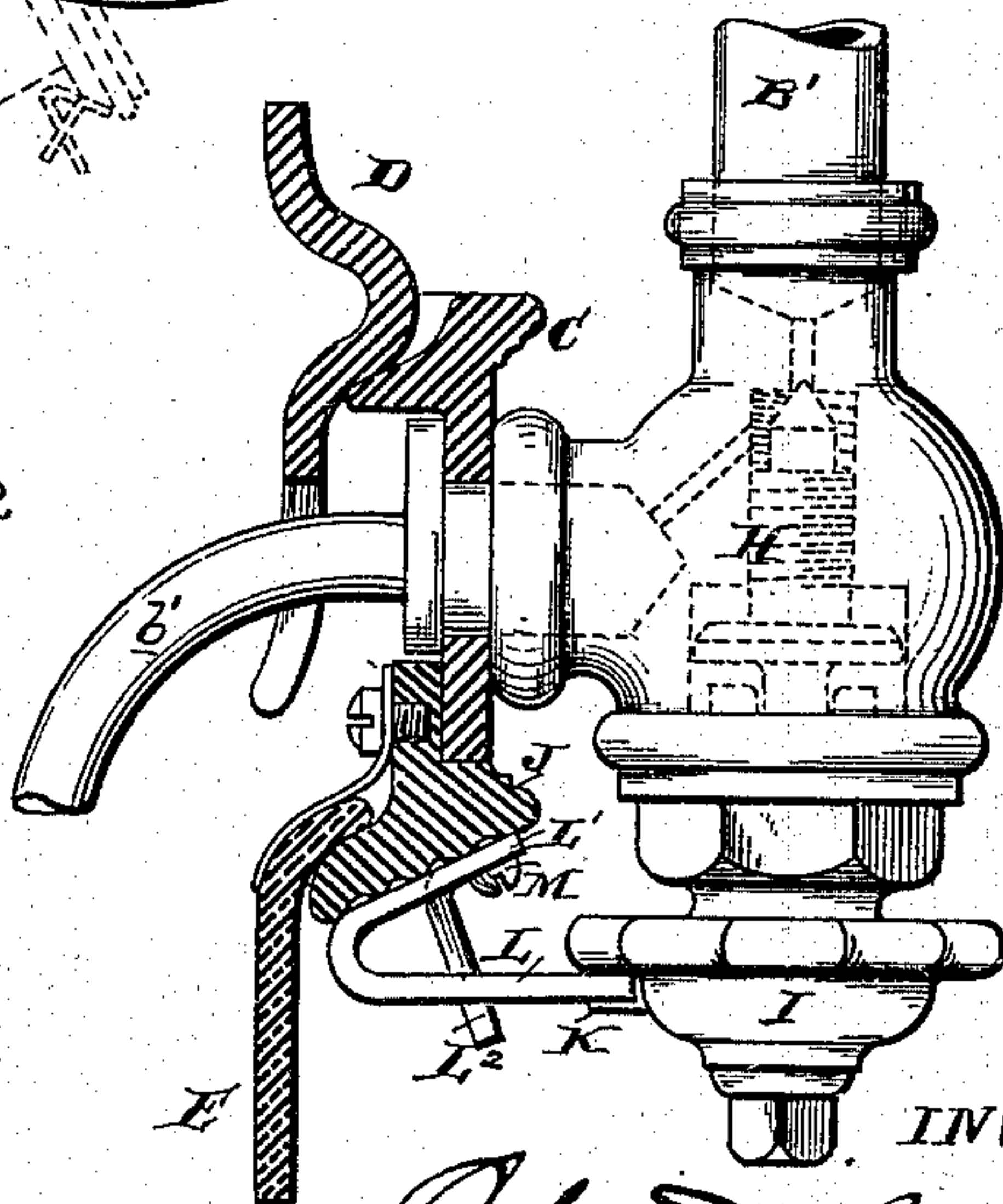
