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Patented Nov. 24, 1908.



Witnesses

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UNITED STATES PATENT OFFICE.

JOSEPHUS C. PLANK AND THOMAS E. FULGHUM, OF GRAND JUNCTION, COLORADO.

HEATER.

No. 904,642.

Specification of Letters Patent.

Patented Nov. 24, 1908.

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To all whom it may concern:

Be it known that we, JOSEPHUS C. PLANK and THOMAS E. FULGHUM, citizens of the United States, residing at Grand Junction, in the county of Mesa and State of Colorado, have invented a new and useful Heater, of which the following is a specification.

This invention relates to heaters and is designed more especially for use in orchards for the purpose of preventing injury to trees and plants as a result of sudden frosts.

The object of the invention is to provide a simple, durable and efficient device of this character which is cheap to manufacture, and which can be readily placed in position and filled with the fuel to be used for heating the surrounding atmosphere.

A further object is to provide a device of this character which is so constructed as to enable an efficient draft to circulate there-through and thus reduce to the minimum the smoke produced by combustion and correspondingly reduce the amount of smut accumulating upon the trees and which is sometimes injurious to the buds.

A further object is to provide a device of this character having a grate of novel form designed to retain the fuel, the entire device including the grate being formed of a minimum number of parts.

With these and other objects in view the invention consists of certain novel features of construction and combinations of parts which will be hereinafter more fully described and pointed out in the claims.

In the accompanying drawings is shown the preferred form of the invention.

In said drawings: Figure 1 is a central vertical section through a heater embodying the present improvements. Fig. 2 is a plan view thereof, a portion of the cover being broken away.

Referring to the figures by characters of reference, 1 designates the body of the heater, the same being preferably formed of a length of sheet metal having its ends lapping and held together by rivets 2 or in any other preferred manner, said body being in the form of an inverted cone frustum. Arranged within the small end portion of the body are cross strips 3 arranged at right angles to each other and preferably held together at their centers by a rivet 4 or in any other preferred manner. These cross strips are provided at their ends with legs 5 ex-

tending at right angles therefrom and riveted or otherwise secured to the inner face of the body 1. These legs extend beyond the small end of the body and are provided with feet 6 extending inwardly therefrom at right angles and constituting broad bearing surfaces for contacting with the ground. Those portions of the body between the legs are bent inwardly or crimped as indicated at 7, these inwardly extending portions co-operating with the cross strips 3 to support fuel within the body and above the ground. It is thought that this will be clearly apparent by referring to Fig. 2. A cover 8 may be provided for the body 1, the same having a handle 9 extending therefrom whereby it can be readily placed in or removed from position. Any suitable means such as depending ears 10 may be provided upon the cover for projecting into the upper end of the body and thus preventing the cover from becoming displaced after being placed in position. As shown in the drawings these ears are preferably produced by striking them downward from the peripheral portion of the cover, although it is to be understood that they may be formed in any other manner desired.

When it is desired to use the device herein described the same is placed at a convenient point within an orchard and filled with wood, charcoal, coal or any other material constituting the fuel and when this fuel is once ignited a sufficient draft will be maintained through the heater to support combustion and at the same time reduce the quantity of smoke generated. The combustion may be controlled by partly or entirely opening the cover 8. It is designed to place fifty or sixty heaters such as herein described in each acre and each heater is designed to be sufficiently large to contain enough fuel to last five to seven hours. As the heater is formed of sheet metal it can be cheaply manufactured and it will be noted that the same is very simple in construction inasmuch as it consists of but three pieces exclusive of the cover, said pieces being arranged in such a manner as to form the body, the legs, and the grate.

What is claimed is:

1. A heater comprising a body, cross strips secured in one end portion thereof, and legs integral with and depending from said strips and secured to and extending beyond

the body, said body having depressed portions between the legs and cooperating with the cross strips to constitute a grate.

2. A heater comprising an inverted frusto-
5 conical body having angular depressions therein at its lower end, cross strips secured diametrically within the body and cooperating with the depressions to constitute a
10 grate, legs integral with said strips and secured to and extending beyond the body, and feet integral with said legs.

3. A heater comprising an inverted frusto-
conical body having angular depressions
therein at its lower end, cross strips secured
15 diametrically within the body and cooper-

ating with the depressions to constitute a grate, legs integral with said strips and secured to and extending beyond the body, feet integral with said legs, a cover, retaining ears integral with the cover, and a handle 20 extending from the cover.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures in the presence of two witnesses.

JOSEPHUS C. PLANK.
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Witnesses:

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