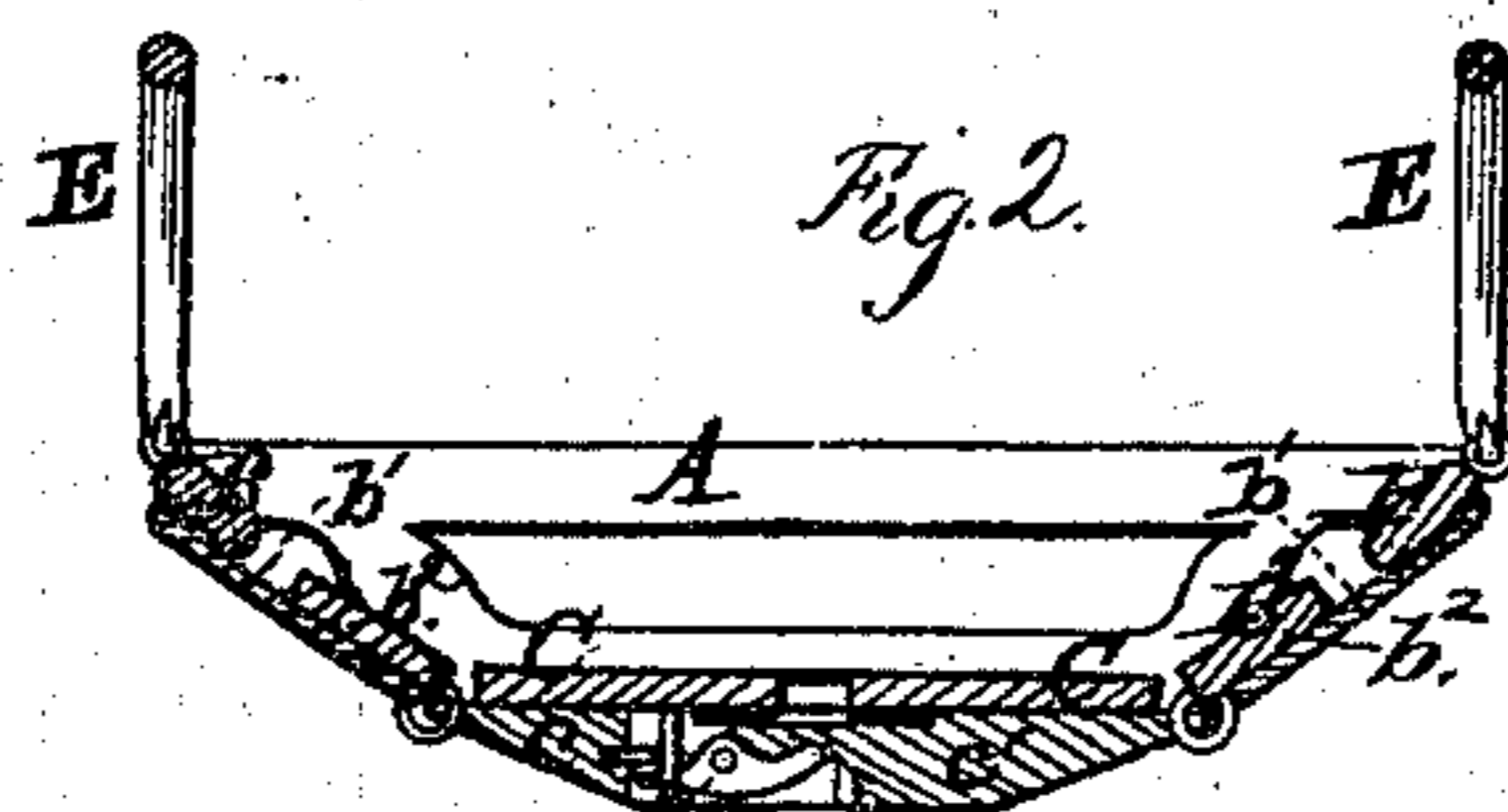
