F. B. BOALT.

HAY-PRESS.

No. 193,073. Patented July 17, 1877.

Fig. 1.

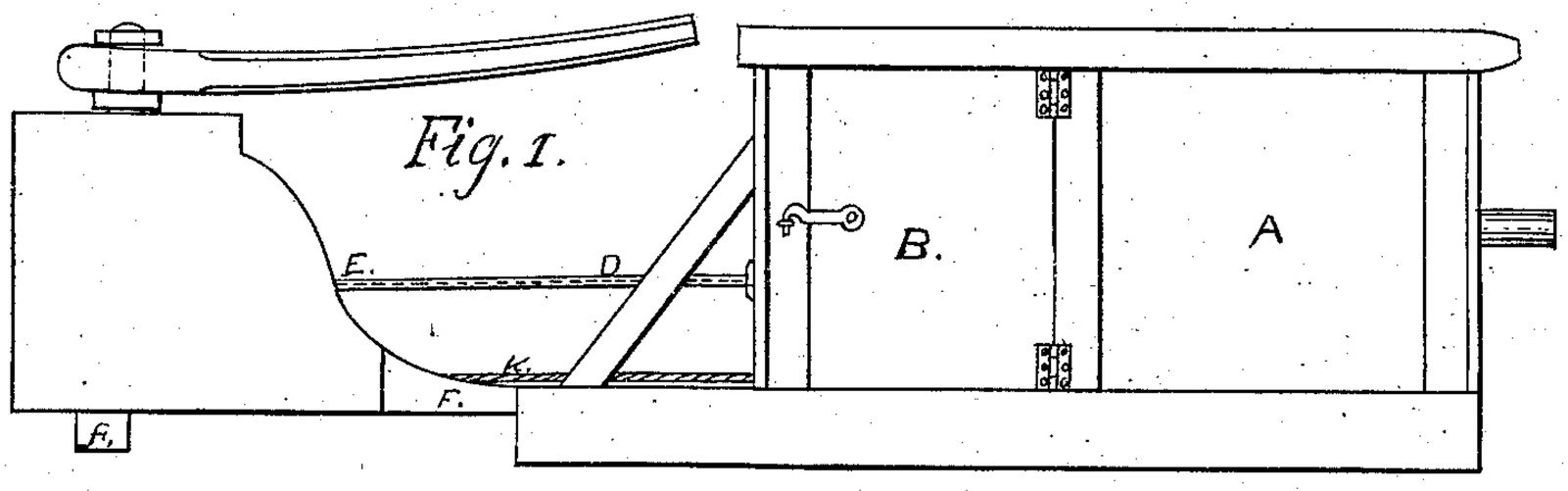


Fig. 2.

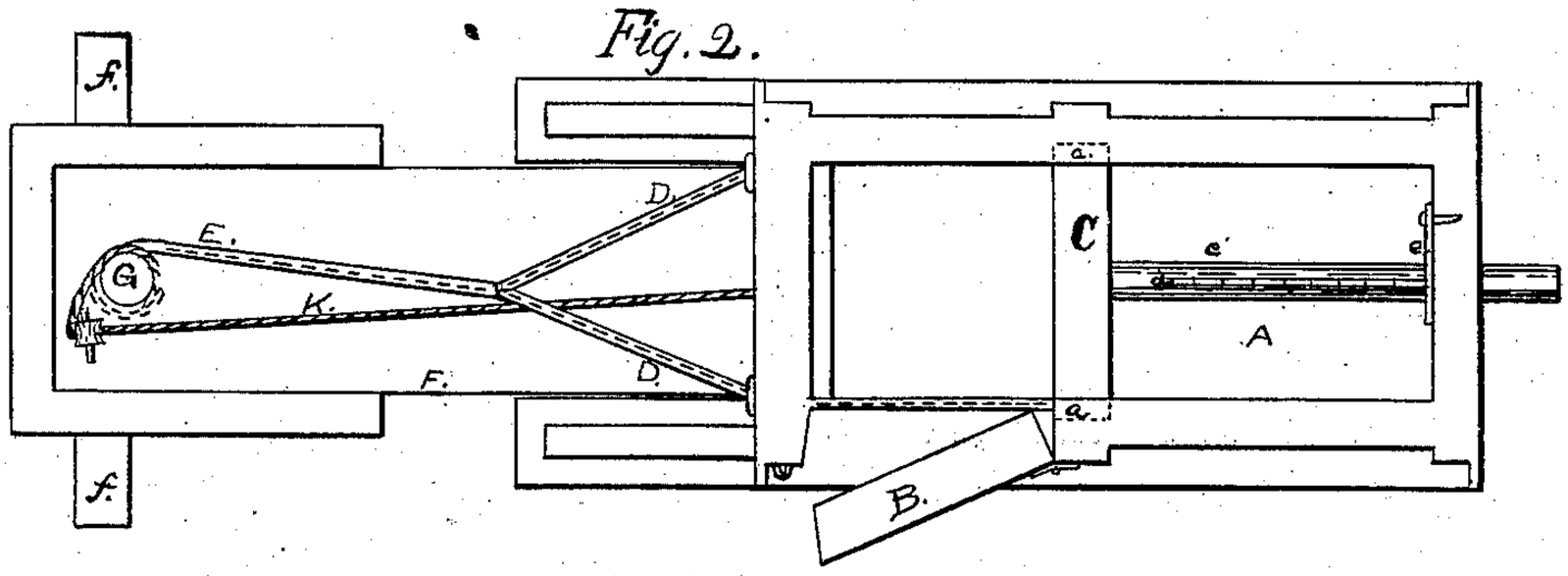


Fig. 3.

