

June 5, 1928.

1,672,504

I. L. SAUVEY ET AL

SAFETY GAS VALVE

Filed Aug. 29, 1925

Fig. 1.

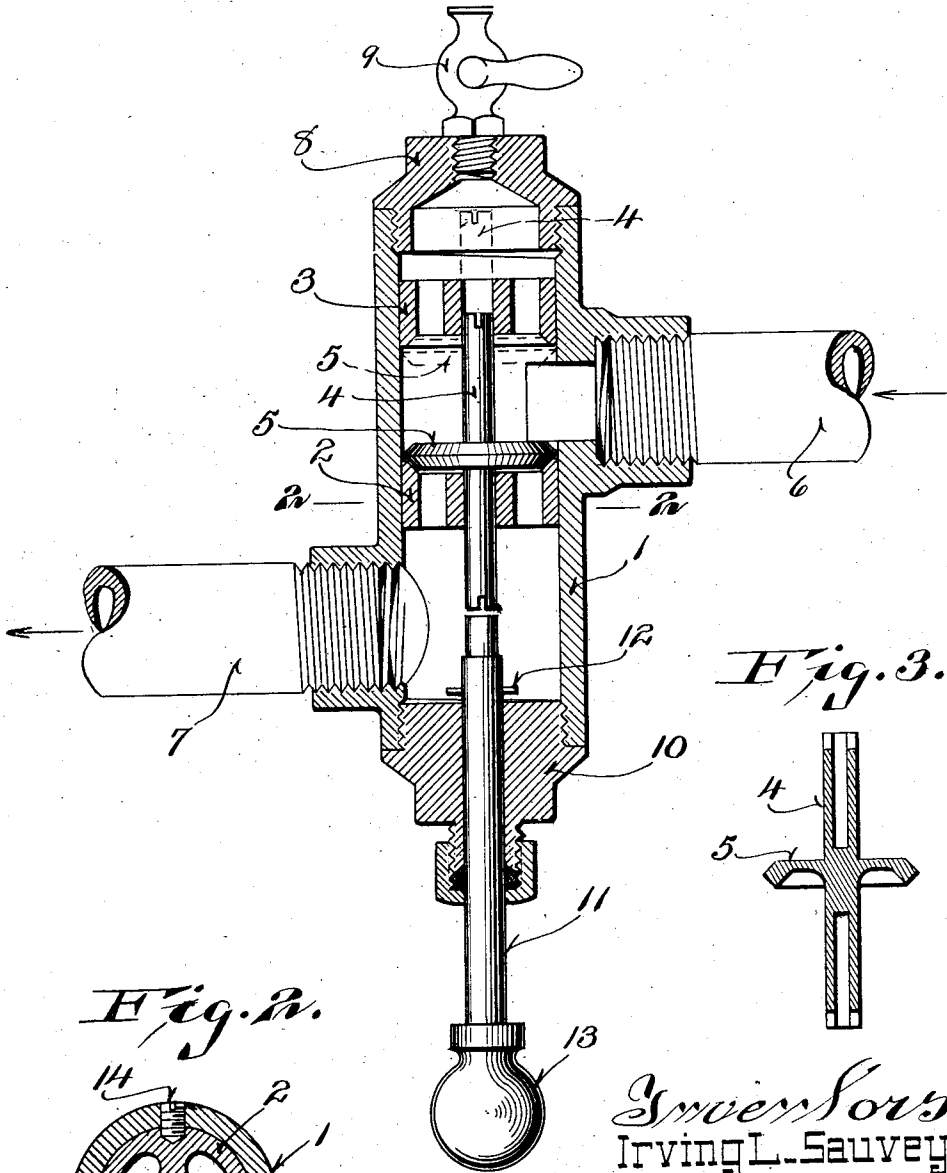
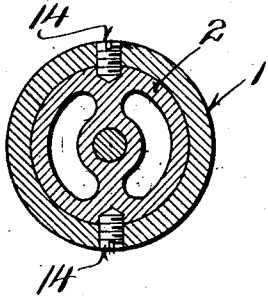



Fig. 3.

Fig. 2.



Inventors.
Irving L. Sauvey
Samuel DeFrance

By 
O. Horner

UNITED STATES PATENT OFFICE.