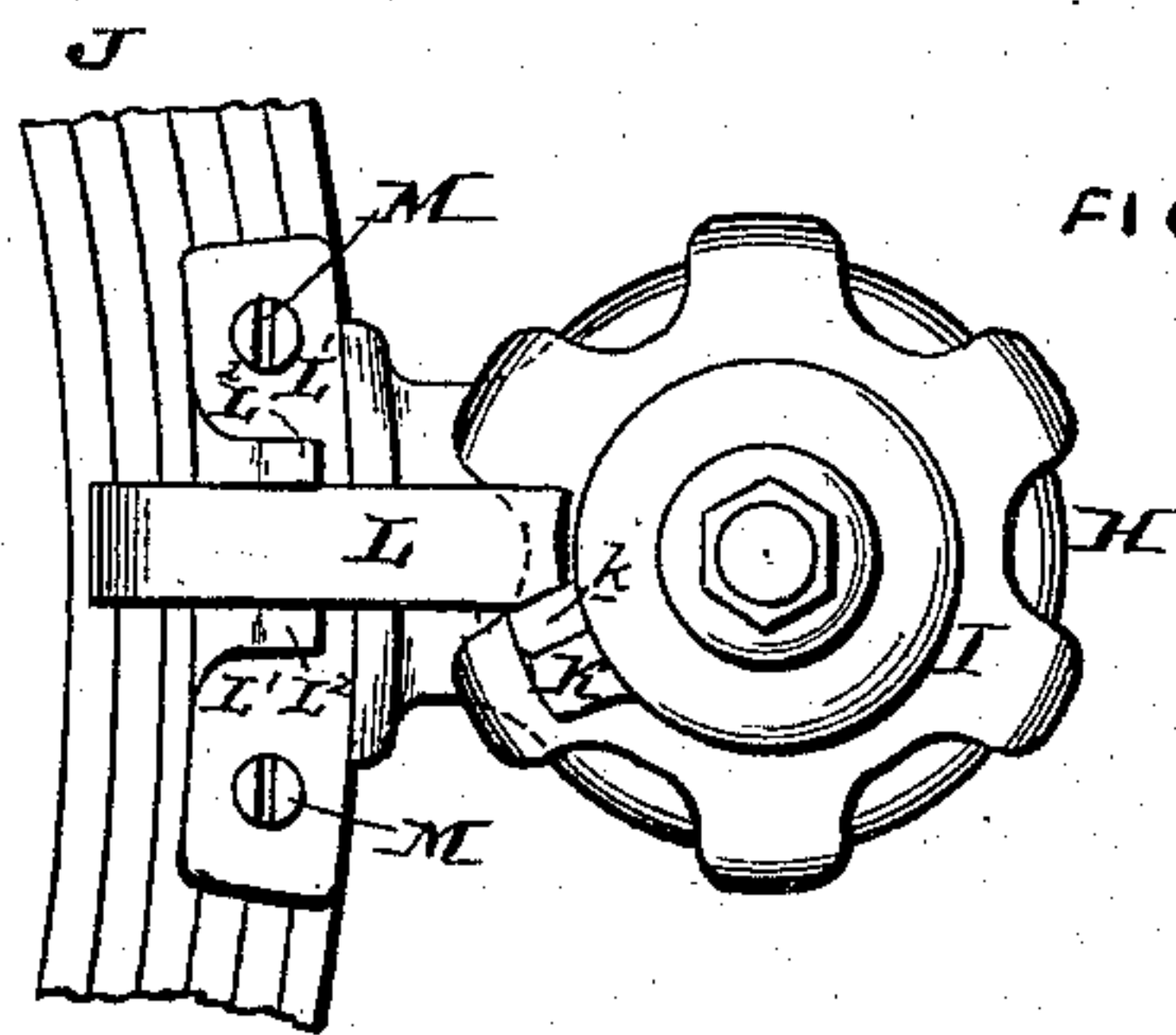