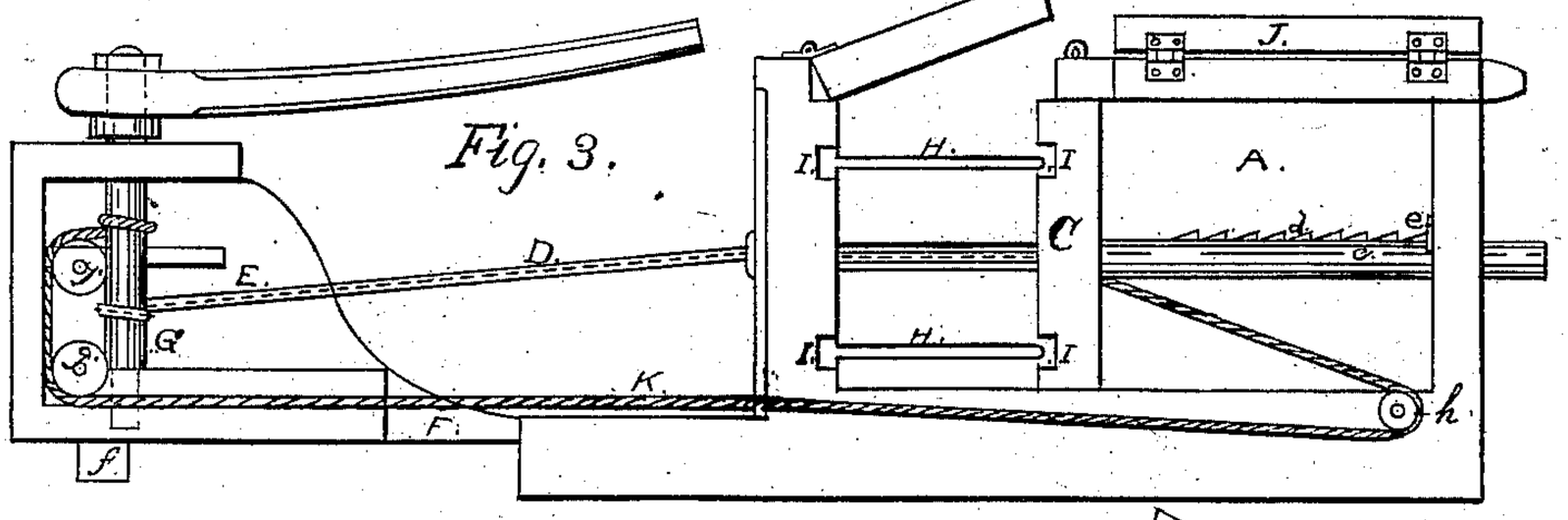


Fig. 5.

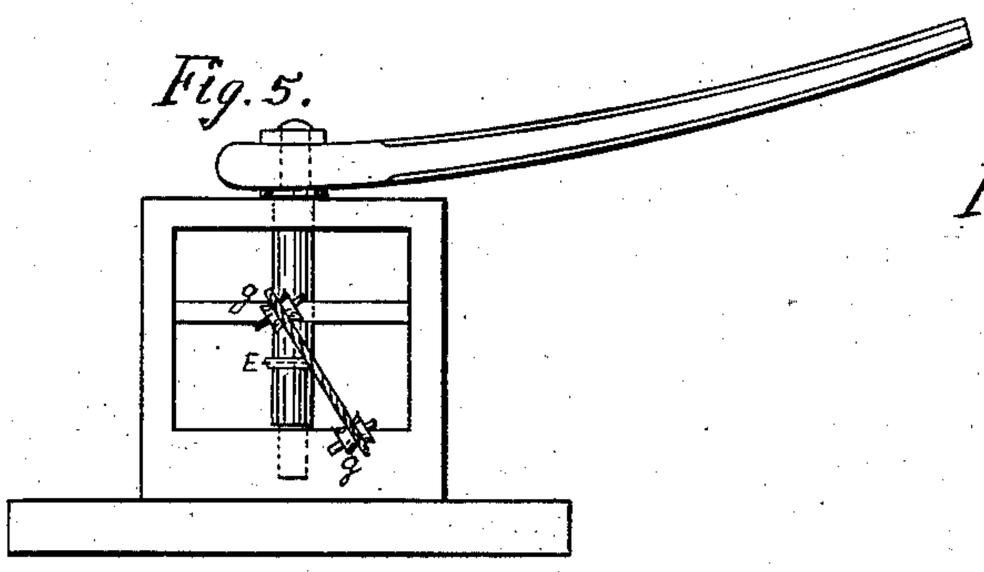
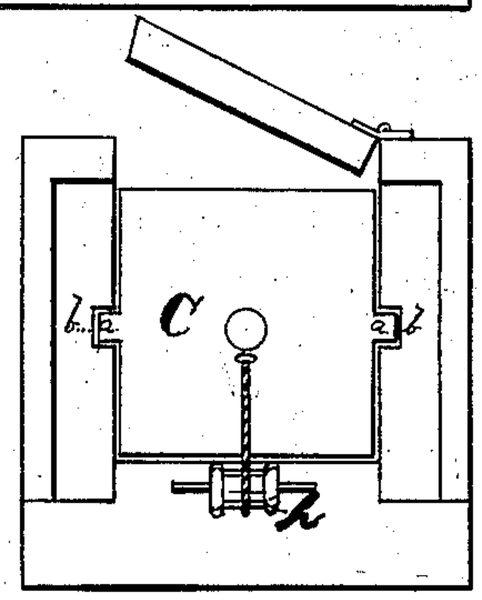


