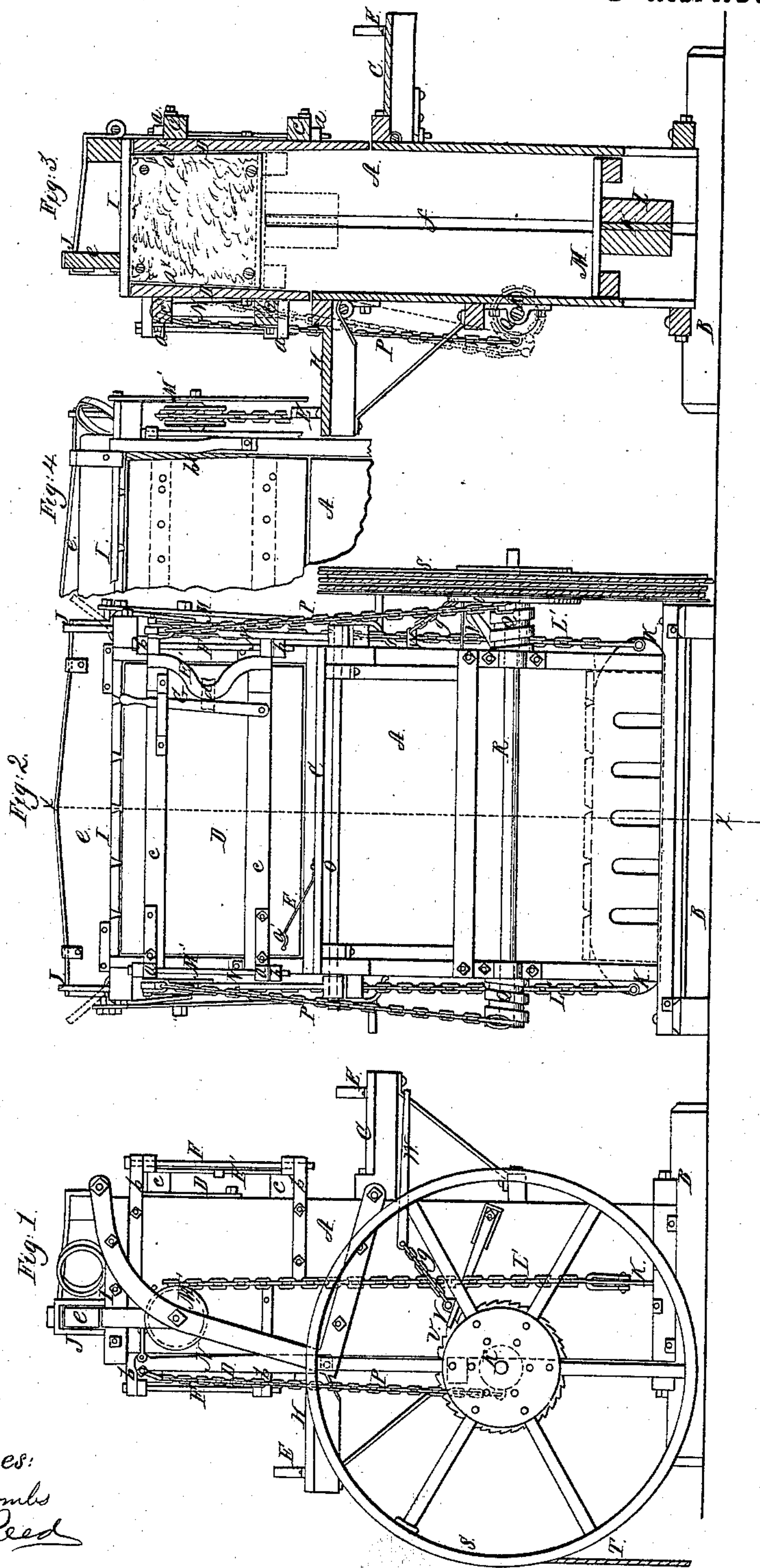


J. Price, Jr.,
Cotton Press,
No 39,748, *Patented Sept. 1, 1863.*



Witnesses:
J. W. Coombs
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UNITED STATES PATENT OFFICE.

JACOB PRICE, JR., OF PETALUMA, CALIFORNIA.

IMPROVEMENT IN BALING-PRESSES.

Specification forming part of Letters Patent No. 39,748, dated September 1, 1863.

To all whom it may concern:

Be it known that I, JACOB PRICE, Jr., of Petaluma, in the county of Sonoma and State of California, have invented a new and Improved Press for Compressing Hay, Cotton, and other Substances for Baling; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side elevation of my invention; Fig. 2, a back elevation of the same; Fig. 3, a vertical section of the same, taken in the line *x x*, Fig. 2; Fig. 4, a view of the back part of the press with the back door removed.

Similar letters of reference indicate corresponding parts in the several figures.

