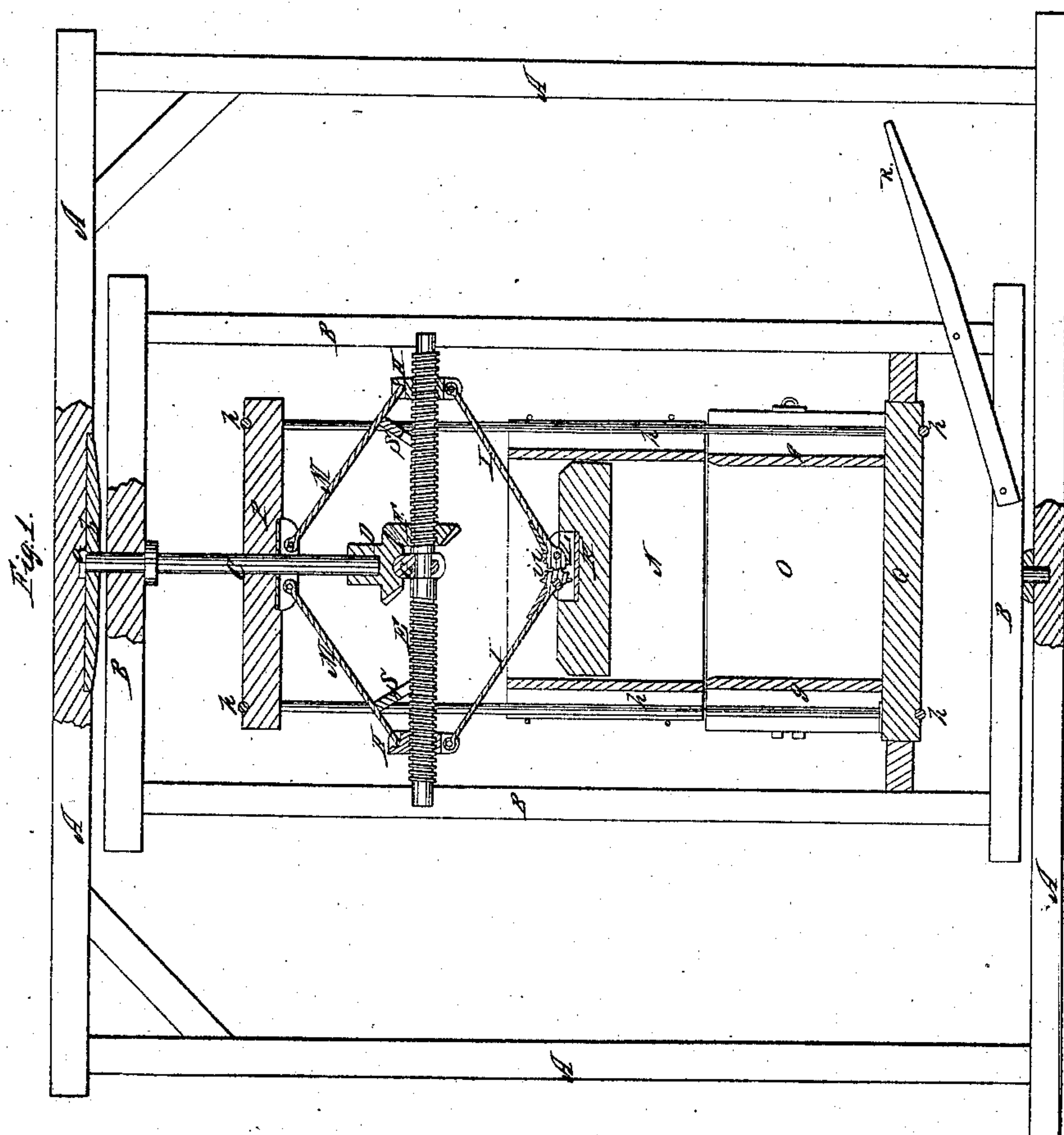
