(No Model.)

# W. & E. C. DANIELS.

## HAY AND STOCK RACK.

No. 557,652. Patented Apr. 7, 1896.

FIG. 1.

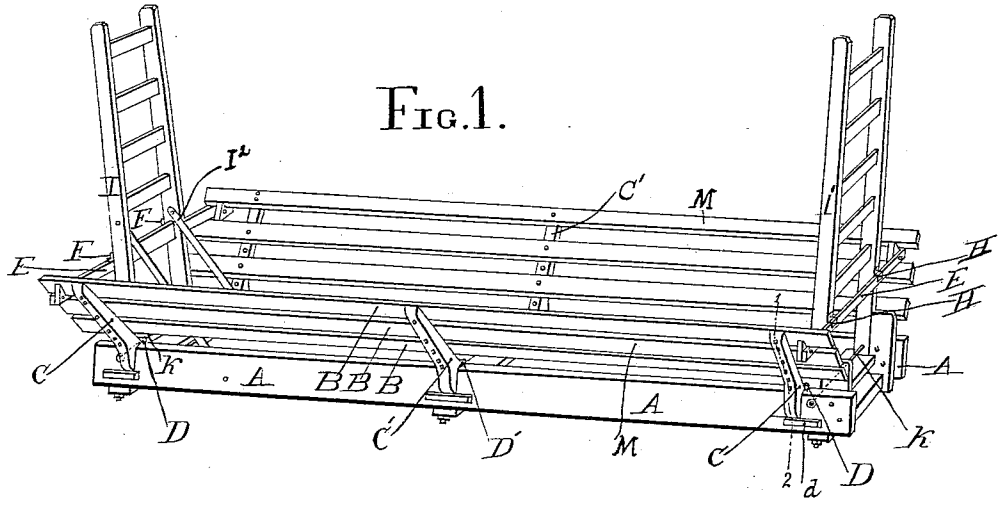



FIG. 2.

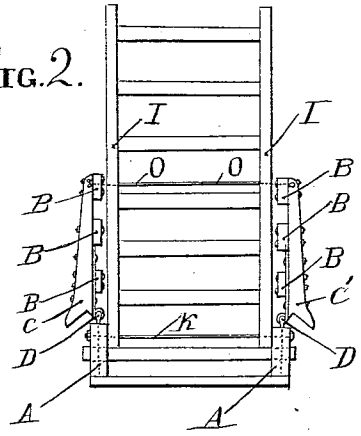



FIG. 5.

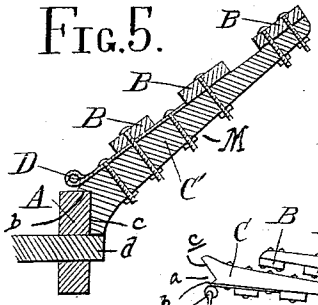
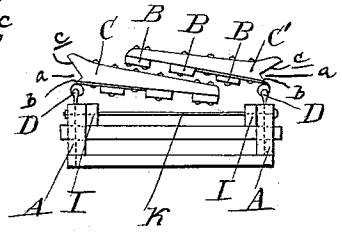



FIG. 4.



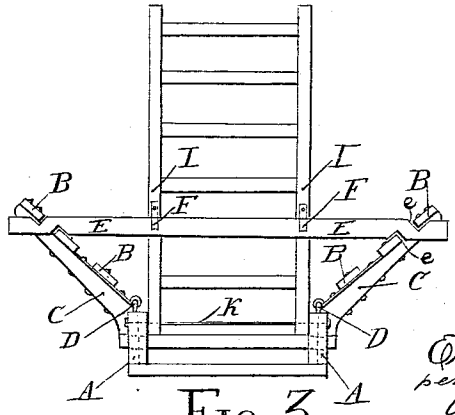




FIG. 3.

Witnesses.

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WILLIAM DANIELS AND ERNEST CLARENCE DANIELS, OF ORANGEVILLE, CANADA, ASSIGNORS OF ONE-FOURTH TO DAVID B. BROWN, OF SAME PLACE.

## HAY AND STOCK RACK.

SPECIFICATION forming part of Letters Patent No. 557,652, dated April 7, 1896.

Application filed September 4, 1894. Serial No. 522,113. (No model.)

*To all whom it may concern:*

Be it known that we, WILLIAM DANIELS and ERNEST CLARENCE DANIELS, citizens of Canada, residing at Orangeville, in the county of Dufferin and Province of Ontario, Canada, have invented certain new and useful Improvements in Hay and Stock Racks; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention is a combined hay and stock rack for use on wagons or sleighs; and its novelty and advantages will be fully understood from the following description and claims, when taken in connection with the annexed drawings, in which—

Figure 1 is a perspective view of our improved rack with the parts in the positions they are caused to assume to hold a load of hay or the like. Fig. 2 is an end elevation illustrating the rack when converted into an inclosure for stock. Fig. 3 is an end elevation of the rack when used as a hay-rack. Fig. 4 is an end elevation of the rack when folded, and Fig. 5 is an enlarged detail section.

