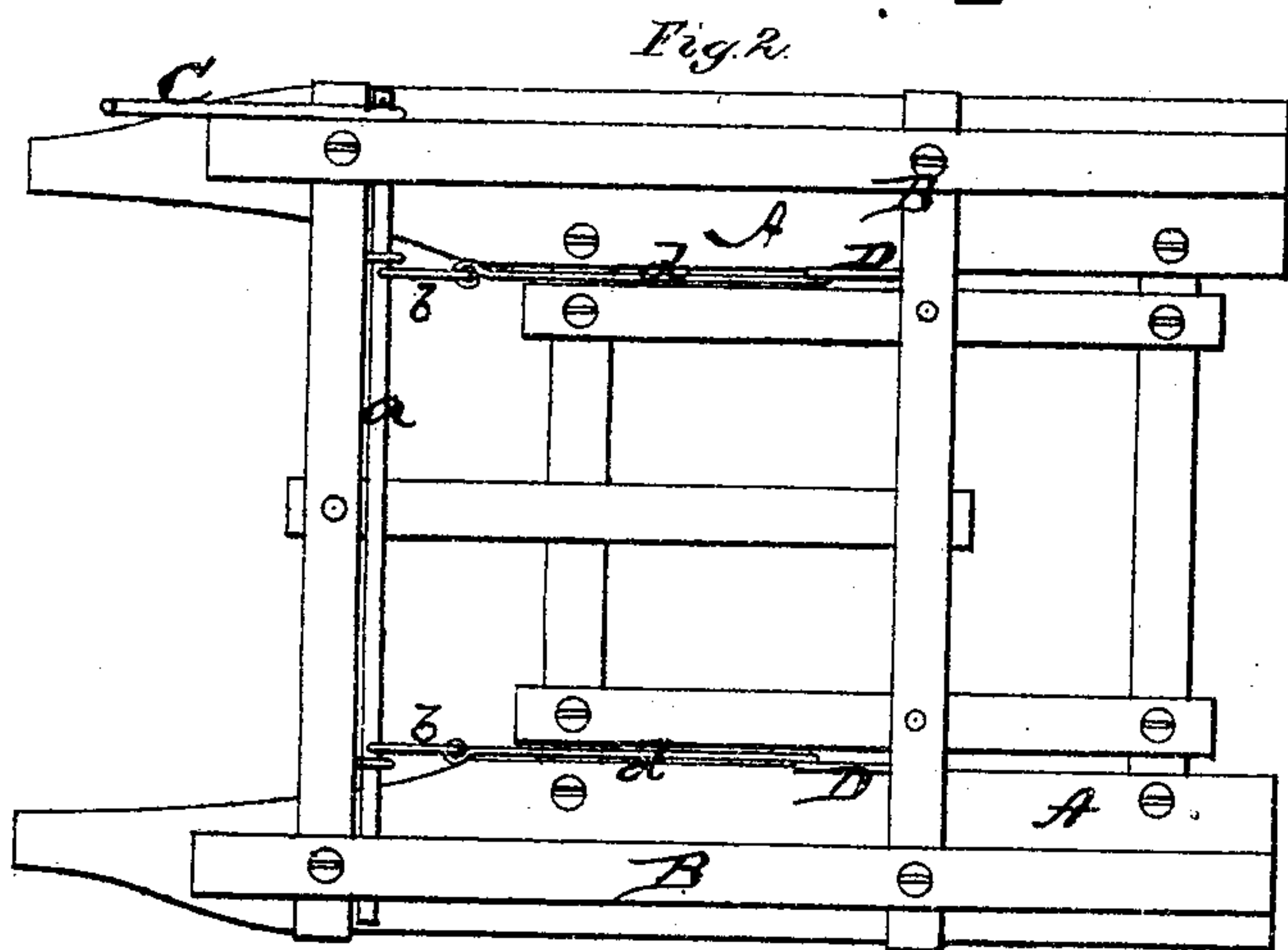
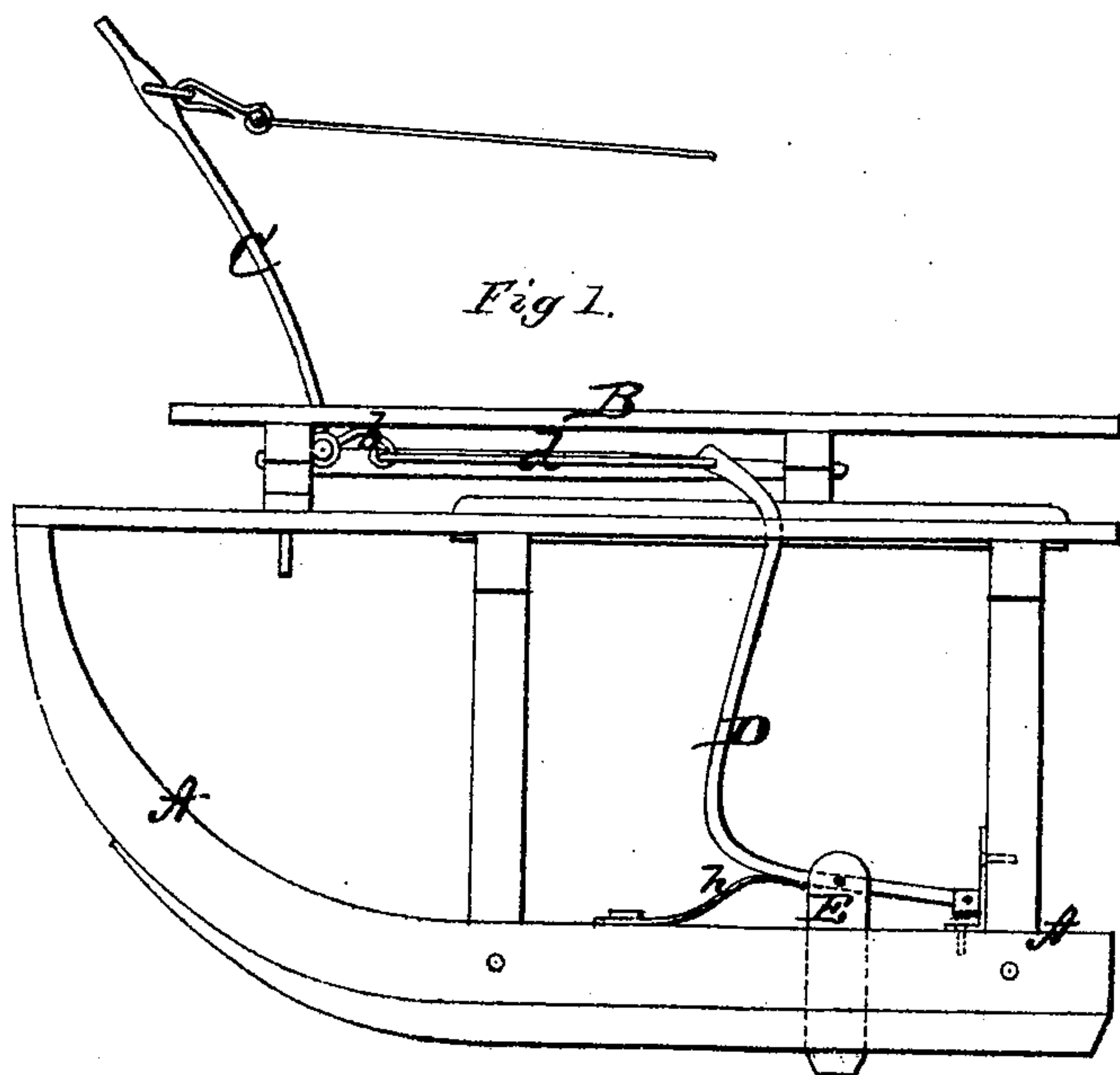


