A. J. MURRAY.

VEHICLE TOP SHIFTING RAIL.

APPLICATION FILED OCT. 5, 1908.

929,237. Patented July 27, 1909.

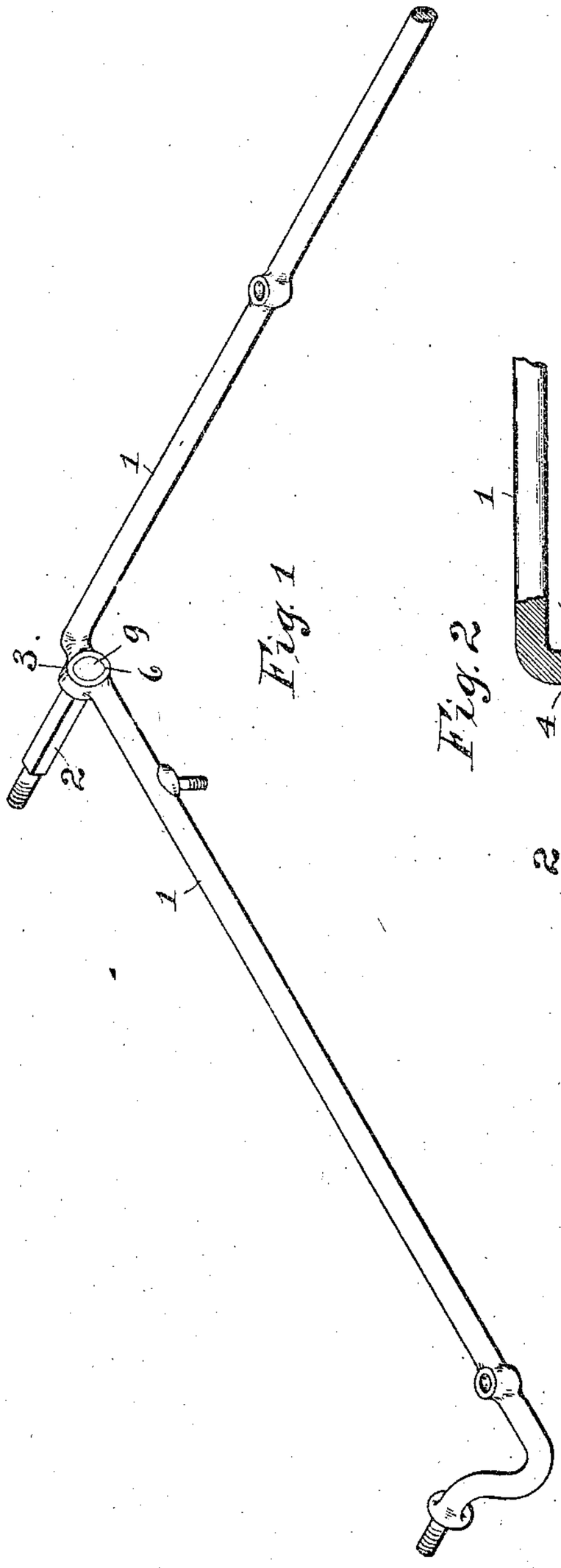

Fig. 1

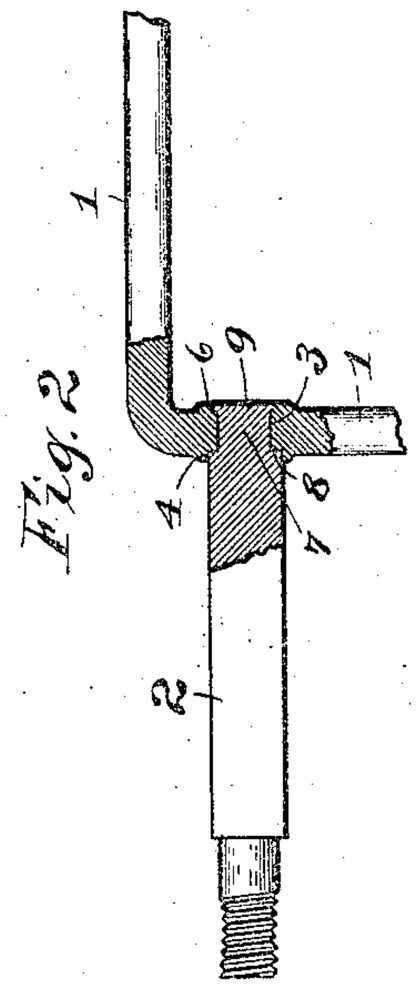

Fig. 2

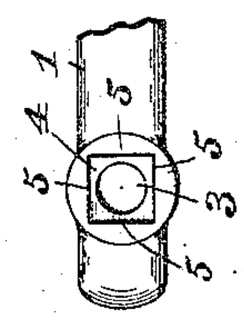

Fig. 3

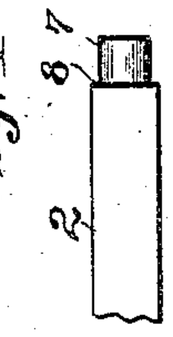

Fig. 4

Witnesses:
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UNITED STATES PATENT OFFICE.

