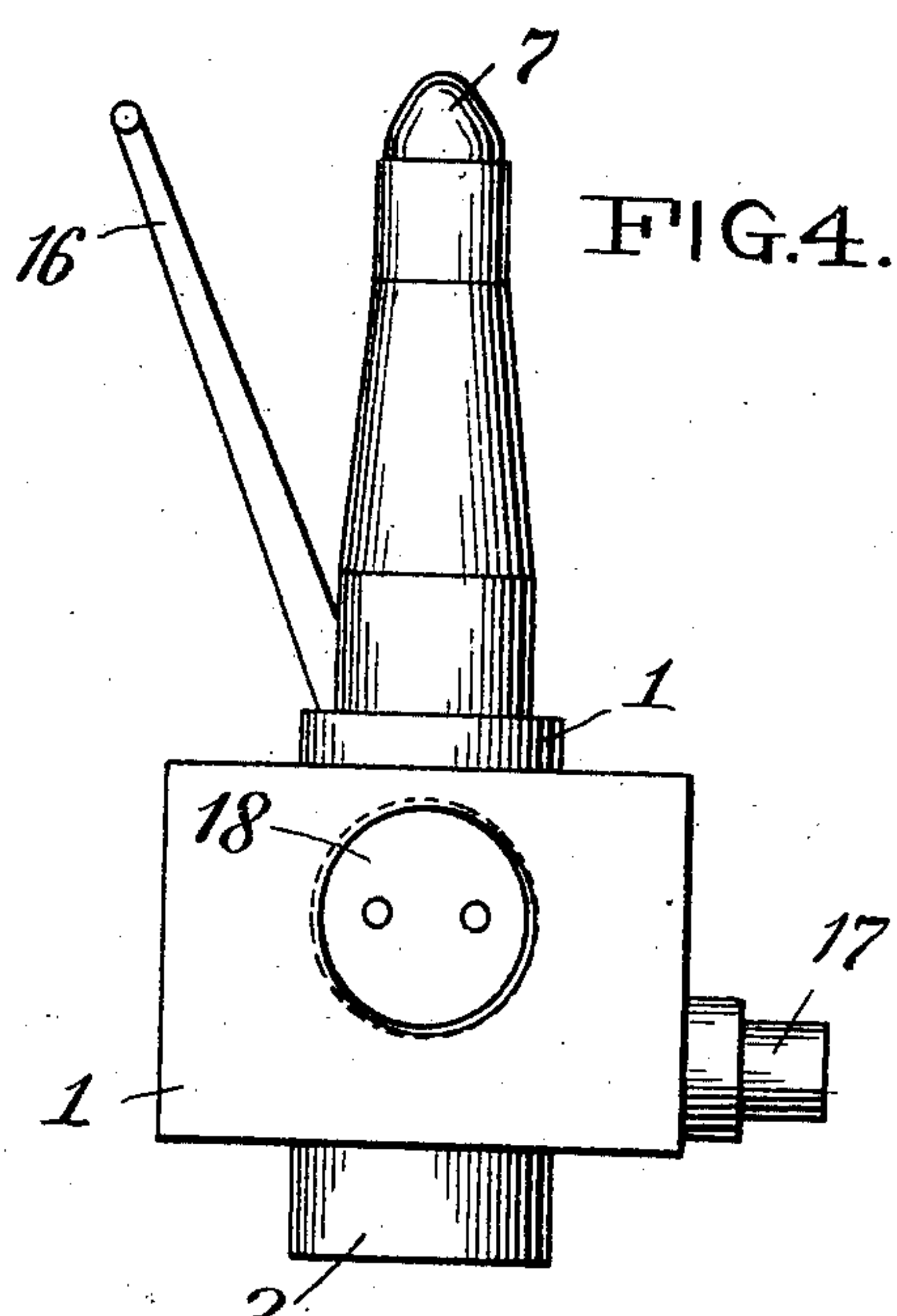
