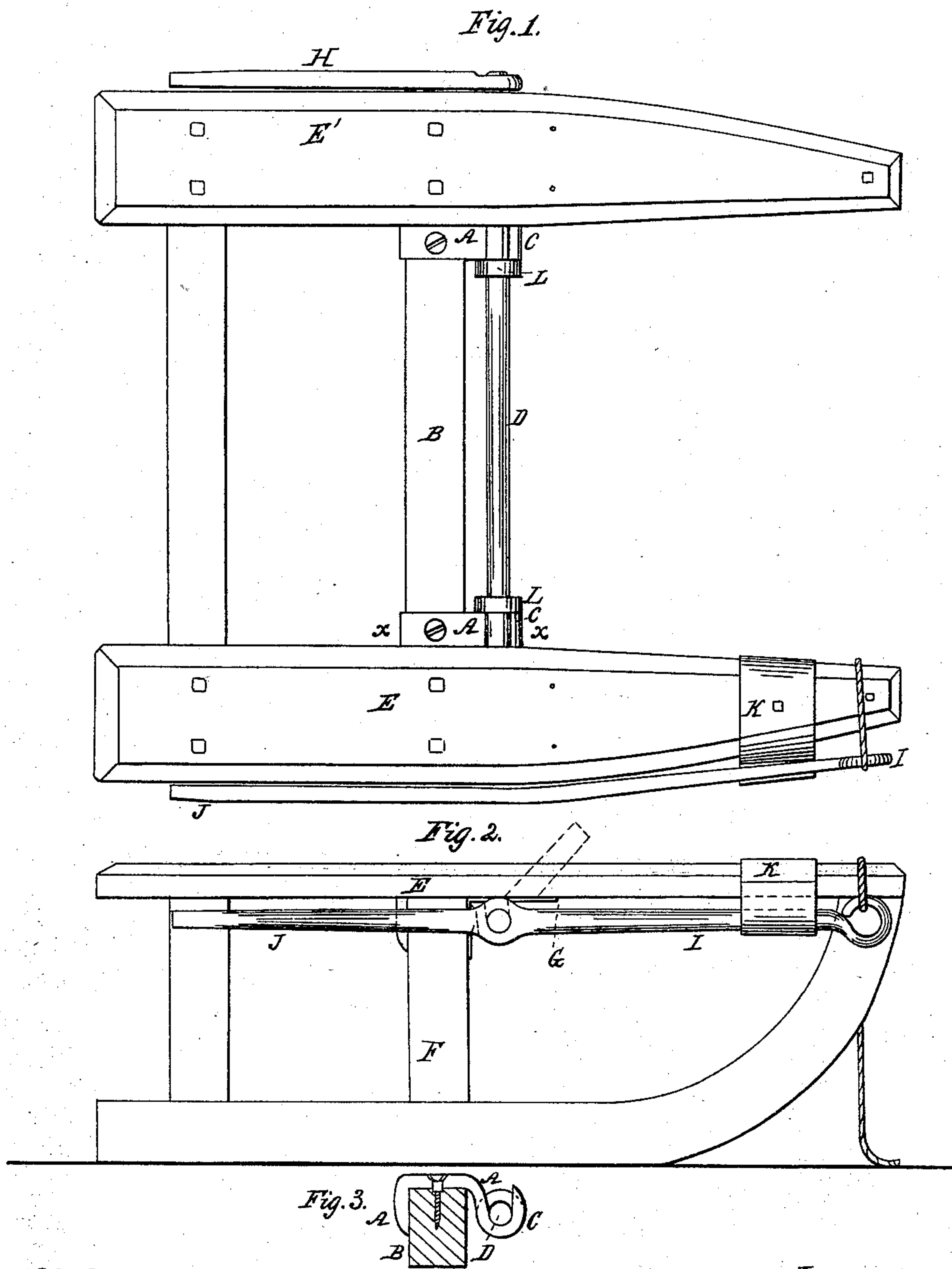


G. B. STEVENS.

Sleigh Brake.

No. 79,785.

