

W. B. McCARTHY.

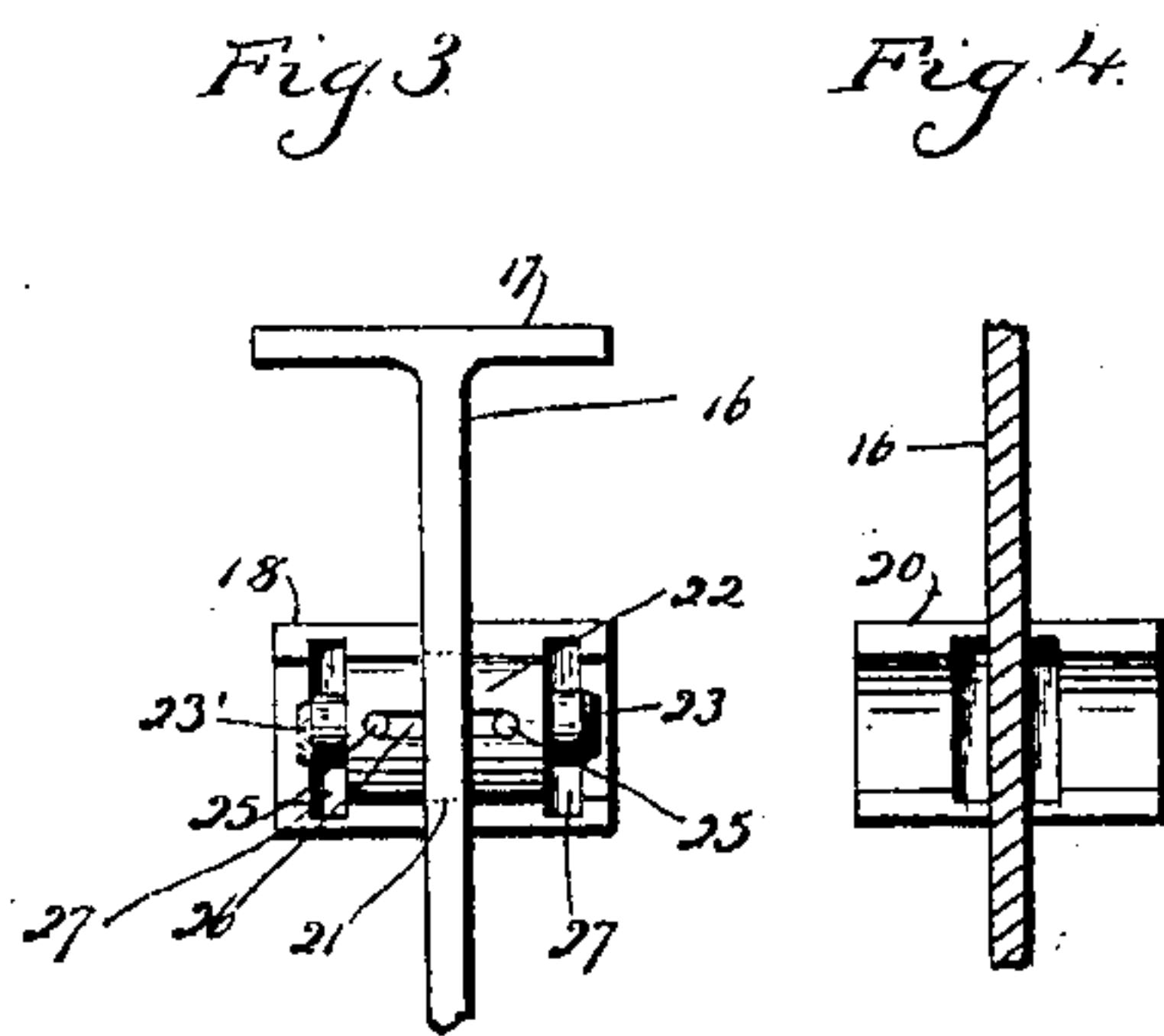
