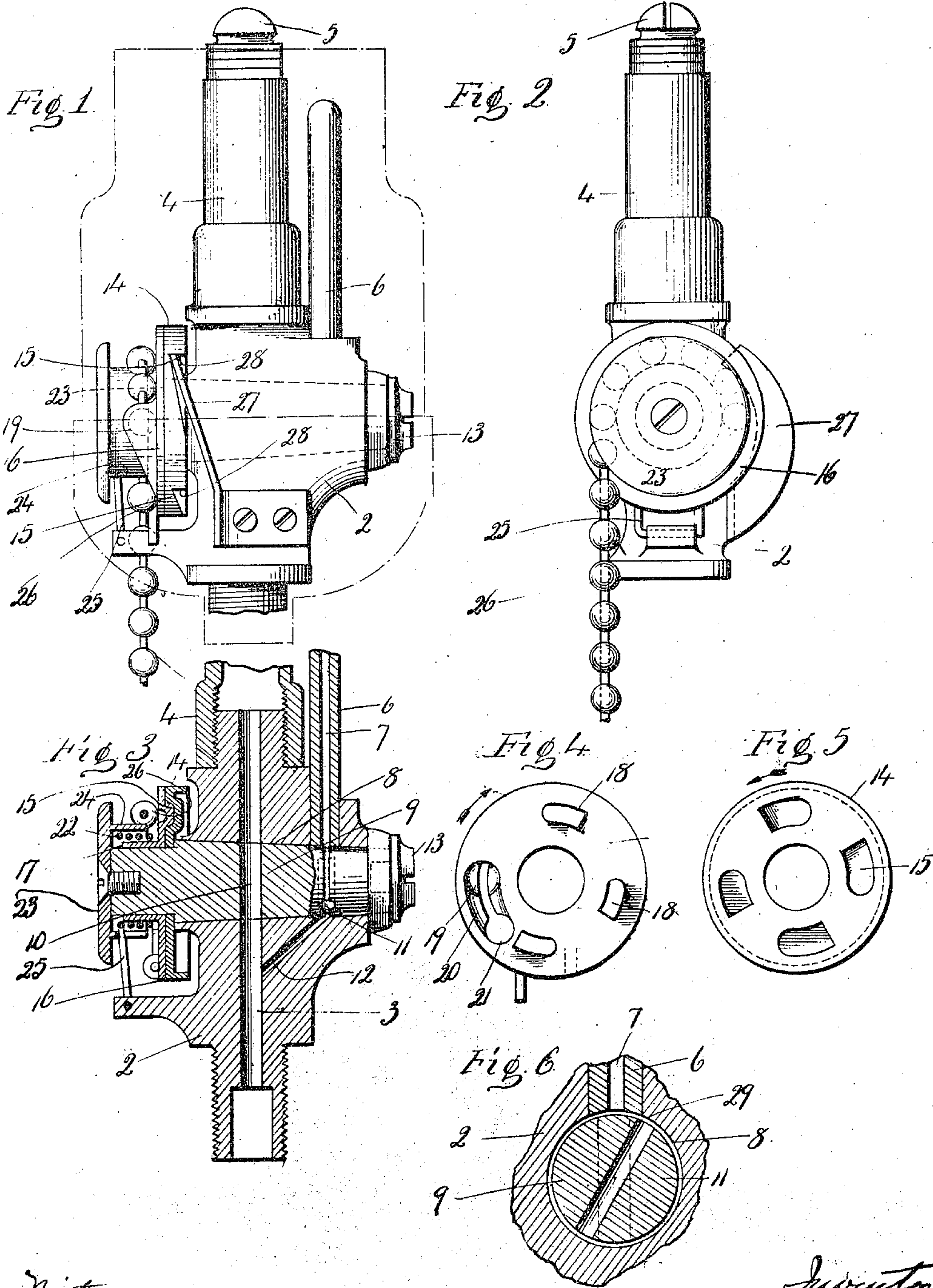


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GAS BURNER.  
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Witnesses  
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# UNITED STATES PATENT OFFICE.

LOUIS C. HILLER, OF MERIDEN, CONNECTICUT.

GAS-BURNER.

966,548.

Specification of Letters Patent.

Patented Aug. 9, 1910.

Application filed April 13, 1910. Serial No. 555,210.

*To all whom it may concern:*

Be it known that I, LOUIS C. HILLER, a citizen of the United States, residing at Meriden, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Gas-Burners; and I do hereby declare the following, when taken in connection with the accompanying drawings and the numerals of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1 a side view of a burner constructed in accordance with my invention. Fig. 2 a view at right angles to Fig. 1. Fig. 3 a vertical sectional view of the burner. Fig. 4 an inside view of the flange, detached. Fig. 5 a plan view of the disk, detached. Fig. 6 a sectional view illustrating the positions of the passages through the plug.

