

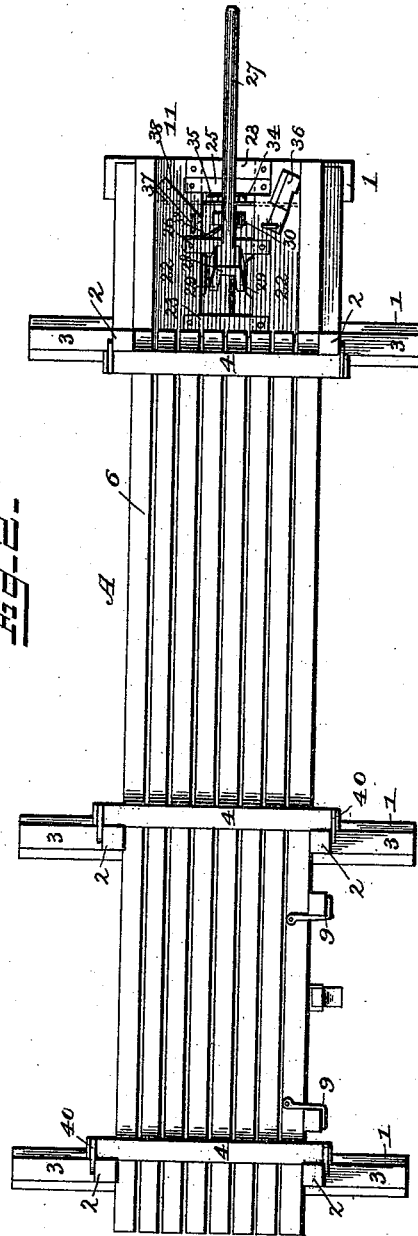
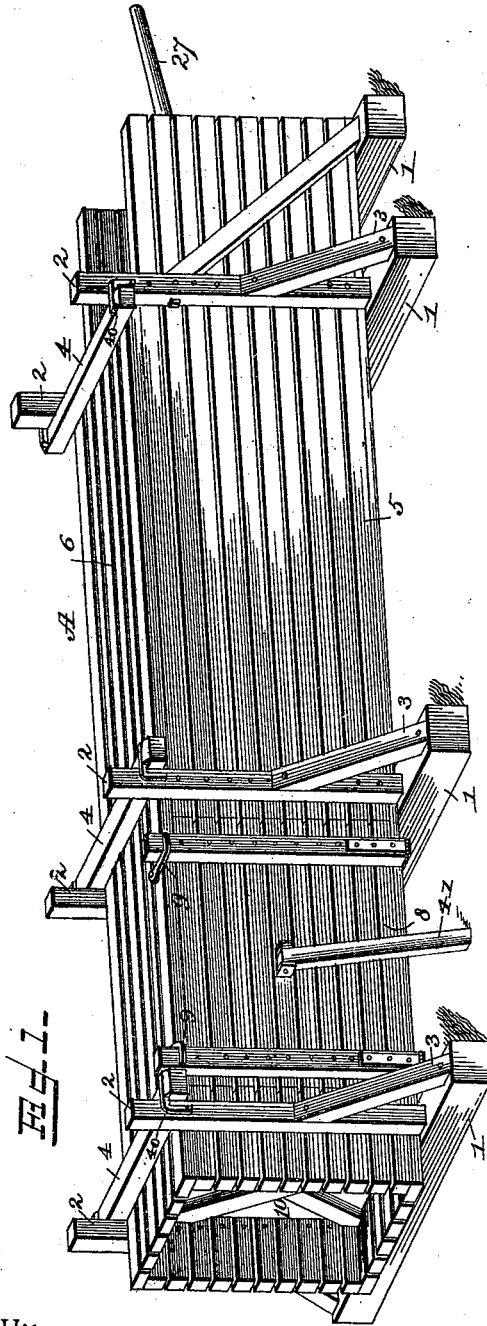
(No Model.)

2 Sheets—Sheet 1.

S. M. NEELY.
HAY OR COTTON PRESS.

No. 501,435.

Patented July 11, 1893.



Witnesses

Chas. H. Curand.

[Signature]

By his Attorneys,

S. M. Neely
[Signature]

Inventor

(No Model.)

2 Sheets—Sheet 2.

S. M. NEELY.
HAY OR COTTON PRESS.

No. 501,435.

Patented July 11, 1893.

