(No Model.)

J. A. JOHNSON.

SLEIGH SHOE.

No. 267,981. Patented Nov. 21, 1882.

Fig. 1.

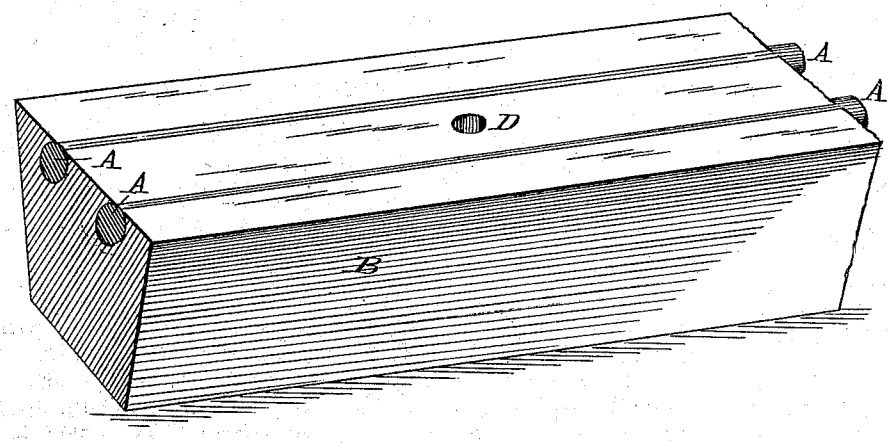
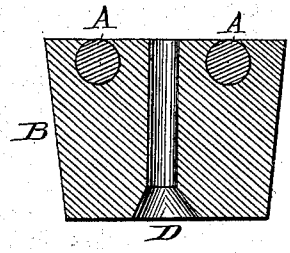


Fig. 2.



WITNESSES:

Fred. L. Dieterich.

Wm. Secker

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INVENTOR.

by Louis Bagger & Co.
ATTORNEYS.

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UNITED STATES PATENT OFFICE.

JOHN A. JOHNSON, OF MADISON, WISCONSIN.

SLEIGH-SHOE.

SPECIFICATION forming part of Letters Patent No. 267,981, dated November 21, 1882.

Application filed August 15, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. JOHNSON, of Madison, in the county of Dane and State of Wisconsin, have invented certain new and useful Improvements in Sleigh-Shoes, (Case B;) and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of a part or portion of my improved sleigh-shoe, and Fig. 2 is a cross-section of the same.

Similar letters of reference indicate corresponding parts in both figures.

My invention contemplates an improved construction of the shoe for sleigh or sled runners, as hereinafter more fully described and claimed. Such shoes are subjected to considerable wear, and, when made of iron, it is therefore necessary to make them of considerable thickness. For this purpose cast-iron has been used, but cast-iron shoes have been found objectionable on account of their liability to crack and break. By my improvement this drawback is wholly obviated, and the cast-iron shoe may be chilled or hardened very hard without danger of fracture or breakage. To this end I embed two or more rods, A A, of wrought-iron longitudinally and parallel to one another in the cast-iron body B of the shoe during the process of casting the latter. These rods or wrought-iron strips are bent with the shoe into its proper shape, extending through its entire length, they being arranged on both sides of the bolt-holes D, by which the shoe is bolted upon the runner.

I am aware that cast-iron devices have before been strengthened by casting in the mass strips or bars of wrought-iron, and such process is not sought to be covered in this application.

I claim and desire to secure by Letters Patent of the United States—

As a new article of manufacture, the sleigh-shoe herein described, of cast-iron, having two or more rods or strips of wrought-iron, A, embedded in it longitudinally during the process of casting, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

JOHN A. JOHNSON.

Witnesses:

A. B. MORRIS,

J. V. FREDRICKSON.