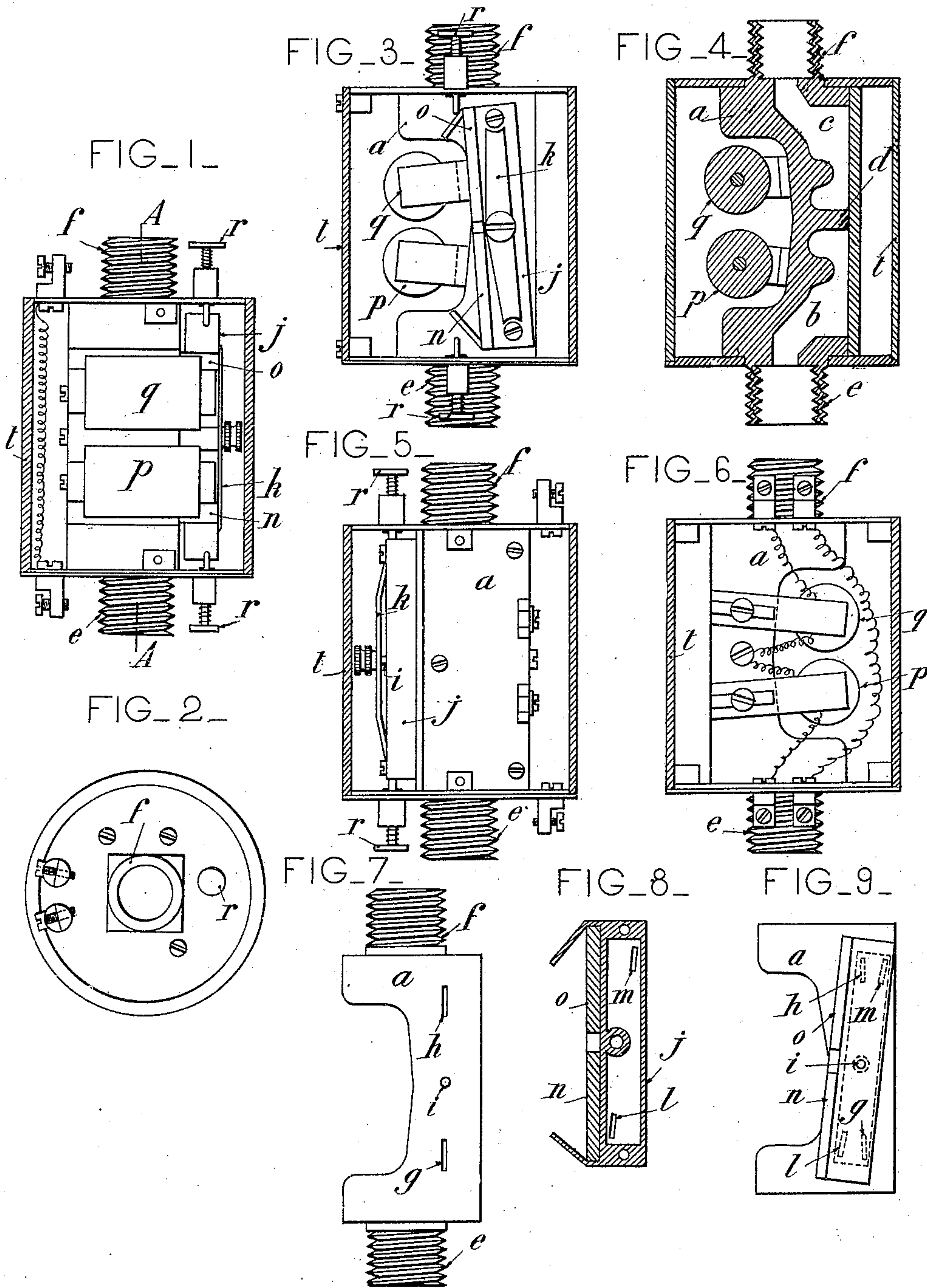


P. BÉNARD.
GAS DISTRIBUTER.

APPLICATION FILED JULY 9, 1908.

