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(71) Applicant

Clive Alfred George Murton  
9 Blacksmith Lane, Connor Downs,  
Hayle, Cornwall, United Kingdom

(72) Inventor

Clive Alfred George Murton

(74) Agent and/or Address for Service

Clive Alfred George Murton  
9 Blacksmith Lane, Connor Downs,  
Hayle, Cornwall, United Kingdom

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E2A ACMD A100 A118 A420 A421  
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None

(58) Field of search  
UK CL (Edition K) E2A ACMD  
INT CL<sup>5</sup> E05C

(54) Security catch for windows and doors

(57) A Security Catch 10 which is comprised of two principal components a side carrier bracket 11 which is fixedly secured to the frame of a window or the frame of a door and a latch bar 12 which is pivotal about an angle bracket 19 fixedly attached to the sash of a window or the end or face of a door. The latch bar 12 has an elongate slot 20 running almost the entire length of the bar 12.

The latch bar 12 may be "parked" in a vertical position within the angle bracket 19 when the window or door is fully opened. When the central spindle 15 is at the outer extremity of the elongate slot 20 the window or door would be open to a limited extent.

The spindle 15 may be turned when in either end slot portion 21, 22 to either align flats 23 with the main slot portion to allow movement therewith or to prevent such movement.

Figure 1.

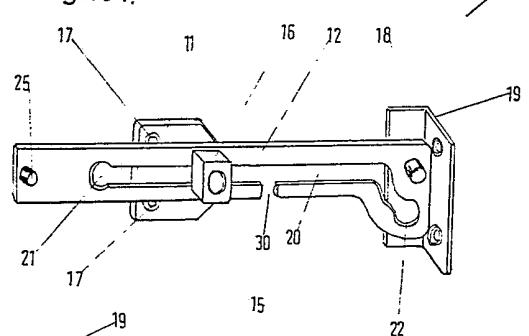
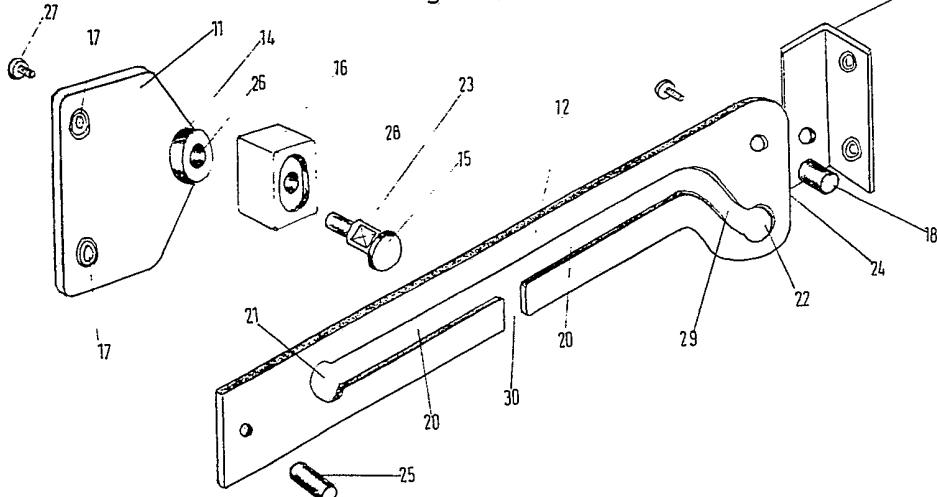


Figure 2.



