(No Model.)

T. H. KILLINGSWORTH.

BALING PRESS.

No. 565,081. Patented Aug. 4, 1896.

Fig. 1.

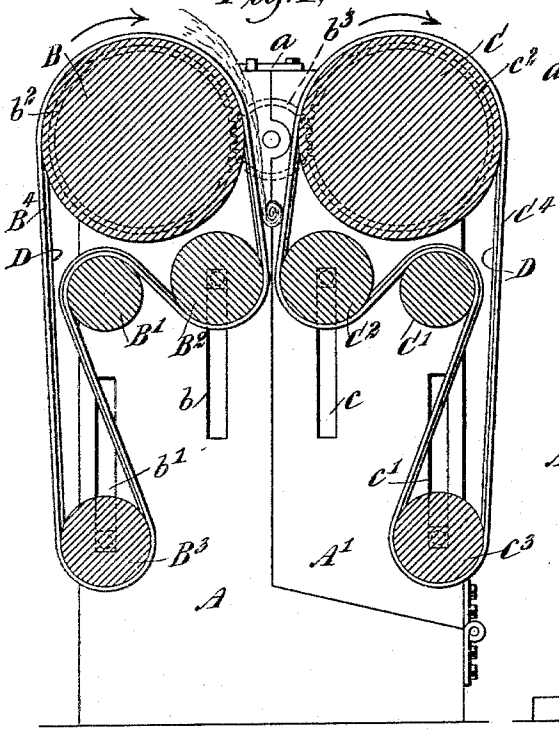


Fig. 2.

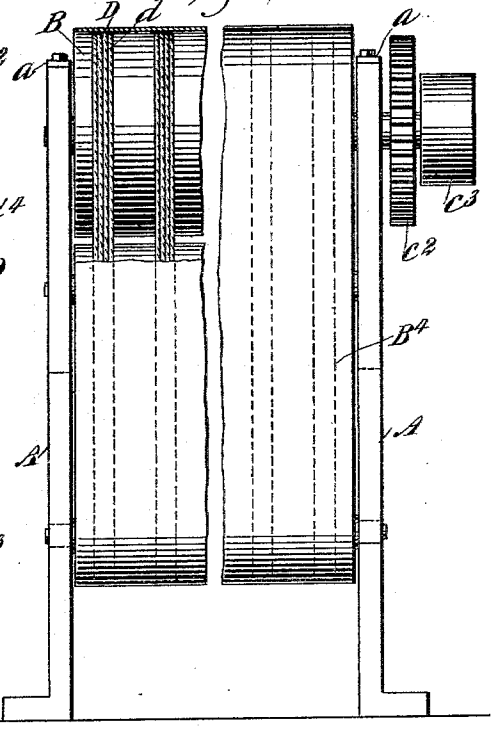
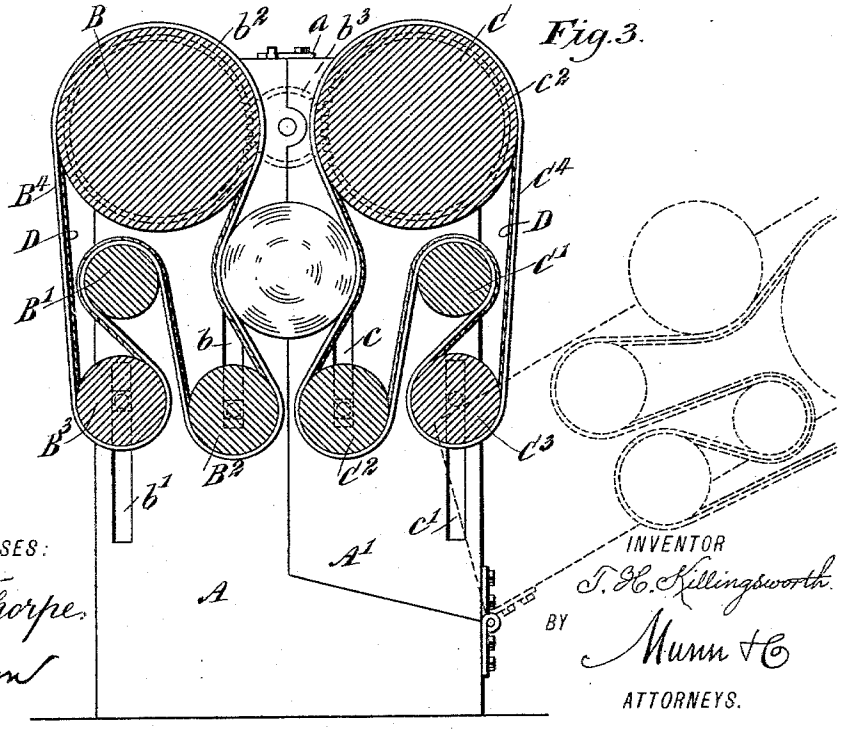


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

THOMAS H. KILLINGSWORTH, OF WACO, TEXAS.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 565,081, dated August 4, 1896.

