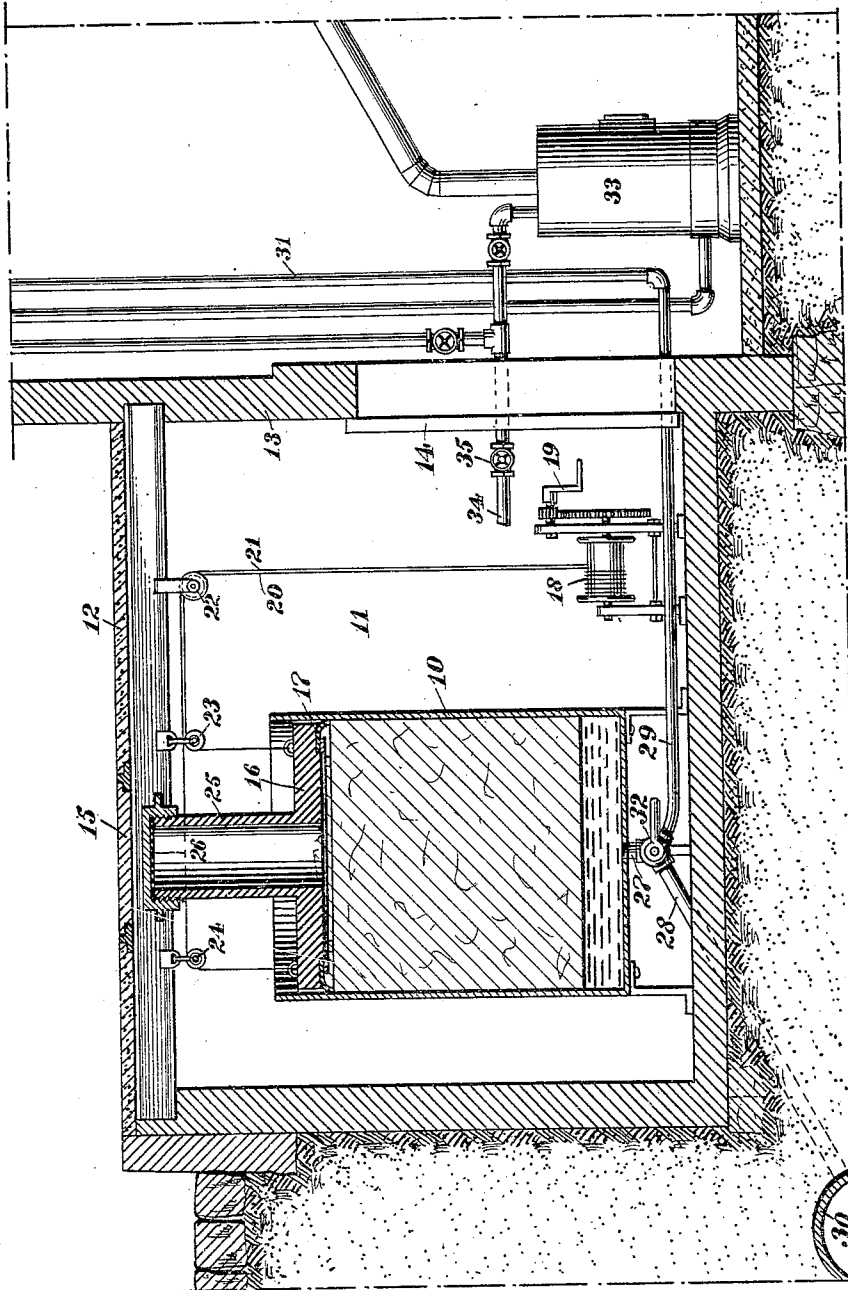


M. JONASSON.
SNOW MELTING APPARATUS.
APPLICATION FILED MAY 6, 1909.

945,546.

Patented Jan. 4, 1910.



WITNESSES

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SNOW-MELTING APPARATUS.

945,546.

Specification of Letters Patent.

Patented Jan. 4, 1910.

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To all whom it may concern:

Be it known that I, MEYER JONASSON, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Snow-Melting Apparatus, of which the following is a full, clear, and exact description.

This invention relates to certain improvements in means for melting and disposing of snow accumulating on sidewalks and in streets, and the object of the invention is to so construct the melting apparatus that the water resulting from the melting may be delivered to a higher elevation in the building than the snow receiver.

The invention consists in the combination of parts and special features hereinafter described and particularly described in the claims.

