March 7, 1933. F. PIANI 1,900,519

ALARMED CASH REGISTER

Filed Feb. 9, 1931

Fig. 1

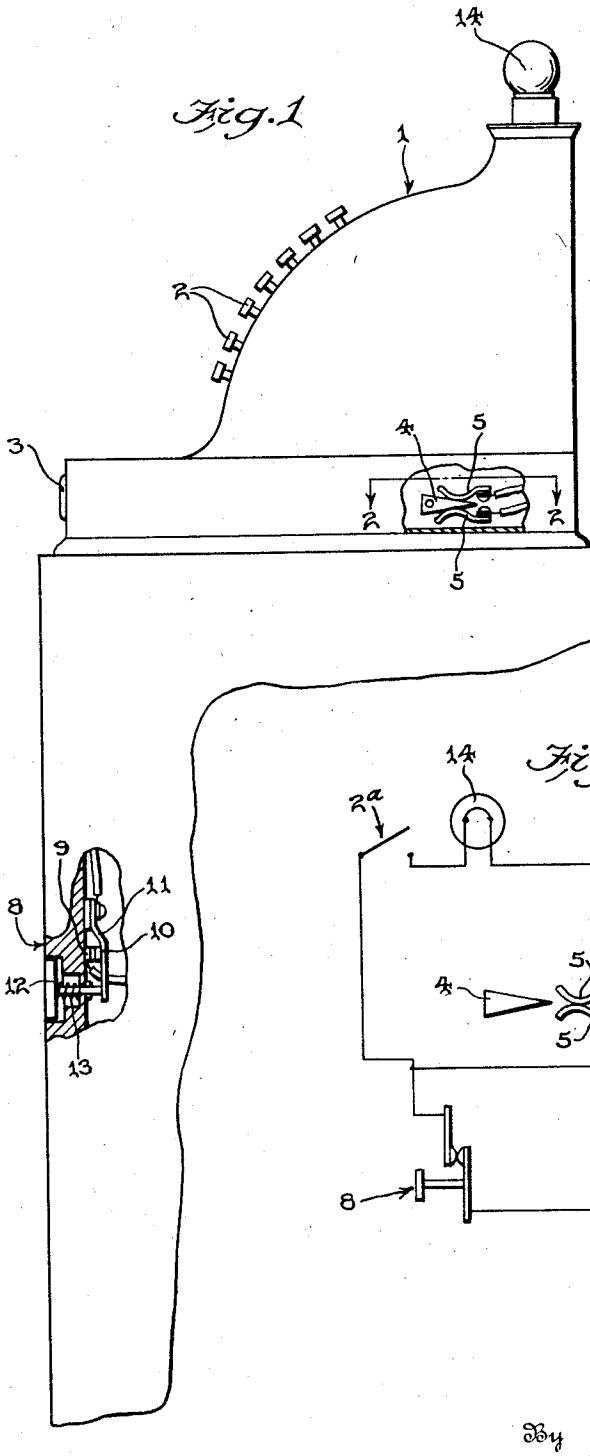


Fig. 3.

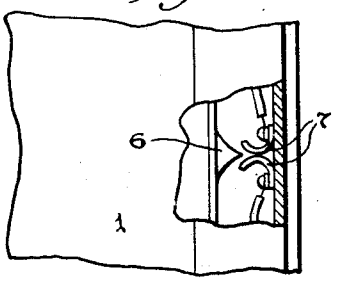


Fig. 4.

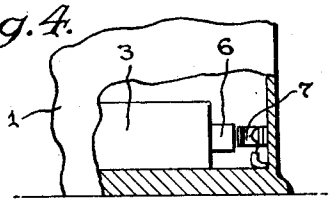


Fig. 2.

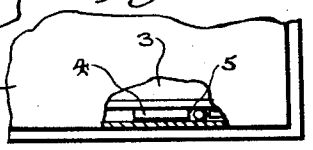
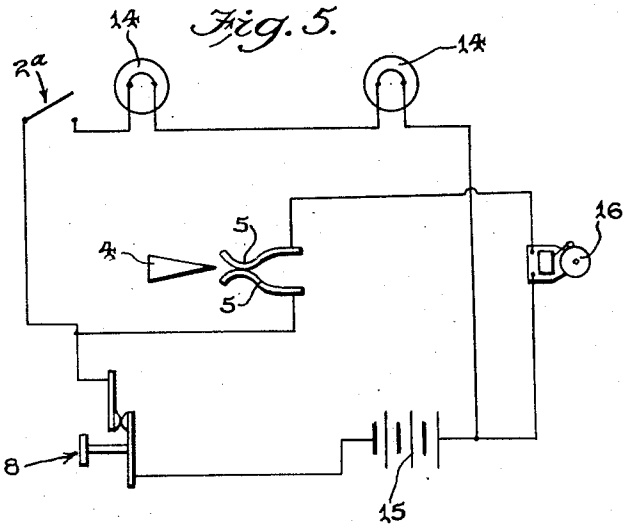


Fig. 5.



Inventor

Fred Piani,

By Harry W. Johnson

Attorney

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1,900,519

UNITED STATES PATENT OFFICE

FRED PIANI, OF NEW YORK, N. Y.

ALARMED CASH REGISTER

Application filed February 9, 1931. Serial No. 514,626.

My invention relates to burglar alarms, more particularly to burglar alarms for use on cash-registers and the like, and it consists in the combinations, constructions, and arrangements herein shown and described.