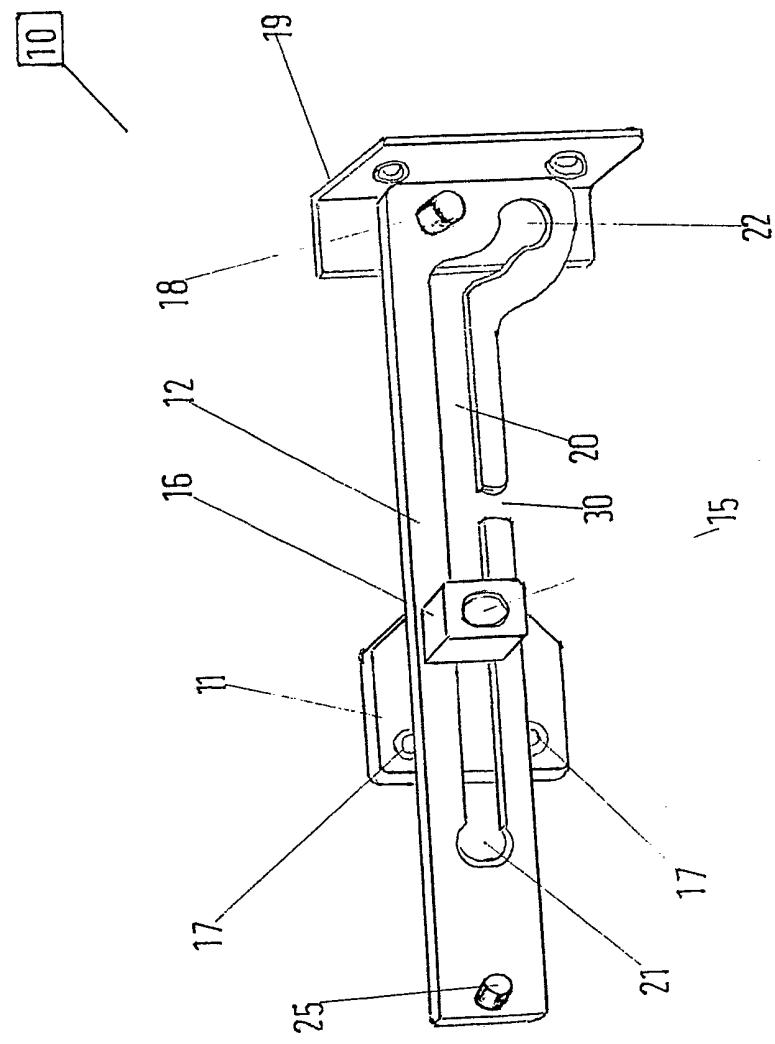
The claims were filed later than the filing date within the period prescribed by Rule 25(1) of the Patents Rules 1990.

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Security Catch for Windows and Doors.

