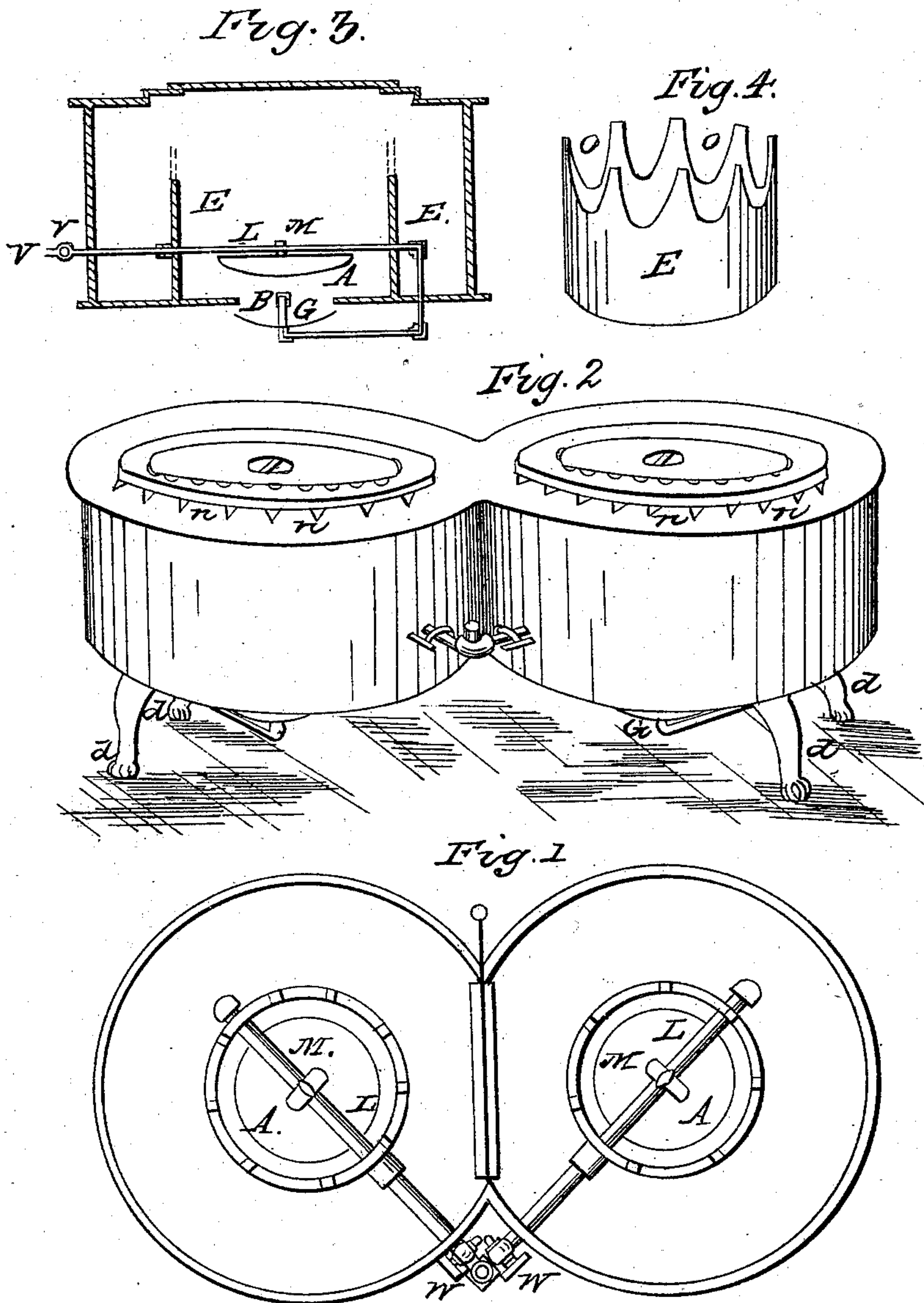


O. C. FOX.

Gas Heater.

No. 78,951.

Patented June 16, 1868.



