

(No Model)

J. DISMAN.
BALING PRESS.

No. 582,463.

Patented May 11, 1897.

Fig. 1.

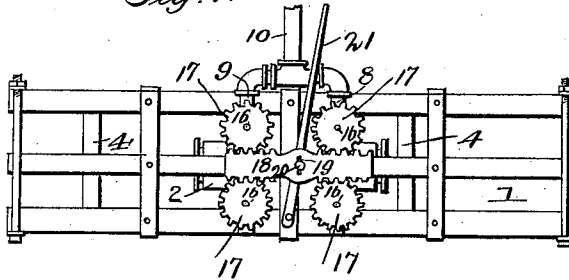


Fig. 2.

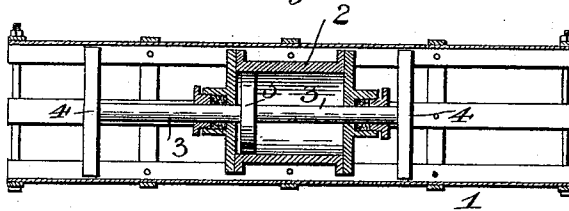


Fig. 3.

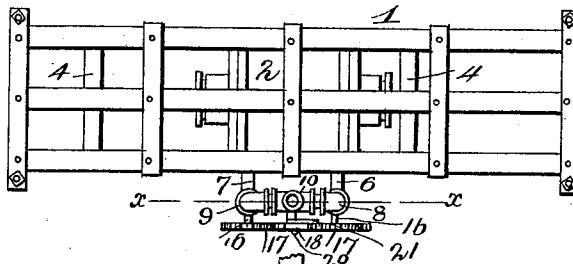
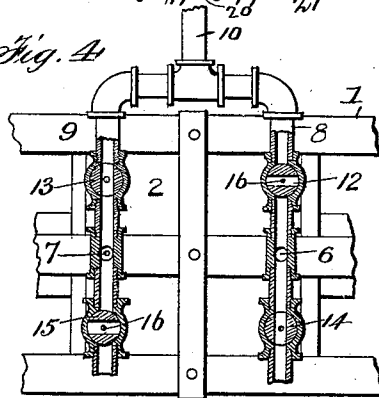


Fig. 4.



Witnesses:
Frank L. Ourand.
J. L. Coombs

Inventor:
Joseph Disman
J. Louis Payer & Co.
Attorneys.

UNITED STATES PATENT OFFICE.

JOSEPH DISMAN, OF MONTPELIER, INDIANA, ASSIGNOR OF ONE-HALF TO
SOLOMON D. GREEN, OF SAME PLACE.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 582,463, dated May 11, 1897.

Application filed September 4, 1896. Serial No. 604,894. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH DISMAN, a citizen of the United States, and a resident of Montpelier, in the county of Blackford and State of Indiana, have invented certain new and useful Improvements in Baling-Presses; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to baling-presses for baling hay, cotton, and other materials; and its object is to provide an improved construction of the same in which the presser-heads or followers are connected with the ends of a piston-rod passing entirely through a steam or compressed-air cylinder, said presser-heads working in boxes at opposite ends of said cylinder, so as to alternately compress the material contained therein.

The invention consists in the novel construction and combination of parts herein-after fully described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a baling-press constructed in accordance with my invention. Fig. 2 is a central longitudinal section of the same. Fig. 3 is a plan view. Fig. 4 is a section on the line *x x*, Fig. 3.

In the said drawings the reference-numeral 1 designates the press-box, which may be of any ordinary or suitable construction. Located centrally in this press-box is a steam or compressed-air cylinder 2, dividing the box into two receptacles or chambers, one at each end thereof. Passing through both the heads of said cylinder is a piston-rod 3, which projects beyond the same into said chambers and is provided at each end with a rectangular presser-head or follower 4. Located in said cylinder and secured centrally to the piston-rod is a piston 5. At each end of the cylinder is a pipe 6 and 7, which acts alternately as an inlet and an exhaust pipe for the cylinder. These pipes are connected with vertical pipes 8 and 9, connected at their upper ends with a steam or compressed-air supply pipe 10. Located in each of these pipes 6 and

7 is an oscillating supply-valve 12 and 13 and an exhaust-valve 14 and 15, the supply or inlet valves being located above the pipes 6 and 7 and the exhaust-valves below the same, and each is provided with a diametric passage. The stems 16 of these valves are provided with cog-wheels 17, which mesh with a horizontal rack-bar 18. The teeth of this rack-bar are at each end and on the upper and lower sides thereof. At its center the rack-bar is formed with a slot 19, through which projects a pin 20 on a lever 21, pivoted at its lower end to the press-box. The said valves are so arranged that when the supply-valve at one end of the cylinder is open the exhaust-valve is closed and the supply-valve at the opposite end closed and the exhaust open.

In operating the press one presser-head will be forced outward and the other inward by the movement of the piston, which is reciprocated by the steam or air alternately admitted to and exhausted from opposite ends thereof. While one presser-head is compressing the material in its box or chamber, the other chamber is being filled with fresh material, and when the piston reaches the end of the stroke the lever 21 is reversed, which, through the medium of the rack-bar and cog-wheels, will open the exhaust-valve and close the inlet-valve at the end of the cylinder nearest the chamber containing the material to be compressed and opening the inlet-valve and closing the exhaust-valve at the end of the cylinder adjoining the chamber containing the compressed bale. This will reverse the movement of the presser-heads, allowing the compressed bale to be removed and compressing the material in the other chamber. This operation will be repeated, so that the machine will be double-acting—that is to say, the material will be compressed in one or the other of the chambers at each stroke of the piston.

Having thus fully described my invention, what I claim is—

In a double-acting baling-press, the combination with the press-box, the cylinder located therein dividing the same into two compressing-chambers, the piston, the piston-rod passing through both heads of the cylinder and projecting into said chambers, and the

presser-heads or followers secured to said
piston-rod, of the steam or air pipes connected
with opposite ends of said cylinder, the pipes
connected therewith and with a supply-pipe,
5 the oscillating inlet and exhaust valves lo-
cated above and below the said pipes con-
nected with the cylinder, the valve-stems and
cog-wheels, the reciprocating rack-bar hav-
ing teeth at each end on the upper and lower

sides, and formed with a central slot, and the 10
lever and pin; substantially as described.

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

JOSEPH DISMAN.

Witnesses:

J. D. LACEY,
WILLIAM H. HONEY.