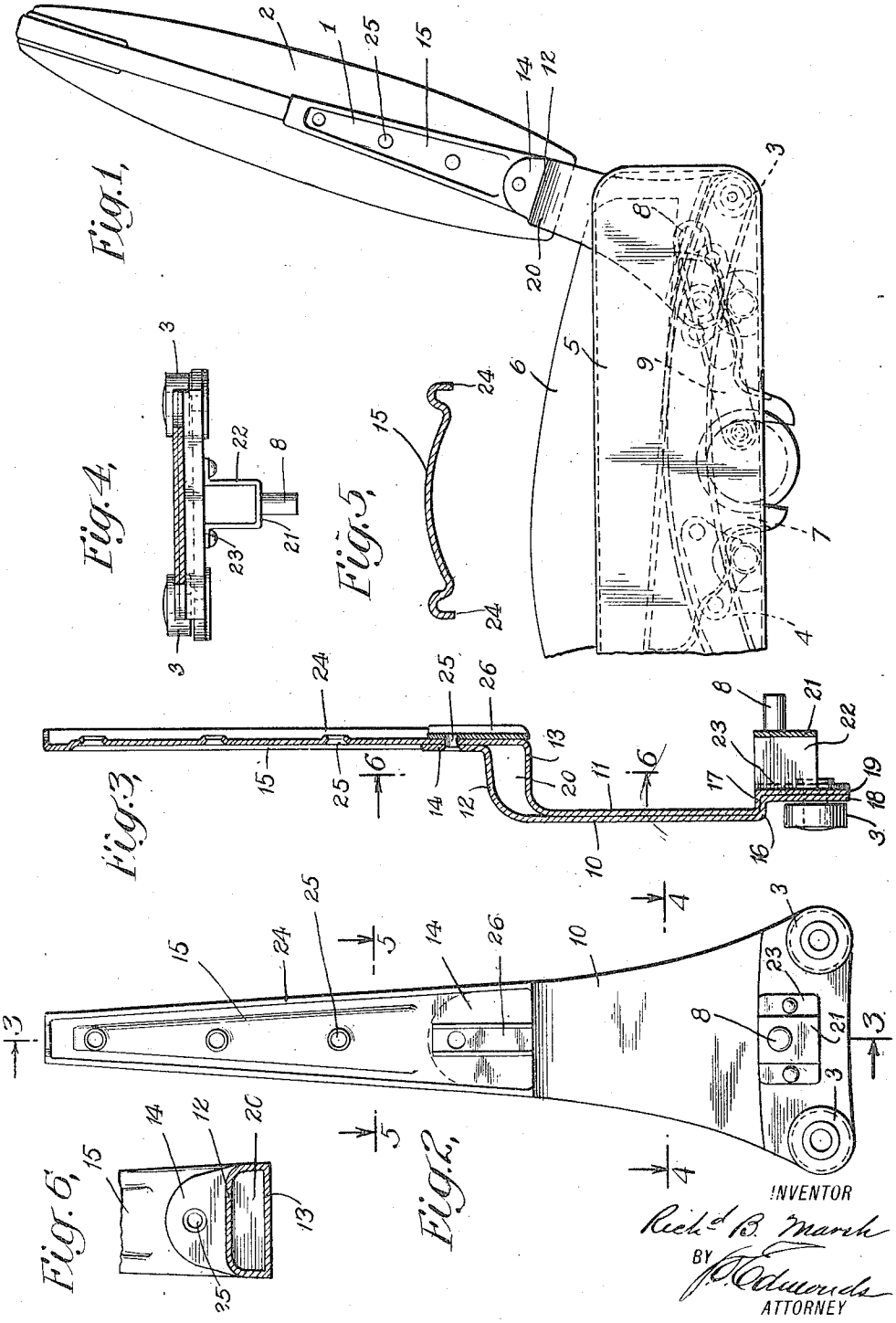
R. B. MARSH.

BACK SUPPORTING STANDARD FOR CAR SEATS.

APPLICATION FILED AUG. 10, 1915.

1,190,441. Patented July 11, 1916.



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UNITED STATES PATENT OFFICE.

RICHARD B. MARSH, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HALE AND KILBURN COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF DELAWARE.

BACK-SUPPORTING STANDARD FOR CAR-SEATS.

1,190,441. Specification of Letters Patent. Patented July 11, 1916.

Application filed August 10, 1915. Serial No. 44,673.

To all whom it may concern:

Be it known that I, RICHARD B. MARSH, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Back-Supporting Standards for Car-Seats, of which the following is a specification.

My invention relates to standards by which the backs of railway car-seats of the "walk-over" type are supported.

By my invention, standards are made of pressed steel in two pieces which are formed up and welded together; the outer piece overlies the inner at the lower portion of the standard, and extends above the inner at the offset portion formed in both. The offset portion of the outer piece has a projection on each side, formed over and welded to the offset portion of the inner piece, to make a box formation at the offset of the standard, the offset being provided to enable the standard to extend around the end of the car-seat, which is of a length greater than that of the back. By this means a very strong construction is provided, combined with light weight. The construction illustrated herewith is also provided with a pivot-pin integral with or secured to a box construction secured to the lower end of the standard, to enable the pivot-pin to extend some distance beneath the seat, as described in the application of Clarence L. Thompson, Serial No. 50,722, filed Sept. 15, 1915, the box construction being secured to the inner piece or sheet of the standard. Rollers adapted to travel on the channel track of an end-plate, when the back is reversed, are mounted on pins extending into the standard on the side opposite to the pivot-pin, below an inwardly extending offset, formed by contacting portions of both sheets or pieces. My invention, however, is not limited in its applicability to a car-seat movement of the character described in the said Thompson application, but in its essential form may be used with any car-seat to which a steel standard may be adapted.

