

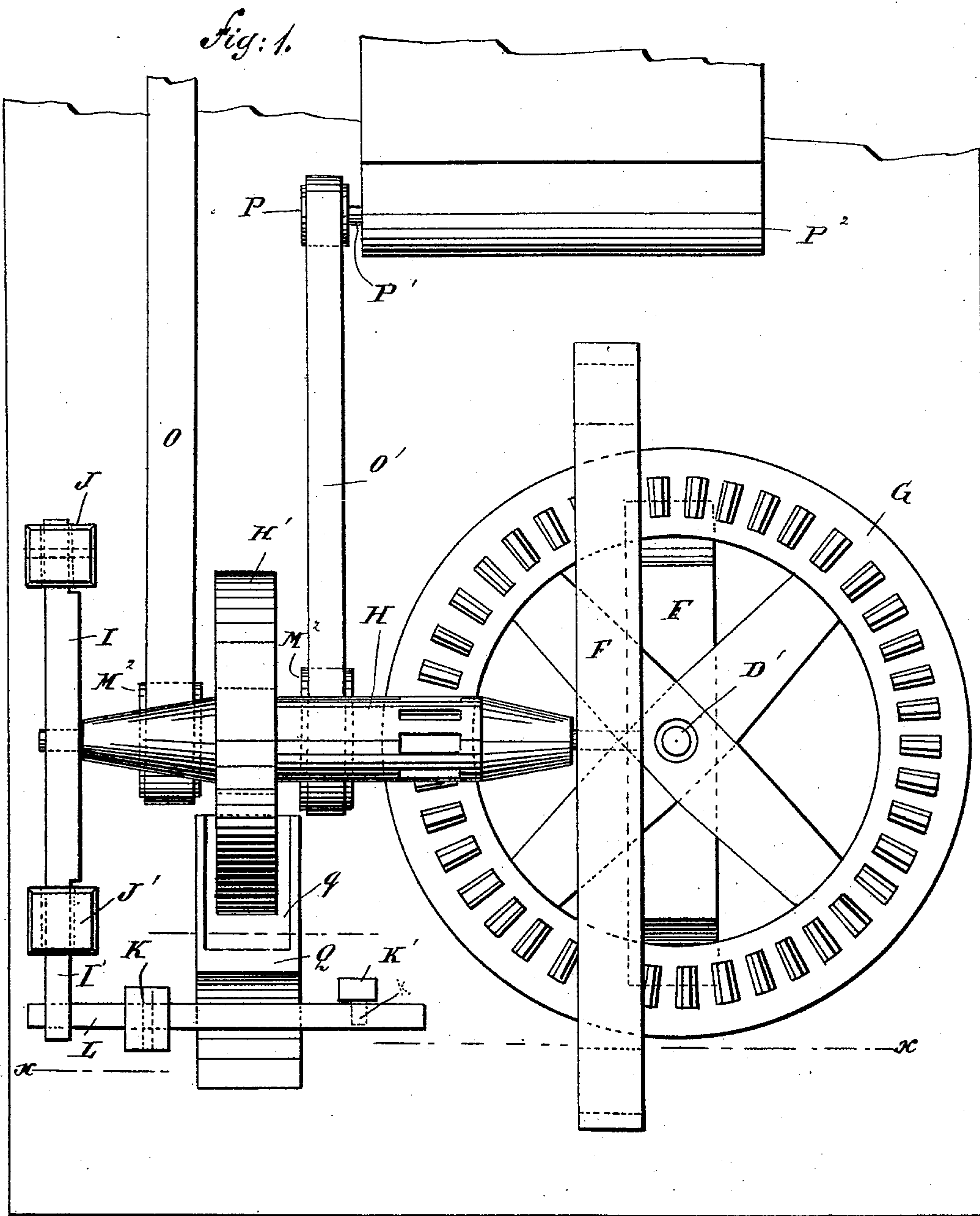
(No Model.)

2 Sheets—Sheet 1.

C. L. STANLEY.
PRESS GEAR.

No. 459,316.

Patented Sept. 8, 1891.



WITNESSES:
Chas. Nida.
C. Sedgwick

Fig. 4.

