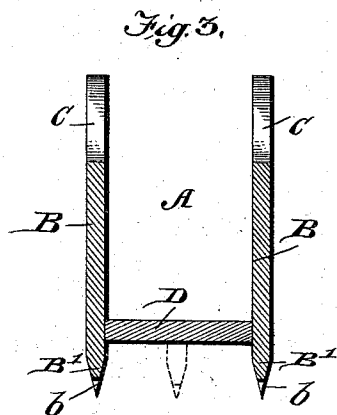
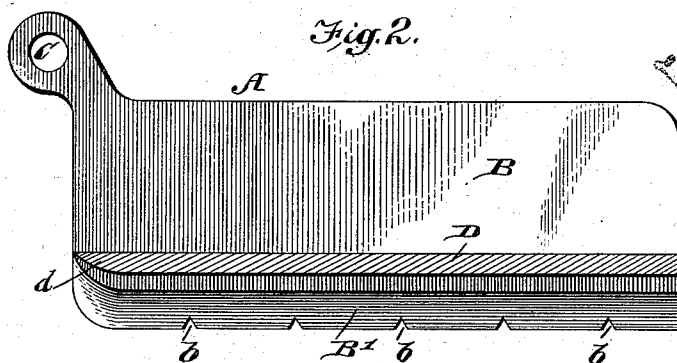
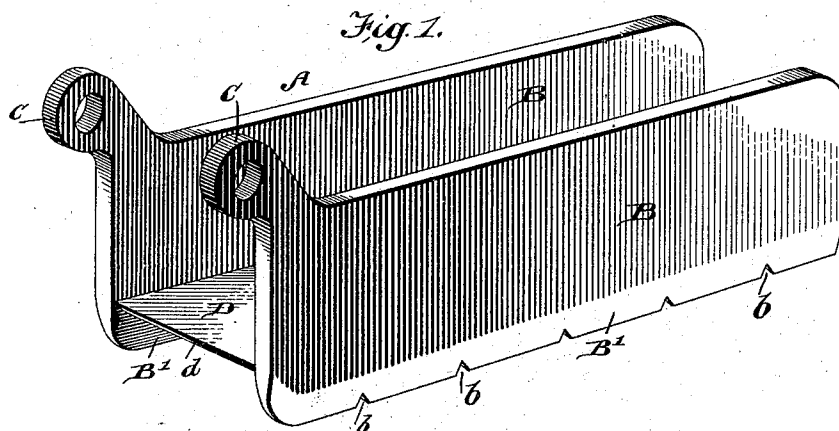


(No Model.)

A. A. WILLIAMS & T. WILMORE.
ICE SHOE FOR VEHICLES.

No. 562,506.

Patented June 23, 1896.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ALLAN A. WILLIAMS AND THOMAS WILMORE, OF TROY, NEW YORK.

ICE-SHOE FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 562,506, dated June 23, 1896.

Application filed December 23, 1895. Serial No. 573,027. (No model.)

To all whom it may concern:

Be it known that we, ALLAN A. WILLIAMS and THOMAS WILMORE, residing at Troy, in the county of Rensselaer and State of New York, have invented a new and Improved Ice-Shoe, of which the following is a specification.

Our invention relates to improvements in ice-shoes for wagons and sleighs, and has for its object to provide a shoe of this character of a simple and economical construction which can be conveniently and quickly fitted to a wagon or sleigh-runner, and which will effectively prevent the rear end of the wagon or sleigh from sliding around at right angles to the horses.

Our invention also has for its object to provide a shoe of this character which will also serve to prevent the wagon or sleigh from sliding down and pushing on the horses.

With these and other objects in view, which will hereinafter appear, our invention consists in a shoe of the character stated, constructed in the peculiar and novel manner hereinafter first described in detail, and then specifically pointed out in the appended claim, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of our improved sleigh-shoe. Fig. 2 is a longitudinal section thereof, and Fig. 3 is a transverse section of the same.

Referring to the accompanying drawings, A indicates the shoe, which in practice can be formed of malleable iron or cast-steel, and in its general appearance of the shape of an ordinary wagon-shoe, it having the vertical side members B B, the front ends of which have the usual eye portions C, the said side members B B being joined by the bottom piece D, the front end of which is beveled or curved in the lower edge, as at *d*, whereby to cause it to the more readily pass over the snow or ice. The lower ends of the members B B extend below the bottom D, and are beveled or

brought to an edge to form cutters B' B', as most clearly shown in Fig. 3. By forming the lower end into a cutting edge it is manifest that the same will cut into the ice and prevent the rear end of the wagon or sleigh from sliding around at right angles to the team.

To prevent the shoe from sliding forward with the wagon or sleigh body toward the horses when they come to a stop on downgrade, the cutters B' B' have transverse nicks or notches *d d*, which serve as scratchers, such nicks being, however, made small and shallow, so as only to bite a little into the ice, as deep nicks would make the shoe hard pulling.

The shoes can be made all sizes to fit any-sized wheel or runner. For use on heavy wagons the shoe is made with an extra central cutter. (See dotted lines in Fig. 3.)

For sleighs the shoes are made a few inches longer than when for wheels.

From the foregoing description, taken in connection with the accompanying drawings, the advantages of my invention will readily appear.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

An improved wagon-shoe, comprising the sides B B, having upwardly-curved eye portions C C, at the forward ends of said sides, the bottom D, connecting the sides a short distance above the lower edges of said sides, the portions of the sides below the bottom having cutting edges B', said cutting edges having notches *b*, at definite intervals, the forward end of the bottom being curved upwardly at *d*, substantially as shown and described.

ALLAN A. WILLIAMS.
THOMAS WILMORE.

Witnesses:

H. G. MITCHELL,
P. HARRY MITCHELL.