

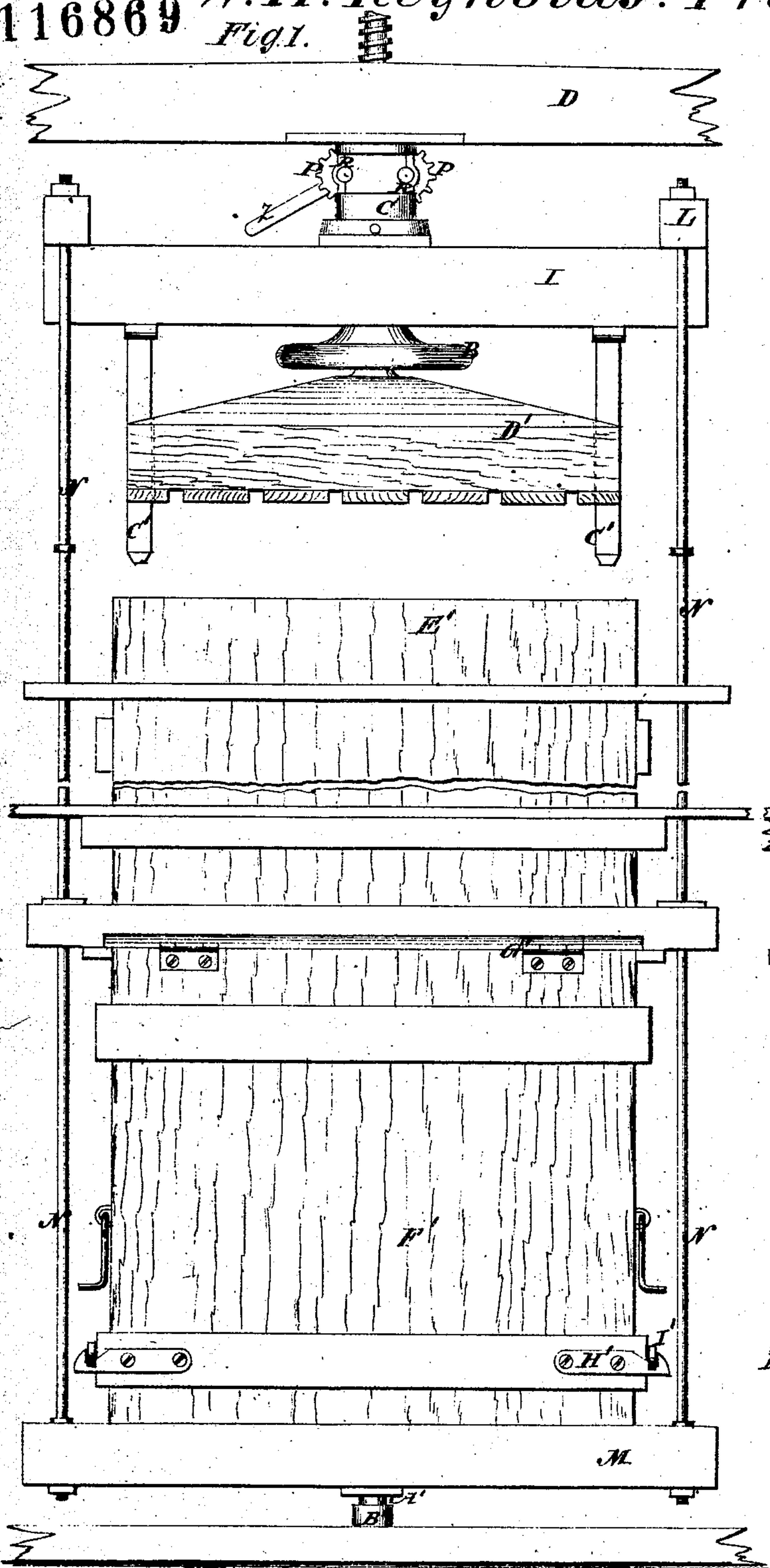
PATENTED JUL 11 1871

2 Sheets.  
Sheet I.

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W. H. Reynolds. Press.

Fig. 1.

