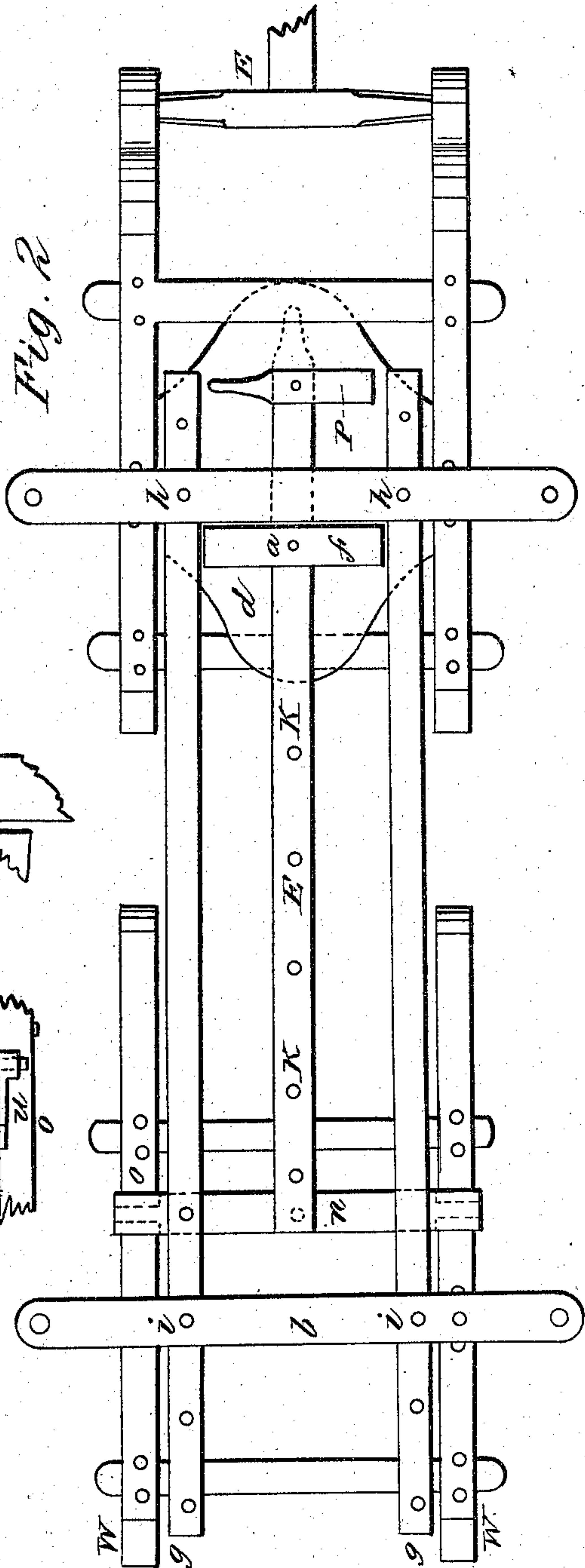
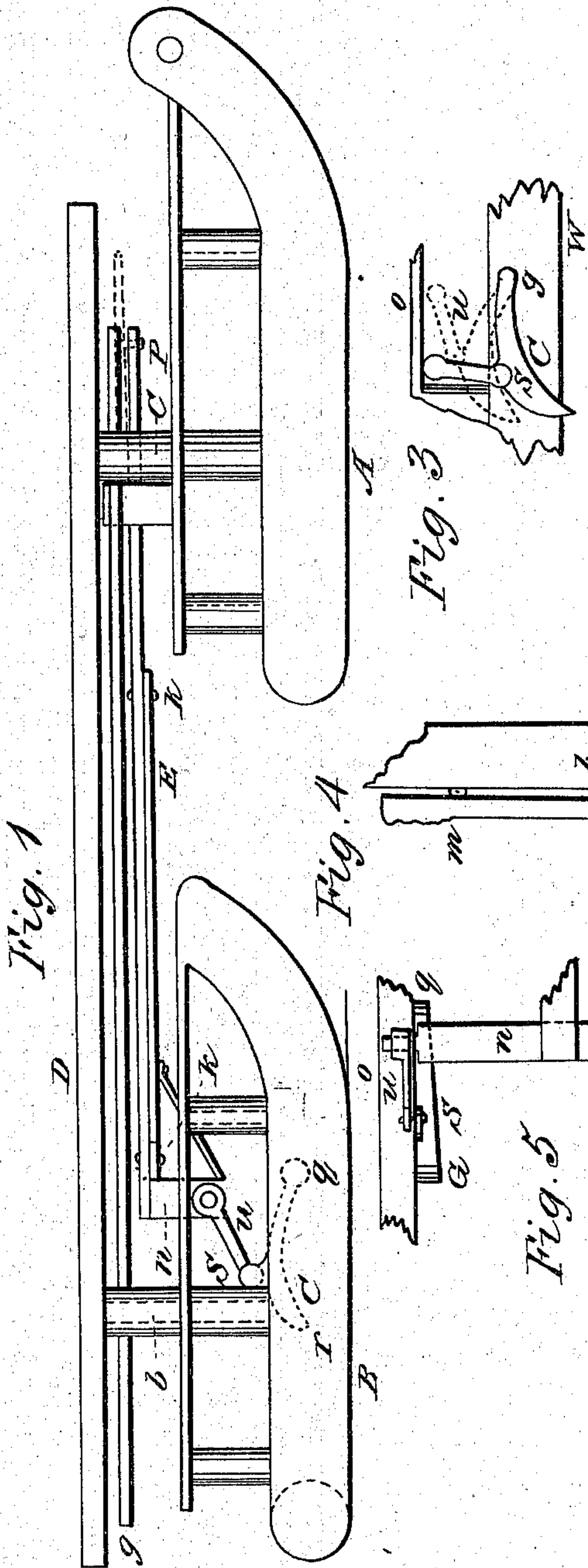


C. M. LUFKIN.

Sled Brake.

