

R. Ball.

Hay & Cotton Press.

104689

PATENTED JUN 28 1870

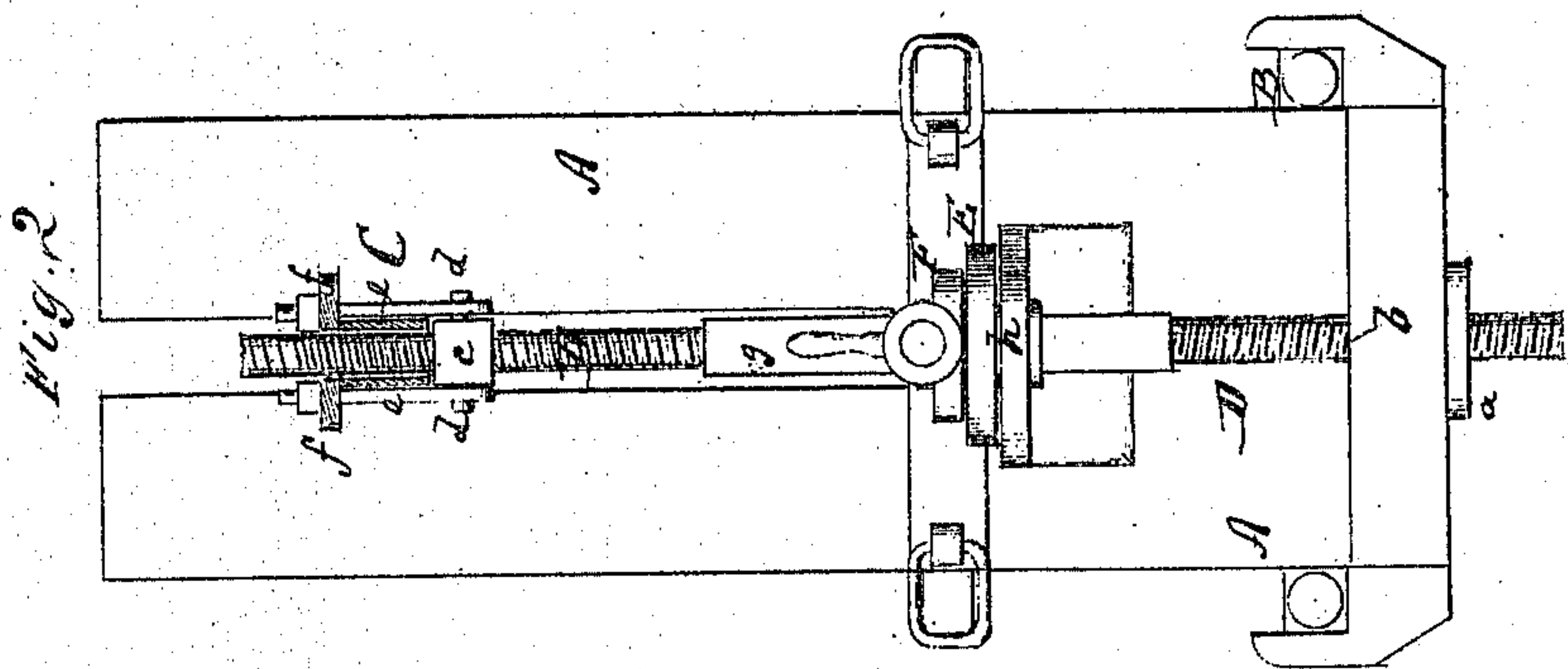


Fig. 3.

