June 3, 1930. J. H. MacLEAN ET AL 1,761,447

BALING PRESS

Filed April 27, 1925

Fig. 1

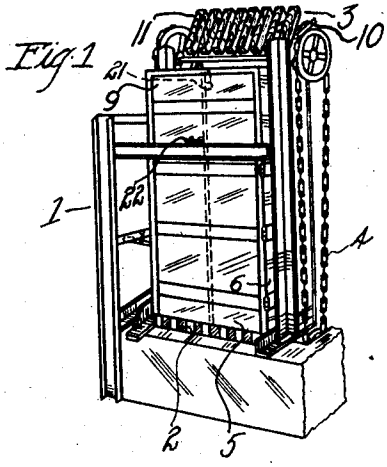


Fig. 2

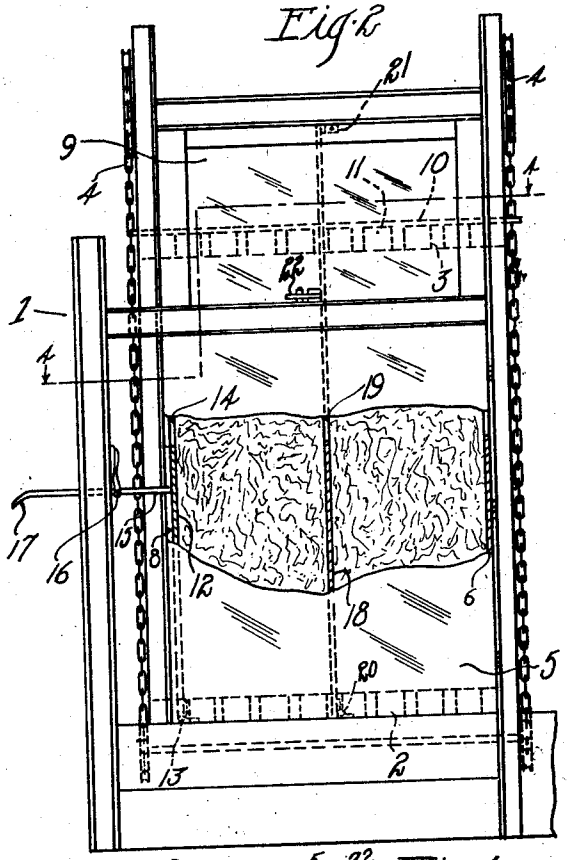


Fig. 3

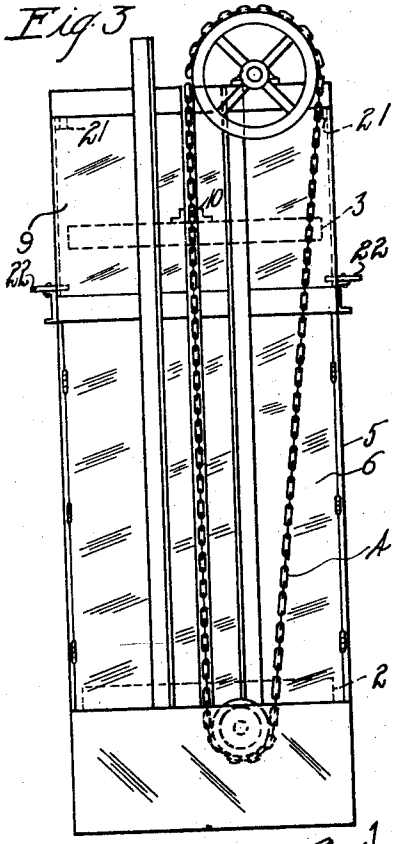


Fig. 4

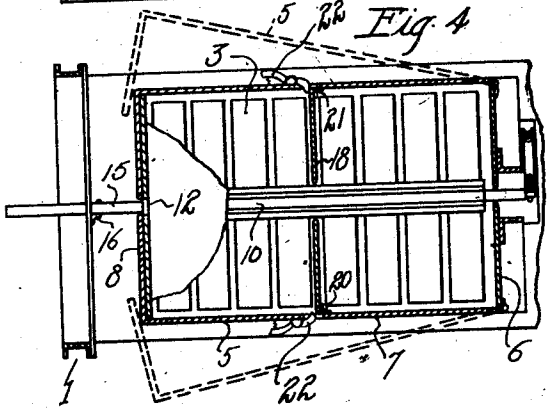
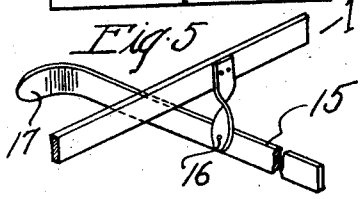


Fig. 5



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Patented June 3, 1930

1,761,447

UNITED STATES PATENT OFFICE

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BALING PRESS

Application filed April 27, 1925. Serial No. 26,190.

The invention relates to baling presses and has for one of its objects the provision of a baling press so constructed that the material may be baled and subsequently readily removed from the press. Another object is the provision of a baling press which is so constructed that the compressed material is readily accessible without breaking down its corners. With these as well as other objects in view the invention resides in the novel features of construction and combinations and arrangements of parts as more fully hereinafter set forth.

In the drawings:—

Figure 1 is a perspective view of a baling press embodying our invention;

Figure 2 is a front elevation thereof partly broken away;

Figure 3 is an end elevation thereof;

Figure 4 is a cross section on the line 4—4 of Figure 2;

Figure 5 is a detail.

1 is the frame of the baling press illustrated in the present instance and 2 and 3 are relatively movable lower and upper abutments carried upon the frame for compressing the material. The lower abutment is stationary and the upper abutment is movable toward and away from the lower abutment, it being carried upon the chain 4 at opposite ends of the frame. The baling chamber of the press is formed by the pivoted clam shell doors 5 and the stationary end wall 6, the doors each having a portion 7 forming a side wall of the chamber and a transverse portion 8 forming part of the end wall of the chamber. 9 is a chamber above the baling chamber and registering therewith for initially receiving the material to be baled, this material subsequently passing down into the baling chamber. The upper abutment 3 comprises the beam 10 and the abutment members 11. As a consequence the stationary end wall 6 has a central longitudinally extending slot and the transverse portions 8 of the doors 5 terminate a sufficient distance from each other to provide in effect a slot for receiving the beam 10 of the upper abutment when this abutment is moved downwardly toward the lower abutment to compress the material.

