

No. 725,660.

PATENTED APR. 21, 1903.

G. E. BIOT.
SAFETY GAS COCK.
APPLICATION FILED JULY 11, 1902.

NO MODEL.

Fig. 1

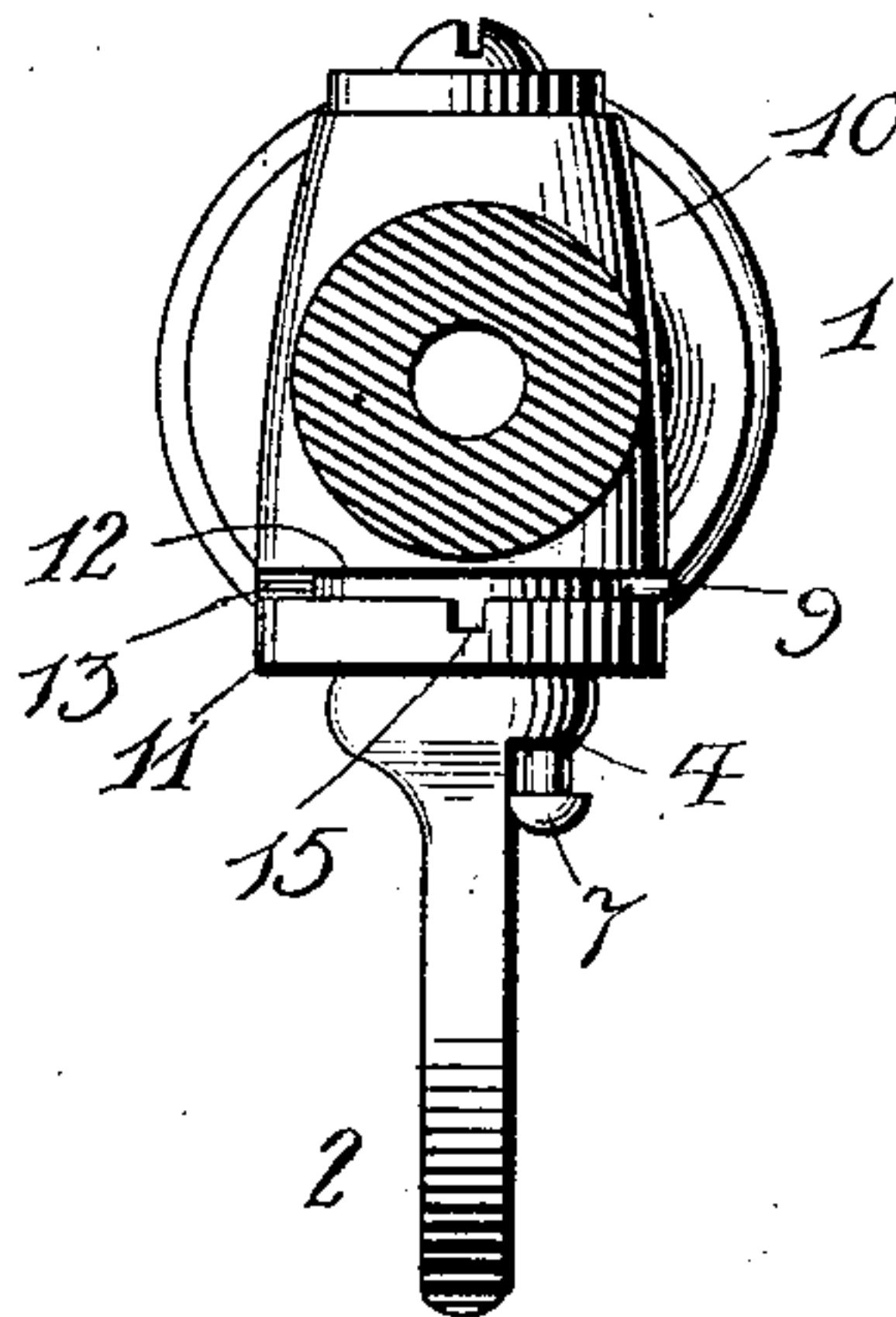
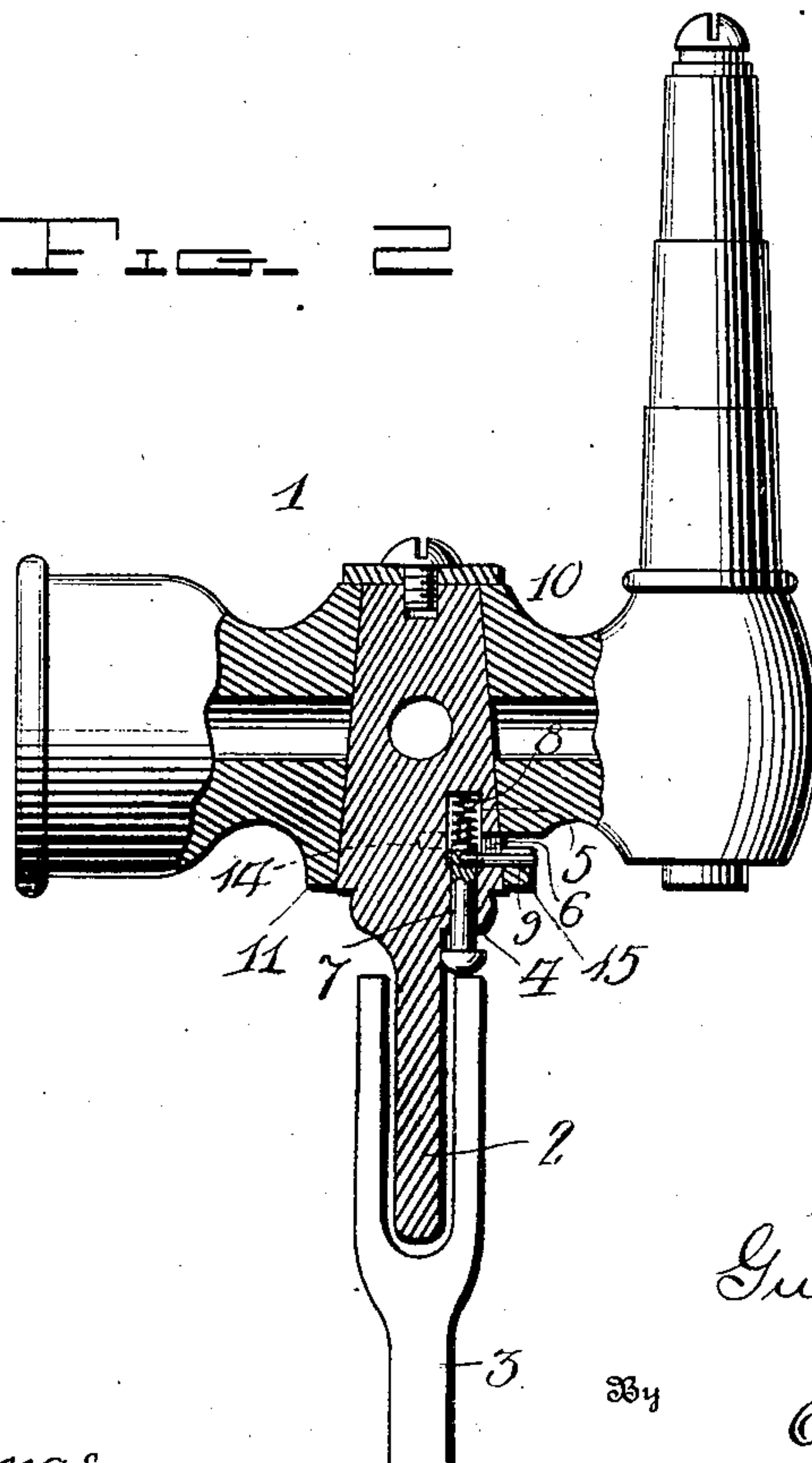


