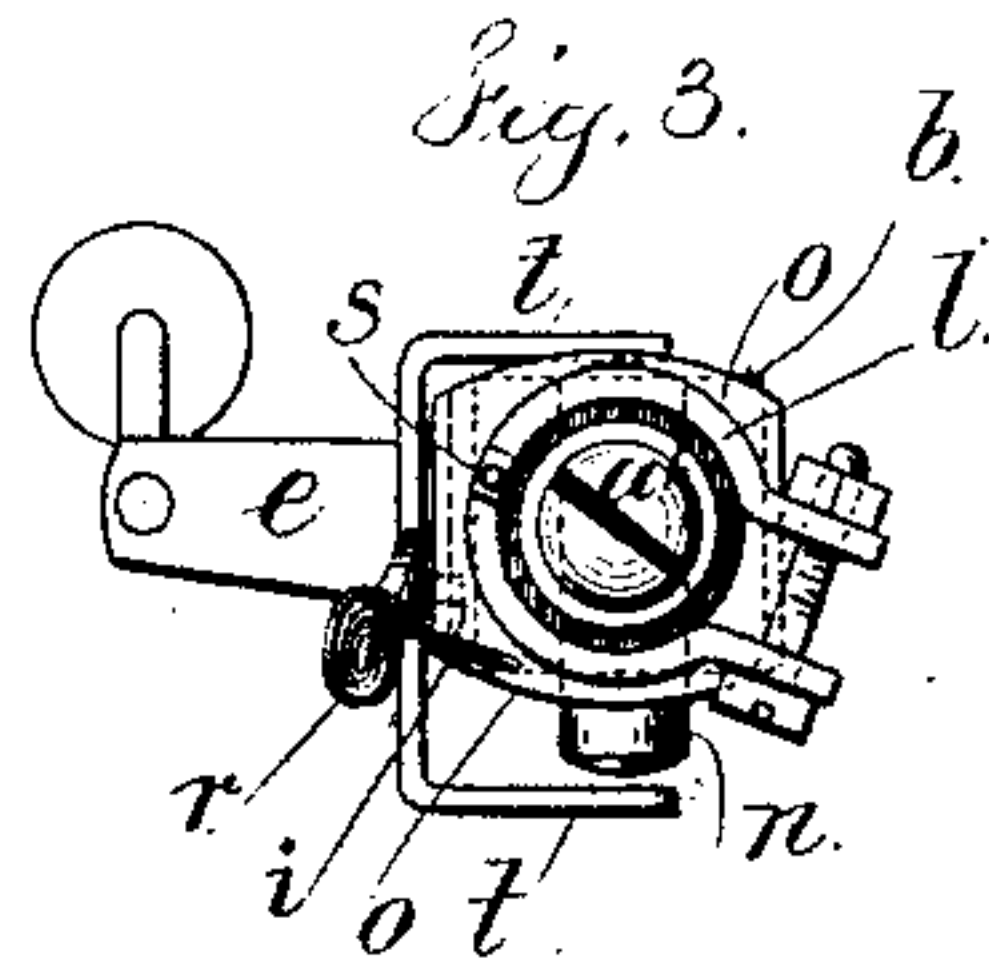
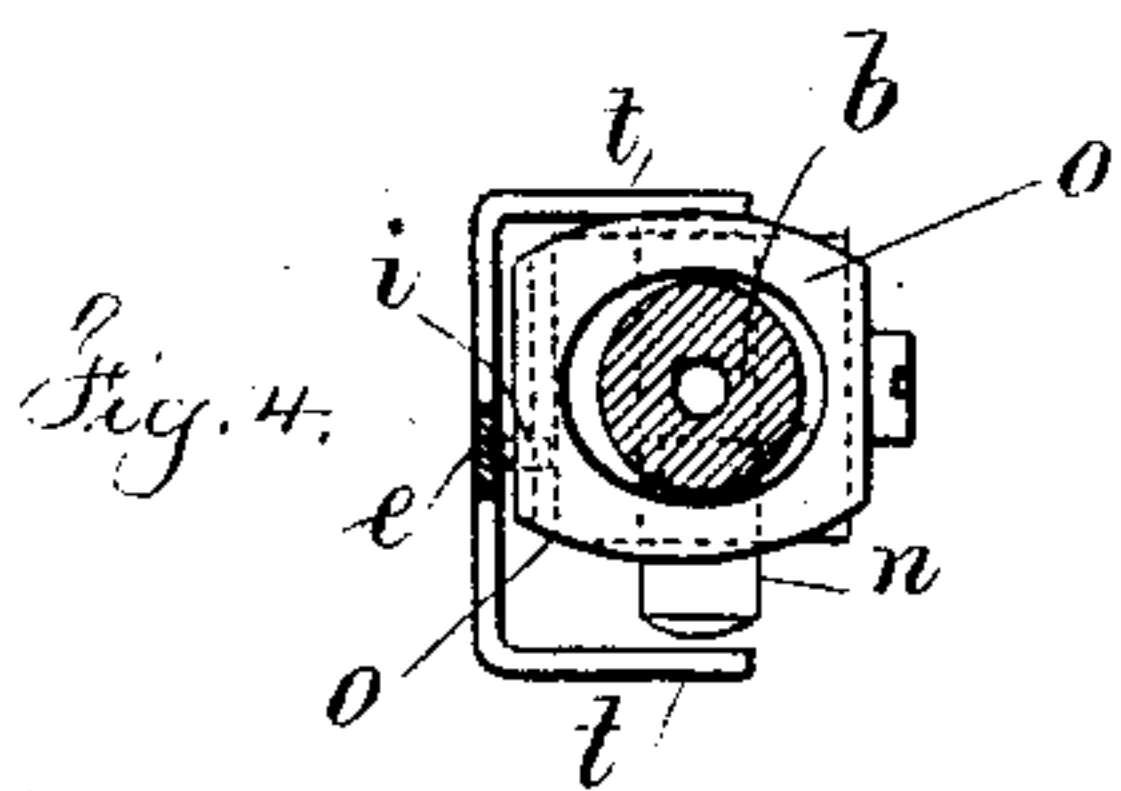
