

No. 721,308.

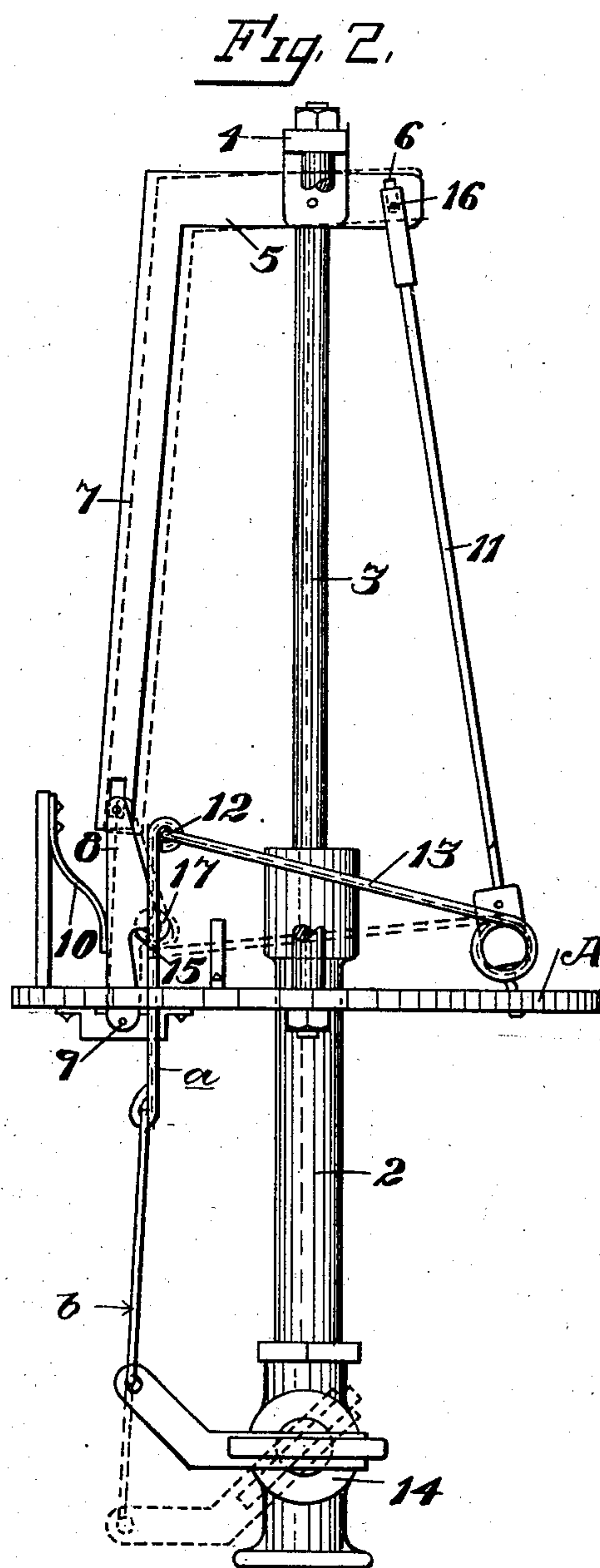
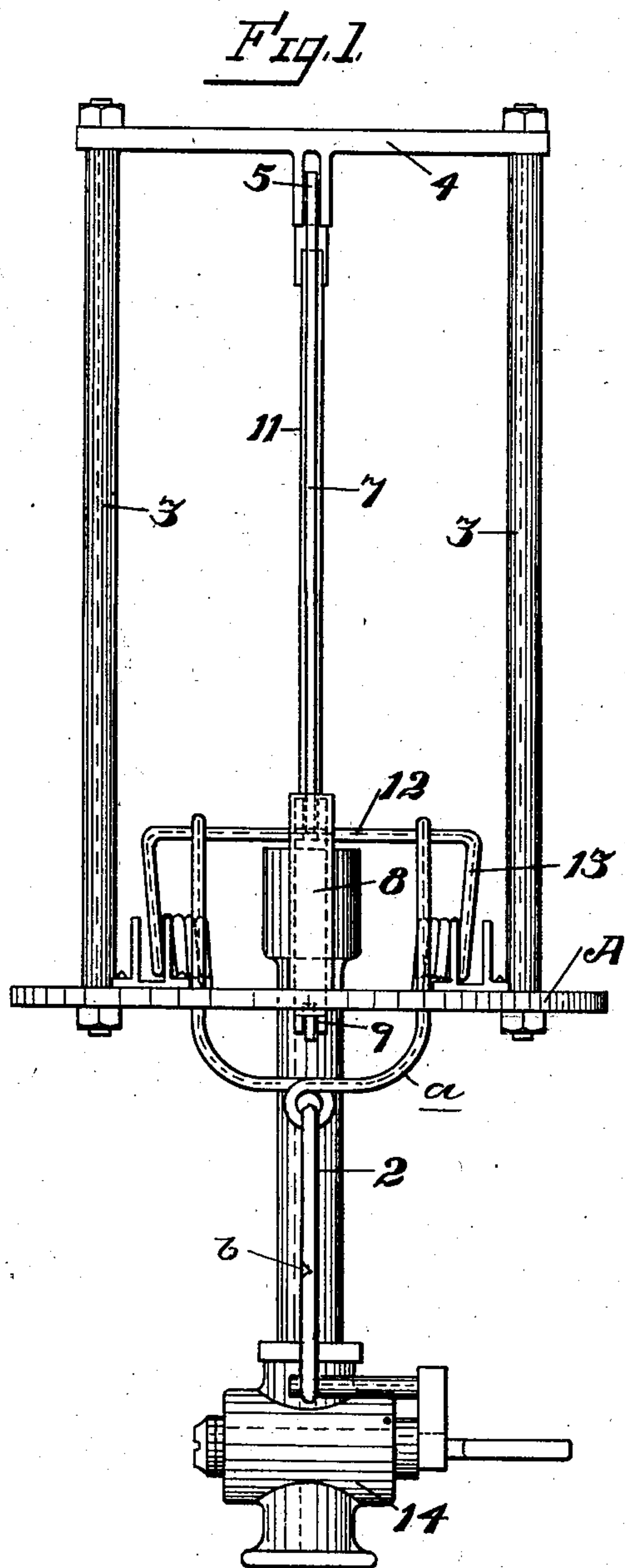
PATENTED FEB. 24, 1903.

