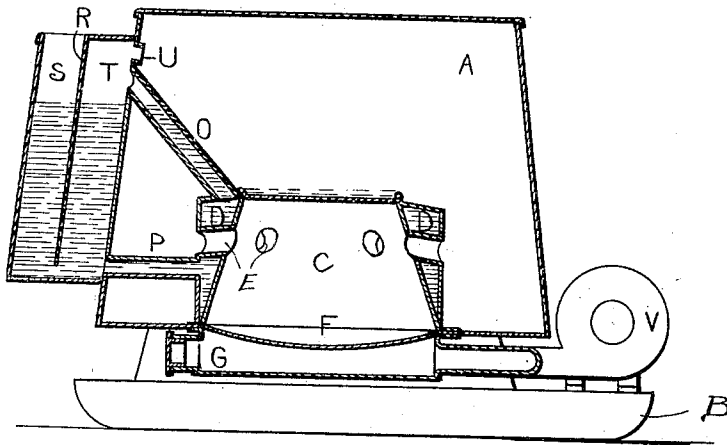


S. SAVONIUS.  
APPARATUS FOR MELTING SNOW AND THE LIKE.  
APPLICATION FILED MAR. 13, 1914.

1,125,732.

Patented Jan. 19, 1915.



WITNESSES  
*F. H. Logan*  
*Alfred R. Anderson*

INVENTOR  
*SIGURD SAVONIUS*  
BY *Ivan DeLennel*  
ATTORNEY

# UNITED STATES PATENT OFFICE.

SIGURD SAVONIUS, OF HELSINKI, FINLAND, ASSIGNOR TO JOST VON QVANTEN, OF HELSINKI, FINLAND.

## APPARATUS FOR MELTING SNOW AND THE LIKE.

1,125,732.

Specification of Letters Patent.

Patented Jan. 19, 1915.

Application filed March 13, 1914. Serial No. 824,546.

*To all whom it may concern:*

Be it known that I, SIGURD SAVONIUS, a subject of the Grand Duchy of Finland, residing at Helsinki, Finland, have invented a new and useful Apparatus for Melting Snow and the like; and I do hereby declare the following to be a full, clear, and exact description of the same.

This invention relates to an apparatus for melting snow and the like.

The object of the invention is to provide an apparatus of the said kind, which is simple in construction and effective in working.

In the accompanying drawing, forming part of this specification, the figure shows a central vertical section of the apparatus.

The invention consists chiefly in the combination of the following parts, viz., a snow receiver A in the shape of a truncate cone, and inside this a fire place C, likewise in the shape of an truncate cone, the upper end being closed by a lid. The fire place is surrounded by a closed water jacket D, in which there are a plurality of tubes, connecting the fire place with the outside snow receiver. On the outside of the snow receiver there is placed a vessel which by means of a partition wall R is divided in two chambers S and T, communicating at their bottoms with each other. The inside chamber T is closed at the upper end and communicates with water jacket D by means of two pipes, P and O, the former ending at the bottom of chamber T the latter at the top thereof. In the upper end of the chamber T there is an opening U leading to the snow receiver.

At the bottom of the fire place there is a grate F and under this a closed ash holder G into which air can be blown by means of an electric or hand driven ventilator V, mounted on the same bed plate B as the apparatus itself.

When the fuel in the fire place has been lighted the receiver is filled with snow and the ventilator put in action. The hot gases from the fire place then are driven directly

into the snow through the tubes E. The cooling water in the jacket D is kept circulating, the steam mixed with water rising into the pipe O and then the water falling into the chamber T and running back to the jacket through the pipe P while the steam in the upper part of the chamber T escapes through the opening U into the snow in the receiver. The water which evaporates is replaced by water from the chamber S, which can be refilled with fresh water when needed. It will be seen that all the heat of the hot gases is used for melting the snow, and having passed the mass of snow it arrives in the air quite cool.

I claim—

1. A snow melting apparatus, consisting of a snow receiver in the shape of a truncate cone, and inside of this a fire place, likewise in the shape of a truncate cone, having its upper end closed by a water cooled lid, and surrounded by a closed water jacket, the fire place being connected with the snow receiver by tubes as described, and means for circulating the water in said jacket thus cooling all the parts of the fire place, which are in contact with the flames.

2. A snow melting apparatus, consisting of a snow receiver in the shape of a truncate cone, and inside of this a fire place, likewise in the shape of a truncate cone, having its upper end closed by a water cooled lid and surrounded by a closed water jacket, the fire place being connected with the snow receiver by tubes which extend through the water jacket, the snow being melted by the hot gases from the fire place passing directly into the snow, and also by means of the hot water running out from the outlet pipe.

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

SIGURD SAVONIUS.

Witnesses:

ANNA SCHROEDER,  
AUGUSTE JANKOVSKY.