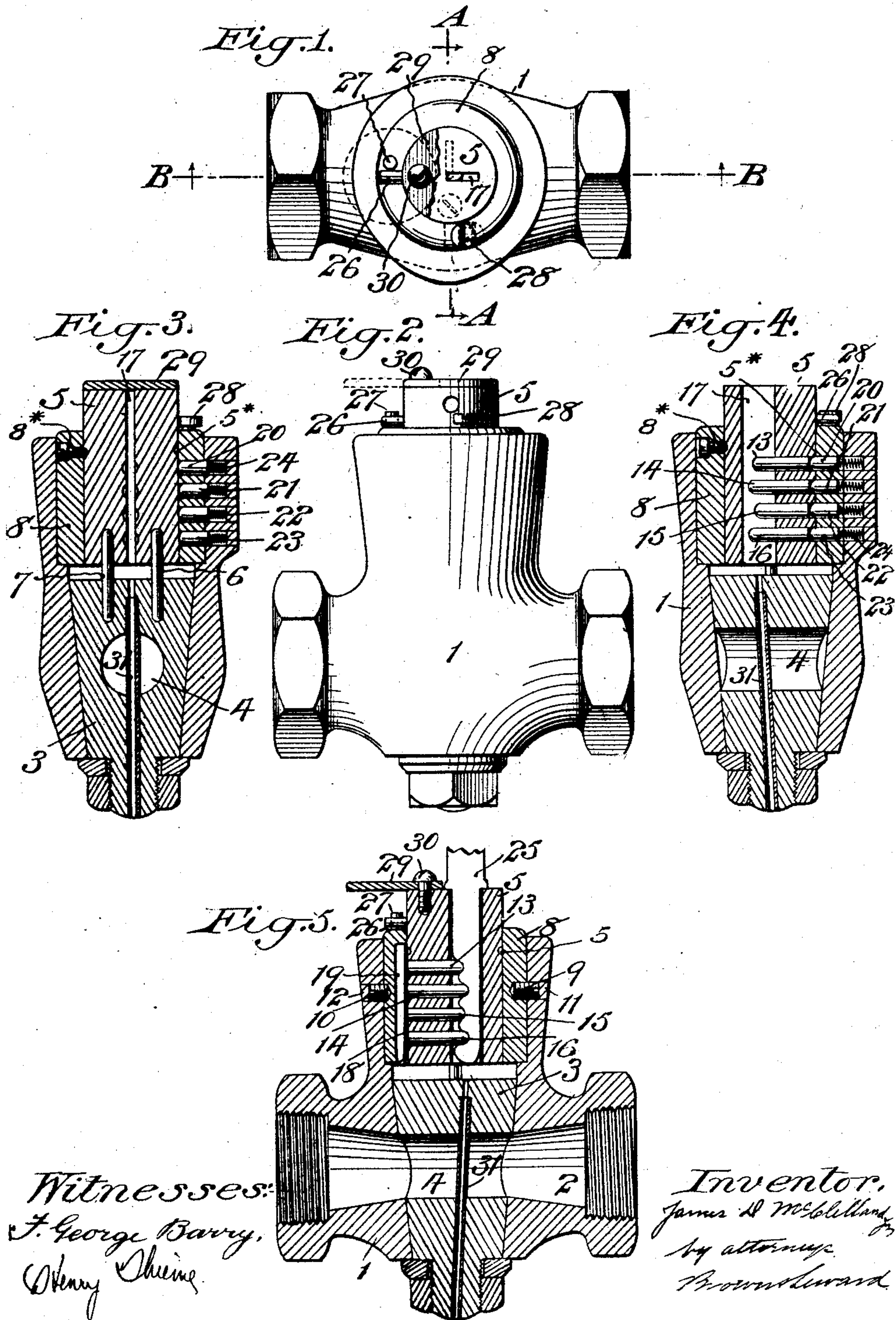


J. D. McCLELLAND, JR.
 COCK OR FAUCET.
 APPLICATION FILED JUNE 19, 1907.

924,920.

Patented June 15, 1909.



UNITED STATES PATENT OFFICE.

JAMES D. McCLELLAND, JR., OF MOUNT VERNON, NEW YORK.

COCK OR FAUCET.

No. 924,920.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JAMES D. McCLELLAND, Jr., a citizen of the United States, and resident of Mount Vernon, in the county of Westchester and State of New York, have invented a new and useful Improvement in Cocks or Faucets, of which the following is a specification.

My invention relates to a cock or faucet and is particularly well adapted for use in turning gas or other fluid on and off where it enters a building, the object being to provide means for preventing the permanent locking of the faucet when, for any cause, the fluid is temporarily cut off.

A further object is to provide a construction which will permit the insertion and withdrawal of a key when the cock or faucet is in its open or shut positions.

A still further object is to provide for removing the end of a broken key from the lock without dismembering the lock.

In the accompanying drawings, Figure 1 is a plan view showing the guard cap partially broken away, Fig. 2 is a view in side elevation, Fig. 3 is a central section in the plane of the line A—A of Fig. 1, showing the turn plug and lock turned into open position to permit the flow of fluid through it, Fig. 4 is a similar section showing the cock turned in a cut-off position and locked, and Fig. 5 is a central section in the plane of the line B—B of Fig. 1, showing the key in position in its socket.

