J. BARENS.

BALING PRESS.

APPLICATION FILED MAR. 5, 1910.

979,055. Patented Dec. 20, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

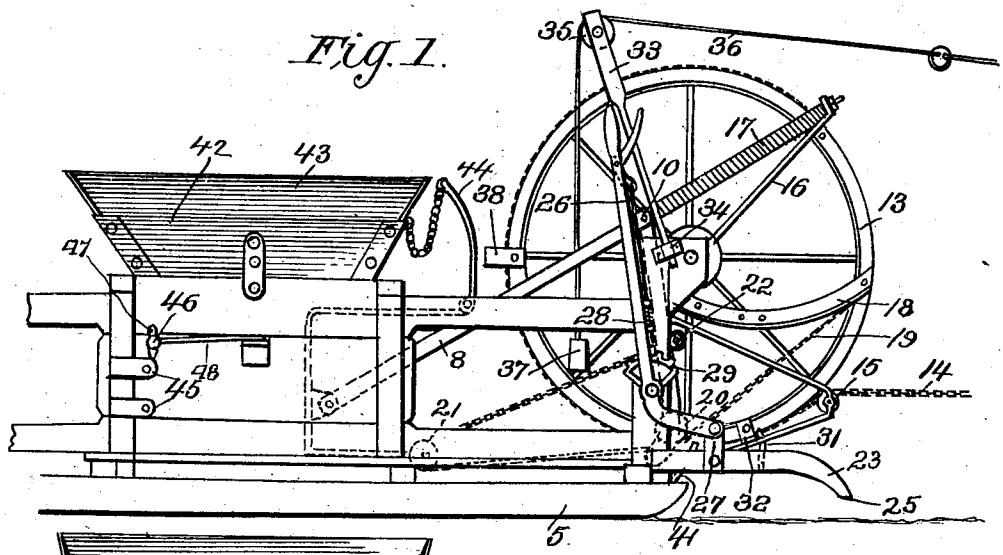


Fig. 2.

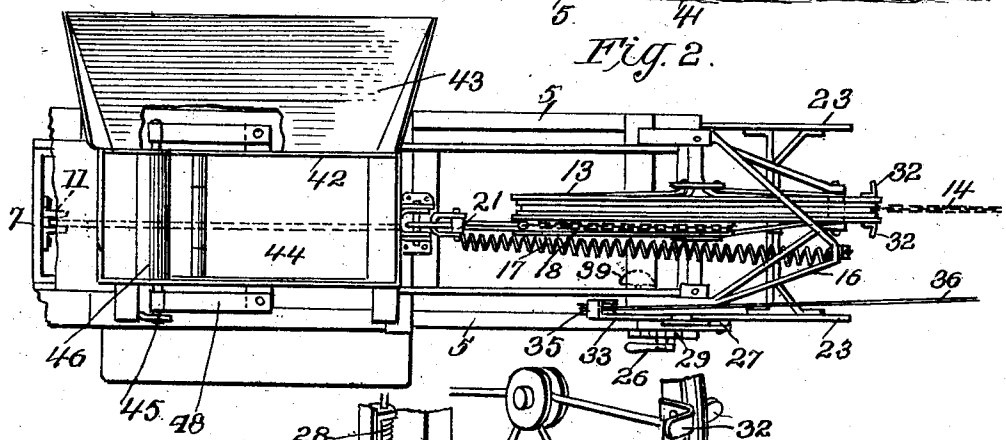
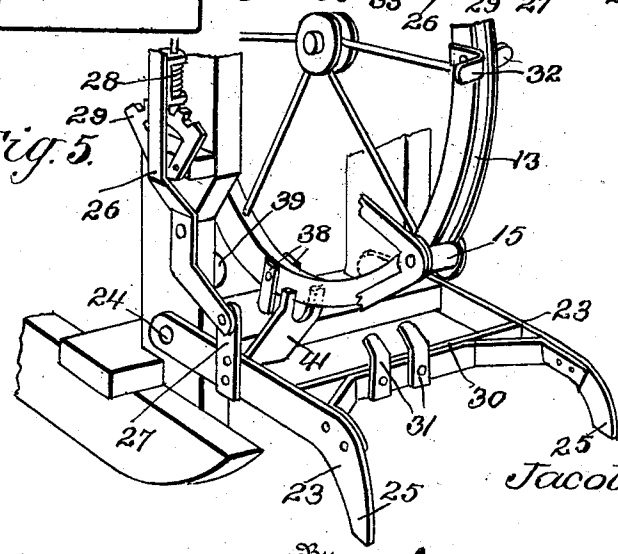


Fig. 5.



