(No Model.)

C. A. POPE.

VAPOR BURNER CONE.

No. 421,759. Patented Feb. 18, 1890.

Fig. 1.

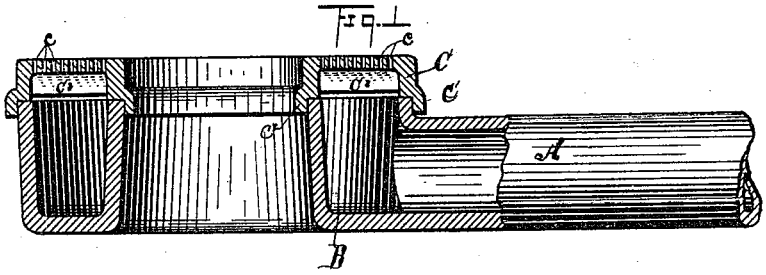


Fig. 2.

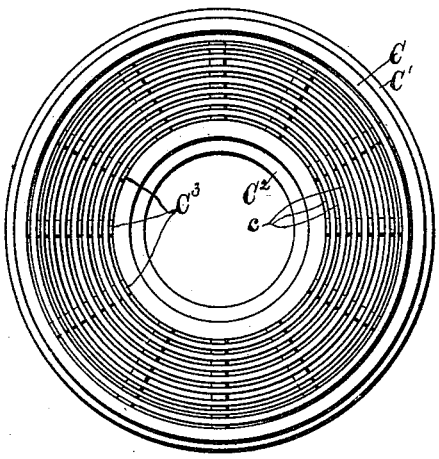
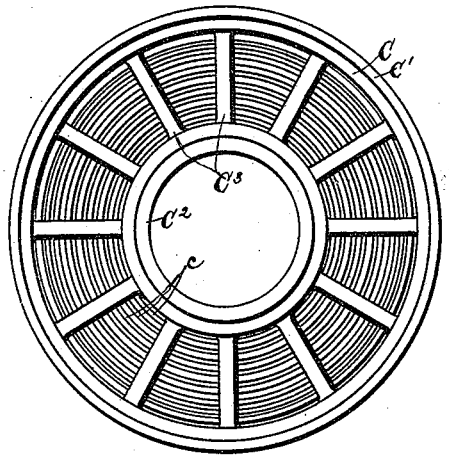


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

CHARLES A. POPE, OF CLEVELAND, OHIO, ASSIGNOR TO THE AURORA VAPOR STOVE COMPANY, OF SAME PLACE.

VAPOR-BURNER CONE.

SPECIFICATION forming part of Letters Patent No. 421,759, dated February 18, 1890.

Application filed May 10, 1889. Serial No. 310,240. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. POPE, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Vapor-Burner Cones; 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 pertains to make and use the same.

My invention relates to improvements in vapor-burner cones, the same consisting, essentially, of a horizontal disk provided with a series of concentric slits discharging upward from the commingling-chamber, to the end that better results are had by reason of sheets of flame projecting upward to impinge the vessel or article being heated.

In the accompanying drawings, Figure 1 is an elevation in section through the center of the burner. Figs. 2 and 3 are respectively top and bottom plans of the burner-cone.

A represents the commingling-tube, the same discharging into commingling-chamber B. This chamber is covered by means of disk C, the latter constituting the so-called "burner-cone." The disk is provided with a series of narrow concentric slits *c* for the discharge of gas from chamber B; hence instead of jets of flame projecting laterally, as with ordinary cones, sheets of flame are projected upwardly, so as to directly impinge the vessel or article being heated.

The burner shown is of the Argand variety; but this is not material. The cone when made of cast metal is provided with the depending annular ribs C' C^2 and radial ribs C^3, all cast integral. The top wall is thin and the slits *c* are cut in a lathe, ribs C^3 holding in place the concentric rings between the slits. The cone may be struck up of sheet metal, in which case slits *c* would be punched out, and in place of ribs C^2 the slits would be segmental, leaving solid radial sections corresponding with ribs C^2.

There is no material difference in the working of the cast or sheet iron cone. It is quite expensive to provide dies, punches, &c., suitable for manufacturing the wrought-metal cones; but having such tools provided the wrought-metal cones can be made cheaper than the cast-metal cones.

What I claim is—

The combination, with a commingling-chamber open at the top, of a removable disk having downwardly-projecting ribs overlapping the edge of the commingling-chamber and provided with a series of concentric slits, substantially as set forth.

In testimony whereof I sign this specification, in the presence of two witnesses, this 10th day of April, 1889.

CHARLES A. POPE.

Witnesses:

CHAS. H. DORER,

ALBERT E. LYNCH.