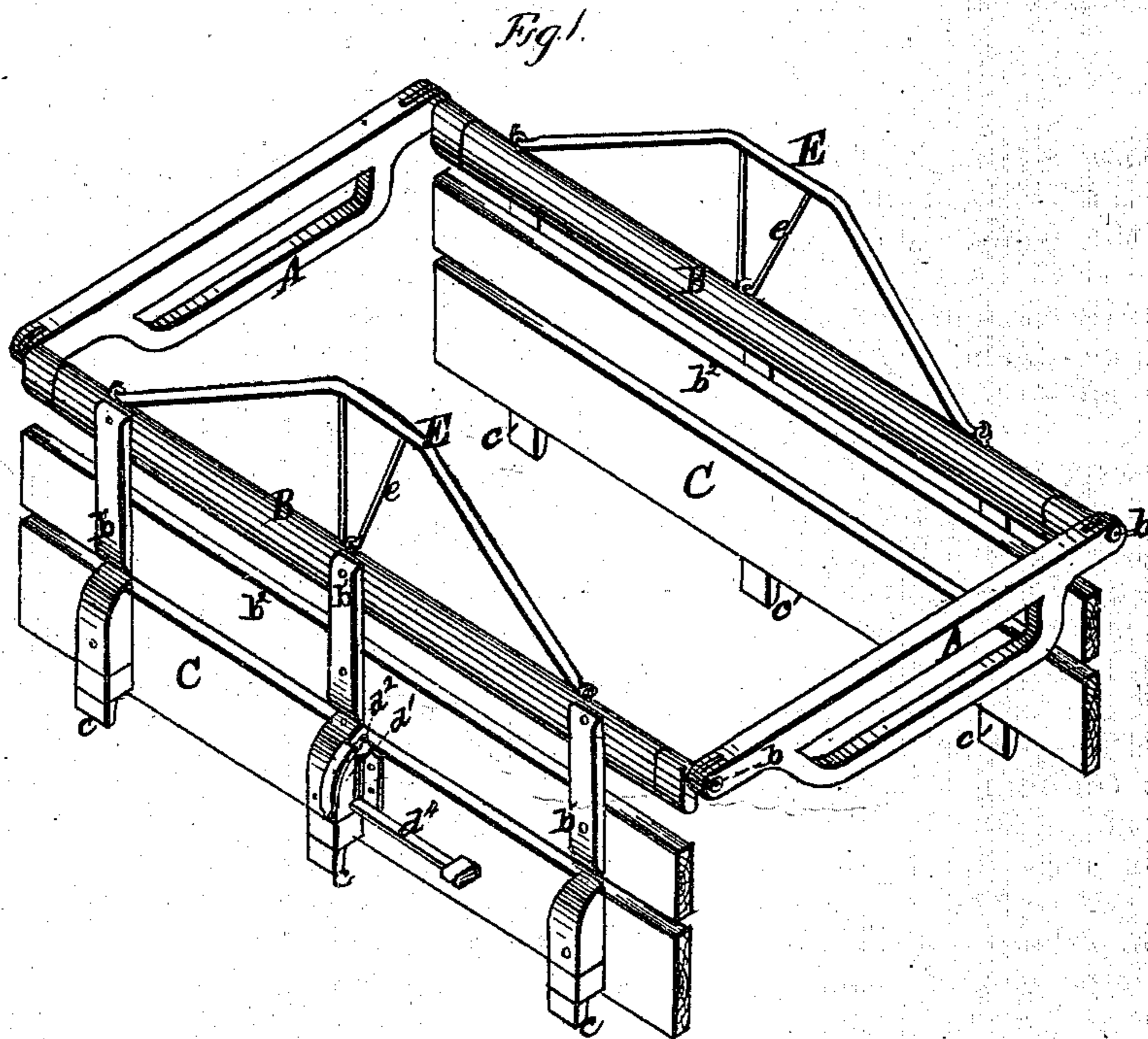


