C. L. BEST.

SAFETY APPLIANCE FOR GAS WATER HEATERS.

APPLICATION FILED APR. 26, 1915.

1,167,257. Patented Jan. 4, 1916.

Fig. 1.

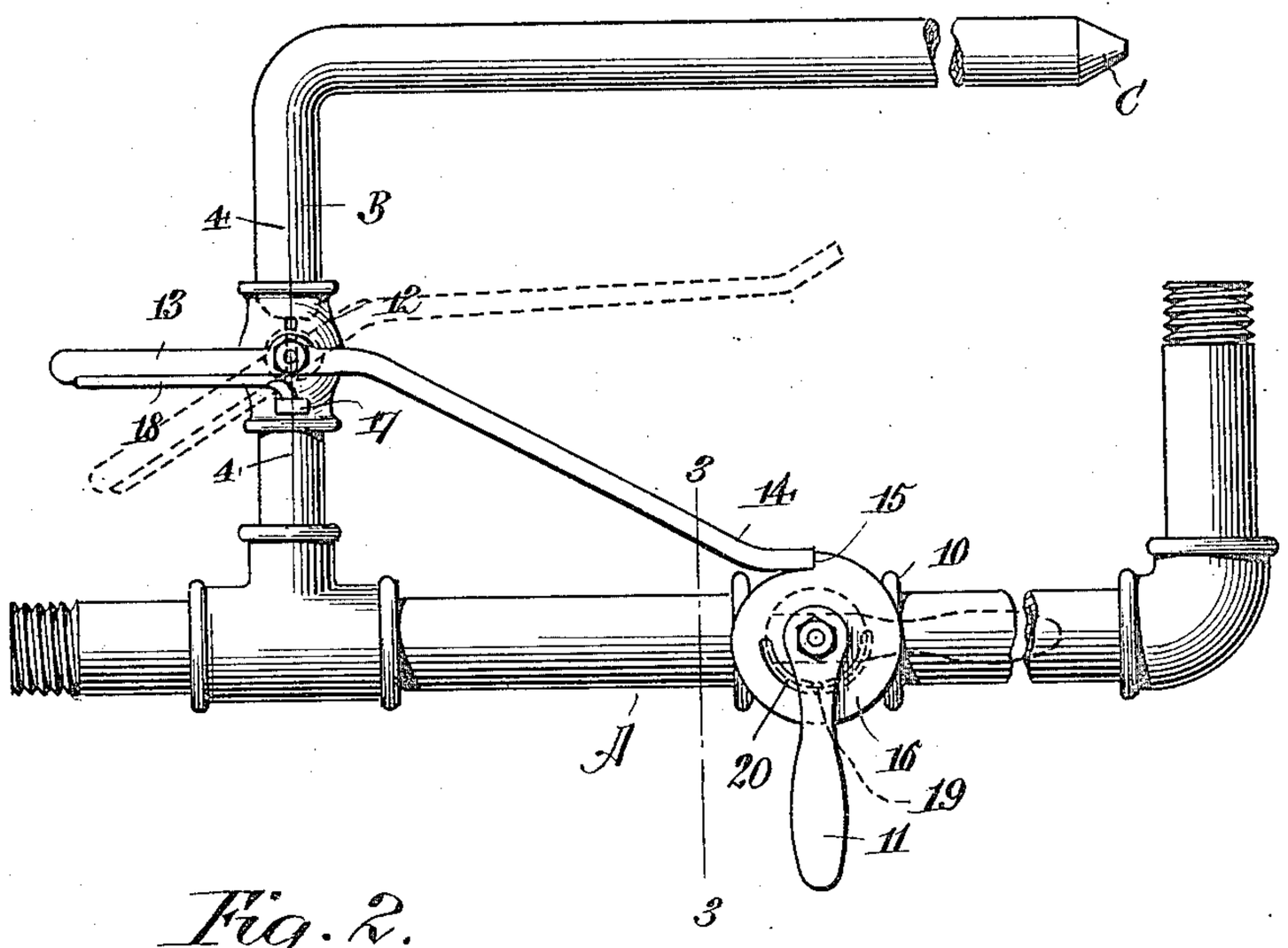


Fig. 2.

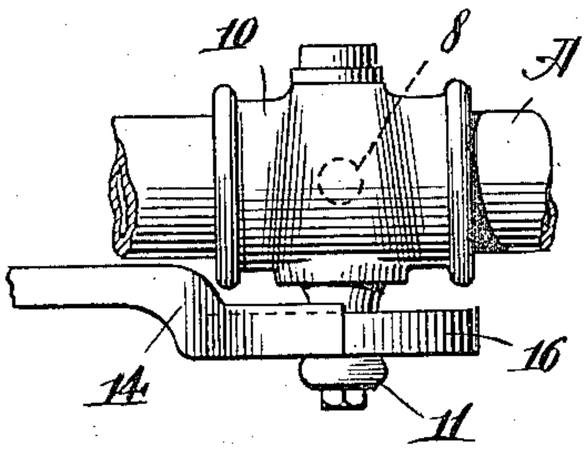


Fig. 3.

