2 Sheets—Sheet 1.

P. C. DOYLE.

Sled-Brake.

No. 218,504. Patented Aug. 12, 1879.

Fig. 1.

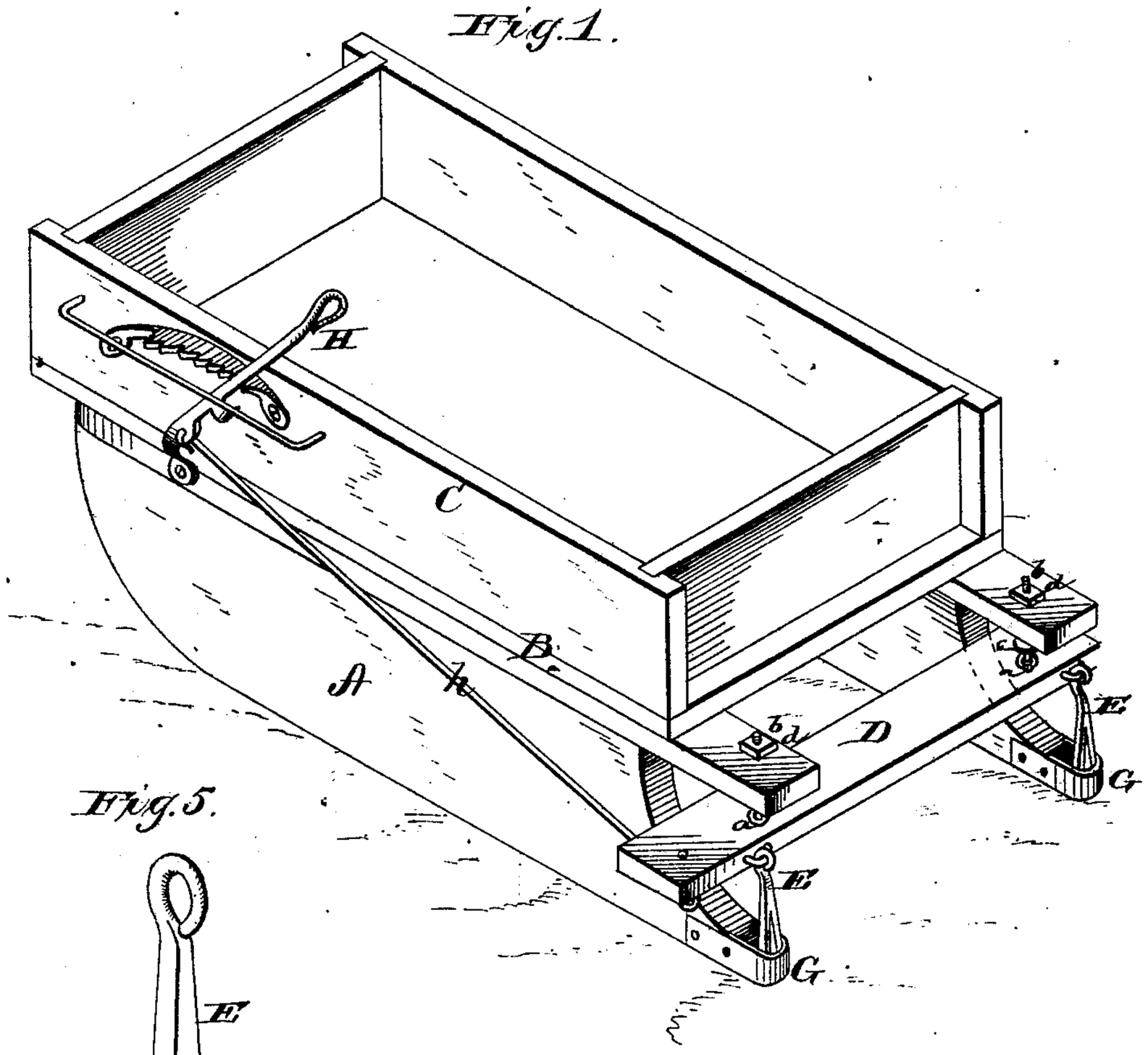
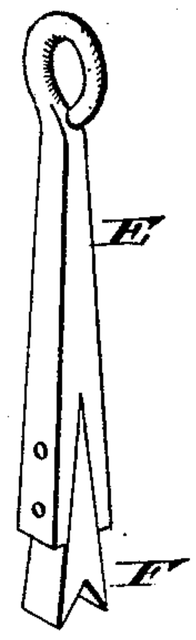


Fig. 5.



