

No. 749,409.

PATENTED JAN. 12, 1904.

H. C. THOMSON.
IGNITING DEVICE FOR ACETYLENE GAS BURNERS.

APPLICATION FILED NOV. 6, 1902.

NO MODEL.

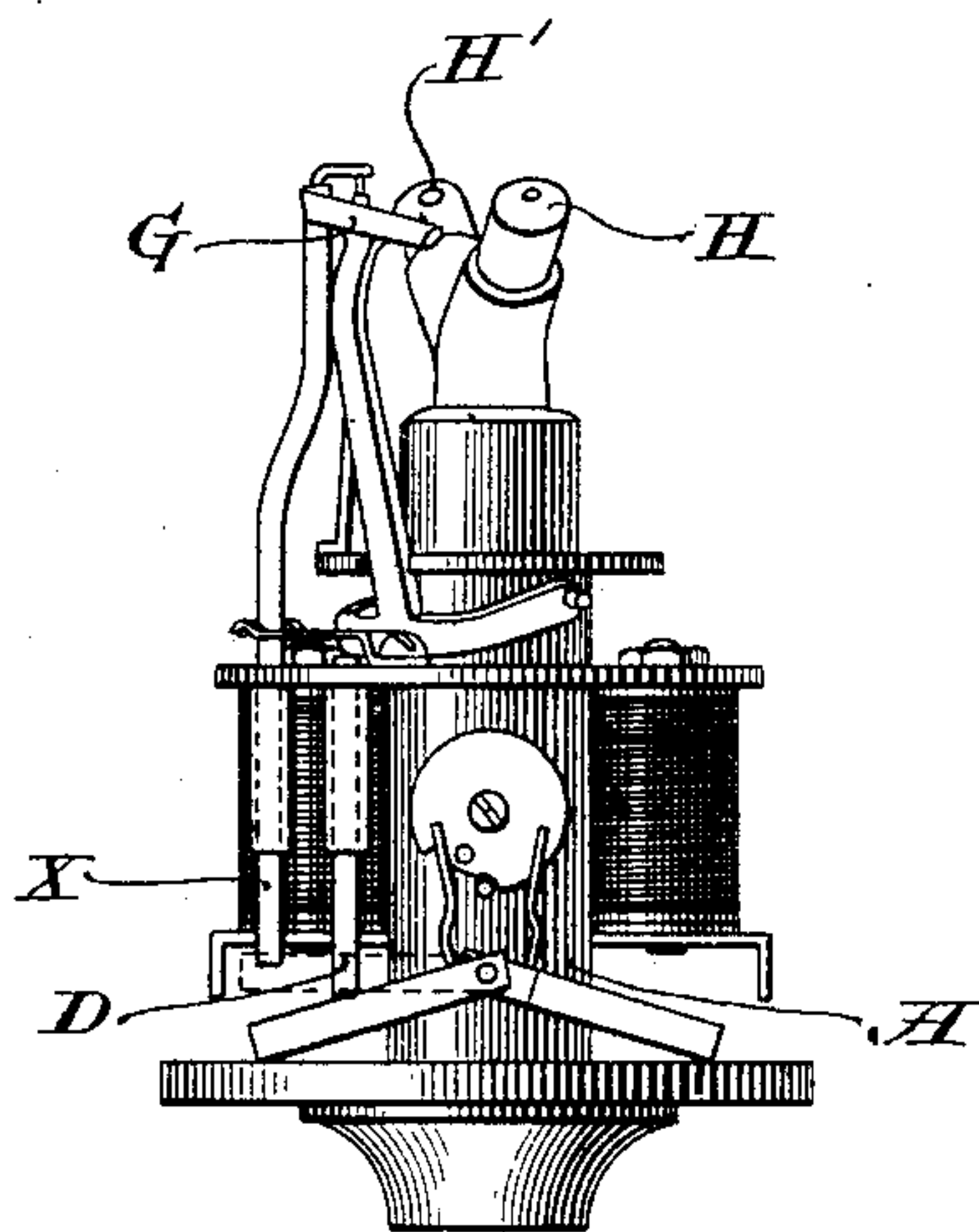


Fig. 1.

