No. 881,892. PATENTED MAR. 17, 1908.

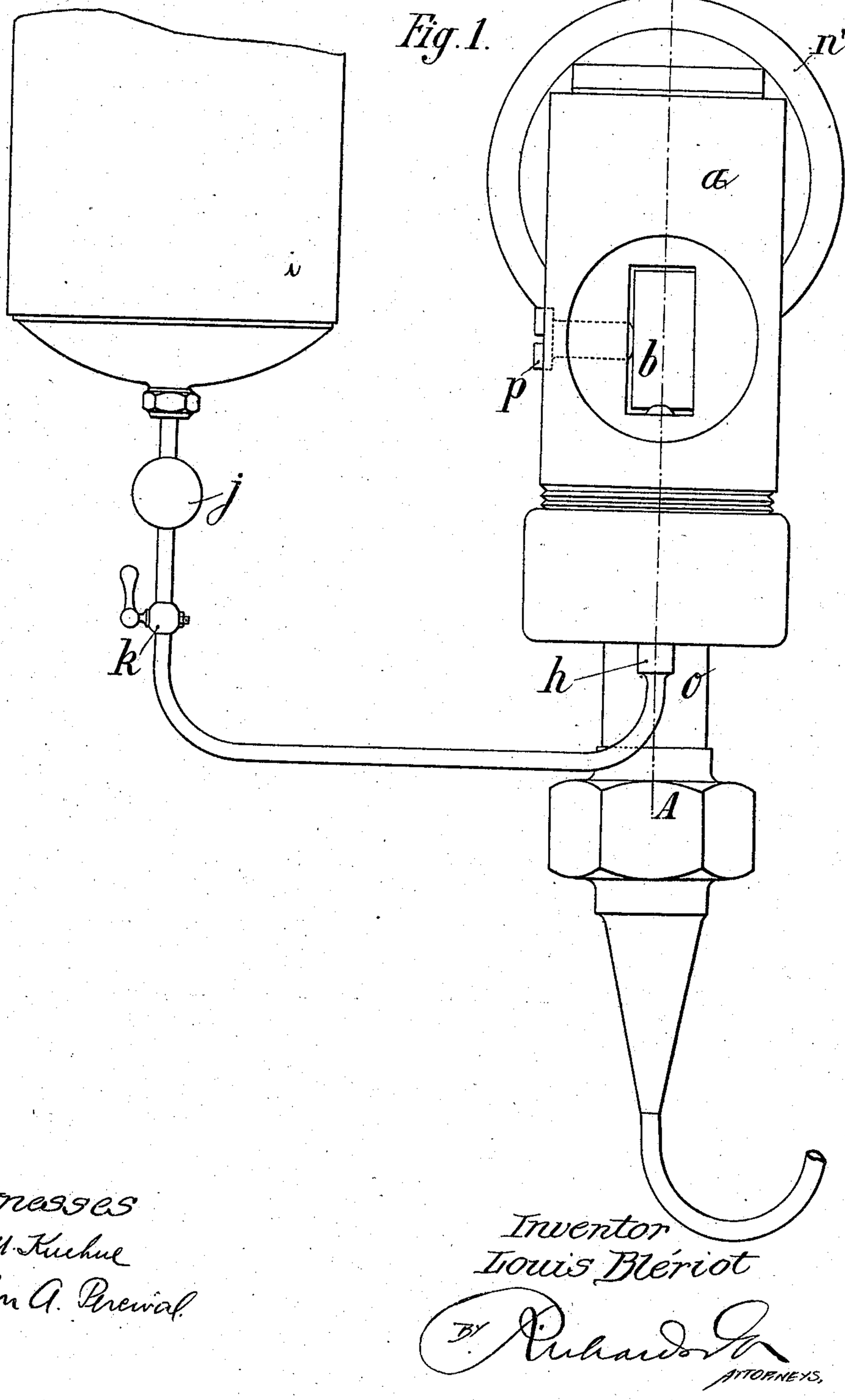
L. BLÉRIOT.

