No. 860,557. PATENTED JULY 16, 1907.

W. P. MOORE.

HAY PRESS.

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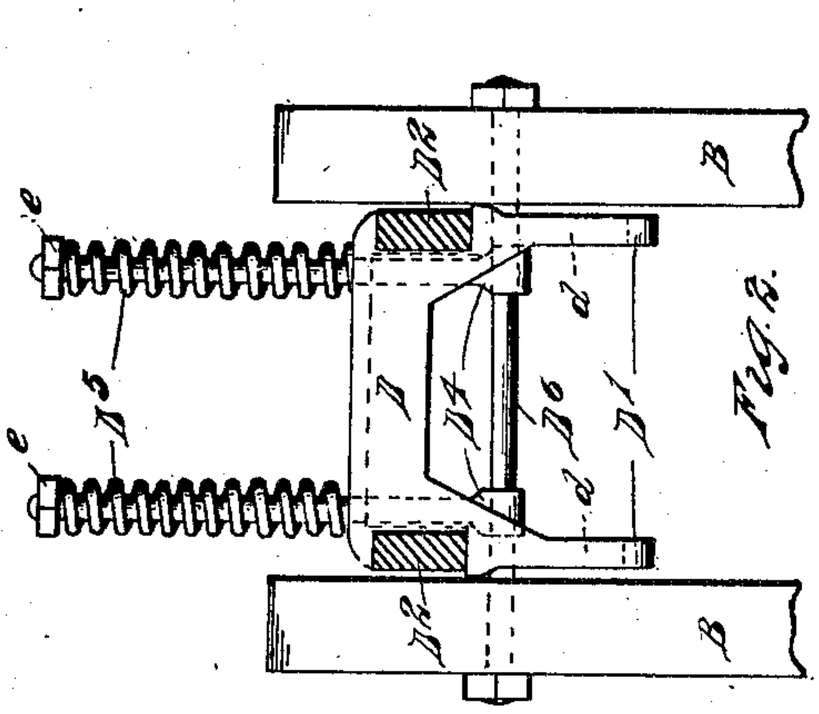

Fig. 2.

Fig. 1.

WITNESSES

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WENDELL P. MOORE, OF ANN ARBOR, MICHIGAN, ASSIGNOR TO ANN ARBOR MACHINE COMPANY, OF ANN ARBOR, MICHIGAN, A CORPORATION OF MICHIGAN.

HAY-PRESS.

No. 860,557. Specification of Letters Patent. Patented July 16, 1907.

Application filed March 26, 1906. Serial No. 307,968.

To all whom it may concern:

Be it known that I, WENDELL P. MOORE, a citizen of the United States, residing at Ann Arbor, county of Washtenaw, State of Michigan, have invented a certain new and useful Improvement in Hay-Presses; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to hay presses, and the object of my improvement is to provide an improved apparatus for pressing hay for baling the same.

In the accompanying drawings:—Figure 1, is a side view of a hay press embodying my invention. Fig. 2, is a detail of the portion of the apparatus of Fig. 1 toward the upper part of the uprights of standards B, B.

The frame of the press is composed of heavy timbers A, A, tied and secured together by vertical posts *a*, after the usual way of constructing presses of this character.

At the rear of the feed chamber 2, and between the feed chamber and the driving mechanism is erected a pair of posts B, B, one at each side of the frame; these support near their upper end a reciprocating frame, which is held between the posts by a pivot rod D^6, which passes through the posts; upon the pivot rod engage two eye bolts D^4, that pass vertically through the horizontal bars D^2, of a frame-work; from the frame-work depend hangers D^1, provided with slots *d* that are vertically arranged and through which slot the pivot bar D^6 engages. The frame having the horizontal bars D^2 and the cross bar D, is capable of vertical movement along the eye bars D^4, and is capable of an oscillating movement around the pivot in which motion the vertical eye bars D^4 act as the hinge members. The vertical bars D^4 project above the frame, and are provided at their upper terminals with abutment and adjusting nuts *e*. Tension springs D^5 engage around the eye bars and between the abutment nuts *e*, and the upper face of the frame; these tend to hold the frame in close engagement with the pivot D^6. The horizontal members D^2 of the frame extend to the front and to the rear of the post and become a walking beam, one end of which is pivoted at j^1, to a link J, which at its other end is pivoted to the driving pitman I, by which the plunger piston H is reciprocated. The engagement between the link J and the plunger pitman I is on the stretch of the pitman, preferably, rather than on the piston connection between the pitman and the plunger head. The forward end D^3 of the walking beam has pivotally connected to it the end of the stem E, of the packer G. A parallel beam F, is pivoted to the post B, and to the stems E of the packer by pivots *f* and *g*. The connection between the walking beam and the packer G, makes it possible for the packer G to yield, should it encounter too great resistance in the packer box, and this ability to yield is limited only by the length of the eye-bars D^4, and the compressibility of the springs D^5. The packing plunger is driven by the ordinary driving mechanism for such pressing machines, which need not be particularly described.

