

(No Model.)

B. P. POTT.

SLED BRAKE.

No. 319,022.

Patented June 2, 1885.

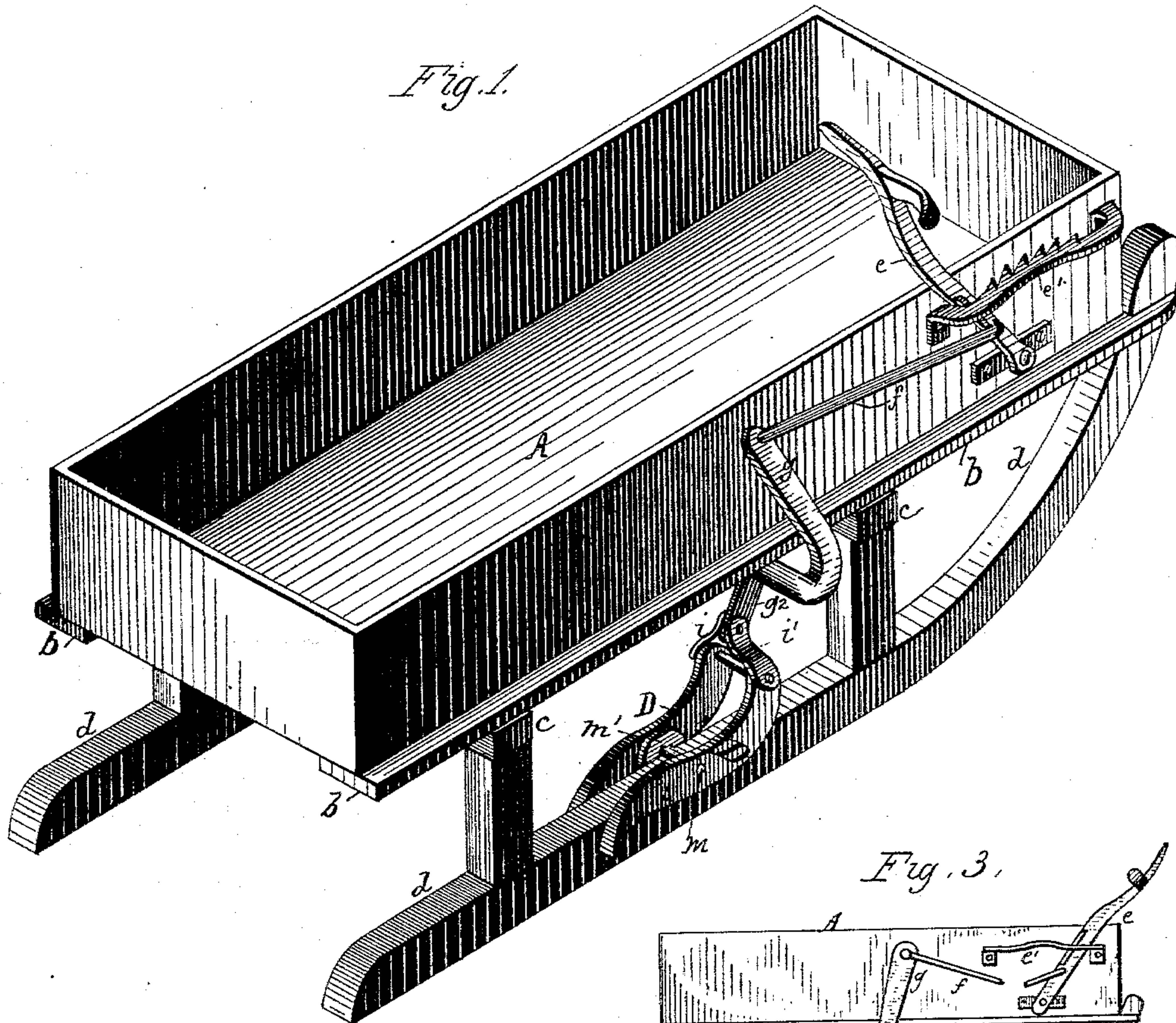