916,980.

Patented Apr. 6, 1909.



WITNESSES:

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UNITED STATES PATENT OFFICE.

PAUL BÉNARD, OF ÉPERNAY, FRANCE.

GAS-DISTRIBUTER.

No. 916,980.

Specification of Letters Patent.

Patented April 6, 1909.

Application filed July 9, 1908. Serial No. 442,720.

To all whom it may concern:

Be it known that I, PAUL BÉNARD, citizen of France, residing at 8 Place Auban Moet, Épernay, Marne, in the Republic of France, have invented new and useful Improvements in Gas-Distributers, of which the following is a specification.

This invention relates to an extremely practical and simple apparatus intended for electrically controlling, from a distance, the gas fed to gas burners.

The annexed drawing shows an embodiment of this apparatus.

Figure 1 is an elevation, the outer casing being in section. Fig. 2 is a plan. Fig. 3 is an end elevation, the outer casing being in section and the gas check being in the open position. Fig. 4 is a section on the line A A of Fig. 1. Fig. 5 is a rear view, the outer casing being in section. Fig. 6 is an end elevation, showing the connection of the wires, the outer casing being in section. Fig. 7 shows the chamber in which the gas circulates. Fig. 8 is a section of the gas check. Fig. 9 shows the chamber with the gas check in closed position.

The apparatus comprises essentially: a metal chamber *a*, bent to horse-shoe form, the interior of which forms two compartments *b* and *c* separated by a partition *d*. These two compartments are connected, one to the inlet, the other to the outlet of the gas by two threaded joints *e* and *f*.

One of the sides of the chamber *a* is a smooth plate, ground and perforated with two slots *g* and *h* corresponding to the two compartments *b* and *c*. It carries a pivot *i* on which oscillates a rectangular box *j*, perforated also with two holes adapted to register with those in the chamber *a*. These two parts are held in contact by means of a blade spring *k* which serves to hold the two ground faces one against the other so as to insure a tight joint. Regulation is effected by a nut and jam-nut so as to prevent loosening.

In one of the positions of the oscillator the slots *g h* and *l m* are superposed and effect communication between the compartments *b* and *c* through the intermediary of the box *j*. In the second position (Fig. 9) the slots are covered up and communication between the gas inlet and outlet is interrupted. The oscillations of the gas-check corresponding to these two positions are electrically effected by means of the connections shown at Fig. 6. The oscillator is provided, on its lateral face,

with two polar plates *n* and *o* which are opposite two electro magnets *p* and *q* placed in the hollow of the metal block *a* of horse shoe form, and are intended to determine the passage of the gas or its obturation, by means of the above described device.

Two small spring plungers *r*, acting on the inclined planes placed at the two ends of the gas-check, allow of the oscillatory movement being produced by hand in the case of the insufficiency or failure of the electric current.

A protecting cover *t* surrounds the apparatus.

The advantages of this system consist essentially in this that the stability of the oscillator which is balanced permits of operating the apparatus no matter what be its position.

Shocks have no influence on its operation. The inlet and outlet of the gas may be in any direction and the gas does not circulate nor even penetrate either into the casing or around the opening and closing members.

The apparatus only requires a very weak current for its operation and insures a tight joint. It is on this account superior to the known systems using valves, cocks, conical valves, balls, etc.

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

An apparatus of the class described comprising a casing, a box therein divided into two compartments, one compartment having an inlet and the other an outlet, and one face of the box being ground and having a slot at each end communicating with the compartments respectively, a second box pivoted on the first and having a ground face coacting with the ground face of the first box and said face having a pair of slots therein adapted to register with the slots in the first box, an adjustable spring for holding the second box against the first box, two polar plates carried by one face of the second box and two electro-magnets in the casing adapted to act alternately on the pole pieces to oscillate the second box, and means of oscillating said box by hand.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

PAUL BÉNARD.

Witnesses:

L. BRU,
LEMEME.