AUTOMOBILE LAMP.

APPLICATION FILED MAY 12, 1905.

5 SHEETS—SHEET 1.

Fig. 1.



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5 SHEETS—SHEET 2.

Fig. 2.

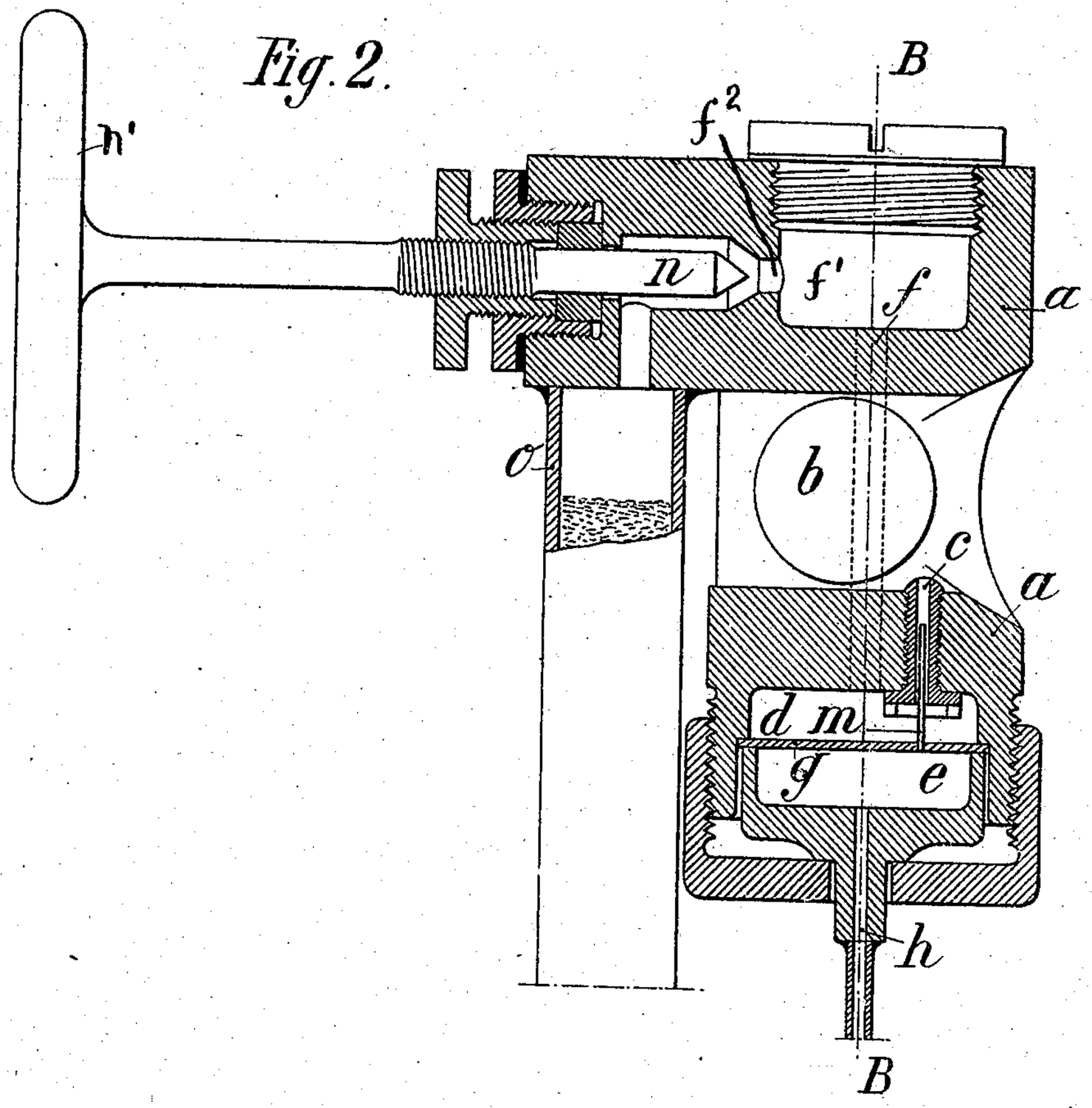
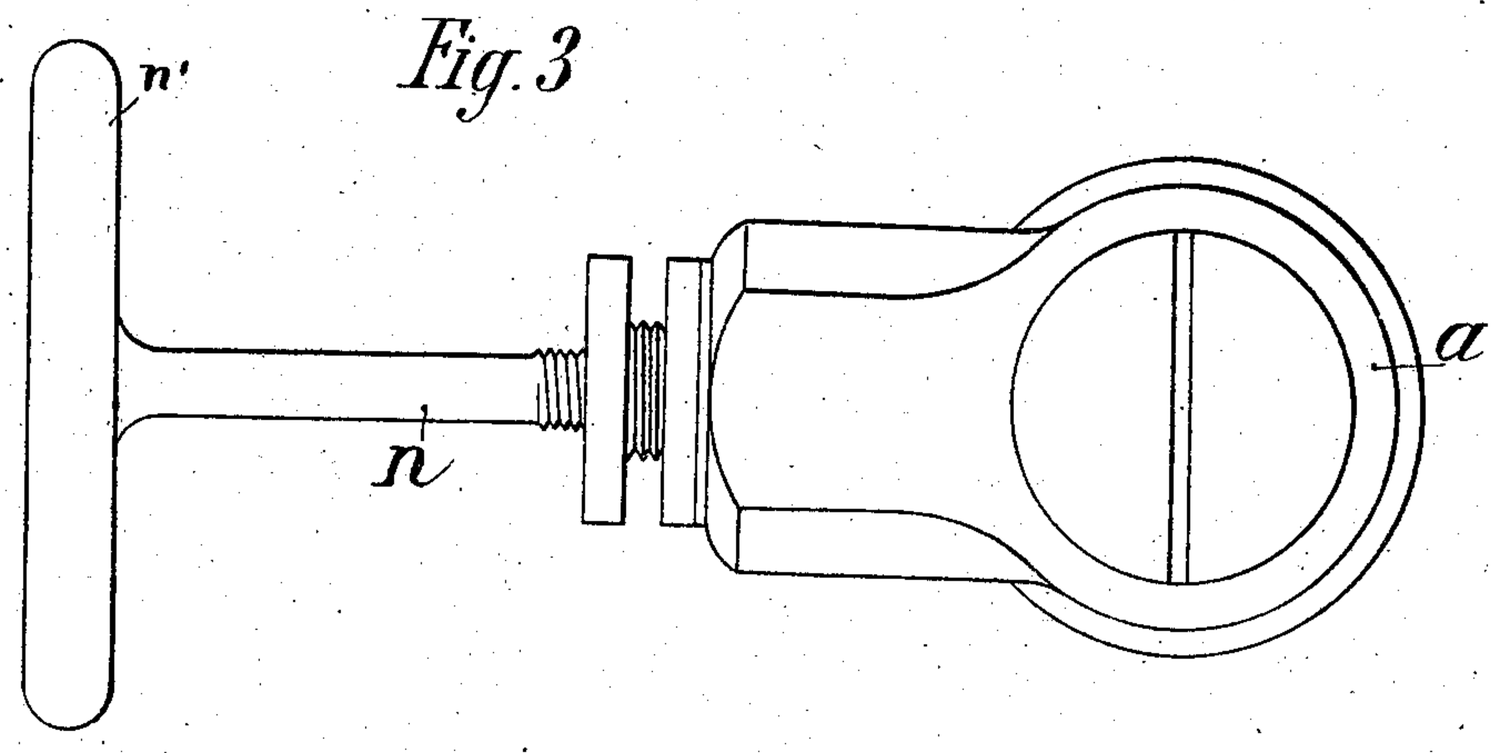


