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J. A. BANHAM

3,486,351

LOCKS

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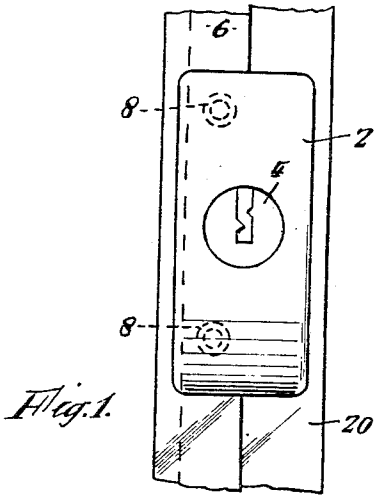


Fig. 1.

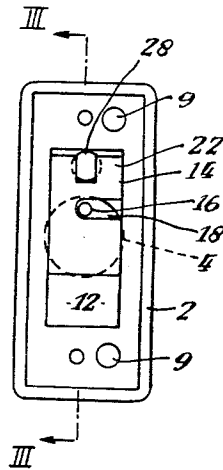


Fig. 2.

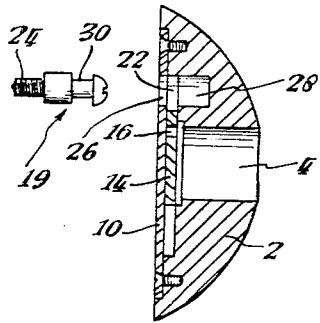


Fig. 3.

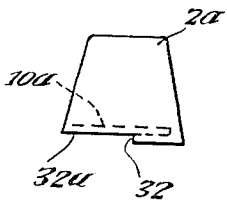


Fig. 5.

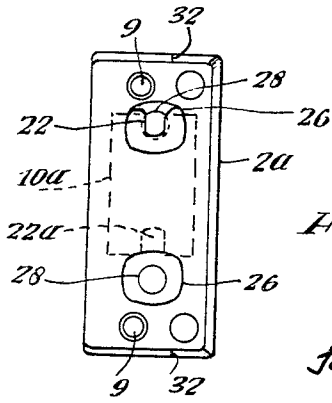


Fig. 4.

INVENTOR

JOHN ANTHONY BANHAM

By Jacobs & Jacobs

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3,486,351  
LOCKS

John Anthony Banham, London, England, assignor to Banham's Patent Locks Limited, London, England, a company of Great Britain and Northern Ireland  
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7 Claims

## ABSTRACT OF THE DISCLOSURE

The invention disclosed concerns a lock for a hinged closure. In the form described, this comprises a peg member projecting from one part of the closure and receivable in a lock body secured to the other part of the closure. The peg and body are engaged together by a bolt member in the body that is displaced parallel to the closure plane by a key-operated mechanism, so locking the hinged parts together.

This invention relates to locks for hinged closures such as pivoted doors and casement windows.

In one known form of lock for such hinged closures, a lock body secured to one part has a detent displaceable parallel to the closure plane to seat in a slot in the other part or in a slotted member of the lock secured to a frame of said other part. Such arrangements require a relatively unrestricted space for their disposition and operation. Said other part must also have an appreciable depth and its material be readily worked if a slot is to be formed in it and if alternatively a slotted member is fitted to the surface of said other part by such conventional means as surface screws it can easily be removed by an intruder.

According to the present invention, there is provided a lock for a pair of mutually hinged parts wherein bolt and peg members are provided for attachment to the respective parts, an abutment element intermediate the length of the peg member providing an engagement surface for the bolt member and a key mechanism being arranged to displace the bolt member into and out of engagement with the peg member.

More particularly, the invention may provide a lock for a hinged closure, such as a casement window, comprising a fixed part and a movable part hinged thereto, the lock including a peg adapted to be fixed to one part to project from the plane thereof, and a lock body adapted to be secured to the other part so as to be locatable over the peg and receive a projecting portion thereof in a recess, the lock body including a bolt movable in the plane of its supporting part by a key-operated mechanism to engage the peg which is provided with at least one shoulder or like abutment on said projecting portion to form an element for said engagement of the bolt preventing relative opening movement of the parts.

Preferably, the bolt member has a U-form engagement region arranged to embrace the peg member while the peg itself may have its engagement surface formed by a peripheral recess. This last feature is particularly convenient if the peg is to be screwed to its frame since its angular orientation is then unimportant.

One form of lock according to the present invention will be more particularly described with reference to the accompanying drawings, wherein:

FIG. 1 shows the lock mounted on a casement window,

FIG. 2 is a view of the rear face of the lock body with the backplate removed,

FIG. 3 is a sectional elevation on the line III—III

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in FIG. 2 and also shows the backplate and locking pin, and

FIGS. 4 and 5 are rear and plane elevations respectively of a modified form of lock body.

