I. H. Traube.

Hay Press.

No. 94,257. Patented Aug. 31, 1869.

Fig. 1.

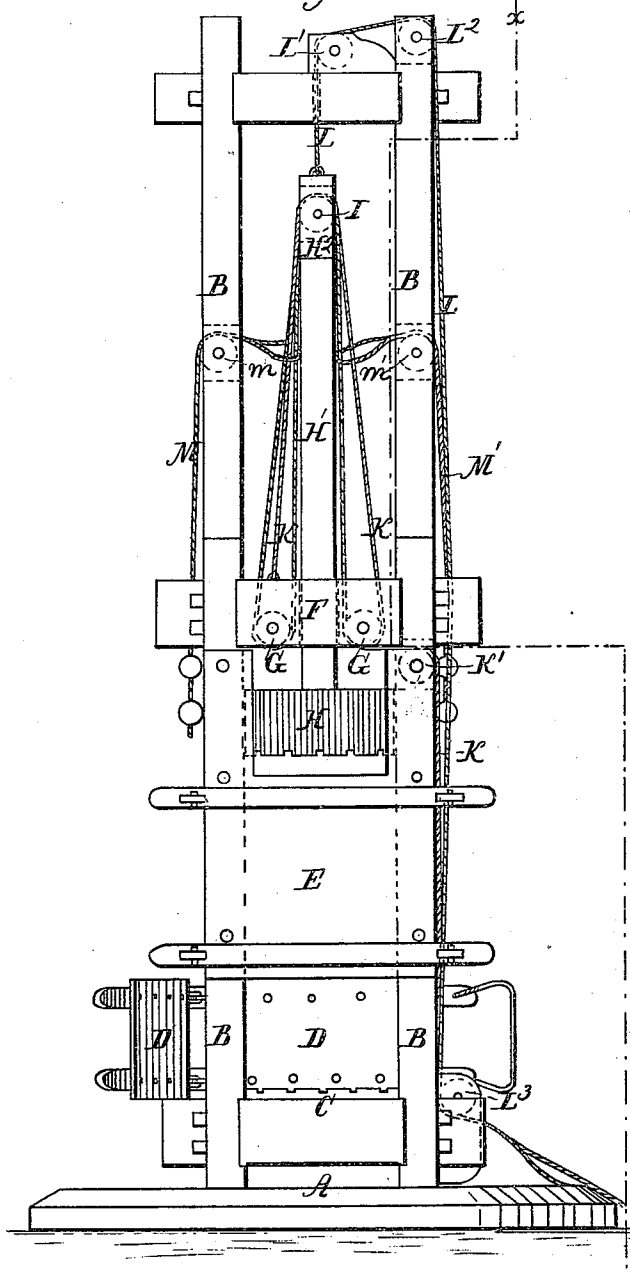
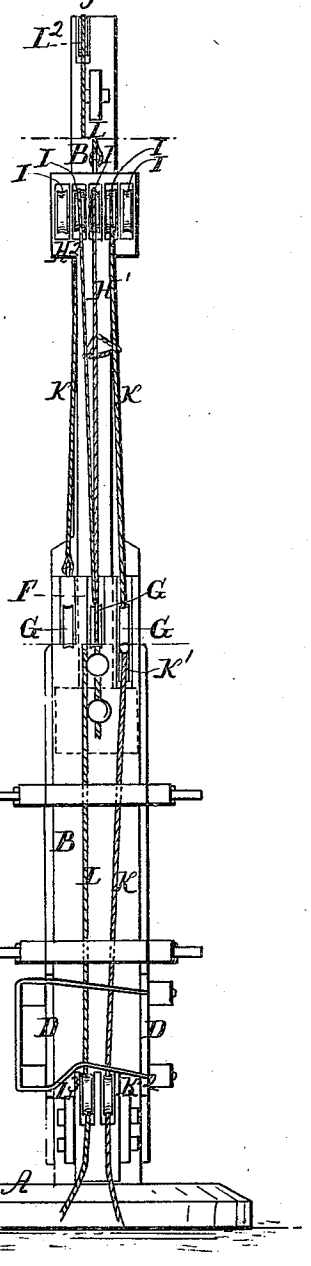


Fig. 2.



