(No Model.)

G. T. STEHLING & J. BLOOMER.

WAGON RACK.

No. 482,490. Patented Sept. 13, 1892.

Fig. 1.

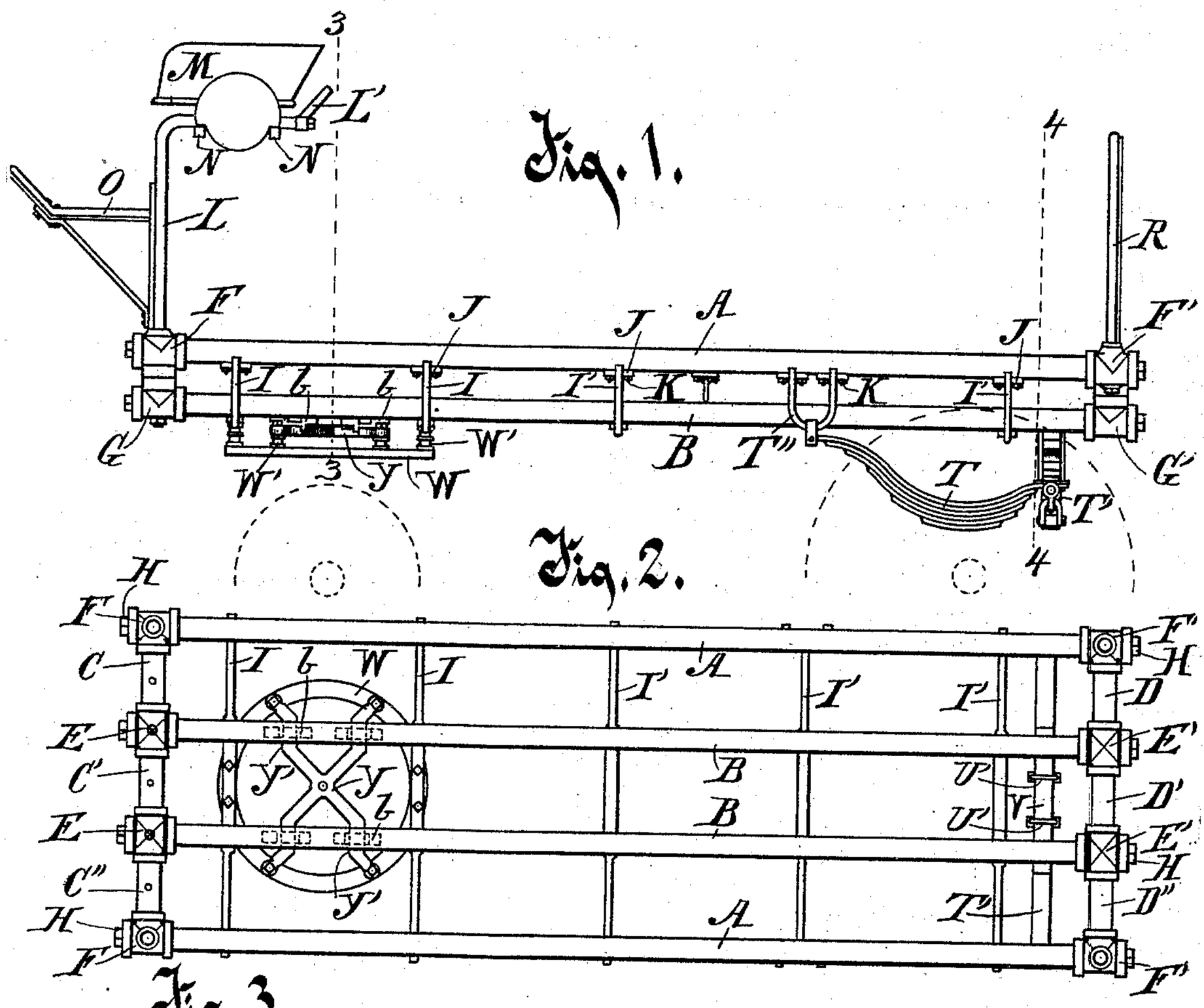


Fig. 2.

