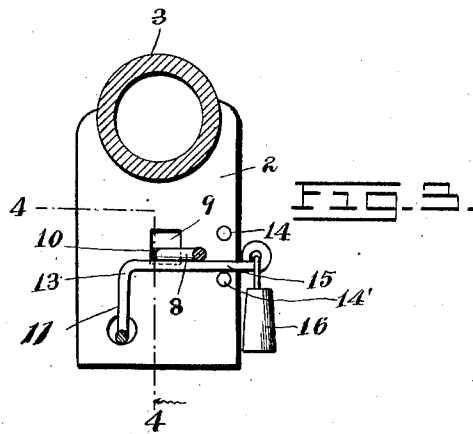
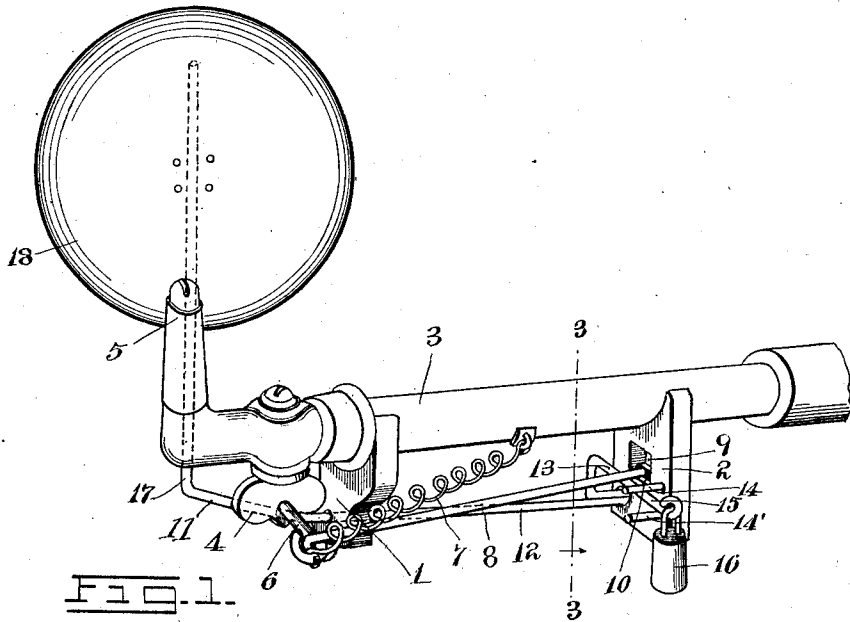


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 AUTOMATIC GAS CUT-OFF.
 APPLICATION FILED SEPT. 9, 1910.

1,003,282.

Patented Sept. 12, 1911.

2 SHEETS-SHEET 1.



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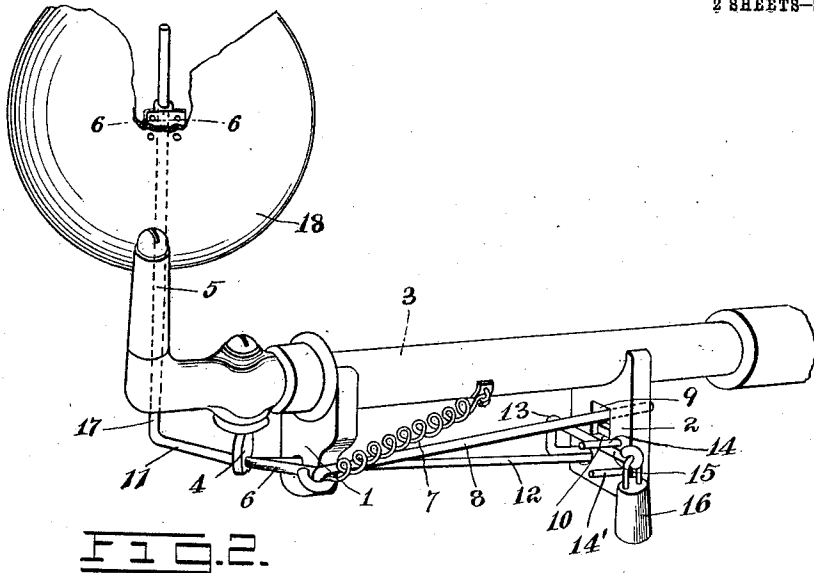


FIG. 2.

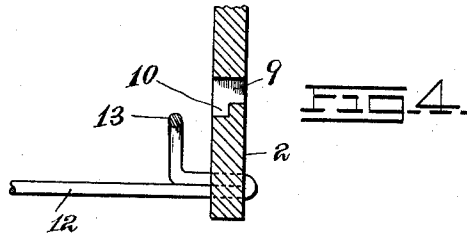


FIG. 4.

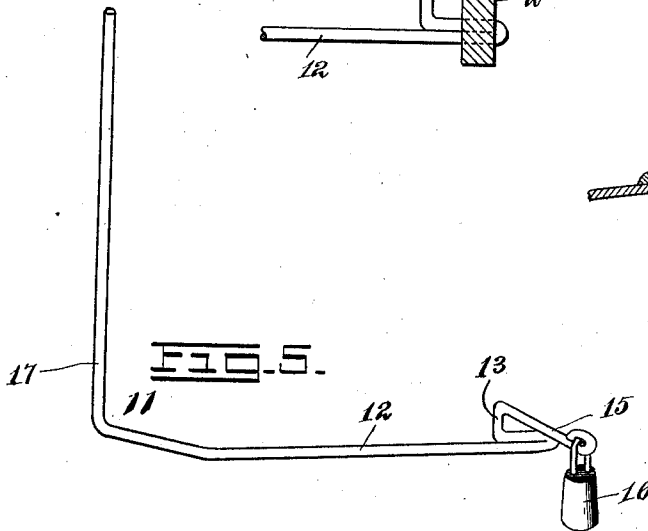


FIG. 5.