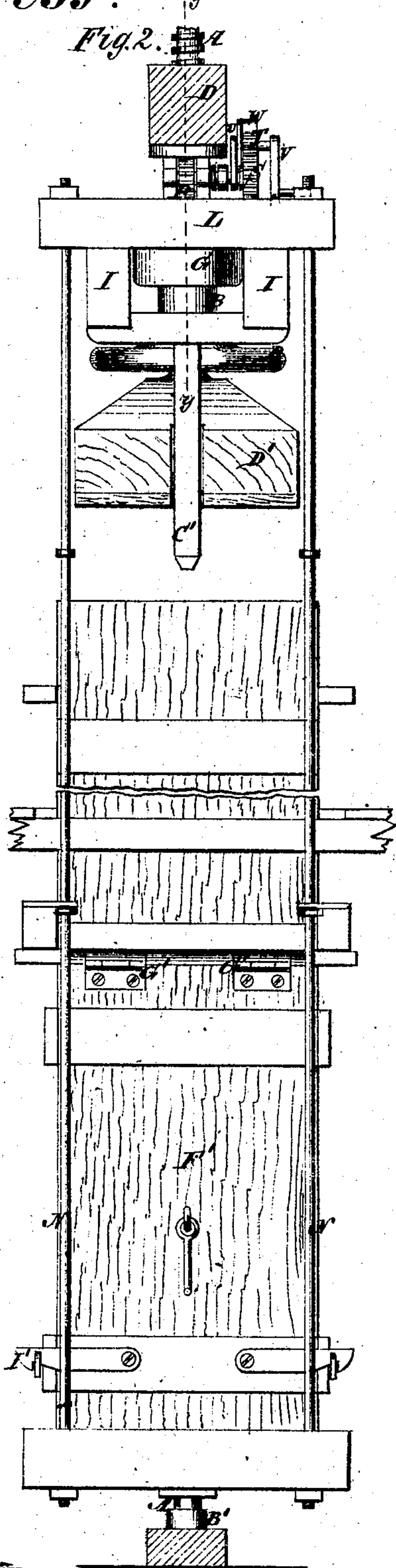


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Fig. 2.



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# W. H. Reynolds. Press.

Fig. 3.