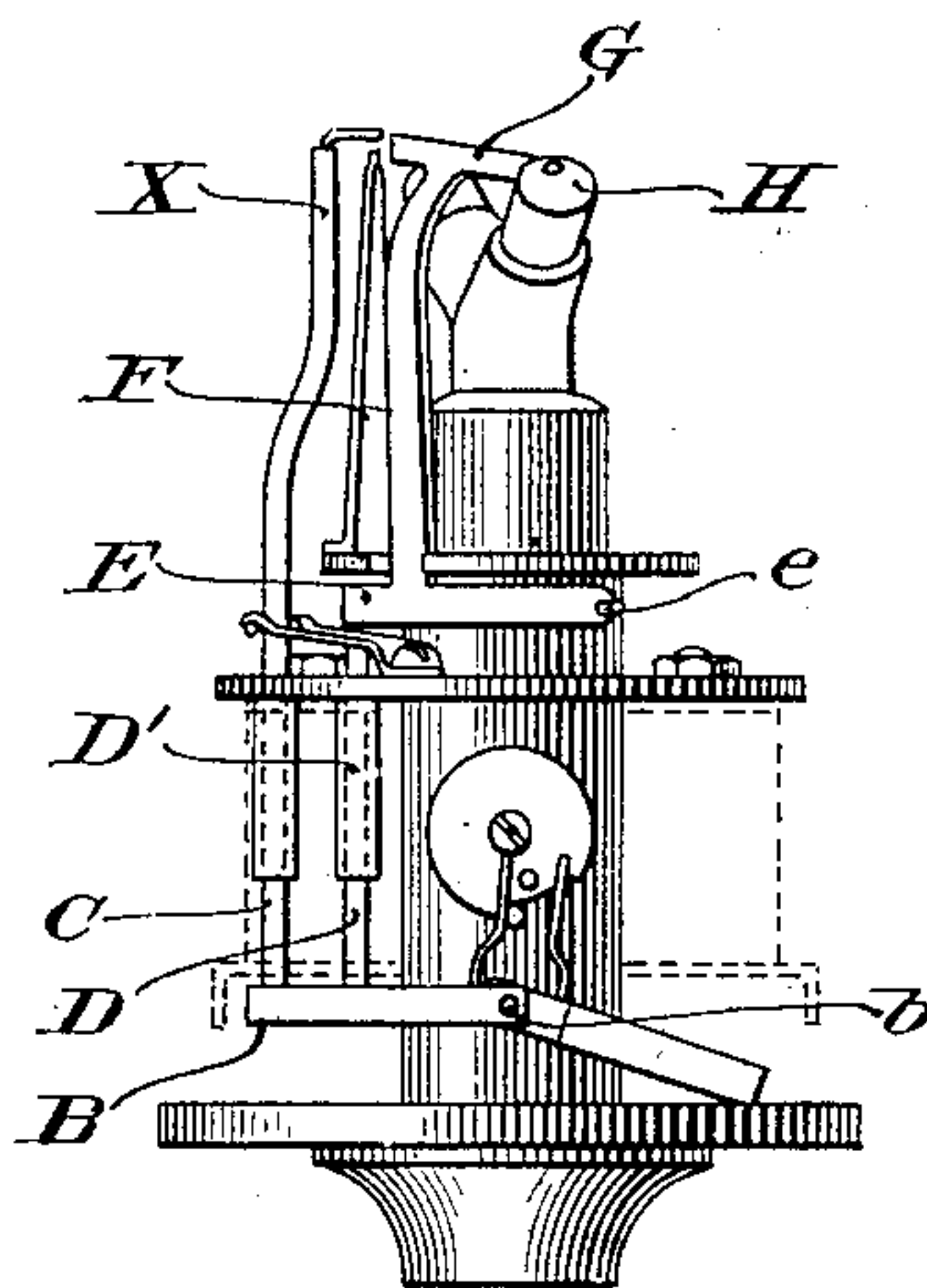


Fig. 2.

