

### Scientific American, CIRCULATION 16,000. PUBLISHED WEEKLY At 128 Fulton, street, N. Y., (Sun Building,) and 13 Court street, Boston, Mass. BY MUNN & COMPANY, The Principal Office being at New York.

THE

A. T. Hetohkiss, Boston. Geo. Dexter & Bro., New York City. Stokes & Bro., Philadelphia. Barlow, Payne & Parken, London. Responsible Agents may also be found in all the principal cities and towns in the United States.

-- \$2 a-year--- \$1 in advance and the remainder in 6 months. TERMS-

# Rail-Road News.

The Virginia Central Railroad. A meeting was held in Richmond. Va. on the 1st inst., to take into consideration the extension of the Virginia central railroad from Staunton to Covington. Among the speakers were General Chapman, of Monroe, and Hon. Henry A. Wise. A preamble stating that, whereas, by an act passed at the last session of the General Assembly, the capital stock of the Company was increased to the sum of \$700,000, three-fifths of which are to be paid by the State when two-fifths are raised by others than the Commonwealth, was followed by a resolution, unanimously adopted, that Mr. A. A. Wilder, of Detroit, Michigan, the at its lower end, on the top of the plate, B. the city of Richmond ought to subscribe, at the proper time, the full proportion of the said three fifths.

### Hudson River Railroad.

This road has declared a dividend of 31 per eent. for the last six months. It is doing well. The engines are excellent and run at a great speed; the rails and track are not kept in such order as the machinery-this is evident to any person who travels on the road. A large force is now on the road between Poughkeepsie and Albany, and when the road is completed to Greenbush, we will have direct railroad communication to Albany and Troy. "There's a good time coming."

# Lebanon Vailey Railroad.

The survey of the proposed route of this road is completed through from Harrisburg, Pa., to Reading. It is to cross the Schuylkill a short distance below Reese's mill in Reading. Operations for the grading and levelling the road will, in a short time be commenced.

## Dayton and Springfield, Ohio Railroad,

The Dayton Journal, of the 30th, says, the iron is laid on the track to Springfield, about twelve miles out of Dayton-that the road will be completed to Springfield so as to have the cars running by Christmas.

### The Central Ohio Railroad.

The letting of twenty-two miles of grading and masonry on the Railway from Covington, Miami County, to St. Paris, in Champaign County, is advertised in the Cincinnati Gazette.

# IMPROVED HAND COPYING PRESS. Figure 2. Figure 1.

This is a very nest and good invention of | handle or lever which moves on a pivot joint author of the Leeway Indicator, illustrated The links, G, are united to the lever by a piand described in our last number. (The initial of the name being wrong therein.) This is a lever, not a screw press, and is very convenient and rapid in its operation, beside being so combined as to be quick in its first motion, giving out little power, and slow towards the end of the stroke, giving out the greatest amount of power, where it is most required. Figure 1 is a perspective view, and figure 2 is a plan view of the bed plate. A is the bed plate, with a sliding bolster, D, on it. This bolster moves in a groove, K, (fig. 2) and is set by a screw (E, fig. 1) at any part of this groove, so as to open or narrow the space between the pressure plates for the receiving of parcels of various thickness, to be pressed. B is a pressure plate, secured to the bolster. D. C, is the moveable pressure plate, with two projection shoulders, F, (one only seen) which are inserted in grooves, J J, of the bed plate (fig. 2) to move, as it were, on their projection shoulders, as on axes in the said plate. The two plates, B C, are now set open to receive pose. any parcel for pressing, the plate, C, being

vot joint, and also united to the plate, C, by a joint of the same kind attached to the inside shoulder of a setting screw, which works through a box, I, on the top of the plate. This screw increases or diminishes the distance between the top of the two plates.

OPERATION .- Place the article to be pressed between the two plates, as they now stand, and take hold of the lever, H, bending it down by the right hand towards the right side. This brings the two plates, B C, together, and as the pivot joint of the links, G, in the handle, is brought behind the pivot joint of the handle, at the top of plate, B, the power applied it is on a line with the fulcrum of the said lever and top of the plate. This press is a good invention; we have no doubt but it will soon come into general use, as it is exceedingly convenient and handy to use ; and it exerts a far

greater amount of pressure according to its size, than a person would at first sight sup-The inventor has taken measures to secure

thrown back for that purpose. They are both it by patent, and more information may be obunited together by the rule links, G. H is the tained from him by letter, addressed to Detroit.

