A. HUNT.

Storing and Removing Ice.

No. 164,001. Patented June 1, 1875.

Fig. 1.

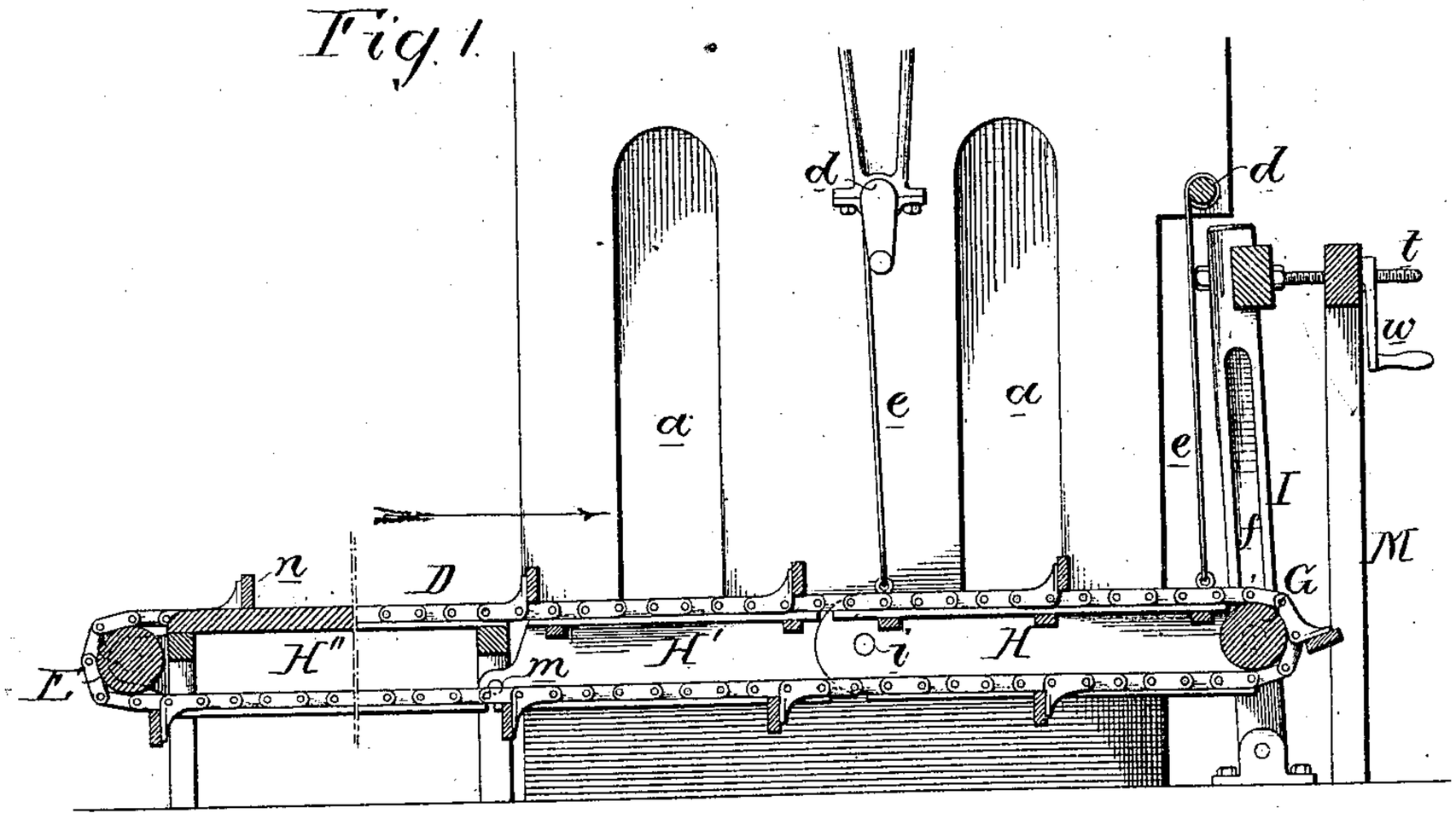
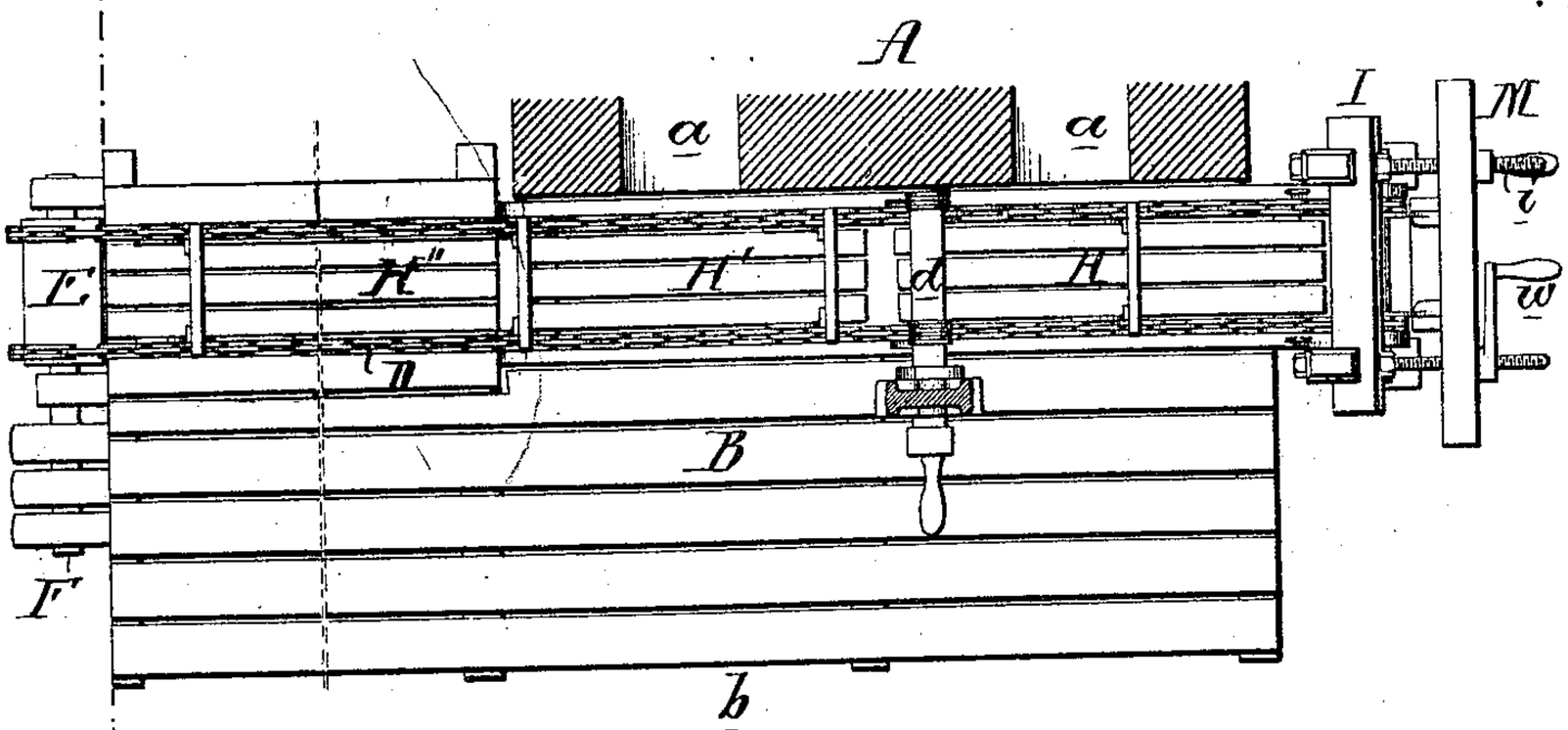