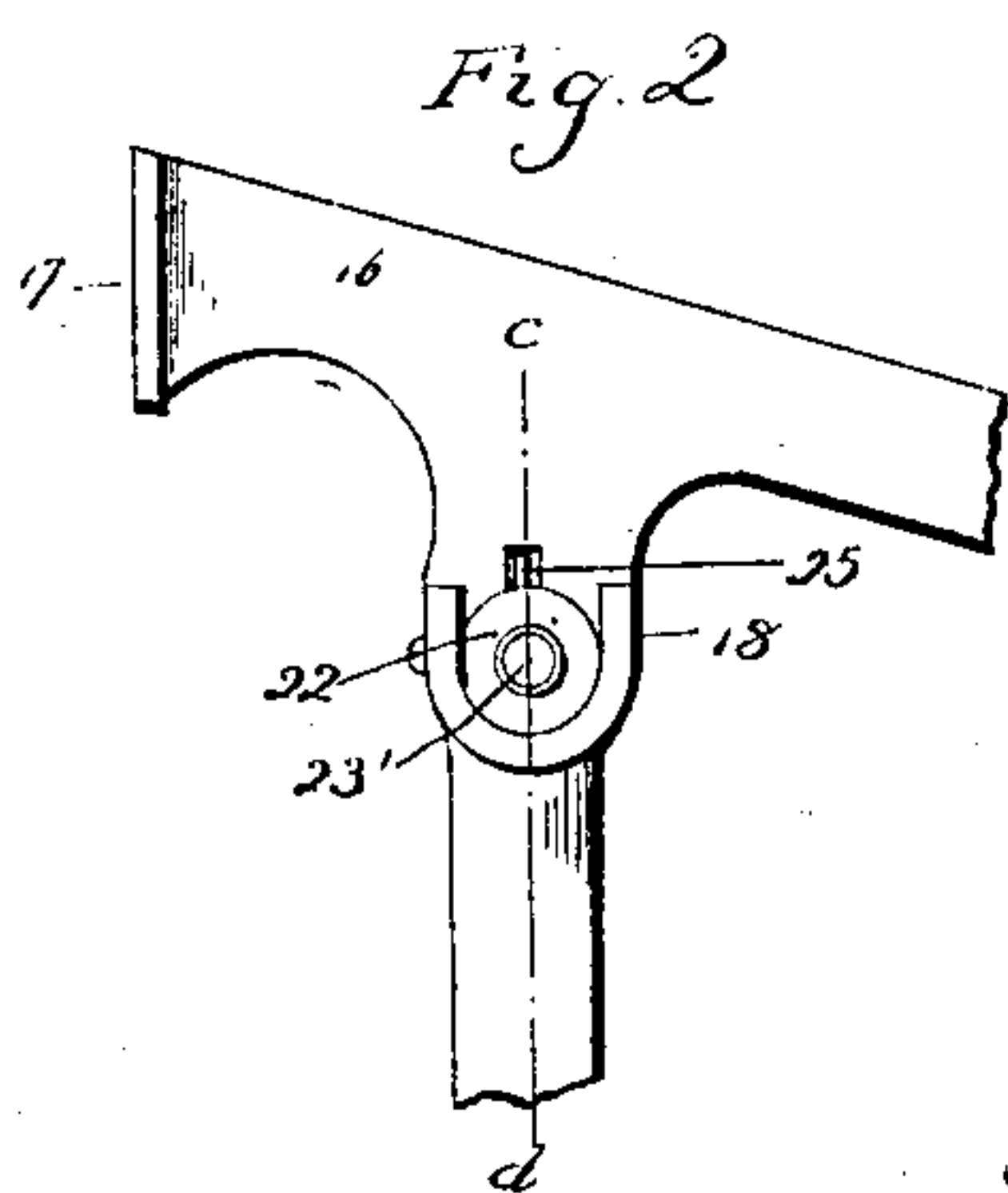
