July 6, 1954 F. M. BROWN 2,683,197

BURGLAR ALARM SWITCH

Filed June 15, 1953

Fig. 1

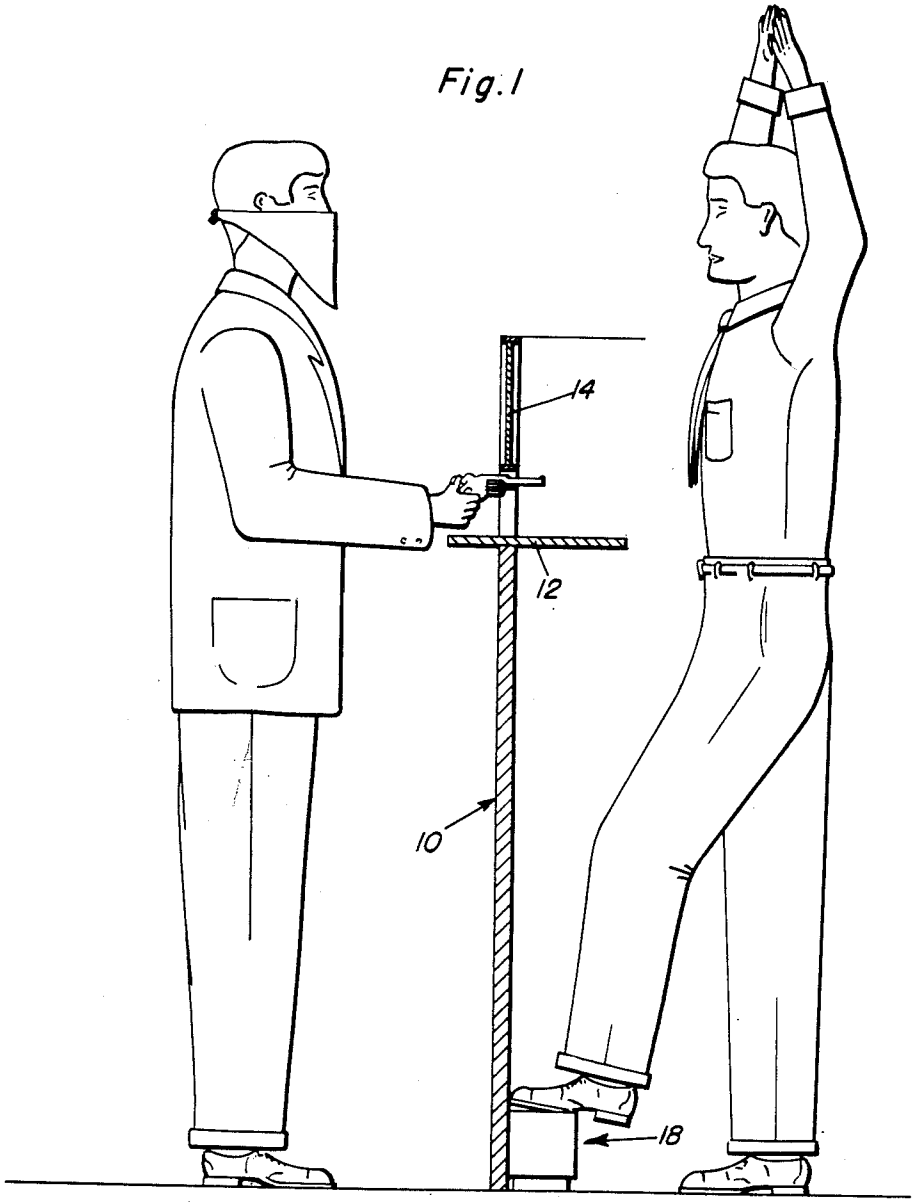
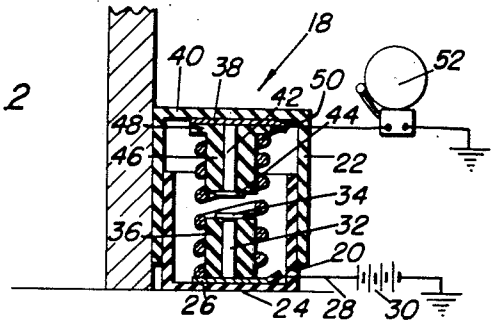


Fig 2



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BURGLAR ALARM SWITCH

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1 Claim. (Cl. 200—86.5)

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This invention relates generally to burglar alarms and more particularly to a novel foot-actuated alarm system adapted to enable an employee of a bank or other business establishment to provide an actual signal to the police or other law-enforcing authority that a holdup is presently in process at that establishment.

The primary object of this invention resides in the provision of a switch which is adapted to be positioned coextensive with a counter in a bank or like establishment and beneath the counter and so positioned as to enable a clerk or teller to actuate an alarm in a police station even though his hands are raised up over his head while a holdup is in progress.

