

C. B. MANN.  
 SNOW MELTING DEVICE.  
 APPLICATION FILED OCT. 27, 1909.

974,898.

Patented Nov. 8, 1910.

2 SHEETS-SHEET 1.

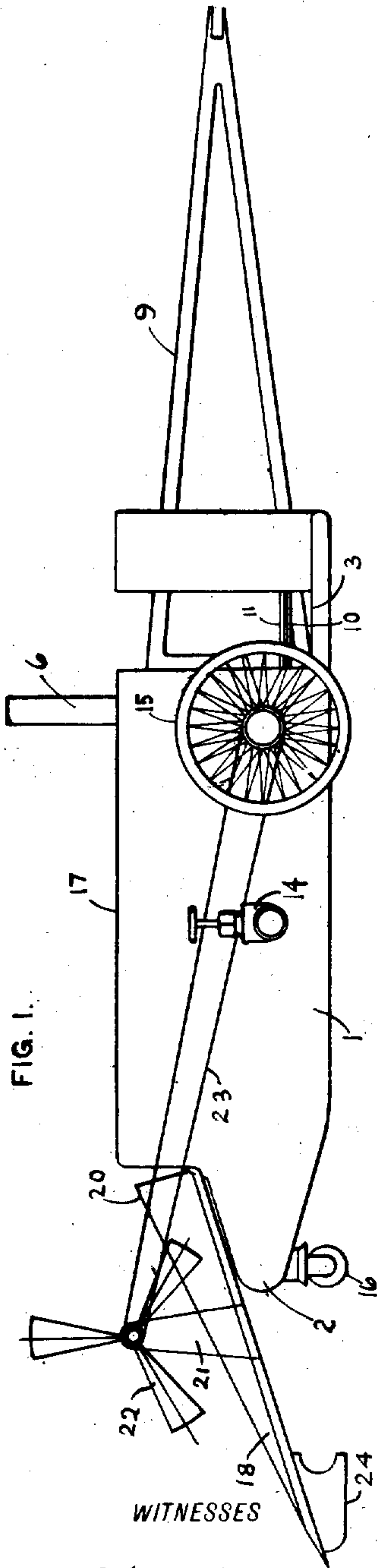


FIG. 1.

