

No. 842,887.

PATENTED FEB. 5, 1907.

W. C. HOMAN.  
GAS BURNER REGULATOR.  
APPLICATION FILED NOV. 15, 1906.

Fig. 1.

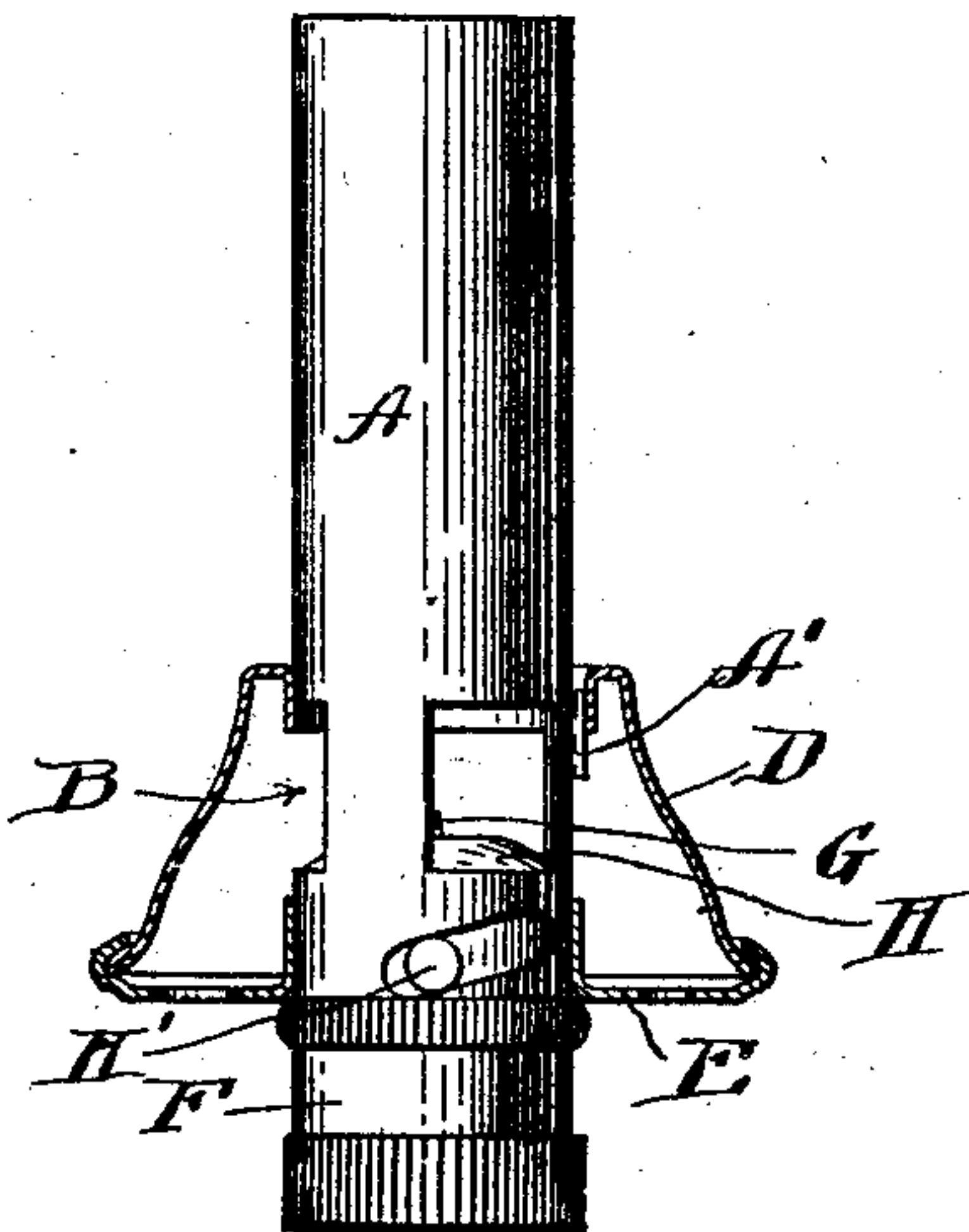


Fig. 3.

