

P. H. CAZIER.
BALING PRESS.

APPLICATION FILED JULY 15, 1911.

Patented Jan. 14, 1913.

1,050,425.

3 SHEETS-SHEET 1.

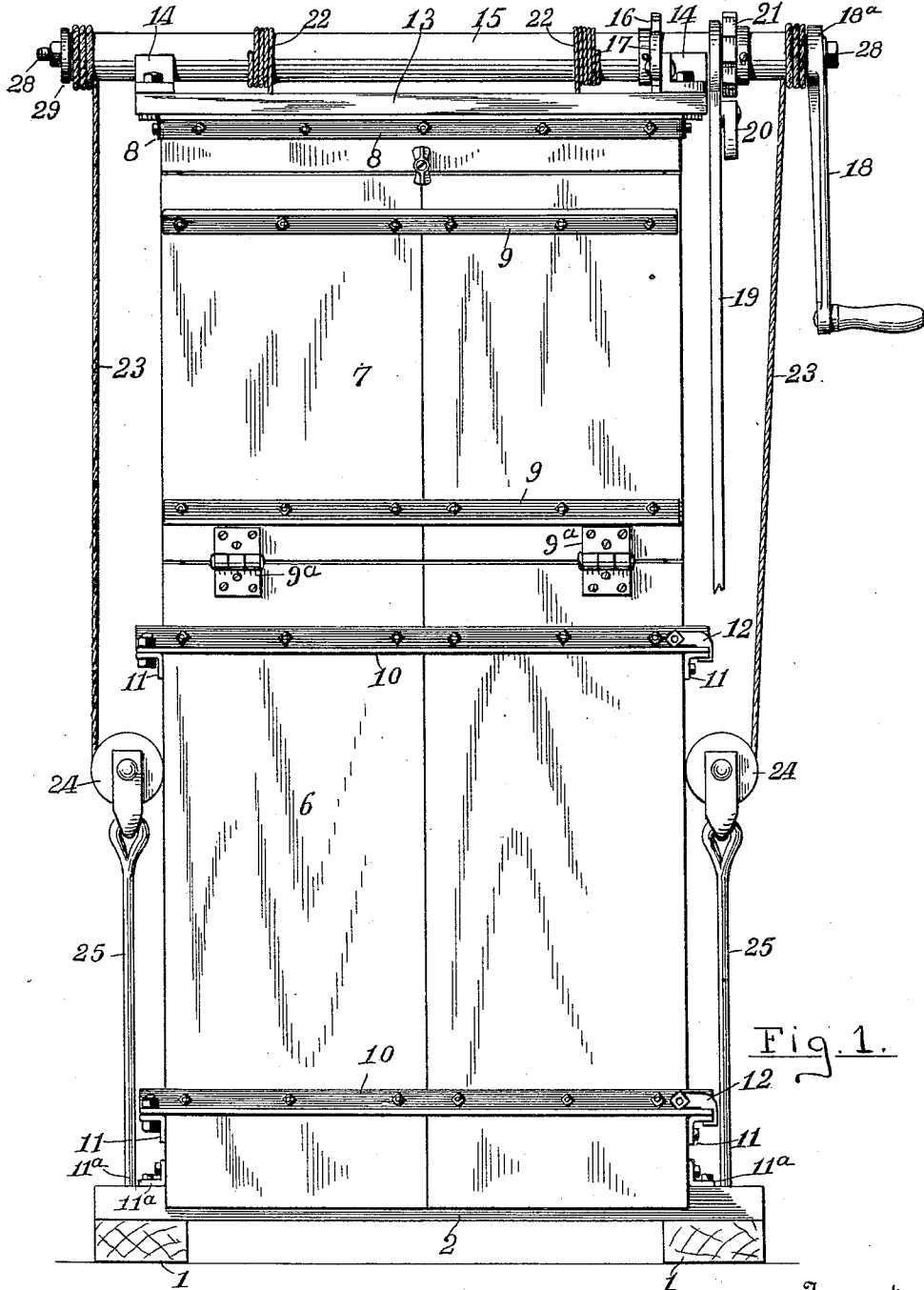


Fig. 1.

