

(12)

EUROPEAN PATENT APPLICATION

(21) Application number: **87302954.0**

(51) Int. Cl.⁴: **E 05 B 1/00**

(22) Date of filing: **03.04.87**

(30) Priority: **07.04.86 GB 8608445**
06.02.87 GB 8702719

(43) Date of publication of application:
14.10.87 Bulletin 87/42

(84) Designated Contracting States:
AT BE CH DE ES FR GB GR IT LI LU NL SE

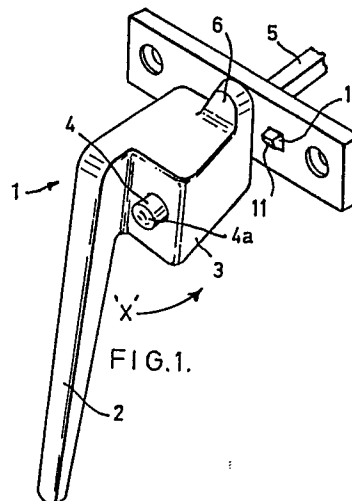
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(54) **A handle.**

(57) The invention relates to a lockable handle 1 for an espagnolette fastening which has a hand-grip part 2 offset from a boss or body 3 in which a plunger is mounted captively in a suitable bore. The handle 1 is connected with an escutcheon plate 7 by a spindle or rod 5, for connection with an espagnolette. The escutcheon plate has a bore in which is mounted a captive latch or bolt 10 under pressure of a spring. The latch or bolt 10 protrudes from the escutcheon plate in the open position of the handle. To close or lock the handle, hand grip part 2 is grasped and pivoted to overlie the escutcheon plate, when the boss 3 rides over the latch 10, depressing it into the bore until the latch and a hole under the plunger 4 in the boss are aligned when the latch moves under spring pressure to latch into the hole in the boss, so holding the handle closed. To open the handle, the plunger is depressed so that the latch is depressed to or just below the plane of separation of the boss and escutcheon plate so that the handle can be turned to the position shown.



Description

A HANDLE

The invention relates to a handle for a closure, particularly an espagnolette handle for a closure such as a window.

It is advisable to provide for such a handle to be lockable, for security reasons, whilst being readily manipulated by one hand. Such prior handles do not usually provide a combination of these facilities.

It is accordingly an object of the invention to seek to mitigate these disadvantages.

According to the invention there is provided a lockable handle for a closure, comprising a latch which is operable under finger or thumb pressure.

The latch may comprise a manually operable depressible mechanism which can be operated to unlock the handle for operating the closure.

The manually depressible mechanism may comprise means normally biased to engage the handle and lock it, and means to depress the biased means to allow the handle to be operated.

The biased means may comprise latch means which may be urged into engagement with the handle by resilient means, and the means to depress the biasing means may comprise a plunger which may be operable by thumb pressure.

There may be an escutcheon plate in which the resilient means and latch means may be mounted, and the latch may engage in a facing orifice of the handle in the locked position of the handle.

The latch may have a curved cam surface at its free end for facilitating movement of the handle thereover when the handle is moved from an open to the locked position.

The lockable handle may include lock means to lock the plunger in at least one operative position.

The lock means may be situated in the plunger.

The lockable handle may include a cover plate for a securing means of the escutcheon plate.

It will be understood that the handle extends to a closure including a lockable handle as hereinbefore described mounted thereon.

A lockable handle for an espagnolette of a window is diagrammatically illustrated, by way of example, with reference to the accompanying drawings.

Fig. 1 is a perspective view of a handle according to the invention;

Fig. 2 is a side view of a locking bolt of the handle of Fig. 1;

Fig. 3 is a side view of a plunger of the handle of Fig. 1;

Fig. 4 is a plan view of the plunger, taken on arrow 'A' on Fig. 3;

Fig. 5 is a side elevational view of a second handle according to the invention;

Fig. 6 is an underneath view of the handle of Fig. 5;

Fig. 7 is a part fragmentary view of the handle of Fig. 5 showing an escutcheon plate removed;

Fig. 8 is a plan view showing the handle of Fig. 5 in an open or unlocked position of the closure;

Fig. 9 is an underneath view showing the

handle of Fig. 5 in an open or unlocked position of the closure;

Fig. 10 is a side elevational view showing the handle of Fig. 5 in the open position of Figs. 8 and 9;

Fig. 11 is a plan view of a third handle according to the invention; and

Fig. 12 is a side elevational view partly in phantom of the handle of Fig. 12.

