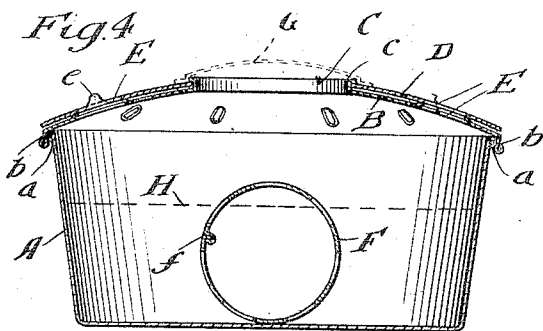
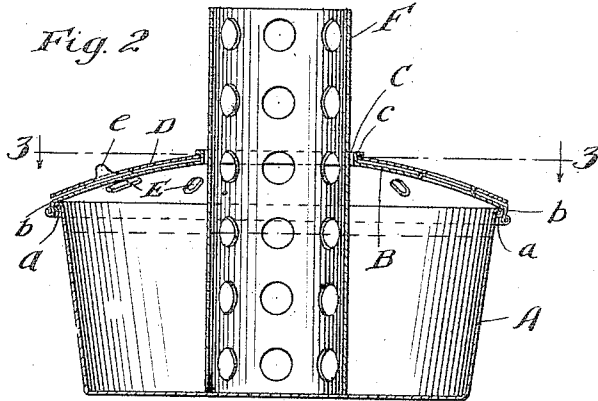
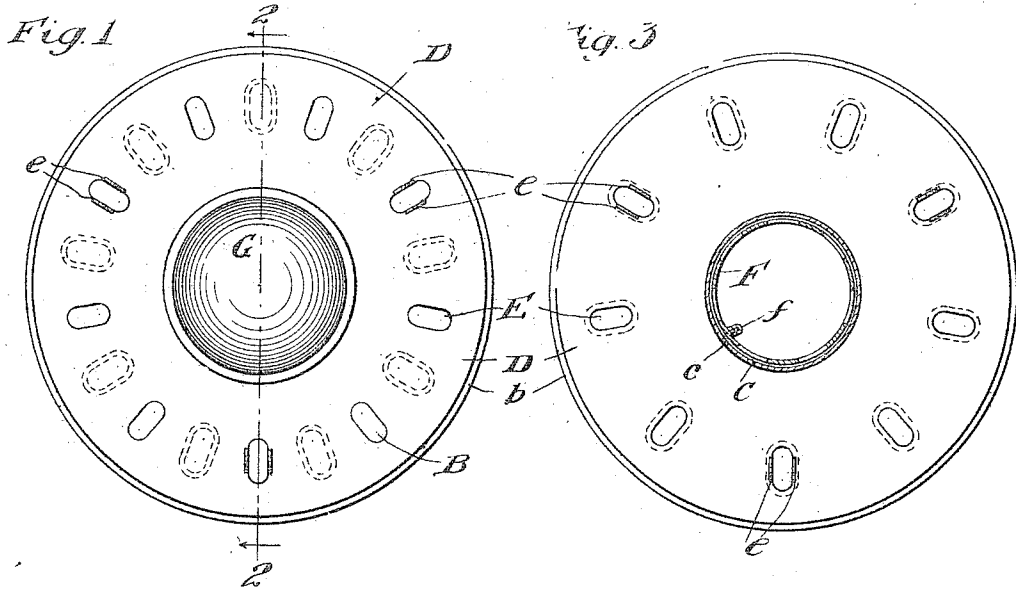


C. STOLLBERG.
ORCHARD HEATER.
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1,044,705.

Patented Nov. 19, 1912.



Witnesses:

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UNITED STATES PATENT OFFICE.

CHARLES STOLLBERG, OF TOLEDO, OHIO, ASSIGNOR TO AMERICAN CAN COMPANY, OF
NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

ORCHARD-HEATER.

1,044,705.

Specification of Letters Patent.

Patented Nov. 19, 1912.

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To all whom it may concern:

Be it known that I, CHARLES STOLLBERG, a citizen of the United States, residing in Toledo, in the county of Lucas and State of Ohio, have invented new and useful Improvements in Orchard-Heaters, of which the following is a specification.

This invention relates to an improvement in orchard heaters.

The object of the invention is an orchard heater of simple, durable construction, such that the parts may be cheaply manufactured, compactly packed for shipment, easily and quickly assembled when put into use, readily charged with fuel and ignited; in which the combustion may be perfectly controlled, and which when assembled is weather proof.

My invention embodies a fuel container stamped or drawn up of a single piece of sheet metal into the form of a seamless pan, and provided with a dome shaped cover which may be secured to said pan by being snapped thereon. The dome shaped cover has a central opening to receive a loose, vertical, perforated flue, capable of being set upright to project above the dome shaped cover and serve as a draft chimney when great heat is desired, or of being removed from the chimney position and laid horizontally in the bottom of the fuel pan where it facilitates the burning when a smudge or slow combustion is desired. The dome shaped cover is made in two parts, one to revolve upon the other, both parts being perforated with registering openings for regulating the draft by the movement of one upon the other to close and open the ports. A supplemental dome shaped cap is provided for closing the central opening in the cover to make the heater entirely rain proof and also to close the combustion chamber so that the slow combustion as in smudging may be effectively regulated, by means of the registering parts, and said cap.

