2 Sheets. Sheet 1.

J. M. Talbott,

Tobacco Press.

No. 59,478. Patented Nov. 6, 1866.

Fig. 4.

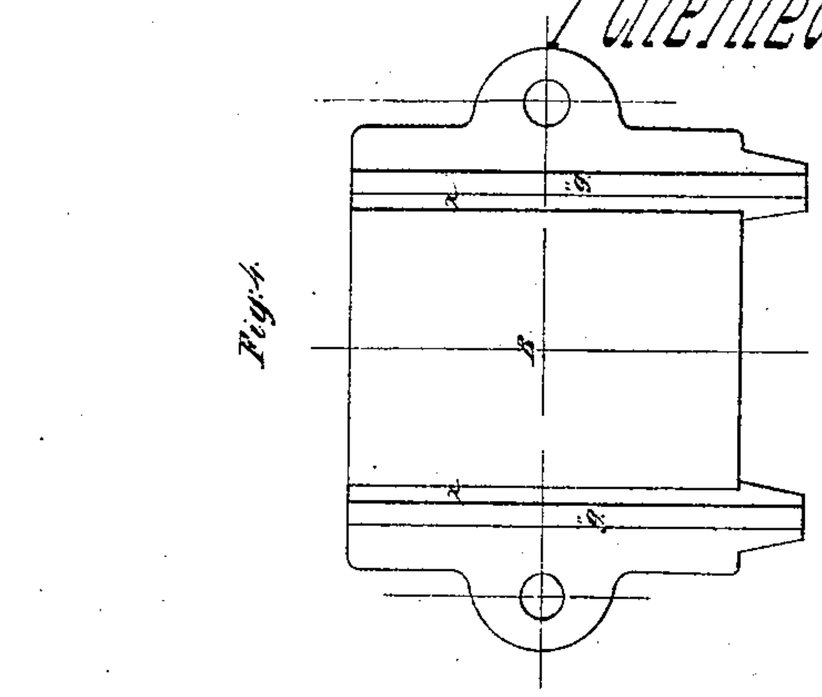
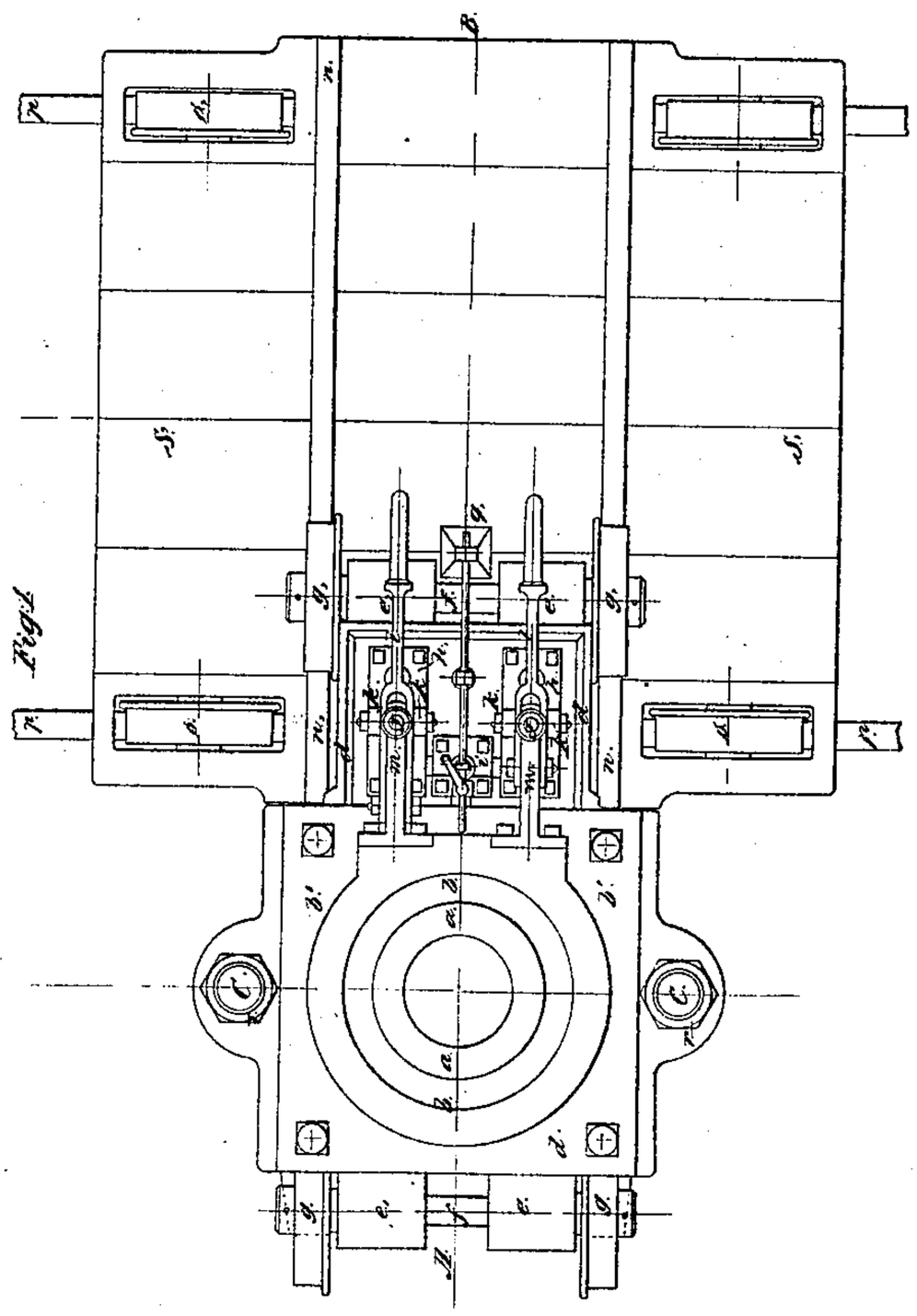


