



New Inventions.

Locomotive Snow Plough.

Mr. Daniel Stilwell of Philadelphia, has invented a new snow plough which has been highly commended for apparent superiority. It consists of an inclined plane several feet in width, the lower part of which approaches within a few inches of the rails; upon the plane there is a mole which diverges to a little point. It works upon a pivot, and can be managed with ease from the platform at the rear. The mole can be shifted from one side to the other, wherever its use is most required. This contrivance materially differs from any other plough in use: its pressure is equal on both sides, and the snow can be thrown entirely off the track. The machine runs on wheels similar to those attached to the cars, and is placed in front of the locomotive.

Novel Machine.

Mr. Stephen Bowerman, of Detroit Michigan, has invented and is exhibiting in Washington, a very novel machine for taking the yeas and nays in legislative bodies. It is especially intended for the use of Congress. By the proposed arrangement a mere glance of his eye informs the clerk whether there is a quorum present; and the yeas and nays can be enumerated and pointed out in the course of a minute or two after the votes have been cast.

New Method of Propelling Cars.

Sometimes there are retrograde movements in science some persons snatching up something that has been tried and laid aside as useless and fondly imagining that they have arrived at the El Dorado of mechanic invention. This appears to be the case with an invention recently patented by Messrs. Carter and Cunningham of England.

The rails, it is said are not so heavy as the rails in common use, and no locomotive is used. The power used is atmospheric, made to operate the pistons of a great number of small engines which are placed along the line of rails and connected to a pipe underground, from which the air is continually exhausted, by steam engines.—These small engines give rotary motion to a number of wheels placed horizontally, in sets of three each, at a distance of about 300 feet apart, along the rail. The passenger or freight cars next have a rail extending along their sides from end to end, which is regulated so as to come in contact with the peripheries, of the aforementioned wheels. The small air engines are set in motion whenever a car comes in contact with the horizontal wheels—a valve being opened by one of cars as it approaches, and the engine operates only long enough to pass the length of the car. The idea is for these wheels to give sufficient momentum to the car to send it along to the next set of driving wheels, and so on throughout the whole line. This constitutes the base of the invention; besides this, there are arrangements for stopping and starting, and for the prevention and cure of accidents, &c., all of which are said to be admirable, but which we think is like the famous mechanical strategy of using a steam engine to throw water to the top of a hill for the purpose of driving a water-wheel.

Tunnels.

A Mr. Renny, of Brookville, Indiana, proposes to construct carriage roads under the beds of rivers, by which he designs to connect towns on opposite sides, by making a perfect street from one to the other, running under the water on the bed of the river. The tunnel or street is made of malleable or boiler iron, rivetted together in the same manner as steam boilers. Its shape is nearly that of two thirds of a circle; its size unlimited. His present drawing represents one 22 feet wide, and 15 feet high, leaving a carriage way each side on the centre 9½ feet in the clear and 13 feet high—footpath in the centre above carri-

age way 7 feet high. The cost is estimated by Mr. Renny, at about \$200 per foot, and he is of opinion that it would be a good investment for capitalists.—*Et.*

This is certainly not a new idea, with the exception of the price, which we pronounce to be fabulous, beyond the shadow of a possibility.

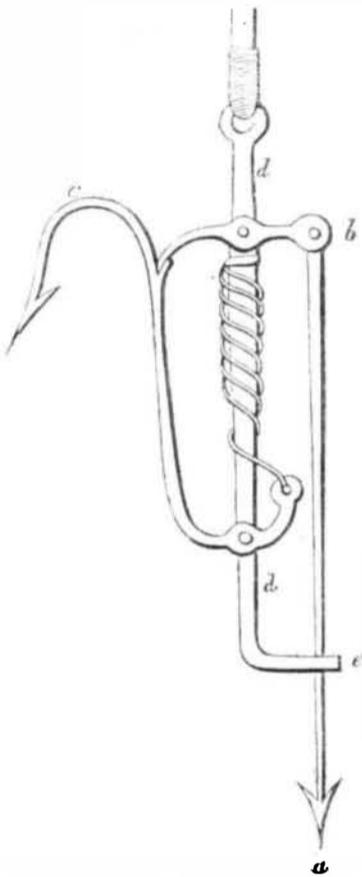
New Paving.

A new mode of paving has been substituted for the old one. The stones are now placed two or three inches asunder, and the intervals are choked with small gravel, through which asphaltum is poured so as to render the whole impermeable to water from above, and afford a firm footing for horses.

