

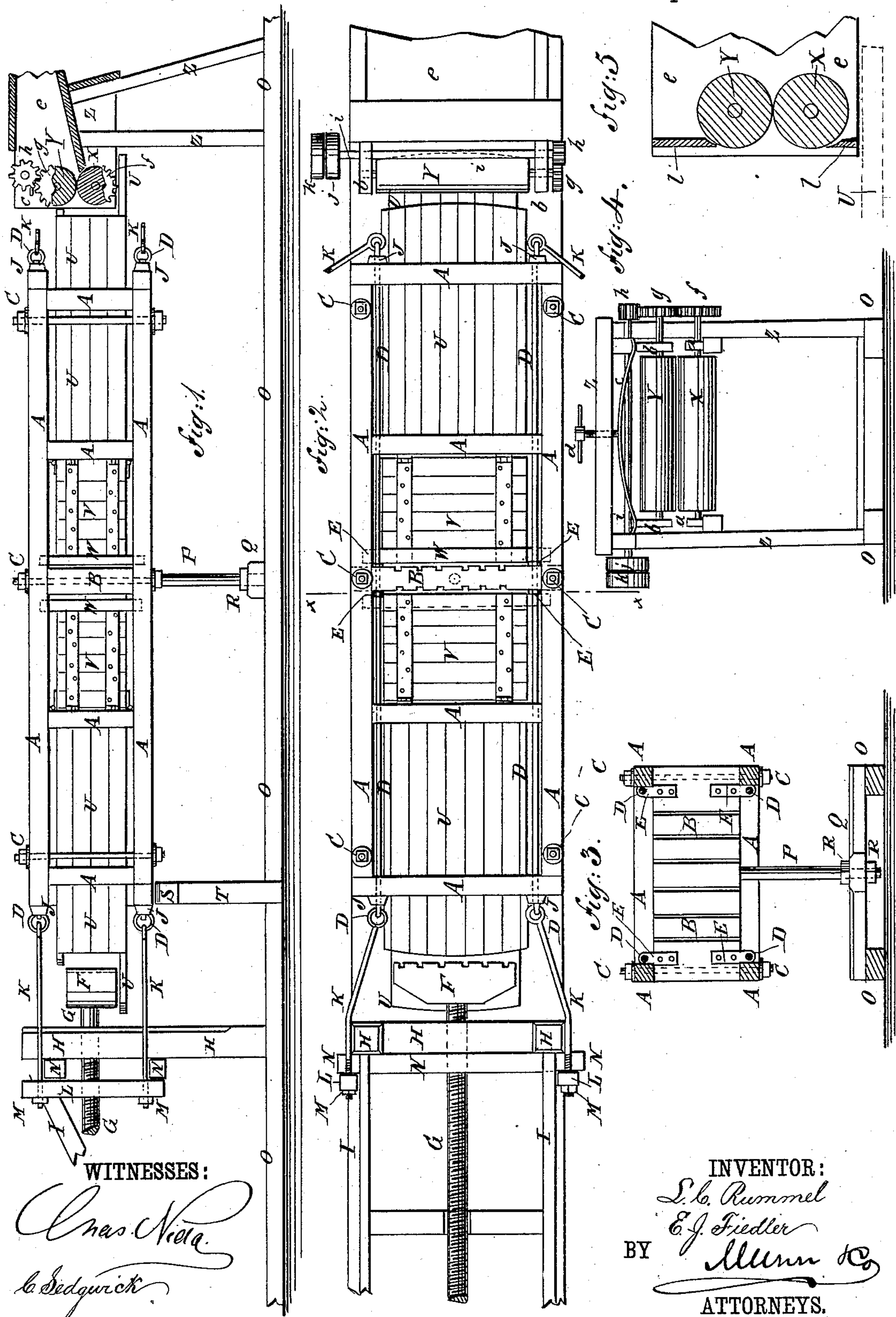
(No Model.)

L. C. RUMMEL & E. J. FIEDLER.

SELF PACKING COTTON PRESS.

No. 285,765.

Patented Sept. 25, 1883.



UNITED STATES PATENT OFFICE.

LOUIS C. RUMMEL AND EMIL J. FIEDLER, OF LEDBETTER, TEXAS.

SELF-PACKING COTTON-PRESS.

SPECIFICATION forming part of Letters Patent No. 285,765, dated September 25, 1883.

Application filed July 12, 1883. (No model.)

To all whom it may concern:

Be it known that we, LOUIS C. RUMMEL and EMIL J. FIEDLER, both of Ledbetter, in the county of Fayette and State of Texas, have invented a new and useful Improvement in Self-Packing Cotton-Presses, of which the following is a full, clear, and exact description.

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

Figure 1 is a side elevation of our improvement, parts being broken away. Fig. 2 is a plan view of the same, part being broken away. Fig. 3 is a sectional end elevation of the same, taken through the line *xx*, Fig. 2. Fig. 4 is an elevation of the packing-rollers and their driving mechanism. Fig. 5 is a sectional elevation of the feed-rollers.

The object of this invention is to facilitate the baling of cotton as it comes from the gin.

The invention consists in a cotton-press constructed with a pivoted double baling-box, a pair of rolls and their driving mechanism for packing the cotton into the baling-box automatically, and a screw-driven follow-block for compressing the cotton into bales. The upper packing-roll is held down by a spring and hand-screw, so that the said roll can adjust itself to the thickness of the cotton passing between the rolls. The double baling-box is held against the pressure of the follow-block by rods hinged to the ends of the baling-box and connected in pairs at their outer ends by bars designed to be swung over the ends of the bars attached to the frame that supports the follow-block and its driving-screw. The central head-block is supported against the pressure of the follow-block by rods secured to the baling-box frame and connected to the said head-block by flanges or collars. The double baling-box is pivoted at its center to a supporting-post, so that it can be readily turned end for end, as will be hereinafter fully described.

