

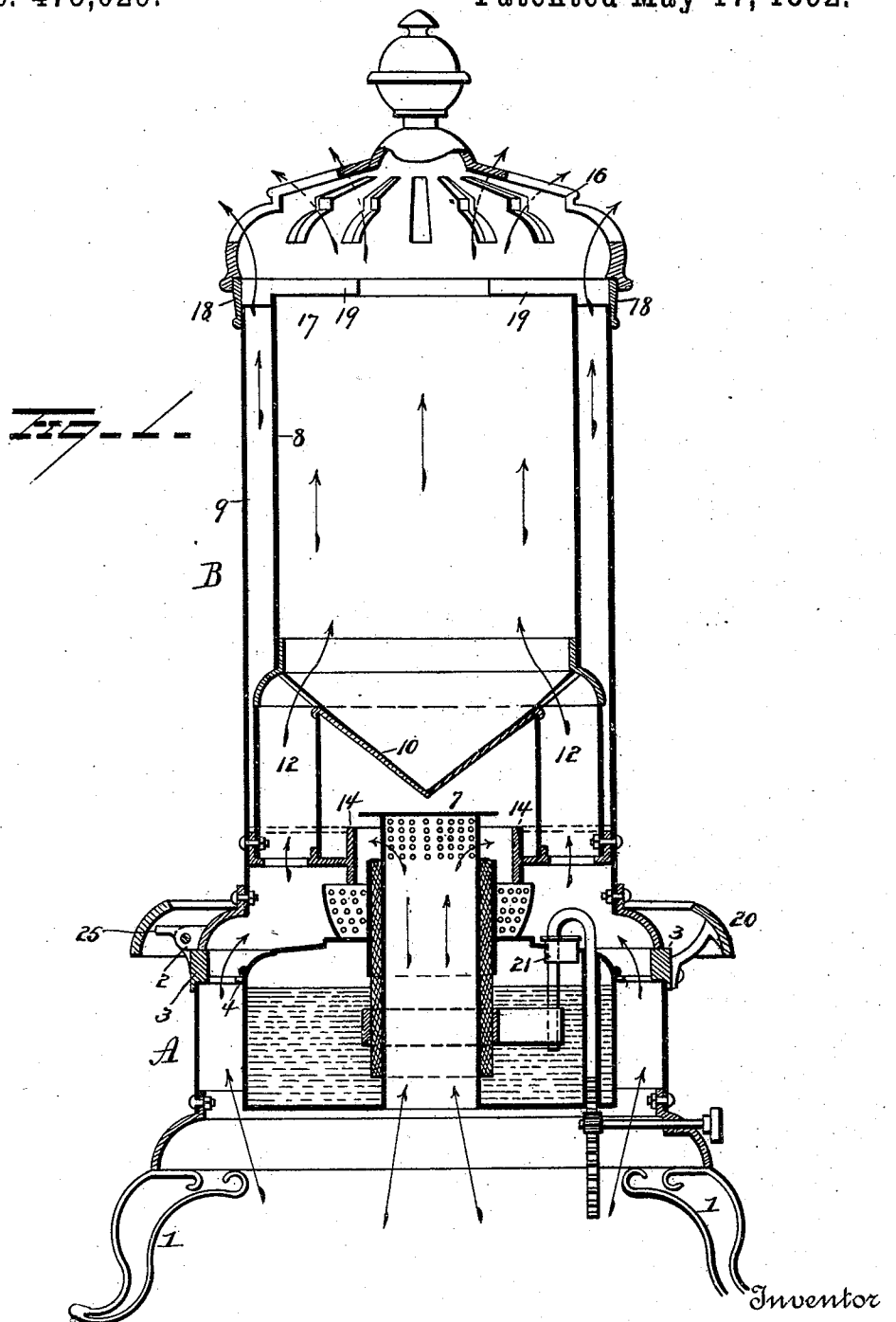
(No Model.)

2 Sheets—Sheet 1.

A. C. BARLER.
STOVE OR HEATER.

No. 475,029.

Patented May 17, 1892.



Witnesses
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(No Model.)

2 Sheets—Sheet 2.

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Fig. 2.

