New Inventions.

The Woodworth Patent Extension.

This Bill is just about to be brought forward by interested friends, in the House of Representatives, and many persons are afraid that it will be rushed through by craft and intrigue. The owners of the patent are leaving no means untried to secure their object, and it is said that although numerous remonstrances have been sent in against its extension from almost every part of our country, only a few have been presented; the others have been kept back, for purposes best known to the members who received them. We hope thosewho are opposed to the extension of this monopoly, and who have sent in petitions against it, will see to it that the Representatives who have received their remonstrances, do their duty, not only in presenting their petitions but taking an active part against the extension. Those who are opposed to the extension must not suppose they have done their whole duty, by merely signing remonstrances, and sending them on to Washington, or in having been the means of getting their Legislatures to pass resolutions against it; they must watch and work, and see that their Representatives do not betray them, until the question of the extension is settled forever.

Seward's New Patent Bill.

The Washington *Intelligencer* says :—"The subject of patents for useful inventions is one of growing interest in this country, and the inventive genius of our countrymen has even made an impression in the Old World, from which quarter high honors have been awarded. Mr. James, of Rhode Island, introduced into the Senate, some time ago, from the Committee on Patents, a bill which attracted a good deal of attention. It has not yet come up for final consideration, but Mr. Seward has introduced a substitute for it, which deserves notice. It omits, as we learn, the radical provisions of Mr. James' bill which relate to the extension of patents, the review of decisions of the Commissioner in granting patents by *scire facias*, &c., and confines itself to certain amendments necessary to relieve the Patent Office of much heavy labor, and expediate the transaction of the patent business therein. Inventors will scan all these movements with a close reference to their own interests, and the public at large have an interest in them scarcely less important. That the subject is one of great delicacy is evinced by the earnest debates which have occurred within a few days past in regard to reaping machines."

The new Steam Frigate Wabash.

This frigate—one of the six new ones—is about completed. It was designed by J. Lenthal, Esq., Chief of the Bureau of Construction, at Washington. The engines have been constructed by Merrick & Sons, Philadelphias The length of keel is 261 feet, over all 301 feet; breadth of beam 54 feet 4 inches. It. tunnage is 4,700 tuns. The frame is of the best live-oak. It has two engines with cylinders of 72 inches bore and 3 feet stroke. These have slide valves worked with the link motion. They are designed to run at the rate of 50 revolutions per minute, under a steam pressure of 20 lbs. Their power is 1,480 horses. It has four tubular boilers made according to Chief-Engineer Martin's patent. These have 5,440 tubes and 16,660 square feet of heating surface, and are fired from 20 furnaces. The propeller is two-bladed, 17 feet in diameter, and weighs over ten tuns. We hope this frigate will do better than the *Merrimac* has yet done. The *Niagara* is getting along somewhat slowly at the Brooklyn Navy Yard. Push on the work, gentlemen, and let us see the result of the enterprise.

Philosophy of Wetting Bricks.

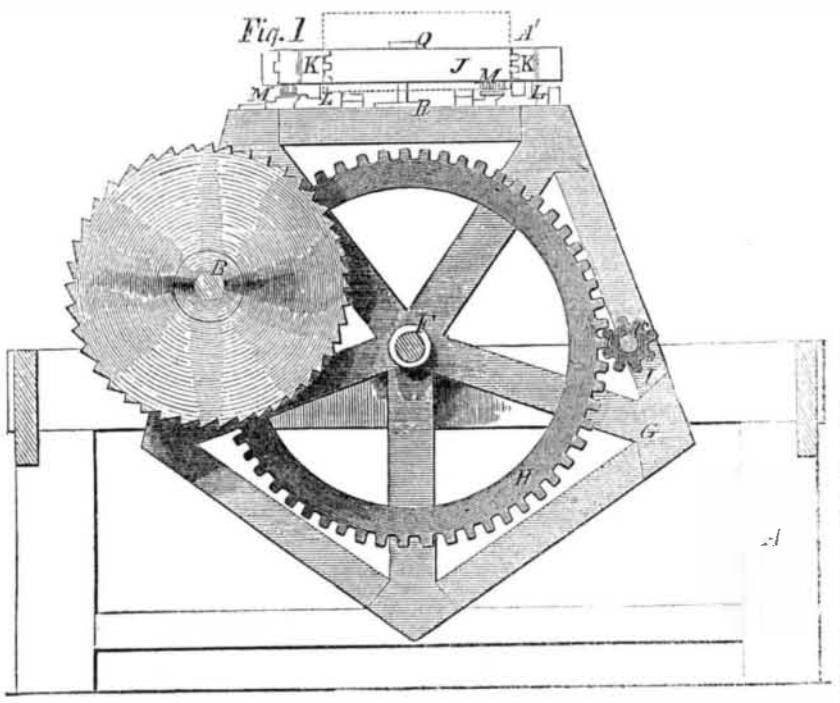
Little bits of practical information which we are accustomed to collect and present to our readers we frequently find appropriated by other journals after they are years old; and again, we often find these paragraphs copied from paper to paper, credit being given for the second-hand productions. This we have found to be the case with an article having the above caption. It has recently been going the rounds, credit being given to the Philadelphia *Journal*. It was published ten years ago in the Scientific American.