No. 97,661.

Patented Dec. 7, 1869.



Witnesses:
Samuel K. Elyell
Amos Stevens

Inventor:
C. M. Lufkin

United States Patent Office.

C. M. LUFKIN, OF ALSTEAD, NEW HAMPSHIRE.

Letters Patent No. 97,661, dated December 7, 1869.

IMPROVED SLED-BRAKE.

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, C. M. LUFKIN, of Alstead, in the county of Cheshire, and State of New Hampshire, have invented a new and useful Improvement in Sled-Brakes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a side sectional view of my invention.

Figure 2 is a top or plan view of the same.

Figure 3 is a detached side view, as seen from the inside.

Figure 4 is a detached section, as seen from behind.

Figure 5 is a detached top view of the grapples.

This invention consists in attaching a grapple to the runner, or some convenient part of the sled, in such a manner that the grapple will be depressed below the bottom of the runner, by the sliding motion of the sled, as the team holds back; and when the team draws, the connection is such, that the grapple is drawn up above the surface of the road, as hereinafter fully shown and described, the sled being of the kind which is commonly termed a traverse, or double sled.

The object of this invention is to obtain a self-acting brake or grapple, which will always be adjusted into proper position, to retard the velocity and momentum of the sled when going down hill.

To enable those skilled in the art to fully understand my invention I will proceed to describe it.

A represents the forward sled, to which the team is attached to the pole E, and connected with the hind sled B by means of the pivot-bolt *a*, rocker *f*, bunks *b c*, and reaches *g g* and *e*, and hinges *m m*.

D represents the body of the sled, which rests on the bunks *b c*; and may be removed at pleasure, when it is desired to be changed into a logging-sled, and not interfere with the brakeing arrangement.

These parts may be of the ordinary form as those generally used.

The forward bunk *c* rests independently on the rocker-plate *d*, and can move forward and backward freely, as the team holds or draws, and laterally, as the team turns to the right or left, and is retained in its position by means of the reach *e* passing loosely through the bunk *c*, and firmly connected with the rocker *f*, which is securely attached to the rocker-plate *d* by means of the pivot-bolt *a*.

The hind bunk *b* is connected to the forward bunk *c* by means of reaches *g g*, which can be slid backward through the bunk *c*, and held by pins *h h*; also, the hind bunk *b* can be slid backward on the reaches *g g*,

and secured by pins *i i*, when it is desired to use it for drawing long logs or timber; also, the double-reach, or extension-reach *e*, can be extended any desirable length by sliding its parts, and changing the places of the bolts *k k*.

The grapple cross-bar *n* is firmly attached to the extension-reach *e*, and slides on the rails *o o*, which form guides for the same.

O O represents grapples, which are attached at the forward end, *q*, to the sled by means of a bolt, on which they turn, so as to admit of an upward and downward movement at the points *r r*; and on the upper side are uprights, *s s*, which are jointed to connection-rods or pitmen *u u*, which are also jointed to the ends of cross-bar *n*.

On the reach *e*, at the forward end, is attached a button, *p*, at such a distance from the bunk *c*, that when turned across the reach, at right angles, it gives a chance for the bunk *c* to slide forward on the rocker-plate *d*, sufficiently to operate the brake or grapples O O, as hereinafter fully described; and when the button *p* is turned around upon the reach *e*, so as to be parallel with it, it holds the bunk *c* firmly in its place, so that when the team is backed, it will not operate the grapples O O.

This arrangement is such, that when the team is drawing, the bunk *c* is drawn back firmly against the rocker *f*; but when the sled is in motion, and the team holds back, the bunk *c* slides forward on the rocker-plate as far as the button *p*, thereby bringing the hind sled B nearer the forward sled A, while the cross-bar *n* retains its position relative to that of the forward sled A, thereby forcing the grapples O O downward, beneath the bottom of the runners *w w*, placing a portion of the weight of the sled directly over the points *r r*, and retaining them in this position until the team draws, thereby bringing the sleds into their proper position, and raising the grapples O O up above the bottom of the runners *w w*.

I do not claim connecting two sleds together, to form one sled, for that is an old and well-known device; but

I do claim as new, and desire to secure by Letters Patent—

The combination of the grapples O O, connection-rods *u u*, cross-bar *n*, reach *e*, rocker *f*, and button *p*, when attached to a traverse-sled, substantially as herein set forth, for the purpose specified.

C. M. LUFKIN.

Witnesses:

SAML. K. ELWELL,
AMOS STEVENS.