Witnesses

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3 SHEETS—SHEET 2.

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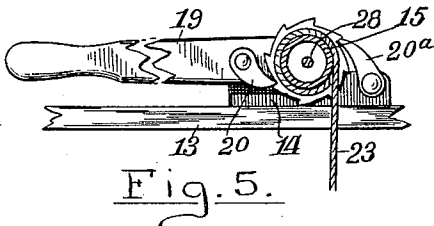


Fig. 5.

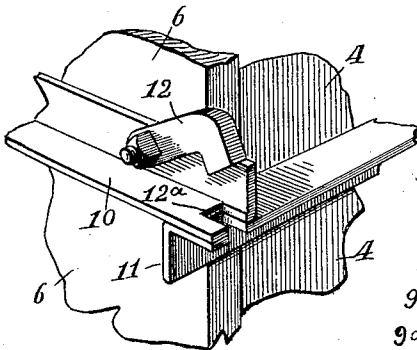


Fig. 6.

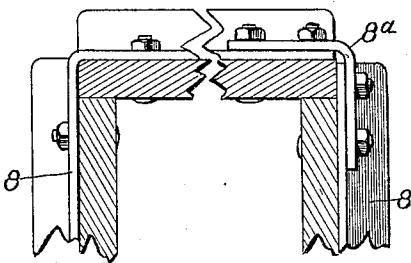


Fig. 7.

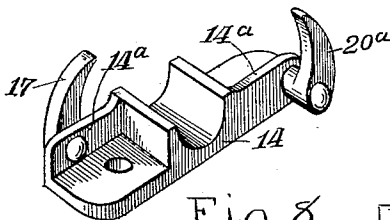


Fig. 8.

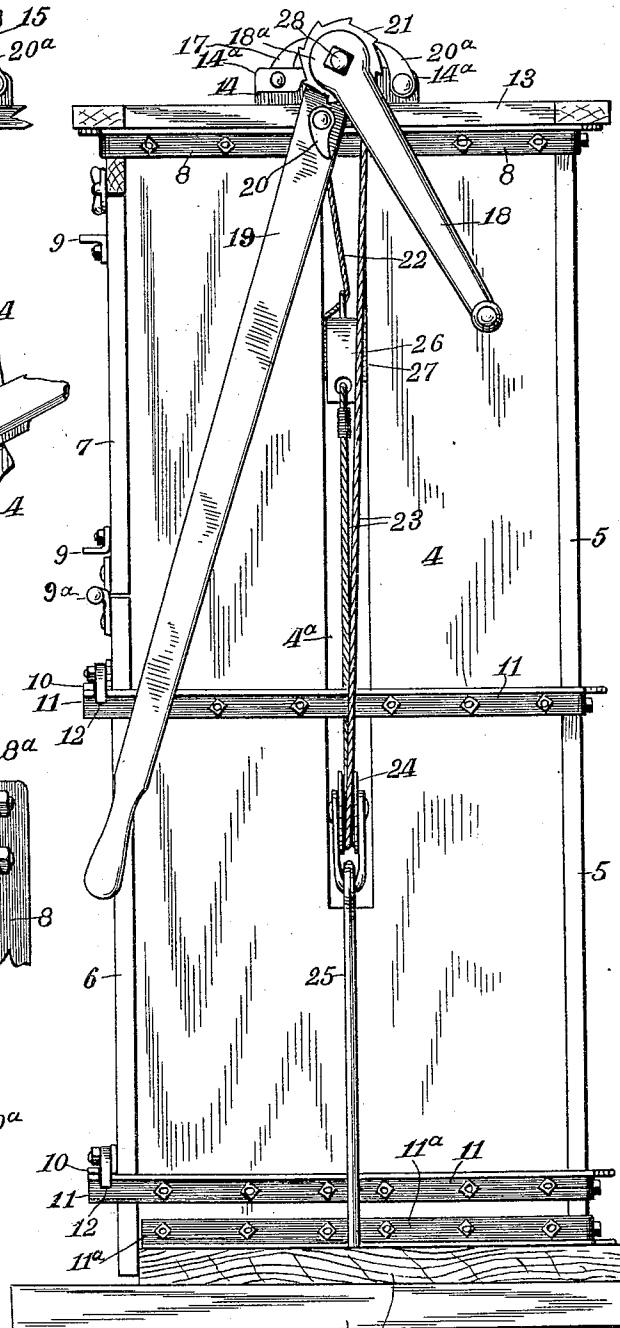


Fig. 2

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3 SHEETS-SHEET 3.

