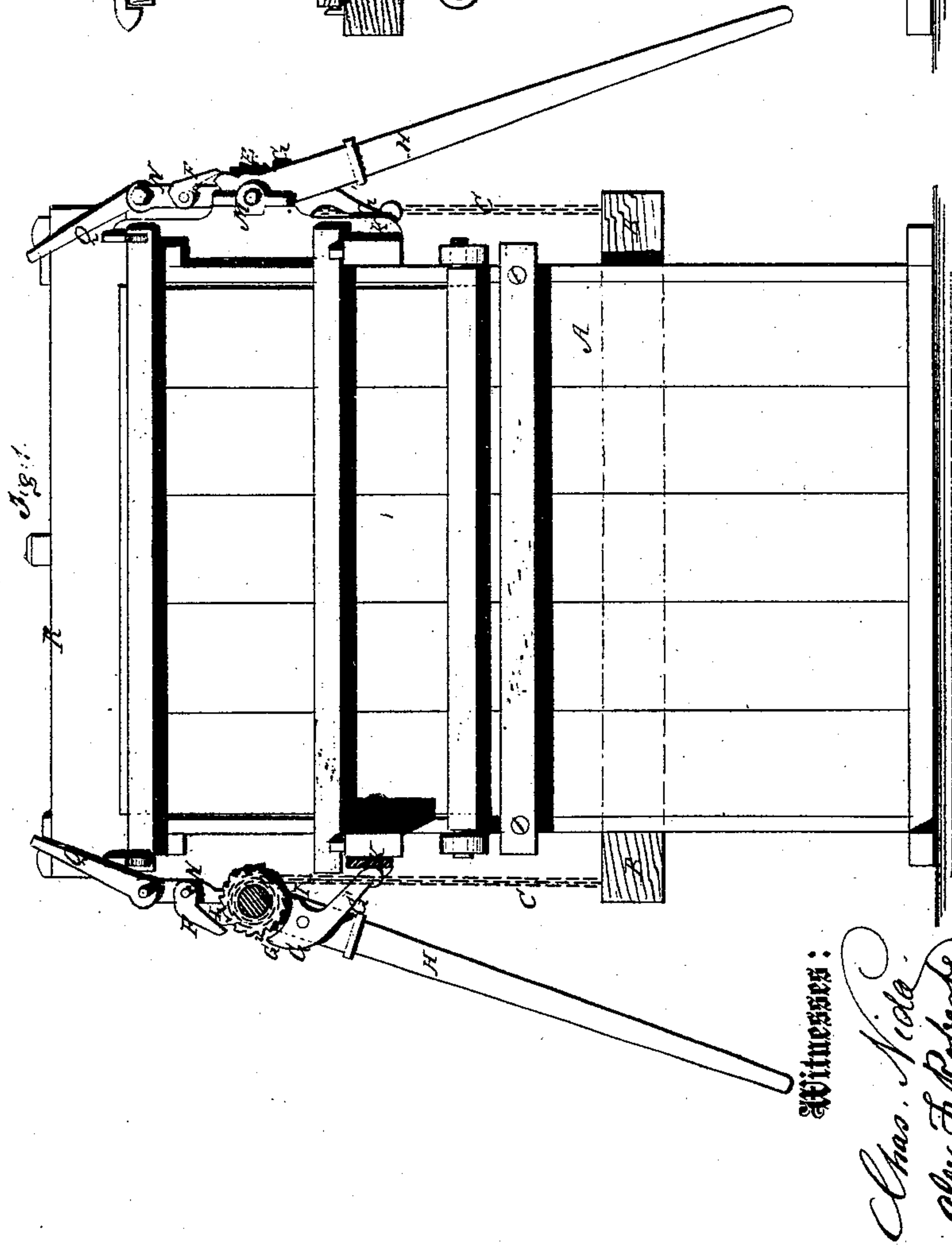
