

No. 661,350.

Patented Nov. 6, 1900.

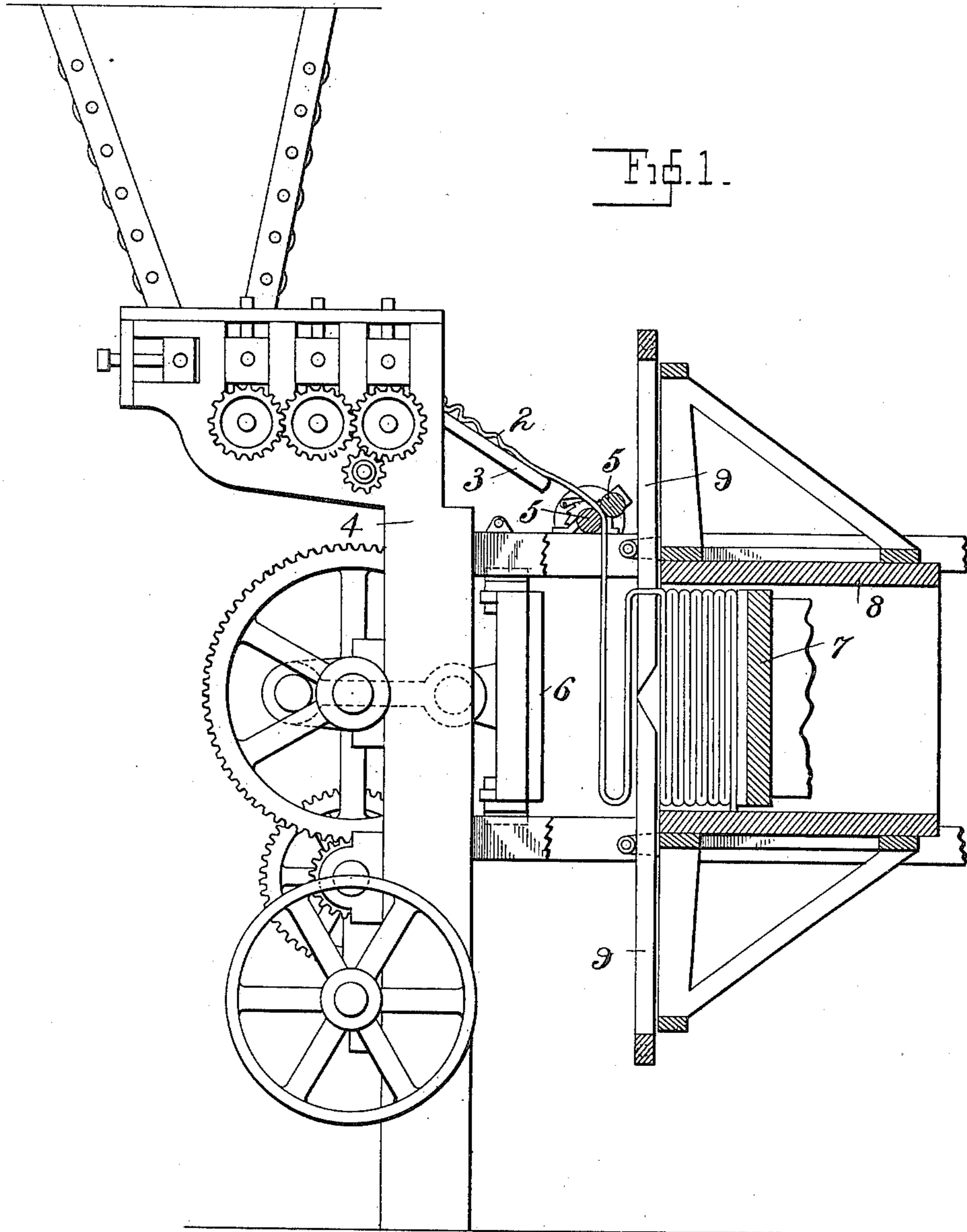
C. E. MALLET.
COTTON PRESS.

(Application filed May 5, 1900.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.



Witnesses.
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2 Sheets—Sheet 2.

Fig. 2.