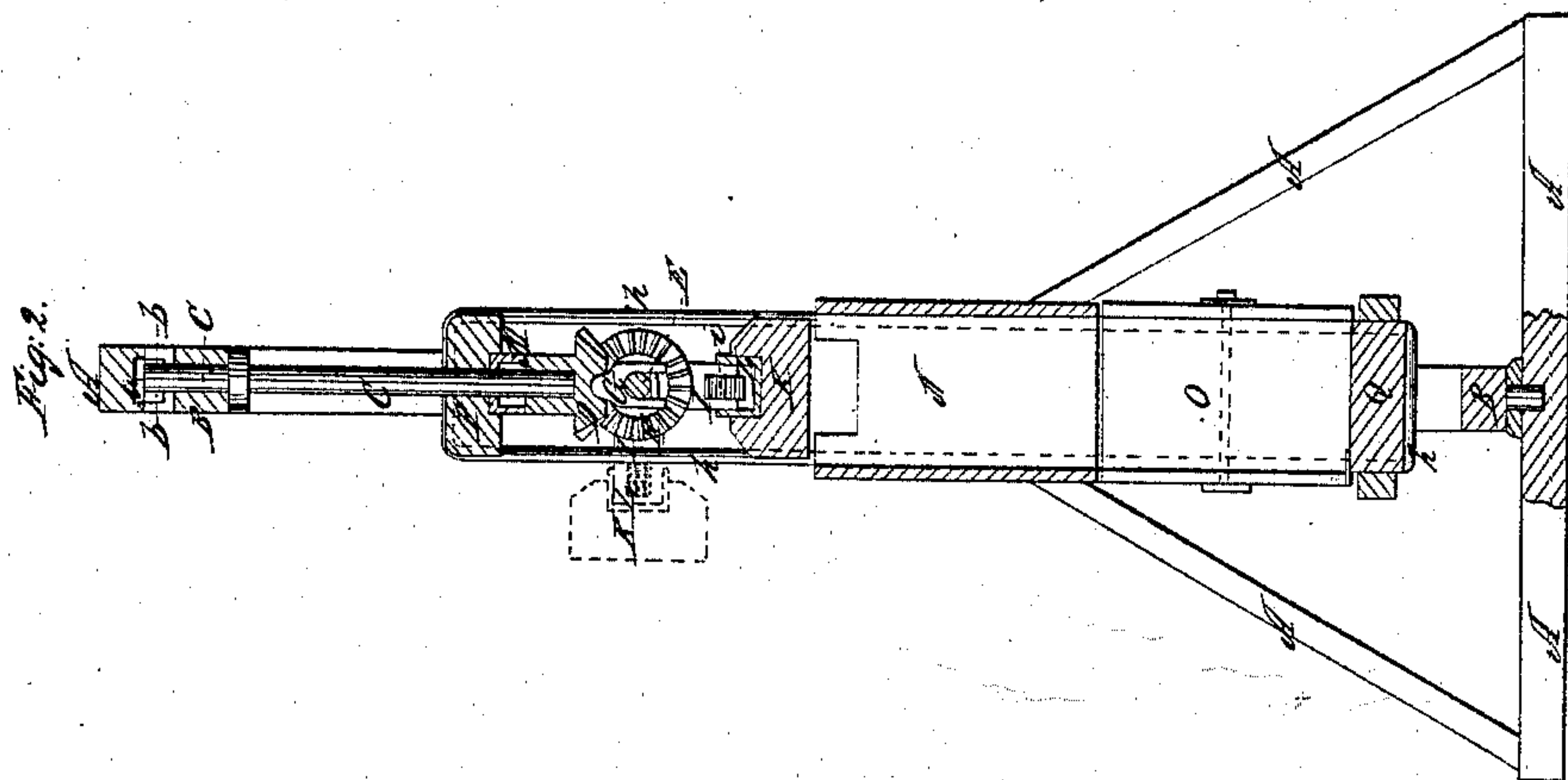


