

A. VAN TRUMP.  
WATER ELEVATOR.

No. 188,988.

Patented March 27, 1877.

Fig. 1.

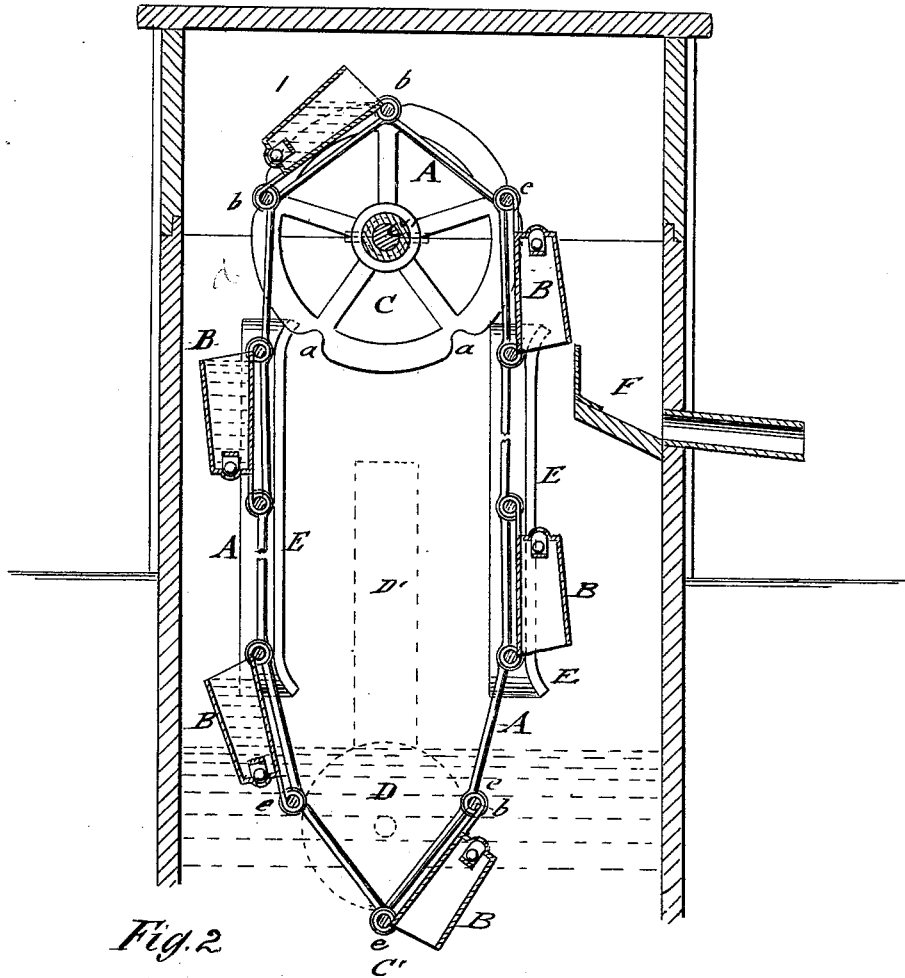
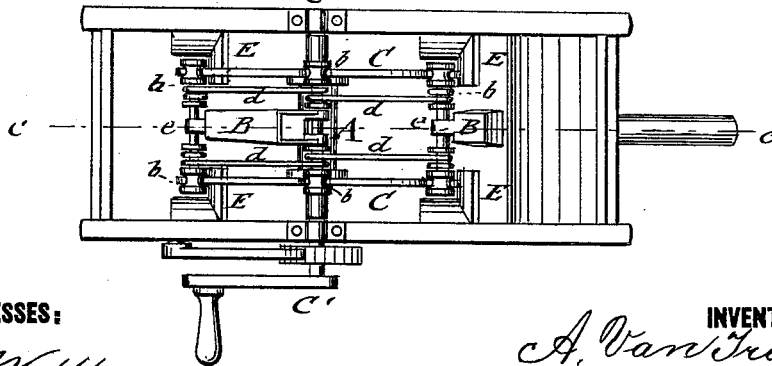


Fig. 2.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ABRAHAM VANTRUMP, OF WEST ELKTON, OHIO.

## IMPROVEMENT IN WATER-ELEVATORS.

Specification forming part of Letters Patent No. 188,988, dated March 27, 1877; application filed February 12, 1877.

### *To all whom it may concern:*

Be it known that I, ABRAHAM VANTRUMP, of West Elkton, in the county of Preble and State of Ohio, have invented a new and Improved Water-Elevator, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a vertical longitudinal section of my improved water-elevator, taken on line *c c*, Fig. 1, and Fig. 2 a top view of the same.

Similar letters of reference indicate corresponding parts.

The invention relates to an improved water-elevator, by which a continuous supply of water may be drawn from a well or cistern without any part getting out of order, as in the common valve and chain pumps, the elevator being also readily prevented from freezing in winter.

The invention will first be described in connection with the drawings, and then pointed out in the claim.

In the drawing, A represents the endless chain or belt of my improved water-elevator; B the buckets, C the upper, and D the lower, stretching-roller or spider-frame of the same. The upper and lower rollers or spider-frames C D have a number of recesses, *a*, for taking up the lateral connecting pins or rods *b* of the links *d*, of which the chain is formed. The upper roller C is driven by a crank-shaft, *C'*, with ratchet-and-pawl arrangement, so that the chain is revolved, and the buckets B, that are applied by rings or hooks *c* to the cross-pins, submerged successively into the water of the well or cistern.

The buckets B are provided with ball-valves and guards at the bottom, for admitting the escape of the air when the buckets enter the water in going down.

The lower roller or drum is applied to a fixed shaft of one or two supporting-pieces, *D'*, that are attached to the side of the well and extend up to the curb or platform, to be readily adjusted, for keeping the chain tight. In shallow wells the lower roller may be dispensed with.

The roller-shaped ends of the cross-pins *b* are guided in their upward or downward passage along vertical guide-flanges E, with curved ends, that secure the reliable and steady working of the elevator.

The buckets are made of galvanized iron, so that they will not corrode and spoil the water.

The buckets empty into a trough, F, above the platform, with exit-spout to keep up a steady stream. By reversing the motion of the elevator, the buckets are emptied, which is of advantage in summer, as there is no water wasted, and the same is always obtained fresh and cool, while it prevents in the winter-season the freezing of the contents of the buckets.

The elevator is strong and durable, not liable to get out of order, and admits the drawing out of all the water in the well without danger of getting the mechanism out of order.

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

A water-elevator, whose spiders C have recesses *a*, and its endless bucket-carrier A, having the pins *b* on the links *d*, as shown and described.

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Witnesses:

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