L. JENSEN & J. CHRISTENSEN.

SAFETY GAS COCK.

APPLICATION FILED NOV. 1, 1902.

NO MODEL.



Witnesses,
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UNITED STATES PATENT OFFICE.

LAURITS JENSEN AND JENS CHRISTENSEN, OF SAN FRANCISCO, CALIFORNIA.

SAFETY GAS-COCK.

SPECIFICATION forming part of Letters Patent No. 721,308, dated February 24, 1903.

Application filed November 1, 1902. Serial No. 129,778. (No model.)

To all whom it may concern:

Be it known that we, LAURITS JENSEN, a citizen of the United States, and JENS CHRISTENSEN, a citizen of Denmark, both residing in the city and county of San Francisco, State of California, have invented an Improvement in Safety Gas-Cocks; and we hereby declare the following to be a full, clear, and exact description of the same.

Our invention relates to improvements in automatic cut-off attachments for gas-cocks. Its object is to provide against dangers incident on the accidental turning on of the gas or the extinguishment of the light without the flow of gas being cut off.

It consists of the parts and the construction and combination of parts hereinafter more fully described, having reference to the accompanying drawings, in which—

Figure 1 is a front elevation of our invention. Fig. 2 is a side elevation of same.

A represents a plate secured to the gas-pipe 2 and supporting the mantle and cut-off mechanism.

