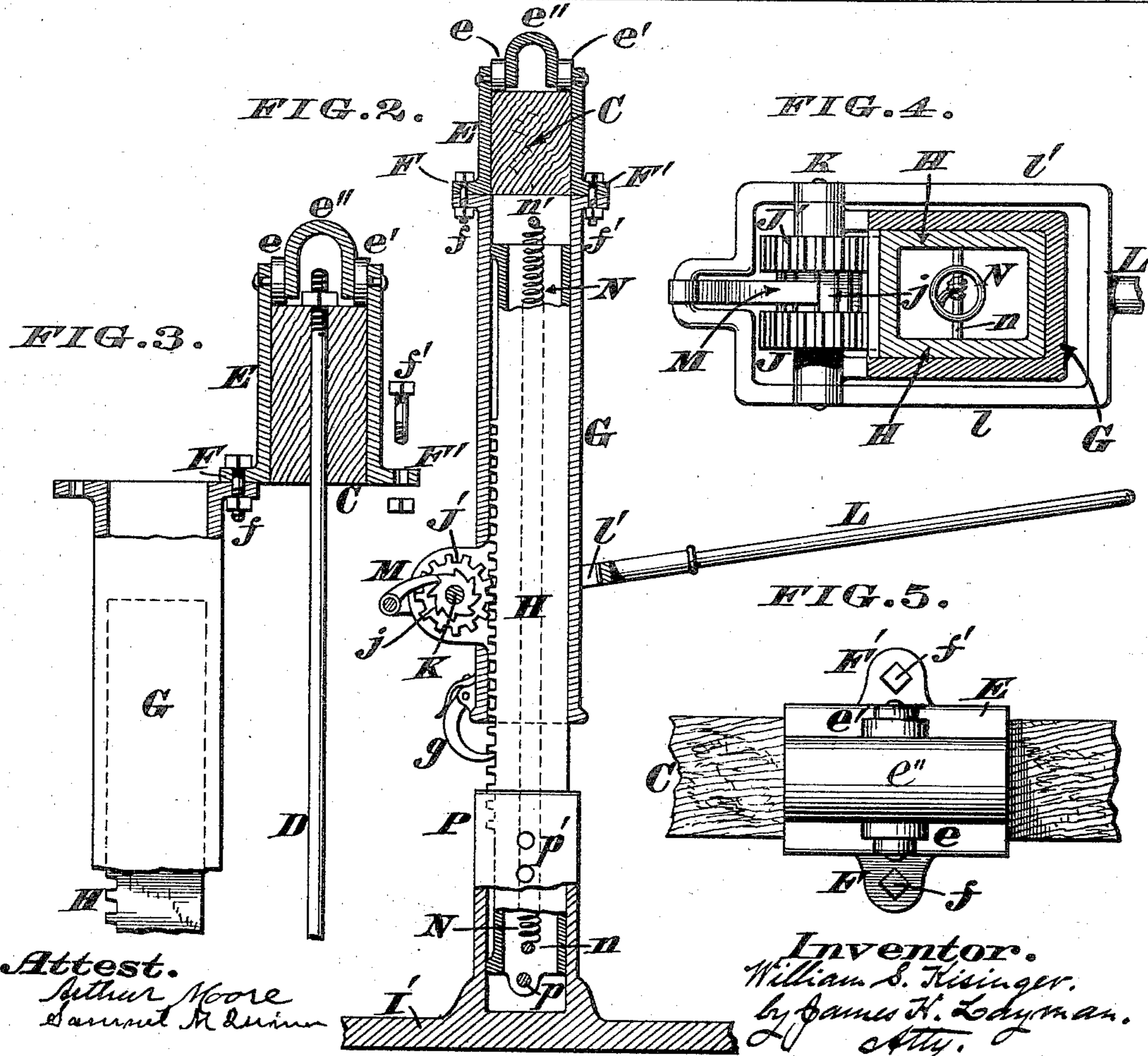
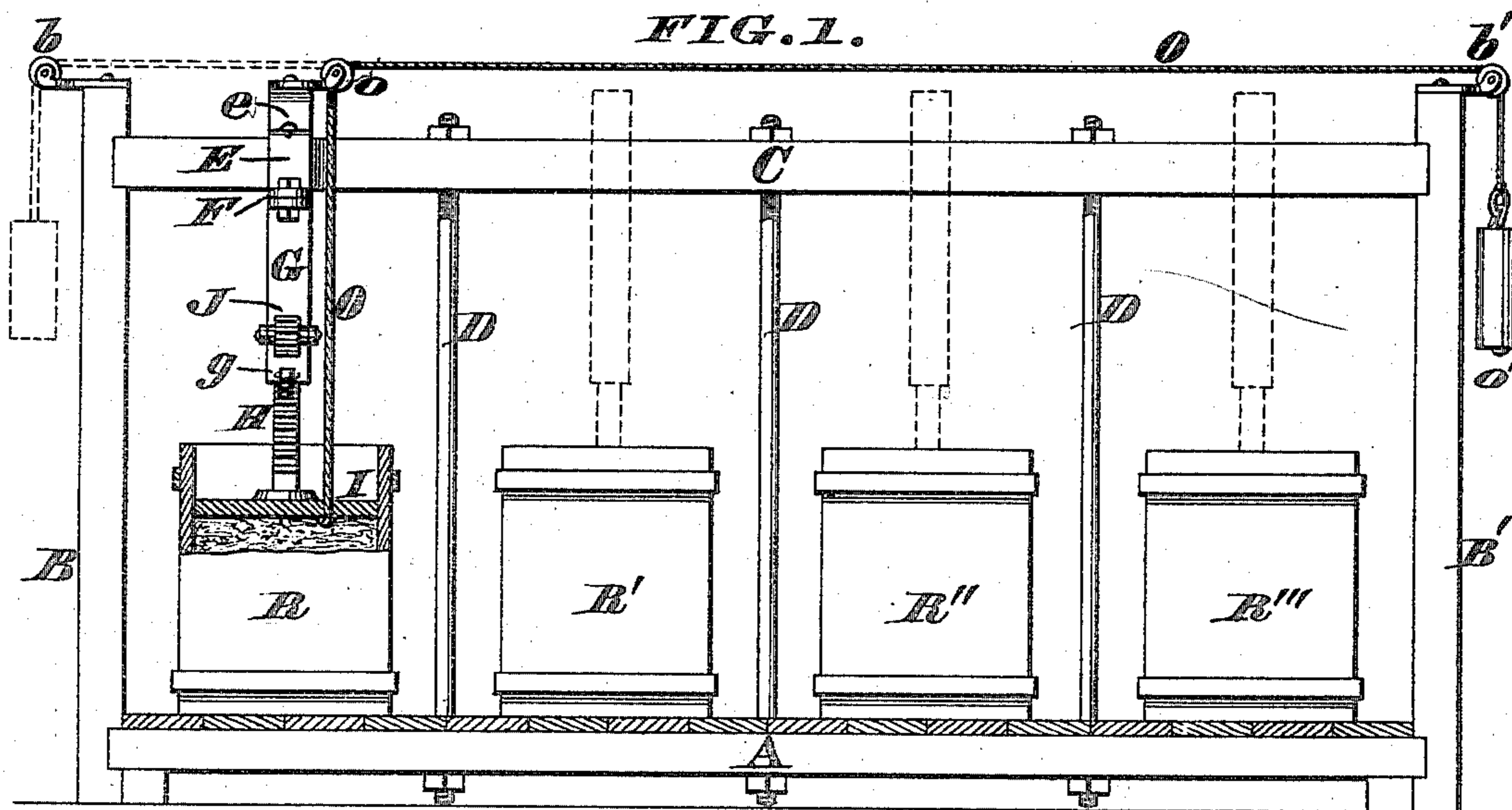


