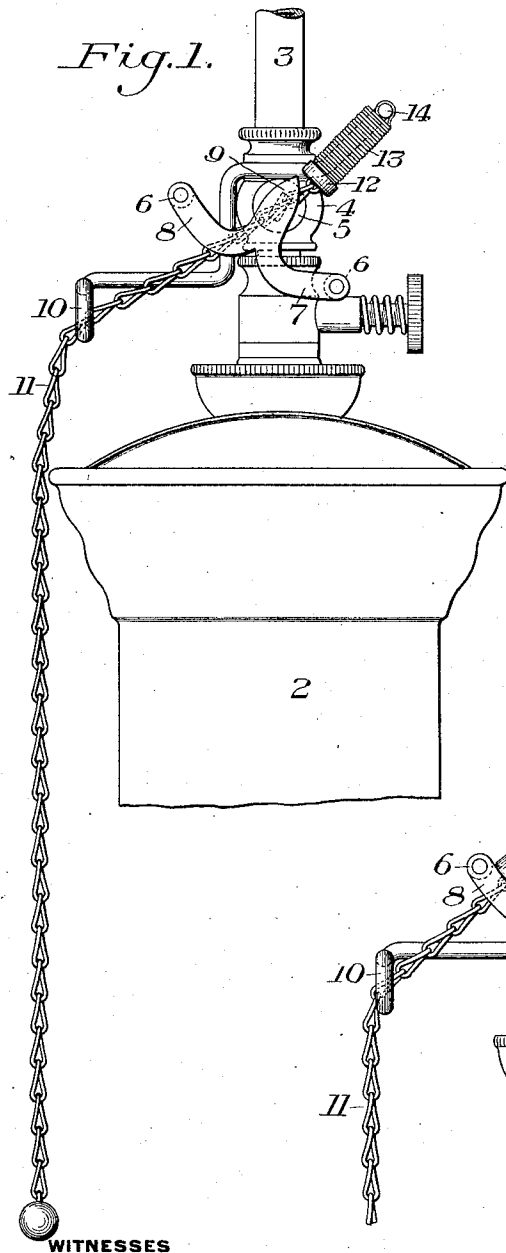


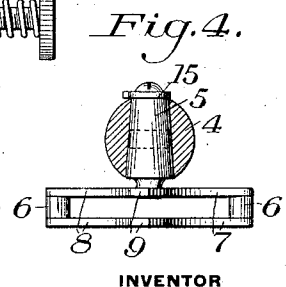
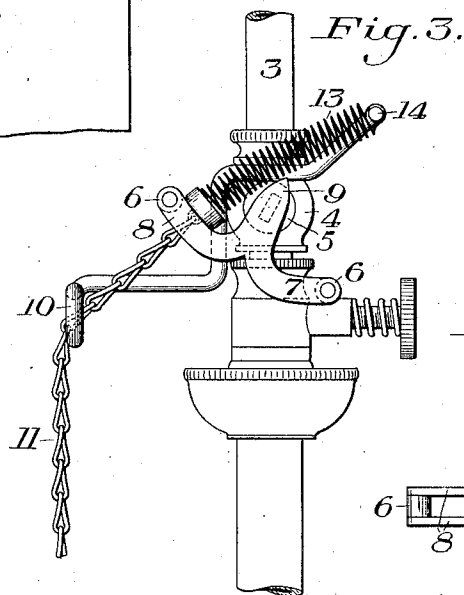
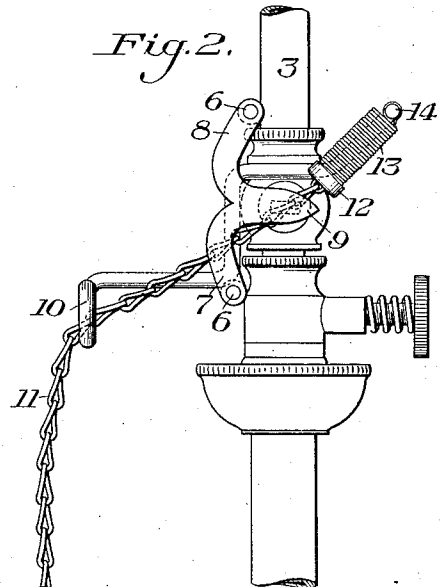
T. J. LITTLE, JR.
GAS COCK.
APPLICATION FILED SEPT. 10, 1912.

1,055,060.

Patented Mar. 4, 1913.



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UNITED STATES PATENT OFFICE.

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GAS-COCK.

1,055,060.

Specification of Letters Patent.

Patented Mar. 4, 1913.

Application filed September 10, 1912. Serial No. 719,550.

To all whom it may concern:

Be it known that I, THOMAS J. LITTLE, JR., a resident of Woodbury, in the county of Gloucester and State of New Jersey, have
5 invented a new and useful Improvement in Gas-Cocks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

10 Figure 1 is a side elevation of a portion of a lamp with one form of my improved gas cock operating mechanism attached. Fig. 2 is a similar view of the cock and gas pipe showing the cock in the reverse position
15 from that shown in Fig. 1. Fig. 3 is a view similar to Fig. 2 showing the pull chain in engagement with one of the operating levers, and Fig. 4 is a sectional view through the cock showing the operating lever in plan
20 view.