Application filed October 21, 1895. Serial No. 566,368. (No model.)

To all whom it may concern:

Be it known that I, THOMAS H. KILLINGSWORTH, of Waco, in the county of McLennan and State of Texas, have invented certain new and useful Improvements in Baling-Presses, of which the following is a full, clear, and exact description.

This invention relates more particularly to presses for baling cotton, and the object is to provide a simple and easily-operated device in which the cotton-bat is wound into a cylindrical form without the use of a metal or similar core.

The invention consists in the construction and novel arrangement of parts, as will be hereinafter specified, and particularly pointed out in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a vertical section of a press embodying my invention. Fig. 2 is an elevation with a portion broken away to better illustrate other parts; and Fig. 3 is a view similar to Fig. 1, but showing the parts in a different position.

The press comprises side frames, each consisting of two sections A A′, suitably hinged together, so that one section may swing or be moved away from the other part, for a purpose as will hereinafter appear. As here shown the section A′ is hinged to the stationary section A at the lower end of the section A′. For the purpose of securing the parts or sections together latches or hooks *a* may be employed.

B is a drum rotarily mounted in the stationary portion A of the frame.

B′ is a roller mounted in the frame and having its axis outside the vertical line of the drum's axis.

B^2 is a pressure-roller mounted in the frame and having its axis inside the vertical line of the drum's axis, and B^3 is a tension-roller here shown as having its axis in a vertical line with the roller B′.

A drum C is mounted in the frame-sections A′, opposite the drum B; and rollers C′ C^2 C^3, similar to the rollers B′ B^2 B^3, are mounted in the swinging section of the frame.

The pressure-rollers B^2 C^2 have their journal-bearings in boxes movable in vertical slots or guideways *b c*, formed in the respective frame-sections A A′, and the tension-rollers B^3 C^3 have their journal-bearings in boxes movable in slots or guideways *b′ c′*, formed in the respective sections A A′. The shafts of the drums B C have gear-wheels b^2 c^2 mounted on them, and these gear-wheels mesh with a pinion b^3, on the shaft of which is a band-wheel c^3.

A belt B^4 extends around the upper side of the drum B, around the under side of the rollers B^2 B^3, and around the upper side of the roller B′, and a similar band C^4 has a similar connection with the parts C, C^2, C^3, and C′.

It will be seen that the rollers B^2 C^2 are nearer together than are the drums, so that the adjacent portions of the belts are inclined downward and inward at the part where the cotton is fed and rolled.

As in the process of baling there is a great pressure on the baling-belts, I provide them with supporting-bands. As here shown these supporting-bands consist of a series of cables or ropes D, extended around the respective drums and rollers of the sets, and preferably the drums and rollers are provided with annular grooves or channels *d* to receive the bands, so that the belts may lie closely against the drums and rollers, as indicated in the drawings.

The operation is as follows: The bat is fed between the moving belts, as indicated in Fig. 1, and as these belts move in opposite directions the bat will be compactly rolled, and as the roll increases in size the rollers B^2 C^2 will move downward to provide sufficient clearance, and the tension-rollers will move upward, maintaining the belts at an even pressure. After the bale shall have reached the desired size, the frame-section A′ may be swung outward, as indicated in dotted lines in Fig. 3, and the bale removed or allowed to fall to the bottom of the frame.

It will be seen that when the compression is accomplished in the manner described each layer is compressed as it is added, thus adding to the pressure on the interior of the bale.

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

1. A press for baling cotton comprising a

frame, rotary drums mounted in said frame, opposite pressure-rollers having bearings in boxes movable in vertical guideways in the frame, tension-rollers having bearings in boxes movable vertically in the frame, the rollers having journal-bearings in the frame outside the vertical line of the drum-axes, the endless belts and means for rotating the drums in opposite directions, substantially as specified.

2. A baling-press, comprising two endless belts, rotary drums, pressure-rollers and tension-rollers carrying the belts, and supporting-bands for the belts extending around all the rollers and movable with the belts, substantially as specified.

3. The combination with a frame made in separable sections, rotary drums mounted in the respective sections, pressure-rollers and tension-rollers, each having movable bearings, rollers above the tension-rollers and having fixed bearings, endless belts and supporting-bands for said belts traveling with the belts, substantially as specified.

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Witnesses:

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