J. G. HAUGH.

BALING PRESS.

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1,142,704. Patented June 8, 1915.

Fig. 1.

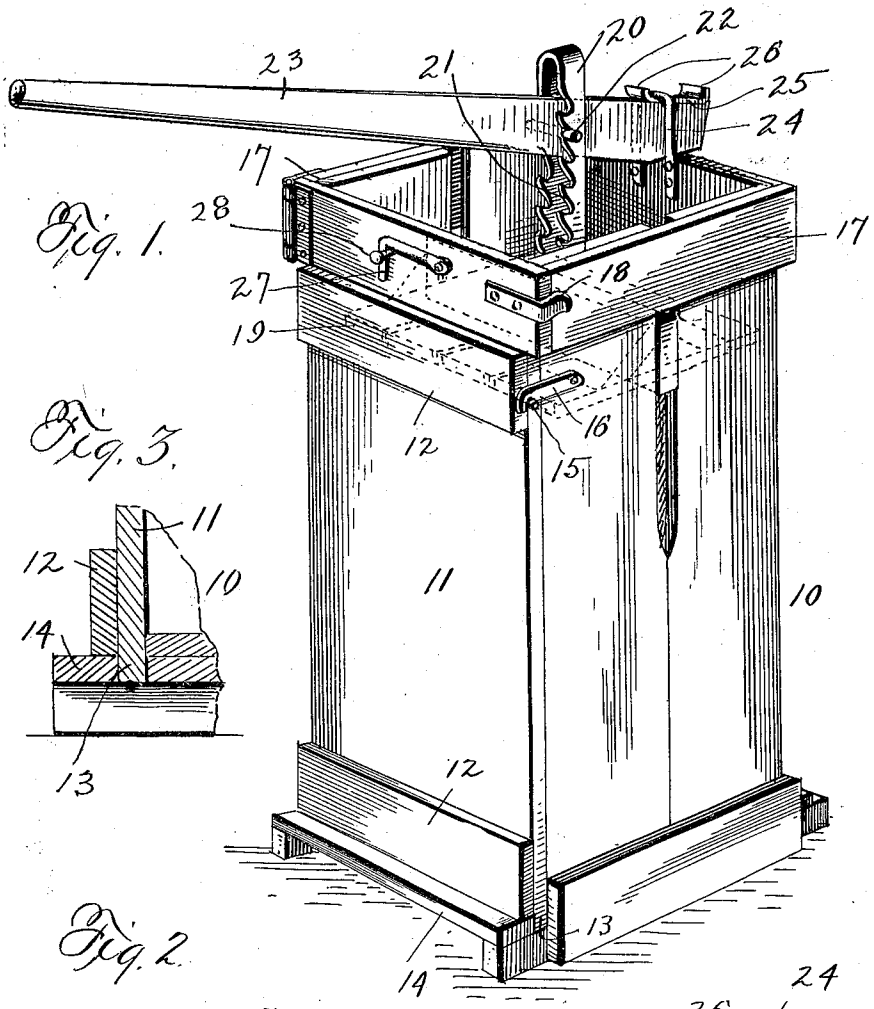
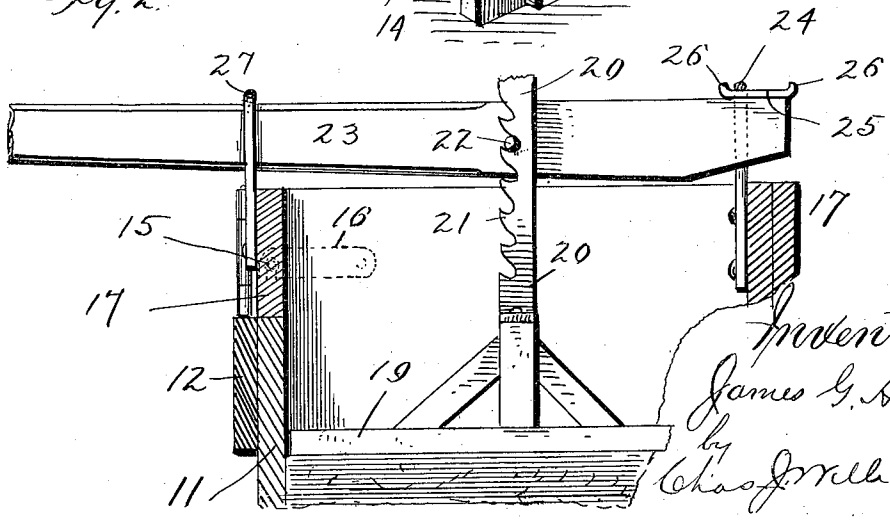


Fig. 3.

Fig. 2.



Inventor,
James G. Haugh
by
Chas. J. Williamson
atty.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JAMES G. HAUGH, OF BASCOM, OHIO.

BALING-PRESS.

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To all whom it may concern:

Be it known that I, JAMES G. HAUGH, a citizen of the United States, and resident of Bascom, in the county of Seneca, and in the State of Ohio, have invented a certain new and useful Improvement in Baling-Presses, and do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to baling presses, and more particularly to presses that are chiefly used for baling waste paper, and the object of my invention is to provide a press of such construction that its parts will be reduced to the minimum so that its cost of construction may be low and its operation easy and without liability to derangement, and which in all respects will be well suited to the particular use of baling paper, and to this end my invention consists in the press having the construction substantially as hereinafter specified and claimed.

In the accompanying drawings—Figure 1 is a perspective view of a paper baler embodying my invention; Fig. 2 a detail view in vertical section of the upper portion thereof; Fig. 3 a detail view in section showing the manner of securing the removable front at the bottom.

