

No. 839,579.

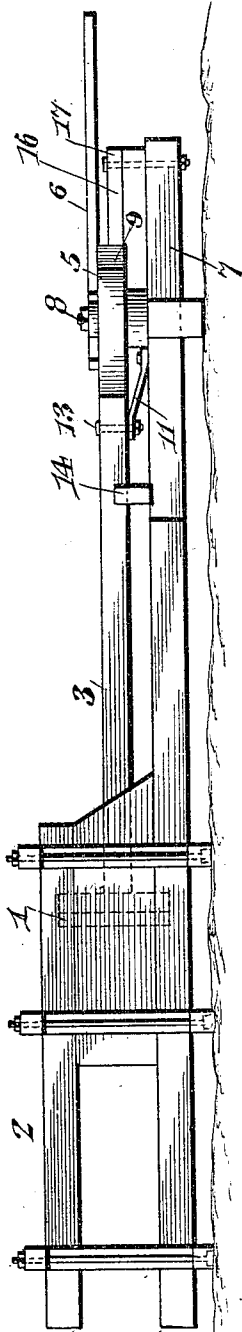
PATENTED DEC. 25, 1906.

A. HAILEY.
BALING PRESS.

APPLICATION FILED NOV. 20, 1905.

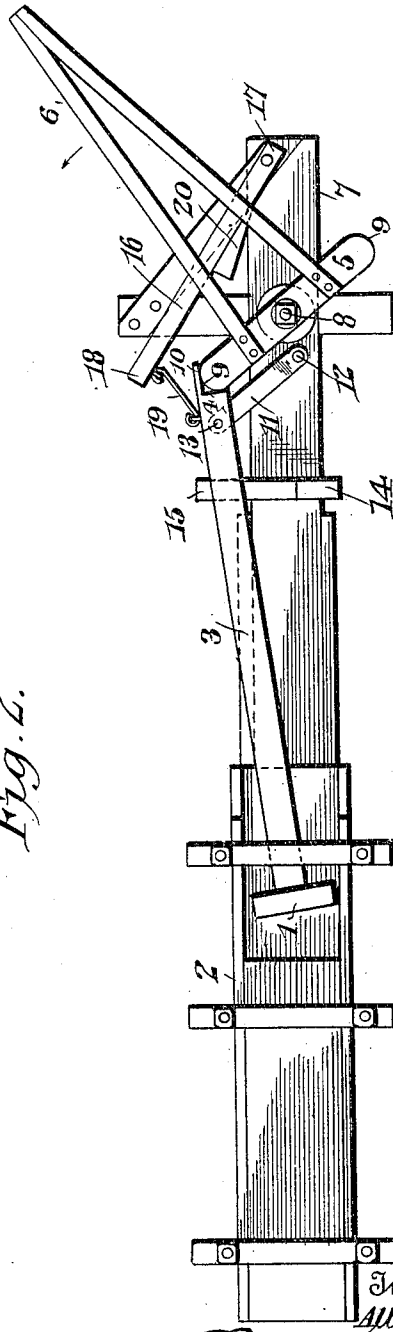
2 SHEETS—SHEET 1.

Fig. 1.



Witnesses
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Fig. 2.



By

E. J. Siggers

Attorney

Inventor
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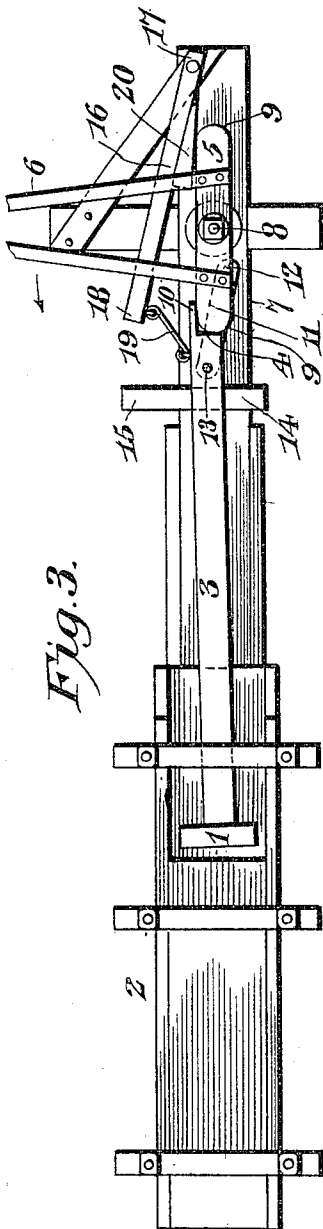


Fig. 3.

