(No Model.)

F. LEIBMAN.

GAS BURNER.

No. 471,799. Patented Mar. 29, 1892.

Fig. 1.

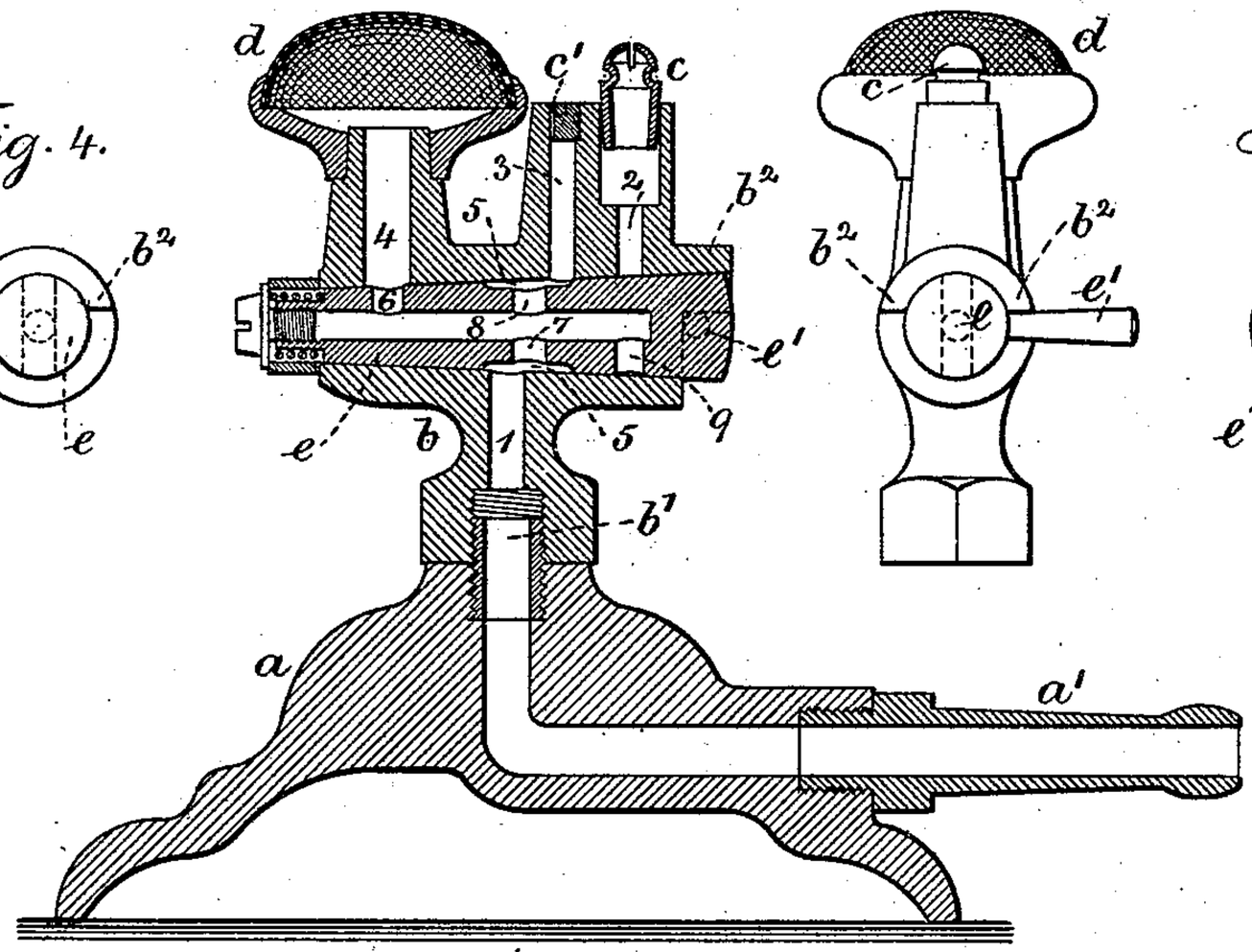


Fig. 3.

Fig. 4.

Fig. 5.

