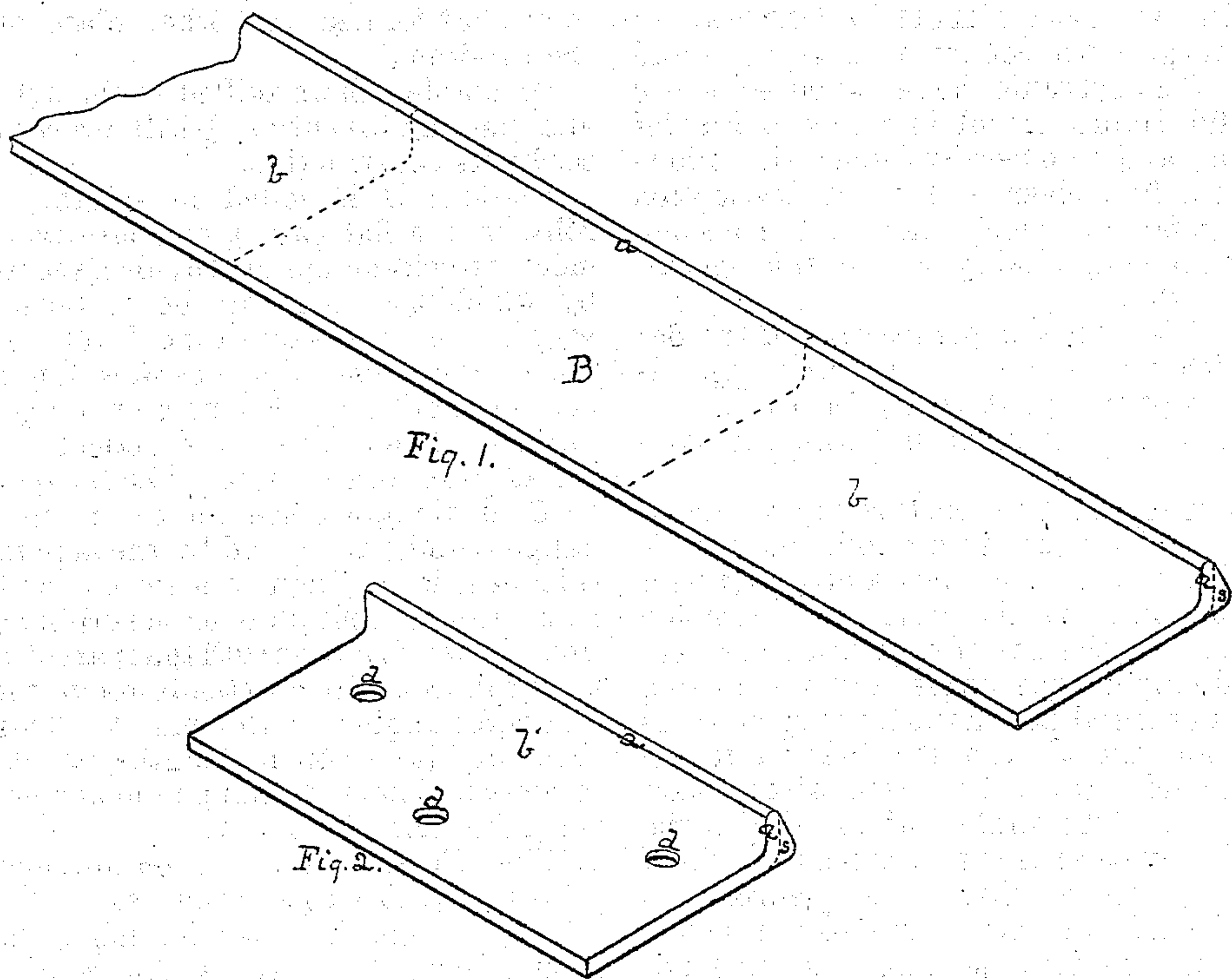


H. W. OLIVER, Jr.

Manufacture of Rub-Irons for Carriages.

No. 136,857.

Patented March 18, 1873.



WITNESSES

R. E. Henderson
James A. Kay.

INVENTOR

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UNITED STATES PATENT OFFICE.

HENRY W. OLIVER, JR., OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN THE MANUFACTURE OF RUB-IRONS FOR CARRIAGES.

Specification forming part of Letters Patent No. **136,857**, dated March 18, 1873.

To all whom it may concern:

Be it known that I, HENRY W. OLIVER, Jr., of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Blank or Bar for Rub-Iron; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a view in perspective of the bar from which the blanks are cut, and Fig. 2 is a like view of the blank ready for use.

Like letters of reference indicate like parts in each.

Previous to the date of this improvement the rub-irons for wagons were commonly made by bending a short iron plate along at or near the middle line, to the form of a common angle-iron. In the use of such irons the wear comes directly on the angle, and there being no excess of metal at that point, it soon wears through, and the whole of it is then valueless, except for old scrap. The metal of the plate on either side of the angle is of no value in the use of the device except as a means by which to fasten it to the wagon. Angle-iron has also been used for the same purpose, but it was open to the same objection. Also, in bending the plate or rolling the angle-iron, it has been necessary to have the metal of the plate extend out a considerable distance on either side of the angle, whereas, for the purpose of fastening, a plate on one side is sufficient.

After various efforts I have succeeded in rolling a bar having a longitudinal section of sufficient width to serve as a means of fastening the iron to the wagon, and with a beaded flange along one edge, which, by its excess of metal, presents a durable wearing angle, and

at the same time saves the metal which heretofore has formed the other plate or half of the rub-iron.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction.

The bar B is rolled in suitably grooved rolls, with a flat part, *b*, comparatively thin—merely thick enough to provide a secure means by which the iron can be fastened to the wagon. At the same time I roll along the upper side of one edge a narrow flange, *a*, and on the outside of this narrow flange I roll a bead, *s*. The bead *s* is a practical and valuable addition to the metal, which would otherwise remain along the line of junction of the flange *a* and part *b*, and by the amount of its thickness is an improvement on the rub-iron made from a bent plate or the ordinary angle-iron. I also dispense with that part of the ordinary rub-iron which extends above the flange *a* at right angles to the part *b*. This bar is then cut into suitable lengths, as at *b'*, and screw or nail holes *d d* being punched or drilled, it is ready for sale or use.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A wrought-iron bar, having a flat longitudinal part, *b*, a narrow flange, *a*, at right angles thereto, and a bead, *s*, at the angle outside the flange, substantially as described.

2. An angled rub-iron, *b'*, having a bead, *s*, on the outside of the angle at the point subject to wear, substantially as set forth.

In testimony whereof, I, the said HENRY W. OLIVER, Jr., have hereunto set my hand.

HENRY W. OLIVER, JR.

Witnesses:

A. S. NICHOLSON,
G. H. CHRISTY.