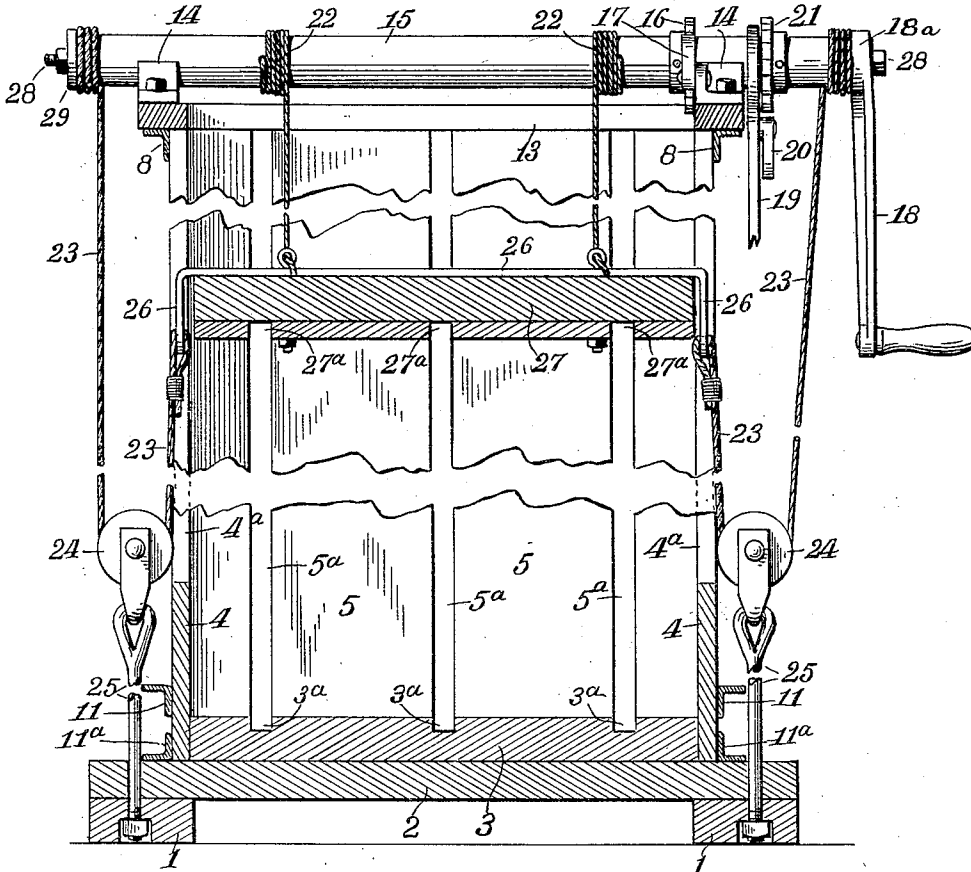


Fig. 3.

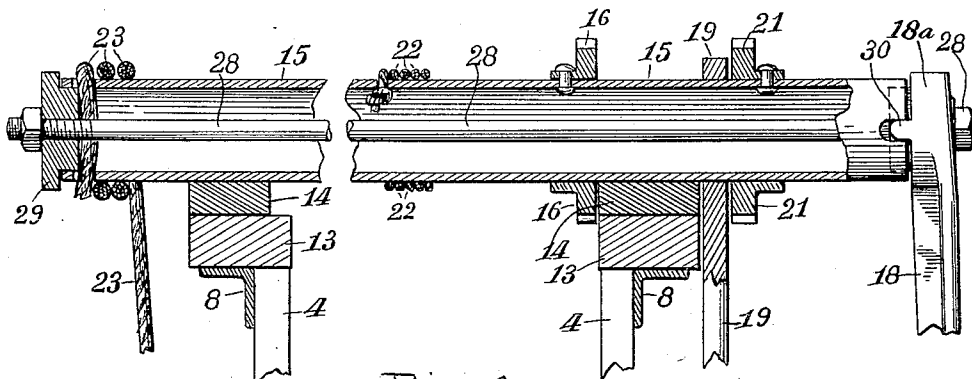


Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

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BALING-PRESS.

