(No Model.) 2 Sheets—Sheet 1.

J. R. ECCLES.

ICE ELEVATOR MECHANISM.

No. 312,616. Patented Feb. 24, 1885.

Fig. 1

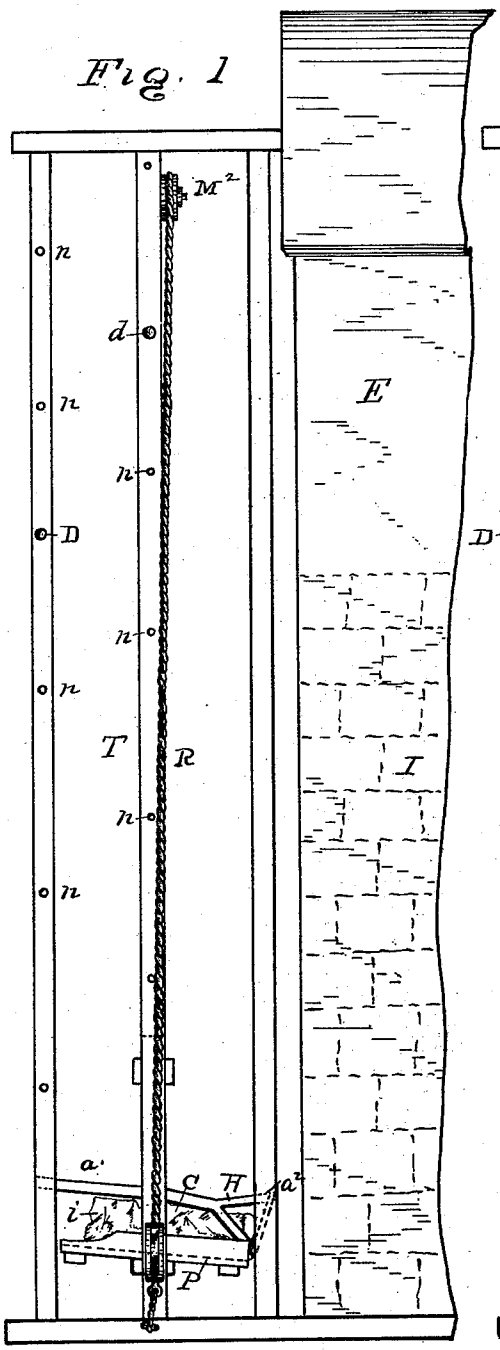
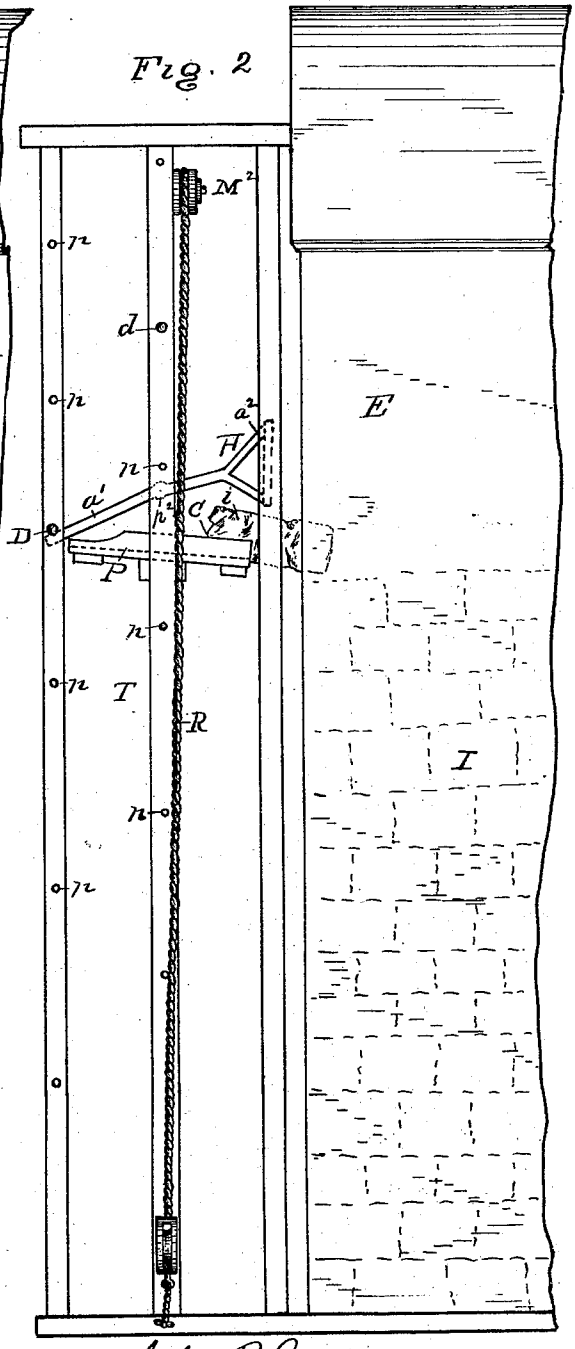


Fig. 2



WITNESSES:

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W. B. McMillen

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W E Hagan his ATTORNEY

N. PETERS. Photo-Lithographer, Washington, D. C.

(No Model.) 2 Sheets—Sheet 2.