## Hay-Racks.

No. 146,497.

Patented Jan. 13, 1874.



Witnesses:

Jas. E. Hutchinson -  
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# UNITED STATES PATENT OFFICE.

DENNIS N. WEBSTER, OF GENEVA, OHIO.

## IMPROVEMENT IN HAY-RACKS.

Specification forming part of Letters Patent No. 146,497, dated January 13, 1874; application filed November 20, 1873.

*To all whom it may concern:*

Be it known that I, DENNIS N. WEBSTER, of Geneva, in the county of Ashtabula and State of Ohio, have invented a new and useful Improvement in Hay-Racks, of which the following is a full, clear, and exact description, reference being had to the annexed drawing, in which—

Figure 1 is a perspective view of my improved hay-rack with its sides and bottom, which latter part is formed into two parts swung down to permit of the discharge of its contents when loaded. Fig. 2 is a transverse section of the same in position to receive its load; and Fig. 3 is an enlarged similar view of the coupling or middle sills of the bottom of the rack, showing the mode of coupling or uniting the parts of the said bottom together.

Corresponding parts in the several figures are designated by like letters.

This invention relates to certain improvements upon my improved hay-rack upon which Letters Patent were granted to me September 18, 1866, and which are numbered 58,158; and it consists in joining the respective ends thereof, which are preferably constructed, each, in one and of the same piece, together by means of pivoted or revolving bars, which constitute the upper pieces or boards of its sides, and which permit of the latter being swung down simultaneously with the opening and suspending of the bottom; and it further consists in the mode of uniting or coupling the parts of the bottom of the rack together, substantially as hereinafter more fully set forth.

To enable others skilled in the art to which my invention appertains to make and use the same, I will proceed to describe it.

In the accompanying drawing, A A refer to the ends of my rack, which may be constructed each in one and of the same piece, and which are joined together by means of pivoted or revolving bars B B, they being united to the said ends, at their corners or extremities, by axes or metallic journals *b b*, held to the said bars by metallic bands, and entering and passing through eyes or perforations in the ends A A, strengthened by straps of metal bound around the corners of the latter. The end pieces A A are inclined inwardly upon their edges, or made convergent toward their lower ends, giving the

sides of the rack, when brought against the same, an inward inclination, as shown in Fig. 2. The bars B B, which, in conjunction with transverse pieces *b<sup>1</sup> b<sup>1</sup>* fastened to the said bars, and which in turn, are fastened to boards *b<sup>2</sup> b<sup>2</sup>*, constitute the sides of the rack, enable the said sides to be swung down, by reason of their revolving movement, simultaneously with the opening or suspending of the bottom thereof. C C' refer to the bottom of the rack, which is formed in two parts, as shown in the figures of the drawing, the respective parts thereof being secured upon sills *c c'*, and hinged or pivoted, by hooks or staples and eyes, or in any other known way, to the sides, or to the boards *b<sup>2</sup> b<sup>2</sup>* thereof. The sills *c c'* are made to project beyond the respective parts of the bottom C C', where they meet, and are halved and halved, so as to occupy no greater amount of space, when brought together, than that occupied by a single sill; and, further, to permit of their fitting upon each other, and entering at their projecting ends, bands *c<sup>2</sup> c<sup>3</sup>*, secured, respectively, to the said sills, for assisting in holding the parts of the bottom together. The center one of the sills, *c*, is suitably recessed to receive a horizontally edgewise-pivoted lever, D, the outer or projecting arm of which is curved upward in the form, somewhat, of a hook, to enter a corresponding cavity or notch cut in the middle one of the sills *c'*, when the respective parts of the bottom C C' are brought together, and by which connection the said parts of the bottom are securely held together, as fully shown in Fig. 3. The inner or straight arm of the lever D, when engaged with a sliding bar, *d*, above it, holds the curved arm firmly in contact with the sill.

When the bar *d* is slid back from over the straight arm of the lever D, which may be accomplished by applying pressure in the required direction to the plate *d<sup>1</sup>* of the bar *d* at *d<sup>2</sup>*, through a cord or other suitable medium, the curved arm of said lever is left free to be depressed, and thus enabled to be disengaged from the sill, and allow the bottom and sides of the rack to swing down and discharge the contents of the latter when loaded.

To limit the forward movement of the bar *d*, a small post or stop, *d<sup>3</sup>*, is placed near the inner end of the straight arm of the lever D, as

seen in Fig. 3. To automatically throw the bar  $d$  forward when its movement has been reversed, a spring,  $d^4$ , bearing at its free end against a lug affixed to the plate  $d^1$ , is employed, the opposite end of which is secured to one of the boards of the bottom of the rack by means of a staple or otherwise.

E E refer to bails, one applied or pivoted at its ends, and at the lower extremity of its loop  $e$ , to the upper edge of each of the bars B, or the sides of the rack, by means of staples or otherwise. These bails, as above intimated, are supplied with loops  $e e$ , preferably of a V shape, and depending from the horizontal portions or apexes of the said bails, the purpose of which is to keep the hooks, attached to or hooked on the bails or other medium for lifting the rack, from slipping from their moorings or places.

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

1. The hay-rack, composed of the ends A A, sides B  $b^1 b^2$ , pivoted to the said ends, and bottom C C', formed in two parts, and hinged to the said sides, all combined substantially as and for the purpose set forth.

2. The parts of the bottom of the rack, united by means of the lever D, combined with the sliding bar  $d$ , plate  $d^1$ , and spring  $d^4$ , let into one of the sills to engage with an opposite sill of the bottom of the rack, substantially as described.

3. The bail E, having the loop  $e$  depending therefrom, substantially as and for the purpose set forth.

In testimony whereof I have hereunto signed my name this 18th day of November, 1873, in presence of two subscribing witnesses.

DENNIS N. WEBSTER.

Witnesses:

DENNIS THORP,  
R. M. WOODWARTH.