Referring firstly to Figs. 1 to 4 of the drawings, a lockable handle 1 for an espagnolette fastening has a hand-grip part 2 offset from a boss or body 3 in which a plunger 4 is mounted in a suitable bore. The boss 3 mounts a rod 5, from a nose 6, for connection with the espagnolette, which rod 5 passes through an escutcheon plate 7. The bottom of the boss 3 adjacent the escutcheon plate 7 is closed by a plate which has a hole through which a finger 8 of the plunger can pass. The plunger 4 is normally arranged so that a spring 9 bearing on the plate keeps the plunger 4 raised so the finger 8 is clear of the hole, and so that the opposite end 4a projects out of the boss 3 adjacent the hand-grip part 2. The plunger is held captive in the bore.

The escutcheon plate 7 mounts a locking bolt 10 under pressure of resilient means such as a coil spring 12, the bolt 10 being usually clear of the escutcheon plate 7 as shown, and being generally square, with a chamfered edge, cam surface or corner 11 near the 'nose' 6.

In the open condition shown, the bolt 10 projects out of the escutcheon plate 7. To close a closure to which the handle 1 is fitted, the hand-grip part 2 is gripped and turned in the direction 'X', Fig. 1, so that the boss 3 rides over the chamfered edge part 11 and forces the bolt 10 into the escutcheon plate 7 against the spring until the hole and bolt 10 are aligned, when the bolt is urged into the hole by a spring 12, thus holding the handle locked shut.

In order to open the closure, the plunger 4, 4a is depressed so that the plunger 8 engages the bolt 10 and pushes it level with or below the plane of separation between the bottom and face of the plate so that it is just clear thereof. The handle can then be turned to the position shown.

Referring to Figs. 5 to 10 of the drawings, there is shown an espagnolette handle 10 which is a lockable handle for a closure, comprising a handle with hand grip means 102 and a manually operable depressible mechanism 103 which can be operated to unlock the handle 102 for operating the closure (not shown).

The handle 102 has an enlarged part 104 in which is housed captive in a bore under spring pressure a manually depressible means in the form of a plunger 105. The handle 102 is connected via a pivot axis 106 with an escutcheon plate 107 which is secured in use via securing means such as screws (not shown) in screw holes 108 with a closure such as a casement window. Between a boss 109 and one screw hole 108 is a latch 110 which is mounted in an orifice 111 of the escutcheon plate 107 under pressure of a

biassing means such as a spring, the spring being between a plate 112 of the escutcheon plate 107 and the underside of the latch 110. The latch 110 has a curved cam surface 113 to facilitate riding of a follower 114 of the handle over the latch 110 to depress it into the hole 111 until it can spring into a hole 115 in the handle 102 when the holes 111 and 115 become aligned axially to lock the handle closed.

To open the handle, or unlock it, it is only necessary to depress the plunger 105 in the Fig. 5 position in which the latch 110 is in the hole 115, being aligned therewith, and turn the handle so that when the plunger 105 depresses the latch to or below the plane of separation between the handle and escutcheon plate, the handle can be turned, to operate locking mechanism of the closure connected with the axis.

When the handle is returned to the locked position, the latch automatically latches into the hole to lock the handle closed. The other hole 108 is covered by a plate 117 to seek to obviate removal by a vandal.

