R. A. MACK.

AUTOMATIC SAFETY GAS LOCK.

APPLICATION FILED JUNE 19, 1911.

1,008,839.

Patented Nov. 14, 1911.

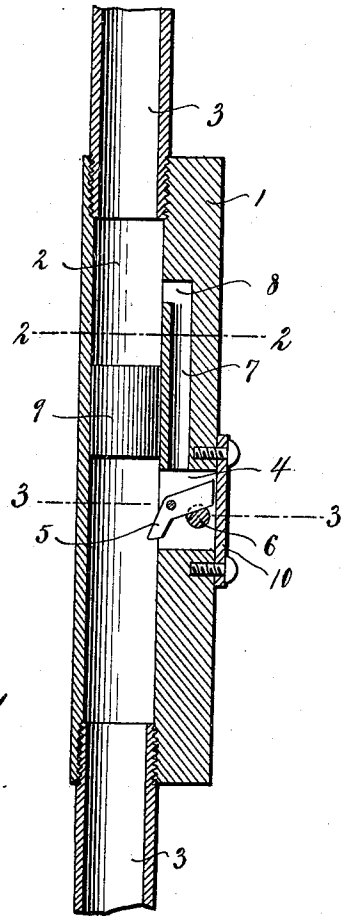
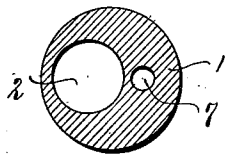


Fig. 1

Fig. 2



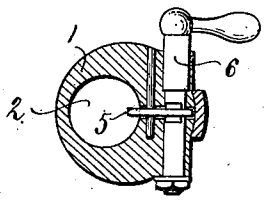


Fig. 3

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AUTOMATIC SAFETY GAS-LOCK.

1,008,839. Specification of Letters Patent. **Patented Nov. 14, 1911.**

Application filed June 19, 1911. Serial No. 633,977.

To all whom it may concern:

Be it known that I, RUDOLPH A. MACK, a citizen of the United States, residing at Gallipolis, in the county of Gallia and State of Ohio, have invented certain new and useful Improvements in Automatic Safety Gas-Locks, of which the following is a specification.

This invention relates to automatic safety cut offs for gas jets or the like and the purpose is to provide a device of the above class which will be efficient in operation and of a simple construction and which may be readily used at any part of a gas pipe or at a gas jet to prevent accidental escaping of gas, should the gas pressure fall and the gas flame thereby be accidentally extinguished and the gas again rise in pressure. This object is reached in this invention by the use of a piston valve located in the gas passage, which piston will fall with the gas pressure below a locking catch, which will prevent the piston valve from again rising with the gas pressure until the safety cut off is rendered inoperative by use of a cam shaft.

Another object is to provide a side passage in the safety lock, opposite which the piston valve will rise and remain under normal gas pressure.

With the above and other objects in view, this invention consists in the construction, combination, and arrangement of parts, all as hereinafter more fully described, claimed, and illustrated in the accompanying drawings, wherein—

Figure 1 is a longitudinal section of the present device; Fig. 2 is a section on line 2—2 of Fig. 1; and Fig. 3 is a section on line 3—3 of Fig. 1.

Throughout the following description and on the several figures of the drawings, similar parts are referred to by like reference characters.

Referring to the drawings, 1 designates a cylinder having an eccentric bore 2 threaded at opposite ends to receive the usual gas pipe sections indicated at 3.

At 4 is indicated a transverse recess cut through the thick side of the cylinder, in which recess is a pivoted catch 5, said catch being operated by the eccentric portion of a cam shaft 6 journaled for operation transversely passing through the recess 4. Communicating with the recess 4 and extending parallel with the main bore 2 is a bore 7 extending upwardly to a point 8 where the said bore is cut into the cylinder. A piston valve 9 snugly fitting the bore 2 of the cylinder 1 is, under normal gas pressure, elevated in the cylinder to a point opposite to the side-passage 7, through which the gas will escape and be supplied for use in an ordinary manner, as for instance, a gas jet.

Should the gas fall below normal pressure sufficiently, the piston valve 9 will fall in the gas passage below the locking catch 5 by which the piston valve will be prevented from again rising, if the pressure rises in the passage, until the locking device is rendered inoperative by the turning of the cam shaft 6. The transverse recess 4 is closed at its outer end by a plate 10. Thus it will be seen that accidental escaping of gas would be prevented if a gas flame receiving its supply from the passage in which this locking device is located should become extinguished by falling gas pressure and should the gas again rise in pressure.

Having thus fully described my invention, what is claimed as new is:—

1. A safety cut-off having a main bore and a recess intermediate the ends of said bore, and having a side bore communicating with said recess and with the main bore adjacent the upper end thereof, a catch pivoted in said recess and normally extending into said main bore and having an extension, a pressure operated valve in said main bore under normal gas pressure elevated to a point opposite said side-bore and with diminishing gas pressure falling below said catch, and a cam shaft coöperating with the aforesaid extension to withdraw said catch from the main bore, thereby rendering the lock inoperative.

2. A safety cut-off consisting of a cylindrical body having an eccentric bore, the opposite ends thereof being adapted to receive gas pipes, a recess formed transversely through the thick wall of said cylindrical body, a side bore extending upwardly from said recess and opening into the aforesaid eccentric bore adjacent the upper end thereof, a catch pivoted in said recess adjacent to said eccentric bore, and normally projecting into said eccentric bore at a point below the pivot and having an extension projecting toward the outer end of said recess, a cam shaft extending transversely through said

recess and said extension resting thereon, a plate closing the outer end of said recess, and a pressure operated valve normally located at a point opposite the side bore and adapted to fall below said catch with diminishing gas pressure, said cam shaft being adapted to withdraw the catch from the bore, thereby rendering the lock inoperative.

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

RUDOLPH A. MACK.

Witnesses:
CHARLES L. BROWN,
CHRISTIAN HENKEL.