Oct. 31, 1950 L. J. JOHNSON 2,527,736

FASTENING DEVICE FOR WINDOWS AND DOORS

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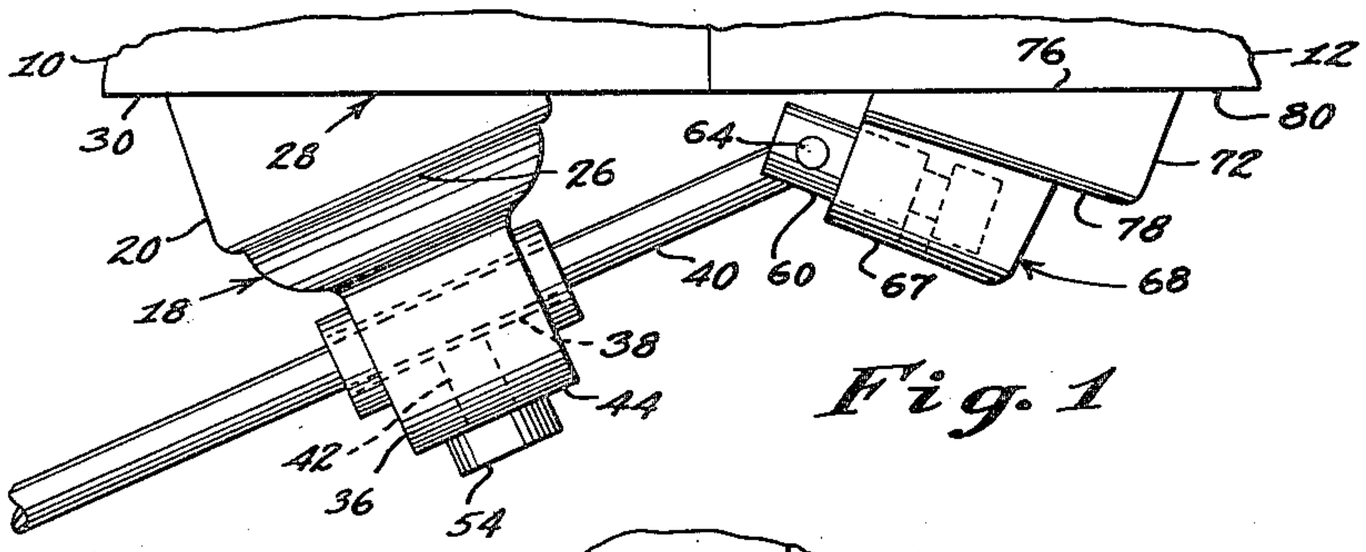