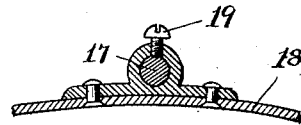


FIG. 6.

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AUTOMATIC GAS CUT-OFF.

1,003,282.

Specification of Letters Patent. Patented Sept. 12, 1911.

Application filed September 9, 1910. Serial No. 581,188.

To all whom it may concern:

Be it known that I, DAVID S. MARPLE, a citizen of the United States, residing at Osborne, in the county of Osborne and State of Kansas, have invented new and useful Improvements in Automatic Gas Cut-Offs, of which the following is a specification.

This invention relates to automatic gas cutoffs designed particularly for use in connection with burners for illuminating gas, the object of the invention being to provide a retaining element operable to hold the valve of the burner normally in a closed position and to provide means for holding the valve open against the tension of the first means, and further to provide a controlling mechanism including a wind shield which is located in such proximity with the tip of the burner that should the flame be blown out the retaining mechanism will be operated so as to automatically move the burner to a cut-off position.

In the drawings, forming a portion of this specification and in which like numerals of reference indicate similar parts in the several views:—Figure 1 is a detail perspective view of a portion of a gas burner showing the application of my improved automatic cutoff mechanism therefor, said mechanism being in set position so as to hold the valve open. Fig. 2 is a similar view showing the mechanism in a released position. Fig. 3 is a detail section taken on the line 3—3 of Fig. 1. Fig. 4 is a section taken on the line 4—4 of Fig. 3. Fig. 5 is a detail perspective view of the actuating member. Fig. 6 is a detail section taken on the line 6—6 of Fig. 2.

My improved automatic cutoff mechanism for gas burners preferably includes a front guide bracket 1 and a rear guide bracket 2 which are secured to the gas pipe 3 and arranged preferably in alinement with each other. The valve key 4 of the burner 5 has operatively connected thereto one end of a link 6, the opposite end of the link being suitably connected with one end of a helical retractile spring 7. The opposite end of the spring 7 is secured in any suitable well known manner to the gas pipe 3 and it operates to hold the valve normally in a closed position. A locking or retaining member 8 has its forward end movably connected with the link 6. The member 8 is movable in a guide opening 9 in the bracket 2. This guide opening has its lower wall formed to provide

a stop 10 with which the free end of the member 8 can be engaged so as to hold the valve against the tension of the spring 7 as clearly illustrated in Fig. 2 of the drawings.

An actuating mechanism 11 is provided for the member 8, and as illustrated, it comprises a rock arm 12 which is operatively mounted in the brackets 1 and 2 hereinbefore described. The rock arm has its rear end formed to provide an actuating portion 13 which is movable between horizontal stops 14 and 14' on the bracket 2. This actuating portion 13 is located directly beneath the free extremity of the member 8 for a purpose to be hereinafter more fully described. The end 15 of the actuating portion 13 supports a weight 16 which tends normally to hold the said actuating portion against the lowermost stop 14'. The opposite end of the rock arm 12 is formed to provide a vertical arm or support 17 on which a controlling member 18 is mounted. This member 18 is preferably in form of a disk which is concavo-convex and whose concavity is arranged immediately opposite the burner. The concaved surface of the controlling member 18 may be nickel-plated if desired so that the member 18 may be used as a reflector. It may be also stated that the member 18 is mounted for horizontal adjustment on its support 17, a set screw 19 or the equivalent thereof being employed to hold the member 18 in its adjusted position on the support.

In operation of my improved cutoff mechanism herein described and illustrated, the valve of the burner is turned on as in the ordinary manner. At the limit of the open stroke of the valve the member 8 will be actuated and it will fall by gravity to a position where its free extremity will be locked against the stop 10 in the lower wall of the passage 9 so as to hold the burner against the tension of the spring 7. It frequently happens that gas burners are extinguished by blowing on them by those unfamiliar with the working of the burner and should the burner be so blown with a view of extinguishing the flame thereof it is obvious that sufficient wind will be directed to the member 18 so as to rock the member 12 to cause the actuating portion 13 thereof to move upwardly against the locked extremity of the member 8. This movement of the actuating portion of the rock arm will move

the member 8 to a released position and under tension of the spring 7 the valve will be automatically closed.

I claim:

5 In an automatic gas cut-off, a valve, a spring operating to hold the valve closed, a member movably connected with the valve, a member having a passage therein, one of the walls of the passage being formed to provide
10 a stop shoulder engaging the movable member so as to hold the valve against the tension of the spring, a rock member having an actuating portion disposed beneath the said

movable member and adapted to engage the same when the rock member is moved so as to move the said movable member to a position to permit it to pass through said passage, and an adjustable draft-controlled member supported by the said rock member. 15

In testimony whereof I affix my signature in presence of two witnesses. 20

DAVID S. MARPLE.

Witnesses:

JOHN J. VAN SCYOE,
S. P. CRAMPTON.

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