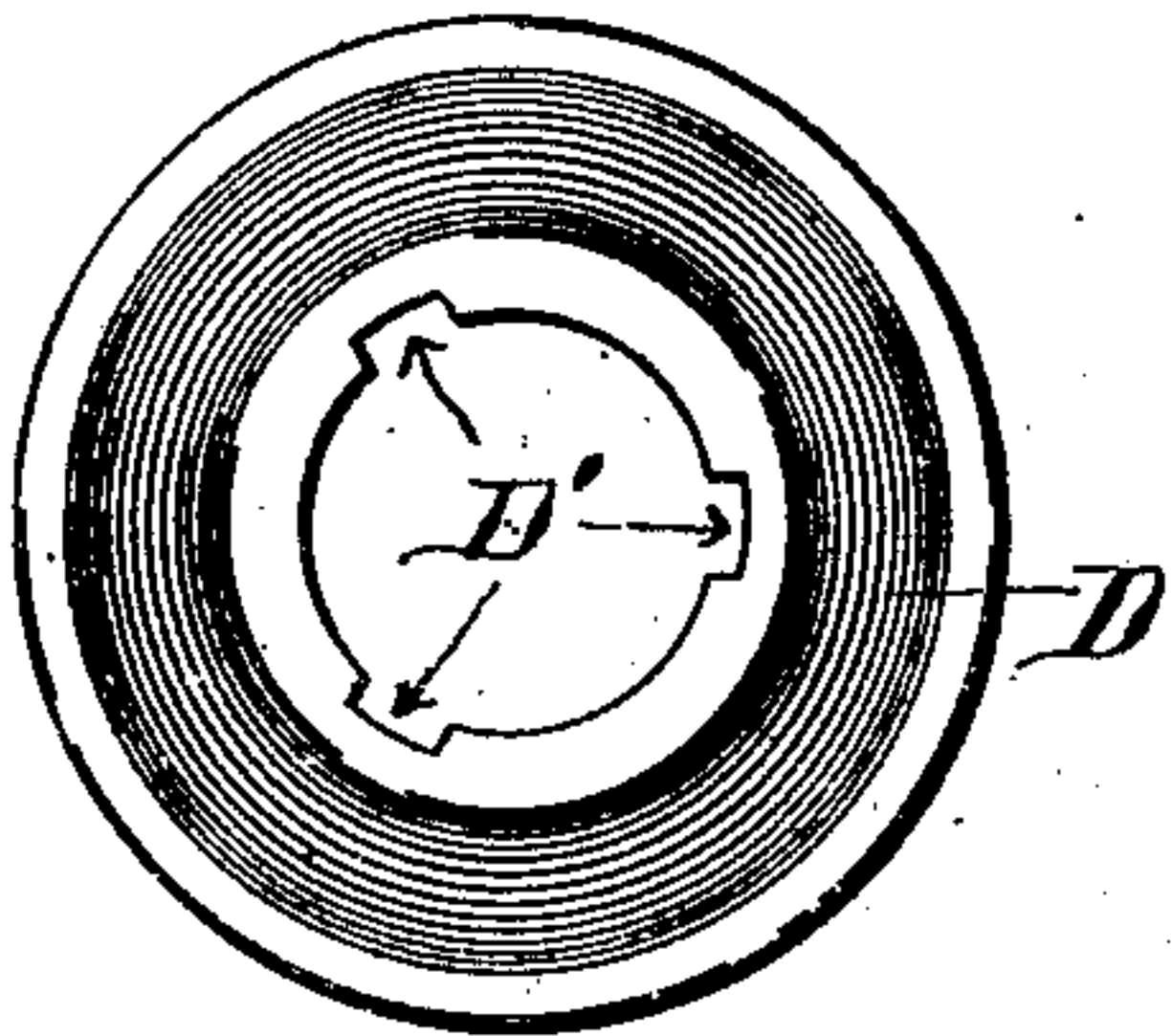


Fig. 2.

