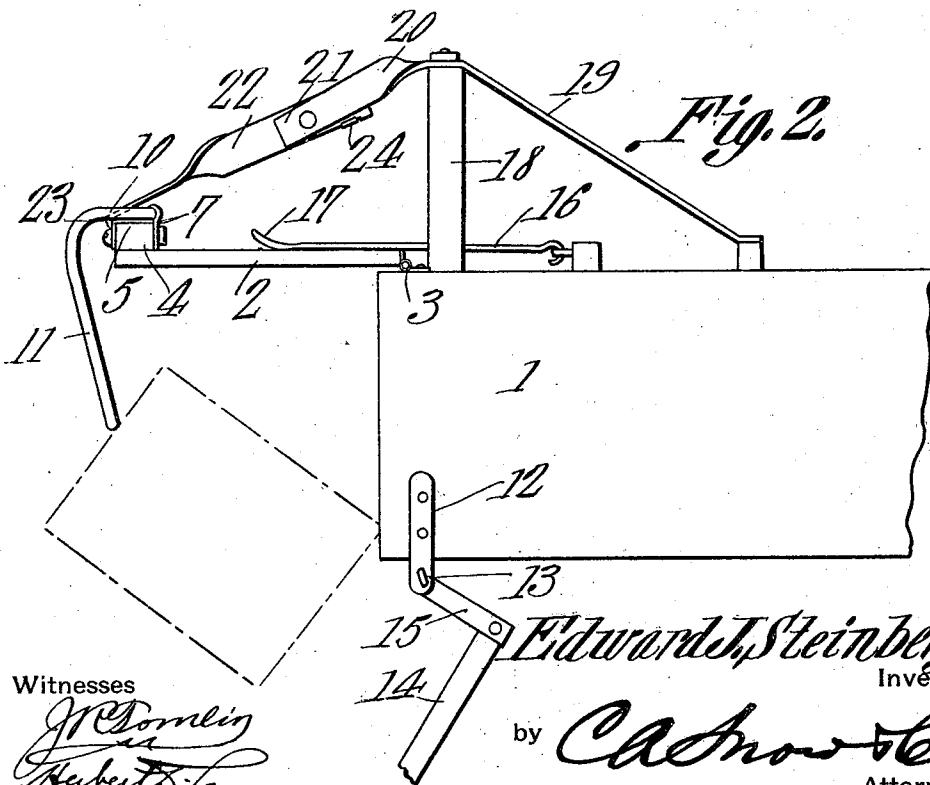
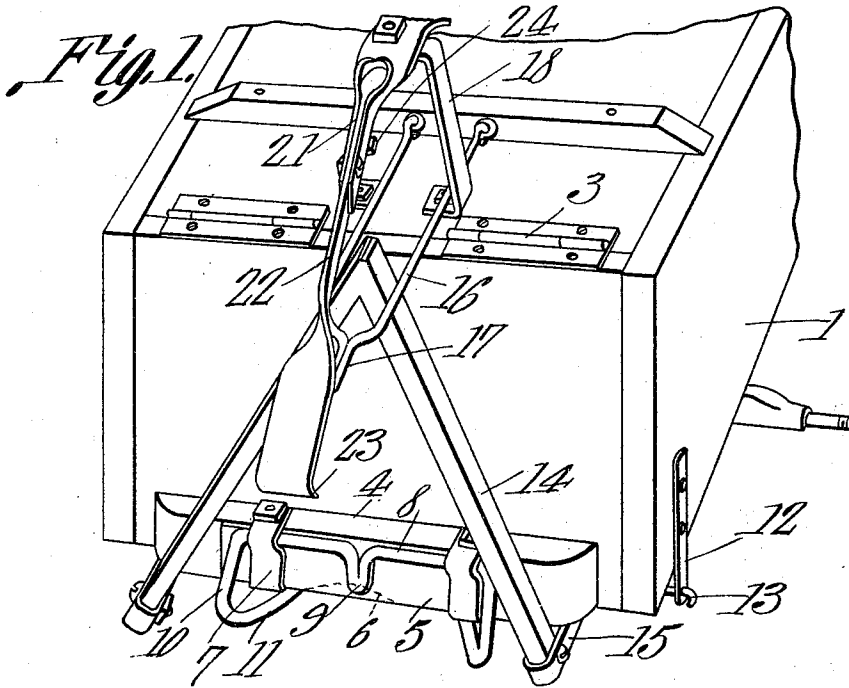


E. J. STEINBERGER.
BALING PRESS.
APPLICATION FILED MAY 10, 1910.

966,614.