Fig. 2.



Witnesses.
Harry Smith
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by his Attorneys,
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UNITED STATES PATENT OFFICE.

AUGUSTUS HUNT, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE KNICKERBOCKER ICE COMPANY, OF SAME PLACE.

IMPROVEMENT IN STORING AND REMOVING ICE.

Specification forming part of Letters Patent No. **164,001**, dated June 1, 1875; application filed April 30, 1875.

To all whom it may concern:

Be it known that I, AUGUSTUS HUNT, of Philadelphia, Pennsylvania, have invented certain Improvements in Storing and Removing Ice, of which the following is a specification:

The object of my invention is to afford facilities for storing ice in, and removing it from, ice-houses; and this object I attain in the manner which I will now proceed to describe, reference being had to the accompanying drawing, in which—

Figure 1 represents an elevation of part of an ice-house with my improvements; and Fig. 2, a plan view of Fig. 1.

A represents part of a wall of the ice-house, having the usual openings *a*, and adjoining this wall is a platform, B, of such a height above the ground that when the ice-wagons are backed up against it, the blocks of ice can be easily transferred from the platform to the wagons, or from the latter to the former. Two endless chains, D D, pass round a drum or chain-pulleys, E, on a driving-shaft, F, which is adapted to suitable bearings secured to the end of the platform B, or any appropriate frame-work or foundation, the chains also passing round a drum or pulleys, G, on a shaft, which is arranged to turn in the outer end of a frame, H, the latter being hinged at *i* to a second frame, H′, which is hinged at *m* to a permanent frame, H″. The links traverse above and below on suitable ways on the permanent and hinged frames, and each frame has between the two chains a platform, on which the ice can slide, the platform of the permanent frame H″ being level with the main platform B. The ice is propelled along these platforms by transverse bars *n*, which extend from chain to chain at intervals. Shafts *d d* are situated directly above this articulated frame, the shafts being adapted to hangers or brackets secured to the wall of the ice-house, or to any suitable frame-work connected thereto, and from each shaft extends a chain or rope, *e*, to the frame H, so that by turning the shafts the said frame H, as well as the adjoining frame H′, can be raised and lowered at pleasure, each shaft being secured by a pawl and ratchet or other suitable device when the frames have been adjusted to the desired position. The ends of the shaft to which the chain drum or pulleys G is attached are adapted to guides *f* in a frame, I, the lower end of which is hinged to a suitable foundation or frame, the upper end of the said rocking frame being connected to a permanent frame, M, by screws *t* and handled nuts *w*, or other equivalent devices, by which the rocking frame and its guides may be adjusted to suit the proper position of the shaft of the drum G, as demanded by the chains in adjusting the articulated frame. In other words, the chains can always be kept tight by the adjustment of the rocking frame, whatever may be the position of the articulated frame.

When a wagon with a load of ice has been backed against the platform B opposite the platform of the permanent frame H″, the blocks of ice are moved onto the latter platform, whence they are pushed by the cross-bars *n* of the chains, the latter traversing in the direction of the arrow onto the platform of the frame H′, and thence onto that of the frame H, whence they may be pushed laterally into the openings *a a* of the ice-house.

As the mass of ice in the house increases in altitude, the articulated frame and endless chains are elevated accordingly, thereby obviating the necessity of elevating each block of ice separately.

In loading wagons with ice during the summer months, the articulated frame will be adjusted to suit the level of the mass in the house, and the blocks of this mass will be moved onto the platforms of the articulated frame, and, aided by the endless chains, which, in this case will traverse in a direction contrary to that pointed out by the arrow, will descend to the level of the platform B, along which they may be removed to the wagons.

The platform B may be on a wharf, alongside of which vessels loaded with ice may be moved, or the outer end of the platform may form part of a wharf, while the side *b* of the same may be adapted to ice-wagons, or the platform may be arranged alongside of a railroad-track, in order to load ice into or unload it directly from a car.

The articulated frame may in some cases

project into the ice-house, the locality of which will, in fact, determine the position of the frame.

Although this frame is illustrated in the drawing, and has been described in the specification as consisting of three parts—namely, the hinged portions H and H′ and the permanent portion H″, there may be as many more than two hinged portions as the location of the ice-house and other circumstances may suggest.

I claim as my invention—

1. The combination of an ice-house and an adjoining platform, B, with an articulated and adjustable frame and endless chains, substantially as described, for the purpose specified.

2. The combination of the articulated frame, the endless chains, chain drum or pulleys E on the driving-shaft, and chain drum or pulleys G with the adjustable frame I.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

AUGUSTUS HUNT.

Witnesses:

HUBERT HOWSON,

HARRY SMITH.