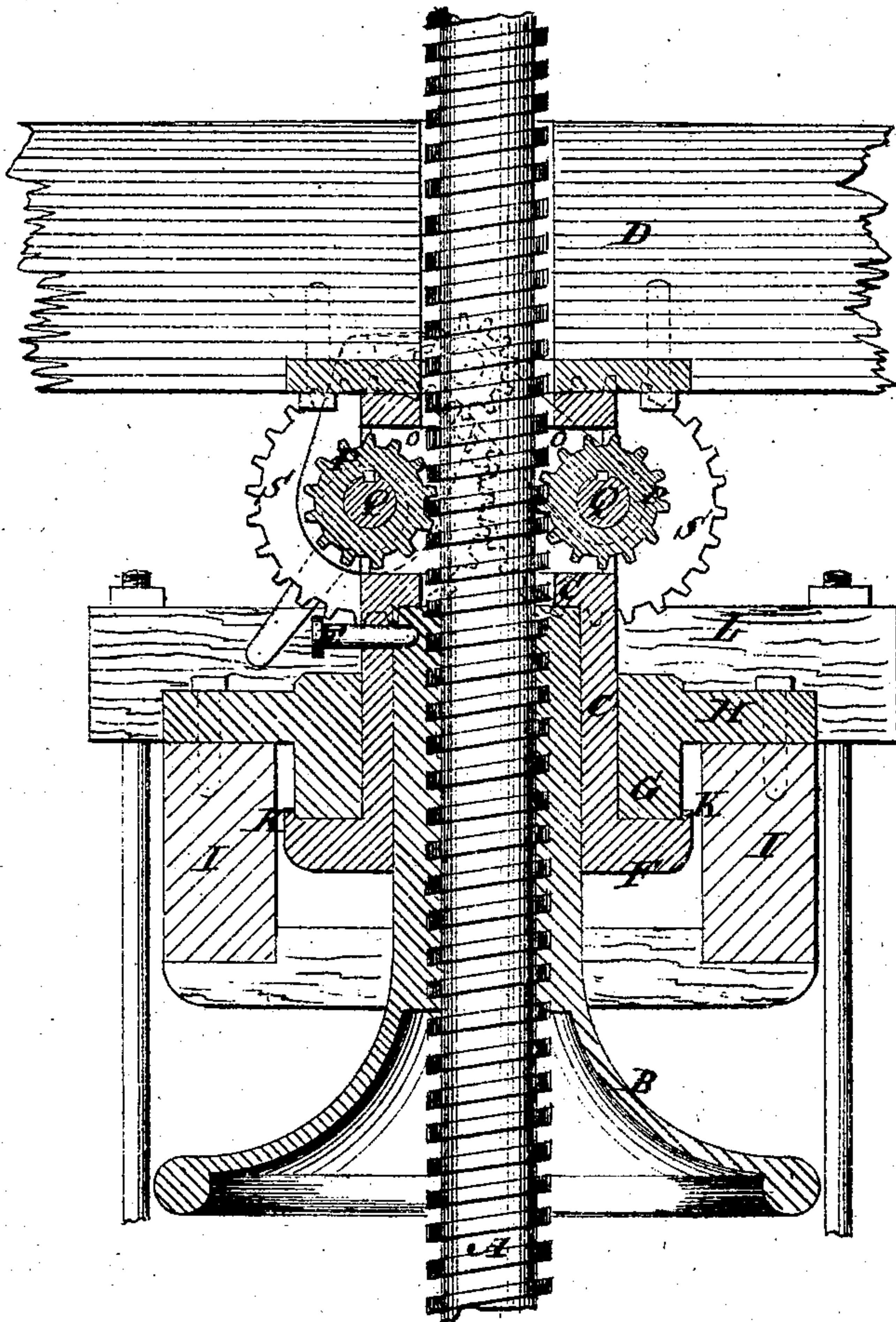
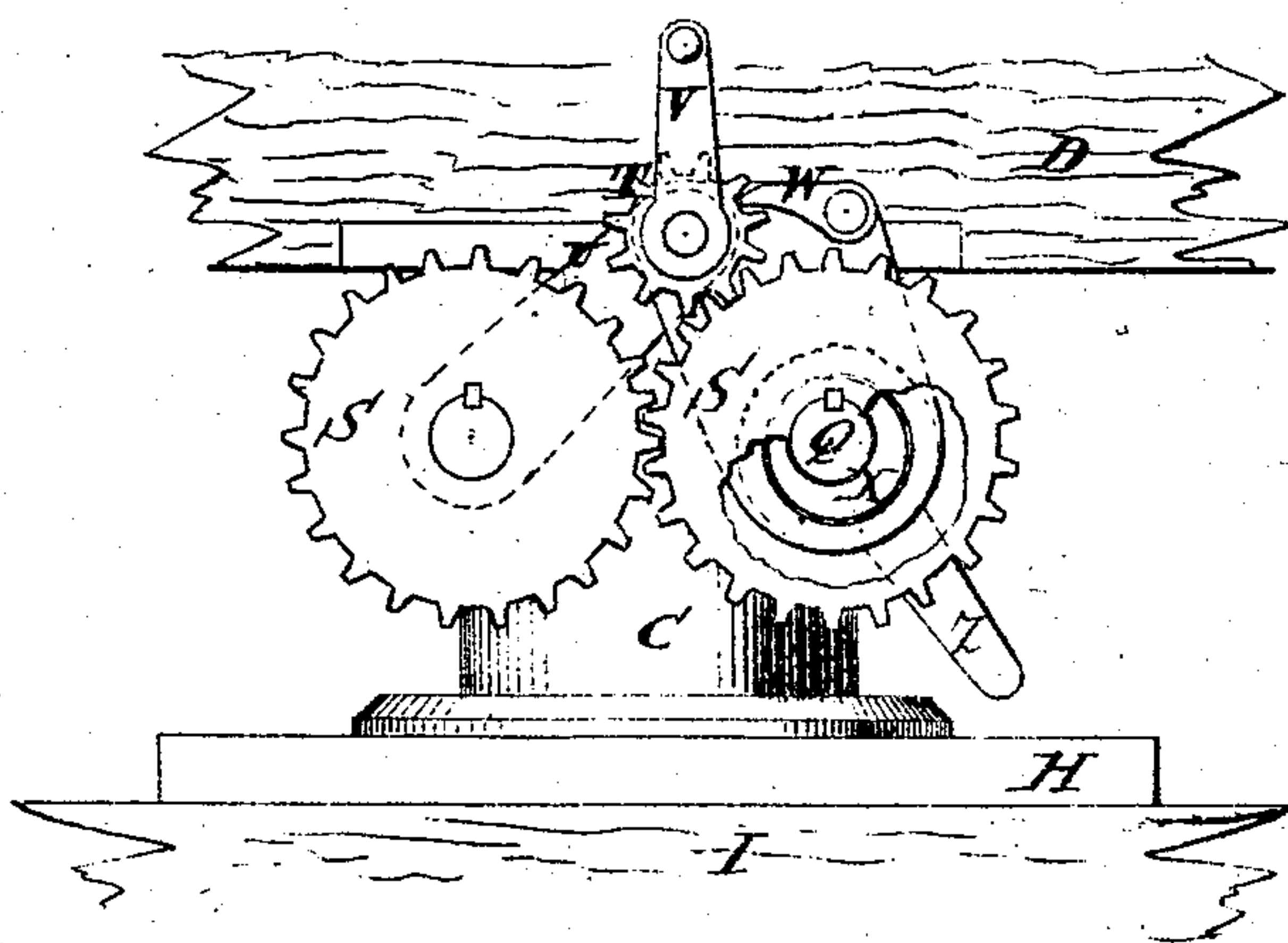


Fig. 4.



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# UNITED STATES PATENT OFFICE.

