

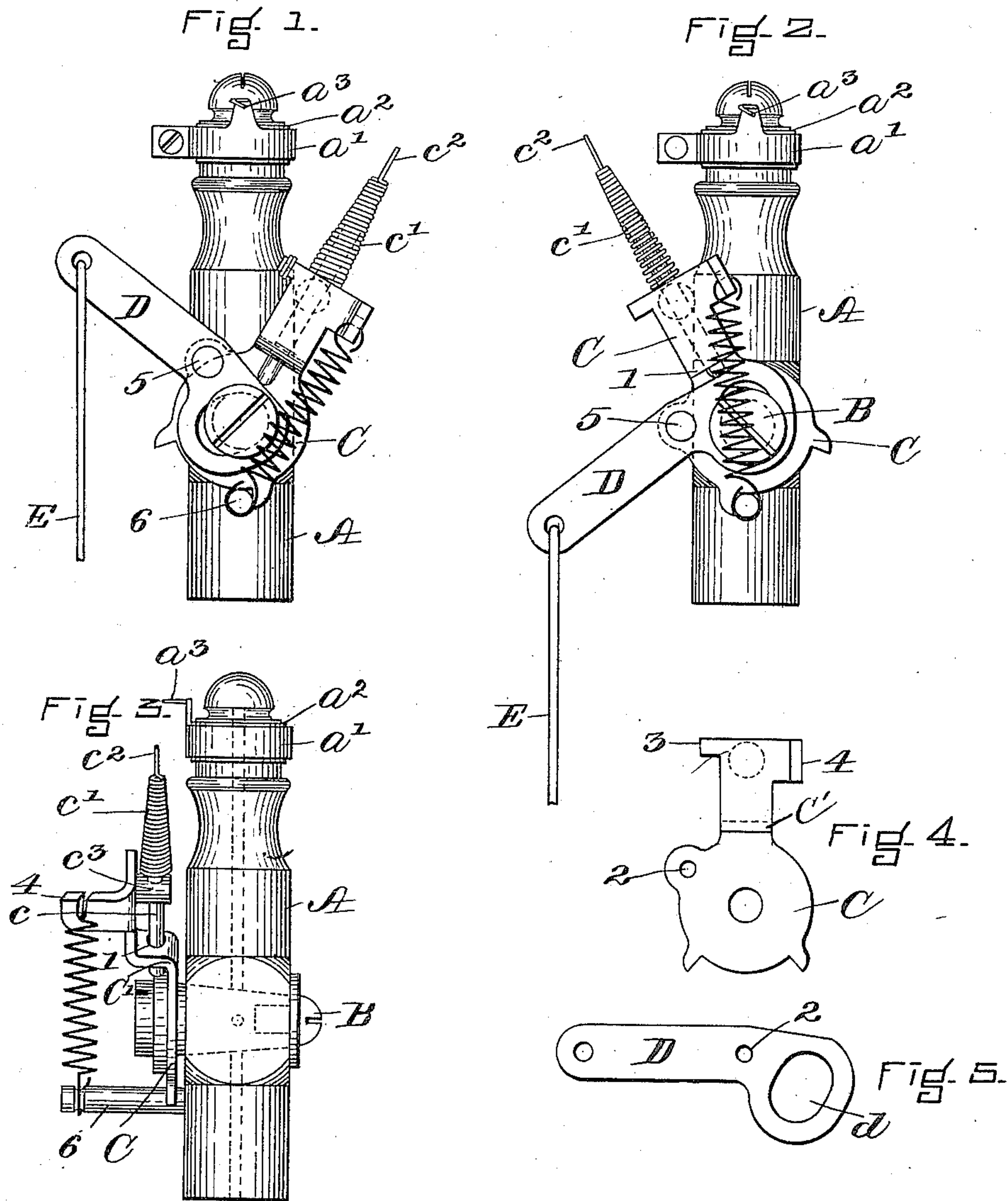
No. 652,430.

Patented June 26, 1900.

G. J. GALBRAITH.
ELECTRIC HAND LIGHTING GAS BURNER.

(Application filed Aug. 24, 1899.)

(No Model.)



WITNESSES.

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ELECTRIC GAS LIGHTING COMPANY, OF SAME PLACE.

ELECTRIC HAND-LIGHTING GAS-BURNER.

