W. Dewit.

Hay Elevator.

No. 102,377. Patented Apr. 26, 1870.

Fig. 1.

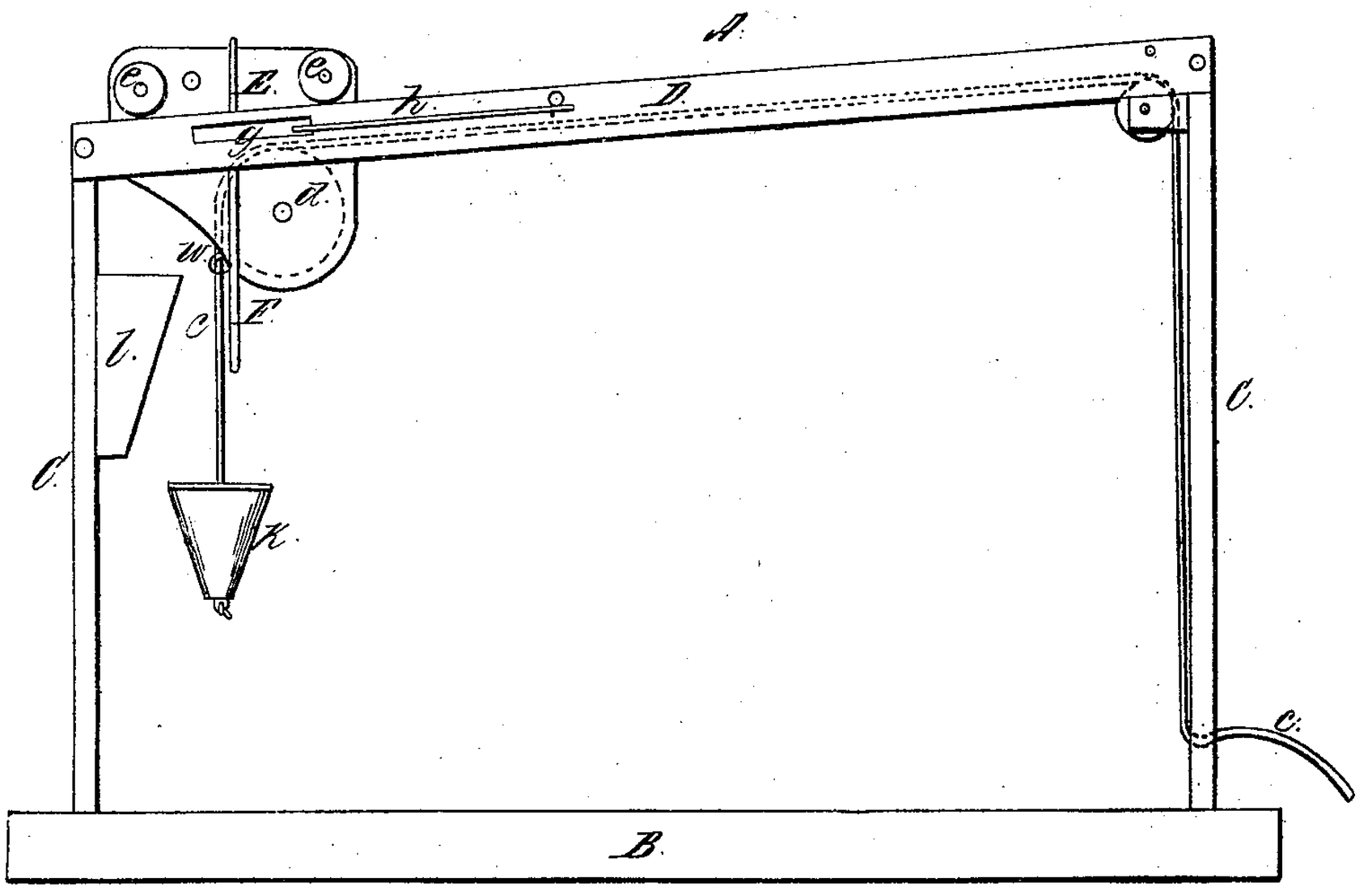


Fig. 2.

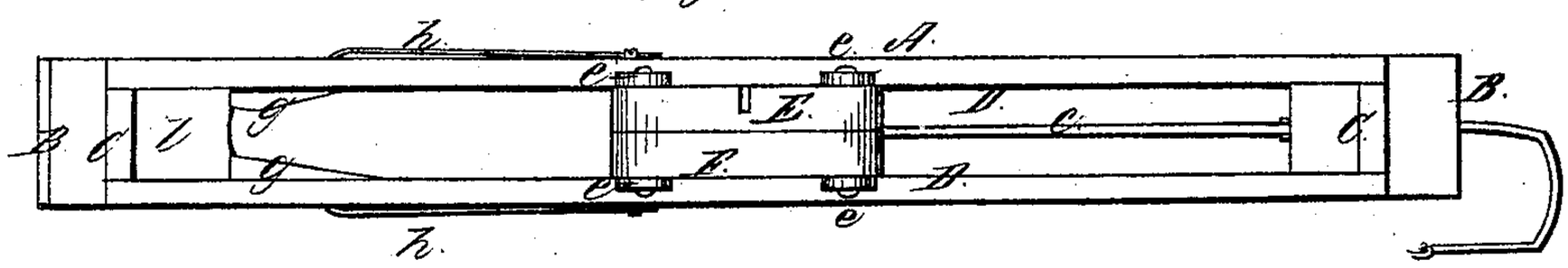
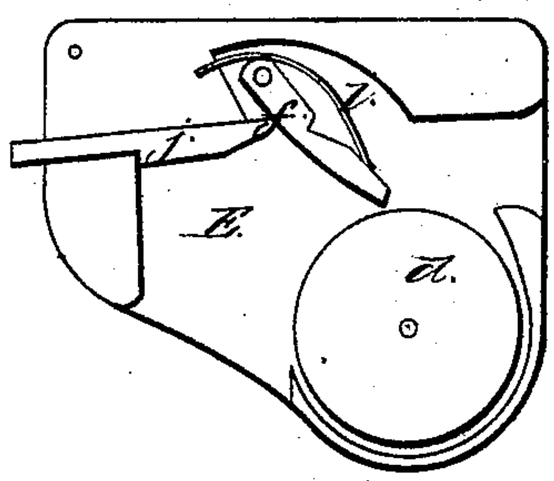


