

(Model.)

2 Sheets—Sheet 1.

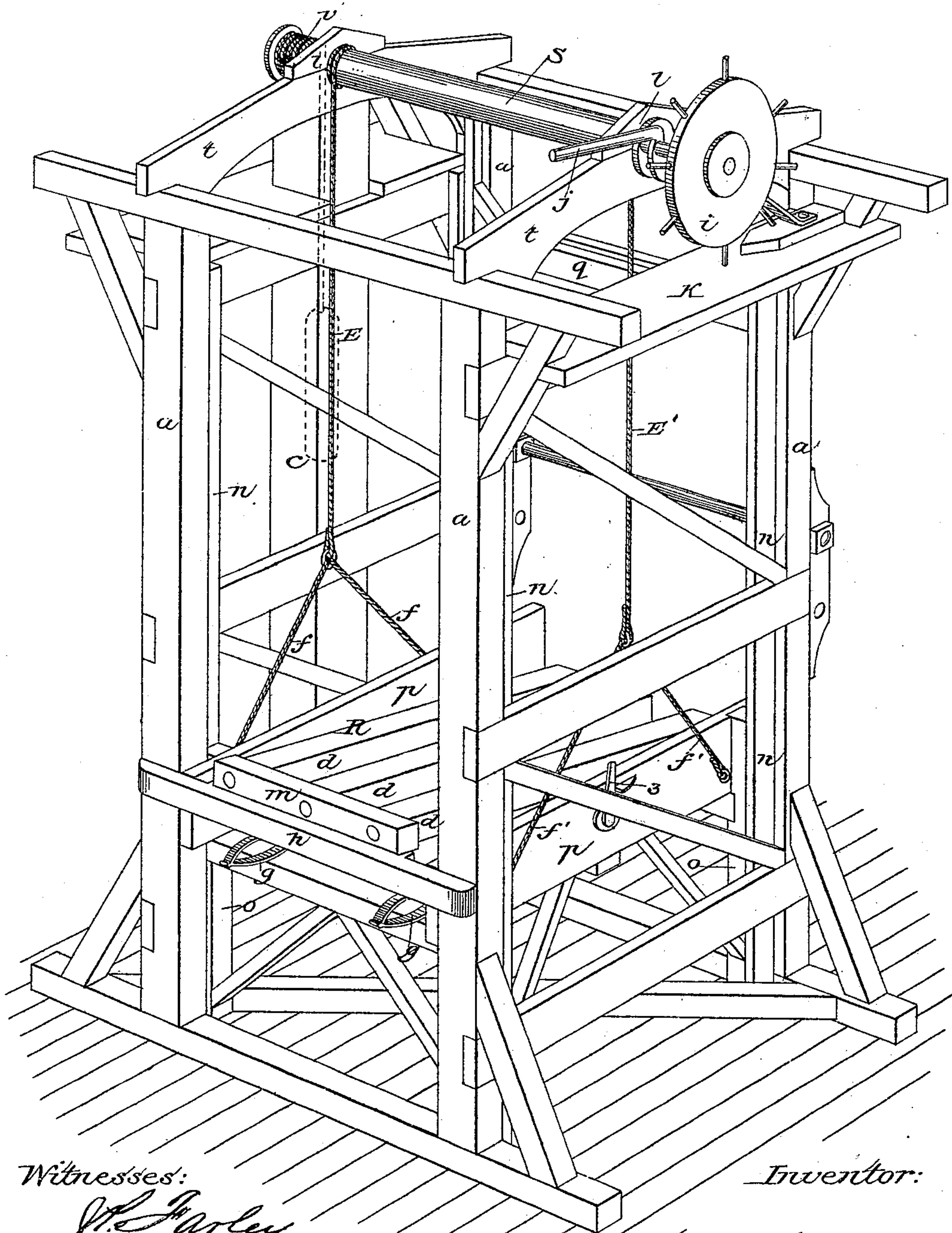
C. RUNDLETT.

MACHINE FOR LOWERING ICE, &c.

No. 248,614.

Patented Oct. 25, 1881.

Fig. 1.



Witnesses:

J. H. Farley
E. S. Hogg

Inventor:

Charles Rundlett
By W. F. Choate
Att'y in Fact

(Model.)

2 Sheets—Sheet 2

C. RUNDLETT.

MACHINE FOR LOWERING ICE, &c.

