

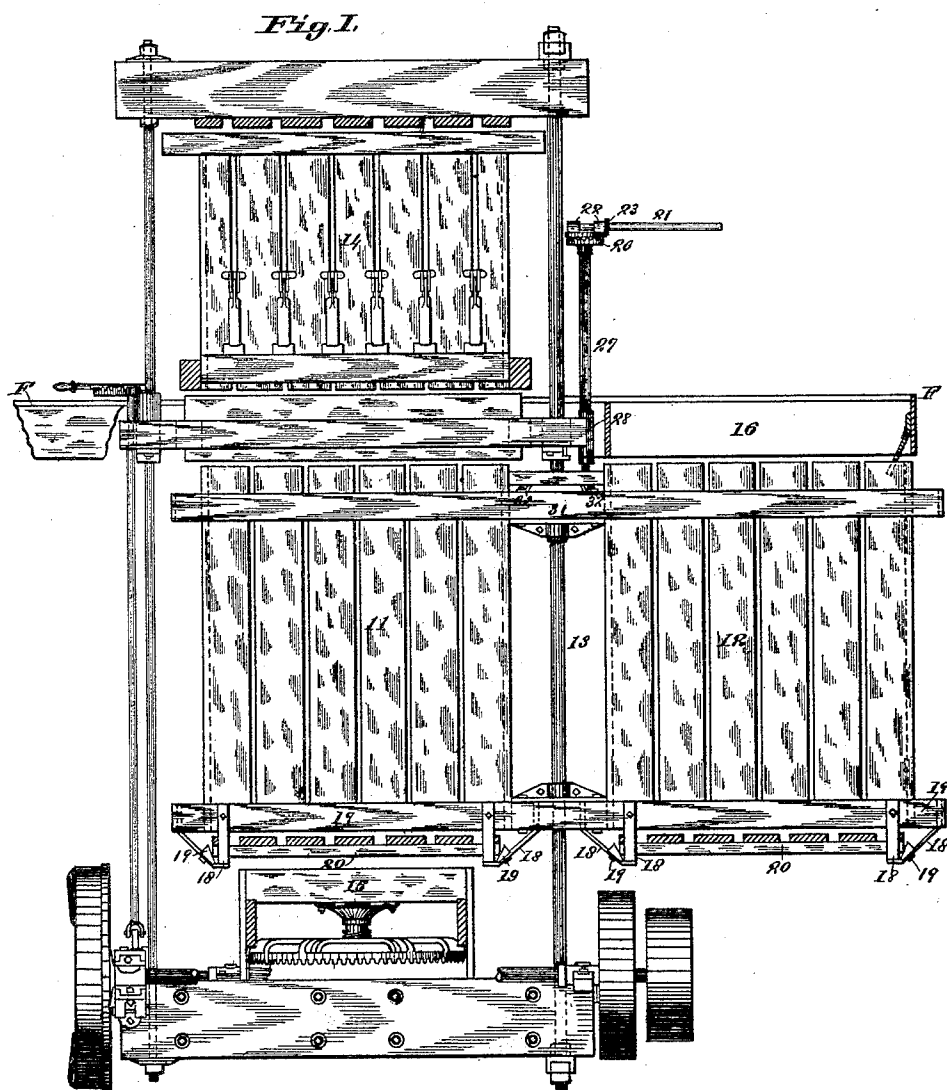
(No Model.)

3 Sheets—Sheet 1.

W. S. REEDER.
BALING PRESS.

No. 462,930.

Patented Nov. 10, 1891.



WITNESSES
Charles Rickles,
W. S. Reeder.

INVENTOR
W. S. Reeder,
BY *Fowler & Fowler*
ATTORNEYS.

