



## New Inventions.

### To Prevent Railway Collisions.

A new kind of brake has been exhibiting lately before the London Polytechnic Institute which has been very favorably noticed by the Mining Journal and which is so very like one invented last year by a mechanic in this State, (and might have been successful) that we consider it of some interest to give a description of it.

It was proved by experiment years ago that a train moving at a velocity of twenty miles per hour might be stopped in a space of 20 feet, so said Sir Geo. Cayley, but for all this it has never practically been performed. As the majority of collisions take place from the inability of engineers to stop the train in a given time and space, it would tend to make railway travelling more safe were a perfect and immediately effective brake invented. The model exhibited as mentioned above, invented and patented by a Mr. Bishop, seems to be one grand move to accomplish this object. Perhaps, the following brief explanation will give some idea of the advantages of the contrivance:—"Let it be understood, in the first case, that every carriage has the brakes attached to it; and that, by means of a bar, placed under the carriages, the brakes may be thrown in or out of action at pleasure; and that, when the train is made up, these bars could be connected from carriage to carriage—so that the engineer, by acting upon this bar at one end of the train, has the power of applying the brakes to every carriage simultaneously, converting, as it were, the whole train into a sledge. Let it also be understood, that the conductor has the same power over these brakes as the engineer, rendering the one independent of the other; but what is still more important it gives the conductor as well as the engineer, full and efficient power to check the velocity of the train, or to stop it altogether—for it can be shown that the brakes being applied to every wheel, in a train, the power of any locomotive engine would not be sufficient to move it forward; and that, when the train has been shut off, and the brakes applied, the train may be stopped within an incredible short space. All these matters were fully demonstrated by the models exhibited."

### Daniel's Patent Planing Machine.

We are confident that it is not generally known among our mechanics who are engaged in the various branches of wood work, that good planing Machines can be had for a very small sum, which would be a great saving to them both in time and money. There have been so many law suits and difficulties about machines for planing wood, that there seems to be a general fear of using them, though evidently at a great sacrifice of interest. There is one Patent for a planing machine, however, which we know to be free from all these troubles. We allude to Daniel's invention, and we would recommend its general use throughout the country, for it is one of the greatest labor saving inventions in existence. We are the more certain that our remarks in this particular are correct because we have one of these machines in our possession for sale, and have tested it by the most thorough trial and a minute examination of its parts. The machine we have for sale is a noble one and will last many years. Attached to a saw mill, or in a carpenter's shop, a lumber yard or wherever planing is required it can be used, to great advantage. We will dispose of it for \$250, its cost being so small that if it only saved the labor of one man it would pay for itself in less than a year, but it performs a day's labor of one man in 20 minutes! For dimensions see advertising page.

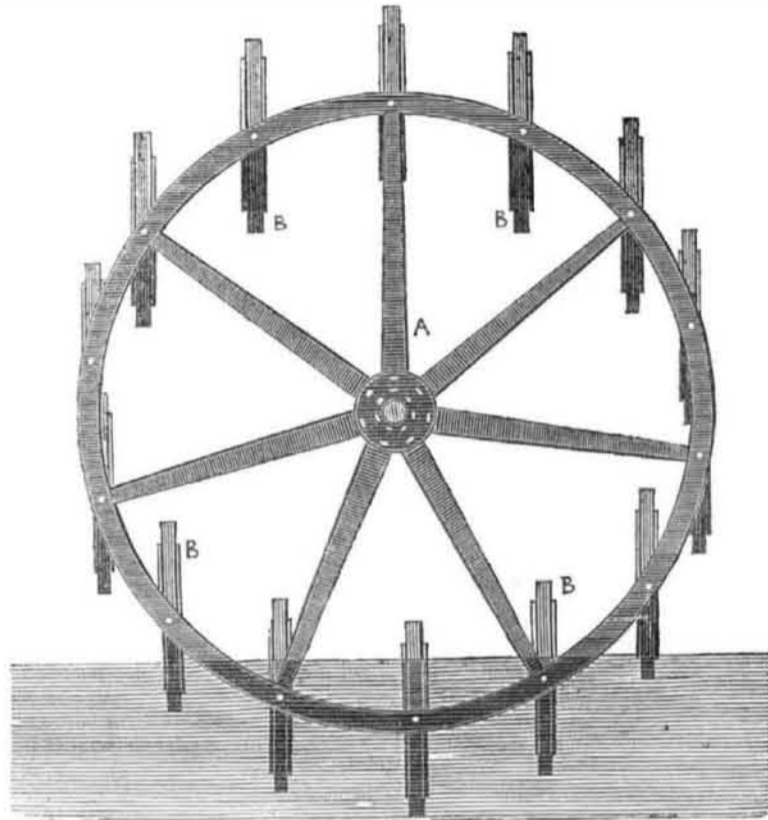
### New Crane at Baltimore.