Fig. 3



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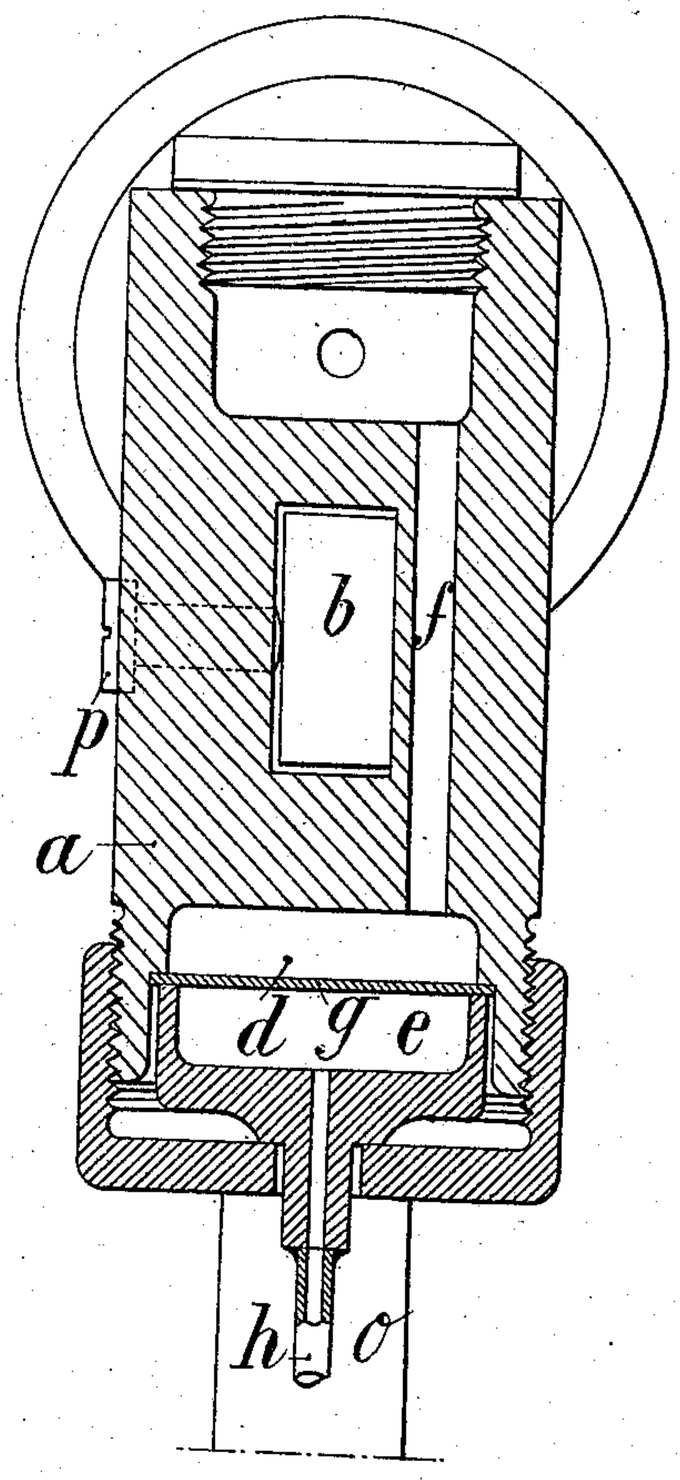
5 SHEETS—SHEET 3.

Fig. 4.