Fig. 1.



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AM. PHOTO-LITHO. CO. N.Y. (OSBORNE'S PROCESS)

2 Sheets. Sheet 2.

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Fig. 3.

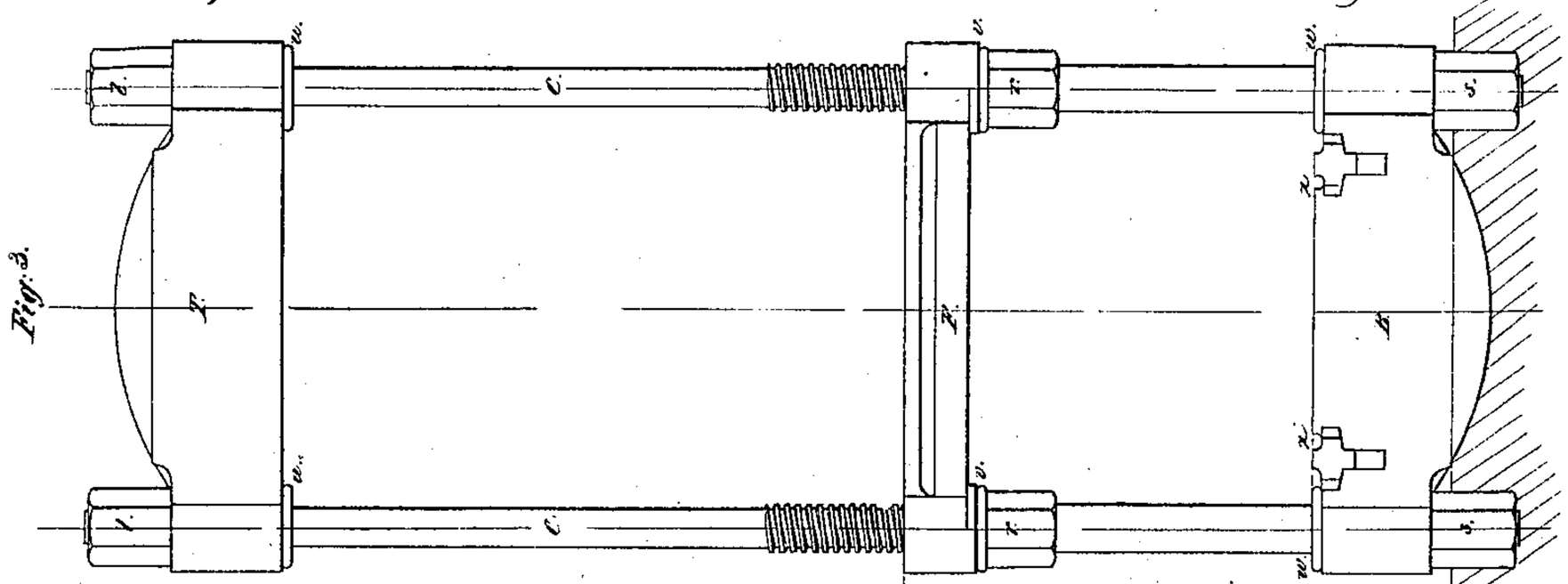
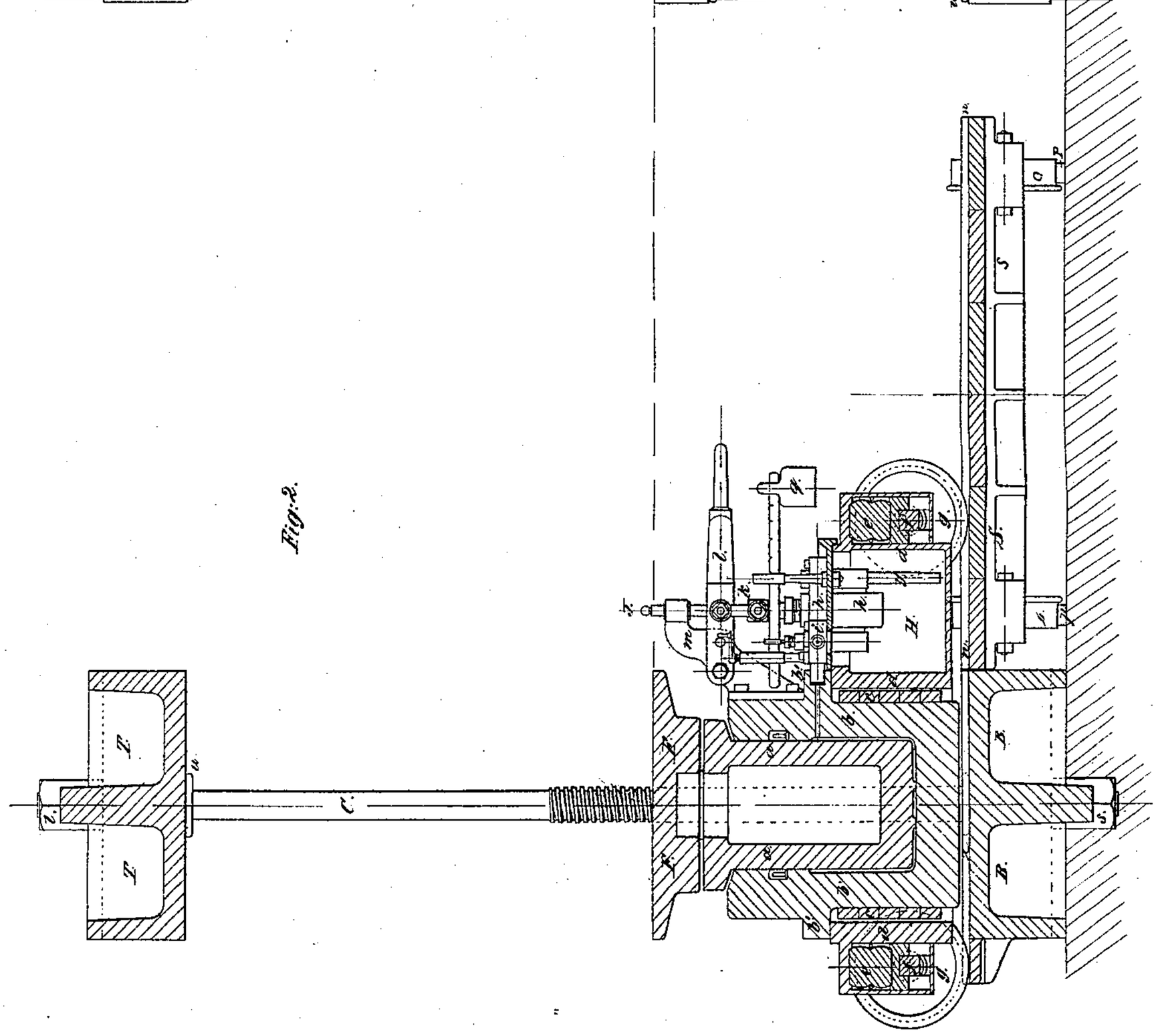


