CASHIER'S WINDOW GUARD

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This invention relates to guard devices for combination with counters of establishments having to do with trade, as for instance in securities, jewelry or the transfer of cash, and will hereinafter be called for convenience a cashier's window guard.

It is an object of the present invention to provide a window guard of this class which will afford a means adapted to be instantly closed into effective, protecting condition across a window opening at the cashier's cage or box, and which will also enable the trapping of a person attempting burglary by demanding of the cashier the surrender of valuable property, such for instance as securities, jewelry and cash, as may be in the custody of the cashier or other attendant at the window.

A further object is to provide means to disconcert the intending robber at the moment that the window shutter may be rendered effective. A further object is to provide a cashier's guard including a safety closure which is under control of a device which can be operated either by the clerk's foot, in the case where the robber is immediately in front of the clerk's window, or in case there be several protected windows in a general banking or customers' room, means are included in the control device whereby the clerk at some other window may release the closure at his window and at the same time render effective a signal device discernible to others in the banking or other room when this particular clerk may observe suspicious action of an individual in the room, whether the individual be at some other window or not.

It is an object to provide in combination a bullet-resistant closure for a cashier's window and also a grapple device and a discoverting apparatus all under control of one master-controller whereby to afford safety to the clerk at the window and to facilitate the capture of a potential robber.

The invention consists in certain advancements in this art as set forth in the ensuing disclosure and having, with the above, additional objects and advantages as hereinafter developed, and whose construction, combination and details of means, and the manner of operation will be made manifest in the description of the herewith illustrative embodiment; it being understood that modifications, variations and adaptations may be resorted to within the scope, principle and spirit of the invention as it is more directly claimed hereinafter.

Figure 1 is a front elevation of the inside or closure side of a partition at whose window the safety guard is installed.

Figure 2 is an enlarged view of the apparatus, partly in section and partly in elevation.

Figure 3 is a detail view of the manually operable closure latch and the alarm, the latter being omitted for clarity from Figs. 1 and 2.

Figure 4 is a detail view showing the upper portion of closed guard elements and their associated rack means concurrently operating the closure slats.

Figure 6 is a detail, sectional view showing a stop ratchet for the slat closure.

Figure 6 is a plan and detail of the grapple device in retracted, set position.

Figure 7 is a plan of the closed slat members of the closure and showing in detail the preferred structure of the parts.

Figure 8 is a section of a fragment of the cage panel showing a concealing cover or trap-door in front of the grapple device.

In its illustrative embodiment, the apparatus is shown as installed in association with a box or cage counter 2 having a window opening through which a clerk and a customer may readily view each other, the window having an inside or clerk's counter 4 and a co-planar outside counterleaf 5 which is suitably hinged at 8 so as to fall, when released from control means, to effect the disconnecting of the potential wrongdoer standing adjacent or pressing against the recedeable counter-part 5.

This counter-part is shown as having a pair of curved brackets 7 with a series of ratchet teeth 8 which are engaged by a universal part 9 movable vertically in guide bearings 10 affixed to the inside face of the wall panel 2 in such a position as to be normally drawn up by springs 11 to engaging and supporting position with the lower, inner end of the brackets 8, of which there may be a suitable number provided, in this case one, near each end of the counter-part 5.

The universal bar 9 is adapted to be pulled down to release the brackets 7 by action of a foot pedal 12, operatively mounted below the counter 4 in a position to be readily accessible and operable by the clerk at the window 3. The pedal 12 is connected by an appropriate device to the universal bar 9, and here the device is shown as including a link 13 having longitudinally yieldable, or spring section 14 attached to the universal bar for a purpose later disclosed.

The pedal 13 is the main element of the con-
trolling device including the link 13 and a link 15 which is connected to a latch 16 engaging a double-faced rack bar 17 which is slidably mounted in a fixed bearing 18 and has its rear end surrounded by a spring 19 reacting on a head 20 of the bar 17. The rack end of the bar 17 engages opposite gear segments 21 of right-hand and left-hand grapple arms 22 mounted on pivots 23. In the retracted position of the arms 22, they are latched by the latch 16 which serves to hold the spring 19 compressed until the latch 16 is pulled to release the rack bar whereupon the grapple arms 22 are instantly thrown forward in approaching relation to grapple the limbs of a potential robber at the counter 5.

The rack bar 17 is engaged by a lock bolt 24 in the bearing 18 which serves to fasten the arms 22 at any position in which they may close upon the limbs of the person caught so that the grapple arms cannot be opened.

