



New Inventions.

New Paddle Wheel.

Mr. R. L. Curry, of Philadelphia, has patented a paddle wheel, the improvement of which is said to consist in affixing sub-paddles to those now in use, fastened to the arm of the wheel, and in casing the sides of the wheel from the under to the lower extremity of the paddle, extending around the circle of the wheel. By experiment, it is said, the gain in resistance is 16 per cent, while the gain in speed is 20 per cent. The first experiment by the inventor, was made upon the Delaware River last summer, by affixing the improvement to the steamer Portsmouth. The usual speed of the boat was from 10 to 12 miles an hour; but upon the attachment of the improvement the boat attained a speed of fifteen miles an hour.

Clover Thrasher and Seed Cleaner.

Mr. Robert McGowan of Jersey Shore, Lycoming county, Pennsylvania, has invented a machine for thrashing and cleaning clover seed, it has been pronounced by all the farmers in that district of county, who have witnessed its operations to be the most complete machine for that purpose which they have ever seen. It thrashes and cleans completely from twenty-five to thirty bushels per day. The thrashing and separating is done at one operation and the concave and cylinder with screws are used, in the thrasher, so also is the common fan in separating. Mr. McGowan has arranged and combined different parts of Grain machines in a different manner from any in use, and although the separate parts in themselves are not different, yet as a whole it is different in combination and apparently perfect in its arrangement.

New Musical Instrument.

Messrs. Thomas D. Paine and Co., of Woonsocket, R. I., have lately invented a musical instrument to which they have given the old name of Tuba. It is constructed entirely of brass, and is of the horn species. The invention consists, particularly, in valves so made and arranged as to produce the greatest variety in quality and quantity of tone, with the least effort, of any instrument heretofore in use. It is of very large size: and its compass is, in deep base, an octave below the Ophicleide—from double G, flat to four octaves above.

Measures have been taken to secure a patent.

New Car for Curves.

Messrs. Morse & Mansfield, machinists, at South Canton, Mass., have invented a new car which has been represented to us as being a most valuable improvement. We have not yet seen the model, but from what we have heard, curves will be surmounted by it in a very easy manner. The primary cost is somewhat more than those now in use, but the ultimate expense will not, as there will be a great saving of tear and wear taking all things into consideration, and roads may be made with any amount of curves so as to save deep cuts, or avoid other impediments and costs in constructing straight railroads.

Improvement in Dyeing.

We see it stated in some of our exchanges that a dyer in Greenville, R. I., has discovered a new mode of dyeing blue without indigo and as fast.

Six years ago William Macfarlane, chemist in Glasgow, Scotland, discovered a method of making the royal blue a permanent color, and his system is now well known to many in the United States.

New Rolling Machine.

A. B. Crane, of Worcester, Mass. has completed a new and improved machine for rolling silver metal for spoons and for other purposes.

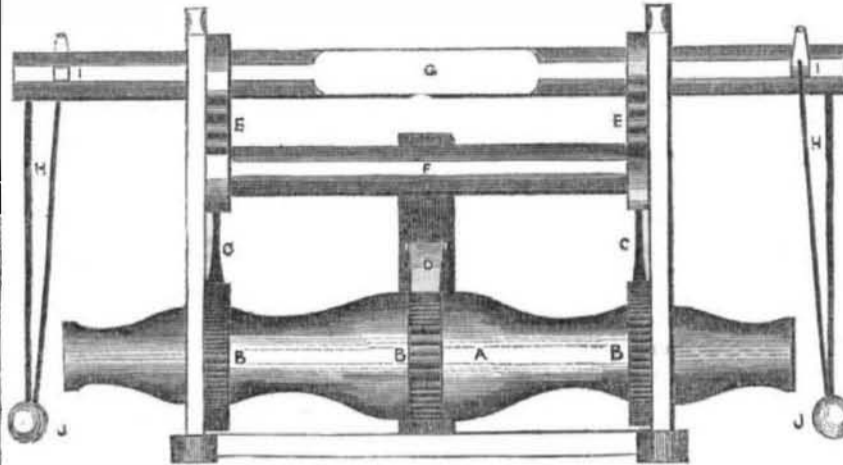
New Railroad Car Brake.

