

(No Model.)

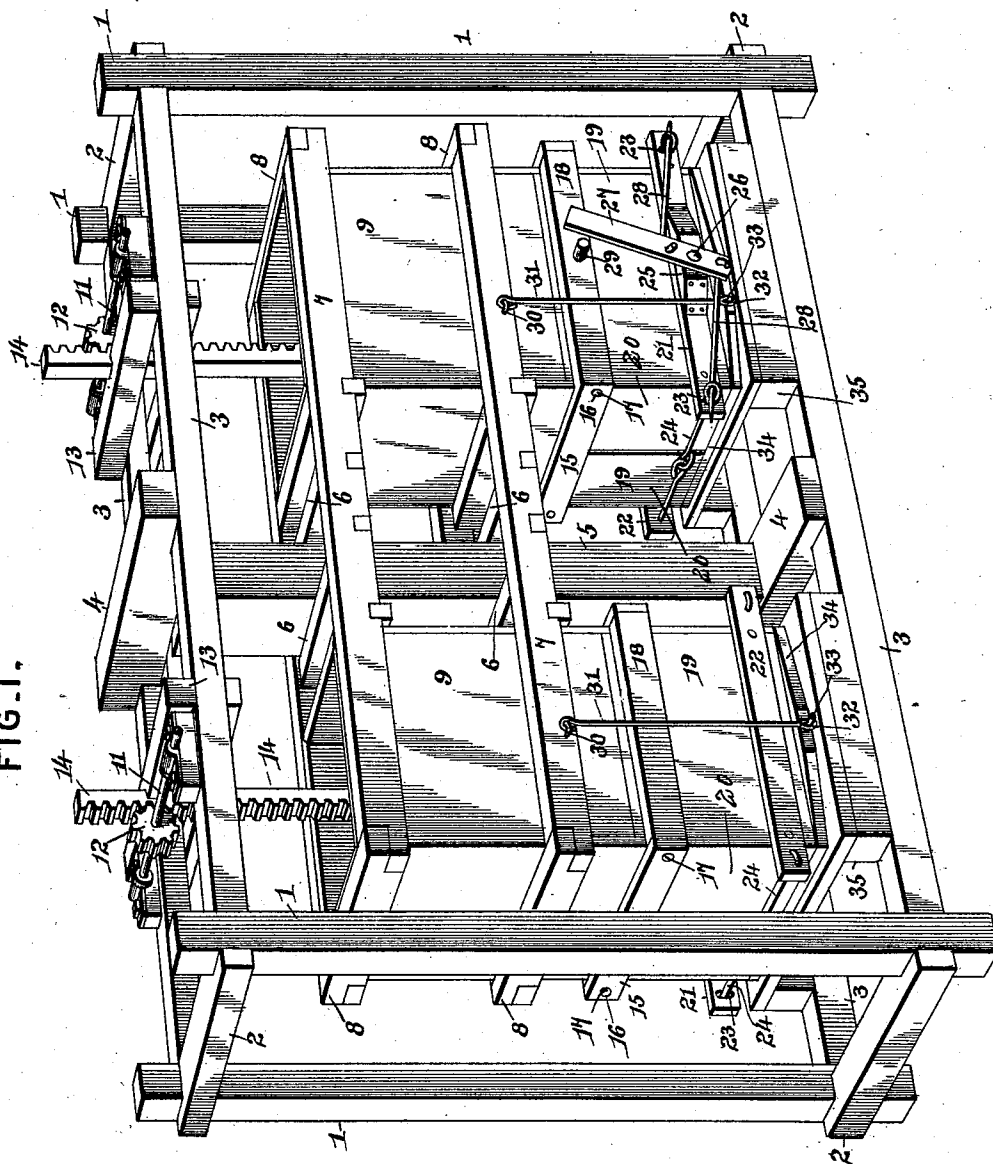
2 Sheets—Sheet 1.

A. L. COX.
BALING PRESS.

No. 531,163.

Patented Dec. 18, 1894.

FIG. 1.



