

(No Model.)

G. E. SCHAIRER.
HAY AND STOCK RACK.

No. 489,094.

Patented Jan. 3, 1893.

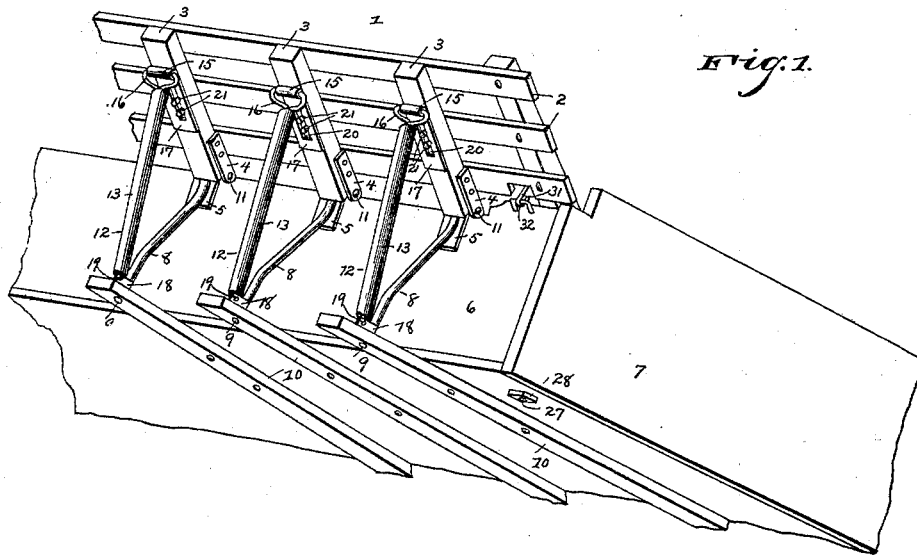


Fig. 1.

Fig. 2.

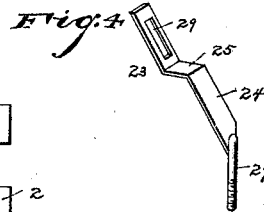
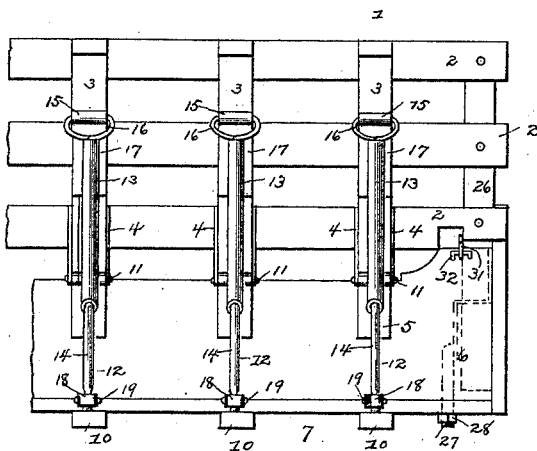
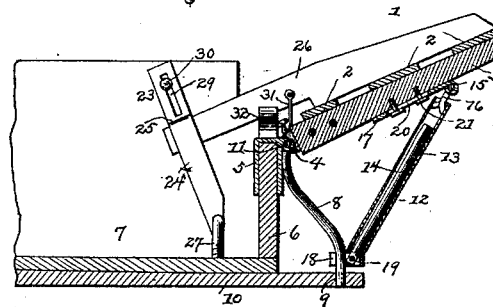


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE E. SCHAIRER, OF SALINE, MICHIGAN.

HAY AND STOCK RACK.

SPECIFICATION forming part of Letters Patent No. 489,094, dated January 3, 1893.

Application filed December 12, 1891. Serial No. 414,852. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. SCHAIRER, a citizen of the United States, residing at Saline, in the county of Washtenaw and State of Michigan, have invented a new and useful Hay and Stock Rack, of which the following is a specification.

The invention relates to improvements in hay and stock racks.

10 The object of the present invention is to simplify and improve the construction of hay and stock racks, and to provide one which may be readily attached to and removed from a wagon body, and which may be readily ad-
15 justed to the desired pitch or inclination.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described illustrated in the accompanying drawings and pointed
20 out in the claims hereto appended.

In the drawings—Figure 1 is a perspective view of a portion of a wagon body provided with a rack constructed in accordance with this invention. Fig. 2 is a side elevation,
25 showing the rack in a vertical position. Fig. 3 is a transverse sectional view. Fig. 4 is a detail perspective view of the adjustable stop and keeper.

