

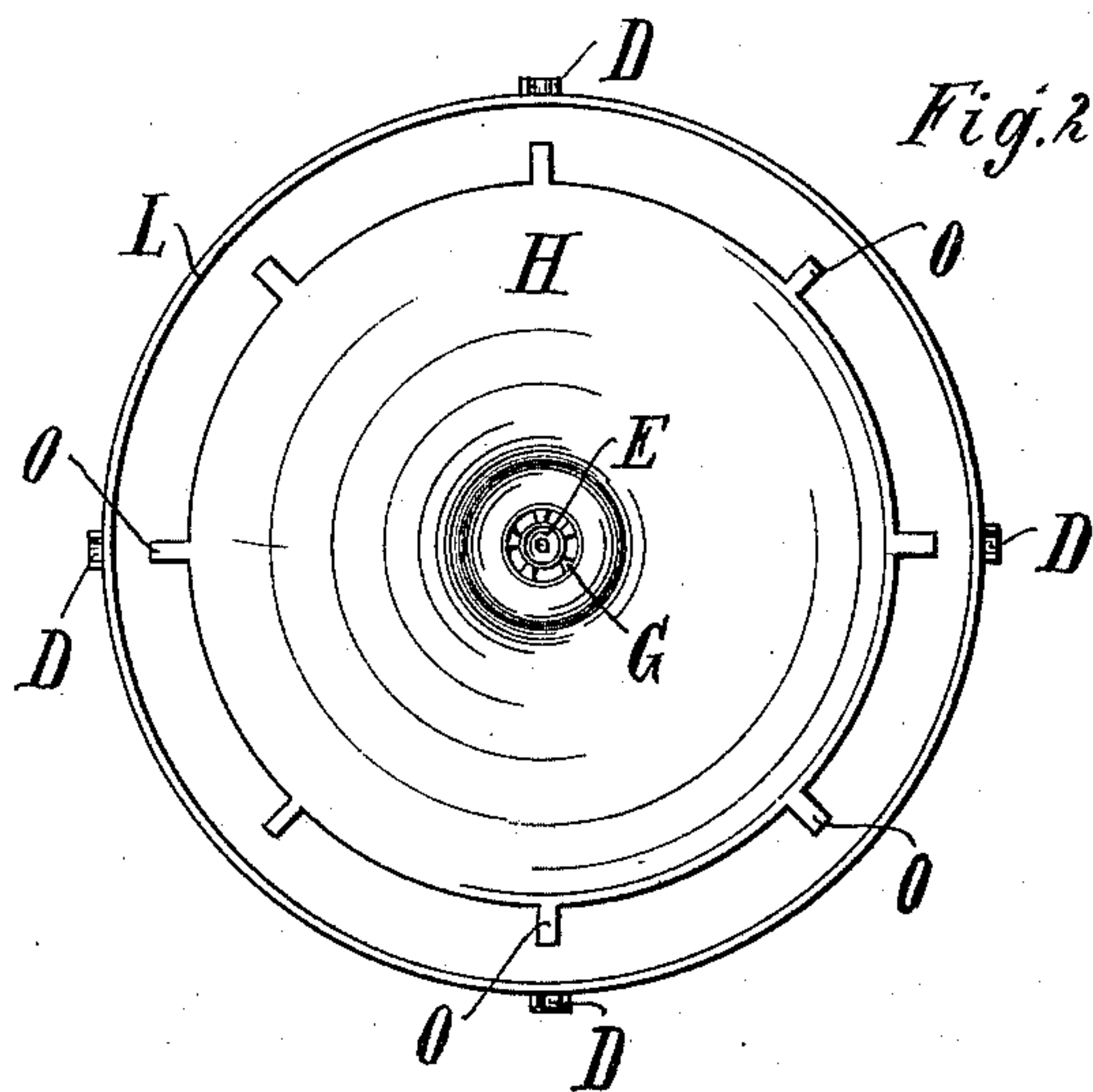
