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(54) **Opening restrictor**

Öffnungsbegrenzer

Dispositif de restriction d'ouverture

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GB-A- 354 647 GB-A- 2 414 509
US-A- 3 640 106 US-A- 4 027 908

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Description

[0001] This invention relates to an opening restrictor which may be used, for example, to restrict the degree to which a window or a door can be opened. However, the restrictor may be used in other applications where the opening of a substantially planar closure is to be restricted.

[0002] Window restrictors are used to restrict the degree to which a window can be opened in order to prevent persons falling through the window opening. Such window restrictors are generally releasable, or otherwise constructed, in order to allow the window to be opened fully when required, for example for cleaning purposes. A problem with known window restrictors is that they are mounted separately from other window furniture which increases overall cost, increases the number of fixing holes that require to be drilled in the window and/or its frame, and also detracts from the appearance of the window and its furniture.

[0003] US4027908 describes a chain lock for doors in which a first chain end anchor is placed behind an angle retainer which embraces a square corner of the adjacent door frame and is further connected by a serrated clamping plate in a plane perpendicular to the first chain anchor. The opposite chain end anchor is received in a slot of a retainer plate which similarly embraces a corner of the swinging door and is further held securely by an extension which is locked to an adjacent interior portion of a door lock cylinder housing assembly.

[0004] DE3614031 discloses a door chain for securing closed or slightly open doors, especially apartment doors, with a fixing device assigned to one chain end and to be attached to the door and with a holding device which is assigned to the other chain end and which is to be attached at a fixed location. For a high level of security and to avoid fastening holes, the fixing device is designed as a lug fastened to the corresponding chain end and provided for slipping over the door latch.

[0005] FR2424394 discloses a safety device for doors comprising a cylindrical housing going through the door, a locking pin to be locked in the housing and a chain, one end of which is locked to the pin and the other end being attached to the door frame. The housing is attached to the door by two flanges, one on each side of the door, the spacing of which is adjustable.

[0006] It is therefore an object of the present invention to provide an opening restrictor which overcomes, or at least ameliorates, the above disadvantages.

[0007] According to the present invention there is provided an opening restrictor comprising a body portion, a securing means and connecting means secured to the securing means and adapted to be releasably secured to the body portion, the body portion being provided with openings for receiving fasteners for securing the body portion to a frame of an opening and including releasable locking means secured in an opening in the body portion for releasably securing the connecting means to the body

portion, the body portion being formed with a lateral opening dimensioned to receive a plug of the connecting means such that when the connecting means is secured to the body portion the plug extends across one of the openings, the plug being formed with a profiled portion and a rounded end which enable the plug to be releasably secured to the body portion, and the securing means being adapted to be secured to an opening member mounted to the frame, whereby opening of the opening member is restricted when the connecting means is secured to the body portion and is unrestricted when the connecting means is released from the body portion, wherein the securing means is adapted to be secured to the opening member between the opening member and means for controlling opening and closing of the opening member, the body portion includes a securing lever, the securing lever being formed with an aperture in one end region thereof for mounting the lever within the body portion in a pivotable manner by way of a securing pin and being formed at the other end thereof with an engaging portion for engaging the profiled portion of the plug and which is movable between a first position in which the connecting means is secured within the lateral opening in the body portion and a second position in which the connecting means can be withdrawn from the body portion, an outer edge of the engaging portion being formed with a chamfer such that insertion of the rounded end of the plug into the lateral opening causes the lever to pivot from the first position to the second position and to allow the plug into the lateral opening, whereafter the lever returns to the first position under the influence of a biasing spring so as to lock the plug in the body portion.

[0008] The securing means may comprise a substantially planar elongate portion adapted to be mounted between the opening member and the means for controlling opening and closing of the opening member, the elongate portion being provided with apertures for the passage of fastening means for the controlling means, and with a portion adapted to extend away from the opening member, for example substantially at right angles thereto, for securing an end of the connecting means.

[0009] The connecting means may comprise a flexible cable, for example of coated wire. The profiled portion may be in the form of an annular recess formed around the periphery of the connecting means.

[0010] The biasing means may comprise a tongue of resilient material extending from a supporting sheet, the tongue engaging with the securing lever. The biasing means may be mounted within the body portion by means of screw fasteners. The screw fasteners may be in hollow cylindrical form and may be secured in openings passing through the body portion, whereby fastenings for securing the body portion to the frame are able to pass through the openings and through the hollow cylindrical screw fasteners. A base plate may be provided between the biasing means and the hollow cylindrical screw fasteners. The locking means may be movable in its unlocked condition so as to urge the securing lever against the biasing

means so as to move the securing lever to its second position.

