



New Inventions.

Improvement in Railroad Switches.

Mr. Freeborne, of Boston, says, the Rainbow, has invented a contrivance for preventing locomotives from running off the track from any negligence of switching, and also for dispensing with a "switchman" altogether. The invention is attached to the locomotives and cars, and the switch is thereby opened and closed by the engineer or brakeman, and a train of cars cannot in any event go off the track unless some obstruction is thrown upon it. This will be an invaluable discovery both in point of safety and economy, as it will enable roads to dispense with a large number of men, and insure greater safety than the old plan of switching.

Improved Locomotives.

The Pennsylvanian says that "an engine is now constructing at Wilmington, for the Philadelphia, Wilmington, and Baltimore railroad which will attain the greatest amount of speed yet reached by any locomotive in this country.

The great obstacle to the increase of speed heretofore has been in the oscillatory motion of the motive car, which a given amount of increased steam-power renders so great that not only is the speed impeded greatly, but both the engine and the track become much racked and shattered by it.

The experienced and skillful superintendent of the engine factory of the Philadelphia, Wilmington, and Baltimore railroad, Wm. L. Treeger, has devoted his attention to this subject, and from his success in the application of his improvement on a smaller scale will secure in the mammoth locomotive now building a very great amount of speed.

It is an improvement of great importance, not only as it increases the speed and safety of railroad travelling, but as it saves any increased wear and tear of the road and the engine.

The main principle of the improvement is the application of braces, which resist the oscillatory motion and impart to the engine such firmness that the application of all the steam power results exclusively in an onward motion, and does not produce the double and antagonist motions of sideways and onwards both."

The Pennsylvanian is surely aware that 60 miles an hour has been run without sensible oscillation to found a theory for the limitation of an engine's speed by oscillation.

Thermometer and Gravitating Clock.

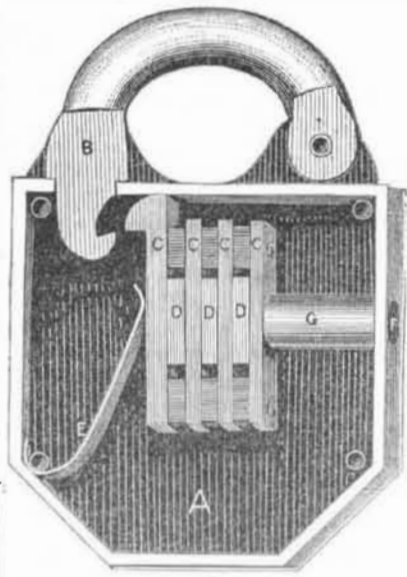
By the True Democrat of Joliet, Ill. we learn that Mr. Jearum Atkins of that place has constructed a clock which has been running for the term of two months, and gives every proof, that it will continue to run by the same power without winding up until it is worn out. This machine has been examined by several learned men who have expressed their belief, that it will continue to perform as it has done, all the requisites of perpetual motion, (not allowing for the decay of the material of which it is constructed,) as long as the laws of nature remain unchanged. The power by which this machine is propelled is obtained by the combined agencies of natural heat of the sun, and the attraction of gravitation. The power of heat, being absorbed by a rod of metal, causes said rod to expand, which on cooling contracts, and this expansion and contraction of said rod of metal, which takes place alternately, as often as it undergoes these changes of temperature, is by means of levers made to raise a weight,—which weight is suspended upon an endless chain passing over pulleys, in such a manner as by its gravitating force, to exert a perfectly uniform power upon the machinery of the time piece, whereby perfectly uniform and continued motion is produced.

COLTON'S PATENT LOCK.

