No. 724,792. PATENTED APR. 7, 1903.

Z. F. BOWMAN.

WATER COOLER.

APPLICATION FILED AUG. 22, 1902

NO MODEL.

Fig. 1.

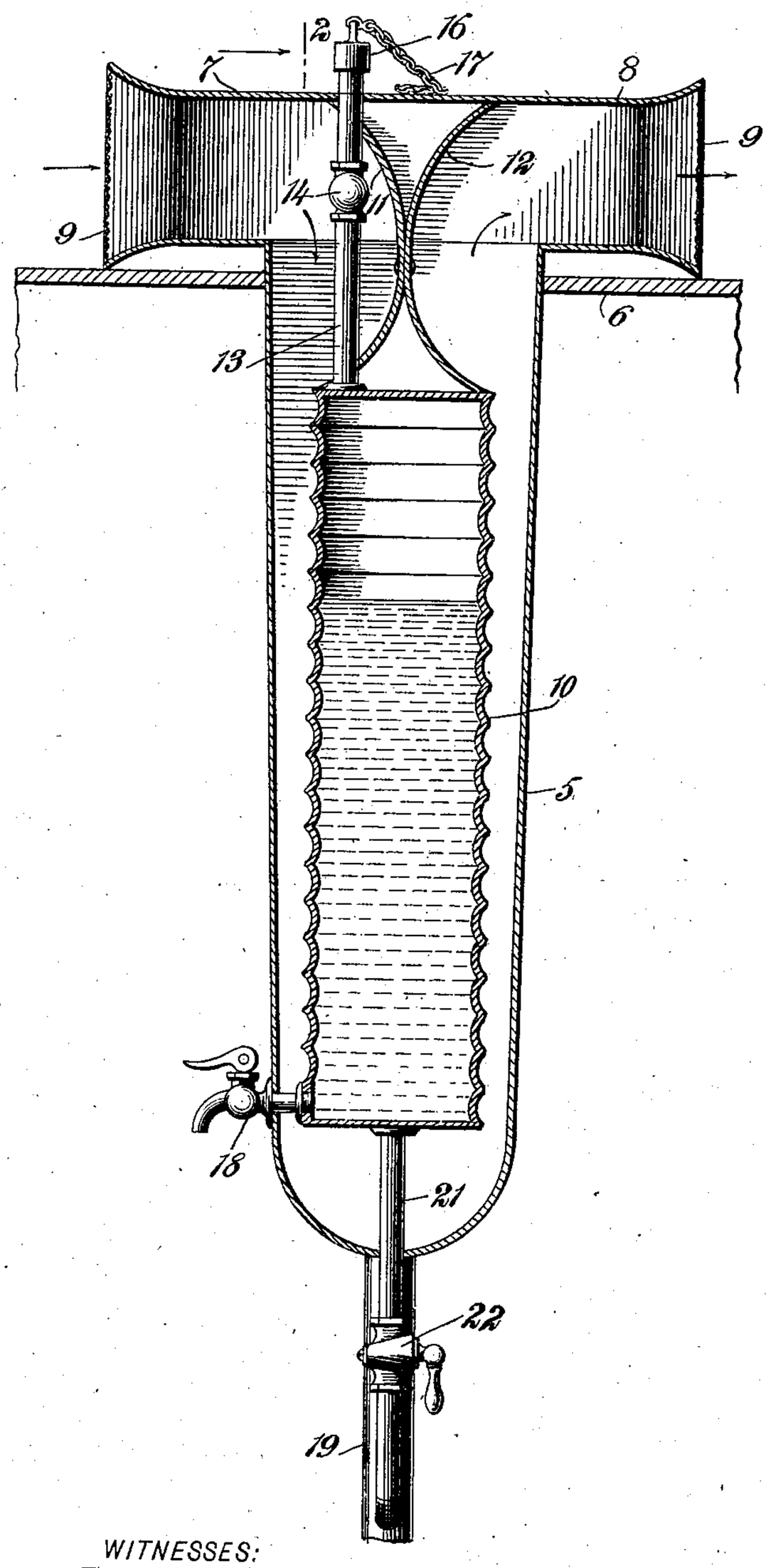
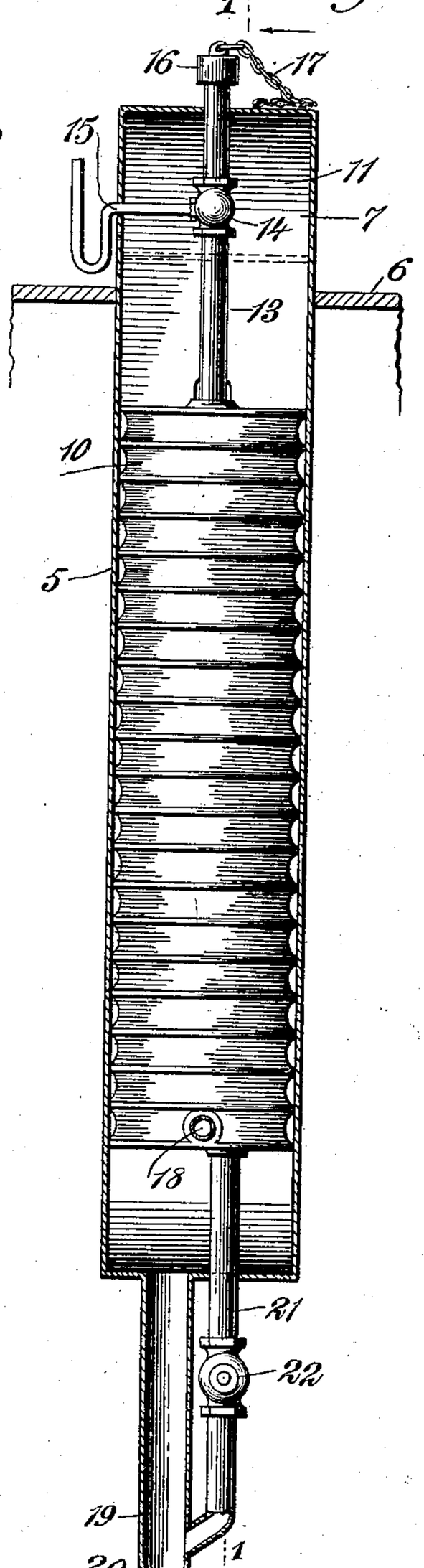


