

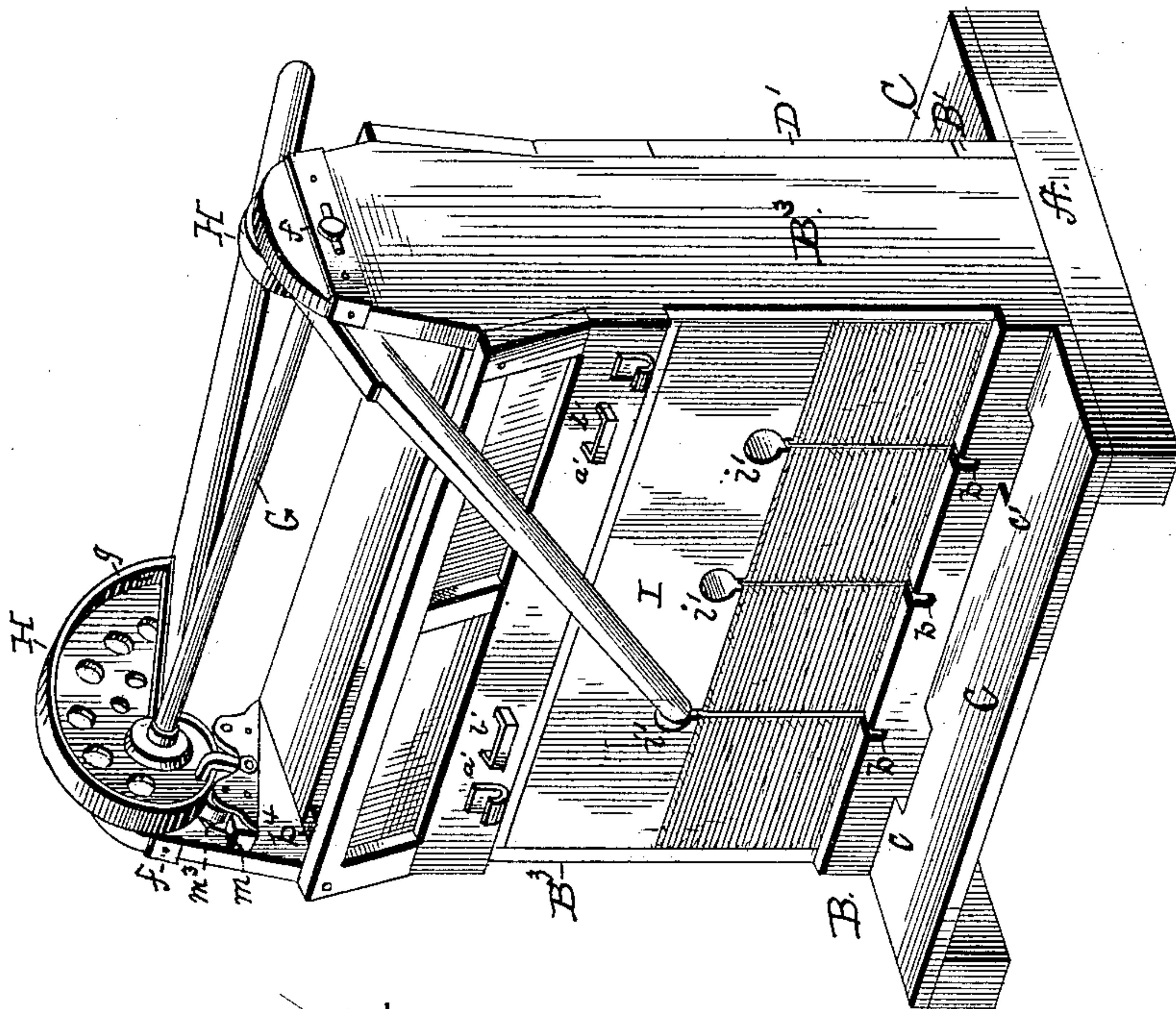