Witnesses;

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Letters Patent No. 94,257, *dated August* 31, 1869.

IMPROVEMENT IN PRESSES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, ISAAC H. TRABUE, of the county of Livingston, in the State of Kentucky, have invented a new and useful Improvement in Presses; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 represents a front elevation of a press with my improvements attached.

Figure 2 is a sectional elevation on line *x x* of fig. 1.

Corresponding letters refer to corresponding parts in the two figures.

The nature of my invention consists in combining and arranging, in a press for pressing hay, cotton, tobacco, &c., a series of fixed, and a series of movable pulleys, to obtain the necessary power, as hereinafter more fully described.

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

A, in the drawings, represents the platform of a press, on which the frame B is mounted, which, if to be used for pressing and baling hay, cotton, and like substances, may be constructed as shown, or in any substantial manner which may be best adapted to the purpose for which it is to be used.

C is the base or lower platen.

D, hinged doors.

E, the feed-box and guide for the plunger.

This brief reference to these several parts will be sufficient to an understanding of the case, as their construction and arrangement are similar to that in presses for like purposes now in common use.

F represents a stout cross-beam, which is firmly secured to the sides of the frame, about midway between the base and the upper cross-beam. In the centre it is provided with a mortise or square hole through which the plunger-rod passes. On each side of this it has vertical slots. In this case I have shown three on one side and two on the other, for the reception of pulleys or sheaves.

G represents the fixed pulleys, which are to be placed on horizontal shafts in the slots of the cross-beam F, in such a manner that their peripheries are about flush with the under surface thereof.

H represents the plunger, which works freely up and down between the sides of the frame and feed-box. Its rod H^1 passing through the cross-beam F, has at its extreme end a boss, H^2, provided with slots, the number of which is determined by the number of pulleys to be used.

I represents the movable pulleys, which are placed on a shaft in the slots of the boss of the plunger-rod, their number being equal to the number of fixed pulleys.

K represents a strong rope, one end of which is fastened to the cross-beam F, then passed over one of the movable pulleys I, and downward over one of the fixed pulleys H, then returned, and so on, till enough pulleys have been brought into play to give the required force, when a given force is applied at the loose end of the rope. The rope is then passed over the pulley K^1 in the side of the frame, and thence downward over the pulley K^2, which is secured in any suitable manner either to the frame or to the platform.

L represents another rope, by which the plunger is to be raised. To this end it is secured on top of the plunger-rod, and passed through a hole in the upper cross-beam of the frame over the pulleys L^1 and L^2, which are to be placed in the frame, and thence downward over the pulley L^3, which is secured by the side of the pulley K^2.

M and M′ represent ropes, which reeve over pulleys *m* and *m′* in the sides of the frame. One end of each of these ropes has a loop, which is to embrace the rope K, and the other end is to be weighted.

The operation is as follows:

The several parts having been arranged as described, the plunger is raised to its highest position by applying the necessary force at the loose end of the rope L. The box is then filled with the substance to be pressed, when the plunger is allowed to descend by releasing the end of rope L, coming down with considerable force, and somewhat compressing the substance. The weighted looped ropes M and M′ will prevent the rope K from becoming entangled. The plunger is again raised, and the operation repeated until the box is full, when power is applied at the loose end of the rope K sufficient to properly compress the substance, when it may be bound, and taken out of the press.

Having thus described my invention,

What I claim, and desire to secure by Letters Patent, is—

The combination and arrangement, in the press herein shown, of the fixed pulleys G, rope K, movable pulleys I, plunger H, and rope L, substantially as shown and described.

ISAAC H. TRABUE.

Witnesses:

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