

G. HERMANCE.
Bob-Sleigh.

No. 222,044.

Patented Nov. 25, 1879.

Fig. 1.

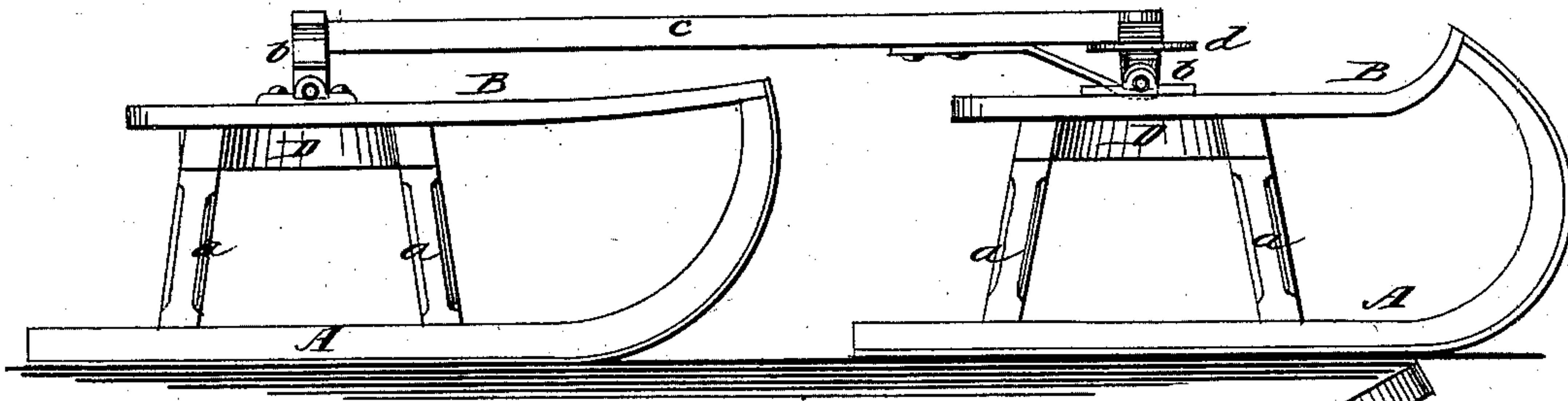


Fig. 2.

