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PATENTED APR. 21, 1903.

F. T. WHITELEY.
DEVICE FOR LOCKING AND OPERATING VALVES.

APPLICATION FILED FEB. 12, 1903.

NO MODEL.

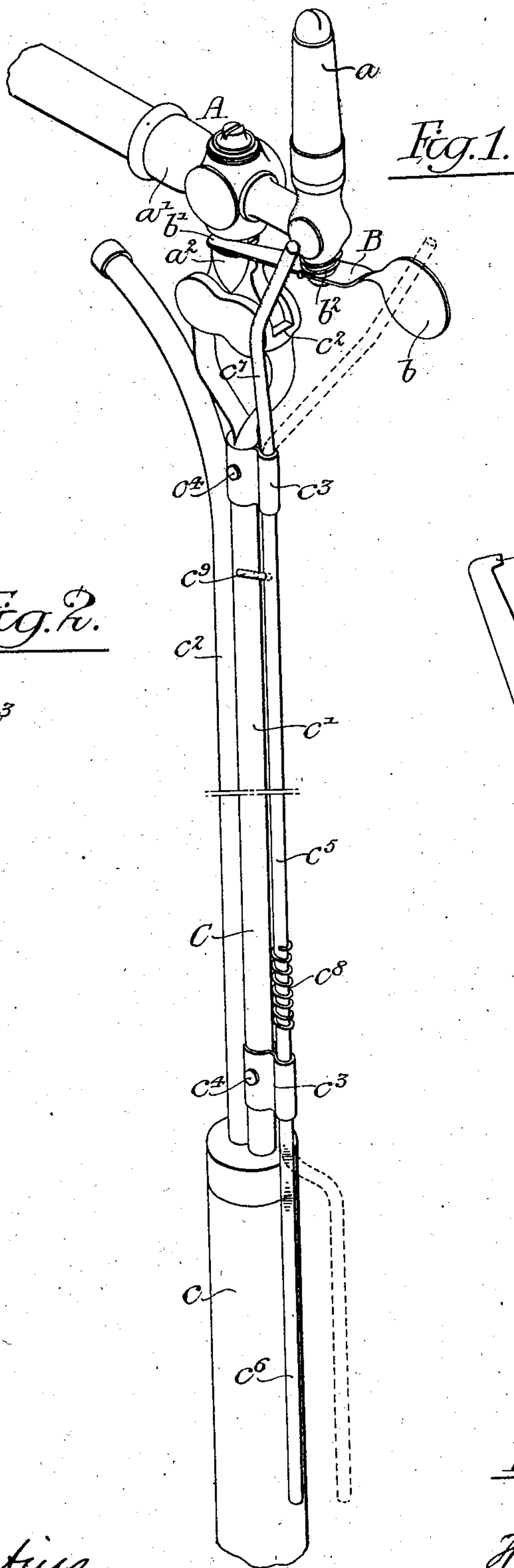


Fig. 1.