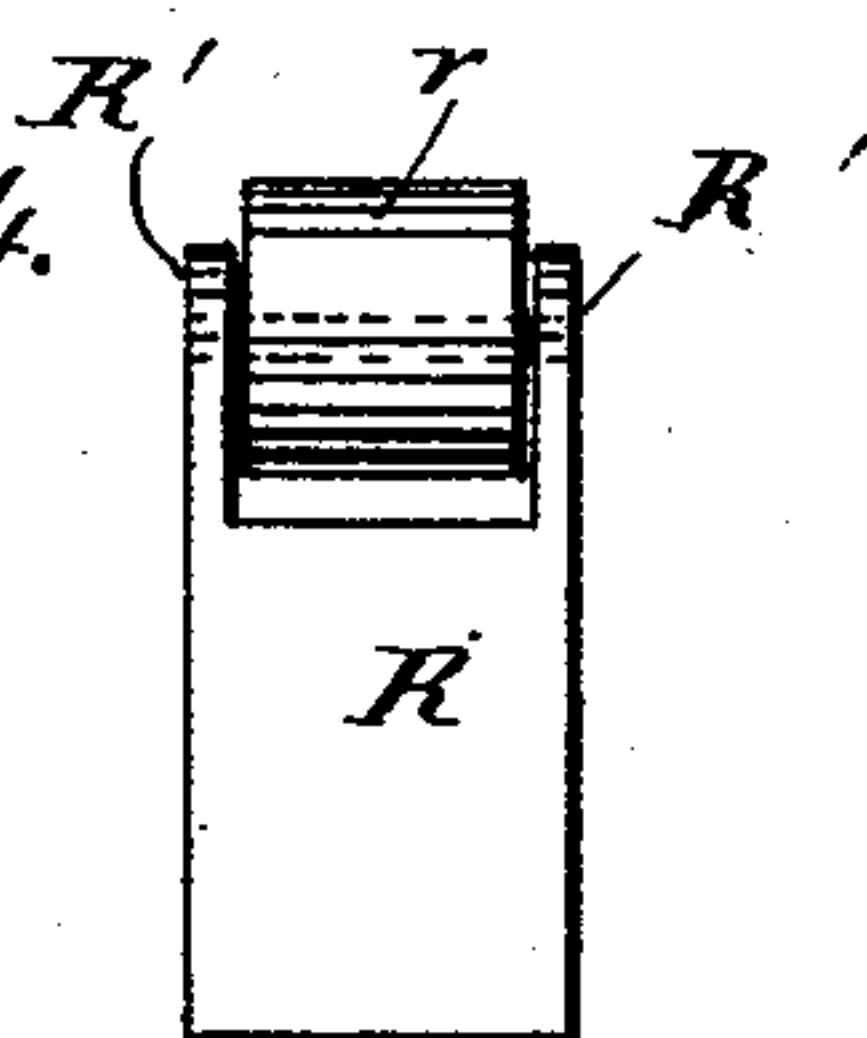


Fig. 5.

