W. L. MOSHIER.

Bob-Sleds.

No. 152,152. Patented June 16, 1874.

Fig. 1.

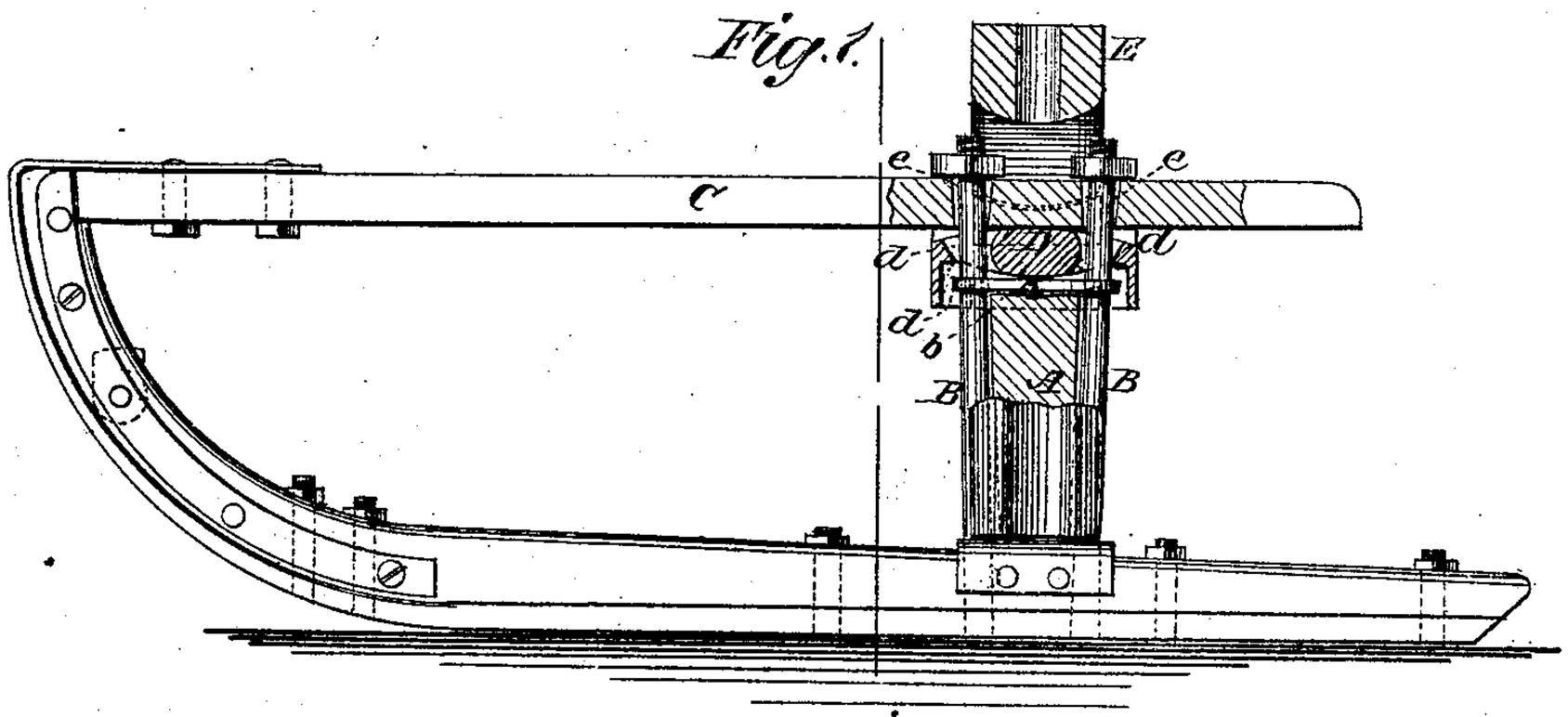

Fig. 2.

