

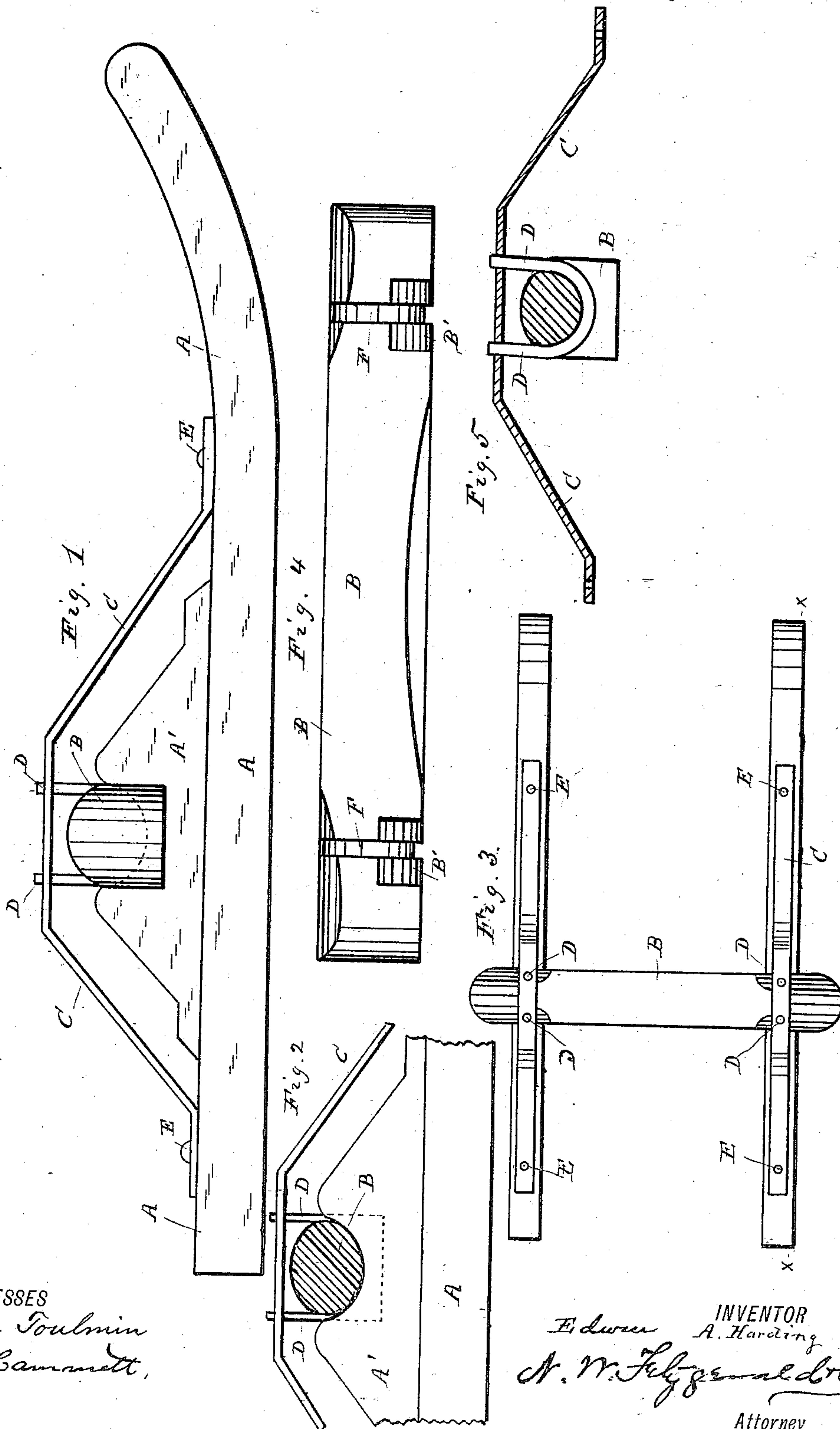
(No Model.)

E. A. HARDING.

BOB SLEIGH.

No. 298,849.

Patented May 20, 1884.



WITNESSES
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EDWIN A. HARDING, OF HARBOR SPRINGS, MICHIGAN.

BOB-SLEIGH.

SPECIFICATION forming part of Letters Patent No. 298,849, dated May 20, 1884.

Application filed October 12, 1883. (No model.)

To all whom it may concern:

Be it known that I, EDWIN A. HARDING, a citizen of the United States, residing at Harbor Springs, in the county of Emmet and State of Michigan, have invented certain new and useful Improvements in Bob-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.

This invention relates to improvements in bob-sleighs, and has for its object to permit of an independent rocking motion to the runners. This object is accomplished by the mechanism illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation. Fig. 2 is a section of beam B. Fig. 3 is a plan; Fig. 4, a detailed view of beam B. Fig. 5 is a sectional view of brace C and beam B.

The letter A indicates the runners; B, a cross-beam; C, braces; D, yokes or standards; E, the bolts which secure the braces C to the runners A.

The runners A are provided with blocks A', having notches of semicircular form on the upper side, which form resting-places for the beam B, which extends across the runners A, and the ends of which are provided with notches B', into which the upper edges of blocks A' are fitted, and thus aid to hold the runners in a vertical position and the proper distance apart. The braces C extend over and slightly above the beam B and pieces or blocks A', and then downwardly at each end, to conform to the shape of the runners, to which they are secured by means of the bolts or rivets E,

and have also the yokes or standards D, which enter grooves F in each side of the beam B and serve to hold and support it in the proper position, and at the same time to permit it to turn partly on its axis or allow the runners A to accommodate themselves to any inequalities which may exist on opposite sides of the road.

The yokes D may be of U shape, and be secured to the blocks A' in any suitable manner; or they may be simply suspended by the braces C, and form bearings in which the beam B may oscillate without coming in contact with the blocks A' on the under side. In another form the yokes or standards D may be straight bolts driven into the blocks A' and secured at the top by the braces C.

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

In a bob-sleigh, the beam B, having notches B', rounded on the lower side and adapted to fit down upon and into a semicircular recess on top of the blocks A', secured to the upper sides of the runners A, said beam having grooves F, rounded at the bottom, thereby permitting it to oscillate upon the yokes D and block A', in combination with runners A, provided with braces C, as shown and described.

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

EDWIN A. HARDING.

Witnesses:

JOSIAH C. GRAY,
ELIAS J. PALMER.