Fig. 2.



WITNESSES:

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WATER-COOLER.

SPECIFICATION forming part of Letters Patent No. 724,792, dated April 7, 1903.

Application filed August 22, 1902. Serial No. 120,723. (No model.)

To all whom it may concern:

Be it known that I, ZIBA F. BOWMAN, a citizen of the United States, and a resident of Washington, in the District of Columbia, have invented new and useful Improvements in Water-Coolers, of which the following is a full, clear, and exact description.

This invention relates to improvements in water-coolers particularly designed for use in connection with railway-cars, the object being to provide a cooler so arranged as to use circulated air in lieu of ice as the cooling medium, thus materially reducing the cost and labor in providing cool water in passenger-coaches or the like.

I will describe a water-cooler embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the figures.

Figure 1 is a section on the line 1 1 of Fig. 2 of a water-cooler embodying my invention, and Fig. 2 is a section on the line 2 2 of Fig. 1.

Referring to the drawings, 5 indicates a casing designed to pass through the roof 6 of a car and which communicates above the roof with oppositely-opening hoods 7 8, each provided with a screen 9 at its inlet end, which will permit the inlet of air and prevent the entrance of soot and dust and the like. Arranged in the casing is the water-tank 10. This water-tank is cylindrical and is provided with circumferential corrugations, which will serve as a means for retarding somewhat the circulation of air, thus causing the air to have a greater length of time when passing along the tank. Deflectors 11 12 extend from the upper walls of the hoods 7 and 8 to a connection with the top of the tank 10, being preferably curved from end to end, as shown. These deflectors extend entirely across the hood and the casing 5, and it will also be noted that in one direction—that is, in the direction of the width of the deflectors—the water-tank also extends entirely across the casing, while there is a free passage between the casing and the other side of the tank. A water-inlet pipe 13 extends through one of the hoods into the water-tank 10. This inlet-pipe 13 is provided with a union 14, from which a vent-pipe 15 extends outward through a wall of the hood, and on the top of the pipe is a removable cover 16, which is secured to the hood by means of a chain 17 to prevent its possible loss.

At the lower end a faucet 18 communicates with the tank 10 and extends out through the casing, and extended downward from the bottom of the casing 5 is a discharge-pipe 19, through which dirt or dust that may accumulate in the casing may be discharged. This pipe may lead through the bottom of the car and is preferably contracted slightly at 20 to restrict the discharge of air from the casing and yet permit the discharge of soot, dust, and the like. The water-tank may be drained and cleaned through a pipe 21, leading from said tank and communicating with the discharge-pipe 19, the pipe 21 being provided with a valve 22.

In operation as the train is running the air will be drawn into the hood facing the direction of movement of the train and then will pass downward at one side of the water-tank and then upward and out through the other hood. This pressure and force of air will thoroughly cool the water.

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

1. A water-cooler for a railway-car, comprising a casing extended through the ceiling of the car, oppositely-opening hoods with which said casing communicates, and a water-tank supported in the casing.

2. A water-cooler for a railway-car, comprising a casing passing through the roof of the car, oppositely-opening hoods communicating with said casing at the top, a water-tank arranged in the casing, deflectors extended from the top of said tank to the top of the hoods, a filling-pipe for the tank, and a valve-controlled outlet for the tank.

3. A water-cooler for a railway-car, comprising a casing passing through the roof of the car, oppositely-opening hoods communicating with the upper end of the casing, a circumferentially-corrugated tank arranged in the casing, deflectors extended from the top of the tank to the top of the hoods, a filling-pipe for the tank, and a valve-controlled outlet for the tank.

4. A water-cooler for a railway-car, comprising a casing extended through the roof of the car, oppositely-opening hoods communicating with the upper end of the casing, a circumferentially-corrugated tank arranged in the casing, deflectors extended from the top of the tank to connect with the top of the hoods, a filling-pipe extended through the top of one of the hoods and into said tank, a valve-controlled outlet at the lower end of the tank, a discharge-pipe leading from the bottom of the casing, and a valve-controlled pipe leading from the water-tank for the discharge of material therefrom.

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

ZIBA F. BOWMAN.

Witnesses:
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