Referring now to Figs. 11 and 12, the handle 201 shown is identical to the embodiments shown in Figs. 5 to 10 so like parts are identified by like numerals. The handle 201 is modified in that the plunger 105 is itself lockable by a key (not shown) in either the open or closed condition of the handle 201. This is accomplished by the enlarged part 104 or boss surrounding the bore 202 in which the plunger 105 is captive having two spaced slots or recesses 203 and 204 corresponding to the open or closed position of the handle. The plunger 105 incorporates a key slot 205 and barrel 206 which has a cam for retracting a slide 207 which is mounted transversely in a blind slot 208 in the plunger under pressure of resilient means such as a coil spring 209. The slide is normally urged by the spring to engage either the recess or the slide so that depending on whether the plunger is depressed or not, the plunger is locked in one or other position of the handle, that is locked or unlocked. When the key is inserted in the key slot 205 and turned, it in turn turns the barrel 206 to rotate the cam and act on the slide 207 to retract it to the left (as viewed) out of the particular recess 203 or 204 in which the slide is received so that the handle 201 can be operated to open or close the closure.

The lock may be spaced from the plunger in the handle and arranged to lock it in the open and/or closed condition.

It will be understood that there may only be the lower (as viewed) recess 204 so that the handle 201 can be locked in the closed position. Both the embodiments provide additional security, and ease of use.

The handles shown herein can have a locking nib, instead of the rod 5 or 106 for an espagnolette.

terised by a latch (10, 110) which is operable under finger or thumb pressure.

2. A lockable handle according to Claim 1, characterised by the latch (10, 110) comprising a manually operable depressible mechanism (4, 105, 10, 110) which can be operated to unlock the handle (1, 101, 201) for operating the closure.

3. A lockable handle according to Claim 2, characterised by the biased means (10, 110) comprising latch means which is urged into engagement with the handle by resilient means (12), and by means to depress the biasing means comprising a plunger (4) which is operable by thumb pressure.

4. A lockable handle according to Claim 3, characterised by an escutcheon plate (7, 107) in which the resilient means (12) and latch means (10, 110) are mounted, the latch engaging in a facing orifice of the handle (1, 101, 201) in the locked position of the handle.

5. A lockable handle according to Claim 4, characterised by a curved cam surface (11, 113) of the latch (10, 110) for facilitating movement of the handle (1, 101, 201) thereover when the handle is moved from an open to the locked position.

6. A lockable handle according to Claim 5, characterised by lock means (205) to lock the plunger (105) in at least one operative position.

