

(No Model.)

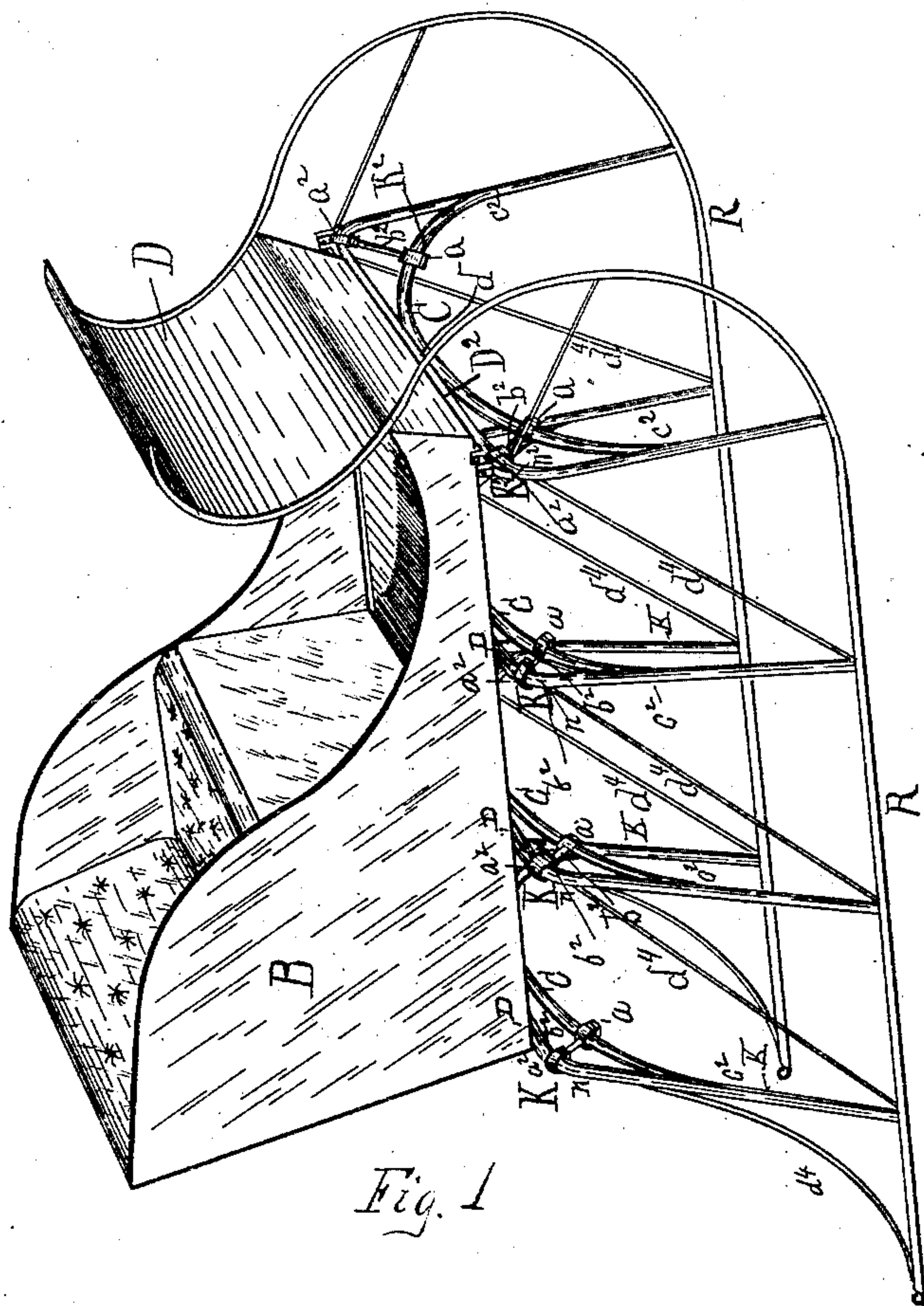
2 Sheets—Sheet 1.