WILLIAM HENRY REYNOLDS, OF NEW ORLEANS, LOUISIANA.

## IMPROVEMENT IN PRESSES FOR HAY, &c.

Specification forming part of Letters Patent No. 116,869, dated July 11, 1871.

*To all whom it may concern:*

Be it known that I, WILLIAM HENRY REYNOLDS, of New Orleans, in the parish of Orleans and State of Louisiana, 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 drawing forming part of this specification.

This invention relates to that class of presses in which the follower is worked by a screw; and it consists in the construction and arrangement of certain parts specified in the claim, and hereinafter described in connection with others necessary to form a complete or operative machine.

Figures 1 and 2 are side elevations of my improved press. Fig. 3 is a section on the line *y y* of Fig. 2. Fig. 4, a side elevation of a part, showing the apparatus for lifting the screw and follower when the nut is detached.

Similar letters of reference indicate corresponding parts.

A is the screw; B, the nut; C, a tube suspended from the beam D for holding the nut, screw, and the gearing used for raising the screw. The nut is held in the tube by a strong pin, E, and the tube has a flange, F, at the lower end working under a tubular projection, G, of a plate, H, mounted on the upper timbers I of the press-frame, and having a central hole through which the tube C works. K is a slight rim raised vertically from the outer edge of flange F, outside of projection G, to hold oil for lubricating the parts F and G, which turn one on the other at one stage of the pressing operation. The timbers I L of the upper part of the case are connected to the strong plate M at the lower end by the rods N. The tube C has a mortise, O, in each of two opposite sides near the upper end, in which toothed wheels P, gearing with the threads of the screw and mounted on the short shafts Q, work for raising it when the nut is disconnected. These shafts, which are mounted in bearings R upon the tube, project beyond the latter at one end and carry thereat toothed wheels S, gearing with each other, and one gearing with the pinion T mounted in arms U rising up from the shafts Q, and connected together at the upper ends at a point nearly over the point where the wheels S mesh together. This pinion has a hand-crank, V, for turning it,

and a pawl, W, for holding it. The wheel S, which gears with the pinion T, is mounted on an eccentric, X, capable of turning on shaft Q, and having a hand-crank, Z, for turning it to gear or ungear said wheel S with the pinion. A' is the point at the center of the bottom of the press-case, and B' the socket or step in which it rests for supporting it thereat and turning thereon when the latter part of the pressing operation is going on. C<sup>1</sup> represents vertical guides suspended from beams I for receiving the follower D' when it rises above the top of the case E, to guide it while above the said case, so that it will be retained in the right position to enter the case again when going down. The cotton or hay is put in the case at the top, between it and the follower, and the pressed bale is taken out at the bottom through a door, F', in one of the sides. All the four sides are hinged a little below the center of the case, and arranged so as to swing upward, as indicated at G', to facilitate the sewing or tying of the bale after being pressed. They are held together, when closed down, by the hooked catches H' I' at the corners, locking together, as shown.

In working this press, the follower is raised as high as it can be above the top of the case by nut B; the case is then filled with the loose material, as much as it can be readily, by hand; the pin E is then withdrawn to disengage the nut from the tube C; then the eccentric X is turned so as to disconnect wheel S from the pinion I, when the follower and screw will fall heavily on the loose cotton or hay in the case and pack it, so that another quantity of material to be packed may be put in after the follower is raised, which is done by the hand-crank V and pinion T, the wheel S being first geared with pinion T again by means of the eccentric. When the case has been filled as much as it can be in this way, and the follower let fall as before, the hand-nut B is rapidly run up to its place so as to bear against the shoulder C<sup>2</sup> in the tube, and its turning being continued forces the follower down as long as hand-power applied to the nut B can do so; then strong levers are applied between the rods N and the framing at the top, in any suitable way, for obtaining a purchase to turn the press-case and screw in the nut previously connected to the tube C by the pin E, so that it will be held thereby against turning, the said tube being so

held by its permanent connection with the beam D. This operation is continued until the pressing is completed; the bale is then tied or sewed and discharged, and the nut B, being again disconnected by the withdrawal of pin E, is run down on the screw rapidly, and the screw is raised by the gearing for the next operation.

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

1. The arrangement, in a cotton-press, of the crank V, pinion T, pawl W, gears S S, arm or crank Z, and eccentric X, all constructed and operating as shown and described.

2. The arrangement, with the tube C, screw A, and detachable nut B, of the gear-wheels P S, and pinion T, the said pinion being provided with a holding-pawl and one of the wheels S being mounted on an eccentric, all substantially as specified.

3. The improved press herein described, composed of the several parts specified, constructed and arranged to operate as set forth.

WILLIAM HENRY REYNOLDS.

Witnesses:

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