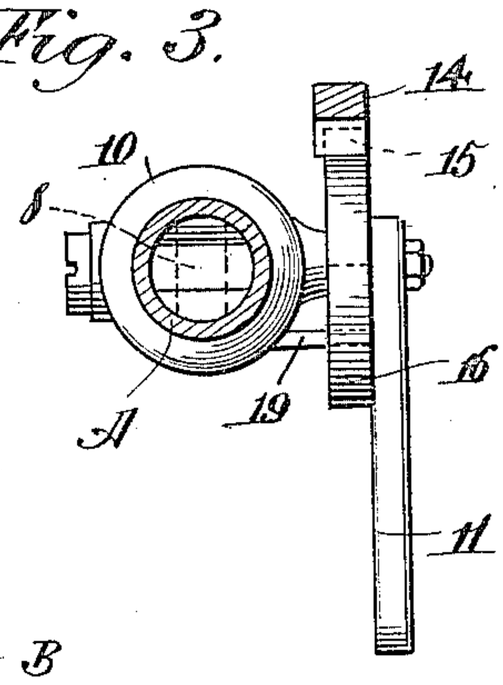
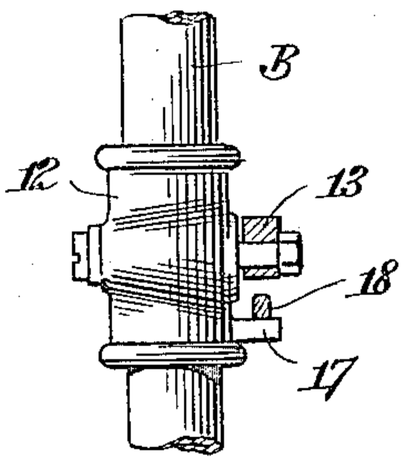


Fig. 4.



Witnesses:

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SAFETY APPLIANCE FOR GAS WATER-HEATERS.

1,167,257. Specification of Letters Patent. Patented Jan. 4, 1916.

Application filed April 26, 1915. Serial No. 23,999.

To all whom it may concern:

Be it known that I, CHARLES L. BEST, a citizen of the United States, residing at Annapolis, in the county of Anne Arundel and State of Maryland, have invented new and useful Improvements in Safety Appliances for Gas Water-Heaters, of which the following is a specification.

The invention relates to a gas valve safety device, and more particularly to the class of safety appliances for gas water heaters.

The primary object of the invention is the provision of an appliance of this character wherein by the closing of the pilot light valve the valve closing the gas supply main to the burner of the water heater will be locked, and at the same time automatically prevent an explosion at the burner.

Another object of the invention is the provision of an appliance of this character wherein the pilot light valve will be positively closed at all times except when intentionally opened for the lighting of the gas burner, thereby eliminating the possibility of leaving the pilot light valve open after the lighting of the burner and consequent probability of leaving the pilot light burning after closing the gas supply valve controlling the flow to the burner.

A further object of the invention is the provision of an appliance of this character wherein the possibility of the accumulation of gas with resultant explosion is entirely eliminated.

A still further object of the invention is the provision of an appliance of this character which is simple in construction, reliable and efficient in operation, and inexpensive in manufacture.

With these and other objects in view, the invention consists in the construction, combination and arrangement of parts as will be hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claim hereunto appended.

In the drawing: Figure 1 is a side elevation of a gas main and pilot light tube showing the appliance constructed in accordance with the invention applied to the respective valves therein. Fig. 2 is a fragmentary top plan view of the main gas valve. Fig. 3 is a sectional view on the line 3—3 of Fig. 1. Fig. 4 is a sectional view on the line 4—4 of Fig. 1.

Similar reference characters indicate corresponding parts throughout the several views in the drawing.

Referring to the drawing in detail, A designates the gas supply pipe, which is connected as usual with a burner (not shown) to be located within a water heater of the ordinary well-known construction, while B is the pilot light tube which has its tip C extended in proximity to the burner as usual. Located within the gas supply pipe A is a turning plug valve 10, having the usual passage 8 and on the stem of which is fitted a hand lever 11 so that the valve can be readily opened and closed for controlling the supply of the gas to the burner, while located within the pilot light tube is a turning plug valve 12 on the stem of which is fitted a lever 13, the same being formed with a downwardly inclined latch extension 14 for locking engagement with a shoulder 15 formed in a disk 16 which is fixed to and carried by the stem of the valve 10 so that the latter will be locked against turning movement when the latch extension 14 is engaged with the disk, as will be clearly apparent, the latch extension 14 being engaged with the shoulder 15 when the said valve 10 is in closed position, thereby shutting off the gas supply to the burner.

Fitted in the pilot light tube B below the lever 13 is a lug 17 in which is fixed one end of a leaf spring 18, the free end of which plays against the lever 13 and serves to hold the latch extension 14 in the path of movement of the shoulder 15 on the disk 16 for the positive locking engagement of the extension latch therewith.

The spring 18 tensions the lever 13 so that when manually moved to open the valve 12 in the pilot light tube B the extension latch 14 is disengaged from the disk 16 so that the lever 11 can be turned for the opening of the valve 10 in the gas supply pipe A subsequent to the lighting of the pilot light, and on the release of the lever 13 the valve in the pilot light tube will be automatically closed and thereby shutting off the supply of gas to the pilot light tip.

It will be apparent that the valve 10 is positively locked from opening movement by the extension latch 14 until after the opening of the pilot light whereupon the valve 10 is released so that the supply of gas to the burner can be turned on and upon releasing pressure upon the lever 13

the spring 18 will act thereon to automatically close the valve 12 in the pilot light tube, thereby shutting off the pilot light. Mounted on the casing for the valve 10 is a stop pin 19 which projects into an arcuate-shaped slot 20 so as to limit the turning movement of the valve 10 for the opening or closing of the main or gas supply pipe.

From the foregoing description, taken in connection with the accompanying drawing, the construction and manner of operation of the device will be clearly understood, and therefore a more extended explanation has been omitted.

What is claimed as new is:—

The combination with a gas supply pipe and a pilot light tube, of turning valves located within the respective pipe and tube, levers carried by the valves, a latch extension on one of said levers, a shouldered disk coöperating with the other lever and engageable by the latch extension to lock one valve against turning movement, and means acting upon the lever having the latch extension to automatically move the same into engagement with the shoulder on the disk.

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

CHARLES L. BEST.

Witnesses:
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