Fig. 2



Witnesses

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SAFETY GAS-COCK.

SPECIFICATION forming part of Letters Patent No. 725,660, dated April 21, 1903.

Application filed July 11, 1902. Serial No. 115,145. (No model.)

To all whom it may concern:

Be it known that I, GUSTAVE EDWARD BIOT, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Safety Gas-Cocks; and I do 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to safety gas-cocks, and has for its object the production of a device for permitting and preventing the flow of gas to any suitable burner in the customary manner by turning the plug in either direction to or from a central position, the plug being releasably locked in its central position and the flow of gas cut off.

A further object of my invention is the construction of a device of the character stated in which when the plug is turned from either of its open positions it becomes automatically locked or caught upon arrival at its central or closed position and cannot be further turned without again releasing the lock. It is therefore impossible for a person, no matter how careless, to turn the plug past its proper closed position and allow unburned illuminating-gas to escape into the room with dangerous consequences.

Another object of my invention is to provide a safety gas-cock in which the locking or latching mechanism may be readily operated by means of an ordinary gas-lighting implement as well as by hand.

Each constituent element of my invention is described in detail and its individual office, together with the mode of operation of the whole, fully explained hereinbelow.

I accomplish the objects set forth by employing the parts and their association as illustrated in the accompanying drawings, in which—

Figure 1 is a front view with the burner removed and the plug in its open position; and Fig. 2 is a side view, in vertical section, exhibiting the construction of the parts and representing the plug in its closed position,

preventing the flow of gas. In this view the jaws of an ordinary gas-lighter are shown operating the lock.

The scale of drawing used is slightly in excess of the usual dimensions of such articles, with the intention of clearly illustrating each part.

Considering the drawings, numeral 1 marks the plug-valve of a gas-cock of substantially common construction. The form and appearance of the cock are in no wise changed in my invention. Numeral 2 designates the customary thumb-piece of the plug, and 3 the jaws of the gas-lighter. At the junction of the thumb-piece with the plug a shoulder 4 is cut, as shown in Fig. 2, and a vertical hole 5 is drilled into the plug. From the hole 5 a slot 6 opens to the surface of the plug. The hole is fashioned to receive the spring-governed push-pin 7, the coiled spring itself being marked 8. At right angles from push-pin 7 a short pin 9 projects and passes through the vertical slot 6. It will be now understood that the push-pin 7 may be reciprocated vertically and the pin 9 will travel the slot. Pin 9 may be screwed into the push-pin or otherwise effectively secured to it as the parts are assembled. By forming the shoulder 4 and locating the push-pin close to the thumb-piece it will be at once observed that the ordinary gas-lighter can be conveniently employed to operate the locking elements.

Number 10 designates the fixture or valve-casing. It is of the regular pattern with the exception of the downwardly-extended portion 11, having the semicircular slot 12, the end walls of which are marked 13 and 14 and the central notch 15. Pin 9, which projects from the push-pin, and, as previously stated, travels the vertical slot 6 in the plug, extends through the semicircular slot 12 in the fitting, and travels this slot also when the plug is turned. When the pin 9 meets either end wall 13 or 14 of slot 12, its progress is stopped and plug 1 can be turned no farther. These contacts of pin 9 with either end wall of the semicircular slot find the plug in its open position—that is to say, in position to permit the passage of gas through the fixture. When the plug is turned from either of its open positions, the pin 9, riding the lower edge of slot 12, arrives at and is shot into the

notch 15 by the action of the coiled spring 8 on the push-pin 7. Under these circumstances the plug can be no further turned unless the pin 9 be released from its engagement with the notch 15. It is believed to be clear that this must be accomplished either by hand or by using the lighting implement 3, as shown. The action of the push-pin is very quick and reliable and effectively limits the turning of the plug, which is thus prevented from being inadvertently turned past the closed position, allowing escape of gas unburned into the apartment.

I am aware that safety gas-cocks of the general character described and intended to be operated by the fingers have been constructed, and I do not claim such a device broadly.

What I claim, and seek to secure by Letters Patent of the United States, is—

In a safety gas-cock, the combination of a turning-plug and thumb-piece, the said plug

having a vertical hole bored near the side surface of the thumb-piece, the said plug having also a vertical slot opening into the said hole, a spring-operated push-pin movably occupying the said hole in the plug, a pin having one end secured to the push-pin, the said pin projecting at right angles from the push-pin and passing through the said vertical slot in the plug, a valve-casing having a semicircular slot provided with a central notch, the said projecting pin passing through the semicircular slot in the casing and arranged to engage the said central notch, substantially as described.

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

GUSTAVE EDWARD BIOT.

Witnesses:

H. P. TAUBER,
MAX SOLUDARZ.