

No. 743,757.

PATENTED NOV. 10, 1903

C. C. F. SCHMIDT.

GAS BURNER.

APPLICATION FILED AUG. 4, 1902.

NO MODEL.

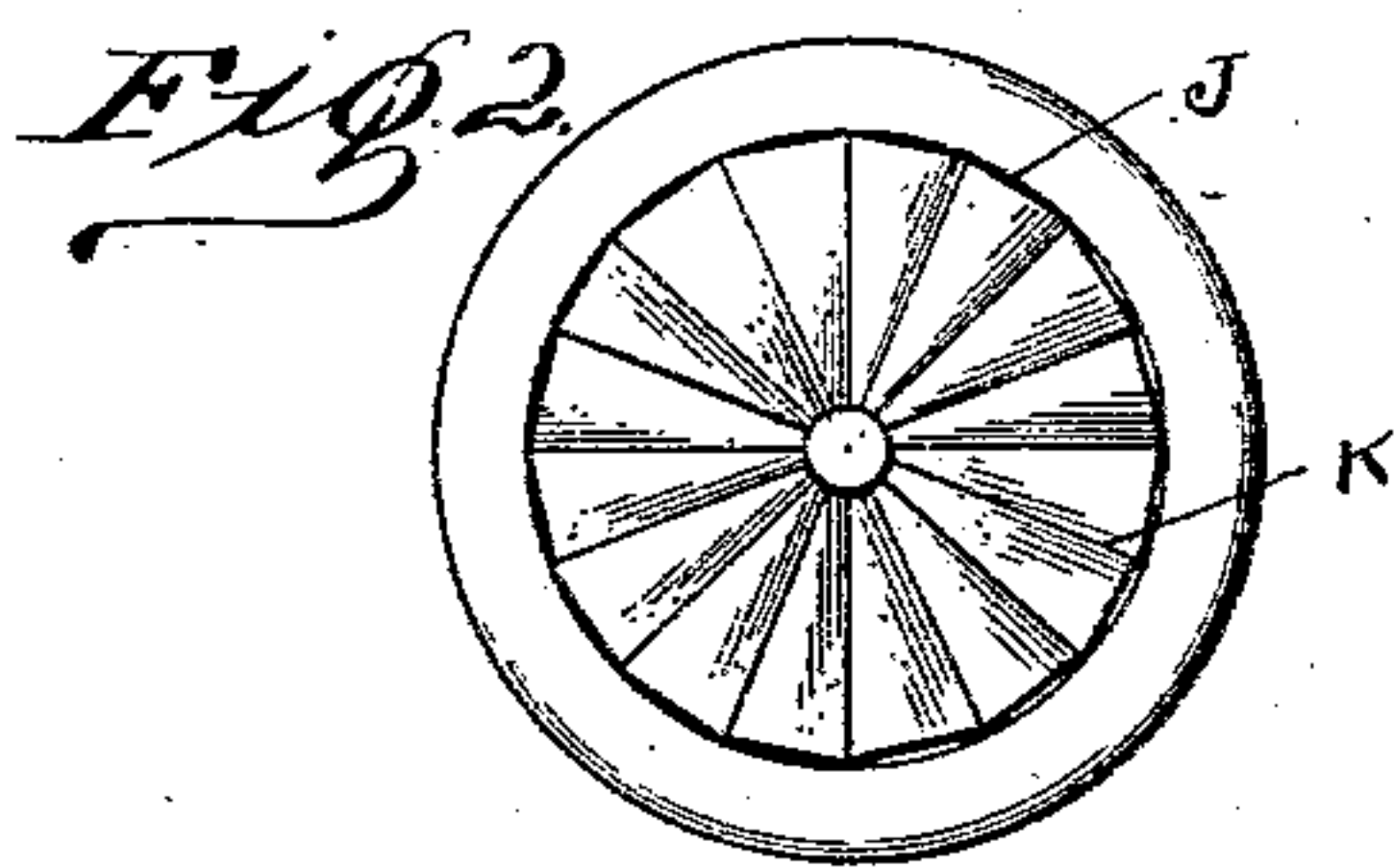
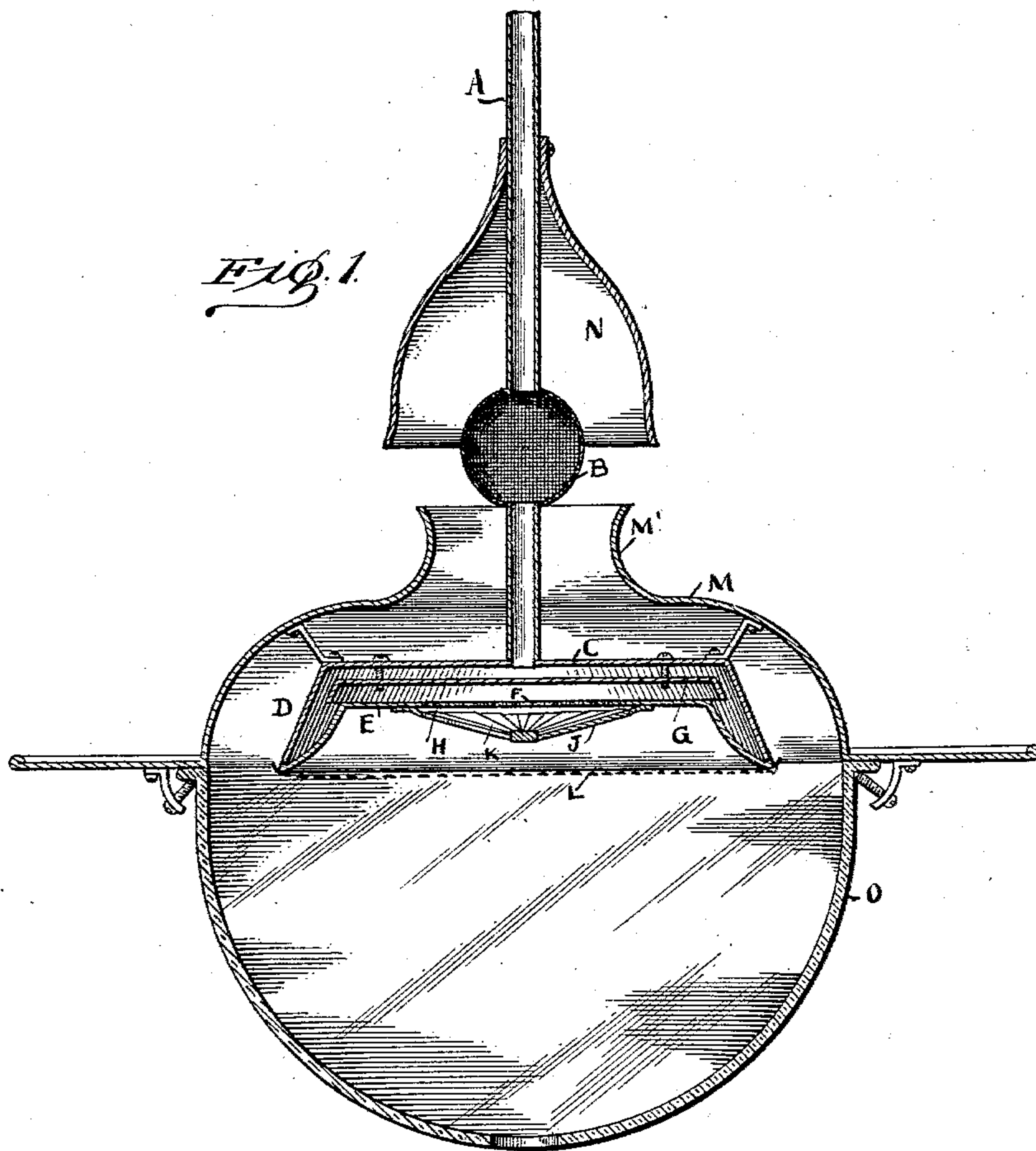