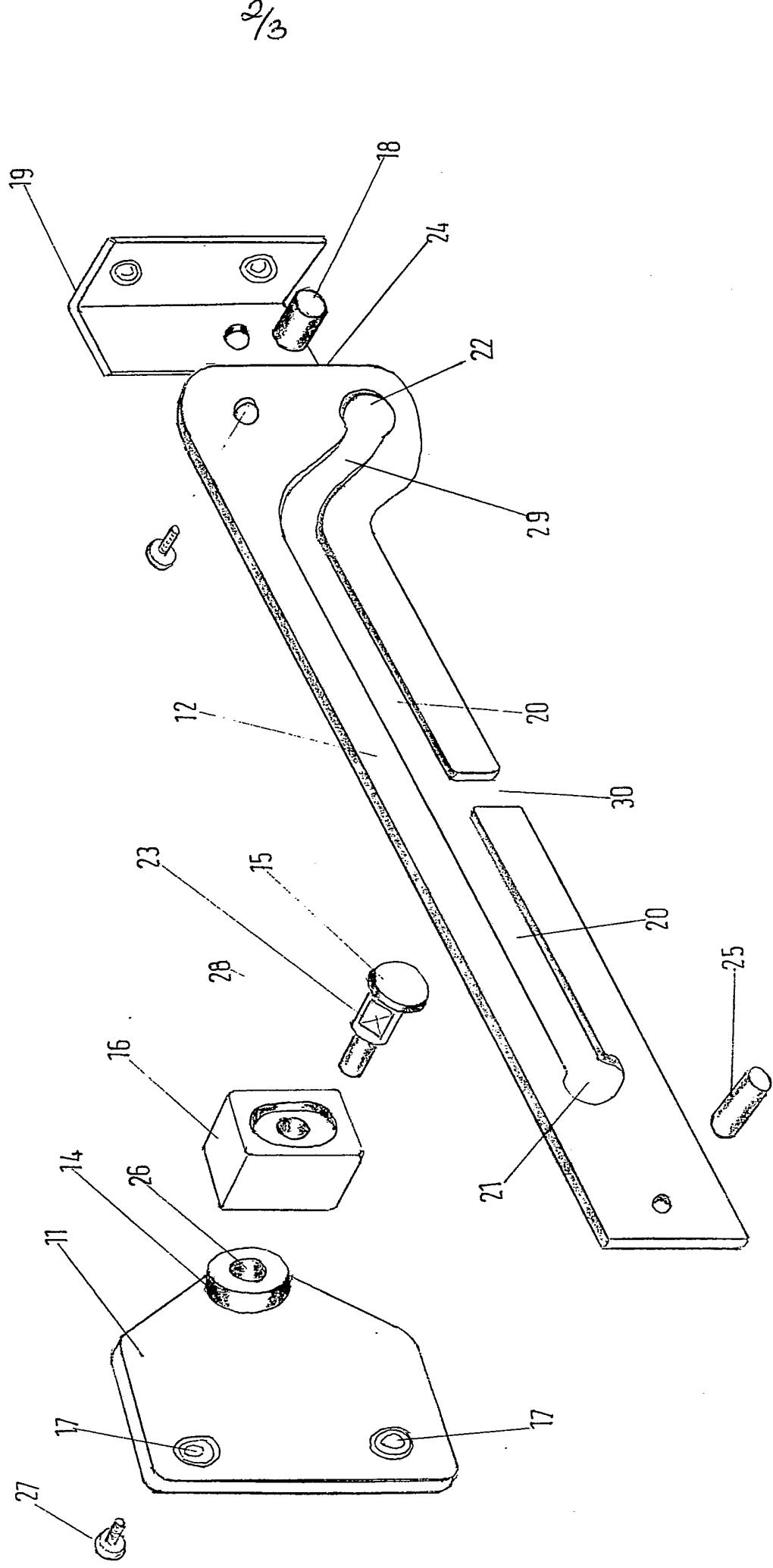
Figure 1.  
Sheet 1 of 3.

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## Security Catch for Windows and Doors.