No. 248,614.

Patented Oct. 25, 1881.

Fig. 2.

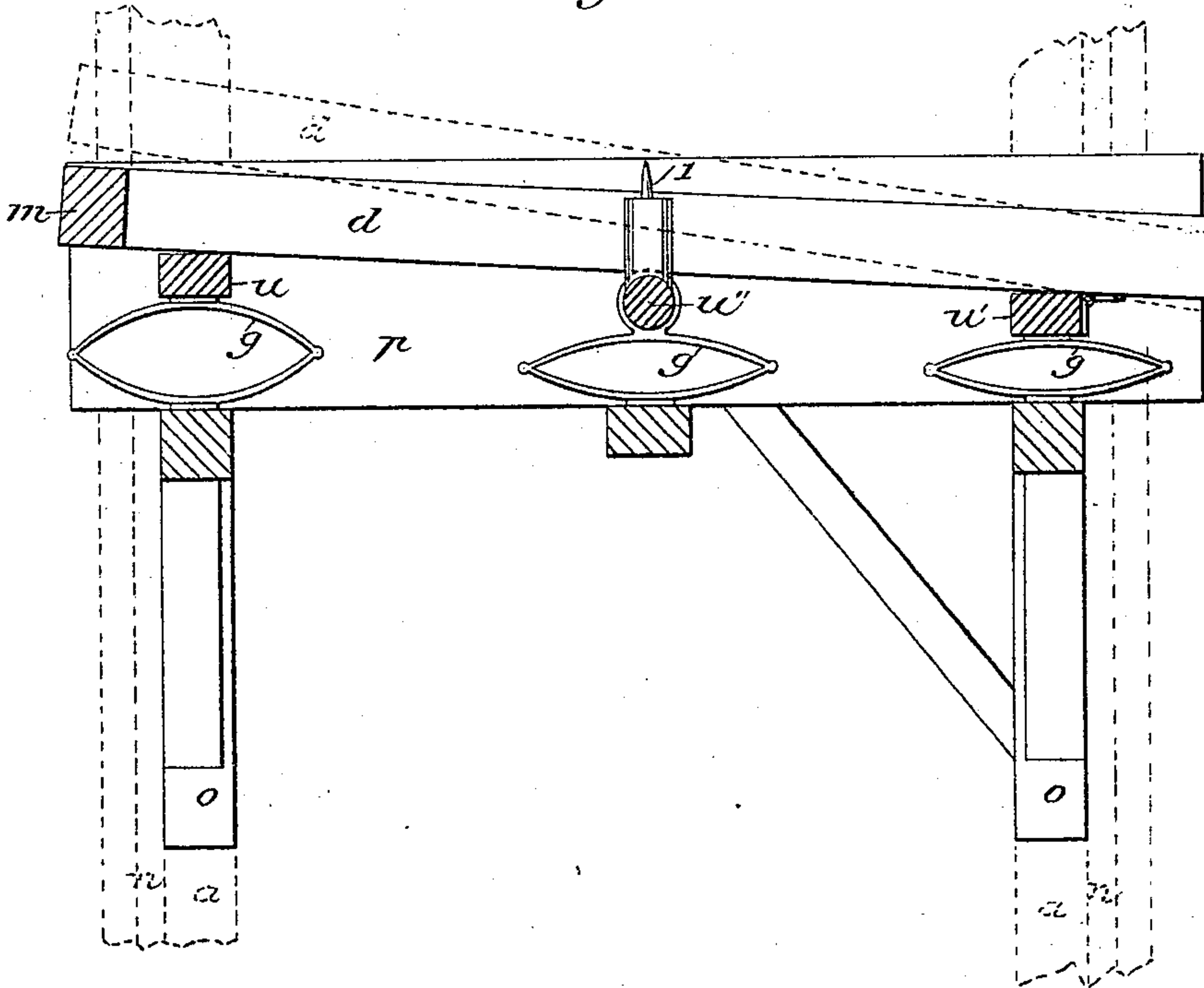
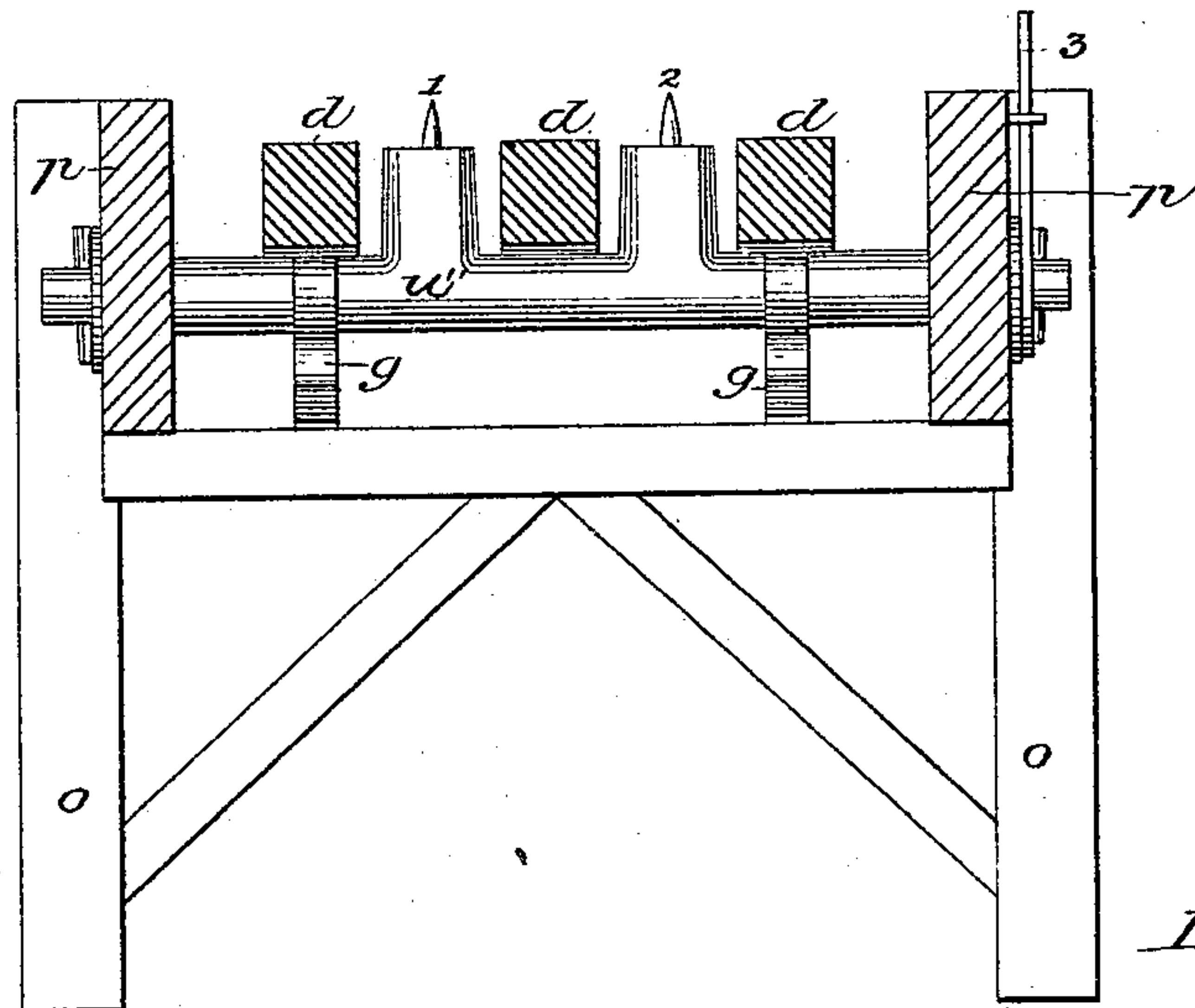


