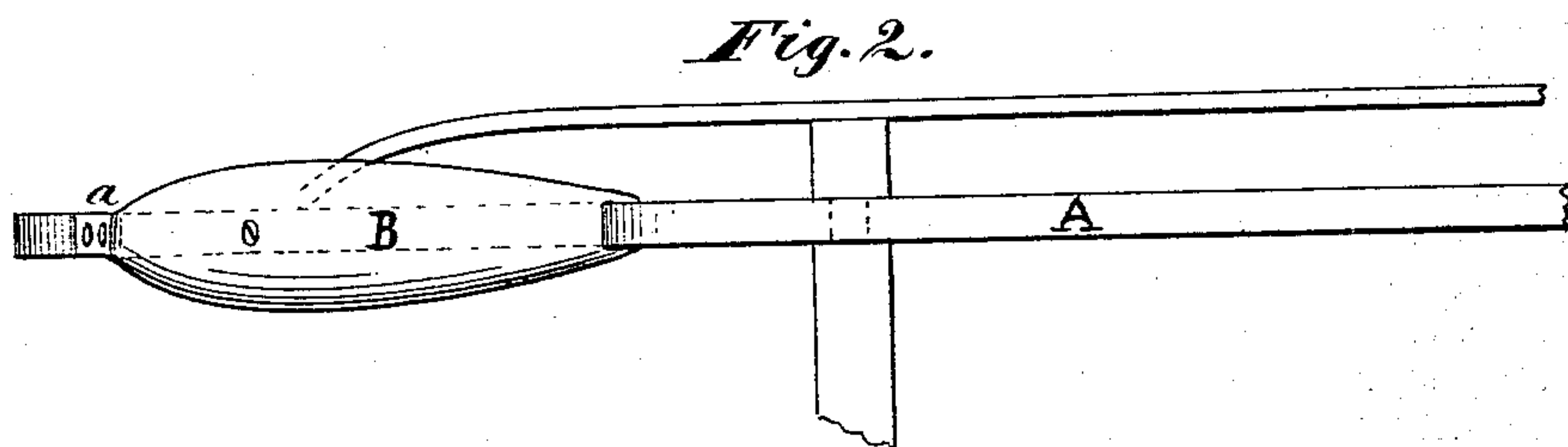
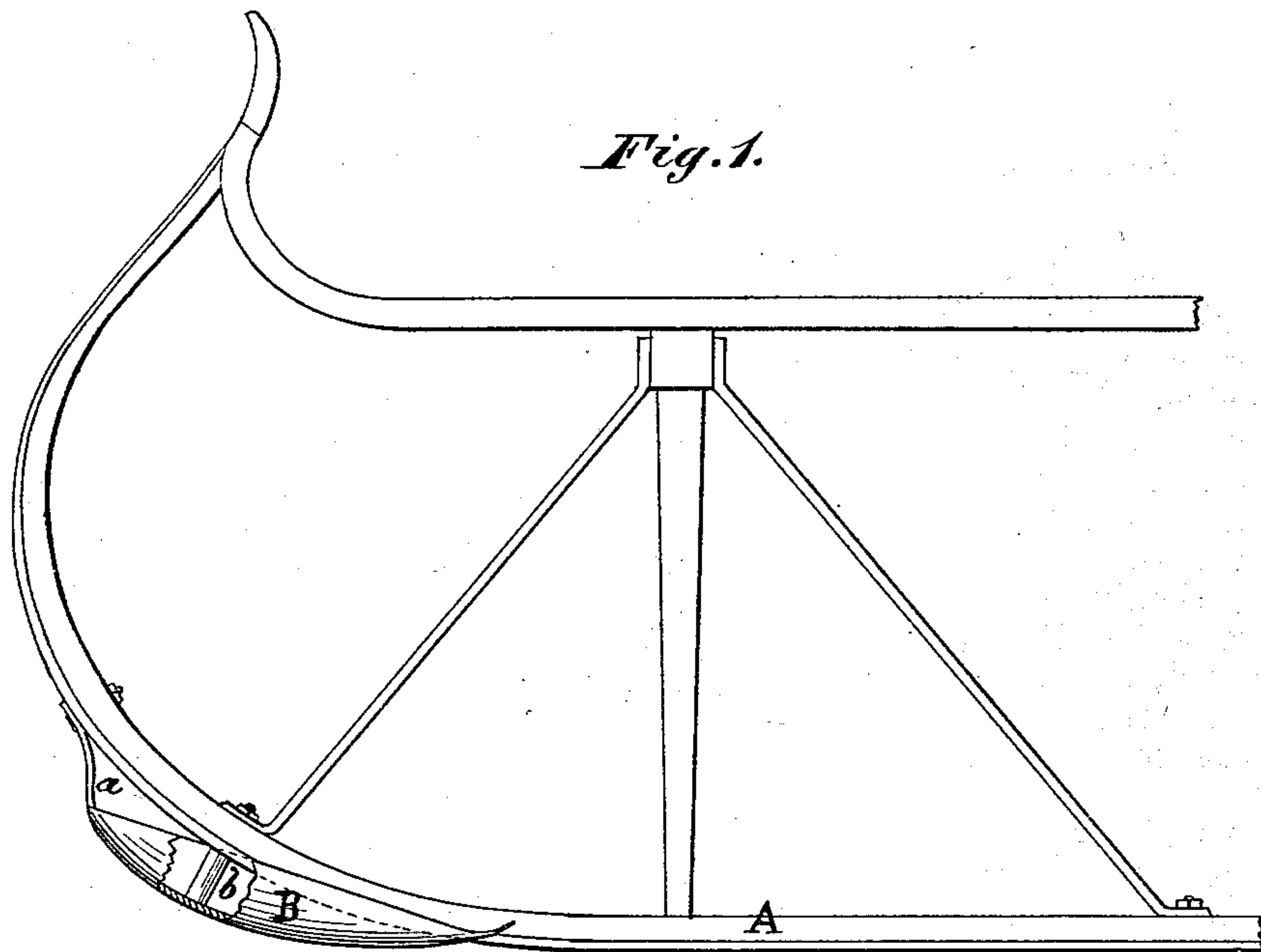