Witnesses

W. A. Hodson

Juana M. Fallin

Inventor

Jacob Barens

By Howard Lacey Attorneys.

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2 SHEETS—SHEET 2.

Fig. 3.

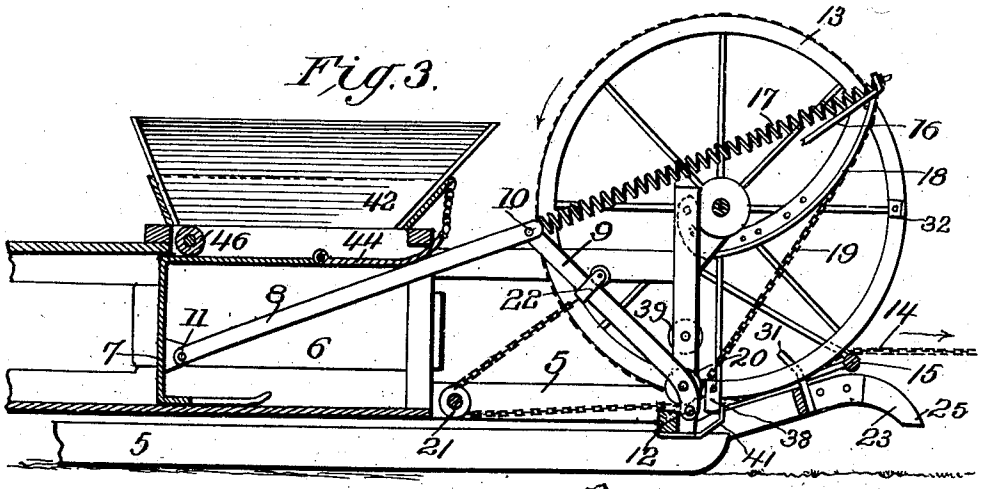


Fig. 4

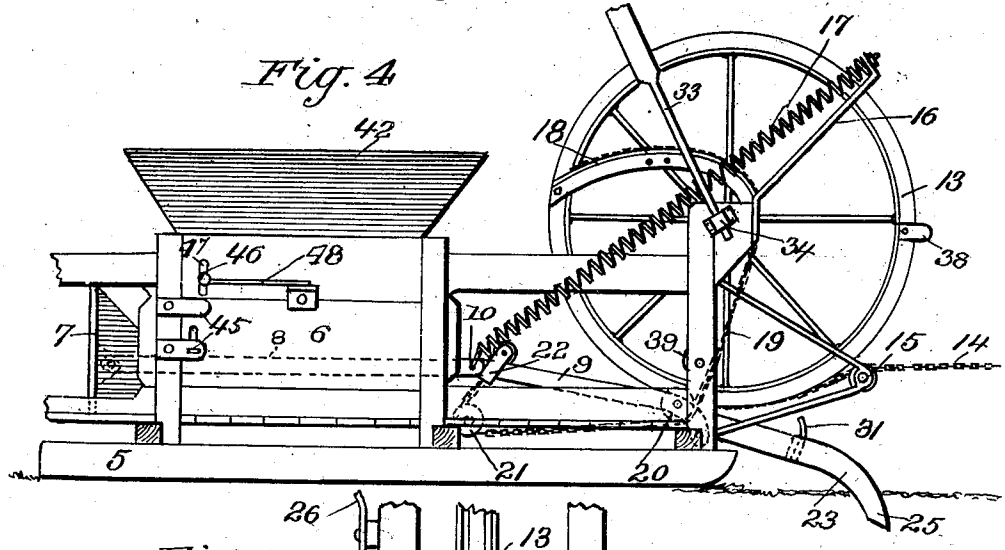
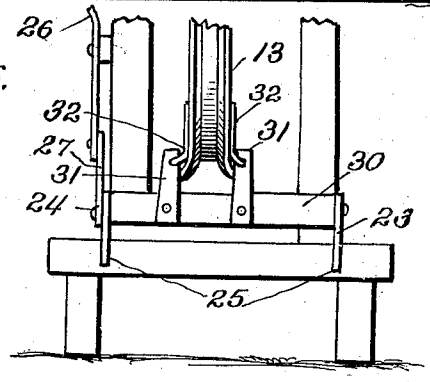


Fig. 6.



