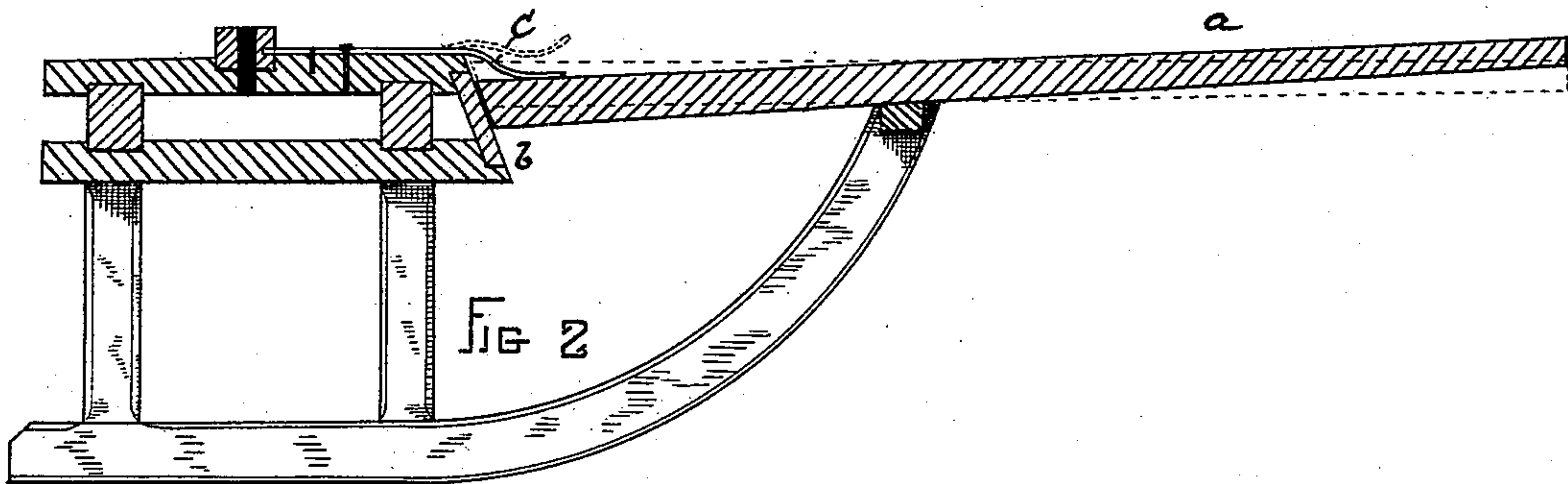
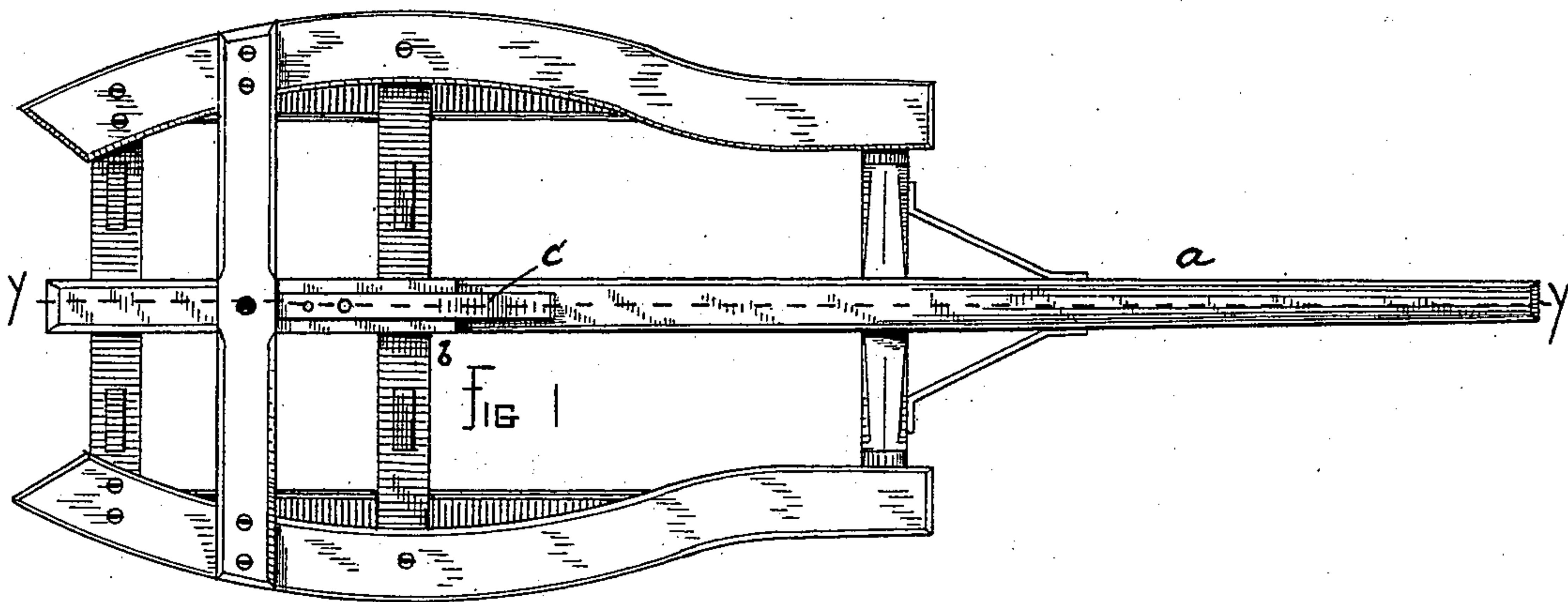


