

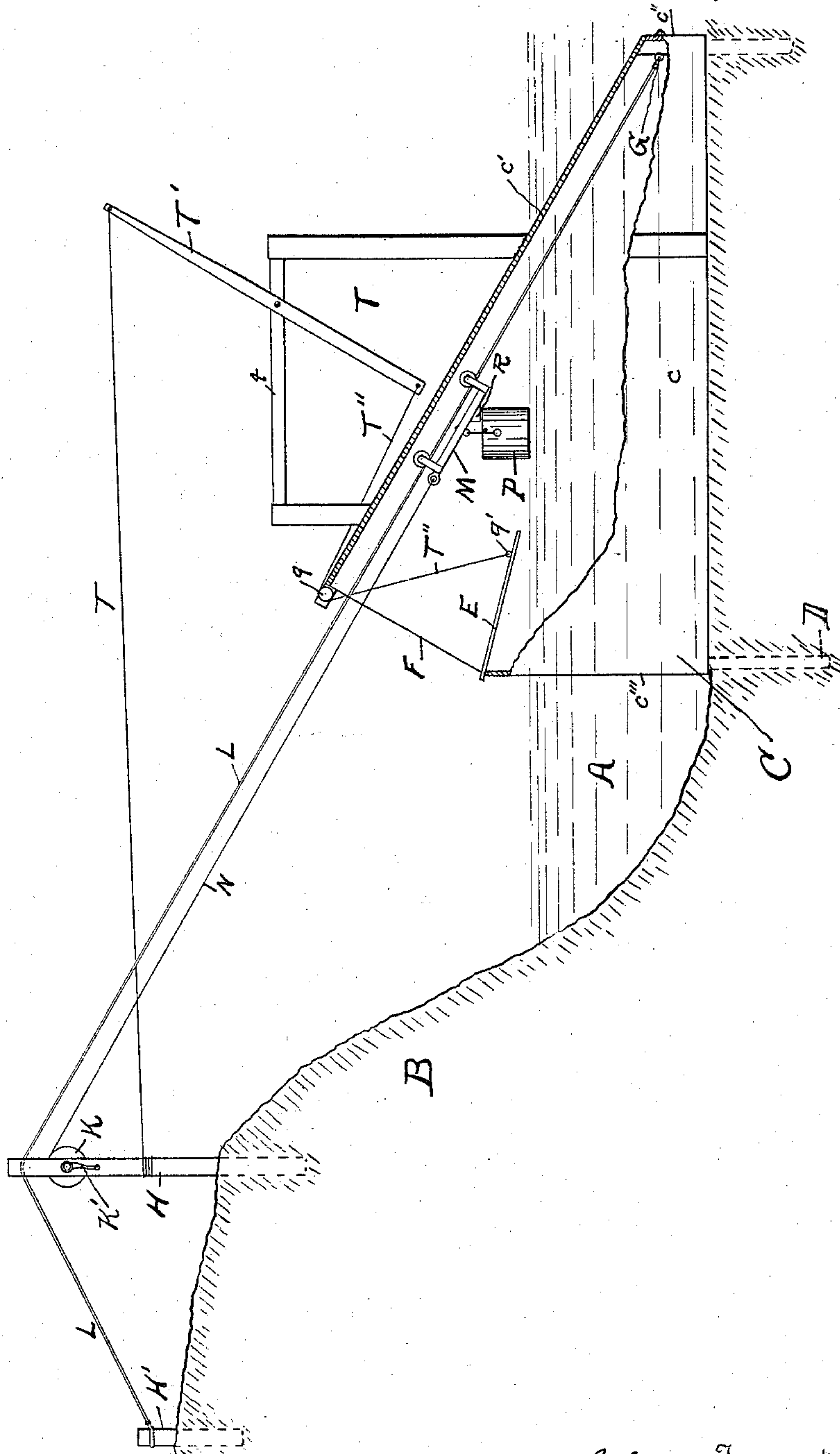
(No Model.)

C. G. MATTSON.

## WATER FETCHING MACHINE.

No. 383,894.

Patented June 5, 1888.



Witnesses.

Emma F. Elmore

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Inventor.

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# UNITED STATES PATENT OFFICE.

CHARLES GUSTAF MATTSON, OF LINDSTROM, MINNESOTA.

## WATER-FETCHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 383,894, dated June 5, 1888.

Application filed April 14, 1887. Serial No. 234,978. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES G. MATTSON, a citizen of the United States, and a resident of Lindstrom, Chisago county, Minnesota, have  
5 invented a certain new and useful Water-Fetching Machine, of which the following is a specification, reference being had to the accompanying drawing.

My invention consists in the construction  
10 hereinafter fully described and particularly claimed.

In the drawing like letters refer to like parts.

The figure is a side elevation of my device  
15 in position for work, a part of the lake and bank being represented in vertical section.

A is a lake or stream of water.