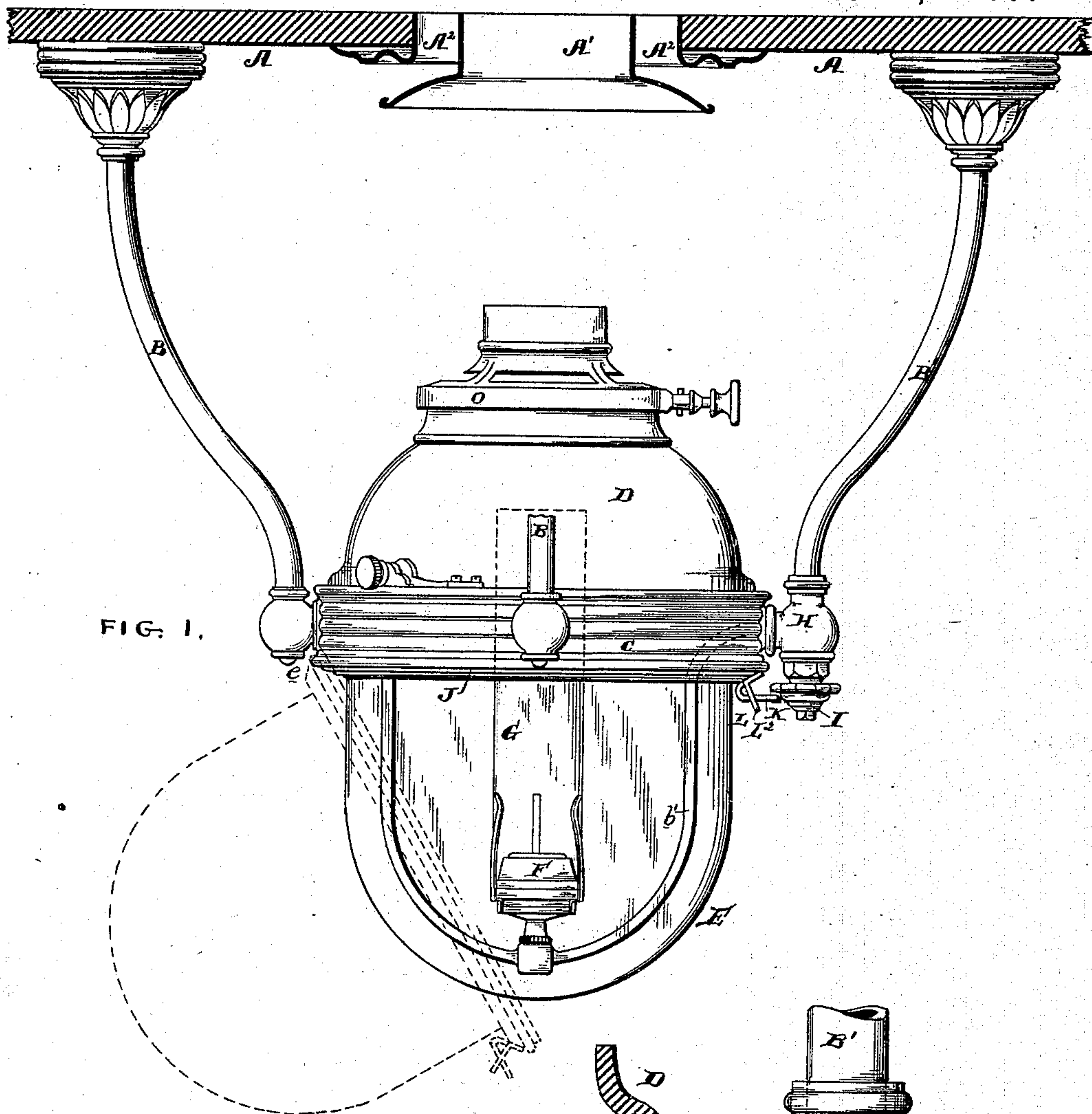


