

H. SIPE.

Sled.

No. 65,021.

Patented May 21, 1867.

Fig: 1.

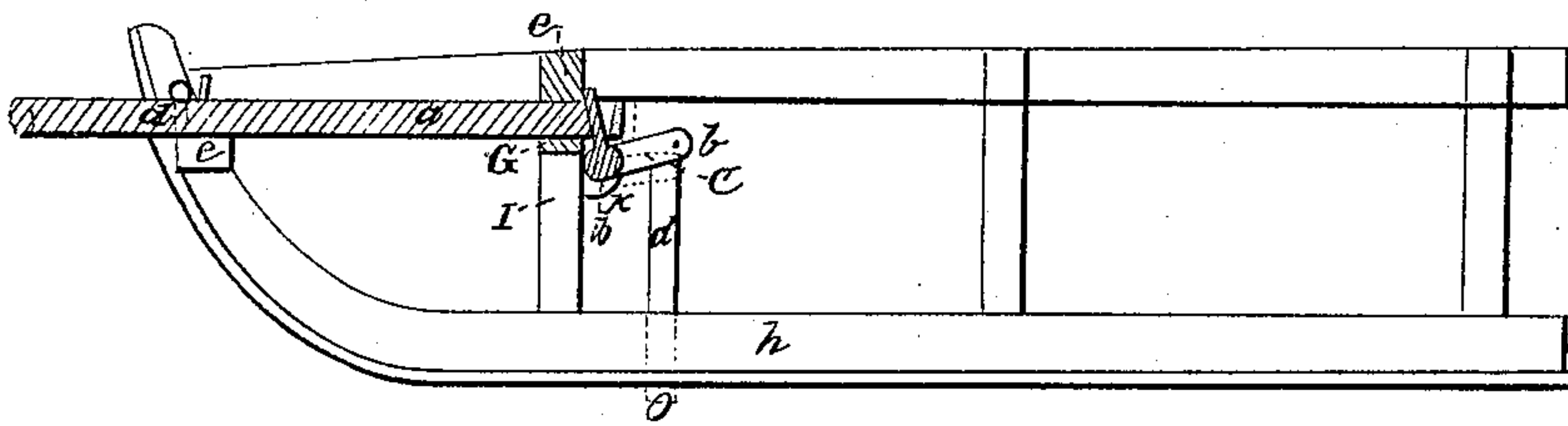
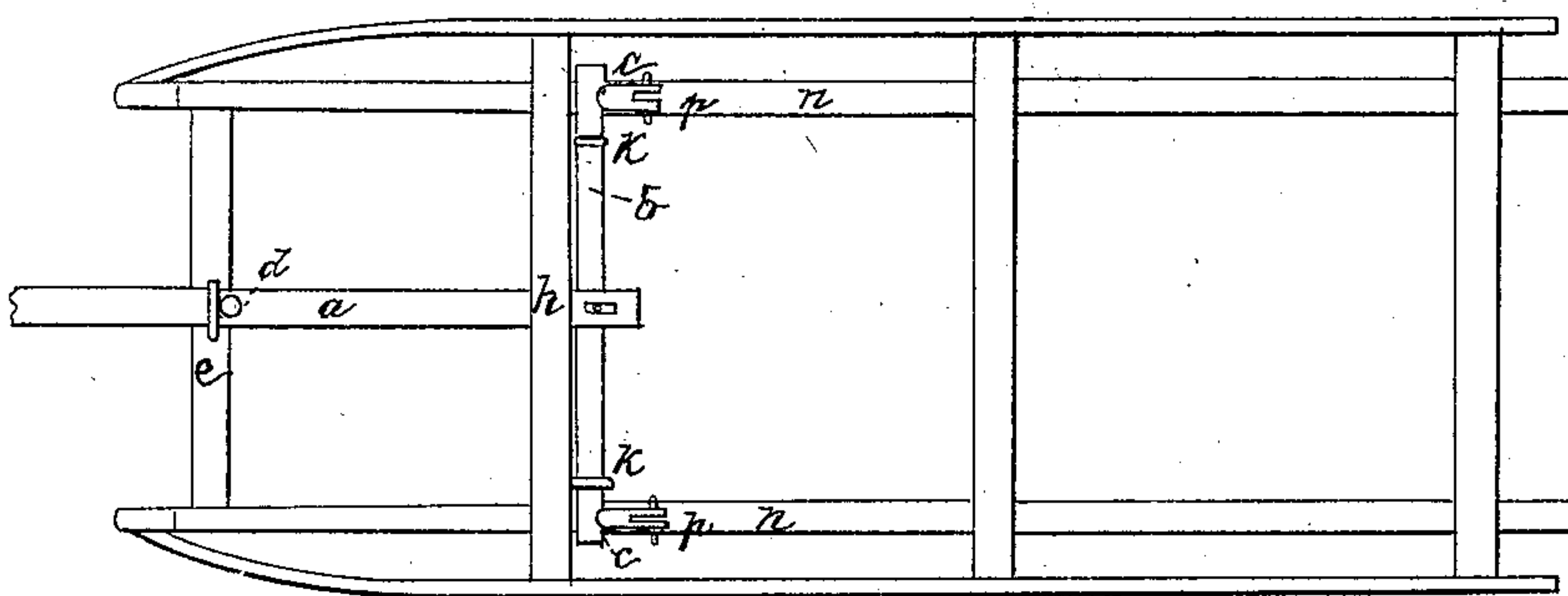


