

(No Model.)

L. KELLEY.

SLEIGH.

No. 399,335.

Patented Mar. 12, 1889.

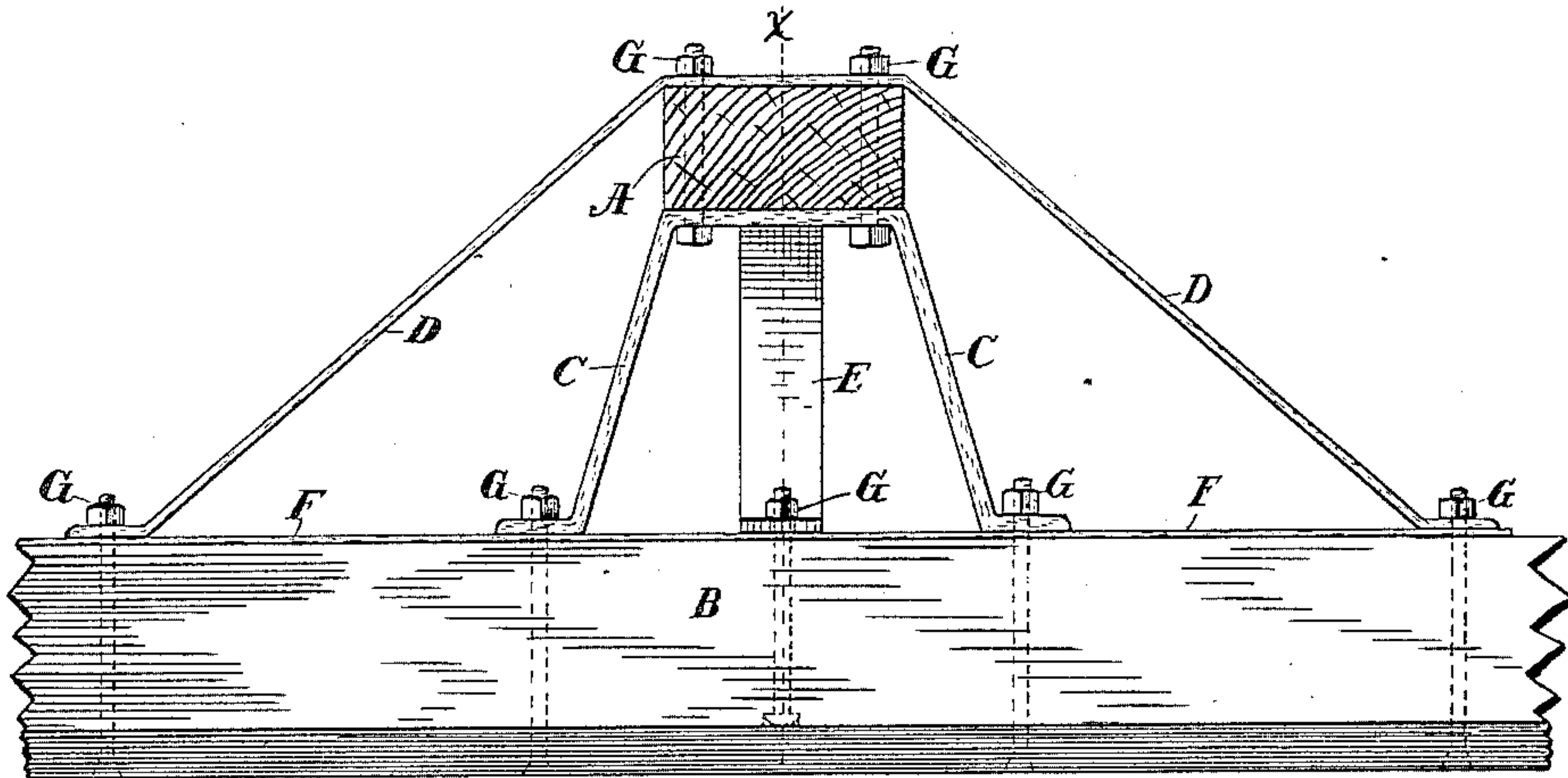


Fig. 1.