WITNESSES

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2 Sheets—Sheet 2.

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No. 218,504. **Patented Aug. 12, 1879.**

Fig. 2.

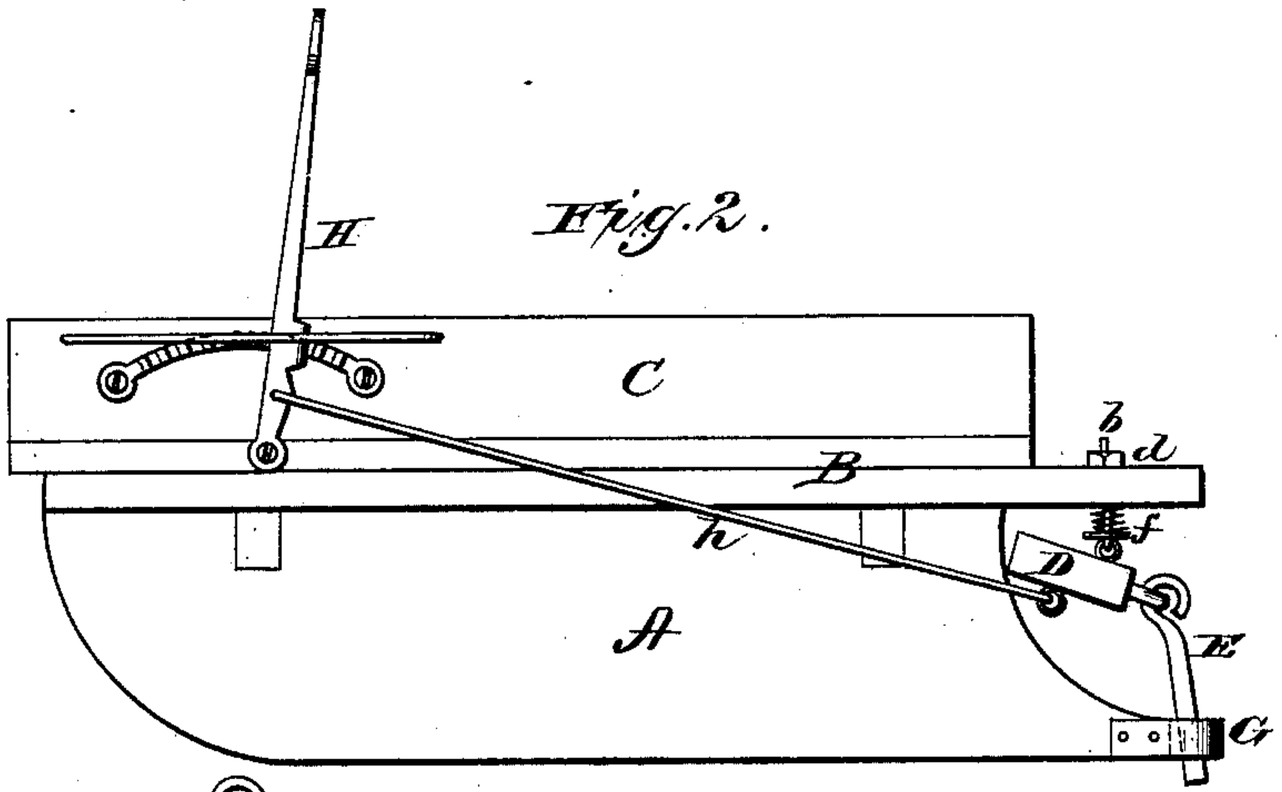

Fig. 3.

