

A. C. CRONDAL.
Gas-Regulators.

No. 150,942.

Patented May 19, 1874.

Fig. 1.

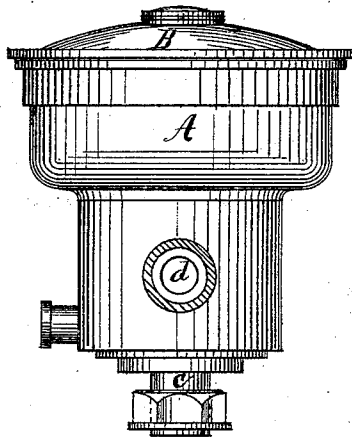


Fig. II.

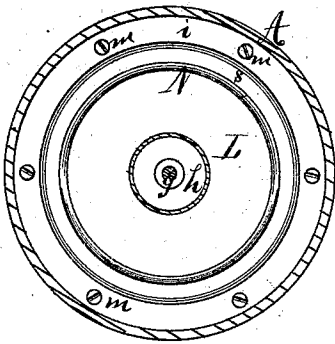
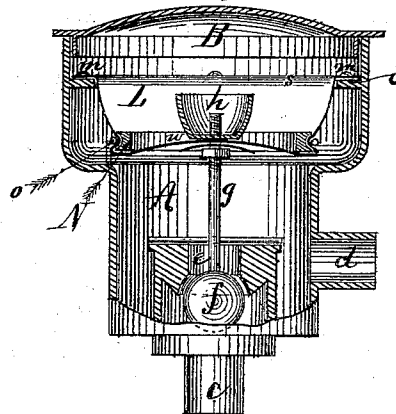


Fig. III.



Witnesses.
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UNITED STATES PATENT OFFICE.

ANTON C. CRONDAL, OF NEW YORK, N. Y., ASSIGNOR TO GRIFFIN S. LACY,
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IMPROVEMENT IN GAS-REGULATORS.

Specification forming part of Letters Patent No. **150,942**, dated May 19, 1874; application filed
May 4, 1874.

To all whom it may concern:

Be it known that I, ANTON C. CRONDAL, of New York city, county and State of New York, have invented certain Improvements in Gas-Regulators, of which the following is a specification:

The object of my invention is to provide for a gas-regulator which will regulate the supply of the gas to the burners with uniform pressure more accurately than the regulators heretofore known or used, and which will maintain its efficiency.

In all gas-regulators where a diaphragm is used as a medium for regulating the valve such diaphragms are made of a single piece of elastic material stretched across the interior of the regulator. In course of time such single diaphragms become hardened and contracted, and regulate but imperfectly the action of the valve, and are liable to close the valve entirely, thus preventing the flow of the gas to the burner.

In order to overcome these difficulties, I have constructed a double or telescopic diaphragm, which presents more than double the surface of the single ones, and therefore operates with more ease and certainty. The telescopic diaphragm, supported by a ring at the bottom, makes it impossible for the valve to be drawn up against the seat by contraction or hardening of the material.

In order to more fully describe my inven-

tion, I refer to the accompanying drawing forming a part of this specification.

Figure I is a side elevation of a gas-regulator embodying my invention. Fig. II is a plan view of the same with the lid removed. Fig. III is a vertical sectional view through line *x x*, Fig. I.

A is the casing. B is the lid. *c* is the gas-inlet. *d* is the gas-outlet. *e* is the valve-seat. *f* is the valve. *g* is the valve-stem; *h*, the nut holding the valve-stem to the center of the lower part *w* of the diaphragm L. *s* is the upper part of the diaphragm, which is held to the upper part of the casing A by the ring *i* and screws *m m*. N is a grooved ring placed inside the diaphragm, between the lower and upper parts, and there held by a cord, *o*, which is tied around the outside of the diaphragm, and fits into the groove in the ring.

Having thus described my invention, I desire to claim—

The combination, with the inlet *c*, outlet *d*, and valve-seat *e*, of the valve *f*, stem *g*, and diaphragm L, attached to the ring *i*, and provided with an externally-grooved ring, N, and cord *o*, all constructed and operating as and for the purposes specified.

ANTON C. CRONDAL.

Witnesses:

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