

J. HALL.
HAY-RACK.

No. 172,017.

Patented Jan. 11, 1876.

Fig. 1.

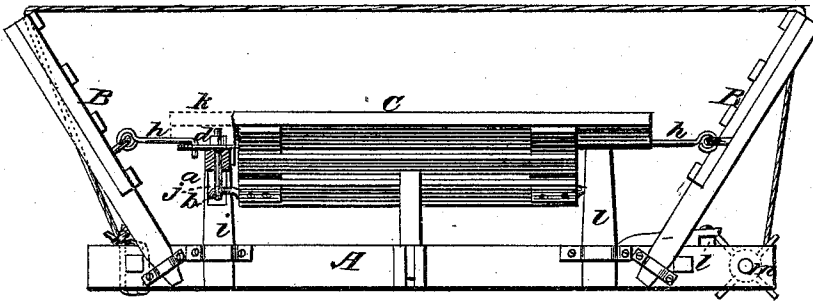


Fig. 2.

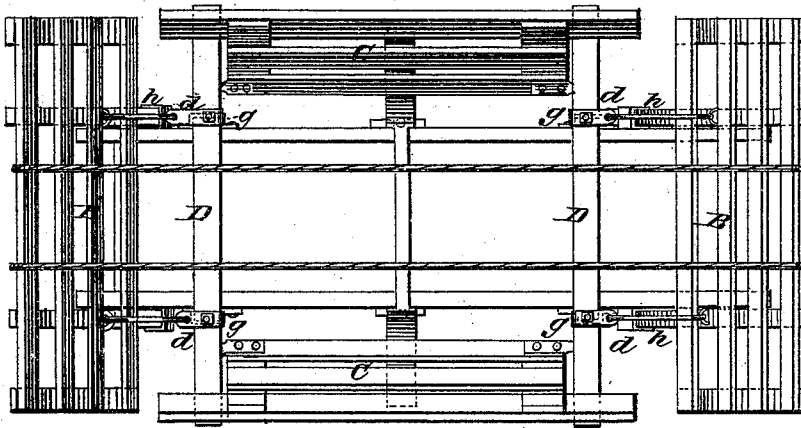
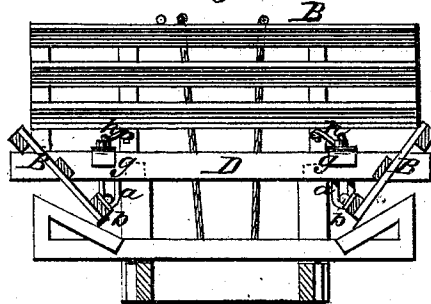


Fig. 3.



WITNESSES:

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JOSEPH HALL, OF RIVERSIDE, NEBRASKA.

IMPROVEMENT IN HAY-RACKS.

Specification forming part of Letters Patent No. **172,017**, dated January 11, 1876; application filed November 6, 1875.

To all whom it may concern:

Be it known that I, JOSEPH HALL, of Riverside, Burt county, Nebraska, have invented a new and useful Improvement in Hay-Racks, of which the following is a specification:

This invention consists of improvements in the construction and arrangement of some of the parts of the hay-rack for which a patent was granted to me May 1, 1875, which said improvements are as follows, reference being had to the accompanying drawing, in which—

Figure 1 is a side elevation. Fig. 2 is a top view, and Fig. 3 is a transverse section.

Similar letters of reference indicate corresponding parts.

A is a bed-frame; B, end ladders; C, side ladders, and D cross-beams, comprising the essential parts of the rack, as represented in the aforesaid patent, the several ladders being detachably fixed to the bed and together. Now, I propose to employ hook-bolts *a* for connecting the hooks *b* of the side ladders C to the cross-beams D, instead of the slotted plates heretofore employed, the bolts being extended up through the beams, and through cap-plates *d* thereon, and screwed up by a nut, so that the end of the hook-head bears against the under side of the beams. The cap-plate *d* has a flange, *g*, turned down inside the cross-beam, to hold it securely against the strain to which it is exposed in holding the end rack by the hook *h*. The standards *i* of the cross-beams have a notch, *j*, to receive the ends of

the hook *b* of the side rack, to support the standard by the side rack against spreading by the strain of the end rack. The standards *i* of the cross-beams are, in this arrangement, located outside of the bed-frame A, to support the beams nearer to their ends, and the top bars of the side frames C are prolonged over the beams, as indicated by the dotted lines K, for a support of the side racks on the beams.

The stay-board *l*, for holding the windlass of the binder, is contrived to swing forward and backward on the bed-frame, for holding and releasing the windlass.

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

1. The hook-bolt *a*, combined with the side-ladder hook *b*, beam D, and the cap-plate *d*, substantially as specified.

2. The notch *j* in the standard *i*, in combination with side-ladder hook *b*, substantially as specified.

3. The beam-standard *i*, located outside of the bed-frame, substantially as specified.

4. The top bars of frames C and prolongations K over the cross-beams D, substantially as specified.

JOSEPH HALL.

Witnesses:

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