F. PARDEE, JR., AND M. R. VAN W. LYON.

SPRAG FOR SLEDDING.

APPLICATION FILED MAR. 25, 1921.

1,426,668. Patented Aug. 22, 1922.

Fig. 1.

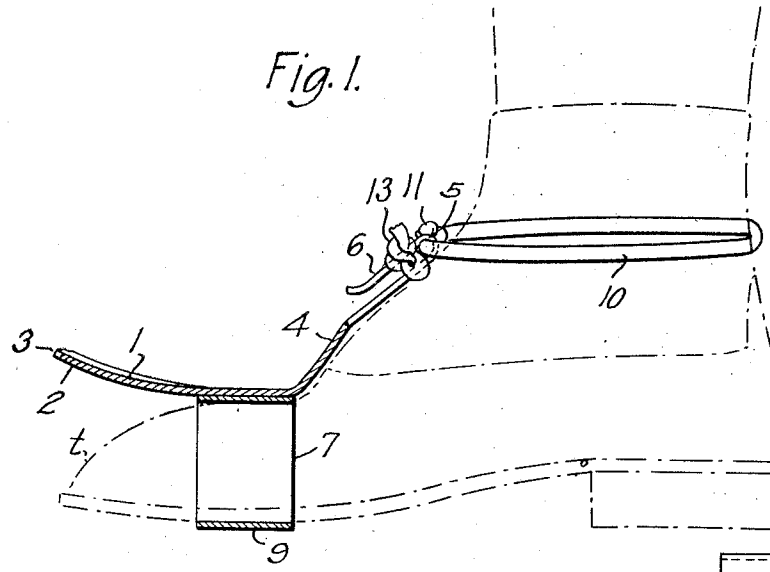


Fig. 3.

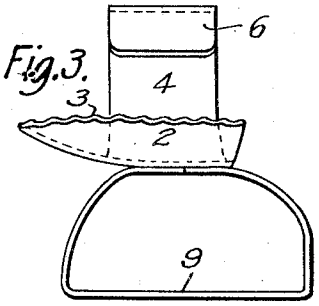


Fig. 2.

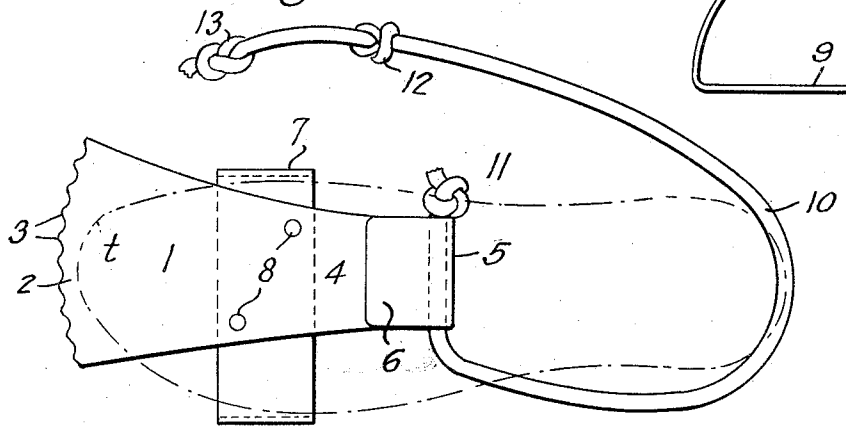
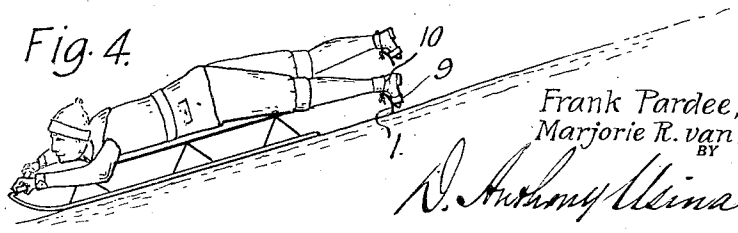


Fig. 4.



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SPRAG FOR SLEDDING.

1,426,668. Specification of Letters Patent. Patented Aug. 22, 1922.

Application filed March 25, 1921. Serial No. 455,460.

To all whom it may concern:

Be it known that we, FRANK PARDEE, JR., and MARJORIE R. VAN W. LYON, citizens of the United States, and residents of Hazleton, Pennsylvania, and Boston, Massachusetts, respectively, have invented certain new and useful Improvements in Sprags for Sledding, of which the following is a specification.