Fig. 2.



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UNITED STATES PATENT OFFICE.

JAMES M. TALBOTT, OF RICHMOND, VIRGINIA.

IMPROVEMENT IN TOBACCO-PRESSES.

Specification forming part of Letters Patent No. **59,478,** dated November 6, 1866.

To all whom it may concern:

Be it known that I, JAMES M. TALBOTT, of the city of Richmond, county of Henrico, in the State of Virginia, have invented a new and Improved Tobacco-Press; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention consists of a portable hydraulic ram, in combination with stationary retaining-frames, which I denominate my "improved portable hydraulic ram and stationary retaining-frames."

The intention is to have a series of stationary retaining-frames in which to compress the tobacco, and, in connection with this series of retaining-frames, a double-truck arrangement, one of said trucks carrying the hydraulic pressing-power and supported upon the other truck, which is adapted to run from one retaining-frame to the other upon a stationary track, so as to enable the power-truck to be run into one retaining-frame, then into another, and so on until the tobacco in all the retainers has been acted upon by the pressing apparatus.

The invention also consists in the peculiar construction of the retaining-frames, whereby they are adapted to permit the follower to be acted upon by the hydraulic ram and held in position to maintain the tobacco in its compressed state for any length of time; also, in providing the power-truck with springs, which are interposed between the truck-frames and its axles, in order to sustain the truck when the power is not in use, but permit the same to be depressed till its bottom comes in contact with the bottom of the retaining-frames, when the power is applied, so as to relieve the axles from the pressure.

In the course of the following description, the power-truck is called the "top truck," in contradistinction to the truck beneath, upon which it is carried to the different retaining-frames.

The press is chiefly intended for use in the manufacture of tobacco, but it is of course applicable for other commodities which require analogous treatment.

Figure 1 is a plan of one of the retaining-frames, together with the portable hydraulic ram. Fig. 2 is a vertical section of the same on the line A B. Fig. 3 is an elevation of one of the retaining-frames. Fig. 4 is a plan of the bottom of one of the retaining-frames.

Similar letters of reference indicate corresponding parts in the several figures.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

1. *A portable hydraulic ram.*—The piston *a a* is fitted nicely into the cylinder *b b*, and secured by a leather packing of the U form to prevent the leakage of the water between them. This cylinder is provided with a square flange, *b'*, for the purpose of being fastened to a truck, *d d*, and is closely banded above and below the flange with wrought-iron bands to make it of sufficient strength to stand the pressure.

The top truck, *d d*, has a flange cast on its top edge, corresponding with the flange on the cylinder. The main body of the top truck forms the hydraulic reservoir or water-box H. The boxes which contain the rubber springs *e e* are also cast to it. These rubber springs are introduced for the purpose of preventing the axles and wheels from breaking, for, while the hydraulic ram, on its four-wheeled truck, travels to and from the retaining-frames, these four gum springs serve to hold the ram up and allow about one-fourth-inch clearance between the extreme lower end of the cylinder and the bottom piece of the retaining-frame B, thus preventing the end of the cylinder from dragging against the bottom of the retaining-frame B; but as soon as the force-pumps *h h* are applied the piston or plunger of the hydraulic ram is brought up against the follower, when a few more strokes of the force-pump will cause the gum springs to yield, and gradually the ram is brought down to a firm and solid bed or bearing on the bottom of the retaining-frame B. There being now nothing more to yield, the follower F is pushed upward by the application of the force-pumps *h h*, this operation being continued until the tobacco has received the requisite amount of pressure.