This invention relates to an improvement in gas burners, and particularly to burners having a pilot light from which the gas may be ignited when turned on.

The object of this invention is to provide convenient means for turning the gas off and on by a single chain; and the invention consists in the construction hereinafter described and particularly recited in the claims.

In carrying out my invention I have shown a body 2 having a gas passage 3 to a burner 4 having the usual tip 5, and extending upward from the body is a pilot 6 having the usual opening 7. Transversely through the body is a tapered opening 8 in which a plug 9 is closely fitted, the plug having a port 10 in line with the gas opening 3, and a pilot port 11 in line with the pilot opening 7. The openings 10 and 11, however, are at different angles for the purpose as will hereinafter appear, and extending from the gas opening 3 to a point in line with the pilot opening 7 is a channel 12. The plug 9 is held in place in the usual manner by a screw 13, and this plug has a disk 14 having a series of notches 15. Mounted on the outer end of the plug is a sleeve 16 having a flange 17 which is formed with a series of inward projections or fingers 18 to engage with the notches 15. The flange is also formed with a cup-shaped recess 19 which is connected by a channel 20 with a perforation 21. Mounted on the sleeve is a spiral spring 22 one end of which is fixed

to the disk and the other end to the body. Secured to the outer end of the plug is a cap plate 23 having a collar 24 which partially incloses the spring, the collar being divided to clear the end 25 of the spring which extends downward into engagement with the body. Secured to the disk is a chain 26. This chain is of ball type one end being adapted to be passed through the perforation 21 and into the cup-shaped recess 19 and so as to be held therein, the chain extending from the disk over the collar 24 and downward to any convenient point. Attached to the body is a flat spring 27 which engages with teeth 28 in the edge of the disk 14.

Around the plug 8 in line with the pilot opening 11 is an annular groove 29. If the plug 8 is turned to shut off the flow of gas to the burner, gas may flow through the passage 12, and escaping around the groove 29 will supply the pilot 6 with sufficient gas to maintain a small flame. A pull upon the chain 26 will give the plug a quarter turn bringing the port 10 into line with the supply of gas so as to permit it to pass to the burner. The openings through the plug, however, are so arranged that just before the port 10 comes in line with the passage 3 the pilot opening 11 will come in line with the passage 12 and the opening 7 to the pilot so as to furnish a free discharge of gas through the pilot, which will cause the flame to shoot up and ignite the gas as it escapes from the burner tip 5. Upon releasing the chain 26, the spring 22 will react to return the flange 17 to its former position, this flange being free to ride over the disk 14 in one direction and to engage with it when turned in the opposite direction, the spring 22 holding the flange in engagement with the disk.

To extinguish the light, the chain is given another pull which will give the plug a quarter turn so as to turn the port 10 out of line with the passage 3, and thus cut off the supply of gas, which supply, however, is continued to the pilot. The plug, therefore, is always turned in the same direction, the one pull of the chain opening to the burner, and the next pull closing it. Thus gas may be turned on and off by a single chain.

I claim:—

1. A gas burner including a body, burner tip and pilot, a plug mounted in said body for rotation therein and formed with a port



adapted to be turned in line with the gas opening and a port in line with said pilot, a disk secured to said plug and formed with notches, a flange mounted on said plug and  
5 formed with projections to engage with the notches in the disk, a spring connected with the flange and with the body and adapted to turn the flange, and a chain coupled with the flange by which it may be turned.

10 2. In a gas burner, the combination with a body, burner tip and pilot, passage through the body to the burner and to the pilot, a plug mounted in said body and formed with independent ports opening to the burner and  
15 to the pilot, said ports being out of line with each other, said plug formed with an annular groove in line with the pilot port, and means for turning the plug.

20 3. In a burner, the combination with a body and burner, passage through the body to the burner, a plug mounted in said body and formed with a port adapted to be turned into line with said passage, a disk carried by said plug and formed with a series of  
25 notches, a flange mounted on said plug and formed with a series of projections adapted to engage with said notches, a cup-shaped recess in said disk, a perforation adjacent thereto, and a passage connecting the same,

a ball chain one end of which is adapted to be entered through said perforation and  
30 passed into said cup-shaped recess, a spring arranged to return said disk to its normal position against the action of said chain.

4. A burner comprising a body, burner  
35 and pilot, a plug adapted to cut off the supply of gas through said body and provided with independent ports for the burner and pilot, a disk mounted on said plug, a  
40 spring-finger secured to the body and preventing the rotation of the disk in one direction, a flange mounted on said body and adapted to engage with said disk whereby  
45 the disk may be rotated in one direction, a chain connected with the flange and adapted to turn the same in one direction, a spring connected with the flange and with the body  
and adapted to turn the flange in the opposite direction, a plate secured to said plug  
5 and formed with a collar partially inclosing the said spring.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

LOUIS C. HILLER.

Witnesses:

C. J. DANAHER,

HELEN R. CALLAGHAN.