Messrs. Hopper and Cheesborough, of Baltimore, have just completed a large Crane made for their wharf in the city of Baltimore which is made after the patent of J. P. Bishop, of this city. It is the largest and most powerful crane perhaps in the world. It stands eighty-six feet in height from the water, and the arms sweep a base of one hundred and twenty feet. The main "fall" or rope, for a single purchase, measures twelve inches in circum-

ference. Independent of that, there is another "fall," nine and a half inches in circumference, to be used for what is termed the long purchase. The crane is capable of lifting with facility sixty or seventy tons weight, and all is done by the agency of one horse, with the aid of the complication of mechanical powers in the machine. It is designed for lifting heavy weights, such as boilers out of steamboats, steamboat shafting, masts out of vessels, heavy timber &c. &c.

## NEW STEAMBOAT PADDLES.

Figure 1.



This is a representation of a novel paddle wheel forwarded to us by the inventors, Messrs. Ripley & Noyes, Esq., of Boston, Mass., to whom all communications, for further information may be directed.

The object of the invention is to make the paddle enter and leave the water vertically instead of entering the water obliquely and leaving it at such an angle as to lift a great weight of water, as is now the case with all the paddles in use, which can readily be observed by any person who looks upon a steam boat in motion where behind the paddle is seen only a thick cloud of broken water frequently thrown upwards far above the middle of the wheel.

FIG. 2.

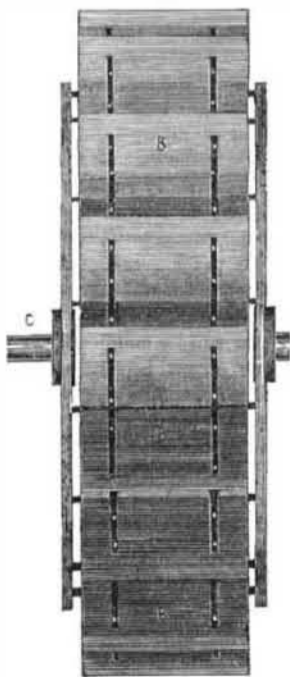


Fig. 1, is a side elevation, and fig. 2, is a front view exhibiting the paddles. Corresponding letters represent like parts in both figures. A, is the wheel, B represents the paddles, and C, fig. 2, is the shaft. The nature of this invention consists in making the paddles self-acting—using no cog wheels, cranks or extra shafts for that purpose. Each paddle is constructed with an axis in the middle, which passes through both

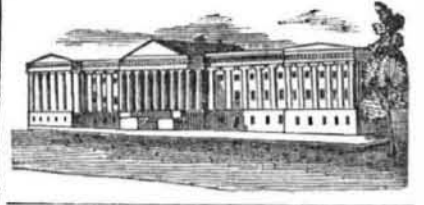
sides of the wheel at the circumference and divides the paddle into two parts, the upper part being made lighter than the lower. The upper part is therefore constructed of wood and the lower of iron, and coupled or fastened together by transverse bars, as seen in the figures. It is plain that if these paddles are hung in the periphery of the wheel so as to move on their respective axis, by the gravity of the lower part of the paddles, they will maintain a vertical position when they enter the water, when they are in the water and when they leave the water. There have been many objections urged against vertical paddles and practically speaking, none of our steam boats use them. We are not aware of any paddle wheels, (the same in all respects as represented in these engravings), having ever been used. The inventors consider that there can be no practical objection urged against either the simplicity or correctness of the principle of their invention.

Although great improvements have been made within the past ten years to increase (and successfully too) the speed of steamboats, still there is room for improvement, therefore every invention to improve the speed of steam boats should be carefully tested, before it is condemned. We must not be content with the speed of our steamboats, till they accomplish thirty miles per hour.