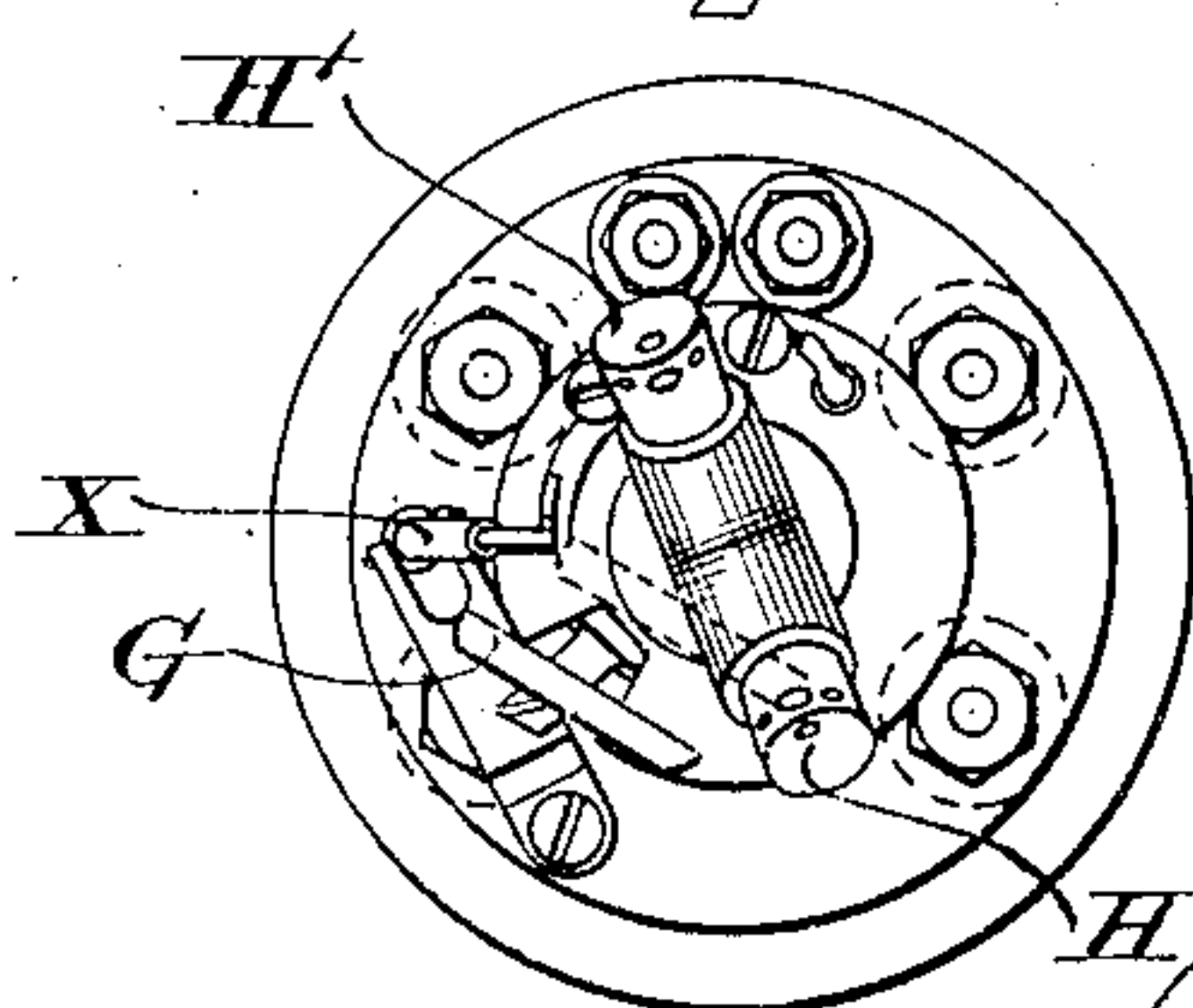
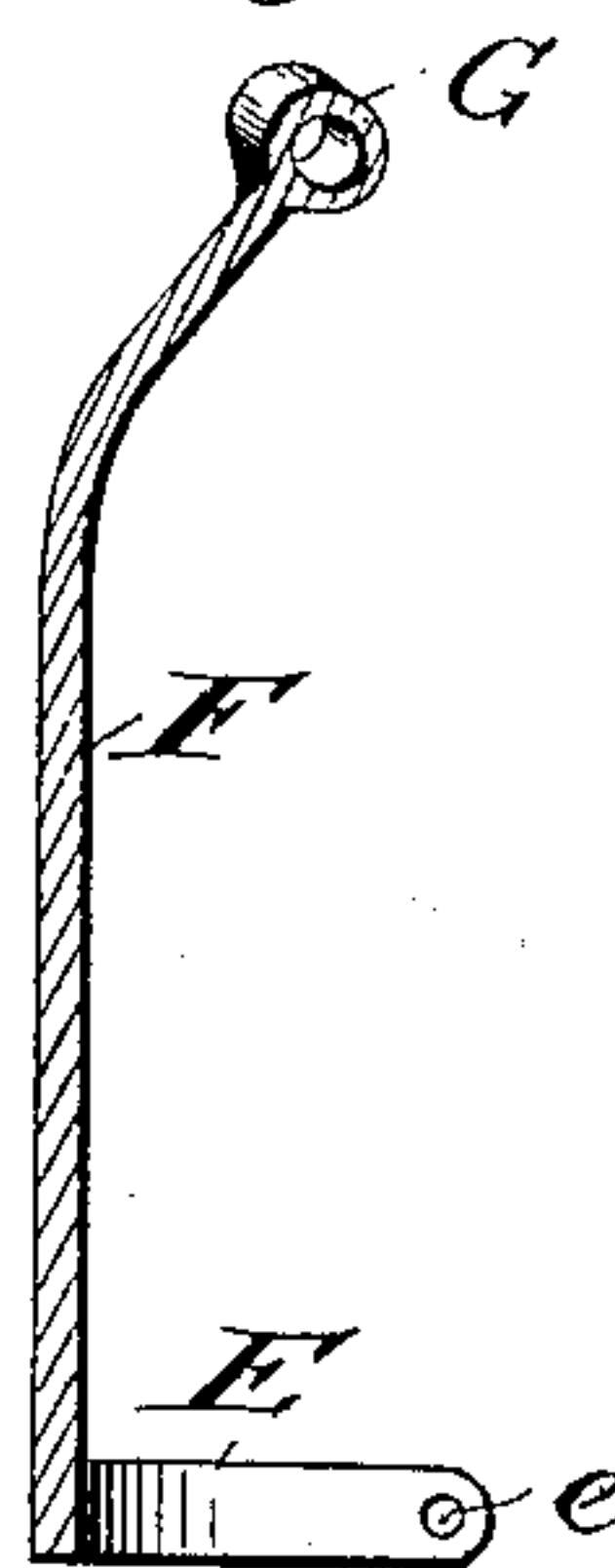