Inventor

Allen L. Cox

Witnesses

Jas. K. McLaughlin

By His Attorneys,

W. S. Duwall,

C. A. Snow & Co.

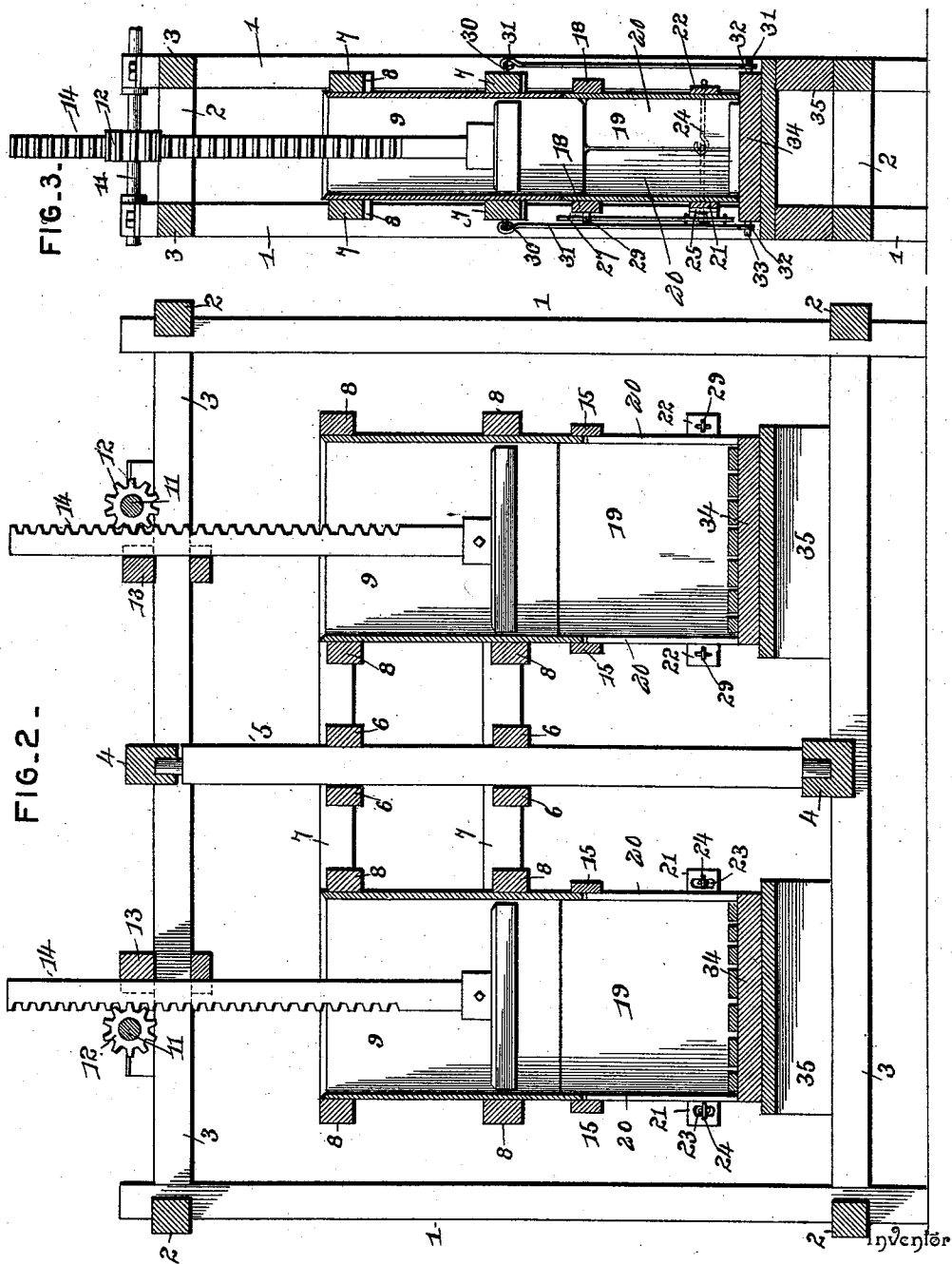
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UNITED STATES PATENT OFFICE.

ALLEN LARANCE COX, OF WISE, ALABAMA.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 531,163, dated December 18, 1894.

Application filed April 12, 1894. Serial No. 507,274. (No model.)

To all whom it may concern:

Be it known that I, ALLEN LARANCE COX, a citizen of the United States, residing at Wise, in the county of Chambers and State of Alabama, have invented a new and useful Baling-Press, of which the following is a specification.

My invention relates to improvements in baling-presses; the objects in view being to provide a very simple and cheap construction of press designed for use in forming cotton-bales; to so construct the press as to facilitate its packing and discharge and for securing the mass of cotton therein during the packing.

Other objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings:—Figure 1 is a perspective view of a baling-press embodying my invention. Fig. 2 is a longitudinal sectional view. Fig. 3 is a transverse vertical sectional view through one of the baling-chambers.

Like numerals of reference indicate like parts in all of the figures of the drawings.

In the practice of my invention I construct a substantial framework, which in the present instance comprises a series of four posts 1, arranged in opposite pairs, which are connected by upper and lower transverse cross-sills 2 and upper and lower longitudinal sills 3. These upper and lower sills 3 are spanned at their centers by bearing-sills 4 and accommodate a vertical post 5, which is swiveled therein. The post has secured to its opposite faces transverse bars 6 arranged in upper and lower pairs, and the bars are connected by pairs of upper and lower longitudinal bars 7, which are let therein. These bars 7 terminate adjacent to the posts 1 and in turn are connected at opposite sides of their centers and at their extremities by cross-bars 8, those side-bars at each side of the swiveled post 5 combining with the bars 7 to produce a framework in which are seated the opposite baling-chambers 9. Thus far it will be seen that I have provided a support for the opposite baling chambers, said support being capable of oscillating or turning so as to sup-

port the chambers within the main framework or at any angle thereto.

In transversely opposite bearings above each of the baling-chambers 9 I locate transverse shafts 11, which are designed to be driven by any motive power, and each shaft is provided between its bearings with a spur-gear or pinion 12. In front of each of these pinions a vertical guide 13 is located, and arranged in each vertical guide above each of the chambers is a plunger-bar 14, which has one of its faces toothed to engage with and be operated by the adjacent gear 12.

