

A. D. De LANO.
Sleighs.

No. 144,746.

Patented Nov. 18, 1873.

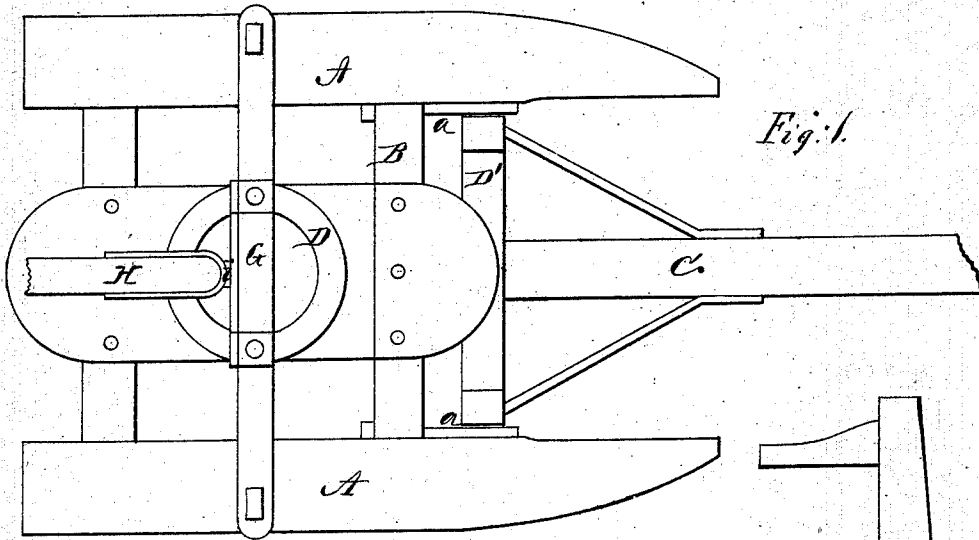


Fig. 1.

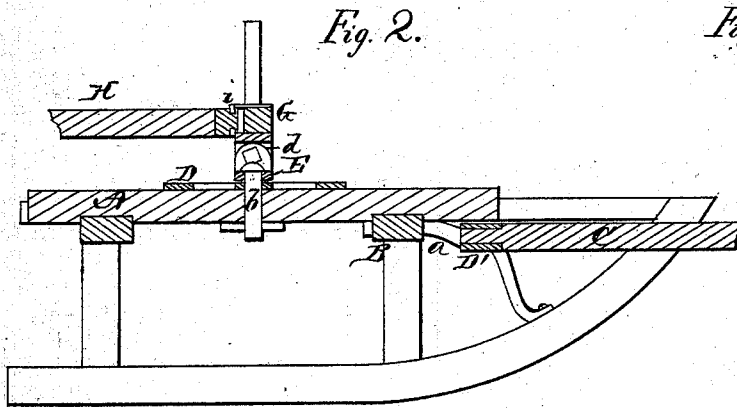
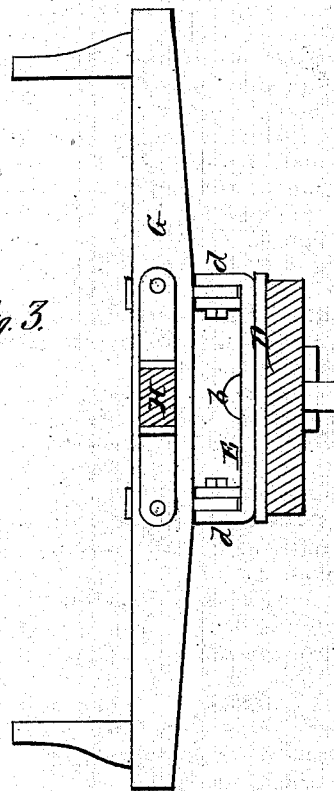


Fig. 2.

Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

ALFRED DANIEL DE LANO, OF GOODRICH, MICHIGAN.

IMPROVEMENT IN SLEIGHS.

Specification forming part of Letters Patent No. **144,746**, dated November 18, 1873; application filed May 17, 1873.

To all whom it may concern:

Be it known that I, ALFRED DANIEL DE LANO, of Goodrich, in the county of Genesee and State of Michigan, have invented a new and valuable Improvement in Bob-Sleds; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of my invention in plan view. Fig. 2 is a longitudinal vertical section of the same, and Fig. 3 is a transverse vertical section in rear of the front bolster.

The nature of my invention consists in the construction and arrangement of a bob-sled, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation.

Like letters of reference in the several figures indicate corresponding parts.

A represents an ordinary bob-sled, and B is the front beam or knee of the same. C represents the tongue, mortised with its rear end into a cross-bar, D', which is pivoted immediately in front of the front beam B in metal extensions or braces *a a*, connecting said beam with the front parts of the runners. By this means the draft is attached directly to the front beam, so that the draft is just at the

point of pressure. On top of the bob-sled is secured a circular plate or annular ring, D, in the center of which is pivoted a bar, E, by means of the king-bolt, said bar resting upon the circle or ring D. The ends of the bar E are turned up or provided with upward-projecting ears *d d*, to which is pivoted the front bolster G by means of ears projecting from the under side of the bolster. H represents the reach to connect the bob-sleds. The front end of the reach is connected with the bolster G by means of a swivel, *i*. This allows the runners to accommodate themselves to all inequalities of the ground without wrenching the sleigh or displacing the load.

The mode of attaching the front bolster allows the bolster to stand stationary with the load, and lets the bob play up and down over rough ground. Attaching the reach to the bolster allows the bobs to roll sidewise and holds the bolster firm.

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

The bob-sled having the annular ring D, pivoted bar E, hinged bolster G, reach H, and swivel I, all to operate in the manner described, and for the purpose mentioned.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ALFRED DANIEL DE LANO.

Witnesses:

JOHN BRIGHAM, Jr.,
SAMUEL L. BRIGHAM.