This is a new simple, and anti-pickable lock invented and patented by Mr. Sabin Colton, of the city of Philadelphia. One great fault belonging to most all combination locks is their complexity. No such objection can be raised to this and we are therefore happy to introduce it to public notice. The principle of this lock consists in having three circular metal discs—having one quarter of the circle

plane faced, placed in a metal frame with grooves cut in it to allow the discs, or as we will call them "buttons," to turn firmly and also independently on the same axis. On this frame is the catch which holds or relieves the bolt or bow of the lock, which by means of a spring throws out the catch or detent when the discs or buttons are in a certain position, managed by the key in the frame.

FIG. 1.



This is a view of the lock with grooved plate off, and exhibits the apparatus unlocked by the buttons showing their planes out of the groove plate. A, is the back plate B, is the pad catch. C C C C, is the small frame or rather four square plates joined together at the ends, with an axis passing through the middle on which are three buttons D D D, which are operated by the key

FIG. 2.

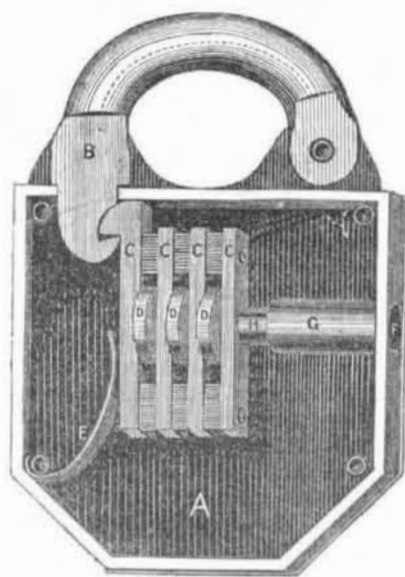


inserted in the hole F, passing through a tube G. This small tube is fixed firmly to the side of the lock. Therefore the axis of the buttons and to which C are attached, is somewhat hollow and moves out and in the tube G, so when there is nothing to hold the frame C, with its catch in B, the spring E, throws out the catch and it is what it is called unlocked.

Munn & Co. are the Agents for the sale of rights, &c. This Scott medal was awarded by the Franklin Institute of Philadelphia, for this lock, and that is only awarded for rare and ingenious inventions, and there can be no doubt but it will soon come into general use.

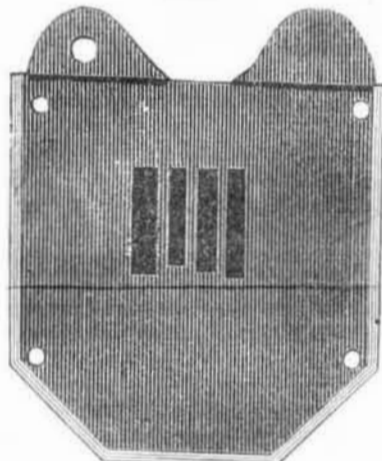
This engraving shows the principle of this lock applied to any one of the common kind to render it burglar proof. A, is a small lock of this kind screwed on the plate of a common lock just behind the main bolt B. A has a small opening in the side to receive B, therefore when B is thrown out at the other end, if C (as shown in fig. 4,) be thrown behind B, and not retained there by the same principle described already, that it will be impossible to thrust back B, until it is relieved by opening A. Thus a common lock, for a very trifling expense can be made as safe as

FIG. 3.



This will explain the operation of this lock still further. The same letters refer to like parts of fig 1. This view shows the circles of the buttons projecting above the parts C C C, therefore it will be plain to every one that if the groove plate fig 4.

FIG. 4.



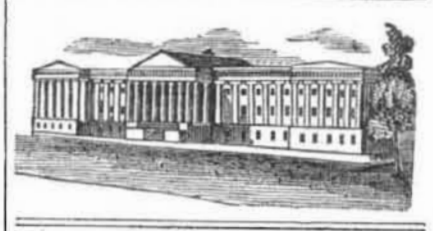
was on to this lock and D D D, the buttons caught into the grooves of this plate, that the spring E could not relieve the catch B from that of, C. This then is the principle of this lock, but let us state some of its advantages. Fig 2. shows all the parts of fig. 1, with H the axis thrust through G.

