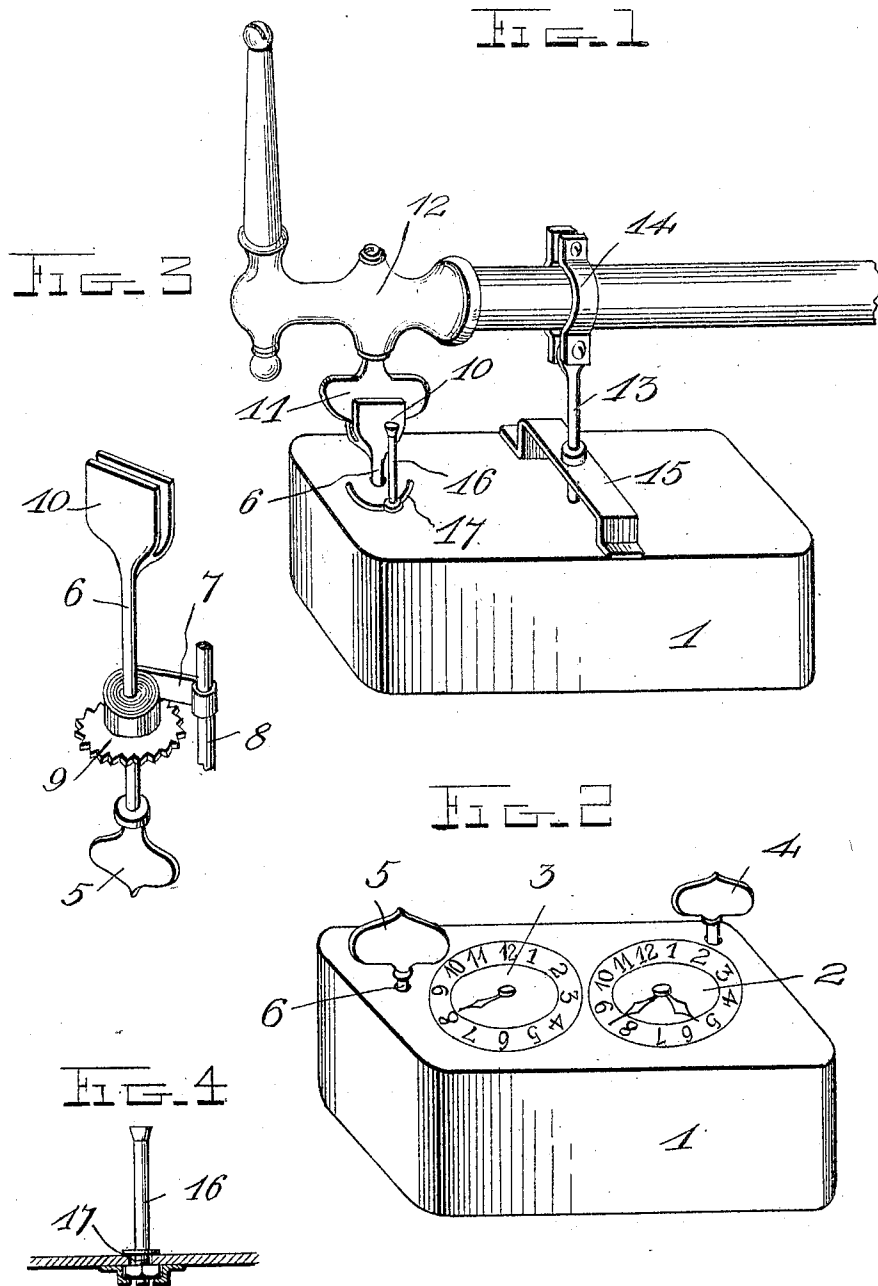


No. 820,582.

PATENTED MAY 15, 1906.

M. LAUCHER.
TIME VALVE MECHANISM.
APPLICATION FILED OCT. 27, 1905.



Witnesses
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UNITED STATES PATENT OFFICE.

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TIME VALVE MECHANISM.

No. 820,582.

Specification of Letters Patent.

Patented May 15, 1906.

Application filed October 27, 1905. Serial No. 284,719.