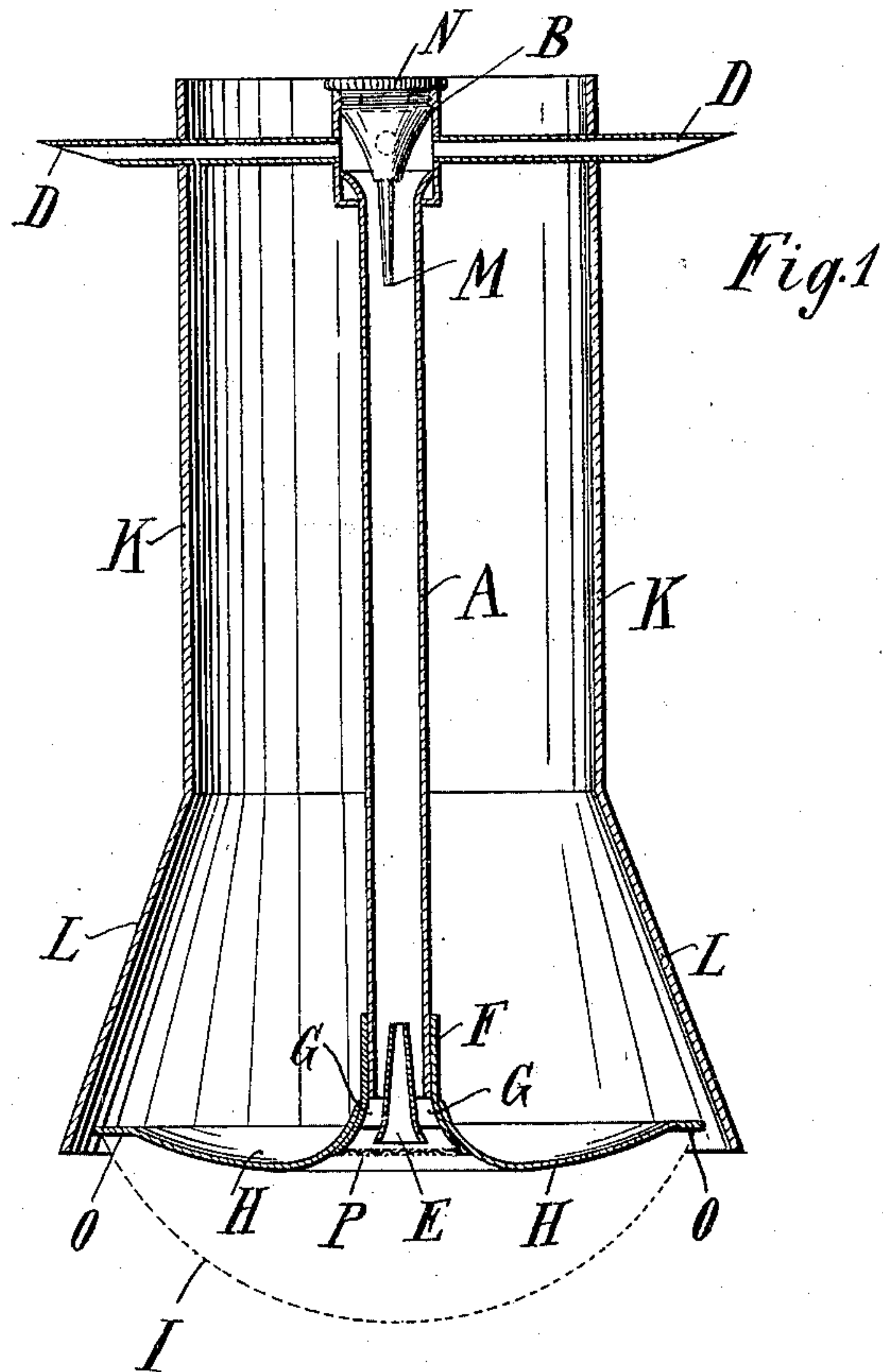
No. 634,863.