Witnesses

W. T. Woodson

Juana M. Fallin,

Inventor

Jacob Barens

By Stacy & Stacy, Attorneys

UNITED STATES PATENT OFFICE.

JACOB BARENS, OF ALTUS, ARKANSAS.

BALING-PRESS.

979,055. Specification of Letters Patent. **Patented Dec. 20, 1910.**

Application filed March 5, 1910. Serial No. 547,581.

To all whom it may concern:

Be it known that I, JACOB BARENS, a citizen of the United States, residing at Altus, in the county of Franklin and State of Arkansas, have invented certain new and useful Improvements in Baling-Presses, of which the following is a specification.

This invention relates to baling presses of that general class shown and described in my prior United States patent issued on the 3rd day of May, 1910, under No. 957,026.

The object of the invention is generally to improve the construction of the press and to provide means for anchoring the supporting frame thereof during the baling operation.

A further object is to provide the bull wheel with laterally extending lugs adapted to engage the anchoring member when the latter is elevated, thus to prevent rotary movement of the wheel and permit the draft animal to move the press from one place to another without injury to the plunger and retracting spring.

A further object is to provide a signal for indicating when the plunger has reached the end of its compression stroke, and means for preventing further rotary movement of said bull wheel in case the draft animal fails to respond to said signal.

A still further object of the invention is generally to improve this class of devices so as to increase their utility, durability and efficiency.

Further objects and advantages will appear in the following description, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a side elevation of a baling press constructed in accordance with my invention; Fig. 2 is a top plan view of the same; Fig. 3 is a longitudinal sectional view showing the plunger near the end of its compression stroke; Fig. 4 is a side elevation showing the position of the parts when the plunger is at the end of its compression stroke; Fig. 5 is a detail perspective view of the forward portion of the supporting frame showing the construction of the anchoring member; Fig. 6 is a front elevation of Fig. 3.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The press comprises a supporting frame 5 having a baling chamber 6 in which is mounted for reciprocation a plunger 7. Toggle links 8 and 9 are pivotally connected to each other at 10 and to the plunger and framework at 11 and 12. A bull wheel 13 is mounted for rotation in a suitable bearing on the front of the supporting frame and is provided with a draft cable 14 which extends over a guide roller or pulley 15 disposed beneath the bull wheel, as shown. A bowed standard 16 extends over the periphery of the bull wheel and serves as a support for one end of a coil spring 17, the opposite end of said coil spring being fastened to the toggle links 8 and 9 at their pivotal juncture. A cam 18 is secured to one side of the bull wheel 13 and one end of a cable 19 is secured to said cam with its opposite end passing over pulleys 20 and 21 for attachment to a runner 22 slidably mounted on the toggle link 9.

The above enumerated parts are shown and described in my prior application for patent, before referred to, and form no part of the present invention, the novelty of which resides in the anchoring member and the lugs on the bull wheel which co-act with the anchoring member to prevent rotary movement of the bull wheel when transferring the baling press from one place to another, and in the signal, stop mechanism and guide rope attachment for the draft animal.

The anchoring member comprises spaced bars 23 pivotally mounted at 24 on the forward end of the supporting frame and having their free ends bent downwardly to form depending hooks 25 adapted to be embedded in the ground, thus to prevent longitudinal movement of the supporting frame during the baling operation. The anchoring member is raised and lowered by means of a lever 26 pivotally connected through the medium of a link 27 with one of the bars 23, said lever being provided with a spring catch 28 which engages a suitable rack 29 for the purpose of holding the anchoring

member in raised or lowered position. The side bars 23 are connected by a transverse bar 30 having spaced upstanding hooks 31 secured thereto and adapted to engage suitable lugs 32 on the bull wheel 13 when the anchoring member is elevated, thus to hold the bull wheel against rotation and permit the draft animal to move or drag the machine from one portion of a field to another by means of the draft cable 14.

A standard 33 fits within a socket 34 on the framework and is provided with a pulley 35 over which passes a cord or cable 36. One end of the cord or cable 36 is attached to the bridle of the draft animal, while the other end thereof is extended within convenient reach of the operator and is provided with a weight 37 so that the operator may give the cord or cable 36 a light pull if necessary to control the draft animal.