Fig. 3-

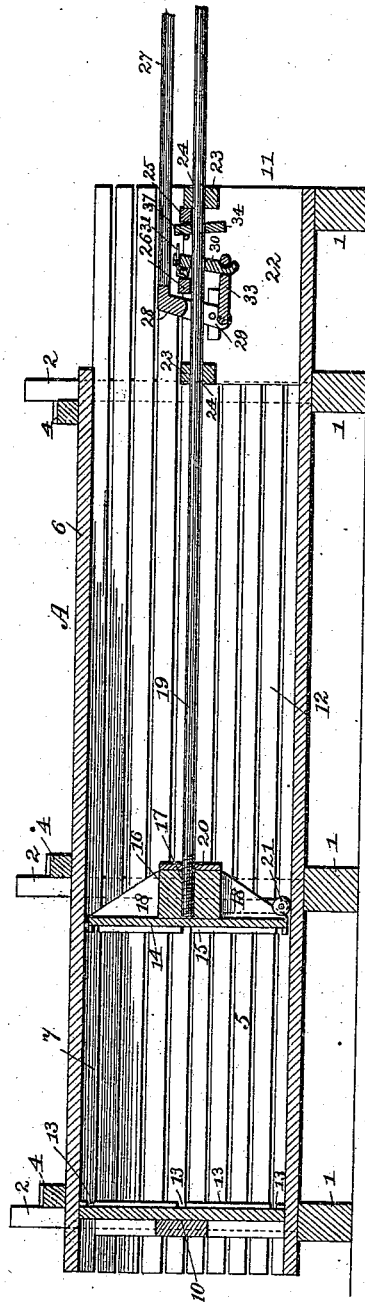


Fig. 5-

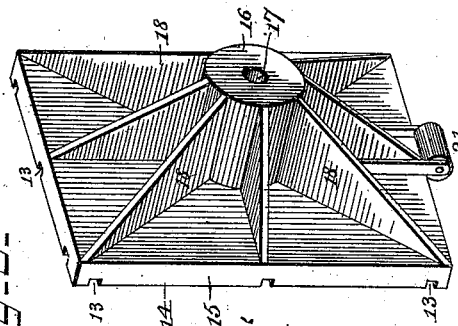
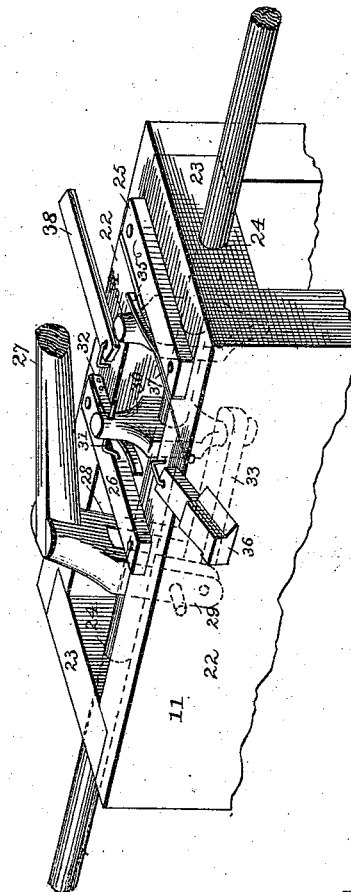


Fig. 4-



Witnesses

Chas. H. Curand

[Signature]

Inventor

S. M. Neely

By his Attorneys,

Chas. H. Curand & Co.

UNITED STATES PATENT OFFICE.

SAMUEL M. NEELY, OF SMITH'S TURN OUT, SOUTH CAROLINA.

HAY OR COTTON PRESS.

SPECIFICATION forming part of Letters Patent No. 501,435, dated July 11, 1893.

Application filed July 25, 1892. Serial No. 441,165. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL M. NEELY, a citizen of the United States, residing at Smith's Turn Out, in the county of York and State of South Carolina, have invented a new and useful Hay or Cotton Press, of which the following is a specification.

My invention relates to improvements in baling-presses for hay, cotton, or other products, and refers particularly to that class of presses which are operated by hand-power; the object of my improvement being to provide a simple, portable, and effective device, adapted to enable the operator to form bales which are as compactly formed as those which are produced by machines using horse or steam power, and without unnecessary exertion upon the part of the operator.

Further objects of my invention will appear in the following description, and the novel features thereof will be pointed out in the appended claims.

In the drawings: Figure 1 is a perspective view of a baling-press embodying my improvement. Fig. 2 is a plan view of the same. Fig. 3 is a central longitudinal sectional view. Fig. 4 is a detail perspective view of the power mechanism. Fig. 5 is a similar view of the follower.

A represents the body of the frame, comprising, essentially, the cross-timbers 1, the uprights 2, provided with inclined braces 3, said uprights being connected at their upper ends by cross-pieces 4. The sides 5 are attached to the inner surfaces of the uprights, and the top 6 is secured to the under surfaces of said cross-pieces, the floor being supported directly upon the cross-timbers. The baling-chamber 7 is provided in its side with a drop-door 8, hinged at its lower edge and provided with suitable catches 9. The end of the baling-chamber is closed by the stationary head-block 10, the power mechanism 11 being arranged at the opposite end of the packing-chamber 12. The inner surface of the head-block is provided with a series of transverse and vertical grooves or channels 13, and the front face of the follower 14 is provided with similar grooves or channels, the same being for the reception of the binding-wires or cords which are used to tie the bales.

The follower comprises, essentially, the face-

plate 15, a central block 16 attached to the rear side of said face-plate and provided with an axial perforation 17, and the triangular bracing-webs 18, which are arranged radially from the central block and are attached to the rear surface of the face-plate. The follower-rod 19 fits in the central perforation in the center block and is provided with a collar 20, screwed in place upon the rod and adapted to bear against the rear surface of the center block in order to distribute the pressure thereupon. The follower is further provided at its lower edge with a roller 21, which operates upon the floor of the baling-chamber.