To avoid breaking the corners of the compressed material at the outer or free ends of the doors 5 when the latter are swung to their open positions there is the auxiliary wall 12 preferably in the form of a plate which is adapted to be located at the inner sides of the transverse portions 8 of the doors and to form an end wall for the baling chamber. The lower end of this auxiliary wall is preferably pivoted at 13 upon the press frame and its upper end preferably overlaps the lower end of the press chamber 9 so that its inner surface substantially registers with the inner surface of the corresponding portion of the chamber. The auxiliary wall also has the central longitudinally extending slot 14 for receiving the beam 10 of the upper abutment 3. Suitable means may be provided for retaining the upper end of the auxiliary wall in operative position during the compressing of the material and also during the swinging of the doors to open position. As shown this means comprises the lever 15 pivoted at 16 upon the frame 1 and having the handle portion 17, the end of the lever being adapted to engage the outer side of the wall. This lever is located at one side of the path of travel of the beam of the upper abutment so that it will not interfere with the movement of the latter.

In operation the auxiliary wall 12 is swung to operative position and secured there by means of the lever 15. The doors 5 are then swung to closed position and the material to be baled is inserted through the chamber 9 into the baling chamber and the upper abutment 3 is lowered to compress the material. The doors 5 are then swung to open position and the auxiliary wall is retained in operative position so that the corners of the compressed material will not be broken. After the compressed material has been baled the auxiliary wall can then be released by swinging the lever 15 about its pivot and the bale readily removed, since it is no longer frictionally held or gripped.