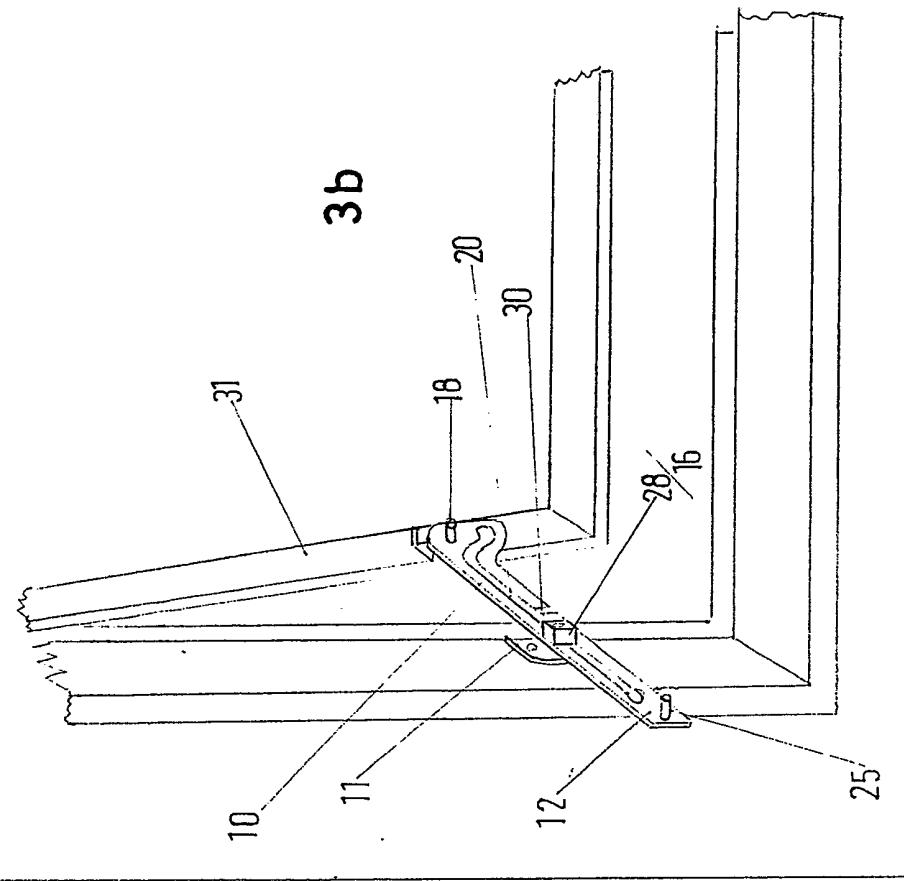
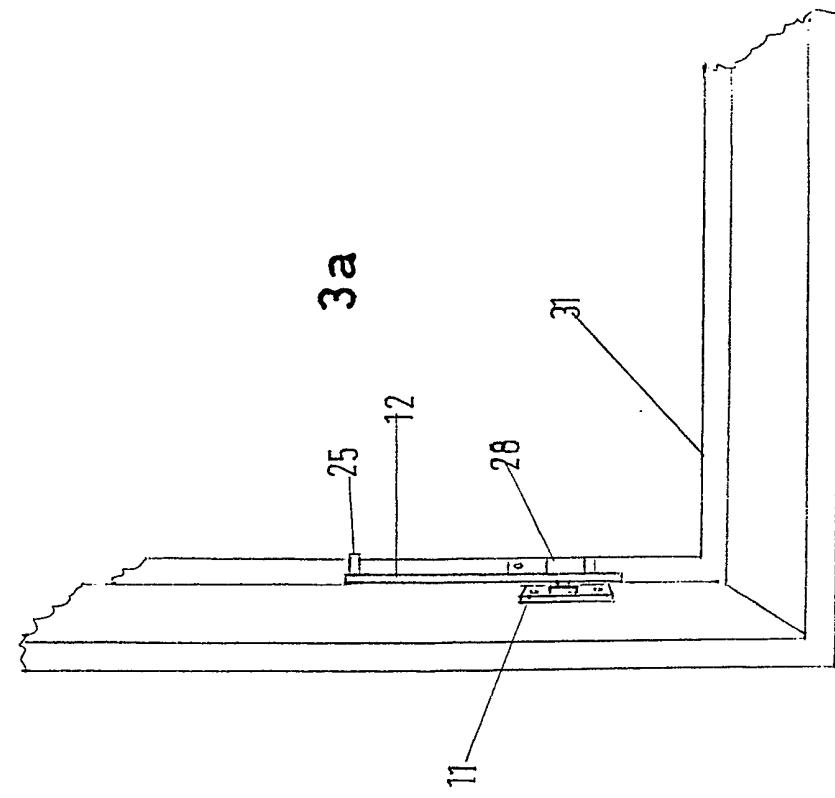
- **Figure 2.**  
Sheet 2 of 3.



Security Catch for Windows and Doors.

Sheet 3 of 3.

Figure 3



SECURITY CATCH FOR WINDOWS AND DOORS

THIS INVENTION RELATES TO A SECURITY CATCH FOR OUTWARD OPENING WINDOWS AND DOORS WHICH INCORPORATES A LOCKING AND A 'PARKING' FEATURE.

Background to the Invention

5 The proliferation of burglaries and vandalism during the past few years has caused much attention to means of delaying - if not preventing, entry into domestic and other premises.

10 In many instances a high degree of electronic sophistication has been provided to create acoustic alarms at unwanted entry. Such alarms draw attention to unlawful entry and some are linked to security services and even to Police 15 establishments.

According to the concept of the present invention it is intended to provide an inexpensive and uncomplicated method 20 of securing windows and doors whether they be of wood or metal, which are simple to install and easy to operate.