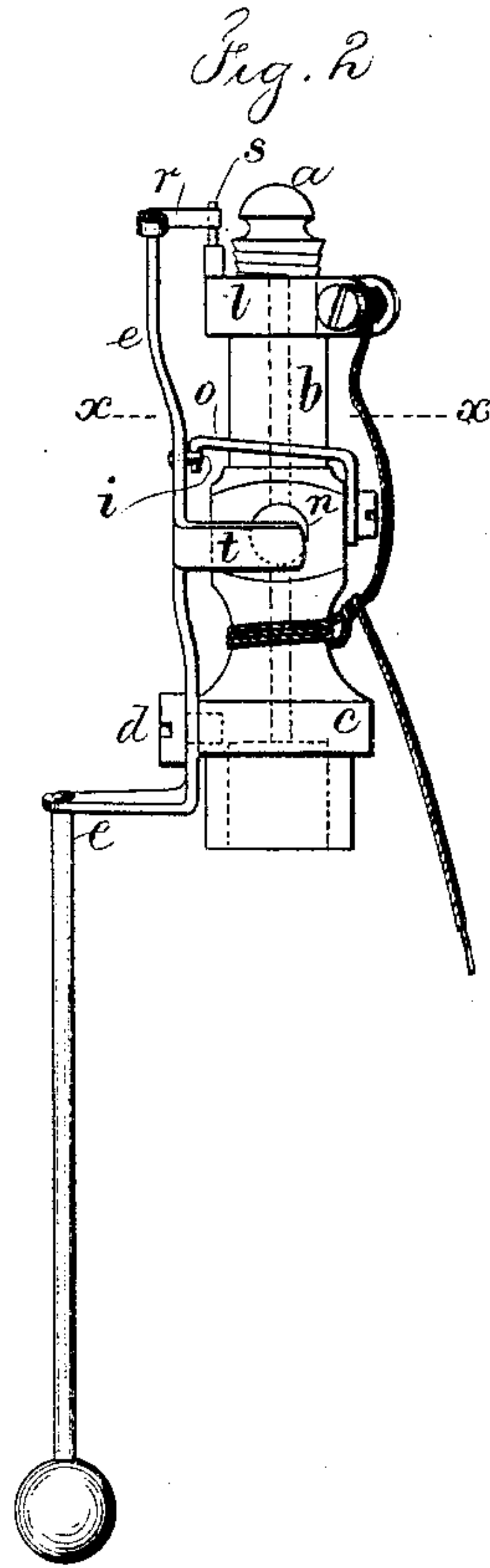
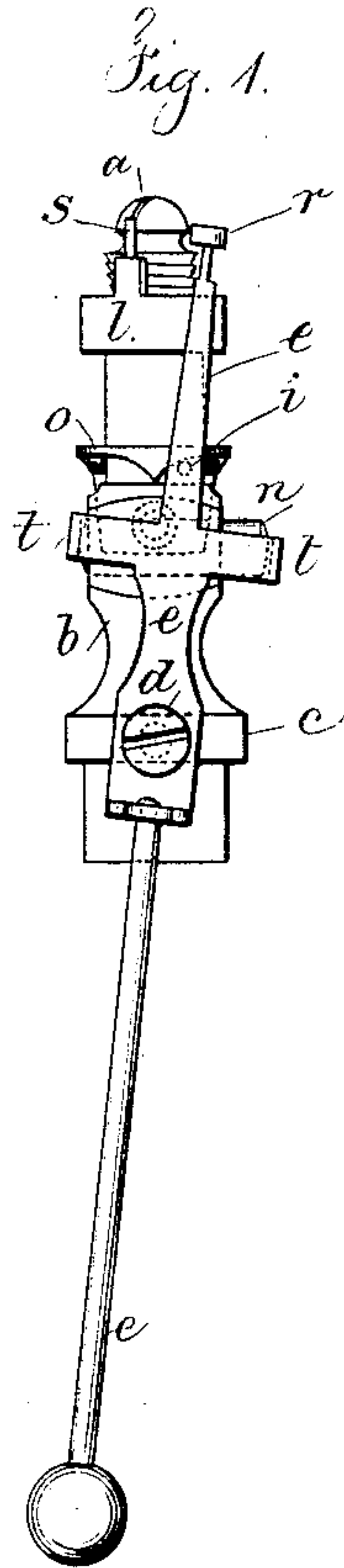