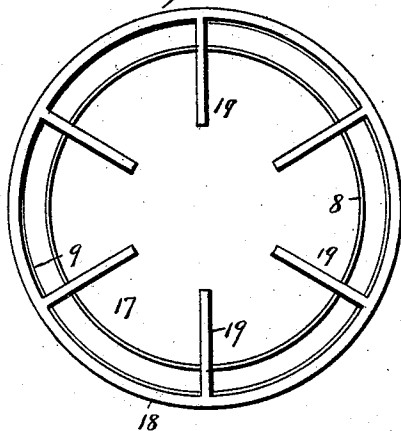


Fig. 4.

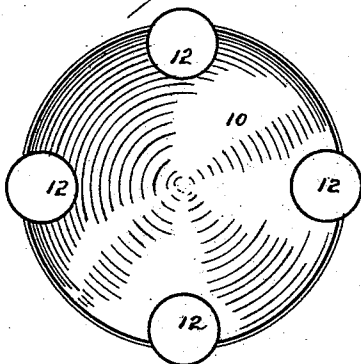


Fig. 5.

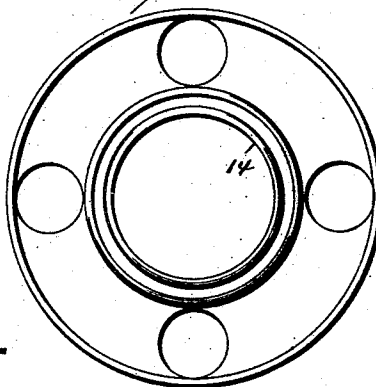
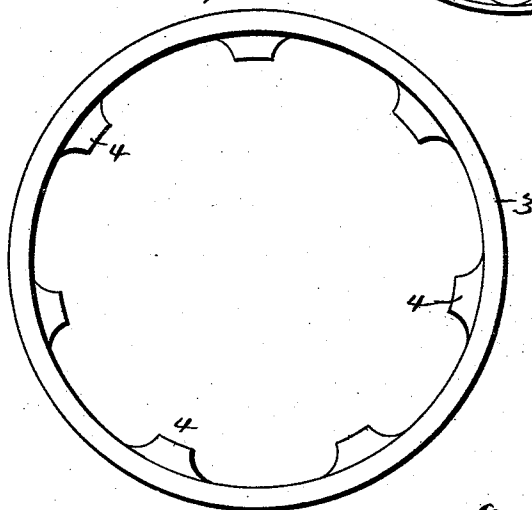


Fig. 3.



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UNITED STATES PATENT OFFICE.

AUGUSTUS C. BARLER, OF FREMONT, NEBRASKA, ASSIGNOR TO THE HUETTE-BARLER MANUFACTURING COMPANY, OF CHICAGO, ILLINOIS.

STOVE OR HEATER.

SPECIFICATION forming part of Letters Patent No. 475,029, dated May 17, 1892.

Application filed April 8, 1891. Serial No. 388,068. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTUS C. BARLER, of Fremont, in the county of Dodge and State of Nebraska, have invented certain new and useful Improvements in Stoves or Heaters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in stoves or heaters, the object being to provide a stove in which there shall be perfect combustion, free from odor, and one which shall be neat in appearance, durable in construction, economizing in the consumption of oil, and possessing great heating-power.

With these ends in view my invention consists in certain novel features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a sectional view in elevation. Fig. 2 is a plan view with the top removed. Fig. 3 is a detached view of ring 3. Fig. 4 is a detached view of the bottom 10, and Fig. 5 is a detached view of the bottom of the outside drum 9.

A represents the base of the stove or heater, the same being conveniently supported on suitable legs 1 1, as shown in Fig. 1, and B is the body or radiating portion of the stove or heater, the latter being preferably hinged at 2 to the base, so that it can be easily and quickly swung back to get at the interior to fill or remove the oil-reservoir, clean the stove, or for other reasons, as occasion may require it. In the upper end of this base portion a ring 3 is located, and this is provided with points 4 4, which project inwardly for a suitable distance from the walls of the base, so that a circular air-space is formed around the reservoir. The base may be open at the sides or bottom to let air in, and by circulating freely around the oil-reservoir the latter is kept cool and the possibility of explosion from the oil tank or reservoir becoming heated is prevented; also, the proper combustion required is insured by the circulation of air thus produced. The reservoir is also provided with a central opening for the

air to pass up into the burner. The burner used is the ordinary "Rochester pattern" burner, and it has on its top a disk 7, which serves as a flame-spreader.

