C. A. ERICKSON & A. NEWSTROM.

SLEIGHS.

No. 180,122. Patented July 25, 1876.

Fig. 3

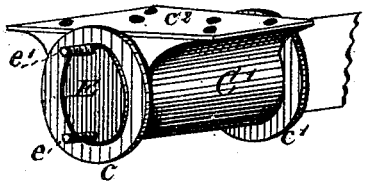


Fig. 2.

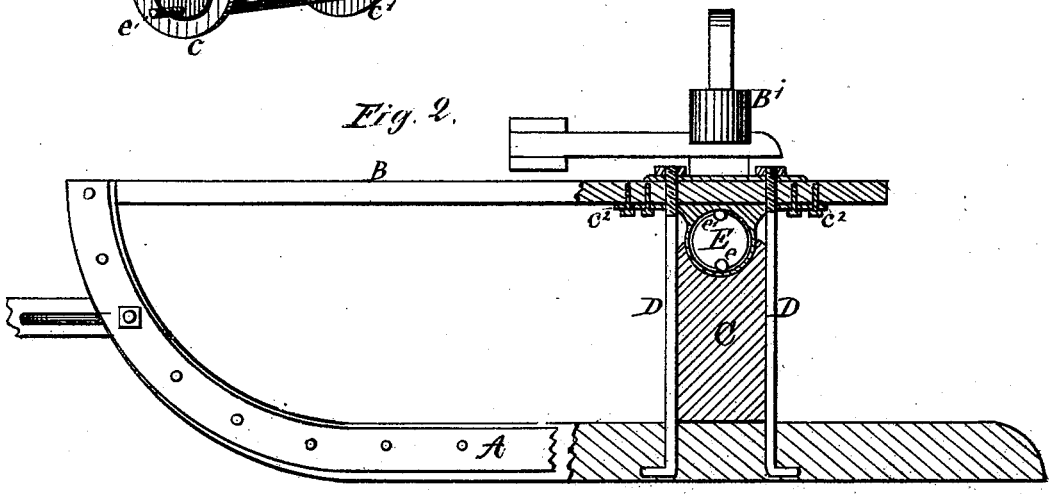
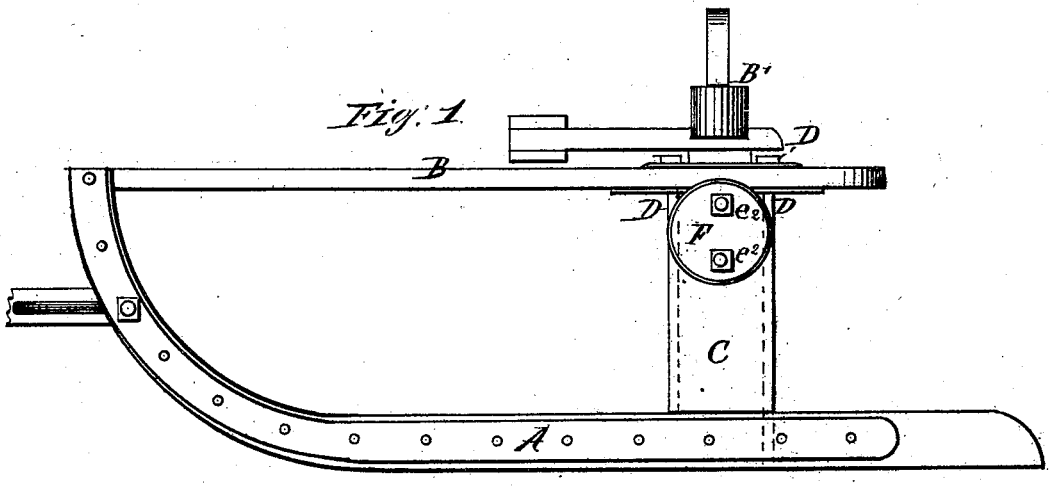


Fig. 1.



Witnesses.
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Henri Ballauer

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UNITED STATES PATENT OFFICE.

CHARLES A. ERICKSON AND ANDREW NEWSTROM, OF RED WING, MINN.

IMPROVEMENT IN SLEIGHS.

Specification forming part of Letters Patent No. **180,122**, dated July 25, 1876; application filed December 13, 1875.

To all whom it may concern:

Be it known that we, CHARLES ANDERS ERICKSON and ANDREW NEWSTROM, of Red Wing, in the county of Goodhue and State of Minnesota, have invented certain new and useful Improvements in Sleighs; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification.

Figure 1 is a side view of a sled-runner having our improvement applied thereto, with a part of the securing-plate broken away. Fig. 2 is a vertical transverse section, and Fig. 3 is a detached view of the flanged skein.

The invention relates to that class of sleds or sleighs in which the runners are secured to axles, or to extensions of the bolsters formed into axles, in such manner that the runners can vibrate freely upon the axles, thus preventing the strain upon the parts which would otherwise be frequently produced in moving over an irregular surface.

The invention is designed to produce a cheaper and more durable sled than has heretofore been made, and one which can be easily repaired.

In the drawings, A is the runner; B, the rave, and B′ the bolster. As these parts may be of any usual or approved construction, they need not be specifically described.

C is the post of the knee, or knee-post, as we usually prefer to call it, and is framed into the runner or secured thereto by means of an angle-iron or T-piece, or otherwise.

The skein is represented by Fig. 3. This skein, in combination with the knee-post C and rave B, forms the support for the axle. It (the skein) is made of iron, and is cast in one piece. It consists of a circular or tubular portion, C′, provided at each end with flanges c c^1, and upon the upper side with laterally-projecting ears c^2 c^2. These ears are made, by preference, of the same width as the rave B, to which we usually secure the skein by means of rivets or small bolts.

The knee-post C is of such size at its upper end that a semicircular seat can be cut in it to receive the lower part of the skein, and to fill the entire space between the flanges c c^1 of the lower half of said skein. Thus when the runner A, rave B, knee-post C, and the skein are drawn tightly together by bolts D, (see Fig. 1,) these parts make a very firm support for the axle.

The axle E fits accurately the inside of the skein, and has two bolts, e e^1, arranged in grooves or recesses in the upper and lower sides, the outer faces of such portions of the bolts as enter the skein being rounded to fit the skein.

F is a circular plate or disk, secured to the end of the axle by nuts e^2 e^2 on the ends of the bolts e e^1.

Plate F is of such diameter as to confine the runner to the axle by engaging with the flange c of the skein.

If found desirable, we propose to use a ring between the flange c^1 of the skein and the shoulder formed on the axle, by rounding said axle to fit the inside of the skein. Such ring will materially reduce the wearing of the shoulder of the axle, which would otherwise result from the friction of the skein.

It will not ordinarily be found necessary to round the outer face of the bolt e, which is located upon the upper side of the axle.

Having thus described our invention, what we claim is—

The tubular skein or box C, provided with the flanges c c^1 and ears c^2 c^2, in combination with the knee-post C, having a circular seat, and fitting between the flanges c c^1, the axle E, plate F, bolts e e^1, the runner A, rave B, and bolts D D, all constructed and combined substantially as set forth.

In testimony that we claim the foregoing as our own we affix our signature in presence of two witnesses.

CHARLES ANDERS ERICKSON.
ANDREW NEWSTROM.

Witnesses:
W. C. WILLISTON,
O. M. HALL.