(No Model.)

J. GRIMES.

HAY RACK.

No. 333,944. Patented Jan. 5, 1886.

Fig. 1.

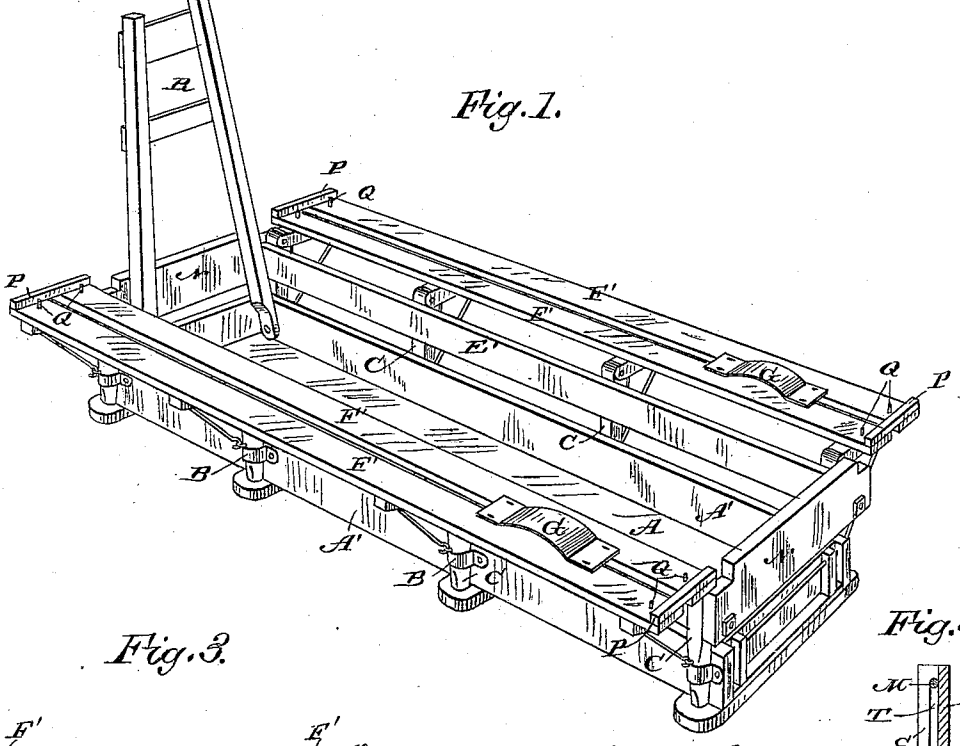


Fig. 3.

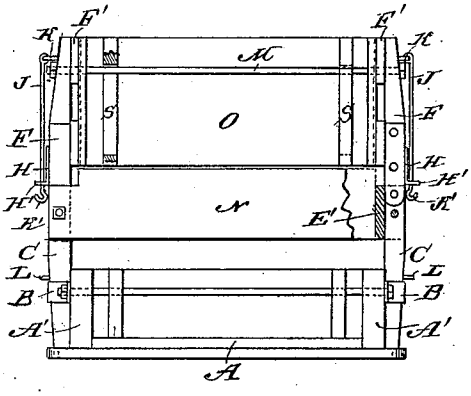


Fig. 5.

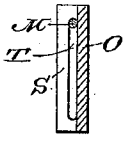


Fig. 2.

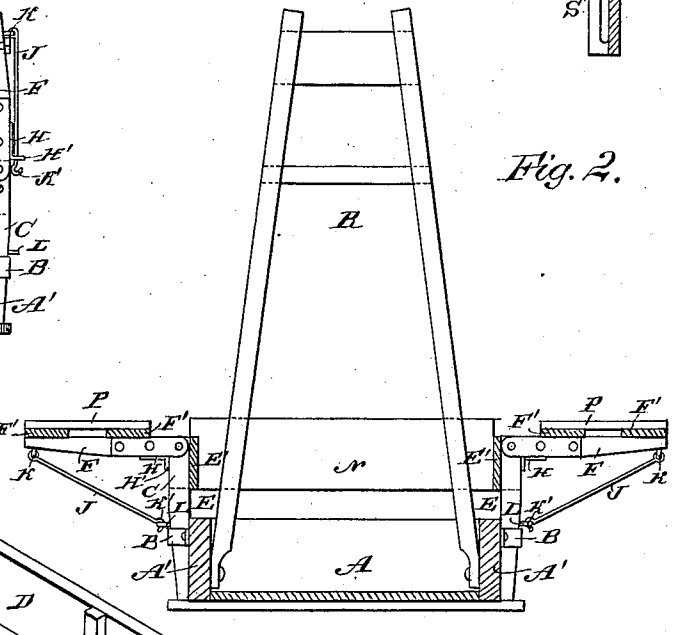
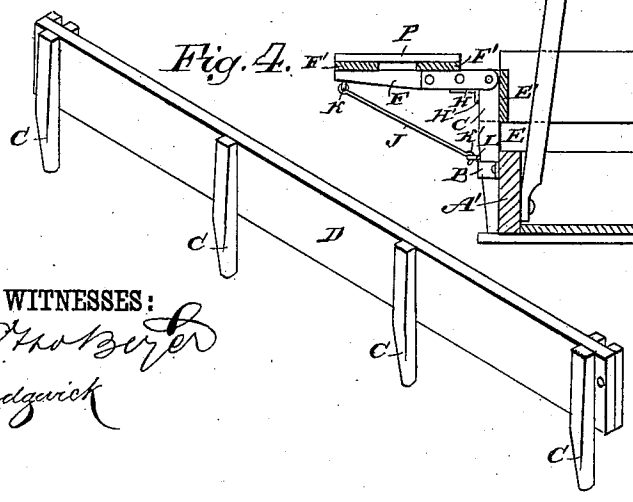


