

J. & W. EYER.
GAS CONTROL COCK.
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1,052,471.

Patented Feb. 11, 1913.

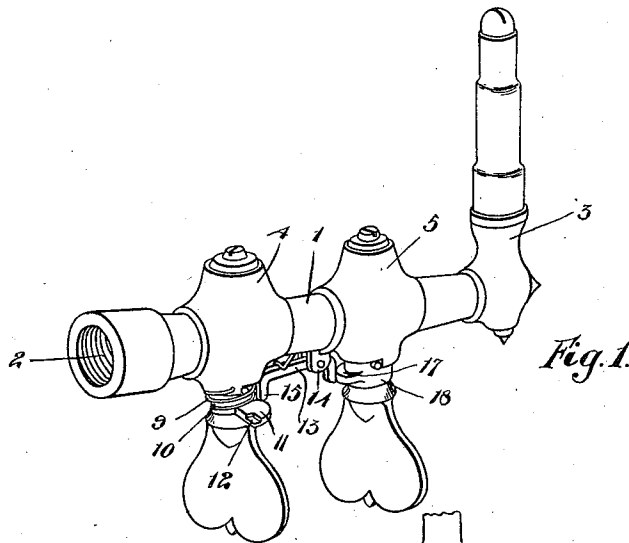


Fig. 1.

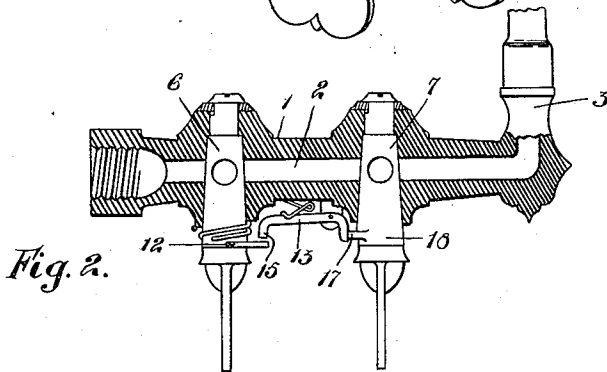


Fig. 2.

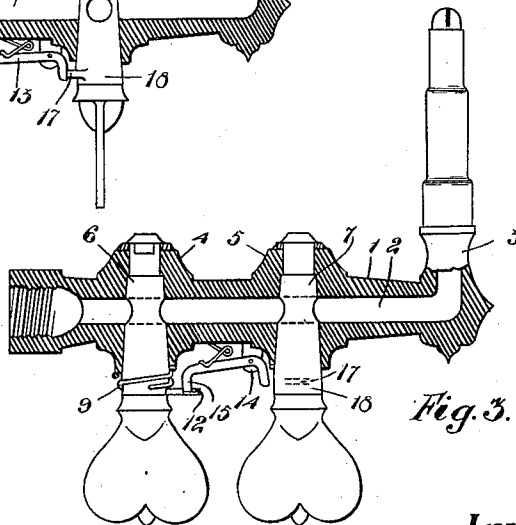


Fig. 3.

Witnesses

D. J. Lutz
H. C. Smith,

Inventors

J. Eyer.
W. Eyer.
by H. J. S. Demmon
Att'y

UNITED STATES PATENT OFFICE.

JACOB EYER AND WALTER EYER, OF TORONTO, ONTARIO, CANADA.

GAS-CONTROL COCK.

1,052,471.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, JACOB EYER and WALTER EYER, both subjects of the King of Great Britain, and residents of the city of Toronto, county of York, Province of Ontario, in the Dominion of Canada, have invented certain new and useful Improvements in Gas-Control Cocks, of which the following is a full, clear, and exact description of same.

The invention relates to improvements in gas control cocks, as described in the following specification and illustrated in the accompanying drawings that form part of the same.

The invention consists essentially in the novel construction and arrangement of parts, whereby a pair of cocks, arranged to open and close the gas passage, are operatively connected so that one of said cocks will close automatically on the turning of the other cock and cannot be left open unless the adjacent cock is opened first.

The objects of the invention are, to obviate the dangers incident to the careless handling or accidental turning of a gas jet, to devise a simple form of gas control cock which will effectively close off the flow of gas on the turning of the cock even should the cock turned be partly opened again, and to devise a simple device positive in its action and which will not get out of order.

In the drawings, Figure 1 is a perspective view of the improved form of gas cock. Fig. 2 is a longitudinal vertical sectional view showing the position of the parts when the gas passage is closed. Fig. 3 is a longitudinal vertical sectional view showing the position of the parts when the gas passage is opened.

Like numerals of reference indicate corresponding parts in each figure.

