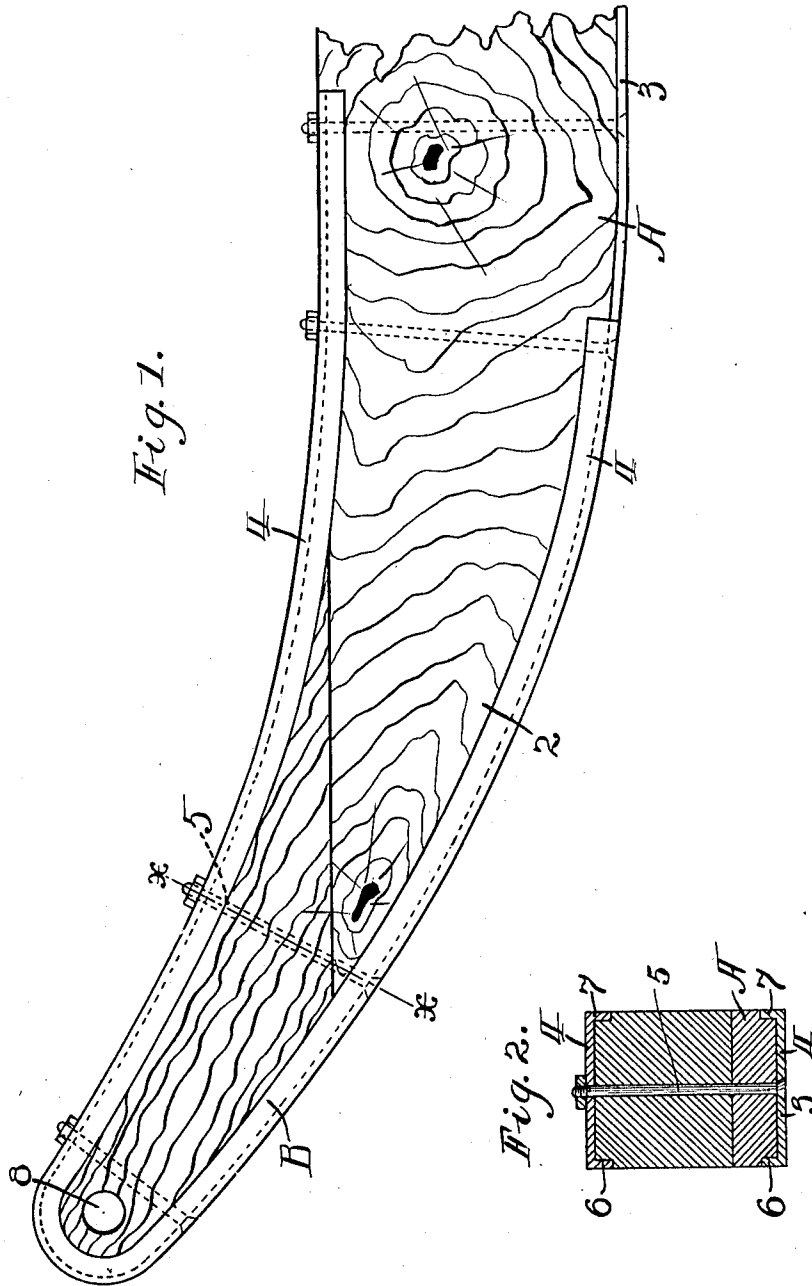


J. H. ANDERSON.
BOB SLED RUNNER.
APPLICATION FILED NOV. 12, 1908.

1,020,120.

Patented Mar. 12, 1912.



Witnesses:
R. A. Fischer.
H. Fischer

Inventor:
John H. Anderson,
by: H. A. Anderson
Attorney.

UNITED STATES PATENT OFFICE.

JOHN H. ANDERSON, OF ST. PAUL, MINNESOTA.

BOB-SLED RUNNER.

1,020,120.

Specification of Letters Patent.

Patented Mar. 12, 1912.

Application filed November 12, 1908. Serial No. 462,230.

To all whom it may concern:

Be it known that I, JOHN H. ANDERSON, a citizen of the United States, residing at St. Paul, in the county of Ramsey and State of Minnesota, have invented a new and useful Improvement in Bob-Sled Runners, of which the following is a specification.

My invention relates to improvements in bob sled runners and more particularly is an improvement on the construction described in Patent No. 780,149 granted to me on the 17th day of January 1905 and application for patent Serial No. 306,206 filed by me on Mar. 15, 1906.

With this invention as in the invention above referred to the runner is made out of a single straight piece of material to which is attached a nose piece and a shoe. This construction of my invention reduces its expense and produces better results than if the nose piece is an integral part of the runner.

Ordinarily runners are steamed and bent to form the nose piece, but with my invention the expense of breaking incident with such bending is obviated and a stronger, more durable, and neater appearing runner is produced.

In the accompanying drawings forming part of this specification Figure 1 is a side view of the forward end of a bob sled runner illustrating my invention and Fig. 2 is a cross sectional view of Fig. 1 taken on the line X—X.

In the drawings A represents a runner which is made out of a single piece of material such as wood having its grain substantially straight throughout its length and its forward end cut with an upward curve 2. The shoe is made in two sections 3 and 4, the section 3 being straight throughout its length and made out of iron or suitable metal of any suitable thickness. The section 4 covers the curved end 2 of the runner and is made out of comparatively thin steel or other suitable material which is less expensive than cast iron and produces equally as good results because the wear is not as great as on section 3. On the top of the forward end of the runner is a combined nose and brace B having sides which are plain and coincide with the sides of the run-

ner appearing to the observer substantially like part of a solid bent runner. The joint between the nose and brace is plain. The section 4 of the shoe is in the form of a strap of angle iron extending from the lower curved end of the runner around the lower and upper edges of the combined nose and brace and back upon the upper edge of the runner to which parts it conforms in outline and is fastened by means of transverse bolts 5 or other suitable means. In cross section the nose shoe 4 appears as shown in Fig. 2 and forms substantially a channel iron having flanges 6 and 7, which embrace the sides of the runner and combined nose and brace and reinforce the strength of the nose and of the joint between said runner and nose. The combined nose and brace which rests between the sides or laps of the nose shoe also unites with the runner to reinforce the strength of said shoe. The upper end of the nose is provided with an opening 8 to receive the coupling pin on the roller of the pole not shown.

In accordance with the patents statutes I have described the principles of operation of my invention together with the apparatus which I now consider to represent the best embodiment thereof but I desire to have it understood that the apparatus shown is only illustrative and that the invention can be carried out by other means and applied to other uses within the scope of the following claim.

Having described my invention, what I claim as new and desire to protect by Letters Patent is:

A runner provided on its forward end with an up-curved cut, a separate nose joined to the forward end of said runner, a channel iron passing lengthwise around said parts having its flanges overlapping their sides and embracing the joint between said runner and nose, and means for fastening said channel iron to said runner.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

JOHN H. ANDERSON.

Witnesses:

J. G. BRADBURY,
H. L. FISCHER.