(No Model.)

T. H. RHODES.
ELECTRIC GAS LIGHTER.

No. 261,043.

Patented July 11, 1882.



Witnesses

Chas. H. Smith
J. Hail

Inventor

Thomas H. Rhodes.

per Lemuel W. Ferrell

att'y

UNITED STATES PATENT OFFICE.

THOMAS H. RHODES, OF BROOKLYN, NEW YORK, ASSIGNOR TO HIMSELF
AND THE SMITH & RHODES ELECTRIC COMPANY, (LIMITED,) OF NEW
YORK, N. Y.

ELECTRIC GAS-LIGHTER.

SPECIFICATION forming part of Letters Patent No. 261,043, dated July 11, 1882.

Application filed June 5, 1882. (No model.)

To all whom it may concern:

Be it known that I, THOMAS H. RHODES, of Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Electric Gas-Lighters, of which the following is a specification.

The object of my invention is to simplify and render reliable in operation that class of electric gas-burners where the gas is turned on and off by hand; and it consists principally in the peculiar mechanism employed for operating the movable electrode and for preventing a short circuit or ground-connection.

In the devices where the spark-point or electrode has been moved by hand there is a liability for the parts to be partially turned and to remain in contact and short-circuit the current and prevent the necessary spark at other burners.

In my Patent No. 257,070 there is a cock that has a parallel plug that slides endwise through the gas-tube and opens and closes the same.

In my present invention I combine with the lever and moving spark-point a spring-cam that prevents the spark-points remaining in contact. Hence the current cannot be short-circuited at one burner, and the spark can be drawn at any burner for the lighting of the gas; and I employ a sliding cock in connection with the spark-lever, whereby the movement that turns on the gas also moves the spark-point, and one of the spark-points is made of a spring in such a manner that it will not separate from the other electrode until after the gas has been turned on. Hence there is a momentary pause for the gas to issue from the burner before the electrodes are separated to form the spark.

In the drawings, Figure 1 is an elevation of the burner. Fig. 2 is an elevation at right angles to Fig. 1. Fig. 3 is a plan of the burner, and Fig. 4 is a section at the line *x x*, Fig. 2.

The gas-tip *a* is of any desired character. It is upon the gas-pipe *b*, and there is a block at *c*, to which the pivot-screw *d* of the lever *e* is attached. This lever *e* has a handle of suitable length, and there is a pin or projection, *i*, upon the lever *e*, that passes beneath the V-shaped end of the spring *o*. This spring *o* is

preferably shaped as a ring to pass around the gas-pipe, and the V-shaped portion thereof forms a cam that the pin *i* moves in contact with as the lever is swung one way or the other. This pin *i*, acting on the V-cam, bends the spring, and the pin snaps past the apex of the cam and cannot remain at the point of the cam. Hence the spring insures the movement of the lever-pin to either one side of the cam or the other. The electrodes are in contact as the pin passes the apex of the V-cam. Hence they cannot remain in contact, but separate either one way or the other, and the electric circuit from the battery through such electrodes being broken, the electric current is free for use at other lamps.

Around the gas-burner there is a clamping-band, *l*, with insulating material between the same and the burner. This may be composed of a strip of rubber. The pin *s*, of platina or similar material, forms one of the electrodes or spark-points, there being an insulated wire leading from a battery to this band *l*, and the return-circuit being through the spring *r* upon the lever *e*, thence to the gas-pipe.

I prefer to use a volute spring, *r*, at the end of the lever *e*, so that it will remain in contact with the electrode *s* a short time as the spring bends, to give opportunity for the gas to commence to escape from the burner before the electrodes separate and the spark is drawn.

If an ordinary gas-cock is used, the same must be turned before the lever *e* is moved. This may be employed; but I prefer to use a sliding valve, *n*, that is composed of a parallel plug that fits gas-tight into the parallel hole in the burner, and said plug is provided with a neck that allows the gas to pass when the plug is moved in one direction, and when moved the other way the gas-passage is closed. A cock of this kind is shown in my aforesaid patent. I provide the arms *t* on the lever *e*. Said arms pass up at opposite ends of the plug *n*, so as to open the cock as the lever is moved one way and close the cock as the lever is moved the other way.

I claim as my invention—

1. The combination, with the gas-burner, the spark-points, and the lever carrying one of the electrodes, of a spring-cam and a pro-

jection on the lever acting on such spring-cam, for the purposes and as set forth.

2. The combination, with the gas-burner, of a lever, an electrode on the lever, a stationary
5 spark-point, a sliding valve, and two arms on the lever, one at each end of the valve for moving the same, substantially as set forth.

Signed by me this 2d day of June, A. D.
1882.

THOS. H. RHODES.

Witnesses:

GEO. T. PINCKNEY,
CHAS. H. SMITH.