No. 805,125. PATENTED NOV. 21, 1905.

F. ENGLISH.

MEANS FOR AUTOMATICALLY SHUTTING OFF GAS SUPPLY.

APPLICATION FILED DEC. 16, 1904.

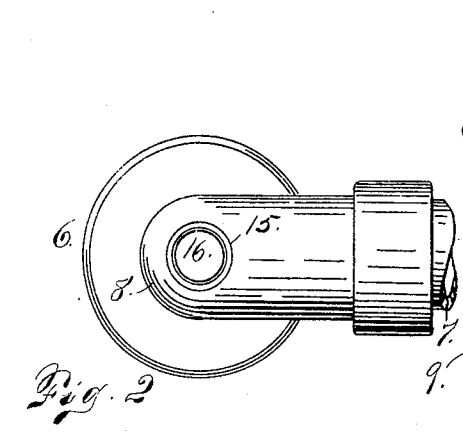


Fig. 2.

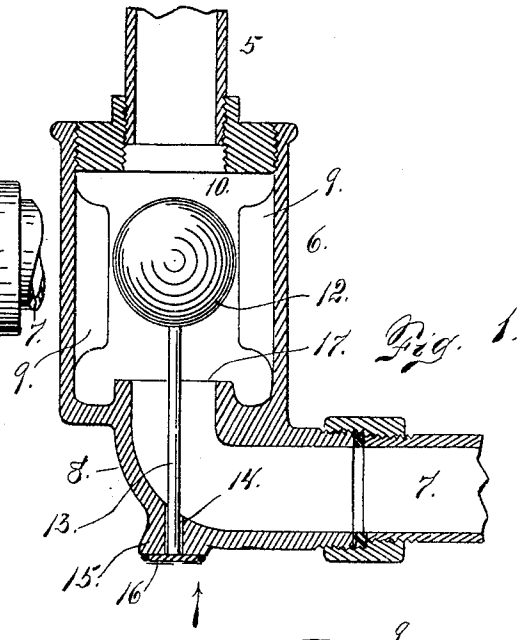


Fig. 1.

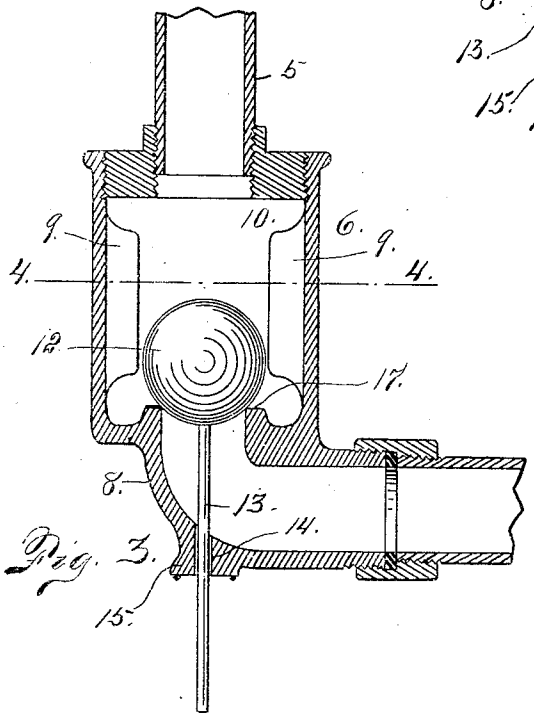


Fig. 3.

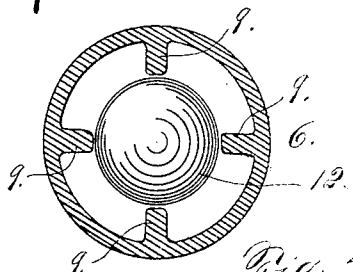


Fig. 4.

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UNITED STATES PATENT OFFICE.

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MEANS FOR AUTOMATICALLY SHUTTING OFF GAS-SUPPLY.

No. 805,125. Specification of Letters Patent. Patented Nov. 21, 1905.

Application filed December 16, 1904. Serial No. 237,166.