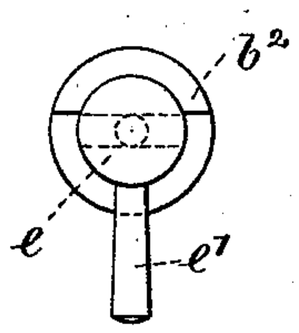
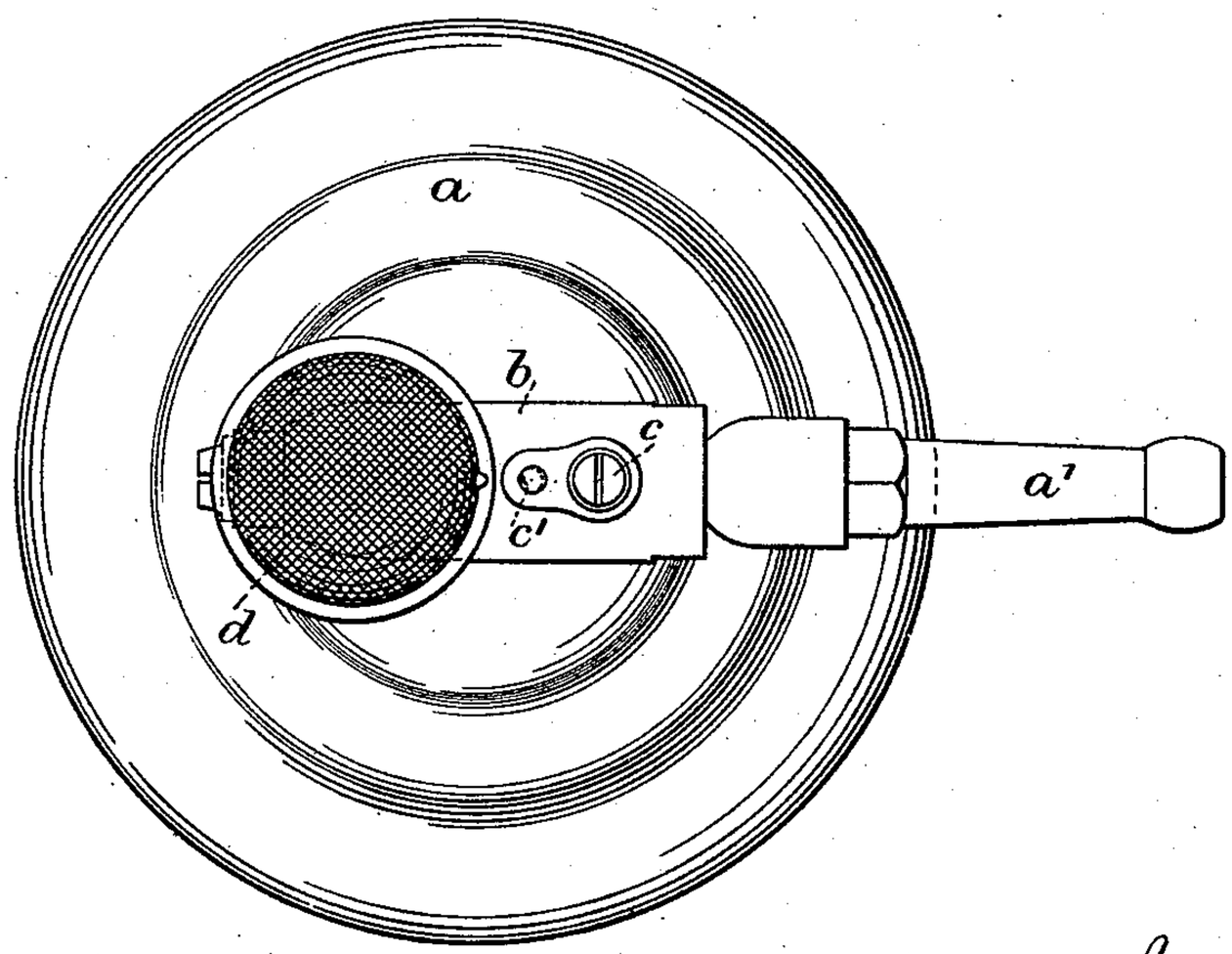


Fig. 2.



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UNITED STATES PATENT OFFICE.

