

New Inventions.

New Self-Centering and Self-Releasing Lathe. Mr. Thomas R. Bailey, of Lockport, N. Y., has made a very valuable improvement in lathes for concentric turning, such as for broom handles, &c., for which measures have been taken to secure a patent. The live spindle has a sliding cone mouth, into which the rough material must be placed, and the slide spindle has also a cone mouth in a line with the other. The rough material is placed within these cone mouths, and must be centered, as the spindles always bear a fixed relation to one another, and the cone mouths guide the rough material to lie in a true central line with both spindles. When the slide has run its length, it strikes a cam upon the frame, and the broom handle, or whatever it may be that is turned, is thrown out from the spindles, and drops down. The turning tool can be guided by a fixed side pattern to turn out many different irregular forms. This lathe is easily attended and is very simple. It is a good, new, and useful improvement.

Improvement on Spike Machines.

Mr. James H. Swett, of Concord, N. H., has invented a valuable improvement on a machine for making spikes, and for which he has taken measures to secure a patent. Mr. Swett has a patent for his machine already, and this is for an improvement on it. The feeding rolls of his machine are the same as those heretofore used, but the holding of the spike to form the head, is new. He brings down a weight upon the spike pressing it upon the die block, while the header comes forward horizontally and forms the head. A pair of nippers moved by cams, work in unison with the header, for seizing each spike when formed, bringing it forward from the die, and dropping it in an instant, when it is about to return for a new spike. The practical working of the improvement, as stated by Mr. Swett, is much superior to the old plan.

Improvement in Carding Cylinders.

Mr. James Greaves, of Baldwinsville, Onondaga Co., N. Y., has made an improvement in the construction of rollers for picking wool, whereby they are made cheaper than heretofore. He runs a composition of lead and zinc around an iron roller of suitable size to about $\frac{1}{4}$ inches in thickness. After this, punched sheet iron is wrapped around the whole, and steel wires are driven into the holes with a bossing punch. The wire can be sharpened before being driven in by this method. The teeth may be perfectly pointed with a file after being driven in.

Circular to Inventors and Patentees.

A circular has been published in the Washington papers, wherein it is stated that an association has recently been formed in the city of Washington, composed of gentlemen residing in different parts of the Union, for the purpose of effecting, by an enlarged and comprehensive system of action, the interchange among nations of the productions of the inventive genius of the world. If their views meet with the approbation of inventors, the circular says they will send a delegation to the World's Fair, to exert an influence for the sale of American inventions in Europe. To carry out the designs of the association, it is stated that means are required, and those who would avail themselves of its advantages "should pay over a reasonable sum in advance" to the treasurer, B. B. French: R. J. Walker is President, and Marcy, Dallas, Busk, Burke, Ashman, A. W. Thompson, Stanton, and Mason (famous names) are subscribed to it. If real inventors would form a society and stick to it, their power would soon be felt. From the want of mutual co-operation, we believe they have suffered more than anything else. If the above association be well managed, it may do much good.

New Slate Material.

A new material, called enamelled slate, has lately been introduced into England. It goes through a number of processes, and is burned at a high temperature. It takes a beautiful

polish. A great number of the paintings for steamboats, in Britain, are done upon slate. The paintings in the cabin of the Philadelphia steam propeller "City of Glasgow," are all done upon slate. They never crack, chip, or stain, and they can be washed with soap and water without any danger of spoiling.

The Bill for Reforming the Patent Laws.

A correspondent from Washington, writing to us, states he has been informed if Mr. Turney's Bill passes the Senate it will also pass the House. The strong feelings of all inventors are against it, he says, and it will be decidedly injurious to their interests. The Bill does not suit us in many respects, especially the *scire facias* clause. We have stated this before. Let it be altered. We see that a great number of petitions have been presented against the Bill. Mr. Seward presented a number stated to be from inventors, last Monday. It would be some satisfaction to know whether they were inventors or not, likewise whether the other petitions are signed, as stated by inventors or not. The Bill of Mr. Turney, now before the Senate, was the result of the deliberations of a body of men, named "A Convention of Inventors." It was held in Baltimore in 1849. We have the names of the leading men who composed it. We will keep a keen eye upon all the results that may be developed by the present agitation about the Patent Laws.

