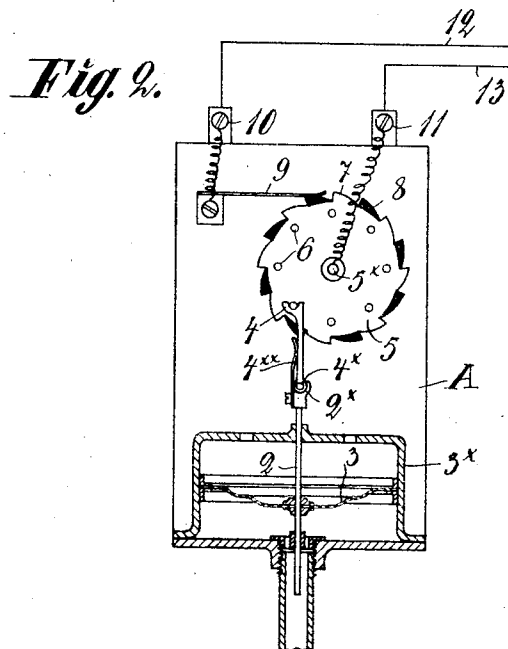
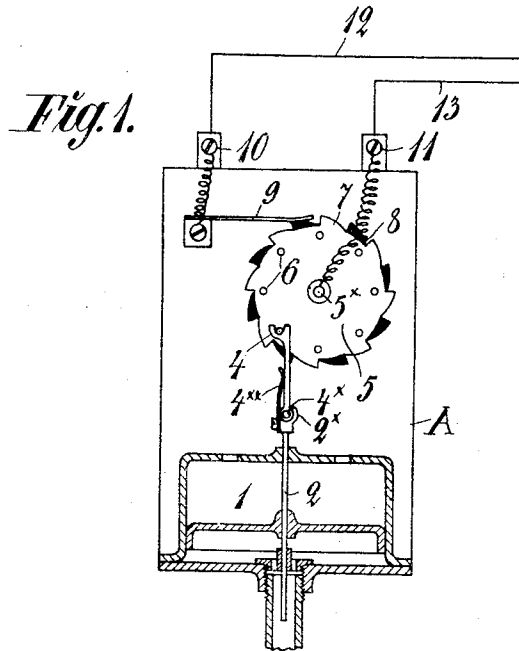


J. V. WENGELIN.
CONTROLLING DEVICE FOR GAS BURNERS.
APPLICATION FILED SEPT. 22, 1908.

957,591.

Patented May 10, 1910.



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UNITED STATES PATENT OFFICE.

JOHAN VICTOR WENGELIN, OF GOTTENBORG, SWEDEN.

CONTROLLING DEVICE FOR GAS-BURNERS.

957,591.

Specification of Letters Patent.

Patented May 10, 1910.

Application filed September 22, 1908. Serial No. 454,232.

To all whom it may concern:

Be it known that I, JOHAN VICTOR WENGELIN, a subject of the King of Sweden, and resident of Kyrkogatan 38, Gottenborg, in the Kingdom of Sweden, have invented certain new and useful Improvements in Controlling Devices for Gas-Burners, of which the following is a specification, reference being had therein to the accompanying drawing.

In apparatus hitherto known for turning on and off gas-burners and the like by the variation of the gas-pressure, the said variation has effected the turning on and off of the gas-cock or gas-valve directly. The said apparatus have the disadvantage of operating not perfectly, owing to the small amount of work, which the gas can perform.

This invention relates to an apparatus for turning on and off the gas, consisting of the combination of the part acted upon by the gas-pressure and an electric contact device, which in any suitable manner causes the gas-cock to turn.

Figures 1 and 2 in the accompanying drawing show as examples two forms of execution of the invention.

A, Fig. 1, is the frame of the apparatus, which is mounted in or outside the gas-lamp. 1 is a small gas-holder, communicating with the gas-pipe. To the movable part of the said gas-holder a rod 2 is fixed, guided in suitable manner, which rod consequently, is moved upward or downward, as the gas-pressure increases or decreases respectively. To the top end of the rod a fork 4, a feed-pawl or the like is pivotally connected at 4^x. The said fork is forced against an abutment 2^x on the rod 2 by a spring 4^{xx}, fixed to the rod. A contact-disk 5 is rotatably mounted in the frame A above the fork 4, which disk is provided with pins 6, projections or the like, which the fork 4 can engage. The said contact disk 5 is circular and provided with conducting teeth 7, alternating with non-conducting teeth 8. A contact spring 9 fixed to the frame A bears against the teeth of the disk 5 and is connected with the terminal 10. The spindle 5^x of the disk 5 is connected in suitable manner with the terminal 11. Conductors 12 and 13 connect the said terminals 10, 11 with an electrically actuated mechanism,

which opens and closes the gas-cock, and with the electric source respectively.

The number of the pins 6 and the movement of the rod 2 and the fork 4 are so adapted, that the contact-disk is turned a distance corresponding to two teeth, each time the rod 2 is forced upward, so that the contact spring 9, normally bearing against a non-conducting tooth 8, comes in contact first with a conducting tooth 7 and then with the next non-conducting tooth. As the intermediate conducting tooth 7 passes the contact-spring 9, the circuit of the gas-cock actuating mechanism is closed, so that the gas is turned on. The next time the contact-disk is turned, the gas will be turned off. As the said mechanism forms no part of this invention it is not shown or described.

The advantages of the apparatus, described above are that the gas-pressure has to perform only a very small amount of work viz. the turning of the contact disk, for the turning on and off of the gas, that the closing and interrupting of the circuit are effected perfectly and without generating sparks and that owing to the great number of contact pieces the same contact is not always used.

A spring connection between the rod 2 and the fork 4 may be substituted for the pivotal connection, shown in the drawing.

In the form of execution shown in Fig. 2, a flexible diaphragm 3 mounted in a casing 3^x is substituted for the gas-holder, the rod 2 being fixed to the said diaphragm. For the rest the arrangements are just the same as in Fig. 1.

As mentioned above a feed-pawl may be substituted for the fork 4, which pawl may engage the teeth 7 and 8 of the disk 5, so that the pins 6 can be dispensed with.

Many other modifications may be made without exceeding the limits of this invention.

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

In a gas burner, the combination of a casing communicating with the gas pipe, a flexible diaphragm fixed in the said casing, a vertical rod projecting through the upper part of the casing, a fork-shaped pawl carried by the said rod, a circular rotatably

mounted disk provided with conducting
teeth alternating with non-conducting teeth,
and with pins arranged to be engaged by
the said pawl, a contact piece in position to
5 bear successively against the teeth, and
electric conductors connected with said con-
tact piece and with the disk.

In witness whereof, I have hereunto
signed my name in the presence of two sub-
scribing witnesses.

JOHAN VICTOR WENGELIN.

Witnesses:

HELGE STUXBERG,
TORSTEN OLEHN.