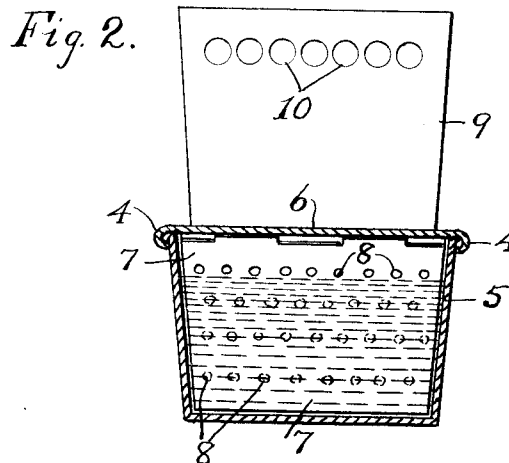
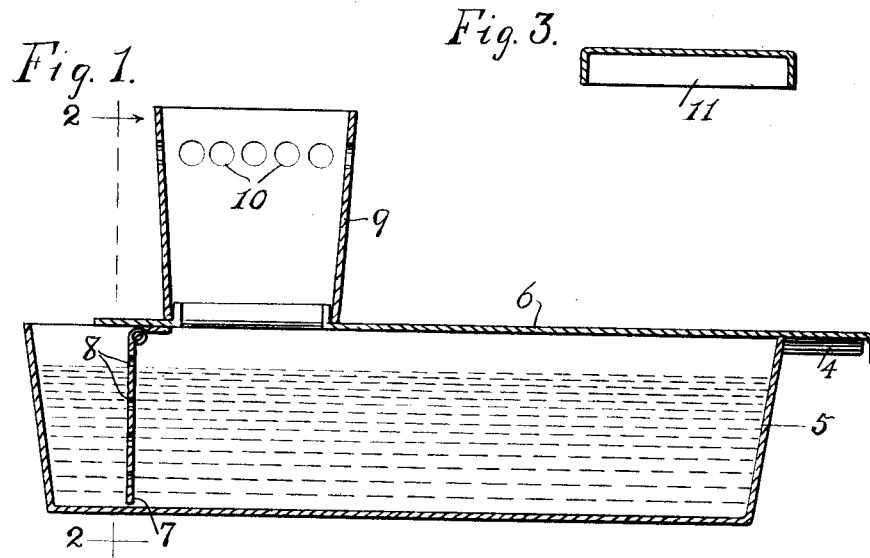


J. L. HAMILTON.
 ORCHARD HEATER.
 APPLICATION FILED JULY 22, 1912.

1,055,903.

Patented Mar. 11, 1913.



WITNESSES:

J. Kent McClintock.
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UNITED STATES PATENT OFFICE.

JAMES L. HAMILTON, OF GRAND JUNCTION, COLORADO, ASSIGNOR TO THE HAMILTON ORCHARD HEATER COMPANY, OF GRAND JUNCTION, COLORADO, A CORPORATION OF WEST VIRGINIA.

ORCHARD-HEATER.

1,055,903.

Specification of Letters Patent.

Patented Mar. 11, 1913.

Application filed July 22, 1912. Serial No. 710,801.

To all whom it may concern:

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

My invention relates to improvements in orchard heaters, being particularly directed to improvements in heaters of the sliding cover reservoir type which are adapted to burn liquid fuels derived from petroleum, as shown and described in two patents issued to me, being No. 940,965 issued November 23, 1909, and No. 970,044 issued September 13, 1910.

The object of this improvement is to provide means for making the combustion of the fuel in this type of heater more complete and perfect and eliminating the production of smoke, which is undesirable in many localities. I attain this object by means of the mechanism shown in the accompanying sheet of drawings, in which:

Figure 1 is a longitudinal view of the heater with the sliding cover open ready for use. Fig. 2 is a cross section view on the line 2 2 of Fig. 1. Fig. 3 is a cross section view of the cover for the draft chimney.

Similar reference characters refer to similar parts in each of the views.

The liquid fuel reservoir 5 is preferably rectangular in shape, with tapering sides as shown, thereby allowing them to be closely packed or nested together for shipment and storage. A sliding cover 6 is provided. It is securely retained on the reservoir by means of the rolled edges 4, but may be freely moved longitudinally, thereby controlling the admission of air for the combustion of the fuel and thus regulating the rate of combustion and heat generated thereby.

A hinged partition or apron 7 is suspended from the under side of the sliding cover near its forward end. This apron is slightly smaller than the reservoir, and is provided with numerous perforations 8. A draft chimney 9 is secured to the upper side of the sliding cover directly over an open-

ing therein, and just back of the hinged apron 7. This chimney is preferably made tapering as shown and is provided with a row of perforations 10 near its upper end.

A cover 11 is provided for the draft chimney 9 in order to prevent the entrance of rain or snow into the fuel reservoir when the heater is standing in the orchard.

The heaters are distributed through the orchard or other tract it is desired to protect from frost and nearly filled with the fuel oil. The covers are then closed until frost is threatened. When a frost or freeze is threatened the cover 11 is removed from the chimney and the sliding cover 6 is opened a short distance as shown in Fig. 1. The fuel oil is then lighted. Sufficient air to render the oil and gases combustible enters through the opening at the end of the cover and passes through the perforations 8 in the apron 7. The burning gases ascend through the chimney 9, where they are supplied with sufficient air to consume the free unburned carbon, making the flame nearly or quite smokeless.

What I claim as my invention is:—

1. An orchard heater comprising a fuel receptacle, a slidable cover adapted to regulate the combustion of the fuel therein by varying the admission of air to the surface thereof, an opening in said slidable cover near its front end, and a draft chimney secured above said opening.

2. An orchard heater comprising a fuel receptacle, a slidable cover adapted to regulate the combustion of the fuel by varying the admission of air to the surface thereof, a partition or apron containing numerous perforations suspended beneath the slidable cover near its front end, an opening in said slidable cover located to the rear of said apron, and a draft chimney secured above said opening.

Signed at Grand Junction, Colorado, this 13 day of July, 1912.

JAMES L. HAMILTON.

Witnesses:

ANNA M. KEISER,

HENRY L. MCCLINTOCK.