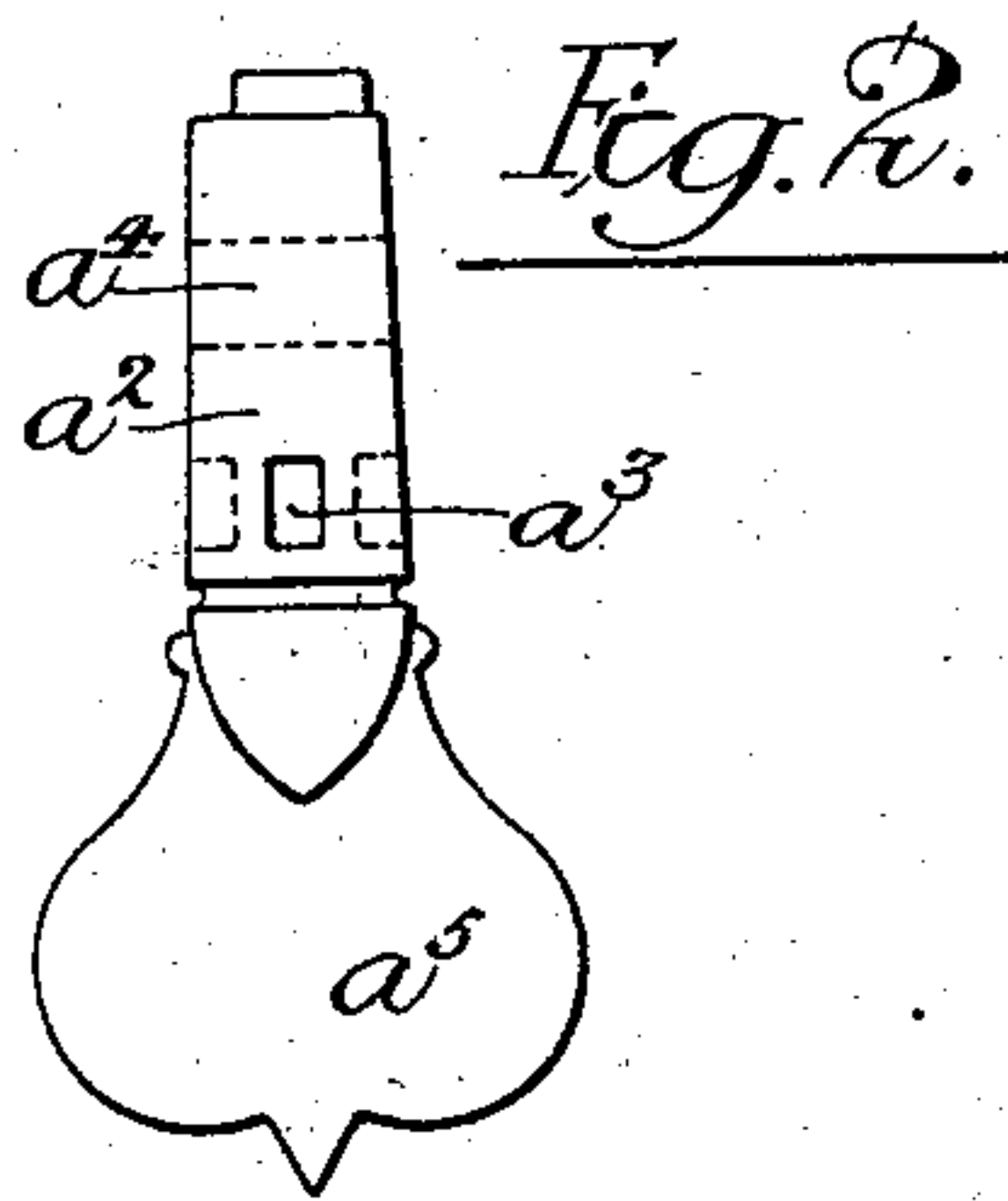


Fig. 2.

