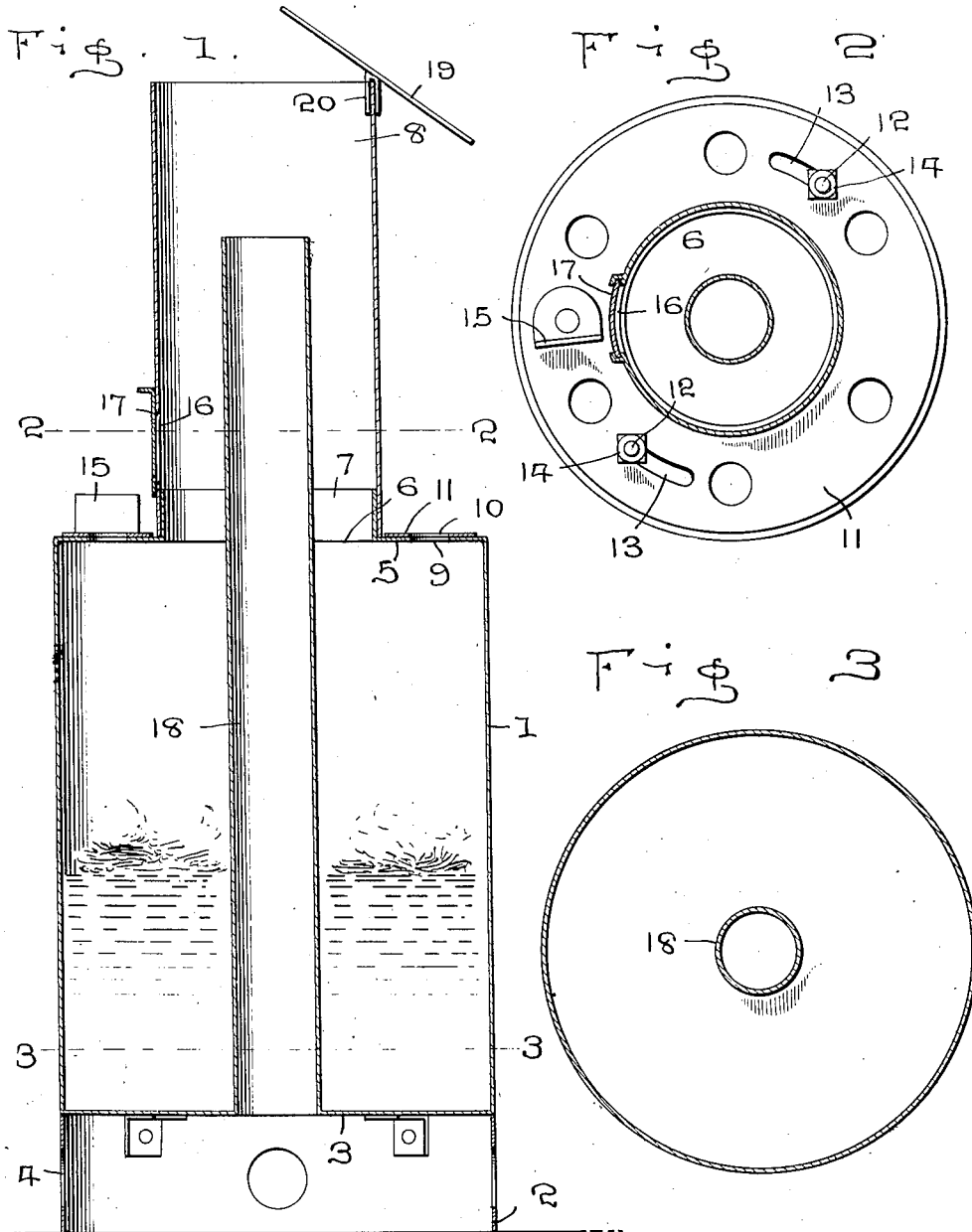


T. J. BARTOW.
HEATER.

APPLICATION FILED APR. 10, 1909.

935,244.

Patented Sept. 28, 1909.



WITNESSES:

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THOMAS J. BARTOW, OF MANZANOLA, COLORADO.

HEATER.

935,244.

Specification of Letters Patent. Patented Sept. 28, 1909.

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To all whom it may concern:

Be it known that I, THOMAS J. BARTOW, a citizen of the United States, residing at Manzanola, in the county of Otero and State of Colorado, have invented certain new and useful Improvements in Heaters; 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 new and useful improvements in heaters and more particularly to that class adapted to be used for heating the atmosphere to prevent frost from killing fruit on fruit trees, etc., and my object is to provide a device of this class adapted to consume various grades of crude oil, gas, or any cheap grade of oil.

