(No Model.)

J. H. TARDY.

ELEVATOR.

No. 487,104. Patented Nov. 29, 1892.

Fig. 1.

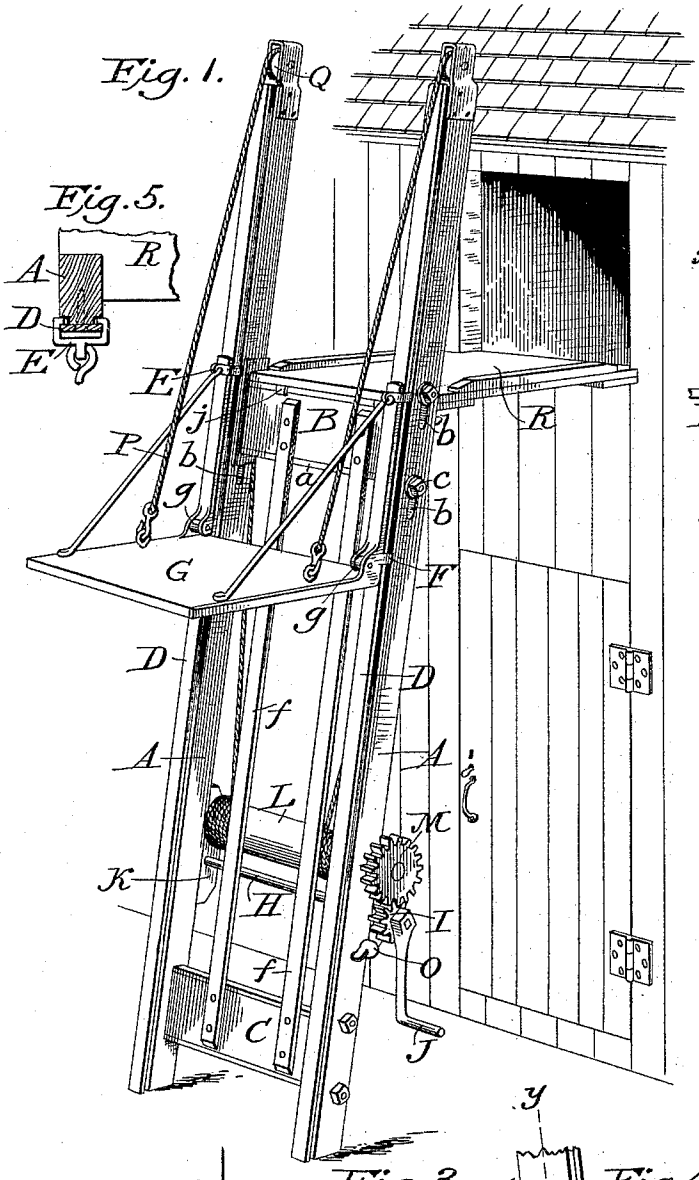


Fig. 5.

Fig. 2.

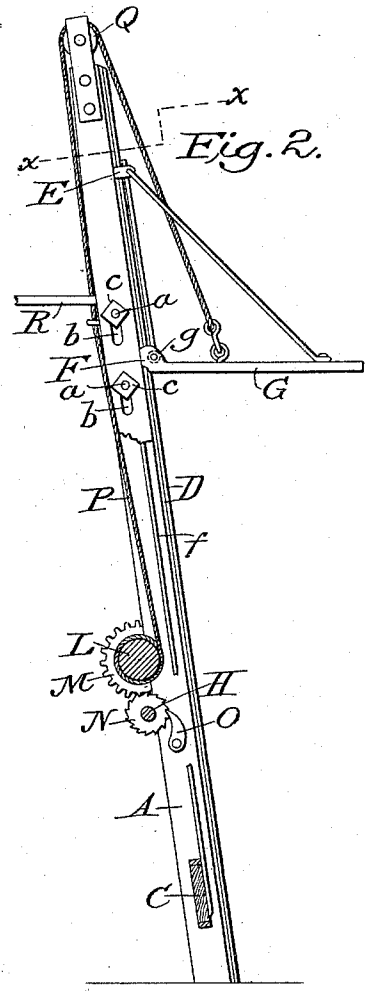


Fig. 3.