Improved Spring Carriage Wheel.

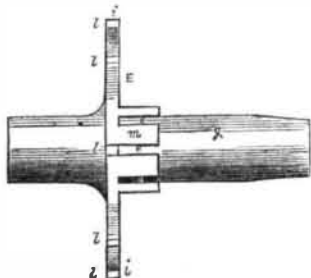
FIG. 1.



This improvement is the invention of Messrs. John Lamb and Charles H. Root, of McDonough, Chenango Co., N. Y., and for which a patent was granted on the first day of this year, 1851. Fig. 1 is an elevation. Fig. 2 is an edge view of the axle box. Fig. 3 is a transverse section of the hub. Fig. 4 is a side section of a spoke. The same letters refer to like parts.

A A is the outside rim of the wheel which is made of cast or wrought steel, forming two hoops, the one outside of the other. B B are the spokes made of flat steel and divided near their extremities into two parts, which parts are curved as exhibited in fig. 1, and secured to the rim by bolts or rivets; near the inner extremity of each spoke is a notch, c, as shown in fig. 4; this notch embraces an annular projection, d, fig. 3; D is the hub which partly serves to keep the spokes in their places; the extremity of the spokes butt against the axle box at e e, fig. 2; the hub, D, is of metal with grooves or slots, f f, in it, through which the spokes and the annular ring pass, F, figure 1, is the axle box, the part g, passing through the central opening h, of the hub, D. The

FIG. 2.

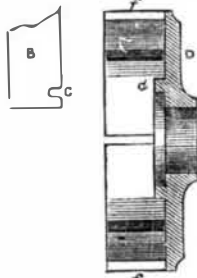


axle is of the form of a round pipe, having around it a plate, t, which covers one side of the hub, entering within it, and having projections from its circumference at l l, which fill up the spaces, f f, in the hub slots, left by the spokes, and thus serve to hold or retain the spokes in their places; m, fig. 2 is a projecting ring cast with the axle box, E, and butting up against the inside face of the hub, and having

notches as at e e, which are of the same number as the spokes. These notches lap on the ends of the spokes; n n, are bolts for holding the hub and axle box together; F, fig. 1, is the axle opening.

As the wheel revolves, the pressure or weight of the vehicle is sustained on the rim spokes which have their bearings against the annular ring of the hub and the axle box, and as the spokes are flat, divided, curved and made of steel, an elastic gentle motion is given to the carriage when journeying over uneven ground. Strength and lightness are also combined in the wheel.

FIG. 4. FIG. 3.



The claim is "the construction of the spokes of flat steel, split or divided and curved and secured to the rim as represented in fig. 1."

More information may be obtained by letter addressed to the patentee.

Music by Steam.

Mr. Wm. Hoyt, of Dupont, Indiana, has invented the following plan for making music on a steamboat:

Place a pipe horizontally across the boilers, of such length and size as may be proper; both ends of said pipe to be stopped tight; in or near the centre, there must be a connection pipe to let the steam out of the boilers into said horizontal pipe. On top of said pipe, there must be placed seven or more small pipes, perpendicular, of such a height as may suit the operator; on top of said small pipes, place whistles, of different sizes and tones, similar to those used on locomotives and steamboats. Said whistles to be so made that the top part will screw down or up, so as to regulate the sounds, while tuning them at any convenient part of the boat; place a set of keys to operate on said whistles, to let on and off the steam by means of pressing down those keys similar to playing on a piano; or there can be a cylinder so arranged as to operate on the whistles by turning a crank similar to a hand organ.

Mr. Hoyt says, "I am satisfied that music can be made by steam on a boat or locomotive, as well as it can be played with brass instruments, and much cheaper, much louder, and without any loss of steam, as there is always a surplus whilst landing, whilst at the wharf, and when leaving. It is my candid opinion that the Western boys will hear "Old Dan Tucker," "Auld Lang Syne," &c., played on the Western waters, by steam, at a distance of ten miles."

This is going music with a rush, and when perfected will astonish Barnum and Jenny Lind.

