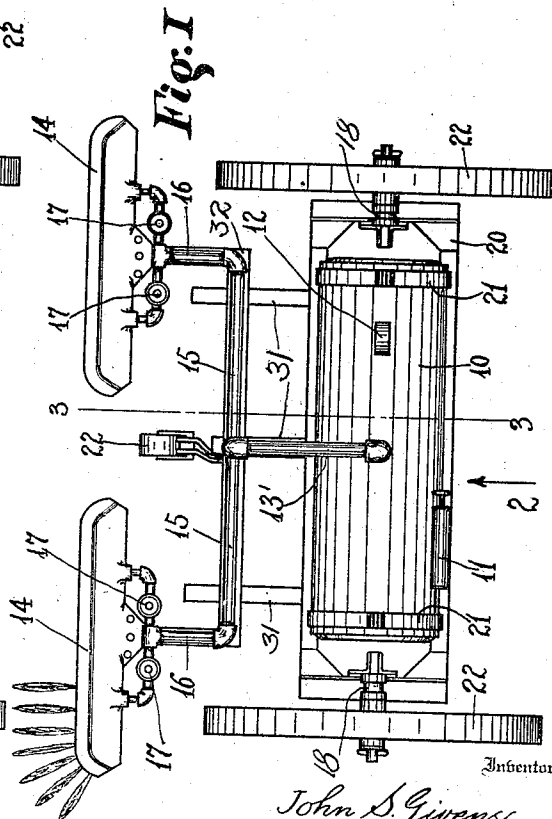
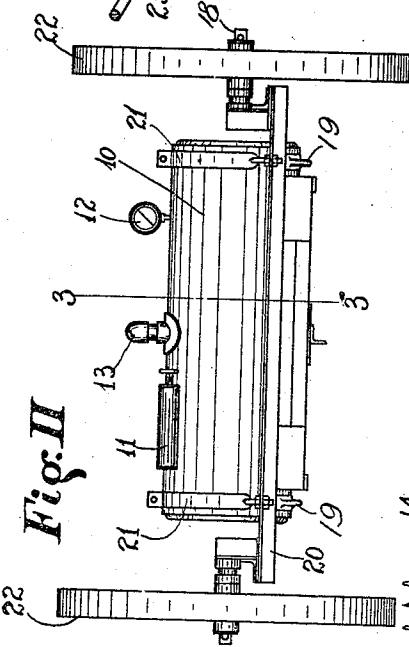
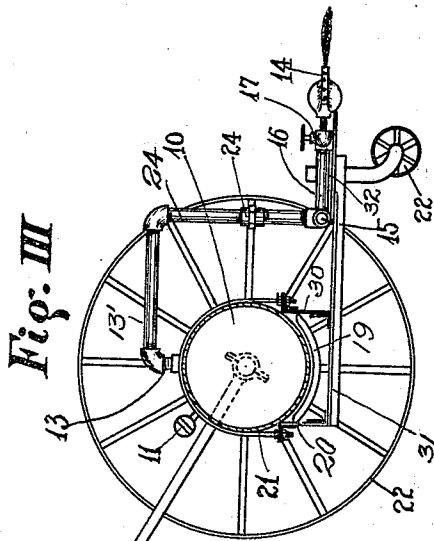


J. S. GIVENS.
ICE AND SNOW MELTING MECHANISM.
APPLICATION FILED SEPT. 12, 1914.

1,203,531.

Patented Oct. 31, 1916.



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UNITED STATES PATENT OFFICE.

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ICE AND SNOW MELTING MECHANISM.

1,203,531.

Specification of Letters Patent.

Patented Oct. 31, 1916.

Application filed September 12, 1914. Serial No. 861,431.

To all whom it may concern:

Be it known that I, JOHN S. GIVENS, a citizen of the United States of America, residing at Denver, in the county of Denver and State of Colorado, have invented certain new and useful Improvements in Ice and Snow Melting Mechanisms; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to surface heaters, and more especially to those using fluid fuel, and the object of the same is to produce a snow melter mounted on wheels and capable of being pushed from point to point, tilted to direct its blaze against the snow, and set at different angles on its carriage.

The invention consists in the details hereinafter described and claimed.

In the drawing: Figure 1 is a view of the device in top plan. Fig. 2 is a view of the device in rear elevation, as indicated by arrow 2 at Fig. 1. Fig. 3 is a sectional view taken on line 3—3 of Figs. 1 and 2.

Like characters of reference designate corresponding parts throughout the several views.

The improved snow and ice melting mechanism which forms the subject matter of this application comprises a tank or reservoir of any usual and ordinary type shown at Figs. 1, 2 and 3 as of the horizontal type. It is to be understood that the type of reservoir is immaterial to the present invention.

Attached to the reservoir is a pump of substantially the usual and ordinary type for injecting air under pressure into the reservoir which is supposed to be filled or partially filled with liquid fuel. A gage also of substantially the usual and ordinary type is in communication with the tank to indicate the pressure therein. From the top of the tank a pipe is taken off which leads forward at 13' thence downward at 24' and is branched into arms 15 which are connected by means of nipples 16 with the burners 14, and cocks 17 control the flow of the fuel to different parts of the burners 14.

The tank and its accessories are mounted upon a carriage which may be of any usual and ordinary type and construction as for

instance a push cart, wagon, street car or the like, but as shown in the drawing is constructed of a frame 20 having near each end a saddle 19 and above it a band 21 embracing the tank and securing the tank to such frame. The frame also has stub shafts 18 at its ends for supporting the wheels 22, the exact form of which is wholly immaterial to the invention. A handle 23 is also provided by which the tank thus mounted upon the carriage may be manually moved about from place to place.

Supported by hangers 30 beneath the frame is a skeleton-work shelf consisting of three fingers 31, projecting forward and carrying a yoke 32 on which in turn are mounted the horizontal pipes or arms 15 and the nipples 16. The vertical pipe 24' leading down to the T which is branched into the arms 15, has within its length a union or swivel 24, and by loosening this the parts beneath it may be turned from side to side, the yoke moving over the fingers as will be clear. Therefore it is possible to set the burners laterally at slight angles to the line of travel without moving the tank or reservoir on the carriage; but when it is to be removed the bands 21 are loosened from the saddles, and either the tank can be taken off with the burners or the union uncoupled and the tank taken off and replaced by another.

I claim:

In a heater of the class described, the combination with a tank, a pipe leading therefrom and having a vertical stretch, horizontal branches from the lower end of said stretch, nipples projecting forwardly from said branches, burners carried by said nipples, and a union within said stretch; of a carriage comprising a frame mounted on wheels, saddles in the frame supporting said tank, hangers from the frame, fingers carried by the hangers and projecting forwardly, and a yoke overlying said fingers and supporting said stretches and nipples.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN S. GIVENS.

Witnesses:

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