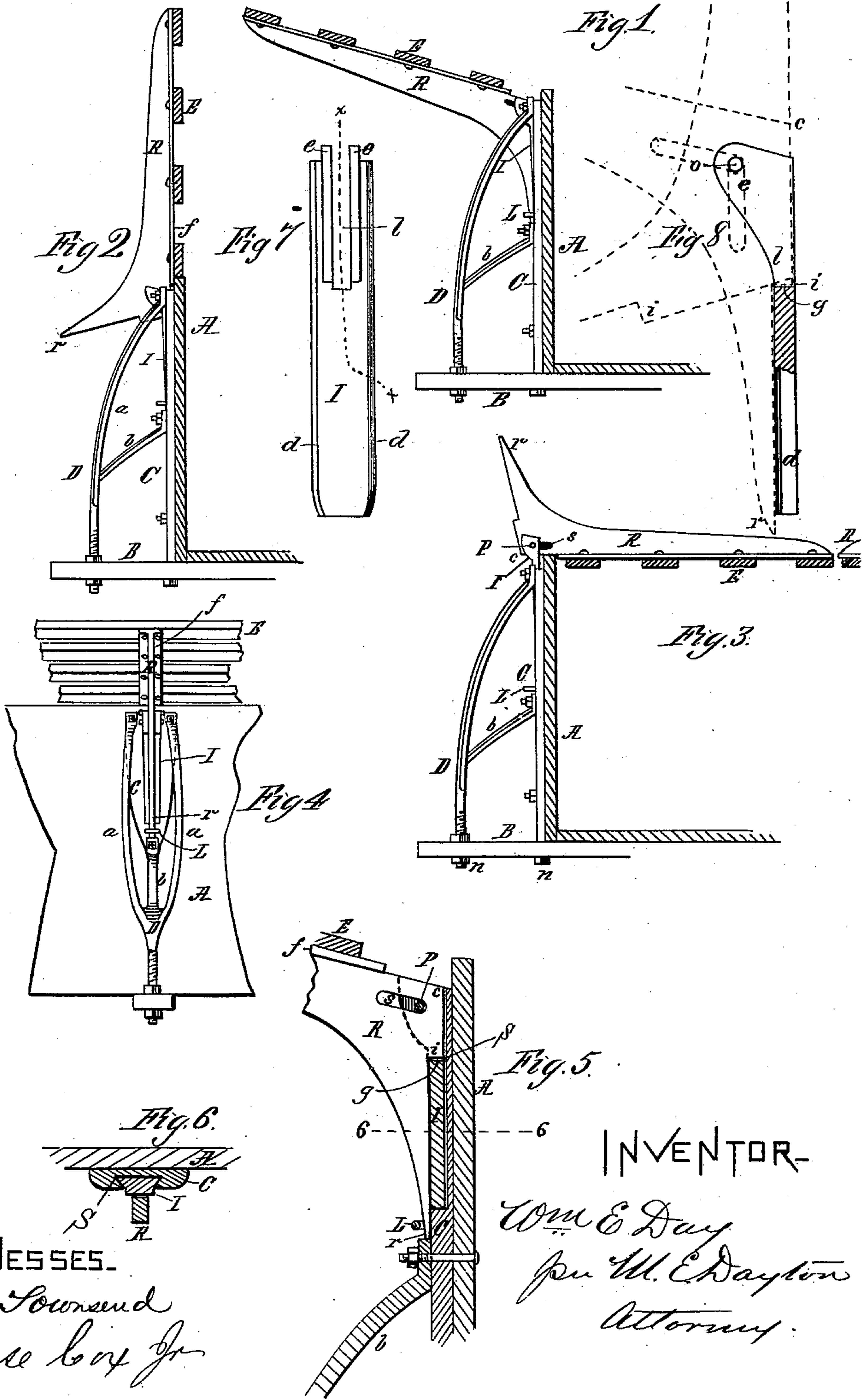


(No Model.)

W. E. DAY.
Wagon Rack.

No. 233,838.

Patented Nov. 2, 1880.



WITNESSES.

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UNITED STATES PATENT OFFICE.

WILLIAM E. DAY, OF CHICAGO, ILLINOIS.

WAGON-RACK.

SPECIFICATION forming part of Letters Patent No. 233,838, dated November 2, 1880.

