

New Inventions.

New Window Fastener.

Mr. Levi Gilbert, of New Haven, Conn., has invented a very neat and certainly a most effectual window fastener, for which he has taken measures to secure a patent. The fastener is secured on the sash, in the inside, and has to be drawn out of the catch, when the window is elevated or lowered, but by a spring piston it fastens itself at the right point, without being touched, and answers all the purposes of a lock at the same time.

This puts us in mind of another excellent invention of Mr. Gilbert, viz., his Central Cavity Plate for inserting artificial teeth, on the principle of atmospheric pressure, for which he obtained letters patent. It is more than a year since we saw Mr. Gilbert's Plate, and we were convinced at once that it was the greatest invention for Dentists, and those who require new teeth inserted, that had ever been brought out. We are glad to know that the most eminent dentists in our country, now acknowledge the merits of this invention, and use it in their business.

New Lantern.

Mr. Wightman, whose advertisement will be found on another page, manufactures a most convenient and greatly improved lantern, far superior to the globe kind. It has four lights or glasses, it being square, either of which can be re-placed in a second by another, if broken, and it is adapted either for an oil lamp or candle. The lantern, with a glass oil lamp costs only \$1, and a box to carry it is included in the bargain.

Farmers, yea, and every family in the country, should use this kind of lantern in preference to the common kind. Country merchants, we believe, would find a ready sale for them. Any letter addressed (*p. p.*) to Henry Wightman, care of Daniel Coply, New Lebanon, Columbia Co., N. Y., will meet with prompt attention.

Improvement in Hydrants.

Mr. J. D. Haines, of No. 557 Grand street, this city, has taken measures to secure a patent for an excellent improvement on Hydrants. He employs a lower piston valve, which is packed all around, and it moves in a close centre cylinder chamber, allowing the water to pass up through an outer circular chamber, and then up through the centre of the box. The piston is moved by a screw at the top, but it is drawn up, (the piston) and pushed down without turning round. The orifice for draining off the back-water is made from the centre piston chamber, so that the piston, being packed around, and raised from its seat, will always cover it, when the hydrant is open. It is exceedingly simple in its construction. There is great competition at present among our plumbers, to see which will invent the most perfect hydrant.

New Plan of Tin Roofing.

Messrs. E. T. Harris & G. M. Radley, of this city, have taken measures to secure a patent for a new plan of Tin Roofing, without soldering, whereby roofs can be laid down in one-fourth of the time now employed for that purpose, and they will be much stronger and more durable. By a peculiar arrangement, each sheet of tin is firmly secured to the flooring of the roof, without nails or solder, such roofing, therefore, must be more durable than that made of soldered joints.

How to Puzzel the Rogues.

In the genuine notes of the State Bank of Ohio there are as many human figures represented as the bill is worth dollars. If the counterfeiters wish to alter the small bills to large ones, as a \$1 to \$100, they would have to put in ninety-nine human figures—a thing not quite so easily done.

The Woodworth Patent.

A resolution has been presented to Congress by H. S. Conger, instructing the Committee on Patents to enquire into the propriety of repealing the act which was passed in 1845 extending the Woodworth Patent.

Novel Plan for Building Houses.

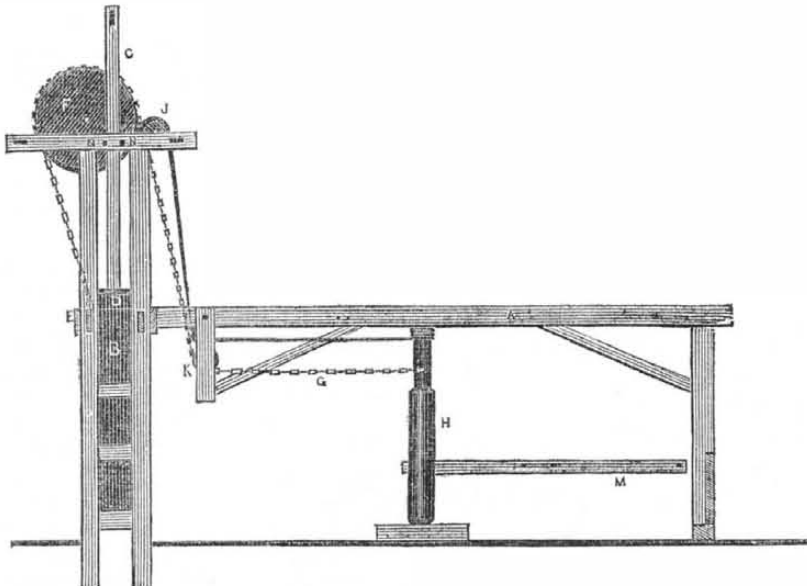
Mr. S. T. Fowler, of Harlem, near this city, has invented a new system of House Building, which is so simple that any man may put up his own house after viewing one built on Mr. Fowler's principle, while at the same time it can be built at less expense, in a shorter period, and is both stronger and more durable than wooden houses built in the common way. It is built of scantling, both frame and flooring,—no joints, sills, posts, nor common braces being used. It is an excellent invention for California emigrants, or for those who design to settle in our Western Territories. Measures have been taken to secure it by patent.