SPECIFICATION forming part of Letters Patent No. 652,430, dated June 26, 1900.

Application filed August 24, 1899. Serial No. 728,263. (No model.)

To all whom it may concern:

Be it known that I, GEORGE J. GALBRAITH, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Electric Hand-Lighting Gas-Burners, of which the following is a specification.

My invention relates to that variety of said apparatus commonly known as "pulldown" burners, in which a lever-arm moves a spring-electrode into contact with a fixed electrode at the burner-tip and at the same time turns the gas-cock so that the gas is ignited by an electric spark made by the making and breaking of said electrodes, while the reversed motion of the lever-arm turns off the gas. Under my invention no contact of the electrodes occurs on turning off the gas.

My invention will be understood clearly from the accompanying drawings, in which—

Figure 1 is a front view showing the gas turned off. Fig. 2 is a front view showing the gas turned on. Fig. 3 is a side view. Fig. 4 is a detail of the electrode-carrying arm, and Fig. 5 is a detail of the operating lever-arm.

A is a burner-pillar having the fixed electrode a^3 , supported upon the insulated collar a' , near to the lava tip a^2 .

B is the oscillating gas-cock.

C is an electrode-carrying arm rigidly mounted upon the spindle of said gas-cock, having the angle C' , with the perforation 1 and the perforated support c^3 .

c is a pin passing through said support c^3 and perforation 1 and is surrounded by the coiled spring c' , terminating in the wiping-electrode point c^2 .

D is an operating-lever pivoted at 5 upon said electrode-carrying arm C and constructed with the orifice d , larger than the spindle of said gas-cock, over which it plays, and has also attached the operating-wire E. A coiled over-the-center spring is attached to a standard 6, projecting from the burner and also to an arm 4 upon the electrode-carrying arm C, to retain said arm in place. The pivot 5, passing through the hole 2 in C, serves as a fulcrum for the lever D. The function of the

lever D is twofold—to elevate the electrode-pin c and also to operate the gas-cock.

The method of operation of my apparatus will be plain. The gas being turned off, as in the apparatus shown in Fig. 1, pulling down upon the operating-wire will cause the lever-arm D to act as a lever fulcrumed at 5 by its slot d bearing against the spindle of the gas-cock, and the result of the force applied to the dependent wire will be to bring the apparatus into the position shown in Fig. 2, in the course of doing which the lever D will push the pin c in the coiled spring c' upward, so as to bring the wiping-electrode c^2 into wiping contact with the fixed electrode a^3 to make the spark to light the gas emitted by oscillation of the gas-cock by the lever-arm. Upon pushing up upon the operating-wire to return the apparatus to the position shown in Fig. 1 the lever-arm will not strike the pin c , which will not be elevated, and so there will be no contact made between the two electrodes in turning off the gas.

Having described my apparatus, what I claim is—

1. In an electric hand-lighting gas-burner, the combination with a burner-pillar provided with a fixed electrode, of an oscillating gas-cock; an electrode-carrying arm rigidly attached to the spindle of said gas-cock and formed as described; a movable pin c carried by said electrode-carrying arm; a coiled spring c' surrounding said pin c and terminating in c^2 ; an operating-lever fulcrumed upon said electrode-carrying arm and constructed with a slot d playing about the gas-cock spindle, said lever operating the pin c ; and a spring, one end attached to said burner-pillar and the other to the electrode-carrying arm; all substantially as described and shown.

2. In an electric hand-lighting gas-burner having a fixed electrode, in combination with an oscillating gas-cock, the electrode-carrying arm C constructed with the bend or angle C' , the support c^3 , and the catch 4; pin c , spring-electrode $c' c^2$; and an operating-lever D properly fulcrumed on said electrode-carrying arm; all substantially as described.

3. In an electric hand-lighting gas-burner having a fixed electrode, in combination with an oscillating gas-cock, the electrode-carrying arm C constructed with the bend or angle C', the support c^3 , and the catch 4; pin c ,
5 spring-electrode $c'c^2$; and an operating-lever D properly fulcrumed on said electrode-carrying arm; and an over-the-center spring adapted to hold the device in either a closed

or an open position; all substantially as described. 10

In witness whereof I hereunto subscribe my name this 19th day of August, 1899.

GEORGE J. GALBRAITH.

In presence of—

F. C. CHAMBERLIN,
JOSEPH B. SHEA.