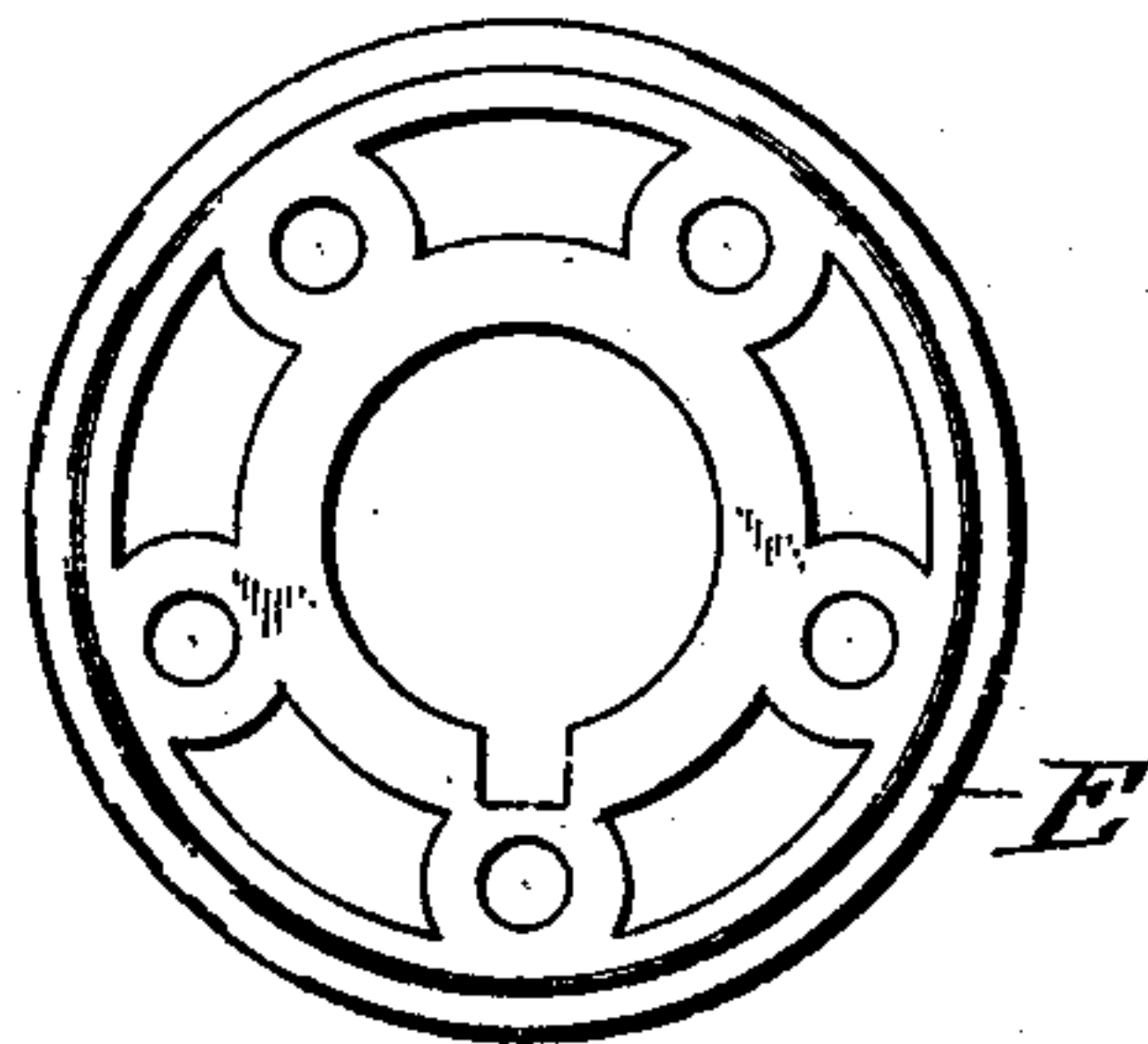


Fig. 6.