2 Sheets—Sheet 1.

No. 416,895.

Patented Dec. 10, 1889.



WITNESSES.

David S. Williams
Henry Drury

INVENTOR:

John D. Bowman
by his attorney
Francis T. Chambers

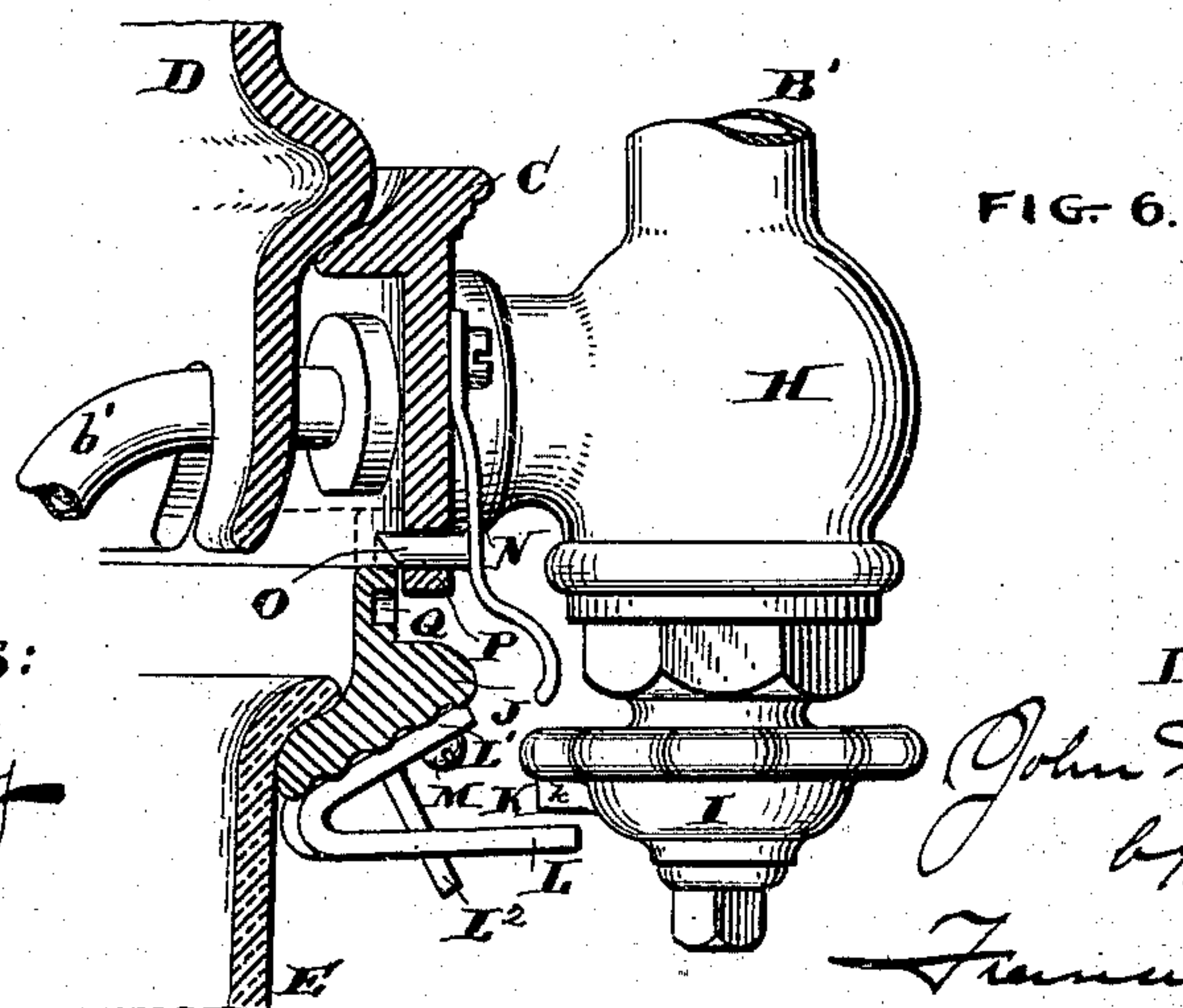