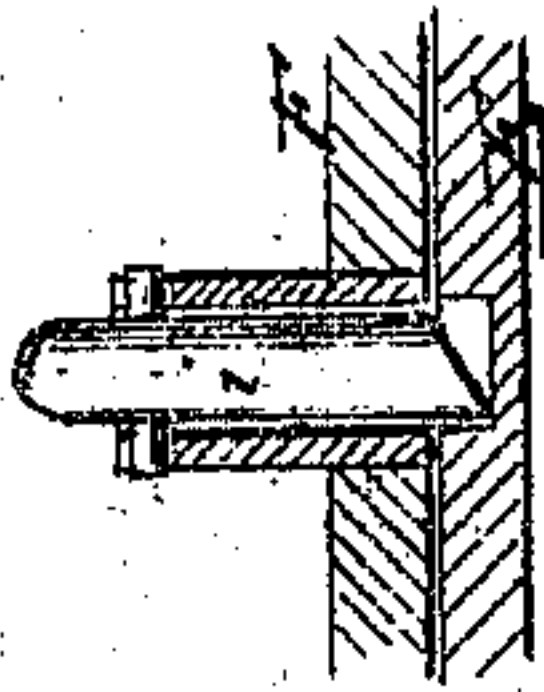
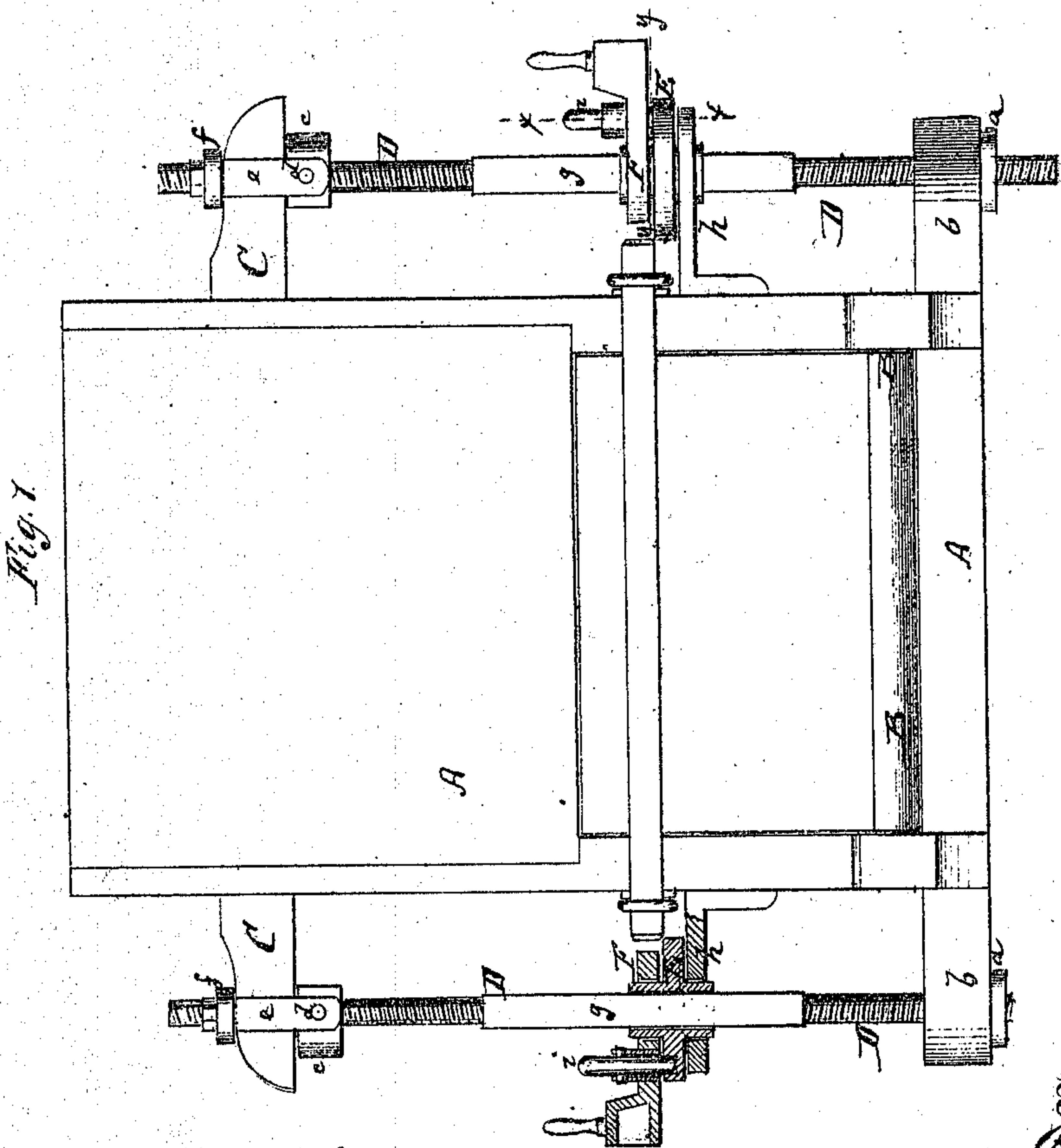
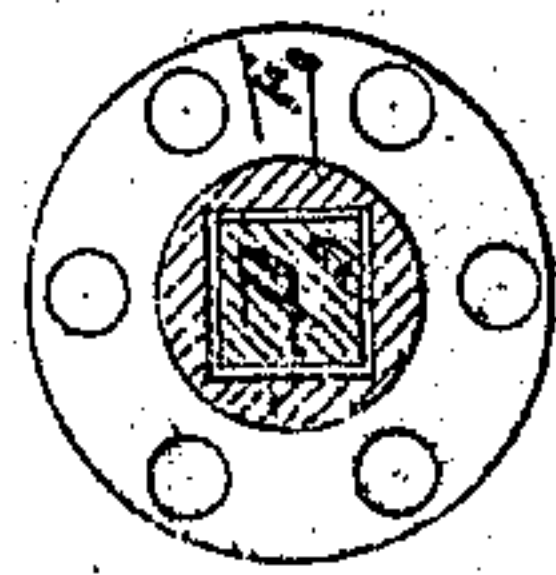