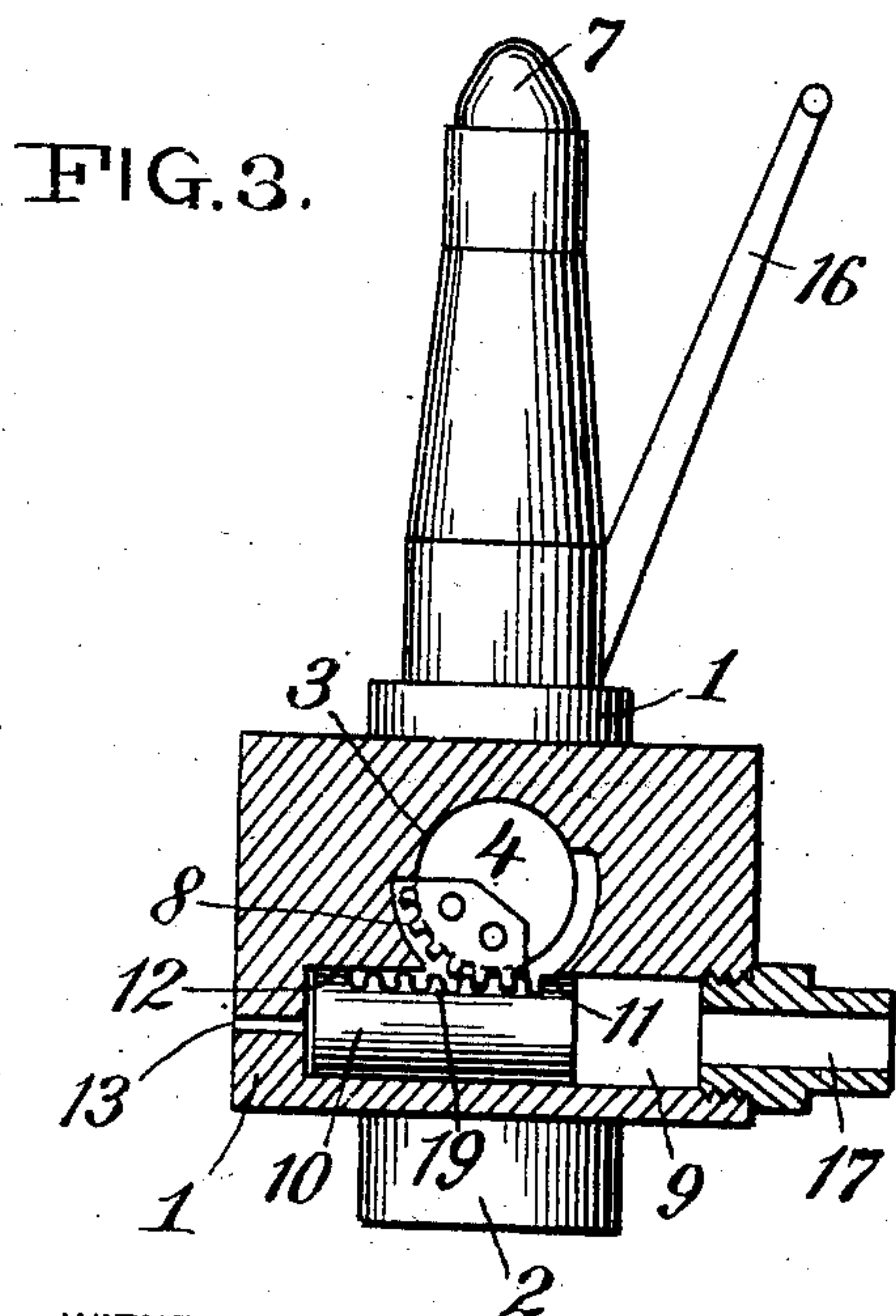