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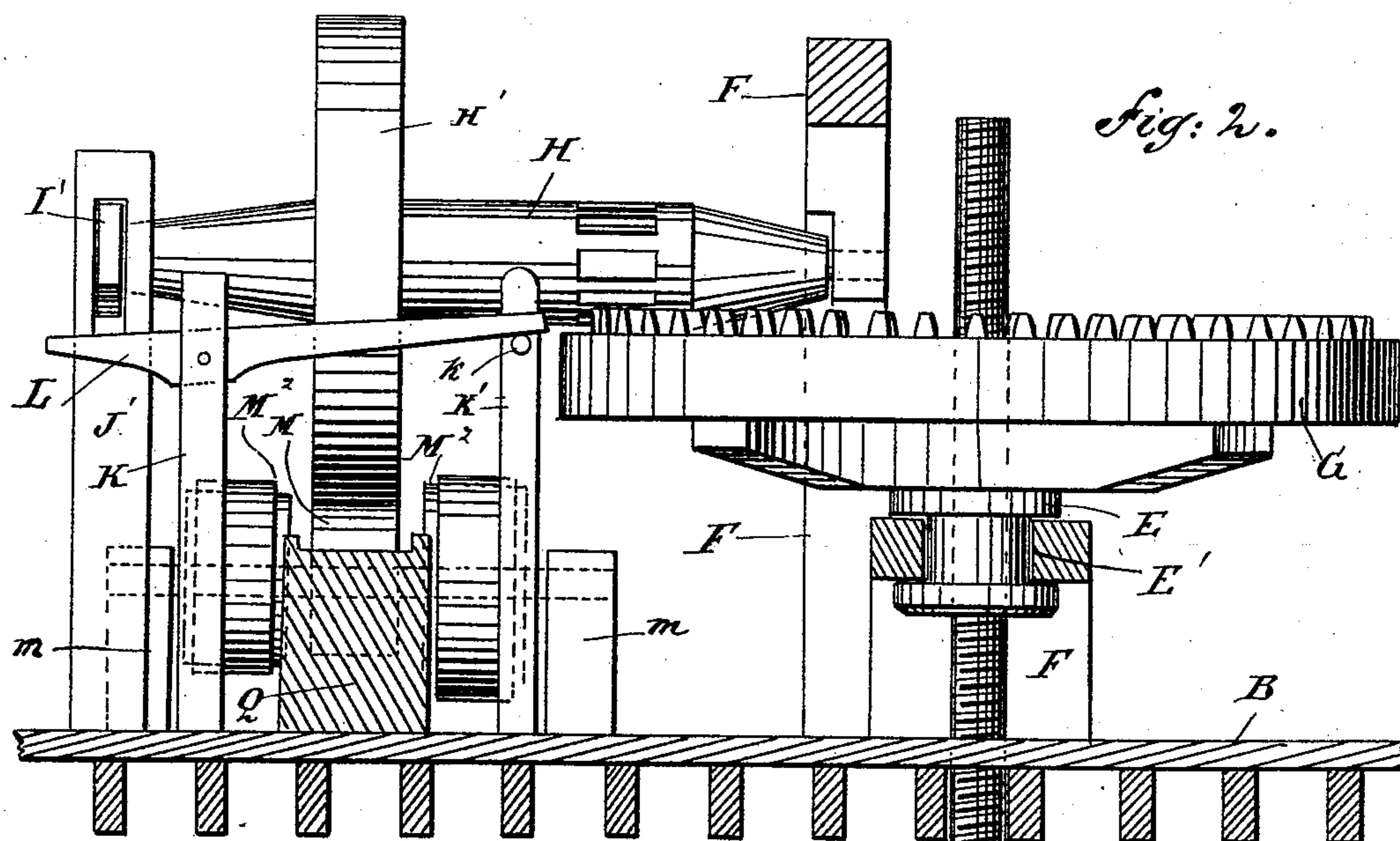
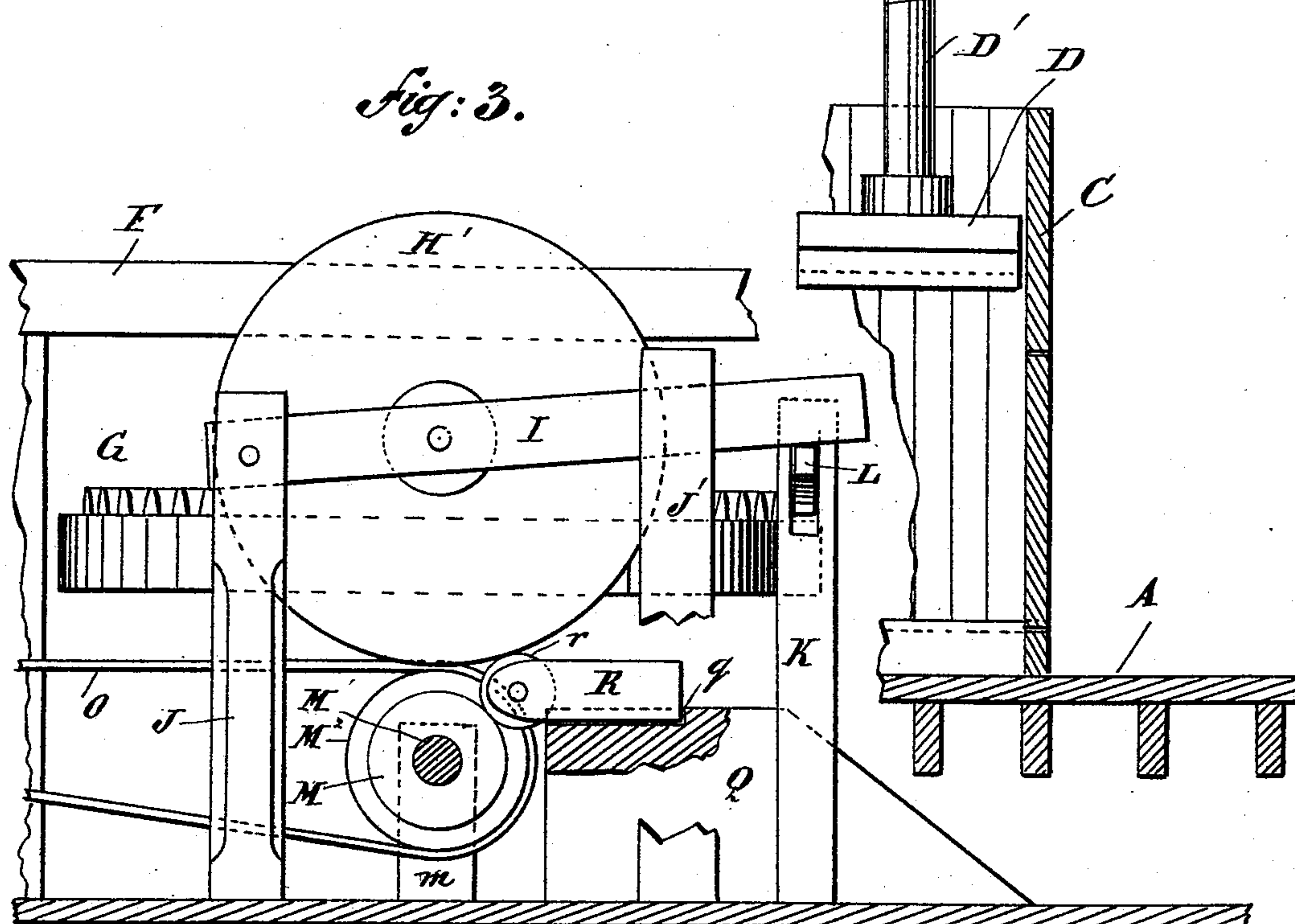