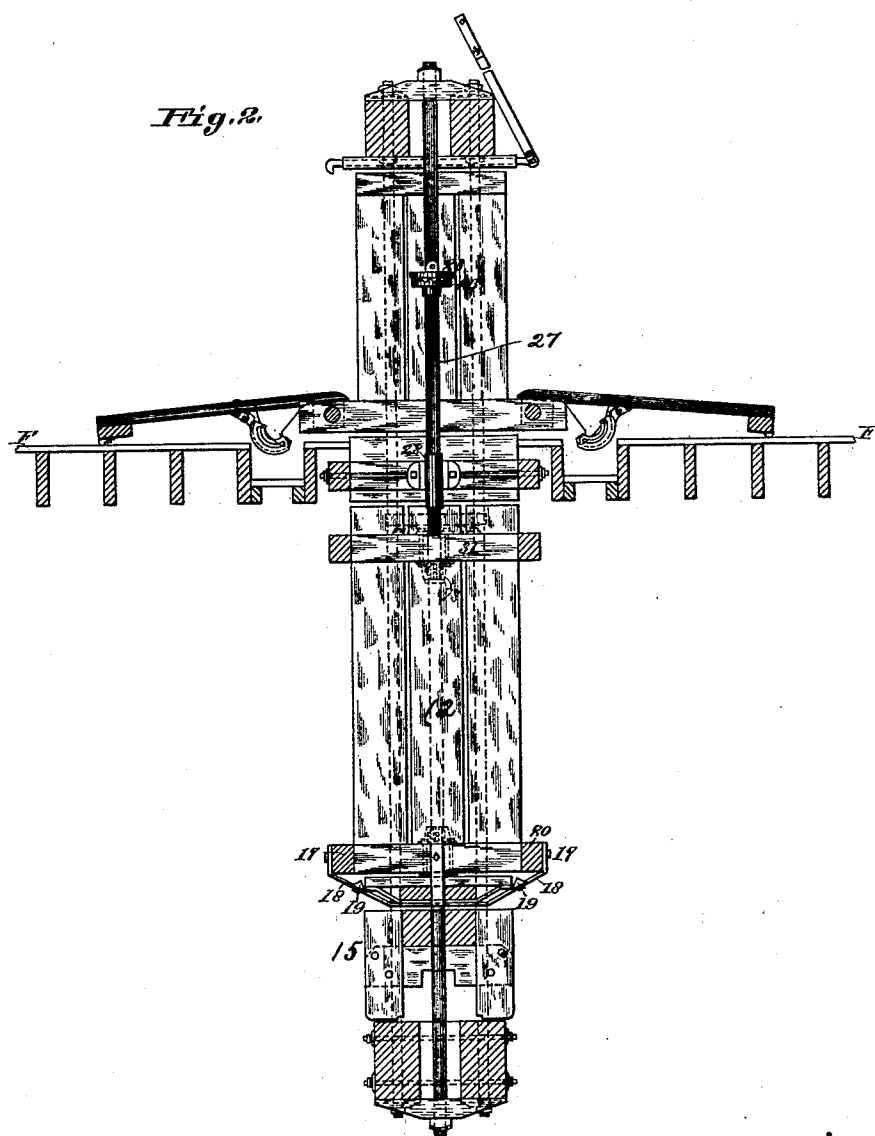
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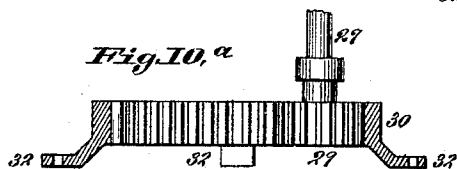
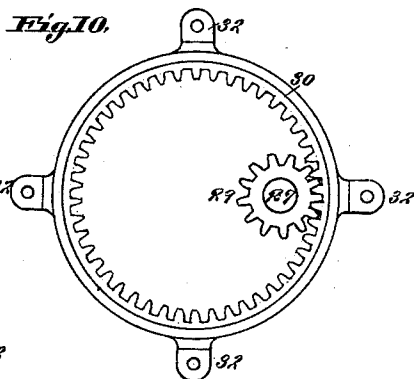
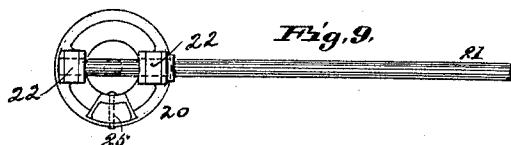
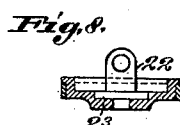
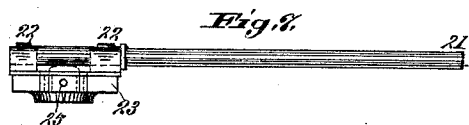
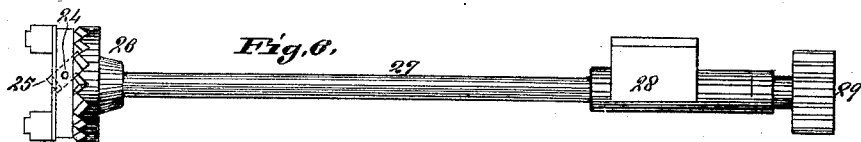
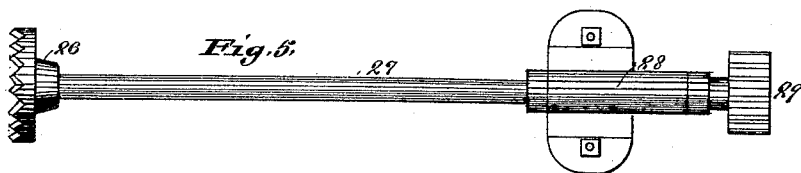
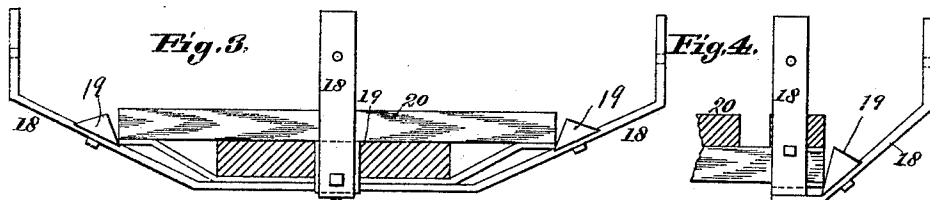
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3 Sheets—Sheet 3.

