No. 752,818. PATENTED FEB. 23, 1904.

R. L. BOULTER.

GAS VALVE LOCK.

APPLICATION FILED OCT. 6, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

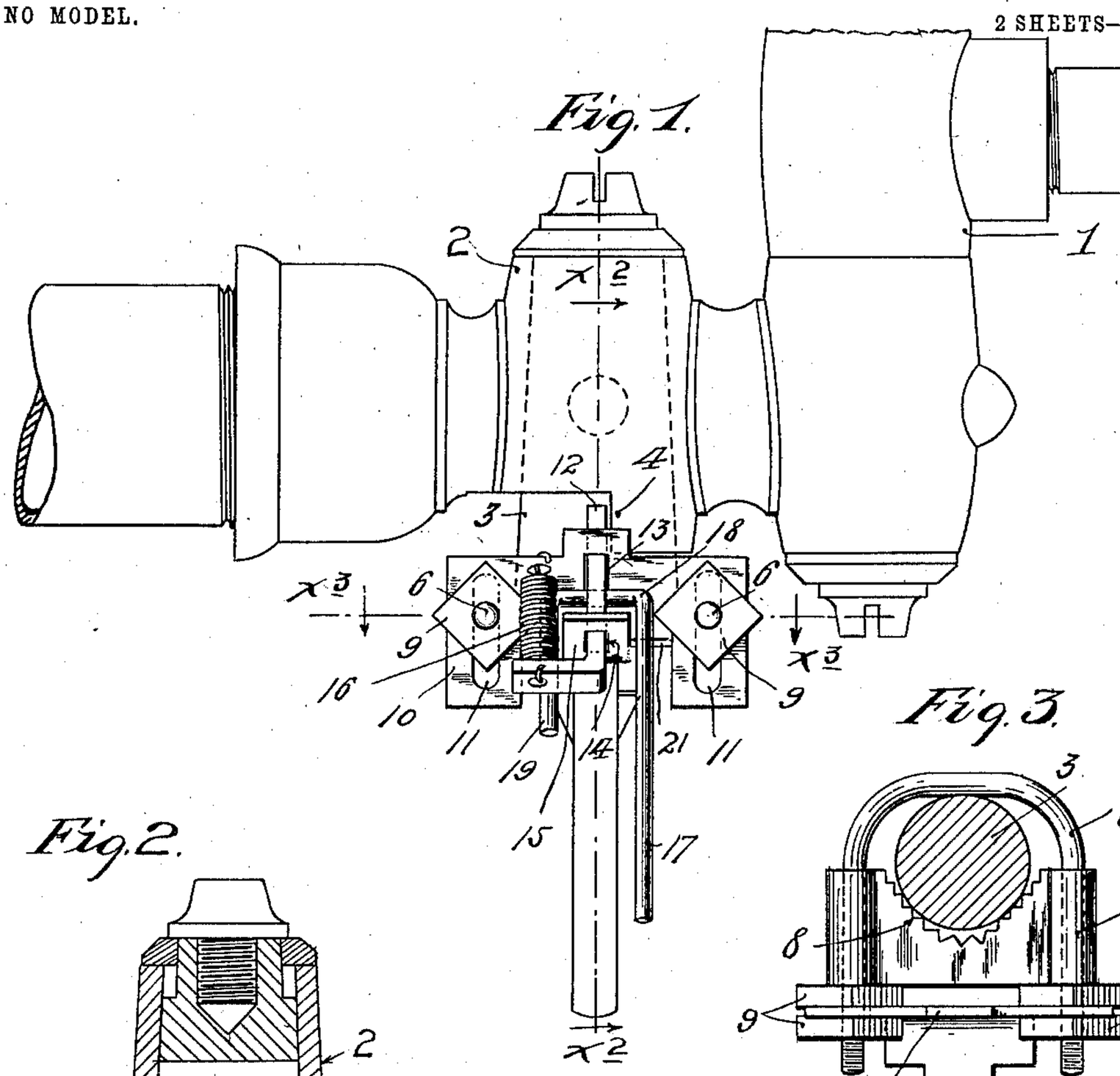


Fig. 2.