If India rubber and sulphur were added to the asphaltum the paving would be more durable.

Improved Fish Hook.

COMMUNICATION.



This invention relates to improvements in fish hooks, by combining them with apparatus for retaining fish with more certainty than at present, and by which a person not skilled in the art of fishing may, nevertheless, succeed in taking fish, the apparatus being to a certain extent, self-acting. This cut exhibits a self-acting fish hook when ready for receiving a bait; the hook or barbed instrument, *a*, on which the bait is to be suspended, is, in this instance, attached by a moveable bearing to the lever catch, *b*, which takes into a notch in the hook, *c*, and which hook has at all times a tendency to press downwards, owing to the action of the spiral spring surrounding the stem *d*, and which spring as seen in the cut, is in a state of tension. In the stem of the hook, at *e*, is a hole or guide, which serves to regulate the barbed instrument *a*, in its descent, and which barbed instrument being at any time jerked or pulled upon by a fish taking the bait, causes the catch *b*, to be liberated, upon which the hook *c*, rapidly descends and performs the part of a retaining instrument. In the above cut both the hook and the retaining instrument are barbed, but the apparatus may be varied, and instead of employing a barbed instrument similar to *a*, it may be curved, and bear a great resemblance to an ordinary fish hook.

New Coloring Substance.

By the Chemical Gazette we perceive that a patent has lately been taken out in England, by C. A. Kurtz, of Manchester, for the manufacture of a new material for making a fast brown color. The manner of preparing it is "to put into a vessel containing a hundred gallons of water 132 lbs. of logwood and boiling then for a long time, then cooling a little and adding 30 lbs. of nitric acid gradually, and afterwards adding 80 lbs. of potass," to facilitate the use of the mixture in dyeing and

printing. This mixture is made portable by mixing it with pipe clay and drying it. To dye with it, a sufficient quantity is dissolved in water, a little tartar is added and the article kept boiling till the desired shade is obtained. For printing, the material is to be mixed with gum in the common way and some tartar added as for dyeing, and the fabric is said to be steamed to fix the color.

We venture to say that the inventor will not make his great fortune out of this discovery, if the above is a correct description. It does not state whether it is for dyeing or printing cotton or woollen goods, and they are essentially different in their nature. For browns on woollens, at least *claret browns*, the present common method is more cheap and simple. It would appear as if designed principally for woollen goods, except in printing, and in that case a cheaper brown color can be made from a strong extract of cathecu and nitrate of copper, or logwood and bark yellow with a little muriate of tin and alum, varied in proportions according to the shade wanted.

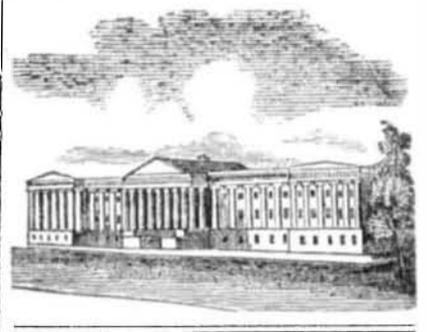
Saw Mill Improvements.

The following is the patent claim of J. W. Cochran, the young American whose invention was noticed some time ago in the Scientific American, as having been most favorably received by the British Admiralty, Mr. Cochran is now residing in London but he belongs to this city. His patent was granted at Washington on the 11th of this month, and is for improvements in saw mills, for sawing warped or curved surfaces. Claim.—Having now described the nature of my said invention and the manner in which the same is to be performed in the manner aforesaid, I hereby declare that I claim as my invention for which I am desirous of securing Letters Patent.—Firstly, the mode of constructing saw mills or machines with revolving or turning chuck plates, and oscillating or turning immediate roller supports, for the purpose of holding, sustaining, or supporting logs or pieces of the timber whilst being cut, such chuck plates or supports being made capable of being turned by the machine itself, or by hand, for the purpose of varying (when necessary) the bevils of the cuts are to be made by the mills or machines for the purpose of producing pieces of timber of the required shapes. Secondly, the mode of giving the motions to determine the curves, and to remove the supports of saw-mills, as aforesaid, by means of a pair of conical drums connected by bolts or bands, and furnished with graduated scales, for the purpose of enabling the attendant workman to regulate the motions of the parts that hold and support the pieces of timber, so that the bevils or curves of the cuts to be made in such pieces of timber as may be varied in the manner necessary for cutting such pieces of timber into the regular shape. Thirdly, the mode of constructing the chuck plates as aforesaid, with the jaws or clips thereof, mounted upon an eccentric motion, that is to say, upon a foot or piece fitted into a groove so as to be capable of sliding laterly therein from the centre of the chuck plate for the purpose of bringing the centres of gravity of logs, or pieces of wood, of irregular shapes within a centre line drawn between the centres of the chuck plates, for the balancing of such logs, or pieces whilst they are being cut or shaped in the mill. Fourthly, the mode of constructing the jaws or clips, of such chuck plates as aforesaid, with quadrant slats, and so that one of the jaws or clips, thereof may be turned towards either side for the purpose of better and more securely holding logs or pieces of timber of crooked or irregular forms, while being cut or shaped in the mill as hereafter described. Fifthly, the mode of mounting saws in stretchers as herein before described in combination with the mode hereinbefore described of mounting such saws with their stretchers within a saw-gate or frame, so as to be capable of sliding laterly in either direction within the saw-gate or frame.