Mr. Charles Clinton of Middletown, Orange Co., N. Y., has invented a new car brake, for which he has taken measures to secure a patent. It is self-acting, and stops the car instantly, if the locomotive should be run off the track.

Bullet-Proof Coat.

A firm in Enniskillen, Ireland, has completed a ball-proof coat, which is so hard as to be impenetrable by bullets fired from a pistol, gun or blunderbuss, and so flexible as to be worn with the greatest ease by men, riding, driving, or walking.

OSCILLATING WINDLASS.

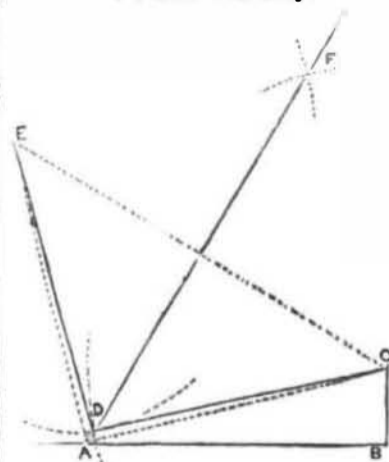


This windlass is the invention of Mr. E. Hallock, of Port Jefferson, Long Island, N. Y. It is considered to be a great improvement by numerous ship builders, who are the best judges of its merits, and Mr. Hallock is a ship builder himself and therefore knows what advantages are to be gained and what difficulties to be overcome by his invention. The nature of the improvement consists in applying weighted levers to rocking shafts and combining these rocking shafts with catches to work into the racks of the windlass so that when the weighted levers are operated like pendulums, the windlass is made to revolve by the catches shifting and holding alternately.

DESCRIPTION.—A, is the windlass. B B, are the racks on it. C C, are catches attached to eccentric cog cams, which are fixed upon a rocking shaft F. These cog cams have cogs upon their upper peripheries and deep grooves cut in their lower peripheries. The grooves in the lower peripheries are to allow the catches C, to accommodate themselves to the rock of the shaft F, in holding and letting go the catches of the windlass to revolve it. The cogs upon the upper peripheries mesh into similar cogs fixed on the main rocking shaft G. These cog cams are represented by E E, and on the lower cog cams are ears to which the piston rods of pumps can be attached and operated by the levers if required. The rocking shafts are fixed upon a common windlass frame made somewhat higher than those in use. These shafts work in bearings made in the common way to allow free motion.

D, is a common pall fixed upon a standard and is in common use. J H, represents the weighted levers, of which there are two. This lever is simply a strong iron rod with a ball J, attached to one end of it and the other end fixed in the shaft, G, in such a manner as to describe a perpendicular line with the centre of the rocking shafts and windlass. There is an arm fixed upon each side of the main rocking shaft and connected with the weighted lever by a rod so as to form an angle to allow the rocking shaft to be worked by persons standing on opposite sides of the windlass, in the same manner that a common pump is operated. It is well known that manual power can be applied in this manner better than by any other mode, and the time lost by shifting handspikes after they have described an angle of 90 degrees as in the common windlass, is obviated, while the weights by continually seeking the centre of gravity assists in the operation materially, especially where great power is required in hauling up vessels. By having the materials strong enough and placing this windlass on a position where the levers could be made of great length and weight, it becomes a machine more powerful than the lever of Archimides which dashed the Roman's vessels to pieces. These weighted levers are not new as applied to pumps, but as here combined with the cog cam wheels, catches, and windlass, we are not aware of any such previous combination for the same purpose, and for this the inventor has taken measures to secure a patent.

Practical Geometry.



In No. 10, vol. 2, of the Scientific American, was published a method for finding the bevel of any box of a pyramidal, or frustum of a pyramid shape. Wagon and carriage makers very frequently have occasion to apply the rule in fitting a block into the corner of a box that is made on a bevel, and also in cutting the mitre for the ends of the side boards. Almost all mechanics obtain the desired bevel by trial. The above is an easy method to find it by draft.

EXAMPLE.—I want to set my bevel square to dress the sides of the corner block for a box made on a bevel of 4 inches to the foot?

