

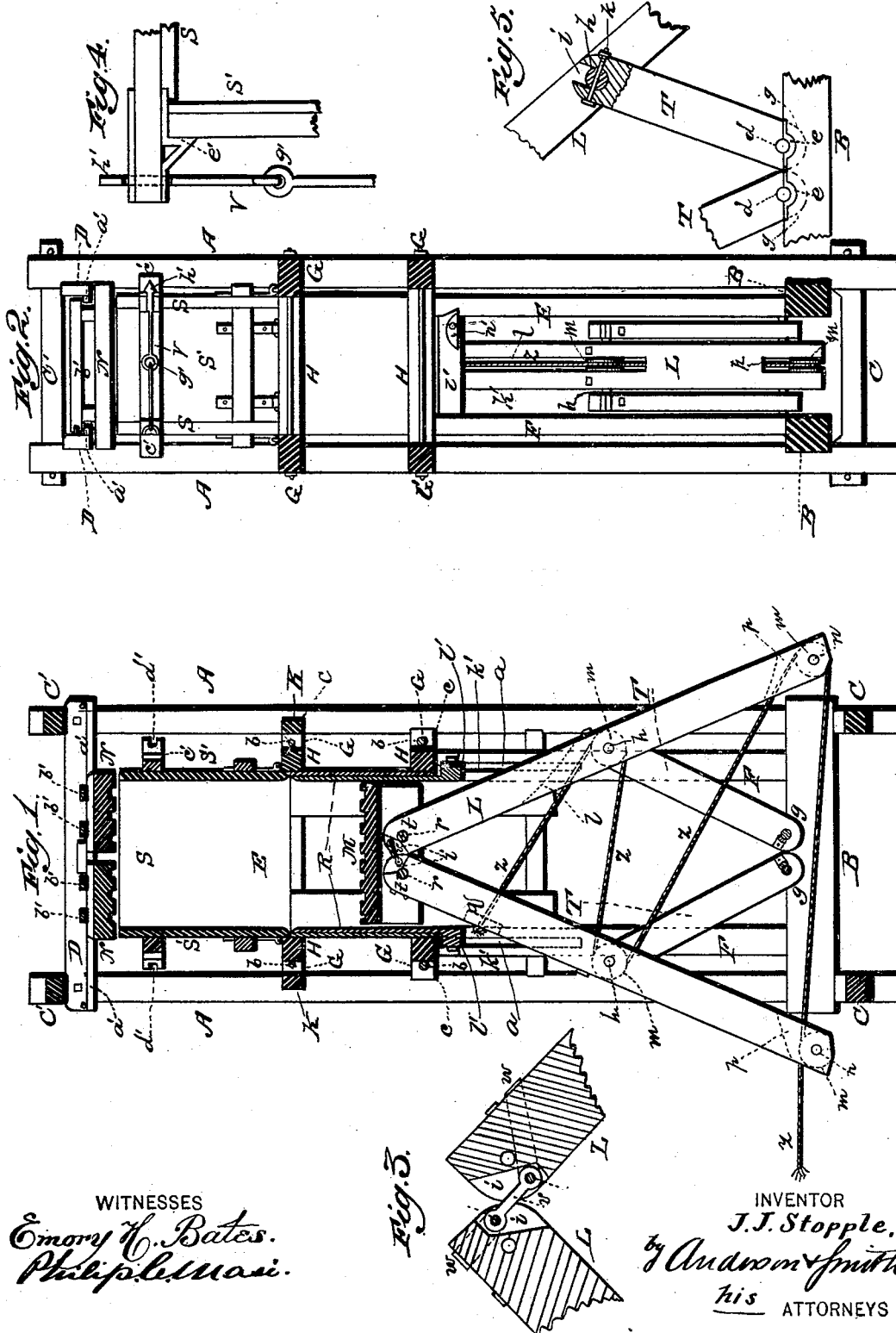
(No Model.)

J. J. STOPPLE.

BALING PRESS.

No. 262,496.

Patented Aug. 8, 1882.



WITNESSES
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UNITED STATES PATENT OFFICE.

JOHN J. STOPPLE, OF BELLEVILLE, TEXAS.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 262,496, dated August 8, 1882.