Fig 2.



Witnesses.

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# United States Patent Office.

HENRY SIPE, OF SIPESVILLE, PENNSYLVANIA.

*Letters Patent No. 65,021, dated May 21, 1867.*

## 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, HENRY SIPE, of Sipesville, in the county of Somerset, and State of Pennsylvania, have invented certain new and useful Improvements in Sled and Sleigh-Brakes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, like letters indicating like parts wherever they occur.

To enable others skilled in the art to construct and use my invention, I will proceed to describe it.

My invention consists of an improved brake for sleds or sleighs, to prevent them, while travelling on snow or ice, from slipping or sliding on inclines, as well as to be stopped or regulated in their movement.

Figure 1 represents a sectional view.

Figure 2 represents a top plan view.

In both figures, *a* represents the pole or tongue; *b*, a rock-shaft; *c*, arms on the rock-shaft; *d*, the brakes; *e*, front beam between the runners; *f*, staple and guide for the pole; *g*, guide and guard for the pole; *h*, beam of the front bench; *i*, knees of front bench; *p*, joints in the arms of the rock-shaft; *k*, the bearings of the rock-shaft; *l*, pin in the pole; *m*, pin in the rock-shaft; *n*, runners; *o*, lower ends of the brakes.

In constructing the arrangement to operate my brakes, I make the pole *a* long enough to pass over the beam *e*, and to pass on the under side of the beam *h* and beyond it. In the end of the pole *a* projecting beyond the beam *h* I make a slot, and through this slot pass two bolts transversely. In the rear of the beam *h* I place a rock-shaft, *b*, having its bearings *k* attached to the knees *i*. This shaft I place low enough to allow the pole *a*, passing on the under side of the beam *h*, to work it. Between the bolts in the slot of the pole I pass another bolt or pin, *m*, and fasten it into the rock-shaft. This pin I make long enough to bear against the rear side of the beam *h* when the pole moves forward. In this way, by means of the pin *m* and the bolts in the slot of the pole *a*, I make a joint for moving and limiting the movement of the rock-shaft *b*, and the backward and forward movement of the pole *a*. Near the ends of the rock-shaft *b* I attach arms *c*, and to the ends of the arms *c* the brakes *d*, by the joints *p*, placing the arms in such a way that the brakes connecting with them may pass through the centre of the runners *n*. I bevel the ends *o* of the brakes on the rear side, so that the sleigh or sled may be backed. In the pole *a* I place a pin, *l*, which, in bearing against the staple *f*, and in connection with the pin *m* in the rock-shaft, when bearing against the beam *h*, limits the forward movement of the pole *a* and shares the strain when the sled or sleigh is drawn forward. It is obvious that the rock-shaft may be located near the second or third bench of the sled or sleigh, or at at any distance desired from the end of the pole, and connect with it either directly or by means of a link.

Having thus constructed the arrangement for my brakes, the manner of their operation will be readily understood. As sleds or sleighs, in moving on inclines, tend to slip or slide or run forward, the pull-back of the pole or tongue at once turns the rock-shaft and forces the brakes below the shoes of the runners and into the snow, and prevents the slipping, sliding, or forward movement to which they are liable.

Having thus described my invention, what I claim, is—

The rock-shaft *b* and arms or elbow-levers *c c*, in combination with the brake-bars *d d* and pole or tongue *a*, arranged and operated substantially as described.

HENRY SIPE.

Witnesses:

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