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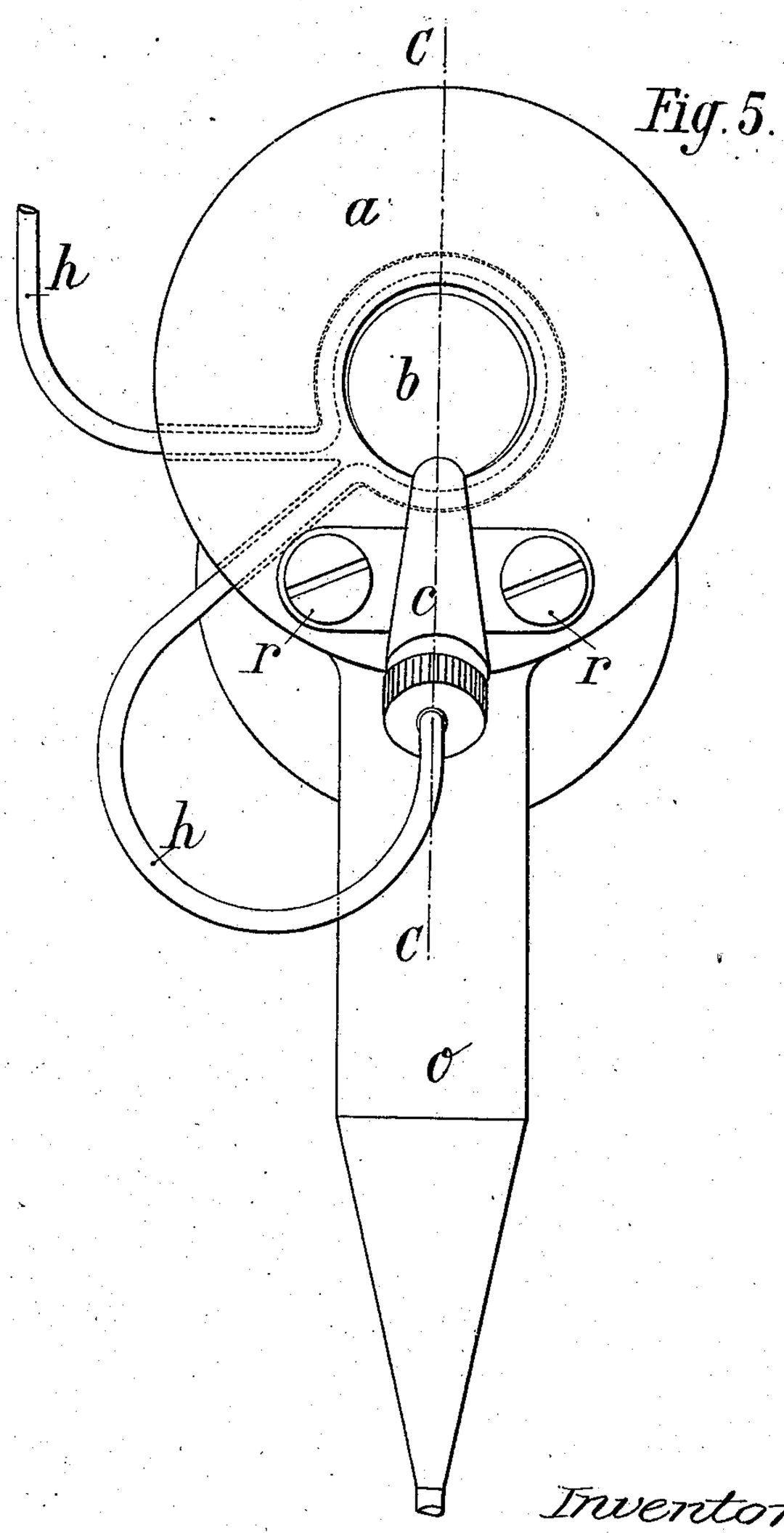
5 SHEETS—SHEET 4.

Fig. 5.