Fig. 3.



WITNESSES:
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His ATTORNEY

UNITED STATES PATENT OFFICE.

CARL C. F. SCHMIDT, OF NEW YORK, N. Y.

GAS-BURNER.

SPECIFICATION forming part of Letters Patent No. 743,757, dated November 10, 1903.

Application filed August 4, 1902. Serial No. 118,229. (No model.)

To all whom it may concern:

Be it known that I, CARL C. F. SCHMIDT, a citizen of Denmark, residing at the city of New York, in the county and State of New York, have invented certain new and useful Improvements in Gas-Burners, of which the following is a specification.

This invention relates to improvements in gas-burners for heating and lighting purposes.

The object of my invention is to provide a new and improved gas-burner, which is simple in construction, consumes the gas perfectly, produces an intense heat, and is very economical.

In the accompanying drawings, in which like letters of reference indicate like parts in all the figures, Figure 1 is a vertical transverse sectional view of my improved gas-burner as adapted for lighting purposes. Fig. 2 is a plan view of the slotted cupped disk. Fig. 3 is a detail transverse sectional view of part of the same.

A gas-supply tube A is provided with a Bunsen-burner attachment B, which may be of any conventional type, but is here shown as a ball or globe made of netting or perforated material. The free end of this pipe A is connected with a disk C, having a downwardly-extending flange D. Preferably this disk and its flange are made hollow, so that this hollow disk will have a bottom E. The disk is provided with a central opening F, over which is placed a cupped plate J, having a series of radial slots K, so shaped and formed that the edges of the slots overlap, as shown in Fig. 3. The mixture of gas and air escapes through the slots K, where it is ignited and burns with an intense blue flame of circular shape and occupies horizontally the space bounded by the edge of the flange D.

For the purpose of heating the mixture of gas and air to a greater degree before it is consumed a flanged or plain partition G may be provided in the hollow disk C, compelling the gas to circulate through the space between the top of the hollow disk C and the partition G, then under the flange of this partition and up through the space between the under side E or bottom of the hollow disk C and the under side of the partition G to the cupped plate J.

To increase the draft, a hood M is pro-

vided over the flanged hollow disk C, the products of combustion escaping through the top neck M' of said hood, and for the purpose of preventing fluctuation of the flame a cap N is secured on the supply-tube A, its bottom edges extending down to near the hood M.

For the purpose of preventing currents of air from disturbing the flame when used for lighting a globe O is secured beneath the burner and is provided with means for the purpose of admitting air either at the bottom or some other convenient place.

When the burner is to be used for lighting purposes, a disk L of incandescent material—such as used, for example, in making mantles for burners—is suspended or held in the bottom opening of the flanged disk C and is heated to incandescence by the flame. A screen H may be placed across the opening F for the purpose of more thoroughly mixing the gas and air.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a gas-burner, the combination with a disk, having a flange, of a slotted cupped plate held against that face of the disk from which the flange extends downward, and means for supplying a combustible mixture to said cupped slotted plate, substantially as set forth.

2. In a gas-burner, the combination with a disk, having a flange formed along its outer edge, of a gas-outlet on the under side of said disk, and means for supplying a combustible mixture to said gas-outlet, substantially as set forth.

3. In a gas-burner, the combination with a disk, having a flange formed along its edge, and having a slotted gas-outlet device on its under side, of means for supplying a mixture of gas and air to said slotted gas-outlet device, substantially as set forth.

4. In a gas-burner, the combination with a flanged disk, of a slotted cupped plate held against said disk, the edges of the slots overlapping, and means for supplying a mixture of gas and air to said cupped slotted plate, substantially as set forth.

5. In a gas-burner, the combination with a flanged plate, of a slotted gas-outlet device on the under side of said plate, the edges of

the slots overlapping, and means for supplying a mixture of gas and air to said gas-outlet device, substantially as set forth.

5 6. In a gas-burner, the combination with a hollow flanged disk, having an opening in its under side, means for supplying a mixture of gas and air to said hollow disk, and a cupped slotted plate held over the opening in the under side of said disk, substantially as set
10 forth.

7. In a gas-burner, the combination with a hollow flanged disk, having an opening in its under side, of means for supplying a mixture of gas and air to said hollow disk, a piece of
15 netting extending across the opening in the under side of the disk, and a cup-shaped slotted plate held over said opening, and on the under side of the hollow disk, substantially as set forth.

20 8. In a gas-burner, the combination with a flanged hollow disk, of a partition in the same, means for supplying the mixture of gas and air to said hollow disk, and a cupped slotted plate held over the opening in the under side
25 of the hollow flanged disk, substantially as set forth.

9. In a gas-burner, the combination with a flanged disk, of means for supplying a mixture of gas and air to the same, a cupped slot-
30 ted burner-plate held on the under side of the disk, and a hood extending upward over said disk, substantially as set forth.

10. In a gas-burner, the combination with a flanged disk, of means for supplying the mixture of gas and air in the same, a cupped slot- 35 ted burner-plate held on the under side of the disk, and a hood extending upward over said disk, and a cap extending downward to near said dome, substantially as set forth.

11. In a gas-burner, the combination with a 40 flanged disk, of a cupped slotted burner-plate held on the under side of the same, means for supplying a mixture of gas and air to said cupped plate, a hood extending over the flanged disk, and a globe provided with an 45 opening suspended from said hood, substantially as set forth.

12. In a gas-burner, the combination with a disk, the under side of which is recessed, of a slotted cupped plate held against the re- 50 cessed side of said disk, the edges of the slots in said cupped plate overlapping, and means for supplying a combustible mixture to said cupped slotted plate, substantially as set forth. 55

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 31st day of March, 1902.

CARL C. F. SCHMIDT.

Witnesses:

OSCAR F. GUNZ,
ELLA OCTJEN.