

N. TUFTS.
Gas-Light Governor.

No. 159,721.

Patented Feb. 9, 1875.

FIG. 1.

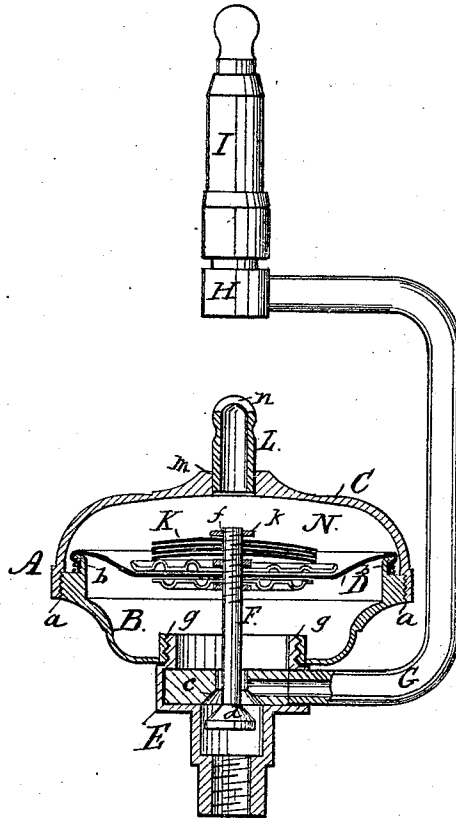
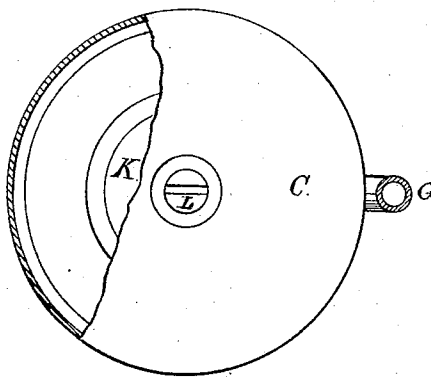


FIG. 2.



WITNESSES.

C. A. Pease
Geo. H. Earl

INVENTOR.

N. Tufts
Per Brown Berthous
Attorneys.

UNITED STATES PATENT OFFICE

NATHANIEL TUFTS, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN GAS-LIGHT GOVERNORS.

Specification forming part of Letters Patent No. **159,721**, dated February 9, 1875; application filed June 20, 1874.

To all whom it may concern:

Be it known that I, NATHANIEL TUFTS, of Boston, in the county of Suffolk and State of Massachusetts, have invented Improvements in the Construction of Cases of Gas-Light Governors, of which the following is a specification:

This invention relates to gas-light governors; and the main object of the invention is to supply air to the chamber above the diaphragm while preventing the gas, if it catches fire, from shooting up and doing damage.

The improvement is fully hereinafter described, and pointed out in the claim.

In the accompanying plate of drawings my invention is illustrated, Figure 1 being a central vertical section of gas-light-governor case. Fig. 2 is a plan view.

A in the drawings represents a gas-light-governor case in three parts; B, the middle portion or cup; and C, the upper or cap, connected by screw-threads at *a*. In the middle portion, B, is the diaphragm D, secured to the internal flange *b* in the usual manner. To this middle portion, B, is attached, by screw-threads *g*, the bottom part, E, having the inverted seat *c* for valve *d* on the rod F connected to diaphragm D. From this bottom part, E, a gas-conducting pipe, G, extends outward and upward around the case A, terminating above the case in a seat, H, for the burner-tip I. On the diaphragm D are the weights K. These weights K are made of thin metal, and in the present instance are of circular form, having a central hole, *f*, to fit the rod F, to which, and the diaphragm, they are secured by a nut, *k*. By connecting the three parts, B, C, and E, by screw-threads, as hereinabove described, they can easily be put together, and when necessary for cleaning the parts, or for other purposes, can as readily be taken apart, as is obvious.

Having the weights so they can be attached to the diaphragm enables an easy and convenient adjustment to be made of the governor to the amount of gas to be burned for the required light.

For the proper working of the governor air has been supplied to chamber N through a hole in cap C, which is objectionable, from the fact that if gas leaked into chamber N it would escape through the said hole, and there igniting from the flame of the burner send up a flame of sufficient height above the cap as to be more or less dangerous. To obviate this, the burner-tip L is inserted in the cap C, at *m*. This burner L, by its slit *n*, allows for sufficient passage for the supply of air, and if gas should escape and ignite it would merely burn as any ordinary burner, and no damage nor danger ensue.

I am aware that a gas-light-governor case has been provided with a tube in the upper portion of the case, said tube having an annular or straight opening through it for the entrance of air; but by such construction, should the gas leak into the chamber above the diaphragm, it would escape through the said tube, which, having merely a straight opening through it, would shoot up a high flame, thus working great injury.

Having now described my invention, what I claim, and desire to secure by Letters Patent, is—

In combination with the exterior casing of a gas-regulator, a supplementary gas-burner arranged in the ordinary air-passage of said burner, substantially as described, for the purpose of spreading the flame should gas escape and ignite.

NATHANIEL TUFTS.

Witnesses:

EDWIN W. BROWN,
GEO. H. EARL.