My invention also consists in the novel construction of parts and devices and in the novel combinations of parts and devices herein described and more particularly specified in the claims.

In the accompanying drawing forming a part of this specification, Figure 1 is a top or plan view of the improved heater assembled, showing the cap for the open-

ing in the dome shaped cover applied as when the heater is closed against rain. Fig. 2 is a vertical section taken on the line 2-2 of Fig. 1, excepting that in the section the cap is removed and the vertical cylindrical perforated draft chimney is shown as erected. Fig. 3 is a horizontal section on the line 3-3 of Fig. 2; Fig. 4 is a section similar to Fig. 2 but showing the cylindrical draft chimney laid in the horizontal position on the bottom of the fuel pan.

In said drawing, A is the circular fuel containing pan made of a single piece of metal and with slightly flaring sides so that a number of them may be readily nested together for shipment. Its upper edge is stiffened with a false wiring *a*.

B is one member of the dome shaped cover and is made with a depending beaded flange *b* adapted to snap down frictionally outside of and over the false wire edge *a* of the fuel pan. A central opening C is made in the dome shaped member B, the edges of which are at this point, flanged upwardly to form a vertical wall *c*. A second dome shaped member D also with a central flanged opening is applied to fit down over the flange of the member B, and is secured thereto by the turning over of the flange, the construction being such that the upper dome-shaped member D may be turned readily upon the dome shaped lower member B. Both the dome shaped lower member B and the dome shaped upper member D are perforated with corresponding ports E, the dome shaped upper member having also, at some of its ports, upturned finger holds *e*, by which to turn it. By turning the upper member D on the dome shaped member B the ports E may be partly or wholly opened or closed to regulate the draft as desired, and to close the fuel chamber against the weather.

The draft chimney is shown at F, and consists of a flat piece of sheet metal formed into cylindrical shape and hooked together at the loose seam *f*. When unhooked, a number of these chimneys may be nested together for shipment. This draft chimney is perforated at short intervals with holes so that when erected there may be free communication for the air from the fuel pan to the interior of the chimney above the fuel, and thus free escape to the outer at-

mosphere for the products of combustion. When it is desired that the burning shall be rapid, as in case of severe frost, the chimney is erected into the position shown in Fig.

2. But when the heater is to be closed up to guard against rain or snow, or partially closed for smudging this chimney is laid down in the position indicated in Fig. 4, and the supplemental dome shaped smaller cover G may be then applied, as indicated in dotted lines in Fig. 4. With the draft chimney lowered and thus placed inside, the supplemental cover G applied, and the registering openings in the cover closed, the interior of the fuel chamber is entirely guarded from rain or snow as the dome shaped exterior effectively sheds water. When the draft chimney is thus laid on its side in the fuel pan, some part of it, as the fuel is consumed, will project above the surface line H of the liquid fuel or oil. The tendency of the oil is to cling to the surface of the metal of the chimney and burn there. And the perforations in the chimney while in this horizontal position will thus aid to maintain a more regular slow combustion for purposes of smudging. For this purpose of smudging the outlet and inlet of air may be regulated by applying the supplemental cover to close or partly close the central opening and adjusting the register ports to a greater or less degree of closure.

I claim:—

1. An orchard heater comprising in combination the following parts; a fuel pan, a cover for the pan having a central opening, and a vertical draft chimney having perforated sides, said draft chimney being loosely inserted through the central opening in the cover and adapted to be removed therefrom

and laid horizontally in the fuel pan, substantially as specified.

2. An orchard heater comprising, in combination: a fuel pan; and a removable cover, said cover comprising two parts each provided with a central perforation and with ports adapted to register for regulating the draft, one of the parts being provided with integral means for retaining the two parts in position, substantially as specified.

3. An orchard heater comprising, in combination: a fuel pan, a removable cover the latter comprising two members relatively rotatable and each provided with ports adapted to register, whereby the draft may be regulated, and a detachable vertical draft chimney extending down into the fuel pan, substantially as specified.

4. An orchard heater comprising, in combination: a fuel pan having a strengthened upper edge, a two-part dome shaped cover having a depending flange adapted to engage and snap over the upper edge of the fuel pan and to be retained in position thereby, said cover having a central opening and the two parts thereof having ports adapted to be brought into registry with each other, a removable perforated draft chimney adapted to be inserted upright in said central opening or laid in a horizontal position in the fuel pan beneath the cover, and a supplemental cover adapted to close the chimney opening in the cover when the chimney is placed entirely within the fuel pan, substantially as specified.

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Witnesses:

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