The invention comprises a side carrier bracket which is fitted to the side of a window frame or door frame and a latch bar which is fitted to the window or door itself. The carrier bracket will retain the latch bar in a vertical 'parked' position which locks the window or door firmly and securely in its closed position or by the slightest rotation of a retaining pintle can release the window or door to be opened partially or fully. The invention can be linked to electronic or infra-red alarm systems at the time 25 of installation or some time later, if that is preferred.

A specific embodiment of the invention will now be described by way of example only, with reference to the

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accompanying drawings in which:-

30 Figure 1 is a pictorial view of the SECURITY CATCH

Figure 2 shows the two components comprising the  
SECURITY CATCH separated from one another.

Figure 3 shows the SECURITY CATCH fitted to a window.

According to Figure 1 there is provided a SECURITY CATCH 10  
35 which is comprised of two principal components, a side  
carrier bracket 11 and an elongate latch bar 12.

The carrier bracket 11 is fixedly attached to a window or  
door frame, the latch bar 12 is fixedly attached to the  
window shutter or door.

40 The carrier bracket 11 is provided with a pintle pin 15 which  
is comprised of three components, a spacer collar 14 a  
central spindle 15 (see Figure 2) and a locking 'button' 16.  
The locking button 16 rotates on the central spindle 15  
which is fixedly attached to the carrier bracket 11 and  
45 passes through the centre of the spacer collar 14.

The carrier bracket has provided two or more countersunk  
screw holes 17 for attachment to the window or door frame.  
If the window frame or door frame is of metal construction  
countersunk screw-threaded set-screws would be used.

50 The elongate latch bar 12 is free to rotate through 90 degrees  
on a fulcrum pin 18 fixedly secured to the angle bracket 19  
which provides the attachment feature for the latch bar 12  
to the window shutter or door.

55 The latch bar 12 is provided with an elongate slot 20 which  
is mainly in the centre of the bar 12 but terminates at the  
outer end in a larger dimensioned round hole 21 and at the

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inner end curves upwards through a pre-determined arc and terminates in a similar larger dimensioned round hole 22 as provided at the outer end. It can be seen that the dimension of the elongate slot 20 is smaller than the diameter of the two round holes 21 and 22.

60 The latch bar 12 can only move through the restraint provided by the elongate slot 20 when the locking button 16 is rotated through 90 degrees which will place the two 'flats' 23 provided on the spill 28 of the locking button 16 in line with the elongate slot 20.

65 Mid position along the elongate slot 20 the latch bar 12 is cut through to provide access to and from the elongate slot 20 to release the window shutter or door from engagement with the carrier bracket 11. This enables the window or 70 door to be fully opened.

75 The latch bar 12 is shaped at its inner end to abut against the angle bracket 19 to maintain the said bar in a horizontal position so that it may traverse on the locking button 16 to permit the window shutter or door to be partially opened or firmly shut.

When the locking button 16 is appropriately rotated the latch bar 12 may be turned through 90 degrees in a clockwise direction to cause the straight edge 24 to abut vertically 80 against the angle bracket 19 to prevent any movement of the window shutter or door.

Near the outer extremity of the latch bar 12 is provided a finger knob 25 which facilitates the operation of the latch bar 12 about the locking button 16. In the preferred 85 embodiment the locking button 16 is outwardly shaped as a rectangle to facilitate finger grip to rotate the said

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button 16 to one or the other of the operating positions.

In another embodiment the locking button 16 could be to any other shape and its outer surface could be serrated (knurled) to facilitate grip.

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Referring now to Figure 2 the two principle components of the SECURITY CATCH 10 are shown separated from one another and the components within each principle component have been 'exploded' to indicate more clearly the aspects of each, which have already been described. The carrier bracket 11 is described further and comprises a flat plate in which are two or more countersunk holes 17 into and through which countersunk screws would be placed to secure the flat plate against the side of any window or door frame.

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The spacer collar 14 is a circular or other shaped disc which is provided with a circular hole 26 and is tightened against the outer face of the plate by the "Allen" screw 27 which is recessed into the inner face of the flat plate.

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The "Allen" screw 27, screws into the central spindle 15 on which the locking button 16 is free to rotate.