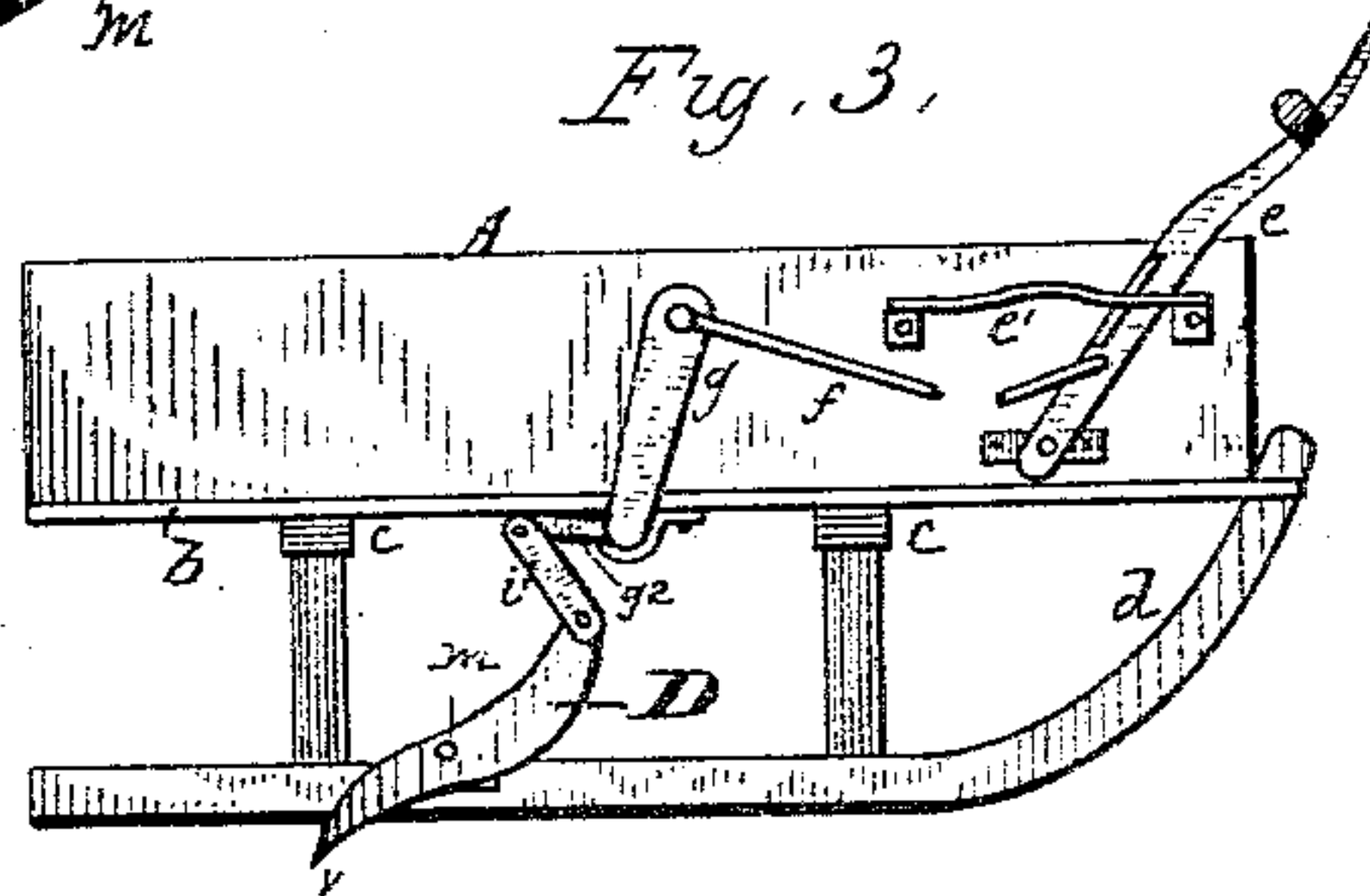
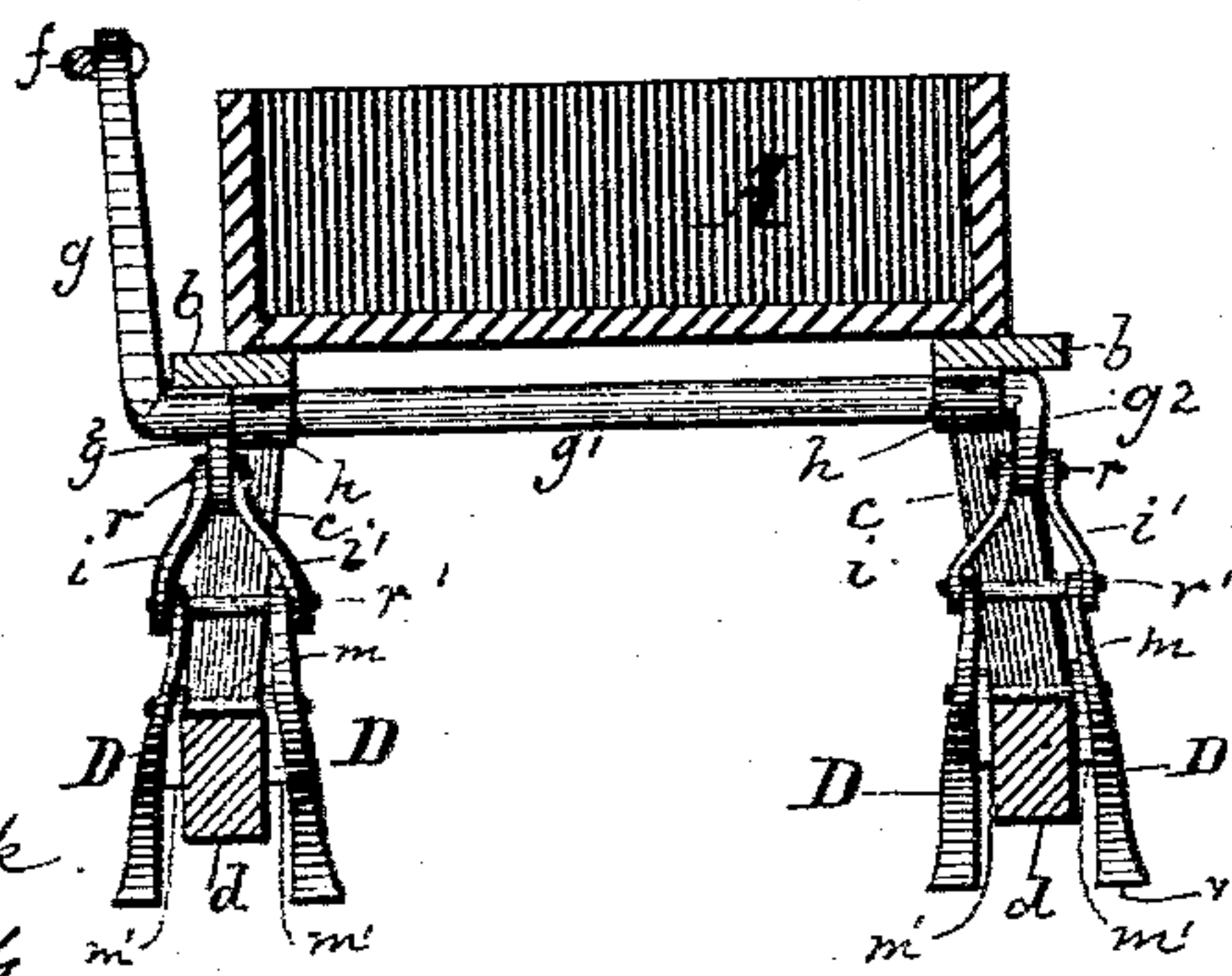