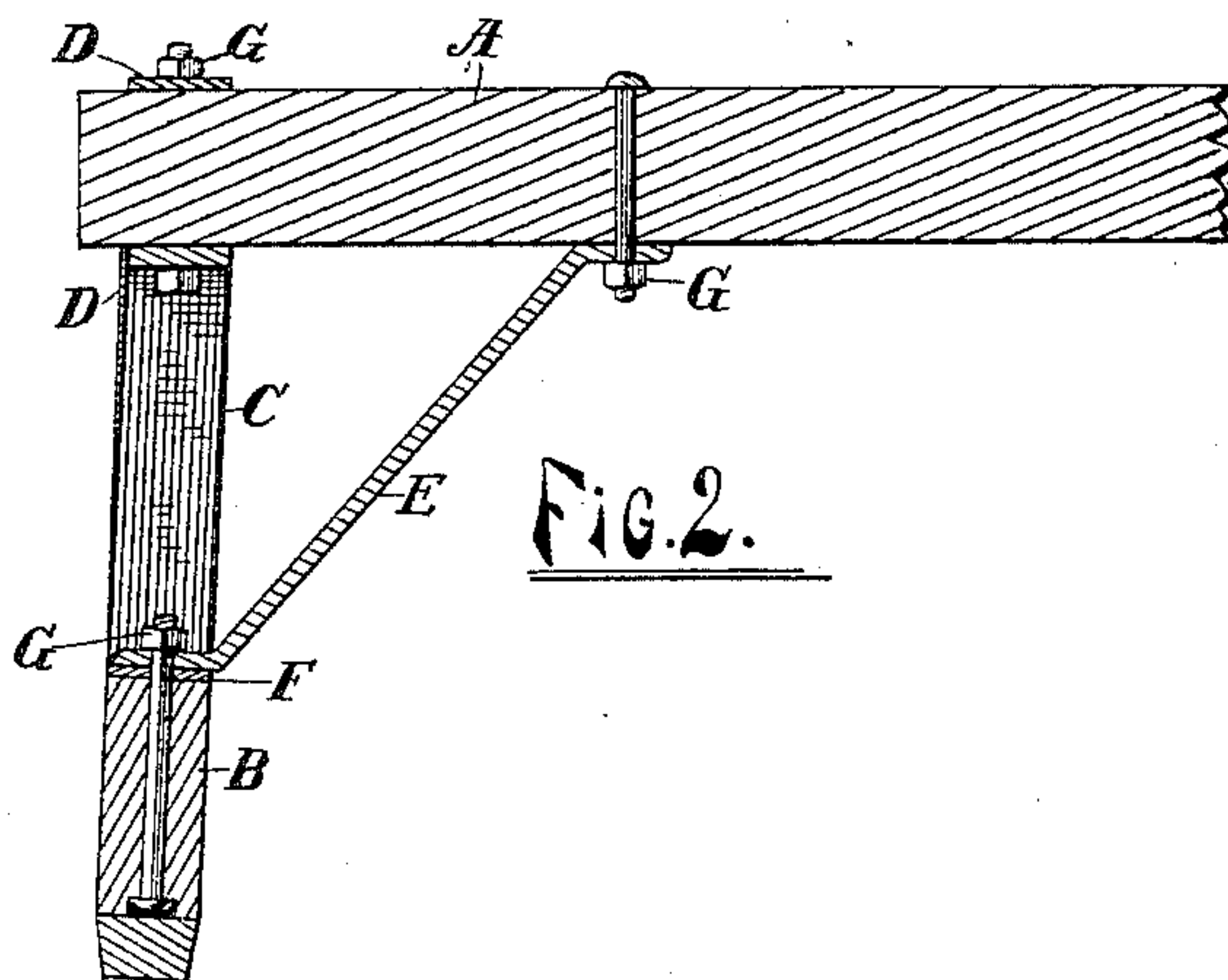


Fig. 2.

Witnesses.

Inventor,

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UNITED STATES PATENT OFFICE.

LEWIS KELLEY, OF BOWNE, MICHIGAN.

SLEIGH.

SPECIFICATION forming part of Letters Patent No. 399,335, dated March 12, 1889.

Application filed May 21, 1888. Serial No. 274,619. (No model.)

To all whom it may concern:

Be it known that I, LEWIS KELLEY, a citizen of the United States, residing at Bowne township, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Sleighs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in that class of sleighs having but a single beam supported at a distance above the runner and attached to the same by metallic fastenings. Heretofore these structures have been of such form that cast-iron has been used wholly or in part to so connect the beam and runner. This is objectionable on account of the liability of breakage and greater weight and cost of material.

The object of my invention is to so construct the device that wrought-iron only may be used, thus securing a lighter, stronger, and cheaper structure. I accomplish this result by the construction shown and illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of a portion of a sled embodying my invention, and Fig. 2 a vertical section of the same on the line *xx* of Fig. 1. Like letters refer to like parts in both the figures.

A represents the beam; B, a portion of the runner.

C, D, and E are strips of wrought-iron, which serve to connect the beam and runner and are secured to each by the bolts G. The strip C is somewhat the heavier and shorter, to withstand the greater part of the weight of the load and is secured at its middle to the under side of the beam. It is also bent downward at nearly right angles at points near the sides of said beam, and at the ends turns outward and rests upon the upper surface of the runner. This piece serves the purpose of the knee or principal support between the runner and beam.

D is a longer strip of wrought-iron, which

serves to assist in strengthening the structure, which is attached at its middle to the upper side of the beam directly above and parallel to the strip C, by means of the bolts G, which pass through both C and D, and also the beam A. This strip D extends outward and downward, as shown, and also rests upon and is attached to the upper surface of the runner B. To strengthen the structure against lateral strains, a brace, E, is used, which extends diagonally upward and inward from the runner to the beam, being secured to each at its respective ends by bolts G. To protect the runner from wear where the strips C and D rest upon the same, and also to take the lateral strain of the bolts upon said runner, a strip of band-iron, F, having suitable holes for said bolts, is attached to the upper surface of said runner.

I thus secure a light structure, cheaply made and not easily broken, by the use of plain strips of wrought-iron properly bent and punched and secured to the beam and runner by ordinary bolts.

What I claim and wish to secure is as follows:

1. In a sleigh, in combination with a beam and runner, strips of bar-iron, each bent at an obtuse angle at four points, substantially as described, each having horizontal middle portions rigidly attached to the upper and under sides, respectively, of the beam, extending downward and outward and attached to the runner, and a brace attached to the runner and extending upward and inward and attached to the beam, substantially as described.

2. In a sleigh, in combination with a beam and runner, strips of bar-iron C, D, and E, substantially as described, connecting and attached to said beam and runner, and a strip of band-iron, F, substantially as described.

In testimony whereof I have affixed my signature in presence of two witnesses.

LEWIS KELLEY.

Witnesses:

MILTON M. PERRY,
ALBERT JACKSON.