

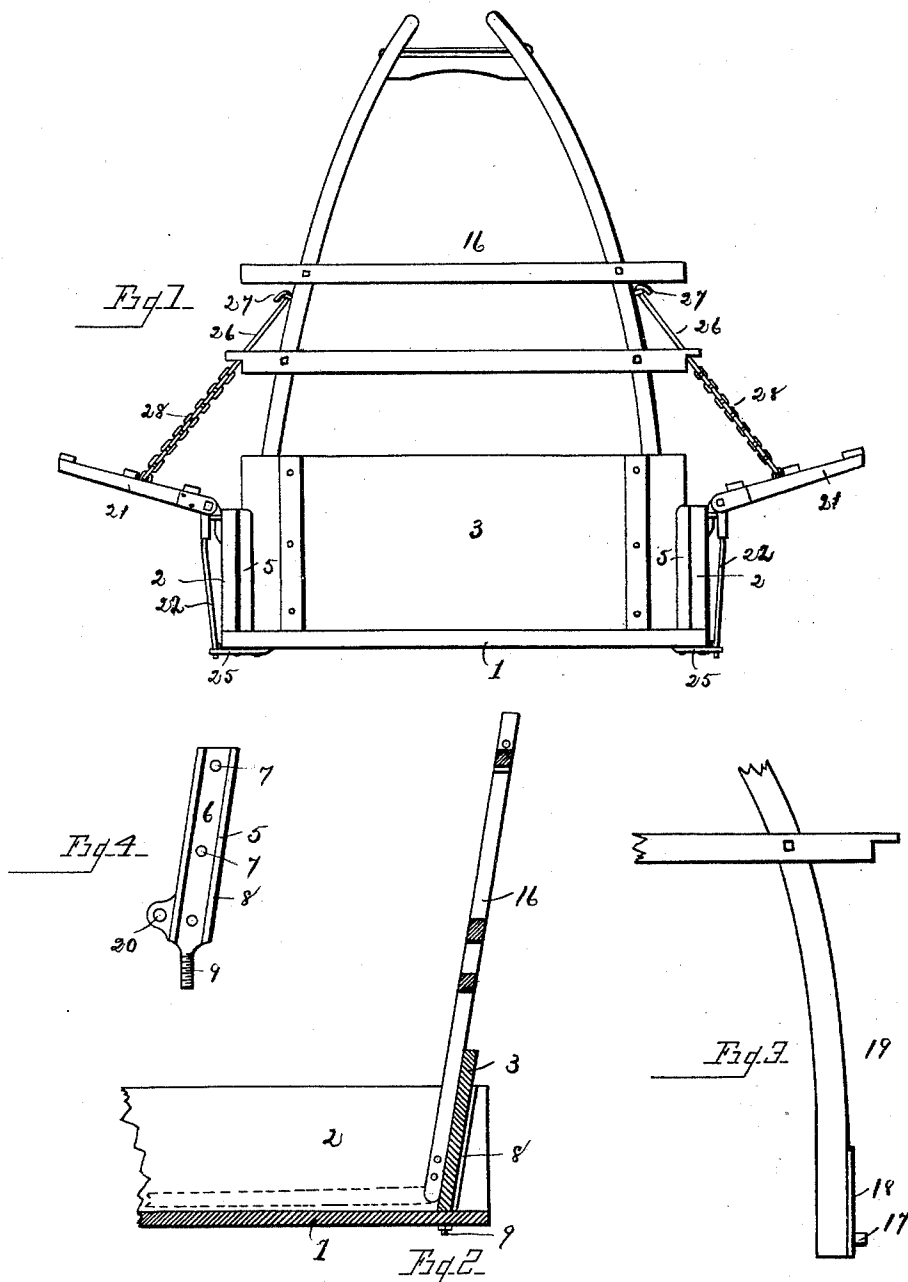
(No Model.)

2 Sheets—Sheet 1.

E. N. AVERY & C. A. SLAYTON.  
CONVERTIBLE HAY AND STOCK RACK.

No. 483,705.

Patented Oct. 4, 1892.



WITNESSES

Carroll J. Webster  
G. S. Southard.

INVENTORS

Edward N. Avery  
Charles A. Slayton  
By William Webster  
Atty

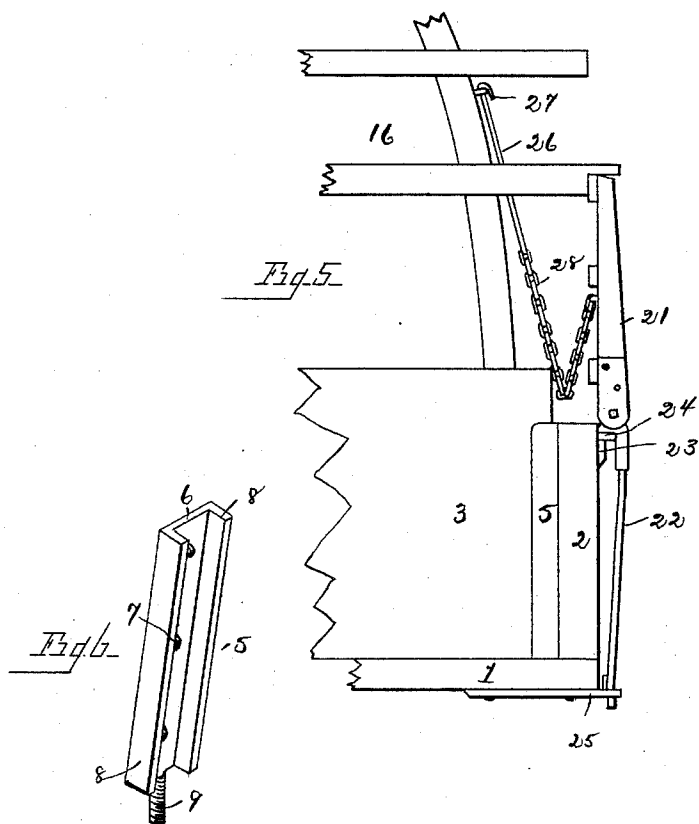
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# UNITED STATES PATENT OFFICE.