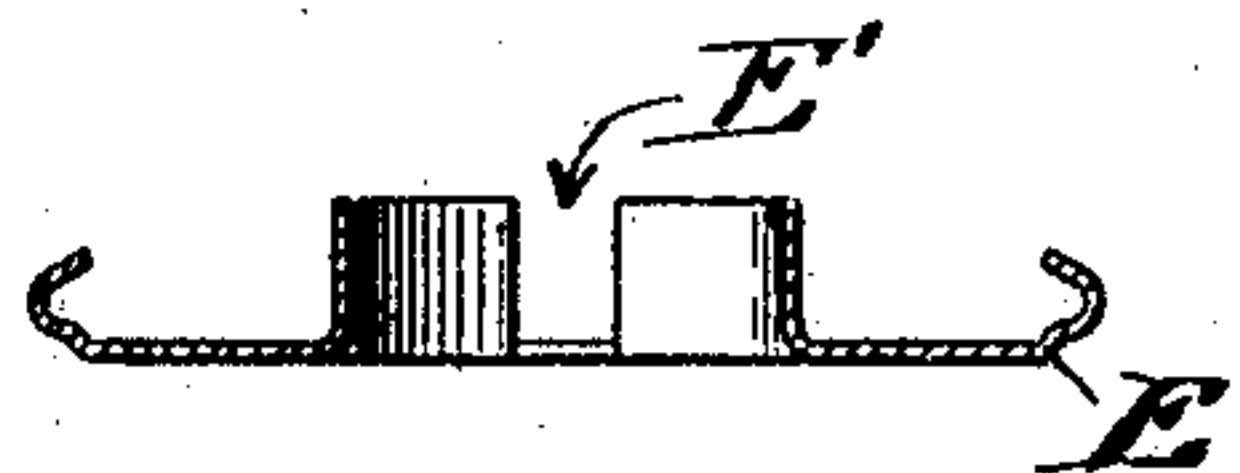
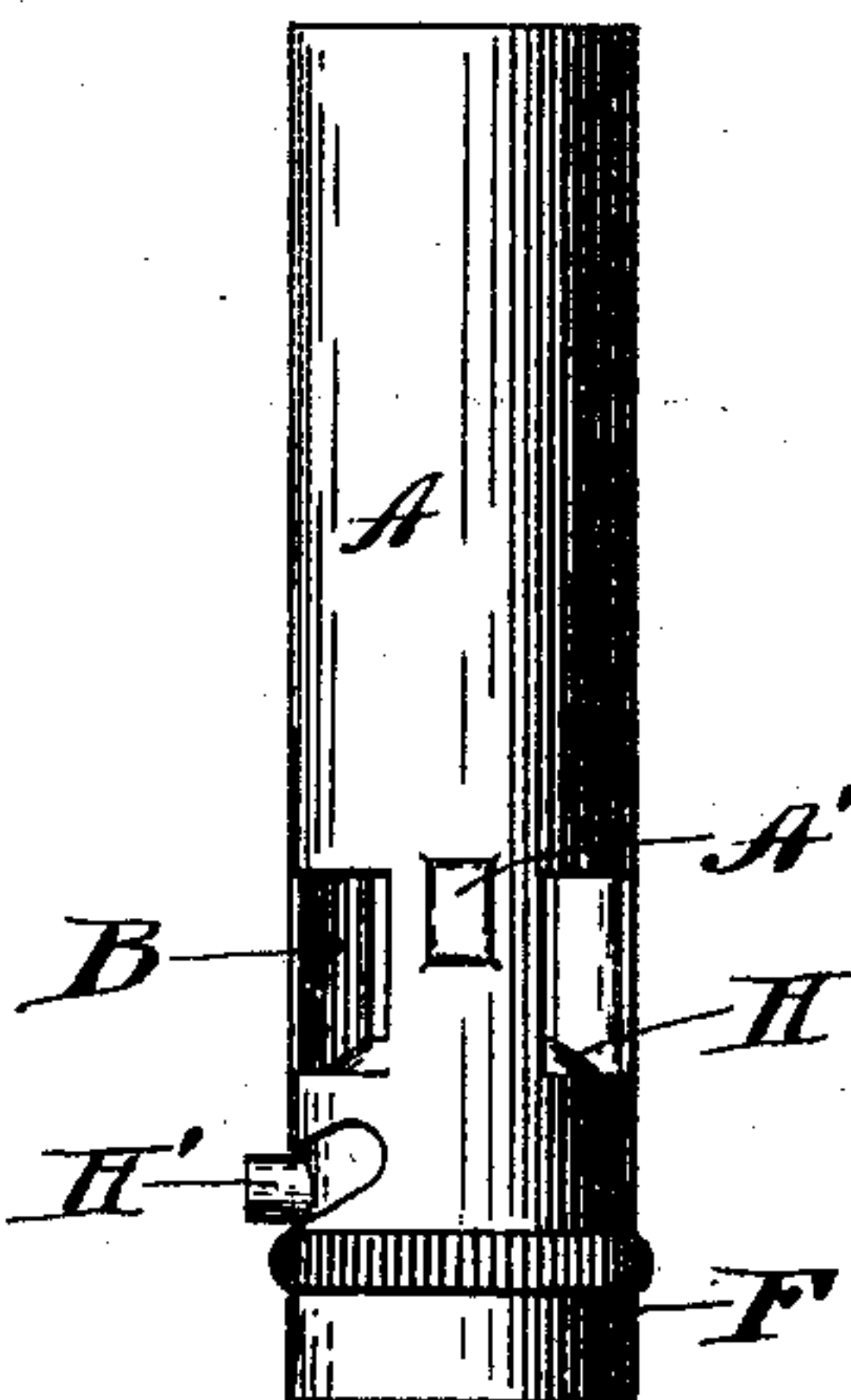