WITNESSES

F. M. Keeney.  
 L. T. Schaefer.

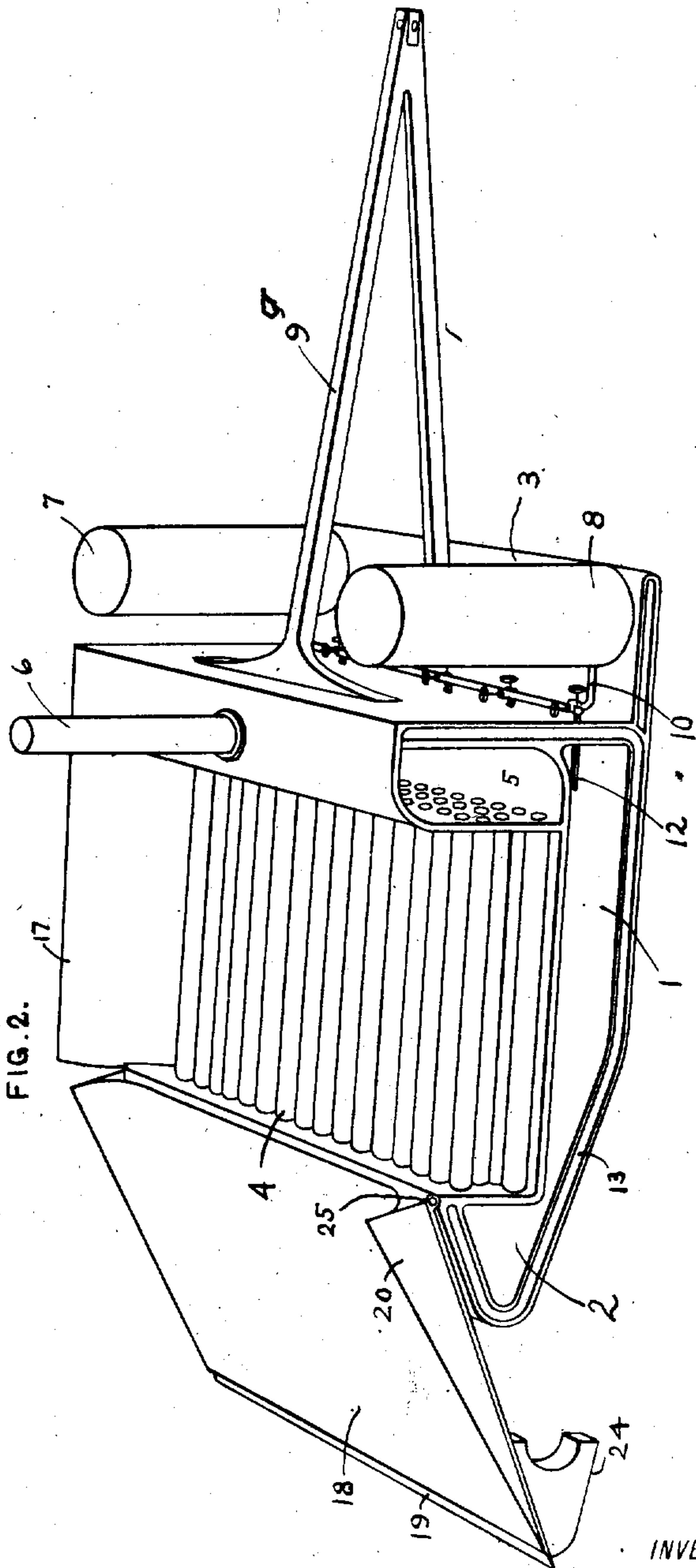


FIG. 2.

INVENTOR

Charles B. Mann

C. B. MANN.  
SNOW MELTING DEVICE.  
APPLICATION FILED OCT. 27, 1908.

974,898.

Patented Nov. 8, 1910.

2 SHEETS—SHEET 2.

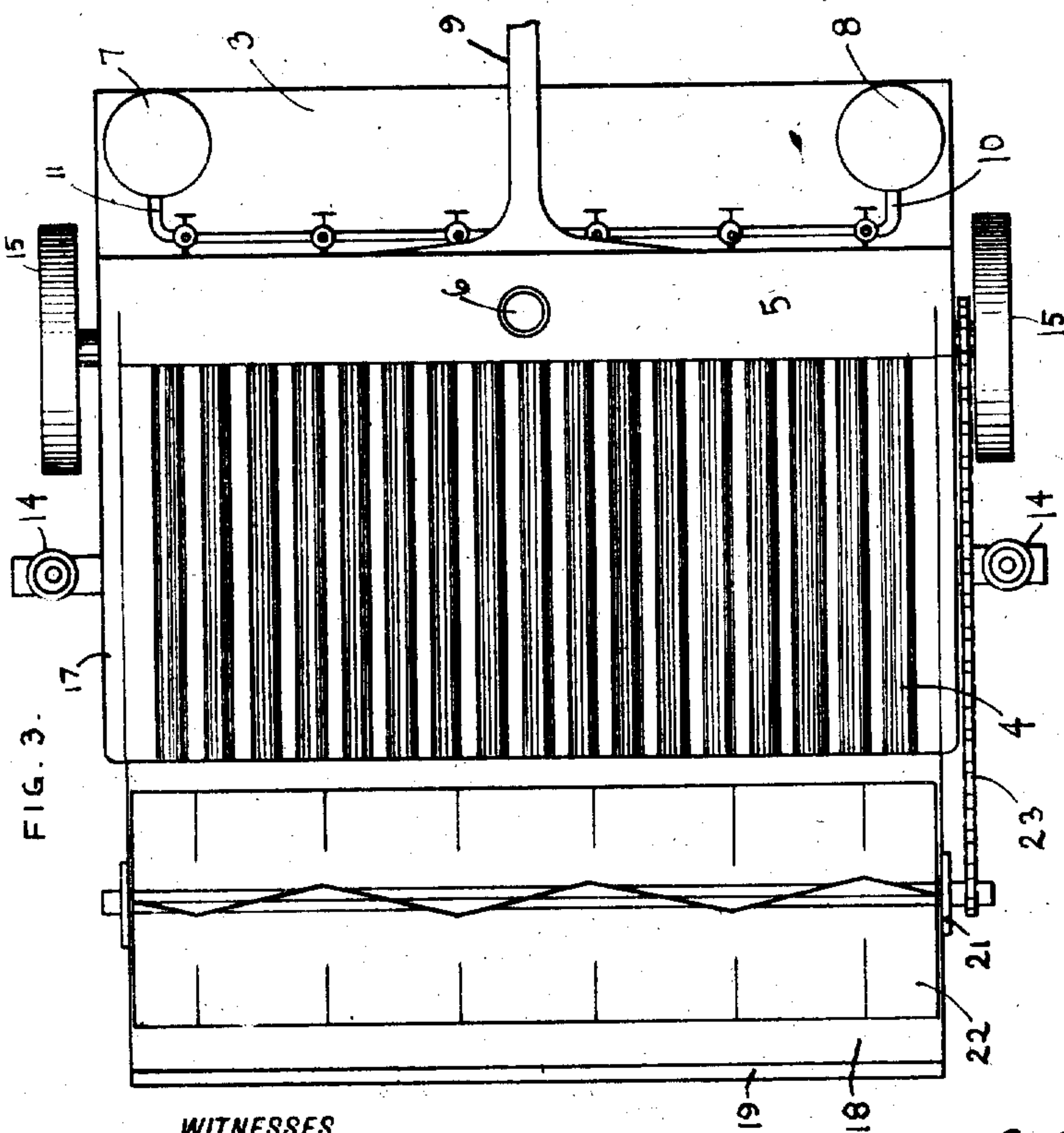


FIG. 3.