A. DERBY.

Improvement in Sleigh-Brakes.

No. 132,359.

Patented Oct. 22, 1872.



WITNESSES
John A. Ellis.
Wm. K. Ellis

INVENTOR
Alvin Derby.
By
C. H. Watson & Co.
Attys.

UNITED STATES PATENT OFFICE.

ALVIN DERBY, OF VIROQUA, WISCONSIN.

IMPROVEMENT IN SLEIGH-BRAKES.

Specification forming part of Letters Patent No. 132,359, dated October 22, 1872.

To all whom it may concern:

Be it known that I, ALVIN DERBY, of Viroqua, in the county of Vernon and State of Wisconsin, have invented certain new and useful Improvements in Sleigh-Brakes; and I do hereby declare that the following is a full, clear, and exact description thereof, that will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing and to the letters of reference marked thereon which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a "sleigh-brake," as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a side elevation, and Fig. 2 a plan view, of a bob-sled with my brake attached.

A represents a bob-sled constructed in any of the known and usual manners. On top of the sled A is placed a frame, B, which is hinged at or near its rear end to the sled, and the front end movable for a short distance up and down. This frame supports the load. On the rear side of the front cross-bar of the frame B is placed a shaft, *a*, provided at one end with a lever, C, and with two arms, *b b*, within the frame—one at each side. Each arm *b* is, by a rod, *d*, connected with the upper end of an angular or bent lever, D, shaped substantially as shown in Fig. 1, and its lower end pivoted at or near the lower end of the rear knee of the sled. To the lever D, a short distance in

front of the pivot-point, is pivoted a bar or brake, G, which passes perpendicularly down through a mortise in the sleigh-runner, and its lower end comparatively sharpened. In front of this bar or brake the lever D is supported by a spring, *h*, so as to hold the bar above the under surface of the runner.

By pulling backward on the lever C the shaft *a* is turned in its bearings, causing the arms *b b* to turn downward, drawing, by means of the rods *d d*, the upper ends of the levers D D forward, and lowering the braking-bars G G so that they will project below the sleigh-runners. As soon as the force is removed from the lever C the springs *h h* at once raise the levers and braking-bars to their former position. When the brake meets an obstruction hard enough to force the brake upward the upward movement acts upon the hinged frame and load only, without raising the sled, as the brake is attached to and supported by the hinged frame.

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

The frame B hinged to the sled A, and the rod or shaft *a* pivoted to the hinged frame, and both combined with the lever C, arms *b b*, rods *d d*, levers D D, brakes G G, and springs *h h*, all constructed and arranged as and for the purpose described.

In testimony that I claim the foregoing I have hereunto set my hand this 16th day of September, 1872.

ALVIN DERBY.

Witnesses:

• WM. S. PURDY,
CARSON GRAHAM.