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Fig. 3

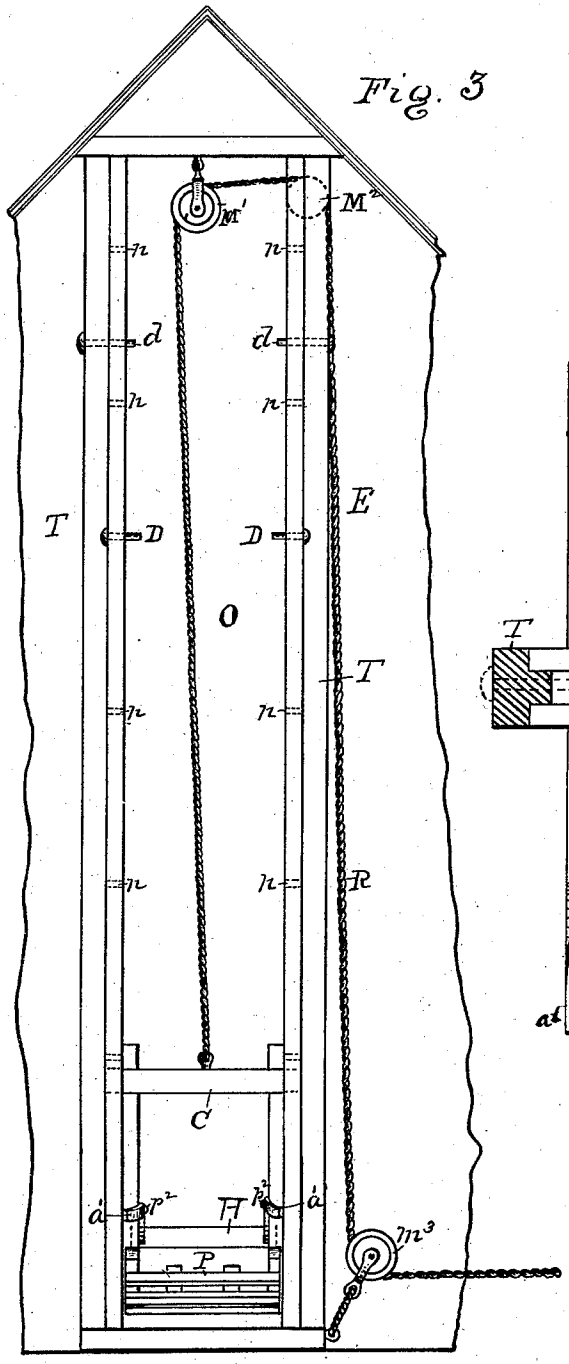
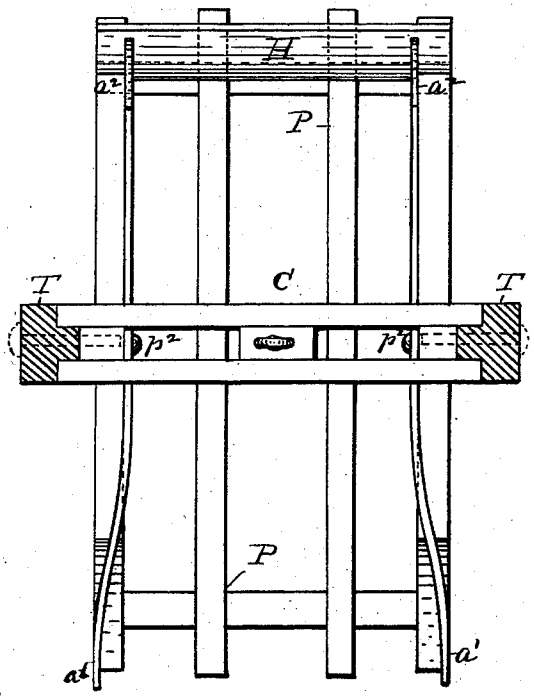


Fig. 4



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UNITED STATES PATENT OFFICE.

JOHN R. ECCLES, OF WATERFORD, NEW YORK.

ICE-ELEVATOR MECHANISM.

SPECIFICATION forming part of Letters Patent No. 312,616, dated February 24, 1885.

Application filed January 5, 1885. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. ECCLES, of Waterford, Saratoga county, State of New York, have invented a new and useful Improvement in Ice-Elevator Mechanism, of which the following is a specification.

My invention relates to elevators that are used in housing or storing ice; and the object and purpose of my invention is to construct the elevator mechanism to automatically deliver its load when raised to the proper point for its storage, with the point at which this delivery shall take place vertically adjustable with reference to the track or guideways in which the elevator-platform moves. Ice, as is well known, is stored in a series of superimposed layers, with the ice-cakes forming the latter raised and supplied through a vertical opening in the end of the housing-inclosure, extending from the top to the bottom of the latter.

