

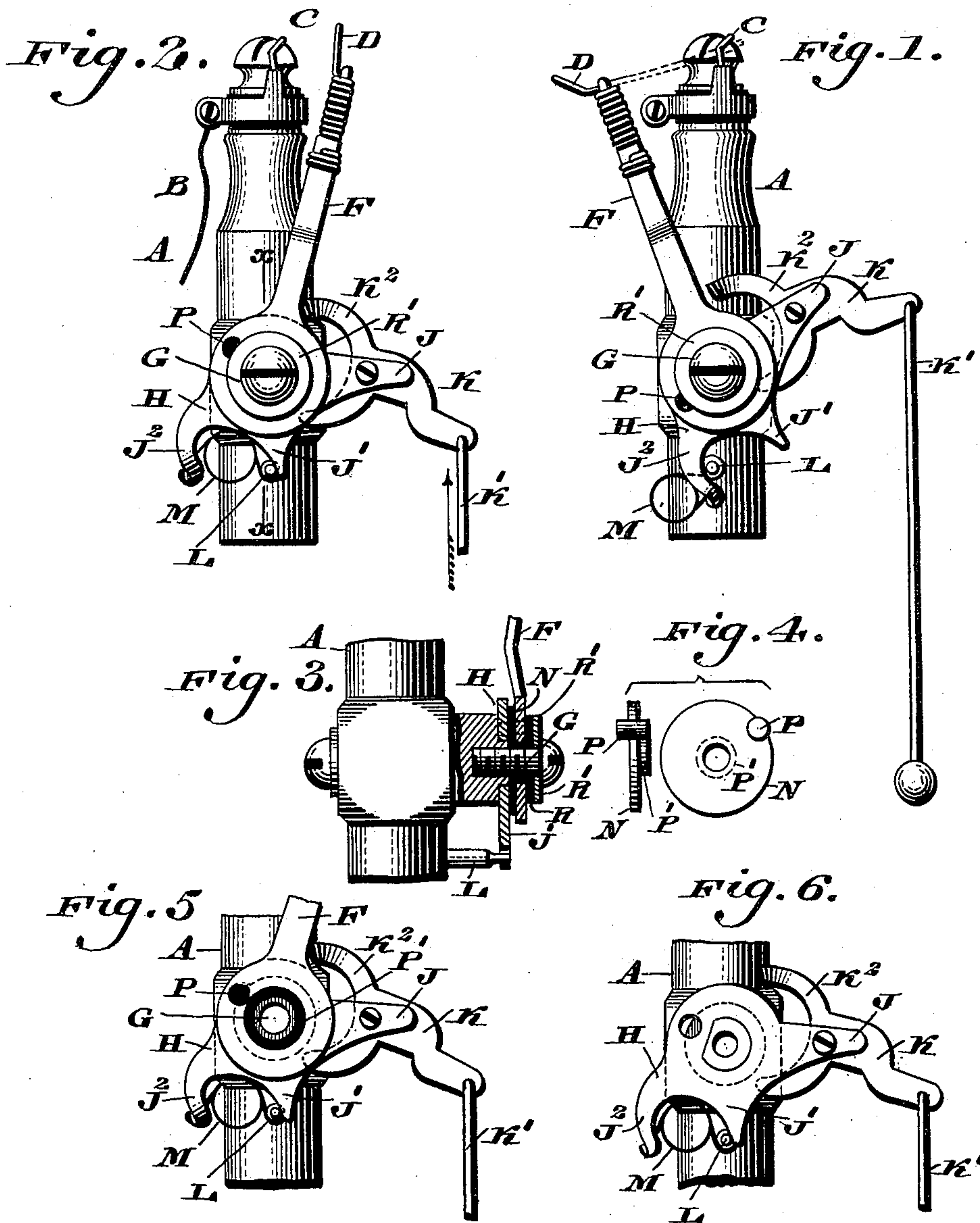
No. 614,528.

Patented Nov. 22, 1898.

J. M. ANCK.  
ELECTRIC LIGHTING GAS BURNER.

(Application filed Oct. 19, 1897.)

(No Model.)



WITNESSES

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# UNITED STATES PATENT OFFICE.

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## ELECTRIC-LIGHTING GAS-BURNER.

SPECIFICATION forming part of Letters Patent No. 614,528, dated November 22, 1898.

Application filed October 19, 1897. Serial No. 655,671. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN M. ANCK, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Electric-Lighting Gas-Burners, &c., which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of an improved construction of electric-lighting gas-burner, the novel details of which will be hereinafter fully set forth, and particularly pointed out in the claims.

Figure 1 represents a side elevation of an electric-lighting gas-burner embodying my invention, showing the auxiliary bifurcated lever in its normal position and out of electrical contact with the electrode-lever. Fig. 2 represents a side elevation of the burner, showing the auxiliary lever in contact with the movable electrode-lever. Fig. 3 represents a side elevation of the burner, partly in section, showing in particular the manner of mounting the insulated electrode and its adjuncts upon the stem of the valve-plug. Fig. 4 represents a plan view and side elevation of an insulating-washer employed. Fig. 5 represents a side elevation of the burner, showing the front washers removed and the manner of assembling the electrode-lever, insulating-washer, and their adjuncts. Fig. 6 represents a side elevation with the front washers, electrode-lever, and insulating-washer removed, showing the manner of connection between the valve-stem and auxiliary lever.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates an electric-lighting gas-burner having mounted thereon, but insulated therefrom, the stationary electrode C, said electrode being in electrical connection with the wire B, leading to a battery or other source of electrical energy.