A further object is to provide suitable dampers to regulate the draft of the heater.

A further object is to provide a suitable chimney and removably attach the same to the body of the heater and a still further object is to provide a suitable air duct for the heater.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the claims.

In the accompanying drawings forming part of this application, Figure 1 is a central, vertical, sectional view through the heater. Fig. 2 is a sectional view as seen on line 2—2, Fig. 1, and Fig. 3 is a sectional view as seen on line 3—3, Fig. 1.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 indicates the body or fire pot of my improved heater, which is preferably circular in cross section and is provided with a base 2 at its lower end, said base supporting the bottom 3 of the body a distance above the ground, thereby permitting air to enter through the ports 4 in the base 2.

The upper end 5 of the body is provided with an opening 6, around which extends a collar 7, said collar being adapted to receive and support a chimney 8. The upper end portion 5 is also provided with a plurality of vents 9, with which are adapted to cooperate similar vents 10 in a movable plate 11, said plate being held in position on the upper end 5 by introducing bolts or the like 12 through elongated slots 13 in the plate 11, the upper ends of the bolts 12 being provided

with nuts 14 adapted to hold the plate in its proper position, the slots 13 permitting the plate to rotate around the collar 7 and entirely close the vents 9 or leave the same partially open, a thumb piece 15 being attached to the plate 11 to readily accomplish this result. The chimney 8 is also provided with an opening 16 at a point adjacent its lower end, with which opening is adapted to cooperate a sliding damper 17, the object of said damper and opening being to regulate the draft through the chimney.

Extending upwardly from the bottom 3 and to a point adjacent the upper end of the chimney 8, is an air tube 18, the open end of said tube communicating with the space below the bottom 3, whereby air may readily pass upwardly through the tube and mingle with the products of combustion passing through the chimney, the tube serving as an air mixer as well as for spreading the heat and forcing the same outwardly.

In operation, a quantity of oil, or the like, is placed in the body 1, the chimney 8 being removed to give ready access to the body. A quantity of waste or other combustible material is then placed on the top of the oil in the body and ignited, the plate 11 having been moved to close the vents in the top 5. The burning of the waste will heat the oil to such an extent as to form a gas, which will ignite from the burning waste and exude from the collar 7, after which the chimney is placed in position over the collar and the plate 11 operated to provide the proper draft through the chimney, but if it is found that the draft is too great, vents 9 and 10 may be partially or entirely closed and the damper 17 operated to admit air through the opening 16, such admission of air reducing the amount of combustion.

A number of the heaters are to be placed in an orchard, whereby the temperature of the atmosphere may be increased to such an extent as to prevent freezing of the bloom or fruit on the trees and in view of the fact that cheap grades of oil may be used, this result is accomplished at a minimum expense.

In view of the great simplicity of my improved heating device, the same can be very cheaply constructed and placed in operation and it will likewise be seen that by providing the dampers as shown, the draft required to operate the heater, may be readily regulated.

As shown in Fig. 1, a shield 19 is adapted to be attached to the upper end of the chim-

ney 8, said shield being preferably arranged at an angle to the axial center of the chimney and by providing a clip 20 to engage the edge of the chimney and support the shield thereon, said shield may be shifted to any point around the chimney, the object of the shield being to regulate the draft through the chimney and prevent air from blowing downwardly through the chimney.

10 What I claim is:

1. In a heating device, the combination with a body having a base at its lower end, an opening in its upper end and a collar surrounding said opening, said upper end also having vents therein; of a chimney adapted to fit over said collar, means cooperating with the vents in the upper end of the body to regulate the admission of air into the body and an air tube extending upwardly from the lower end of the body and into said chimney and spaced therefrom to form an annular channel.

2. In a heater, the combination with a body having a base, an opening in its upper end and a collar surrounding said opening, said upper end also having vents therein; of a plate having vents adapted to cooperate with the vents in the upper end portion, said plate having slots therein, means extending through said slots to hold the plate in position, a chimney adapted to engage the collar, a damper in said chimney and an air tube extending upwardly from the lower end of the body and partway through said chimney said air tube being of less diameter than the chimney to form an annular space between the tube and chimney.

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

THOMAS J. BARTOW.

Witnesses:

W. C. BEATY,
R. W. THOMPSON.