D. A. NELSON.

Hay and Cotton Presses.

No. 142,718. Patented September 9, 1873.

Fig. 1.

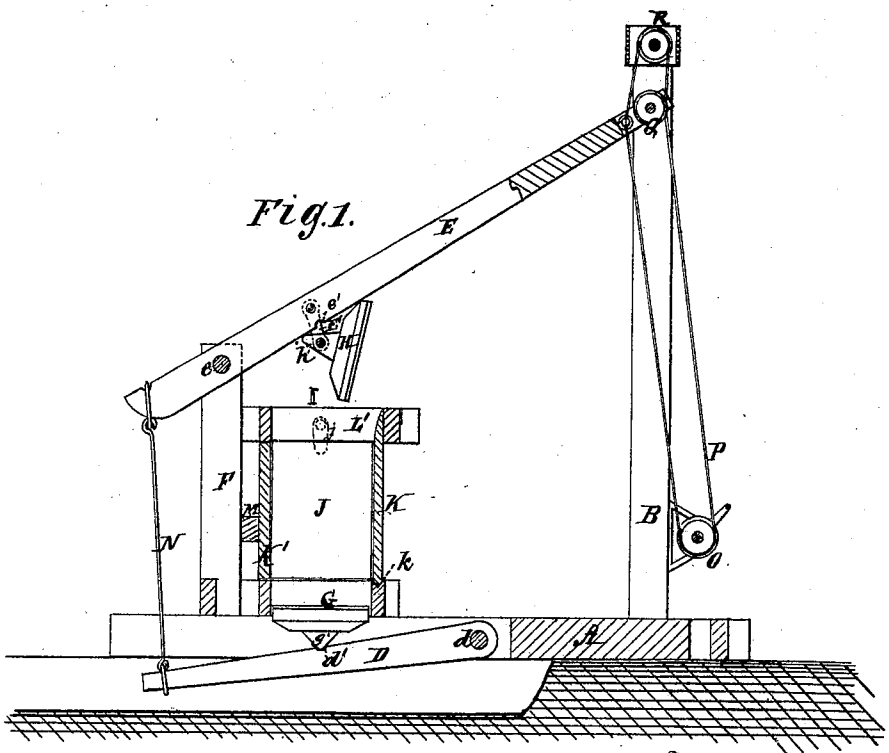
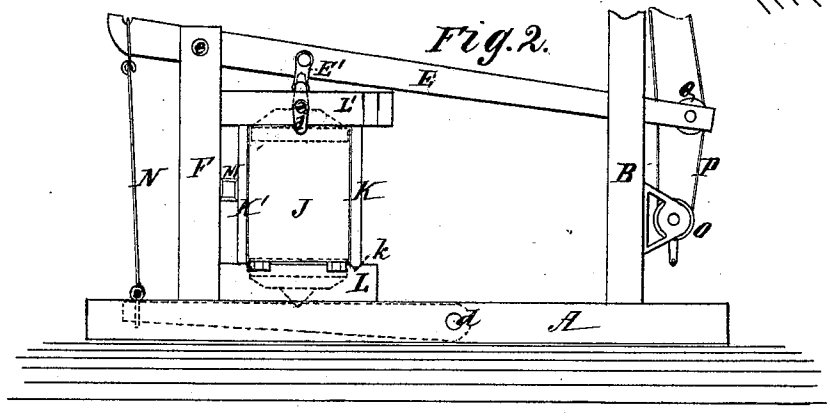


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

DAVID A. NELSON, OF TYLER, TEXAS, ASSIGNOR OF ONE-THIRD HIS RIGHT TO S. D. WOOD.

IMPROVEMENT IN HAY OR COTTON PRESSES.

Specification forming part of Letters Patent No. **142,718**, dated September 9, 1873; application filed July 22, 1873.

To all whom it may concern:

Be it known that I, DAVID A. NELSON, of Tyler, in the county of Smith and State of Texas, have invented a new and Improved Hay and Cotton Press; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a central vertical section, and Fig. 2 is a side elevation.

The invention relates to presses for reducing the bulk of cotton, and allowing it to be baled into convenient form for transportation. It consists in a novel mode of attaching the sides of the press-box, so that they can be speedily thrown down from the cotton after compression to allow its convenient manipulation. It also consists in a new mode of connecting the follower with its superposed lever, so that it can be readily turned up out of the way when the cotton is being filled into the press-box. It also consists in a peculiar mode of combining lever and the two followers to clamp and press the cotton between them as if in a vise.

In the drawing, A represents the bed-piece of the press, and B one of two vertical and parallel uprights, which have a pulley located in a case on top thereof. D is a lever, pivoted at *d* in the bed-piece A, and E a lever pivoted at *e* in the two uprights F F. In a notch or transverse groove on the upper side of lever D rests the wedge-shaped projection *g* of the bottom follower G, while beneath the lever E, and attached thereto by straps E′, pivoted to wedge-shaped projection *h′*, is the top follower H. J J represent two sides, which are hinged and held in place by latches *j j*, while K is a third side, which fits at the bottom in a groove, *k*, of frame L, and passes inside of the frame L′. K′ is the fourth side, which is held in place against sides J J by a key, M. This construction allows a quick opening of the box on all sides of the bale, and affords a full opportunity to handle and readily eject it. The follower H is beveled on its upper side, which, together with the pivoted straps E and the tapering extension of shanks *h′*, allows the follower to be raised and held above the frame L against the subjacent face of lever E. The followers G H have end-tapered shanks *g′ h′*, which are held in notches *d′ e′* of levers D E, the latter being connected with its lever by two pivoted straps, E′ E′. This construction and mode of attachment allow the follower, when raised above the frame L, to be turned up against and pushed back on the lever E, where it is held out of the way while the cotton is being inserted. The levers D E, that carry the followers G H, and are pivoted at *d e*, respectively, are connected at one end by jointed-rod attachment N, while the power-arm of lever E is much longer than that of D, in order to give an economy of room with a fine leverage, and enable great force to be applied by a comparatively small power. O is a windlass, to which is attached the cord or rope P that passes over the pulleys Q R. By winding up this rope on the windlass the levers with their followers are caused to approach each other like the jaws of a vise, and compress the cotton with great power.

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

1. A press-box having the hinged latched sides J J, removable side K fitting groove of frame L and passing through frame L′, and the side K′, held by key M, to form a press-box from which the bale may be easily removed.

2. The follower H, beveled on its upper side, and having the shank *h′* with an upwardly-tapering extension, combined with the pivoted straps E′ E′ and lever E, to enable the said follower to be held up against said lever, in the manner described.

3. The opposite followers G H, operated in the same press-box by two opposite levers, D E, attached together by a connection, N, in the manner and for the purpose specified.

The above specification of my invention signed by me this 9th day of July, A. D. 1873.

DAVID A. NELSON.

Witnesses:

H. L. SPAIN,

A. J. GOODMAN.