In order to ascertain the precise pressure an indicator, *i*, consisting of a small safety-valve, acting by means of a lever and weight, or

spring-balance, *g*, is adjusted in the passage between the ram and force-pumps and marked with a scale indicating the pressure in tons.

The rise on the scale while the pumps are in action will indicate when the requisite amount of pressure is obtained. When that is obtained the nuts *r r* are moved up under the follower by hand to prevent the follower from coming down, and thereby retain the imparted pressure on the tobacco for any length of time. The ram is now disengaged by bringing the force-pumps to rest and permitting the water, which is now in the cylinder, to go back into the reservoir H. This will cause the ram or plunger to drop back into the cylinder, and thus make it ready for a new charge on another retaining-frame, and so on.

In addition to parts strictly belonging to the ram, I now describe the construction of the force-pumps.

One of the pumps has a plunger of about one and a half inch in diameter, and the other about three-fourths of an inch. Both are bolted to the cover of the water-box H. Each has a suction-tube, *y*, extending down to within one-half inch of the bottom of the water-box. These pumps are united in their discharge-passages by an indicator, *i*, forming one common passage for both pumps, which leads into the cylinder of the ram.

J is the pump-plungers. K, the links which attach them to the levers *l l*.

The brackets *m m* are bolted on the side of the cylinder and form the fulcrum of the levers *l l*. The upper end of these brackets forms the guide for the plungers.

The bottom truck, S S, is in the form of a table or platform, movable on four railroad-wheels, *o o o o*, running on stationary tracks *p p*.

There are two tracks (marked *n n*) on the top of the platform, on which the ram rests when not in action, and on which it travels in and out of the retaining-frame. The same truck also serves the purpose of conveying the ram from one retaining-frame to another while it travels on its track *p p*.

2. *The retaining-frames.*—Any number of these frames can be used in my arrangement to suit the manufacturer. They are all arranged in a straight line parallel to the track *p p*. Each of these frames consists of a strong head and bottom of cast-iron, (the bottom marked B, the head or top T.)

g'' g'' are the tracks, prolonged into brackets, cast on the bottom B, with the grooves *x x* deep enough to clear the flanges on the wheels *g g* of the top truck, *d d*.

The top and bottom are united by two strong wrought-iron bars or vertical columns, *c c*, with nuts *s s* and *t t* and fixed collars *u w* to hold the frame together.

The nuts *r r*, on the columns *c c* being screwed down as far as they will go, the follower resting on them, there will be a space left between it and the bottom to permit the ram to pass in.

The space above the follower is occupied by the flattening-mill, which contains the lumps of tobacco.

v v are washers working on the columns *c c*, and between the nuts and follower.

Having thus described my invention, the following is what I claim as new herein and desire to secure by Letters Patent:

1. The retaining-frame herein described, the same consisting of the threaded columns C C, head T, bottom B, follower F, and nuts *r r*, said follower being adapted to be slidden upon the columns, so as to compress the tobacco, and then held in position by the nuts *r*, so as to retain the tobacco in its compressed state, substantially as set forth.

2. The springs *e*, applied to the truck of the hydraulic ram in the manner described, so as to sustain the same when not in action, but permit it to be depressed to find a firm and solid bearing on the press-bottom when the power is applied, so as to relieve the axles from pressure, as explained.

3. A movable hydraulic ram, in combination with a stationary retaining-frame, substantially as described.

4. A double truck, *d d* S S, which enables the hydraulic ram to be moved two ways, substantially as described.

5. The combination of the double truck and hydraulic ram with the stationary retaining-frames, substantially as described.

To the above specification of my improved tobacco-press I have signed my hand this 26th day of May, A. D. 1866.

JAMES M. TALBOTT.

Witnesses:
W. F. HALL,
CHAS. D. SMITH.