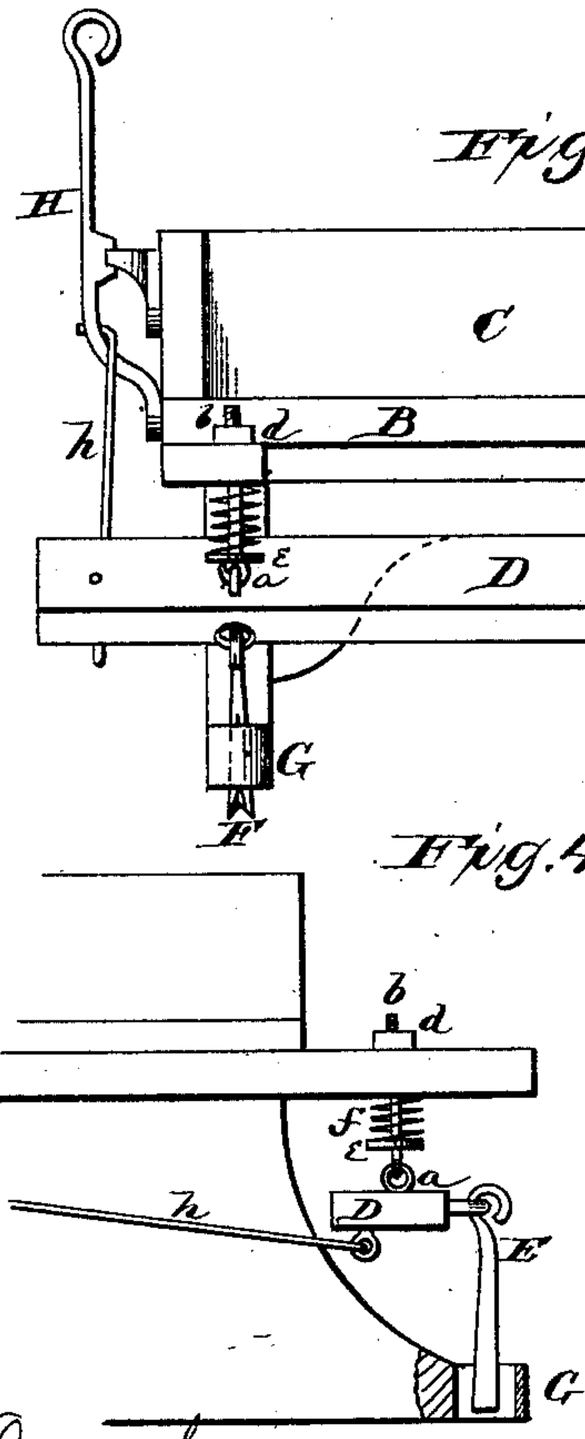

Fig. 4.

WITNESSES

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UNITED STATES PATENT OFFICE.

PETER C. DOYLE, OF VERNON, IOWA.

IMPROVEMENT IN SLED-BRAKES.

Specification forming part of Letters Patent No. **218,504**, dated August 12, 1879; application filed March 28, 1879.

To all whom it may concern:

Be it known that I, PETER C. DOYLE, of Vernon, in the county of Van Buren, and in the State of Iowa, 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 perspective view of a sleigh with my brake applied thereto. Fig. 2 is a side elevation, and Fig. 3 a rear view of the same. Fig. 4 is a detailed view of a part thereof. Fig. 5 is a view of one of the plungers or scrapers.

A A represent the runners of a sleigh of any desired construction. B is the frame-work, and C the box of the sleigh. Under the rear end of the frame is suspended a plank or beam, D, by means of eye-bolts *a b* near each end. The eye-bolt *a* is passed through the plank near the outer edge, while the bolt *b* passes up through the side bar of the frame and has a nut, *d*, screwed on its upper end. On the bolt *b* is placed a washer, *e*, and spring *f*, as shown. To the outer edge of the plank the scrapers are connected.

Each scraper consists of two parts, E and F. The upper part, E, is connected by eyes with the plank or beam D, and its lower end is slotted to receive the lower part or point, F, which is made somewhat in the shape of a fish-tail.

The point F may be fastened by bolts or otherwise, so that it can be removed and sharpened, and also be adjusted to a sled-runner of any height. This may be accomplished by a series of bolt-holes in the two parts, or holes in the part E only, and one or more slots in the point F.

It will, of course, be understood that in thus adjusting the points F, the prongs of the part E are by the fastening-bolts drawn close together against the sides of the point.

The scrapers are held in place at the rear ends of the runners by means of straps G attached to said runners.

The beam or plank D is by a rod, *h*, connected with an ordinary wagon-lock lever, H, for applying the brake when needed.

The arrangement of the various eye-bolts, which suspend the beam and connect the lock-lever rod and scrapers thereto, causes the weight of the front of the beam to raise the scrapers when the lever is thrown off, the weight of the timber counterbalancing the weight of the scrapers and of rod and lever.

By the eye-bolts *b*, nuts *d*, and springs *f*, the beam and scrapers may be raised and lowered, as required.

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

1. The combination of the beam D, eye-bolts *a b*, nuts *d*, springs *f*, and the scrapers, substantially as and for the purposes herein set forth.

2. The scraper, consisting of the main part E, and the removable and adjustable fish-tail point F, as herein set forth.

3. The combination of the suspended beam D, scrapers E F, rod *h*, and lock-lever H, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 24th day of March, 1879.

PETER C. DOYLE.

Witnesses:
S. A. THOMAS,
HARVEY WILKINSON.