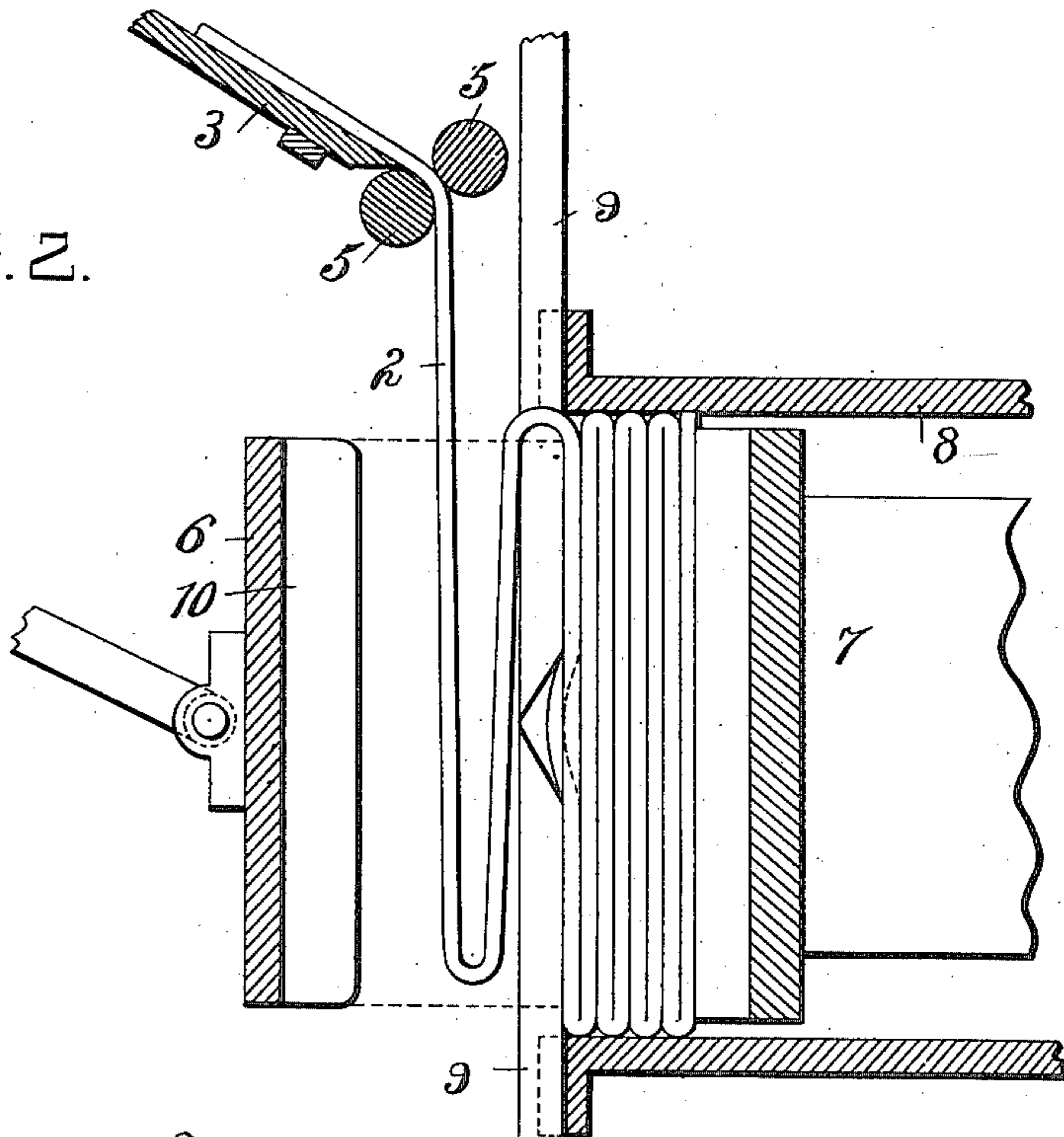
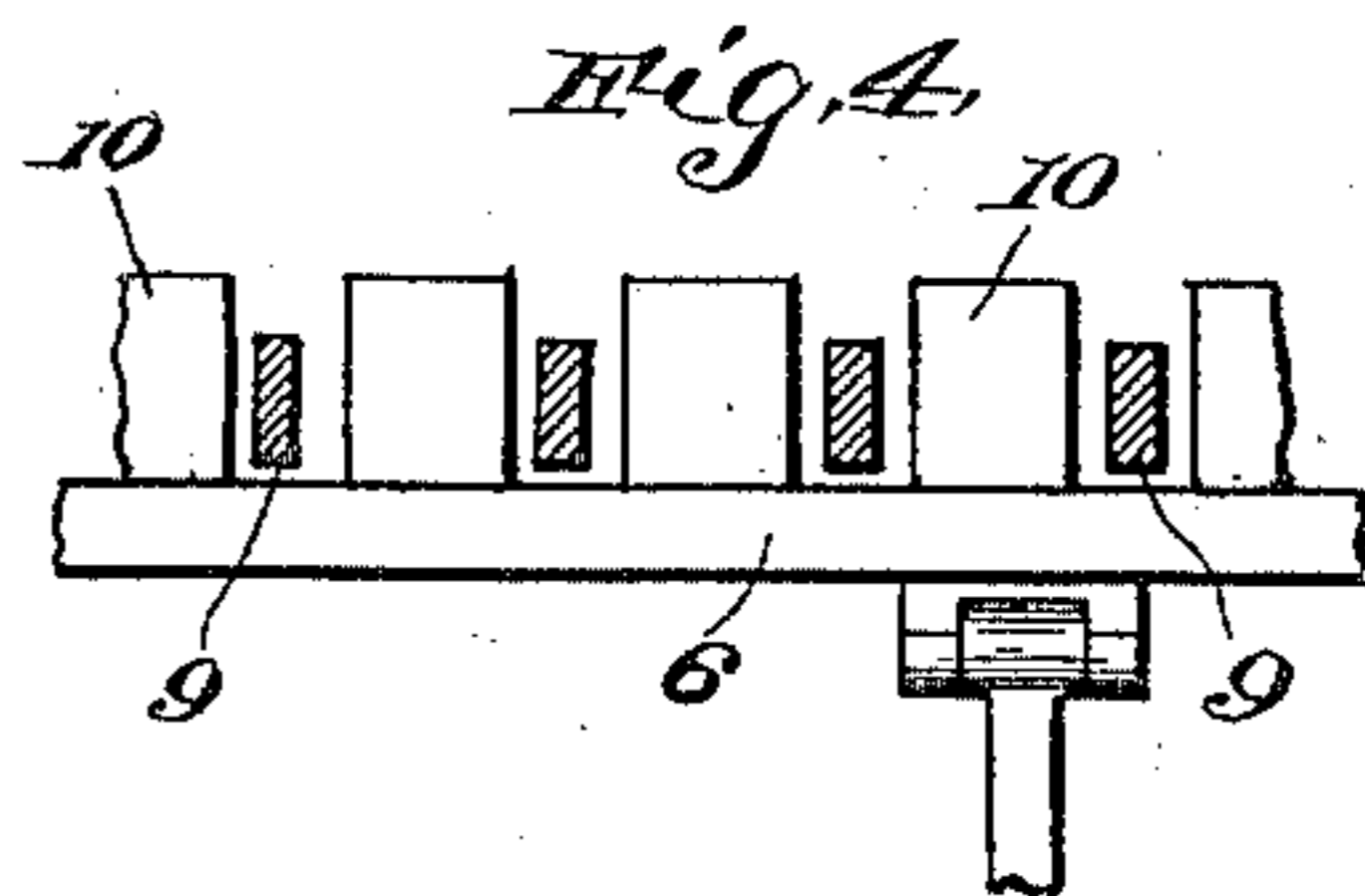
