H. W. SMITH.
Sled-Brake.

No. 197,676 **Patented Nov. 27, 1877.**

Fig. 1.

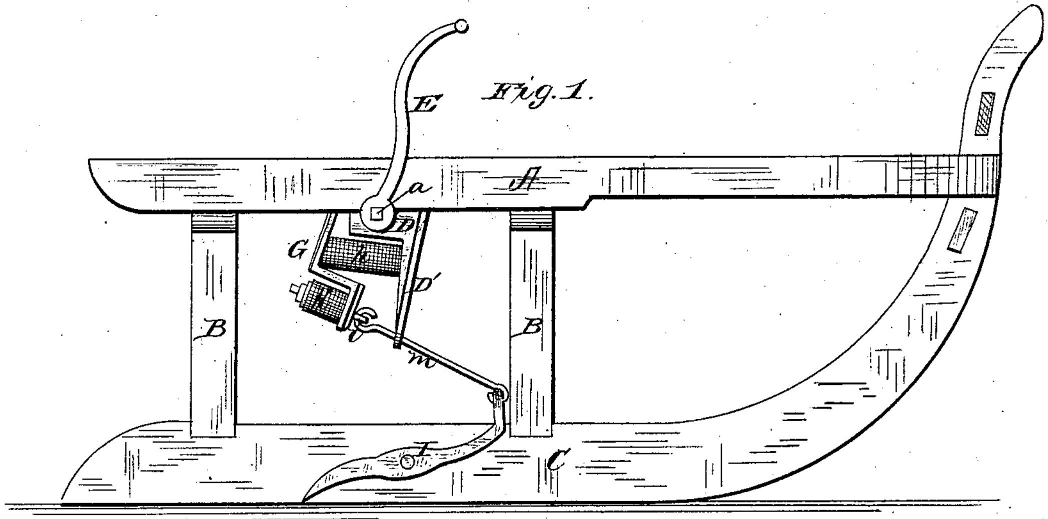
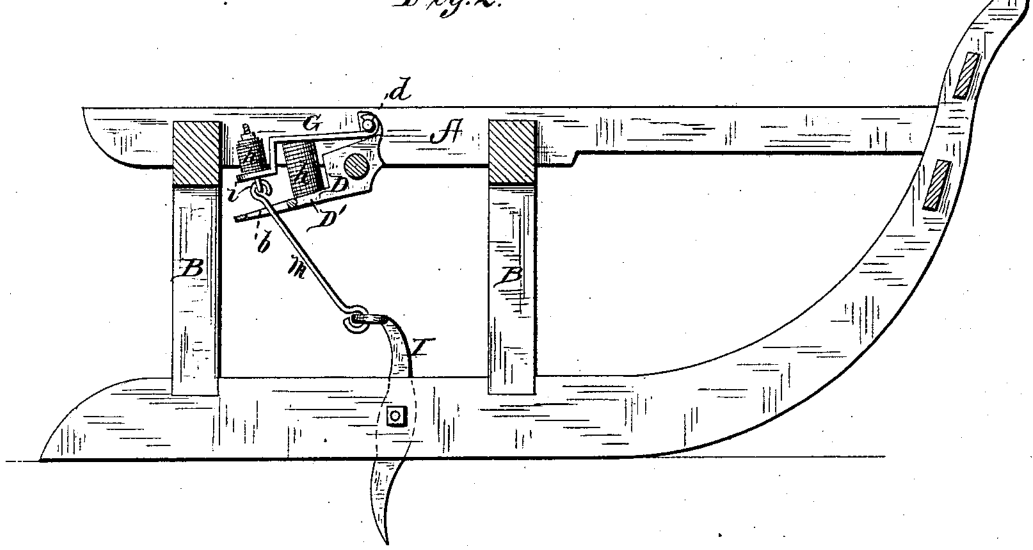


Fig. 2.



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UNITED STATES PATENT OFFICE.

HENRY W. SMITH, OF RAINSBURG, PENNSYLVANIA.

IMPROVEMENT IN SLED-BRAKES.

Specification forming part of Letters Patent No. **197,676**, dated November 27, 1877; application filed October 11, 1877.

To all whom it may concern:

Be it known that I, HENRY W. SMITH, of Rainsburg, in the county of Bedford and in the State of Pennsylvania, have invented certain new and useful Improvements in Sled-Brakes; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making 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 drawings, in which—

Figure 1 is a side elevation of a sleigh embodying my invention, showing the brakes released. Fig. 2 is a longitudinal section of the same, showing the brakes applied.

A represents the top, B the knees, and C the runners, of an ordinary sled or sleigh, to which my brake is attached. In suitable boxes in or under the top frame A is placed a rock-shaft, *a*, provided on one end with a lever, E, for turning the same. On this shaft, near each side, is secured a solid block, D, of malleable cast-iron provided with a projecting arm, D′, in which is a slot, *b*. Upon a pin, *d*, in the corner of the block D, diagonally opposite the arm D′, is hinged a lever or press-plate, G, also of malleable iron. This lever is made in the angular form shown, and a rubber spring, *h*, is interposed between said lever and the arm D′. I represents the brake-tooth, pivoted to the runner C, and having a rod, *m*, connected to its upper end. This rod passes rearward or upward through the slot *b* in the arm D′, and connects with an eyebolt, *i*, which goes through the end of the lever G and through a rubber spring, *h′*, placed on the outer side thereof, and a washer and nut placed on the end of said bolt.

It will readily be seen that by turning the lever E forward the arms D′ and levers G are thrown into the position shown in Fig. 2, and the brake-teeth I turned into the ground, or rather into the snow and ice.

It will also be seen that by means of the springs *h h′* the brake-teeth will yield when striking any obstructions, and as soon as such obstructions are passed they will, by the action of said springs, resume their former positions.

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

1. The combination of the block D, secured upon the rock-shaft *a*, and provided with the slotted arm D′, the spring *h*, and the hinged lever G, connected to the brake-tooth, substantially as herein set forth.

2. The combination of the tooth I, rod *m*, eyebolt *i*, lever G, springs *h h′*, and block D, with slotted arm D′, all constructed substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 28th day of September, 1877.

H. W. SMITH.

Witnesses:
JAMES H. GUMP,
JOHN GUMP.