It explains briefly the philosophy of wetting brick during warm weather. Lime-mortar only acts as a bond, with brick by adhesion, the vehicle being the moisture or water of the mortar. Dry porous bricks at once abstract the moisture from mortar, and it soon evaporates; and thus the binding vehicle between the two is removed.

Spring and fall are the best seasons of the year for building brick houses. In warm dry weather the moisture of the mortar evaporates too rapidly; and in frosty weather it crystalizes, and when thawed it sweats out.

Mortar becomes hard by absorbing carbonic acid from the atmosphere; and it acquires by age the character of stone. Without moisture it will not become hard and solid, but crumble into dust, hence the necessity of preventing the rapid evaporation of moisture in mortar used in buildings of brick or stone.

IMPROVED SHINGLE MACHINE.

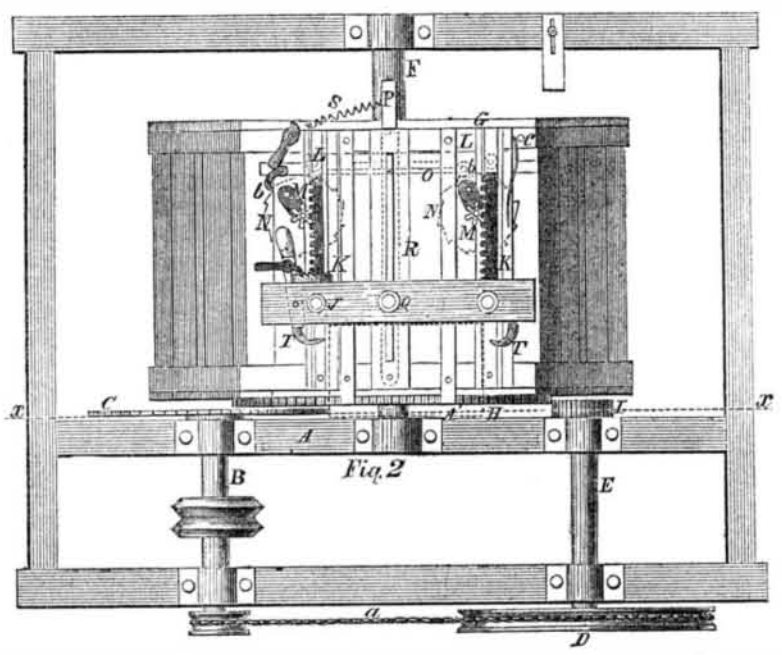


New Shingle Machine.

This invention consists in attaching a series of carriages to the faces or sides of a polygonal wheel, and having said carriages attached to racks in which pinions gear, the axes of the pinions having ratchets attached to them, in which ratchets, pawls, on a sliding bar, catch. the above parts being arranged and operating in connection with a circular saw, as will be presently shown and described. so that the stuff or blocks from which the shingles are cut, will, as the polygonal wheel rotates, be automatically fed to the saw.

In our engravings, A is a rectangular frame on which an arbor, B, is placed, said arbor having a circular saw, C, on its inner end. The saw, C, is driven by a belt, *a*, from a driving pulley, D, on a shaft, E, said shaft being on the end of the frame, A, opposite to the end where the arbor, B, is placed.