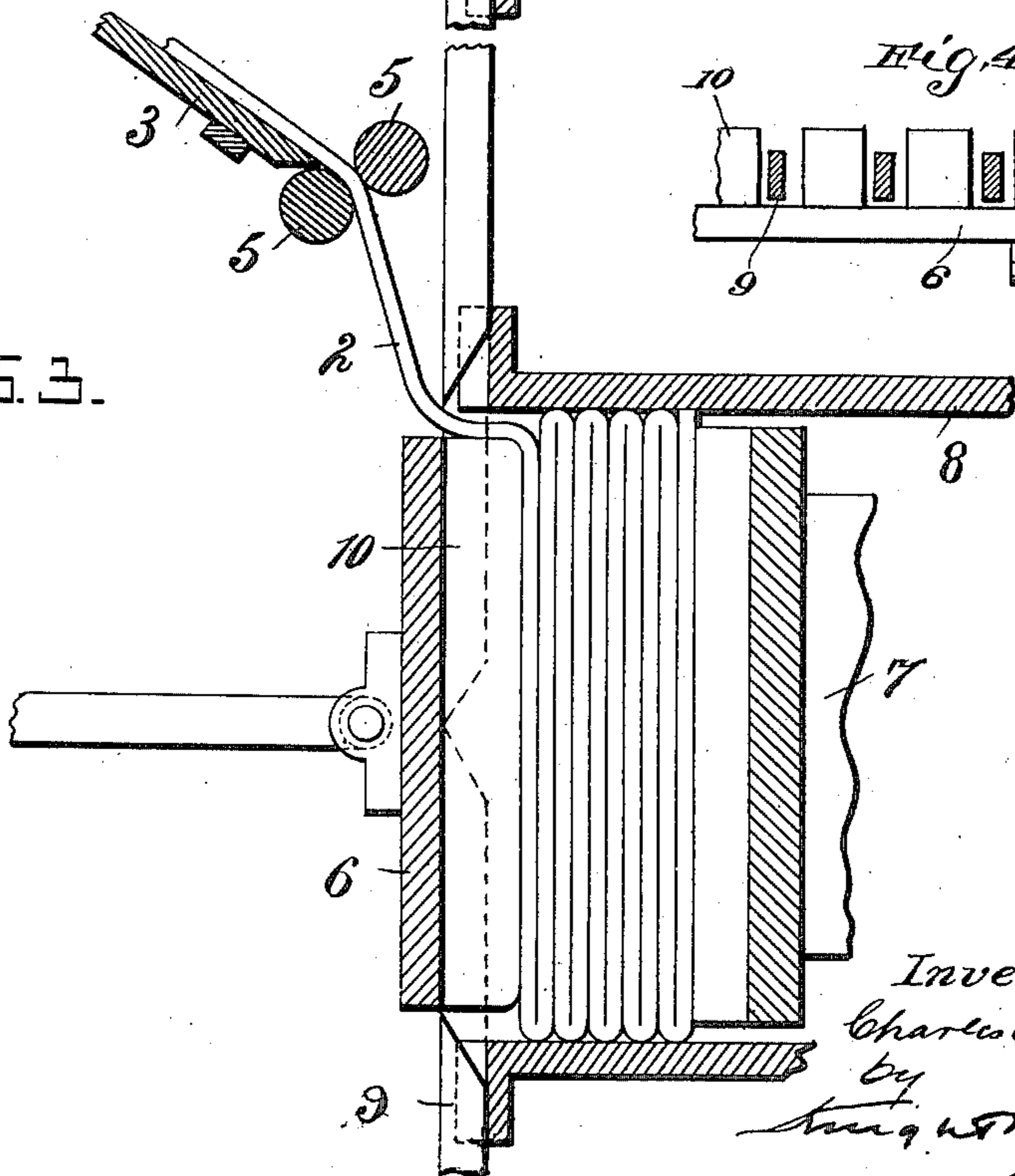