This invention relates to an improvement in gas cock operating mechanism in which a single chain or pull is used for shifting the cock in two different positions, and is designed to provide a cheap and efficient device of this character by which the cock can
25 be shifted in two different directions by a single chain, to open the cock to supply gas to the burner, or to close the cock to shut off the supply.

I am aware that single chain pulls have been used for opening and closing gas cocks or valves, but in all such cases ratchet mechanism of one type or another was used, so
35 that each successive pull on the chain advanced the cock one tooth or ratchet. Such devices are extremely unreliable, as the pawl frequently misses the tooth if the operator is not careful to pull the chain all the way down. The ratchets and devices of this
40 character are also apt to turn back if there is any undue friction on the ratchet wheel against the reciprocating arm member which carries the pawl, and if this should occur
45 when the valve has been shifted to cut off the supply of gas the rearward movement might open the cock and permit gas to escape through the unlit burner. It is also well known that an oscillating motion on a
50 cock is far better than a rotary motion, for the reason that in rotary cocks if any dirt lodges between the ground surfaces it is apt to grind rings around the plug or its seat; whereas in cocks which receive an oscillating
55 motion it is not so apt to occur.

The main object of my invention is to provide mechanism in which a single chain pull can be used for oscillating the gas cock, whereby I obtain all of the advantages of the double chain pull type of valve without
60 its disadvantages, and also obtain all of the advantages of a single pull type without its disadvantages.

The precise nature of my invention will be best understood by reference to the accompanying drawings, which will now be described, it being premised, however, that various changes may be made in the details of construction and general arrangement of the parts, without departing from the spirit
70 and scope of my invention, as defined in the appended claims.

In the drawings, the numeral 2 designates one type of burner which is supported from or connected to a gas supply pipe 3.

4 designates a valve casing connected to the pipe 3, which is provided with the usual cock plug 5. Connected to the outer end of the plug 5 is a frame formed from two plates which are secured to each other by
80 means of shouldered rivets 6—6 at the ends thereof. Each of these plates have lever arms 7 and 8, and cams 9, there being an open space between the rivets 6—6 from end to end of the frame.

10 designates a guide eye for a pull chain 11, the upper end of which is provided with a button 12 which is connected to one end of a coiled spring 13. The other end of this coiled spring is connected to a projection
90 14, which is in line with a guide eye 10 and the cock plug 5. That portion of the chain between the guide eye 10 and the button 12 passes through the open space between the frame connected to the gas cock.

Assuming the cock to be closed when the parts are in the position shown in Fig. 1 and it is desired to turn on the gas, the chain pull 11 is drawn downwardly and the button 12 will engage the under faces of the
100 cams 9 and move downwardly until it engages the levers 7, and any further movement will shift the frame to the position shown in Fig. 2, and as soon as the pull is released, the spring 13 will return the button
105 12 to the position shown in Fig. 2. When it is desired to shut off the gas, the chain 11 is again drawn downwardly, the button 12 will first engage the upper faces of the cams 9 and then slide along the upper
110

faces of these cams until it engages the levers 8, and the further pull will shift the frame and the cock to the position shown in Fig. 3.

5 It will be understood that the cock plug 5 is provided with the usual stop plate 15 having projections which engage a pin to limit the movement of the cock plug in either direction.

10 The advantages of my invention result from the provision of oscillating gas cock operating mechanism having a single chain pull which is adapted to shift the cock from open to closed position or from closed to

15 open position when pulled.

I claim:

1. A gas cock operating device, comprising two lever arms connected to the cock, a single operating device for acting on the re-

20 spective lever arms to shift the cock, and means for shifting said operating device toward one or the other of said lever arms when the operating device is actuated to shift the cock; substantially as described.

25 2. A gas cock operating device, comprising two operating levers connected to the cock, a double cam device between said levers, and a single operating device arranged to be moved into alternate engage-

30 ment with the said levers by means of said cam surfaces when the operating device is pulled; substantially as described.

3. A gas cock operating device, comprising two operating levers connected to the

35 cock, and a single pull device for acting alternately on the upper faces of said levers to shift the cock, together with a spring for raising the pull device to its normal position.

40 4. A gas cock operating device, compris-

ing two slotted levers connected to the cock, said levers extending in opposite directions from the cock, a single chain pull passing through said slots, and means engaged by said chain pull arranged to shift the chain 45 pull to actuate said levers alternately to shift the cock; substantially as described.

5. A gas cock operating device, comprising two operating levers connected to the cock, a double cam device between said 50 levers, a spring having one end connected to a projection above the cock, a button on the bottom of said spring, and a chain pull connected to said spring below said button, said button being arranged to engage the 55 cam device to shift said button to alternately engage the levers to shift the cock; substantially as described.

6. A gas cock operating device, comprising two operating levers connected to the 60 cock, a single pull device for alternately acting on the said levers to shift the cock, and a movable device arranged to be moved by said levers for changing the direction of action of the pull device; substantially as 65 described.

7. A gas cock operating device, comprising two operating levers connected to the cock, a single pull device for alternately 70 acting on the said levers to shift the cock, and a directing device for the pull device connected to said levers; substantially as described.

In testimony whereof, I have hereunto set my hand.

THOMAS JAMES LITTLE, JR.

Witnesses:

J. H. JOHNSON,
EDGAR LENTON.