Referring to the drawings, 1 is the body of the improved gas cock having the gas passage 2 extending longitudinally there-through to the pillar 3 and formed with the enlarged portions 4 and 5 adapted to receive the cut off cocks 6 and 7, respectively, said cocks being of the usual type of taper plug valve each provided with the usual pin stops 8.

9 is a spiral spring encircling the shank portion 10 of the cock 6 and having one end thereof secured in said shank and the other end in the body portion of the valve, said

spring normally holding the valve in its closed position.

11 is a laterally projecting member rigidly secured to and extending from one side of the shank of the cock 6 and having a notch 12 at the outer corner.

13 is a latch member pivotally secured to the lugs 14 extending downwardly from the body 1 between the enlarged portions 4 and 5, said latch member having a downwardly extending end 15 adapted to engage the upper face of the member 11 extending laterally from the cock 6 and to drop into the notch 12 of said member to retain said cock in its open position. The other end 16 of the latch 13 extends downwardly to the other side of the pivot and is adapted to engage a cam 17 projecting laterally from the shank 18 of the cock 7. The cam 17 is so arranged in relation to the gas passage in the cock 7 as to engage the depending end 16 of the latch 13 on the turning of said cock to its closed position so that the said latch will be tilted on its pivot raising the opposite end clear of the member 11 projecting from the cock 6.

In the use of this device, the improved form of gas cock is secured to the end of a gas pipe in the usual manner. When the gas cock 7 is turned to the closed position as shown in Figs. 1 and 2 the cam 17 is in engagement with the depending end 16 of the latch 13 holding the opposite end 15 clear of the member 11 projecting from the cock 6. The cock 6 is held closed by the spring 9. When it is desired to light the gas the cock 7 is opened first and on the turning of said cock the cam 17 is moved out of engagement with the latch 13 allowing the end 15 thereof to drop on to the upper face of the member 11. The cock 6 is then turned to open the gas passage, against the pressure of the spring 9, and the latch member 13 drops into the notch 12 in the member 11 thereby locking the cock 6 open.

In the event of a person turning the cock 6 before opening the cock 7, the spring 9 immediately closes it as the latch is held clear by the cam on the cock 7 but if the cock 7 is opened first the latch is released and the cock 6 will be held open. When it is desired to extinguish the gas it is merely necessary to turn the outer cock 7. As the cock 7 closes the cam 17 engages the latch member and lifts it out of engagement with the member 11 of the cock 6, thus releasing

the said cock 6 and allowing the spring 9 to close it automatically. The action of closing the secondary cock automatically thus insures the positive closing off of the flow of gas and if the cock 7 is accidentally opened the gas will not escape. A deliberate act in turning on the second or inner cock is necessary in order to secure a flow of gas.

A very simple form of construction is herein shown and described, but it must be understood that other means of connecting the two cut off cocks to act in a similar manner may be readily devised without departing from the spirit of this invention, that is to say, so long as one of the cocks can be held open only while the other is open and will close automatically on the closing of the other and cannot be left open unless the other is first opened, in other words, both cocks close in unison but the manually operated valve must be opened before the automatic valve can be retained open.

What we claim as our invention is:—

1. In a gas control cock, a pair of cocks arranged in series, one of said cocks being adapted to close automatically, and means for locking said automatic cock open, said means being retained inoperative while the other cock is closed.

2. In a gas control cock, a pair of cocks arranged in series, one of said cocks being adapted to close automatically, a pivotal latch member adapted to hold said automatic cock open, and means operated by the other cock for holding said latch member

out of operating contact with said automatic cock.

3. In a gas control cock, a pair of cocks arranged in series and in juxtaposition, one of said cocks being adapted to close automatically, a pivotal latch member arranged between said cocks and adapted to lock the automatic valve in its open position, and means carried on the other cock for tilting said pivotal latch member to release said automatic cock on the closing of the other cock, said means retaining said latch out of operating contact with the automatic cock.

4. In a gas control cock, a pair of cocks arranged in series and in juxtaposition, one of said cocks being adapted to close automatically and having a lateral projection and the other cock having a laterally projecting cam, a latch member arranged between said cocks and pivotally supported intermediate of its length and adapted to engage the lateral projection of said automatic cock and having a projection at its other end adapted to engage the cam on the other cock, said cam being adapted to tilt the latch to release the automatic cock on the closing of the other cock and to hold said latch member out of operating contact with the other cock.

Signed at the city of Toronto, county of York, Ontario, Canada, this 30th day of December, 1911.

JACOB EYER.
WALTER EYER.

Witnesses:

H. J. S. DENNISON,
D. S. TOVELL.