My invention consists, as will be hereinafter more fully detailed in connection with its illustration, in the combination, with an ice-elevator platform that is adapted to be raised or lowered in guideways, and which platform is made to slant toward the receiving-opening of the inclosure wherein the ice is to be stored, of a pivoted holder adapted to retain the ice-cake on the inclined platform of the elevator-car when the latter is being raised, the said holder being provided with a projecting arm that is constructed to engage with a detent or pin in the track-frame or guideway of the elevator-car, so as to raise up that end of the holder which retains the ice-cake on the platform, to thus free it, so that by gravity it will slide into the inclosure through the adjacent opening and from off the incline of the platform, it being a feature of my invention, also, that the detent or pin which operates the holder to release the ice-cake shall be adjustable vertically in the track-frame or guideway of the car, so as to make operative the holder in releasing the ice-cake when opposite each point at which a layer of ice-cakes is being deposited within the inclosure.

Accompanying this specification, to form a part of it, there are two plates of drawings, containing four figures, illustrating my invention, with the same designation of parts by letter-reference used in all of them.

Of these illustrations, Figure 1 shows a combined vertical section and side elevation of the housing or inclosure, the elevator vertical track or guideway, the car made with an inclined platform, and the holder, the said parts being shown with the car as down and as having received its load. Fig. 2 shows the same parts that are shown in Fig. 1, with the exception that the car is shown as elevated or raised to the top layer of stored ice-cakes, and the holder as being operated upon the detent-pin to free the ice-cake on the platform, so that it may by gravity slide into the inclosure. Fig. 3 illustrates a front elevation of the inclosure, the vertical track, and the elevator-car, the latter being shown as down. Fig. 4 shows a plan view of the elevator-car and a horizontal section of the guideway or track.

The several parts of the apparatus and those constituting my invention are designated by letter-reference, and the function of the parts is described as follows:

The letter E indicates the housings or inclosure; O, an opening made therein to receive the ice-cakes, and I the superimposed layers of the latter deposited therein.

The letter T designates the vertical track or guideway of the elevator-car or "jumper," as it is termed by those engaged in the ice-storage business, and C the car, made with a platform, P, that inclines downwardly toward the opening in the inclosure or housing.

The letter H designates a holder that is pivoted to the car or jumper side at p^2, and so arranged where adjacent to the lower side of the platform as to loop around the end of the ice-cake placed thereon for elevation. This holder H is made with the arms a', which project from the car frontwardly, and opposite the higher part of the platform.

The letters D designate pins or detents adapted to fit into holes n, made in the vertical guides or track T at such points between the top and bottom of the latter as it may be desirable to operate the holder to release the ice-cake.

The letters R designate the rope or chain by which the car is raised, and this rope passes over pulleys M' M^2, and descends to a snatch-block pulley, m^3, by which rope the car or jumper is raised or lowered; and the letters d indicate adjustable stops arranged in the guide-

ways T, by which the ascent of the car or jumper is arrested when opposite the proper delivery-point in the opening O.

The parts thus illustrated and described are operated in the following manner: A cake of ice, *i*, having been from a run deposited on the platform P, slides in and is held thereon by the holder H. When the car or jumper is raised, the holder retains the ice-cake on the incline, and just before the car or jumper C is arrested by the pin or stop *d* on the vertical guideways or track, the arms *a'* of the holder engage with the pin or detent D, which forces downwardly on its pivoted connection the outwardly-projected arms *a'*, and raises upwardly its inner end, a^2, the latter, in rising, freeing the ice-cake *i*, which slides from the inclined platform into the inclosure.

To raise the elevator car or jumper, any well-known means may be used, and the form of the car or jumper may be variously modified, provided an inclined platform is used, and a pivoted holder is combined therewith which will retain the ice-cake on the incline and automatically release the cake when opposite the required storage-level in substantially the same manner. The holder may also be modified, provided it be constructed to retain the ice-cake on the platform, and be operated on its pivoted connection with the car to relieve the ice-cake in substantially the same manner.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination, with an ice-elevator car or jumper that is adapted to run in vertical guideways, of a platform inclining toward the delivery side of the car or jumper, a holder pivoted to the sides of the latter, and a detent or pin on the vertical guideway, said parts being constructed and arranged to operate substantially in the manner as and for the purposes set forth.

2. The combination, with an ice-elevator mechanism, of a car or jumper adapted to run on vertical guideways and having an inclined platform, a holder pivoted to the sides of the car or jumper, a detent-pin constructed to attach to the guideway at different vertical distances, and a detent made to arrest the ascent of the jumper or car, substantially as and for the purposes set forth.

Signed at Troy, New York, this 31st day of December, 1884, and in the presence of the two witnesses whose names are hereto written.

JOHN R. ECCLES.

Witnesses:
W. B. M. MILLER,
CHARLES S. BRINTNALL.