Nov. 12, 1968 R. P. KASHDEN ET AL 3,410,245

ALARM DEVICE

Filed June 17, 1966

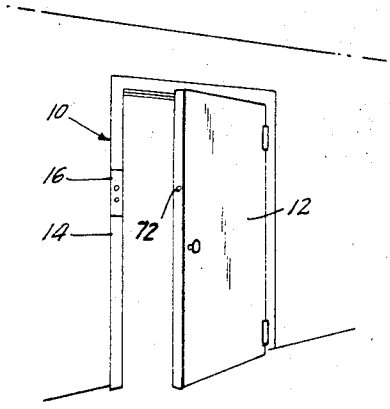


FIG. 1

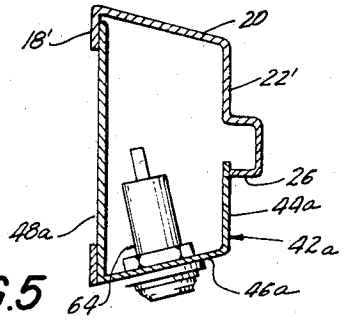


FIG. 5

FIG. 2

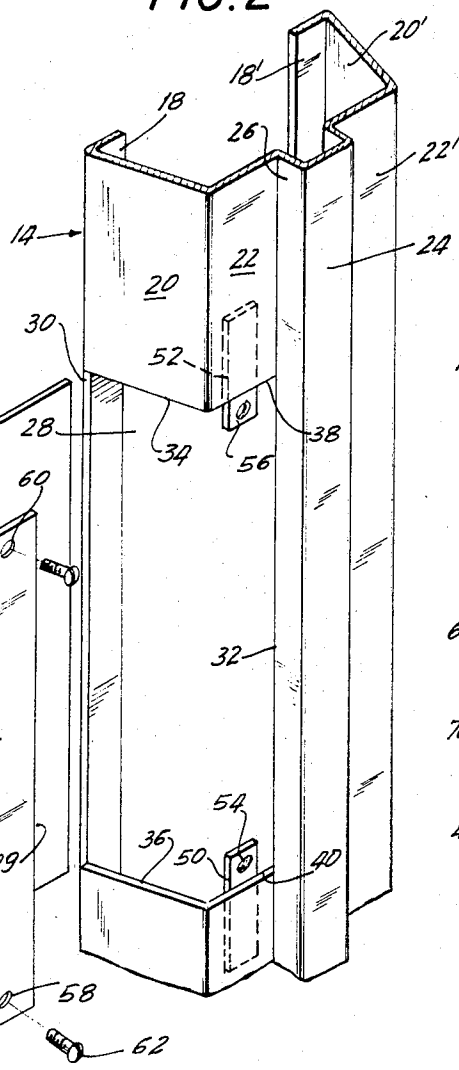
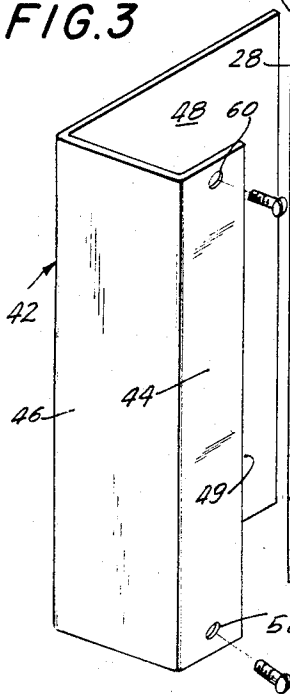


FIG. 3



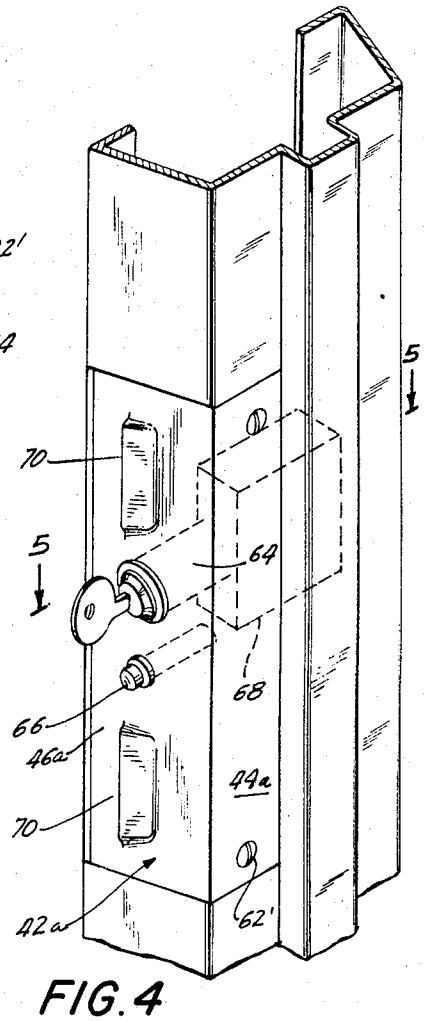


FIG. 4

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ALARM DEVICE

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ABSTRACT OF THE DISCLOSURE

A structural assembly consisting of a door jamb adapted to house therein an alarm device in recessed condition. The door jamb has a hollowed portion therein which communicates with a cutout in the door jamb. A support member substantially complementary in shape to the cutout carries an alarm device and the support member is removably secured to the door jamb so that the alarm device is positioned in recessed condition within the hollowed portion of the door jamb.