The incorporation of this burglar alarm in a business establishment eliminates chances for successful perpetration of robberies and, hence, will result in the saving of great sums of money.

The construction of this invention features upper and lower, substantially U-shaped insulative elongated members which are adapted to be positioned beneath the counter and which run continuously and coextensively with the counter so that no matter where the clerk or other employee is standing he may readily actuate the signal device. Throughout the length of these U-shaped insulative members are a series of contact members resiliently held apart by a coil spring positioned over insulative sleeves on the contact members. In this manner, the force necessary to actuate the alarm can readily be controlled, thereby enabling even a light pressure to close the contacts while selectively preventing an alarm being given by falling papers or other light weight objects.

Still further objects and features of this invention reside in the provision of a burglar alarm that is strong and durable, very unobstrusive in appearance, easily manufactured and installed in various existing commercial establishments and in new buildings, and which may be readily manufactured out of plastic materials such as the synthetic resins and out of suitable conductive metals whereby maintenance is negligible.

These, together with other objects and advantages which will become subsequently apparent, reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a perspective view illustrating the manner in which this burglar alarm can be utilized during a holdup;

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Figure 2 is an enlarged sectional detail view illustrating the construction of the switch positioned beneath the counter and showing schematically the wiring diagram for connecting the switch to an alarm in the police station.

With continuing reference to the accompanying drawings, wherein like reference numerals designate similar parts throughout the various views, the reference numeral 10 generally designates the vertical wall portion of a counter 12 such as are generally used in banks in front of a teller's cage, as at 14, giving some protection for the employees of a bank and enabling them to perform their functions in an adequate manner. Obviously, the device comprising the present invention may be used at the cashier's windows of various commercial establishments or at the counters of jewelry shops and the like wherein there is likely to be a comparatively large sum of money or highly valuable and highly portable goods attractive to thieves. The switch for actuating this burglar alarm system comprising the present invention is generally indicated as at 18 and is adapted to be positioned against the inner surface of the wall 10 beneath and coextensive with the counter 12 no matter what convolutions the counter 12 may take. In this manner, the switch 18 is entirely invisible to the robber due to its position. The switch 18 includes a lower, substantially U-shaped trough-like member 20 formed from a suitable insulative material, preferably of a synthetic resin. An upper, substantially U-shaped insulative member is inverted and positioned in substantially embracing relationship over the member 20. The member 22 may be formed out of the same or similar materials as the member 20.

Secured to and lying on the base 24 of the member 20 is a conductive strip of metal 26 connected by suitable conductors 28 to a source of power 30. Welded or otherwise affixed to the plate 26 are a series of vertically extending contacts 32. The contacts 32 have contact heads 34 at the ends thereof, the contact heads serving to retain insulative sleeves 36 concentrically in place about the major portion of the contact rods 32.

An upper plate 48 is secured to the top 40 of the U-shaped member 22 and has attached thereto contacts 42 which may be welded or otherwise attached to the plate 38. The contacts 42 have contact heads 44 adapted to engage the contact heads 34 and further capable of maintaining insulative sleeves 46 in position concentric with the contacts 42. The sleeves 46 are provided with collars 48 providing an insulative means of preventing short circuiting of the switch

by the coil springs **50** which bias the collars **48** and the plate **26**. In this manner, the contact heads **34** and **44** are kept in spaced relationship until force is applied against the resilient effect of the coil springs **50**, thereby causing the contact heads **34** and **44** to engage, completing an operative electrical circuit and audible alarm **52** and, if desired, a flashing light indicative of the establishment within which this particular switch **18** is located. In ths manner, when the burglar informs the employee that he must raise his hands in view of the holdup, the employee can readily, standing on one foot, raise the other foot and, unknown to the burglar, actuate the alarm **52**, thereby enabling the police to apprehend the burglar and easily saving large sums of money to these commercial establishments.

From the foregoing, the construction and operation of the device will be readily understood and further explanation is believed to be unnecessary. However, since numerous modifications will readily occur to those skilled in the art after a consideration of the foregoing specification and accompanying drawings, it is not intended to limit this invention to the precise embodiment shown and described, but all suitable modifications and equivalents may be readily resorted to within the scope of the appended claim.

What is claimed as new is:

A burglar alarm for use in banks and commercial establishments adapted to be positioned beneath a counter substantially coextensive therewith, comprising a lower elongated U-shaped member of electrically insulative material, an upper inverted elongated substantially U-shaped member of electrically insulative material overlying and partially embracing said lower member, lower and upper conductive plates secured respectively to said lower and upper members, lower and upper contact rods attached to said lower and upper plates, insulating sleeves about the major portion of said rods, and spring means resiliently yieldingly holding said lower and upper members with said lower and upper contact rods normally in spaced relationship, said upper sleeves having collars at the upper ends thereof, said spring means comprising coil springs concentric with said sleeves biasing said collar and said lower plate.

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