*W. F. & C. J. Prorost,*

*Cotton Press,*

*No. 15,936,*

*Patented Oct. 21, 1856.*





# UNITED STATES PATENT OFFICE.

WM. F. PROVOST AND CHAS. J. PROVOST, OF SELMA, ALABAMA.

## IMPROVEMENT IN COTTON-PRESSES.

Specification forming part of Letters Patent No. **15,936**, dated October 21, 1856.

*To all whom it may concern:*

Be it known that we, W. F. PROVOST and C. J. PROVOST, of Selma, in the county of Dallas and State of Alabama, have invented certain new and useful Improvements in the Construction of Cotton-Presses; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings, in which—

Figure 1 represents a longitudinal vertical section through the center of the machine. Fig. 2 represents a vertical cross-section through the center of the machine.

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

A represents a frame which supports the entire machine. Within this frame is another frame, B, of a similar shape as the frame A. The frame B, which contains the pressing apparatus, is fixed to the frame A at its upper and lower ends by means of pivots in such a manner that it can revolve freely on said pivots within the frame A. The shaft C, whose upper end constitutes one of these pivots, is secured firmly to the frame A by means of a square head, *a*, and a plate, *b*, so as to be perfectly rigid and immovable therein. To this shaft C is attached a bevel-wheel, D, which is also immovable. A screw, E, is fixed on the frame B in a horizontal position, in such a manner that its pivoted ends enter the sides of the frame B and can turn in them. On the screw E is permanently secured a bevel-wheel, F, which is in gear with the bevel-wheel D. A support, G, is attached to the center of and turns with the screw E, and enters with its upper end a corresponding cavity on the lower side of the stationary bevel-wheel D, thus keeping the latter from moving sidewise, while it forms an end support for the shaft C. Two nuts, H, provided inside with screw-threads corresponding to the screw E, are moved on said screw by turning the same. From the lower ends of these studs is suspended, by means of two levers, straps, or rods, I I, a follower, K. The lower ends of the levers, straps, or rods I I are secured by means of pins to an iron piece, L, to the follower, and thus the follower is raised or lowered as the nuts H increase or decrease the distance from each other. When the follower

K operates upon the material which is to be pressed, it is very liable to assume during pressing an inclined instead of a horizontal position, and to prevent this the ends of the levers, straps, or rods I are provided with segmental racks *i*, which are in gear with each other, and thus prevent the follower from assuming any other movement than a perfectly horizontal one as it rises and falls.

To relieve the screw E from any side pressure, two other levers, straps, or rods, M, operate on the upper side of the nuts H. They are fastened to the lower side of a heavy beam, P, by means of a similar shoe as that in the follower above described, and rest with their lower ends in the recesses of the nuts H.

N represents a strong box containing the material which is to be pressed, and below it is another similar box, O, in which the bale is finished, and where the side boards can be turned on hinges, so as to allow access to it for the removal of the finished bales.

Q constitutes the bottom of the box. The bottom and top pieces, Q and P, are secured against the inside pressure by means of strong iron rods *h*.

Figure 1 represents the follower K, inside of the box N. Fig. 2 represents the follower as being elevated to the top of said box.

The following is the manner of operating the apparatus: The material being placed in the upper part of the box of the press, the power is applied to the lever R, which is firmly secured to the frame B. Said frame is thus turned on its pivots, and the bevel-wheel F runs around the circumference of the bevel-wheel D and turns at the same time the screw E. The nuts H approach by this movement toward the center, straighten the lever-arms I and M, and thus press down the follower K. When the material is sufficiently pressed, the side doors, *g*, are opened and the bale is removed. The frame B is now turned in a reversed direction. The nuts H move on the screws from the center outward and raise the follower. When the follower K has arrived at the top of the box, as shown in Fig. 2, then the outer sides of the nuts H just touch the inner side of the frame B, and as the frame B, and with it the screw E, is turned after this contact, then the friction between the studs H and the side pieces of the frame B causes these



studs to turn with the screw. The levers M slide out of their recesses, which are open at one side, and the nuts H, arms I, and follower K assume the position marked in red in Fig. 2, which uncovers the box N, and thus permits the material to be fed in in an easy manner. The levers M are provided at their lower sides with projections S. These are provided at their ends with concaves corresponding to the circumference of the screw, and when the levers M, by the movement just described, have been thrown out of their sockets, the projections S fall onto the screw E and remain there by means of their concaves, and thus the arms M are kept above the screw E and do not offer any obstructions in feeding in the material.

Having thus fully described the nature of our invention, what we claim therein as new, and desire to secure by Letters Patent, is—

The so uniting of the follower, nuts, and levers as that when the follower shall arrive at its highest point of elevation it shall automatically swing out of the way of the filling-box, to facilitate the placing of the cotton or other material therein, as set forth.

WM. F. PROVOST.  
CHAS. J. PROVOST.

Witnesses:

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