7. A lockable handle according to Claim 6, characterised in that the lock means (205) is situated in the plunger (105).

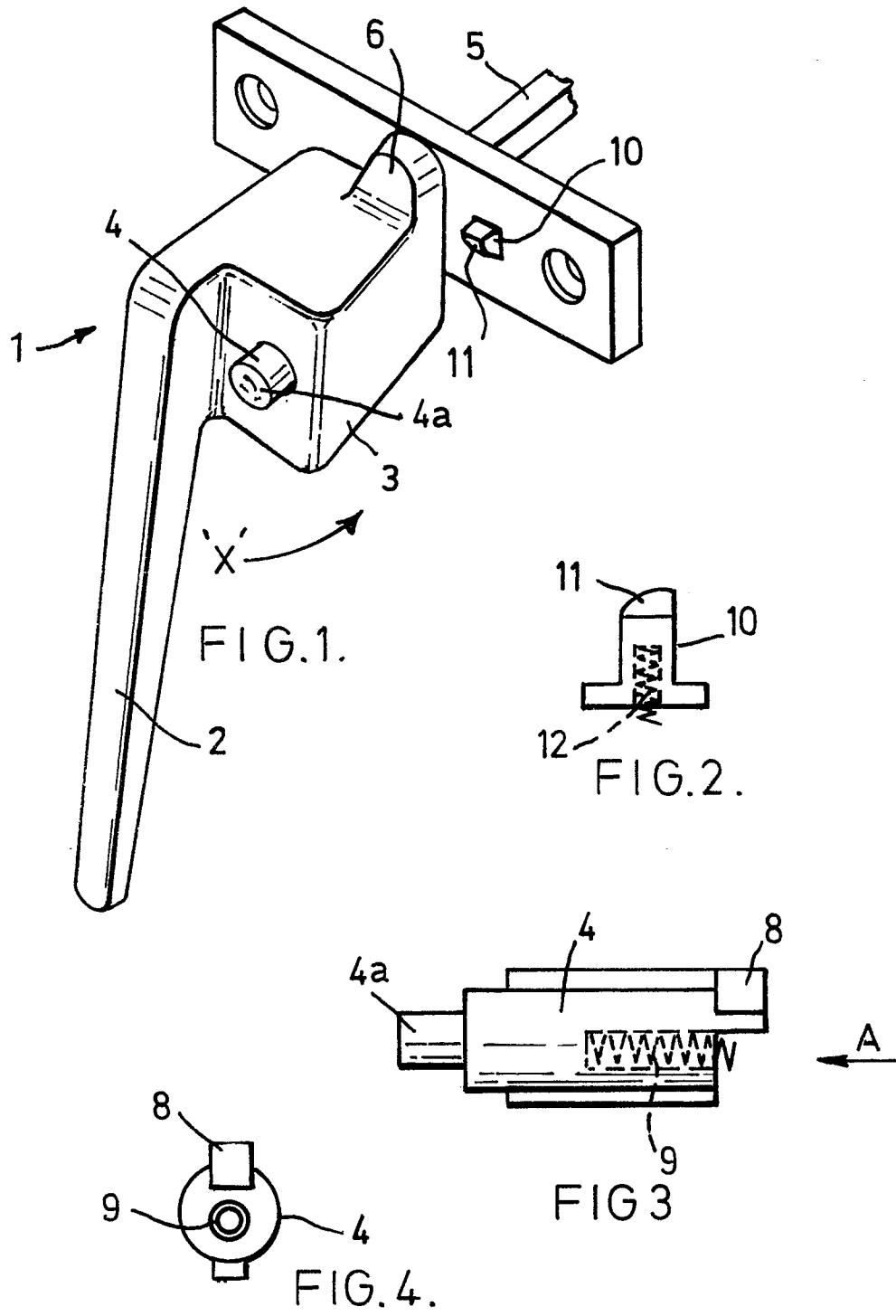
8. A lockable handle according to Claim 7, characterised in that the lock means (205) comprises a key-operable barrel (206) and a retractable slide (207), and in that the handle (102) includes a blind recess (203, 204) in which the slide (207) is receivable.