Figure 5.

some that cost \$60. The several parts here displayed are those of locks quite common and need not be further described than to say that C, is the axle to throw out the main bolt B. E E, is a cross piece of metal connecting two minor bolts B B. D, is a catch to hold back the minor bolts when required.

The advantages of this lock are simplicity and yet intricacy, especially as will baffle any person to take an impression of the key by wax or any such material. This is owing to the buttons being operated by the key either singly or collectively, so that one button in a

groove of fig. 4, will hold the door perfectly locked—therefore when the catches are entwined the key can be turned backwards and one button only with its circular part left to project into the grooved plate. This key can only be turned one way or else the lock never can be opened. This can be best explained by the model which is at this office.



LIST OF PATENTS

ISSUED FROM THE UNITED STATES PATENT OFFICE,

For the week ending Oct. 10, 1848.

To Augustus Hamann, of Washington, D. C., for improvement in Spark Arresters. Patented Oct. 10, 1848.

To T. M. Hemphill and R. H. Knox, of Washington, Ohio, for improvement in Mills for Grinding. Patented Oct. 10, 1848.

To B. F. Berwick, of New York City, for improved Screw Blank Machine. Patented Oct. 10, 1848.

To Oscar S. Burgess, of Columbus, Ohio, for improvement in Harness Buckles. Patented Oct. 10, 1848.

To John P. Hayes, of Boston, Mass., for improvement in Chimney Caps. Patented Oct. 10, 1848.

To David Dick, of Meadville, Pa., for improvement in Presses. Patented Oct. 10, 1848.

To Livingston, Roggin & Adams, of Pittsburgh, Pa., for improved Moulder's Flask. Patented Oct. 10, 1848.

To Frederick Emerson, of Boston, Mass., for improvement in Ventilating Ships. Patented Oct. 10, 1848.

To James H. Sweet, of Concord, N. H., for machine for making Spikes. Patented Oct. 10, 1848.

To Joseph Schofield, of Philadelphia, Pa., for improvement in Uterine Supporters. Patented Oct. 10, 1848.

To Samuel J. Seeley, of New York City, for improved Shot Plug. Patented Oct. 10, 1848.

To H. W. Day, of Boston, Mass., for improvement in Type Moulds. Patented Oct. 10, 1848.

To Jacob Shaw, jr. of Hinckley, Ohio, for improvement in Wheels for Spinning. Patented Oct. 10, 1848.

To Charles Sines, of Village Green, Pa., for improvement in Corn Shellers. Patented Oct. 10, 1848.

To William Wright, of Philadelphia, Pa., for improvement in Blocking Hats. Patented Oct. 10, 1848.

To Lewis Roper, of Philadelphia, Pa., for improvement in apparatus for administering Ether. Patented Oct. 10, 1848.

RE-ISSUE.

To Tim. D. Jackson, of New York City, for a Bell Telegraph. Re-issued Oct. 10, 1848.

INVENTOR'S CLAIMS.

Planing Rived Staves.

To Hervey Law, of Wilmington, N. C. for improvement in machinery for planing rived staves. Patented Sept. 19, 1848. Claims in combination with the cutter, rest, and follower, or any well known mechanical equivalent thereof, the separate supporting levers acted on by weights, one lever acting on each edge of the stave to produce separate and independent pressures near the two edges; holding it firmly against a single fixed piece or rest immediately opposite to the cutters, but permitting all other parts of the stave however crooked, twisted or variable in thickness to pass free from constraint and at full liberty to take whatever movements lateral and vertical its crooks and windings may require, whereby the dressing is allowed to follow the bendings and windings of the stave without cutting against the grain of the timber and in combination with the parts above claimed. Also the segmental hold fasts acting to draw the stave from between the cutter wheel and roller and thereby prevent the irregular thinning away of its extremities.