The power mechanism which I employ in connection with my baling-press is carried by a frame comprising the longitudinal parallel beams 22, which are connected at their forward and rear ends by the transverse guide-bars 23, having central guide-openings 24, through which passes the follower-rod. Additional cross-bars 25 and 26 are arranged between the beams, and between the cross-bar 26 and the front guide is arranged the operating-lever 27, which is provided with a bifurcated head 28, the parallel arms 29 of which pass on opposite sides of the follower-rod and are pivotally connected to the beams 22. The arm of the operating-lever is disposed at an angle to the head thereof in order to facilitate its operation.

30 represents a sliding-clutch, mounted upon the follower-rod at a point in rear of the cross-bar 26, and held in position at its upper end by a longitudinal guide-pin 31, a leaf-spring 32 being attached to said cross-bar 26 to normally force the upper end of the clutch from the operating-lever or to the rear. The lower end of said clutch is connected to the lower ends of the arms of the bifurcated head by a draw-bar 33.

34 represents a stationary or locking clutch which is arranged adjacent to the cross-bar 25, to which is secured a spring 35 to normally hold the upper end of said clutch in its operative position or pressed forwardly, said clutch embracing the follower-rod in the same manner as the movable clutch.

36 represents a trip-lever, which is pivotally connected to one of the side-beams 22, and is adapted to be arranged at its free end

between the upper ends of the clutches to prevent them from biting upon the follower-rod when it is desired to retract the latter to remove the bale.

- 5 37 is a cross-rod arranged at the front side of the stationary clutch to prevent the latter from being forced out of position by its actuating-spring.

10 Instead of the plate-springs which are shown in connection with the clutches, coiled or other springs may be used, the coiled spring, when used in connection with the movable clutch, being arranged upon the above-described guide-pin. A strut 38 is provided to
15 hold the arm of the operating lever in an elevated position to repress the lower end of the movable clutch when it is desired to retract the follower-rod.

The operation of my improved baling-press
20 is, briefly, as follows: The hay, cotton, or other material to be baled, being arranged in the packing-chamber, and the trip-lever being disengaged from the clutches and the
25 latter is moved vertically up and down, said action causing the movable clutch on the downward stroke of the lever to bite the follower-rod and force it forward, and causing the same to release such rod when elevated.
30 As the follower-rod is drawn forward by the action of the operating-lever and the movable clutch, the stationary clutch is held in a vertical position by the cross-rod and its actuating spring, and the follower-rod is enabled to slip
35 freely therethrough, but when the follower-rod is released from the movable clutch by the elevation of the operating lever, the rearward strain upon said rod causes the stationary clutch to engage the same and hold it
40 until the downward stroke of the operating-lever. To release the follower and allow of the removal of the bale, the trip-lever is inserted between the upper ends of the clutches and the operating-lever is locked in position
45 by the above-described strut, when the follower-rod will slip rearwardly through the operating mechanism without resistance. The top of the baling press is pivotally connected to one side thereof and is locked, when
50 in its closed position to the other side by means of swinging catches, 40. This top is raised when the packing chamber is being filled preparatory to operating the plunger, and during this portion of the operation,

namely, while the packing chamber is being 55 filled, the side door 8 is held in an upright or closed position by a strut, 41.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is— 6a

1. In a baling-press, the power mechanism having a pivoted operating-lever, a movable clutch mounted at its upper end upon a guide-pin and engaged by an actuating spring, said clutch being connected at its lower end to 65 the lower end of the operating-lever, the stationary clutch engaged at its upper end by a spring, and a trip-lever to engage the upper ends of said movable and stationary clutches, in combination with a follower-rod extending 70 through the clutches and adapted to be engaged alternately thereby, substantially as specified.

2. In a baling-press, the power mechanism having a pivoted operating-lever, a movable 75 clutch sliding at its upper end upon a guide-pin and engaged by a rearwardly-pressing spring, the lower end of said clutch being connected to the operating-lever, and a stationary clutch arranged in juxtaposition to a retaining cross-rod and engaged at its upper 8c end by a forwardly-pressing spring, in combination with a follower-rod extending through said clutches, substantially as specified.

3. In a baling-press, the combination with 85 the follower-rod, of the transverse guides arranged near the rear end of the frame and held in place by longitudinal parallel beams, the operating-lever bifurcated at its lower end and fulcrumed between said beams, the movable clutch provided at its upper end with a rearwardly-pressing spring and connected at its lower end to the lower end of the operating-lever, the stationary clutch arranged at its upper end between a cross-rod and a forwardly-pressing spring, the follower-rod passing 95 through said clutches, and a trip-lever to separate the upper ends of the clutches and hold them out of engagement with the follower-rod, substantially as specified. 1c0

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

SAMUEL M. NEELY.

Witnesses:

L. V. PORTER,

M. C. MATTHEWS.