IMPROVEMENT IN STEAM AND VAPOR ENGINES.



cam arm, F, from the cross-head, which arm comes in contact with studs on the rod, E, during the stroke of the piston, at the proper time for cutting off the admission and escape of steam to and from the cylinder. The piston is represented as performing the stroke from right to left, the induction passage being full open during one half of the stroke. The arm, F, is just coming into contact with the stud, G, by which the valve rod, E, is carried a sufficient distance to close the induction port by the piston valve, A, and then it remains opposite to it; the stud, G, at its lower end, is then received into a groove, H, in the plate represented, which is secured to the frame of the engine. This groove draws down the stud, when the cam arm, F, slips its hold, and the main piston, P, in the oylinder, R, continues it downward stroke with the eduction passage of the main cylinder still full, the piston, B, having stopped short of the said passage. The arm, F, next comes in contact with the stud, K, towards the end of the stroke, which completes the movement of the valves, carrying them past both ports, and in a proper position for the reversed stroke of the engine. By this movement of the valve rod the position of the stude G and L is reversed, the stud, L, being carried into the highest part of the groove, H, and the stud, G, into the lowest, out of contact with the arm, F. A like action takes place on the reverse stroke of the arm, F, first striking the stud, L, and carrying the valve rod, E, as before stated, a sufficient distance to close the then induction port by the valve, B, remaining opposite thereto, the arm, F, slipping its hold of said stud, L, at that point. The stroke of the rod, E, is completed by contact with the fixed stud, M, when the motion will be reversed. The bricks, N N, are employed to strengthen the studs, G L, and prevent them from setting fast in the groove, H. O is a hand lever connected with the valve rod, E, to work the valves by hand when required. U is the connecting rod of the main piston rod, S. TT are guide rods for the slide of the arm, F. The claim for increases as the lever moves eliptically, until this improvement is the working of the valves to cut off at any portion of the stroke, and to prevent what is termed " wire drawing of the

### To Cook the Egg Plant.

steam."

The following mode has given satisfaction so far as we have known it tried. Cut the purple egg plant into slices a third of an inch thick. Put the slices on a plate, one over the other, with a sprinkling of fine salt between each layer, and lay a weight of three or four pounds on the top ; leave them in this situation four or five hours or over night. The salt will form a liquid with the juice of the eggplant, which will take out the bitter quality. The liquid should be drained off. Fry them brown in lard or butter.

The following is the mode of stewing the plant : Take the purple kind, stew till soft, take off the skin, mash it with butter and sweet heris, grate bread over the top, and bake

The private subscriptions in Maysville, Ky., for building the railway from that city to Lexington, have been secured to the amount of \$50,000, and the Eagle says the amount will probably be increased to \$100,000. The aggregate from the city will not be less than \$200.000.

### Losing the Trade.

The Newburyport Herald says that Amerikind in the market, and in demand for even the mixture of lard oil.

The accompanying engraving represents an | to a locomotive to work the steam expansivecan castor oil, formerly the best article of the improvement in working the slide valves of ly. The valves are two pistons, A B, fixed on have flown 2,000 miles. engines, which has been patented at home, the same rod, and sliding steam tight in the The embroidered muslins of Switzerland are foreign shipment, has now become almost and recently in Britain, by the inventor, Mr. | cylinder, C D, is a passage in the said cylinunsaleable, owing to its great adulteration by Ethan Campbell, of this city (New York.) The der, for the admission of steam from the boilto be prohibited in France, because they inengraving represents the invention as applied er. E, is the valve rod, it is actuated by a terfere with French manufacture.

### t till brown.

Washington Irving relates that Abdallah, the father of Mahomet, was so beautiful that 'no less than two hundred Arab maidens died of a broken heart the night he was married to Amina."

A pretty good story we think.

Two carrier pigeons, taken out by Sir John Ross, who is in search of Sir John Franklin. have arrived at their homes in Scotland. They