[0011] For a better understanding of the present invention and to show more clearly how it may be carried into effect reference will now be made, by way of example, to the accompanying drawings in which:

Figure 1 is a view of one embodiment of an opening restrictor according to the present invention;

Figure 2 is a sectional view taken along the line II-II of the opening restrictor shown in Figure 1;

Figure 3 is a perspective view of a securing bracket forming part of an opening restrictor according to the present invention;

Figure 4 is a perspective view of a modified securing bracket forming part of an opening restrictor according to the present invention;

Figure 5 is a cross-sectional view of a plug for use with a cable forming part of an opening restrictor according to the present invention;

Figure 6 is a sectional view of a body forming part of an opening restrictor according to the present invention;

Figure 7 is a perspective view of a securing lever forming part of an opening restrictor according to the present invention;

Figure 8 is a perspective view of a biasing spring forming part of an opening restrictor according to the present invention;

Figure 9 is a plan view of a back plate forming part of an opening restrictor according to the present invention;

Figure 10 is an elevational view of a hollow cylindrical fastener forming part of an opening restrictor according to the present invention; and

Figure 11 is a perspective view of an alternative embodiment of the securing lever shown in Figure 7.

[0012] The opening restrictor shown in Figures 1 and 2 comprises a body portion 1 which is releasably connected to a securing bracket 3 by way of a connecting means 5, for example in the form of a cable. The securing bracket 3 as illustrated comprises a window handle bracket which is secured to an opening window (not shown), although a bracket in the form of a door handle plate can be used with a door.

[0013] The securing bracket 3 is made, for example, of stainless steel and includes a substantially planar elongate portion 7 which in use is positioned between an opening member, such as a door or window, and a conventional means, such as a window handle or a door handle, for controlling opening and closing of the opening member. The elongate portion of the securing bracket is provided with apertures 9 to allow the passage of fasteners provided for the window or door handle. Thus no additional fasteners are required to secure the cable 3 to the opening member, while the cable is secured to the opening member in an effective and aesthetically pleas-

ing manner. The securing bracket 3 also includes a portion 11 which extends in a direction away from the opening member, for example substantially at right angles as illustrated. The portion 11 is attached to the elongate portion 7 and is provided with an aperture 13 (shown more clearly in Figure 3). An alternative configuration of securing bracket, for example for use with a door handle mounting, is shown in Figure 4.

[0014] The cable 5 may include a length of conventional flexible steel cable provided with a covering of plastics material. A plug 15 is secured, for example by crimping, to one end of the length of cable and may be made, for example, of stainless steel. The plug 15 is then made captive through the aperture 13 in the bracket portion 11. Ideally, in use the head of the plug 15 is positioned close to part of the opening control means, ideally a non-moving part thereof, so as to restrict access to the plug 15 to minimise the likelihood of tampering. A further plug 17 is secured to the other end of the length of cable, for example by crimping, for releasably securing to the body portion 1. The further plug 17, shown in detail in Figure 5, is formed with a profiled portion 19 and a rounded end 20, which enable the further plug 17 to be releasably secured to the body portion. As illustrated, the profiled portion 19 comprises an annular recess formed around the periphery of the plug 17.

[0015] The body portion 1 includes a body 21 (shown in more detail in Figure 6), for example of die-cast aluminium, into which a lock 23 is secured. The body 21 is formed with two openings 25, 27 for receiving conventional fasteners (not shown) for securing the body portion 1 to a frame of an opening, such as a window frame or door frame, for example. The outer ends of the openings 25, 27 are provided with caps 29, 31, for example of Nylon, which are ideally profiled to match the profile of the body 21. The caps 29, 31 inhibit access to the fasteners and prevent tampering therewith.

[0016] The body 21 is also formed with a lateral opening 33 dimensioned to receive the further plug 17 of the cable 5. A securing lever 35 is pivotally mounted within the body 21 and extends across an opening 37 in which the lock 23 is received. As shown in more detail in Figure 7, the securing lever is formed with an aperture 39 in one end region thereof for mounting the lever in a pivotable manner by way on a securing pin 41, and is formed at the other end thereof with an engaging portion 43 for engaging with the profiled portion 19 of the further plug 17. An outer edge of the engaging portion 43 is formed with a chamfer 45 such that insertion of the rounded end 20 of the further plug 17 causes the lever 35 to pivot from a first position to a second position and to allow the plug 17 into the lateral opening 33. The lever 35 then returns to the first position under the influence of a biasing spring 47 so as to lock the further plug in the body portion 1.

[0017] An alternative securing lever is shown in Figure 11 and functions in essentially the same manner as the securing lever of Figure 7.

[0018] The biasing spring 47 is shown in more detail

in Figure 8 and comprises a sheet 49 of resilient material, such as spring steel, formed with a tongue 51 at an angle to the remainder of the sheet and directed towards the securing lever 35 so as to bias the engaging portion 43 into the profiled portion 19 of the further plug 17. The biasing spring 47 is maintained in position in the body 21 by means of a back plate 53 (shown in Figure 9) which is secured in place by two hollow cylindrical screw fasteners 55 (shown in Figure 10) which engage in the openings 25, 27, while allowing screw fasteners for securing the body portion 1 to pass therethrough.

