

Improved Press for Printing for the Blind.

The annexed engraving represents an improved press for printing for "the blind;" this press was recently invented and manufactured by Stephen P. Ruggles, of Boston, and it was exhibited at a meeting of the Massachusetts Institute of Technology, on the 10th of Dec., 1863; said press being much larger and far superior to those first built by him, for the same purpose, many years since.

The press now illustrated was invented and built expressly for the American Printing-house for the Blind, in Louisville, Ky., which institution has a large fund subscribed, to be expended in giving books to all the blind persons in the United States.

The press is put in motion by turning the fly-wheel by means of the crank, A, or by a belt on the pulley, B; the fly-wheel moving in one direction all the time. The sheet to be printed is placed on the formo type, C, which rests on the bed, D, and over which the india-rubber tympan, E, shuts down as said bed moved forward. The cam, F, as it revolves, with the gear wheel, M, comes in contact with a lever, which causes the bed to start very slowly from its state of rest, but increases its speed so that it soon acquires the same velocity as the surfaces of the cylinder (not seen in the cut) and the segment of the cylinder, G, between which it passes for the impression to be made on the paper. When the rear end, H, of said segment, has passed

its lowest center, the bed is relieved and drawn back to the position shown in the engraving, by a weight attached to said bed by a strap; said weight running down in the inclined spout, I. The strap is wound on a snail-shaped pulley to give said weight its greatest power of leverage to start the bed back quickly, and its least power to resist the bed's motion forward. The cam, F, may be so adjusted on the gear wheel, M, that only a small portion of the segment, G, will be brought into use when a small form is to be printed, thereby allowing the press to run very rapidly and yet afford sufficient time to lay the sheets to be printed. The journals of the shaft of segment, G, run in eccentric boxes, to which the levers, K K, are attached, and by moving said levers, back or forth, said shaft and said segment may be raised or lowered to regulate the impression. L is the throw-off shipper, and is so related to the lever with which the cam, F, comes in contact, that the bed may, when desired, be prevented from starting forward, for an impression, while all other parts of the press are in operation.

On another page (149) will be found an article headed "What invention has done for the blind," which our readers will find interesting.

Further information can be had by addressing S. P. Ruggles, 152 Washington street, Boston, Mass.

Big Pig.

We do not generally find room in the SCIENTIFIC AMERICAN to record all the achievements of our agricultural friends, in the way of huge vegetables, prize animals, &c.; but, for once, we are compelled to confess ourselves unable to do justice in type to the most enormous hog we ever set eyes upon. This beast looked (he is dead now) more like a polar bear than a pig, his live weight being 1,355 pounds, and his age four years; his back was waist high to an ordinary man, and his length nearly six feet. His ham would not go into a barrel, and must have been a heavier

load than any ordinary person could stagger under. Two tusks curved gracefully outward from the under jaw of this hog, and would have been very long, no doubt, if they had not been broken off. The hide and hair of this ponderous animal alone remains for mankind to gaze upon, his flesh is scattered among the "gentiles." In the *American Agriculturist* Office his swineship's stuffed effigy may be seen, at morning and at evening, gazing at the California pear, a fit com-

panion herewith illustrated is of the class known as registering calipers, and by a very simple arrangement of a scale on each side of one pair of the legs, A, the distances of the points, B, are accurately measured. This is a very convenient form of self-registering calipers, as the workman can see, by a glance at the scale, the size required, without being obliged to carry a rule in his pocket. The construction of the calipers will be readily understood by every mechanic at a glance, and it is unnecessary to dilate upon this point. The joint, C, is not riveted but has a thumb-screw, D, which screws into the washer on the opposite side, thus affording a ready means of keeping the joint in good order; there are no projecting points, or other details, about these calipers to render them liable to catch in or wear out the pocket, and we recommend the calipers to our mechanical readers who use such instruments. The invention was patented on Nov. 8, 1863, by Wm. A. Morse. For further information address him at Box 2,897, Boston, Mass. [See advertisement on another page.]

Profits of Steamboating.