(No Model.)

W. S. KISINGER.
HAND PRESS.

No. 500,660.

Patented July 4, 1893.



UNITED STATES PATENT OFFICE.

WILLIAM S. KISINGER, OF BELLEVUE, ASSIGNOR TO THE WINCHESTER COTTON AND TOBACCO PRESS COMPANY, OF WINCHESTER, KENTUCKY.

HAND-PRESS.

SPECIFICATION forming part of Letters Patent No. 500,660, dated July 4, 1893.

Application filed January 28, 1893. Serial No. 460,008. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. KISINGER, a citizen of the United States, residing at Bellevue, in the county of Campbell and State of Kentucky, have invented certain new and useful Improvements in Hand-Presses; and I do hereby declare the following to be a full, clear, and exact description of the invention, reference being had to the annexed drawings, which form part of this specification.

My invention comprises certain improvements in those hand-presses which are adapted to be shifted along a cross beam of a frame, so as to bring the follower successively in line with a number of boxes applied to said frame, the details of said improvements being hereinafter more fully described, and then pointed out in the claims.

In the annexed drawings,—Figure 1 is a front elevation of a press frame provided with four boxes, the first one of which is sectioned sufficiently to show how the follower operates. Fig. 2 is an enlarged vertical-section of the press proper taken in the plane of its hand lever. Fig. 3 is a still greater enlarged section of the upper portion of the press and its accessories, said section being taken in the plane of one of the tie rods of the frame and the housing of said press being swung aside to clear said tie-rod. Fig. 4 is a horizontal section through the press in the plane of its pinions. Fig. 5 is a plan of the press-yoke.