[0019] In use of the opening restrictor according to the present invention, a key (not shown) is used to unlock the lock 23. In the unlocked configuration, a body of the lock can be depressed into the body 21 and is biased to return to an extended position. When the body of the lock is depressed into the body 21, the lever 35 is pivoted to displace the engaging portion 43 out of the lateral opening 33 so as to disengage from the profiled portion 19 of the further plug 17. This allows the further plug 17 to be released from the body portion 1 and allows the window, door or the like to be opened fully. In the locked configuration, the body of the lock cannot be depressed into the body 21 and the further plug 17, if present in the lateral opening 33, cannot be removed, therefore restricting opening of the window, door or the like.

[0020] When the further plug 17 is not present in the lateral opening 33, the window, door or the like can be opened in an unrestricted manner. However, the further plug 17 can be inserted into the lateral opening 33 irrespective of whether the lock 23 is in its locked or unlocked configuration. In either configuration, the rounded end 20 of the further plug 17 contacts the chamfer 45 of the engaging portion 43 of the securing lever 35 and pivots the securing lever 35 to allow the further plug 17 to enter the lateral opening 33 until the engaging portion 43 engages with the profiled portion 19 to retain the further plug in the lateral opening. If the lock 23 is in its unlocked configuration the lock body can be depressed to release the further plug 17, but if key has been used to move the lock to its locked configuration the lock body cannot be depressed and the further plug 17, and therefore the cable 5, is locked to the body portion 1.

Claims

1. An opening restrictor comprising a body portion (1), a securing means (3) and connecting means (5) secured to the securing means and adapted to be releasably secured to the body portion, the body portion being provided with openings (25, 27) for receiving fasteners for securing the body portion to a frame of an opening and including releasable locking means (23) secured in an opening (37) in the body portion (1) for releasably securing the connecting means to the body portion, the body portion (1) being formed with a lateral opening (33) dimensioned to

receive a plug (17) of the connecting means (5) such that when the connecting means is secured to the body portion the plug extends across one of the openings (27), the plug being formed with a profiled portion (19) and a rounded end (20) which enable the plug to be releasably secured to the body portion, and the securing means being adapted to be secured to an opening member mounted to the frame, whereby opening of the opening member is restricted when the connecting means is secured to the body portion and is unrestricted when the connecting means is released from the body portion, **characterised in that** the securing means (3) is adapted to be secured to the opening member between the opening member and means for controlling opening and closing of the opening member, the body portion (1) includes a securing lever (35), the securing lever being formed with an aperture (39) in one end region thereof for mounting the lever within the body portion in a pivotable manner by way of a securing pin (41) and being formed at the other end thereof with an engaging portion (43) for engaging the profiled portion (19) of the plug (17) and which is movable between a first position in which the connecting means is secured within the lateral opening (33) in the body portion (1) and a second position in which the connecting means can be withdrawn from the body portion, an outer edge of the engaging portion (43) being formed with a chamfer (45) such that insertion of the rounded end (20) of the plug into the lateral opening (33) causes the lever (35) to pivot from the first position to the second position and to allow the plug (17) into the lateral opening, whereafter the lever (35) returns to the first position under the influence of a biasing spring (47) so as to lock the plug in the body portion (1).

2. An opening restrictor as claimed in claim 1, wherein the securing means includes a substantially planar elongate portion (7) adapted to be mounted between the opening member and the means for controlling opening and closing of the opening member, the elongate portion being provided with apertures (9) for the passage of fastening means for the controlling means, and with a portion (11) adapted to extend away from the opening member for securing an end of the connecting means (5).

3. An opening restrictor as claimed in claim 2, wherein the portion (11) of the elongate portion (7) extends away from the opening member substantially at right angles thereto.

4. An opening restrictor as claimed in any preceding claim, wherein the connecting means (5) comprises a flexible cable.

5. An opening restrictor as claimed in any preceding

claim, wherein the profiled portion is in the form of an annular recess formed around the periphery of the connecting means (5).

6. An opening restrictor as claimed in any preceding claim, wherein the biasing means (47) comprises a tongue (51) of resilient material extending from a supporting sheet (49), the tongue engaging with the securing lever (35).
7. An opening restrictor as claimed in any preceding claim, wherein the biasing means (47) is mounted within the body portion (1) by means of screw fasteners.
8. An opening restrictor as claimed in claim 7, wherein the screw fasteners are in hollow cylindrical form and are secured in openings (25, 27) passing through the body portion (1), whereby fastenings for securing the body portion to the frame are able to pass through the openings and through the hollow cylindrical screw fasteners.
9. An opening restrictor as claimed in claim 8, wherein a base plate (53) is provided between the biasing means (47) and the hollow cylindrical screw fasteners.
10. An opening restrictor as claimed in any preceding claim, wherein the locking means (23) is movable in its unlocked condition so as to urge the securing lever (35) against the biasing means (47) so as to move the securing lever to its second position.

