

R. CORNELIUS.

Gas Burner.

No. 2,008.

Patented March 18, 1841.

Fig. 1.

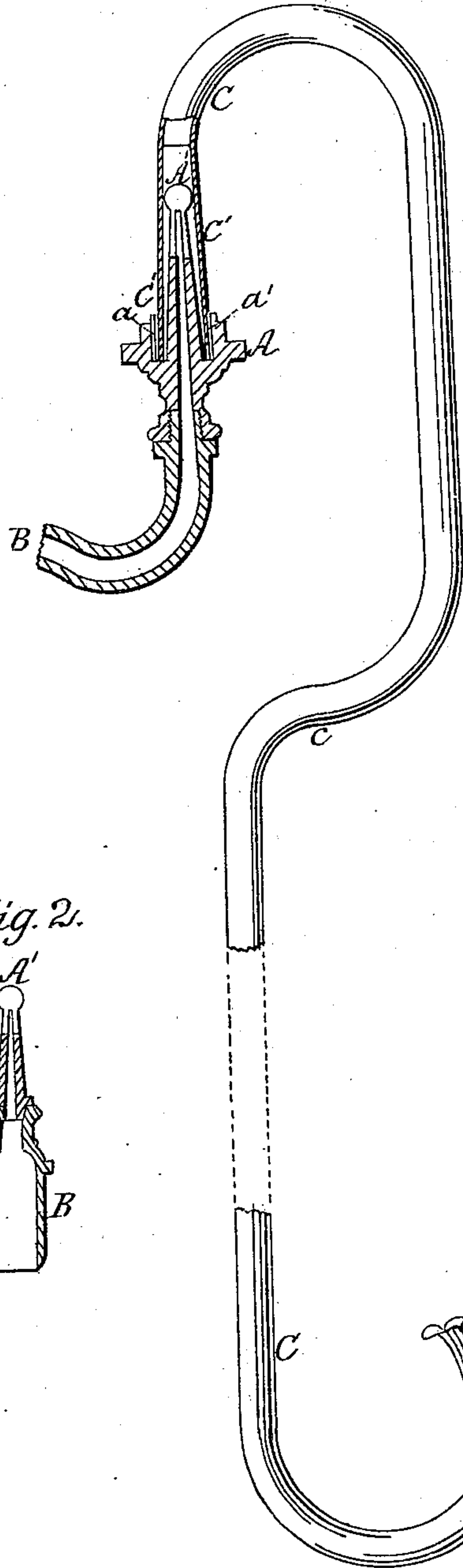
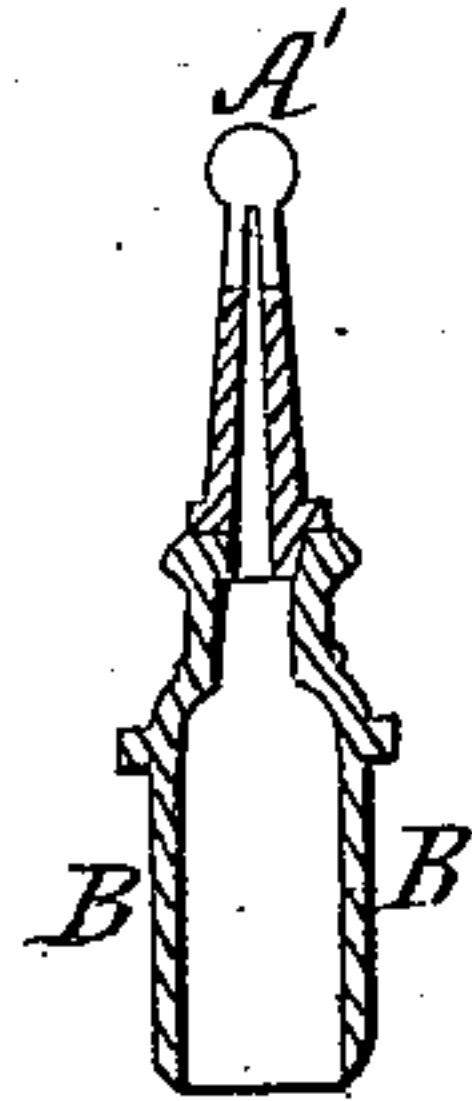


Fig. 2.