Fig. 3.



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UNITED STATES PATENT OFFICE.

CHARLES E. MALLETT, OF NEW YORK, N. Y.

COTTON-PRESS.

SPECIFICATION forming part of Letters Patent No. 661,350, dated November 6, 1900.

Application filed May 5, 1900. Serial No. 15,621. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. MALLETT, a citizen of the United States, residing at New York, in the county and State of New York, have invented certain new and useful Improvements in Cotton-Presses, of which the following is a specification.

This invention relates to that class of cotton-presses adapted to make a compressed bale at the gin. Such a press is described in my reissued Letters Patent No. 11,769, dated September 5, 1899; and the object of the present application is the describing and claiming of certain additional details of construction of that press.

In the accompanying drawings, which form a part of this specification, Figure 1 is a side elevation, partly in section, of so much of a press as is necessary to illustrate my invention. Figs. 2 and 3 are detail sectional views, on a larger scale, illustrating the action of the plunger and the bat-feeding mechanism. Fig. 4 is a plan view of the plunger.

This class of presses is adapted to take the place of both the ordinary country press and of the compress—in other words, to make a compressed bale at the gin. It will be presently seen that owing to the nature of the mechanism employed by me it is important to have the cotton reach the press as a compact bat of considerable density. To this end I employ, by preference, a form of bat forming and condensing mechanism, indicated at 1, but not here specifically described, as it is made the subject of application for United States Letters Patent, filed by me September 9, 1899, Serial No. 729,958. This bat forming and condensing mechanism delivers the cotton in the form of a dense bat to an accumulating shelf or support 3, supported upon the press-frame 4, and thence the bat is taken by feed-rolls 5, supported so as to drop the bat between them vertically in front of the reciprocating plunger or traverser 6.

7 is the platen, which may be constructed and made to operate in any approved way—for example, as shown in my application Serial No. 2,512, filed January 27, 1900—so as to recede gradually as the cotton is laid and pressed thereupon. The platen is free to move in the press-box 8, which is arranged

horizontally, as shown, so that the feed-rolls 5, arranged above its cotton-receiving end, may drop the cotton by gravity across its mouth. The cotton-bat is laid layer by layer upon the platen, each layer being pressed into the press-box as laid by bringing the plunger 6 against it. Each layer of bat is held and the bale held from expanding in the intervals between the blows of the plunger by finger-frames 9, which, as shown by dotted lines in Fig. 3, enter the grooves 10 in the plunger when the latter has completed its compressing action and is about to or has begun to move back.