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The locking button 16 is shaped in rectangular form in the preferred embodiment to facilitate its rotation on the central spindle 15. The extension spill 28 is provided with two flats 23 which give the spill 28 a dimension almost equivalent to the width of the elongate slot 20. The flats 23 prevent the locking button 16 from turning when they are engaged within the elongate slot 20.

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The latch bar 12 is shown in Figure 2 as a flat elongate metal or other material bar with an elongate slot 20 extending almost the full length along the centre axis. The

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elongate slot 20 is curved upwards in a smooth arc 29 near the inner end of the bar 12. Approximately midway along the elongate slot 20 it is bridged through to provide access gap 30 for the locking button 16 when turned so that the flats 120 23 may pass through but not the round dimension of this extension spill 28.

The latch bar 12 is pivotal about a fulcrum pin 18 mounted in the angle bracket 19 which permits the latch bar 12 to rotate no more than 90 degrees from horizontal to vertical 125 and vice versa. The angle bracket 19 is provided with two or more countersunk fixing holes which will accept either wood screws or screws for metal work!

The finger knob 25 is shown at the outer extremity of the latch bar 12 and can be appropriate shape.

130 Reference to Figure 3 shows the SECURITY CATCH 10 fitted to a window. In view 3a the window shutter 31 is shown closed with the latch bar 12 in the 'parked' position. View 3b shows the window shutter partially opened but releasably secured in that position by turning the locking button 16 so that the extension spill 28 cannot enter the elongate 135 slot 20.

Should it be desired to open the window shutter 31 fully the latch bar would be released via the access gap 30 and the window shutter moved outwards to any desired extent.

140 Thus it can be seen from the description and the drawings comprising this specification that the SECURITY CATCH can provide firm locked closure for windows and doors or it can retain such windows and doors in a locked and partially opened position.

## CLAIMS

1. A Security Catch for Windows and Doors which incorporates a locking and "parking" feature which is comprised of two elements. The first is an angle bracket with a pivotal and sliding latch which can be turned through 90 degrees to a "parking" position to secure the window or door in a locked position.

The second element is a fixed carrier bracket with a locking button which will traverse through an elongate slot in the sliding latch when placed in a "traverse" position or remain locked to the sliding latch when placed in the "lock" position. The angle bracket is fixedly secured to the edge of a door or fixedly secured to the sash of a window. The carrier bracket is fixedly attached to the frame of a door or the outer frame of a window.

2. A Security Catch for Windows and Doors as claimed in 1 which provides for complete disengagement of the two elements which then permits either door or window to be fully opened.
3. A Security Catch for Windows and Doors as claimed in 1 and 2 which limits the aperture between the Window and its frame and the door and its frame.

4. A Security Catch for Windows and Doors as claimed in 1,2, and 3 which comprises of a flat metal bar with an elongate slot running on a central axis almost the entire length of the bar. At one end of the elongate slot it terminates in a slightly larger circular hole, at the other the slot turns downwards through an extension of the main body of the bar. The slot terminates in an enlarged hole.

A Security Catch for Windows and Doors as claimed in the preceeding claims 1 to 4 which comprises of an angle bracket in which is fixedly attached a circular metal pintle pin which serves as the horizontal alignment guide for the flat metal as well as the Pin to provide the "parking" of the flat bar in a vertical plane.

A Security Catch for Windows and Doors substantially as described herein with reference to Figure 1 to 3 of the accompanying drawing.

Examiner's report to the Comptroller under  
Section 17 (The Search Report)

9109844.2

## Relevant Technical fields

(i) UK CI (Edition 5) K E2A: ACMD

(ii) Int CI (Edition 5) E05C

## Search Examiner

P J SILVIE

## Databases (see over)

(i) UK Patent Office

(ii)

## Date of Search

21 JULY 1992

## Documents considered relevant following a search in respect of claims

ALL

Category (see over)	Identity of document and relevant passages	Relevant to claim(s)
	NONE	



Category	Identity of document and relevant passages	Relevant to claim(s)

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&: Member of the same patent family, corresponding document.

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