

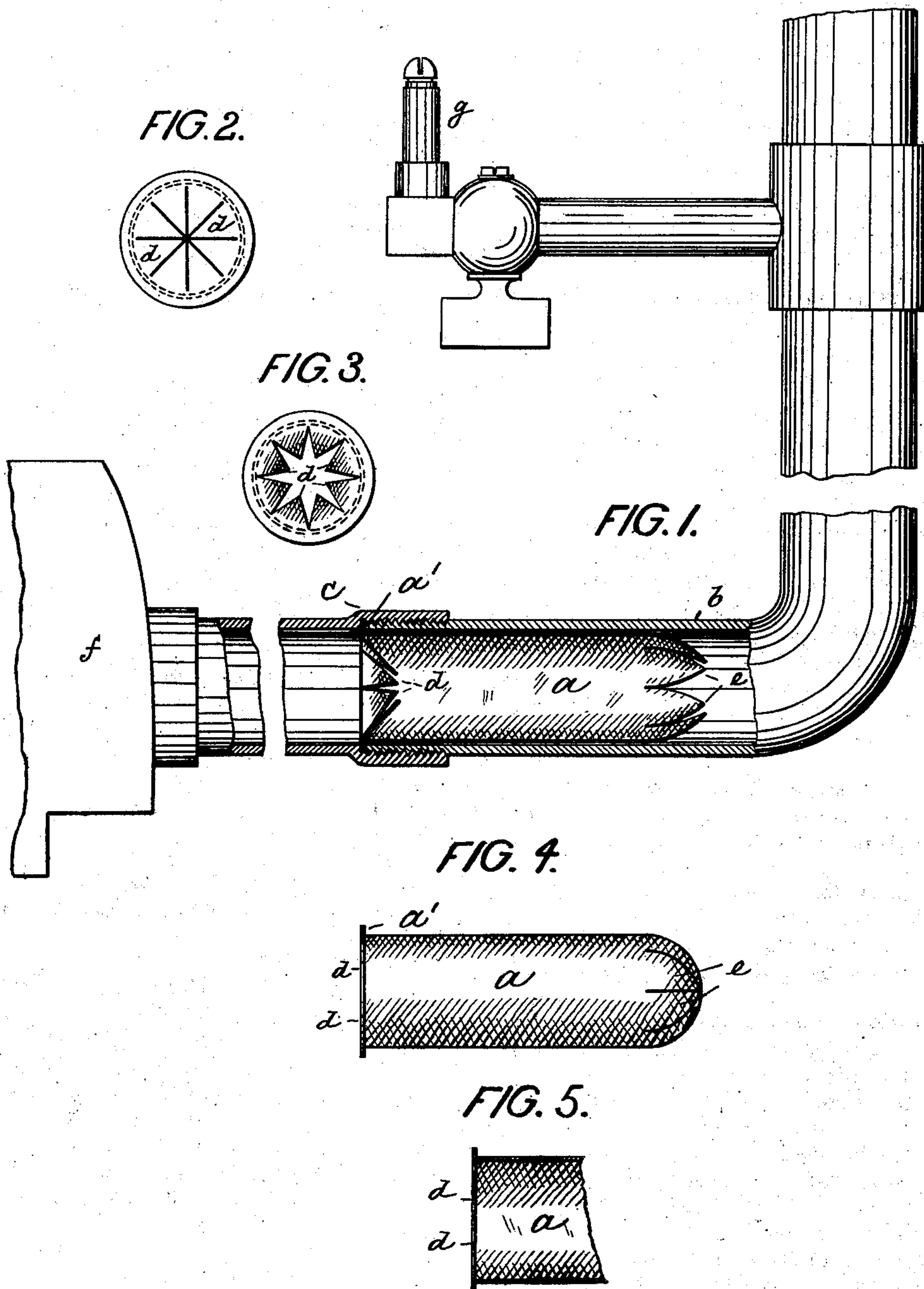
No. 700,403.

Patented May 20, 1902.

D. L. BLOCK.
GAS PRESSURE REGULATOR.

(Application filed Feb. 7, 1902.)

(No Model.)



Witnesses:
Arthur L. Lutz,
William Schuly.

Inventor:
David L. Block
by his attorneys
Roeder & Briesew

UNITED STATES PATENT OFFICE.

DAVID L. BLOCK, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO JACOB LEDERER, OF NEW YORK, N. Y.

GAS-PRESSURE REGULATOR.

SPECIFICATION forming part of Letters Patent No. 700,403, dated May 20, 1902.

Application filed February 7, 1902. Serial No. 92,951. (No model.)

To all whom it may concern:

Be it known that I, DAVID L. BLOCK, a citizen of the United States, and a resident of New York city, county and State of New York, have invented certain new and useful Improvements in Gas-Pressure Regulators, of which the following is a specification.

This invention relates to a gas-pressure regulator which is adapted to take up the superfluous pressure of gas coming from the main and prevent foreign substances from passing to the burner. The regulator also prevents back pressure of the gas or air from reinfluencing the meter and causing a false registration.

In the accompanying drawings, Figure 1 is a longitudinal section of my improved gas-pressure regulator, showing it inserted into a service-pipe. Fig. 2 is an end view of the regulator, showing it closed; Fig. 3, a similar view, showing it open; Fig. 4, a side view of the regulator; and Fig. 5, a longitudinal section through the rear part thereof, showing it closed.

The regulator consists, essentially, of a tubular casing *a*, made of rubber and of a size to snugly fit the gas-service pipe *b*. A flange *a'* on the rear edge of casing *a* projects into a pipe-coupling *c* and holds the casing against longitudinal displacement under gas-pressure. The transversely-extending base of the casing *a* is flat or disk-shaped and is divided by radial incisions into a number of sector-shaped straight flaps *d*, each of which constitutes a valve that checks the pressure from the outflowing gas. The transversely-extending head of the casing is bulged and is divided by similar radial incisions into the sector-shaped curved outwardly-opening valves *e*. The casing is fitted into the gas-

service pipe between the meter *f* and the gas burner or outlet *g* and in close proximity to the meter.

Under pressure from the meter the valves *d e* will partly open, Fig. 1, and permit the passage of a limited quantity of gas to the burner. Under back pressure the valves *e* will close, Fig. 4, and prevent the gas from re-entering the casing *a*, and consequently from reinfluencing the meter. As under back pressure there is no pressure on the valves *d*, these valves will also close by their own resiliency.

It will be seen that my improved regulator prevents an excessive gas-pressure in the main from being transmitted to the burner; so that an even flow is provided and the cost of consumption is reduced. Foreign substances will be retained and prevented from choking the burner. The regulator may be used for illuminating-burners, heating-burners, and gas-engines.

What I claim is—

1. A gas-regulator composed of a flexible tubular casing having a slitted transversely-extending base and a slitted transversely-extending head, to form two sets of outwardly-opening valves, substantially as specified.

2. A gas-regulator composed of a flexible tubular casing having a flat radially-slitted base and a bulged radially-slitted head, to form two sets of outwardly-opening valves, substantially as specified.

Signed by me at New York city, county and State of New York, this 6th day of February, 1902.

DAVID L. BLOCK.

Witnesses:

WILLIAM SCHULZ,
F. V. BRIESEN.