G. W. BOWMAN & J. A. BECRAFT.

HEATER.

APPLICATION FILED NOV. 30, 1908.

941,910. Patented Nov. 30, 1909.

Fig. 1

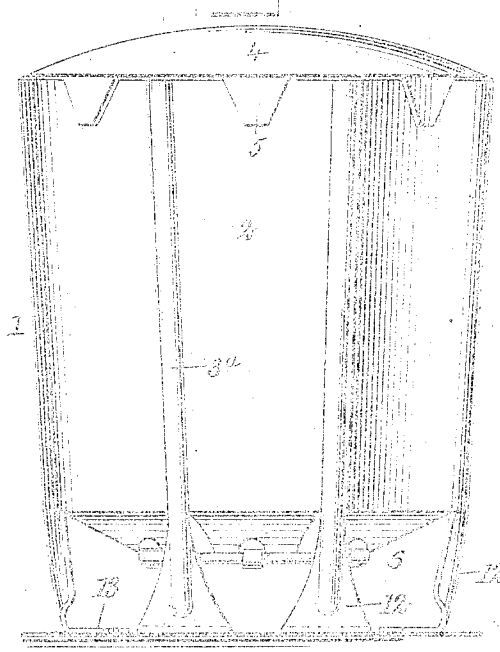


Fig. 2

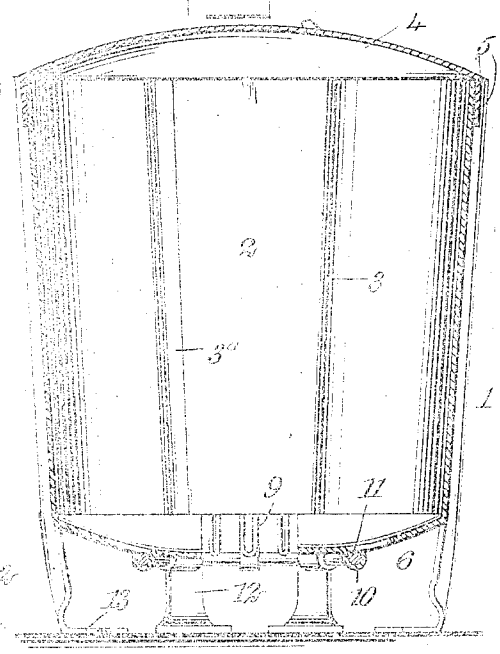


Fig. 3

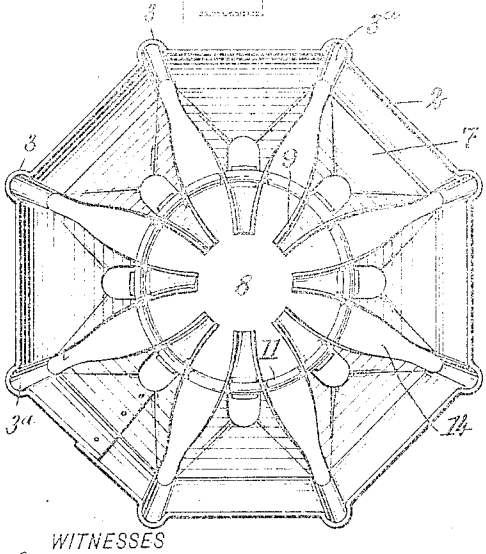
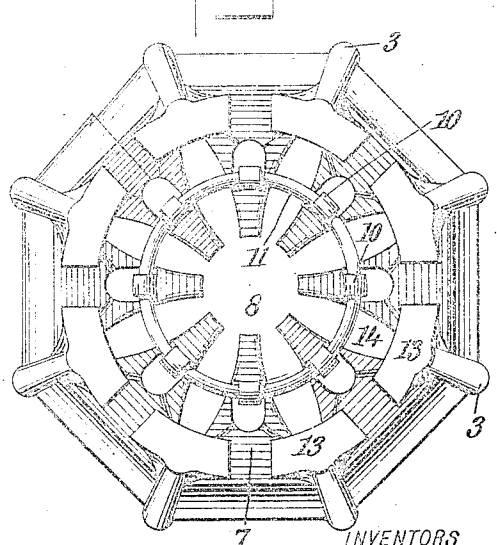


Fig. 4



WITNESSES

John A. Berglund

F. D. Clarke

INVENTORS

George W. Bowman

Jesse A. Becraft

BY

Munn & Co

ATTORNEYS

UNITED STATES PATENT OFFICE.

GEORGE W. BOWMAN AND JESSE A. BECRAFT, OF PALISADES, COLORADO.

HEATER.

941,910. Specification of Letters Patent. Patented Nov. 30, 1909.

Application filed November 30, 1908. Serial No. 465,380.

To all whom it may concern:

Be it known that we, GEORGE W. BOWMAN and JESSE A. BECRAFT, both citizens of the United States, and residents of Palisades, in the county of Mesa and State of Colorado, have invented a new and Improved Heater, of which the following is a full, clear, and exact description.

This invention relates to heaters, and especially to such as are used out-of-doors.