Fig. 1

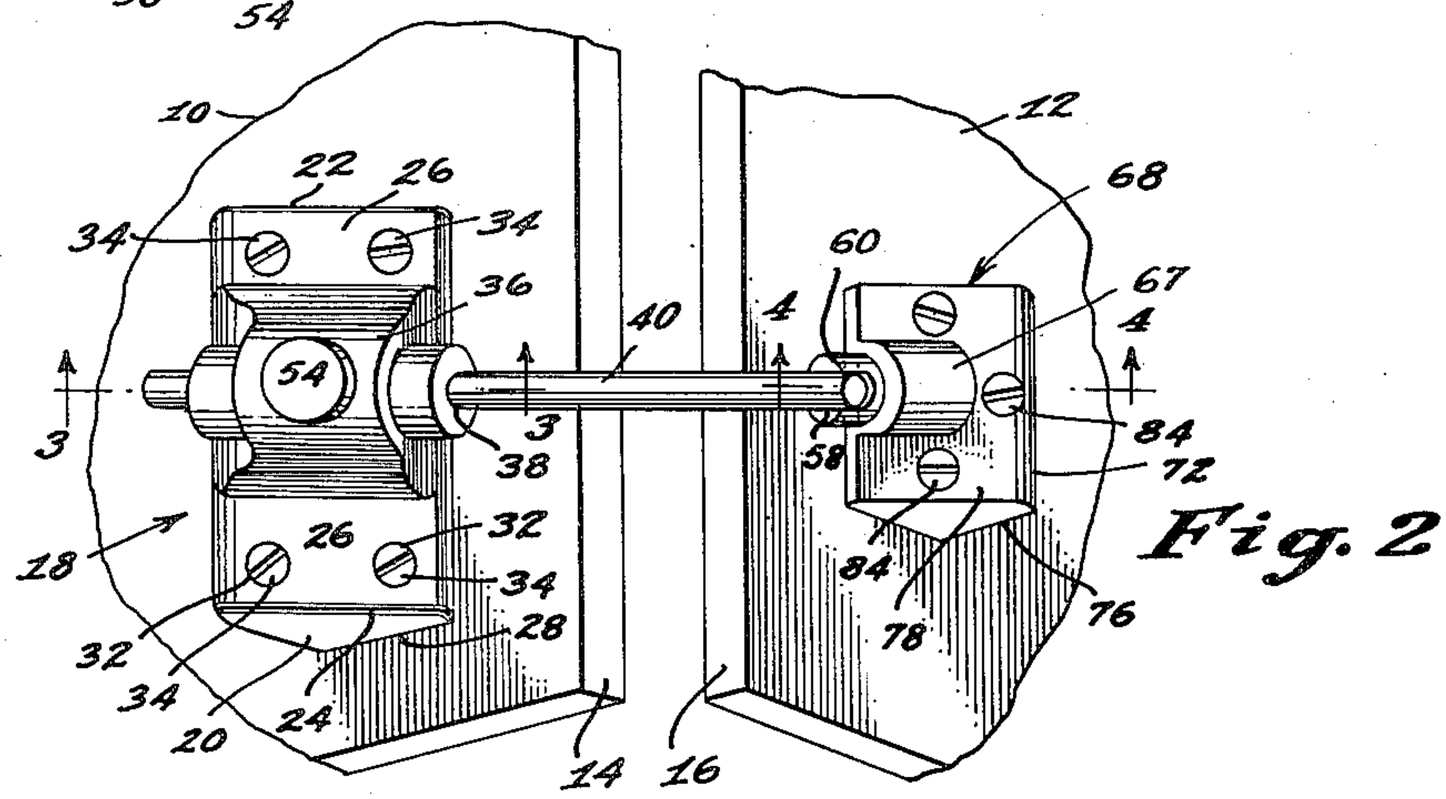

Fig. 2

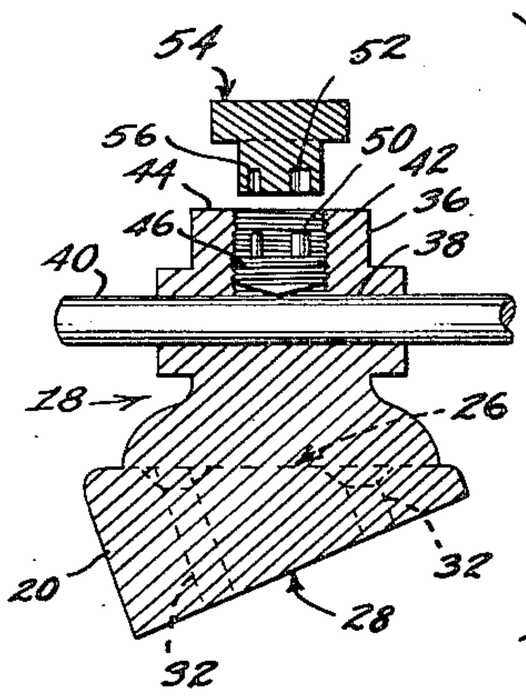

Fig. 3

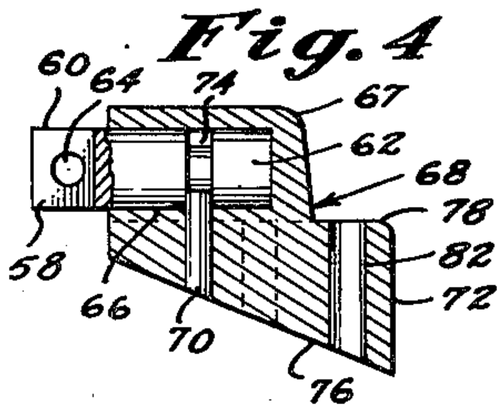

Fig. 4

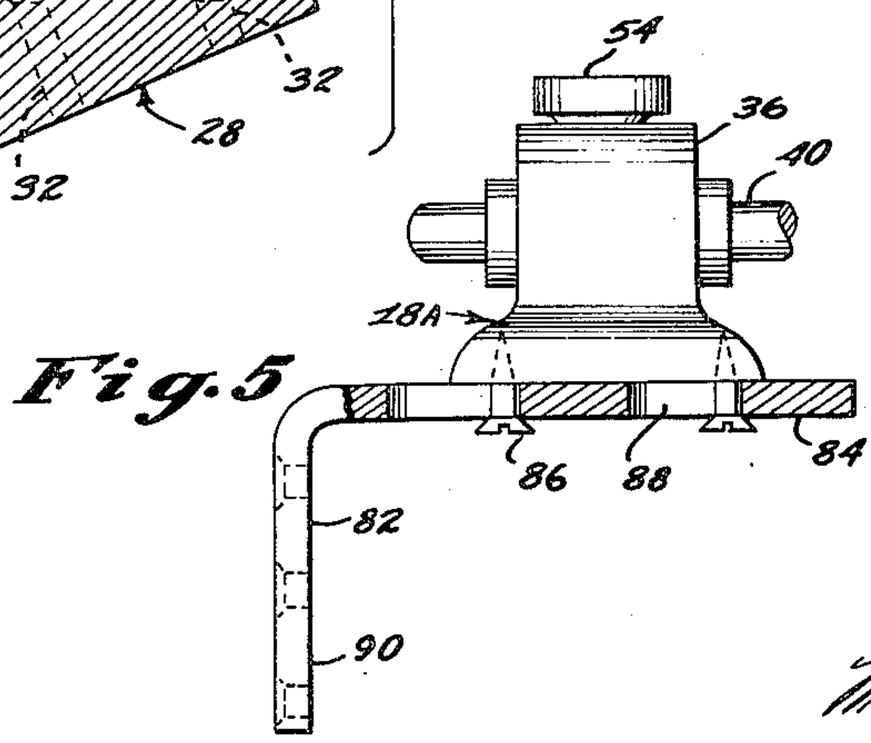

Fig. 5

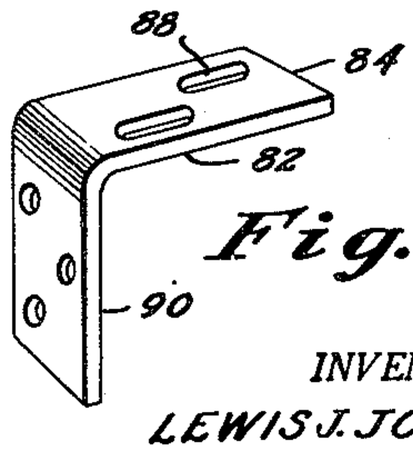

Fig. 6

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FASTENING DEVICE FOR WINDOWS AND DOORS

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3 Claims. (Cl. 292—276)

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This invention relates to devices for fastening windows, doors, and the like.

An object of the invention is to provide a fastening device for windows and doors, which is so arranged as to be opened with difficulty by an intruder, yet which is quite simple to open by one who is not an intruder.

Another object of the invention is to provide a window and door fastening device which is so constructed that it is easy to be manipulated by those who are not strong, such as women and children.

Still another object of the invention is to provide a device whereby windows and doors may either be locked in closed position, or in partly open position, the device having the external appearance of a tamper-proof lock, and having operating parts the working of which is not readily apparent from casual inspection thereof by an intruder, the lock being provided with a plunger rod which is secured in place by a threaded member that cannot be turned out of position without employing a special form of wrench, so as to confuse and bewilder an intruder.

A further object of the invention is to provide a lock which is simple in design, inexpensive to manufacture, and effective for the purpose intended.

Other objects and advantages of the invention will become apparent from the following description of a preferred embodiment thereof as illustrated in the accompanying drawings, and in which,

Figure 1 is a top plan view of my improved fastening device in position upon two window sections showing them in locked position.

Figure 2 is a front elevational view of the devices shown in Figure 1, but with the window sections partly ajar and the lock holding them in such engagement.

Figure 3 is a sectional view taken on line 3—3 of Figure 2, and showing only the lock.