Referring to the drawing, the lock body comprises a die cast shell 2 which carries a locking cylinder 4 of conventional nature. The lock body is secured to a hinged frame 6 of the window by screws 8 passing through the frame and into tapped blind holes 9 in the rear face of the shell. When the frame 6 is closed against fixed surrounding frame 20 to which it is to be secured, the edge of the latter conceals the heads of the screws 8. It is therefore impossible to remove the lock, when it is operative without the use of force.

The rear face of the shell is closed by a backplate 10 and an inner recess 12 thus covered by the backplate houses a bolt member 14 which is adjustably located in the recess by a pin 16 projecting from the locking cylinder 4 into a lateral slot 18 of the member.

A peg 19 is secured to fixed frame 20 by a threaded shank 24 to project from the plane of that frame and is located thereon to be able to pass through an aperture 26 in the backplate 10 to a bore 28 in the shell 2. One end of the bolt member 14 has a central slot locatable over the bore 28 and said end defines a U-form engagement portion 22 for the peg.

As the cylinder mechanism is rotated by manipulation of a key inserted from the front of the lock, the pin 16 pivots with the cylinder and causes the member 14 to slide along the recess 12. The peg has a concentric necked portion 30 that is in register with the plane of the recess 12 when the hinged frame 6 is closed and operation of the locking cylinder will therefore raise the bolt member 14 so that its U-form portion embraces the necked portion of the peg. The member 14 is then engaged by the shoulder of the peg neck 30 and the frame 6 is locked in its closed position against the fixed frame 20.

It will be appreciated that the above-described embodiment can be modified within the scope of the present invention. For example, FIGS. 4 and 5 illustrate an alternative form of body shell 2a having a rabbet or step 32 offset from the plane containing the axes of the tapped holes 9. Backplate 10a has its outer face flush with face 32a of this rabbet. When the lock body is mounted to its frame member 6, the inner angle of the step 32 is located against the outer edge of the member 6 so that the portion of the body shell overlapping the member 6 is brought closer to the face of the fixed frame member 20.

In a further modification shown in FIGS. 4 and 5, aperture 26 of the backplate and bore 28 of the body shell are duplicated in the lower region of the shell. The bolt member has a second engagement portion 22a in this lower region and thus either of the bores 28 can receive the peg member 19. This feature has the effect of allowing an asymmetrical construction, such as the rabbeted body shell, to be used in oppositely handed locations with a similar relative disposition of the two separate parts of the lock.

What I claim and desire to secure by Letters Patent is:

1. A lock for a pair of mutually hinged parts and comprising, in combination, a peg member adapted to be secured to one of said parts to project from it in the direction of initial relative opening movement between said parts, a lock body securable to said other part to be locatable over the peg member, an abutment element being provided on a portion of the peg member projecting from said one part, respective receiving recesses being formed in the lock body towards opposite ends thereof and each able to receive said projecting portion of the peg member, a bolt member being displaceably mounted

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to the lock body between said recesses and a key-operated mechanism being secured to said body centrally of the length of said body to move the bolt member selectively towards either end of said body to engage said abutment element in the selected one of said recesses and prevent relative opening movement between said hinged parts.

2. A lock according to claim 1 wherein a plurality of engageable elements are provided on said bolt member for alternative engagement locations.

3. A lock according to claim 1 wherein a rabbet is formed on a face of the lock body abutting said other part to which the body is secured, the inner angle of said rabbet being seatable against an edge of said other part whereby the body overlaps said edge and the overlapping portion of said face can be brought into close proximity to said one part.

4. A lock according to claim 1 wherein a peripheral recess is formed on said projecting portion of the peg member to provide said abutment element for the bolt member.

5. A lock according to claim 4 wherein the peg member further comprises a screwed shank contiguous to said projecting portion and concentric with said peripheral recess, the member being securable by said shank to its associated one of the hinged parts.

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6. A lock according to claim 1 wherein embracing U-form regions are provided at opposite ends of the bolt member to engage the peg member abutment element at the respective recesses.

7. A lock according to claim 1 wherein a slot in the bolt member extends transversely to the direction of displacement of said member, a displacement-actuating element for said member being mounted pivotally in the body and eccentrically to its axis of rotation, said element extending into said slot to displaceably engage the bolt member.

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MARVIN A. CHAMPION, Primary Examiner

ROBERT L. WOLFE, Assistant Examiner

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70—134, 402; 292—244