To all whom it may concern:

Be it known that I, FRANK ENGLISH, a citizen of the United States, residing at Boulder, in the county of Boulder and State of Colorado, have invented certain new and useful Improvements in Means for Automatically Shutting Off Gas-Supply; 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 means for shutting off the gas-supply to burning buildings or apartments therein which are normally provided with a gas-supply.

It is well known that where gas is allowed to escape from the supply-conduit or conduits in a burning building it becomes almost impossible to put out the fire, since it is fed by the escaping gas.

The object of my invention is to overcome this difficulty by providing an automatic cut-off of special construction held normally open by a fusible or combustible device or substance which is adapted to burn or fuse at a comparatively low temperature, whereby the valve or cut-off is automatically released and allowed to assume a position whereby the conduit is closed to prevent the escape of gas into the building. One of these safety devices should be located between each meter and the gas-supply. By reason of the peculiar construction of a gas-meter the latter will be quickly destroyed in case of fire, thus allowing the gas to escape into the building from the supply-pipe leading to the meter. This may be effectually overcome by means of my improvement, which I will now proceed to describe in detail, subsequently pointing out in the claims what I believe to be novel.

In the drawings, Figure 1 is a section taken through a gas-conduit equipped with my improvement, showing the valve or cut-off open and in position for use. Fig. 2 is an underneath view of the same or a view looking in the direction of the arrow in Fig. 1. Fig. 3 is a view similar to Fig. 1, but showing the valve or cut-off in the closed position or in the position which it will assume in case of fire. Fig. 4 is a section taken on the line 4 4, Fig. 3.

The same reference characters indicate the same parts in all the views.

Let the numeral 5 designate a gas-supply conduit connected at the top with a casing 6, from the bottom of which leads a conduit 7. The conduit 7, as shown in the drawings, is connected with the casing 6 by an elbow 8. The casing 6 is provided with a number of vertically-disposed ribs 9, four being shown in the drawings. Within the chamber 10 of this casing is located a ball-valve 12, to which is attached a depending stem 13, passing through an orifice 14, formed in the elbow 8, which is exteriorly reinforced, as shown at 15. The orifice 14 is normally closed by a plate 16, held in place by means of soft solder applied thereto in such a manner that it will readily fuse in the event of a fire, whereby the temperature in the vicinity is abnormally raised, or raised to a sufficient degree to produce combustion of the material in the vicinity of the gas-conduit. From the drawings it will be understood that when the plate 16 is in position the valve 12 will be supported in the chamber 10 between the ribs 9 and above the seat 17 at the bottom of the chamber, thus allowing the gas to pass readily through the chamber 10 from the conduit 5 to the conduit 7. When, however, the solder holding the plate 16 in place is fused or melted, whereby the plate is released, the valve 12 will drop to the seat 17 (see Fig. 3) and shut off the passage of the gas through the chamber 10, thus preventing its escape into the room where the meter is located, which it may be supposed is at the terminus of the conduit 7.

Instead of soft solder it is evident that any other suitable material may be employed for holding the plate 16 in position.

It is evident that instead of fusible material combustible material may be employed, if desired.

Having thus described my invention, what I claim is—

1. The combination with a gas-conduit, of an interposed casing having a number of vertically-disposed ribs, a valve engaging the ribs, the casing below the ribs being provided with a seat for the valve to cut off the passage of gas through the conduit, the valve being provided with a depending stem, and a stop engaged by the stem and normally forming a support therefor whereby the valve

is supported above the valve-seat, the said stop being held in place by material readily fusible.

2. The combination with a fluid-conduit, of an interposed casing having vertically-disposed ribs, a ball-valve located in the casing and engaging the ribs, the bottom of the casing being provided with a seat for the valve, the conduit below the valve-seat having an opening, a stem connected with the valve and adapted to pass through said opening, a plate normally closing the opening and forming a stop for the valve-stem whereby the valve is supported above its seat, the said stop-plate being normally secured in place by readily-fusible material.

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

FRANK ENGLISH.

Witnesses:
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