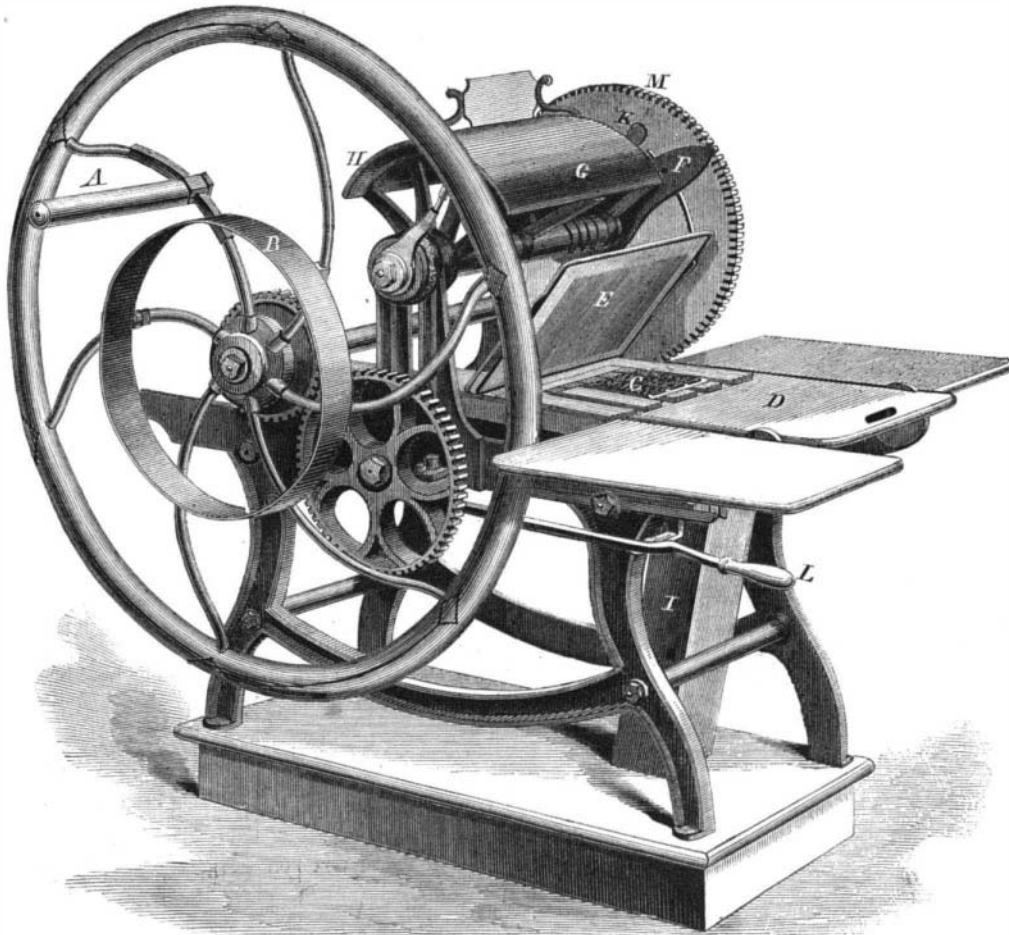
When Cornelius Vanderbilt was a young man, his mother gave him \$50 of her savings to buy a small sail-boat, and he engaged in the business of transporting market-gardening from Staten Island to New York city. When the wind was not favorable, he would work his way over the shoals by pushing the boat along by poles, put-

ting his own shoulder to the pole, and was very sure to get his freight into market in season. This energy gave him always a command of full freights, and he accumulated money. After a while he began to build and run steamboats, and he is now reputed to be worth more than nineteen millions of dollars, after making the Government a present, as a free gift, of a steamship that cost \$800,000!

INDIA-RUBBER EXTENSION CASE BEFORE CONGRESS.

We learn from Washington that parties are at work to obtain from Congress an extension of Goodyear's india-rubber patent right. This right has already had two extensions, and the company has amassed twenty-five millions of dollars. It is now proposed to give it a seven years' further lease of extortion upon the people and Government of the United States, and a chance to accumulate twenty-five millions more. This is one of the biggest patent-right operations of the times. The Government is obliged to pay enormously for everything manufactured out of this patented rubber fabric in the shape of soldiers' blankets, clothing, and the numberless articles of comfort and convenience required for the use of soldiers in the field, whereas, if their manufacture were left open to competition, the cost would be greatly less. Why do not the newspaper correspondents in Washington watch and expose these things? If the correspondents of the Associated Press were worth a button they would do so without a hint from any quarter.

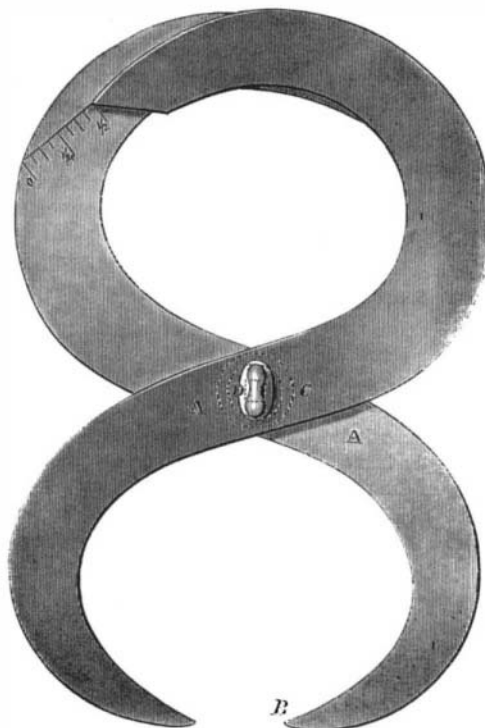
[We copy the above paragraph from the *New York Herald*. Outside of those who are engaged in the manufacture and sale of india-rubber goods, there is scarcely a person in the country who does not pay more or less tribute to the gigantic india-rubber patent monopoly; consequently nearly the whole population is interested to prevent the extension of the patents. We think we are safe in saying that the india-rubber patents are by far the most valuable of any now existing. We shall refer to this subject again with a hope that we may be able to defeat the scheme.—Eds.]

**NEW PRESS FOR PRINTING FOR THE BLIND.**

panion in size for him. This big pig was raised by Mr. Benham, of McLane County, N. Y., and is part Berkshire and part Byfield stock.

MORSE'S SELF-REGISTERING CALIPERS.

Perhaps the tool most universally employed by machinists is a pair of calipers; from taking the size of



a drill or a rod, up to turning a shaft, they are in constant requisition, and are quite indispensable. The