

Scientific American.

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A Candidate for Public Charity.

The owners of the Woodworth Planing Machine patent have reproduced a pamphlet of eighty pages, setting forth the poverty and incapacity of William W. Woodworth, son, heir, and administrator of Woodworth the inventor, and humbly asking the charity of Congress, to save the heir from the poor-house. The real object in view is to procure the perpetuation of their monstrous monopoly, to wit: the planing of all the lumber produced in the country.

Poor William is made to say in his present memorial, that when the last extension was granted, he was having a terrible time with the lawyers. Suits without number were instigated and carried on by a "combination of wealthy parties, deeply interested in the defeat of this patent, and against whom the *unfortunate* heirs to the estate of an inventor, embarrassed by expenditures to perfect this machine, could oppose but *feeble resistance*." "Your Memorialist and sisters had not the means to litigate them, and they were compelled either to dispose of the term which had thus been granted them by Congress, at the best price they could obtain for it, or to abandon to more wealthy infringers the profits due by law and justice to them." "While these questions were thus pending and thus situated, your Memorialist sold the extended term of said patent for \$50,000, in notes payable at long date, &c. At least 25 per cent of this amount was deducted by your Memorialist from the amount so to be received, in order to convert these notes into available means, and your Memorialist was compelled to pay debts of the estate of William Woodworth, deceased, to an amount exceeding \$20,000, created by reason of his inventions of the planing machine."

If the foregoing statement is true, Mr. William W. Woodworth must be, by this time, on the verge of poverty. But is he the impoverished alms-seeker that he pretends?

When Woodworth submitted his Memorial to Congress in 1852, his claims were most thoroughly examined by the Committee on Patents. They had power to send for persons and papers. They examined many witnesses, and the conclusion they reached was that Woodworth's representations were, in several important particulars, destitute of truth. Mr. Carter, the chairman of the Committee, in his scorching report, tells us that "when the last grant was given, there remained to the administrator an unexpired term of nearly five years, and the extension then granted for seven years in addition, was equal, upon his own showing, to a tribute of three millions per annum, or a direct grant of *twenty-one millions of dollars*. If," continues the report, "he chose to part with this for \$50,000 or \$100,000 without reserving to himself some further equivalents beyond those which appear upon the face of the recorded papers, it was an act of strange improvidence, with which the Government has nothing to do. If the terms on which he afterwards parted with the re-issued patent were equally unfavorable—and upon that point the Committee have no information—the Government has no share in the responsibility. It neither imposes upon Congress the obligation nor invests them with the right to fasten upon the country, for his benefit, an immense burden of taxation for another term of fourteen years. The Committee, however, are not able to believe that the Memorialist has not profited amply by the precious bounty of Congress. Be that as it may, the debt has been paid by the country, and *overpaid* many hundred-fold. The invention of William Woodworth has no claim to further remuneration."

The Committee are not alone in thinking that the Memorialist has been amply profited by the bounty of Congress. It is difficult to believe that the administrator actually sold the entire extension of seven years, for a smaller sum than the patent was then netting in a single week. At the rate of \$3,000,000 per annum, the profits were fifty-seven thousand dollars a week.

The Woodworth memorial contains several other prominent features that are as wide

of the real truth as the one we have discussed. We shall probably allude to them again, and perhaps in a future number republish the whole of the Carter report.—That document is entirely unanswerable by the Woodworth memorialists; we believe they have never made any attempt to refute it; indeed, in their present pamphlet, they attack everything but that.

The Congressional Committee of 1852 effectually silenced them for three years, and unless we greatly misunderstand the signs of the times, the Committee for 1855-6 will silence them forever. But the most desperate efforts are being made, we understand, to subsidize and bring over the Senate, the House of Representatives, and all persons having political influence. The extension, if obtained, will be worth, to the grantees, not less than *seventy millions of dollars*! They can afford to spend a million or two in its obtaining, and they mean to do so. The most vigorous efforts, therefore, must be made to insure their defeat.

Once more we call upon the people to make their sentiments on this subject known through their Representatives. We urge them to act earnestly and with determination. One more vigorous blow and this hydra of wrong and corruption will be laid low in the dust. Petitions adverse to the monopoly can be had by writing to the SCIENTIFIC AMERICAN Office. We hope they will be generally circulated, signed, and promptly transmitted to Washington. Those who take charge of memorials must work hard and incessantly. Not a single opportunity for obtaining a name should be omitted. Petitions should be addressed to the Member of Congress representing the district where the petitioners reside.