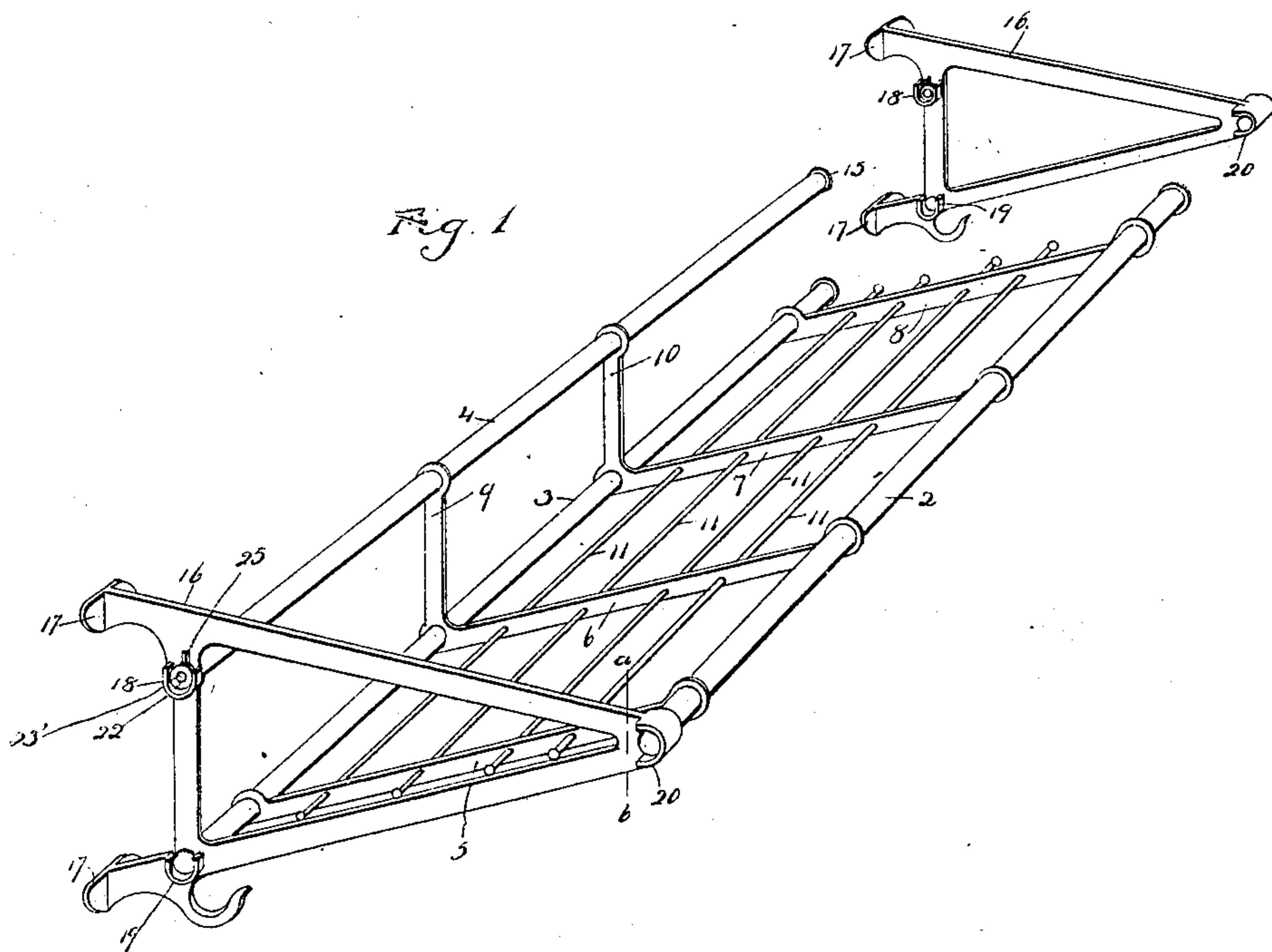
CAR RACK.