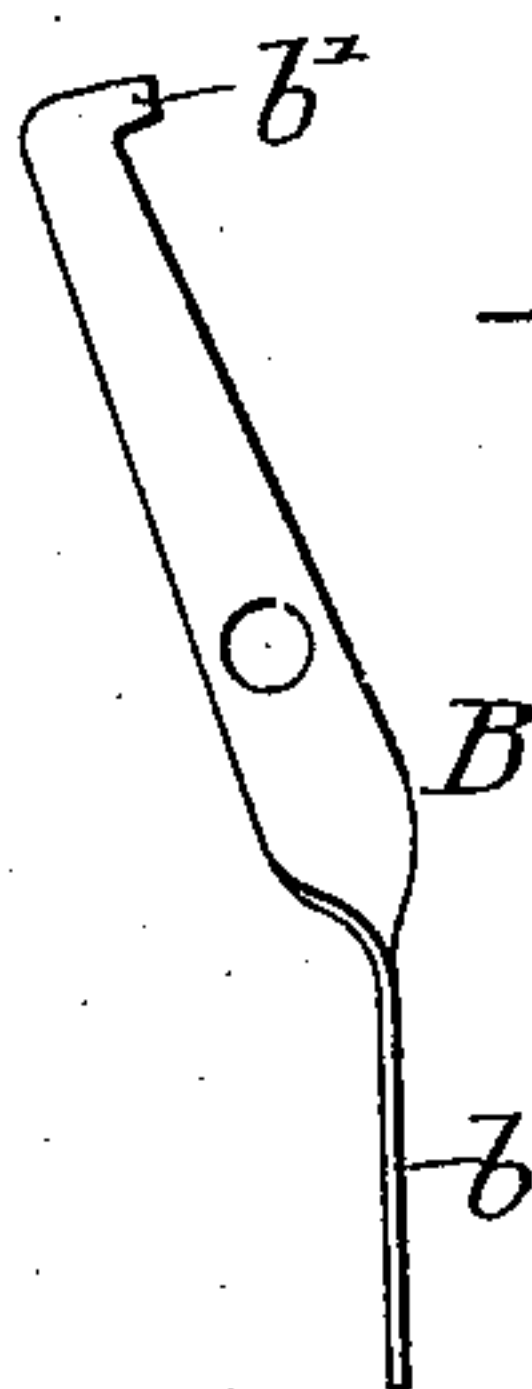


Fig. 3.

Witnesses:-

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UNITED STATES PATENT OFFICE.

FREDERICK T. WHITELEY, OF PHILADELPHIA, PENNSYLVANIA.

DEVICE FOR LOCKING AND OPERATING VALVES.

SPECIFICATION forming part of Letters Patent No. 726,206, dated April 21, 1903.

Application filed February 12, 1903. Serial No. 143,108. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK T. WHITELEY, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Devices for Locking and Operating Valves, of which the following is a specification.

My invention relates to certain improvements in gas-fixtures and means for operating the same, consisting more particularly of improved mechanism for locking a gas-valve in definite positions, in combination with means for releasing said locking device when it is desired to operate the valve.

The object of the invention is to provide a device which shall automatically lock the plug or valve of a gas-fixture in one or more predetermined positions in order to prevent its accidental displacement or movement beyond these positions and to provide a device for conveniently releasing said locking means when it is desired to turn said plug or valve. This object I attain as hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a gas-fixture equipped with my improved valve-locking structure and illustrating the device for operating this locking apparatus when it is desired to turn the gas-valve. Fig. 2 is a side elevation of the preferred form of plug or valve used in connection with my invention, and Fig. 3 is a side elevation of one form of locking-lever.

In the above drawings, A represents a gas-fixture of the well-known form, having a burner a and a portion a' , designed for attachment to a supply-pipe, in addition to which there is the customary valve or plug (shown at a^2) for controlling the flow of gas to said burner. In any desired portion of this valve, preferably in its cylindrical or conical surface, I form any desired number of recesses or depressions a^3 , in the case illustrated four, and place them ninety degrees apart.

It will be noted that two of the recesses are in a line parallel to the passage a^4 (shown in dotted lines in Fig. 2) for the passage of gas through the plug, the others being at right angles to said line.

Pivoted to a portion of the gas-fixture in line with and directly under the burner a is

a lever B, having a hooked or bent end b' and an enlarged portion b , by which it may be engaged when operated, the end b' being in the present instance at right angles to the length of the lever and so placed as to engage the depressions in the plug a^3 . A spring b^2 , having one end in engagement with the lever and the other bearing upon the gas-fixture, tends to turn the lever B on its pivot, so as to cause the portion b' to press against the plug or valve a^2 , and hence to enter any one of the depressions a^3 when these are in the proper position relatively thereto.

C represents a gas-lighting device of any of the well-known forms, having a handle c , a body portion c' , and a split or forked end c^2 , designed to engage the operating-handle a^5 of the plug or valve of the gas-fixture. This lighter is also provided with a tubular portion c^3 , in which is carried a taper or other igniting device or material.