Fig. 3.



Witnesses:
Jno A Ellis
Jas V White

Inventor:
W Dewit.
per Jno N Alexander
Atty

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

United States Patent Office.

WELMAN DE WITT, OF TALLMADGE, MICHIGAN.

Letters Patent No. 102,377, *dated April* 26, 1870.

IMPROVEMENT IN CONVEYER-BLOCKS.

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, WELMAN DE WITT, of Tallmadge, in the county of Ottawa and State of Michigan, have invented certain new and useful Improvements in Conveyer-Blocks; and I 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, which form a part of this specification, in which—

Figure 1 represents a side elevation of my machine;

Figure 2, a plan; and

Figure 3 represents a side view of the block, with one side removed, showing its internal construction.

To enable others skilled in the art to make and employ my invention, I will now proceed to describe its construction and operation.

A represents the frame of my machine, which consists of the ground-sill B and uprights C C, said uprights being furnished on each side, at their upper ends, with the bars or ways D D, which are placed in an inclined position, the cause of which will be more fully apparent hereafter.

These bars or ways are cut or provided at their lower portions with two slots, into which are pivoted the stays *g g*.

Secured at one end to the sides of the bars D D, and having their opposite ends resting against the stays *g g*, are the springs *h h*.

E designates the movable block, made as represented in figs. 1 and 2, and situated between the ways D D, upon which it is conveyed back and forth by means of wheels *e e*.

This block is made or provided on each of its sides with a vertical groove, into which slides up and down the staple-like device F.

The lower part of this device, it will be observed, is bulged or formed larger than its upper end, the object of which is to enable it, when operated, to disengage the stays *g g* from their recesses made in the block E, and thus allow said block to be set at liberty.

The upper ends of this device are bent, so as to rest on the top of block E.

d represents a shive pivoted inside of block E, and *f* a pawl, which its pivoted at its upper end, and having its lower end pressing against the shive *d*.

i designates a spring, which is bent so as to keep the pawl in place against the shive *d*.

j is a movable bar.

One end of said bar is made to fit in a recess on the pawl *f*, and its opposite end caused to project outward a short distance beyond the block E, and rest against the upright C.

c represents a cord, secured at one end to the cone-shaped block *k*, and passing over the shive *d*. From thence it is conveyed over a pulley placed in the upper end of the ways D D, and then allowed to enter an opening or hole near the lower end of the upright C, after which it is secured to the horse.

l designates a guide, fastened to the inner side of the lower upright C, near its upper end.

Said guide is grooved so as to correspond with the cone-shaped block *k*, in order to give the desired inclination to said block, and thus allow it, when drawn up, to strike against the staple-like device F.

u designates a knot in the cord, near its lower end, the object of which will be seen hereafter.

In operating my machine the horse will be hitched to the outer end of cord *c*. The block *k* will now be drawn up until the staple-like device F, with which it comes in contact, shall have been pushed up so that its bulged part will press the stays *g g* out, and thus disengage them from block E, and allow said block to be left free to operate.

At the same time the knot in cord *c* will have passed the top of shive *d*, and the pawl *f* being relieved, will be pressed by the spring *i*, or its own weight on the cord *c*, behind the knot.

The office of the knot is to prevent the weight attached to block *k* from drawing the cord past the pawl, and thus causing the weight to descend before it reaches the upper end of the ways D D.

As soon as the block *k* with its freight has reached the upper end of the ways and the freight discharged, the horse will be backed, and the block E will descend on the ways to its original position.

It will be remarked that a hook may be attached to the cord at the lower end of the block *k*, when it is desired to elevate hay, or a box or other vessel may be likewise used, when desired to raise coal or other material.

I do not claim the use of a movable block, traveling on inclined ways and held stationary until released by the weight when raised, as such devices have been heretofore patented; but

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

The combination of the block E and staple-like device F with the stays *g*, springs *h*, guide *l*, and block *k*, when arranged and operating substantially as described.

In testimony that I claim the foregoing as my own, I affix my signature in presence of two witnesses.

WELMAN DE WITT.

Witnesses:

GEO. W. DANFORTH,

JOSEPH BROWN.