(No Model.)

J. PARR.
BOB SLED.

No. 395,993.

Patented Jan. 8, 1889.



WITNESSES:

Walter Reese
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JACOB PARR, OF IRWIN, PENNSYLVANIA.

BOB-SLED.

SPECIFICATION forming part of Letters Patent No. 395,993, dated January 8, 1889.

Application filed January 23, 1888. Serial No. 261,686. (No model.)

To all whom it may concern:

Be it known that I, JACOB PARR, a citizen of the United States, and a resident of Irwin, in the county of Westmoreland and State of Pennsylvania, have invented a certain new and useful Improvement in the Manufacture of Bob-Sleds, Sleighs, and Wagons; and I declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 indicates a plan view of a bob-sled provided with my improvement. Fig. 2 indicates a central vertical sectional view of same, taken through at the line *y y*, (shown in Fig. 1;) and the dotted lines indicate the mode in which the pole is permitted to play to prevent sudden strains from coming upon the harness and horses when the sled or other vehicle passes over broken or uneven surfaces.

Heretofore, so far as I am aware, it has been customary and usual to attach the pole at its rear extremity to a roller or rock-shaft which is journaled in the upper forward portion of the sled frame or runners. This construction causes grave defects to develop during the use of the vehicle. For instance, in backing, the strains are thrown upon the pivots of the roller or rock-shaft, and breakage at such point is the frequent result; secondly, in backing, the pole springs upward, and is very liable to be broken, because the strains are not then brought on the pole in line with its axis, or, in other words, because vertical as well as longitudinal strains are brought upon the pole when backing.

The object of my invention is to provide such construction of sled, sleigh, wagon, or other vehicle as shall distribute the strain in backing upon such parts of the vehicle as are best able to resist it.

In the application of my improvement to bob-sleds I employ, as shown in the drawings, a continuous pole, *a*, which extends back beyond the rock-shaft or roller and terminates at a point below the first bench of the sled, and when backing the rear end engages against the forward inclined face of a truss, *b*, which is firmly attached to the cross-beams of the sled, the pole *a* only having a limited

upward motion at its front end, as its rear end soon comes in contact with the face of the truss *b*; hence the pole is prevented swinging upward during the backing operation, but is capable of considerable downward motion at its forward part, being free to swing in such manner on the roller or rock-shaft, its motion being held under partial restraint and the pole being forced back to its normal position upon being relieved of strains by the action of the spring *C*, which is attached to the upper portion of the truss *b* and engages upon the rear upper surface of the pole.

The advantages of my invention are, first, it can be applied cheaply and readily to any ordinary kind of vehicle; second, sudden shocks, strains, and jars are prevented from coming upon the vehicle, the horses, and harness, on account of the ability of the pole to readily adjust itself while passing over inequalities of road-surfaces; third, the strain is taken off the pinions of the rock-shaft or roller when backing; fourth, the pole is prevented from tilting upward when backing.

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

1. In a bob-sled or other vehicle, the combination of a continuous pole pivoted at an intermediate point of its length and a fixed truss or back-stop arranged in close proximity to and in rear of the rear extremity of said pole, to limit the depression of the rear end of the pole at a point slightly below the normal position thereof, substantially as described.

2. In a bob-sled or other vehicle, the combination of a continuous pole pivoted near its rear end, a fixed truss or back-stop arranged in rear of said pole in close proximity thereto, to limit the downward movement of the rear end of the pole at a point slightly below the normal position thereof, and a spring secured to the frame of the sled or vehicle, to limit the upward movement of the rear end of the pole, substantially as described, for the purpose set forth.

3. In a bob-sled or other vehicle, the combination of a continuous pole pivoted at an

intermediate point of its length, a vertically-
inclined fixed truss or back-stop, *b*, arranged
in rear of said pole in close proximity to the
rear extremity thereof, and adapted to limit
5 the depression of the rear end of said pole at
a point slightly below its normal position,
and a spring, *c*, fixed to the frame of the sled

or vehicle, and bearing on the upper side of
the pole to limit the upward play thereof, sub-
stantially as described.

JACOB PARR.

Witnesses:

S. S. McCORMICK,
ELI McCORMICK.