The present invention relates to a burglar alarm device of the type which is desirable for use in an apartment where the only practical entry thereto is by way of the front door.

More specifically, the present invention relates to an alarm device and a jamb for a door assembly to enable the alarm device to be easily and conveniently recessedly mounted in said jamb.

With the ever increasing construction of high-rise apartment houses containing literally hundreds of units it has become increasingly difficult to control and monitor the entrance to the building, facilitating the entry of would-be burglars. As a result, apartment dwellers have come to rely more and more on their own alarm devices for preventing and discouraging the commission of burglary. The alarm device most frequently used for the above mentioned purposes is of the type which is mounted on the inside of the front door of the apartment and which is automatically activated upon opening of the door after a short time delay to permit the disarming of the device by authorized persons provided with a key for such purpose.

Notwithstanding the great need therefor, such alarm devices have heretofore not attained the expected popularity and success. One of the main reasons for the failure to gain wide acceptance is that the mounting of the alarm is usually complex, requiring special skills and tools, if not the services of a trained mechanic. Furthermore, the alarm device, after it has been mounted, creates an awkward visual impression which interferes esthetically with the interior decoration of the apartment.

It is therefore an object of the present invention to provide improved means for mounting an alarm device in a door assembly.

Another object is the provision of means for mounting an alarm device in recessed condition within the jamb of a door assembly.

Another object is the provision, in a jamb of a door assembly, of a recess especially adapted to securely receive therein an alarm device.

Another object is the provision, in a jamb of a door assembly, of a recess in which an alarm device can be mounted in minimum time and without the need for skilled help or special tools.

Another object is the provision, in a jamb of a door assembly, of a recess especially adapted to either securely receive therein an alarm device, or to be closed by a cover therefor, without interfering with the esthetic appearance of said door assembly.

The above and other objects, features and advantages of the present invention will be more fully understood from the following description considered in connection with the accompanying drawings.

In the drawings:

FIG. 1 is a front perspective view of a door assembly provided with the recessed alarm device, in accordance with the invention;

FIG. 2 is a perspective view, in elevation, of a segment of the side jamb member, showing the recess for receiving either the alarm device or dummy cover therefor;

FIG. 3 is a perspective view, in elevation, of the dummy cover for the jamb member recess;

FIG. 4 is a perspective view, in elevation, of the segment of FIG. 2 with the alarm device secured in the recess; and

FIG. 5 is a section taken along line 5–5 of FIG. 4.

Referring now to the drawings, there is shown in FIG. 1 a door assembly as viewed from the inside of an apartment, said door assembly comprising door frame **10** and the door proper **12**, hingedly mounted on the frame for providing access into and out of the apartment.

Frame **10** and particularly side jamb member **14** thereof, is provided with alarm device **16** which is recessed therein, as more fully described hereafter by reference to FIGS. 2 through 5.

Side jamb member **14**, the pertinent segment of which is best shown in FIG. 2, is preferably formed of one piece and comprises inner portion **18–18′**, lateral portions **20–20′**, and outer portions **22–22′** which are separated by projecting portion **24** which defines a stop to provide an abutment **26** which contacts door **12** when in a closed position. Jamb **14** is seen to be substantially U-shaped with the lateral portions **20, 20′** forming the two legs of the U, and the outer portion **22** forming the base of the U. The abutment **24** is positioned approximately in the center of the base of the U.

The recess for alarm device **16** is defined by a uniform width cutout **28** in jamb member **14** extending between edge **30** of inner portion **18** and edge **32** of abutment **26**. Longitudinally of jamb member **14**, cutout **28** extends between edges **34** and **36** in lateral portion **20** and edges **38** and **40** in outer portion **22**.

Cutout **28** can be conveniently closed, when no alarm device is used, by means of cover **42** shown in FIG. 3. Cover **42** is preferably a uniform width one piece member consisting of outer portion **44**, intermediate portion **46** and inner portion **48**. Portions **44** and **46** of cover **42** have substantially the same dimensions as cutout **28** whereby insertion of cover **42** therein will completely close the recess in jamb member **14**, and upon such insertion, inner portion **48** will abut the inner surfaces of jamb portions **18** and **18′**.

Cover portion **44** is preferably slightly larger than the cutout portion closed thereby so that edge **49** thereof projects inwardly of the jamb and is thus not exposed.