FRANK LEIBMAN, OF NEW YORK, N. Y., ASSIGNOR TO E. P. REICHHELM & CO., OF SAME PLACE.

GAS-BURNER.

SPECIFICATION forming part of Letters Patent No. 471,799, dated March 29, 1892.

Application filed June 4, 1891. Serial No. 395,077. (No model.)

To all whom it may concern:

Be it known that I, FRANK LEIBMAN, a citizen of the United States, residing at the city, county, and State of New York, have invented a new and useful Improvement in Gas-Burners, of which the following is a specification.

My invention relates especially to that class of gas-burners known in the trade as "duplex burners," for the use of jewelers and kindred artisans. Gas-burners of this class have heretofore been employed wherein the heating and light-giving burners were at the respective ends of oppositely-located arms secured to a turning piece or rotatable center. In these burners difficulty has been experienced in keeping the joints gas-tight, and the changeable location of the lights has frequently been a source of inconvenience. My invention is designed to overcome these difficulties.

In carrying out my invention I employ a metal head secured to a base, and this head carries the burner for the heating-flame and the burner for the light-flame, and is provided with suitable passages for the gas and a passage and minute opening for the escape of gas to produce the torch. I provide horizontally through this head a tapering hole adapted to receive a hollow taper plug that is circumferentially grooved and perforated for the passage of gas from the source of supply to either burner or the torch alone, according to the position of the taper plug.

In the drawings, Figure 1 is a vertical section of my burner. Fig. 2 is a plan view. Fig. 3 is an end view of the head, and Figs. 4 and 5 are end views showing the positions of the handle of the taper plug.

a represents the base, and *a'* the gas-supply pipe, which, with the supply-cock, may be of any desired shape and description. The head *b*, preferably of cast metal, is connected to the base *a* by a coupling at *b'*, and said head is of a desirable and convenient shape. One branch of the head *b* has connected to it the burner *d* for producing the heating-flame and the other branch has connected to it the tip or burner *c* for the light-flame and a torch-hole at *c'*. The head *b* is bored out horizontally and tapering to form a receptacle for the hollow taper plug *e*, and said head is also bored out with a main passage 1 and auxiliary passages 2 3 4 for gas.

The hollow taper plug *e* is circumferentially grooved at 5 and is perforated at 6, 7, 8, and 9, and said plug is provided with a handle *e'* to rotate it. Said taper plug is capable of a half-rotation, and at the extremes of said half movement the handle *e'* abuts against a shoulder at b^2 in the head. In one extreme position of the taper plug the gas passes by 1, 7, 6, and 4 to the heating-burner, and in the other extreme position of the taper plug the gas passes by 1, 8, 9, and 2 to the light-flame burner. The gas for the torch *c'* passes by 1 the circumferential groove 5 and the passage 3, it being understood that the torch is burning at all times unless the supply-cock is closed. If the taper plug *e* and handle *e'* are turned to an intermediate position between the extremes of its movement, as shown in Fig. 5, then neither the heating-flame nor the light-flame are burning. In this position the torch will remain lighted and the burner can be left unused as long as desired, it only being necessary to turn the handle *e'* and plug *e* to either extreme position to instantly direct the gas to one burner and shut it off from the other and the torch will ignite the burner desired and to which the gas has been directed.

My improved burner is compact and not liable to get out of order. Besides it can be moved as an entirety and placed in any desired position with the heating-burner toward the workman.

I claim as my invention—

1. The combination, with the heating-burner and the light-burner, of a stationary support or head, to which such burners are affixed, gas-passages in the stationary support, and a horizontally-placed rotatable hollow plug or cock in and through such support, said hollow plug having lateral openings at opposite sides for the passage of gas to the heating and lighting burners, and an

igniting gas-jet or torch upon the stationary support between the two burners, substantially as specified.

2. The head *b*, having two upright branches, the shoulders b^2, and gas-passages 1, 2, 3, and 4, and having a tapering hole, combined with a hollow taper plug circumferentially grooved and provided with a central perforation and perforations in line with the gas-passages 2 and 4, and a handle, and the burners for the heating and light flames, substantially as set forth.

Signed by me this 27th day of May, A. D. 1891.

FRANK LEIBMAN.

Witnesses:
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