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WITNESSES
Charles Pickles,
W. S. Reeder.

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UNITED STATES PATENT OFFICE.

WILLIAM S. REEDER, OF ST. LOUIS, MISSOURI, ASSIGNOR TO THE KINGSLAND
& DOUGLAS MANUFACTURING COMPANY, OF SAME PLACE.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 462,930, dated November 10, 1891.

Application filed January 9, 1891. Serial No. 377,285. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. REEDER, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Baling-Presses, of which the following is such a full, clear, and exact description as will enable any one skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

My invention relates more particularly to baling-presses in which a multiple or plurality of charging-boxes is used, and has more especial reference to a press having revolving charging-boxes, and in which a bale is made up of several successive charges.

The present invention is more especially designed as an improvement on baling-presses patented to me by United States Letters Patent No. 379,414, of March 13, 1888, and United States Letters Patent No. 437,242, patented to me on September 30, 1890.

In a double or multiple charging-box baling-press, particularly of the revolving type of press, it is essential that each charging-box be provided with a loose follower or bottom, for the reason that before receiving the last charge it is necessary that the bagging which is intended to cover the bottom of the bale should be placed on the top of this loose follower or bottom, in order that when the bale is finished the bottom thereof will be covered with bagging. It is also desirable that this loose follower or bottom should be somewhat smaller in area than the cross-section of the charging-boxes, in order that the bagging may be more readily carried by the follower, and also to prevent the loose bottom, when carrying the bagging, from binding in the charging-boxes. It is also essential that the loose bottom or follower should be suspended below the bottom of the charging-boxes for the purpose of more readily placing the bagging on the top of said follower. It is also desirable, when this follower recedes and assumes its normal position below the charging-box after a charge has been pressed into the finishing-box, that

it should seat itself centrally—that is, the axle of the charging-box should be coincident with the center of said follower.

To carry out these objects I provide my baling-press with a loose follower or bottom, which normally is beneath the charging-box and leaves a space between the bottom of the charging-box and the top of the follower and I also provide centering-blocks whereby the said loose follower will be maintained in correct alignment with the charging-box and an equal margin be left between the perimeter of the loose follower and the inside perimeter of the charging-box. The centering-blocks are preferably carried by supporting-irons hung from the bottom of the charging-boxes, which irons also sustain the ends of the bagging and prevent the edges thereof from hanging over and coming in the way of the traverser or plunger when the charging-box is moved in position for pressing. Should a provision of this kind be made there would be danger of the bagging being caught between the traverser and the loose bottom and that portion of the bagging would necessarily be lost, as it would have to be cut off before the bale could be removed.

It is also desirable in revolving charging-box baling-presses to have some mechanism whereby the boxes may be revolved conveniently from the second floor, and for this latter purpose I provide my baling-press with suitable gearing for readily and easily positioning and manipulating the revolving charging-boxes.

The invention will best be understood by referring to the accompanying drawings, in which—

Figure 1 is a front elevation of the baling-press provided with my improvements. Fig. 2 is an end elevation thereof. Figs. 3 and 4 are side and end elevations showing the loose bottom or follower and the centering-blocks. Figs. 5, 6, 7, 8, 9, 10, and 10^a are views of details.

The same figures of reference indicate the same parts throughout the several views.

11 and 12 are two revolving charging-boxes swung about a central vertical rod 13, sub-

stantially the same as in my patent, No. 437,242, of September 30, 1890, referred to above.

14 is the finishing or baling chamber, and is maintained stationary in the usual way. The boxes 11 and 12 are adapted to be brought successively in alignment with the baling or finishing chamber 14 and a traverser or plunger 15, and also with an opening 16, through which material may be thrown into one of the boxes at the time the charge of the other box is being compressed. The plunger or traverser 15 may be controlled by any suitable mechanism, which makes no part of this invention, but is here shown as operated by mechanism, as in my last-mentioned patent.