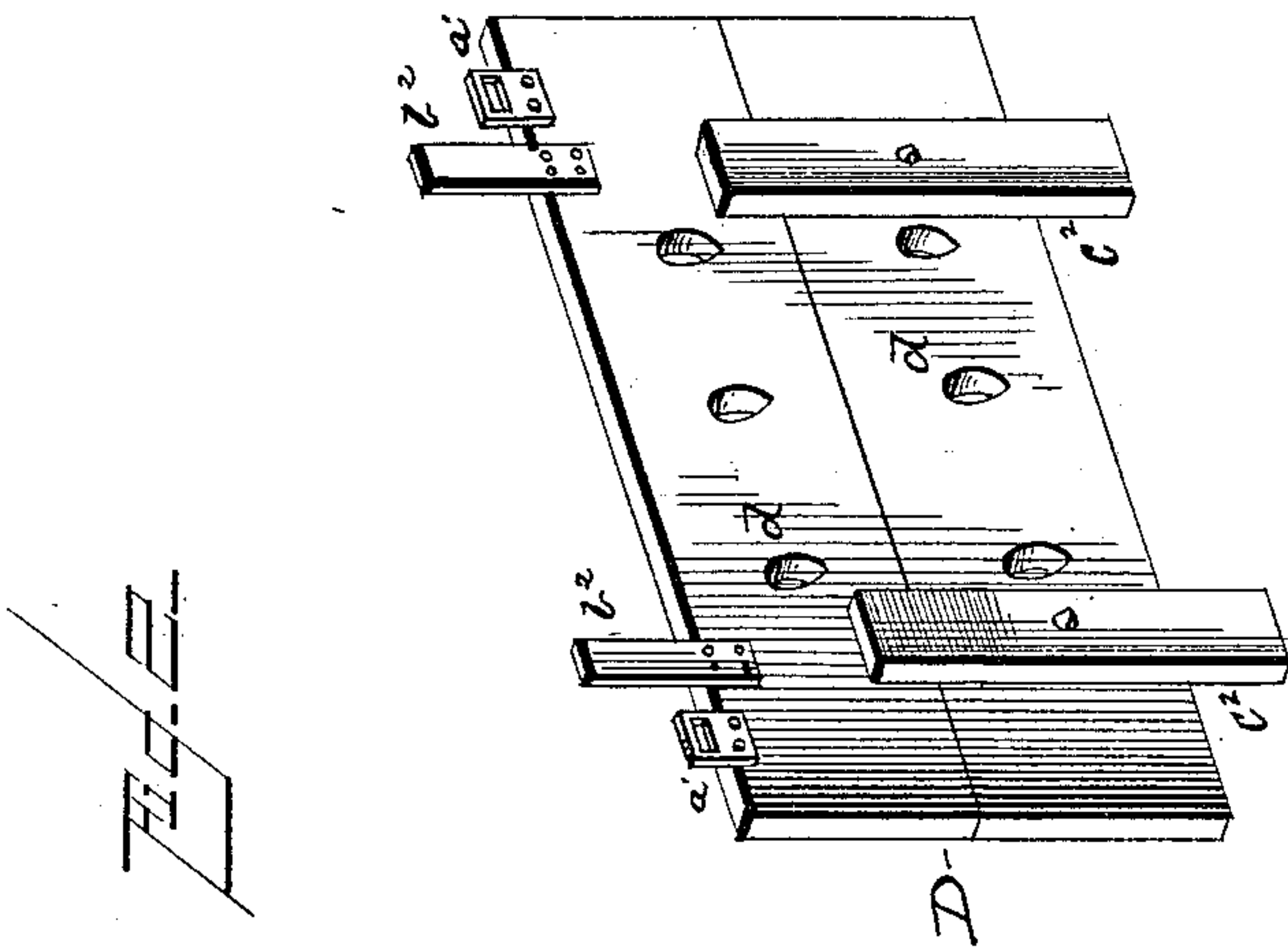
(No Model.)

