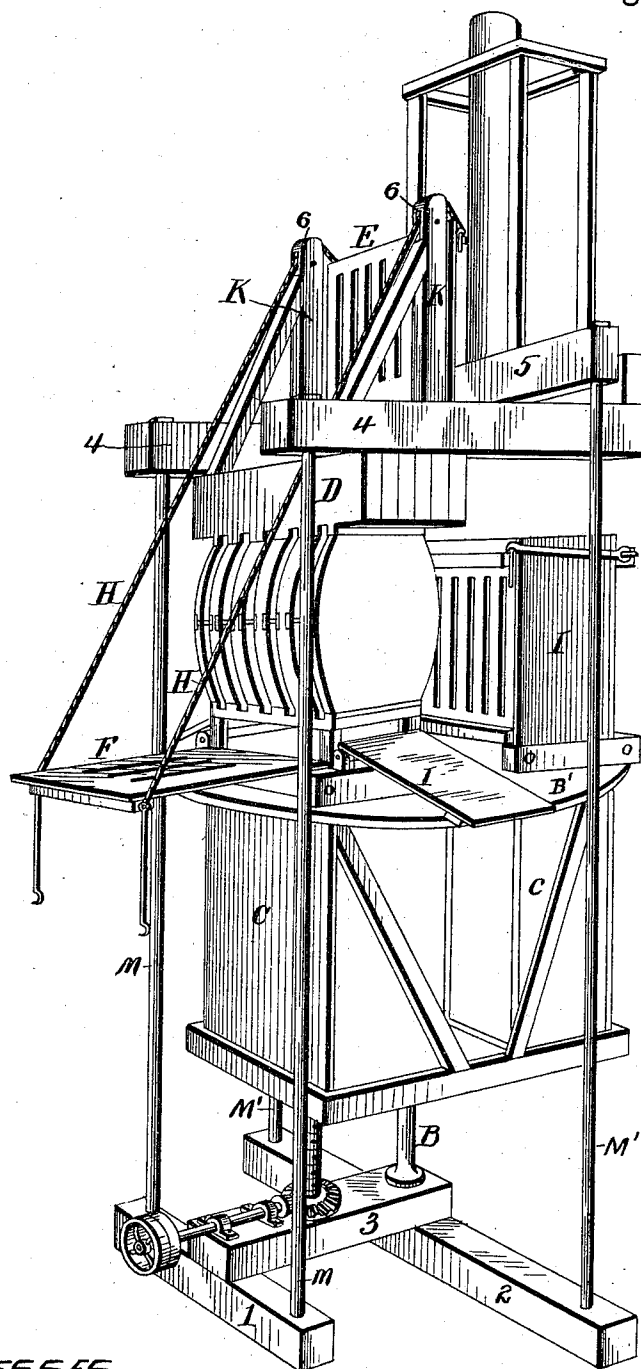


(No Model.)

W. S. LIDDELL.
BALING PRESS.

No. 566,460.

Patented Aug. 25, 1896.



WITNESSES

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UNITED STATES PATENT OFFICE.

WALTER S. LIDDELL, OF CHARLOTTE, NORTH CAROLINA.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 566,460, dated August 25, 1896.

Application filed February 6, 1896. Serial No. 578,242. (No model.)

To all whom it may concern:

Be it known that I, WALTER S. LIDDELL, a citizen of the United States, and a resident of Charlotte, county of Mecklenburg, and State of North Carolina, have invented a new and useful Improvement in Baling-Presses, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, making part of this specification.

This invention relates to that class of baling-presses employing a revolving table carrying the press-boxes, which are presented alternately to the baling action, one being filled and packed while the other is in position to have the bale compressed, bound, and removed, and more particularly to the arrangement of said boxes and the manner of connecting and operating the doors thereof, whereby the press is brought into compact shape and materially strengthened and the operation of baling facilitated. It will be understood from the following description, reference being had to the accompanying drawing, showing, in perspective, so much of a revolving double-box press as is necessary to illustrate the invention.