Figure 4 is a sectional view taken on line 4—4 of Figure 2, showing only the lock.

Figure 5 is a side elevational view of a portion of a modified form of the locking device shown in Figures 1 and 2, and

Figure 6 is a perspective view of the lock mounting bracket of Figure 5, shown apart from the locking device.

In order to understand clearly the nature of the invention and the best means for carrying it out, reference may now be had to the drawings, in which like numerals denote similar parts throughout the several views.

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As shown, there are two windows 10 and 12 which in Figure 1 are shown in closed position, while in Figure 2 they are shown in partly open position, their abutting edges 14 and 16 being slightly separated to allow passage of air therebetween for ventilating a room or the like. The windows are hinged to a window frame at their opposite edges, not shown, in any usual manner well known in the art.

The present invention provides means for securing the two windows together in closed position, as shown in Figure 1, or in the open position shown in Figure 2, entrance of an intruder being blocked in both cases by the locking means illustrated. The lock includes a first major housing block 18 which may be formed in any suitable manner such as by machining or casting, having a base portion 20 having upper and lower extensions 22 and 24 as seen in Figure 2. The outer surfaces 26 of the extensions 22 and 24 lie in a plane which is inclined toward the plane of the inner surface 28 of the base, as best shown in Figures 1 and 3, the inner surface being adapted for abutting against the surface 30 of the door 10.

The extensions 22 and 24 are provided with bores 32 for the reception of fastening screws 34 which are threaded into matching holes formed in the door 10. As seen best in Figure 3, the axes of the screw bores 32 are perpendicular to the plane 28 and to the face 30 of the door 10, being countersunk at their outer ends to receive the screw heads below the surfaces 26 of the base extensions. The housing block 18 has an upraised portion 36 integral with the base 20, and having longitudinal bore 38 extending therethrough, as best shown in Figure 3, the axis of the bore lying in a plane parallel to the plane of the surfaces 26 of the base, and adapted to receive a connecting rod 40.

A second bore 42 is formed in the upraised portion 36 of the housing block 18, the second bore extending inwardly from the upper surface 44 thereof and intersecting the bore 38, the axis of the second bore being substantially perpendicular to that of the first bore 38. The second bore 42 is threaded to receive a correspondingly threaded fastening plunger 46 the inner end of which is conical as shown in Figure 3, to present a pointed extremity for engagement against the contiguous surface of the connecting rod 40, the pointed end being adapted for slightly penetrating the connecting rod to hold it securely against being withdrawn from the bore 38.

The fastening plunger 46 has upstanding stubs or projections 50 on its outer surface, as seen best

in Figure 3, for reception in corresponding sockets or recesses **52** formed in the inner end of a key or wrench **54** the shank **56** of which is adapted to enter the unfilled end of the second bore **42** so as to engage the projections **50** and thus the fastening plunger **46**. When this is done, the head of the wrench or key **54** may be turned about its axis, either to turn the plunger **46** tightly against the connecting rod **40**, or to disengage it therefrom, so as to permit the rod to be withdrawn from the bore **38**.

The other end of the connecting rod **40** extends into the slot **58** of bifurcated end **60** of the shaft **62** being secured pivotally therein by means of a pin **64**. The shaft **62** extends rotatably into a recess **66** formed in upraised portion **67** of the second major housing block **68**, being secured against withdrawal axially from the recess **66** by means of a pin **70** which extends through the base **72** of the block **68** and into an annular groove **74** formed in the shaft **62**. The base **72** has its inner and outer surfaces **76** and **78** lying in intersecting planes, as best shown in Figures 1 and 4, the inner surface **76** being adapted to lie against the face surface **80** of the window **12**. Bores **82** are formed in the base **72** of the block **68**, to receive fastening screws or bolts **84** the lower ends of which engage in the window **12** to hold the block **68** securely thereon.

In operation, when the windows are to be moved from the partly open position of Figure 2 to the closed position of Figure 1, it is only necessary to turn the wrench **54** so as to disengage the set screw **46** from the rod **40**, and then close the windows, the rod **40** sliding to the position shown in Figure 1, whereupon the set screw **46** is again tightened. The rod **40** may be lightly serrated, if desired, to form a tighter joint when engaged by the set screw. When the windows are completely opened, wholly withdrawing the rod **40** from the bore **38**, it may be turned with the clevis **60**, so as to hang down in a vertical plane, thus being out of the way.