WITNESSES

*F. M. Keeney.*  
*L. T. Schaefer.*

INVENTOR

*Charles B. Mann*



# UNITED STATES PATENT OFFICE.

CHARLES B. MANN, OF SAN DIEGO, CALIFORNIA.

SNOW-MELTING DEVICE.

974,898.

Specification of Letters Patent.

Patented Nov. 8, 1910.

Application filed October 27, 1909. Serial No. 524,959.

*To all whom it may concern:*

Be it known that I, CHARLES B. MANN, citizen of the United States, residing at San Diego, in the county of San Diego and State of California, have invented certain new and useful Improvements in Snow-Melting Devices; 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.

My invention relates to a snow melting device and has for its object the provision of improved means for removing the snow from the streets by converting the same into water.

Further objects and advantages of the invention will be set forth in the detailed description which now follows.

In the accompanying drawings Figure 1 represents a side view of the machine, Fig. 2 a sectional and perspective view, and Fig. 3 a top plan view.

Referring more particularly to the drawings, numeral 1 is a fire box, constructed of sheet iron, 2 is an extension of the fire box, 3 is a platform upon the rear of the machine, 4 represents tubes located between the fire box 1, and smoke box 5, the chimney 6 is an exhaust for the smoke box, 7 is a water supply tank and 8, a fuel supply tank, from which pipes 10 and 11 lead to burners 12. Fire box 1 is surrounded upon front, bottom, sides, and rear by an inclosed air space 13 to reduce loss of heat by radiation. The snow, when melted, may be removed through the outlets 14, upon either side of the machine, to which hose may be attached that will convey the water to the gutter.

The machine is mounted upon wheels 15 at the rear and one or more small wheels 16, at the forward end of the fire box, having swivel trucks, to permit the machine to turn street corners easily.

17 represents side extensions for the purpose of retaining snow over melting tubes 4.

18 is a scoop adapted to gather snow and convey it to the melting tubes.

19 is a sharpened edge, of metal, and 20 represents side flanges, to retain snow upon tubes 4. The braces 21 carry wheel 22, which is driven by chain 23. The wheel 22 is designed to cut the snow and assist in conveying it to the melting tubes 4. The scoop 18 is hinged at joint 25 and is pro-

vided with shoes 24, which allow scoop 18 to slide over trolley tracks and the like.

9 is a suitably braced bar extending rearwardly and is for the purpose of driving the machine by means of horses.

It will be seen that in the operation of this machine, the snow may be rapidly and easily gathered up and reduced at once to water, and the same being warm and being conveyed to the gutter will rapidly disappear.

The tubes are arranged in three tiers, the middle tier of tubes alternating with those upon the top for the purpose of presenting as much as possible of the heating surface to the snow. The outlets 14 are provided with valves, thereby allowing the machine to deliver the water to only one side of the street if desired.

From the foregoing description it will be seen that simple and efficient means are herein provided for accomplishing the objects of the invention, but while the elements shown and described are well adapted to serve the purposes for which they are intended, it is to be understood that the invention is not limited to the precise construction set forth, but includes within its purview such changes as may be made within the scope of the appended claims.

I claim:

1. A snow melting device, of the character described, comprising a fire-box, a series of fuel oil burners therein, oil and water supply tanks for the burners, a plurality of melting tubes above the fire-box, an inclined scoop forward of the fire-box, a swivel jointed truck underneath the fire-box, and means to force the snow over the melting tubes, in combination with a braced beam for applying motive power at the rear.

2. A snow melting device of the character described, comprising a fire-box, a series of fuel oil burners therein, valves for regulating the burners, oil and water supply tanks, a plurality of melting tubes arranged in horizontal tiers above the fire-box, the tubes of one tier alternating with the next, an inclined scoop forward of the fire-box, a hinged joint that permits said scoop to follow irregularities of the street, shoes at the forward end of the scoop, and means to cut and force the snow over the melting tubes.

3. A snow melting device, comprising an inclosed jacketed fire-box, fuel oil burners therein, a series of return tubes placed hori-

zontally over the fire-box, and means to cut and force the snow over the melting tubes.

4. A snow melting device, comprising a rectangular melting box, a fire-box underneath the melting box, an inclosed air space surrounding the fire-box and melting box, a plurality of tubes arranged in alternate tiers, horizontally over the fire-box, means to convey the snow to the melting tubes, and

valve controlled outlets for delivering water at either side of the machine.

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

CHARLES B. MANN.

Witnesses:

F. M. KEENEY,  
J. W. MASTER.