UNITED STATES PATENT OFFICE.

ROBERT CORNELIUS, OF PHILADELPHIA, PENNSYLVANIA.

GAS-LAMP FOR CONDUCTING GAS FROM AN ELEVATED BURNER TO ONE BELOW IT, &c.

Specification of Letters Patent No. 2,008, dated March 18, 1841.

To all whom it may concern:

Be it known that I, ROBERT CORNELIUS, of the city of Philadelphia, in the State of Pennsylvania, have invented an Improvement in Gas-Lamps, which improvement consists in the manner of constructing the apparatus for conducting the gas from one of the burners of a hanging or fixed lamp or of a girandole by means of a descending tube, so as to cause it to issue from a burner at a convenient height for reading or for other purposes; and I do hereby declare that the following is a full and exact description thereof.

In the accompanying drawing I have given a sectional view of my improved apparatus.

A, A, is my burner made of brass and receiving its supply of gas through the tube B; this burner is, in its general construction, similar to those in general use. A', is its jet, for the escape of the ignited gas. The part a, a, is hollowed out so as to constitute a cup for containing a small portion of mercury; this cup I line with sheet iron, for the purpose of holding that metal, which may remain permanently there.

C, C, C, is a conducting tube which, when a light is required in a lower situation, is employed to conduct the gas down to a burner D, of any of the ordinary kinds. The part C', C', of the tube C, consists of a cylindrical or conical ferrule, the lower end of which is to enter the mercury cup a, a; and this part is made of sheet iron, which may be coated with a film of copper, if desired, by means of sulphate of copper, or otherwise. The cavity of C', is to be sufficiently large and high to admit the whole jet. A'. When the burner D, is to be used nothing more is required than to transfer to it the glass chimney of the burner A, and to hang the tube C, C, on to the latter, by allowing its end C', C', to pass into the mercury cup a, a.

The apparatus which has been for some time in use for attaining the same end has the whole body of the burner made of one

piece of cast iron, and has a groove turned in it in such a manner as to constitute a mercury cup, having a hole drilled through its axis by which the gas is conducted to the jet, or aperture at which it is burned. The jet for the issue of the gas, with the cap of cast iron to which it is attached, is made in the manner shown in section in Fig. 2. A', being the jet, which is screwed into the cast iron cap B, B, the lower end of which dips into a cast iron mercury cup in the same manner with the ferrule C', C', Fig. 1 and when the tube C, C, is used to conduct the gas down, the jet Fig. 2, with its cap B, B, has to be removed; and the descending tube, being furnished with a ferrule, or end, like the cap B, B, said cap is made to enter the cup. This plan is not susceptible of that elegance and variety of finish required in lamps, and is also attended with inconvenience in use, as the jet has to be removed on the applying of the descending tube, and replaced on its removal. In the present case my burner is formed of brass, or of any other metal admitting of an ornamental finish in any desired manner, and the jet remains stationary when the descending tube is applied to it, the ferrule part C', C', covering it entirely.

What I claim as constituting my improvement in the within described apparatus, is—

The manner in which I have formed the mercury cup within the body of a burner of brass or of other metal, by lining the same with sheet iron, and having the jet affixed therein; and, in combination therewith, the so constructing the upper end of the descending tube as to enable it to receive and contain the jet, and thus to obviate the necessity of its removal, when said descending tube is to be used; the whole apparatus being constructed substantially in the manner herein set forth.

ROB. CORNELIUS.

Witnesses:

THOS. P. JONES,
D. R. MORSELL.