To all whom it may concern:

Be it known that I, MAURICE LAUCHER, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Time Valve Mechanisms; 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.

My invention relates to improvements in devices or mechanisms for automatically operating the valves of gas, water, or other pipes, electrical cut-outs or switches, and similar apparatus.

The object of the invention is to provide a simple, durable, inexpensive, and efficient mechanism of this character by means of which gas, water, or other fluid may be automatically cut off at a predetermined time or an electric current may be similarly cut off.

With the above and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter more fully described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of my improved device or mechanism applied to a gas-bracket, so as to operate its burner-valve or cock. Fig. 2 is a perspective view of the bottom or under side of the device. Fig. 3 is a perspective view of the cut-off shaft with its attached part; and Fig. 4 is a detail sectional view through the casing of the alarm-clock, showing the manner in which the stop-pin is adjusted.

Referring to the drawings by numerals, 1 denotes the casing of an alarm-clock mechanism which comprises the usual dial 2, having minute and hour hands coacting therewith, an alarm indicator-dial 3, a mainspring-winding key 4, and an alarm-spring-winding key 5. The remainder of this alarm-clock mechanism is inclosed in the casing 1 and may be of any suitable form and construction.

The key 5 is secured upon one of the outer ends of a shaft 6, which extends through the casing 2 and forms the alarm-spring shaft of the clock mechanism. The usual alarm-spring 7 has one of its ends fixed within the casing, preferably to the stop 8, as shown in Fig. 3, and its opposite end fixed to the shaft 6 adjacent to the usual ratchet-wheel 9. Upon one of the outer ends of the shaft 6 is formed

or secured a socket 10, which is adapted to engage the key 11, upon a burner-valve 12, as shown in Fig. 1, or the similar key of an electrical cut-out or switch or any other similar appliance. As shown, this socket 10 consists of two spaced members, which are adapted to engage the opposite sides of the flat key 11.

The socket may be held in engagement with the key in any suitable manner. As shown, this is effected by suspending the casing 1 from the burner-bracket (shown in Fig. 1) by means of a hanger-rod 13. The latter has its upper end secured between the two members or half-sections of a clamp 14, which engages the burner-bracket. Its opposite or lower end is screwed into or otherwise adjustably secured in a bracket 15, provided upon the casing 1.

When the device is used upon an electric cut-off or switch which has a key adapted to be rotated continuously in one direction, I provide means for limiting the rotation of the shaft 6 when released by the clock mechanism, so that the switch or cut-off will not be rotated beyond a point sufficient to break the electric circuit. As shown, this means consists of a stop-pin 16, which is adjustably mounted in the path of the socket 10. As shown, this stop 16 is in the form of a screw, which slides through the curved slot arranged in the top of the casing 1 concentric with the shaft 16 and which may be clamped at any desired point in said slot, as shown in Fig. 4 of the drawings. It will be seen that this stop-pin will limit the rotary movement of the shaft 6, so that the socket 10, and hence the key of the electric switch, will be turned just sufficiently to accomplish the desired result.

The construction, use, and advantages of the invention will be readily understood from the foregoing description, taken in connection with the accompanying drawings. It will be seen that the device may be quickly applied to a valve in a gas-pipe, water-pipe, or the like or to the key of an electric cut-off or switch, so that the valve or switch will be automatically operated at a predetermined time, which is controlled by adjusting the hand of the dial 3.

While I have shown and described the preferred embodiment of the invention, it will be understood that I do not wish to be limited to the precise showing herein set forth, since various changes in the form, proportion, and

the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention. It will also be understood that
5 the device may be used for operating valves, cut-offs, and switches of any description.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

10 The herein-described time valve mechanism having the casing provided with the bracket 15 on one side, the hanger-rod attached to said bracket and provided with a clamp, for the purpose set forth, said casing
15 being further provided with the curved slot

17, the stop-pin 16 adjustable in said slot and having means to secure it at any desired adjustment, and the alarm-spring shaft having its ends projecting from opposite sides of said casing, provided at one end with a key, and
20 having the valve-engaging socket 10 at the opposite end, substantially as specified.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

MAURICE LAUCHER.

Witnesses:

HENRY STEIMANN,
PAUL F. GONON.