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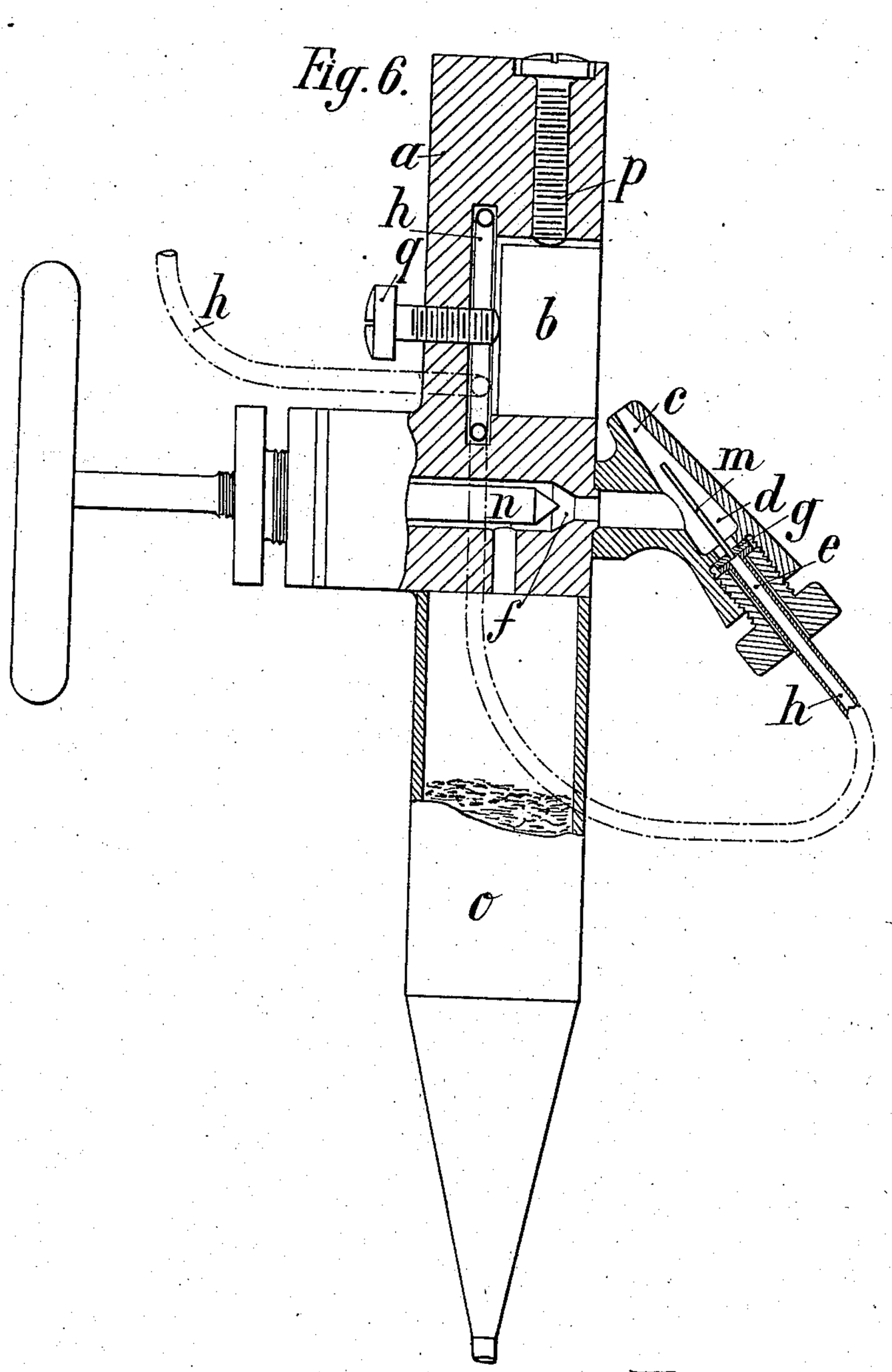
5 SHEETS—SHEET 5.

Fig. 6.



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UNITED STATES PATENT OFFICE.

LOUIS BLÉRIOT, OF PARIS, FRANCE.

AUTOMOBILE-LAMP.

No. 881,892. Specification of Letters Patent. Patented March 17, 1908.

Application filed May 12, 1905. Serial No. 260,139.

To all whom it may concern:

Be it known that I, LOUIS BLÉRIOT, citizen of the Republic of France, residing at 14/16, Rue Duret, Paris, France, have invented new and useful Improvements in Automobile-Lamps, of which the following is a specification.

