(No Model.)

G. SCHUBERT.

FEEDING CHAMBER AND DOOR FOR BALING PRESSES.

No. 496,981. Patented May 9, 1893.

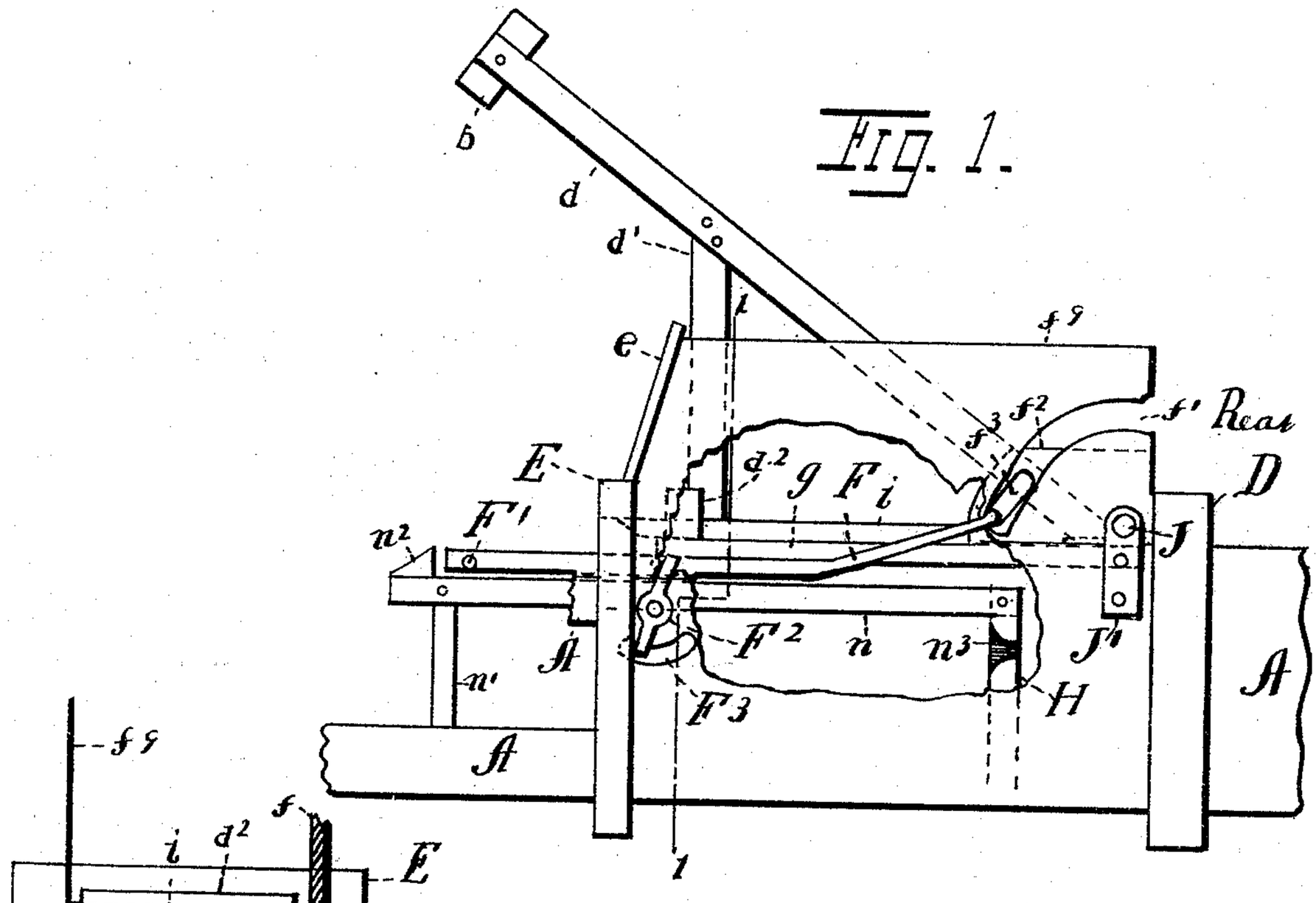

Fig. 1.

Fig. 3.