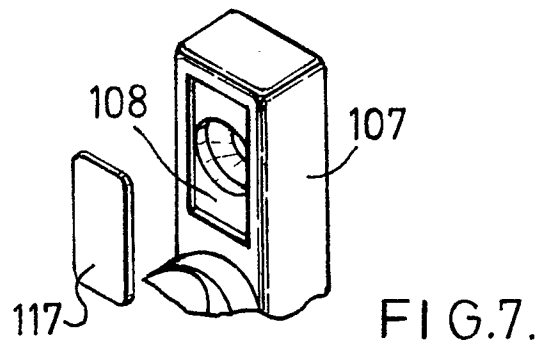
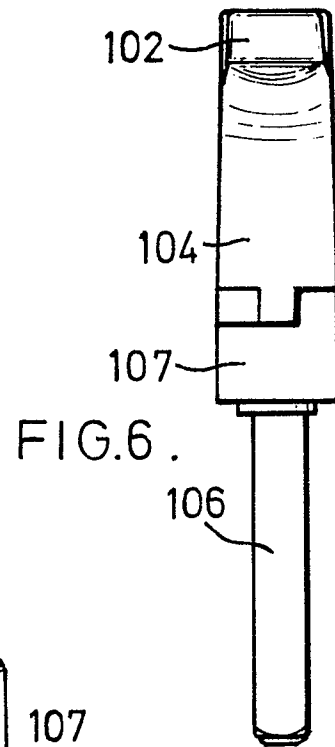
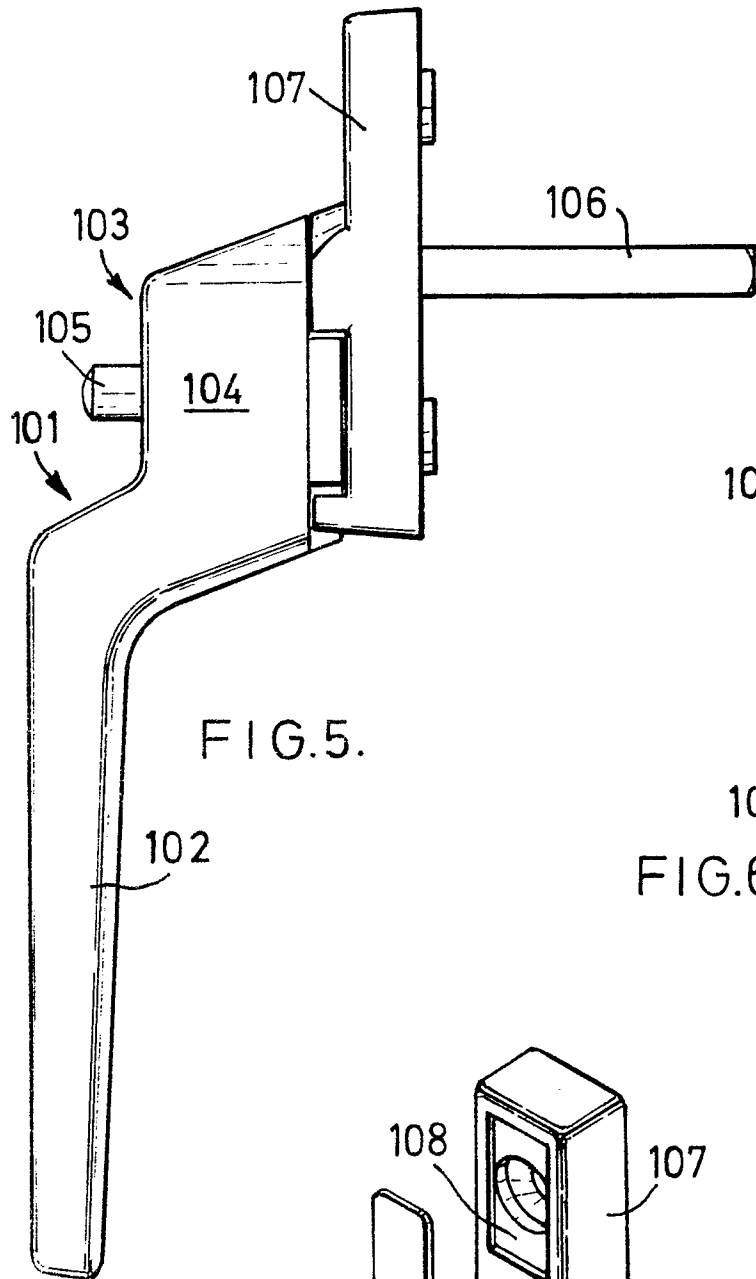
9. A lockable handle according to any preceding claim, characterised by a cover (117) for a securing means (108) of the escutcheon plate.

10. A closure including a lockable handle as hereinbefore described mounted thereon.

Claims

1. A lockable handle for a closure, charac-





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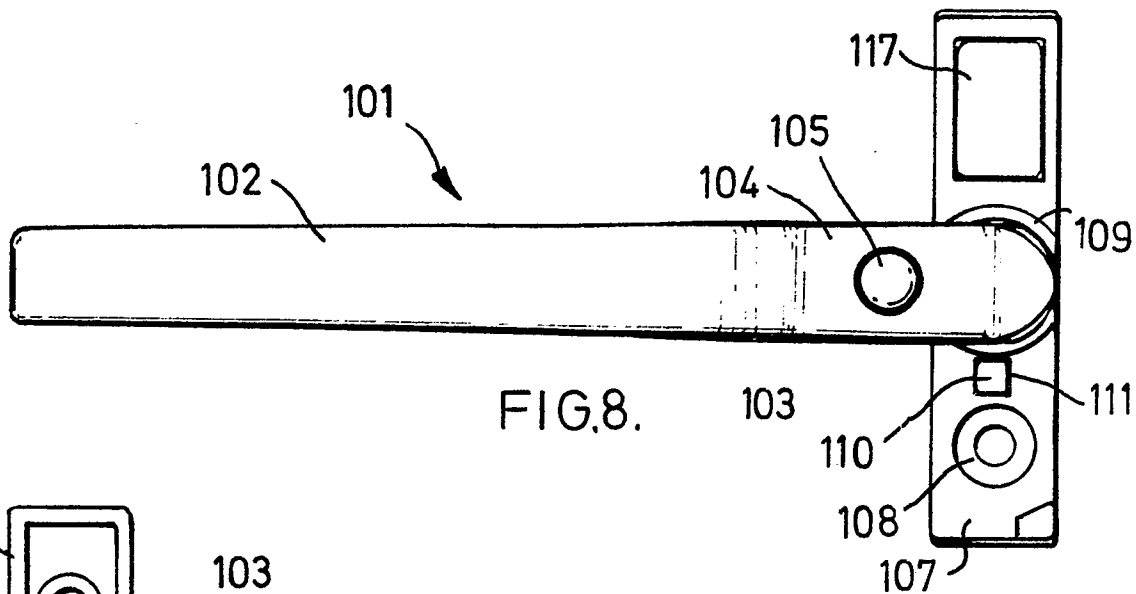


