

H. A. CHIPPENDALE & M. KIMMELL.
GAS BURNER.

APPLICATION FILED NOV. 15, 1911.

Patented June 3, 1913.

1,063,772.

Fig. 1.

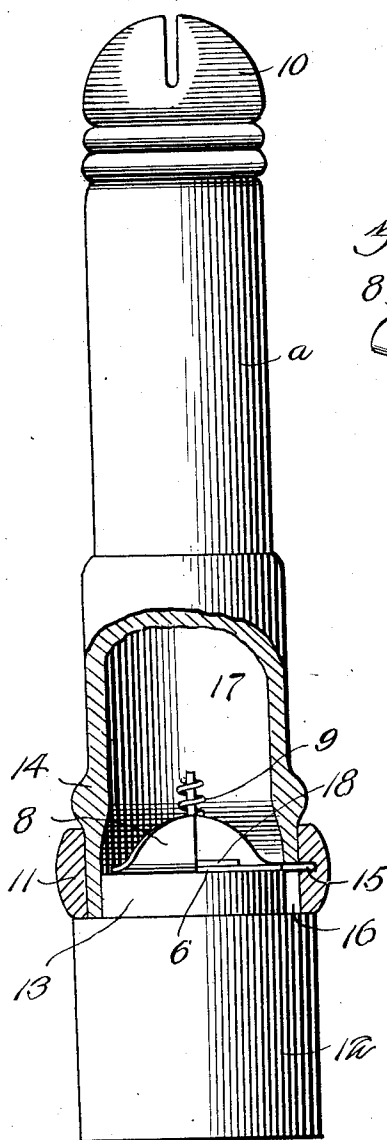


Fig. 2.

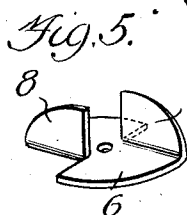
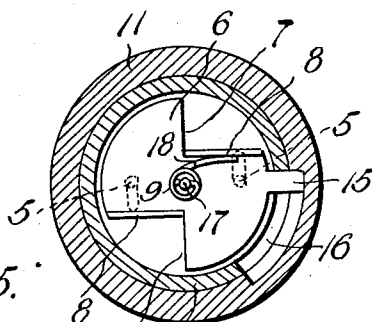


Fig. 3.

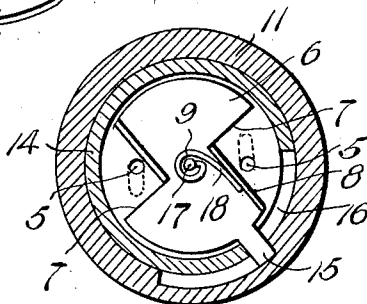
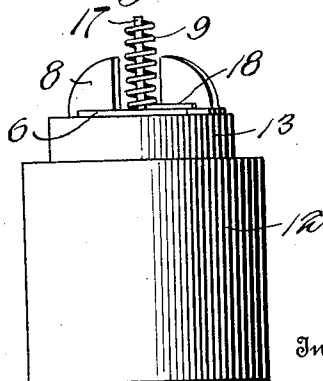


Fig. 4.



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UNITED STATES PATENT OFFICE.

HARRY A. CHIPPENDALE, OF WETHERSFIELD, CONNECTICUT, AND MABEL KIMMELL,
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GAS-BURNER.

1,063,772.

Specification of Letters Patent.

Patented June 3, 1913.

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To all whom it may concern:

Be it known that we, HARRY A. CHIPPENDALE and MABEL KIMMELL, citizens of the United States, residing at Wethersfield, in the county of Hartford and State of Connecticut, and at Providence, in the county of Providence and State of Rhode Island, respectively, have invented new and useful Improvements in Gas-Burners, of which the following is a specification.

The general object of the invention is to prevent the accidental escape of gas from a gas burner, such as when the cock in the pipe is opened accidentally by a person not familiar with the danger caused by escaping gas, or after the gas ignited at the burner is extinguished by a momentary cut off or reduction of pressure in the mains.

Other objects will appear and be better understood from the following description taken in connection with the accompanying drawings, in which,

Figure 1 is a side elevation of the device partly in section. Fig. 2 is a detail horizontal section showing the position of the parts when the burner passage is closed. Fig. 3 is a view similar to Fig. 2 but showing the position of the parts when the burner passage is opened. Fig. 4 is a detail side elevation of the lower section of the burner. Fig. 5 is a detail perspective of the valve.

The burner *a* is tubular and adapted in the ordinary manner for connection to the well-known form of fixture (not shown). The burner is interiorly provided with passages 5, 5 herein shown as extending oblique to the axis of the burner. The passages 5, 5 are controlled by the valve 6 which has the recesses 7, 7 through which the gas flows when the valve is turned to one position. The valve 6 is also provided with the blades 8, 8 which the gas impinges upon when the valve is opened and, thus prevents the valve from moving to the closed position under the action of a weak spring 9. If, however, the gas be cut off at any point below the valve 6 the spring 9 will immediately turn the valve to the position shown in Fig. 2, whereupon the passages 5, 5 will be closed so as to cut off the supply of gas to the tip 10 when the gas is again turned on at the point of cut-off.

When it is desired to ignite the gas at

the tip 10 the cock in the fixture (not shown) is opened after which the valve 6 is opened by turning a finger portion herein shown in the form of a ring 11 surrounding the tube and connected to the valve.

Although any desired form of burner tube may be employed together with any arrangement by means of which the valve 6 will be closed automatically and held in open position by the gas passing through the burner, the construction shown in the drawings is recommended since it is exceedingly simple and possesses the quality of cheapness, may also be readily assembled and the parts thereof readily detached when necessary to inspect the interior. In this connection it will be observed that the burner *a* consists of a lower section 12 formed at one end with a head 13 which contains the passages 5, 5 and which nicely fits into one end of the section 14 which carries the tip 10. The projection 15 of the valve 6 extends through a slot 16 in the section 14 and is secured in the ring 11 which in addition to providing a finger-hold for operating the valve, also operates, by virtue of machined surfaces formed on it and on the sections 11 and 14, to prevent leakage through the opening 16. The spring 9 surrounds and is connected to the post 17 arranged on the head 13, one end of the spring 18 bearing on one of the blades 8. The ends of the opening 16 serve as stops to limit the movements of the valve and the parts connected thereto.

What we claim as new is:

1. A gas burner including a burner tube having a closing plate formed with gas passages therein, a valve pivotally mounted on the closing plate and having sections adapted for closing the gas passages, oppositely disposed lips carried by the valve and adapted when the valve is in open position to be impinged by the fluid stream passing through the passages to hold the valve open, and means for returning the valve to closing position upon the cessation of such fluid stream.

2. A gas burner including a burner tube having a closing plate formed with gas passages therein, a valve pivotally mounted on the closing plate and having sections adapted for closing the gas passages, oppositely disposed lips carried by the valve and adapt-

ed when the valve is in open position to be
impinged by the fluid stream passing
through the passages to hold the valve open,
means for returning the valve to closing po-
5 sition upon the cessation of such fluid
stream, a ring rotatably mounted exterior
of the burner tube and a connection between
said ring and valve plate.

In testimony whereof we affix our signa-
tures in presence of two witnesses.

HARRY A. CHIPPENDALE.
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Witnesses:

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