Radiating arms 38 are secured to the periphery of the bull wheel 13 and adapted to strike a bell or other suitable alarm 39 fastened on the supporting frame beneath the bull wheel and which acts as a signal and serves to stop the draft animal when the plunger approaches the end of its working stroke. In case the draft animal does not stop when the bell 39 rings, the arms 38 will contact with suitable stop fingers 41 on the supporting frame and thus prevent further rotation of the bull wheel.

Secured to the supporting frame at the baling chamber 6, is a hopper 42 having a table 43 fastened thereto for feeding the material to said chamber, the plunger 7 being provided with a hinged shutter 44 for checking the advance of material to the baling chamber on the rearward stroke of the plunger. Suitable spring catches 45 are also preferably disposed on opposite sides of the baling chamber and a tucking roller 46 is arranged below the hopper with its opposite ends extending through slots 47 for engagement with flat springs 48, secured in any suitable manner to the exterior walls of the baling chamber, as shown.

In operation, the lever 26 is actuated to lower the anchoring member and force the pointed terminals 25 thereof into the ground. The horse is alternately driven forward and then backed, the force being applied by a direct pull and the power augmented by the combined action of the cam 18, the toggle links and the movement of the cable upon the toggle link 9. As the plunger approaches the end of its working stroke, the arms 38 on the bull wheel engage the bell 39, and if the draft animal fails to stop when the bell is sounded, a further rotary movement of the bull wheel 13 will cause the arms 38 to engage the stop fingers 41 and arrest the forward movement of said draft animal.

When the press is not in use, the lever 26 is operated to elevate the anchoring member which causes the hooks 31 to engage the lugs 32 so as to hold the bull wheel against rotation and permit the draft animal to move the machine from one portion of a field to another by means of the cable 14 without injury to the spring 17.

Having thus described the invention, what is claimed as new is:

1. In a baling press, a supporting frame, a bull wheel, a draft device secured to said bull wheel, a plunger operatively connected with the bull wheel, an anchoring member mounted on the supporting frame, and means independent of the draft device for raising and lowering the anchoring member.

2. In a baling press, a supporting frame, a bull wheel, a plunger operatively connected with the bull wheel, and an anchoring member pivotally mounted on the supporting frame and movable to lowered position in engagement with the ground and to elevated position in engagement with said bull wheel.

3. In a baling press, a supporting frame, a bull wheel, a plunger operatively connected with the bull wheel, an anchoring member pivotally mounted on the supporting frame, means for raising and lowering the anchoring member, and means carried by the anchoring member and adapted to engage the bull wheel for preventing rotary movement thereof.

4. In a baling press, a supporting frame, a bull wheel, a plunger operatively connected with the bull wheel, an anchoring member pivotally mounted on the supporting frame and provided with means for limiting the rotary movement of said bull wheel, an alarm, and means carried by the bull wheel and adapted to engage the alarm as the plunger approaches the end of its working stroke.

5. In a baling press, a supporting frame, a bull wheel, a plunger operatively connected with the bull wheel, stop fingers carried by the supporting frame, a signal, and means secured to the periphery of the bull wheel and adapted to successively engage the signal and stop fingers as the plunger approaches the end of its working stroke.

6. In a baling press, a supporting frame, a bull wheel, a plunger operatively connected with the bull wheel, an anchoring member pivotally mounted on the supporting frame and including spaced bars having pointed terminals adapted to be embedded in the ground, a transverse bar connecting the spaced bars of the anchoring member and provided with upstanding hooks, lugs extending laterally from the bull wheel and adapted to bear against the hooks for limiting the rotary movement of the bull wheel when the anchoring member is in elevated position, and means for raising and lowering the anchoring member.

7. In a baling press, a supporting frame, a bull wheel, a plunger operatively connected with the bull wheel, an anchoring member mounted on the supporting frame beneath the bull wheel and provided with upstanding hooks adapted to engage the bull wheel for limiting the rotary movement thereof, and a lever pivotally mounted on the supporting frame and operatively connected with the anchoring member for raising and lowering the latter.

In testimony whereof I affix my signature in presence of two witnesses.

JACOB BARENS. [L. S.]

Witnesses:
W. H. GRAY,
G. W. BAKER.