ANDREW J. MURRAY, OF CORTLAND, NEW YORK, ASSIGNOR TO CORTLAND CARRIAGE GOODS COMPANY, OF CORTLAND, NEW YORK, A CORPORATION OF NEW YORK.

VEHICLE-TOP-SHIFTING RAIL.

No. 929,237. Specification of Letters Patent. Patented July 27, 1909.

Application filed October 5, 1908. Serial No. 456,175.

To all whom it may concern:

Be it known that I, ANDREW J. MURRAY, a citizen of the United States, and a resident of Cortland, in the county of Cortland, in the State of New York, have invented new and useful Improvements in Vehicle-Top-Shifting Rails, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to the attachment of vehicle-tops to the seats, and the invention is designed chiefly to reduce the cost of manufacture of the so-called shifting-rail on which the top is mounted, and to obviate certain defects of the prior construction, and to that end it resides in the novel manner of applying to the rail the usual studs or props forming the supports for the top.

It is well known that heretofore it has been the general practice to secure said studs to the rail by welding of the said parts. This method has proved to be difficult and unsatisfactory owing to the rail being of considerable length and of such shape as to render it cumbersome and inconvenient for handling in the operation of welding, and the uncertainty of producing perfect joints, and in consequence thereof the welding is liable to be defective and the attachment of the stud is unreliable. By securing the stud to the rail in the manner stated, it is obvious that in case the stud or the rail becomes broken or in any way injured so as to impair its efficiency, the entire structure is rendered unfit for use, as it incurs considerable expense to apply a new stud owing to the great amount of time and labor required to properly prepare the rail for a second welding, and furthermore, in making such repair the marring of the rail is unavoidable.

The main object of the present invention is to provide a more simple and inexpensive method of securing the stud to the rail whereby the aforesaid objectionable features shall be avoided and which will permit the stud to be easily removed in case a renewal of the part or repairs be required, and without danger of materially injuring the finish of the rail.

With this object in view my invention consists in the novel construction of the rail and the attachment of the top-supporting stud or prop to said rail as hereinafter described and claimed.

In the accompanying drawings Figure 1 is a perspective view of a portion of the vehicle-top shifting-rail embodying my improvements; Fig. 2 is an enlarged detail plan view, partly in section, and illustrating more clearly the attachment of the stud to the rail; Fig. 3 is an enlarged detail outer side view of a portion of the rail showing more clearly the forged eye for receiving the stud; and, Fig. 4 is an enlarged detail view of a portion of the stud.

Referring to the drawings —1— denotes the so-called shifting rail which is designed to support the top of a vehicle and is attached to the vehicle-seat in the well known manner. This rail is composed of a single metal rod bent angularly to form the members which extend along the ends and back of the vehicle-seat and it is of elliptical or other suitable shape in cross-section.

2 denotes one of the plurality of studs or props which project outward from the rail —1— and support the frame of vehicle top. For attaching the said stud to the rail, I provide the end member of the rail adjacent to the junction with the back member with a transverse eye —3— produced by forging, by which operation the rail is formed with an enlargement having flat faces disposed at opposite sides of the rail and surrounding the edges of the eye.

In the outer face is formed a recess —4— surrounding the corresponding edge of the eye and shaped square or polygonal to produce shoulders indicated at —5—5—. The inner end of the eye —3— is formed with a countersink —6—. The said stud —2— is formed from a rod which is square in cross-section and the outer end of said stud is reduced and formed cylindrical and is screw-threaded as usual for the reception of a nut for holding the top thereon. The opposite or attaching end portion of the stud is also reduced and formed cylindrical as indicated at —7— whereby a shoulder —8— is produced. This cylindrical portion is inserted into the aforesaid eye —3— whereby the square portion or shoulder is seated in the correspondingly shaped recess —4— so as to firmly engage the shoulders —5—5— and thus prevents the stud from turning on the rail —1—. The end of the inserted cylindrical portion —7— is upset so as to form a head —9— seated in the countersink —6— as clearly shown in Fig. 2.

By this construction, it is obvious that the

stud is securely fastened to the rail, and it is evident that in case the stud becomes broken, it can be easily removed for renewal by simply drilling into the inner end sufficiently to cut away the head —9— to allow the stud to be withdrawn from the rail.

What I claim as my invention is:—

As an improved article of manufacture, a vehicle-top shifting-rail composed of a single metal rod bent angularly to form the members which extend along the ends and back of the vehicle-seat, each end member forged with a transverse eye adjacent to its junction with the back member and with the enlargement at the eye-portion having flat faces disposed at opposite sides of the member and surrounding the ends of the eye, a countersink formed around the inner end of the eye, the outer face of the enlargement being formed with a polygonal recess surrounding the corresponding end of the eye, and a stud having a polygonal portion seated in the said recess and a reduced cylindrical portion fitted to the eye, said cylindrical portion being upset to form a head seated in the countersink and terminating flush with the inner face of the enlargement as set forth and shown.

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