Patented Aug. 9, 1910.



Witnesses

W. D. Dornier
Robert D. Lawson

by

Edward J. Steinberger,
Inventor
C. A. Snow & Co.
Attorneys

UNITED STATES PATENT OFFICE.

EDWARD J. STEINBERGER, OF DEFIANCE, OHIO, ASSIGNOR OF ONE-THIRD TO ANTHONY KERN AND ONE-THIRD TO HENRY B. HARRIS, OF DEFIANCE, OHIO.

BALING-PRESS.

966,614.

Specification of Letters Patent.

Patented Aug. 9, 1910.

Application filed May 10, 1910. Serial No. 560,494.

To all whom it may concern:

Be it known that I, EDWARD J. STEINBERGER, a citizen of the United States, residing at Defiance, in the county of Defiance and State of Ohio, have invented a new and useful Baling-Press, of which the following is a specification.

This invention relates to baling presses and more particularly to means for controlling the end door of the press. In some forms of devices of this character an end door is employed and a plunger is utilized for compressing hay or the like against the door to form a bale. The bale is then tied. Another quantity of hay or the like is then supplied to the machine in the path of the plunger and it has been necessary to unlock the door and raise it so that when this additional amount is compressed, the completed bale will be forced out of the press. In order that the door may be held open until the completed bale has been discharged, it has heretofore been customary to hold the door in its elevated position by means of a stick which is struck by the expelled bale and knocked from under the door, thus permitting the door to swing to its closed position after which it can be locked. This arrangement has been found objectionable because it has required the attendance of at least two persons for the purpose of raising the door and holding it while the prop is being placed under it. Moreover the prop is often knocked a considerable distance away from the press and considerable time is lost while one of the attendants is recovering it.

One of the objects of the present invention is to provide an end door or gate for a press which can be handled by one person, the said door being provided with a novel form of lock which can be readily released and means employed whereby the door when thrown open, will be automatically engaged and held and subsequently released by the bale discharged from the press.

With these and other objects in view the invention consists of certain novel details of construction and combinations of parts

hereinafter more fully described and pointed out in the claims.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a perspective view of the discharge end of a baling press having the present improvements applied thereto. Fig. 2 is a side elevation of the parts shown in Fig. 1 the door being shown supported in its elevated position and the bale being shown, by dotted lines, moving against the releasing member.

Referring to the figures by characters of reference, 1 designates the discharge end portion of a baling press, and an end door 2 is hingedly connected to the top thereof as shown at 3, this door being adapted to fit between the side walls of the press when closed and being provided along its lower free edge with a reinforcing cleat 4 on which is arranged a base plate 5. The cleat 4 is cut away or recessed under the lower or outer edge portion of the face plate 5 and adjacent the center thereof, as indicated at 6 for the purpose hereinafter set forth. Cross strips 7 are secured to the cleat 4 and extend across the face plate 5, these cross strips constituting means for securing a tripping member to the cleat. Said tripping member consists of an intermediate rod 8 having a central tongue 9 extending at right angles therefrom and side arms 10 which extend across the cleats 4 and merge into a substantially V-shaped hanger 11. This hanger extends at right angles or substantially at right angles to the arms 10.

Hangers 12 are secured to the sides of the press 1 and are connected by a cross rod 13 on which is mounted a locking element consisting of a V-shaped retaining member 14 having U-shaped extensions 15 extending at right angles from the terminals thereof and pivotally mounted on the rods 13. A keeper, in the form of an elongated bail 16, is pivotally mounted on the top of the press 1 and is adapted to embrace and hold the apex portion of the retaining member 14 so as to bind said member tightly against the cleats

4 when the door is closed. This bail 16 preferably has a tongue 17 extending from its free end and whereby it can be readily manipulated.