1,050,425.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, PERRY H. CAZIER, a citizen of the United States of America, residing at Nashville, in the county of Barry and State of Michigan, 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 appertains to make and use the same.

My invention relates to improvements in baling presses and its object is to provide a cheap and convenient manually operated press for baling various materials and particularly old paper and the like and to provide the same with various new and useful features hereinafter more fully described and particularly pointed out in the claims and reference being had to the accompanying drawings, in which:—

Figure 1 is a front elevation of a device embodying my invention; Fig. 2 a side elevation of the same; Fig. 3 a vertical section partially broken away; Fig. 4 an enlarged detail partially in vertical section of the winding drum and parts adjacent thereto, on an enlarged scale; Fig. 5 a detail partially in vertical section of the winding lever, ratchet, and pawls; Fig. 6 a perspective detail of a latch; Fig. 7 a detail of a portion of the upper band in plan view; and Fig. 8 a perspective detail of one of the bearings of the winding drum and the pawls attached thereto.

Like numbers refer to like parts in all of the figures.

Mounted upon suitable sills 1 is a platform 2 on which is supported a rectangular case having a bottom 3 provided with grooves 3^a; sides 4 having vertical slots 4^a; a back 5 having slots 5^a opposite the groove 3^a in the bottom, and a front composed of a lower door 6 and an upper door 7 hinged to each other as at 9^a whereby the upper door swings outward and downward at the top. At the top of the case is a band 8 of angle iron having its vertical member secured to the case and its horizontal mem-

ber extending outward in the plane of the top of the case, the horizontal member being cut at the respective corners as shown in Fig. 7 and the vertical member bent around the corners of the box the ends being secured at one corner by a band iron 8^a and suitable bolts as shown in Fig. 7. Strips of angle iron 9 extend across the upper door 7 and are secured to the same to form battens. The lower door 6 has similar angle iron strips 10 extending across the same and projecting beyond the same at each end by an amount equal to the width of the horizontal member of angle iron bands 11 which bands extend across the sides and back of the case and have their vertical member secured to the same their horizontal members projecting outward and beyond the corners of the case sufficient to engage and support the projecting ends of the strips 10, the horizontal members being at the bottom of the strips 10 and at the top of the bands 11. At one side of the door 6 the horizontal members of the bands 11 and strips 10 are pivoted to each other by means of bolts whereby the door 6 is hinged, and at the other side of the door 6 the overlapping horizontal members of the ends of the bands 11 and strips 10 are recessed as shown at 12^a in Fig. 6, and to the vertical member of the strip 10 is pivoted a hook 12, the downwardly projecting end of the same adapted to enter and fit in the recess 12^a and thus securely lock the bands 11 and the strips 10 to each other at the corner of the case thus affording secure and inexpensive latches and hinges for the lower door 6. The sides and back of the case are also secured to the platform 2 by angle bars 11^a and suitable bolts. The door 6 projects below the platform 2 and engages the front edge of the same as shown in Figs. 1 and 2.

Resting on the top of the case and supported thereby is a frame 13 which affords a suitable support for bearings 14 at opposite sides of the case and directly above the slots 4^a. In these bearings is supported a rotative winding drum 15 preferably made of a suitable piece of iron pipe or other

metal tube. On this drum at one side of one of the boxes 14 is a ratchet 16 and at the other side of the same and spaced apart therefrom is a similar ratchet 21. Between this latter ratchet and the box is journaled on the drum a lever 19 on which is a pawl 20 to engage the ratchet 21 to operate the winding drum to secure the final heavy pressure upon the bale and a pawl 20^a is provided to hold the drum from unwinding the cables. A pawl 17 is also provided to engage a ratchet 16 and hold the drum from turning when the follower is raised. The pawls 17 and 20^a are preferably pivoted to integral flanges 14^a on one of the bearings 14.