My improvements are generally used with an ordinary press-frame consisting of a platform or base A, a pair of vertical stanchions B, B', a cross beam C, and a series of tie rods D that connect said platform and beam in the manner shown. Adapted to travel upon this beam is a yoke E, provided with a pair of rollers *e, e'*, and being arched in the center, as at *e''*, to clear the upper ends of the tie rods D. Furthermore, the side plates of this yoke have ears F F', more clearly seen in Fig. 5, that admit bolts *f f'*, wherewith a tubular-housing G is suspended from said yoke, the lower end of said housing being provided with a pawl *g*, that engages with the teeth of a hollow rack bar H, to which latter the follower I may be directly applied, as seen in Fig. 1. This rack bar is operated by a pair of pinions J, J', seen in Fig. 4, a ratchet *j* being arranged be-

tween said pinions, and usually these three members J, J', *j*, constitute a single casting.

K is a shaft fitted within the housing G, and serving as a journal bearing for the castings J, J', *j*, and as a pivot for the forks *l l'*, of a lever L, adapted to be operated by hand, a pawl M, being applied to said lever for the purpose of turning the ratchet *j*, and its attachments.

N is a powerful coiled-spring, the lower end of which is attached to a cross bar *n*, of the rack H, while its upper end is secured to a similar bar *n'* of housing G. The object of this spring is to automatically elevate the rack-bar and follower as soon as the pressing operation is complete, although the same result can be accomplished by attaching a rope O, either to said bar or follower, and then carrying it up and over a sheave *o* on the yoke. The rope can then pass over either of the sheaves *b, b'*, and have a weight *o'*, suspended from it.

P, in Fig. 2, is an extension piece applied to the lower end of the rack-bar by means of a pin *p*, and a series of holes *p'*, in order that said piece may be adjusted vertically. I' is a follower carried by this extension.

R, R', R'' and R''' are four press boxes placed upon the platform A.

The operation of my press is not materially different from others of a similar character, and can be readily understood by referring to Fig. 1, which illustration shows that the housing G is suspended from the beam C, so as to enable the follower I to readily enter the first press-box R. Lever L is then operated by hand, and at every down stroke of the same the follower is depressed, owing to the action of pawl M against the ratchet *j*, any retrograde motion of said follower being prevented by the other pawl *g*. When the tobacco or hay or other material in the first box has been sufficiently compressed, the pawls *g, j*, are liberated, and the spring N, or weight *o'*, instantly elevates the rack bar, and follower, and permits the press being shifted to the second box R', but before this can be done, the tie rod D must first be passed. This act, however, is readily accomplished, in the way seen in Fig. 3, which illustration shows that one of the bolts, as *f'*, is first disengaged from the

yoke E and housing G, so as to enable the latter to be swung around on the other bolt *f*, which now serves as a pivot. In this position the housing G, readily clears the tie-rod D, when the yoke is shoved along the beam C, and when said yoke is in line with the second press-box R', the yoke and housing are again coupled together by re-applying the bolt *f*', and screwing its nut thereto. These acts are repeated until the material in every box has been properly pressed, and then other boxes are applied to the frame and the travel of the yoke reversed, the rope O being now passed over the other sheave *b*, as indicated by the dotted lines.

The readily-applied extension-piece P, enables the press to be conveniently adapted for operating in press boxes of various lengths, thereby saving time and labor.

I claim as my invention—

1. The combination, in a hand-press, of a tubular housing, a hollow rack-bar, reciprocating therein, a pinion, ratchet, and lever for operating said bar, and an internal spring, one end of which is connected to the rack-bar, while the other end of said spring is attached to said housing, for the purpose described.

2. The combination, in a hand-press, of a shiftable yoke, a laterally-swinging tubular-housing coupled to said yoke by a pair of detachable pivots, a rack-bar traversing said

housing, and devices applied to it for operating said rack-bar, in the manner described.

3. The combination, in a hand-press, of a shiftable yoke, and a laterally-swinging tubular-housing coupled to said yoke by a pair of detachable pivots, for the purpose described.

4. The combination, in a hand-press, of the yoke E, having rollers *e*, *e'*, an arch *e''*, and ears F, F', the laterally-swinging tubular-housing G coupled to said yoke by a pair of detachable bolts *f*, *f'*, a rack-bar traversing said housing, and devices for operating said bar, in the manner stated, and for the purpose described.

5. The combination, in a hand press, of the tubular housing G, suspended from a shiftable yoke and provided on its rear side with a transverse shaft K, carrying a ratchet *j* and a pair of pinions J, J', the lever L, projecting in front of said housing and having forks *l*, *l'*, pivoted to said shaft K, a pawl M applied to a cross bar connecting these forks, and a rack H, traversing said housing and provided on its rear with teeth that engage with said pinions, all as herein described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM S. KISINGER.

Witnesses:

JAMES H. LAYMAN,
ARTHUR MOORE.