

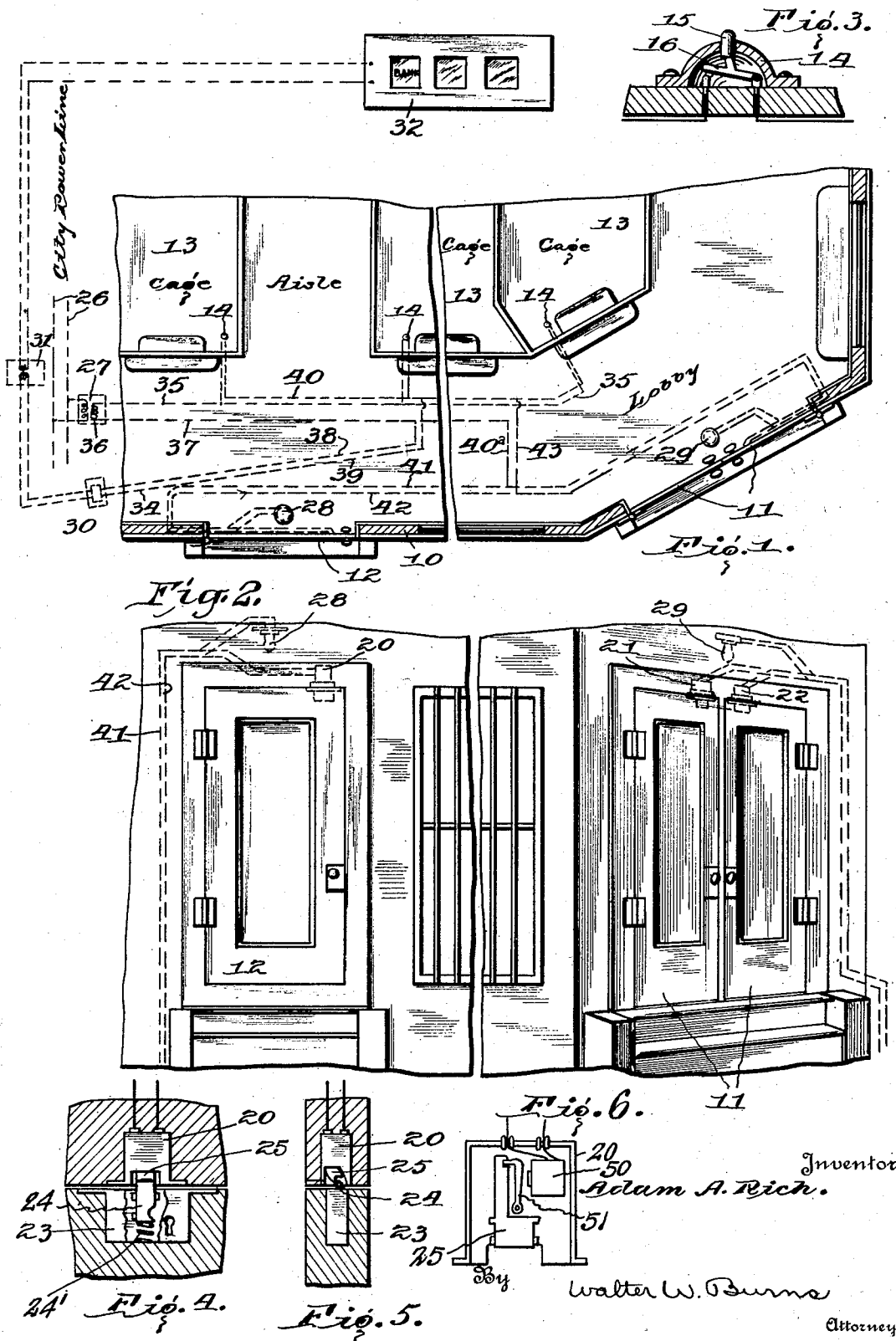
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BURGLAR TRAP

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BURGLAR TRAP.

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To all whom it may concern:

Be it known that I, ADAM A. RICH, residing at Hamilton, Butler County, Ohio, a citizen of the United States, have invented certain new and useful Improvements in Burglar Traps, of which the following is a specification.

This invention relates to burglar traps and is particularly adapted for use in banks and other institutions where large amounts of money are more or less in sight of the customers.

It is an object of this invention to provide a means for quietly locking the outside doors of a bank when any of the tellers or clerks in the bank operate a foot controlled switch.

Another and further object of my invention is the provision of such a quiet door locking apparatus having a connection to a police station and a signal light at each door for indicating to all the employees in the bank that the trap has operated.

Referring to the drawings where a preferred embodiment of my invention is illustrated,

Figure 1 is a plan view of a bank lobby showing the layout of the electric wiring.

Figure 2 is an elevational view of the outside of the building showing a method of securing the lock in place.

Figure 3 is a detail cross-sectional view of the foot switch.

Figures 4 and 5 are detail views of the electrically operated locking mechanism.