Storekeepers and the like utilizing receptacles such as cash-registers and similer devices for containing the money used in their business have long recognized the desirability of having some means for giving an alarm, when said cash-register is operated by unauthorized persons, such as "hold-up" men, thieves and the like. It is, therefore a primary purpose of my invention to provide a burglar alarm that will automatically be operated, when such unauthorized person opens the cash register.

A further object of my invention is to provide a device of the type described that is readily applicable to cash-registers of conventional construction, without great modification thereof.

A still further object of my invention is to provide a burglar alarm that will automatically be operated, when an unauthorized person operates the register equipped with the same, but which can be rendered inoperative by a simple operation, when an authorized operator uses the cash-register.

A still further object of my invention is to provide a device of the type described, which has few parts, is simple to manufacture, and does not get out of order easily.

Other objects and advantages will appear as the specification proceeds and the invention will be more particularly defined in the appended claim.

My device is illustrated in the accompanying drawing forming a part of this application, in which

Figure 1 is an elevational view of a cash-register equipped with my invention, with parts broken away for clearness of illustration,

Figure 2 is a sectional view on line 2—2 of Figure 1,

Figure 3 is a fragmentary view of a modified portion of my device,

Figure 4 is a side elevational view of the modification of Figure 3, and

Figure 5 is a schematic representation of the electrical circuit comprised in my invention.

In carrying out my invention I make use of an ordinary cash-register generally indicated at 1, and having keys 2, and a cash-drawer 3. This cash-register is of that type of construction, which has keys for registering and a separate key or handle or similar member for opening the drawer.

In applying the control for the burglar alarm, which may be placed in a detective agency or be in the form of a siren to warn the police or in any other desired form or position, to the cash-register, I mount on the side of the drawer thereof a tapered non-conductor, which is adapted to separate and maintain in separated position a pair of resilient contacts 5, when the drawer is in the closed position as shown most clearly in Figure 1. These contacts are connected to the burglar alarm for energization of the circuit thereof, upon withdrawal of the non-conductor 4 on opening the drawer. Of course, the non-conductor and associated contacts may be positioned on the bottom of the drawer 3, on the rear thereof or on either side, as desired, within the scope of my invention.

In Figures 3 and 4 I show the automatic switch mounted on the rear of the drawer. In this modification the tapered non-conductor is secured to the rear of the drawer and the contacts in the circuit of the alarm are fastened to the rear wall of the register.

For rendering the alarm inoperative, when the drawer of the register is opened by authorized operators, a cut-out switch is provided. This switch is generally indicated at 8. It may be positioned as shown for operation by the knee of an operator, for operation by his toe or for any other convenient mode of operation without departing from my invention. It comprises a pair of contacts 9 and 10, the contact 9 of which is secured stationarily to a fixed portion as shown, while the contact 10 comprises a resilient member 11 for supporting the same flexibly. The contacts are normally closed as shown, but are adapted to be operated

to the open position by the spring-pressed plunger 12, engaging with the member 11. The spring 13 normally urges the plunger 12 outwardly to keep the contacts 9 and 10 engaged as shown.

For reminding the authorized operator to operate the switch 8 to render the alarm inoperative when opening the drawer of the register, I mount signals in the form of lamps, one of which is shown at 14 in Figure 1, on the register for operation upon depression of the registering keys 2 by means of any suitable contact means controlled by said keys, (not shown). When these signals are energized the operator can then depress the plunger 12 to render the alarm inoperative. The signal means 14 and the keys 2 controlling the same are placed in circuit with the switch 8 as well as the contacts 5 or 7 so that operation of the plunger 12 renders both the signals 14 and the alarm inoperative.

In the electrical circuit of my device shown in Figure 5, the current flows from the source of power 15 through switch 8, contacts 5 or 7, the alarm 16 and back to the source of power; and from the source of power 15 through switch 8, switch 2*a*, signals 14 and back to the source of power 15.

From the foregoing description the use and operation of my invention is easily understood. When the authorized operator desires to use the register by opening the drawer thereof, he simply depresses plunger 12 to open the circuit to the alarm, and operates the register, with the alarm inoperative. If he neglects to operate the switch 8, and depresses the registering key 2, the signals 14 will indicate to him that he has not opened the circuit, enabling him to operate switch 8 to the open position before pressing the key to open the drawer or withdrawing the same by a handle. When switch 8 is operated it deenergizes the circuit both to signals 14 as well as the alarm 16 thus indicating that the alarm is cut-out.

If an unauthorized user of the register depresses a key and then opens the drawer, he will carry out these operations without first operating the switch 8 of which he is ignorant, thus setting off the alarm as well as lighting the lamps 14 to further indicate illegal entry into the register.

It can be easily understood that authorized users will become accustomed to depress the plunger 12, when operating the register in the same manner that automobile drivers become used to operating a clutch, when working the brakes.

It is thus seen that I have provided a burglar alarm that automatically gives a signal when a cash-register is illegally entered, but which may be easily operated by a legitimate user to the off position, when the register is in normal use.

It is also seen that I have provided a burglar alarm that is readily applicable to registers of conventional construction, and which consists of a minimum number of parts requiring simple operations in use.

What I desire to claim and secure by Letters Patent is:

In combination with a cash register having a plurality of keys and a drawer, an electrical circuit, a switch in said circuit operable by any one of said keys, an electrically operated signal in said circuit, a second electrical circuit, an alarm in said second circuit, a switch in said second circuit operable by the opening of the drawer in said cash register to cause the sounding of said alarm, a switch the operation of which makes both circuits inoperable and a special key for operating said last named switch.

FRED PIANI.