Railroad New Inventions.

Last winter, the Legislature of Virginia appropriated \$10,000 to test the invention of J. French, of Old Point Comfort, in an improvement on locomotives for ascending steep grades, and on Saturday two weeks ago, as we learn by the Richmond Enquirer, the first experiment was made. Mr. French expended a large sum in arranging a locomotive and car for the purpose, and for laying down a railway on the opposite side of the river, a mile above Richmond. On this railway the road, as constructed by Mr. French, is more than a third of a mile in length, on a grade of 200 feet to the mile. The ends of the sills are cut off square with the string pieces; the rail, six inches wide and three fourths of an inch thick, is placed upon the string pieces, and extends outwards two and a half inches, thus affording an under-surface, against which a pair of rollers (the simple principle of the whole invention) are pressed. These rollers or wheels are suspended from the engine, a little in advance of the driving wheels, and are pressed against

the extended rail by a lever, by the regulation of which any amount of adhesion may be obtained.

The engine used for the experiment was only $3\frac{1}{2}$ tons, and was built by Messrs. Hogg and Delamater, of this city, under the superintendance of Captain John Errickson, a gentleman well known for his great mechanical talents. Up this grade of 200 feet, this little engine drew a passenger car filled with about 100 passengers, at a velocity of about ten miles an hour. On descending, both engine and car were perfectly under control, capable of being stopped at any moment in a space of ten feet, and this while descending by steam power and the force of gravity combined.

Expose of Paine's Light.

MESSRS. EDITORS—Under this caption I read your remarks on Mr. Dixon's experiments, and I am really astonished that you should permit so barefaced an imposition on the public to find any countenance from your journal. For so much a ticket, Mr. Dixon agreed with the public to show them how Mr. Paine made his light; this he utterly failed to do. All descriptions of Paine's apparatus describe the water as not acidulated. Dr. Nicholl speaks of acidulated water in connection with the experiments with the Grove battery. Besides this, Mr. Paine's electrodes were taken to pieces in the presence of Dr. Channing, of Boston, Dr. Doremus and President Young, of the Manhattan Gas Co., in your city, and numerous other persons, all of whom are capable of judging whether they were batteries or not, and every visitor has, at all times, been both permitted to taste and carry away the water in which the electrodes are immersed. Mr. Dixon, therefore, failed in his promise to the public, as regards his remark that if "Mr. Paine's discovery was true we had to unlearn all we had learned," it would apply with the same force to Mr. Paine's process of catalysis (which he also failed to show), but which, in spite of all that chemists have learned to be impossible about it, has been fully substantiated by chemists. But I would inform Mr. Dixon that an unlearned chemist, by the name of Humphrey Davy said that "water would yet be found to be the ponderable basis of the gases," that many able and eminent chemists have held water to be a simple.

Trusting that you will do a simple act of justice, in publishing this article, I am yours, P. M. H.

WASHINGTON, Feb. 10, 1851.

MESSRS. EDITORS—In your complimentary notice of several of my architectural works, published in the Scientific American of the 8th inst., I notice an error which I desire to have corrected. I was never Chief Clerk of the Patent Office. My father, William Elliot, held that important office about thirteen years. I merely performed the duties of Draughtsman and Clerk under him. Thanking you for your kind notice of me, and desiring you to make this correction in your next number, I remain, yours, &c., Wm. P. ELLIOT.

New Type Setting Machine.

A Parisian inventor thinks he has at last discovered the long-sought desideratum, a machine for setting type. He has been at work upon it for fifteen years, and having completed it, has entered it for exhibition at the World's Fair. It comprises both a distributor and setting stick; it is afforded at a low price, and will set ten thousand ems an hour. It is said not to interfere with the regular appointments of a printing office, and requires no new characters.

Singular Remedy for Cholera.

We clip the following from one of our California exchanges:—

"The cholera had appeared among the Indians who have a village opposite Nicolaus. The Indians have a singular mode of treatment for this disease. When the subject is taken ill, several of them carry him down to the river and immerse him, leaving him there until he can bear it no longer, when they take him out and place him in the sun. The operation is repeated until the person dies or recovers.