The opposite ends of the baling-chambers have secured thereto transverse cleats 15, whose extremities project in front and in rear of the chambers and are provided with transversely opposite bearing-openings 16. These openings 16 accommodate the reduced bearings 17 of opposite longitudinal cleats 18, and each cleat is secured to the outer side of a hinged door 19. Each door 19 has opposite side pieces 20, so that when the doors are brought together or assume a vertical position they form a continuation of the baling-chamber 9. The doors 19 have applied to their outer faces near their lower ends longitudinal cleats 21 and 22, and the same have their ends projecting beyond the end walls of their respective baling-chambers. The cleats 22, which are located at alternately opposite sides of the two chambers, are perforated beyond the end walls, and the cleats 21 at corresponding points are slotted at 23. A pair of eye-bolts 24 is swiveled in the perforations of the cleats 22, and at their opposite or free ends are designed to be passed through the slots 23 of the cleats 21.

The cleats 21 have blocks 25 on their outer faces, and pivoted to these blocks, as at 26, are locking-levers 27. These locking levers are provided above and below the pivot point with locking bolts 28, whose extremities are beveled and designed to be passed through the eyes of the eye-bolts 24 when the levers are thrown in one direction, or to be withdrawn from said eye-bolts when the levers are thrown in an opposite direction. Of course when the locking-bolts pass through the eye-bolts the two doors 19 are bound together, and, on the other hand, when they are

withdrawn from the eye-bolts, the two doors are free to separate.

For the purpose of securing the locking lever in either of its positions, I provide each of the cleats 18, that are above the same, with locking-studs 29. When the levers are thrown to one side of the studs 29 the bolts are in engagement with the eyes of the eye bolts, and when they are thrown to the opposite side they are out of such engagement. The lever possesses sufficient flexibility to provide for such manipulation, and sufficient elasticity to hold it in either of its adjusted positions.

Each of the lower longitudinal bars 7 is, opposite the centers of the baling-chambers, provided with staples 30, and loosely hung in said staples are suspension-rods 31 whose lower ends terminate in hooks 32 adapted to removably engage with transversely opposite studs or pins 33, which are located at the sides or edges of removable platens 34. The platens 34 are provided upon their upper sides with the usual filling-portions that take within the chamber and at their edges extend beyond the side walls of the baling-chambers.

Under each of the baling-chambers upon the sills 3 I prefer to arrange platforms 35.

This completes the construction of the press, and the operation will be readily understood from the following brief description.

When it is desired to charge the chambers with cotton, the plungers are elevated, so that the plunger-heads carried by the lower ends thereof are above the baling-chambers. The chambers are then revolved, together with their supporting post, so that they are at an angle to the main framework. The doors 19, it will be understood, are locked closed, and the platens are suspended by their rods 31, so that the chamber is in position to receive the charges of cotton. When the cotton has been introduced, if it be desired to tamp the same at intervals, after each charge the chambers are returned to their proper position under the main frame, and the plungers operated so as to pack the charge or tamp it, or the entire bulk of cotton may be introduced into the chambers previous to a lowering of the plungers. It will be seen that during said tamping or ramming of the cotton the platens will be supported upon the platform described as being arranged on the sills 3, so that no actual strain can come on the platens and their suspension-rods.

When the ramming operation has been concluded and the bale is formed in order to dis-

charge the same it is only necessary to remove the lower hook-ends of the suspension-rods from the studs of the platens and oscillate the locking levers to the opposite sides of the locking studs, which serve to withdraw the locking-bolts from the eye-bolts and which will permit of a swinging outward of the doors 19 of the baling-chamber, thus leaving the finished bale intact and in a position to be readily removed from the platen after the doors have been swung upward so that the chambers may be swung from over the bales.

From the foregoing description, in connection with the accompanying drawings, it will be seen that I have provided a very simple and durable construction of press that is capable with facility of producing bales, and from which the bales may be readily removed when completed.

Having described my invention, what I claim is—

1. In a baling-press, the combination of a baling-chamber, opposite pivoted doors connected at their upper edges to the lower end of the chamber and provided with opposite side-pieces 20 which combine with the doors to form a continuation of the chamber, cleats attached to the doors near their lower edges and projecting beyond the side edges thereof, eye-bolts connecting the projecting ends of said cleats, the same being permanently attached at one end to one of the cleats and being provided at the other end with eyes to engage slots in the other cleat, locking-bolts for engaging said eyes, and means for operating the locking-bolts and securing them in their operative positions, substantially as specified.

2. The combination with the framework, the opposite platforms, the intermediate swiveled post, the frame carried thereby, and baling-chambers carried by the frame, of the opposite hinged doors at the lower ends of the baling-chambers, means for locking the same together, removable bottoms for the baling-chambers provided with opposite studs and adapted to be seated on the platforms, and suspension-rods loosely connected with one of the frames for supporting the chambers, and terminating in hooks for removably engaging the studs, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

A. LARANCE COX.

Witnesses:

GUILFORD MCCORD,
J. W. A. VARDAMAN.