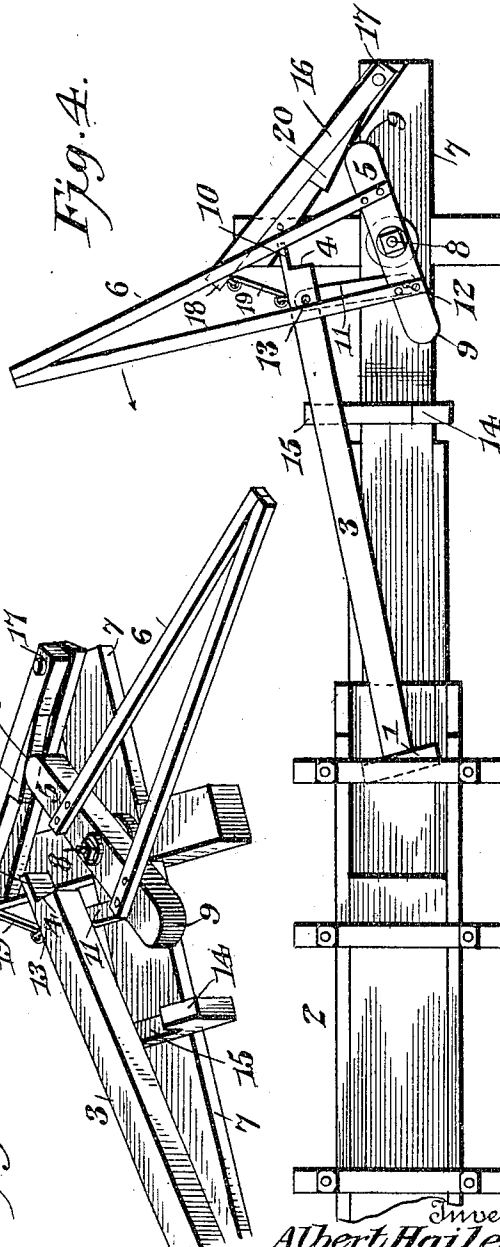


Fig. 4.

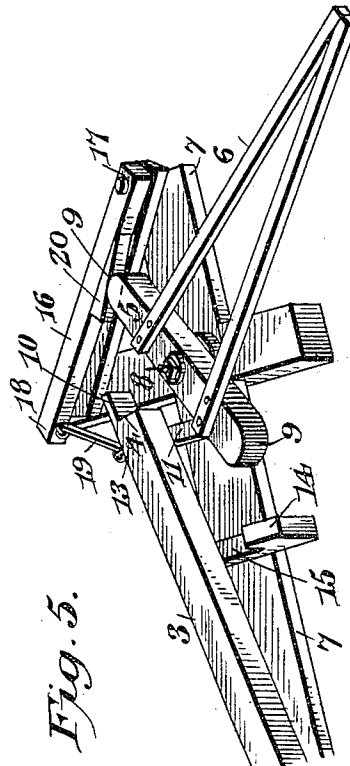


Fig. 5.

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UNITED STATES PATENT OFFICE.

ALBERT HAILEY, OF RUSTON, LOUISIANA.

BALING-PRESS.

No. 839,579.

Specification of Letters Patent.

Patented Dec. 25, 1906.

Application filed November 20, 1905. Serial No. 288,232.

To all whom it may concern:

Be it known that I, ALBERT HAILEY, a citizen of the United States, residing at Ruston, in the parish of Lincoln and State of Louisiana, have invented a new and useful Baling-Press, of which the following is a specification.

The invention relates to improvements in baling-presses.

10 The object of the present invention is to improve the construction of that class of baling-presses employing reciprocable plungers and rotary sweeps for actuating the same and to lighten the construction and
15 lessen the cost thereof and to increase the efficiency of baling-presses and to render the reciprocable plunger more positive in both of its movements by dispensing with the guiding means usually employed for the
20 plunger and the flexible connection frequently provided for connecting the plunger with the means for moving it outward from the press box or chamber.

With these and other objects in view the
25 invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended, it being understood that various changes in the form, proportion, size, and minor details of construction within the scope of the claim may be
30 resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a side elevation of a baling-press constructed in accordance with this invention. Figs. 2, 3, and 4
40 are plan views showing the different positions of the plunger and the means for moving the same inward and outward. Fig. 5 is a perspective view of the outer portion of the plunger-beam and the mechanism for actuating the same.