Fig: 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLEY L. STANLEY, OF MONTEZUMA, GEORGIA.

PRESS-GEAR.

SPECIFICATION forming part of Letters Patent No. 459,316, dated September 8, 1891.

Application filed January 13, 1891. Serial No. 377,608. (No model.)

To all whom it may concern:

Be it known that I, CHARLEY L. STANLEY, of Montezuma, in the county of Macon and State of Georgia, have invented a new and Improved Press-Gear, of which the following is a full, clear, and exact description.

My invention relates to improvements in press-gears, and especially to that variety of press-gears which are used for operating cotton-presses; and the object of my invention is to produce a simple, durable, and efficient gear for compressing cotton, and also to provide means for quickly reversing the gear, so that the follower may be moved back and forth without stopping the machine.

My invention is especially adapted to the purpose described above; but the gear may also be used for operating other varieties of presses or any other kinds of machinery.

To this end my invention consists in certain features of construction and combinations of parts, which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a broken plan view of a gear embodying my invention. Fig. 2 is a cross-section on the line $x x$ of Fig. 1. Fig. 3 is a broken side elevation, partly in section, of the upper portion of the gear, showing the reversing mechanism in detail. Fig. 4 is a plan view of the pulley-block used in reversing the gear, and Fig. 5 is a side elevation of the same.

The gear is usually connected with machinery operated on two floors A and B, the lower floor A carrying a press C, in which a follower D moves vertically, and to the top of the follower is secured a screw-shaft D', which extends upward through the upper floor B, through a nut E, which turns in bearings E' in a portion of the main frame F, and through the main cog-wheel G, which is mounted loosely on the screw-shaft and which is rigidly secured to the nut E.

The mechanism described above is common to cotton-presses and other machinery and forms no part of my invention. It will be seen, however, from the foregoing description that when the cog-wheel is turned in one direction the nut E, operating on the screw-

shaft, will force the follower downward in the press, and when the cog-wheel is turned in the opposite direction, the movement of the follower will be reversed.

