



# UNITED STATES PATENT OFFICE.

ROBERT C. THOMPSON AND JOSEPH N. THOMPSON, OF BONHAM, TEXAS.

## IMPROVEMENT IN COTTON-PRESSES.

Specification forming part of Letters Patent No. **198,907**, dated January 1, 1878; application filed June 13, 1877.

*To all whom it may concern:*

Be it known that we, ROBERT C. THOMPSON and JOSEPH N. THOMPSON, of Bonham, in the county of Fannin and State of Texas, have invented certain new and useful Improvements in Cotton-Presses, of which the following is a specification:

This invention relates to certain improvements in cotton-presses, its object being to produce a compact and efficient apparatus, adapted to be secured in the floor between the first and second stories of a building, in such manner that the press-box can be filled and the cotton made up into bales in the upper story, while the pressing operation is effected from below.

Our invention consists of a vertical rectangular box constructed in two sections, the lower section of which is permanently secured at its upper end in a suitable opening in the floor between two stories of a building, the upper section being formed with detachable sides, and adapted to be clamped in position upon the lower section by means of hinged straps at each side, which are pivoted at their lower ends to straps passing downwardly under the bottom of the press and around a bridge-tree, which they support in place against the bottom, said bridge-tree carrying a rotating internally screw-threaded sleeve, through which passes a screw which actuates the follower, the sleeve being put in operation by means of levers secured thereto, as more fully hereinafter set forth.

Our invention further consists in a certain improved arrangement of devices for elevating the crown-cap of the upper section to permit the cotton to be fed into the press, as more fully hereinafter specified.

In the drawing, Figure 1 represents a vertical sectional view of our improved press; Fig. 2, a side elevation thereof.

The letter A represents the lower section of our improved press, consisting of a rectangular box, the sides of which are bolted together in any convenient manner, and strengthened by means of the timbers B B', mortised and clamped together around said section. The upper timbers, B', extend to the rear of the section, and form the base of an upright frame,

C, the object of which will be more fully hereinafter explained.

The letter D represents the upper section, formed of detachable sides, strengthened by battens E E', two of the upper battens, E, projecting beyond the sides, and being provided with staples F for the reception of the hooks G, by means of which the sides are held together at the tops, the lower ends of said sides sitting, when in place, within the timbers B'; above the lower section of the press, and being held in position by said timbers.

The letters H H represent two flat straps, secured at their upper ends to two of the timbers B' on opposite sides of the press, said straps passing below and under the box, being bent into angular shape below the box for the reception of the bridge-tree I, the angular part of said straps passing around the angular braces *i* of said bridge-tree, and sitting within grooves in the bridge-tree to prevent displacement. Through the lower horizontal block *k* of the bridge-tree passes an internally screw-threaded sleeve, L, the upper end of which is provided with a head, *l*, and the lower end with polygonal sides *l'*, for the reception of the lever-block M, to which the levers N are secured.

The lever-block is provided with two oppositely-projecting arms, *m*, with recesses on the upper sides, in which the levers are secured by means of bolts *n* passing through the levers, and secured in the lever-block. Through the sleeve, and gearing therewith, passes a vertical screw, O, the upper end of which is rigidly attached to a follower, P, which travels in the lower section of the press.

The letter Q represents the crown-cap of the press, which fits upon the upper section thereof, and which may be confined thereon by means of the straps R R, pivoted at their lower ends to the straps H H, secured to the lower section of the press, said straps passing over the ends of the batten S extending across the top of said crown-cap.

The crown-cap is secured to two beams, T T, which are pivoted to the upright frame C in such position that the crown-cap may be swung on said beams in the arc of a circle, in order to be removed from the top of the upper

section. Said crown-cap has secured to it one end of a rope or chain, U, which passes over a pulley, V, journaled in the upper part of the frame C, the other end being secured to a windlass, W, journaled in said frame, for the purpose of elevating said crown-cap.

The operation of our improved press will be readily understood in connection with the foregoing description. The lower section is permanently secured in a suitable opening in the floor between two stories of a building, the timbers B' resting upon the upper surface of the floor, and the lower section projecting into the lower story and the upper section in the upper story thereof. The press is filled with cotton from the top, the crown-cap being elevated for the purpose. The crown-cap is then secured in place, and the press put in operation from below, compressing the cotton into the upper section. When the bale is properly formed and pressed the sides of the upper section may be removed for the subsequent operations necessary for completing the bale.

By the peculiar construction of the press, and the method of clamping the crown-piece and bridge-tree thereto, it will be evident that the whole strain of the pressure will be upon the metallic straps passing under the machine and over the crown-cap, which adds greatly to the strength and durability of the press.

What we claim, and desire to secure by Letters Patent, is—

1. The combination, in a cotton-press, of the

upper and lower sections, the crown-cap and its elevating devices, the bridge-tree and straps, connecting the same with crown-cap, the screw-threaded sleeve and its screw, and the follower traveling in the lower press-section, the whole adapted to operate substantially as herein set forth.

2. In combination with the two parts of the press, the bridge-tree I, angular braces *i i*, and lower horizontal block *k*, containing the internally-threaded sleeve for operating the screw, of the straps H, passing around the horizontal block *k*, angular braces *i*, and bridge-tree I, and attached at their upper ends to the timbers B', and the looped straps R R, pivoted at their lower ends to the straps H, and adapted to hold the crown-cap down, substantially as described.

3. The combination, with the press, of the upper timbers B', projecting in rear of the press, the upright frame C, attached to the rearward extension, the beams T T, hinged to the frame C, and carrying the crown-cap; the pulley V, and the windlass W, carried by said frame and the rope or chain U, substantially as and for the purpose described.

In testimony that we claim the foregoing we have hereunto set our hands in the presence of the subscribing witnesses.

ROBERT C. THOMPSON.  
JOSEPH N. THOMPSON.

Witnesses:

W. A. MUNNEBE,  
GEO. A. PRESTON.