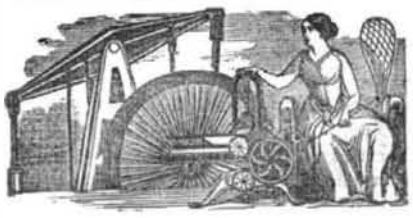


New Inventions.

A New Telegraph.

The Baltimore Clipper says: "Mr. George Mathiot of this city, has made an improvement on the receiving magnet invented by Professor Morse, by two independent and distinct engines or machines at a distant station, using at the same time but a single wire between the places—a result which has been hitherto been supposed impossible to be obtained except by the use of two wires. One of the applications which Mr. Mathiot has made of his invention is the working of two pens on Morse's instrument, by which it is enabled to write nearly twice as fast as with one pen: and instead of the alphabet used by Professor Morse, a symbolical alphabet is formed, quite as distinct and varied as the common English alphabet."

From the above description we would be led to infer that two different messages could be sent upon one wire at the same time, which is an imposibility. Two or three pens can be used with Morse's telegraph and his alphabet is a good one—yet we do not think that his telegraphic invention is the climax, but we would like to know the improvement on the *magnet* spoken of above, which at once doubles the value of Morse's invention.

Improvement in the Manufacture of Iron

Mr. Lorenzo Peibert, of Shenandoah Co. Pennsylvania, has invented a new smelting furnace, which the Winchester Republican says "will make malleable iron from the ore and be a saving of $40 per ton." We are glad to see the attention that is now being paid to improve our iron manufacture. It is time that we were rivalling Europe, if not in the quantity at least in the quality of our iron.

At Harlem in this city, there is an establishment for making steel from iron by a short process—making first good iron from the ore and then converting it into steel. It is said that steel is made cheaper there than in England. We hope this is true, and also that it is better, for it is a fact well known to our mechanics, that the English steel which now is imported here, is not so good as the kind that used to be imported a few years ago Mr. S. Broadmeadow is the gentleman who conducts, and that in a superior manner, the steel establishment at Harlem and he has lately discovered a superlative method of distilling zinc, which must be of great benefit to our country at large.

Improvement in the Deflective Telegraph.

Mr. Holmes, of the Electric Telegraph Co. London, has made an improvement in that kind of Telegraph, which from its extraordinary simplicity connected with its results, is really deserving of notice.

The improvement consists in the substitution of a single small steel lozenge three quarters of an inch long for the two five inch astatic magnetic needles heretofore used and then placing the lozenge between two diamond coils. This form, says the Civil Engineer and Architect's Journal, has the advantage of giving a signal free from the constant vibration of the needle, which is the great fault of the old needle telegraph, and at the same time the battery is reduced to one tenth the number of plates for a circuit of two hundred and fifty miles.

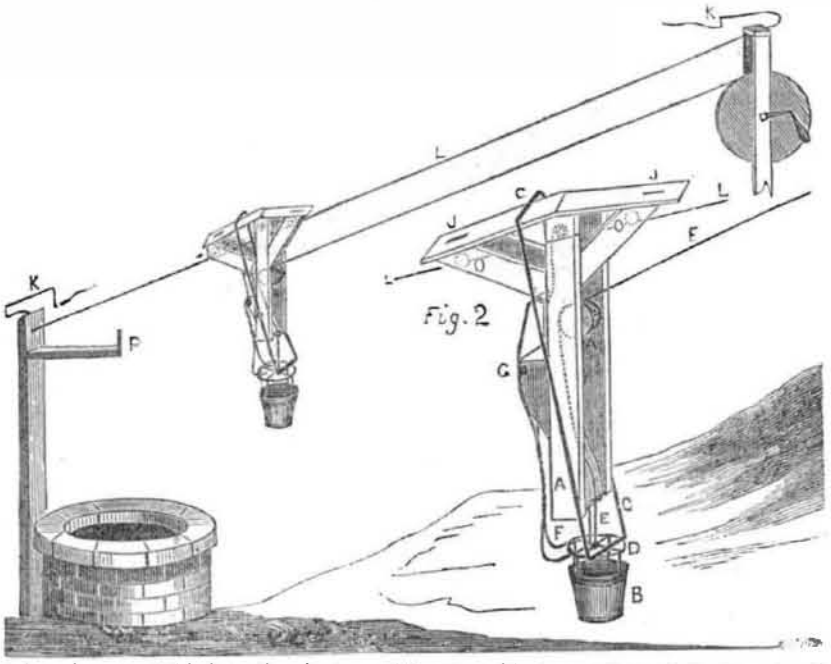
Improved Water Faucet.

