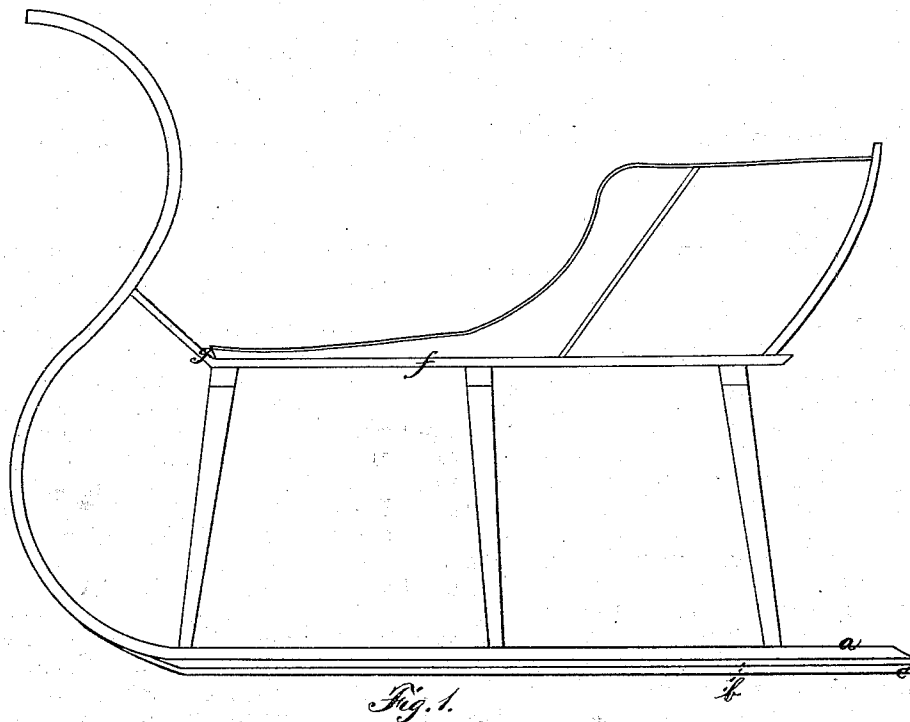


C. P. KIMBALL.
Sleighs.

No. 153,901.

Patented Aug. 11, 1874.



Witnesses:
Frank H. Jordan,
John W. Stockwell

Inventor:
Chas. P. Kimball,
By his Atty.
Wm. Henry Clifford

UNITED STATES PATENT OFFICE.

CHARLES P. KIMBALL, OF PORTLAND, MAINE.

IMPROVEMENT IN SLEIGHS.

Specification forming part of Letters Patent No. **153,901**, dated August 11, 1874; application filed June 26, 1873.

To all whom it may concern:

Be it known that I, CHARLES P. KIMBALL, of Portland, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Sleighs; and I do hereby declare that the following is a full, clear, and exact description thereof, that will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings and to the letters of reference marked thereon, which form a part of this specification.

Figure 1 is a side view of a sleigh with my improvements attached thereto. Fig. 2 is a transverse section of one of the runners, showing my improved sleigh-shoe applied to the same.

Same letters show like parts.

The object of my invention is to produce an improved sleigh-shoe—one that will, for hard or icy roads, present only a narrow bearing, and for soft or snowy roads will present a broad bearing.

Having given the purpose of my invention, I will first proceed to describe my improved sleigh-shoe.

I make the runner to the sleigh in the usual manner, but double its usual width. I also make it round, or partially so, on the bottom. My improved sleigh-shoe is made concave on the upper side so as to fit the lower surface of the runner, as shown in the drawing, Fig. 2, and on the bottom side thereof is a projecting part or center portion. This center portion is made about one-half the width of the sleigh-shoe, and of the necessary depth or thickness, as use shall determine. This shoe is fastened to the runner by bolts and screws, and must be made of either best rolled iron or steel.

For a better idea of the form of this piece, I refer to the drawing, Fig. 2, where a transverse section of the runner and my improved shoe is shown.

a shows the sleigh-runner; *b*, my improved shoe; *c*, the projecting part or center portion on said shoe.

It is evident from the above that a sleigh-runner provided with my improved sleigh-shoe will, on hard or icy roads, present for a bearing the projecting part or center portion

c only, which would admit of the easier running of the sleigh than though a broad bearing were presented. On soft or snowy roads a broad bearing would be obtained by the projecting part *c* sinking in the snow, and the parts *d* and *e* presenting a bearing.

I also desire to specify that my invention contemplates having the runner itself provided with the center portion *c*.

I am aware of the patent granted to S. H. Noble, April 29, 1862, and do not claim such a device as is therein shown. The object of my invention differs from that of Noble's, inasmuch as I do not claim constructing a sleigh-runner of metal or wood, and combining it in such manner that a straight piece of wood may be used for the main portion of the runner, and cast metal for the crook and for the shoe of the wooden portion, and having for its object to avoid the natural crook or bend of ordinary wooden runners.

My invention has for its object the production of a sleigh-shoe whereby, for hard or icy roads, only a small or narrow surface will be presented for a bearing, and for soft or snowy roads a broad bearing will be obtained. This shoe is of the form described and shown, and is to be attached to the bottom of the runner of the sleigh; or, if desired, the runner itself may be provided with the projecting center portion before described.

I do not claim a recessed or grooved shoe to receive the runner of a sleigh, as seen in the patent of H. C. Overman, September 7, 1869, the same being on the bottom or wearing surface smooth. My invention aims, in effect, to produce two bearing-surfaces, one for a hard and the other for a soft road. It has no relation to the method of uniting the runner and the shoe.

What I claim as my invention, and desire to secure by Letters Patent, is—

The sleigh-shoe *b*, having the projecting portion *c* and the broader bearing, as and for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand.

C. P. KIMBALL.

Witnesses:

FRANK H. JORDAN,
EDGAR S. BROWN.