Patented Oct. 17, 1899.

B. BARG.  
INCANDESCENT GAS BURNER.

(Application filed Dec. 3, 1898.)

(No Model.)



Witnesses:  
Ella L. Giles  
O. D. Munk

Inventor:  
Bruno Barg  
by *Richard R.*  
Attorneys.



# UNITED STATES PATENT OFFICE.

BRUNO BARG, OF BERLIN, GERMANY, ASSIGNOR OF ONE-HALF TO GUSTAV HENZE, OF CHARLOTTENBURG, GERMANY.

## INCANDESCENT GAS-BURNER.

SPECIFICATION forming part of Letters Patent No. 634,863, dated October 17, 1899.

Application filed December 3, 1898. Serial No. 698,174. (No model.)

*To all whom it may concern:*

Be it known that I, BRUNO BARG, a citizen of the Kingdom of Prussia, and a resident of Berlin, in the Kingdom of Prussia and German Empire, have invented certain new and useful Improvements in Suspended Incandescent Gas-Burners, (for which I have obtained a patent in Germany, dated October 28, 1898,) of which the following is a specification.

The object of my present invention is to provide a suspended incandescent gas-burner in which no opaque or solid part of the construction is interposed between the source of light and the room to be lighted.

In the accompanying drawings the new burner is shown in Figure 1 in a vertical section through the axis and in Fig. 2 as seen from the under side.

A is a vertical tube terminating at its upper end in a cylindrical piece B, provided with screw-threads. Into part B is inserted a short tube M, of small diameter, acting as an injector, which has in its upper end screw-threads N, by means of which it is connected to the gas-pipe. Tubes D, communicating with the interior of the part B, serve for supplying the necessary air for producing a perfectly-blue Bunsen flame. To the lower end of tube A is fastened, by means of a short tubular piece F, a flame-spreader H, imitating the form of an inverted mushroom. The edge of said flame spreader or disk has several projections O, which serve for fastening and suspending the incandescent mantle I. (Shown in dotted lines.) A funnel-shaped tube E, held in position by means of radially-arranged stays G, is arranged in the lower end of tube A. The current of gas and air is divided by means of this arrangement in different independent streams sallying forth from the end of tube A. These are still further subdivided by means of a cap of wire-gauze P, covering the center part of the disk H. The flame formed by these small currents of gas closely imitates the form of the disk, and therefore looks like an inverted mushroom. The incandescent mantle I, suspended from the projections O, has therefore its whole surface in contact with the flame and thereby brought to incandescence. The whole is inclosed in a casing K, of any suitable material, into

which the tubes D are fastened in such a way that their outer ends are on the outer side of the casing. At its lower end this mantle ends in a funnel-shaped part L, the lower end of which is just below the level of the projections O. The products of combustion escape through the annular space between disk H and the incandescent mantle suspended therefrom and ascend in the cylindrical space inclosed by the casing L, thereby heating the air-supply fed through the tubes D, but without mixing with the same.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. Suspension-burner for incandescent light comprising a burner-tube A, air-tubes D for the admission of the air necessary for combustion, a tip at the mouth of the burner said tip being in shape of an outer and an interior inverted funnel connected together in any suitable manner, a dish surrounding said tip and hooks at the outer edge of said dish to suspend the incandescent body substantially as described.

2. Suspension-burner for incandescent light comprising a burner-tube A, air-tubes D, a tip at the mouth of the burner said tip being in form of an outer and an inner inverted funnel, a dish surrounding said tip and presenting a mushroom-like surface to allow the flame to assume a mushroom shape and hooks O for the suspension of the incandescent body at the edge of said dish substantially as described.

3. Suspension-burner for incandescent light comprising a burner-tube A, air-tubes D, a tip at the mouth of said burner in the shape of an inner and an outer inverted funnel, a dish surrounding said tip, a perforated cap or disk at the mouth of the tip for the distribution of the flame, substantially as described.

4. Suspension-burner for incandescent light comprising a burner-tube A, air-tubes D, a tip at the mouth of the burner, a dish surrounding said tip and an outer casing K, L in the shape of an inverted funnel surrounding the burner said casing K being pierced for the passage of the air-tubes substantially as described.

5. Suspension-burner for incandescent light comprising a burner-tube A, air-tubes D, a

tip in the shape of two inverted funnels at the mouth of the burner, a dish surrounding said tip, a pointed injector-like tube N, M, for the introduction of the gas to the burner, substantially as described.

6. Suspension-burner for incandescent light comprising a burner-tube A, air-tubes D, a tip at the mouth of said burner in the shape of an inner and an outer inverted funnel, a dish surrounding said tip, hooks O for the

suspension of the incandescent body, an incandescent body of broad mushroom-like surface, substantially as described.

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

BRUNO BARG.

Witnesses:

HENRY HASPER,  
C. H. DAY.