A represents the frame of the baling-box, which is provided with a stationary head-block, B, at its center, and is made of sufficient length to have a baling-box at each end. The frame A is strengthened from spreading by bolts C, passing through its longitudinal beams,

the center bolts, C, also passing through the head-block B. The head-block B is further secured in place by the rods D, which pass through the end cross-bars of the frame A at the four corners of the ends of the said frame. The rods D have flanges or collars E, welded upon their middle parts in such positions as to rest against the opposite sides of the head-block B, so as to sustain the pressure of the follow-block F.

To the follow-block F is attached a screw, G, which passes through guide-holes in a cross-bar of the frame H, and is designed to be forced forward and back by a revolving nut driven by gearing from the driving mechanism of the press. The nut and driving gearing are not shown in the drawings, as there is nothing new in their construction. The frame H is made strong, and is firmly supported against the back pressure of the screw G by braces I, the lower ends of which are secured to the base frame O of the press.

The nuts J, screwed upon the ends of the rods D, have loops or eyes formed upon them, to which are hinged the eyes of the bolts or rods K, which pass through the ends of an upright bar, L, and have nuts M screwed upon their ends. The eyebolts K and bars L thus form loops or stirrups, which are swung over the projecting ends of cross-bars N, attached to the frame H, so that the baling-box frame A will be held against the push of the follow-block by the said frame H.

The frame A is pivoted at the center of its lower side to the post P, the lower end of which is secured to the cross-bar Q by nuts R, screwed upon it above and below the said cross-bar, so that the height of the press-frame A above the base-frame O can be adjusted by turning the said nuts R up or down.

The end of the baling-box A that receives the follow-block F is supported by a cross-bar, S, attached to the upper ends of two posts, T, the lower ends of which are attached to the base-frame O of the press. The upper sides of the ends of the cross-bar S are beveled, so that the frame A will readily pass upon the said cross-bar when the said frame is swung into line with the follow-block. The outer part of each baling-box is closed by a casing, U, and the inner part is closed by doors V, hinged at one side to the frame A and secured

at the other side by locking-bars W in the ordinary manner, so that the compressed bales can be readily taken out. The bottom parts of the casings U project so as at one end of the frame A to pass beneath the follow-block F and serve as a guide to the said follow-block as it enters the mouth of the baling-box. The projecting end of the bottom casing, U, at the end of the frame A opposite the follow-block F, passes beneath the packing-rolls X Y, to receive the cotton from the said rolls and guide it into the mouth of the baling-box. The projecting ends of the bottom casing also serve to prevent the cotton from dropping to the floor while the press is being reversed. The rolls X Y are supported by a frame, Z, and the journals of the lower roll, X, revolve in stationary bearings *a*, attached to the said frame. The journals of the upper roll, Y, revolve in bearings *b*, sliding vertically in ways in the frame Z, and upon the tops of the said bearings rest the ends of a half-elliptic spring, *c*, upon the center of which rests the forward end of a hand-screw, *d*, passing down through a cross-bar of the frame Z, so that the roll Y can be held down upon the roll X with any desired pressure and the said roll Y can adjust itself to the varying thickness of cotton passing between the said rolls.

The machine is designed to be so arranged that the cotton will pass from the condenser of the gin through the spout *e* to the rolls X Y, so as to be packed into the baling-box automatically.

To the projecting journals of the rolls X Y are attached, respectively, the gear-wheels *f* *g*, the teeth of which mesh into each other, so that the said rolls will be driven at the same speed and in opposite directions. The teeth of the upper gear-wheel, *g*, mesh into the teeth of the small gear-wheel *h*, attached to the end of the shaft *i*, which revolves in bearings at the top of the frame Z, and has a fast pulley, *j*, and a loose pulley, *k*, attached to its other end to receive the driving-belt.

The rolls X Y and the screw G are designed to be driven from the driving mechanism of the gin and the gin and its condenser. The packing-rolls X Y and the pressing-screw G may all be driven by a single belt, if desired. At the lower forward part of the roll X and the upper forward part of the roll Y are

placed guard-boards *l*, to prevent the cotton from being carried back by the said rolls.

In using the press, it is arranged, as shown in Figs. 1 and 2, with the end of a baling-box opposite the rolls Y X, so that the cotton, as it comes from the condenser of the gin, will be fed and packed by the said rolls into the said baling-box. When enough cotton for a bale has been packed into the baling-box, the press is turned upon the pivot-post P through half a revolution, bringing the end of the empty baling-box opposite the rolls X Y and the end of the full baling-box opposite follow-block F. The driving mechanism of the follow-block F is then set in motion and the said follow-block is forced forward into the baling-box, compressing the cotton into a bale. When the cotton is sufficiently compressed, the bale is tied in the ordinary manner and removed from the press, through the doors V, and the press is again turned through a half-revolution and a second bale is pressed, and so on, the two operations of ginning and baling going on continuously.

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

1. In a cotton-press, the combination, with the double baling-box A and the central head-block, B, of the pivot-post P, substantially as herein shown and described, whereby the said baling-box can be readily turned end for end, as set forth.

2. In a cotton-press, the combination, with the double baling-box A and the central head-block, B, of the rods D, having flanges or collars E, substantially as herein shown and described, whereby the said head-block is held against the pressure of the follow-block, as set forth.

3. In a baling-press, the combination, with the double baling-box A and the central head-block, B, of the rods D, having flanges or collars E, the frame H, hinged rods K, the connecting-bars L, and cross-bars N, substantially as and for the purpose set forth.

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