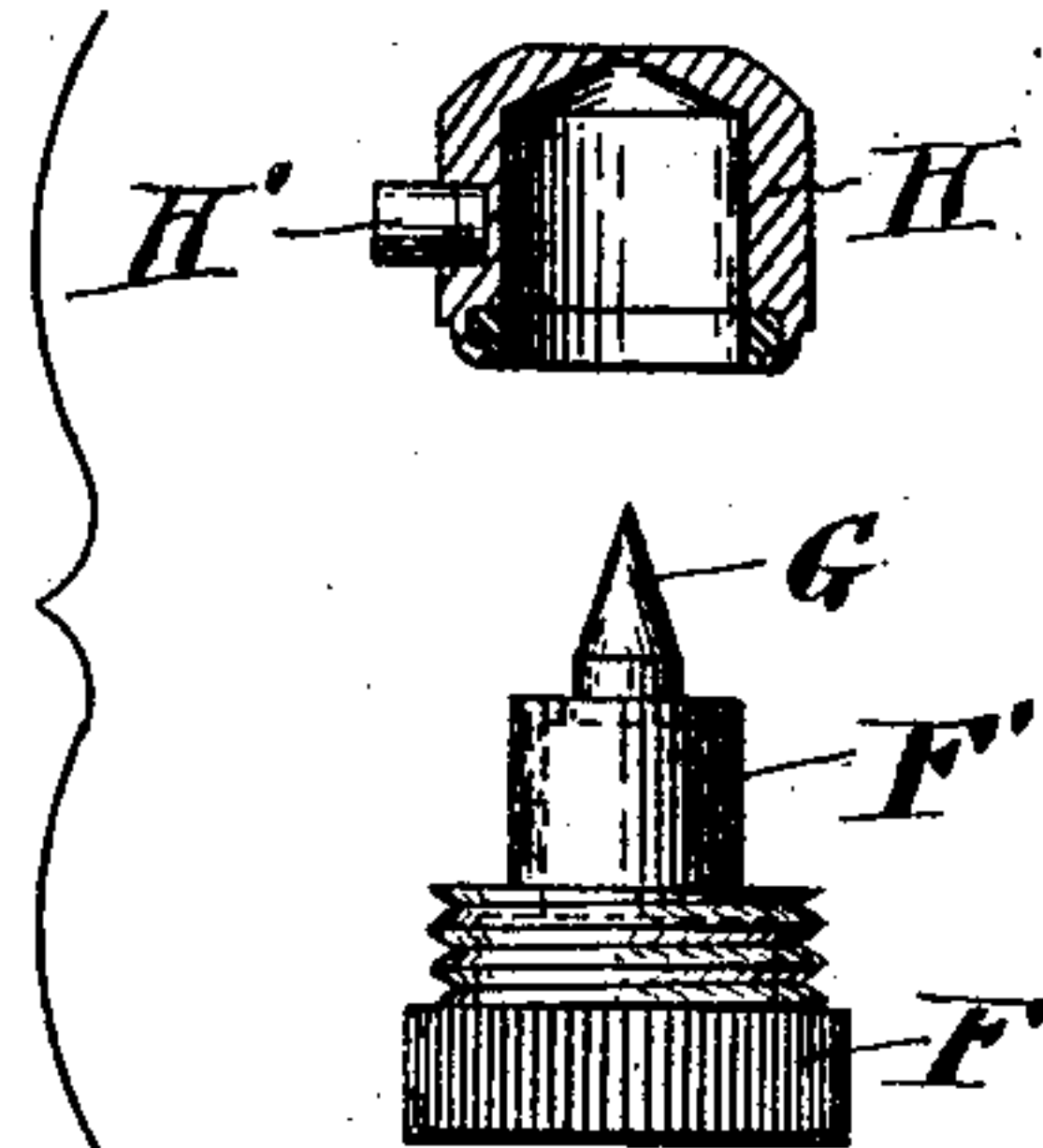