In said drawings similar letters designate corresponding parts in all of the views, referring to which—

A indicates the body of our improved rack, which comprises suitable bottom and side bars, as shown.

I indicates the fixed end rack, which is arranged between the side bars of the body, and is connected therewith by a transverse rod K and is braced by straps, as $I^2$.

I′ indicates the end rack, which is pivotally connected by a bolt K with the side racks, so as to permit of its being lowered, as presently described; and M indicates the side racks which comprise arms C C′, which are provided with hooks designed and adapted to engage eyes D, connected to and rising from the side bars of the body, and the longitudinal bars B, which are connected to the inner sides of the arms C C′, preferably by bolts, as shown, and extend the full length of the body.

The arms C C′ of the side racks M have their lower ends recessed, as indicated by *a*, so as to form the walls *b*, designed and adapted when the racks are swung into the oblique position shown in Fig. 5 to engage the upper edges of the side bars of the body A, and the walls *c*, disposed at right angles to the walls *b*, and adapted to engage the outer sides of the side bars of the body. The said arms C C′ of the side racks M are also designed, when in their oblique position, to bear at their lower ends upon transverse bars *d*, which extend through the side bars of the body, as illustrated. By reason of this construction it will be seen that when the side racks M are in the position illustrated in Figs. 1, 3, and 5 the arms C C′ will bear upon the top of the side bars of the body A against the outer sides of said bars and upon the upper sides of the extended portions of the transverse bars *d*, and in consequence all strain is taken off the connection between said racks and the body and the racks are enabled to sustain a great weight, which is a desideratum.

The racks M are held in their extended oblique position by transverse bars E, as better illustrated in Fig. 3. These bars E are provided at points adjacent to their ends with notches *e*, and when the said bars are placed between the upper and second upper bars of the racks M, as shown in Figs. 1 and 4, the walls of the notches *e*, engaging said bars of the racks, will securely hold the racks against inward movement.

When it is desired to convert the hay-rack into a rack or inclosure for stock, it is obvious that the bars E must be disengaged from the racks. This may be readily effected by drawing the bars E from the ends of the racks M in an obvious manner.

The bars E, when in use, rest on the outside of the end racks I I′, and they are therefore made to serve the additional function of bracing the end racks and holding them in their upright position, the said end racks being provided with hooks F H or other suitable means to engage the bars E, as better shown in Fig. 1.

When it is desired to convert the rack into a stock-inclosure, it is simply necessary to remove the bars E, and after raising the side racks M to pass bolts, as O, through the side

racks M and end racks I I′, and suitably secure said bolts in position by nuts, as illustrated, or other suitable means.

When the forward ends of the racks M have been connected with the front end rack I, the rear end rack I′ may be swung down to the ground and a board may be placed thereon to enable the stock to walk up and down into the inclosure, after which said rack I′ may be raised to its vertical position and connected with the side racks by a bolt, as illustrated.

It will be appreciated that with all of its advantages our improved rack is very cheap and simple, and that it is strong and durable and does not embody any parts that are likely to get out of order.

Having described our invention, what we claim is—

1. A rack for the purpose described comprising the body having side bars and end bars extended through the side bars, the arms C, C′, pivotally connected to the upper edges of the side bars of the body and having the recesses *a*, in their lower ends forming the walls *b*, adapted to engage the upper edges of the side bars of the body and the walls *c*, adapted to engage the outer sides of the side bars of the body and also having their lower ends adapted to engage the transverse bars of the body and longitudinal bars connected to the said arms, substantially as and for the purpose set forth.

2. A rack for the purpose described comprising the body having side bars and end bars extended through the side bars, the arms C, C′, pivotally connected to the upper edges of the side bars of the body and having the recesses *a*, in their lower ends forming the walls *b*, adapted to engage the upper edges of the side bars of the body, and the walls *c*, adapted to engage the outer sides of the side bars of the body, and also having their lower ends adapted to engage the transverse bars of the body, longitudinal bars connected to the said arms, the transverse bars E, adapted to be interposed between the longitudinal bars of the side racks and having notches adjacent to their ends forming shoulders adapted to engage said longitudinal bars of the side racks, substantially as and for the purpose set forth.

3. A rack for the purpose described comprising the body having side bars and end bars extended through the side bars, the arms C, C′, pivotally connected to the upper edges of the side bars of the body and having the recesses *a*, in their lower ends forming the walls *b*, adapted to engage the upper edges of the side bars of the body, and the walls *c*, adapted to engage the outer sides of the side bars of the body and also having their lower ends adapted to engage the transverse bars of the body, longitudinal bars connected to the said arms, the transverse bars E, adapted to be interposed between the longitudinal bars of the side racks, and having notches adjacent to their ends forming shoulders adapted to engage said longitudinal bars of the side racks, the end rack I, arranged between and connected to the side bars of the body and having hooks adapted to engage the adjacent bar E, and the end rack I′, pivotally connected between the side bars of the body and having hooks adapted to engage the adjacent bar E; the said end racks I, I′, and the side racks being adapted to be connected by transverse bolts, substantially as specified.

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Witnesses:
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