George and William Gee, two very enterprising young mechanics of this city have recently invented a Self stopping Faucet, which from its simplicity and cheapness will doubtless come into general use. It can also be applied to Hydrants and is so arranged that no water can remain in the discharge pipe thereby preventing all danger of freezing. Application has been made for a Patent.

THE HYDRAULATOR.

This apparatus is for drawing water from some distance out of a well and bringing it to the dwelling. It is the invention of J. I. & S. P. Cox, Shippinsburg, Pa, and its extreme usefulness will warrant it yet a general employment. By it water can be taken by a female into a house without coming out of doors, and an apparatus of the same kind could as well be used for conveying water from the upper part of a building. Although it looks to be a little complicated in this engraving, yet it is very simple and we believe that after reading the following description any one of our readers will be enabled to make one himself. It can be made very cheap, all the out of the way materials is three pullies, and the rest is a few pieces of wood and some wire.

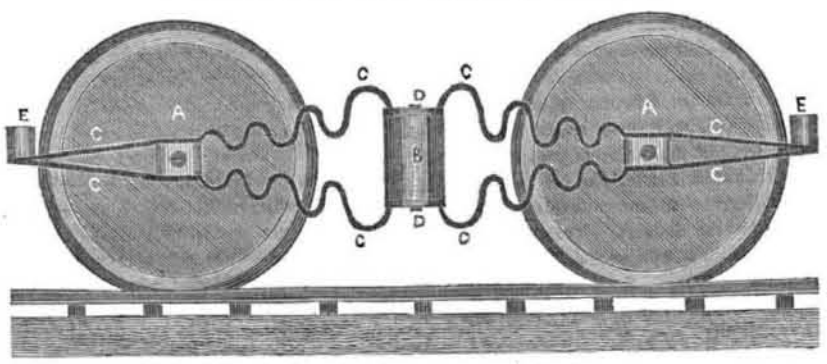
Figure 1.



The principle of this invention is to send the bucket from the house on an inclined rail made of wire or a stout rope, and to have the bucket drop into the well by a cam, and then the bucket to be drawn up to a catch on the sliding frame and the whole apparatus drawn up to the house again by the bucket cord being wound on a pulley. The large pulley and handle to the right above are fixed on a frame placed in any convenient part of the dwelling. Fig. 1 shows the Hydraulator in operation, and fig. 2 is an enlarged view of the moveable carrier parts. L, fig. 1, is a strong wire or rope, fastened into a simple upright pulley frame at the one end and to the top of a post at the back of the well at the lower end. This rope or wire is the inclined rail on which the moveable apparatus travels up and down. K K, are two spring cams, which may be made of wire or wood, to catch into notches J J, see fig. 2, on the top, so as to hold the *carrier* at the top and at the end of L. P, fig. 1, is an upright rod, which throws the bucket catch out of geer with the bucket when the carrier reaches above the well, and the bucket then drops down and is filled with water. A A, is the frame of the carrier. It is made with two pulleys O O, seen by the dotted lines fig. 2. These pulleys run upon L. S, is another pulley for the bucket rope E, B is the bucket over the mouth of which is a slight wicker frame D. C, is a cross rod which moves up and down by the bucket, so as to throw K out of J J, and set the carrier free from the catches. All that is necessary to do this is to turn the pulley above. F, is the bucket catch. It is a prong shaped stick or wire to catch into D, and is fixed on a pivot G, on the frame. This holds the bucket in the carrier, and when it is ungeared by P, the bucket is let down into the well and the carrier held fast by K. When the bucket is lifted up to the bottom of the carrier, one turn more on the pulley lifts C C, throws K out of J, F catches, and away the bucket and carrier comes up the rail. The parts in this engraving are too large drawn in proportion to the size of the apparatus, which can be made slender and neat. The Hydraulator has been used with great satisfaction, and it answers a purpose better than the hydraulic ram.

Measures have been taken to secure a patent.

HYDE'S CURVED SPRING TRUCK.

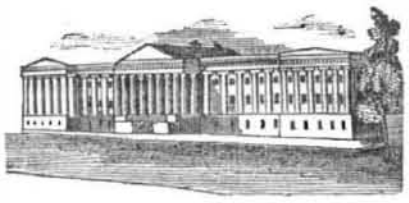


This is a new kind of Truck, invented by Mr. H. T. Hyde, of the city of Troy, N. Y. It presents some new features in principle and construction, well worthy of attention The principle of the invention. is to employ double steel or good iron arch-formed side bearings between the central transverse beam and the journal boxes, so as to accommodate the form of the car itself—the whole body of it—to the turning of narrow curves.

