(No Model.)

A. H. SPENCER.

BALING PRESS.

No. 422,847. Patented Mar. 4, 1890.

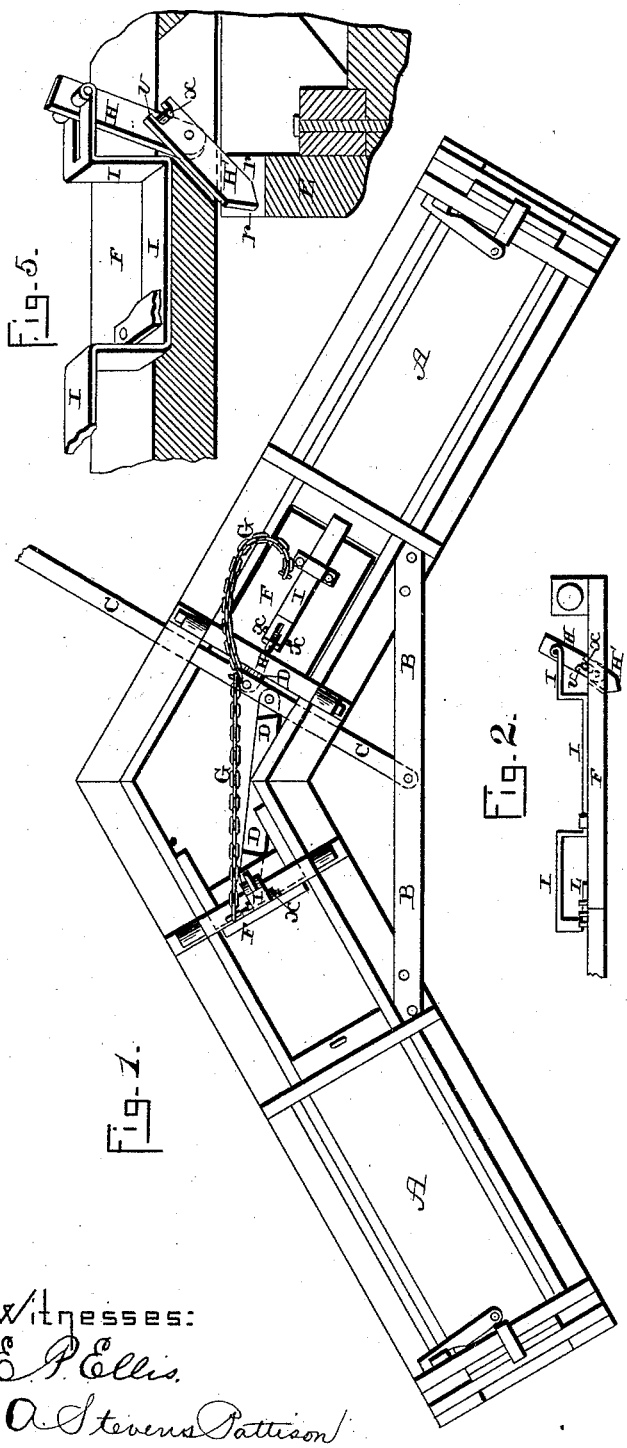

Fig. 1.

Fig. 5.

Fig. 2.

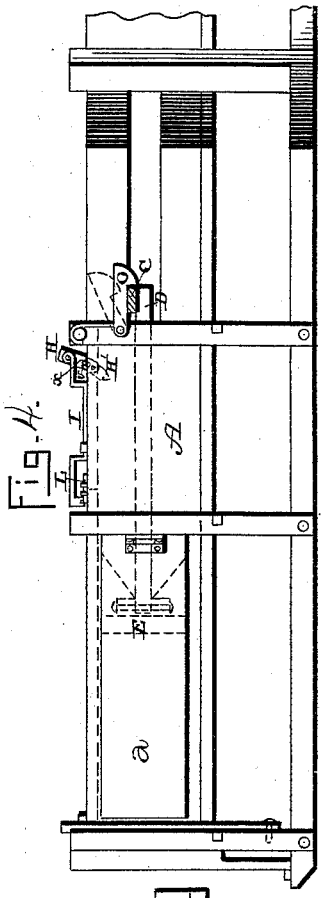

Fig. 4.

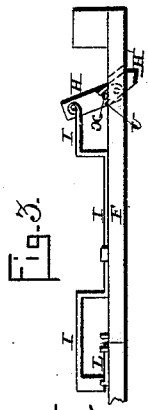

Fig. 3.

Witnesses:
E. P. Ellis.
A. Stevens Pattison

Inventor:
A. H. Spencer,
per
F. A. Lehmann,
Atty.

UNITED STATES PATENT OFFICE.

ANDERSON HOOD SPENCER, OF OENAVILLE, TEXAS.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 422,847, dated March 4, 1890.

Application filed September 27, 1889. Serial No. 325,290. (No model.)

To all whom it may concern:

Be it known that I, ANDERSON HOOD SPENCER, of Oenaville, in the county of Bell and State of Texas, have invented certain new and useful Improvements in Baling-Presses; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in baling-presses; and the objects of my invention are to place two baling-chambers at a suitable angle to each other and to connect both of the followers to the same sweep; to attach each of the filling-doors of the baling-chambers to the sweep, so that when one door closes from its own weight the other will be opened by the movement of the sweep, and to provide each of the filling-doors with an automatically-acting bolt mechanism, whereby the movement of the follower bolts the door, so that it cannot be opened upward by the pressure of hay that is being pressed.

