

ABBOTT Q. ROSS.

Improvement in Burglar Alarms.

No. 120,399.

Patented Oct. 31, 1871.

Fig. 1.

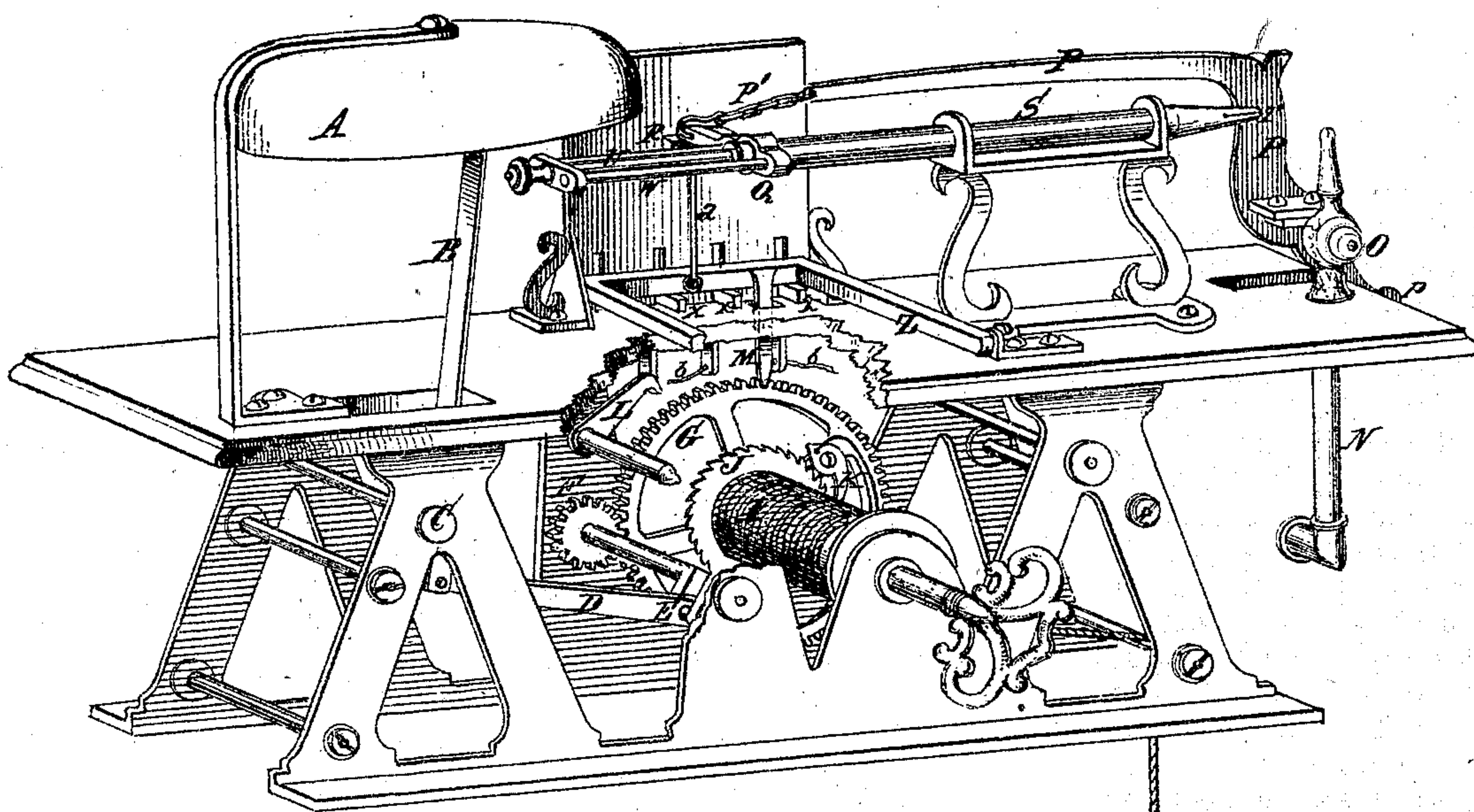
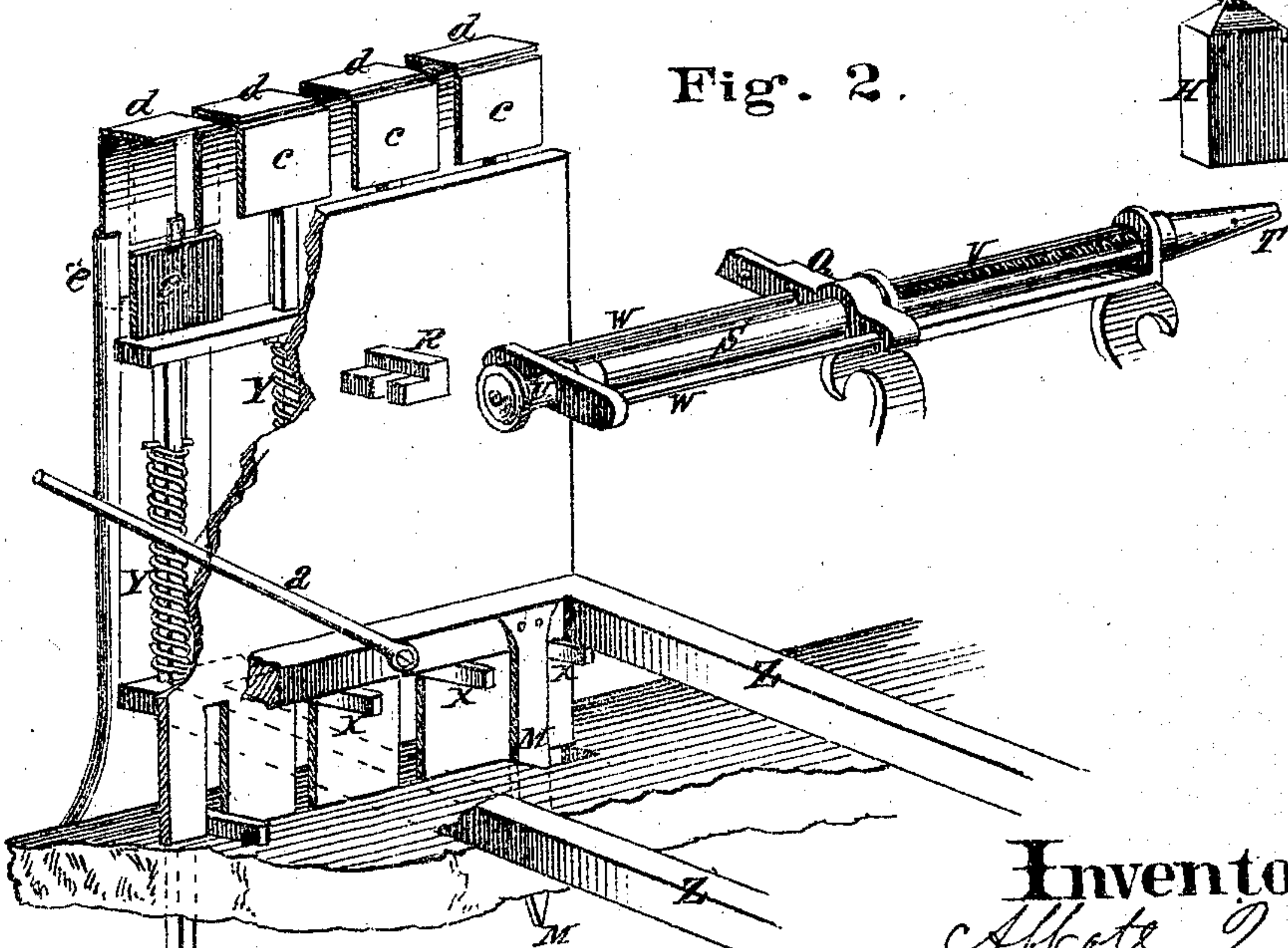