In our own office we have posted conspicuously a memorial against the extension; it has already received a large number of signatures, but many thousands more are wanted. Walk up, gentlemen, and leave your autographs.

Defects of the Granite Pavement.

Under this head the *Daily Times* of the 13th inst. condemns all the granite pavement in this city. The objections which it has presented against the *large* block pavement, known by the name of "Russ," are correct, but it did not judiciously discriminate between that kind of pavement and the Belgian (how came it to get this name?) or small granite block pavement. The Russ pavement,—the old Roman—is composed of large granite cubes about eighteen inches square, laid on a bed of concrete and cemented in the joints. The first sample of this pavement laid down in this city was in Broadway, about eight years ago, and for a period it gave great satisfaction, because it was such an improvement on the miserable old cobble stone pavement. Large sections of the same and other streets were soon afterwards paved in the same manner. This was while the face of the stones was rough, and afforded a good foothold for horses. About the time it was laid down we pointed out its defects, and stated that when the surface of the blocks became worn and smooth the street would become like a field of smooth steel, and the consequence would be that horses could not travel but with the utmost difficulty on it. This has actually taken place. Another defect pointed out was the difficulty it would always present in obtaining access to sewers, water and gas pipes, owing to its being laid in a bed of hard cement. These evils have now become apparent to all; hence the cry of condemnation has now become somewhat general, and justly so. But why does the *Times* condemn the small granite block pavement as follows?

"The recommendation of the Mayor to the Common Council to groove the Russ pavement is a very sensible one, as far as it goes; but grooves are of but little benefit, as the experience of the grooved and Belgian pavements proves."

What does it mean by saying "the grooves are of but little benefit, as the experience of the Belgian pavement proves?" There are no grooves cut in the Belgian pavement blocks, consequently the above is not correct. Grooving the large blocks of the Russ pavement as is done in some of the old cities of Europe, is an expensive and indifferent system. It may do very well for an old city, over whose streets there is but little carriage travel, but it is a

system altogether unsuited for Broadway—the hardest traveled street in the world, with the exception, perhaps, of one or two in London. The hard cement between the joints, and the hard bottom of the grooves in large blocks, can never afford a sufficient foothold for the shoes of horses. On the other hand, the small block pavement has soft sandy interstices; the blocks are so small and the joints so numerous that it affords a proper foothold for horses even when the blocks are smooth. What, then, is the objection to it, seeing that it affords an easy access to drains, &c.? It is the best stone pavement, we believe, yet tried by our city, and we hope that mere declamation will not be allowed to lead our city authorities to condemn it.

Porter's Stone Dressing Machine.

Our constant readers will remember the illustrated description of the above machine, which appeared on page 57, volume 10, SCIENTIFIC AMERICAN. Since the period of that publication, a Company with a large capital, called the Porter Stone Dressing Machine Co., has been formed in this city, for the purpose of improving and constructing such machines for general use, and we had the pleasure last week of seeing one of their new machines in operation, at their works in Fourteenth street, near the North River. This new machine embraces a number of judicious and excellent improvements. In comparison with the first machine which we saw in operation, its performance was altogether superior. It has been greatly simplified; the number of parts have been reduced, and it is constructed in a most solid and approved manner. It was driven by a neat, but very small steam engine, of 5-horse power, at the rate of 300 strokes per minute, operating four hammers of 450 lbs. each, actuating four sets of cutter's tools in exact line, and which cut a surface of three feet broad on a brown free stone, six feet long, reducing it from a rough to a smooth surface, going over it three times, in a very few minutes. The machine can cut 800 feet of stone per day, from the rough as it comes from the quarry, to a smooth surface, of course changing the tools once from pointed groovers to smoothing or drove chisels for the finishing operation. One good stone cutter can face about sixteen feet of brown stone in a day; this machine, therefore, can do the work of fifty men (800 ÷ 16 = 50).