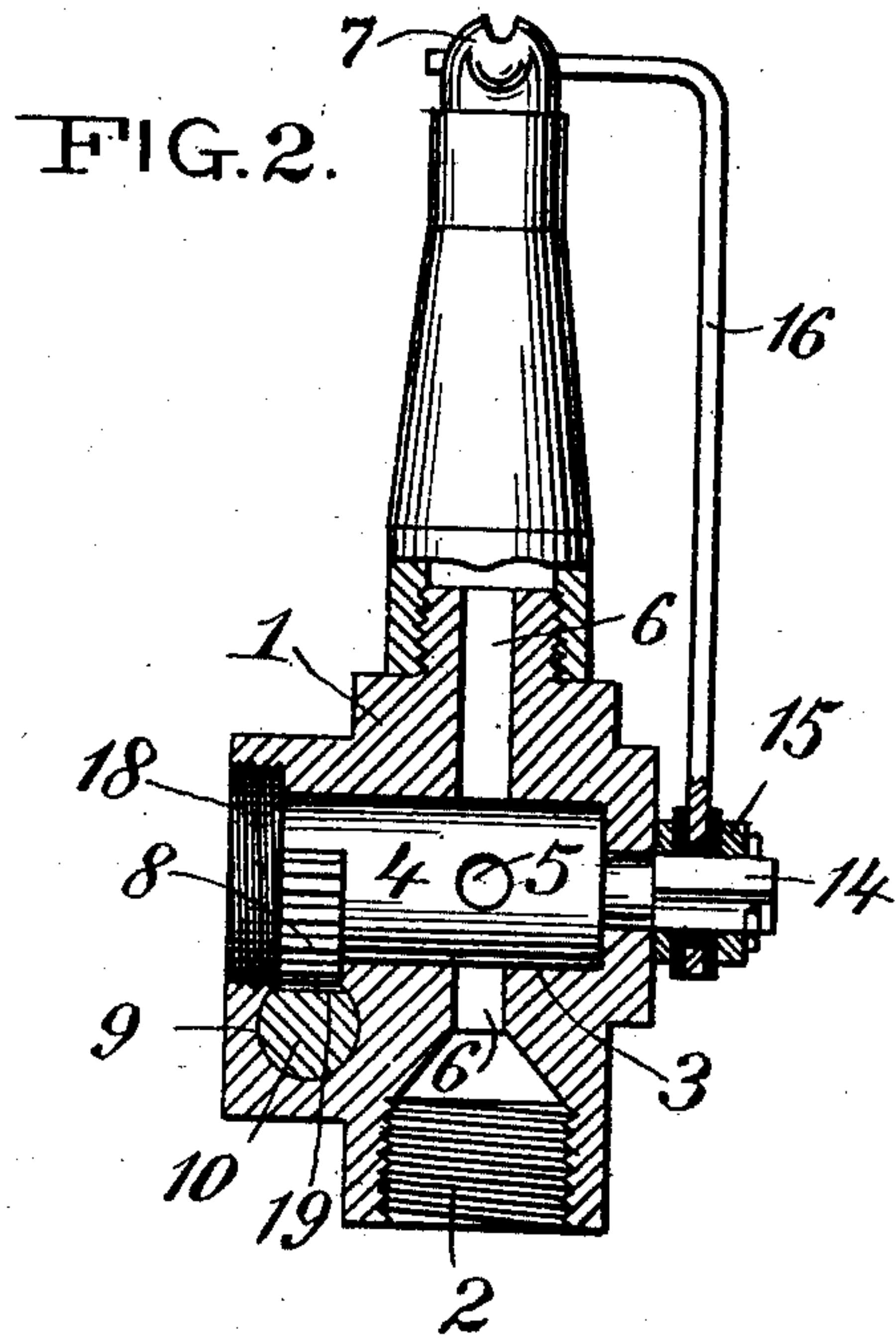
