

E. O. CARVER.
ORCHARD HEATER.
APPLICATION FILED AUG. 5, 1911.

1,027,989.

Patented May 28, 1912.

Fig. 1.

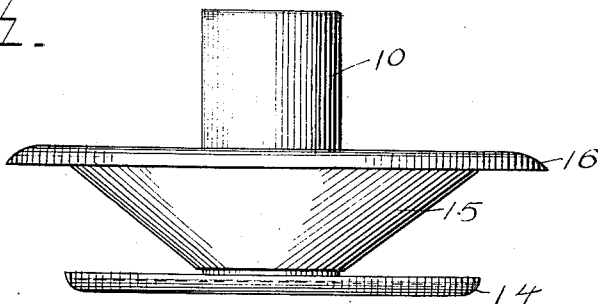


Fig. 2.

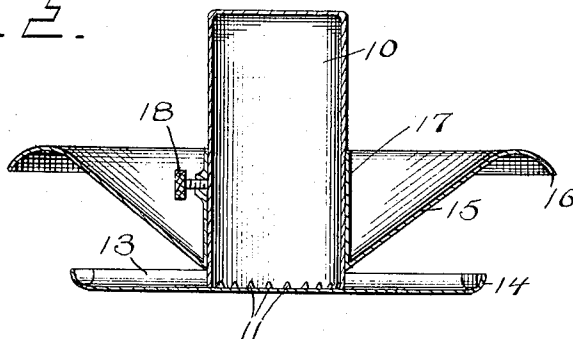
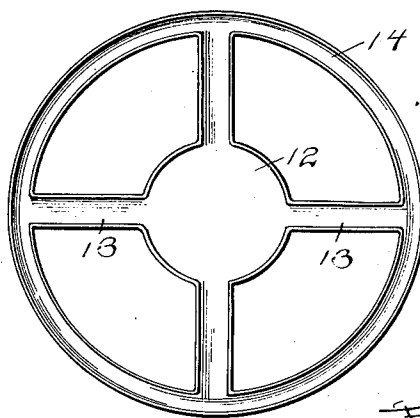


Fig. 3.



Witnesses
R. S. Trognier.

R. S. Morrell

Inventor

E. O. Carver,

By
Beall & Fenwick,

Attorneys

UNITED STATES PATENT OFFICE.

EDWIN O. CARVER, OF CARTERS, FLORIDA.

ORCHARD-HEATER.

1,027,989.

Specification of Letters Patent.

Patented May 28, 1912.

Application filed August 5, 1911. Serial No. 642,449.

To all whom it may concern:

Be it known that I, EDWIN O. CARVER, a citizen of the United States, residing at Carters, in the county of Polk and State of Florida, have invented certain new and useful Improvements in Orchard-Heaters, of which the following is a specification.

This invention relates to orchard heaters and has for an object to provide a device of the class adapted to burn a liquid fuel and to supply a constant volume of the liquid fuel to the burner for a considerable length of time.

A further object of the invention is to provide a receptacle for the liquid fuel with a burner surrounding the receptacle and with a deflector positioned above the burner adapted to protect the receptacle from the heat of the flame and also to spread the products of combustion from the burner.

With these and other objects in view the invention comprises certain novel constructions, combinations and arrangements of parts as will be hereinafter more fully described and claimed.

In the drawings: Figure 1 is a view of the improved heater in side elevation. Fig. 2 is a diametrical vertical sectional view. Fig. 3 is a top plan view of the burner element.

Like characters of reference designate corresponding parts throughout the several views.

The improved burner which forms the subject matter of this application comprises an oil feeding reservoir 10 constructed simply as an open ended can or the like having one or more notches or serrations 11 cut in the peripheral edge of such reservoir. A burner element, shown as a whole at Fig. 3, is provided having a central receptacle 12 of such size and proportion that the oil feeding reservoir 10 may be inverted therein, as shown at Fig. 2 and with passages or troughs 13 leading outwardly and radially therefrom to a circular burner trough 14.

It will be apparent that with the oil feeding reservoir 10 filled with liquid fuel as oil and inverted in the circular receptacle 12 oil will flow from the reservoir through the passages 13 into the annular burner trough 14 until the height of the oil in such trough is above the top of the openings 11 in the edges of the reservoir when the oil will stop flowing, being supported in the reservoir by atmospheric pressure. The oil in the trough 14 and the troughs 13 is now ignited in any

usual and well known manner and a deflector 15 employed for throwing the flames away from the reservoir and spreading them to heat a greater area. The deflector is formed conical as shown with a rolled rim 16 and with a central cylindrical sleeve 17 proportioned to embrace the oil feeding reservoir 10 and adjustable vertically upon the reservoir and retained either by friction or by a set screw 18 so that the deflector may be adjusted vertically as found desirable.

In using the device a slight trench is made in the ground in any convenient manner, as by dragging the heel of the boot of the wearer, to admit air to the openings between the central receptacle 12, the radial troughs 13 and the burner trough 14 so that the air is supplied to furnish oxygen to the flame.

The space between the deflector 15 and sleeve 17 is also employed for retaining water to be evaporated by the heat from the burner to produce vapor and distribute the heat generated.

I claim:

1. In an orchard heater, a burner comprising a central receptacle, a concentric annular trough, troughs leading from the central receptacle to the said annular trough and an oil feeding reservoir adapted to be inverted in the central receptacle.

2. In an orchard heater, a central receptacle, an annular trough surrounding the central receptacle, conduits leading from the central receptacle to the annular trough and an oil feeding reservoir adapted to be inverted in the central receptacle.

3. In an orchard heater, a central receptacle, an annular burner trough surrounding the central receptacle, troughs leading from the central receptacle to the annular trough, an oil feeding reservoir provided with apertures in its edges adapted to be inverted in the central receptacle and a deflector positioned above the annular trough.

4. In an orchard heater, a central receptacle, an annular burner trough concentrically surrounding the central receptacle, radial conduits leading from the central receptacle to the annular trough, an oil feeding reservoir adapted to be inverted in the central receptacle, a deflector carried by the oil feeding reservoir positioned above the burner and means to adjust the deflector vertically upon the oil feeding reservoir.

5. In an orchard heater, a central recep-

tacle, radial troughs extending outwardly from the receptacle, an annular trough concentric with the receptacle and communicating with the radial troughs, an oil feeding
5 reservoir having apertures formed in its edges proportioned to be inverted in the central receptacle, a conical deflector vertically slidable upon the oil feeding reservoir and a rolled periphery formed upon the

deflector positioned above the annular 10 trough.

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

EDWIN O. CARVER.

Witnesses:

GEORGE C. McLAIN,
JOHN PATTERSON.