Figure 6 is a cross section of a structure illustrative of an interior construction of the electrically controlled locking device 20.

10 designates the outside wall of a bank or other institution which it is desired to protect, 11 and 12 are the outside doors. The interior of the cages are indicated at 13. Adjacent the window of each cage and on the floor is a foot switch 14 having a button protruding from the top and adapted to be operated by the foot of any one, as the teller, who is adjacent the window. When the button 15 is pressed, it operates a small knife circuit closing device 16, the purpose of which will be later described.

In the door frames are provided electrically operated locking devices such as 20, 21 and 22 shown in Figures 2, 4, and 5. The door is provided with a cooperating device as, a mortise lock 23 without knobs, the bolt 24 of which cooperates with the locking member 25. The locking device 20 and its

cooperating member 25 are so shaped that should the locking device 20 be operated when the door is in the act of closing, the door will be permitted to entirely close and will then be locked. The locking members 24 and 25 are preferably beveled as shown.

The city lighting circuit designated at 26 carries a transformer 27 for supplying current for use on the burglar lock operating line. This line has a branch for each door to operate the lock and to operate the lights 28 and 29 which are located adjacent the respective doors.

There is also a connection from the lock operating line to the police station through the relay 30 and the transformer 31. This relay 30 is provided to close the circuit in the police station line which may be of different voltage. Connection for power is made to this line in any well known manner. This line operates the annunciator 32 located in the police station, and indicates that the burglar trap at the particular bank or institution has been operated.

The connections from the foot switches 14 are made in multiple so that the operation of any of the switches 14 will cause the operation of the whole apparatus.

In Figure 6, I have shown a means illustrative of the electrically controlled locking device construction. The details of this mechanism per se form no part of my invention. In this figure, 50 represents a magnet, 51 the armature therefor, the end of which forms a detent for the upper end of the locking member 25. When the magnet is energized, the detent releases the locking member 25, permitting it to fall to locking position.

In Figure 4, the locking member 24 is shown as being held in projected position by a spring 24¹.

Let us suppose that the burglar enters the door 12, which like all the doors, is provided with any of the well known door closing mechanisms which normally operates to close the door.

As soon as any of the tellers realizes the purpose of the burglar, one or more of the switches 14 would be operated. The passage of the current would be as follows:—from the circuit closing member 16, the wire 35, coil 36 of the transformer 27, wire 37, goes to the relay 30 by the wire 38 and returns by the wires 39 and 40 back to the circuit closing member 16 in the switch 14. A por-

tion of the current passes from the wire 39 by the wire 40^a. From the wire 40^a, a portion passes by the wire 41 and lights the lamp 28 and operates the latch 25 of the electrically operated locking device 20, and back by the wires 42, 43 and 40 to the circuit closing member 16. The electrically operated locking devices 21 and 22 and the lamp 29 are operated from similar branches in the circuit from the wires 40^a and 43.

When the latches 25 of the electrically operated locking devices are operated at each of the doors, the bolts 24 are held and the respective doors cannot be opened. (See Fig. 5.) At the same time, the operation of the relay 30 causes the annunciator 32 to operate notifying the police that they are wanted at the bank or other institution protected by my invention. As soon as the switch 14 is operated, the lights 28, 29 inform all the other tellers that the doors are locked.

To release the doors so that they could be opened, the bolt of the lock 23 may be withdrawn by means of a key.

While, I have described a preferred embodiment of my invention in detail, I desire to have it understood that I do not limit myself to the exact construction shown and that modifications and changes may be made without departing from the spirit of my invention and within the scope of the appended claims.

Having described my invention what I claim is:—

1. A burglar trap comprising a building having a door, a source of electrical energy, an electrically controlled locking device and a complementary locking device, one of which devices is attached to the door and the other of which is attached to a portion of the building to which the door is rela-

tively movable, means for normally holding one of the locking members in retracted position and electrically controlled devices for releasing said means, the locking devices comprising members for holding the door in locked position when closed whether the electrically controlled device is operated before or after the door has reached its closed position, means in the complementary locking device for withdrawing its locking member from the locking member of the electrically controlled locking device, a switch and electrical connection between the switch and the electrically controlled locking device for operating the latter from the former.

2. A burglar trap comprising a building having a door, a source of electrical energy, an electrically controlled locking device and a complementary locking device, one of which devices is attached to the door and the other of which is attached to a portion of the building to which the door is relatively movable, means for normally holding one of the locking members in retracted position and electrically controlled devices for releasing said means, the locking devices comprising coacting locking members, one of which is yieldable to permit the door to come to closed and locked position when the electrically controlled device is operated before the door is closed, key controlled means in the complementary locking device for withdrawing its locking member from engagement with the locking member of the electrically controlled locking means, a switch and electrical connection between the switch and the electrically controlled locking device for operating the latter from the former.

In testimony whereof I hereunto affix my signature.

ADAM A. RICH.