(No Model.)

I. F. KEARNS.

BURNER FOR GAS STOVES.

No. 306,082. Patented Oct. 7, 1884.

Fig. 1.

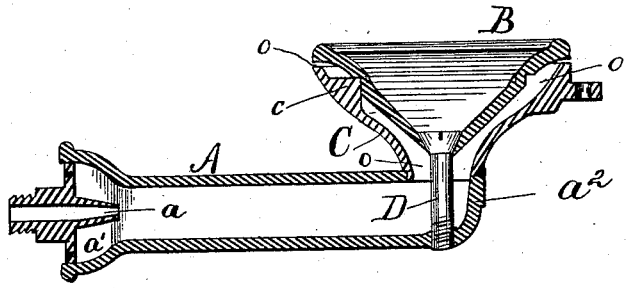


Fig. 3.

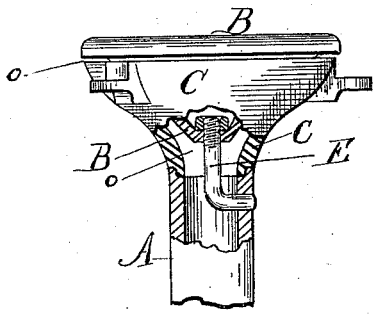
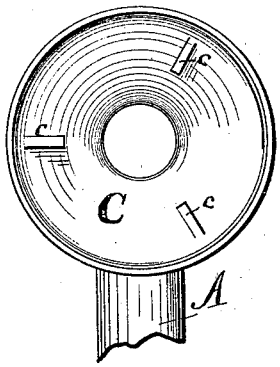


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

ISAAC F. KEARNS, OF CHICAGO, ILLINOIS.

BURNER FOR GAS-STOVES.

SPECIFICATION forming part of Letters Patent No. 306,082, dated October 7, 1884.

Application filed March 13, 1884. (No model.)

To all whom it may concern:

Be it known that I, ISAAC F. KEARNS, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Burners for Gas-Stoves, of which the following is a specification.

This invention relates to the burners employed in gas-stoves and is an improvement upon the old manner of constructing them.

In consists in the novel features hereinafter described, and pointed out in the claims.

In the accompanying drawings, which form a part of this specification, Figure 1 is a vertical section of my improved burner. Fig. 2 is a plan of the lower cone-disk; and Fig. 3 shows the burner applied to the end of a straight pipe.

In said drawings, A represents a pipe forming the mixing-chamber of a Bunsen burner, the gas being discharged thereinto through the nozzle *a*, and the air through the bell-mouth *a'* surrounding the nozzle. This pipe conducts the air and gas to the burner proper, which in Fig. 1 is shown as supported upon an elbow, a^2, formed upon the end of the pipe A. This burner proper, which corresponds to the tip of an ordinary illuminating-burner, forms the subject of my invention, and I construct it of two inverted cone-shaped disks placed one above the other and at a sufficient remove from each other to form between them an annular upwardly-inclined passage for the gas and air, which are discharged into said passage through a central opening in the lower cone. The upper of these cones is designated by B, the lower one by C, and the passage by *o*. The cone C is placed upon the mouth of the elbow, and the cone B is supported at the proper distance above the cone C by shoulders or projections *c* upon the interior surface of the latter. Both cones are secured to the pipe by a headed screw, D, passing through the apex of the upper one and engaging with a threaded opening in the under side of the elbow a^2. The peripheral edges of the cones approach each other, as shown, so that at its outer orifice the passage *o* is contracted sufficiently to prevent the flame from working back into the burner.

When this burner is to be secured upon the end of a straight pipe A, the lower cone rests in a similar manner upon the end of the pipe, and instead of the screw D, a bolt, E, is employed. This bolt is provided with a hook at its lower end, which enters a recess in the side of the pipe A, and the nut is upon the upper end, bearing upon the upper disk. By employing parallel cones placed one above the other in this manner, the passage for the gas is inclined upward. No lodgment is afforded in which unconsumed gas may remain after the flame is extinguished, and one cause whereby bad odor is produced in previous constructions is avoided. I also dispense with all the perforated orifices of the old burners, which frequently become clogged and are difficult to clean. I find also that the interior gauze diaphragms intended to prevent explosions are wholly unnecessary with my construction, and, indeed, are a positive evil, preventing perfect combustion. The cones are easily taken apart when occasion requires.

I claim—

The combination, in a gas-stove burner, of the disks B and C, supports for the former, the screw or bolt, and the conduit A, substantially as specified.

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