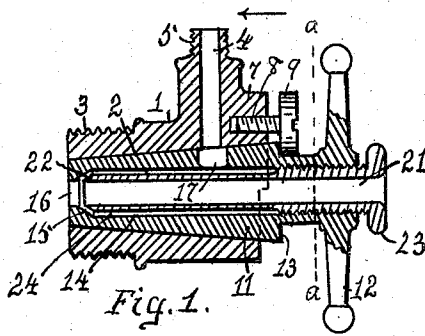
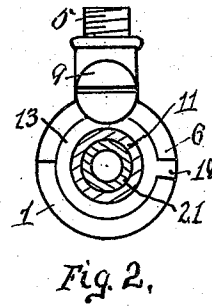


R. CHRIST.
GAS COCK.
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920,914.

Patented May 11, 1909.



Witnesses.

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UNITED STATES PATENT OFFICE.

RINEHART CHRIST, OF HAMILTON, OHIO.

GAS-COCK.

No. 920,914.

Specification of Letters Patent.

Patented May 11, 1909

Application filed March 19, 1908. Serial No. 422,018.

To all whom it may concern:

Be it known that I, RINEHART CHRIST, a citizen of the United States, residing at Hamilton, Ohio, have invented a new and useful Improvement in Gas-Cocks, of which the following is a specification.

My invention relates to gas cocks adapted to use on gas stoves or elsewhere and the objects of my improvements are to provide means for adjusting the discharge opening in the plug within the body; to provide the plug with a hollow adjusting valve; to provide the plug with means for mixing air with the gas during its discharge therefrom; to provide means for regulating the admission of gas in relation to the admission of the air; to provide means for maintaining the parts in adjusted position independently of the turning of the plug within the body, and to provide a simple and compact construction and assemblage of parts combined with facility of operation and efficiency of action. These objects are attained in the following described manner as illustrated in the accompanying drawings, in which:—

Figure 1 is a longitudinal section of a gas cock embodying my improvements; Fig. 2, a transverse section on the line *a-a* of Fig. 1.

In the drawings, 1 represents the preferably cylindrical cock body formed with the usual tapered opening 2 concentric with the threaded nipple 3 and with the gas inlet passage 4 concentric with the threaded nipple 5. Said passage communicates with the tapered opening and preferably perpendicular thereto. Said body is also formed on its heel with the usual stop 6 and with a boss 7 having a threaded opening 8 wherein a screw 9 is adjustably secured.

A tapered plug 11 provided with a lever or handle 12 and with an annular shoulder 13 on its heel is maintained in longitudinal adjustment within the tapered opening 2 of the body by the clamping engagement of the head of screw 9 with said shoulder. An axial opening 14 extended through the plug is internally threaded at its heel end and reduced in size by a taper bore 15 at the other end to form the cylindrical discharge opening or nozzle 16. An opening 17 extended through the wall of the plug may be turned thereby into or out of registration with the inlet passage 4. A lug 18 formed on the heel of the plug contacts with the stop 6 in the

usual manner to limit its rotative movement.

A tubular valve 21 open at both ends and provided with a taper point 22 and with a milled head 23 on its heel is adjustably threaded within the axial opening of the plug. Said valve is reduced in size in a forward direction from its threaded portion to provide an annular gas chamber 24 around it and within the plug and which receives the gas through opening 17 from the gas inlet passage 4. The discharge of the gas from said annular chamber through the nozzle 16 may be regulated or entirely shut off by the longitudinal adjustment of the valve with its point toward or in contact with the correspondingly tapered portion 15 of the annular chamber.

The discharge of the gas through the nozzle is caused to mix with air which is admitted thereto through the tubular valve 21. The adjustment of the tubular valve is not disturbed by the turning of the plug.

In operation, the head of screw 9 serves to maintain the plug in proper longitudinal adjustment within the tapered opening of the body. The tubular needle valve 21 serves to adjust the flow of the gas through the nozzle to a predetermined quantity or to close the nozzle entirely if desired. The turning of the plug does not change the adjustment of the needle valve 21. The opening through valve 21 admits a substantially constant flow of air therethrough to be mixed with a variable quantity of gas in its discharge through the nozzle, thus providing a gas cock with an adjustable mixing device.

Having fully described my improvements, what I claim as my invention and desire to secure by Letters Patent of the United States is:—

1. A gas cock comprising a body, a hollow tapered plug movable therein, a tubular valve longitudinally adjustable within the plug, and positive means adjustably secured in the body and movably engaging with the heel of the plug for maintaining said plug in proper longitudinal position within the body.

2. A gas cock comprising a body formed with a boss, a hollow taper plug movable therein and formed with an annular shoulder on its heel, a screw adjustably threaded in the boss with a portion of its head in

movable contact with said shoulder, and a hollow needle valve adjustably secured within the plug.

3. A gas cock having in combination a
5 body, a tapered hollow plug movable therein, a tubular valve adjustable longitudinally within the hollow of the plug, and a screw adjustably threaded in the body on one side

of the plug with its head in engagement with the heel of the plug for the purpose 10 specified.

RINEHART CHRIST.

Witnesses:

C. J. SMITH,
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