3 represents standards secured to the plate and connected at the top by a cross-bar 4, to which is pivoted a horizontal lever-arm 5. The latter is transversely slotted at one end, as at 6, and the other end has a downwardly-extending projection 7. The lower end of this projection is slotted, and a block 8, pivoted to plate A at 9, has an end engaged in this slot. The parts 7 and 8 thus form a toggle, and a spring 10 tends always to throw these parts into line. A brass rod or thermostatic bar 11 has one end secured to plate A and the other end engaged in slot 6 of lever-arm 5. This bar is adapted normally to exert a downward pressure on the rear end of said arm to cause the parts 7 and 8 to stand out of line. When the gas is lighted, however, the bar 11 expands and spring 10 straightens the toggle to allow the horizontal portion 12 of spring-arms 13 to be engaged and held in notch 15 in block 8.

In order that the operation of turning on the gas by the manipulation of the gas-cock 14 may so place the horizontal portion 12 in position to be engaged by the notch in the block 8, it is desirable to connect said portion 12 with said cock. This may be done by various means, the one herein shown consisting

of a bail-shaped member *a*, suspended from the portion 12 and connected to the gas-cock by a rod or connection *b*, as shown by dotted lines.

In operation the cock is turned in opposition to spring 13 and the gas lighted. In a few seconds the bar 11 expands to carry its pivot-pin 16 upward in slot 6 and allow the toggle members 7 and 8 to straighten; but until the toggle has straightened thus the cock must be held open by hand, as the part 12 will not be previously engaged in notch 15. The upper wall of the latter carries a small roller 17, which offers an antifrictional support for the part 12. So long as the gas is lighted the bar 11 will remain expanded, and spring 10 will be sufficient to keep the notch 15 in engagement with part 12. As soon as the light is extinguished bar 11 contracts until pivot-pin 16 strikes the bottom of slot 6 and exerts a leverage to overcome spring 10, breaking the toggle-joint, and so releasing spring 13, which, flying up, turns the cock and automatically cuts off the gas.

With this device the gas cannot be accidentally turned on and not lighted. If the gas is not lighted, the cock must necessarily close the moment pressure on the cock is removed.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. The combination in a safety attachment for gas-cocks, of a pivoted bell-crank lever, a thermostatic bar engaging one arm of said lever, a pivoted member engaging the end of the other arm to form a toggle, spring means tending to straighten said toggle, and stop means on said toggle adapted to engage operative connections with the gas-cock.

2. The combination in a safety attachment for gas-cocks of a pivoted lever, a projecting arm on the end of said lever, a pivoted member engaging the end of said arm to form a toggle therewith, a thermostatic bar engaging the end of said lever, and spring closing means connected with the gas-cock adapted to be engaged by the movement of said toggle.

3. The combination in a safety attachment for gas-cocks, of a pivoted bell-crank lever, a thermostatic bar engaging an arm of the lever, a pivoted member engaging another

member of the lever to form a toggle, spring means tending to straighten said toggle, a spring-actuated member and means connecting said member with the gas-cock, and means
5 on the toggle to engage said spring-actuated means and hold the gas-cock open.

4. The combination in a safety attachment for gas-cocks of a lever pivoted intermediate of its ends, a thermostatic bar engaging one
10 end of said lever, a projecting arm on the opposite end of said lever, a pivoted member engaging said arm to form a toggle therewith, spring-arms connected with the gas-cock and stop means on said toggle adapted
15 to engage said spring-arms.

5. The combination in a safety attachment for gas-cocks of a lever pivoted intermediate of its ends, a thermostatic bar fastened at one end and having its other end movable in
20 an end of said lever, a toggle operated by the movements of said lever, means for holding the gas-cock in normally closed position,

and stop means operated by the toggle to hold the gas-cock open.

6. The combination in a safety attachment 25 for gas-cocks of a bell-crank lever pivoted intermediate of the ends of one of its arms, a thermostatic bar engaging the end of said pivoted arm, a pivoted member engaging the end of the other arm to form a toggle there- 30 with, a spring-arm connected with a gas-cock and stop means on the pivoted member of said toggle adapted to engage said spring-arm.

In witness whereof we have hereunto set our 35 hands.

LAURITS JENSEN.

JENS CHRISTENSEN.

Witnesses to Jensen:

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