The casing is denoted by 1. It is provided as usual with a conduit 2 for the passage of fluid through it and this conduit is interrupted by the turn plug 3 through which there is a hole 4 which may be brought into and out of register with the conduit 2 to permit the flow of fluid through the plug or shut it off from passing through.

The turn plug 3 is connected with the barrel 5 of the lock by means of dowel pins 6 and 7 to cause the plug to rotate together with the barrel of the lock and the said lock is rotatably mounted within a sleeve 8 by means of a set screw 8* in the sleeve, the point of which screw enters a circumferential groove 5* in the barrel 5. This arrangement will permit the barrel to rotate within the sleeve, the barrel at the same time being held against removal from the sleeve. The sleeve is made fast within the casing 1 by means of countersunk screws 9 and 10 having their outer ends covered by plugs 11 and 12, respectively.

The barrel 5 carries several tumblers, in the present instance four, denoted by 13, 14, 15 and 16, seated to reciprocate in sockets in the barrel in a direction at right angles to the axis of the barrel. When the barrel is turned to open the cock these tumblers are held advanced within the key slot 17 in the barrel by means of a spring 18 seated in a chamber 19 in one side of the inner wall of the sleeve 8. When the barrel is turned to close the cock, these several tumblers are brought in position to press against a corresponding number of locking plungers denoted, respectively, by 20, 21, 22, and 23, seated in sockets in the sleeve 8 and normally pressed forward into locking position by springs 24 seated in sockets in the wall of the casing 1. The operation of locking and unlocking is simply to turn the barrel 5 from the position shown in Fig. 3, where the plug is in position to open the conduit 2 around into the position shown in Fig. 4 where the plug cuts off the conduit 2 and where the tumblers come opposite the plungers and permit the latter to enter the tumbler sockets as shown in Fig. 4 to lock the barrel and hence the turn plug against further rotation in either direction. In this position, the turn plug can only be turned in a direction to open the conduit 2 by the insertion of the proper key 25 as shown in Fig. 5, which will crowd the tumblers back against the plungers forcing the latter into their sockets and permitting the barrel 5 to be rotated together with the turn plug to open the conduit. When the plug has been opened, the tumblers are opposite the spring 18, thus permitting the withdrawal of the key by reason of the tumblers being forced against the tension of the spring into the chamber 19.

I provide an adjustable stop for preventing the permanent locking of the barrel and turn plug when the turning off of the fluid, such as gas, is temporary only, as in a matter of exigency in case of fire or in the event the house is to be left unoccupied for a short period, thus doing away with the necessity of calling for the authorities to come and unlock the faucet and this without in any manner disturbing the permanent locking of the faucet in case such a locking should be required. The stop 28 at one end of the rotary movement of the barrel 5 is variable so that it may be set to prevent the barrel 5 from being turned far enough to permit the locking plungers to enter the barrel and, at

the same time, far enough to make a complete closure of the conduit 2.

The full open position of the barrel is determined by the engagement of a pin 26 on the barrel with a pin 27 on the sleeve 8. The full closed non-locking position of the barrel 5 and the full closed locking position of the barrel are determined by the said stop 28 which, in the present instance, is a screw with its head set eccentric to its stem so that it may be thrown from the position shown in dotted lines, Fig. 1, to the position shown in full lines, Fig. 1, by giving it a half turn.

When it is in the position shown in full lines, Fig. 1, the pin 26 will engage it before the barrel 5 has been turned sufficiently far to permit the locking plungers 20, 21, 22, 23, to enter sockets in the barrel but when the stop 28 is turned in the position shown in dotted lines, Fig. 1, the barrel 5 may be turned into the position shown in dotted lines, Fig. 1, before it engages the said stop 28 and in this position the locking plungers will enter the barrel and permanently lock the turn plug closed.

The foregoing construction, then, provides for the temporary shutting off of the fluid without the locking of the plug closed, by simply giving the stop 28 the half turn into the position shown in full lines, Fig. 1, and then rotating the barrel 5 until the pin 26 engages it.

When the exigency is over or the family returns and wishes the fluid turned on again, the barrel 5 may be rotated back to its position shown in full lines, Fig. 1, with the cock open without calling upon the company to come and unlock it.

A guard cap 29 is held on the outer end of the barrel 5 by means of a pivotal screw 30 to prevent foreign matter entering the key

socket and the said cap may be turned to one side whenever it is desired to insert the key.

Provision is made for punching a broken key out of the key socket by providing the turn plug with a tubular passage 31 extending from the end of the plug across the opening therein and opening into the key socket.

When, for any cause, the key is broken off in its socket, a wire may be inserted within the tube 31 and by pushing it against the end of the key, the latter may be pushed out of its socket without dismembering the faucet.

What I claim is:—

1. The combination with a cock or faucet comprising a turn plug and a lock for locking the plug in position to close the faucet, of a variable stop for arresting the turn plug in a nonlocking closed adjustment or in a locking closed adjustment.

2. The combination with a cock or faucet comprising a turn plug and a combination lock connected with the turn plug, of an eccentric stop capable of being turned from a position to effect a permanent locking of the plug into a position to arrest the lock before it reaches a locking position and after the turn plug has reached a closed position.

3. The combination with a cock or faucet comprising a turn plug and a lock connected therewith, the turn plug being provided with a tubular passage leading through its end to the key socket for the insertion of a key removing device.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two witnesses, this eighteenth day of June, 1907.

JAMES D. McCLELLAND, JR.

Witnesses:

F. GEORGE BARRY,
HENRY THIEME.