

(No Model.)

E. FLECK.

HAY RACK.

No. 263,501.

Patented Aug. 29, 1882.

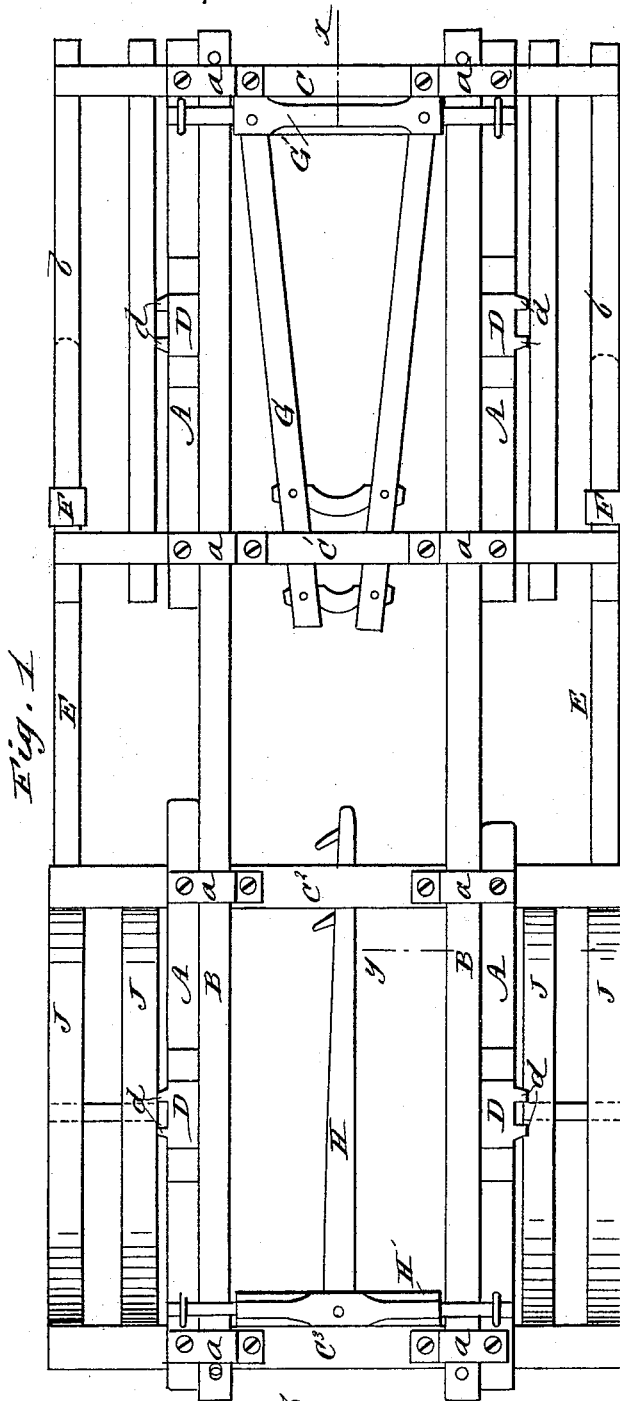


Fig. 1

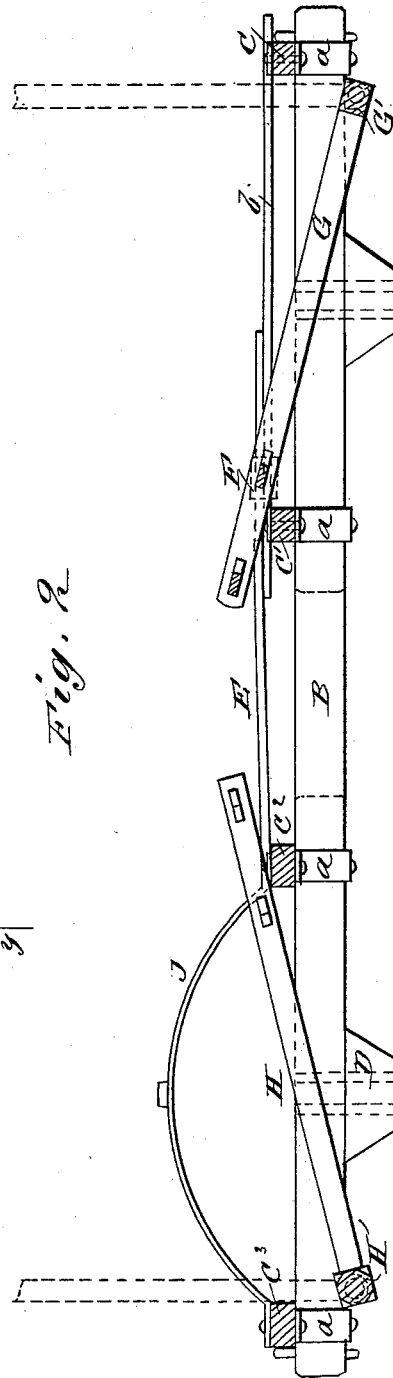


Fig. 2

WITNESSES:  
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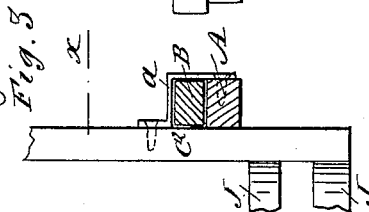


Fig. 3

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# UNITED STATES PATENT OFFICE.