The baler shown in the drawings is of the type in which the paper to be baled is placed in the top of the baling chamber and the plunger is moved downward through the latter pressing the paper to the desired degree. The baling chamber, therefore, is in the form of an upright box 10, rectangular in cross section, inexpensively made of boards, and having a closed bottom and an open top and with one of the side walls, which for convenience shall be termed the front wall 11, removable. Said removable front wall is conveniently made of several simple straight boards with a horizontal cleat 12 at the top, and also one at the bottom. The cleat at the bottom has its lower edge a short distance above the bottom of the front wall so as to form a downwardly projecting flange, or ledge 13 adapted to be seated in a horizontal groove in the upper side of a forward projection 14 at the bottom of the press. The upper cleat has at each end a headed stud, or button 15 adapted to be engaged by a hook 16 pivoted to the box side. It will thus be seen by means of the lip and groove device at the bottom and the hooks at the top the removable front wall can be easily and expeditiously applied and removed and yet will be held firmly in position during a baling operation.

Around the open top of the baling chamber is a square frame 17 conveniently formed of boards that embrace the upper ends of the side walls of the box, but the bottom of which is flush, or substantially flush with the top of the removable front wall. Such frame thus stoutly holds the sides of the box together at their upper ends so that they are supported against the lateral pressure coming from the descent of the plunger in compacting, or pressing the paper into a bale. The front wall, or side of said frame is hinged at one end and at its opposite end is provided with a latch 18 that securely holds said hinged side wall in proper position while permitting its easy and ready release and opening. When the hinged front wall is released and thrown open the restraint which the frame imposes upon the side walls is relaxed and the latter may yield slightly outward, thus releasing the pressure of the compressed bale thereagainst and so facilitating the removal of the finished and bound bale from the press.

The plunger 19, as is usual, is of the slatted form so as to facilitate wiring the bale and secured to its upper side is a rack bar 20 in the form of a pair of parallel members (conveniently made from a metal strip bent into an inverted U-shape) on the edge of each of which members is a series of outwardly and upwardly projecting teeth 21 adapted to be engaged, one after another, by a tooth, or projection 22 in the form of a rod, or bolt attached to a hand lever 23 between its ends which is passed between the two members and is straddled thereby when in position for use. Attached to the rear side of the box 10 is a vertically extending loop 24 into which the working end of the lever is thrust, said lever having on its upper side a wear plate 25 of metal with its opposite ends turned up to form stop flanges 26 on either side of the horizontal member of the loop. It will be seen that the horizontal member of the loop forms a bearing, or fulcrum for the upper side of the lever when the handle end of the lever is pressed downward so that with the lever projections in engagement with the rack bar teeth, the latter together with the plunger will be forced downward compressing the material within the box. It will be seen that by a succession of vertical vibrations

of the lever shifting it from engagement with one set of teeth to another the plunger will be moved downward by a step by step motion. When the bale is compressed to the desired extent and in order to keep it in its compressed state until it has been wired, the simple device shown in the drawings consisting of a hook 27 pivoted to the front wall of the frame 17 may be swung over the top of the lever when in its depressed position and thereby lock it in position. When said hook is not being so used it is swung down to the horizontal position shown in Fig. 1, where it engages a stop 28 on the front wall of the frame.

To place the press in condition to receive paper, it is necessary merely to slip the operating lever out of its bearing loop and either separately, or together therewith lift the plunger out of the box whereupon the paper can be easily and conveniently placed in the baling chamber and in as easy and convenient manner the plunger and lever again placed in proper operative position.

Having thus described my invention what I claim is—

1. A baling press comprising a box forming the baling chamber having a removable side wall, said wall at one end having a lip that enters a groove in the box bottom having devices detachably connecting it with the box, a frame surrounding the upper end of the box and having an openable front side, a plunger, and means for moving the plunger toward the box bottom.

2. A baling press comprising a box forming the baling chamber having a removable side wall, said wall at one end having a lip that enters a groove in the box bottom having devices detachably connecting it with the box, a frame surrounding the upper end of the box and having an openable front side, a plunger, and an operating lever for the plunger engaging a loop secured to the back wall of said frame.

3. A baling press comprising a box forming the baling chamber having a removable side wall, said wall at one end having a lip that enters a groove in the box bottom having devices detachably connecting it with the box, a frame surrounding the upper end of the box and having an openable front side, a plunger, an operating lever for the plunger engaging a loop secured to a part of the press stationary relative to the lever, and a lever latch mounted on the front wall of said frame adapted to engage the lever and hold it in a depressed position.

4. A baling press comprising a rectangular box forming the baling chamber, the front wall of said box being removable, a rectangular frame around the open top of said box, a loop secured to a part of the press stationary relative to the lever, a plunger having a vertically extending rack bar composed of two parallel members, and a lever for coöperating with said rack bar passing between said members and engaging said loop.

5. A baling press comprising a rectangular box forming the baling chamber, the front wall of said box being removable, a rectangular frame around the open top of said box, a loop secured to a part of the press stationary relative to the lever, a plunger having a vertically extending rack bar composed of two parallel members, a lever for coöperating with said rack bar passing between said members and engaging said loop, said lever having a loop-engaging wear plate with stop lips on opposite sides of the latter, and a lever latch pivoted to the opposite side of said frame.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of two subscribing witnesses.

JAMES G. HAUGH.

Witnesses:
NORMAN W. PETERS,
WILLIAM H. HOPPLE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."