A pair of brackets **50** and **52**, secured to the inner surfaces of outer portion **22** as by welding, project into the recess and are provided with threaded apertures **54** and **56**. Outer portion **44** of cover **42** is provided with apertures **58** and **60** which come into alignment with apertures **54** and **56**, when cover **42** is in its proper closing position and cover **42** is maintained in said closing position by means of screws **62**.

The alarm components of alarm device **16** are mounted on a frame **42*a*** which is identical in shape and contour dimensions to previously described cover **42**. Frame **42*a*** thus consists of outer portion **44*a***, intermediate portion **46*a***, and inner portion **48*a***, having the same dimensions as portions **44**, **46** and **48**, respectively. All of the alarm components including lock mechanism **64**, indicator light **66**, electrical circuitry **68**, and sound outlets **70** are provided or mounted on intermediate frame portion **46*a*** and

extend into the jamb recess. The alarm device is secured in position by means of screws **62'** threaded into apertures **54** and **56** of brackets **50** and **52**, precisely in the same manner as cover **42** is secured.

Thus it is seen that alarm device **16** can be installed into place, in accordance with the invention, without special skill and with a screwdriver being the only tool required. Further, when the alarm device is properly installed, there is no interference with the interior decor of the apartment as the entire unit is recessed within the jamb and the only unconcealed parts are the lock **64** which must be accessible and the light **66** which must be visible in order to indicate to the user that the alarm has been properly set.

Alarm device **16** is preferably of the type which operates on the principle that the opening of the door breaks a magnetic circuit which energizes the alarm circuitry to produce the desired audible alarm signal. For such type of alarm device, there is provided a small permanent magnet **72** (see FIG. 1) recessed in the door and located so as to be in confronting relation with the jamb mounted alarm device when the door is closed.

It will also be noted that if no alarm device is desired, the recess is closed by cover **42** without creating any significant interference with the overall appearance of the door assembly. This arrangement enables a new apartment house to have incorporated therein, from the very beginning, a door assembly for each unit with the built in recess and cover plate therefor. In this way, should the tenant desire the alarm device, he can easily install it without difficulty in the manner described above, and if no alarm device is desired, the cover **42** is retained in its place. It has been found that the overwhelming majority of tenants in apartment house units equipped with the foregoing arrangement have installed the alarm device in accordance with the invention, resulting in a material decrease of unlawful or unauthorized entries in these units. In this connection, it is of interest to note that in many instances tenants are equally concerned with the abuse of entry privileges by superintendents who have the door key as they are with would-be burglars, and the alarm arrangement of the present invention is a deterrent to both.

For purposes of illustration, the jamb member **14** has been shown as being hollow. It will be understood, however, that when the door assembly is incorporated into the wall structure, the jamb member **14** may be filled with concrete, may be tied into a steel or wooden structure or may otherwise be integrated into the wall. In any case, however, a portion of the jamb member remains hollowed out to define the recess for receiving the alarm device.

In the drawings, while the jamb member **14** has been illustrated as having a cross-section of particular configuration in which lateral portion **20** forms an obtuse angle with outer portion **22**, it will be understood that such portions could equally well form a right or acute angle or that such cross-section could be of different configuration entirely.

While the arrangement in accordance with the invention has been described in connection with independent alarm devices, such arrangement lends itself particularly well to an alarm system monitored from a central location. More specifically, all jamb members of front door assemblies could be prewired with terminals provided at the jamb recess, all concealed from view. In this way, the alarm device, when installed, would be directly connected to a central monitoring station so that immediate help therefrom could be supplied when necessary.

While we have herein shown and described the preferred embodiment of our invention, it will be understood that the invention may be embodied otherwise than as herein specifically illustrated or described, and that in the illustrated embodiment certain changes in the details of construction and in the form and arrangement of parts may be made without departing from the underlying idea or principles of this invention within the scope of the appended claims.

Having thus described our invention, what we claim and desire to secure by Letters Patent is:

1. A structural assembly adapted to house therein an alarm device in recessed condition comprising:

(a) a substantially U-shaped door jamb forming a permanent part of said structural assembly, the U-shape being formed by two leg portions and a base portion of said jamb,

(b) said door jamb having a hollowed portion therein,

(c) a cutout in said door jamb communicating with said hollowed portion,

(d) said cutout being struck from one of said leg portions and said base portion,

(e) an alarm device carried by a support member,

(f) said support member being substantially complementary in shape to that of said cutout, and

(g) cooperating means on said door jamb and said support member for removably securing said alarm device in said hollowed portion in recessed condition in place of a cover plate which is adapted to be removably secured to said jamb to cover said cutout when it is not desired to mount an alarm device in said jamb.

2. A structural assembly as defined in claim **1** further comprising a door stopping abutment extending outwardly from said base portion of said jamb, the base portion on one side of said abutment defining the part of said base portion from which said cutout is struck.

3. A structural assembly as defined in claim **2** wherein said alarm device is a magnetic alarm device adapted to be responsive to a magnet mounted on an unhinged side of a door which is hingedly mounted at another side thereof to said jamb.

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