IRVING L. SAUVEY AND SAMUEL DE FRANCE, OF GREEN BAY, WISCONSIN.

SAFETY GAS VALVE.

Application filed August 29, 1925. Serial No. 53,370.

This invention relates to safety gas valves.

In gas supply systems, it frequently happens that the gas pressure drops below a safe point for maintaining the burner in a lighted condition. The burner then becomes extinguished and upon subsequent rise in pressure, the gas freely escapes into the house.

This invention is designed to overcome the above noted defects and objects of such invention are to provide an automatic safety gas valve which will cut off gas when the pressure falls below a predetermined value.

Further objects are to provide a safety gas valve which is of very simple and reliable construction, and which may be easily operated and cheaply manufactured.

An embodiment of the invention is shown in the accompanying drawings, in which:—

Figure 1 is a vertical sectional view through the device.

Figure 2 is a sectional view on the line 2—2 of Figure 1.

Figure 3 is a sectional view through the valve detached from the rest of the apparatus.

The valve comprises a casing or cylinder 1 within which a lower valve seat 2 and an upper valve seat 3 are positioned. These valve seats have beveled faces and have central hubs apertured to receive the spindle 4 of the double faced valve 5.

The central portion of the cylinder communicates with the inlet pipe 6 and the lower portion with the outlet pipe 7. The upper end of the casing is closed by means of an aperture cap 8 provided with a pet cock 9. The lower end of the casing is closed by means of a head or cap 10 through which a manually operable rod 11 slidably passes, suitable packing being provided to make a gas tight joint. This rod is provided with a transverse pin 12 to prevent its withdrawal from the head and is provided with a manipulating knob or handle 13 at its lower end.

A convenient way of retaining the valve seats 2 and 3 in position is indicated in Figure 2, from which it will be seen that a pair of set screws 14 projects through the casing or cylinder 1 and engages the valve seats. It will be seen, therefore, that a very simple type of cylinder may be provided and that the valve seats may be separately

formed and accurately positioned within the cylinder in a simple and easy manner.

Preferably, the valve is made relatively light so that it may be held up with ease by safe gas pressure, but which is of sufficient weight so that it will drop down into cutoff position when the pressure falls below a predetermined point.

When the valve is to be reset the rod 11 is pushed upwardly, thus raising the valve into contact with the upper seat 3.

The pet cock 9 may be opened to relieve the back pressure above the valve during this operation.

It will be seen that a very simple and reliable type of safety gas valve has been provided which may be easily reset, and which may be cheaply manufactured.

It is to be noted particularly from reference to Figure 3 that the valve has its stems drilled out in order to reduce its weight, and further than this, the valve body is concave on its under side to avoid any unnecessary material. This construction materially lightens the valve and makes it more quickly responsive in action.

Further, if desired, the upper and lower ends of the valve stem may be notched which also reduces the weight slightly and in addition prevents sticking.

It is to be noted that the valve seats are removable from the cylinder and may be readily taken out and cleaned and replaced, if desired. In addition to this, by having them distinct and separate from the cylinder, it is apparent that the valve seats may be ground to the utmost accuracy independently of the cylinder.

Although the invention has been described in considerable detail, it is to be understood that the invention may be variously embodied and is, therefore, to be limited only as claimed.

We claim:

A safety gas valve comprising a cylinder open at both ends, said cylinder being provided with an upper cap equipped with a pet cock and a lower head, a manually slidable rod passing through said lower head, a pair of separate valve seats positioned within said cylinder in spaced relation, said valve seats being removable from said cylinder, means

for locking said valve seats in position, said
cylinder having an entrance aperture be-
tween said valve seats and having an outlet
aperture below the lower of said valve seats,
5 said valve seats having apertured hubs, and
a double faced valve adapted to cooperate
with either of said seats and having a spindle
freely guided by said hubs, the lower end of
said spindle being adapted to abut the upper

end of said rod when said rod is forced 10
upwardly.

In testimony that we claim the foregoing
we have hereunto set our hands at Green
Bay, in the county of Brown and State of
Wisconsin.

IRVING L. SAUVEY.
SAMUEL DE FRANCE.