F is a shaft placed on the frame, A, at about its center. This shaft has a polygonal wheel, G, upon it. One side of the wheel, G, has a geared rim, H, attached to it, which rim meshes or gears into a pinion, I placed on the inner end of the shaft, E. On the several faces of the wheel, G, there are placed carriages, J, (only one is represented, that being sufficient as they are all similart each other, and arranged end operated precisely alike.) The carriage, J, is attached to racks, K K, a rack being at each end of the carriage. The racks, K K, are fitted in metal guides, L L, which are pivoted at one end to the faces or sides of the wheel, G. M M are pinions which gear into the racks, K K. The axes of these pinions pass through the side or face of the wheel, and have ratchets, N, on their inner ends. O is a sliding bar placed on the under side of the face of the wheel, and having two pawls, *b b*,



attached to it, said pawls catching into the ratchets, N. P is a lever, one end of which is pivoted to the under side of the face of the wheel. The bar, O, is attached to this lever, and the outer end of the lever, P, projects some distance beyond the side of the wheel, G. Through the center of the carriage, J, there passes a bolt, Q, the inner end of this bolt works in a slotted plate, R, attached to the face or side of the wheel. A spring, S, is attached to one of the guides, L, the end of said spring bearing against a pin, *c*, on the face or side of the wheel. This spring keeps the racks, K, in gear with the pinions, M M. To the ends of the carriage, J, dogs, T T, are attached. These dogs are of usual construction.

The operation is as follows:—The blocks designated by A, and from which the shingle are sawed, are secured by the dogs, T, to the several carriages on the wheel, G. A rotating motion is given the driving pulley, D, in any proper manner, and a rotary motion is communicated to the wheel, G, and saw, C. As the wheel, G, rotates, the saw, C, cuts the shingles from the blocks, and the lever, P, of each side or face of the wheel, as said sides approach the saw is operated by a projection, U, on the frame, A, and the sliding bars, O, are actuated, and the pawls, *b b*, turn the ratchets, N, and the pinions, M M, move the racks, K K, and the carriage, J, and block, towards the saw.

It will be seen that the feed motion is automatic or self-acting, each block being fed towards the saw a requisite distance, at every revolution of the wheel.

This machine operates, we are told, with great success. It cuts all kinds of timber equally well, and the shingles are more even than those ordinarily produced, as it sets itself with great precision. It also performs its work with great rapidity, for the blocks on which the stuff is secured, having a revolving motion. a new block is presented to the saw the instant the preceding shingle is cut off. In ordinary machines time is lost by the back movement of the carriage after each cut. Price of machine with jointer complete, $200. Mr. Jason Palmiter, of Jamestown, N. Y., is the inventor, of whom, or of Messrs. J. A. Knight & Co. 334 Broadway, N. Y., further information can be had. Patented June 10, 1856.

Recent Foreign Inventions.

A Perpetual Motion Again.—The *London Mechanics Magazine* states that the following is the full specification of a patent recently taken out by E. Poulson :—"My invention consists of a new constructed engine for marine, locomotives, and standing engines, to be worked either by steam or principally by manual labor, by a suspended lever, or a new constructed fly wheel charged with quicksilver, as the case may be; that is to say, as fly wheels are not convenient to work on shipboard in a gale of wind or a hurricane, the engine may be worked by manual labor only and the action of the engine from the motive point of power, is by an action and re-action."

This specification is clear *as mud*, yet amid the puddle, we can perceive that the inventor has got hold of a perpetual motion. He expects he increases the power of his engine *ad infinitum*, by the length of the lever he employs; and in his quicksilver loaded fly-wheel, we perceive the unbalanced mercury wheel, which has been brought forward so many times for an action and re-action perpetual motion. All fools are not dead yet.

Preventing Water Entering Steam Cylinders.—J. W. Duncan, London, patentee.—This invention consists in placing in a suitable chamber in the steam chest, a quantity of waste wire or fine cuttings of metal and passing the steam from the boiler through these before it enters the valve chamber and cylinder.

In consequence of priming in boilers, much water sometimes passes over into the cylin ders or steam engines, causing them to labor heavily and oftentimes to break down. And without priming, some water is generally carried over with the steam, in all engines, which (however small the quantity), clogs their action. Locomotive cylinders are discharged of water before starting, by cocks in their ends. A perforated metal plate interposed between the valve chest and steam pipe, is often employed to shed this water, which may not be as effective as the fine wire placed in a separate chamber, as embraced in the foregoing patent. This chamber, of course, has a blow-off cock.

Superheating Steam.—F. Allman, London' patentee.—For superheating steam engines, this inventor employs a separate heating chamber for the steam, which is admitted in separate quantities, according to the strokes of the engine, instead of allowing it to pass continuously from the boiler as generated, into tubes passing through the furnace, thence to the cylinder. The steam is generated in a boiler in the usual way, then passes into the steam space or dome, from which it is admitted into the calorifier to be superheated, by a valve worked regularly by the engine.