APPLICATION FILED APR. 6, 1908.

913,228.

Patented Feb. 23, 1909.

2 SHEETS—SHEET 1.



Witnesses  
C. J. Reed.  
C. L. Reed

William B. McCarthy  
Inventor  
by Seymour T. Carver  
Attorney

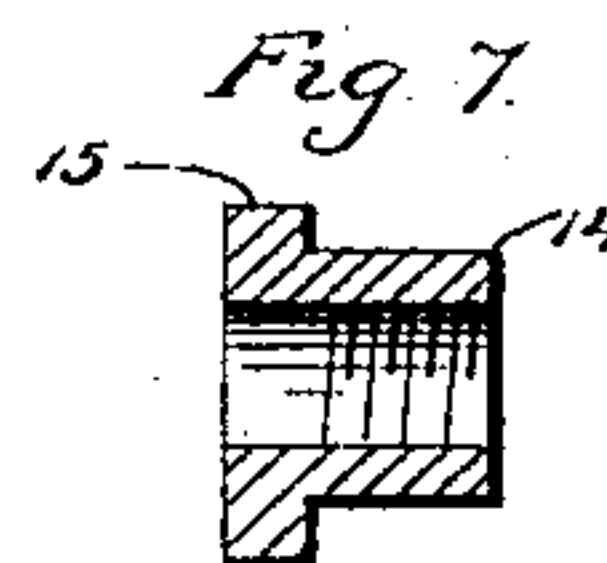
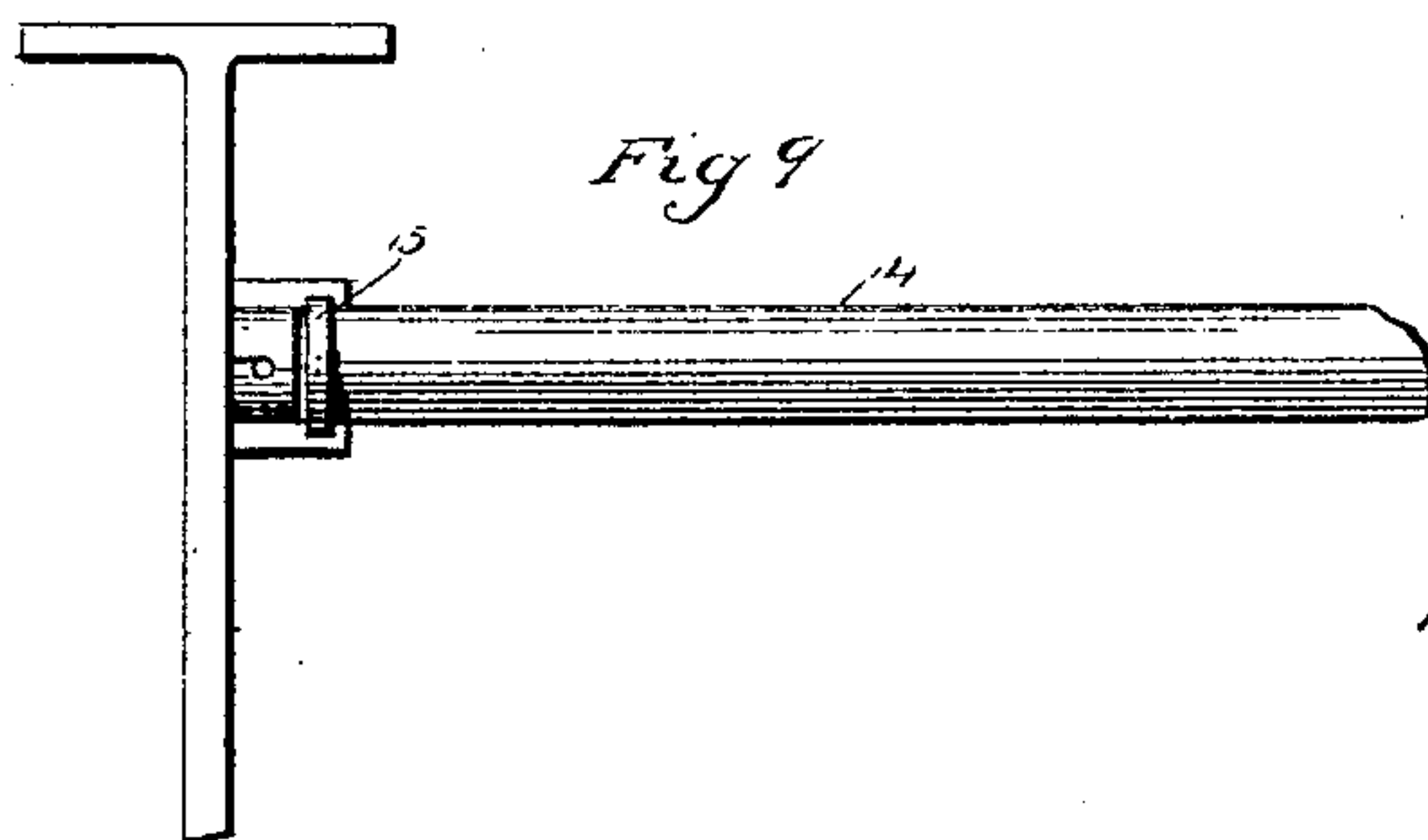
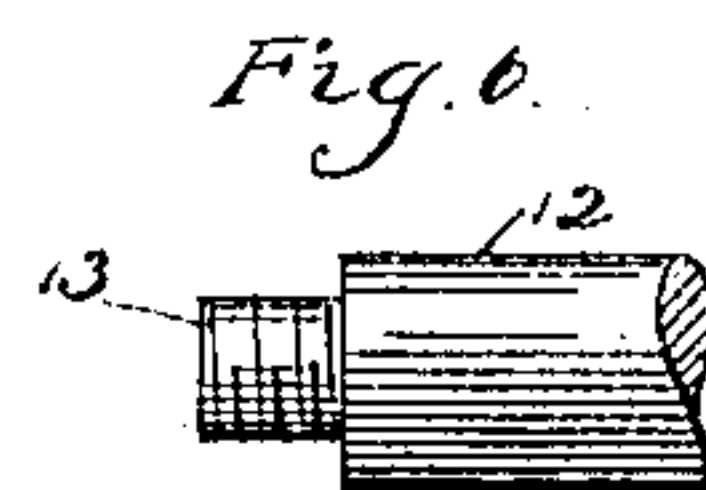
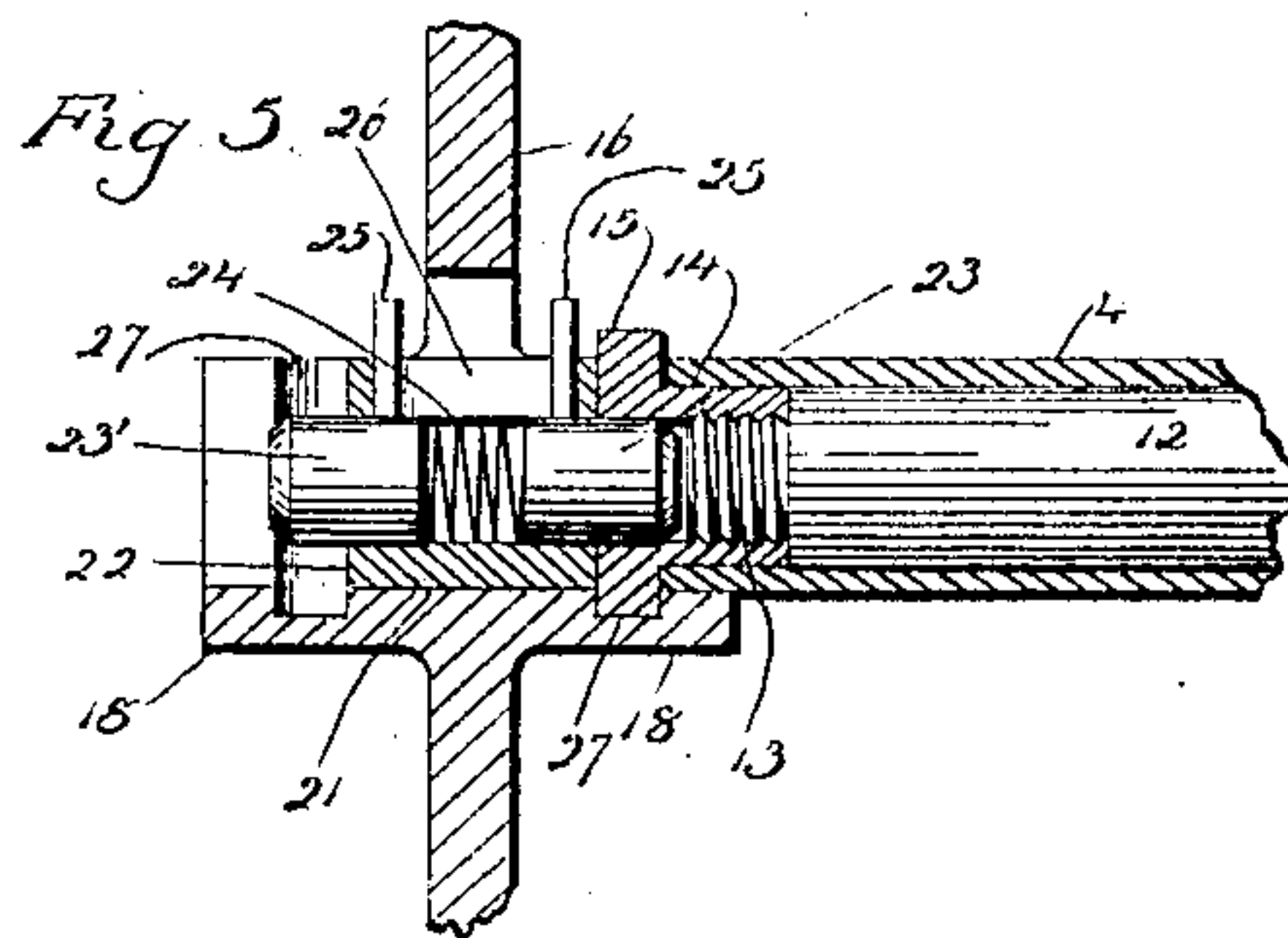
W. B. McCARTHY.  
CAR RACK.