### Screw Cutting.

The Rochester Democrat says that Mr. Arnold has for exhibition in that city a machine recently invented for cutting screws. By a simple process costing but a child's strength a bolt is formed into a perfect screw. The blocks into which the dies are inserted, are operated by means of a screw worked from right to left so that it is impossible for them to be thrown out of their proper centre. This self-centring process is described as one of the chief improvements in the machine. Mechanics who have seen it concur in saying that it is greatly superior to those now in use, doing work at infinitely less expense and trouble. These machines are afforded at from \$20 to \$50 for the various sizes, while the cost of those generally in use is about \$100.

The water rates proposed for Boston, are much lower than those which are adopted in New York.



## LIST OF PATENTS

ISSUED FROM THE UNITED STATES PATENT OFFICE.

For the week ending Nov. 7, 1848.

To Cadet Crousillac, of New Orleans, La., for improvement in machinery for raising, sawing and splitting wood. Patented Nov. 7, 1848.

To W. Z. W. Chapman and J. W. Chapman, of Philadelphia, Pa., for Universal Instrument Sharpener. Patented Nov. 7, 1848.

To Lewis J. Cohen, of New York City, for improvement in composition of Slate Pencils. Patented Nov. 7, 1848.

To H. H. Day, joint inventor with and assignee of F. D. Haywood, of New Brunswick, N. J., for improvements in Suspenders and Shoulder Braces. Patented Nov. 7, 1848.

To George Pratt, of Boston, Mass., for improvement in Extension Tables. Patented Nov. 7, 1848.

To J. & E. Baldwin, assignee of Cyrus Baldwin, Goffstown, N. H., for improvement in Machine for cutting and stamping Crackers. Patented Nov. 7, 1848.

To B. Bowman and A. Kauffman, of Oris-town, Pa., for improvement in filling barrels with Flour. Patented Nov. 7, 1848.

To Richard Solis, of New York City, for improvement in the manufacture of Elastic Cloth. Patented Nov. 7, 1848.

To Haywood Cox, of Peach Bottom, Va., for improvement in Side Hill Ploughs. Patented Nov. 7, 1848.

To Nathaniel C. Sandford, of Meriden, Ct., for combined convex and concave Augur. Patented Nov. 7, 1848.

To George Seibert, of Hagerstown, Md. for improved Duck's Foot Propeller. Patented Nov. 7, 1848.

To R. Carleton Overton, of New York City, for improvement in tubes for raising Lamp Wicks. Patented Nov. 7, 1848.

To George Bartlett, of Smithfield, R. I., for improvement in Hinged Ploughs. Patented Nov. 7, 1848.

## INVENTOR'S CLAIMS.

### Printing Presses.

Jes. M. Marsh, New York City, for improvement in printing presses. Patented Oct. 3, 1848. I claim the method of obtaining a reciprocating motion from a continuous rotary motion by combining with a cogged rack two cogged wheels composed each of the segments of different diameters. I also claim the method of sustaining the bed of the press as it reciprocates against the pressure of the cylinder by combining with the bed one or more ways. I also claim the method of elevation and depressing the inking rollers. And, finally, I claim operating the finger bar by means of spring-jointed arms at the end thereof.

### Sheet Lead.

John Robertson, Brooklyn, N. Y., for improved method of manufacturing sheet lead. Patented Oct. 3, 1848. I claim as my invention the mode of manufacturing such hollow cylindrical forms of lead and other soft metals and compounds into sheets by first placing them around a roller whose axis may be in a horizontal plane or in one of any inclination and then rolling it. I claim the construction of the carrying roller, and the manufacturing therewith of hollow cylindrical formed pieces of lead or other soft metal or compounds into sheets by rolling, combined with the moveable bearings.

### Harness Saddles.

A. D. Brown, New York, City, for improvement in harness saddles. Patented Oct. 3, 1848. 1st. The peculiar form of the sheet metal housing plate, caused by the addition of the lower flanges or ledges. 2nd, I also claim the securing the pieces of leather forming the under side of the pads, with the housing plate forming the upper side of the same by means of the fastening plates with notched or plain edges.