J. K. P. PINE.

SLEIGH.

No. 354,580.

Patented Dec. 21, 1886.



WITNESSES

*Geo. A. Garby*

*Charles S. Brintnell*

INVENTOR

*James K. Pine*

*by W. E. Hagan atty*

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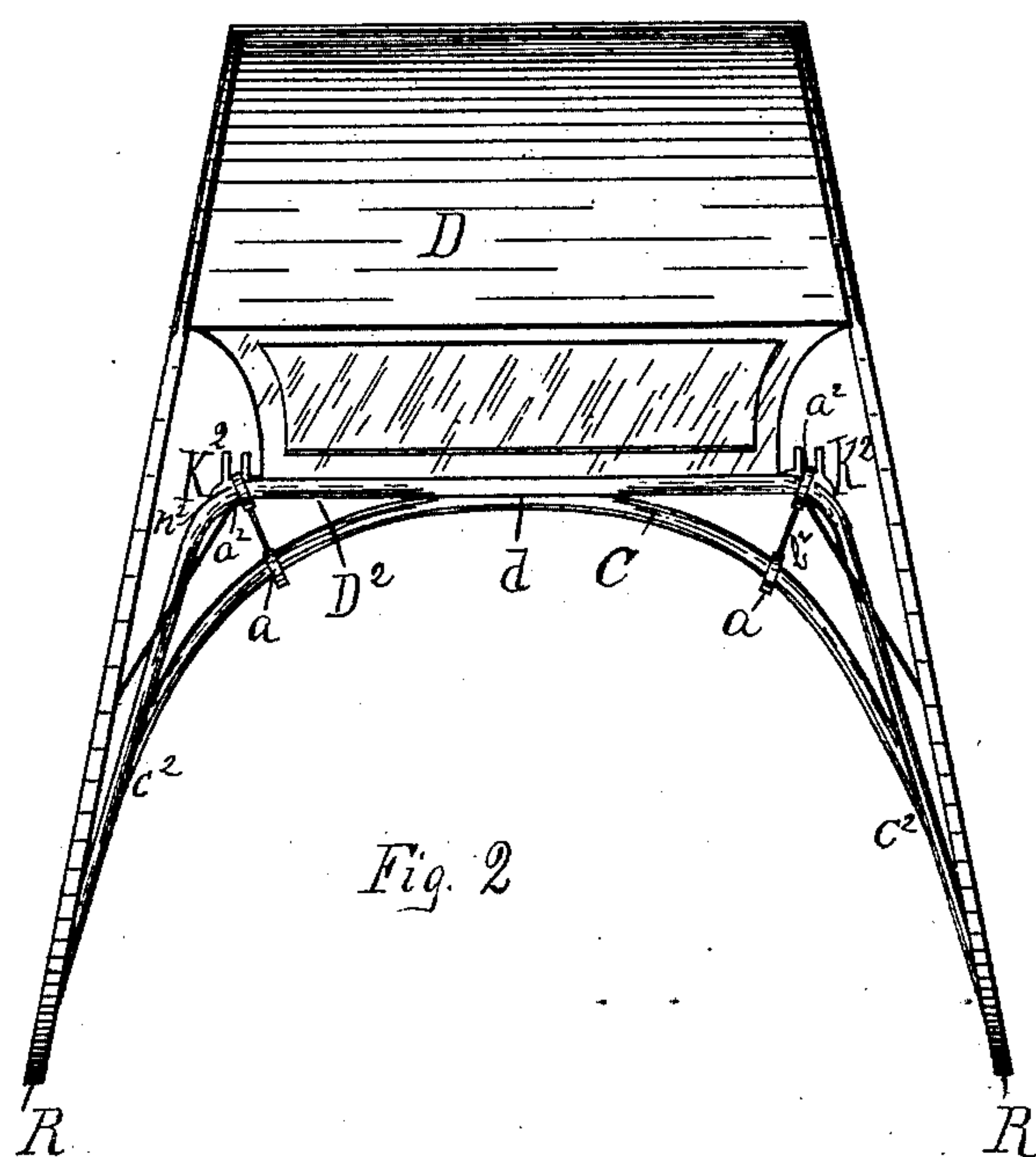
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# UNITED STATES PATENT OFFICE.