APPLICATION FILED APR. 6, 1908.

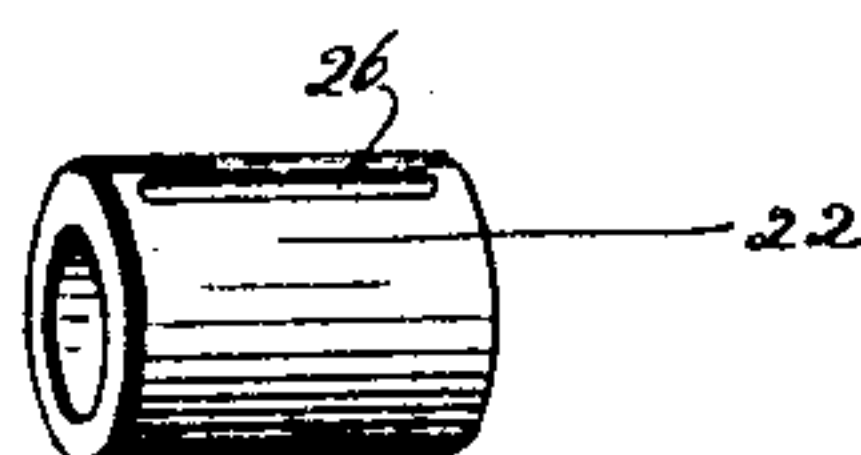
913,228.

Patented Feb. 23, 1909.

2 SHEETS—SHEET 2.



*Fig 8.*



Witnesses  
C. J. Reed.  
C. L. Weed

William B. McCarthy  
Inventor  
by Seymour T. Carter  
Attys



# UNITED STATES PATENT OFFICE.

WILLIAM B. McCARTHY, OF MILFORD, CONNECTICUT.

## CAR-RACK.

No. 913,228.

Specification of Letters Patent.

Patented Feb. 23, 1909.

Application filed April 6, 1908. Serial No. 425,473.

To all whom it may concern:

Be it known that I, WILLIAM B. McCARTHY, a citizen of the United States, residing at Milford, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Car-Racks; and I do hereby declare the following, when taken in connection with the accompanying drawings and the numerals of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1 a perspective view showing a unitary shelf-structure and two brackets of a car-rack system constructed in accordance with my invention. Fig. 2 a broken view in side elevation of the upper corner of one of the brackets. Fig. 3 a broken plan view of the same corner of the bracket. Fig. 4 a broken view in vertical section on the line *a—b* of Fig. 1 looking forward to show the two alined bearing-sockets at the front of the bracket. Fig. 5 a view in vertical section on the line *c—d* of Fig. 2. Fig. 6 a broken view showing one end of one of the reinforcing rods. Fig. 7 a detached sectional view of one of the coupling thimbles. Fig. 8 a detached perspective view of one of the tubular bolt-cases. Fig. 9 a broken view, showing the single bearing-socket construction of one of the end-brackets of the system.

My invention relates to an improvement in that class of racks for railway coaches in which a series of virtually unitary racks are coupled together in a continuous line throughout the length of the coach, the object being to provide for the removal and the restoration of the shelf-structures of the racks without disturbing the brackets in which they are normally supported.

With these ends in view my invention consists in the construction hereinafter described and pointed out in the claims.

