G. CONOVER.

Attachment for Domestic Boilers.

No. 222,673. Patented Dec. 16, 1879.

Fig. 1.

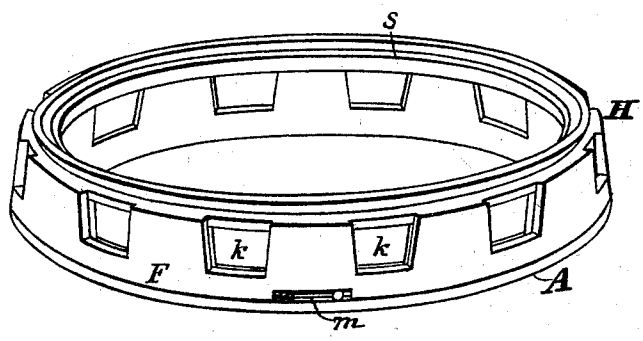
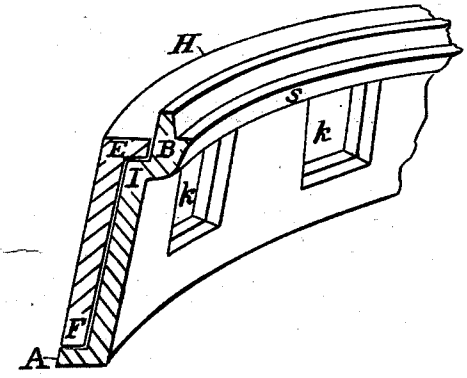


Fig. 2.



Witnesses:
R. B. Whitman
Wm. H. Bates

Inventor:
Geo Conover
By C. S. Whitman
Attorney.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE CONOVER, OF MIDDLETOWN, CONNECTICUT.

IMPROVEMENT IN ATTACHMENTS FOR DOMESTIC BOILERS.

Specification forming part of Letters Patent No. **222,673**, dated December 16, 1879; application filed October 15, 1879.

To all whom it may concern:

Be it known that I, GEORGE CONOVER, of the city of Middletown, in the county of Middlesex and State of Connecticut, have invented and made a new and useful contrivance designed to regulate the heat between the bottom of a boiler or other utensil and the fire under it by admitting cold air at will between them; and the following is a full, clear, and exact description thereof, reference being made to the accompanying drawings, which constitute a part of this my specification.

My invention consists of two concentric rings of cast-iron of the thickness of ordinary stove-castings, one ring fitting to and sliding around the other. The inner ring is about ten or twelve inches in diameter and two inches high. Around it is a row of apertures, each about one inch square and about one and a quarter inch apart. Fitting closely but loosely outside this inner ring is a narrower ring, having corresponding apertures at corresponding distances apart. By sliding this outer ring around the inner ring the apertures of the inner ring are opened and closed at pleasure. Projecting out around the bottom of the inner ring is a quarter-inch flange, upon which the lower edge of the outer ring rests and slides. The upper edge of the outer ring also has a quarter-inch flange projecting from the inside, which rests upon a ledge or shoulder cast around the outside of the inner ring about one-half an inch below its upper edge. Both rings are cast slightly conical, so that the castings may draw easily. The apertures are, for the same reason, made a little narrower at the bottom than at the top. Around on the inside of the upper edge of the inner ring is a ledge, upon which the bottom of the boiler or other utensil rests, or upon which concentric plates for different-sized utensils may rest.

Figure I represents a perspective view of my invention. Fig. II represents a vertical section made by a plane passing vertically across the rings in the line of their diameter as the rings are adjusted. It also shows a small portion of the rings in perspective.

The same letter marks the same part in the drawings.

In Fig. I, A is the flange on the bottom of the inner ring, upon which the outer ring, H F, rests and turns. *s s* is the flange or ledge, on which the boiler or other utensil rests. *k k* are the apertures.

In Fig. II, F E is a section of the outer ring, and A I B is a section of the inner ring. *s s* is the ledge for the boiler. *k k* are the apertures for admission of cold air to moderate the heat under the boiler.

The bottom of the inner ring is made smooth, so as to rest snugly upon the top of the range or stove around the open fire-hole over which the cooking or heating is to be done.

On the lower edge of the outer ring is a slot, (indicated at *m* in Fig. I.) Through this slot a pin projects, which pin is fastened to the inner ring, and serves to check, at the proper point, the movement of the outer ring around the inner ring for opening and shutting the apertures.

The operation of my invention is obvious. If set upon a range or stove with a boiler or other utensil resting upon it, a chamber is formed within the ring and beneath the bottom of the boiler or other utensil. The heat within this chamber may be confined by closing the apertures, or it may be moderated by opening them, and thus the heating may be regulated at pleasure.

I am aware that a device in the form of a ring provided with dampered openings has been constructed; but said ring was provided with vertical flanges, which would support a vessel resting thereon too far from the fire for successful operation in the use which I propose; and I am also aware of a ring provided with openings attached to the boiler of a stove permanently.

What I claim as new, and desire to secure by Letters Patent, is—

The inner ring, A I B, provided with a pin for opening and closing the apertures, in combination with an outer ring, H E F, constructed and operating as described, and for the purpose set forth.

GEORGE CONOVER.

Witnesses:
FRANK C. WHITE,
ROBT. G. PIKE, Jr.