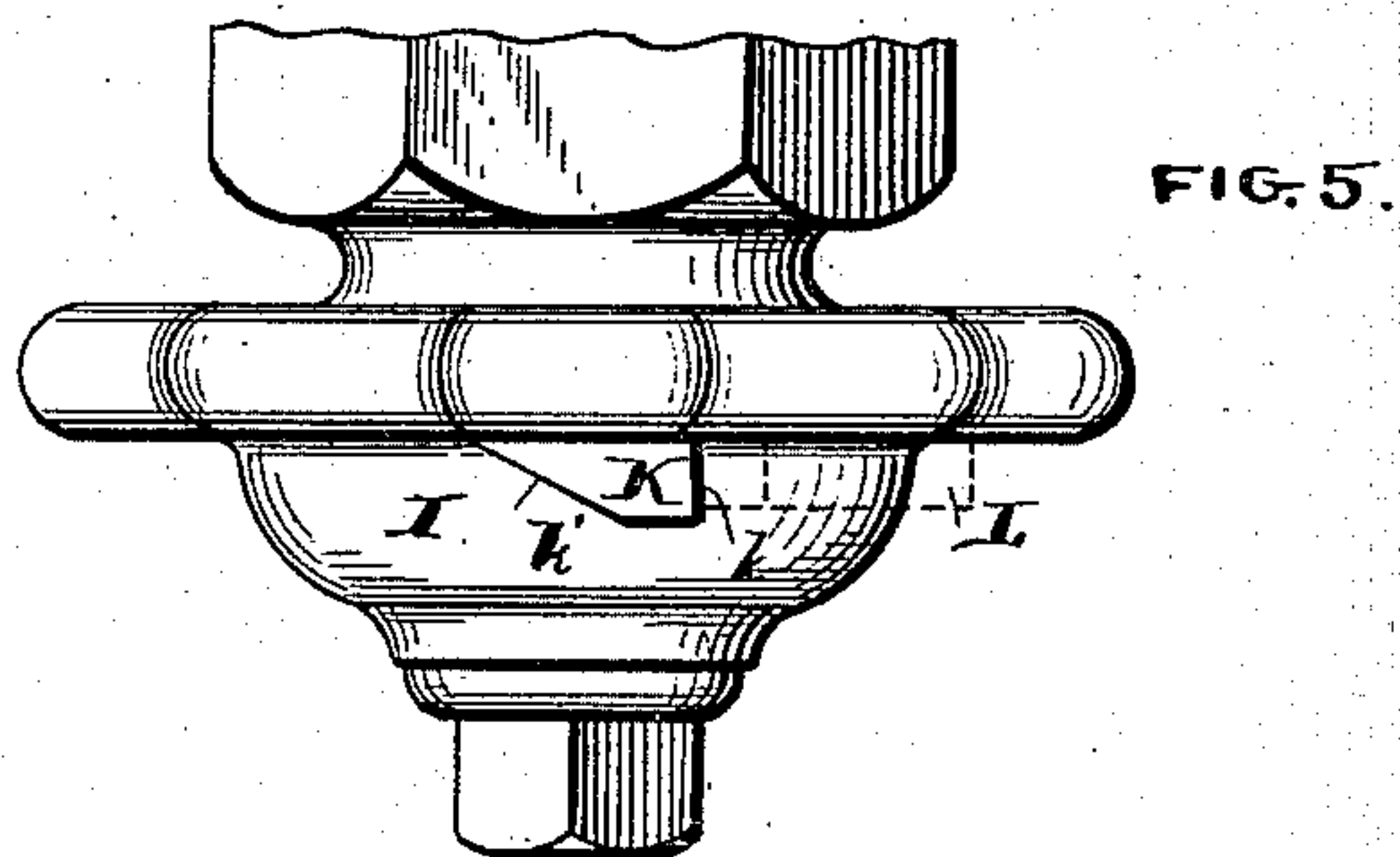
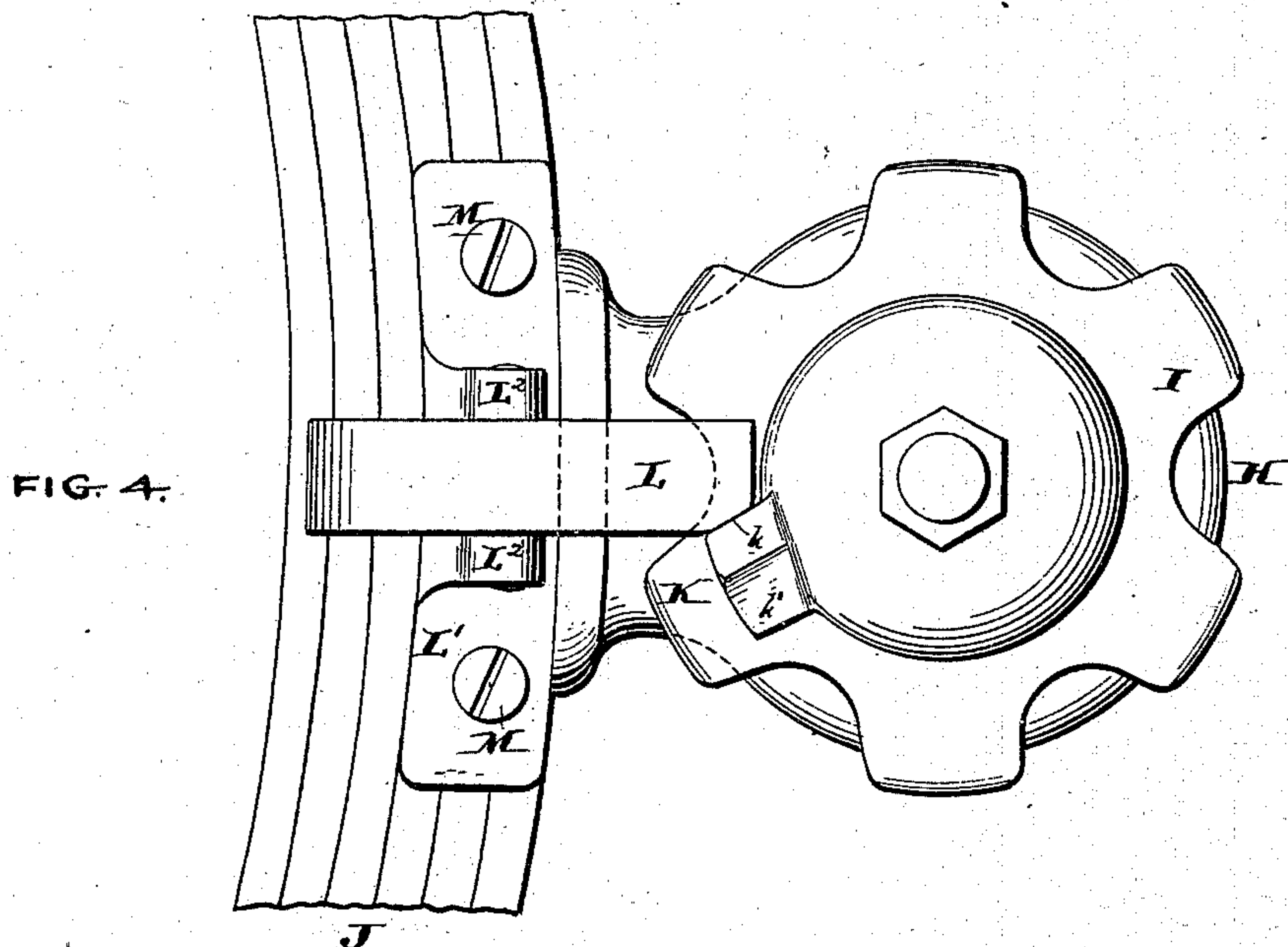
(No Model.)