EDWARD N. AVERY AND CHARLES A. SLAYTON, OF TECUMSEH, MICHIGAN.

## CONVERTIBLE HAY AND STOCK RACK.

SPECIFICATION forming part of Letters Patent No. 483,705, dated October 4, 1892.

Application filed September 2, 1891. Serial No. 404,516. (No model.)

*To all whom it may concern:*

Be it known that we, EDWARD N. AVERY and CHARLES A. SLAYTON, of Tecumseh, county of Lenawee, and State of Michigan, have invented certain new and useful Improvements in Convertible Hay and Stock Racks; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to  
10 which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form part of this specification.

15 Our invention relates to a convertible hay and stock rack, and has relation more particularly to details of construction whereby the cost of manufacture is reduced, the rack strengthened, and numerous parts heretofore  
20 employed dispensed with.

With these various objects in view the invention consists in the parts and combination of parts hereinafter described, and pointed out in the claims.

25 In the drawings, Figure 1 is an end view of a convertible rack with the ladder raised and the side racks extended and held by the flexible hangers. Fig. 2 is a sectional side elevation of the front portion of the box, showing the ladder raised in full lines and folded in dotted lines. Fig. 3 is a detail view of a portion  
30 of the ladder, showing the pivot upon the base thereof. Fig. 4 is a front elevation of one of the straps and cleats combined, with the side plate in which the pivot of the ladder is journaled. Fig. 5 is an end elevation of a portion  
35 of the end of the box and rack, showing the side racks folded to form a stock-rack. Fig. 6 is an isometric perspective of a combined strap and cleat.

40 1 designates the bottom, 2 the side-boards, and 3 the end-gate, of the box, 4 being the transverse bar beneath the box.

At each end of the box (providing each  
45 board is removable) there is secured to the side boards upon each side a combined cleat and strap 5, comprising a back plate 6, perforated at 7 to receive nails, screws, or rivets to secure the same.

50 In forming a combined hay and stock rack we provide for removability of the ladder 16 by forming pivots 17 upon plates 18 and se-

cure the same to the base of each ladder-standard 19 and form an offset 20 upon the side of the strap and cleat 5 and perforate the same  
55 to receive pivots 17, which are inserted therein by springing the ends of the standards together sufficiently to allow them to enter the holes, the ladder being removed by springing the standards sufficiently to withdraw the  
60 pivots.

21 designates side racks pivotally secured to suspension-rods 22, formed with a hook end 23, which engages with a staple 24, secured upon the upper side of the side board, the  
65 lower end of the suspension-rods being passed through a perforated plate 25, secured upon the bottom of the box, whereby an ordinary wagon-box may be employed in forming the rack, as the suspension-rods and side racks  
70 may be removed readily, and, if desired, a top box may be substituted by allowing the stakes of the same to enter the staples 24.

In order to sustain the side racks without the necessity of employing braces beneath the  
75 same, (the objection to this mode being the necessity of having the side rack of a height to avoid the contact of the under braces with the wheel,) we suspend the racks from the ladder by means of a two-part hanger, one  
80 portion 26 being a rod formed with a hook 27 upon one end and an eye upon the opposite end, in which one end of a chain 28 is secured, the opposite end being secured to the side rack. By this construction the side racks may  
85 be extended, as in Fig. 1, to form a hay-rack, or folded, as in Fig. 5, to form a stock-rack, or the hook 27 may be disengaged from the ladder when it is desired to remove the rack.

Our object in making the hanger in two  
90 parts is economy of construction, as the rod subserves the purpose of a hook and an eye for the attachment to the chain, as well as one-half the hanger, thereby requiring but enough of chain (the most expensive part) to  
95 make the hanger sufficiently flexible to allow of folding the racks.

From the foregoing it will be seen that we have reduced the expense of construction to a minimum and produced a box and rack of  
100 but few parts and of great strength and rigidity.

What we claim is—

1. In a rack, in combination with the side-

board having staples secured therein, perforated plates upon the body below the same, suspension-rods formed with hooked ends engaging the staples, and downwardly-projecting ends passed through the perforations in the plates, and side racks pivotally secured to the hooks and suspended by flexible hangers secured thereto and to ladders of the rack.

2. In a rack, ladders at each end thereof and side racks pivotally secured to the body of the rack and held suspended by two-part hangers comprising a hook-and-eye rod and a chain portion, the hangers being removably connected to the ladders by reason of the hooks and to the racks.

3. In a rack, combined straps and cleats, each having an offset provided with a perforation, in combination with a ladder having

a plate secured to the lower end of each standard and having integral pivots engaging the perforation in the offsets, and side racks pivotally secured to the body of the racks and held suspended by two hangers comprising a hook-and-eye rod and a chain portion, the hangers being removably connected to the ladders by means of the hooks and secured to the racks.

In testimony that we claim the foregoing as our own we hereby affix our signatures in presence of two witnesses.

EDWARD N. AVERY.  
CHARLES A. SLAYTON.

Witnesses:

W. J. INGERSOLL,  
CHARLES BURRIDGE.