Application filed June 10, 1882. (No model.)

To all whom it may concern:

Be it known that I, J. J. STOPPLE, a citizen of the United States, resident at Belleville, in the county of Austin and State of Texas, have
5 invented a new and valuable Improvement in Baling-Presses; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed draw-
10 ings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a vertical sectional view of my press. Fig.
15 2 is a vertical transverse section of the same. Figs. 3, 4, 5, 6, and 7 are detail views.

This invention has relation to baling-presses designed more particularly for use in baling cotton; and it consists in the construction and
20 novel arrangement of the rounded meeting ends of the main levers and the equalizing-link connecting the same; the rounded meeting ends of the toggle-levers concentrically arranged with reference to the sill-bearings; the perfo-
25 rated connecting-pin for the upper ends of each pair of toggle-levers, and the securing-bolts thereof passed through the heads of the toggle-levers; the end openings in the lower
30 portion of the baling-box and the vertically-reciprocating doors in connection therewith, said doors being operated automatically; the main doors of the press-box, hinged at their lower edges, and the centrally linked and
35 headed clamps operating in connection with end-slotted battens of the side door to hold all the doors securely closed; the sectional
40 head-block, sliding in opposite directions, and the notched posts of the main frame, in combination with the horizontal timbers of the
press-box and the rabbeted cleats extending horizontally between the posts at each end and engaging said posts and timbers, all as
hereinafter set forth.

In the accompanying drawings, the letter
45 A designates the corner-posts of the main frame, connected at their lower ends by the pressure-sills B and ties C, and at their upper ends by the upper ties, C', and the longitudinal head-timbers D.

50 E represents the press-box, having the end posts, F, which are slotted at *a*, the horizontal timbers G, and the cross-bars H. Tie-bolts

b are used to connect securely the timbers G. The ends of these timbers G are seated in notches *c*, made in the posts A, and the inner
55 corners of the timber ends project a little inward from the inside wall of the post to engage the rabbeted ends of the cross-cleats K, which also abut against the walls of the posts, as
60 shown in the drawings. This construction serves to firmly unite and brace the whole frame-work, and enables the press to be easily put up and taken down. It also facilitates the removal and replacement of any part of the
65 frame which may be broken.

T T represent the toggle-levers, having at their lower ends the connecting-journals or bearing-pins *d*, which are seated in bearings *e* of the
70 sills B. The lower ends of the toggle-levers are circularly rounded, as indicated at *g*, concentrically with the surfaces of the journal-pins *d*, and the rounded ends *g* abut or engage constantly during the movements of the toggle-levers while a bale is being pressed. This
75 serves to lessen the friction on the journal-pins and causes a tendency in the toggle-levers to work more steadily and uniformly. The upper ends of each pair of toggle-levers are connected by the pin *h*, which passes through the
80 middle portion of one of the slotted main levers L, and serves to pivot the same to the pair of toggle-levers. The ends of the toggle-levers have notched bearings *i* for the ends of the pivot-pin *h*, and these ends are perfo-
85 rated for the passage of the bolts *k*, which extend through the heads of the toggle-levers and through the pin, serving to prevent the pin from working out and to secure the toggle-levers in their proper places. The oppo-
90 site main levers L are respectively pivoted to a pair of toggle-levers, which in turn form a vibratory fulcrum for each main lever. The lever L is slotted longitudinally in its middle portion, at *l*, to allow full play to the operating rope or chain *z*, which passes around a
95 sheave, *m*, in the slot *l*, bearing on the pin *h*. A similar sheave, *m*, is seated on a bearing-pin, *n*, in a notched seat, *p*, in the foot of each main lever. The operating rope or chain *z*, being
100 firmly secured to one of the main levers near its head, as indicated at *q*, passes around the middle sheave of the opposite lever back to the middle sheave of the first lever, thence to the foot-sheave of the opposite lever and back

to the foot-sheave of the first lever, whence it extends to the power. Each sheave is provided with an oil-recess extending from its outer portion to its journal, in order that it may be kept constantly well lubricated, so as to work always with perfect ease.