Fig. 4.



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UNITED STATES PATENT OFFICE.

FRANCIS B. BOALT, OF BAINBRIDGE, NEW YORK.

IMPROVEMENT IN HAY-PRESSES.

Specification forming part of Letters Patent No. **193,073**, dated July 17, 1877; application filed January 26, 1877.

To all whom it may concern:

Be it known that I, FRANCIS B. BOALT, of Bainbridge, in the county of Chenango and State of New York, have invented a new and useful Improvement in Machines for Baling Hay, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

This invention relates to the construction and arrangement of a box for the reception of the hay, and a windlass and sweep operated by horse-power; and consists in so constructing said box that the full amount of hay to be compressed shall be pressed to the full capacity of the bale at one operation by the movement of a windlass and chains connected with a compressor in such a manner that the bale shall be formed and secured with unusual facility, and readily removed from the machine.

The invention will hereinafter be fully explained.

Figure 1 in the accompanying drawings is a view of a machine in position embodying my invention. Fig. 2 is a plan view of the same with the top of the box removed, showing the compressor and its connection with the chains. Fig. 3 is a longitudinal section through the center, showing the inside arrangement of the parts. Fig. 4 is an end elevation with the end of the box removed, showing the channels and the retracting pulley and cord for drawing in the slide when the bale is finished. Fig. 5 is an elevation of the operating end of the slide, showing the windlass or shaft and its connections.

A is the box, which, for ordinary use, has an inside space of nine feet in length, twenty-eight inches in depth, and two feet in width. This allows of sufficient space when the hay is properly packed for the reception of the required amount to form the bale, which is then compressed to the size of twenty-eight inches by two feet.

B is the door or opening for the removal of the bale when finished.

C is the compressor, which is made to fit loosely in the box A, and has two projecting lugs, *a a*, which work in channels *b* in the side of the box. To these lugs are attached the operating-chains D, which also work in the channels *b*, and connect with the windlass-chain E between the end of the box and the operating end of the slide F.

To the back side of the compressor C a rod, *c*, is attached, which extends through an aperture in the end of the box. On the upper side of this rod is attached a ratchet, *d*, which engages with a pawl, *e*, attached to the inside of the end of the box.

The slide F works in the bottom of the box A, and is of sufficient length to allow of the required space for the passage of the team between the end of the box and the windlass G, which is placed in a vertical position, and framed to the end of the slide F, as shown in the drawings. To the top of this windlass is attached the ordinary sweep for horse-powers.

On the under side of the windlass-frame are projecting lugs *f f*, for securing it in position when in operation.

H H are slots in the side of the box opposite to the bale.

There are channels I I in the abutment end of the bale-chamber, and also across the face of the compressor C, for the passage of the wire for binding the bale while under pressure.

J is a door or opening in the top of the box for the reception of the hay.

K is the retracting-cord, which is attached to the windlass G, and passes over pulley *g*, and under the box to the other end, where it passes over a pulley, *h*, and connects with the back of the compressor C, so that when the work of baling is finished, and it is desired to remove the press for operation elsewhere, the slide F may be drawn in under the box, for convenience in transportation, by turning the sweep of the windlass.

When I use my invention I place the box A in the required position, and draw out the slide F, and secure it in place by attaching fastenings to the lugs *f f*. The door J is then opened, and the compressor C placed at the end of the box, which is then filled and closely packed. The door J is then closed and secured, and motion given to the windlass by the attachment of the team to the sweep, which draws the compressor C toward the abutment end of the box until it reaches the required point, when it is prevented from reacting by the ratchet and pawl. The door B

is then opened, and the bale secured by passing the ordinary wires through the channels I, and slots H around it, and securing them in the usual manner, when the bale is removed through the opened side doorway.

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

In combination with the box A, the windlass G, slide F, chains D, attached to lugs *a*, working in channels *b*, windlass-chain E, and retracting-cord K, connected as described, all constructed and arranged as herein described, for the purpose set forth.

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