For the purpose of forming a plurality of bales at the same time by means of the same relatively movable abutments, there is provided the partition 18 within the baling cham-

ber and extending in the direction of relative movement of the abutments. The abutment members 11 of the upper abutment are spaced from each other to receive the partition 18 during the downward movement of the upper abutment. The partition 18 has a central longitudinally extending slot 19 for receiving the beam 10 of the upper abutment, this slot forming separated partition portions extending from the upper end of the partition downwardly at least as far as the beam 10 travels along the partition.

To facilitate the removal of the bale formed between the partition 18 and the stationary wall 6 of the baling chamber, the partition 18 is made moveable to release this bale. As specifically shown the lower end of this partition is pivoted at 20 to the press frame so that the partition may be swung away from the stationary end wall. The upper end of this partition is suitably detachably secured in operative position as by means of the stop 21 upon the frame and inside the chamber 9 and the latch 22 which is engageable with the opposite side of the partition. Duplicate stops and latches are preferably provided to engage the opposite edges of the partition.

After the bales have been formed and that bale between the movable auxiliary wall 12 and the partition 18 removed the latches 22 are disengaged from the partition 18 and the latter permitted to swing away from the stationary end wall 6 of the baling chamber, thereby releasing the bale located between the partition and stationary end wall and permitting the same to be readily removed.

What we claim as our invention is:

1. In a baling press, a plurality of walls defining a baling chamber, one of said walls being stationary, and an auxiliary wall opposite said stationary wall and movable after the bale has been formed to release the bale.

2. In a baling press, a frame, a plurality of walls supported by said frame and defining a baling chamber, one of said walls being stationary, an auxiliary wall opposite said stationary wall, a pivot upon said frame for one end of said auxiliary wall, and means upon said frame for retaining the other end of the auxiliary wall in operative position.

3. In a baling press, the combination with a frame of relatively movable abutments on said frame for compressing material, one of said abutments including a beam, a baling chamber supported by the said frame, the said baling chamber having a stationary wall, and a plurality of independently movable walls opposite said stationary wall, the said independently movable walls and the stationary wall being slotted to receive the said beam.

4. In a baling press, the combination with relatively movable abutments for compressing material; of a plurality of walls defining a baling chamber, one of said walls being stationary, and an auxiliary wall opposite said stationary wall and extending in the direction of relative movement of said abutments, said auxiliary wall being pivoted to swing away from said stationary wall after the bale has been formed to release the bale.

5. In a baling press, the combination of movable doors having portions adapted to form the opposite side walls and an end wall of a baling chamber, of a pivotally mounted auxiliary end wall for the chamber adapted to be positioned at the inner sides of said end wall forming portions of said doors and remain in operative position when said doors are moved to open position.

6. In a baling press, the combination with a stationary end wall and movable doors having portions adapted to form the opposite side walls and the other end wall of a baling chamber, of an auxiliary movable wall adapted to be positioned at the inner sides of said end wall forming portions of said doors, and means for retaining said auxiliary end wall in operative position when said doors are being moved to open position, said means being adapted to release said auxiliary end wall.

7. In a baling press, the combination with pivoted doors having portions adapted to form the opposite side walls and an end wall of a baling chamber, of a stationary end wall for the baling chamber, an auxiliary end wall for the baling chamber adapted to be positioned at the inner sides of said end wall forming portions of said doors, and a partition located between said stationary and auxiliary end walls, said partition and auxiliary end walls being pivotally mounted.

8. In a baling press, a baling chamber having a stationary end wall and a pair of pivoted doors having portions adapted to form the opposite side walls and the other end wall of the chamber, a partition pivotally mounted between the end walls of the chamber, said partition being adapted to be swung away from the said stationary end wall, and an auxiliary end wall adapted to be positioned at the inner sides of the end wall forming portions of the doors and pivotally mounted to swing away from the said stationary end wall.

9. In a baling press, the combination with a frame of a baling chamber, said chamber having a stationary end wall, movable side walls, a movable end wall opposite said stationary end wall and a pivoted auxiliary wall adjacent said movable end wall.

In testimony whereof we affix our signatures.

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