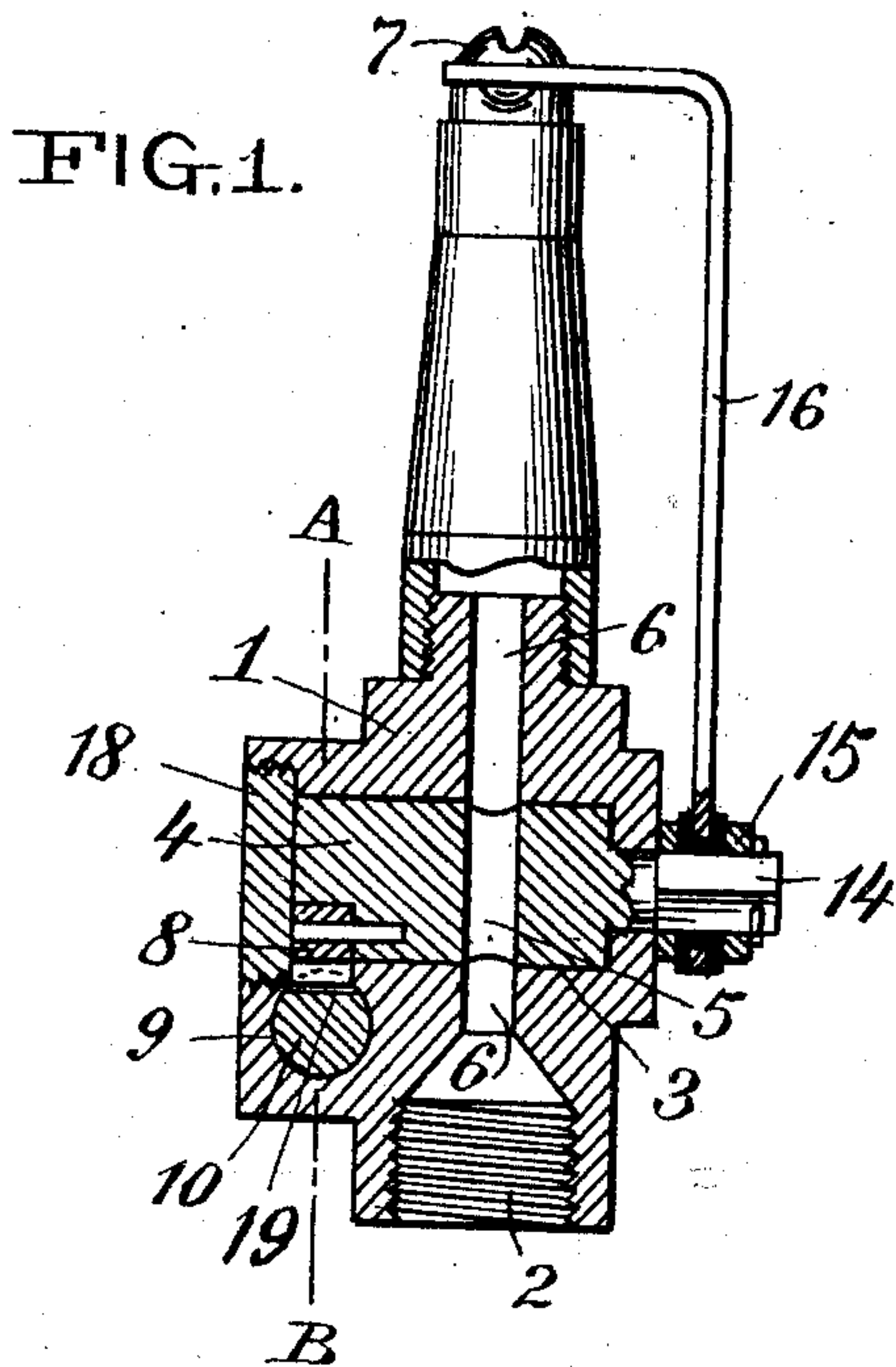