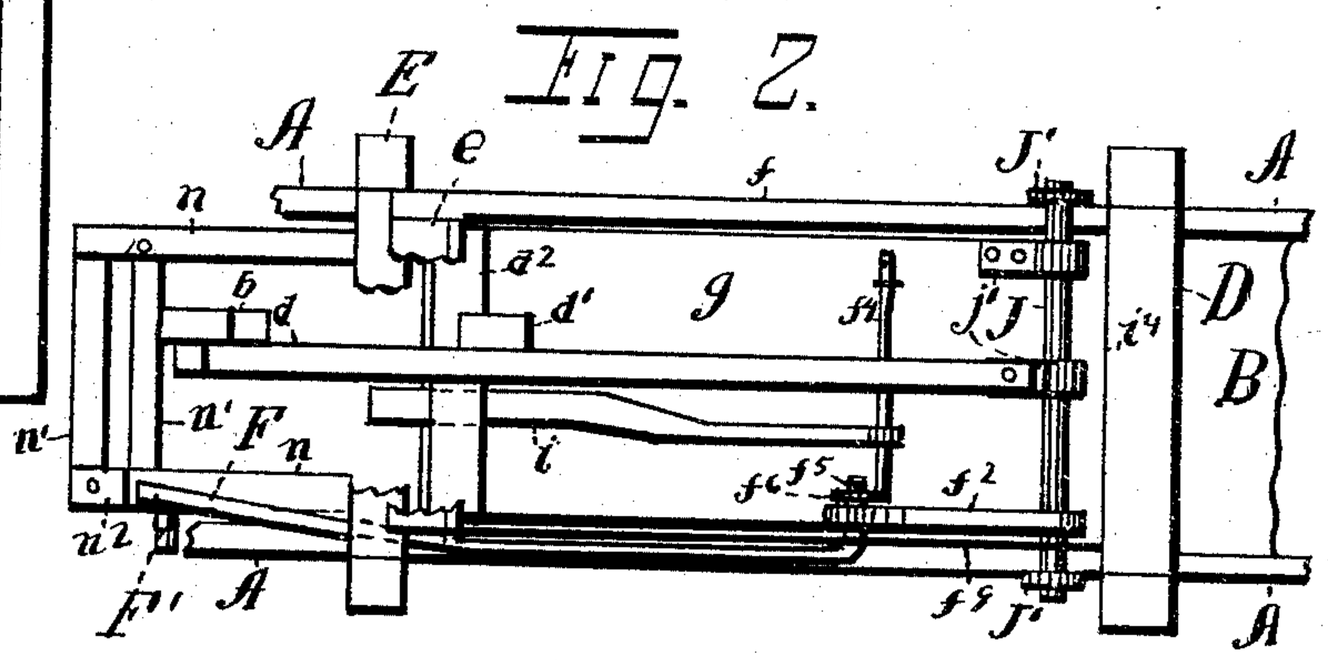

Fig. 2.

Witnesses:

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UNITED STATES PATENT OFFICE.

GEORGE SCHUBERT, OF WALNUT, TEXAS.

FEEDING-CHAMBER AND DOOR FOR BALING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 496,981, dated May 9, 1893.

Application filed November 12, 1892. Serial No. 451,726. (No model.)

To all whom it may concern:

Be it known that I, GEORGE SCHUBERT, a citizen of the United States, residing at Walnut, in the county of Bosque and State of Texas, have invented certain new and useful Improvements in Feeding-Chambers and Doors for 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 appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which drawings—

Figure 1 is a side view of part of a baling press provided with my improvements. Fig. 2 is a plan view of same, and Fig. 3, is a sectional view on line 1—1 of Fig. 1.

This invention relates to a vertically extended feeding chamber and an automatically opening and closing door.

By the use of a door and a vertically extended feeding chamber, the feed material need not be tucked down by hand or foot to a level of the baling chamber, as this is accomplished by the door being closed down, a lever and weight can be attached to the door to properly depress the material to allow the door to latch, and as the door prevents the material from bulging up the compressing can be accomplished direct in the feeding chamber, the plunger need not pass but a short distance beyond the feeding chamber thus requiring less movement of the plunger and thus gaining more power.

Referring to the drawings, A, A, designate the side bars, and B, B, designate the bottom and top boards of the press.