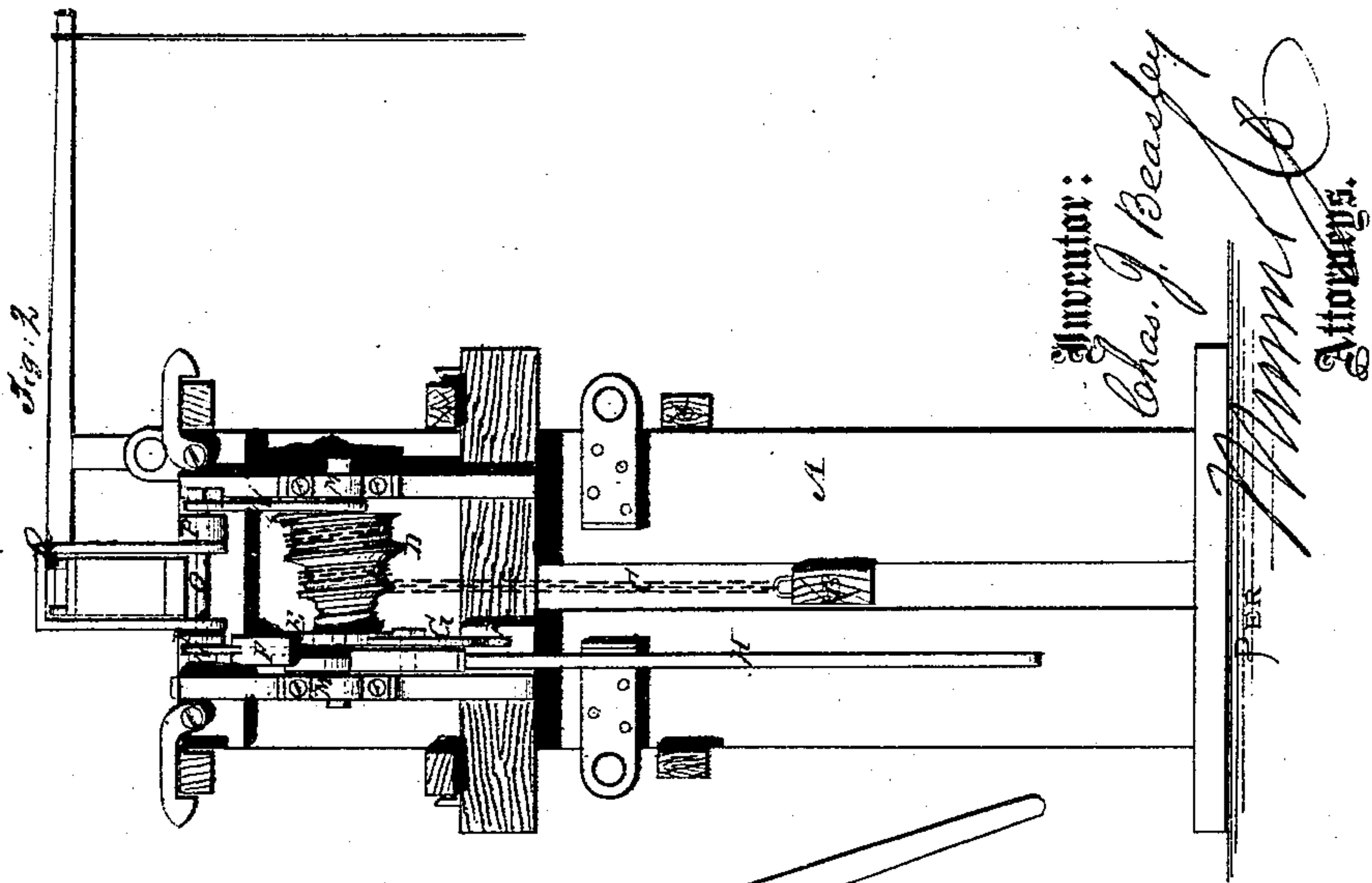