Strength of Gutta Percha Tubing.

A trial of the strength of gutta-percha tubing took place a few days ago at Stirling, in the presence of a committee of the town council, with a view to its applicability for extinguishing fires, flushing drains, &c. The tubing, which was one and a half inch bore, was attached to the water-pipes, and although the pressure of the water is perhaps the greatest in the kingdom, (being about 450 feet,) not the slightest effect could be perceived upon either the tubing or the joints, whilst the same pressure upon strong leather hose scattered the rivets in all directions.—[London Times.]

BROWN'S ECCENTRIC PROGRESSIVE POWER PRESS.

Figure 1.



This press is the invention of Mr. A. D. Brown, of Clinton, Geo., and for which a patent was granted a short time ago. It is well calculated for cotton, hay, hemp, tobacco, &c., by horse power; and by using a wheel and pinion may be made very compact, and answer admirably for pressing any other article where great pressure is required in a small space.

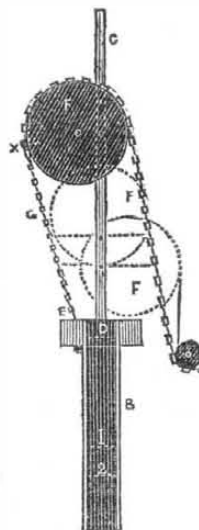
Figure 1 is a side and longitudinal elevation. Figure 2 is a side geometrical section, showing the eccentric pulley in three positions, together with the pressing block and the bale box.

The same letters refer to like parts in all the figures. A is the frame; B the bale box, wherein the cotton is compressed—it is made the usual way they are in cotton screws. C is the stock of the follower or pressure block; D is the pressure block in the bale box. The stock, C, is composed of two upright pieces (one seen) connected to the block, D, by screws, or otherwise, and united above by a tie block.—This follower slides up and down between guides or cheeks, N N, on each side, which are made in any manner to guide the follower in a perpendicular direction to the bale box. The follower and stock are raised up when the bale is pressed, by a rope or chain, which is made fast to the frame, passing under the eccentric pulley, F, over the sheave, J, and under the small top sheave, thence to the capstan, H, where it winds round the reverse way from the chain, G. Between the sides of the stock, C, there is placed a pulley, F, over which passes the chain, G; this chain is secured at one end to the staple, E, in one of the transverse beams of the frame A. The chain, G, extends from the staple to the capstan, H, passing over the eccentric pulley, F, and under the sheave, K, as represented in figure 1. The capstan is operated by power applied to the lever, M, which, by winding the chain, G, on the capstan presses, or draws down the stock, C, (at the same time unwinding the chain or rope, A) and the follower, D, upon the cotton in the box. The pulley, F, is placed in the stock, C, on an eccentric or nearer the periphery than the centre. Its axle passes through the stock, and through the pulley as represented.