The operation of the aforesaid finger-frames is fully set forth in my aforesaid application, Serial No. 729,958, and they are here only illustrated to show that they pierce the bat and support its upper end while the successive folds are being laid on. The bat is laid on continuous and unbroken throughout the bale, the plunger 6 being made small enough, as shown in Fig. 3, to allow room for the bat between its upper edge and the press-box when the plunger is in. While in this position the bat is held by the fingers 9, as already described, and as the plunger is drawn back to the position shown in Fig. 2 the bat is dropped by the feed-rolls in the form of a loop, as shown in said figure, in position to be pressed up against the platen or the already partially-formed bale with the next reciprocation of the plunger, as shown in Fig. 3.

It will be seen that any portion of the bat 2 fed through by the feed-rolls in excess of that folded each time by the plunger is carried and supported upon the top edge of the plunger and the tie-bars 10, which together form a sufficiently broad support for such excess cotton.

It will be seen that the corners of the plunger are rounded to let the bat pass over it without injury and that the press will operate to lay and press the bat into the press-box in successive folds unbroken and uninjured.

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

1. A cotton-press comprising a press-box, means for delivering a continuous and unbroken web into said box, and a plunger of less dimension than the press-box, so as to

form a space between it and the wall of the box to receive the web, whereby it presses said web in folds without breaking its continuity.

2. In a cotton-press, the combination of means for feeding an unbroken web, a press-box having its feed-opening located beneath the web-feeding means, a plunger pressing the web in folds and constructed with its vertical dimension less than that of the press-box so as to leave a space between its upper side and the top of the press-box to permit the web to continue past it back from the pressing-point during compression, and a support mounted on the plunger for that portion of the web accumulating during compression.

3. In a cotton-press, the combination of a press-box, web-pressing rollers above the box feeding a continuous unbroken web into the opening of the box by gravity, a plunger pressing the web into continuous connected folds and constructed with its vertical dimension less than that of the press-box so as to leave a space between it and the wall of the box, to permit the web to continue past it back from the pressing-point, to avoid breaking the web, and said plunger being constructed to support the web and brought beneath the web-pressing rollers while the plunger is pressing.

4. In a cotton-press, the combination of means for forming a continuous web, and a plunger-press into which the web is delivered, said press and its plunger being constructed so as to leave a space between the edge of the plunger and the corresponding wall of the press-box from the pressing-point to the feed-opening, to receive the cotton-web and prevent severance thereof during pressing.

5. In a cotton-press, the combination of a baling-box, a traverser arranged to operate therein, means for operating said traverser, means for pressing the cotton to be baled into a web, and said traverser being constructed to support the web after it has passed the feed-rolls and while the preceding portion of the web is being pressed, substantially as described.

6. In a cotton-press, the combination of a baling-box, a traverser to operate therein, means for operating the traverser, means for pressing the cotton to be baled into a bat or

web, and said traverser being constructed to support and arrest the movement of the web into the baling-box while the traverser is making the last part of its forward and the first part of its rearward movement.

7. A cotton-press comprising a press-box having a feed-opening and a plunger, web-pressing rollers delivering into said feed-opening a continuous unbroken web, the relation between the transverse dimension of the plunger and the corresponding dimension of the press-box being such as to leave a web-passageway from the point of pressing to the feed-opening, whereby the plunger may press said web into folds without breaking its continuity.

8. A cotton-press, comprising a press-box having a feed-opening, means for forming the cotton into a continuous and unbroken web or bat, and which is located over the feed-opening of the press-box so as to deliver the bat by gravity into said feed-opening in an unbroken condition, and a plunger located in and of less vertical dimension than the interior of said press-box and acting to press said bat into folds without breaking its continuity.

9. A plunger-press provided with a suitable feed-opening and having the wall of the press-box on the side in which the feed-opening is formed, and between said feed-opening and the pressing-point, spaced apart from the plane of the corresponding edge of the plunger, whereby a space extends past said edge of the plunger when the latter is at the pressing-point and means for feeding a continuous and unbroken web or bat of cotton to said press; substantially as and for the purposes set forth.

10. The combination of bat forming and condensing mechanism, means for feeding and folding by gravity a continuous bat, a horizontal press-box having a feed-opening for said bat, and a plunger or traverser arranged to enter said box to compress said bat therein and having its vertical dimension less than that of the interior of the press-box, substantially as and for the purpose set forth.

CHARLES E. MALLETT.

Witnesses:

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