A. F. HUBBELL & K. RUFF.

CARRIAGE-SEAT.

No. 180,427. Patented Aug. 1, 1876.

Fig. 1.

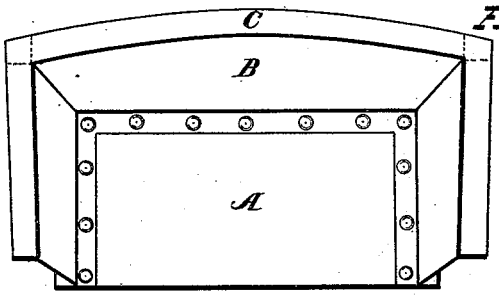


Fig. 2.

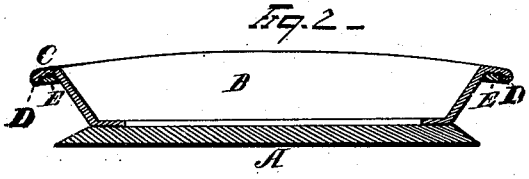


Fig. 3.

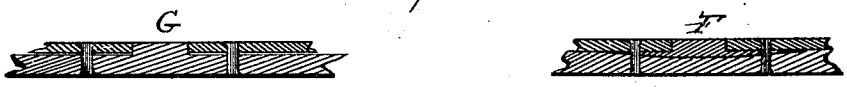
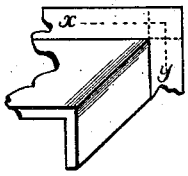


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

ALONZO F. HUBBELL AND KARL RUFF, OF SANDUSKY, OHIO.

IMPROVEMENT IN CARRIAGE-SEATS.

Specification forming part of Letters Patent No. **180,427**, dated August 1, 1876; application filed February 21, 1876.

To all whom it may concern:

Be it known that we, ALONZO F. HUBBELL and KARL RUFF, of Sandusky, in the county of Erie and State of Ohio, have invented certain new and useful Improvements in Carriage-Seats; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

Our invention relates to improvements in carriage-seats, wherein the backs and sides flare or incline outward from the seat.

Heretofore carriage-seats have been made from sheet metal; but such seats have been formed with rounded corners. While round-cornered seats answer the required purpose in certain styles of carriages, in others the existing metal backs cannot be used, owing to the fact that they destroy the symmetry of the vehicle when the body of the same is constructed with square corners. While it is an ordinary mechanical expedient to combine an outwardly-turned flange with a round-cornered seat, many serious obstacles have hitherto prevented the manufacture of square-cornered seats, owing to the difficulty experienced in providing the top of a square-cornered seat with a smooth, continuous, outwardly-turned flange.

Our invention consists in forming the back and sides of the seat of sheet or other metal, united at the corners by a square joint, and provided with a flat flange extending from the extremity of one arm around the back to the extremity of the other arm.

In the drawings, Figure 1 is a plan view of our invention, showing, by dotted lines, square pieces that may have to be inserted in case the seat is made of a single piece of metal. Fig. 2 is a sectional view of the same. Fig. 3 shows different ways of uniting the sides to the back at the corners, where made of separate pieces. Fig. 4 shows, in section, different ways of filling the corner-openings in the flange.

A is the seat; B, the back; C, the upper flat flange, which is formed in a single piece with the metal that forms the back and arms. D is the rolled edge, that may or may not have an inclosed fillet; and E is a flat fillet, which may or may not be employed, and which, if employed, is placed between the rolled edge and the back of the seat.

If the sheet-iron seat is made in a single piece, bent at the corners, it is apparent that there will be some difficulty in bending the upper flat flange at the corners, and it may be effected in different ways. The metal may be stretched or beaten out at the edge, and shrunk a trifle at the corners, so as to leave the upper flat flange unbroken; or the metal that is to form the top flange may be opened at the corners, so that when, finally, the metal is bent down into its place, there will be square openings in the flange at the square corners, and these openings may then be filled by square pieces of metal, soldered or otherwise fastened into the openings, as shown by the dotted lines in Fig. 1; or, if an underlying flat fillet, E, is used, it may have a shoulder, F, on it, which will project up and fill the open corners; or a separate piece, G, of metal, may be so stamped out as to fill the openings and leave projecting ends that will extend along under the flange at each side of the opening, and be then secured by rivets, as shown in Fig. 3.

Heretofore, metallic seat-backs that have been constructed with the flange at the top, for giving to the same stiffness and strength, have been made with rounded corners.

By our invention the seat-back and arms have a square angle at the corners, instead of round corners. The back and sides may be made in a single piece, or they may be made of two or more pieces. If the back and sides are of separate pieces, then they may be joined together at the angles or corners by rolling them together, as tinners unite different pieces of tin; or they may be soldered together at the angles, and the flanges may be joined in a like manner at the corners. In uniting the corners, whether they be joined by rolling or whether they be soldered, they should be finished in such a manner as to leave the outer surface smooth and unbroken.

We do not limit ourselves to providing the flanges with a rolled edge, nor do we limit ourselves to the employment of the fillet; but

we desire it to be understood that our claim is, broadly, to a metallic seat-back wherein the sides are joined to the back with a square angle or corner, and wherein a flat flange extends from the end of one arm clear around the seat-back to the end of the other arm, as shown in the drawings. We prefer, however, to employ a fillet in connection with the said flange. So, also, we desire it to be understood that we propose sometimes to make the square-cornered sheet-iron seat with a top, flat, stiffening-flange, with a rolled outer edge, and we may or may not inclose a wire in the said rolled outer edge, to give additional strength and stiffness. So, also, we may employ, in connection with the square-cornered sheet-iron seat, a fillet, E, attached either to the top or underneath the flange, as may be most desirable, and may or may not employ, in connection with the flat flange and fillet E, the outer rolled edge D; and if employed, we may or may not employ the the inclosed wire fillet.

What we claim as new is—

1. The metallic carriage seat back and sides, constructed with square corners between the back and the sides, and provided with the flange at the top, extending from the extremity of one side around the back to the extremity of the other side, substantially as set forth and shown.

2. In combination with a square-cornered sheet-metal seat, having a flat top-stiffening flange, C, the filling-piece, for filling the spaces in the flange at the corners of the seat, said filling-piece being firmly secured to the adjacent portions of the flange C, substantially as described, and for the purposes set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 24th day of January, 1876.

A. F. HUBBELL.
KARL RUFF.

Witnesses:
JNO. R. MINER,
C. M. COOK.