The space through which the follower, D, moves in a given time is indicated by the circles in fig. 2; it is intended that the pulley, F, should make only one half of a revolution in pressing the bale of cottons, &c. In fig. 1 is in-

dicated in the position of the pulley, F, at the period when the act of compression is about to take place. The first dotted lines, F, (fig. 2) indicates the position of the pulley when it has made one quarter of a revolution during which time the follower descends through the space from D to 1 and 2, indicates the position of the pulley, F, after it has made the second quarter of a revolution, during which period, the follower only descends from 1 to 2. Having finished the bale you turn your mule or horse, and drive in the opposite direction you raise out the follower by winding the rope on the capstan and unwinding the chain, G. The follower is easily pushed from over the bale box, swinging on the axle, so that the whole top of the box is open to receive the cotton. The chain, G, as seen from E to X, fig. 2, is four times as large as from thence to the capstan. At X there is a strong staple driven into the pulley, F, over the last link of the large chain to prevent slipping.

Fig. 2.



Mr. Brown will sell the Right for the above Press for any State or for counties in any State except Georgia where he intends selling single Rights and furnishing materials to all who may desire to purchase. Any communications (*p. p.*) will be punctually attended to.

Planters will immediately perceive that this press is very simple. It is a very ingenious combination of the lever power of the capstan and the revolving eccentric pulley, whereby greater speed and small power is used at the commencement, and less speed and greater

power, as the compression proceeds. It is not theoretically but practically good, as the following extract from the Georgia Journal and Messenger, Macon, will show:—

We last Summer noticed an important invention by Mr. A. D. Brown of Clinton. It is an improved Cotton Press, of great strength and simplicity of construction, and of much greater power than those now in use.

Mr. B. has completed one of these Presses upon a large scale, and has fully tested its superiority.

The Steamboat Challenge.

Mr. Peter Yates has sent us a letter in answer to the letters of challenge between himself and Mr. Grennell. Those letters were sent us by Mr. G., and the publication was assumed by us, as matter of interest to our readers. The challenge of the \$30,000 was the greatest, in our opinion, ever brought before the Mechanical World. We have not space for Mr. Yates' long letter, but we will give the substance of it fairly.

He says, Mr. Grennell, instead of accepting his challenge, becomes a challenger in turn. He does not consider himself to have backed out, as his challenge was as fair as Mr. Grennell's. He says, "I will bet him, or any other person, both boats of 6 or 8 horse power, against \$2,000, upon the gain of one minute in 8, and use with the pulley one-quarter less steam. If Mr. Grennell wins, I will find him a purchaser at \$2,000, and if he loses the first bet, I will not touch the money, if six competent and disinterested engineers, upon oath, say the pulley engine will not maintain its high advantages."

This is fair, and Mr. Grennell's challenge is equally fair. Every man has a right to his own opinion; Mr. Yates thinks a safe boat, to go to Mobile could not be built for \$30,000, but a steamer 50 feet long, has crossed the Atlantic.

Mr. Yates says "how long must nearly every inventor of a great improvement, continue to be regarded as a fool or impostor, by his contemporaries, and be compelled to tempt, by a large bonus, those most directly interested, before they will condescend to look at it, and be treated more like a criminal to be punished than a benefactor to be rewarded?"

We say, when an inventor finds a great many sincerely differing from him about his invention, he should suspect that they have as good reasons as he has, for their opinions—This is even-handed justice. Mr. Yates (and we say it in all friendship) has not pursued a right course—he has, in every case, been the attacking party, and invited controversy. He did not do right—he should first have given a faithful description of his invention, and not fought, like a Junius.

We are in principle opposed to betting. The only way to test the superiority of Mr. Yates' invention, is to put it on one of our North River boats—its superiority of speed and general economy will thus be fairly submitted to a competent trial.

Remington's Bridge.

Several persons have written us for information concerning the residence of Mr. Remington. We have received information that he now resides in Montgomery, Ala., and is engaged in constructing a bridge there of 400 feet span. Those wishing information can address Mr. R., or J. Beattie, Jr., at Montgomery, *post paid.*

A New Building Material.

We learn says the Germantown Telegraph, that there has been introduced at Pottsville, a new building material—a kind of large brick, 15 by 30 inches in dimensions, of a handsome buff color, which can be made into any shape desired. The Miners' Journal says they can be worked up into beautiful block fronts for buildings, or used for basements, or any other ornamental work about buildings.

The grizzly bears near the mines in California are so tough you cannot shoot them with a rifle, and they sometimes eat a gold hunter.—Those who dig for gold ought to understand mineralogy. The building of a hut in the mining district gives a claim to 60 feet of land in every direction around it.