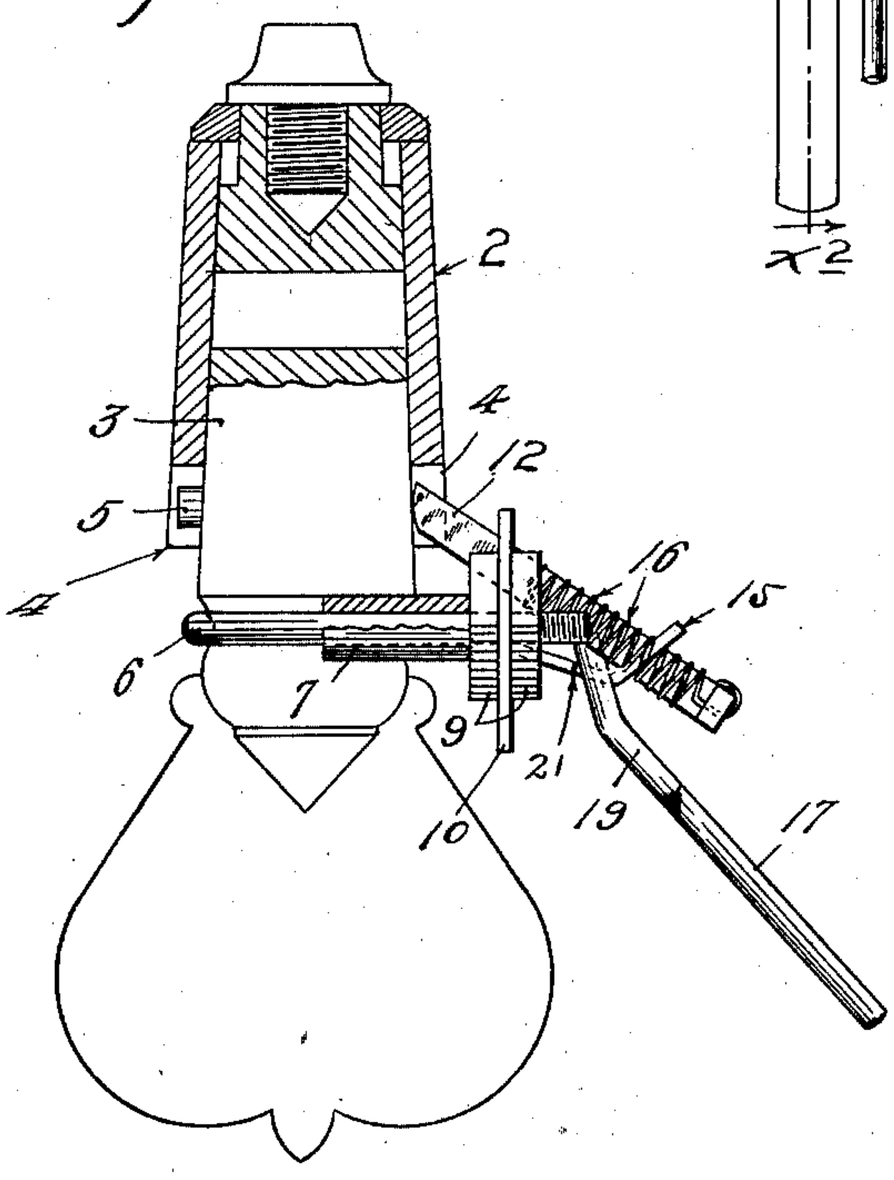
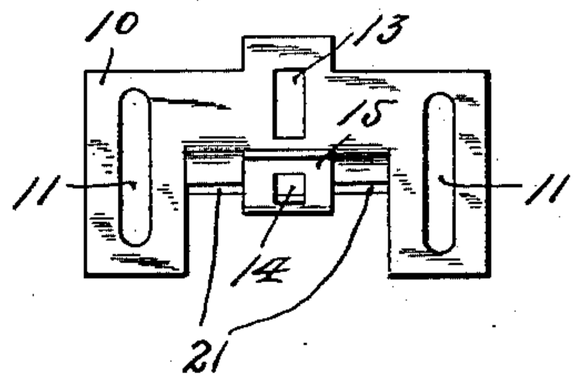


Fig. 3.

Fig. 4.



Witnesses.
H. D. Kilgore.
A. H. Opsahl.

Inventor.
Royal L. Boulter.
By his Attorneys.
Williamson & Merchant

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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 5.