Reference is to be had to the accompanying drawing, forming a part of this specification, in which the single figure shows a vertical section through a portion of a building and the adjacent street, and illustrating an apparatus constructed in accordance with my invention.

In carrying out my improved system, I employ a tank or chamber 10, into which the snow and ice may be deposited, and so constructed as to facilitate the melting of said snow and ice and the delivery of the water to the interior of the building and to a higher elevation than the level of the tank. This tank is preferably placed in a vault, chamber or compartment 11, beneath the sidewalk 12 in front of the building, and the front wall 13 is provided with a doorway and door 14, whereby access may be gained to this vault. The sidewalk is provided with a manhole 15, directly above the top of the tank, and the latter is provided with a heavy weighted cover 16, with an opening therethrough concentric with said manhole. The cover is so constructed as to fit within the tank and move vertically to follow the snow and ice downwardly in the tank, as said snow and ice melts. The cover is provided with a peripheral gasket 17, of any suitable character to insure a tight closure along the edges of the cover and the side walls of the tank, and suitable means are provided for raising the cover to the upper end of the tank. The particular means illustrated includes a drum or windlass 18, adapted to be rotated by a suitable crank 19,

and having two cables 20 and 21 extending over suitable pulleys 22, 23 and 24 to the cover. The central aperture in the cover is adapted to be closed air tight and is only opened during the admission of snow and ice through the manhole 15. Encircling this opening I may provide a sleeve 25 having a screw cap at the upper end and a suitable gasket 26 for insuring the air-tight sealing of the opening through the cover.

The tank is provided with an outlet conduit 27 at the lower end, which may have two separate branches 28 and 29 leading therefrom. One of these branches, 28, may lead to a sewer 30, and the other branch, 29, may extend into the basement of the building and connect to a riser 31 extending up in the building to the point at which it is desired to deliver the water. At the intersection of the two branches 28 and 29, there may be provided a three-way cock 32 for controlling the flow of water through the two branches.

Any suitable means may be employed for heating the tank. For instance, the door 14 may be left open and the vault or chamber 11 be heated by the heat of the basement of the building. If desired, a furnace 33 in the basement of the building may have a branch conduit 34 extending through the wall into the vault 11, to permit of the delivery of steam directly to the vault, to warm the tank 10. This branch is, of course, provided with a suitable valve 35.

Whenever there is an accumulation of snow upon the sidewalk or in the street, which it is desired to dispose of, the cover 16 is raised by the windlass to approximately the position illustrated in the drawings, the manhole cover 15 is removed, as is also the cap 26. The snow on the sidewalk is dumped through the manhole and through the cover 16 to the interior of the tank, which is preferably of such a size as to receive all of the snow accumulated on the sidewalk during an average snow storm. The cap 26 is then replaced and secured airtight, and the manhole cover 15 is replaced. Upon relasing the windlass the cover 16 may descend into contact with the snow and pack the latter down tightly in the tank. If the valve 32 be opened, the snow as fast as it melts, will flow through the conduit 27 and through the branch 28 to the sewer or the branch 29 to any storage reservoir in the house. The riser 31 may connect directly

to a faucet, and the tank 10 be utilized as a storage tank for the water. The heavy weighted cover 16 will hold the water under pressure so that as soon as the riser 31 is opened at its upper end, the water will flow upwardly to the desired level. It is, of course, evident that the elevation of the outlet in the riser 31 will be determined by the size of the weight and the height to which the weight can raise the water.

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

1. A snow-melting apparatus, comprising a vault beneath the sidewalk of a street, a snow-melting tank within said vault and having communication with a manhole in the sidewalk, a heat-conducting pipe entering the vault from a heating apparatus in a house on the street, said tank having a vertically-movable weighted cover for compressing the snow and water within the tank, and a conduit leading from said tank to the upper floors of said house.

2. A snow-melting apparatus, comprising a tank having a cover vertically movable therein and provided with a socket fitting

the inner surface of the walls of the tank, a conduit leading from the lower portion of the tank, means for hoisting said cover to the position adjacent the top of the tank, said cover having an aperture therethrough, and means for closing said aperture air tight, and means for heating said tank.

3. A snow-melting apparatus, comprising a vault beneath the sidewalk of a street, a receiver for snow and ice within said vault and having imperforate walls and in communication with a manhole in the sidewalk, means for closing said communication, a heat-conducting pipe entering the vault from a heating apparatus in the house, a conduit establishing communication between said receiver and a sewer, and a conduit extending from said receiver to the interior of the house.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MEYER JONASSON.

Witnesses:

I. GAMSBERG,
ROSE NURICK.