Fig. 2.



Witnesses

B. C. Fenwick.
C. Lincoln Fenwick.



Inventor:

B. P. Pott
by his attorney,
P. H. Lawrence.

UNITED STATES PATENT OFFICE.

BURD PATTERSON POTT, OF THOMPSON FALLS, MONTANA TERRITORY.

SLED-BRAKE.

SPECIFICATION forming part of Letters Patent No. 319,022, dated June 2, 1885.

Application filed April 6, 1885. (No model.)

To all whom it may concern:

Be it known that I, BURD P. POTT, a citizen of the United States, residing at Thompson Falls, in the county of Missoula and Territory of Montana, have invented a new and useful Sleigh-Brake, of which the following is a specification.

The object of my invention is to provide a brake for sleighs which, when applied to such conveyances, can be operated by the power of the driver of the conveyance with sufficient force to arrest the violent descent of the sleigh while traveling downhill, and upon which brake the weight of the load can be utilized to automatically prevent the backward descent of the conveyance while being drawn up a steep hill or mountain.

I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my improvement applied to a sleigh, the brake being shown at rest and out of operation. Fig. 2 is a cross-sectional view just forward of the operating lever-bar of the dogs, and Fig. 3 is a detail side view of the dogs in action.

A indicates the body, *b* the foot-board or stay-braces of the sleigh-knees, *c* the sleigh-knees, and *d* the runners, of a sleigh to which my improvement is applied.

To one of the side-boards of the sleigh a foot-lever, *e*, and lever-ratchet *e'* are applied, as shown, and from said foot-lever a connecting-rod, as *f*, is made to pivotally connect the lower portion of the foot-lever and the upper extremity of the long lever-arm *g* of a cross lever-bar, *g'*, which is held in position and capable of articulation in the boxes *h h*, suitably applied in permanent position to the under surface of the stay-braces *b b* of the body *A* of the sleigh, as indicated. The lever-bar *g'* has two short lever-arms, as *g² g²*, on either side of the sleigh and directly over the sleigh-runners *d d*, as shown, and to these short lever-arms side bars, *i i'*, are pivotally hinged at their upper ends, as at *r r*, while at their lower ends they are pivotally hinged, as at *r' r'*, to a dog, *D*, on both sides of the runners *d*. The dogs *D* on each side of the runners *d* are pivotally applied so as to articulate upon a fulcrum-rod, *m*, which has its proper support in metal plates *m'*, secured on each side of the runners *d*, as shown, the length of the dogs *D* and their construc-

tion being such as to form with the bars *i i'* a toggle-joint lever, so that when the sleigh-brake is thrown into action, as indicated in detail side view, Fig. 3, and the sleigh while heavily loaded is being drawn uphill, the weight of the load will automatically act to force the lower pointed or sharp ends, *v*, of the dogs into the earth, and so arrest the backward or downhill movement of the sleigh; and if during such operation the weight of the load should be so great as to throw the short levers *g²* upward into their position shown in Fig. 3, the toggle action of the toggle-joint formed by side bars, *i i'*, and the dogs *D D* at *r'* will still be maintained by the arrest of the upward movement of the short lever-arms *g² g²* against the under side of the stay-braces *b b*, and thus the proper action of the dogs *D* will be maintained, even if the long arm *g* or the connecting-rod *f* or other parts thereof should fail or become bent or broken, as indicated in Fig. 3, and unable to resist the pressure of the load in the sleigh upon the dogs on a backward downhill movement of the sleigh. In this manner I provide against accident from a sudden backward movement of the sleigh down a hill in the event the harness of the team should break or the horses become restive and "balk" while drawing a loaded sleigh uphill. By having a "dog" on each side of each sleigh-runner, and organizing the mechanism so as to bring all of them simultaneously into action, an equilibrium of strain, so to speak, is maintained throughout, and all cramping of parts avoided.

It is apparent that in order to bring the dogs *D* into action the driver simply presses with one foot against lever *e*, and at option locking the same on the ratchet *e'*.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the short arms *g²* of the lever-bar *g'*, the foot-boards *b b*, side bars, *i i*, and dogs *D*, whereby the upward throw of the arms *g²* will be arrested by the boards *b*, and the dogs *D* held to their work and the sleigh prevented from backward movement, substantially as described.

BURD PATTERSON POTT.

Witnesses:

ED. R. BARROLL,
H. FLORIN.