The retracted arms are normally concealed by a freely swinging, horizontal trapdoor 25 hanging in the panel. As the grapple arms 22 are thrust outward to closing position by their spring 19, the arms will press open the covering trapdoor 25 so that the latter will not impede action of the arms.

It will be seen that if an individual is resting against the falling counter-part 5, this may not drop freely when foot pressure is applied to the pedal 12, and therefore the spring 14 acts as a compensating connection to permit the effective pulling stroke of the link 15 on the grapple-arm latch 16 and insures the full action of the grapple arms even though the falling counter-part 5 may be retarded by pressure of the person in front of the window.

At the same time of the action of the grapple device, it is desirable to effect an instantaneous closure of the whole area of the window 3, even including the usual passway 39 which is large enough for the delivery of the goods or money in transit. To that end, a feature of the invention consists of a closure comprising a plurality of vertical, slat-like pieces 20 which are preferably of bullet-proof glass. These pieces are suitably mounted to swing on vertical axes to an open position with the planes of the slats transverse to the window opening, and thus parallel to the line of vision through the window.

As here shown, each slat 30 has a vertical spindle 31 with lugs 32 to which are suitably secured the continuous margin of a slat 39. The spindles 31, except the one next to the window frame 5, at one side, have stop flanges 33 from top to bottom against which the swinging edges of the slats 30 may bear when the slats have been moved to closed position, Fig. 7.

To effect concurrent action of all of the slats 30 of the closure, each spindle 31 has at its upper end a pinion 34; all of the pinions engaging constantly a universal rack bar 35 mounted in the header 36 of the window. The lower ends of the spindles 31 are suitably journaled in a window sill 37, the intermediate portion of which is offset vertically to form the passway 39 and those slats 30 which are vertically over the passway are journaled in the upper portion of the sill 37 while the other slats 30 extending to the base of the sill which rests on the counter 4 are journaled in the sill base, excepting, that one of the slats, as 30, journaled at one end of the passway has an elongated foot 30 of an area to effect the complete closure of the passway 39 when the closure is in closed position so that the bullet-proof guard will be coextensive with the window opening 39-39.

One of the spindles, as that of the shutter or slat 39, is continued down through the counter 4 and to it is connected a sufficiently strong spring 38 whose function is to instantly snap all of the closure slats 30 to a closed position at the will of the clerk at the window.

All of the slats are normally held open by a single latch 39, Fig. 3, engaging a keeper 40, here shown as attached to the lower portion of the foot 30 of the slat 30 so that when this slat is in open position, the spring latch 39 engages it, and through the connecting rack bar 35 holds all of the slats open. In case of numerous windows in a bank or other room, the attendant at each window may instantly release the safety-closure device 30-30 when he has cause for alarm and this without causing action of the other elements of the window guard since the clerk may merely depress the relative latch 39 at his window, whereupon the spring 39 will close all of the slats 30.

Concurrently with such an operation, a signal is made effective to set up an alarm, as here shown, this signal includes an electric bell 41 in a circuit 42 having contacts through which a circuit is closed by a circuit closer 43 attached to or operated by the latch 39.

It will be understood that the alarm signal may be individual to each window or may be connected up in common to all of the other safety guards.

Each window closure is also releasable by depression of its respective pedal 12, this being connected by a suitable device, as a link 44 attached to the relative slat latch 39; it being understood that these latches are spring-actuated by springs 39.

PREFERABLY, the connecting link 44 is of such a character that the latch 39 can be depressed without needless operation of the pedal 12, whereas, on the contrary, when the pedal 12 is operated at any window, the slats of the closure are released to be closed by the spring 38, the connection 15 pulls down latch 16 and releases the grapple arms 22 and at the same time, the universal lock bar 15 is pulled so as to permit the counter 5 to be rendered unstable so that it may fall by gravity or under pressure of a person's body against it.

It is desirable to lock the slats 30 at successive, angular positions during their closing action, to prevent any opening movement if such is attempted, and for this purpose the spindle 31 of the master slat 30 is provided with a ratchet wheel 45 engaged by a system of ratchet pawls 47 whose function is to snap into the ratchet teeth as these move in closing sweep, and to prevent any opening movement.

What is claimed is:

In a cashier's window guard, a set of slats of which certain intermediate slats are shorter than the remaining slats so as to provide a passway over the cashier's counter, and one of the slats being provided with a lateral foot extension adapted to close over the said passway when all of the slats are moved to closing position.

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