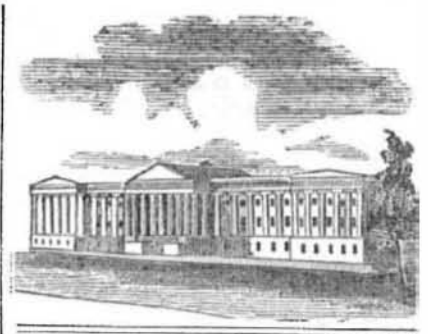
Draw $AB=12$, BC perpendicular to AB , and equal to 4; draw AC ; from A draw AE at right angles to AC , and equal to it.—Then from E and C , with the distance AB , describe circles cutting each other in D , and EDC , will be the angle required. Bisect this angle and CD or ED , will be the angle for the mitre of the boards.

After the draft is made the triangle must be transferred to the edge of a board in order to set the bevel square. H. B. A.

A New Fabric.

Among the intelligence brought by the last steamer, is the following account of a new production, which has excited a great deal of interest.

"The owner of some spinning mills at Berlin has lately brought into the market a new species of flaxen thread which is extremely long and silky, white in color, and spun and dyed with extraordinary facility. This preliminary material which possesses even in a superior degree, all the qualities of silk, is likely to compete with it from its simple and rapid fabrication, and from its price being very low as compared with that of silk. The appearance of this new fabric of commerce has caused a general sensation among the dealers at the fair of Leipsic and an Englishman has offered the inventor twenty thousand pounds for his secret, but this was refused, as the inventor intends to reserve to himself all the benefits of his discovery.



LIST OF PATENTS

ISSUED FROM THE UNITED STATES PATENT OFFICE,

For the week ending Feb 29, 1848.

To Robert Hillson, of Albany, N. Y., for improvement in Hot Air Furnaces. Patented Feb. 29, 1848.

To Joshua Woodworth, of Haverhill, N. H. for improvement in Seed Planting Machines. Patented Feb. 29, 1848.

To James Napier, of Shacklewell Lane, England, for improvement in the reduction of Copper Ores. Patented Feb. 29, 1848. English patent dated March 2, 1847.

To Elisha Barlow, of Marietta, Ohio, for improvement in Pumps. Patented Feb. 29, 1848.

To John Welsh, of Washington, D. C., for improvement in Window Blind Fasteners, Patented Feb. 23, 1848.

INVENTOR'S CLAIMS.

Hot Air Furnaces.

By Walter Bryant, of Boston, Mass. "Improvement in Hot Air Furnaces." Patented September 25th, 1847. Claim.—What I claim as my invention and desire to have secured to me by Letters Patent is, the radiator constructed for the circulation of the smoke, &c. throughout its interior, and arranged for the removal of soot, &c. from the same, substantially as herein above described; and also, the combination of such a radiator with the smoke drum of the furnace, substantially as above set forth.

Cut-off Valves.

By Henry T. Peake, of Charleston, S. C. "Improvement in operating cut-off Valves." Patented 25th September, 1847. Claim: What I claim as my invention and desire to secure by Letters Patent is, the working of the cut-off valve with the same eccentric and arm as the slide valve.

Printing Woolens.

By George W. Wright, of New York City. "Design for Printing on Woolens." Patented 11th September, 1847. Claim.—What I claim as my invention is, this peculiar combination of the "barley-corn work" figures or others substantially the same into this arrangement of stripes to be printed upon fabrics separately or in combination with other figures, whether it is arranged to run lengthwise or breadth wise of the cloth.

Gas Regulators.

By Joseph Battin, of Philadelphia, Penn., improvement in Gas Regulators. Patented 18th September, 1847. Claim.—Having thus fully described the nature of my improvement in the manner of regulating the distribution of the gas from a gasometer, what I claim therein as new, and desire to secure by Letters Patent, is the manner herein set forth, of combining the conical governor or regulator, and the quicksilver seal, with the gasometer, so as entirely to cut off or to govern and regulate the pressure of the gas within the distributing pipes. I do not make claim to either of these devices when taken separately, and uncombined with the gasometer and inlet pipe; but I limit my claim exclusively to the aforesaid combination for the purpose herein fully made known.

Jones' Elastic Flyer and Wharve Coupling.

We have received a circular containing the engravings and a full description of Mr. Robert S. Jones's (Charlottesville, Va.) improvements in machinery for the cotton manufacture, models of which are in preparation and will be sent to machinists and manufacturers who will apply for them. Address the inventor.

We shall probably be able to give our readers an engraving of the improvement in a few weeks.