The subject of this present invention is a burner intended to be arranged in a lantern for the lighting of automobiles or of other analogous applications.

Two forms of construction of the invention are shown, as representative examples, in the accompanying drawings.

Figures 1 to 4 represent the first form of construction. Fig. 1 is a front elevation. Fig. 2 is a vertical section taken on the line A—A of Fig. 1. Fig. 3 is a plan. Fig. 4 is a vertical section taken on the line B—B of Fig. 2. Figs. 5 and 6 represent in front elevation and in section on the line C—C of Fig. 5 respectively, a second form of construction of the invention.

The apparatus consists essentially of a metallic holder *a* forming a support for a tablet *b* made of zirconium oxid or some other oxid of rare earth. The holder acts as a heater by absorbing a portion of the heat given out by the flame of a burner *c*. This latter is placed in or on the holder and consists of two chambers *d* and *e*. Into the chamber *d* are introduced the vapors of a combustible liquid coming from the reservoir containing combustibles in the vehicle and rendered volatile by its circulation in a pipe *f* arranged in or around the holder; this chamber *d* communicates directly with the pipe *c* of the burner, which is conveniently placed opposite the tablet *b*. The chambers *d* and *e* are separated by a partition *g*. The chamber *e* is connected by a pipe *h*, heated by passing through or round the holder *a*, to a reservoir of oxygen or compressed air *i*. In the pipe *h* are provided a stop-cock *k* and an expansion bag *j*. A narrow tube *m* coming from the chamber *e* extends upwards through the chamber *d* into the pipe *c*. The area of the orifice f^2, through which the combustible liquid passes into the chamber *f'* on its way to chamber *m*, is controlled by a needle valve *n* having a handle *n'*. In the passage between the orifice f^2 and the combustion liquid reservoir can be placed a receptacle *o* containing flax, metallic shavings or other inert materials to retain the drops of liquid and collect some portion of the heat given off by the holder *a*.

In the form of construction of Figs. 1 to 4, the chambers *d* and *e* as well as the pipe *c* of the burner are contained in the holder *a* which is shaped cylindrically and a large portion of the pipe *f* is also contained within same.

The tablet *b* is arranged in a suitable recess formed in the holder and is held in position by a screw *p*. The flame of the burner impinges against the tablet at its edge. Said tablet *b* becomes incandescent and is intended to burn by degrees giving a very brilliant white flame; this combustion being effected very slowly under the action of the flame of the burner directed upon the tablet.

In the example shown in Figs. 5 and 6 a metallic holder consists of a disk hollowed in its center to contain the tablet which is held in position by the screws *p* and *q* and is impinged upon in front by the flame of a burner secured on the holder by screws *r*.

In the apparatus described, the oxygen coming from the receiver *i*, heated by its circulation in the pipe *h* and its passage in the chamber *e*, flows out from the top of the pipe *m* into the upper portion of the pipe *c;* the issuing jet of oxygen or air draws or exhausts with it in an annular stream the vapors of the combustible liquid previously rendered volatile by their passage through the pipes *f* and the chamber *d* of the burner, and a mixture of combustible and supporter of combustion heated in the holder, is thus formed in the burner itself and burns near the tablet *b*.

I claim.

An apparatus for the lighting of automobiles and other appliances, comprising a holder, a burner thereon, said holder acting as a support for a tablet of oxid of rare earth and acting as a heater by recuperating the heat given off by the flame of the burner, said burner comprising two separate chambers placed one above the other, pipes for introducing respectively oxygen or compressed air and the vapors of a combustible liquid into said chambers, the pipe from the liquid passing through the holder so that said liquid is volatilized by the heat of the holder; a passage leading from the chamber

for the combustible vapors directly to the burner, and a pipe leading out from the oxygen or air chamber through the chamber for the combustible vapors and into said passage so that the current of oxygen or air exhausts the vapors in the first named chamber and mixes with same in the burner.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LOUIS BLÉRIOT.

Witnesses:
LOUIS CARDET,
H. C. COXE.