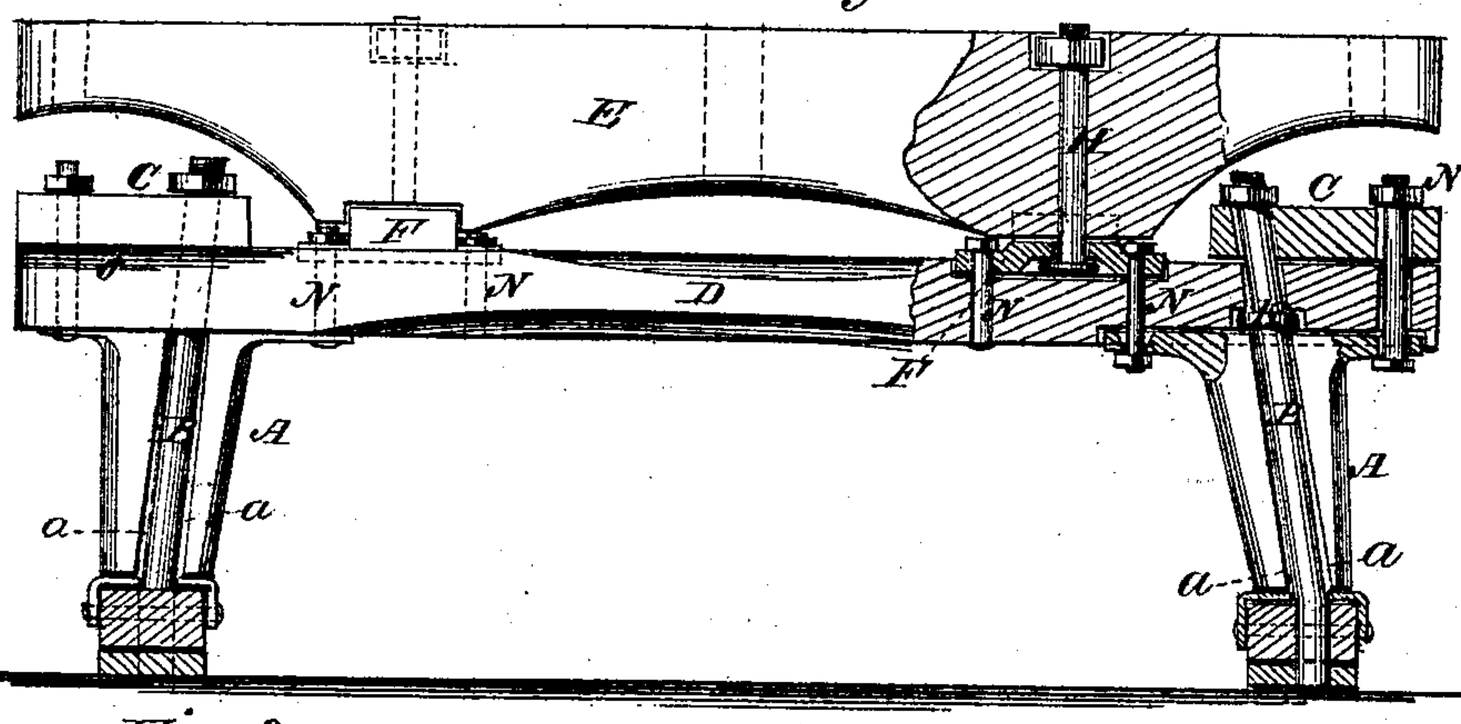

Fig. 3.

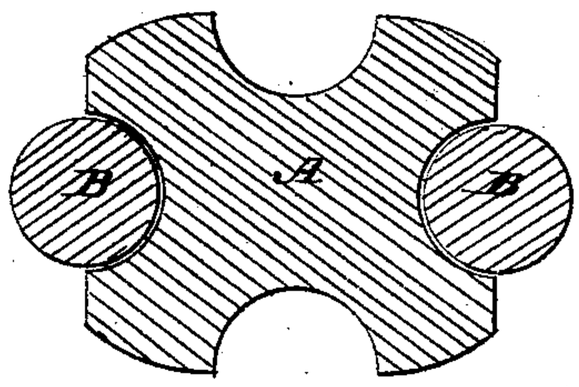

Fig. 4.

Fig. 5.

WITNESSES.

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WILLIAM L. MOSHIER, OF MAUSTON, WISCONSIN.

IMPROVEMENT IN BOB-SLEDS.

Specification forming part of Letters Patent No. **152,152**, dated June 16, 1874; application filed February 14, 1874.

To all whom it may concern:

Be it known that I, WILLIAM L. MOSHIER, of Mauston, in the county of Juneau and State of Wisconsin, have invented a new and Improved Bob-Sled, of which the following is a specification:

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

Figure 1 is a longitudinal sectional elevation through the knee, beam, rave, and bolster. Fig. 2 is a transverse section. Fig. 3 is a horizontal section through the knee, and Figs. 4 and 5 are sections through a plate used for holding the bolts for attaching the bolster to the beam.

Similar letters of reference indicate corresponding parts.

A is the cast-iron knee, which rests on the top of the runner, and is bolted to the under side of the beam. It is held in place on the runner by the long bolts B, extending from the shoe of the runner up to the top of the rave C, along grooves in the sides. These grooves I propose to make wider from the bottom upward a short distance than the bolt, as shown at *a*, so that the foot may shift a little laterally when the sled lurches heavily, and thus ease the effect on the bolts to some extent.

The top of the knee is flat, but the under side of the beam D is slightly oval where it rests on the knee, as at *b*. The holes through it for the bolts B are widened fore and aft each way from the middle, as at *d*. The holes in the raves are widened in the same direction from the bottom upward at *e*, and the top of the beam is made oval for the rave at *f*, all so that the runners may rise up at the front end independently of each other, to pass over objects or irregular ground without straining the joints. The bolster E is seated on the beam by a couple of saddle-plates, F, having a concave seat, G, in which the bolster rests, so as to oscillate for easing the veer of the sled on uneven ground, and it is secured to said saddle-plates by a bolt, H, whose head is confined in a recess, I, in the under side of the plate, from which the bolt extends through a hole, J, elongated from front to rear, to allow the bolt to oscillate. One of the bolts, N, by which the saddles are fastened to the beam, passes through the head of the beam in a hole, allowing it to oscillate with the beam. The long bolts B are connected by a link, K, between the knee and the bridge, to prevent them from springing outward. The raves are bolted at the outer edge to the outer end of the top of the knee by bolts L, and the holes in the knee for said bolts are also made to turn.

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

1. The knees A, provided with grooves gradually widened toward the lower end, in combination with bolts B in said grooves, as shown and described, for the purpose specified.

2. The combination, with the bolts B and knees A, of the beam D and rave C, having elongated holes for said bolts, to allow of a certain degree of play, as specified.

WILLIAM L. MOSHIER.

Witnesses:

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I. G. PARKER.