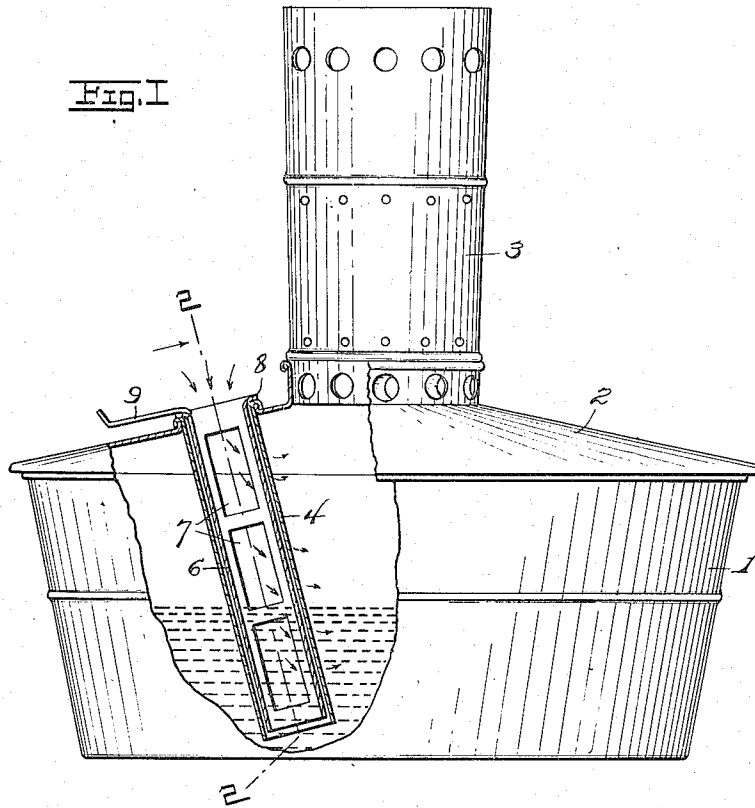
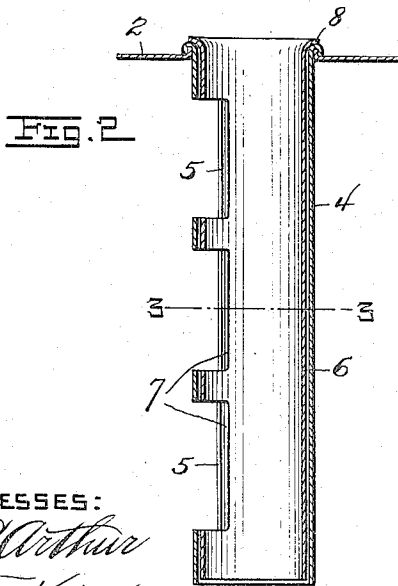
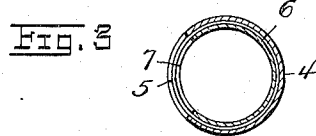
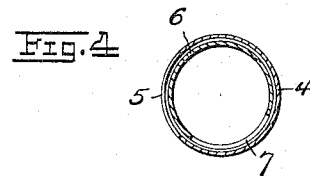


J. L. HAMILTON.
ORCHARD HEATER.
APPLICATION FILED AUG. 25, 1914.

1,143,582.

Patented June 15, 1915.



WITNESSES:

J. E. Arthur
W. F. Kefer

INVENTOR~

James L. Hamilton
By
N. E. Dunsen

ATTORNEY

UNITED STATES PATENT OFFICE.

JAMES L. HAMILTON, OF GRAND JUNCTION, COLORADO; MARTHA C. HAMILTON
ADMINISTRATRIX OF SAID JAMES L. HAMILTON, DECEASED.

ORCHARD-HEATER.

1,143,582.

Specification of Letters Patent. Patented June 15, 1915.

Application filed August 25, 1914. Serial No. 858,544.

To all whom it may concern:

Be it known that I, JAMES L. HAMILTON, a citizen of the United States of America, and resident of Grand Junction, county of Mesa, and State of Colorado, have invented certain new and useful Improvements in Orchard-Heaters, of which the following is a specification.

This invention relates broadly to orchard heaters, and specifically to draft regulators for such heaters.