Fig. 2.



Attest.
H. F. Webb.
H. F. Webb

Inventor,
Abbott Q. Ross.
By H. Millward
Attorney

UNITED STATES PATENT OFFICE.

ABBOTT Q. ROSS, OF CINCINNATI, OHIO, ASSIGNOR TO ALFRED H. BROOKS, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN BURGLAR-ALARMS.

Specification forming part of Letters Patent No. 120,399, dated October 31, 1871.

To all whom it may concern:

Be it known that I, ABBOTT Q. ROSS, of Cincinnati, Hamilton county, State of Ohio, have invented certain new and useful Improvements in Burglar-Alarms, of which the following is a specification:

My invention relates to improvements upon the apparatus for which Letters Patent No. 25,586 were granted to me September 27, 1859; and consists: First, in a peculiar device for lighting the match and simultaneously turning on the gas. Second, in a peculiar device for releasing the gas-lighting mechanism upon the opening of a door or window or other operation causing the slacking of the alarm-wires. Third, in the provision of sliding indicator-plates for recording when a door or window has been opened and closed again.

Figure 1 is a perspective view, partly in section, of my improved machine. Fig. 2 represents detached portions of the same in perspective.

A is the alarm-bell; B, the spring-clapper for ringing it; C, the spindle to which the clapper is journaled; D, the pitman for giving (through crank E and gearing F G) the required motion to the clapper; H, the weight for operating the alarm mechanism; and I J K, the drum, ratchet, and pawl for winding up and running off the weight. The weight is held in the suspended position, when wound up, either by trigger-pawl L, when the machine is not required to operate, or by the finger M, when the apparatus is set for operation. N is the gas-pipe, and O the faucet of the same. The key of the faucet is operated to close the latter by securing the lever P to the cross-head Q by means of the hook-ended chain P', shown in Fig. 1, and is operated to open it by means of a coiled spring secured to the arm p of the lever P. The cross-head Q is securely held (until released by the alarm mechanism) by means of the stop R, Fig. 2. The match for lighting the gas is placed in the socket S and forced through the split end T, the forcible contact of the match with the sides of the opening sufficing to ignite it and light the gas. The match is forced out by the rod U, operated by spring V, the spring resting at one end against the end of socket S, and at the opposite end against a projecting collar on the rod U. The side rods W, which are secured to rod U, carry a cross-head, Q, which slides upon the socket S.

The cross-head serves, in the manner shown in Fig. 1, to hold the gas-faucet closed and the match in the socket until both are set free by the entrance of the burglar or disturbance of the windows or doors. The alarm mechanism, including the lighting of the match and gas, is set free by the slacking of stretched wires or wire, as in my former patent, the wires, when stretched, (see Fig. 2,) depressing the arms X against the force of springs Y, and thus permitting the hinged frame Z to fall and the hinged pin a to be brought under the cross-head Q, at the same time bringing the finger M into gear with the wheel G, and thus setting all parts in such a manner that the alarm depends upon the slacking of one or more of the wires b. When one or more of the wires are slacked the frame Z is elevated by the action of one or more of the arms X, the latter being operated by one or more of the springs Y.

The elevation of the frame Z releases the finger M, permits the weight H to ring the alarm-bell, and pushes off the cross-head through hinged pin a. When the cross-head is pushed off the spring on the arm p opens the gas-faucet and the spring V forces out the match, the chain being released from the cross-head in the operation. If, however, the lever P be made short and the chain long the chain may remain attached to the cross-head. The match may be operated to light a lamp in place of a gas-jet when necessary. The elevation of one or more of the indicator-plates c, upon which is stamped the name or number of doors or windows, indicates the particular door or window, or doors or windows, having been opened.

In order to register the door or window opened and closed by the burglar I attach the slides d to the back of the instrument. These slides are fitted to the grooved plates e in such a way that when the indicators are elevated they carry the slides with them, and when they descend again by reason of the stretching of the wire or wires again the slides are left in the elevated position, and thus indicate the door or window which has been opened and again closed.

I claim herein as new and of my invention—

1. In combination with the hinged frame Z M and alarm-bell mechanism, the finger or pin a, match-socket S T, and spring piston-rod and cross-head V U Q, the parts being connected and

operating substantially in the manner and for the purpose set forth.

2. In combination with the elements of the preceding clause, the spring-lever and chain P P' *p*, governing the gas-jet, in the manner and for the purpose set forth.

3. In combination with the stretched wires *b* and hinged frame Z, the slides *d*, connected and

operating substantially as described and for purpose specified.

In testimony of which invention I hereunto set my hand.

ABBOTT Q. ROSS.

Witnesses:

L. T. IGLEHEART,
HENRY REIS.

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