45 Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a reciprocable plunger movable into and out of a press box or chamber
50 2 in the usual manner for baling hay and provided with a laterally-movable beam 3, having a shoulder 4 at its outer end to be engaged by a cross-head 5 of a rotary sweep 6. The rotary sweep 6 is preferably composed of two

sweep-bars arranged at an angle and connected by the cross head or bar 5, and it is pivoted to the bottom portion 7 of the frame of the baling-press by means of a vertical bolt 8 or other suitable form of pivot. The engaging ends 9 of the cross-head of the sweep are
60 rounded for engagement with the shoulder 4 of the plunger-beam, which is provided with an extension 10, forming a guard for preventing the shoulder from becoming accidentally disengaged from the cross-head of the sweep
65 while the latter is moving the plunger inward into the press box or chamber.

The lateral movement of the reciprocable plunger is controlled by an oscillatory arm or member 11, consisting of a bar pivoted at its end 12 to the base or bottom portion 7 of the frame of the baling-press and at its other end 13 to the lower face of the plunger-beam adjacent to the outer end thereof. The oscillatory arm or member causes the
75 plunger-beam to swing in the arc of a circle in its lateral movement when engaged by the cross-head of the sweep, and this obviates the necessity of employing the curved guide often used for this purpose, and it eliminates
80 the friction resulting from the use of the guide. The lateral movement of the plunger-beam in one direction is limited by a stop 14, consisting of a projecting portion of a transverse bar 15, which is secured to the
85 base or bottom portion 7 of the baling-press and which supports the outer portion of the plunger-beam to permit the arm or member 11 to oscillate freely.

A positive outward movement of the plunger-beam is effected by a lever 16, arranged in substantial parallelism with the link or member 11 and extending longitudinally of the baling-press when the plunger is at the limit of its inward movement, as clearly shown in
95 Fig. 3 of the drawings, and pivoted at its outer end 17 by a bolt, pin, or other suitable fastening device to the base or bottom portion of the baling-press at the outer end of the
100 said base or bottom portion and connected at its inner end 18 with the plunger-beam at the outer end thereof by a short link 19. The link 19, which extends from the inner side of the plunger-beam, is provided at its terminals with eyes which are linked into suitable eyes
105 of the plunger-beam 3 and the lever 16; but the link may be connected with the plunger-beam and the lever in any other suitable

manner. The stop 14, which limits the lateral movement of the plunger-beam in one direction, is located at the side opposite that at which the lever 16 and the link 19 are arranged. The lever 16 is provided at an intermediate point with a contact block or plate 20 of substantially triangular form, adapted to be engaged by the cross-head 5 of the sweep at the completion of the inward movement of the plunger and as the said cross-head 5 leaves the outer end of the plunger-beam. The rotary sweep actuates the plunger and moves the same inward during one-quarter of its revolution, and it oscillates the lever 16 during the next succeeding quarter of such revolution, and at the completion of such movement again actuates the plunger to move the same into the press box or chamber, and it will be seen that two charges of hay will be compressed at each complete revolution of the sweep, which causes two complete reciprocations of the plunger. It will also be apparent that while the mechanism for actuating the plunger in its inward and outward movements is characterized by great simplicity, yet it is positive in both the inward and outward movements of the plunger and does not necessitate either the employment of a guide for controlling the lateral movement of the plunger-beam or a flexible connection, such as a rope or cable, for returning the plunger to its outermost position. Furthermore, it will be clear that the plunger-actuating mechanism owing to its simplicity may be constructed of any desired

strength and may be operated with great rapidity without liability of either breaking or displacing any of the parts.

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

In a baling-press, the combination of a reciprocable laterally-movable plunger-beam, provided with a guard at its outer end, an oscillatory arm or member pivoted at one end to a fixed part and connected at its other end to the plunger, said arm or member being located at and extending from one side of the plunger-beam, a link located at and extending from the other side of the plunger-beam and connected at its inner end to the same at a point contiguous to the attachment of the arm or member, an oscillatory lever having an inclined contact-block at an intermediate point and fulcrumed at one end to a fixed part beyond the plunger-beam and connected at its other end to the outer end of the link, and a rotary sweep provided with means for engaging the outer end of the plunger-beam at one side of the guard to move the same inwardly and for also engaging the contact-block of the oscillatory lever to move the plunger-beam outwardly.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ALBERT HAILEY.

Witnesses:

GEO. KNOWLES,
SAM L. BARKSDALE.