The primary object of the invention is to provide an orchard heater of the oil-burning type having simple controllable means whereby air may be introduced over the surface of the oil for regulating the rate of combustion.

A further object is to provide, in an orchard heater, an air-inlet draft tube of the suspended type through which, when its lower end has been uncovered by the receding oil, a strong blast of air is directed for facilitating the combustion of the heavy, low grade bottom oil, or residue, and which is provided with one or more closable apertures through which, prior to the uncovering of the lower end of said tube, drafts of air may be admitted over the surface of the oil for regulating combustion.

With these and other objects in view, the invention resides in the features of construction, arrangement of parts and combinations of elements which will hereinafter be fully described, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a partial vertical section of an orchard heater embodying my invention; Fig. 2 is an enlarged vertical section of the draft tube taken on the line 2—2, Fig. 1; Fig. 3 is a cross section on the line 3—3, Fig. 2, showing the apertures of the telescoped tubes in registration; and Fig. 4 is a similar section showing the apertures out of register.

Referring to said drawings, in which like designating characters distinguish like parts throughout the several views, 1 indicates the oil container and 2 the removable cover of an orchard heater of a more or less common type. Projected through and depending from said cover, at a point laterally of the stack 3, to a point adjacent to the bottom of the container, is a draft tube 4 having one or more apertures 5, preferably rectangular

in form, therein which extend from a point near its upper end to a point near its lower end. Fitted more or less snugly within said tube 4 and rotatable with respect to the latter is a tube 6 which has one or more apertures 7 therein corresponding in form and location with the apertures 5 in tube 4, said tube 6 being adapted to be rotated to adjust the extent of registration of said apertures for controlling the volume of air admitted to the container above the surface of the oil and, as a consequence, for regulating the rate of combustion.

An annular flange 8 provided upon the upper end of the tube 6 rests upon the upper flanged or beaded end of the tube 4, as shown, for supporting said tube 6. An outwardly extending arm or finger-piece 9 fixed upon the upper end of said tube 6 affords an engaging member whereby said tube may be readily rotated. When the oil has burned down to a point where the lower end of the draft tube is uncovered, the tube 6 is preferably rotated to a point where the apertures are closed, or out of register, whereupon draft introducing means having the advantages of a solid tube for directing air with a blow-torch effect upon the remaining oil is obtained.

What is claimed is—

1. A draft appliance for orchard heaters, comprising, in combination with an oil container and a stack mounted over said container, a stationary tube located laterally with respect to the stack and depending within said container to a point near the bottom of the latter, and a tube rotatable within said stationary tube, said tubes having corresponding apertures therein which are adapted to be moved into and out of registration by rotation of said rotatable tube.

2. The combination with the container and the cover of an orchard heater, said cover having a stack mounted thereon, of means for introducing air to the surface of the fuel in said container, said means comprising a tube projected downward through said cover and depending within said container to a point adjacent to the bottom of the latter, said tube being located laterally with respect to the stack and having apertures therein, and a second tube fitted and rotatable within the first-mentioned tube, said second tube having apertures therein substantially corresponding with those in

the first tube and adapted to be moved into and out of register with the latter with rotation of said second tube.

3. The combination with the container
5 and the cover of an orchard heater, of a tube projected downward through said cover and depending within said container to a point adjacent to the bottom of the latter, said tube having apertures therein, and a
10 second tube fitted and rotatable within the first-mentioned tube, said second tube having apertures therein substantially corresponding with those in the first tube and adapted to be moved into and out of register
15 with the latter with rotation of said second tube, said tubes, when their apertures are out of register and their lower ends are uncovered, constituting means for introducing a continuous and uninterrupted blast of air

upon the oil in the bottom of said con- 20 tainer.

4. In combination with a vessel for containing a body of oil, means for introducing air to the surface of said oil, comprising a stationary tube suspended in a position 25 wherein it is partially submerged when said vessel is filled, and a tube rotatable within said stationary tube, said tubes having corresponding apertures therein which are adapted to be moved into and out of regis- 30 ter by rotation of said rotatable tube.

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

JAMES L. HAMILTON.

Witnesses:

D. M. GORNTON,
W. L. STEELE.