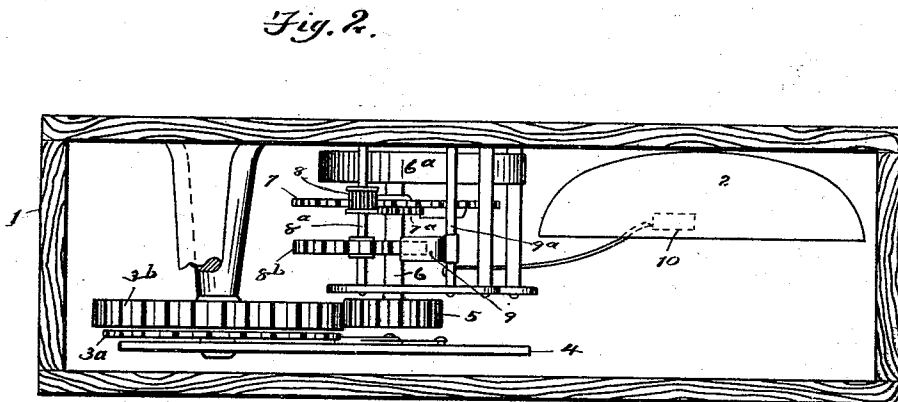
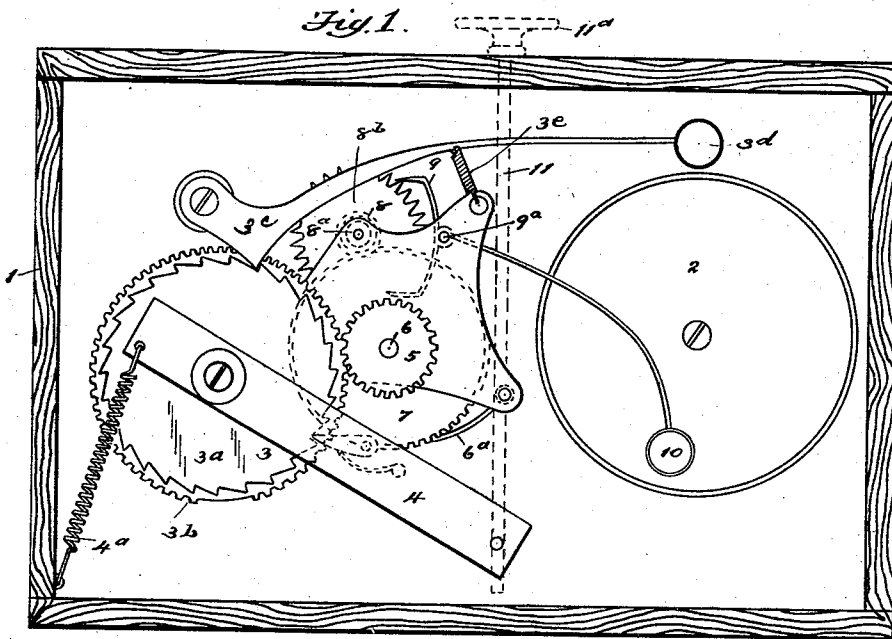


(No Model.)

J. MILLER.
REGISTERING ALARM.

No. 543,449.

Patented July 23, 1895.



WITNESSES
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UNITED STATES PATENT OFFICE.

JAMES MILLER, OF DETROIT, MICHIGAN, ASSIGNOR TO JOHN H. BROWN, OF
SAME PLACE.

REGISTERING-ALARM.

SPECIFICATION forming part of Letters Patent No. 543,449, dated July 23, 1895.

Application filed May 6, 1895. Serial No. 543,278. (No model.)

To all whom it may concern:

Be it known that I, JAMES MILLER, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have
5 invented a certain new and useful Improvement in Sales-Registers; and I 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 pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to register-alarms, and has for its object an alarm intended to be
15 sounded with each sale of an article of a particular class, and which, after a certain number of sales have been made and registered, will sound an alarm of a different character. This regularly-recurring change in the character of the alarm will call particular attention to the action of the register.

The device shown in the drawings is unconnected with any other mechanism, but may be used in connection with ordinary cash-
25 registers, or may be used by itself.

In the drawings, Figure 1 shows the mechanism in elevation. Fig. 2 shows a plan view of the mechanism, the hammer and hammer-pawl being removed.

30 1 indicates the case in which the mechanism is contained.

2 indicates a bell.

3 is a master-wheel actuated by a ratchet-lever 4. The master-wheel 3 consists of one
35 part 3^a, provided with ratchet-teeth, and a part 3^b, provided with gear-teeth, one or more teeth, however, being removed, thus making it a mutilated gear. The gear-wheel 3^b meshes with a pinion 5, fixed on the end of a shaft 6, to which is fixed the inner end of a spiral
40 spring 6^a.

7 indicates a gear-wheel loose on the shaft 6, but provided with a ratchet-wheel 7^a, which engages a pawl that is fixed to the wheel 7.
45 The gear 7 meshes with a lantern-wheel 8 on a shaft 8^a, and on this shaft is an escapement wheel 8^b that engages an escapement 9 on a post 9^a and actuates a hammer 10. A rod 11, terminating with a strike-key 11^a, reaches
50 through the casing to the outside.

The ratchet-wheel 3^a is held from reverse movement by a pawl 3^c, on the end of which

is a hammer 3^d. The pawl is held in engagement with the ratchet-wheel by a spring 3^e and the actuating-lever 4 is lifted after being
55 pushed down by a spring 4^a.

The operation of the ratchet is as follows: With each sale made either the salesman or the customer pushes the key 11^a downward and thus actuates the lever 4. This lever 60 acting on the ratchet 3^a rotates it forward, lifts the pawl 3^c and the hammer at the end of it until the tooth of the ratchet-wheel passes forward far enough to allow the pawl 3^c to return under the retractile force of the
65 spring 3^e, and the hammer 3^d, which is at the end of the resilient arm, strikes the bell 2 and bounds away from it. The forward motion of the wheel 3^b rotates the pinion 5 and winds the spring 6^a. This continues until the mutilated part of the wheel 3^b reaches the pinion
70 5, when the restraining influence of the wheel 3^b and its holding pawls being removed from the pinion the spring 6^a unwinds, and in doing so actuates the hammer 10, producing a
75 whirring or rattling noise like that of an alarm-clock, and signifying that a certain predetermined number of impulses have been given to the master-wheel since a similar alarm has been previously sounded.

What I claim is—

In a register alarm, a bell and hammer therefor, a ratchet wheel and an actuating ratchet lever therefor, a master wheel mutilated at some part and fixed to said ratchet
85 wheel, an escapement device and suitable gears connecting it to said master wheel, a hammer adapted to be actuated by said escapement mechanism, a spring adapted to be wound by the ratchet wheel and ratchet lever, and to actuate said escapement mechanism, the first mentioned hammer being adapted
90 to strike the bell at each successive impulse given to the ratchet wheel, and the second mentioned hammer being adapted to sound an alarm when the gear slips on the mutilated part of the master wheel, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

JAMES MILLER.

Witnesses:

D. W. BRADFORD,
C. F. BURTON.