No. 840,795.

PATENTED JAN. 8, 1907.

R. N. OAKMAN.
APPARATUS FOR REGULATING GAS PORTS.

APPLICATION FILED DEC. 8, 1905.



WITNESSES:

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UNITED STATES PATENT OFFICE.

RICHARD N. OAKMAN, OF NEW YORK, N. Y.

APPARATUS FOR REGULATING GAS-PORTS.

No. 840,795.

Specification of Letters Patent.

Patented Jan. 8, 1907.

Application filed December 8, 1905. Serial No. 290,900.

To all whom it may concern:

Be it known that I, RICHARD N. OAKMAN, a citizen of the United States, and a resident of the city, county, and State of New York, have invented a new and useful Improvement in Apparatus for Regulating Gas-Ports, of which the following is a full description.

The accompanying drawings illustrate the invention, of which—

Figure 1 is a vertical section of the device, showing the upper part in full. Fig. 2 is also a vertical section of the apparatus, showing the reverse position of the plug and the gas-ports closed. Fig. 3 is also a vertical section on line A B, Fig. 1. Fig. 4 is an end elevation of the apparatus.

1 is a standard provided with a socket 2 for attachment to the usual gas-pipe. This standard is provided with a bore 3, and into the bore is inserted a rotary plug 4, perforated diametrically, as shown at 5. The standard is also provided with a gas-throughway 6, extending to a burner-tip 7. As shown in Fig. 1, the perforation 5 in the rotary plug stands in line with the through-way to the burner, and when this plug is rotated to the position shown in Fig. 2 the gas-ports of the throughway 6 are closed. Upon one end of the plug is shown a section of a pinion 8, and in the standard, as shown in Fig. 3, is a bore 9 to accommodate a reciprocating piston 10. The piston is circular in form at its ends 11 and 12 to fill neatly the bore 9 and prevent the escape of air or pressure fluid around its periphery. Between the ends 11 and 12 the piston is formed in the shape of a toothed rack, which meshes with the pinion 8 and as the piston reciprocates turns the pinion 8 and plug 4 to open and close the ports of the gas passage-way 6. In the rear of the piston the standard is provided with an air-vent 13, extending from the rear end of the bore 9. This vent allows the air in the bore to escape when the piston moves forward and also to enter behind the piston when moved backward. A projection 14 from the end of rotary plug 4 serves to receive a collar 15, to which is secured one end of an electrode 16. At its other end the electrode is bent, as shown, and as the plug rotates it makes and breaks

circuit with the burner-tip 7, thereby causing a spark to ignite the gas when the passage-way to the burner is opened. A nozzle 17 is connected to the end of bore 9 to accommodate a tube or pipe leading to a device for supplying fluid-pressure and creating an exhaust. Any of the well-known devices for this purpose will answer. A cap 18 fits into the front opening of the standard.

The device operates as follows: Supposing the gas to be turned off, a fluid-pressure entering the bore 9 through the nozzle 17 impels the piston 10 to the other end of the bore 9, as shown in Fig. 3. The air in the other end of the bore escapes as the piston advances through the vent 13. The action of the rack upon the pinion turns the plug until the perforation 5 tallies with the ports in the passage-way 6, leaving the passage-way for the gas clear to the burner. At the same time the electrode 16 passes upon and over the burner-tip 7, making and breaking circuit with the tip and causing a spark to ignite the gas. In the reverse movement the air is exhausted in the bore 9. The air entering the bore through vent 13, the piston returns to the other end of the bore, closing the passage-way and shutting off the flow of gas.

What I claim is—

In an apparatus for regulating gas-ports a standard provided with a bore having a throughway for the passage of gas to a burner a nozzle for attachment to a source of gas-supply and a rotary plug-valve fitting the bore and perforated diametrically, in combination with a bore adapted to receive a piston, a reciprocating piston carrying a rack within the bore, a pinion upon the end of the rotary valve, meshing with the rack on the piston, and a socket at the end of the piston-bore for connection with a supply of fluid-pressure to reciprocate the piston.

In testimony whereof I, the said RICHARD N. OAKMAN, have signed my name to this specification, in the presence of two subscribing witnesses, this 8th day of August, 1905.

RICHARD N. OAKMAN.

Witnesses:

MARGARET TURNER,
ALMA I. ALBERTSON.