Fig. 5.



Witnesses  
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# UNITED STATES PATENT OFFICE.

WILLIAM C. HOMAN, OF MERIDEN, CONNECTICUT, ASSIGNOR TO EDWARD MILLER & COMPANY, OF MERIDEN, CONNECTICUT, A CORPORATION OF CONNECTICUT.

## GAS-BURNER REGULATOR.

No. 842,887.

Specification of Letters Patent.

Patented Feb. 5, 1907.

Application filed November 15, 1906. Serial No. 343,508.

*To all whom it may concern:*

Be it known that I, WILLIAM C. HOMAN, a citizen of the United States, residing at Meriden, county of New Haven, Connecticut, have invented certain new and useful Improvements in Gas-Burner Regulators, of which the following is a full, clear, and exact description.

My invention relates to improvements in burners for incandescent lights.

The object is to provide a simple and effective means for regulating the gas-supply, whereby the proper mixture of gas and air may be secured.

In the drawings I have shown only so much of the burner as may be required to illustrate my invention, it being understood that the usual fixtures (not shown) may be combined with those shown to make up the complete apparatus commonly found in a burner of the incandescent or so-called "Welsbach" type.

Figure 1 is a side elevation of a burner-tube with certain parts shown in section. Fig. 2 is a similar view of the burner-tube, taken in a plane at right angles to that shown in Fig. 1. Fig. 3 is a detached view of the wind-guard. Fig. 4 is a detached view of the under side of the operating member of the regulating device. Fig. 5 is an elevation of the upper end of the gas-nipple with the gas-regulating device shown in section. Fig. 6 is a detail view of the operating member for the gas-regulating device.

A is a burner-tube having air-ports B B in the side thereof. D is a guard mounted upon the burner-tube A and held against rotation thereon by suitable means—for example, one or more splines A', taking into corresponding keyways D' in the guard D.

E is the operating member for the gas-regulating device, the same being preferably of the form of a washer-like plate having a hub E revolvably mounted on the base of the burner-tube A. This operating member E is preferably extended beyond the edge of the guard D, and the edge may be rolled up to prevent cutting the fingers.

F is a gas-supply nipple having a tapered central pin-like projection G.

H is the regulating device, the same being centrally pierced to afford clearance for the pin-like projection G, with which it coöperates. Said cap is slidable upon the cylin-

drical part F' of the nipple F', a suitable packing being provided between said parts. In order to move the regulator H up and down on the said nipple to change the size of the orifice through which the gas escapes, (the same being the space around the valve G,) I provide a cam-groove in the side wall of the tube A, through which groove projects a pin H', carried by said regulator. This pin projects through sufficiently far to be engaged by a vertical slot in the side wall of the hub of the controller E, whereby when the latter is rotated said regulator will be moved up or down, according to the direction of rotation. The controller-plate E may be skeleton-like to permit air to flow readily to the ports B underneath guard D.

The decided advantage of providing an operating device for the gas-regulator which is independent of the wind-guard is the absence of friction. I am aware that heretofore rotatable wind-guards have been utilized for operating regulating devices of various sorts; but the rotation of said wind-guard on the tube is liable to loosen the tube from the nipple. In my present construction the hub of the controller or skeleton plate E is loose upon the tube A, and since the same is independent of the wind-guard D there is no danger of unseating the tube when the controller is operated.

What I claim is—

In a burner of the character described, a Bunsen tube having air-passages in its side, a wind-guard on said tube over said passages and held against rotation relatively thereto, a nipple supporting said tube and having a gas-passage therethrough, a tapered needle-valve mounted on said nipple, a regulator comprising a perforated cap slidable on said nipple the perforation in said cap overstanding said valve and said gas-passage, means for elevating and depressing said cap comprising a plate rotatably mounted on said tube, a slot in the hub of said plate, a slot in said Bunsen tube, one of said slots being cam-shaped and a projection on the cap passing through both of said slots, said plate being rotatable independently of the tube and guard.

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