WITNESSES  
F. M. Lozenby  
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# UNITED STATES PATENT OFFICE.

OSCAR C. FOX, OF GEORGETOWN, DISTRICT OF COLUMBIA.

## IMPROVEMENT IN GAS-HEATERS.

Specification forming part of Letters Patent No. 78,951, dated June 16, 1868.

*To all whom it may concern:*

Be it known that I, OSCAR C. FOX, of Georgetown, in the District of Columbia, have invented a new and Improved Petroleum-Gas Stove; and do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and the letters of reference marked thereon.

Figure 1 shows the structure with casings removed. Fig. 2 is a perspective view of the stove in working order. Fig. 3 is a section of the stove cut in the plane of the fire or generating chamber. Fig. 4 is the crown or cylinder.

To enable others skilled in the arts to make and use my invention, I will proceed to describe its construction and operation.

I construct my stove in any approved form, and of the most suitable material. Its interior is arranged so as to most effectually secure and directly apply the heat to the end desired.

The fire-plate A centers over the burner B. Its lower surface is made convex, a form best adapted to evenly radiate the heat. This is surrounded with metal tube or cylinder E, which may be made a part of or securely fitted to the bottom plate of the stove, and reaching upward something more than one-half the distance between the top and bottom, and of a diameter adapted to the size of the stove, and such that an article of furniture placed in the hole of the stove may rest upon the crown of the cylinder or come within its walls. The top of the cylinder I cut in notches *o o o*, furnishing apertures for the flame and heat to pass out and around the furniture placed in the stove. The fire-plate A is of less diameter than the cylinder, leaving space between them for passage of the flame and heat as thrown off the fire-plate.

The office of the cylinder is twofold. It radiates and reflects the heat and flame thrown off by the fire-plate A, bringing it in direct contact with the article to be reached, and at the same time acts as a flue, in connection with the small openings *n n n* in the top of the stove.

The generating-pipe L is constructed in sections, so that the parts directly acted upon by the heat may be removed and new ones substituted in their place.

Gas-stoves now in use become worthless when this pipe is burned out, as it always is sooner or later, there being no way of removing the old and substituting new.

By thus constructing the generating-pipe I am also enabled to remove the fire-plate A when worn or broken, and substitute a new one. The fire-plate is secured to the generating-pipe by a loop passing over it, and firmly held by a thumb-screw, M, or other efficient means.

The generating-pipe is carried through the flue or cylinder, and, passing down through the bottom plate of the stove, is brought to the point for the attachment of the burner B.

My burner I construct with a shield or cup, G, of sufficient dimensions to receive all waste oil, and in such proper distance from the top of the burner that the refuse oil, falling within it, is readily burned.

With my burner I dispense with all receptacles for receiving the waste oil, as by my process there is, in fact, no waste oil or drippings.

I construct my stoves with one or more burners. When I have more than one I insert a movable slide, K, by the means of which one burner may be used, and all the heat retained in that part of the stove. The stove is supported by legs *d d d d*.

Its operation is simple. The benzine or other inflammable substance is admitted into the generating-pipe by turning the cock W. (The supply is regulated by the cock W.) The fluid passes through the generating-pipe to the burner B, where it is ignited by extending the lighter under the stove. The flame heats the fire-plate and generating-pipe, and as they become hot the fluid is converted into gas, and the flame is fed by gas alone.

The generating-pipe is connected with the supply-pipe N, at X, in any convenient manner. My stove may be also used with common gas. It is only necessary to connect the generating-pipe with the gas-fixtures, and it is ready for operation.

The advantages of my stove over others consist in its simplicity, cheapness, and durability, as well as its adaptation to use common gas, or any liquid which can be converted into gas by the application of heat.

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

1. A petroleum-stove having the detachable pipe L, burner B, cup C, and cylinder E, the upper edges of which are notched, all constructed and arranged substantially as shown and described.

2. A stove having two or more compartments, provided with independent burners,

and having an adjustable slide for separating said compartments, whereby either may be heated and used independently of the other, when constructed and arranged substantially as herein set forth.

OSCAR C. FOX.

Witnesses:

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