(No Model.)

M. O. REEVES.

BALING PRESS.

No. 457,369. Patented Aug. 11, 1891.

Fig. 1.

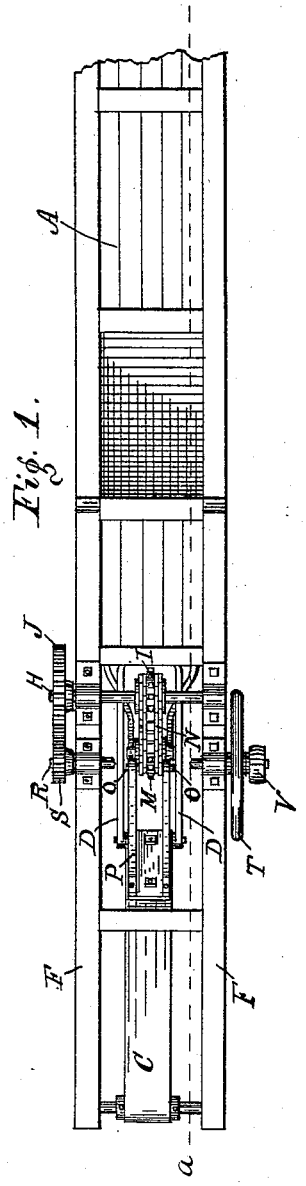
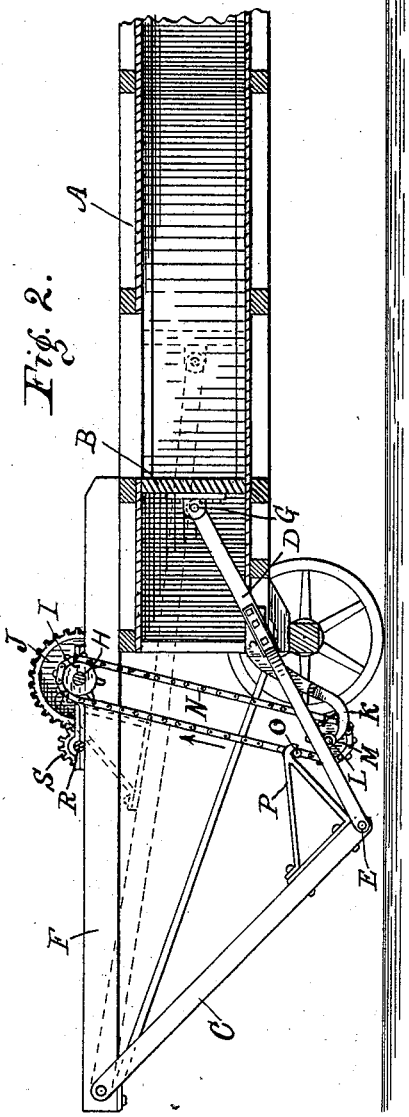


Fig. 2.



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MILTON O. REEVES, OF COLUMBUS, INDIANA.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 457,369, dated August 11, 1891.

Application filed June 1, 1891. Serial No. 394,700. (No model.)

To all whom it may concern:

Be it known that I, MILTON O. REEVES, a citizen of the United States, residing at Columbus, in the county of Bartholomew and State of Indiana, have invented a new and useful Improvement in Baling-Presses, of which the following is a specification.

My invention relates to an improvement in baling-presses of that class in which the follower of the press is operated by means of toggle-joint levers.

The object of my improvement is to provide means whereby the follower may be quickly withdrawn after making its thrust, and remain at rest a considerable time, thus facilitating the "charging" of the press.

The accompanying drawings illustrate my invention.

Figure 1 is a plan. Fig. 2 is a longitudinal section at *a*, Fig. 1.

In the drawings, A designates the baling-chamber of the usual well-known form in so-called "continuous baling-presses."

B is the follower or plunger, arranged to have a reciprocating movement toward and from the baling-chamber.

C and D are the levers forming a toggle-joint, said levers being jointed together at E, C being pivoted at one end to an extension F of the main frame of the press, while D is pivoted at G to the follower. Levers C and D are arranged to swing in a vertical plane, so that the weight of the levers operates to draw the plunger backward and hold it normally at the charging end of the machine.

For the purpose of raising levers C and D, and thus forcing the follower B forward and then automatically discharging said levers, so that the follower is quickly returned to its normal position by the force of gravitation, I employ the following mechanism:

H is a shaft mounted in suitable bearings on the upper part of the main frame. Secured to the shaft H is a driving gear-wheel J and a sprocket-wheel I, arranged between the sides of the main frame. Mounted opposite shaft H on a bracket K, extending from the lower part of the main frame, is a shaft L, carrying a sprocket-wheel M. A chain belt N is mounted on the sprocket-wheels I and M, and one of the links of said chain is provided with projecting lugs O O. The toggle-joint formed by the levers C and D is provided at its knuckle with a hook P, which is arranged to embrace the sides of the chain belt N, so as to stand in the path of the lugs O when they are passing upward.

The driving gear-wheel J is driven by means of a counter-shaft R, carrying the spur-pinion S, balance-wheel T, and driving-pulley V.

The operation of my device is as follows: The shaft H and chain belt N being driven constantly in one direction, the outer side of the belt moving upward, as indicated by the arrow, and the toggle-joint levers being depressed, as indicated in full lines in Fig. 2, the lugs O as they move upward engage the hook P, and the levers are raised, thus pushing the follower forward until the toggle-joint is straightened, as indicated by dotted lines, Fig. 2. On reaching this point the lugs O pass out of engagement with the hook, and the toggle-joint levers fall, thus quickly drawing the follower back to its normal position and allowing it to stand at rest until the lugs O are again brought into engagement with the hook. By this means ample time is allowed for putting a new charge of material into the press.

I claim as my invention—

1. In a baling-press, the combination, with the follower and a pair of levers forming a toggle-joint and arranged to impart a reciprocating movement to the follower, of a chain belt mounted on the main frame and arranged to move in a vertical plane thereon, and intermediate connecting mechanism connecting said belt and toggle-joint levers, whereby during the continuous forward movement of the belt the toggle-joint levers are alternately automatically engaged with and disengaged from the belt, substantially as and for the purpose set forth.

2. In a baling-press, the combination of the baling-chamber, the reciprocating follower mounted therein, the toggle-joint levers connected at one end to the main frame and at the other end to the follower, and provided at the knuckle-joint with a hook, the chain belt mounted in the main frame so as to move in a vertical plane, and provided with lugs arranged to engage said hook, all arranged to co-operate substantially as and for the purpose set forth.

MILTON O. REEVES.

Witnesses:
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