The object of the invention is to produce a heater of simple construction having a form which especially facilitates a good draft and the rapid ignition of the fuel when the fire is started.

The heater is especially adapted to be formed of sheet metal.

The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly set forth in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of a heater constructed according to our invention; Fig. 2 is a vertical section through the heater; Fig. 3 is a top plan of the heater with the cover removed; and Fig. 4 is a bottom plan view.

Referring more particularly to the parts, 1 represents the body of the heater, which is in the form of a shell. The body is made to present sides or faces 2, and at the meeting edges of these sides or faces 2, the material is pressed outwardly so as to form semi-tubular ribs 3 and flues 3^a on their inner sides. The body tapers slightly toward its lower end; its upper end is normally closed by a dished cover 4 having downwardly projecting ears 5 at the edges thereof which seat against the side faces 2, as shown in Fig. 1. The bottom 6 of the heater is formed of a plurality of tongues 7 of substantially triangular form and dished, as shown in Fig. 2. These tongues are formed integral with the side faces 2 and project inwardly toward a central opening 8 in the bottom. The adjacent or side edges of the tongues 7 are crimped upwardly, as shown, so as to form channels between reinforcing ribs or flanges 9, and at the inner ends these channels are open. Near the middle portions of the tongues, ears 10 are struck downwardly from the material and these ears are bent around a bottom ring 11 which is seated against the under sides of the tongues, as indicated. In this way the tongues are all connected together so as to form a rigid bottom for the heater. The semi-tubular ribs 3 are extended down below the bottom 6 and are expanded or flared outwardly so as to form legs 12, said legs being bent inwardly so as to present flanges or feet 13 which rest upon the ground, as shown.

The flanges 9 stiffen the tongues and give them greater rigidity. The semi-tubular ribs 3 stiffen the body, and the tapered form of the body is adopted so as to enable the heaters to be nested together for shipment. In this connection attention is called to the fact that the feet turn inwardly and not outwardly. In this way they do not prevent the nesting of the heaters as suggested.

Special attention is called to the amount of opening which is afforded at the bottom 6. In addition to the central opening 8, there are radially disposed openings 14 which are formed between the adjacent sides or edges of the tongues. In this way a sufficiency of air is obtained for the combustion whether the cover 4 is in position or not.

The corrugations or ribs 3 are very effective in developing a good draft when the fire is started, as an ordinary fuel within the heater does not extend into the channels. When the fire is lighted below, tongues of flame pass up these igniting the charge of fuel on its sides and at a number of points. In this way the fuel is ignited quickly and on its outer side where the heat is thrown off most effectively.

While the sides of the heater have been described as flat, this feature is of no importance and these parts of the body of the heater could just as well be curved. When the cover is on the heater of course the draft is dampened and the fire burns very slowly.

Having thus described our invention, we claim as new and desire to secure by Letters Patent,—

1. A heater formed of sheet metal having a body presenting a plurality of side faces having integral tongues projecting radially inwardly from the lower edges thereof, in combination with a ring connecting said tongues and coöperating therewith to prevent the depression of said tongues and forming with said tongues a bottom for said heater.

2. A heater formed of sheet metal having a body presenting a plurality of side faces, said side faces having tongues integral therewith projecting inwardly from the lower edge thereof toward the center of said body and forming a bottom for said body, the material of said body between said tongues being extended downwardly and forming legs supporting said body, the edges of said tongues being bent to form channels decreasing in width toward the center of said heater.

3. A heater formed of sheet metal and comprising an integral body portion formed with a plurality of sides, reinforcing ribs at the edges between said sides, and tongues projecting inwardly from the lower edges of said sides forming a bottom for said body, said reinforcing ribs being extended below said bottom and forming legs supporting said body.

4. A heater formed of sheet metal and comprising an integral body portion formed with a plurality of sides, semi-tubular reinforcing ribs formed at the edges between said sides, tongues formed integral with said sides and projecting inwardly from the lower edges thereof, a ring connecting said tongues, and legs supporting said body.

5. A heater formed of sheet metal and comprising an integral body portion formed with a plurality of sides having tongues projecting inwardly from the lower edges thereof, said tongues having ears struck from the material thereof, in combination with a ring engaged by said ears and connecting said tongues to form a bottom for said body.

6. A heater formed of sheet metal and comprising an integral body portion formed with a plurality of sides having integral tongues projecting inwardly from the lower edges thereof, the edges of said tongues being bent to form reinforcing ribs at the inner ends of said tongues, said tongues having ears, in combination with a ring attached to said ears and connecting said ends to form a bottom for said body.

7. A heater formed of sheet metal and comprising an integral body portion formed with a plurality of sides, reinforcing ribs at the edges between said sides, tongues projecting inwardly from the lower edges of said sides forming a bottom and having crimped edges forming reinforcing flanges, and ears struck therefrom, said body portion also comprising downwardly extending legs, in combination with a strengthening ring for said bottom, said ring being held in its operative position by said ears.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

GEORGE W. BOWMAN.
JESSE A. BECRAFT.

Witnesses:
R. H. BANCROFT,
R. M. SKINNER.