5 A standard 18 is secured upon the top of the press 1 and a brace 19 extends downwardly therefrom and is secured at one end to the top of the press 1. The other end of the brace extends beyond the open end of the
10 press and is inclined downwardly as indicated at 20, this projecting portion being forked as shown at 21. A latch strip 22 is pivotally mounted within the fork 21 and has a downwardly curved head 23 at one end
15 while its other end is formed with laterally extending stop ears 24 adapted to bear upwardly against the fork 21 and thus limit the downward movement of the head 23.

In using the device, the door 2 is locked by
20 swinging the member 14 against the cleat 4 and then dropping the bail 16 into engagement with the upper or apex portion of said member 14. It will be seen therefore that, when the plunger, not shown, is reciprocated, the hay or other material in the path
25 thereof will be compressed against the door and a bale thus formed which can be tied and thus completed. Upon the completion of the bale the bail 16 is lifted by means of the
30 tongue 17 so as to release the retaining member 14 and this member will thus drop downward by gravity and assume a position beneath the press, as indicated in Fig. 2. When another quantity of material to be
35 baled is then placed within the press, the plunger, upon its next forward or compressing stroke, will force this additional material against the completed bale and thus drive said bale against the unlocked door.
40 The said door will therefore be swung upwardly and the base plate 5 will strike the head 23 and said head will drop into engagement with that portion of the base plate overhanging the recess 6. The door will
45 therefore be kept open until the bale has been pushed a sufficient distance out of the press to cause it to tilt downwardly and drop therefrom. As the bale tilts and falls, the upper end thereof kicks against the hanger
50 11 and causes the rod 8 to partly rotate. Tongue 9, which rests directly under the latch 22, will thus be elevated and lift the head 23 out of engagement with the plate 5. The door 2 will therefore drop by gravity to
55 its closed position and the operator can swing the retaining member 14 upwardly and place the bail 16 in engagement therewith. The foregoing operations can then be repeated.

60 Various changes can of course be made in the construction and arrangement of the parts without departing from the spirit or sacrificing any of the advantages of the invention as defined in the appended claims.

What is claimed is:—

1. A baling press having an end door, said door being shiftable to open position by an expelled bale, means for automatically locking the door in open position, and means operated by the expelled bale for releasing
65 the door.

2. A baling press having an end door, means for automatically engaging the door when opened to hold it against return movement, and means operated by a bale expelled from the press for releasing the door, said door being movable automatically to closed position when released.

3. A baling press including an end door, means for automatically engaging the door
80 when opened to hold it against closing movement, means operated by a bale for releasing the door subsequent to the expulsion of the bale, and means for locking the door in closed position.

4. A baling press including an end door, and separate means operated by a bale expelled from the press for automatically locking the door in open position and for releasing the door subsequent to the expulsion
90 of the bale.

5. A baling press including a normally closed end door, a latch for automatically engaging the door to lock it in an open position, and means operated by a bale for releasing the door subsequent to the expulsion
95 of said bale from the press.

6. A baling press having a normally closed end door, a latch for automatically engaging the door to hold it in open position, and bale operated latch actuating means for releasing the door subsequent to the expulsion of said bale from the press.

7. A baling press including a normally closed end door, a latch supported there-
105 above, means on the door for engaging the latch to hold the door in open position, and bale operated means carried by said door for shifting the latch out of engagement therewith during the expulsion of the bale
110 from the press.

8. A baling press including end doors normally in closed position, a latch pivotally supported thereabove, means upon the door for engaging the latch to hold the door in
115 open position, a latch elevating device mounted for rotation upon the door, a hanger depending therefrom and into the path of a bale expelled from the press.

9. A baling press including a normally closed end door, a retaining member hingedly connected to the press and movable into position therebelow and out of the path of the door, and a keeper movably mounted upon the press and detachably en-
120 gaging said member to hold the door in closed position.

10. A baling press including a normally

closed end door, a retaining member
hingedly connected to the bottom of the
press and adapted to swing thereunder and
out of the path of the door, and a bail
5 movably connected to the press and shift-
able into engagement with said member to
lock the door in closed position.

In testimony that I claim the foregoing
as my own, I have hereto affixed my signa-
ture in the presence of two witnesses.

EDWARD J. STEINBERGER.

Witnesses:

E. RICHSET,
N. A. KEHNAST.