Application filed August 23, 1880. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. DAY, of Chicago, State of Illinois, have invented certain new and useful Improvements in Wagon-Racks; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to wagon-rack supports; and it consists in the several novel features and combinations hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a transverse section of the wagon box or bed and one rack thereto applied in an outwardly-extended and nearly-horizontal position by means of my improved arm-connection. Fig. 2 is the same section, showing the arm and rack held in vertical position. Fig. 3 shows the rack turned over to form a cover for the box. Fig. 4 is a side elevation of the parts concerned in my invention. Fig. 5 is a vertical section of the fixed parts in the plane of the arm. Fig. 6 is a horizontal section through 6 6 of Fig. 5. Fig. 7 is a front view of the pivoted slide I detached, and Fig. 8 is a side view of the same, in partial section, through the indirect line *x x* of Fig. 7.

A may represent a side-board of a wagon-box; B, a cross supporting-piece beneath the box, and C and D metal tie and brace pieces, bolted together and to A, and also bolted to the cross-piece B, as shown. A may also represent a wagon-stake, and B the bolster, having the brace and tie-pieces C and D applied as shown.

The part C is provided with a broad dovetailed slot, S, in its outer face, intended to receive a correspondingly-dovetailed slide attached to the rack-arms. Said slot is open at the top, and presents a square shoulder or stop at its lower end. (Seen clearly in the sectional figure, 5.) The brace D is trifurcated, the longer arms *a a* being spread to admit the rack-arm between them, and the shorter arm *b* being attached to the part C centrally or below the slot S.

R is the rack-arm, made of iron and having the usual flange *f* along the side of its

longer straight edge, by which to more conveniently fasten the rack-boards E. Near the corner *c* of the arm R is a slot, *s*, parallel with the longer edge of the arm, the outer end of the slot being about equidistant from the two edges of the arm, which converge at *c*.

I is a dovetailed slide fitted to drop into the slot S of the part C. It is provided with the ears *e*, projecting from its outer face, and has the slot *l* extending downward from the top between the ears. This slide is pivoted to the arm R by means of the pin P, which passes through the ears of the slide at *o* and through the slot *s* of the arm, and it forms the means of removable attachment of said arm to the wagon-bed. The racks, each composed of two or more arms, R, and any desired number of boards E, are applied to the box by lowering the slides I into the slots S of the fixed parts C. Said racks are adapted to occupy three several positions with reference to the box when so applied thereto: first, the outwardly-extended proximately-horizontal position shown in Fig. 1; second, the vertical position shown in Fig. 2; and, third, the inward horizontal position shown in Fig. 3, wherein the racks are seen to form a cover to the box. In the first or outward horizontal position the pin P is at the outer end of the slot *s*, and the shorter edge of the arm rests against the face of the pivoted slide I. Said edge has the offset *i*, so that the upper position thereof is flush with the inner face of the slide I in the slot *l*. The rack is held fixedly in this first position by the loop L, secured to the side-board, into which loop the extremity *r* of the arm R is lowered when the rack is applied to the box.

To change the rack from the first to the second or vertical position the slide I is lifted a short distance in the slot S, which confines it, to draw the point *r* out of the loop and to permit the corner *c* to swing clear of the box A. The rack is next swung up into the vertical position desired and then lowered. The end of the slide I rests again on the bottom of the slot S, and the arm R farther falls by means of the slot *s* until the corner *c* of said arm R rests on the bottom, *g*, of the slot *l* in the slide I, or until the pin P strikes the upper end of the slot *s*. The pin P and the corner *c*

now form the two bearing-points by which the rack is held from swinging outward.

To give the rack the third position (shown in Fig. 3) when lifted it is simply swung clear
5 over to rest on the edge of the side-board A, or with its ends on the end-boards of the box, the slides I being raised in the slots S, but still serving to hold the rack laterally in place.

I am acquainted with wagon-racks which at-
10 tach to the bed in two positions by means of dovetailed slides which are rigid with the rack-arms. It is necessary in the use of such devices to wholly remove the racks in order to change their position relative to the box.
15 This is often difficult of accomplishment by one person, wherefore I have particularly sought to provide a connection which will admit of easy change in the position of the rack, or, in other words, without removing the slides
20 from their slots.

Another advantage of the construction herein shown is found in the fact that but one set of slides require to be fitted to their grooves, which effects a material saving in
25 the expense of manufacture.

Having thus described my invention, I claim—

1. The arm R, provided with the slide I, which is pivoted to the arm through the slot s, combined with the part C, fixed to the bed and
30 having the dovetailed slot S, adapted to receive the slide I, whereby the rack may be given either a horizontal or a vertical position on the wagon-box by means of a single slide-connection, and without wholly removing the
35 rack from the wagon, substantially as set forth.

2. In combination with the arm R, having the pivoted slide I, and with the fixed part C which receives the slide, the loop L, adapted to receive the point r of the arm, to hold said
40 arm securely in position, substantially as described.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

WILLIAM E. DAY.

Witnesses:

M. E. DAYTON,
JESSE COX, Jr.