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOSEPH GRIMES, OF PERRY, ILLINOIS.

HAY-RACK.

SPECIFICATION forming part of Letters Patent No. 333,944, dated January 5, 1886.

Application filed September 28, 1885. Serial No. 178,380. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH GRIMES, of Perry, in the county of Pike and State of Illinois, have invented a new and useful Improvement in Hay-Racks, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved hay-rack for vehicles, which hay-rack can easily be converted into a stock rack or box for vehicles.

The invention consists in the construction and combination of parts and details, as will be fully set forth and described hereinafter, and pointed out in the claims.

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

Figure 1 is a perspective view of my improved rack for vehicles, showing it adjusted for carrying hay. Fig. 2 is a cross-sectional view of the same. Fig. 3 is an end view of the box and rack, parts being broken out and others in section, the rack being adjusted for transporting stock. Fig. 4 is a perspective view of the usual side-board. Fig. 5 is a detail cross-sectional view of one of the end pieces.

On the outer surfaces of the side pieces, A′, of the wagon-box A the pockets or loops B are secured, for receiving the lower tapered ends of stakes C, secured to the ordinary extension-boards, D, or to the lower rack-sections, E, to which stakes the rails E′ are secured.

To the upper end of each stake C of the lower section a bar, F, of the upper section is hinged, preferably by plates secured to the sides of the bars F, and having their ends projected beyond the ends of the bars F and overlapping the upper ends of the stakes C on the lower rack-sections. The rails F′ of the upper section, F, are secured to the bars F. Wheel-guards G are secured to the inner sides of the rails F′ of the upper section, as shown in Fig. 1.

On the outer edge or side of each bar F an angle-piece, H, is secured at the inner or hinged end, and the projecting lug H′ of said angle-piece H is notched. Brace-rods J are held by staples or eyebolts K on the bars F, at or near the upper ends of the same, and are provided at their lower ends with hooks K′, which can be passed into staples L, projecting from the stakes C above the loops or pockets B. When the upper sections of the rack are lowered, the hooks K′ on the brace-rods are in the staples L, and when the upper sections are raised the brace-rods K hang down vertically on the sides of the upper sections, and are in the notches in the lugs H′, as shown in Fig. 3. When the upper sections are raised, tie-rods M are passed through them, and nuts screwed on one end of each tie-rod and drawn up tight. The bottom sections of the rack are united by end pieces, N, held on the end stakes by bolts. When the upper rack-sections are raised, end-boards O are placed between them, the ends of which are held between end cleats, P, on the upper sections and pins Q. The end pieces, O, have cleats S, provided with slots T, extending from side to side, and from near the top down to near the lower end, and through said slots the rods M pass. The end pieces, O, can thus be lifted without requiring a removal of the tie-rods M. A ladder, R, is hinged on the front end of the box. When the upper sections of the rack are swung down, as shown in Fig. 1, the rack can be used for transporting hay, straw, fodder, &c., and when the upper rack-sections are swung up the rack can be used as a pen or box for stock. In the latter case it is preferably provided with partitions to prevent crowding.

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

1. A hay-rack having its sides formed of two sections hinged together, the lower section being provided with stakes projecting below its lower edge to enter keepers on the wagon-body, substantially as shown and described.

2. A hay-rack having its sides formed of two sections, hinged together and provided with angular stops and brace-rods, the said lower section being provided with projecting stakes to enter keepers on the wagon-body, substantially as herein shown and described.

3. In a hay-rack for vehicles, the combination, with the top and bottom sections hinged together, of the staples L on the stakes of the lower sections, and the brace-rods J on the bars of the upper sections, substantially as herein shown and described.

4. In a hay-rack for vehicles, the combina-

tion, with the top and bottom sections hinged together, of the brace-rods J on the bars of the upper sections, and of the angle-pieces H, secured on the bars of the upper sections at their hinged ends, substantially as herein shown and described.

5. The combination, with a vehicle, of a hay-rack having each side formed of an upper and a lower section hinged together, of a tie-rod uniting the upper sections when raised, and of the end piece, O, having cleats S, provided with slots T, substantially as herein shown and described.

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Witnesses:
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