This invention relates to a device used by those indulging in winter sports, such as sledding and tobogganning. Our sprag consists of a blade adapted to engage the slippery road surface over which the wearer is traveling, and means for detachably fastening the blade to the foot of the wearer.

Our invention will be understood from the following specification when read in connection with the accompanying drawings in which similar reference characters denote similar parts in the several views.

Fig. 1 is a vertical longitudinal section through the sprag, parts being shown in elevation, and the foot of a wearer being shown in broken lines;

Fig. 2 is a top plan of the sprag with the outline of a shoe shown in broken lines;

Fig. 3 is an end elevation of the sprag viewed from the left of Fig. 1;

Fig. 4 is a view illustrating the use of the sprag.

In the drawings 1 represents the blade of the sprag which is upturned at its forward end 2 and provided with serrations 3 so as to enable the wearer to exert considerable friction on an icy road-bed to assist in steering the sled. The forward end of this blade is the widest part so that it projects laterally beyond the toe *t* of the shoe to which it is fitted, as shown clearly in Fig. 2. The blade is preferably of such length that its forward end projects slightly beyond the toe of the shoe. The shank 4 of the blade is bent uwardly to conform in contour substantially to the instep of a human foot, and the extremity of this shank is bent over as at 5 to form the hook 6.

To the underside of the blade 1 a stirrup 7 is secured by means of rivets 8. This stirrup is located with respect to the upwardly extending shank 4 so that its underside 9 will engage the ball of the foot. This stirrup holds the sprag in place against transverse movement. While we have shown this stirrup as formed of a separate piece riveted to the underside of the blade, it is to be understood that it is within our invention to form this stirrup integral with the blade by punching the entire article from a flat sheet and forming it up in a suitable die.

To hold the sprag against endwise displacement, we use a flexible member which is adapted to embrace the ankle of the wearer. As shown in the drawings, this flexible member comprises a rope 10 which is slipped under the hook 6 and held against movement in one direction by a knot 11 formed in the end thereof. At the opposite end this rope is provided with one or more knots, as shown at 12 and 13, so that the flexible member can be readily secured to fit ankles of varying sizes.

Instead of using a knotted rope as shown, it is clear that we may just as effectively use other flexible material such as raw-hide or leather, or we may use rope with special loops or enlargements spliced therein instead of knotting the rope as shown.

We are aware that devices have been heretofore made to enable one to steer a sled or toboggan by means of a metallic member which was fixed to the shoe. This, of course, requires a special shoe for the purpose. Our improved sprag can be attached to any shoe and by means of the flexible member and the hook formed on the sprag it will be apparent that one size of device will fit feet of different sizes.

Though we have described with great particularity of detail the specific embodiment of the invention shown, it is not to be inferred that we are limited thereto as changes in form and modifications of arrangement may be made by those skilled in the art without departing from the invention as defined in the appended claims.

What we claim is:

1. A sprag for sledding having a surface-engaging member comprising a substantially flat plate, having a surface engaging forward edge at least as wide as the toe portion of the wearer's shoe, a stirrup secured below said member at a location to the rear of said forward edge arranged to support said surface engaging member in such position that the forward edge is located above and extends forward of the toe portion of the

wearer's shoe and means for detachably securing the sprag to the shoe of the wearer's foot.

2. A sprag for sledding having a surface-engaging member comprising a substantially flat plate having an outer upturned edge, a stirrup secured to the underside of said plate and means for detachably securing the sprag to the foot of the wearer.

3. A sprag for sledding comprising a plate member having a surface-engaging portion with an upturned serrated edge, means secured thereto for embracing the ball of the wearer's foot the plate member being secured to said last named means so that in use it is located above the toe portion of the wearer's shoe and substantially parallel to the sole of said shoe, and flexible means for detachably securing the sprag in place.

4. A sprag for sledding comprising a blade adapted to engage the road-bed over which the wearer is traveling, a stirrup secured to the underside of said blade, a shank secured to said blade shaped to conform substantially to the contour of the instep of a foot and having a hook formed on the end thereof and a rope having knotted portions for engagement with said hook for detachably securing the sprag to the foot of the wearer.

5. As an article of manufacture, a sprag comprising a stirrup adapted to fit over a shoe, and a member secured thereto having a forwardly extending blade and a rearwardly and upwardly extending shank shaped to conform substantially to the contour of a foot and having a hook portion for securing the article in place.

In witness whereof, we have hereunto signed our names.

FRANK PARDEE, JR.
MARJORIE R. VAN W. LYON.