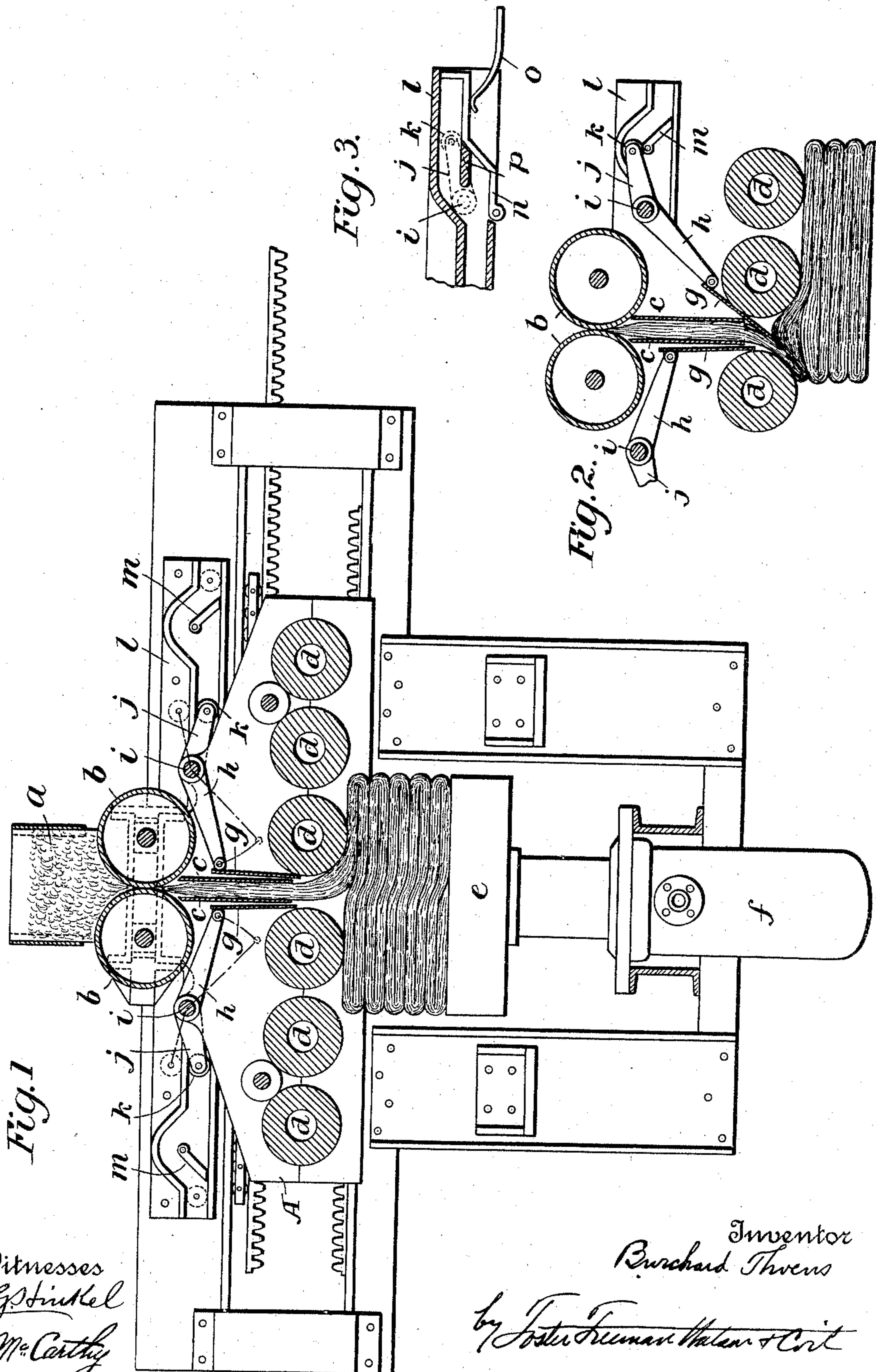


928,563.

B. THOENS.
COTTON PRESS.
APPLICATION FILED MAY 23, 1907.

Patented July 20, 1909.



Witnesses
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UNITED STATES PATENT OFFICE.

BURCHARD THOENS, OF NEW YORK, N. Y., ASSIGNOR TO CHARLES E. LEVY, OF
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COTTON-PRESS.

No. 928,563.

Specification of Letters Patent.

Patented July 20, 1909.

Application filed May 23, 1907. Serial No. 375,309.

To all whom it may concern:

Be it known that I, BURCHARD THOENS, a subject of the Emperor of Germany, and resident of the city, county, and State of New York, have invented certain new and useful Improvements in Cotton-Presses, of which the following is a specification.