BENJAMIN F. WATSON.

Improvement in Sleigh Runners.

No. 125,865.

Patented April 16, 1872.



Witnesses.  
H. A. Perrine  
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Inventor  
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att'y

# UNITED STATES PATENT OFFICE.

BENJAMIN F. WATSON, OF FARMINGTON, MAINE.

## IMPROVEMENT IN SLEIGH-RUNNERS.

Specification forming part of Letters Patent No. 125,865, dated April 16, 1872.

Specification describing an Improvement in Sleighs, invented by BENJAMIN F. WATSON, of Farmington, in the county of Franklin and State of Maine.

The subject of this invention is an attachment for sleigh-runners, whereby the power required to draw the vehicle in deep snows and on bad roads is lessened. The principal reason why sleighs and sleds draw so hard in deep snows is that the draft is so high as to cause the vehicle to draw down in front; and the deeper the snow and the harder the horse draws the deeper the sleigh will cut down in soft snow.

The object of my invention is to overcome this difficulty; and, to this end, it consists in the attachment, to the forward parts of the runners, of "snow-shoes"—as I term them—which, by presenting a large surface to the snow, prevents the sleigh or sled from drawing down in front when moving forward, and also when turned out of the road, as in passing teams.

In the accompanying drawing, Figure 1 is a side view of a portion of a sleigh-runner provided with my improvement; and Fig. 2 is a bottom view of the same.

Similar letters of reference indicate like parts in the two figures.

To the front part of the runners A of a sleigh or sled, I attach "snow-shoes" B, which are made of metal, in about the form shown. They are wider than the runner and convex on the under side. At the front end of the shoe is formed a tongue, *a*, as shown, which becomes the point of attachment at this end. At the rear the shoe is preferably cut away to receive

the runner, as shown. A brace, *b*, consisting of a shouldered bolt or equivalent device is inserted, as shown.

It will be observed that the bottom of the shoe is somewhat above the lower side of the runners, so as not to touch when on ice or a surface of hard snow.

In practice the shoes will probably be made longer in proportion than is here represented, so as to come up higher on the runner; and in some cases the tongue *a* will be dispensed with as unnecessary.

The material used in the construction of the shoes will be iron, steel, or other metal.

The principal advantage of my invention is that it lightens the draft in going through "pitches" and over obstructions of any kind in the road; but, in addition to this, the use of the shoes is productive of another good result, by supporting the sleigh or sled very much at a point where it takes the hardest blows and is most liable to be broken.

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

The shoes B, in combination with the runners A of a sleigh or sled, made and applied substantially as herein shown and described, for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name before two witnesses.

BENJAMIN F. WATSON.

Witnesses:

R. M. MANSUR,  
W. S. DUNHAM.