L. ZISTEL.

ICE-ELEVATOR.

No. 186,781. Patented Jan. 30, 1877.

Fig. 1.

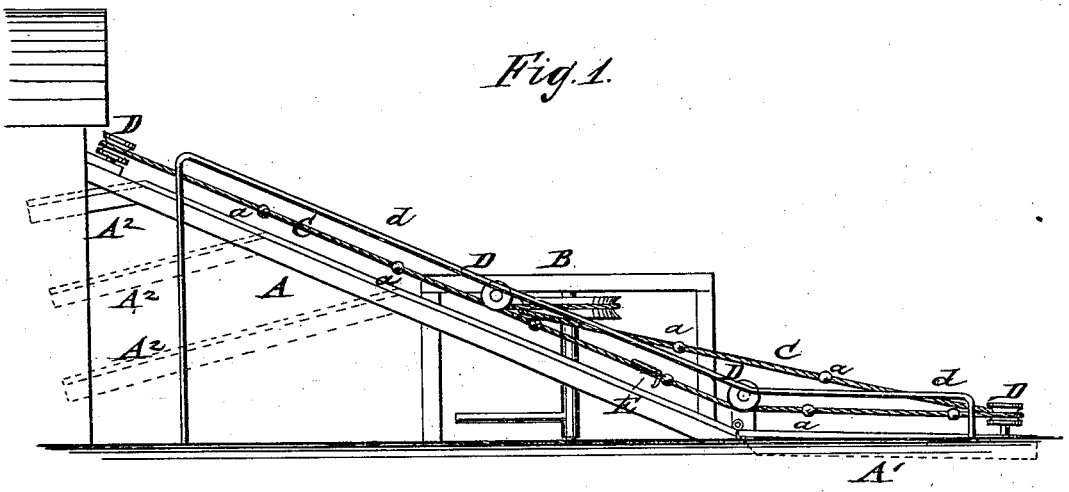


Fig. 3.

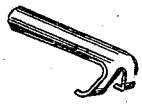
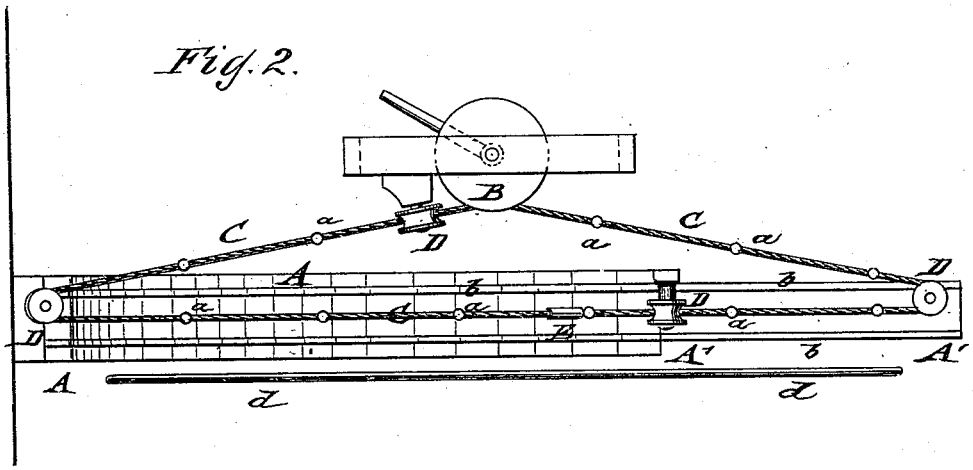


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

LOUIS ZISTEL, OF SANDUSKY, OHIO.

IMPROVEMENT IN ICE-ELEVATORS.

Specification forming part of Letters Patent No. **186,781**, dated January 30, 1877; application filed December 18, 1876.

To all whom it may concern:

Be it known that I, LOUIS ZISTEL, of Sandusky, in the county of Erie and State of Ohio, have invented a new and Improved Ice-Elevator, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a side elevation of my improved ice-elevator, and Fig. 2 a plan view of the same. Fig. 3 is a detached view of a follower for carrying the ice.

Similar letters of reference indicate corresponding parts.

The object of the invention is to provide, for the purpose of elevating ice from the water into the ice-house, a cheap, durable, and quickly-operated apparatus, that conveys the cakes of ice to any suitable height for being stored with great facility.

The invention consists of an inclined way, extending from the float in the water to the shore, and from the shore up to the highest point of the ice-house, along which an endless traveling rope is conducted, being stretched over suitable pulleys, and moved by horse or other power. Knots or balls of the rope take up a follower, and convey the cakes of ice along the way to the chutes that conduct them to the ice-house.

In the drawing, A represents an inclined way of such length as to reach from the shore up to the highest point of the ice-house. The way A is continuous from its lower end by an extension, A^1, over the float, for the purpose of taking up the cakes of ice floating in the water and transferring them directly to the inclined way. An endless rope, C, is driven by a horse or other power, B, and stretched over the pulleys D, of which one is placed on the float at the end of extension A^1, the second near the point of connection of extension A^1 and way A, the third at the highest point of the incline, and the remaining ones at such points near the power as to guide the rope in proper manner to the drum of the same. The endless rope is continually moved by the power, and arranged with knots or balls *a*, attached to the same at suitable distances, to take up by any one of the knots a fork-shaped or other follower, E, that takes hold of the cakes of ice by its claws or prongs, and carries them up along the rails *b* of the way A A^1, and along a side guard rail or rails, *d*, until allowed to pass down into the ice-house along any one of the chutes A^2, that are arranged at suitable inclination from the way to the ice-house, for the purpose of gradually filling the same. When the blocks of ice are conducted off by the chute A^2, the follower is taken off the rope or unhitched by its hook end engaging a cross-rod or stop-piece of the inclined way, or in other suitable manner, and allowed to slide down along the central inclined part of the way, or along a wire stretched without supports from one end to the other until arriving at the pulley on the float, where it is again placed on the rope and used for carrying up the cakes placed on the lower part or extension A^1 of the way. The elevating apparatus has the advantage that the traveling rope, pulley, and way remain in the same position throughout the operation of filling the ice-house, without requiring adjustment from lower to higher points, the only thing required being the placing in position of the upper-way sections, as the blocks have to be conducted by the higher chutes.

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

1. An ice-elevator constructed of an inclined way, A, float-extension A^1, and chutes A^2, in connection with a follower, E, and an endless traveling rope, C, with knots or balls stretched over fixed pulleys D, substantially in the manner and for the purpose described.

2. The inclined way A and extension A^1, having knots or balls *a* and side guard rail or rails *d*, for the ice blocks, and an inclined part or way for return of follower, substantially as specified.

3. For ice-elevators, an endless traveling rope having knots or balls for carrying the follower, substantially as described.

LOUIS ZISTEL.

Witnesses:

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