By pivoting the link J to the packing plunger pitman instead of to the packing plunger itself, the oscillating motion of the pitman I is communicated through the link J to the walking beam, and the effect produced on the packer G is due not only to the reciprocating motion of the plunger and the consequent actuation of the link J, but also to the oscillating motion of the pitman.

What I claim is:—

1. In combination with a frame, a plunger adapted to be horizontally reciprocated therein, actuating means therefor whereby rotary motion is transformed into reciprocating motion, posts rising perpendicularly on each side of the frame, a journal rod extending therebetween, a hanger having in its body portion slots through which said rod passes, a walking beam supported thereby, a packer carried on one end of the walking beam, a link connecting the other end of the walking beam with said plunger-actuating means, bolt members attached to said journal rod and extending through the hanger, and compression springs engaging between the heads of the bolts and the upper surface of the hanger, adapted to yieldingly oppose the rise of the body of the hanger away from the journal rod, substantially as described.

2. The combination, with a plunger and a frame wherein the same reciprocates, of a pitman connection thereto, posts rising at each side of the frame, a journal rod extending from one to the other of said posts, a hanger whose body portion is slotted to permit limited relative motion thereof with respect to the rod and the posts, a walking beam carried by said hanger, one end of said beam being pivotally connected with said pitman connection, a packer depending from the other end of the walking beam, bolts pivotally secured to the journal rod and extending outwardly therefrom through the hanger, and springs engaging between the headed outer ends of said bolts and said hanger whereby the rise of the hanger and walking beam from its normal position with respect to the journal rod and supporting posts is yieldingly opposed, substantially as described.

3. In combination with a pair of posts, hanger members journaled therebetween, being slotted to permit limited relative movement with respect to the journal rod, a walking beam supported thereby, and means connected to said journal rod and engaging the hanger whereby its movement with respect thereto is yieldingly opposed, substantially as described.

4. In combination with a journal rod and supporting posts therefor, a hanger member through slotted portions of which said rod passes, a walking beam supported thereby, bolt members attached to said rod and passing through said hanger member, and compression springs engaging between the upper surface of the hanger and the heads of the bolts adapted to yieldingly oppose the movement of the body of the hanger away from the journal rod, substantially as described.

5. In combination with a frame and posts rising on each side thereof, a plunger adapted to reciprocate in the frame, a hanger having a slotted body portion through which a bearing rod extends journaled between said posts, a walking beam supported thereby, means engaging against the top of the hanger whereby its rise and that of the walking beam with respect to the journal rod is yieldingly opposed, a packer carried at one end of the walking beam, and interconnecting means between the other end of the walking beam from that carrying the packer whereby it and the plunger may be reciprocated contemporaneously, substantially as described.

6. The combination of a frame, a plunger adapted to reciprocate therein, posts rising one on each side of said frame, a hanger journaled therebetween, a journal rod passing through slotted portions thereof, a walking beam supported by said hanger, headed bolts connected to the journal rod and passing through the body portion of the hanger, springs engaging thereabout and between the heads of the bolts and the upper surface of the hanger, adapted to yieldingly oppose its rise and that of the walking beam with respect to the journal rod, a packer depending from one end of the walking beam, and a pitman connection between the other end of the walking beam and the plunger, substantially as described.

In testimony whereof, I, sign this specification in the presence of two witnesses.

WENDELL P. MOORE.

Witnesses:
MAY E. KOTT,
CHARLES F. BURTON.