As shown in Figure 5, the left hand major block **18A** may be formed with a flat instead of wedge-shaped base, being otherwise similar to the block **18** shown in Figures 1, 2 and 3, and provided with a fastening angle member **82** which is shown in perspective in Figure 6. The upper leg **84** is secured to the flat base of the block **18A** by means of screws **86** extending through slots **88** therein, thus providing lateral adjustment of position. The lower leg **90** of the angle member has holes for the reception of screws by means of which it may be secured to a door or other member.

It will be seen that the device as herein described provides a means for securing windows and the like in closed, or partly open positions without permitting entry of an intruder. The key **54** is not normally left in position, and the intruder cannot reach the set screw **46**. And if he should be able to reach it, he cannot turn it out without having a key with the same combination or arrangement of recesses **52** corresponding to the number and arrangement of the projections **50**.

The ensuing hesitation and confusion on the part of the intruder will usually cause him to defer attempting entry, and probably block the attempt altogether.

Although I have described a preferred embodiment of my invention in specific terms, it is to be understood that various changes may be made in size, shape, material and arrangement without departing from the spirit and scope of the invention as claimed.

I claim:

1. A device for fastening two swingably associated panels in either partially opened positions wherein the free edges of the panels are separated and the panels are angulated with respect to each other or in closed position wherein the free edges of the panels are engaged and the panels are in the same plane, said device comprising a first block arranged to be secured to the inward side of one of the panels near the free edge thereof, said first block having a journal bore extending at a converging angle toward the free edge of the panel, a stubshaft journalled in said journal bore and projecting therefrom at a converging angle toward the free edge of the associated panel, means precluding endwise movement of said stubshaft in said journal bore, a second block arranged to be secured to the inward side of the other panel near its free edge, said second block being formed therethrough with a smooth bore extending at a converging angle toward the free edge of the other panel, a slide rod in said smooth bore and rotatable and slidable therein at an angle converging toward the free edge of the other panel, said stubshaft and said slide rod thereby extending at opposite convergent angles while the panels are in closed coplanar positions and arranged to extend parallel to each other in at least one partially open position of the panels, and pivot means pivotally connecting the adjacent end of said slide rod to said stubshaft, and means on said second block engageable with said slide rod for locking the same against endwise movement relative to said second block.

2. A device for fastening a pair of swingable panels in open and closed positions comprising a first block securable to the back of one of the panels near its free edge, a journal formed in said first block slanting forwardly toward the free edge, a second block securable to the back of the other panel near its free edge, a smooth bore formed in said second block slanting forwardly toward the free edge of the other panel, a rigid rod extending slidably and rotatably through said smooth bore and long enough to reach across any feasible aperture between the free edges of the panels to the region of said first block, a stubshaft in the journal of said first block fixed against endwise movement, said stubshaft having an end terminating short of the free edge of the associated panel, pivot means connecting the adjacent end of said rigid rod and said end of the stubshaft, and locking means on said second block engageable with said rigid rod to lock the same against endwise movement in said smooth bore from a selected position wherein said rigid rod and said stubshaft are angulated with respect to each other in the closed position of the panels.

3. A device of the character described comprising first and second blocks having plane attaching surfaces, said first block being formed with a journal set at an acute angle to its attaching surface, a stubshaft journalled in said journal and fixed therein against endwise movement, said stubshaft projecting a relatively short distance from said first block, said second block being formed therethrough with a smooth bore set at an acute angle to its attaching surface, the angulations of said journal and said smooth bore being opposite, a relatively long rigid rod extending rotatably and slidably through said smooth bore and arranged to reach toward said first block for a substantially greater distance than the pro-

jection of said stubshaft from said first block, pivot means connecting said stubshaft with the adjacent end of said rigid rod, and means on said second block for locking said rod in a selected position in said smooth bore.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,978,781	Berger	Oct. 30, 1934

FOREIGN PATENTS

Number	Country	Date
112,627	France	Apr. 28, 1876
371,206	Great Britain	Apr. 21, 1932