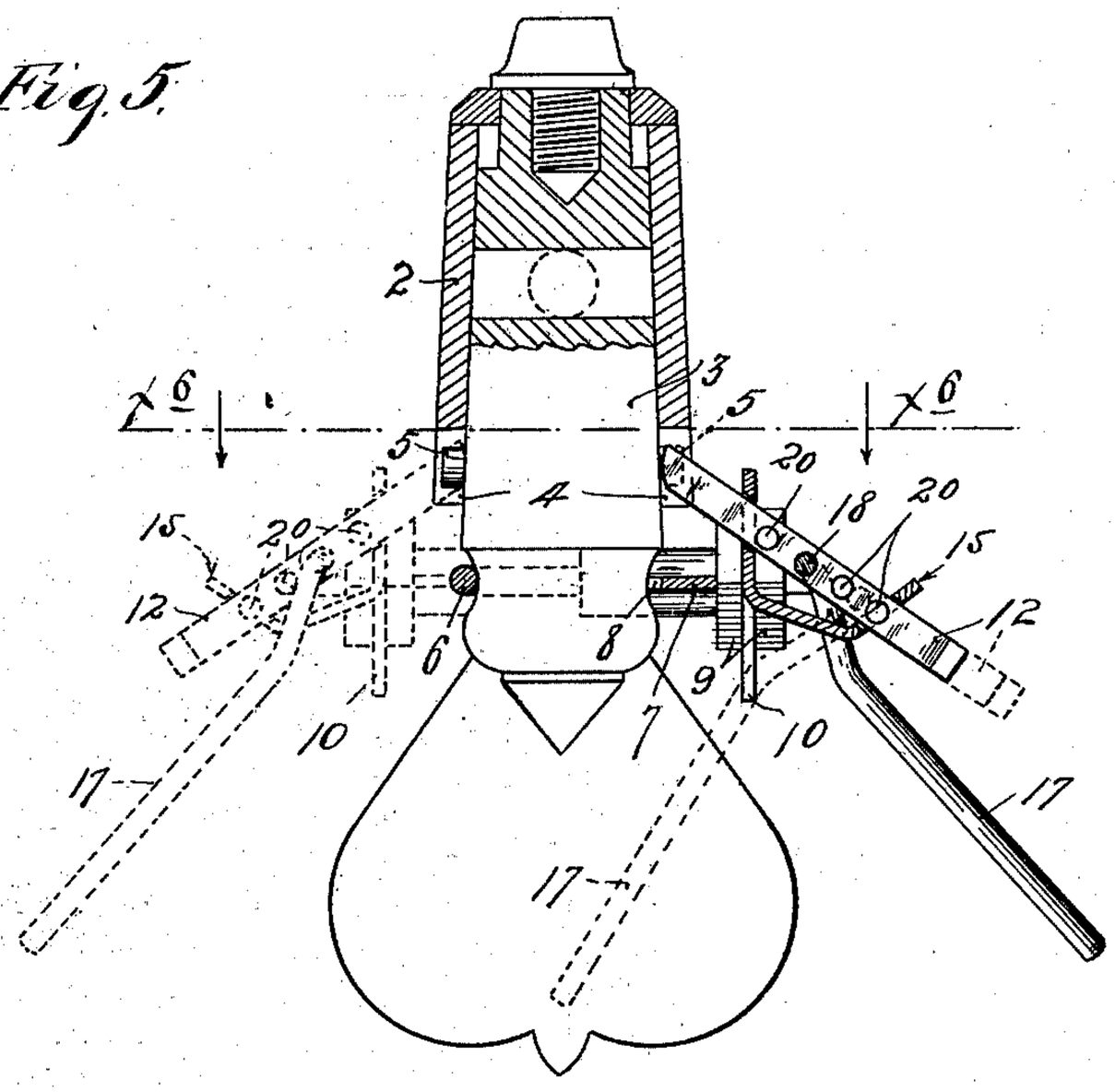
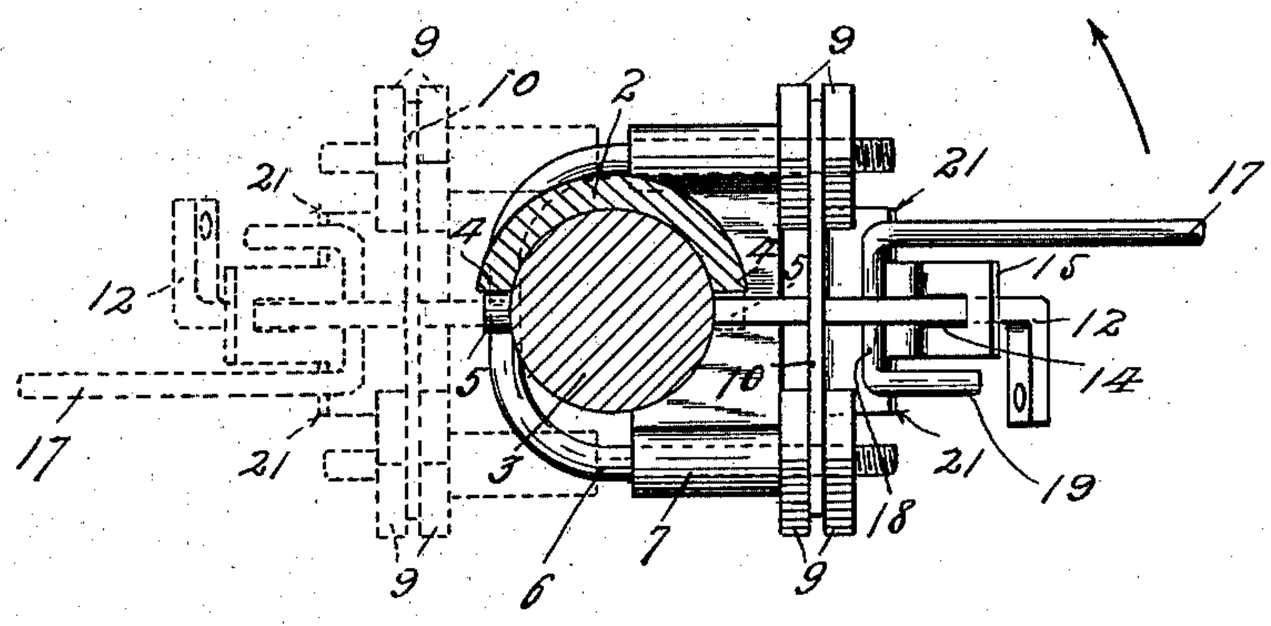