In carrying out my invention as herein shown, I employ a unitary self-contained grille-like shelf-structure consisting of an outer tube 2, an inner tube 3, and an upper or guard-tube 4 which latter is located directly above the inner tube 3. The said tubes 2 and 3 pass through the ends of four rigid cross-bars 5, 6, 7 and 8, the two intermediate bars 6 and 7 being provided with integral upwardly extending arms 9 and 10 through

which the guard-tube 4 passes and in which it is rigidly supported. Four grille-rods 11 pass through the transverse bars 5, 6, 7 and 8 and form, as it were, the floor of the shelf-structure. Their number may be increased according to the capacity of the bracket. The tubes 2, 3 and 4 are reinforced by rods 12 reduced in diameter at their ends and threaded to form screws 13 for the reception of internally threaded coupling thimbles 14 having at their outer ends annular coupling flanges 15 larger in diameter than the diameter of the tubes against the ends of which the inner faces of the said flanges 15 bear.

It will be understood from the foregoing that the shelf-structure above described is a rigid unitary structure and that when its parts are assembled it is handled as though it were made in one piece. For use in conjunction with such a shelf-structure, I employ triangular skeleton-like cast-metal brackets 16 having perforated lugs 17 by means of which they are attached by screws to the wood-work of the coach. Each of these brackets is provided upon its inner face with three horizontal U-shaped bearing-sockets 18, 19 and 20 and upon its outer face with three complementary sockets 18, 19 and 20, forming three pairs of sockets virtually located at the three corners of a triangle. The sockets are all of the same length and those of the same pair are alined, while the sockets 18 are connected by a concentric bore or chamber 21. It will be noticed that the sockets 18 and 19 open upwardly while the sockets 20 open inwardly. The said chamber 21 receives a short tube or bolt-casing 22 containing two short bolts 23, 23' respectively projecting from its opposite ends and pushed outward by a spring 24 located between them, the bolts being manually operated against the tension of this spring by operating pins 25 carried by them and projecting radially outward through a slot 26 in the periphery of the casing 22. The outer end of the bolt 23 is adapted to enter the coupling thimble 14 in the adjacent end of the guard tube 4 of the shelf-structure. The bolt 23 is designed to enter the corresponding coupling thimble of the unitary shelf-structure not shown but understood to be exactly like the shelf-structure shown and described and located to the left of it, and coupled with the left hand



face of the left hand bracket. For the reception of the locking flanges 15 of the thimbles 14 the sockets 18, 19 and 20 are formed with the locking grooves 27, those of the sockets 20 being located close to the bracket-structure or at the extreme inner ends of the sockets as shown in Fig. 4.

To mount the shelf-structure of my improved rack, it is lifted into position between two brackets and the locking flanges 15 of the thimbles 14 of its outer tube 2 are entered into the locking grooves 27 of the U-shaped bearing-sockets 20 projecting inwardly from the outer ends of the two brackets. The shelf-structure is now turned downward upon the axis of the said outer tube 2 so as to bring the locking-flanges 15 of the thimbles 14 in the tubes 3 and 4 into range with the inwardly projecting bearing-sockets 19 and 18 of the brackets. The inner bolts 23 of the respective brackets are now pushed outward by means of their radially operating pins 25 so as to permit the locking flanges 15 of these thimbles 14 to be entered into the locking grooves 27 of the inwardly projecting sockets 19 and 18. When the flanges 15 are in place the springs 24 will immediately move the said bolts into the thimbles 14 thus locking the shelf-structure firmly in place against vertical movement, its longitudinal movement being prevented by the entrance of the locking flanges

of its thimbles into the locking grooves of the bearing-sockets.

I claim:—

1. In a car-rack, the combination with two brackets provided upon their inner faces with inwardly projecting U-shaped bearing-sockets having locking-grooves, of a unitary shelf-structure comprising tubes provided at their ends with coupling-thimbles having locking-flanges adapted to enter the said locking-grooves and locking-bolts mounted in the brackets in position to enter the said thimbles.

2. In a car-rack, the combination with two brackets formed upon their inner faces with inwardly projecting U-shaped bearing-sockets having locking-grooves, of a unitary shelf-structure comprising tubes, rods located in the said tubes and formed at their ends with screws, threaded thimbles entered into the tubes and applied to the said screws and provided with locking flanges adapted to be interlocked with the said bearing-sockets, and means for holding the said flanges in the said grooves.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

WM. B. McCARTHY.

Witnesses:

FREDERIC C. EARLE,  
CLARA L. WEED.