18 is a crank attached to the drum provided with a head 18^a to close the end of the drum on which head are lugs 30 engaging recesses in the end of the drum to secure the crank thereto. The opposite end of the drum is closed by a head 29 and a bolt 28 extends through the axis of the drum and both heads to secure the same in place. On this drum are wound two cords 22 attached to a follower 27 having grooves 27^a opposite the grooves 3^a in the bottom. This follower is vertically movable in the case and provided with a band iron strap 26 extending across the same and downward at opposite ends thereof within the slots 4^a in the sides. Attached to each end of the strap is a cable or rope 23 which extends downward and thence under pulleys 24 journaled in yokes attached to eye-bolts 25, extending through the sills 1. These cables thence extend upward and are wound on the respective ends of the drum 15 in a direction opposite to the cords 22 whereby as the drum is turned to wind up the cables 23 the cords 22 are unwound thus lowering the follower and a reverse rotation of the drum reverses this winding operation, thus raising the follower. The pawl 17 holds the follower in elevated position and the pawl 20^a holds the same when depressed by winding of the cables 23 on the drum. When a moderate pressure has been secured by means of the crank 18, a heavy pressure is then secured by use of the long lever 19 by engaging the pawl 20 with the ratchet 21 and when the bale is fully compressed, cords or wires are passed through the grooves 3^a, 5^a, and 27^a and secured around the bale, the doors 6 and 7 being opened for the purpose.

In filling the device, the follower 27 is elevated close to the winding drum and at the top of the case. The upper door 7 is opened for free access to the interior of the case and when filled with loosely arranged material the same may be pressed into the lower part of the case, the door 6 remaining closed, and as further material is needed the same can then be added by again raising the

follower 27, until sufficient material is had to form the bale.

The cords 22 are each secured to the drum by inserting the same through an opening therein and providing a knot on the inner end of the cord and within the drum. The cables 23 are inserted, preferably wholly through opposing holes in the drum and clamped in the said holes by bosses on the heads 18^a and 29 as illustrated in Fig. 4. These cables can thus be easily shortened up by slacking off the bolt 28 and pulling the end of the cable farther through the drum and again tightening the bolt.

What I claim is:—

1. A baling press, comprising a rectangular case having a detached side forming a door, means for hinging one edge of the door to the case, an angle iron batten attached to the door and projecting from the other edge of the same, an angle iron band on the case and projecting from the same to overlap the projecting end of the batten, said batten and band having superposed recesses in their overlapping ends and a hook pivoted to the batten and engaging the said superposed recesses.

2. A baling press, comprising a rectangular case, a door at the front of the case, angle iron battens on the door and projecting outward at each side thereof, angle iron bands on the case projecting beneath the ends of the battens and supporting the same, a pivot bolt in the overlapping ends of the bands and battens at one side of the door, said battens and bands also provided with recesses in their overlapping ends at the other side of the door and a hook pivoted to each batten and having its end adapted to fit within said recesses.

3. A baling press, comprising a rectangular case, a follower movable in the case, a winding drum extending across the top of the case, a crank attached to the drum, a lever journaled on the drum, a ratchet wheel on the drum near the lever, a holding pawl and a pawl on the lever each engaging said ratchet wheel, a second and oppositely acting ratchet wheel on the drum, a holding pawl engaging the same, cables attached to the follower and wound on the drum, pulleys engaged by the cables and hoisting cords attached to the follower and oppositely wound on the drum.

4. A baling press, comprising a rectangular case, sills supporting the case, eye bolts in the sills, pulleys mounted in yokes at the top of said bolts, a follower movable in the case, a tubular winding drum journaled on the top of the case, heads to close the ends of the drum, a bolt in the axis of the drum and heads, a crank on one of said heads, two opposing ratchet wheels on said drum, a holding pawl to each ratchet wheel, a lever

5 journaled on the drum, a pawl on the lever to engage one of said wheels; cables attached to the follower extending below the pulleys and thence upward to the drum and wound thereon, and hoisting cords oppositely wound on the drum and attached to the follower.

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

PERRY H. CAZIER.

Witnesses:

C. MARSHALL,
E. L. SCHAUTZ.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."