Fig. 6.



Witnesses.
H. D. Kilgore,
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By his Attorneys.
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No. 752,818. Patented February 23, 1904.

UNITED STATES PATENT OFFICE.

ROYAL L. BOULTER, OF EAST SPOKANE, WASHINGTON.

GAS-VALVE LOCK.

SPECIFICATION forming part of Letters Patent No. 752,818, dated February 23, 1904.

Application filed October 6, 1903. Serial No. 175,922. (No model.).

To all whom it may concern:

Be it known that I, ROYAL L. BOULTER, a citizen of the United States, residing at East Spokane, in the county of Spokane and State of Washington, have invented certain new and useful Improvements in Gas-Valve Locks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object to provide a simple and efficient lock for gas bracket or pipe valves; and to this end it consists of the novel devices and combinations of devices hereinafter described, and defined in the claims.

Frequent accidents have occurred in the use of gas, due to the fact either that the gas-valve inadvertently had not been completely turned off or having been turned off was thereafter accidentally turned on. Furthermore, with a gas-valve which works quite easy considerable care must be exercised to prevent reopening of the valve by the varying manipulation of the hand which first closes the same.

My invention provides a simple lock which is adapted for application to ordinary or standard valves or stop-cocks, such as are used in connection with gas-brackets and similar gas-fixtures.

The invention is illustrated in the accompanying drawings, wherein like characters indicate like parts throughout the several views.

Figure 1 is a view in side elevation showing a portion of an ordinary gas-bracket to the valve of which is applied one of my improved locks. Fig. 2 is a section taken approximately on the line x^2 x^2 of Fig. 1, some parts being shown in full. Fig. 3 is a horizontal section on the line x^3 x^3 of Fig. 1. Fig. 4 is a detail in plan of the so-called "bearing-plate" of the lock. Fig. 5 is a view corresponding very closely to Fig. 2, but with some parts sectioned which are shown in full in said Fig. 2; and Fig. 6 is a horizontal section on the line x^6 x^6 of Fig. 5.