B is an adjacent bank of the same.

C is an inverted box having an open bottom  
20 or perforated sides. This box is sunk in the lake far enough to bring its bottom below the level of the ice-line, and is there secured by fastening it to piles D, or in any other suitable way, as by weighting it with stones or otherwise. This box C is composed of the vertical  
25 sides *c*, the inclined top *c'*, the short vertical end *c''*, the longer vertical end piece, *c'''*, and the hinged or pivoted section or door E. These parts when put together constitute a box having an open bottom and an inclined top. The  
30 box is made of sufficient size so that it may be immersed in the lake far enough to bring the lower edges of the sides and ends below the ice-line and allow the longer vertical end piece *c'''* to protrude out of the lake above the high-  
35 water level. The top *c'* is attached to the top of the vertical end piece *c''* and the vertical sides *c*. The upper ends of the vertical sides are inclined, as shown at F, and are thus supported in an inclined position with one end  
40 immersed in the lake and the other out of it. The door E is pivotally attached at its lower edge to the upper end of the vertical end piece *c''*, and when closed its upper edge is flush against the under surface of the top *c'*.

45 To the inner surface of the end piece *c''* is attached an eyebolt or staple, G. In the adjacent bank is fixed a post, H, extending to a height of six or seven feet, provided with a vertical slot or hole in its upper extremity. In  
50 the rear of the post H is fixed an anchoring-

post, H'. On the post H, below the slot or hole in the same, is journaled a hoisting drum or windlass, K, provided with a hand-crank, K'.

From the eyebolt G, through the hole or slot  
55 in the top of the post H, to the anchoring-post H', extends a strong wire or cable, L. On this cable, intermediate the post H and the eyebolt G, is placed a little trolley or traveling carriage, M, resting on and moving over said cable by anti-friction rollers. To the forward or  
60 upper end of the carriage is attached a wire or rope, N, which extends to and wraps around the windlass K. To the under side of the trolley M is pivotally secured by its bail the water-bucket P. A stop, R, is fastened to the  
65 under side of the trolley-frame directly over the lower edge of the bucket to prevent its tilting except in one direction; or the bail may be so proportioned and attached to the bucket and trolley as to accomplish the same result. 70

To the top piece, *c'*, or some other suitable part of the box, is attached the frame T, and to some convenient part of the same, as to the longitudinal central girder, *t*, is fulcrumed a lever, T'. To the upper end of the top piece, *c*,  
75 is attached a small sheave, *q*. From the lower extremity of the lever T', over the sheave *q* to an eyebolt or staple, *q'*, attached to the upper outer end of the door E, extends a wire or rope, T''. From the upper extremity of the  
80 lever T' a wire or rope, T''', extends to the post H, and is secured to the same at some point convenient to the windlass.

The operation of my device is as follows:  
Slacking the wire T''', the door E falls by  
85 gravity, affording an opening to the interior of the box C. Unlocking the windlass, the trolley and its attached water-bucket will run down the inclined cable, by gravity, into the interior of the box. As it comes to the water,  
90 the lower edge of the bucket will strike first and be thrown backward, tilting the upper part of the bucket forward and causing it to dip and fill with water. It will then assume the vertical position and will be prevented from  
95 tilting in the opposite direction beyond the vertical line by the stop R on the trolley-frame. By turning the windlass the rope or wire is wound around the drum and the trolley and bucket of water are drawn to the shore. This 100



operation is continued until the requisite quantity of water has been obtained. Then the door E is closed by drawing in the rope or wire T''', and so remains until it is again necessary to have water. I have had this construction in continuous use during the whole of the past winter, which was an unusually severe one, in a lake located in Minnesota, and the part of the lake inclosed within the box never froze over, though the adjacent ice reached a depth of several feet. I was thereby able to obtain all the water I needed for my stock and other purposes with perfect facility, even in the most severely cold weather.

What I claim, and desire to secure by Letters Patent, is as follows:

The water-elevator comprising water-box C, as described, consisting of the vertical sides and ends  $c$   $c''$   $c'''$  and inclined top  $c'$ , said box being fastened at a fixed depth in the lake, as by piling D, the door E, pivoted to the top of end

$c'''$ , the eyebolt G, fastened to interior of  $c''$ , the posts H and H' on the adjacent shore, the cable L, extending from post H to post H' through the top of post H, the traveler M, movable on cable L, provided with the stop R, the pivoted dipping water-bucket P, the drum or windlass K, journaled on post H and provided with the crank K', the wire or rope N, attached to said drum and to said traveler, the frame or lever support T, the lever T', fulcrumed on said frame, the sheave  $q$ , the rope T'', attached to the lower extremity of the lever T' and to upper end of door E by eyebolt G, and the hand-wire T''', attached to the top of lever T', and extending to a point within reach of the operator, all substantially as and for the purpose set forth.

CHARLES GUSTAF MATTSON.

Witnesses:

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