Fig. 3.



Witnesses:

H. Harley
E.S. #099.

Inventor:

Charles Rundlett
By *H. Croato*
Atty in fact

UNITED STATES PATENT OFFICE.

CHARLES RUNDLETT, OF FARMINGDALE, MAINE.

MACHINE FOR LOWERING ICE, &c.

SPECIFICATION forming part of Letters Patent No. 248,614, dated October 25, 1881.

Application filed August 5, 1881. (Model.)

To all whom it may concern:

Be it known that I, CHARLES RUNDLETT, of Farmingdale, in the county of Kennebec and State of Maine, have invented a new and useful Improvement in Machines for Lowering Ice, &c., which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a view in perspective, and Fig. 2 a detailed view, of the drop, which, in Fig. 1, is designated as R. Fig. 3 represents the detail of the drop in part, and will aid in a clear understanding of my invention, like letters of reference in the several drawings indicating like parts.

The object of my invention is to facilitate the lowering of ice from the houses where stored to the slip running to the car or vessel, or into the hold of the vessel; and it may be applied in the same manner to lower other merchandise. It is automatic in its action, and requires but little attention for its operation.

In Fig. 1, *a a a a* are four posts, which are the uprights of the frame-work, and also the guides to keep the drop in proper position as it runs up and down. *k* is a platform for the operator to stand upon to manage the brake *j*, and the wheel *i* across the top of the frame-work resting upon the top pieces, *t t*, and turning in the boxes *l l* is the shaft *S*. Around one end of this is the rope *v*, to which is attached the weight *c*, which may be boxed to prevent accidents and keep the same in place. Near the sides of the frame-work, wound in an opposite direction to the rope *v*, are the ropes *e e'*. These are connected to the drop R—*e* by the ropes *f f*, *e'* by the ropes *f' f'* at the corners thereof. *h* is a cross-piece made fast to the frame-work at the required height, and serving to tip the top of the drop. It will be more fully explained in Fig. 2. The parts above designated are the principal working parts, excepting the bunter *q*, which is so applied as to be lowered as the ice in the house is lowered, and stops the cake of ice when it is on the drop. The construction of the different parts may be varied to suit the location and work to be performed.

Fig. 2 shows the construction of the drop. The drop is kept in place by uprights upon

the posts *a a a a*, as indicated by *n n*, or by grooves cut therein. *o o o o* are the four corner-pieces of the drop, and are made of sufficient length to keep the drop steady in going up and down. To these are secured the sides *p p* and the cross-bars *d d d*, completing the solid frame-work of the drop, except such braces as may be necessary to render the whole firm. Upon each of the cross-bars *d d d* is another cross-bar, *u u' u''* respectively, and these are connected to the bars *d d d*, each by two springs, *g g*, &c. Upon the three bars *u u' u''* rests the top of the drop *m*, on which the ice, &c., is placed. This top is not connected to the bars *u* and *u''*, but is hinged to the bar *u'*. This allows the opposite end to be raised from the bars *u u''*, which is done when the ice, &c., is unloaded from the drop, and is effected by the cross-piece *h* engaging the end of the top of the drop as it descends.

The whole operates as follows: When there is no weight upon the drop the weight *c* unwinds the rope *v* and winds up the ropes *e e'*. This raises the drop to the required height, and it may be regulated by lengthening or shortening the rope *v*, or by the brake *j*. The ice or other article to be lowered is then run upon the drop, and by this increased weight the drop falls and raises the weight *c*, the speed being regulated by the brake *j* or wheel *i*. When the drop falls far enough for the top *m* to strike the cross-piece *h*, the top *m* is tipped and whatever is on the top slides off. This relieves the drop, and it is at once returned to place by the weight *c*, and is ready to receive another load. The springs *g g*, &c., prevent a sudden jar of the drop when receiving the load or when stopping. When it is desirable to do more work than can be done by one drop, another may be put on the same shaft in place of the weight *c*, and the operation will be the same as described.

In place of the bunter *q*, perpendicular joist may be placed to receive the ice, &c., as it comes upon the drop.

If convenient, the drop may be worked by an engine or other power, the loading and unloading taking place as described.

It is obvious that chains may be used where ropes have been specified—at *v e e'*, &c.

The cross-bar *u'* is constructed so that it may be turned by the crank 3, which will bring the points 2 2 in contact with the ice and prevent its slipping while on the drop.

5 I claim as my invention—

1. The drop composed of the uprights *o o o o*, cross-bars *d d d* and *u u' u''*, connected by the springs *g g g g g g*, together with the sides *p* and top *m*, as constructed and operating as
10 set forth.

2. A machine for lowering ice and other merchandise, composed of the frame-work *a a a a*

t t, the drop R, cross-piece *h*, shaft S, weight *c*, and brake *j*, connected and operating by ropes, as fully set forth and described.

3. The combination of the frame-work *a a a a* and *t t*, the drop R, cross-piece *h*, shaft S, and weight *c*, or its equivalent, connected and operating in substance as described. 15

CHARLES RUNDLETT.

Witnesses:

E. I. FOGG,

W. S. CHOATE.