The cog-wheel G is turned by a horizontal shaft H, to which it is geared, and the shaft is loosely journaled at one end in the main frame F and at the other end in a cross-beam I, which is mounted in posts J and J', the cross-beam being pivoted in the post J and having the opposite end reduced, as shown at I', and extending through a slot in the post J', which slot is long enough to permit of the cross-beam being raised and lowered to throw the main driving-wheel H' of the shaft H into and out of gear or to provide for reversing the movement of the wheel and shaft, as described below. The driving-wheel H' is turned by friction, and is preferably provided with a face composed of material which is somewhat adhesive.

The cross-beam I is operated by means of a lever L, which is pivoted in a post K, arranged adjacent to the post J', so that the short end of the lever will extend beneath the end of the cross-beam, which protrudes through the slot in the post J'. The long end of the lever L rests upon a pin k , which projects from one side of a post K', and there is play enough in the slot in which the lever L is pivoted so that it may be moved either above or below the pin.

It will be observed that the posts described above and all of the reversing-gear are mounted on the upper floor B. A counter-shaft M' is mounted in suitable supports m beneath the shaft H, and the shaft is provided in the center with a pulley M, which is adapted to frictionally engage the driving-wheel H' and turn the same, and on each side of the pulley M is a pulley M², one of the pulleys M² being connected by means of a belt O with an engine or other source of power, so that the counter-shaft is thus continually kept in motion, and the other pulley M² is connected by a belt O' with a pulley P on a shaft P', which shaft carries a drum-pulley P², from which power may be taken to run a gin or other machinery.

Immediately in front of the pulley M' is a support Q, which has a recess q in the top, in which fits snugly a block R, the length of

which in relation to the recess is such that its rear end will protrude from the rear edge of the support Q, and the rear end of the block terminates in lugs R', between which
5 is pivoted a pulley r, and the entire length of the block and pulley is such that when the block is inserted in the recess q and the driving-wheel H' lowered it will bear upon the upper portion of the pulley r, and the lower
10 portion of the pulley will bear upon the pulley M. The pulley r thus serves as an idler, and it will be seen that when it is in position to bear upon the two pulleys described above the movement of the driving-wheel H' will be
15 opposite to what it is when in engagement with the pulley M.

The operation of the device is as follows: We will suppose that the driving-wheel H' and pulley M are in contact, and that when
20 thus in contact the shaft H and cog-wheel G are turned in a manner to force the follower D downward. When the follower has moved sufficiently to compress the cotton in the press C, the beam I and driving-wheel H' are raised
25 slightly by means of the lever L, the block R is inserted in the recess q, so that the pulley r will bear upon the pulley M, and the driving-wheel H' is then permitted to drop upon the pulley r, and the movement of the driving-wheel will be thereby reversed, so that the
30 follower D will be moved upward. When the follower is to be again moved downward, the block R is moved, and it will be readily seen that the gear mechanism may be reversed
35 without stopping the machinery by simply changing the position of the block R, or without stopping the counter-shaft the cross-beam

I and shaft H may be raised by means of the lever L and the mechanism thrown entirely out of gear.

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

1. The combination, with a friction-pulley and driving-wheel mounted, respectively, in stationary and movable bearings, of a recessed support adjacent to the wheel and pulley, and a pulley-block adapted to fit the recess and having in one end a pulley to contact with the friction-pulley and driving-wheel, substantially as described.

2. In an apparatus of the character described, the combination, with a cog-wheel adapted to operate a press, as shown, of a driving-shaft geared to the cog-wheel and carrying a driving-wheel, a lever mechanism for raising the shaft, and a friction-pulley mounted beneath the driving-wheel and adapted to contact with the same, substantially as described.

3. The combination, with a cog-wheel adapted to operate a press, and a driving-shaft geared to the cog-wheel and provided with a driving-wheel, of a lever mechanism for raising the driving-shaft, a friction-pulley adapted to contact with the driving-wheel, a recessed support adjacent to the driving-wheel and friction-pulley, and a pulley-block shaped to fit the support and having a pulley mounted in one end to contact with the friction-pulley and driving-wheel, substantially as described.

CHARLEY L. STANLEY.

Witnesses:

E. J. DOOLING,
W. E. STANLEY.