In the ordinary construction of baling-presses of the type referred to the revolving table carrying the press-boxes is supported upon and revolves around an upright frame-rod connecting the lower or base and upper horizontal frames of the machine, two additional upright rods, arranged on one side of the table, being ordinarily employed to connect said lower and upper frames, and, the press-boxes in said constructions being placed end to end on opposite sides of the pivotal support, a table of large diameter is rendered necessary, and, as a consequence, the upper frame-timbers have to be projected a long distance beyond the pivotal rod on the side opposite the additional supports referred to, in order to accommodate the baling operations. The outer end of the upper frame-timber thus projected is thus left without support, except such as is provided by props extended therefrom to the press-chamber floor at a point outside the revolving table. In the present construction, as shown in the drawing, the base-frame is composed of transversely-arranged timbers 1 and 2, connected

by a central longitudinal timber 3, which forms a support for the compressing-screw and its actuating mechanism, as shown, and also for a central upright rod B, which forms the pivotal support for the revolving table or platform B' and the press-boxes I I and C C, connected with said table on opposite sides of said central rod. The upper frame is composed of parallel timbers 4, extending longitudinally and connected by a transverse timber 5, the latter being connected with and supported from the base-frame bar 2 by upright rods M' (one at each end) in alinement, transversely, with the central rod B and sufficiently far apart to accommodate the press-boxes and their supporting-table between them. For this purpose the bars 2 and 5 are made longer than the bar 1, from which rods M M extend up to and form a support for the forward ends of the upper longitudinally-extended bars 4, to which the head-block D, which takes the final compression of the material, is attached at a point intermediate the central upright B and the end uprights M, as shown.

The central rod B, upon which the press table and boxes revolve, supported thereon in any usual manner, has its upper end (not shown) supported in the bar 5, and the press-boxes C I, revolving around said rod, instead of being placed end to end in pairs in the ordinary manner, are arranged side by side or back to back, with their broad adjacent sides facing each other, thereby giving them a compact arrangement as compared with the usual manner of placing the boxes and materially reducing the diameter of the table carrying said boxes. To accommodate this arrangement of the boxes, the adjacent side or rear doors, instead of being hinged at their bottoms and swinging outward at their tops in opening, as in the ordinary construction, are made to slide up and down or rise and fall, and said doors, one of which is indicated at E, are connected to the outer or front doors F by means of wire cords or ropes H, extending up over guiding sheaves or pulleys 6, mounted in uprights K on the frame-timbers 4, the arrangement being such that as the door F is swung outward or downward for opening the press-box the movement of said door is made to lift the rear or inner door,

thereby giving access to the bale in front and in rear for applying the bands, a reverse movement of the front door serving to allow the rear door to close in a manner that will
 5 be readily understood. By this arrangement of the inner or rear doors to slide out and in the boxes can be placed much nearer together than would otherwise be practicable, and at the same time ample space can be left
 10 between the boxes for the proper manipulation of the bands and of the bale itself.

The end doors of the boxes can be applied and operated in any usual or preferred manner.

15 By the construction described the press-boxes are adapted to be placed with their broad sides facing each other, in close proximity to the interposed upright frame-rod B, which forms also the central pivotal support
 20 for the revoluble press table and boxes, thereby permitting a material reduction in the diameter of the table and a closer and more compact arrangement of the boxes and of the upright frame-rods around said table and
 25 boxes than would be practicable under the usual arrangement. Further, the entire strain of the final compression of the material is thrown upon the stationary outer frame through the center and outer frame-uprights.
 30 Consequently there is no tendency to warp or twist the box-frames out of operative relation to the main frame. It will be seen, also, that the central frame-upright B not only forms the pivotal support for the revoluble press-
 35 boxes, but that, in connection with the end uprights M, it serves to hold the head-block D firmly against the final compression of the

bale, thereby rendering practicable the more compact arrangement described and materially strengthening the frame. 40

By connecting the side or front and rear doors as explained one is made to counter-balance the weight of and to operate the other, thereby facilitating the labor of baling.

The mechanism for packing and compress- 45 ing the material in the boxes, for revolving the table, and other features of the press not specifically described may be of any usual or preferred kind.

Having thus described the invention, what 50 is claimed as new, and sought to be secured by Letters Patent, is—

1. The combination in a baling-press, of the revolving table, press-boxes carried by said table and provided on their adjacent, inner 55 sides with sliding doors, and the hinged, outer doors connected to said sliding, inner doors for operating them, substantially as described.

2. The combination in a baling-press having a revolving press-table, of the press-boxes 60 arranged side by side on said table, sliding doors on the adjacent inner sides of said boxes, hinged doors on the outer sides thereof, cords connecting said hinged and sliding doors, and intermediate guides for said cords, substan- 65 tially as described.

In testimony whereof I have hereunto set my hand this, the 3d day of February, A. D. 1896.

WALTER S. LIDDELL.

Witnesses:

J. L. CHAMBERS,
 FRANK F. JONES.