2 Sheets—Sheet 1.

W. W. POST.
BALING PRESS.

No. 332,557.

Patented Dec. 15, 1885.



WITNESSES
F. L. Ourand
E. T. Pitchard

INVENTOR
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Attorney

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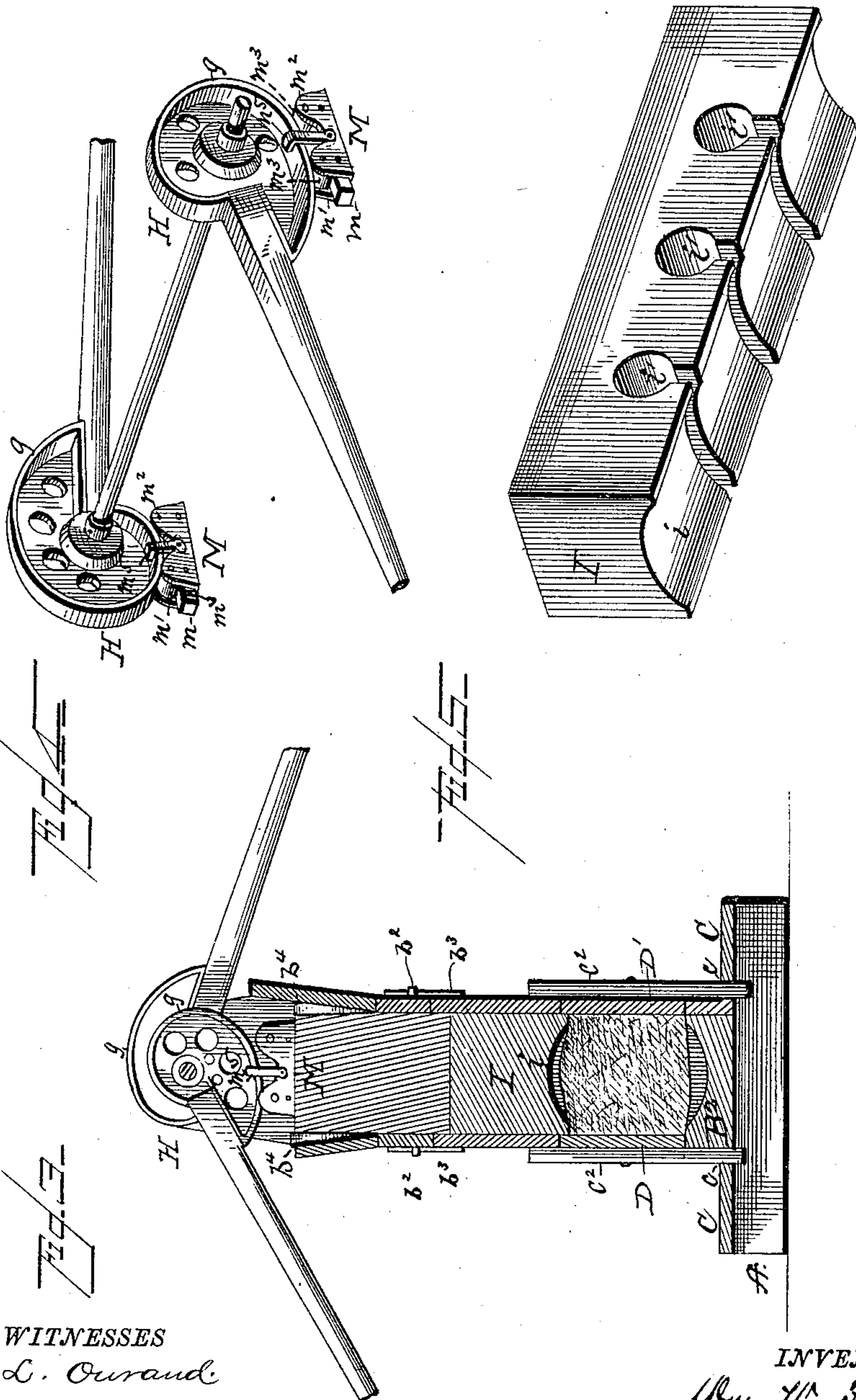
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UNITED STATES PATENT OFFICE.

WILLIAM W. POST, OF CEDAR RAPIDS, IOWA, ASSIGNOR OF TWO-THIRDS
TO LEWIS A. BRADLEY, OF SAME PLACE.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 332,557, dated December 15, 1885.

Application filed September 29, 1885. Serial No. 178,564. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. POST, a citizen of the United States of America, residing at Cedar Rapids, in the county of Linn, in the State of Iowa, have invented a new and useful Baling-Press, of which the following is a specification.

My invention relates to improvements in presses for baling and pressing straw, hay, and blocks or bales of similar material, and has for its object the compression of bales into as small a compass as possible, for convenience in handling, and at the same time to provide convenient means for tying them up while in the press; and to this end my invention consists in the novel arrangement of parts, as will be hereinafter more fully described, and specifically pointed out in the claims.

In the annexed drawings, which fully illustrate my invention, Figure 1 is a perspective view of the press with the door at the base removed. Fig. 2 is a view of one of the doors. Fig. 3 is a vertical central sectional view showing the follower-blocks in place on a bale which has been compressed. Fig. 4 is a view of the shaft and cam-levers and pendent pressers detached from the press, and Fig. 5 is a view of the lower follower-block.

The letters A designate the bottom sills of the press, and extending across the base of the press from one sill to the other and secured thereto are two cross-sills, B B', arranged one in front and the other in the rear of the press, and which, together with the concave bottom B², form the foundation-frame. The front cross-sill, B, has kerfs or slots *b* cut in its upper edge, within which the tying-wires are disposed. Secured to the tops of the bottom sills are two substantial cross-pieces, C, which are formed with two slots, *c c'*, for the purpose of receiving the turn-buttons *c²* of the doors hinged to the side face of the press. These doors D D' are connected to the press either by hinges *a'*, fixed to the side pieces of the press, or by staples *b'* on the press-frame, and cleats *b²* which are inserted in said staples, and to permit of the doors being raised and closed or removed and replaced, as required, during the operation of compression or when taking out the bale each door is provided at

that part inclosing the bale-chamber with a series of wire-slots, *d*, through which the tying-strands are laid or passed.

