

A. A. & J. H. NICHOLS.
Sleigh-Shoe.

No. 223,062.

Patented Dec. 30, 1879.

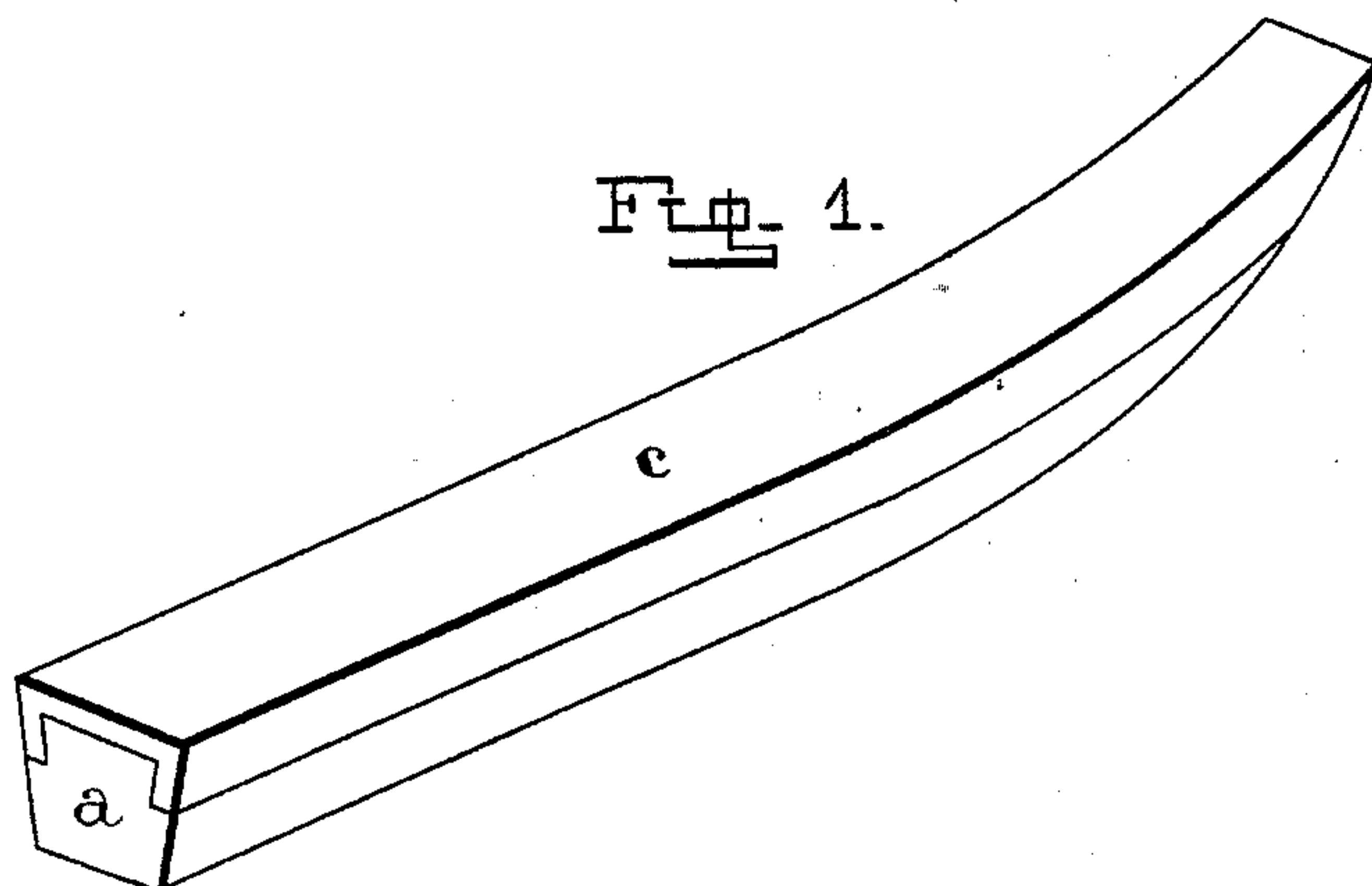


Fig. 2.



Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

ALBERT A. NICHOLS AND JAMES H. NICHOLS, OF CORRY, PENNSYLVANIA.

IMPROVEMENT IN SLEIGH-SHOES.

Specification forming part of Letters Patent No. **223,062**, dated December 30, 1879; application filed November 28, 1879.

To all whom it may concern:

Be it known that we, ALBERT A. NICHOLS and J. HENRY NICHOLS, of Corry, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Sleigh-Shoes; 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 an improvement in sleigh-shoes which are to be secured to the sleigh-runners after being finished; and it consists in making the lower part of the shoe of cast-iron, with suitably-shaped top and a steel cap which catches over the top of the lower part without being welded thereto, so as to strengthen and brace it, as will be more fully described hereinafter.

Figure 1 is a perspective of our shoe. Fig. 2 is an end view of the steel cap before being bent into shape on the lower part. Fig. 3 is an end view of the lower cast-iron part.

a represents the lower part of the shoe, which is made of cast-iron and provided with a dovetailed top, as shown. Upon the top of this part *a*, while cold, is placed the steel cap *c*, while hot, and shaped as shown in Fig. 2, and then the two vertical edges of the cap are bent inward by any suitable means, so as to bind the two parts rigidly together. These

two parts are not welded together, but the cap is fitted tightly upon the lower part, so as to brace and strengthen it, and in case the lower part should break, as is frequently the case, the cap holds the two parts so securely together that the break makes no material difference.

The lower part is made of cast-iron for the reason that it will run more easily, and will not stick and hang when it comes in contact with the ground, as steel does. The top of this lower part need not necessarily be made of the exact shape here shown; but this form will be found most convenient, and the cap need not always be made of steel, as any tough iron will answer the same purpose, but not as well.

Having thus described our invention, we claim—

A sleigh-shoe composed of the lower cast-iron part, *a*, having the dovetailed head, and the steel or iron cap *c*, the two parts being secured together while the lower part is cold and the cap hot, substantially as shown and described.

In testimony that we claim the foregoing we have hereunto set our hands this 18th day of November, 1879.

ALBERT ANSEL NICHOLS.

JAMES HENRY NICHOLS.

Witnesses:

AZRO ELLIOTT,

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