My improvement applies especially to roller presses and in the accompanying drawing my invention is shown in connection with a press of the character shown in Letters Patent No. 759,386.

Referring to said drawing, Figure 1 is a sectional elevation of sufficient of such press to illustrate my invention; Fig. 2 a partial view showing certain elements in a different position; Fig. 3 a detached view showing a modification.

Roller presses of the class shown in the said patent bale cotton by folding a bat in layers on a receding platen of a hydraulic press. The existing defect of this type of presses consists in the fact that it makes the folds very irregular, at some strokes it makes no fold at all, because the cotton is moving away from the rollers at the same speed as the rollers advance. If these rollers are smooth, they simply push the cotton away. To overcome this defect I provide means whereby at the end of each traverse of the rolls and as they begin the return movement the bat is positively folded and the fold laid in exact position.

In the construction shown in the drawing, cotton is introduced in a suitable hopper *a*, passing down between throat-irons *c*, *c*, and through the central space between the central rollers *d*, *d*, supported by the carrier A and reciprocating over the surface of the platen *e* of a suitable hydraulic lifting press *f*. The whole machine consists of parts mounted on a suitable frame and driven in suitable manner (not shown) to reciprocate the carriage and rotate the rollers. Blades *g*, *g*, are suspended outside the throat irons *c* from the ends of levers *h*, *h* fastened to rock shafts *i*, *i*. To the same shafts *i*, *i*, are fastened levers *j*, *j*, on the ends of which are mounted rollers *k*, *k*, moved and guided in a groove of a stationary guide frame *l*. Near the ends of the groove in the frame *l* are hung switches *m*, *m*, which allow the rollers *k*, *k*, to pass under the switches *m*, *m*, when moving in one direction, but compel the rollers *k*, *k*, to rise and pass over them when moving

in the opposite direction. In Fig. 3 is shown a modification in which a switch *n* is held up by a spring *o* to aline with a rib *p* in one position but to yield to permit the roller, passing below the rib, to move between the latter and the switch on moving in the opposite direction.

The operation of my device is as follows: The carriage and its rollers being reciprocated, the blades *g* are held in a vertical or elevated position during the stroke, but its lower edge is brought against the upper layer of the bat at the side of the bale so as to hold the said upper layer in position as the carriage begins its return stroke. Thus the shaft *i* is rocked by the arm *j*, the roller *k* climbing over the switch, and the blade *g* is pushed down into the cotton and one roller *d* acting as a fulcrum, the cotton is pushed under the other roller *d* thereby positively making a fold; the blade is then withdrawn.

It will be evident that while I have shown certain appliances for actuating the folding means, as the blades *g*, the actuating means may be varied to a great extent, it being required only to carry the edge of a blade across the bat at the end of each traverse of the carriage and its rolls, and hold the bat on the mass below until the advancing roll engages the fold and presses it onto the mass, whereby the folds are all laid in the same vertical plane at each side of the mass.

Without limiting myself to the construction and arrangement shown, I claim,

1. In a cotton press provided with a reciprocating carriage and bat-feeding means and movable bale support, means supported by the carriage for holding the upper bat layer in position at the side of the bale at the beginning of each return movement of the bat, and means for actuating said holding means.

2. The combination in a press, with a reciprocating carriage, a series of rollers carried thereby, and means for conducting a bat of cotton between two of the rollers, of means supported on the carriage for holding the upper bat layer upon the mass below prior to each return movement of the carriage, and until the fold is under pressure by the returning roller.

3. The combination in a press, with a reciprocating carriage, a series of rollers carried thereby, and means for conducting a

bat of cotton between two of the rollers, of blades supported adjacent to the bat, supports for the blades on the carriage and means for operating the supports and blades
5 to press the bat upon the mass below prior to each return movement of the carriage, and for thereafter withdrawing the blade.

4. The combination in a press, with a reciprocating carriage, a series of rollers carried thereby, and means for conducting a
10 bat of cotton between two of the rollers, of rock shafts carried by the carriage and provided with arms and blades *g* pendent therefrom between the central rollers, and means
15 for rocking the shafts to bring the edges of the blades upon the upper layer of the bat adjacent to the side of the bale prior to each return movement of the carriage.

5. The combination with the frame reciprocating carriage, and rollers of a cotton
20 press, of rock shafts on the carriage provided with arms and blades pendent therefrom between central rolls, other arms of the shaft provided with side rollers or projections *h*, and guide grooves and switches
25 upon the frame arranged to act on said rollers *h* to rock the shafts to bring the edge of the blade upon the upper layer of the bat prior to each return movement of the carriage.
30

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

BURCHARD THOENS.

Witnesses:

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