Fig. 4.



Witnesses:  
S. S. Mabey  
Alex. S. Roberts

Inventor:  
R. Ball  
PER *Mmm*  
Attorneys.



# UNITED STATES PATENT OFFICE.

RICHARD BALL, OF PETERSBURG, VIRGINIA.

## IMPROVEMENT IN HAY AND COTTON PRESSES.

Specification forming part of Letters Patent No. **104,689**, dated June 28, 1870.

*To all whom it may concern:*

Be it known that I, RICHARD BALL, of Petersburg, in the county of Dinwiddie and State of Virginia, have invented a new and Improved Hay and Cotton Press; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 represents a side elevation of my improved hay and cotton press. Fig. 2 is an end view of the same. Fig. 3 is a detail transverse section on an enlarged scale taken on the plane of the line *x x*, Fig. 1. Fig. 4 is a detail horizontal section, taken on the plane of the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts.

This invention has for its object to provide means whereby the parts of a press will be kept from injury, even if the follower should not be held entirely level during its vertical adjustment.

The invention consists, chiefly, in the application to the followers of swinging nuts, and in the combination with the same of right-and-left screws, as hereinafter more fully described.

A in the drawing represents the frame of the press. B is the fixed bottom; C, the follower. The ends of the follower project through the slotted sides of the press.

D D are two right-and-left screws, which are, with their lower parts, fitted through nuts *a a*, that are firmly secured in the bed *b* of the press. The screws are held in a vertical position near to the ends of the machine.

The upper end of each screw is passed through a nut, *c*, which is, by means of pins *d*, pivoted to arms *e*, which are suspended from a plate, *f*, that rests upon the end of the follower. The plate *f* is perforated and embraces the screw to be held in place by the same. When one screw is revolved it will work in both nuts *a* and *c* to raise or lower the follower, and if one screw should be turned quicker than the other to set the follower into

a somewhat inclined position, such derangement will not prove injurious to any of the parts, as the pivoted nuts will swing in accordance with the changed angle of the follower. If the nuts were rigidly attached to the follower, they would be strained and destroyed when the screws were unevenly used.

Between the right and left hand screw-threads there is on each screw D a square portion, *g*, which receives a loose collar, E, that can slide on the screw, or rather let the latter slide in it, the collar being supported by a plate, *h*, that projects from the press.

Upon the collar rests a plate, F, which carries a spring-pawl, *i*, with a beveled working end. The end of the pawl works in the notched surface of the collar. When a lever is secured to a projecting socket of the plate F and oscillated, it will cause the pawl to turn the collar and screw in one direction and to slip in the other. By reversing the position of the pawl in its socket the action of the lever may also be reversed. Any other equivalent apparatus may, however, be employed for turning the screws.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The right-and-left screw-rods D, combined with nuts *a*, fixed to a bed, *b*, nuts *c*, swinging in arms *e*, and perforated plates *f*, resting upon the follower, all relatively arranged as and for the purpose specified.

2. The right-and-left screw-rods D, having square middle *g*, combined with loose collars E and supports *h*, all constructed and relatively arranged on a press, as shown and described.

3. The combination of pawl-plates F *i* and loose collars E, both resting upon a support, *h*, and surrounding the square middle of right-and-left screws, to rotate the latter and actuate a press, in the manner described.

RICHARD BALL.

Witnesses:

JOSEPH WHEARY,  
W. H. WHEARY.