Figure 1 is a plan view of a press embodying my invention. Figs. 2 and 3 are side elevations of the bolt-operating mechanism. Fig. 4 is a detail side view of a portion of the press, showing a locking device for the sweep. Fig. 5 is a perspective view in section of one of the operating-levers and a portion of the press-frame and plunger.

A represents two baling-chambers, which are placed at any suitable angle to each other and rigidly connected together at their inner ends. Supported by these two baling-chambers at their rear sides is the cross-piece or brace B, to which the sweep C is pivoted. This sweep projects through and moves back and forth in the opening between the ends of the two baling-chambers, as shown in Fig. 1. To the opposite edges of this sweep C are fastened the connecting-rods D, said rods being pivoted at their opposite ends to the followers E, which are made to operate in the baling-chambers in the usual manner. When the sweep is moved in one direction one follower is withdrawn from its baling-chamber while the other follower is forced into its chamber, and thus the two followers are always moved at the same time and alternately made to compress the hay in the chambers. Each of the chambers is provided with a filling-door F, which opens automatically and is hinged at its outer end to the extreme end of the baling-chamber. Each of these doors F is connected by a chain G with the sweep, so that when the sweep moves in one direction one of the chains will be slackened so as to let its door F close from its own weight, and the other chain is tightened so as to raise the door from a horizontal to a vertical position. When one of the followers is being forced into its baling-chamber the door of that baling-chamber automatically closes, while the door of the other baling-chamber is opened so as to allow the chamber to be filled with hay. These two doors are placed but a few feet apart, so that one man can very readily fill the two chambers as rapidly as the hay can be compressed into bales and removed from the chambers.

Through each of the doors is made a slot, and pivoted upon the top of the door by means of a rod X, which extends at right angles across the slot, is a lever H, which is pivoted at its upper end to the sliding rod I. The lower end of the lever H projects down into the slot, and pivoted upon this lower end is the lever H′, the lower end of which projects down into the baling-chamber far enough to be struck by the follower each time the follower is moved back and forth through the chamber. The upper end of this lever H′ has a recess **U** formed in it, so as to catch upon opposite sides of the rod X, and thus limit the distance the two parts of the lever shall be moved for the purpose of moving the sliding rod I. The lower end of the lever H′ is **V**-shaped, as shown, and in the top edge of the follower is made a groove *r*, through which the **V**-shaped end of the lever H′ passes when it has been moved until the projection on one of its upper corners strikes against the rod X, and thus prevents any further movement of the two parts of the lever. The movement of this lower part of the lever causes the upper part to turn upon the rod X, and thus move the bolt endwise. The amount of movement that the lever H shall have is regulated by the width of the recess in the upper end of the lever H′. When the

lever H′ is first struck by the follower, it simply turns upon its pivot without affecting the lever H until the projection on one of its upper corners strikes against the rod X, on which the lever is pivoted, and then the lever is operated. The opposite end of the rod I from the lever H has its end bifurcated or forked, so as to catch over the upturned end of the slide-bolt L, which is placed upon the top of the baling-chamber A. As the follower moves into the baling-chamber it strikes against the lower end of the lever H and moves it toward the inner end of the chamber, as shown in Fig. 2, and as this lever H turns upon its center of motion the endwise-moving rod I is forced toward the outer end of the door F, at the same time moving the bolt L, so that its inner end catches over the inner free end of the door F, and thus locks it in position. As the follower continues its movement inward the end of the lever H′ is raised by the movement of the follower at its lower end, so that the follower can pass beyond it and compress the hay into a bale in the usual manner. As the follower is moved outward by the movement of the sweep C and the connecting-rod D the outer top edge of the follower strikes against the lower end of the lever H′, which has dropped downward into the chamber, so as to force the rod I endwise, as shown in Fig. 3, and thus force the bolt L backward from over the end of the door F and leave the door free to be opened by the pull upon the chain G. By means of the construction here shown and described the doors are automatically bolted, so as to prevent them from being opened by the upward pressure of the hay which is being baled, and then released when the follower is moved backward, so that no time, care, or attention is needed to open and close the doors and bolt them, as would otherwise be the case.

The baling-chamber at any suitable point is provided with side doors *a*, through which the hay which has been formed into bales is removed. Outside of the inner end of the baling-chambers are pivoted hooks O, which are automatically raised as the sweep reaches the end of one of the baling-chambers and then dropped over the sweep, so as to hold it in position, and thus keep the hay compressed while it is being wired without any effort upon the part of the team to hold the follower in position.

Having thus described my invention, I claim—

1. The combination of the filling-door F of the baling-chamber, an endwise-moving slide placed thereon, and a locking-bolt L, with a pivoted lever H, connected to one end of the slide, a second pivoted lever H′, connected to and operating the lever H and projecting down into the baling-chamber, so as to be operated by the plunger, substantially as shown.

2. The combination, with the baling-chamber, the filling-door F, an endwise-moving slide placed thereon, a bolt connected to the slide at one end, a lever H, which has its lower end pivoted in a slot or opening made in the door and provided with a projection X, the pivoted lever H′, provided with a recess in its upper end, so as to engage with the projection X, and projecting down into the baling-chamber, and the follower provided with a groove through which the inner end of the lever H′ moves, substantially as described.

3. The combination of the filling-door F, provided with a slot or opening, an endwise-moving slide placed upon the outer side of the door, and a bolt for locking the door when closed, said bolt being operated by the slide, with pivoted levers, one of which projects through the slot or opening in the door, and which are operated by the movement of the follower, so as to unlock the door, substantially as set forth.

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

ANDERSON HOOD SPENCER.

Witnesses:

GRAYSON DAVIS,

WILLIAM MCCLENAHAN.