The above engraving is a side elevation.—A A, are the wheels. B, is the central transverse beam. C C C C, are the spring side bearings, and E E, are the front transverse beams.

It is well known that the form of the arch combines the greatest strength with the apparent slenderness of parts, yet from the above we may easily learn that while one of the bearings might be 8 feet long before it was curved, it may be made to be longitudinally on the truck only 4 feet, thus condensing in a most simple manner the lateral strength of 8 feet of iron or steel into 4 feet. A square inch of malleable iron will bear without permanent alteration a pressure of 17,800 pounds. while the direct cohesion of a bar of tilted steel one inch square is 59 tons, therefore a careful attention should be given to this new truck of Mr. Hyde. The springs are broad in comparison to their thickness, so that in the lateral straining when turning a curve they may combine great strength with flexibility.

Measures were taken some time since to secure a patent.



LIST OF PATENTS

ISSUED FROM THE UNITED STATES PATENT OFFICE,

For the week ending Oct. 31, 1848.

To John Turner, of St. Alban's, Me., for improvement in Shingle Machines. Patented Oct. 31, 1848.

To W. W. Riley, of Columbus, Ohio, for improvement in Fastenings for Pantaloon Straps. Patented Oct. 31, 1848.

To Isaac W. Ayres, of New York City, for Water Doors for Steam Boilers. Patented Oct. 31, 1848.

To Livingston, Roggin & Adams, of Pittsburg, Pa., for improvement in Insulating supports for Telegraph Wires. Patented Oct. 31, 1848.

To James Stevens, of Middletown, Md., for improvement in Cooking Utensils for cooking and steaming. Patented Oct. 31, 1848.

To James and John Haworth, of Frankford, Pa. for improvement in Looms. Patented Oct 31, 1848.

To Thomas Marquis, of New York City, for improvement in Fliers for roving, &c. Patented Oct. 31, 1848.

To Nathaniel Oakley, of Babylon, N. Y., for improvements in hanging running stones in Mills. Patented Oct. 31, 1848.

To Stephen B. Cram, assignee of John Johnson, Boston, Mass., for improved Hand Drill. Patented Oct. 31, 1848.

To Timothy D. Jackson, of Brooklyn, N. Y. for improvement in Alloys for Sheet Metals. Patented Oct. 31, 1848.

To Joel Robinson, of Methuen, Mass., for improvement in Shoe Pegging Machines — Patented Oct. 31, 1848.

To Richard A. Tilghman, of Philadelphia, Pa., for improvement in the manufacture of Alkaline Chromates. Patented Oct. 31, 1848.

To William Fink, of Williamsport, Md. for improvement in Saw Mills. Patented Oct. 31, 1848.

To David Hinman, of Brunswick, Ohio, for improvement in apparatus for transmitting Power. Patented Oct. 31, 1848.

To John Mills, of Pitt Township, Pa., for improvement in Wagons. Patented Oct. 31, 1848.

INVENTOR'S CLAIMS.

Metallic Grummet.

E. H. Penfield, Middletown, Conn. Improved metallic Grummet. Patented Sept. 19, 1848. Claims the making a Grummet of a metallic cylindrical tube or ferule, having a solid disk or rim on one edge and a similar shaped solid disk with a ferule made with teeth or points, which two together pass through the cloth and lock in such a manner that the teeth or points may turn over and press upon the cloth to prevent it being strained out and torn or injured by the strain on the sail.

Steam Hammer.

Lewis Kirk, Reading, Pa., for Improved Steam Hammer. Patented Sept. 19, 1848.—Claims combining a horizontal steam engine with the helve of a hammer, by means of an arm and jointed link, or its equivalent substantially as herein described.

Refrigerators.

Thomas B. Smith, Philadelphia, Pa., for Improvement in Refrigerators. Patented Sept. 19, 1848. Claims the application to refrigerators of the door-way and non conducting partition, to obtain entrance without affecting the temperature inside, as described, and in combination with said refrigerator, the employment of pipes or valves, to admit cool air into the adjacent rooms.

Railroad Cars.

John F. Randolph, Troy, N. Y. for improvement in Railroad Cars. Patented Sept. 26, 1848. Claims supporting the truck on journals made each side of the wheels on the hubs or short axles, when this is combined with the long axle passing through the hub or short axles substantially as herein described and for the purpose specified.

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