The letters B³ designate two standards, which are mortised or otherwise secured in the sills A of the press, said standards for a proper distance being of equal width, the purpose being, in connection with the siding of the press, to form a rectangular pit or box having vertical ends and sides in that part of the press wherein the bale is formed and wired. Above the rectangular part the side standards diverge or flare, substantially as shown in the drawings. In the corners of the flaring part or hopper of the press are fixed wedge-shaped pieces *b⁴*, having the exposed faces aligned with the inner faces of the box of the press, to allow the followers direct course with the line of pressure. The rear siding extends farther up than the front siding, and together with the standards forms the hopper within which the hay or other material is placed for pressure before the followers are placed therein. Near the top of the standards are secured, by means of screws or other suitable means, two straps of substantial strength, as shown at *f*, which serve as supports or bearings to keep steady a horizontal fixed shaft, G, which is mounted in bearings in the standards. This shaft passes along through the bearings in the standards and has fixed thereto two cam-levers, H, which are held against lateral displacement by any well-known means, and are arranged to work freely on their bearings upon the said shaft. The cam-levers are disposed with their cam-faces to properly bear on the pendent pressers, and thus to press the materials. The cams of these levers are formed with side flanges, *g*, to sustain the pendent pressers, as hereinafter stated and described.

The letter M designates the pendent pressers, comprised of a substantial bearing-block, *m*, to the sides of which are firmly fixed side plates, *m'*, having bearings *m²*, within which are journaled friction-wheels *m³*, one of which is arranged on its bearings to set a little higher than the former, in order that the face of the cams shall press evenly on the pulleys. Pivoted to the middle of the side plates of the blocks are two suspension-rods, *m⁵*, having

their upper ends struck inward and adapted to set over and hang on the side flanges of the cams, substantially as shown.

The letter I designates the follower, which is placed nearest to and in contact with the top of the bale. It is formed with a concave under surface, *i*, and provided with a series of transverse kerfs or slots, *i'*, extending into its body and terminating in enlargements, substantially as shown. These slots register with the kerfs in the bottom sill of the press, and it is between the face of this follower and the concave bottom of the press that the bale is formed. A number of other followers are provided for the press, which are of rectangular form with plane faces, and which are disposed one upon the other as the process of compression requires.

The operation of the machine is as follows: The wire used for tying up or baling the hay or material is first passed from the front of the press through the slots made in the edges of the concave bottom or sill, and so bent as to conform to the shape of the bottom, and are then passed through the slots in the rear of the press, and so remain stationary until the hay is put into the hopper above and the bale is formed. The operator, then taking a sufficient quantity of hay to form a bale, places it in the hopper at the top, when it is shoved down to the bottom or box portion of the press, at which time the concave follower which has the slots therein is placed directly upon the hay, so that it will give the edges of the bales a convex form, when the wires which were placed in the press before pressing are returned through the rear slots and projected through the slots in the follower and brought over the top of the bale, while at the same time the lower ends of the wires are brought up and the two twisted together, when the pressure may be taken off and the bale lifted out through the door. By this construction of my press it will be seen that small or large bales can be compressed, and that it may be used alike for compression of masses of fibrous growth or for compression of plastic material, such as is used for fuel.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In combination with the press-frame provided with a fixed shaft in the upper ends of its side standards, and the followers within the press, the cam-levers formed with side flanges and journaled on the fixed shaft, and the pendent pressers hung on the cams, substantially as described. 55

2. In combination with the press frame and hopper, and the cam-levers formed with side flanges and journaled in the top of the frame, the pendent pressers composed of a presser-block having side pieces and friction-rollers, and provided with side bars to suspend the presser-block loosely on the flanges of the cams, substantially as specified. 65

3. In combination with the press-box formed with wire-apertures in the lower rear part, and the cam-levers mounted to turn on a fixed shaft arranged to hold the side standards of the press against displacement, the pendent pressers hung to slide on the face of the cams and the followers, the bale-follower formed with transverse wire-kerfs terminating in enlargements, and the concave bottom piece and side sill formed with kerfs registering with the kerfs in the bale-follower, substantially as described, and for the purpose stated. 75

4. In combination, the press-frame constructed as stated, the door hinged thereto to drop with its lower edge on a line with the base of the press and provided with turn-buttons, the cross-sill fixed to the base-pieces of the press and formed with slots to receive the turn-buttons of the door, the fixed shaft mounted in the upper part of the side standards, the cam-levers formed with side flanges and journaled on said shaft, the pendent pressers hung to the flanges of the cams, the followers in the press, and the concave bottom formed with kerfs extended across the sill of the press, substantially as described. 85

In witness whereof I have hereunto set my name in the presence of two attesting witnesses.

WILLIAM W. POST.

Attest:

I. N. WHITTAM,
L. A. BRADLEY.