2 Sheets—Sheet 2.

J. D. BOWMAN.
SAFETY CATCH FOR GAS LIGHTS.

No. 416,895.

Patented Dec. 10, 1889.



WITNESSES:

Henry Denny
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INVENTOR:

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UNITED STATES PATENT OFFICE.

JOHN D. BOWMAN, OF ALTOONA, PENNSYLVANIA.

SAFETY-CATCH FOR GAS-LIGHTS.

SPECIFICATION forming part of Letters Patent No. 416,895, dated December 10, 1889.

Application filed January 21, 1889. Serial No. 297,053. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. BOWMAN, a resident of Altoona, county of Blair, State of Pennsylvania, have invented a new and useful Safety-Catch for Gas-Lights, of which the following is a true and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to gas-lights of the kind in which the burner is inclosed in a bowl of glass passing beneath it, and has for its object to adapt such burners for safe use with carbureted gas or air, which, being heavier than the atmosphere, will, if turned on while the bowl is closed, accumulate in it, forming an explosive mixture, which is very apt to explode if an attempt is made to light the burner from above.

The object of my invention is to prevent the gas from being turned on until after the bowl has been thrown back from under the burner, thereby avoiding the above-noted danger.

The novel features of my invention for which I desire protection are hereinafter clearly stated in the claims, and will be best described in connection with the drawings, which represent my device in the form preferred by me, and in which—

Figure 1 is an elevation of a burner having my improvement, the device being shown as it is constructed and applied in railway-car lighting. Fig. 2 is a plan view of the cock or wheel used to actuate the valve and of the adjacent part of the ring sustaining the bowl, showing the locking-spring which prevents the cock from being opened. Fig. 3 is a side view of the same parts and the connections immediately adjacent. Fig. 4 is a view similar to Fig. 2, but on a larger scale, so as to show more clearly the safety-catch device. Fig. 5 is a side view of the hand-wheel, showing the preferred form of detent K used with it, and in dotted lines the finger L, which engages with said detent; and Fig. 6 is a view on an enlarged scale of the parts shown in Fig. 3, illustrating also a latch for securing the pawl.

A is the car-roof; A', the chimney; A², a ventilating-space. B B are the arms sustaining the burner and other parts of the lamp, one of them B' being a gas-pipe connecting

with the burner through pipe b'. C is a stationary ring or frame supporting the dome D, and to it is hinged a ring J, in which is fitted and supported a glass bowl E, said ring being hinged at a point e. F is the burner; G, the lamp-chimney; H, a valve-casing, the valve being indicated by the dotted lines in Fig. 3. I is the cock, here shown with a hand-wheel for controlling the valve. All of these parts, as shown, are constructed and arranged in a way now well understood, and form no part of my present invention, except in combination with the other parts I am about to describe; nor do I wish to be understood as limiting my invention to the specific devices as above referred to, for the valve and cock may be of any usual construction and the other parts formed and arranged in any convenient way.

On the cock I, I form or attach a detent K, preferably having an abrupt face k and inclined back k', as is shown in Fig. 2, and to the device sustaining the bowl E, (here shown as a hinged ring J,) I attach a projecting finger L, so as to engage the detent K and prevent the cock from being turned while the bowl is closed up around the burner. Preferably I form this finger of an elastic material, so that it will have a spring which will not prevent its engaging the abrupt side k of the detent, but will be pushed down in case the inclined side k' comes against it, thus permitting the cock to be turned to close the valve without requiring the bowl to be dropped. As shown in the drawings, I have cut and bent a metal plate L', so as to form a spring-finger L and two guide rods or fingers L², the plate being fastened to ring J by screws M M. This device is efficient and cheap, and a very satisfactory form of embodying my invention.

In Fig. 6 I have shown a spring N, having a latch O secured to it, said spring being attached to ring C and the latch passing through a hole P therein, while a depression Q is formed in ring J to receive the latch. Of course, however, the kind of latch used to support ring J is immaterial to my invention.

It is of course evident that the bowl is necessarily dropped before the cock can be opened, which is the object of my invention, as hereinbefore stated.

Having now described my invention, what I

claim as new, and desire to secure by Letters Patent, is—

1. In combination with a gas-burner and a hinged bowl adapted to inclose said burner, as specified, a valve in the gas-pipe leading to the burner, a cock controlling said valve having a detent, and a projecting finger secured to the hinged bowl and extended to engage the detent on the cock, substantially as specified, and so that the cock cannot be opened while the bowl is closed.

2. In combination with a gas-burner and a hinged bowl adapted to inclose said burner, as specified, a valve in the gas-pipe leading to the burner, a cock controlling said valve having a detent, and a projecting spring-finger secured to the hinged bowl and extended to engage the detent on the cock, substantially as specified, and so that the cock cannot be opened while the bowl is closed.

3. In combination with a gas-burner and a hinged bowl adapted to inclose said burner,

as specified, a valve in the gas-pipe leading to the burner, a cock controlling said valve having a detent with abrupt face and inclined rear surface, and a projecting spring-finger secured to the hinged bowl and extended to engage the detent on the cock, substantially as specified, and so that the cock cannot be opened while the bowl is closed.

4. In combination with a gas-burner F, a supporting-frame C, a bowl-ring J, hinged to frame C, a gas-pipe leading to said burner, a valve in said gas-pipe, a cock controlling the valve and having a detent K formed upon it, and a plate L', secured to the hinged ring cut and bent to form guides L², and a spring L, extending out to engage the detent K, all substantially as and for the purpose specified.

JOHN D. BOWMAN.

Witnesses:

CHAS. W. KEPHART,
R. A. FRAKER.