FIG. 8.

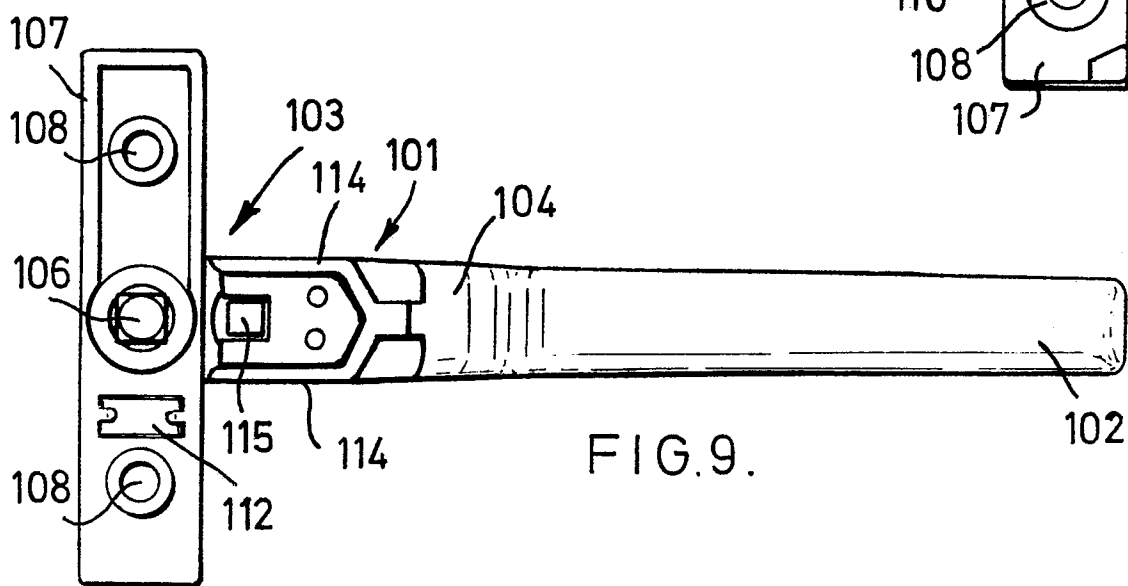


FIG. 9.