Fig. 3.

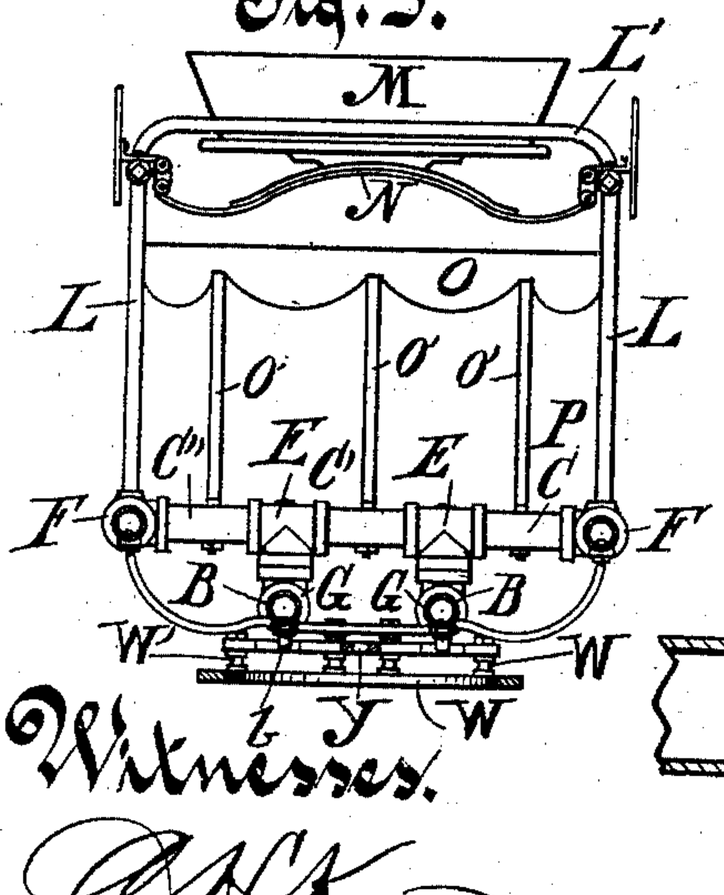


Fig. 5.

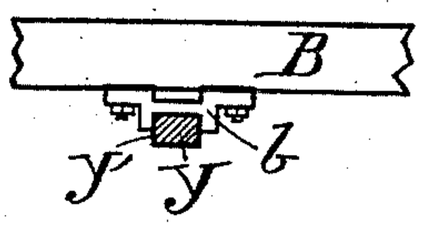


Fig. 6.

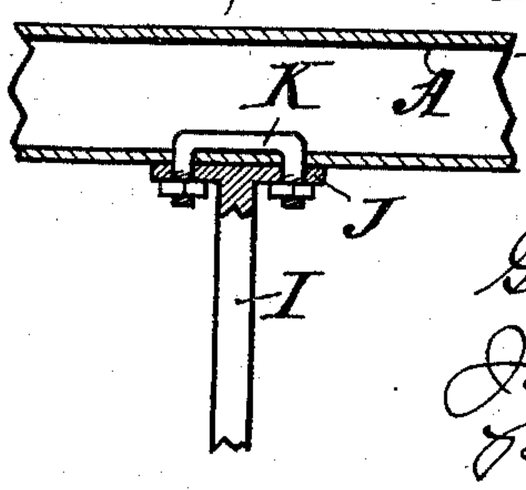
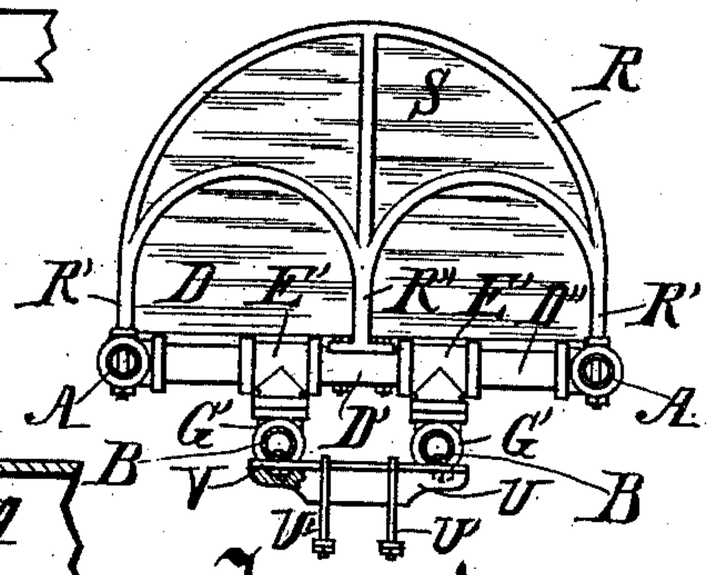