In addition to the above I provide the gas-lighter with two guide or supporting pieces c^3 , attached in the present instance to its body portion by rivets c^4 and designed to movably support an operating-rod c^5 , which has two offset ends c^6 and c^7 shown. Upon this rod c^5 is a spring c^8 , normally tending to revolve the rod or to prevent its revolution, there being also a stop formed by a pin c^9 , passing through said rod and bearing upon the body portion c' of the lighter.

With the various portions of the device in the positions shown in the drawings the gas-valve will be full open and will be locked in such position, so as to be prevented from rotation by means of the lever B, whose hook b' is in engagement with one of the recesses a^3 of said valve. In order, therefore, to turn off the flow of gas, the hook of said lever must be raised out of engagement with said recess, and this is accomplished by bringing pressure to bear against the offset portion c^6 of the operating-rod c^5 , such action resulting in a partial revolution of said rod. Such motion brings the upper end or offset portion c^7 of the rod into contact with the end b of the lever B, thereby turning this latter on its pivot against the action of the spring c^2 and lifting the hook b' out of the recess a^3 , thereby leaving the valve free to be turned by proper movement of the lighter.

It will be understood that after the end of the lever has been raised from the recess a^3 in the plug pressure upon the offset portion c^6 is released, thereby leaving the hooked portion of the lever free to be pressed against the cylindrical part of the valve a^2 by the action of the spring b^2 . When, therefore, the valve has been revolved ninety degrees, this end b' of the lever will automatically drop or be pressed into another one of the depressions a^3 , thereby preventing further motion of the valve and making impossible its accidental turning beyond the "off" position. In order that said valve may be moved farther, the rod c^5 must again be brought into action to turn the lever B on its pivot and raise the hook b' from the recess in the valve. It will be seen that the spring c^5 normally retains the offset ends of the lever c^3 in a position to one side of the plane of the fork or slot at the upper end of the lighter C, such position being determined by the stop c^9 striking the body portion c .

I claim as my invention—

1. The combination with a gas-fixture having a valve and means for locking the same in a definite position, of a device for operating said valve provided with means for engaging and operating the locking means, substantially as described.

2. The combination with a gas-fixture having a valve and a locking device for retaining said valve in a definite position, of a structure for engaging the valve, and a longitudinally-rotatable device carried thereby and placed to be brought into engagement with the locking device, for operating the same prior to the operation of the valve, substantially as described.

3. The combination of a gas-fixture having a valve, a lever pivoted to said gas-fixture having means for engaging and holding said valve in a definite position, a bar having means for engaging the valve, and a rod carried by the bar and placed to engage the lever for operating the same prior to the operation of the valve, substantially as described.

4. The combination of a gas-fixture, a valve therein having in it a depression, a lever piv-

oted to the gas-fixture and having means whereby it is caused to engage said depression in said valve, a device having means for turning the lever on its pivot and thereby causing it to disengage the valve, and means for turning the valve after such disengagement has taken place, substantially as described.

5. The combination of a gas-fixture having a valve and a lever for locking the same in a definite position, a bar having means for engaging the valve to turn the same, guides on said bar and an operating-rod revolvably carried in said guides, said bar being placed to engage the lever and thereby cause it to release said valve, substantially as described.

6. The combination of a gas-fixture having a valve and a lever for locking said valve in a definite position, with a bar having a handle and a slotted end for engagement with the valve, with an operating-rod revolvably carried by said bar and provided with offset ends, one of said ends being adjacent to the handle and the other of a form and position such that it will engage the lever and cause the same to release the valve when the offset end adjacent to the handle of the bar is properly moved, substantially as described.

7. The combination with a gas-fixture having a valve, of a lever constructed to engage said valve and retain it in a definite position and a spring tending to force one end of the lever into engagement with the valve, with a bar having a handle at one end and a device at the other for engaging the valve, an operating-rod for the lever carried by the bar so as to be free to revolve on a longitudinal axis, a spring on said rod, and a stop whereby motion of the rod is limited, said rod being constructed to engage the lever on the gas-fixture and thereby cause it to disengage the valve, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRED. T. WHITELEY.

Witnesses:

WILLIAM E. BRADLEY,
JOS. H. KLEIN.