



## New Inventions.

### New Steam Vacuum Guage.

Mr. Paul Stillman, of this city has invented and secured a patent for a new and useful improvement in Steam Guages. He combines an elevated chamber with the lower end of the guage tube containing the mercury reservoir, and having the reservoir of such capacity in combination with the partial exhaustion of the tube of the steam guage at the time of charging the instrument as that the tension of the air above the mercury of the tube, when a partial vacuum is produced in the boiler, shall not be sufficient to force all the mercury out of the tube, so that a quantity of oil in the tube shall always be the same. The lower edge of the glass tube is surrounded with a metallic gland provided with a cap at the bottom through which the mercury can pass slowly to establish the connection with the reservoir. The entire surface of the gland is tinned that the mercury may adhere thereto, sufficiently to prevent the passage of moisture from the surface of the mercury in the reservoir, between the mercury and metallic gland spoken of. Mr. Stillman introduces naphtha upon the surface of the mercury to prevent the mercury from oxidising and soiling the glass tube of the steam guage—a very important and ingenious means indeed, to accomplish this object. The whole invention exhibits much ingenuity as well as scientific and practical knowledge of the nature of steam, the atmosphere and the metals.

### New Button Mould Machine.

Mr. Rufus Hyde, of Chesterfield, Mass., has sent us a drawing of a machine for making button moulds. It is very superior to those in common use inasmuch as one girl can attend a number of machines. The machine itself feeds in the bone strips, something that has heretofore been done by hand. Two notched wheels feeds the strips, one acting on the feeder, and the other by an arrangement of a lever, spring and cam shaft, keeps the feed roller always pressed up against the edge of the strip, and shifts it so as to form the mould between the rollers used for that purpose.

### Revolving apparatus for Clearing Railroad Tracks.

Drawings of a revolving apparatus for removing obstructions on Railroads have been sent to the American Railroad Journal, by Mr. Samuel Streeter of Detroit, Mich. The invention is described by the Journal as follows:—

There are several different machines—first, for removing cattle, logs or persons. This is to be done by the revolutions of a double conical cylinder, in front of the engine, with angular flanges, or wings from the centre, and largest diameter at each end. The revolutions are upward and forward, which tends to lift the obstruction, while the cone and wings tend to throw it off on one side, beyond the rail.

This apparatus is said, by the inventor, to answer for a snow plough as well as cow remover: but there is also another, and distinct apparatus for that purpose, and there is still another for cutting ice, and brushing it from the rails,

### A Curiosity.

A model of an electric frigate, of forty-four guns, full rigged, with guns, men, life-boat, &c., has been exhibited in Buffalo. The model was built by Mr. E. Hurst, of Canada—the motive power and apparatus by Dr. Albert Henderson of Buffalo. Electricity is the propelling agent, and her guns are fired, her bells rung, and all the various operations on board carried on by the very same instrumentality.

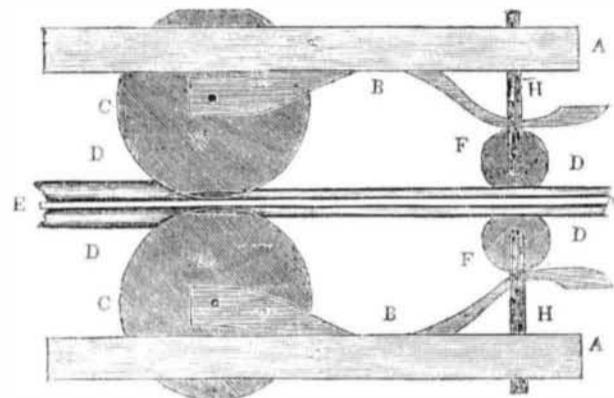
### A New Telegraph.