Patented July 7, 1868.



Witnesses:

Baltus De Long  
J. S. Peyton

Inventor:

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Wm. D. Baldwin

# United States Patent Office.

GEORGE B. STEVENS, OF PLUCKEMIN, NEW JERSEY.

*Letters Patent No. 79,785, dated July 7, 1868.*

## IMPROVEMENT IN SLEIGH-BRAKES.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, GEORGE B. STEVENS, of Pluckemin, in the county of Somerset, and State of New Jersey, have invented certain new and useful Improvements in Sled-Brakes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which make part of this specification, and in which—

Figure 1 represents a plan or top view of a sled having my improvements attached.

Figure 2 a side elevation of the same, and

Figure 3 a vertical section at the line  $x x$  of fig. 1, showing one of the bearings for the brake-rod, and the manner of securing the bearing to the cross-piece or brace of the sled.

It is the object of my invention to produce a strong, simple, effective, and cheap brake, easily applied to or detached from sleds of the usual construction; and to this end the improvements herein claimed consist—

First, in a novel method of constructing and attaching the bearings in which the brake turns, as hereinafter set forth.

Second, in a novel method of combining the bearings in which the brake-rod turns with plates on the under side of the side-pieces of the sled, as hereinafter set forth.

In the accompanying drawings, A A represent two pieces of iron fitting over the cross-brace B, one end of each piece being bent down behind the brace, to which they are secured by screws from above, or from the rear, and their other ends bent down and curved to form sockets, C, in which the rod D turns. To the under side of the side-pieces E E', and to the upper front sides of the uprights F, are secured metal plates, G, against which the bar D bears when the brake is in operation. These plates prevent the rod from leaving its open bearings, and protect the woodwork of the sled from injury.

To one end of the bar D is welded a scraper or drag-bar, H. If preferred, this scraper may be formed by bending the rod D, or it may be keyed on to the rod. To the other end of the bar D is welded or keyed a lever, I, the lower end, J, of which forms a second scraper. A rope or cord attached to a hook or ring at the end of the lever serves as a means of operating both scrapers from behind the sled.

A support, K, near the front of the sled, supports the lever in a horizontal position when the brake is not in operation.

On the rod D, inside of each bearing, are secured bands, L, (or an enlargement of the rod at these places would answer the same purpose,) which prevent the rod from slipping endwise.

The rod D may have a screw-thread cut upon it extending a short distance on each side of the middle of the rod, and upon it nuts with or without washers between them and the bearings, so as more readily to accommodate the brake to sleds of various widths.

To attach the brake to a sled, the rod D is held near the cross-brace, and the bearings adjusted under the rod; they are then pushed down upon the cross-piece, and screws from above, or through the bent rear ends of the pieces A A, hold them firmly in place. By the removal of the screws the brake can easily be detached from the sled.

A pull on the rope operates the brake by bringing the scrapers in contact with the ground, as shown in red in fig. 2. When the operator slackens the rope, the weight of the lever I returns it to a horizontal position. The scrapers are thus automatically lifted from the ground, and this is caused by the length of the lever being greater than that of the scraper. The upper end of the lever may be made thicker and heavier than the scrapers, if preferred. An arm may also be attached above the scraper H, if deemed necessary to ensure perfect operation.

My brake can be attached to sleds of various widths, and the flanges or nuts and washers on the rod will prevent it from slipping lengthwise.

I am aware that lever-scrapers or brakes have heretofore been used on sleds, and do not therefore broadly claim such devices; but

Having thus fully described the construction and operation of my improved brake, what I claim therein as my invention, and desire to secure by Letters Patent, is—

1. The combination with the turning rod D of the open bearings constructed and applied to the cross-brace B, as and for the purpose set forth.

2. The arrangement of the open bearings, the flanged turning brake-rod, and the plates G beneath the side-pieces, as described.

In testimony whereof, I have hereunto subscribed my name.

GEORGE B. STEVENS. [L. S.]

Witnesses:

JOHN B. VANDERBECK,

D. H. WORTMAN.