Galvanized Types.

Mr. Coblentz a typographical printer in France, recommends the galvanizing of printing types, in order to render them more hard and durable.

London and Vienna are to be connected in a short time by a line of electric telegraph.



LIST OF PATENTS

ISSUED FROM THE UNITED STATES PATENT OFFICE,

For the week ending Dec 11, 1847.

To A. W. Whitney, of Woodstock, Vermont, for improvement in machinery for working Sheet Iron, &c. Patented Dec. 11, 1847.

To Cornelius Briggs, of Roxbury, Mass., for improvement in Sofa Tables Patented Dec. 11, 1847.

To Nathaniel F. Potter, of Providence, R. I. for improvement in Kilns for Drying Grain. Patented Dec. 11, 1847

To Leman Baker Pitcher, of Syracuse, N. Y., for improvement in Regulators for Machinery. Patented Dec. 11, 1847.

To Ephraim K. Chamberlain, of Cincinnati, Ohio, for improvement in apparatus for Club Feet. Patented Dec. 11, 1847.

To John W. Cochran, of New York City, for improvement in Mills for sawing warped or curved surfaces. Patented Dec. 11, 1847.

To John W. Hood, of Mount Sterling, Ky., for improvement in Abdominal Supporters.—Patented Dec. 11, 1847.

To Thornton Grimsley, of St. Louis, Missouri, for improvement in Dragoon Saddle Trees. Patented Dec. 11, 1847.

ADDITIONAL IMPROVEMENT.

To L. R. Livingston, J. J. Roggen, and Calvin Adams, of Pittsburg, Penn., for improvement in the Shanks of Door Knobs. Patented July 7, 1846. Additional Improvement dated Dec. 11, 1847.

For the week ending Dec. 18, 1847.

To Charles B. Kingsbury and John Kingsbury, of Utica, N. Y. for improvement in self-acting Cheese Presses. Patented Dec. 18, 1847.

To William Hovey, of Worcester, Mass., for improvement in machinery for grinding Knives which have warped surfaces. Patented Dec. 18, 1847.

To John F. Winslow, of Troy, N. Y., for improvement in rolling and compressing Puddlers' Balls. Patented Dec. 18, 1847.

To Lansing R. Swan, of Rochester, N. Y., for improvement in Galvanic Batteries for Telegraphs Patented Dec. 18, 1847.

To George Ketchum, of Marshall, Michigan, for improvement in Pumps for raising water. Patented Dec 18, 1847.

To John H. Rector, of Syracuse, N. Y., for improvement in muzzles for Rifles. Patented Dec. 18, 1847.

DESIGN.

To Lucius O. Palmer, of Utica, N. Y., for Design for Stoves, (having assigned his right to John F. Seymour.) Patented Dec. 18, 1847.

INVENTOR'S CLAIMS.

Heating Wheel Tires.

By Alva Gregory, of Pike, Wyoming Co., N. Y. Improvement in the mode of heating Wheel tires Patented 28th August 1847. Claim—What I claim as my invention and desire to secure by Letters Patent is the invention of a circular furnace for heating carriage tires by confining the heat above described, and in carrying out that principle. I do not intend to limit myself to any particular materials or dimensions in constructing the furnace; whilst I attain the same end by substantially the same means.

Clasp Catches.

By James Bingham of Philadelphia, Penn., Improvement in Catches for clasps. Patented 11th September 1847. Claim—What I do claim as my invention and desire to secure by Letters Patent is the fastening the pin or wire to the hinge catch or coupling joint firmly to the male side of the hinge, in combination with the longitudinal slot through the female portion of the joint in the manner above described