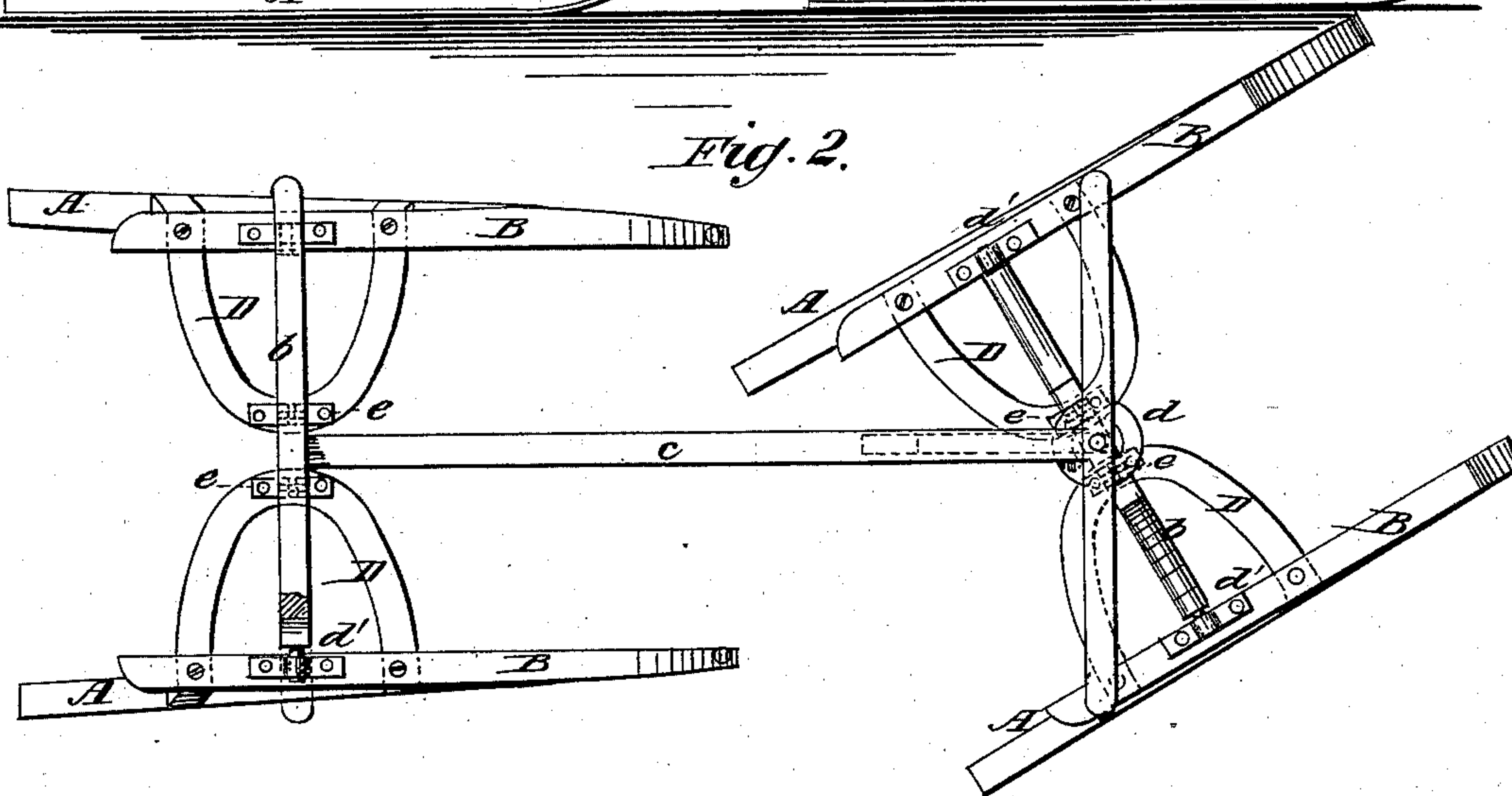
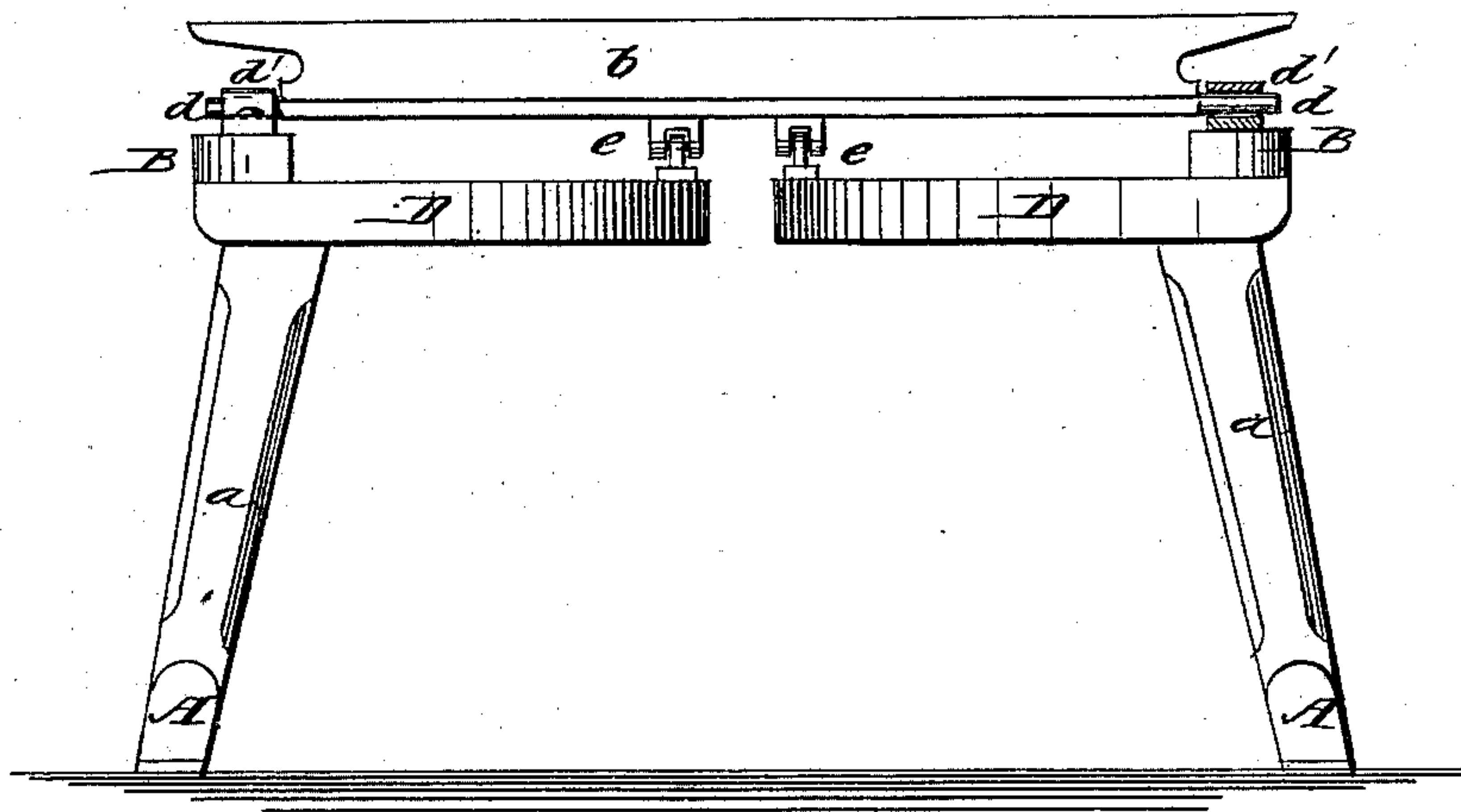