Carried by the lower cross-timbers 17 at the bottom of the charging-boxes are supporting-irons 18, which carry inclined centering-blocks 19, upon which normally rests a loose bottom or follower 20. The supporting-irons 18 and centering-blocks are so arranged that when the loose bottom is in its normal position a space will be left between the bottom of the charging-boxes and said loose bottom, whereby the bagging for the last charge may be placed on the top of the said loose follower. The supporting-irons 18 hold up the edges of the bagging, which is larger in extent than the area of the charging-boxes, and prevent the bagging from hanging down and being caught between the traverser or plunger 15 and the loose bottom. The inclined blocks 19 center the loose follower when it returns to its normal position and maintain the perimeter of the loose bottom at an equal distance all around its edges from the inside perimeter of the charging-boxes.

To readily move and revolve the boxes in position from the second floor F of the press, I provide a handle 21, which is fastened in lugs 22, extending from a circular piece 23, that is provided with a locking-tooth or pawl 24, held in place by a pin or bolt 25, carried by said circular piece. This circular piece 23 is adapted to rest upon a crown-wheel or ratchet 26, and the locking-tooth 24 of said circular piece is adapted to take into the teeth of said crown-wheel and lock the circular piece 23 to the same against rotation in one direction, but allows the circular piece to be moved in the other direction without turning the ratchet-wheel 26. By raising the circular piece 23, carrying the pin 25, that supports the pawl 24, the said pawl may be reversed—that is, swung in the opposite direction, so as to move the ratchet when pushed in the opposite direction, but allow said ratchet to stand still when the handle is returned to its first position. The crown-wheel 26 is carried by a vertical rod 27, extending below the second floor F to the revolving boxes, and is journaled by bearing 28, secured to some convenient part of the press. At the lower end of said vertical rod 27 is a spur-wheel 29, which meshes with a gear-wheel 30, having teeth cut upon the inside thereof. This gear-

wheel 30 is secured to timbers 31 of the revolving boxes by ears 32.

It will be evident from the construction explained that the handle 21 may be moved through any part of the arc of a circle and returned to its first position, and yet drive the revolving boxes continuously in the same direction. This mechanism allows the boxes to be rotated by short strokes of the handle instead of the handle being turned through the same arc of a circle that the boxes move through. By reversing the locking tooth or pawl in the manner described the reverse movement of the handle will rotate the boxes in the opposite direction in a similar manner.

By throwing the handle 21 in one or the other direction the boxes, through the instrumentality of the gearing described, may be moved by a person on the second floor F of the press into alignment with the follower and baling-chamber and with the opening 16. The revolution of the spur-wheel 29 rotates the wheel 30, and thereby revolves the charging-boxes in a manner evident from the foregoing.

I am aware that it is not new to provide a baling-press having a multiplicity of combined charging and baling boxes with automatic mechanism by which the said combined charging and baling boxes may be revolved automatically in one direction by the return movement of the pressing mechanism.

Having fully set forth my improvements, what I desire to claim and secure by Letters Patent of the United States as my invention is—

1. A baling-press having a loose bottom or follower and inclined blocks 19 for centering said follower, and means for supporting said inclined blocks, substantially as described.

2. A baling-press having a finishing or baling chamber and a charging-box with a loose follower or bottom beneath said charging-box, and means for supporting the loose follower so as to leave a space between the said loose follower and the charging-box, whereby the bagging for the last charge of the bale may be inserted between the loose follower and the charging-box, substantially as described.

3. A baling-press having a loose follower or bottom beneath the charging-box, with a space between said loose follower and the charging-box, whereby the bagging for the bale may be inserted between the said loose follower and the charging-box, and supporting-irons 18 for sustaining said bottom and supporting the edges of the bagging, substantially as and for the purpose described.

4. A baling-press having a multiple of revolving charging-boxes, gearing for revolving said boxes in position, a handle controlling said gearing, and a reversible pawl-and-ratchet mechanism between said handle and gearing whereby the boxes may be rotated continuously in one or the other direction by successive short strokes of the handle.

5. The combination, in a baling-press, of a plurality of revolving charging-boxes, a gear-

wheel 30, secured thereto, a second gear-wheel
29, intermeshing with the first-mentioned
gear-wheel, a vertical rod 27, carrying the lat-
ter, extending above the second floor of the
5 press, a handle 21, controlling said rod, and a
reversible pawl 24 and a ratchet 26 between
said handle and vertical rod, substantially as
described.

In testimony whereof I have hereunto set
my hand and affixed my seal this 24th day of 10
December, 1890, in the presence of the two
subscribing witnesses.

WILLIAM S. REEDER. [L. S.]

Witnesses:

J. F. WESTON,

A. C. FOWLER.