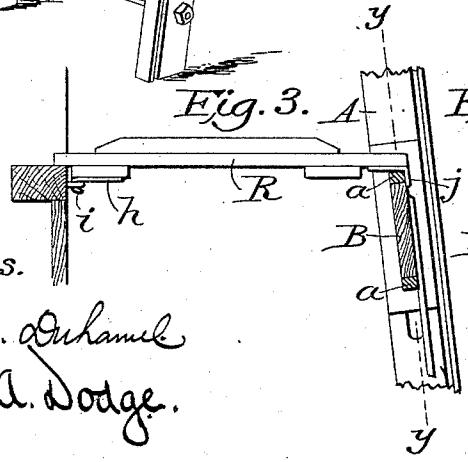
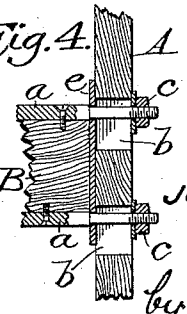


Fig. 4.



Witnesses.

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Horace A. Dodge.

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UNITED STATES PATENT OFFICE.

JULES H. TARDY, OF GLENCOE, MINNESOTA.

ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 487,104, dated November 29, 1892.

Application filed August 25, 1892. Serial No. 444,145. (No model.)

To all whom it may concern:

Be it known that I, JULES H. TARDY, a citizen of the United States, residing at Glencoe, in the county of McLeod and State of Minnesota, have invented certain new and useful Improvements in Elevators, of which the following is a specification.

My invention relates to elevators, and has reference more particularly to that class of elevators used for lifting ice, although the invention is applicable to other analogous uses.

In the accompanying drawings, Figure 1 is a perspective view of my improved ice-elevator as it appears when in use; Fig. 2, a side view of the same, partly in section; Fig. 3, a vertical sectional view through the upper part of the elevator, showing the table or shelf, which serves as a support for the elevated ice and at the same time as a brace or support for the upper end of the elevator-frame; Fig. 4, a sectional view on the line *y y* of Fig. 3, and Fig. 5 a horizontal sectional view on the line *x x* of Fig. 2.

The main frame comprises two longitudinal bars or timbers A A, arranged parallel to each other and connected at top and bottom by cross bars or braces B and C. The bars B and C are provided on their upper and lower edges with metal straps or plates *a*, whose ends are extended outward through slots or openings *b* in the side bars A, where they are threaded and provided with nuts *c*, as more clearly illustrated in Fig. 4. A metal plate *e* will be secured to the ends of the upper bar B, which latter is designed to be adjusted with reference to the side bars or timbers A. To provide for this adjustment, the holes or openings *b* to receive the ends of the strap *a*, fastened to the upper bar B, are elongated, as shown in Figs. 1, 2, 3 and 4; but as the lower bar C is not designed to be adjusted the holes or openings *b* to receive the projecting ends of the straps *a* on bar C will not be elongated, nor will the plates *e* be used in connection with the said lower bar.

It will be observed that by loosening the nuts *c* the upper cross bar or brace B may be adjusted longitudinally of the side bars or timbers A.

The bars or braces B C are connected by one or more slats *f* to give increased strength and stiffness to the structure, the slats being preferably secured to the upper cross-bar B by means of screws, so as to permit of the ready detachment of the slats when it is desired to adjust the upper cross-bar.

Secured to the front face of each of the timbers A is a T-shaped or under-cut guiding-rail D, which extends from top to bottom, as shown in Figs. 1, 2, 3, and 5, the laterally-projecting flanges of the rails being adapted or designed to be embraced by shoes or runners E and F, secured, respectively, at the upper and lower ends of the platform or platform-frame G. At the lower inner corner of the platform or platform-frame I provide the latter with a small wheel or roller *g*, Figs. 1 and 2, which is designed to roll upon the front outer face of the rails D.

To secure the raising of the platform G with reference to the main frame, I provide a shaft H, carrying at one end a gear-wheel I and a handle J, the said shaft being journaled in suitable boxes or bearings K, secured to the rear face of the longitudinal timbers A.