Fig. 3.

Fig. 4.



WITNESSES:

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HENRY C. THOMSON, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO ELECTRIC GAS LIGHTING COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MAINE.

IGNITING DEVICE FOR ACETYLENE-GAS BURNERS.

SPECIFICATION forming part of Letters Patent No. 749,409, dated January 12, 1904.

Application filed November 6, 1902. Serial No. 130,342. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. THOMSON, a citizen of the United States, residing in Boston, Massachusetts, have invented a new and useful Improvement in Igniting Devices for Acetylene-Gas Burners, of which the following is a specification.

My invention relates to automatic burners, whose general construction is very well known, adapted to the burning of acetylene gas. Owing to the great richness of this gas in carbon, it is necessary to have the lighting electrodes removed from immediate contiguity to the flame, and yet for the purpose of lighting the gas it is necessary that the spark should come in contact with it when it first issued from the burner.

My invention consists in a supplementary device automatically brought into action, whereby the issuing gas is conveyed over to the electrodes and there ignited, the flame therefrom extending into contact with the gas issuing from the tip of the burner, and thereby igniting the same.

My invention will be understood from the drawings, in which the ordinary form of electric automatic gas-burner is shown, but of which no description is necessary further than is connected with my improvement.

Figure 1 is an elevation of such burner, showing my device in its normal position. Fig. 2 is a similar elevation, showing my device in the position in which the gas is lighted. Fig. 3 is a top plan showing the relations of my device to the double tip of the ordinary acetylene-gas burner. Fig. 4 is a sectional view of the hollow tube G and its support.

I will now describe the drawings.

B is the ordinary movable armature pivoted at *b* to the gas-pillar. The ordinary purpose of this armature, it will be understood, is to turn the gas-cock and make and break contact between two electrodes by elevating the electrode X. Under my invention I rest upon this armature B a rod D, running in a sleeve D' and abutting against a half-collar E, loosely pivoted to the gas-burner at *e* and carrying an upright arm F, at the top of and at about right angles to which is a short hollow tube G.

The operation of my apparatus will now be plain. In Fig. 1 the apparatus is quiescent. In Fig. 2, a proper magnet having been energized and the armature B having been attracted in a well-known way, it will be seen that the movable electrode X has been raised, and thereby an electric spark has been made, by a break of current. Simultaneously with this the rod D has forced the collar E upward, thereby swinging the tube G into such position that the acetylene gas issuing from one of the double tips H will pass through the tube G, carrying the gas close to the electrodes at the time of their separation, where it will be ignited by the spark, and thence the flame will spread to and ignite the gas issuing from the other branch of the burner-tip H'.

Having described my invention, what I claim is—

1. In an automatically-ignited electric acetylene-gas burner, in combination with the burner and armature thereof, a rod D arranged to be operated by the armature, a supporting-sleeve D' therefor, a half-collar E loosely pivoted to the gas-burner, a rod F erected upon said half-collar, a short tube G carried at the extremity of said rod, the whole being so combined that, upon upward movement of the armature, said tube G will carry the escaping gas from the tip of said burner to the electrodes for the purpose of ignition by a spark there made; substantially as described and shown.

2. In an automatically-ignited acetylene-gas burner, in combination with the burner and armature thereof, a tube to carry the gas from the burner-tip to the electrodes, and means intermediate of said armature and burner-tip whereby the vibration of said armature carries the tube to and away from the burner-tip; substantially as described.

In witness whereof I hereunto subscribe my name this 1st day of November, 1902.

HENRY C. THOMSON.

Witnesses:

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MARY I. GARRAGHAN.