F. WAGNER.

GAS LIGHTER.

APPLICATION FILED FEB. 17, 1913.

1,069,047. Patented July 29, 1913.

Fig. 1.

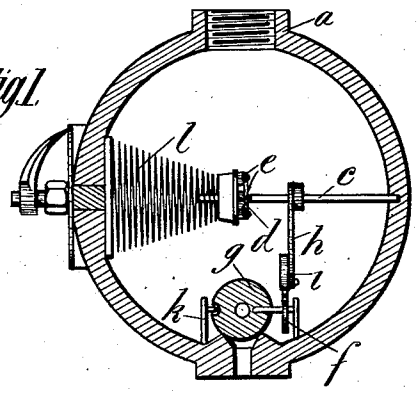


Fig. 2.

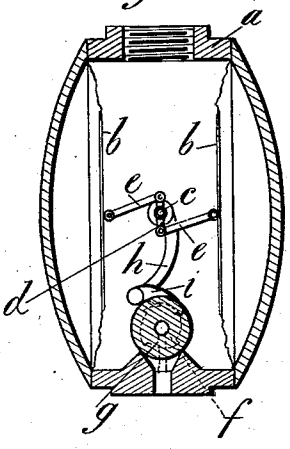


Fig. 3.

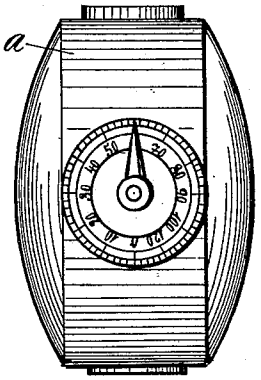
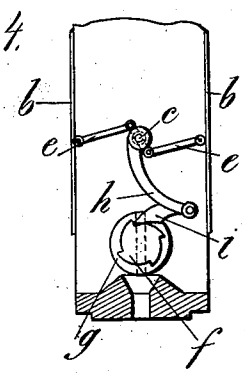


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

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GAS-LIGHTER.

1,069,047. Specification of Letters Patent. Patented July 29, 1913.

Application filed February 17, 1913. Serial No. 748,847.

To all whom it may concern:

Be it known that I, FRANZ WAGNER, a subject of the German Emperor, and residing at Cassel, Germany, have invented certain new and useful Improvements in Gas-Lighters, of which the following is a specification.

The present invention relates to a device for lighting gas lamps from a distance by varying the gas pressure.

The object of the invention is to produce a mechanism which moves with great facility, and it is achieved by arranging a spherical valve loosely on its seat so that it can turn on said seat under the influence of diaphragms which act by means of a pawl on a ratchet wheel connected to the valve.

In the accompanying drawing a constructional form of the present invention is shown, Figures 1 and 2 being longitudinal sections on two planes at right angles to each other with the valve closed. Fig. 3 is a front view of the gas lighter. Fig. 4 is the spherical valve in opened position.

In a casing *a* are arranged two diaphragms (Figs. 2 and 3) which receive the change in the pressure in the gas pipe and transmit it to the lever *h* with the pawl *i* by means of a double armed lever *d* pivoting on a shaft *c*. The lever *h* will by means of the pawl *i* move a ratchet wheel *f*, which is fitted directly on the bored ball *g*. The ball lies free on its seat and is held there by a pin *k* which prevents it falling off. A spring *l* connected to the shaft *c* will return the diaphragms into their initial position. The bored ball is advanced by means of the ratchet wheel and pawl each time the pressure is increased, so that according to the position of the bore in the valve the gas supply to the burner is either opened or closed. When the rise in pressure is repeated, the ratchet wheel is advanced by one tooth and the spherical valve is turned.

I claim:

An apparatus for lighting and extinguishing gas lamps, comprising a casing having an inlet port at the top and an outlet port at the bottom, a valve seat adjoining said outlet port, two diaphragms arranged in said casing so as to be influenced by the variations in the gas pressure, a spherical valve supported loosely on the valve seat, a ratchet wheel connected to the valve for turning the latter on the seat, means for retaining the valve on the seat, a spring-actuated rock-shaft arranged in the casing, an arm connected to said shaft, a pawl held by said arm so as to work the ratchet wheel, and connections between the shaft and said diaphragms for transmitting the movements of the latter to the shaft and to the valve, substantially as set forth.

FRANZ WAGNER.

Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."