L indicates a drum or roller also mounted in the blocks or bearings K and provided with a gear M to mesh with the gear I on the shaft H, as clearly shown in Fig. 1. The shaft H is provided with a ratchet-wheel N, Fig. 2, with which is designed to engage a pawl or dog O to prevent backward rotation of the shaft and the consequent accidental descent of the platform with its load.

P indicates cords, chains, or other connections of any suitable character, which are secured at one end to the platform or platform-frame G and at the opposite end to the drum or roller L, these connections, however, passing over sheaves or pulleys Q, mounted upon the upper ends of the longitudinal bars or timbers A, as shown in Figs. 1 and 2.

R indicates a shelf or table which is provided on its under side with hooks *h*, which are adapted to engage eyes or loops *i*, secured to the front of the structure to which the elevator is applied, as shown in Fig. 3. At its opposite end the shelf or table is provided with a hook or hooks *j*, adapted to engage over the front face of the upper bar or brace B, as clearly illustrated in Figs. 1 and 3, the shelf or table resting at its front or outer edge upon the upper face of the upper brace or cross-bar B.

The forward corners of the shelf or table R are notched or recessed, as shown in Fig. 5, so as to bear squarely against the rear faces of the uprights A, whereby in connection with the hooks *j* on the front of the table or shelf the upright elevator-frame will be prevented from tipping or falling in either direction.

By the employment of the table or shelf R, I am enabled to sustain the main frame in its proper position without allowing it to rest against the front of the structure, as has heretofore been required.

Another and material advantage from this construction and arrangement resides in the fact that the lower end of the elevator-frame is thrown away from the building or structure, so that the door may be opened and left open while the ice is being removed therefrom and carried to the upper story of the building. This is particularly valuable—this economy in space—in market-houses and like places where it is desired to transport the ice or other articles from a lower story to an upper story. Besides performing the function just alluded to, the shelf or table R affords a support for the article elevated by the platform G, thereby enabling the platform to descend to be reloaded while the ice or other article is being conveyed from the shelf or table into the upper story of the structure, thereby effecting a considerable saving in time.

The shelf or table R is detachable and removable both from the main frame and from the structure or building. This enables the device to be folded into compact form when not in use, and also enables it to be transported from place to place.

It is quite likely that the upper opening in the building or structure will be higher from the ground in some cases than in others, and it is for this reason that I make the upper bar or brace B adjustable with reference to the longitudinal timbers A.

Having thus described my invention, what I claim is—

1. In an elevator, the combination, with a main supporting-frame, of a platform mounted thereupon, means upon the frame for raising and lowering the platform, and a detachable shelf or table applied to the upper end of the frame, substantially as and for the purpose set forth.

2. In combination with the main frame, having a cross-bar B near the upper end thereof, a platform G, mounted upon the main frame, means upon the frame for raising and lowering the platform, and a shelf or table removably attached to the cross-bar and adapted to support the main frame, all substantially as shown and described.

3. In combination with the main frame A, the platform G, mounted thereon, means upon the frame for raising and lowering the platform, and a shelf or table R, adapted to be detachably connected at one end to a building or structure and at the opposite end to the frame of the elevator.

4. In combination with the longitudinal timbers A, the cross brace or bar B, adjustable longitudinally of the timbers A, a platform mounted upon the timbers, means for raising and lowering the platform, and a shelf or table R, detachably connected at one end to a building or structure and at the opposite end to the cross-bar.

5. In combination with the timbers A, a cross bar or brace B, provided on its upper and lower faces with the metal straps or plates *a*, the ends of said plates projecting through slots in the timbers and provided with nuts, a platform mounted upon the timbers, and means for raising and lowering the platform.

6. In combination with the main frame, the platform mounted thereon, means for raising and lowering the platform, and a table R, provided at one end with hooks *h* to engage eyes *i*, secured to the building and provided at its opposite end with shouldered corners, and with hooks *j* to engage the main frame.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

JULES H. TARDY.

Witnesses:
JOHN LINTEN,
W. C. RUSSELL.