Quite a number of stone cutting machines have been invented, both at home and abroad, but it is a remarkable fact that none but Wilson's and this one are in operation in this city. There is something peculiar in the nature of stone cutting, which appears to be very difficult to accomplish successfully by machinery. Stone cutting by hand is a laborious and an expensive operation. At first sight it would really appear as if stones could easily be dressed by huge cutters, driven by that mighty agent "steam," in the same manner as planing timber, as the work is but a repetition of certain defined motions. But the nature of stone is peculiar; it must be struck with the chisel in a peculiar manner, and at a certain angle, or the face of the stone will be bruised and injured, because it is a crystalline, and not a fibrous substance like wood. This has been a great difficulty with stone cutting machines; the wrist of the stone cutter has a peculiar motion given to it while handling his tool.—This wrist motion of the tools is embraced in the stone cutting machine of Mr. Porter, and its principle of operation is the same as that of the hand of the human stone cutter. It therefore produces excellent work, and contains within it the principles of success. It is worthy of a visit to see it in operation, by all who are interested in stone dressing. The Office of the Company is at No. 37 Wall st.; the machine is running daily at their works in 14th street, between 9th and 10th Avenues.

Loughridge's Patent Car Brake.

An interesting trial of this highly important invention took place Dec. 11th, on the Hudson River Railroad, between New York and Sing Sing. The apparatus was attached to a special train of five passenger cars; the ordinary brakes were also in place, but independent. The invention consists in having a chain running beneath the cars, the entire length of the train. Attached to the engine is a reel, on which the chain winds. The reel is put in motion by the engineer, who presses against it

by means of a convenient lever, a clutch friction pulley, rotated by the engine. The chain, as it winds up, operates all the brakes simultaneously. The engineer has the most perfect control of the brakes, being able to increase or diminish their pressure by the simple movement of the lever.

Running at 35 miles an hour the train was brought to a stop within 500 feet. At this stage of the experiment, some portion of the apparatus gave way, and the train returned to the city without further exercise, save the following:

The same speed was put upon the train, and the brakemen placed on the *qui vive*, in order to compete with Loughridge. The signal to brake was given, and they instantly did so. The result was, that the cars stopped in as short a distance as when Loughridge's apparatus operated. This proves, we think, that with the common brakes, if properly manned, and the brakemen at their posts, a large proportion of all accidents might be avoided. It also proves the existence of a shocking degree of carelessness on the part of brakemen and other officials in this respect. It likewise proves the great necessity for some invention which shall place the brakes under the instant control of the engineer.

Mr. Loughridge's invention has been before noticed in our columns. It was patented in the United States and Europe through the Scientific American Patent Agency.

New Year's Presents.

In accordance with our custom for several years past, we shall distribute, on the 1st of January next, among our patrons, a number of highly valuable presents. They consist of money prizes, in sums varying from \$100 down. These presents will not be distributed by favoritism; they are open to all who choose to apply for them. We simply require that those who seek them shall obtain for us a few subscribers. For more full explanations of the conditions, see prospectus on the last page of this sheet.

New Year's day is close at hand, but there is still an opportunity for the highest success, if vigorous exertion be made. Several lists have been already sent in; some of them are equal, and in others there is only a difference of one or two names. We would suggest to competitors who have already entered, the propriety of further effort. The addition to their lists of even a single name may save them from defeat, or gain a higher prize. Governors have been elected by the cast of a single vote.

Test of the Vergennes Scales.

We witnessed, last week, at the Crystal Palace, a test of one of the platform weighing apparatuses made by the Vergennes (Vermont) Scale Co., (Sampson's patent.) This scale requires no pit, and is portable; can be taken up and moved about from place to place with facility. The scale on trial had a capacity of seven tons. The test was made with a large chunk of iron weighing two tons. This was moved about from end to end on the platform, but in no case was there a variation of over two ounces. So accurately adjusted was the apparatus that the addition of a copper cent to the weight made a sensible difference in the movement of the weighing beam!

Subsequently a trial was made before the Committee of Arts and Sciences of the American Institute, when the great railroad scale, 100 feet long, by the same makers, and on the same principle, was submitted to a severe ordeal. A truck containing a dead weight of 31,142 lbs. 8 oz. was placed upon the track and rolled to different points. The greatest difference of weight between any two tests was 10 lbs. This was close shaving for a gross sum of over fifteen tons. The invention has been before fully described and illustrated in the SCIENTIFIC AMERICAN.

At St. Louis, on the 7th, three steamboats were burned at the levee. The loss is estimated at \$70,000. The boats were named *Parthenia*, *Twin City*, and *Prairie City*; the fire caught on the first named.

Notwithstanding our admonitions, we continue to receive models without the inventor's names attached. This prevents us from acknowledging their reception.