JAMES K. P. PINE, OF LANSINGBURG, NEW YORK.

## SLEIGH.

SPECIFICATION forming part of Letters Patent No. 354,580, dated December 21, 1886.

Application filed February 16, 1886. Serial No. 192,087. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES K. P. PINE, of the village of Lansingburg, county of Rensselaer, and State of New York, have invented a new and useful Improvement in Sleighs, of which the following is a specification.

My invention relates to improvements in sleighs or cutters; and it consists, as will be more fully detailed hereinafter in connection with its illustration, in the combination, with an outcurve or bend from the sleigh-body made in each pair of knees, of a circularly bent or curved brace that at the top and center of the curve is attached to the cross-bar of each pair of knees, and therefrom in its curved form is extended downwardly at each side to oppositely unite with one of the knees of each pair, and two straight braces, each one of which at its upper end is attached to one of the knees at its outbend and at its lower end connected with said curved brace, the object and purpose of my invention being by the form and location of the parts to reduce the weight and at the same time to insure strength, as well as to increase the room beneath the body for the horse's feet and permit the hitching of the horse close to the sleigh.

Accompanying this specification, to form a part of it, there are two plates of drawings containing two figures illustrating my invention, with the same designation of parts by letter-reference used in all of them.

Of these illustrations, Figure 1 shows a perspective of a sleigh containing my invention, and Fig. 2 is a front view of the same. The several parts of the sleigh and those containing my invention are designated by letter-reference, and the function of the parts is described as follows:

The letter B designates the body of the sleigh; R, its runners; D, its dash; K, its knees; K<sup>2</sup>, the front pair of knees, and D<sup>2</sup> the cross-brace of the front pair of knees. All of the knees have an outcurve made at or near their tops, as indicated at *n*, and in the front pair of knees at *n*<sup>2</sup>.

The letters C designate braces having a semi-circular form, which at each of its lower ends, *c*<sup>2</sup>, is attached to one of the knees of each pair, and at its top and center to the cross-brace of each pair of knees, as indicated at *d*.

The letters *b*<sup>2</sup> *b*<sup>2</sup> designate braces, which at each of their lower ends attach to the semicircular-form brace C, at about midway between where attached to the knees and cross-brace, as indicated at *a*, and at their upper ends to the knees of each pair at the bend *n*<sup>2</sup>, as indicated at *a*<sup>2</sup>.

The letters *d*<sup>4</sup> designate the braces of the runners' studs.

As thus constructed, the body can be made quite narrow and of little weight, and by the combined outbend of the knees and the curved brace C, as secured, and the strength added to the structure by the braces *b*<sup>2</sup> *b*<sup>2</sup>, a very light sleigh may be produced, having ample room for the movement of the animal's feet, even when it is hitched up close to the sleigh.

My invention may be applied to the front pair of knees alone, or to all of them, if desired.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination, with the body and the runners of a sled, of a bench comprised of the cross-piece D<sup>2</sup>, formed with legs *c*<sup>2</sup>, and the curved brace C, arranged with its ends to set against and brace the legs, and its arch to support the cross-piece of the bench and provided with braces *b*<sup>2</sup> *b*<sup>2</sup> and the braces *b*<sup>4</sup>, to support the benches in vertical position, substantially as described.

Signed at Troy, New York, this 30th day of January, 1886, and in the presence of the two witnesses whose names are hereto written.

JAMES K. P. PINE.

Witnesses:

CHARLES S. BRINTNALL,  
GEO. A. DARBY.