Fig. 3.



WITNESSES:

Francis McArdle.
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UNITED STATES PATENT OFFICE.

GILBERT HERMANCE, OF NASSAU, NEW YORK.

IMPROVEMENT IN BOB-SLEIGHS.

Specification forming part of Letters Patent No. **222,044**, dated November 25, 1879; application filed March 15, 1879.

To all whom it may concern:

Be it known that I, GILBERT HERMANCE, of Nassau, in the county of Rensselaer and State of New York, have invented a new and Improved Bob-Sleigh, of which the following is a specification.

The object of this invention is to so construct a sleigh with knees and beams that the runners will act entirely independent of each other, and thus insure smoothness and evenness in the running of the sleigh, and prevent straining and twisting.

The invention consists in combining curved beams, a bolster having pivot ends, and socketed raves, the beams being hinged at the middle to bolster, as described hereinafter.

In the accompanying drawings, Figure 1 is a side elevation of my improved bob-sleigh. Fig. 2 is a top view of the same, and Fig. 3 is an end view.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A A A A are the runners. B B B B are the raves. The knees are indicated by the letter *a*, and the bolsters by the letter *b*. *c* is the reach, and *d* is the circle or ring fixed to the reach and bearing upon the bolster, with which it is connected by a king-bolt, so that the front pair of runners turns freely and independently of the reach, body, and back runners. D represents the beam, composed of a piece of wood bent into a semi-ellipse, so as to be slightly less in length than one-half the total width of the sleigh. The ends are attached to the two knees of each runner, and the rave is fastened on top of them. At the middle of the bent beams they are hinged to the bolster, sufficiently far apart, however, to permit perfect freedom of movement, as shown at *e*.

The ends *d* of the bolster are provided with pivots, which are entered into sockets *d'* on the raves, thus forming a double connection between the bolster and runners on each side, but leaving the runners independent of each other. All four runners are thus connected with the bolsters, and in running over uneven

ground the position of one runner does not affect the others in any way. One may be running in a hollow or rut, while the other is on a level or going over a hillock or rise of any kind; but perfect freedom is allowed them, and they pass over without straining their connection with the body in the least.

When greater strength is required, a third beam can be placed between the two ends of the bent beams and extended to the center of the beam, immediately under and parallel to the bolster, a third knee being likewise provided to connect it with the runners between the two shown in the drawings.

This construction has special advantages where the runners are used under a coach or wagon body, as the axles of the wagon or coach can be used as the bolsters, the ends being placed in the sockets *d'*, while the center of the beams can be hinged underneath. At the same time, with the additional strength and facility in adapting the sleigh to run evenly and smoothly over uneven ground, the outside appearance of the sleigh is not altered in the slightest degree, and it can be made as stylish and showy as may be desired.

While the beams are described as bent, this form is not essential to the operation of the improvement. They can be varied in this respect to suit the fancy or convenience of the maker, the essential part of the invention being a bob-sleigh with knees and beam or beams for each runner pivoted or hinged to the bolster, thereby leaving the runners to act independently of each other.

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

The combination of the curved beams D, the bolster having pivot ends *d*, and the raves having sockets *d'*, the said beams being hinged at the middle to bolster, as shown and described.

GILBERT HERMANCE.

Witnesses:

CHAS. E. HUESTED,
CALVIN VAN SALISBURY.