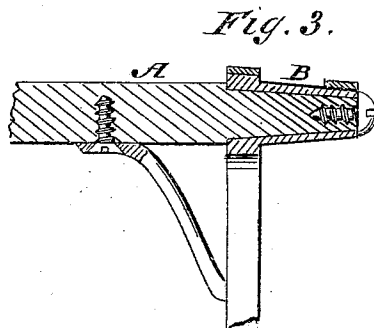
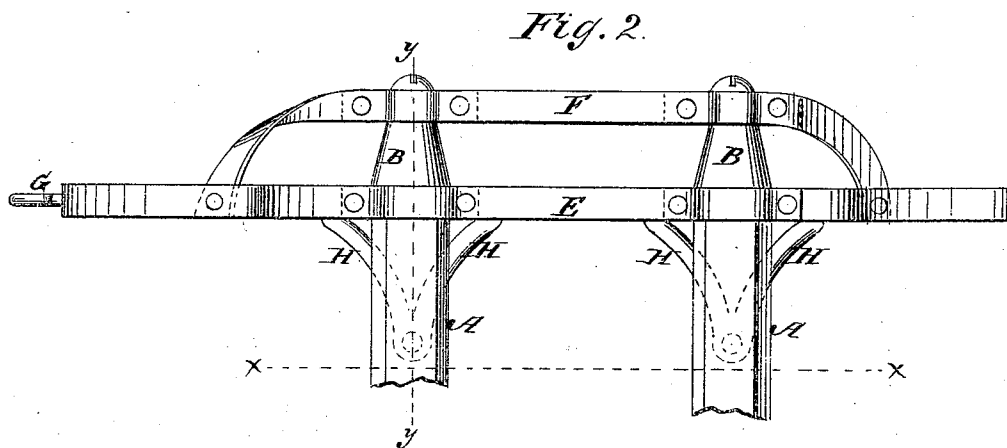
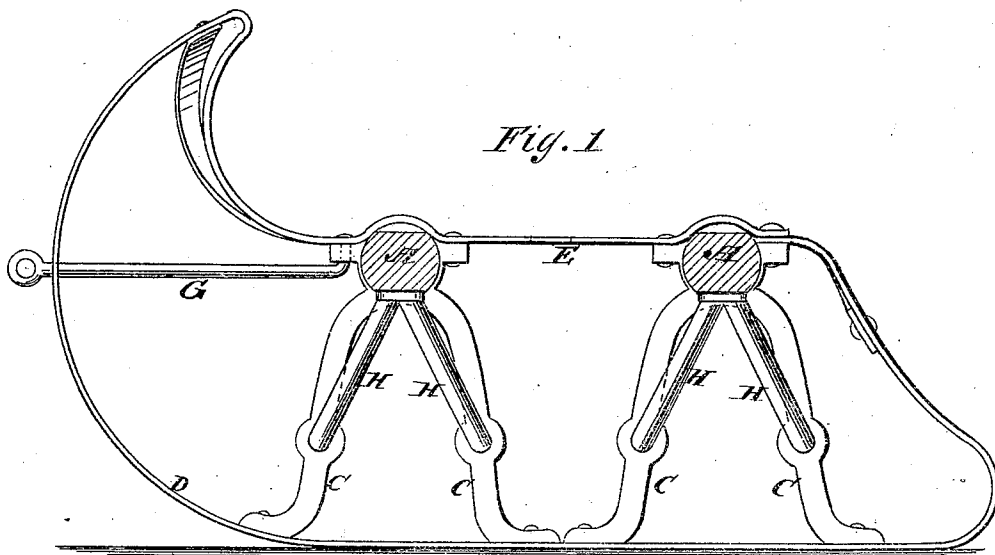


J. A. SEIGFRED & C. B. BORDEN.

Sleighs.

No. 153,617.

Patented July 28, 1874.



WITNESSES:

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UNITED STATES PATENT OFFICE

JOHN A. SEIGFRED AND CHESTER B. BORDEN, OF SENECA FALLS, N. Y.

IMPROVEMENT IN SLEIGHS.

Specification forming part of Letters Patent No. **153,617**, dated July 28, 1874; application filed October 11, 1873.

To all whom it may concern:

Be it known that we, JOHN A. SEIGFRED and CHESTER B. BORDEN, of Seneca Falls, in the county of Seneca and State of New York, have invented a new and useful Improvement in the Construction of Sleighs, Cutters, &c., of which the following is a specification:

The invention will first be fully described, and then pointed out in the claim.

In the accompanying drawing, Figure 1 represents a sectional side elevation looking from the line *x x* of Fig. 2. Fig. 2 is a sectional top view, showing the hubs, raves, and fender, and a portion of the beams. Fig. 3 is a vertical section of Fig. 2, taken on the line *y y*.

Similar letters of reference indicate corresponding parts.

A represents the sleigh-beams; B, the hubs; C, the knees. D is the runner; E, the rave; and F the fender. G is the draft-rod. The knees C and the hub are cast in a single piece, and the hub fits onto the beam A as an ordinary wagon-wheel fits onto an axle. H H are braces attached permanently to the knees and to the under side of the beam by a screw or bolt, so that the braces are readily detached from the beams. These hubs are made about the length of ordinary wagon-hubs, so that the wheels will fit onto the beams in place of the runners. The beams then become axles.

The change from runners to wheels and from wheels to runners is very readily made, and is extremely convenient to travelers. Sleighs may be made of what are known as bob-sleds, each having a single pair of hubs. Hand-sleds may be made with hubs, (two or more,) substantially in the manner shown in the drawing.

With the hubs and knees cast together the runner and rave may be made in one or more pieces, of ribbon, steel, or other suitable material.

The manner of attaching the fender is seen in Fig. 2. The fender is made of the same material as the rave. The draft-rods are rigidly attached to the forward hubs, and are supported by the runners, as represented in Fig. 1.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

The combination of the runner-piece D E, the brace-piece F, and the two pieces, each consisting of hub B, knees C C, and braces H H, as and for the purpose specified.

JOHN A. SEIGFRED.
CHESTER B. BORDEN.

Witnesses:

SETH W. SUTTON,
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