A Mr. Bakewell, of London, England, has invented what is called a copying telegraph whereby words traced from the original are copied on paper by an instrument that has no connection with the transmitted message as applied, excepting by the usual wires from the voltaic battery. The letters traced upon the paper are of a pale color, on a dark ground formed by numerous lines drawn close together. The communications thus traced may be transmitted at the rate of 500 letters of the alphabet per minute of ordinary writing; and were short-hand symbols employed, the rapidity of transmission would be quadrupled.—When this means of correspondence is in operation, instead of dropping a letter into the Post Office and waiting days for an answer, we may apply it directly to the Copying Te-

legraph, have it copied at the distant town in a minute or less, and receive a reply in our correspondent's handwriting almost as soon as the ink is dry with which it was penned. There are various means, too, for preserving the secrecy of correspondence; the writing may be rendered nearly invisible in all parts but the direction, until its delivery to the person for whom it is designed. The operations of the Copying Telegraph are not limited to the tracing of written characters. Letter press printing may be copied with even greater rapidity than writing, and fac-simile copies of papers may thus be transmitted to distant places long before the papers themselves are delivered to their readers.

We can easily conceive that this is partly a chemical telegraph and has some relation to Mr. Bain's.

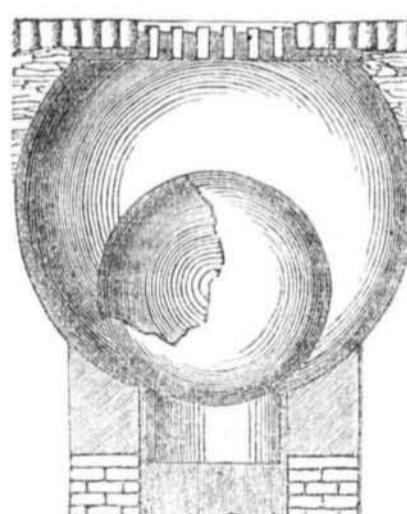
### AVERY'S ATMOSPHERIC RAILWAY.—Figure 2.



This is a section view and exhibits the connection of the cars with the motive parts and the combination of the driving and guide wheels with the air tube. A A, are runners of the cars to which all the rest are attached. B B, are the spring lever guages on which the driving wheels are hung and in combination with these are F F, the guide wheels, hung on crossbars H H. E, is the central rail, to which the air tubes D D, are attached, and when the pipes are inflated with air behind the driving wheels motion is communicated to the cars. The same principle can be carried into effect by hydraulic pressure and know-

ing the noncompressible nature of water, it has been suggested by some to employ water for this invention instead of air. The same principle applied to pneumatic pressure as invented by Mr. Avery for railway propulsion, can thus be applied by water to effect the same object. We should like to see this invention experimented on by some company competent to do so. In England this has been done by another method, and this we believe is the first American Pneumatic Railroad patent. It was granted in the month of September last.

### Hydrostatic Valve



This is an invention of extreme simplicity, and is an application of the obvious hydrostatic law, that a body superficially lighter than water must float therein. The valve represented above, is intended for preventing the emission of noxious vapors from sewers of all kinds and dimensions. A spherical recipient is placed between the mouth of the drain and the grating above; and valve, spherical also, hollow and very light, which resting on the said recipient naturally closes the inferior hole of it, that is to say shuts the entrance to the sewer. It is evident that the mouth of the sewer will be constantly shut by the said valve; but when water comes into the recipient, the valve will float; and thus the mouth of the drain being open, the water discharges itself freely through it, till at length the valve will replace itself upon the orifice, which will then be again closed; a very small groove in the circular border of the said orifice, will give flow to the small

quantity of water, which, being less heavy than the valve, would after its shutting, remain in the recipient. The extreme lightness of the valve and the opening of it upwards are circumstances which wholly prevent the bursting of the drains from the gas commonly produced, and occasionally lighted in them.

The recipient as well as the valve may be constructed of different materials, and very cheap. For the first, cast iron, baked clay, or cement should be very proper. The second may be made with sheetiron, or copper, or wood, (covered with a good varnish repellent of water,) or with india-rubber inflated.

### Improvement In Cleaning Cotton and Wool.

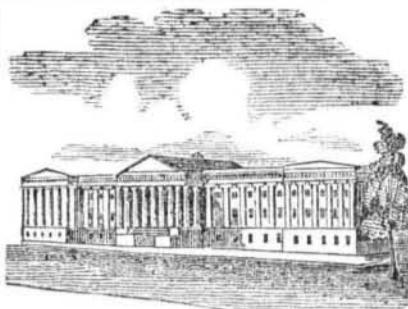
Mr. Addison Walpole, of Addison, Mass. has invented an improvement in Beating Cylinders which appears to be valuable. He substitutes wire cloth set in an elastic substance, such as vulcanized india rubber, or prepared gutta percha, in place of the teeth.

