

(No Model.)

C. H. CHILDS.
VAPORIZER FOR GASOLINE STOVES.

No. 513,669.

Patented Jan. 30, 1894.

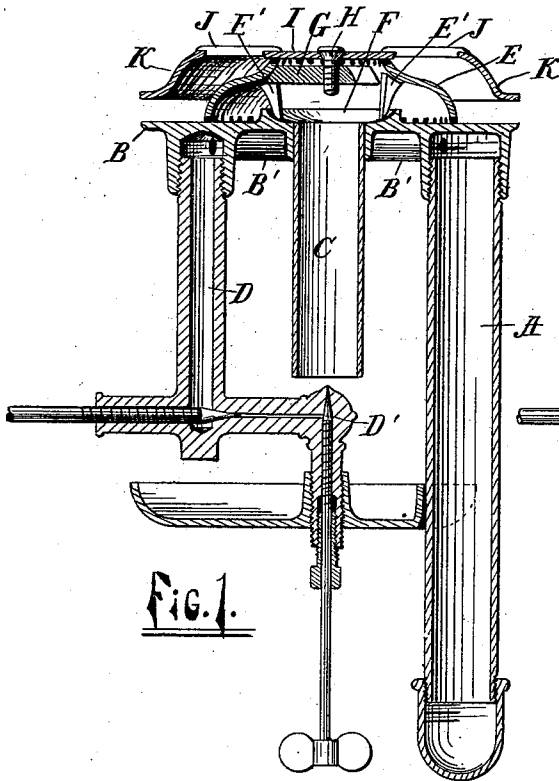


Fig. 1.

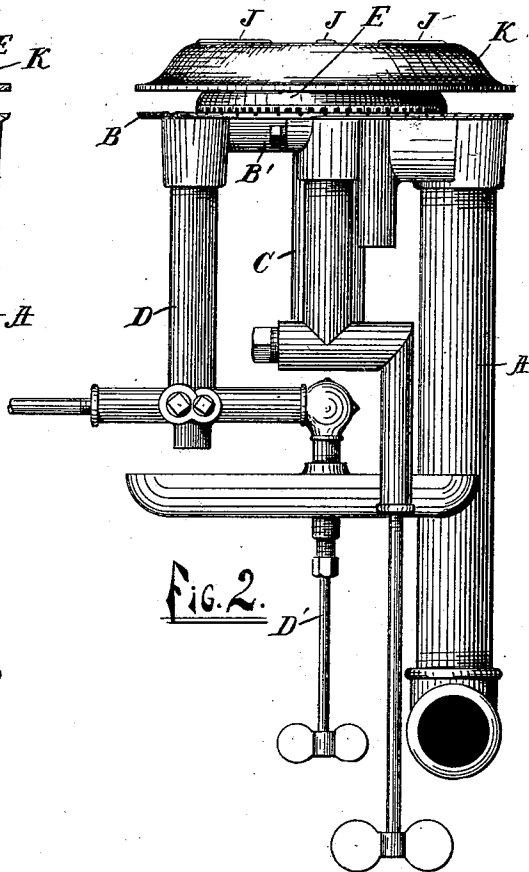


Fig. 2.

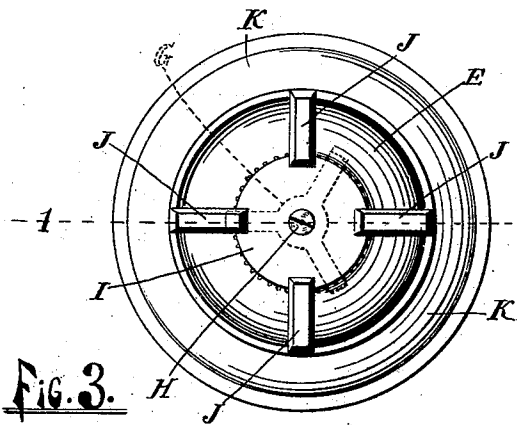


Fig. 3.

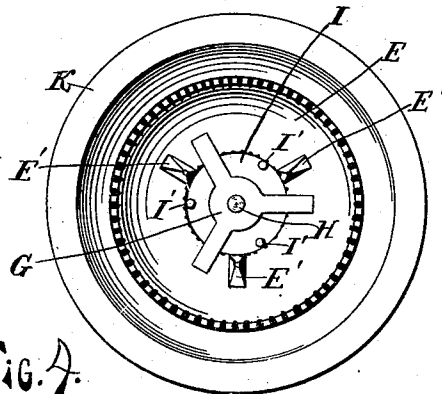


Fig. 4.

WITNESSES:

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CHARLES H. CHILDS, OF GRAND RAPIDS, MICHIGAN, ASSIGNOR TO THE
GRAND RAPIDS VAPOR STOVE COMPANY, OF SAME PLACE.

VAPORIZER FOR GASOLINE-STOVES.

SPECIFICATION forming part of Letters Patent No. 513,669, dated January 30, 1894.

Application filed March 13, 1893. Serial No. 465,714. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. CHILDS, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Vaporizers for Gasoline-Stoves; 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 improved vaporizer for gasoline stoves, and its object is to provide means whereby the vaporizing chamber will be maintained at a higher temperature and rendered more effective, and consists essentially in an annular hood, or deflector attached above the burner, to deflect the flame and radiate the heat down upon the vaporizer plate.

The accompanying drawings represent a vaporizer with my improvement attached.

Figure 1 is a vertical section on the line 1—1 of Fig. 3; Fig. 2 a side elevation; Fig. 3 a plan view; and Fig. 4 a plan view of the under side of the burner and deflector.

A is the stand pipe.

B is the vaporizer plate; B' the vaporizing chamber; C the air tube of the burner; D the needle valve of the burner.

E is the burner having the form of a truncated cone, with radial openings around the base and top for the escape of the combustible mixture and provided with lugs E' which engage an annular flange F on the plate B, surrounding the tube C; said lugs and flange serve to keep the burner in place on the said plate B.

I is a detachable cap closing the top of the burner E, which cap is held in place by a spider G, the arms of which spider engages the inner side of the burner. Said spider is secured to the cap by a screw H.

Integral with the cap I, is a downwardly inclined annular hood or deflector K, which is connected to said cap I by radial bars J, leaving an annular space between said cap and hood. The current of combustible mixture escaping from the upper openings of the burner impinges upon the downwardly inclined inner surface of this hood, and carries a current of air with it through the annular space between the cap I and hood K; said hood being heated by the flame heats the mixture giving a very perfect combustion with a very high proportion of air. Said hood K also radiates heat to the vaporizer and crowds the flame down upon the same. Thus I secure a very high temperature of the vaporizer, and high efficiency for the same, and also more perfect combustion of the mixture escaping from the openings in the burner.

What I claim is—

1. In a vaporizer, in combination with a vaporizer plate, a burner resting upon the same, having a series of radial openings, an annular downwardly inclined hood or deflector surrounding said burner in the plane of said openings, and an air passage between said deflector and burner, substantially as described.

2. In a vaporizer, a plate having a vaporizing chamber, a burner above said plate having a series of radial openings, means for supplying said burner with combustible vapor, a detachable cap at the top of said burner, a spider having arms engaging the inner surface of said burner and attached to said cap, and an annular hood connected to said cap by radial arms, and surrounding said radial openings, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES H. CHILDS.

Witnesses:

LAURA G. CHILDS,
H. LIDDELL.