Fig. 4.



Witnesses.

A. N. Keeney,

Anna V. Faust.

Inventors.

Geo. T. Stehling

John Bloomer

By C. T. Benedict

Attorneys.

UNITED STATES PATENT OFFICE.

GEORGE T. STEHLING AND JOHN BLOOMER, OF MILWAUKEE, WISCONSIN.

WAGON-RACK.

SPECIFICATION forming part of Letters Patent No. 482,490, dated September 13, 1892.

Application filed December 14, 1891. Serial No. 414,976. (No model.)

To all whom it may concern:

Be it known that we, GEORGE T. STEHLING and JOHN BLOOMER, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new and useful Improvement in Wagon-Racks, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

Our invention relates to the supporting frame or rack of a wagon designed and adapted for carrying barrels or kegs.

The object of the invention is to provide a convenient and durable rack having the greatest possible available space for the load, in which rack lightness of the structure and strength and neatness of the parts severally and as assembled are essential features.

The invention consists in the novel form and construction of the rack and its several parts and in the novel manner of assembling its parts.

In the drawings, Figure 1 is a side elevation of the complete rack or frame. Fig. 2 is a top plan view of the rack, the end guards and seat being omitted. Fig. 3 is a transverse section on line 3 3 of Fig. 1, looking toward the front. Fig. 4 is a transverse section of Fig. 1, looking toward the rear. Figs. 5 and 6 are details.

The longitudinal rails A A and B B are constructed of metal tubing. The outer rails A are in a horizontal plane somewhat above the horizontal plane of the inner and lower rails B. The extremities of the upper and outer rails A are connected together by transverse end rails made up of the short tubular metal pieces C C′ and C″ and D D′ and D″, respectively. These pieces of which the end rails are formed are severally united by the tubular metal T-couplings E E′. At their extremities they are connected to the rails A A by the double T-couplings F F′. The rails B B are secured at their extremities to the front and rear end rails by the T-couplings G G′, which couplings turn by a screw-thread on the rails B B and are joined to the couplings E E′ by plug-screws turning into the couplings at their abutting parts. All these couplings are screw-threaded, and those on the extremities of the rails A and B are provided at their outer ends with screw-threaded plugs H, closing their apertures. The longitudinal rails A and B are also secured together by the transverse braces I I and I′ I′. These braces are each provided with a central widened part between and opposite to the rails B B and are bolted to these rails B B by bolts passing through the under side of the rails and through the widened part of the brace, and the braces at their extremities terminate in T-flanges J, which flanges bear against the under surfaces of the rails A A and are secured thereto by double or U-shaped bolts K. These bolts K have their bent or connecting part arranged longitudinally of the tube or rail and are inserted in the apertures therefor from the inside of the tube, so that when put in place their nuts may be turned onto them without holding them on the inside by means of a tool therefor, as would have to be done with a single bolt, as the two legs of the bolt in their respective apertures hold it against rotation. At the front end of the rack a seat-supporting frame consisting of the upright tubular guard-posts L L, turned over horizontally near the top and connected together by a tubular brace L′, supports thereon the seat M, hung on springs N. The posts L L enter the couplings F F and are secured thereto by turning into the couplings. A foot-guard O is secured to the upright posts O′, severally fixed in the front end rail-pieces C C′ C″. A piece of sheet metal P, secured to the posts O′ and L, with these posts form the front guard or dash-board of the rack. At the rear extremity of the rack a metal frame R, formed of tubing bent and secured rigidly together, is fixed to the rack by means of two of its extremities R′ R′, passing through the couplings F′ F′ and through the ends of the rails therein, and by nuts turning thereon against the under surface of the couplings, and a central extremity R″, provided with a terminal flange or T-head, being bolted to the middle piece D′ of the end rail. To this frame R a piece of sheet metal S is fixed, the frame and sheet metal together forming a rear guard or tail-board to the rack. The rear end of the rack is supported on longitudinal and transverse springs T and T′ by means of a head-block U, resting centrally on the transverse spring T′ and secured thereto by the U-shaped or clip bolts U′. A metal