C. J. Beasley,

Cotton Press.

No. 100,105.

Patented Feb. 22. 1870.



United States Patent Office.

CHARLES J. BEASLEY, OF PETERSBURG, VIRGINIA.

Letters Patent No. 100,105, dated February 22, 1870.

IMPROVEMENT IN COTTON-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, CHARLES J. BEASLEY, of Petersburg, in the county of Dinwiddie, and State of Virginia, have invented a new and useful Improvement in Presses; 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 drawings forming part of this specification.

This invention relates to improvements in that class of presses wherein the follower is operated by chains, winding-barrels, or drums, ratchets, pawls, and pawl-levers; and consists in a peculiar arrangement of the pawl-levers and pawls, whereby the pawls may be tripped, to allow the follower to run back, simply by increasing the movement of the levers in one of the directions of their working movements, and one of the pawls may also be caused to act as a brake on the ratchet-wheel, to retard the fall of the follower.

The invention also comprises an arrangement of the support for the journals of the winding-drums, in connection with the beam against which the force of the follower in pressing is delivered, whereby the resistance of the follower is sustained mainly by the said beam, all as hereinafter more fully specified.

Figure 1 is a side elevation of a press provided with my improvements, and

Figure 2 is an elevation taken at right angles to the plane of fig. 1.

Similar letters of reference indicate corresponding parts.

- A is the case;
- B, the follower;
- C, the chains;
- D, the winding-barrels or drums;
- E, the ratchet-wheels;
- F, the retaining-pawls;
- G, the operating-pawls; and
- H, the pawl-levers.

The retaining-pawls are arranged on pivots above the ratchet-wheels, so that their free ends fall down upon the front faces of the ratchets, and engage the teeth thereof.

The pawls G are pivoted to the pawl-levers a short distance in front of the said ratchets, and have pendant curved arms, G¹, which, when the levers are raised, cause the points I to engage the teeth of the ratchets, and, when the said levers are swung down low enough, strike against the case or blocks K placed thereon, and cause the points I to be disengaged from the ratchet-teeth.

The short ends L of these levers are extended beyond the pivots, and so shaped that, when the pawls G are thus brought down upon the case and disengaged, they will bear under the free ends of the retaining-pawls, and disengage them also, leaving the drums free to be unwound by the weight of the follower or other means.

The pawls G are also provided with projections, G², on the sides of the pivots opposite the points I, which, at the time the levers are thus depressed, will be forced, by the arms G¹ bearing on the blocks K, against the points of the teeth of the ratchet-wheels, and act thereon as brakes, to govern the fall of the followers.

Thus, by this simple arrangement, the hand-levers H may be used to raise the follower, detach the pawls, to let it fall, and to apply the brakes to control the fall, and this, too, by only moving them in one direction in a greater degree than is required to raise the followers, and holding them a short time.

The journals of the barrels are arranged in boxes M, attached to vertical bars on the side of the frame. They also pass through links N, suspended from bolts O, supported in suitable lugs P at the top of the frame.

The yokes Q are also attached to the bolts O, and swing over the ends of the beam R at the top of the case.

The force of the follower in pressing is delivered against this top, and is sustained by the beam R, which, being connected in this way to the journals of the barrel, affords a means of relieving the bearings of the drum and other parts of the machine from the action of the said force.

This arrangement of the pawl-levers, pawls, and ratchet wheels is applicable to all apparatus of like character for raising heavy weights, and I do not limit myself to the application to presses only.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

1. The combination of the hand-lever H, having projection I thereon, with the pawl G G¹ I, block K, and detent F, to operate the ratchet-wheel and shaft, in the manner and for the purpose set forth.

2. The arrangement with the drum-shaft and the beam R of the links N, bolts O, and yokes Q, all substantially as specified.

CHARLES J. BEASLEY.

Witnesses:

H. W. BURTON,
F. J. TAPPEY.