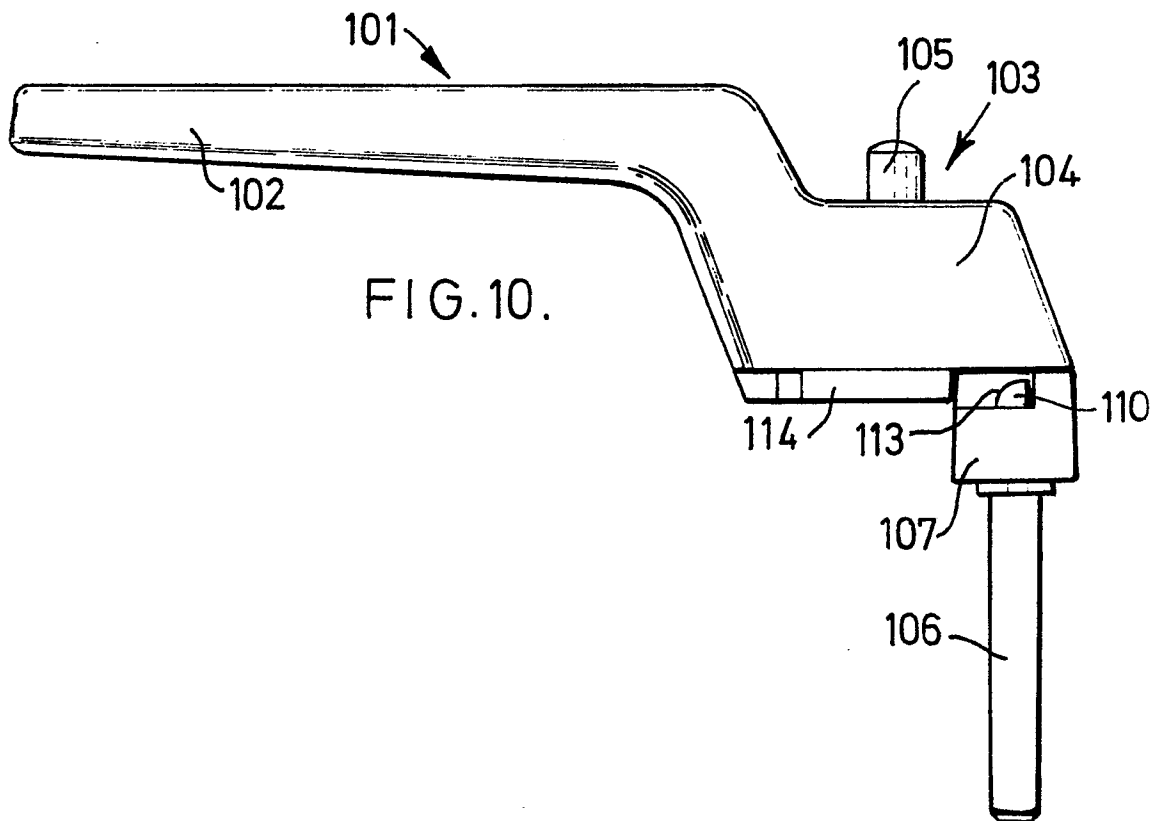
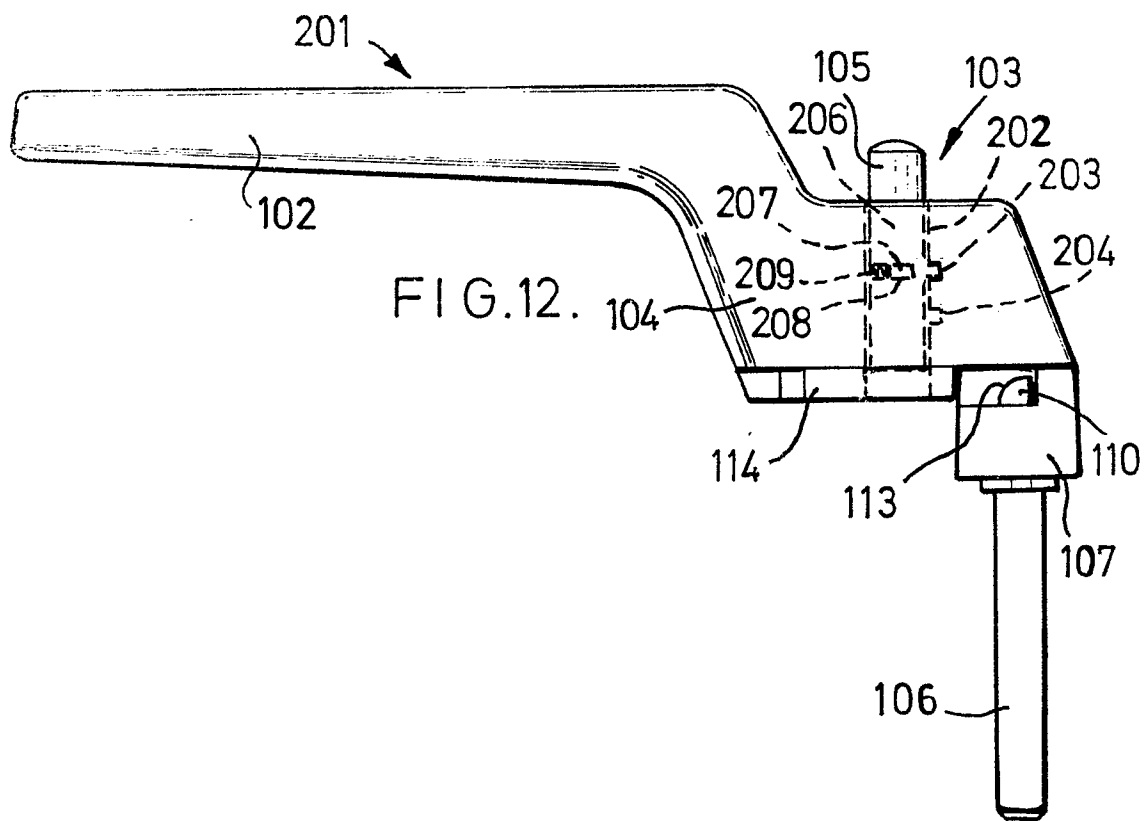
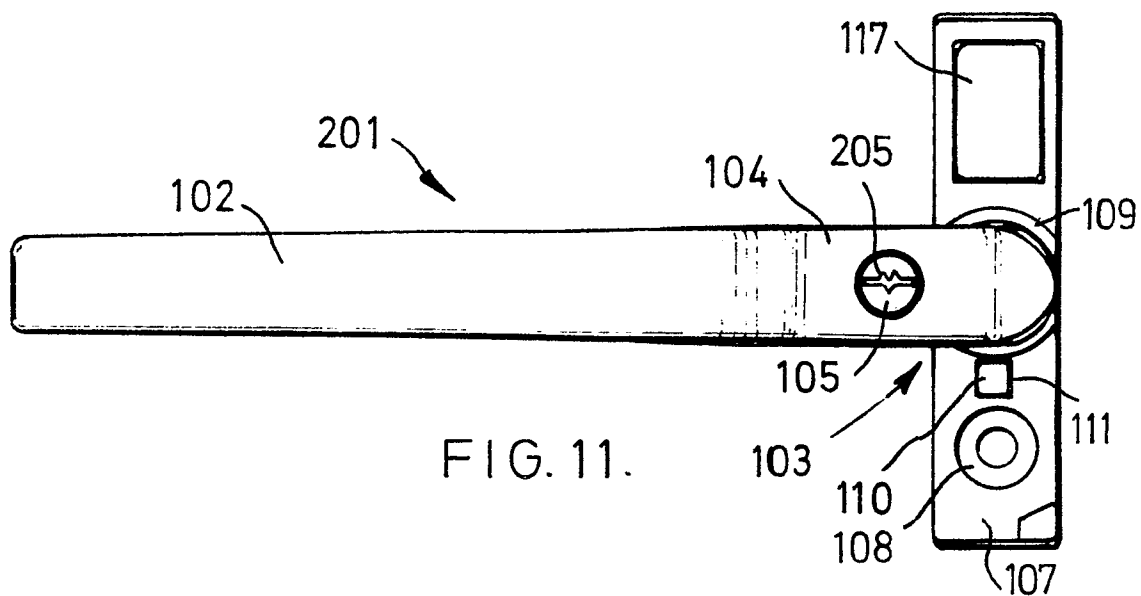


FIG. 10.





European Patent
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EUROPEAN SEARCH REPORT

Application number

DOCUMENTS CONSIDERED TO BE RELEVANT			EP 87302954.0
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)
X	GB - A - 2 076 455 (TITON HARDWARE LTD.)	1-4	E 05 B 1/00
A	* Claims 1-9; fig. 1-2 * -----	10	
			TECHNICAL FIELDS SEARCHED (Int. Cl. 4)
			E 05 B
The present search report has been drawn up for all claims			
Place of search VIENNA		Date of completion of the search 01-06-1987	Examiner CZASTKA
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			