D, and E are cross frames to which the side bars A, A, and bottom and top boards B, B, are secured.

f and f^9 are side boards secured in position with their inner edges flush with the inner edges of the side bars A, A, and e forms the front end board. The door when open forms the rear end board. The board f^9 is preferably formed of metal to take up less room, to gain more room for the bar F hereinafter described.

g designates the door having to its front end secured the cross bar d^2.

d' designates a vertical post secured with its lower end to the bar d^2.

d designates an incline bar secured with its lower end to one of the straps j', and to the upper end of the post d' with its end projecting and provided with a weight b near its free end.

J designates a rod secured to the door by the straps j' and the board f^2 with its ends projecting and journaled in the loops J'.

i designates a latch having a guide near its free or front end in the cross bar d^2, with its free end in the position to engage beneath the cross frame E, and having its rear end perforated or slotted for the purpose hereinafter described.

f^4 designates a spring extending with its free end through the rear end of the latch i, as shown, to hold said end of the latch in position, and to operate said latch, as hereinafter described. Said spring f^4 is secured with its far end to near the far edge of the door about five inches from the rear end of the door; the free end of the spring is turned near a right angle adjacent the board f^2, and perforated to receive the hook f^5 of the bar F, secured by a suitable key. Said spring f^4, is preferably made of three-eighth inch round spring steel, and may receive one or more coils near the end by which it is secured to the door, to receive more elasticity.

f^2 designates a board secured to the edge of the door g. f^3 is an incline slot formed in the front end of said board f^2.

f' is a curved slot in the board f^9 to correspond with the movement of the door at slot f^3.

F designates a bar with its rear end slightly elevated, and with its end bent inward near a right angle to engage with the slot f^3. The front end of the bar F extends through beneath the cross frame E and slightly inward, (as seen in Fig. 2,) to engage with the plunger.

F^3 designates a slot formed in the side bar A a proper distance from its upper edge.

F^2 designates a dog pivoted near its center to the side bar A with its lower end bent at right angle, in position to engage with the slot F^3 and projecting inward to be engaged with the plunger H.

F' designates a pin in the front end of the

bar F in position to engage with the upper end of the dog F^2.

H designates the plunger having the side bars n, and cross bars n' and a projection at block n^2 secured to the end of the side bar n in position to engage with the bar F.

n^3 is a notch formed in the side of the plunger in position to engage with the inward projecting end F^4 of the dog F^2. The front side of the notch n^3 is rounded to allow said dog to readily pass through.

The operation may be summarized as follows viz: As the plunger moves onward arriving at the position (as seen in Fig. 1,) the projection n^2 engages with the free end of the bar F moving it along in the same direction, causing the hook f^5 to move upward and rearward to the upper end of the slot f^3 and moving the spring f^4 in the same direction and unlatching the door, at this time the hook f^5 has been moved to the upper end of the slot f^3, and will now start to open the door g; as soon as the weight has moved past the vertical plane the movement of the plunger H discontinues or is reversed and the door g is finally moved to its final position by the weight b and by the aid of the spring f^4 shifting the bar F forward, and thus the latch i will again be moved forward. The bar F will now rest in the lower end of the slot f^3 with the pin or stud F′ resting against the upper end of the dog F^2, the plunger H moves back far enough to cause the hook F^4 to pass through the notch n^3. Hay is now fed in the feeding chamber, and as the plunger H is now started it will move the dog F^2 in its opposite position, by reason of the hook F^4 being slightly below the notch n^3 and has to be moved to an angle before it will enter said notch, and the upper end of the dog F^2 moving against the pin F′ drawing back the bar F and thus closing the door g.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a baling press, the combination, with a door g hinged near the rear end of the feeding chamber, a latch i having a guide in the cross bar d^2, a spring f^4 to support the rear end of said latch i, and to operate said latch, a bar F having its rear end bent inward to engage with the slot f^3, and to receive the end of said spring f^4, a bracket f^2 secured to the edge of the door, a slot f^3 in said board, a projection n^2 on the plunger frame to engage with the bar F, an incline bar d secured to the door, a weight on said bar d, all as and for the purpose described.

2. In a baling press, the combination, with a door g hinged near the rear end of the feeding chamber, a latch on said door, a spring f^4 to operate said latch, a bar F having its rear end bent inward to engage with the slot f^3 and to receive the end of the spring f^4, a pin F′ on the bar F, a dog F^2 engaging with its upper end with the pin F and having a stud on its lower end to be engaged by the plunger, substantially as and for the purpose described.

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

GEORGE SCHUBERT.

Witnesses:
JAS. DOWNEY,
M. SLACK.