D designates the wiper or movable electrode, which is suitably mounted on the electrode-lever F.

H designates a plate having a laterally-extending arm J and the stops J' J<sup>2</sup>. The lever F and plate H are both mounted upon the valve-stem G by a screw in such a manner

that the gas is turned on and off simultaneously with the operation of the electrodes, said lever and plate being insulated from each other by the washer N, which is mounted on the valve-stem G and is provided with the projection or hub P', which passes through the lever F, said washer having also the eccentric-pin P, which engages the plate H and lever F, so that they move in unison, said washer preventing electricity from passing from the plate H to the lever F and the parts being held in position by the insulating-washer R and the washer R'.

Mounted on the arm J is an auxiliary lever K, normally out of electrical contact with the electrode-lever F, but assisted to remain in such normal position by having attached to its free end a weighted rod K', which is also used to manipulate the electrode-lever; but it can be operated by any suitable means. As shown, it is held in either extreme position by the spring M, which has one end secured to one of the stops on the plate H and its other end attached to a stud or pin L in such manner as to retain either of said stops against said pin; but it must be understood that I do not confine myself to this particular construction, as a spring so located as to hold the lever on either side of its center may be used without departing from the spirit of my invention.

The lever K is preferably bifurcated, with one of its prongs adapted to contact with the electrode-lever F, while the other prong contacts with the burner or its stem G, which prevents the said lever from dropping too far from the electrode-lever; but any form or construction of auxiliary lever may be used without a departure from the invention.

The operation is as follows: In its normal position the movable electrode D is at one side of the fixed electrode C, as shown in Fig. 2, the gas being turned off, and the auxiliary lever K is in its normal position out of electrical contact with the electrode-lever F. When it is desired to ignite the gas, the lever K is raised until it comes in contact with the lever F, as shown in Figs. 2 and 5, a continuous upward movement forcing the electrode D forward until it wipes the fixed electrode C, closing the electrical circuit, the electric currents passing one up the burner A, stem G, plate H, lever K, lever F, and electrode D,



the other up the wire B to fixed electrode C, the contact of the said electrodes and the opening of the circuit making a spark and igniting the gas, the lever F moving into its extreme position and being held against one of the stops by the spring M, the parts now appearing as seen in Fig. 1 and the gas being turned on. When desired to extinguish the gas, the lever K is depressed, which causes the electrode F to reassume its normal position. (Shown in Fig. 2.)

It will be noticed that the member K<sup>2</sup> of lever K is never in contact with the electrode-lever under any condition except in the initial movement of igniting the gas. The electric current cannot enter the electrode-lever except through the auxiliary lever K by reason of the interposition of the insulating-washer N. When the gas is turned off, the member K<sup>2</sup> of the lever K does not contact with the lever F, and if the electrode D should be stopped in contact with the fixed electrode there is no danger of closing the circuit, and thus causing an unnecessary use of the battery, as well as the destruction of the electrodes, since the lever K is normally out of contact with the electrode-lever F, and the weighted rod K' assists in insuring such a result.

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

1. In an electric-lighting gas-burner, the combination of a fixed electrode, a valve-stem, a plate mounted on said stem, a lever also mounted thereon, insulation interposed between said plate and lever and between said lever and stem, an electrode carried by said lever, a lever pivoted to said plate, said pivoted lever being normally out of electrical contact with the electrode-lever, and means for closing the circuit between said electrode-lever and pivoted lever.

2. In an electric-lighting gas-burner, the combination of a fixed electrode, a valve-stem, a plate mounted on said stem, a lever mounted on said stem, insulation interposed between said plate and said lever, and between said lever and said stem, an electrode carried by said lever, a second lever carried by said plate, and means for moving said second lever into contact with the first-mentioned lever.

3. In an electric-lighting gas-burner, the combination of a fixed electrode, a valve-

stem, a plate mounted on said stem and having stops, a pin adapted to engage with said stops to limit the movement of said plate, a lever mounted on said stem, insulation interposed between said plate and lever and between said lever and stem, an electrode carried by said lever and adapted to be moved into contact with said fixed electrode, a second lever carried by said plate, and means for moving said second lever into contact with the first-mentioned lever.

4. In an electric-lighting gas-burner, the combination of a fixed electrode, a valve-stem, a plate mounted on said stem and having stops, a pin adapted to engage said stops and limit the movement of said plate, a resilient device for holding one or the other of said stops in engagement with said pin, a lever mounted on said stem, insulation interposed between said plate and lever and between said lever and stem, an electrode carried by said lever and adapted to be moved into contact with said fixed electrode, a second lever carried by said plate, and means for moving said second lever into contact with said first-mentioned lever.

5. In an electric-lighting gas-burner, the combination of a fixed electrode, a valve-stem, a plate mounted on said stem, a lever also mounted thereon, insulation interposed between said plate and lever and between said lever and stem, an electrode carried by said lever, a lever pivoted to said plate, and means for moving said pivoted lever into contact with the first-mentioned lever.

6. In an electric-lighting gas-burner, the combination of a fixed electrode, a valve-stem, a plate mounted on said stem and having stops, a pin adapted to engage with said stops to limit the movement of said plate, mechanism for holding one or the other of said stops in engagement with said pin, a lever mounted on said stem, insulation interposed between said plate and lever and between said lever and stem, an electrode carried by said lever and adapted to be moved into contact with said fixed electrode, a bifurcated lever pivoted to said plate, and means for moving said bifurcated lever into contact with said first-mentioned lever.

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Witnesses:

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