M represents the follower, which forms the bottom of the press-box, and in operation is raised by the combined action of the main levers and toggle-levers. The upper ends, *t*, of the main levers are rounded in circular form, and are pivoted to the follower by the pins *r*. The rounded ends *t* of the levers meet under the bearing-surface of the follower. The rounded ends of the levers are connected by means of a link-connection, *v*, of wrought-iron. One end of the link *v* is pivoted to one of the levers *L* at its edge and near its top or the uppermost portion of its rounded bearing, and the other end of the link is pivoted to the lower portion of the rounded end of the other main lever near its rounded edge, so that the link has an oblique position, as indicated in the drawings. Strengthening-plates *w* serve to secure the ends of the link firmly in place. This link is designed to equalize the power of the levers on the follower and to keep the follower constantly in horizontal position. This device is inexpensive and strong. It facilitates the work of the follower by lessening the friction and keeping the ends of the levers level with relation to each other and the follower which they support.

The head-timbers *D* are provided with horizontal guides or ways *a'* for the cleats or bearings *b'* of the sections *N N*, which form the head-block. These sections are designed to slide in opposite directions out of the way while the box is being filled with cotton or hay, thereby leaving the top of the box open and affording ready access to the interior in tramping the material in the box. These sections are easily managed, and are not so much in the way as a head-block which is in one structure or piece.

Below the head-block sections are the main doors of the press-box, which are hinged by their lower edges to the side and end timbers of the frame-work, so that when they are unfastened they will fall open between the main post of the frame at the sides and ends. The side doors, *S*, are provided with horizontal outside battens, *c'*, near their upper edges, the ends of said battens projecting beyond the ends of the door and having horizontal end notches, *d'*, and interior vertical shoulders, *e'*, on one door, and on the other similar vertical shoulders, and the jointed clamps *V* connected to the ends of the batten by eyebolts or staple-bolts. The sections of each clamp are linked together at their centers, as indicated at *g'*, so that the clamp is flexible in its middle and can be easily and readily moved in or out of connection. The catch-section of each clamp is formed with a head, *h'*, having shoulders, whereby it can be securely engaged with the notched end of the batten of

the opposite door. The side doors are fastened in this manner after the end doors, *S'*, have been raised in place and engaged by the interior shoulders of the ends of the battens.

The lower portion of each end of the press-box is formed with an opening or space, *k'*, to afford room for the working of the levers as they rise in packing a bale. These openings are provided with vertically-sliding doors *R*, constructed each with a batten, *l'*, across its lower end, having projecting ends to engage the slots or grooves *a* of the posts of the press-box. The openings *k'* also facilitate spreading the bagging on the follower. The doors *R* operate automatically, being raised by the levers *L*, so that they slide up with the cotton as the bale is being pressed. Each door is provided with a gravity latch or fastening, *n'*, which secures it in position when raised.

This improvement is designed to hold the cotton in the box and prevent it from bulging out while being pressed. It also causes the press to run much lighter than it otherwise would, and, being self-acting, saves labor.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. In a baling-press, the main levers *L*, having rounded meeting ends *t*, independently pivoted to the follower, and the oblique pivoted equalizing-link *v*, connecting the ends of said main levers, substantially as specified.

2. In a baling-press, the toggle-levers *T T*, pivoted at their upper ends to the main levers, and having the lower meeting ends, *g*, rounded concentrically with reference to the sill-bearings, substantially as specified.

3. In a baling-press having vibratory main levers *L*, the end openings, *k'*, in the lower portion of the baling-box, and the vertically-reciprocating doors *R* in connection therewith, said doors being raised independently of the follower and directly and automatically in pressing a bale by the action of the main levers *L*, substantially as specified.

4. In a baling-press, the main doors *S S'* of the press-box, hinged at their lower edges, the centrally linked and headed clamps *V*, and the internally-shouldered battens *c'* of the side doors, one of which is provided with end notches, *d'*, to engage the heads of the jointed clamps, substantially as specified.

5. In a baling-press, the perforated pivot-pins *h* of the toggle-levers, connecting the same to the main levers, and the transverse bolts *k* through the heads of the toggle-levers and through said pivot-pins, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN J. STOPPLE.

Witnesses:

JULIUS HAUKE,
JUSTUS KENTER.