EMANUEL FLECK, OF LA GRANGE, INDIANA.

## HAY-RACK.

SPECIFICATION forming part of Letters Patent No. 263,501, dated August 29, 1882.

Application filed April 19, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, EMANUEL FLECK, of La Grange, in the county of La Grange and State of Indiana, have invented a new and Improved Hay-Rack, of which the following is a full, clear, and exact description.

The invention consists in a hay-rack having the main stay-pieces arranged at the inner sides of the bed-pieces, to which they are held by loops formed of angle irons or straps attached to the bed-pieces and to the cross-pieces uniting the bed-pieces, so that the sections of the hay-rack can slide on the main stay-rods, and the racks can thus be shortened or lengthened.

The invention further consists in swinging side bars pivoted to the front cross-piece of the rear section, and adapted to rest on the side bars of the front section, on which they are held by sliding loops.

The invention also consists in arranging the journals of the end tongues or end uprights on the under sides of the bed-pieces.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my improved hay-rack. Fig. 2 is a longitudinal sectional elevation of the same on the line *xx*, Fig. 1. Fig. 3 is a detail cross-sectional elevation of the same on the line *yy*, Fig. 1.

The bed-pieces *A* are connected by four cross-pieces, *C C' C<sup>2</sup> C<sup>3</sup>*, of which the first two belong to the front section and the last two to the rear section of the hay-rack.

Bolster-blocks *D* are attached to the lower edges of the bed-rails, and to the sides of these bolster-blocks and the sides of the bed-rails cleats *d* are attached, between which the stakes of the bolster pass. The rack will thus be raised so high that the front wheels of the vehicle can cramp or turn under the rack without coming in contact with the same.

The main stay-pieces *B* rest against the inner longitudinal sides of the bed-pieces *A*, and are held on the same by angular bands or clips *a*, which are attached to the under sides of the bed-pieces *A* and to the under sides of the cross-pieces *C C' C<sup>2</sup> C<sup>3</sup>*, so that the front and rear sections of the hay-rack can be ad-

justed longitudinally on the stay-pieces *B*. By arranging the main stay-pieces against the inner sides of the bed-pieces great lateral stiffness is obtained, and the center of gravity of the load will be lowered. The angle irons or bands *a* form loops in which the main stay-rods slide, and also connect and brace the bed-pieces *A* and the cross-pieces *C C' C<sup>2</sup> C<sup>3</sup>*.

The swinging double tongue *G* or end upright *H* have their bottom cross-pieces *G'* and *H'* journaled upon the under surfaces of the bed-pieces.

The cross-pieces *C C'* of the front section are united by side rails *b b* and the cross-pieces *C<sup>2</sup> C<sup>3</sup>* are united by wheel-bows *J*.

A swinging side bar, *E*, is pivoted to the upper surface of each end of the cross-piece *C<sup>2</sup>* of the rear section, and these swinging side bars *E* rest on the side bars *b* and pass into loops *F F*, loosely mounted on the side bars *b*.

When the inner ends of the sections of the hay-rack are in contact the side bars *E* are not required and are withdrawn from the loops *F*, and are folded over the cross-piece *C<sup>2</sup>*; but when the sections are separated the swinging side bars *E* are placed on the side bars *b*, and are held on the same by the loops *F*.

As the sections can slide on the main stay-pieces *B*, this rack can be lengthened and shortened very rapidly and easily, as the circumstances may require. The end tongues will be stronger and can support and hold a greater load if they are journaled to the bottoms of the bed-pieces.

This rack is light and strong and requires no heavy timbers.

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

1. The arrangement of the journals of the swinging end uprights upon the under surfaces of the bed-pieces, substantially as herein shown and described.

2. The swinging side bars *E E*, pivoted at one end to the cross-bar *C<sup>2</sup>* of the rear section, in combination with said cross-bar and with the side rails *b b* of the front section, substantially as set forth, whereby the said cross-bars, when not in use, may fold in upon the cross-bar *C<sup>2</sup>*, and when in use may rest upon

and slide longitudinally on the side rails when the rack-sections are moved to or from each other, as described.

3. The movable loops F, in combination with  
5 the side bars E E and the side rails *b b*, as set forth, whereby the said side bars may be readily secured in line with the side rails,

so as to slide thereupon, or may be disconnected from the side rails and folded in upon the cross-bar, as set forth.

EMANUEL FLECK.

Witnesses:

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