### Shingling Machine.

Mr. Daniel G. Marden, of Swanville, Me., one day last week, sawed 13 1/2 thousands of shingles in one machine. It was done on a wager of ten dollars—the wager being that he could not saw 10 M. in a day. Mr. Marden thinks that it will be hard to beat this. Zina Knowlton bunched them all in a day, and those who have worked in that line of business will understand what kind of a day's work it was.

### Carpet Loom.

The Boston papers speak highly of a new carpet loom which is now in operation in the Dean cotton mill at Taunton. It is said to combine the perfection of simplicity and power, executing with astonishing rapidity the most complicated patterns of three ply carpeting with precision and finish.



### LIST OF PATENTS

ISSUED FROM THE UNITED STATES PATENT OFFICE,

For the week ending May 16, 1848.

To Sterling Brewer, of Robertson Co. Tenn. for improvement in machinery for Shaving Shingle. Patented May 16, 1848.

To Henry F. Briggs, of Poughkeepsie, N. Y., for improvement in Shoulder Braces. Patented May 16, 1848. Ante-dated November 16, 1847.

To William Atwell and Joseph C. Kent, of New Bedford, Mass. for improvement in Weather Strips for Doors. Patented May 16, 1848.

To Stephen Ballard, of Meigs Creek, Ohio, for improvement in Atmospheric Churns. Patented May 16, 1848.

To Charles F. Johnson, of Oswego, N. Y., for improvement in Electric Telegraphs. Patented May 16, 1848.

To A. H. Stevens, of Geneva, N. Y., for improvement in Corn Shellers. Patented May 16, 1848.

To Nathan Towson, of Washington, D. C. for improvement in Bricks. Patented May 16, 1848.

To John Eppley, of York, Penn., for improvement in machines for bending Sheet Metal. Patented May 16, 1848.

To Erastus C. Matthewson, of Hartford, Conn., for improvement in Weather Strips for Doors. Patented May 16, 1848. Ante-dated November 16, 1847.

To Peter H. Watson, of Rockford, Illinois assignor to Nathaniel C. Wheeler, of Painsville, Ohio, for improvement in Churns. Patented May 16, 1848.

To Amos Bigelow, of Adrian, Michigan, for improvement in Grain Driers. Patented May 16, 1848.

To Alfred T. Serrell, of New York City, for improvement in machinery for making Mouldings. Patented May 16, 1848.

To John A. and Alfred Jones, of Lexington, Ky., for improvement in machines for dipping Candles. Patented May 16, 1848.

To John Kinman, of Mifflinburg, Penn., for improvement in machinery for the dressing of Staves. Patented May 16, 1848.

To Benjamin Edwards, of Laceyville, Penn. for improvement in Corn Shellers. Patented May 16, 1848.

To William Wilson, of Northampton, Mass for improvement in Fixtures for closing Doors. Patented May 16, 1848.

To George Gardner, of York Springs, Penn. for improvement in machines for hulling Cloverseed. Patented May 16, 1848.

To Isaac Evans, of Lebanon, Ohio, for improvement in Clevises. Patented May 16, 1848.

To Jesse Fitzgerald, of New York City, for improvement in fire-proof Safes. Patented May 16, 1848.

To Emery N. Moore, of Boston, Mass., for improvement in releasing Horses from Stables in cases of Fire. Patented May 16, 1848.

To William Ross and William E. Rutter, of Providence, R. I., for improvement in Tenders for Locomotives. Patented May 16, 1848.

To Edward Spain, of Philadelphia, for improvement in Churns. Patented May 16, 1848.

To Alfred Sabatton, of Reading, Penn. for improvement in Brick Machines. Patented May 16, 1848.

To M. W. Baldwin and A. S. Lyman, of Philadelphia, Penn. for improvement in Horse Rakes. Patented May 16, 1848.

### ADDITIONAL IMPROVEMENT.

To Israel J. Richardson, of New York City, for improvement in Portable Horse Powers. Patented Feb. 10, 1846 Improvement adde May 16, 1848.

### DESIGNS.

To Ezra Ripley, assignor of A. Cox & Co. of Troy for Designs for Stove Plates (two patents) Patented May 16, 1848.