plate V rests on the head-block U and is held thereto by the clip-bolts U′. The rails B B are secured to the plate V by bolts passing through the under side of the tubular rails and through the plate, the plate being secured to the rails first and afterward to the head-block. The springs T and T′ are connected together by shackles, and the springs T are connected at their front extremities to the outer rails A A by the shackles T″. The upper circle W of the fifth-wheel is bolted to the braces I I. It is also further secured to the rack by the irregular cross-brace Y, which is bolted at its extremities to the circle at a little distance therefrom, the bolts passing through the interposed sleeves or pillars W′. The braces Y are each provided with a medial part Y′, arranged at right angles to the rails B B, which medial part is received in a groove therefor in a bracket *b*, bolted permanently to the under surface of a rail B. The grooves in the brackets *b* are at right angles to the axis of the rails B, and the medial parts Y′ of the braces, being fitted therein, are adapted to prevent front and rear motion of the parts with reference to each other.

Every part of this rack and its support, so far as shown and described, is constructed of metal, except only parts of the seat M and the foot-guard O. The rails and the frame of the front and rear guards or dash-board and tail board are constructed of tubing, and all parts are made as light as possible consistent with the strength required, and the entire space on the rails from one extremity to the other between the end guards is available for receiving kegs or barrels thereon, which may be readily loaded at the sides of the rack, and any barrel or keg thereon may be removed and replaced without removing or disturbing any other barrel or keg, provided the load consists of single series, horizontally, of barrels or kegs, one at each side of the rack. The inner ends of the kegs or barrels will rest on the inner and lower rails B, while the sides of the kegs or barrels will rest on the outer and higher rails A.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. In a wagon-rack, the combination, with longitudinal tubular rails, of a tubular end guard-frame secured to the longitudinal rails by passing through couplings on the extremities of the rails and through the rails therein and being secured thereto by nuts turning on their extremities against the couplings, substantially as described.

2. In a wagon-rack, the combination, with longitudinal tubular rails, of tubular end rails and T-couplings by which the longitudinal rails are secured to the end rails, substantially as described.

3. In a wagon-rack, the combination, with outside tubular longitudinal rails and inner longitudinal tubular rails in a plane below the plane of the outside rails, of tubular end rails and T-couplings whereby the end rails are secured to the extremities of the outside rails, and T-couplings on the end rails and on the inner and lower longitudinal rails, which couplings on the end rails and on the inner and lower longitudinal rails are connected together by a screw, substantially as described.

4. In a wagon-rack, the combination, with parallel longitudinal tubular rails at a distance apart, of a circle of the fifth-wheel and an irregular radial cross-brace having its four arms secured to the circle at their extremities and having medial parts arranged at right angles to the rails resting thereon, which medial parts of all the four arms bear against the rails and are secured thereto by brackets fastened to the rails, which brackets have shoulders or bearings for the arms at right angles to the rails, the arrangement being adapted to greatly strengthen the construction and prevent endwise movement of the members relatively, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

GEO. T. STEHLING.
JOHN BLOOMER.

Witnesses:
ARTHUR L. MORSELL,
C. H. KUNEY.