W. S. WARD.

CARRIAGE SLAT IRONS.

No. 180,509. Patented Aug. 1, 1876.

fig. 1

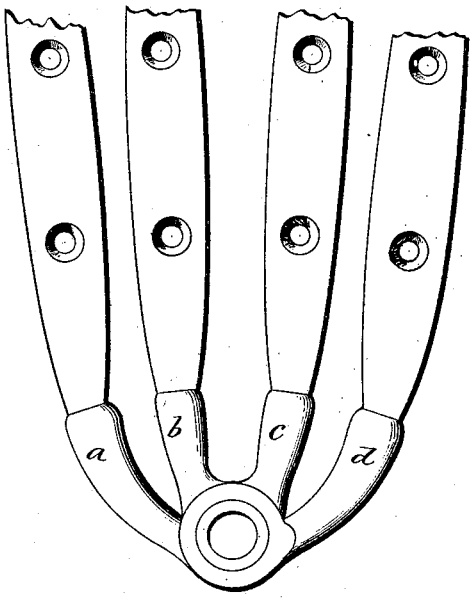

fig. 2

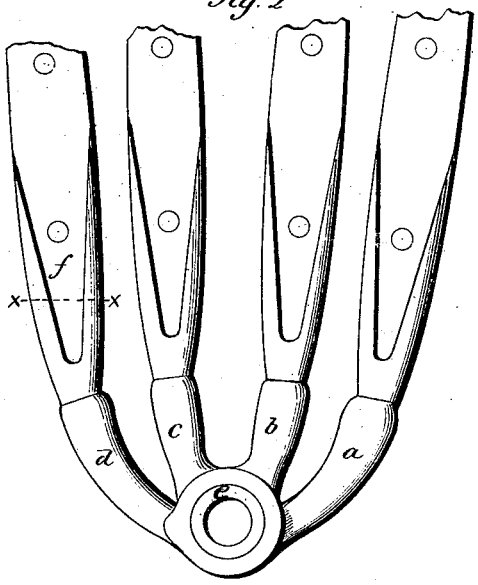

fig. 4

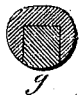

fig. 3

Witnesses.

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Clara Broughton

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UNITED STATES PATENT OFFICE.

WILLIAM S. WARD, OF PLANTSVILLE, CONNECTICUT, ASSIGNOR TO H. D. SMITH & CO., OF SAME PLACE.

IMPROVEMENT IN CARRIAGE SLAT-IRONS.

Specification forming part of Letters Patent No. **180,509**, dated August 1, 1876; application filed May 19, 1876.

To all whom it may concern:

Be it known that I, WILLIAM S. WARD, of Plantsville, in the county of Hartford and State of Connecticut, have invented a new Improvement in Carriage Slat-Irons; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters 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 side view; Fig. 2, the reverse; Fig. 3, a transverse section through the hub; Fig. 4, a transverse section of one of the slats on line *x x*, showing the bow as introduced.

This invention relates to an improvement in the article of carriage-hardware commonly termed "slat-irons"—that is to say, the joint by which the several bows of a carriage-top are hinged together at the seat-iron to allow the opening or closing of the top—the object being to secure the lower ends of the bows to the irons, so as to prevent their splitting.

The invention consists in constructing the branch of the irons with a recess upon one surface, formed by a flange upon each side, between which the lower end of the bow is fitted, and to correspond to the cylindrical shape of the bow, as more fully hereinafter described.

a, *b*, *c*, and *d* represent four branches; but there may be more or less in number. These are each fitted upon a sleeve, *e*, and so as to turn freely in substantially the same plane. This sleeve *e* is slightly longer than the combined ends of the branches, as seen in Fig. 3, so that the sleeve will bear against the shoulder of the bolt, and the nut on the outside will set hard against the end of the sleeve, without positive contact with the surface of the outer joint; hence, the turning of the joints will not create such friction upon the nut as to cause it to turn and become loosened.

The branches are extended to form straps to be attached to the surface of the bows, and on one surface of each of the extensions a cavity, *f*, is formed by a raised flange upon each edge, between which the lower end of the bow *g* is set, as seen in Fig. 4. The sides of this cavity, fitting closely the sides of the bow, prevent its splitting when the securing-screw is turned into it, and the exterior surface of the flanges at the cavity part is made cylindrical, and the bow finished accordingly, so that the iron appears only as a part of the bow, as seen in Fig. 4, over which the leather covering may be readily applied, thus producing a stronger connection between the bows and their irons, as well as a much more neat and tasteful finish than the usual construction.

I do not, broadly, claim the introduction of the sleeve *e* into a slat-iron, as such, I am aware, is not new.

I claim—

Carriage slat-irons constructed with a flange upon each side to form an open cavity, *f*, on one surface, the external surface of the said flange cylindrical to correspond to the portion of the bow in the carriage, substantially as set forth.

WM. S. WARD.

Witnesses:
A. M. LEWIS,
M. J. LEWIS.