This invention consists, first, in a novel and improved construction of the press-box, as hereinafter fully shown and described, whereby the bale may be readily discharged from the press-box; second, in an improved fastening for the doors of the press-box to keep them in an open and closed state; third, in a novel and improved means for operating the follower, whereby speed is obtained at first, when great power is not required, and speed dispensed with and power obtained when the latter is required.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents an upright box, of rectangular form, constructed in a strong, substantial manner, and fitted on a suitable base, B. To one side of this box there is attached a horizontal staging or platform, C, and at both sides of said box, at its upper part, there is a door, D, hinged to the box at one end, as shown at *a*. The staging or platform C has a spring-catch, E, attached to it, said catch being formed of a flat steel strip having an inclined position, and bent at its upper end to form a curve or recess, *a'*, as shown clearly in Fig. 2. This curve or recess, when the door D above the staging is thrown open, receives the lower edge of the latter and holds it in an open state, the elasticity of the catch causing the curve or recess *a'* to press snugly up against the lower edge of the door. This door is se-

cured in a closed position by means of an upright curved bar, E', which is fitted on a vertical rod, F, the latter being placed in horizontal bars or bearings *b b*, attached to the press-box A. The bar E', when turned so as to be parallel with the outer side of the door D, closes over said door or presses against its battens *c c*, and is retained in such position by a lever, G, when said lever is moved over a projection, *d*, on said bar E'. (See Fig. 2.) The door D at the opposite side of the press-box is provided with a similar fastening for keeping the door closed, and the parts are provided with the same letters, and also a fastening, E, for keeping it open, and a staging or platform, H, is attached to this side of the press precisely like the one previously described. This latter-named staging, however, is rather higher than the one first described, and the door D above it is not so deep, or does not extend down as far, as the one first described.

The top of the press-box A is provided with a door or lid, I, which is secured in a closed state by clamps J J, which are simply metal loops pivoted at their lower ends in the press-box, so that they may be turned over or off from the ends of a bar, *e*, at the front part of the door or lid I. This will be fully understood by referring to Fig. 2.

The press-box A at its sides has vertical slots *f f* made in it, through which metal plates K K at the ends of a bar, L, pass, said bar having the follower M attached to its upper surface. To each plate K there is attached the lower end of a chain, L', and these chains pass over pulleys M' at each side of the press-box, and are attached to levers N N, which are fitted and work loosely on a shaft, O, at the front side of the press-box A. To the levers N N there are also attached chains P P, which extend down and are secured to spirally-grooved heads Q Q on a shaft, R, which is fitted in proper bearings at the front side of the press-box A. At one end of the shaft R there is secured a wheel, S, which has a rope, T, attached to its periphery, the latter being grooved to receive the rope. To the wheel S there is also attached, concentrically, a ratchet-wheel, U, into which a pawl, V, catches. This pawl is connected by a chain, *g*, to a lever, W, by

which the pawl may be liberated from the ratchet when necessary.

The inner sides of the doors D D are not parallel with their outer sides, the upper parts of the inner sides inclining inward, as shown clearly in Fig. 3 at a^x , and the inner surfaces of the sides of the press-box at its upper part are also inclined in a similar manner at b^x , as shown in Fig. 4. By this arrangement the substance within the press-box to be compressed will be compressed in square form—a result which cannot be obtained in a perfectly square box, as the upper part of the bale in the latter case will not be compressed so firmly as the lower part; but by contracting the dimensions of the upper part of the press-box the pressure is equalized throughout the entire mass.

In operating the press, the follower M is lowered, the lid or top door, I, thrown open or raised, as well as the door D above the staging or platform C. The press-box A is then filled up to the level of the staging C. The door D is then closed and fastened by the means previously described, and the press-box A entirely filled. The lid or door I is then closed and secured by the clamps J J. The wheel S is then turned by an animal attached to the rope T, or by any other convenient power, and the chains P P will be wound upon the heads Q Q, the chains fitting in the spiral grooves thereof and drawing down the levers N N, the latter as they descend drawing up, through the medium of the chains L' L', the follower M, which compresses the substance within the press-box A.

It will be seen that the levers N N cause the follower M to be operated with a progressive power, the leverage increasing as the levers N N descend from a vertical or nearly a vertical position at the commencement of their movement to a downward position at the completion of their movement. The last position of the levers is shown in red outline in Fig. 3, and their first position is shown in black outline in Fig. 1. By this means, therefore, speed is obtained when power is not required and speed dispensed with and power gradually obtained as required. When the substance is compressed, it is bound, as usual, and the bale forced out from the press-box through the door D, which is over the staging or platform H.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination and arrangement of the levers N N, chains L' L' P P, pulleys M M, and shaft R, provided with the heads Q Q, substantially as and for the purpose herein set forth.

2. The inclined surfaces $a^x b^x$ at the inner sides of the doors D D and sides of the press-box A, as and for the purpose specified.

3. The fastening formed of the spring-catch E, for holding the doors D in an open state, and the fastenings formed of the curved bars E' and lever G, for securing said doors in a closed state, as described.

JACOB PRICE, JR.

Witnesses:

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