The body B of the stove or heater comprises two drums 8 and 9, the former of which is inside of the latter. These drums are preferably cylindrical in shape, and the space between them is comparatively restricted, so that greater radiation of heat both from the inside and outside takes place. This constitutes an essential feature of the invention. By this means both the inside and outside surfaces of the drums are heated hotter than they would be otherwise. In this connection it may be added that the bottom 10 of the inner drum is preferably, but not necessarily, conical. This latter is the preferred form, for it assists in deflecting and distributing the heat equally and in starting it through the annular portion of the combustion-chamber formed between the two drums. The burner is immediately beneath the cone-shaped bottom 10, so that the latter is necessarily kept very hot and helps to heat the air which passes into and through the inside drum.

Several air-tubes 12 12, preferably about four in number, are arranged around the combustion-chamber, and they conduct the air which enters at the base of the stove into the inside drum. These air-tubes are preferably located inside of the combustion-chamber, and thus no heat is wasted; but the air is well heated before it enters the inside drum. They also allow me to use four large mica or transparent openings for light to pass through.

The flange 14 is located inside the tubes and surrounds the burner. This flange extends nearly to the flame-spreader, and it is an important aid to perfect combustion. If desired, the bottom of the outside drum may be on a line with the top of this flange, as indicated in dotted lines in Fig. 1.

At the upper end of the body the ornamental open-work top 16 is located. This may be easily and quickly removed when occasion requires, and immediately beneath it is an inside top 17. This is arranged to fit over the top of the drums and is provided with lugs or a ring, which enters between the drums

and embraces their upper edges in such a manner as to hold them apart and in place and prevent the accidental removal of the top itself. This inside top is in the nature of a spider, comprising the main portion or ring 18 and the radial projections 19 19. The object of this inner top is to form a support for dishes placed on the stove to be heated.

Secured to the outside of the base is the usual guard rail or ring 20. This gives a neat appearance and finish to the stove and may serve as a foot-rest and as a convenient handle by which to move the stove.

The opening 21 for filling the tank is located at a convenient place on the oil-reservoir inside of the base, and access to it is easily had by opening the stove. In this way, also, the oil-reservoir can be removed or refilled at any time, and the careless custom of servants in filling stoves while burning is prevented, because the light must first be extinguished. The hinge which connects these parts may be provided with a projection 25, which constitutes a stop or support for holding the upper portion of the stove at about right angles to the base when open.

By a very simple change this stove or heater may be used for gas as well as oil. When gas is used, it is conducted in through pipes, as usual, and discharged in a jet or jets beneath the bottom of the inner drum.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with concentric drums, the inner one having a flaring bottom, of a skeleton top located at the upper end of the drums, having a portion fitted between the drums and adapted to hold them apart, said top having inwardly-extending projections adapted to form a support for articles to be heated and provided with an encircling flange which engages an edge of one of the drums, substantially as set forth.

2. The combination, with a body comprising concentric drums and a base, of an oil-reservoir located in the base and having an air-space formed around it, and air-tubes leading from said air-space into the inner drum, substantially as set forth.

3. The combination, with a body comprising concentric drums and base, of an oil-reservoir located in the base, said reservoir having an air-opening through it and one surrounding it, and air-tubes leading from the surrounding air-space into the body, substantially as set forth.

4. The combination, with a body comprising concentric drums and combustion-chamber, of a base, an oil-reservoir located in the latter and provided with a central air-passage and surrounding air-space, the former in communication with the combustion-chamber and the latter in communication with the inside drum, substantially as set forth.

5. The combination, with a body comprising concentric drums and a combustion-chamber and burner, of a base and an oil-reservoir located in the latter and provided with a central air-passage and a surrounding air-space, the former in communication with the combustion-chamber through the burner and the latter in communication with the inside drum, substantially as set forth.

6. The combination, with a pair of concentric drums, the inner one having a tapering bottom, and air-tubes leading into this bottom, of a burner located immediately below the tapering bottom in position to deflect the flame and cause it to impinge against the air-tubes, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

AUGUSTUS C. BARLER.

Witnesses:

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OTTO HUETTE.