In order that a clearer understanding of my invention may be had, attention is hereby directed to the accompanying drawings, forming part of this application, and illustrating certain embodiments of my invention.

In the drawings, Figure 1 is an end elevation of a car-seat and back provided with my improved standard; Fig. 2 is an enlarged front elevation of the standard; Fig. 3 is a vertical section on line 3—3 of Fig. 2; Figs. 4 and 5 are transverse sections taken respectively on lines 4—4 and 5—5 of Fig. 2; and Fig. 6 is a section on line 6—6 of Fig. 3.

Referring to the drawings, the standard represented generally by the reference character 1 is secured to one end of the back cushion 2, the rollers 3 carried by the standard being mounted on the channel-track 4 of the end-plate 5, either the aisle or wall plate, and movable thereover as the back is reversed. The seating angle of the seat 6 is reversed by connection between the stands, one at each end of the back and the rockers 7 by which the seat is supported, such a connection being established, for example, by the engagement of the pivot-pin 8 on each standard within a slot of the lever or connection 9, having an eccentric connection with the rocker, as described, in said Thompson application.

Each standard comprises outer and inner sheets of pressed steel, 10 and 11, the sheets respectively being bent outwardly or offset, as shown at 12 and 13. The outer sheet 10 terminates a short distance above the offset portion in a vertical portion 14, while the inner sheet or piece extends upwardly a considerable distance, as shown at 15, to form the arm which is secured to the end of the back-cushion 2. The offset portion 12, 13, of the standard, is provided to enable the standard to pass around the upper edge of the seat 6. Beneath the seat, the sheets 10 and 11 may be bent inwardly a slight distance, as shown at 16 and 17, to form a shoulder beneath which the rollers 3 are mounted, the pins on which the rollers are mounted extending through the vertical portions 18 and 19 of sheets 10 and 11, below the shoulder 16, 17.

The vertical portions of the two sheets below the offset 12, 13, and also below the shoulder 16, 17, are welded in contact with each other, the vertical upper end portion of sheet 10, above offset 12, also being welded to the upwardly extending portion 15 of sheet 11. The offset portion 12 of sheet 10 is formed with projections on each side, which are formed over as shown at 20 and welded to the edges of offset portion 13 of

sheet 11 to make a box formation at the offset. The pivot-pin 8 extends inwardly from the web 21 of the channel or box-formation member 22, the inner flanges 23 of which are secured to the portion 19 of sheet 11 beneath shoulder 17.

Upwardly extending arm 15 of sheet 10 has its side edges bent inwardly as shown at 24, this arm preferably being given an arched formation, as shown in Fig. 5, for the purpose of strengthening the same. Arm 15 is secured by screws, extending through screw-holes 25 in the arm 15, into the end of the seat-cushion. A reinforcing channel member 26 may be secured on member 15, inside the edge flanges thereof, to stiffen the same.

It is obvious that the construction described is strong, light in weight and economical to manufacture, the provision of the spaced offset members 12 and 13, together with the side portions 20 of offset member 12, welded to member 13, effecting a strong and rigid box formation at the offset, at which point the greatest strains are encountered in the standard. It should be understood that the standard is applicable for use with various types of seats, and that the design and proportions of the offset will vary in accordance with the construction of the seat.

Having now particularly described my invention, what I claim and desire to protect by Letters Patent is as follows:

1. In a back-supporting standard, the combination of a sheet of metal pressed to shape with an upper portion having screw-holes therethrough for attachment to a seat-back, a horizontally offset portion, and a lower vertical portion below the offset portion, and a second sheet of metal having a lower vertical portion welded to the lower vertical portion of said first sheet, an offset portion spaced from the said first offset portion and a short vertical portion above said offset portion welded to the upper portion of said first sheet, said second offset portion having side projections formed over and welded to said first offset portion, substantially as set forth.

2. In a back-supporting standard, the combination of a pair of sheets of pressed metal having parallel portions welded in contact and offset portions between said parallel portions, substantially parallel but spaced apart, one of said offset portions having side portions formed over and welded to said other offset portion to form a closed box-section, said offset portions being adapted to permit said standard to extend around the end of a projecting seat-cushion, substantially as set forth.

3. In a back-supporting standard, the combination of a sheet of metal pressed to shape with an upper portion having screw-holes therethrough for attachment to a seat-back, a horizontally offset portion, and a lower vertical portion below the offset portion, and a second sheet of metal having a lower vertical portion welded to the lower vertical portion of said first sheet, an offset portion spaced from the said first offset portion and a short vertical portion above said offset portion welded to the upper portion of said first sheet, said second offset portion having side projections formed over and welded to said first offset portion, the lower vertical portions of said sheets being bent inwardly, adjacent their lower ends, to form a shoulder, and thence downwardly in contact to their lower ends and rollers mounted beneath said shoulder, substantially as set forth.

This specification signed and witnessed this 7th day of August, 1915.

RICHARD B. MARSH.

Witnesses:
HARRY S. HYMAN,
WM. J. EARNSHAW.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."

Correction in Letters Patent No. 1,190,441.

It is hereby certified that in Letters Patent No. 1,190,441, granted July 11, 1916, upon the application of Richard B. Marsh, of Philadelphia, Pennsylvania, for an improvement in "Back-Supporting Standards for Car-Seats," an error appears in the printed specification requiring correction as follows: Page 1, line 73, for the word "stands" read *standards;* and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 15th day of August, A. D., 1916.

[SEAL.] F. W. H. CLAY,

Acting Commissioner of Patents.

Cl. 155—2.