia, and purchase fifty camels, and bring them to the United States, for the purpose of army transportation in the great Western Wilderness. It is believed by many that these animals can be acclimated, and made exceedingly useful in our country. We do not see why this may not be accomplished. The horse is not a native of our continent, yet he has prospered wonderfully, both in a wild and cultivated state, since he was first introduced by the Spaniard. The camel is a native of the same country—Arabia—where the horse is found in his most perfect condition. If the horse therefore has thrived here, it is reasonable to conclude that the camel may do so also. We have deserts in some parts of our territories, and for traveling over these the horse is not so well adapted by nature as the camel; we therefore hope that this enterprise will prove successful.

Occultation of Venus.

A beautiful occultation of Venus was witnessed in this city on the evening of the 18th inst. The sky was undimmed by a cloud. About half-past eight o'clock, the planet seemed to rest for ten minutes, like a glittering gem, on the edge of the moon's darkened disk, then paled its light, and retired behind the satellite. It re-appeared again about twenty minutes after nine, but the moon by that time had sunk low in the horizon, and the sky had then become somewhat obscured by mist.

Wonderful Bone.

The bone of a bird has recently been found in the lower clay stratum of the Paris basin,

which greatly puzzles the French philosophers. According to anatomists, this bird must have weighed 400 lbs., and its leg must have been like that of a giraffe.

Plans of the New City Hall.

We have received the Report of the Committee of the Common Council on Repairs and Supplies, to whom were referred the several plans and specifications for constructing the New City Hall, in which it is stated that among all the plans submitted, they recommend that of Gilbert, Jackson & Stuart, which they state "excels all others in beauty of design and adaptation to the wants of the city." The general features of this plan are given; the form of the building being quadrangular with an open court in the center. The materials of its external construction are proposed to be of white marble. We had hoped that a better substance would have been employed for this purpose, viz., cast-iron, as we recommended last week. It is far stronger than marble, and can be painted to imitate it, while it would not amount to one-half the cost. Now we go for economy and variety, and if the city can save money by adopting one material in preference to another, which will answer as good a purpose, it is a waste of the public money not to do so, and this we consider will be the case with the material proposed for the New City Hall. We have a marble front City Hall now, and it would look none the worse for a coat of paint to refresh its face. Two structures of the same material—the one placed behind the other—would not be in good taste.

The architects are Albert Gilbert, Thomas R. Jackson, and Henri L. Stuart. This appears to be a new company in such works, and so far as we know, is not distinguished for any single public work, in their united capacity. A great number of plans for the New City Hall have been exhibited and described to us from time to time. We do not remember the names of all their authors, but it is impressed upon our mind that the general features of this plan—the quadrangular with a center court—was described some time ago to us by a different party than the above-named persons.

Paddle Wheels.

It is a singular fact that while every other part of the steamboat has undergone changes and modifications since its first invention, the paddle alone remains stationary and without the least improvement. Yet it is a point to which ingenious men have devoted much thought and inventive labor. Hundreds of thousands of dollars have been expended on new paddle forms, and in the Patent Office at Washington nearly four hundred varieties are found, of which something more than fifty, we believe, have been patented. But nothing has yet been found to take the place of the old original paddle, as it was seen upon the first steamer, and upon the first boat, so far as we know, propelled by a crank.—[Albany Knickerbocker.

[Great improvements have been made in the construction of paddle wheels, so far as it relates to workmanship and the materials employed, if not in their form and operation. The steam engine itself, perhaps, varies as little as the paddle wheel, from the first one employed by Fulton.

Commissioner from Rhode Island.

Capt. C. F. Brown, of Warren, R. I., has been appointed, by Governor Hoppen, Commissioner to the Paris Exhibition for that State. This is a highly creditable appointment for Rhode Island. Capt. Brown is a noble representative of the American inventor. An experienced and intrepid commander at sea, he has devoted much attention in his retirement from naval life, to improvements in mechanics, and has secured a number of patents within a few years for various new and useful inventions.

Major Brown, formerly Superintendent of the New York and Erie railroad, was reported to be lying dangerously ill by the last news from Europe. He had been in Russia for the past five years, as Superintendent of the Russian railways, and had sought the air of Naples for his health.