The numeral 1 indicates an ordinary wall gas-bracket, having the valve-casing 2, in which works an ordinary valve or stop-cock 3. As in the standard construction, the valve-casing 2 is formed at its opposite sides with stop-shoulders 4, and the valve 3 is provided with a stop pin or stud 5. It will be understood that the distance between the shoulders 4 is such that when the stud 5 engages with either of said shoulders 4 the valve will be closed and that the valve is set in a full-opened position by turning it so that its stud 5 stands midway between the two shoulders 4. This much is standard well-known construction.

My improved lock in its preferred form is constructed as follows: A clamping-yoke 6, having screw-threaded ends, works through the sleeve-like end of a clamping-plate 7, which plate at its intermediate portion has a serrated notch or seat 8. On the threaded ends of the yoke 6, outward of the clamping-plate 7, are clamping-nuts 9, arranged in pairs, and clamped between them is a bearing-plate 10, having vertically-elongated slots 11, through which the ends of the yoke 6 are passed. A sliding lock bolt or plunger 12 works through seats 13 and 14, the former in the body of the bearing-plate 10 and the latter in a laterally and upwardly bent portion 15 thereof. The lower end of this lock-bolt is shown as bent laterally and attached to the lower end of a coiled spring 16, the upper end of which spring is attached to the bearing-plate 10. The said spring yieldingly draws the plunger 12 inward and upward into an operative position.

The spring-pressed plunger 12 is adapted to be moved into an inoperative position against the tension of the spring 16 by a finger-operated lever 17, which, as shown, is formed from a single piece of wire bent laterally at 18 and then again parallel to its body portion at 19. The portion 18 is passed through one or the other of several perforations 20, formed in the lock-bolt 12. The body and the end portion 19 of the lever 17 bear upon the laterally-bent fulcrum webs or lugs 21 of the bearing-plate 10.

When the device is applied in working position, as shown in the drawings, the stem portion of the valve, close to its head, is rigidly clamped between the yoke 6 and the serrated notch 8 of the clamping-plate 7, so that the entire lot moves with the valves. The elongated slots 11 of the bearing-plate 10 permit

the operating part of the lock to be adjusted vertically, and the several perforations 20 of the lock-bolt 12 permit said bolt to be adjusted endwise, so that the end of the lock-bolt may be set for proper action on or coöperation with the stop-shoulders 4 of the valve-casing 2. When the lock is thus properly set, the end of the lock-bolt stands at a point diametrically opposite to the valve-lug 5, so that when said lug is engaged with either of the stop-shoulders 4 the lock-bolt is engaged with the other stop-shoulder, and thus hold the valve locked in the one or the other of its closed positions.

To turn the valve from its locked position, it is only necessary to retract the lock member far enough to make it clear the engaged stop-shoulder 4, and it will when the valve is in an intermediate or open position bear upon that depending portion of the valve-casing which lies between the two stop-shoulders 4. Of course when the valve reaches an extreme or closed position the lock-plunger is automatically forced into a locking position, and thus locks the valve.

It is further evident from the foregoing description and statements made that a valve equipped with one of these locks when once set in a closed position cannot be accidentally moved again into an open position. The device, it will be understood, is capable of modification within the scope of my invention as herein set forth and claimed. Furthermore, it is not limited to the particular application illustrated, but is adapted to be applied to valves of other form.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:

1. The combination with a valve-casing having the stop-shoulders 4, of a valve 3 seated in said casing and having the stop-lug 5 coöperating with said shoulders 4 to limit the movements of said valve, and a lock applied to said valve and having a lock-bolt working at a point diametrically opposite to said stop-lug 5 and coöperating with the said shoulders 4 and said lug 5 to lock said valve in either of two extreme positions, substantially as described.

2. The combination with a valve and a valve-casing, of a lock detachably securable to said valve and comprising the separable support, a spring-pressed lock member, and a finger-actuated plunger-releasing lever, substantially as described.

3. A lock for a valve comprising the yoke 6, the notched clamping-plate 7 having the sleeve through which the prongs of said yoke are passed, nuts on the threaded ends of said yoke, a bearing-plate adjustably held by said nuts, a spring-pressed lock-plunger mounted in the said bearing-plate, and a finger-actuated releasing-lever pivoted to said lock-plunger and fulcrumed on said bearing-plate, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ROYAL L. BOULTER.

Witnesses:
J. M. DAVIS,
WM. THIELEY.