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a rack composed of horizontal slats 2 and cross-bars 3 connecting the slats and hinged at their inner ends by plates 4
35 and clips 5 to the upper edge of a side 6 of a wagon body 7. The clips 5 are U-shaped with angular bends, and fit over the upper edge of the side 6, and conform closely to the same, and are connected to the upper ends of in-
40 clined braces 8, which extend downward and outward from the upper edge of the side 6, and have their lower ends arranged in openings 9 of projecting ends of bottom cleats 10, whereby the side section of the rack may
45 be readily removed from the body by lifting the clip 5 from the upper edge of the side 6, and withdrawing the stationary braces from the opening 9 of the bottom cleats 10. The cross pieces 3 of the rack are hinged to the
50 clips by pintles 11 which pass through projecting perforated ends of the plates 4, and through eyes of the clips.

The rack is supported at the desired pitch or inclination by adjustable braces 12 which are composed of tubular sections 13, and rods 55 14 arranged to telescope in the tubular sections. The lower ends of the rods 14 are hinged to the stationary braces 8, and the upper ends of the tubular sections are provided with loops 15 which are hinged in eyes 60 16 of adjustable plates 17 secured to the cross-pieces 3 of the rack, whereby the telescoping braces are adapted to adjust themselves to the pitch or inclination of the rack. The lower end of the inclined stationary brace 8 65 is provided with a lug 18, which forms a stop to prevent the braces sinking in the openings 9 too far, and which is provided with an opening to receive the lower end of the rod 14, and the latter is pivoted therein by a pintle 19. 70

The adjustable plate 17 is provided with an opening 20, in which are arranged screws 21 which secure the plate in place, and the plate 17 is adapted to be adjusted along the cross-piece 3 to arrange the rack at the desired 75 pitch or inclination, and to remove the strain to a certain extent from the upper edge of the side 6, and to bring the weight more directly upon the projecting ends of the bottom cleats of the wagon body. The rack is also 80 secured in its adjustment by an adjustable stop and keeper 23 arranged at the ends of the wagon body and comprising a plate 24 having an angular bend 25 to form a stop, and to provide a space or way for the pro- 85 jecting end of an end cross-bar 26. The lower end of the plate is provided with a threaded shank 27 which passes through the bottom of a wagon body and is secured thereto by a nut 28, and the upper end of the plate 90 is provided with a longitudinal slot 29, in which is arranged a bolt 30 which secures the upper end of the plate to the end gate or board of the wagon body. By means of the threaded shank 27 and the nut 28 the plate 95 may be adjusted vertically to raise and lower the stop, and thereby regulate the pitch or inclination of the rack.

In order to prevent the rack being accidentally lifted from the body, a hook 31 and 100 a loop 32 are provided; the former is arranged on the end cross-bar 26, and the latter is elongated and is secured to a block arranged on the upper end of the side 6 of the wagon

body. This hook 31 and the loop or staple 32 also prevent the rack swinging inward when arranged in a vertical position.

It will be seen that simple and inexpensive means are provided for adjusting the rack at the desired inclination, and that the rack may be readily removed from and attached to a wagon body without the use of nuts.

What I claim is—

1. The combination with a wagon body and a rack hinged to the body at the upper edge thereof; of a telescopic brace hingedly connected at its lower end with the body at the bottom thereof and having its upper end adjustably secured to the rack, said brace having its sections loosely sliding on each other, whereby the rack may be readily lifted to a vertical position and when lowered will automatically assume its proper inclined position, substantially as described.

2. The combination with a wagon body and a rack hinged to the body at the upper edge thereof, of an adjustable plate provided with a longitudinal slot and having an eye and arranged on the rack, a screw adjustably securing the plate to the rack, and a telescoping brace hingedly connected at its lower end with the bottom of the body, and having its upper end hinged to the eye of said plate, said brace having its sections loosely sliding on each other whereby the rack may be raised to a vertical position and will automatically assume its proper inclined position, substantially as described.

3. The combination with a body and a rack

hinged at the upper edge thereof, of a stationary inclined brace, an adjustable plate arranged on the rack and provided with a longitudinal slot and having an eye at its outer end, a screw adjustably securing the plate to the rack and arranged in said slot, a lug fixed to the inclined brace near the lower end thereof, and a telescoping brace hinged at its lower end to said lug and having its upper end hinged to the eye of the adjustable plate and having its sections loosely sliding on each other whereby the rack may be raised to a vertical position, and when lowered will automatically assume its proper inclined position, substantially as described.

4. The combination of a wagon body, an adjustable stop and keeper arranged at one end of the same and comprising a plate having an angular bend to form a stop and provided with a threaded shank passing through the bottom of the body, a nut arranged on the threaded shank, a bolt arranged in a longitudinal slot on the upper end of the plate, and a rack hinged to the body and provided with an end bar having its inner end arranged in the keeper, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

GEORGE E. SCHAIRER.

Witnesses:

J. F. WEISSINGER,
E. RUCKMAN.