Patentansprüche

1. Öffnungsbegrenzer, der ein Hauptteil (1), ein Sicherungsmittel (3) und Verbindungsmittel (5), das an dem Sicherungsmittel gesichert ist und zur lösbaren Sicherung an dem Hauptteil geeignet ist, umfasst, wobei das Hauptteil mit Öffnungen (25, 27) für die Aufnahme von Befestigungen für die Sicherung des Hauptteils an einem Rahmen einer Öffnung bereitgestellt ist und lösbares Arretiermittel (23) einschließt, das in einer Öffnung (37) in dem Hauptteil (1) für die lösbare Sicherung des Verbindungsmittels an dem Hauptteil gesichert ist, wobei das Hauptteil (1) mit einer seitlichen Öffnung (33) ausgebildet ist, die zur Aufnahme eines Zapfens (17) des Verbindungsmittels (5) dimensioniert ist, sodass bei Sicherung des Verbindungsmittels an dem Hauptteil sich der Zapfen über eine der Öffnungen (27) erstreckt, wobei der Zapfen mit einem profilierten Teil (19) und einem abgerundeten Ende (20) ausgebildet ist, die ermöglichen, dass der Zapfen an dem Hauptteil lösbar gesichert wird, und wobei das Sicherungsmittel zur Sicherung an einem Öffnungselement, das an

dem Rahmen angebracht ist, geeignet ist, wodurch das Öffnen des Öffnungselements begrenzt wird, wenn das Verbindungsmittel mit dem Hauptteil gesichert ist, und nicht begrenzt wird, wenn das Verbindungsmittel von dem Hauptteil gelöst ist, **dadurch gekennzeichnet, dass** das Sicherungsmittel (3) zur Sicherung an dem Öffnungselement zwischen dem Öffnungselement und Mittel für die Regelung des Öffnens und Schließens des Öffnungselements geeignet ist, wobei das Hauptteil (1) einen Sicherungshebel (35) einschließt, wobei der Sicherungshebel mit einer Öffnung (39) in einem Endbereich davon für die Anbringung des Hebels innerhalb des Hauptteils in einer schwenkbaren Weise mittels eines Sicherungsstifts (41) ausgebildet ist und an dem anderen Ende davon mit einem Eingriffsteil (43) für den Eingriff in das profilierte Teil (19) des Zapfens (17) ausgebildet ist und der zwischen einer ersten Position, in der das Verbindungsmittel innerhalb der seitlichen Öffnung (33) in dem Hauptteil (1) gesichert ist, und einer zweiten Position, in der das Verbindungsmittel aus dem Hauptteil zurückgezogen werden kann, beweglich ist, wobei ein äußerer Rand des Eingriffsteils (43) mit einer Abschrägung (45) ausgebildet ist, sodass die Einführung des abgerundeten Endes (20) des Zapfens in die seitliche Öffnung (33) bewirkt, dass der Hebel (35) von der ersten Position zu der zweiten Position schwenkt, und den Zapfen (17) in die seitliche Öffnung lässt, wonach der Hebel (35) zu der ersten Position unter der Einwirkung einer Vorspannfederung (47) zurückkehrt, um den Zapfen in dem Hauptteil (1) zu arretieren.

2. Öffnungsbegrenzer nach Anspruch 1, wobei das Sicherungsmittel ein im Wesentlichen planares längliches Teil (7) einschließt, das zur Anbringung zwischen dem Öffnungselement und dem Mittel für die Regelung des Öffnens und Schließens des Öffnungselements geeignet ist, wobei das längliche Teil mit Öffnungen (9) für den Durchgang von Befestigungsmitteln für das Regelungsmittel und mit einem Teil (11) bereitgestellt ist, das geeignet ist, um sich für die Sicherung eines Endes des Verbindungsmittels (5) weg von dem Öffnungselement zu erstrecken.
3. Öffnungsbegrenzer nach Anspruch 2, wobei sich das Teil (11) des länglichen Teils (7) weg von dem Öffnungselement in im Wesentlichen rechten Winkeln davon erstreckt.
4. Öffnungsbegrenzer nach einem vorstehenden Anspruch, wobei das Verbindungsmittel (5) ein flexibles Kabel umfasst.
5. Öffnungsbegrenzer nach einem vorstehenden Anspruch, wobei das profilierte Teil in Form einer ringförmigen Aussparung vorliegt, die um den Umfang

des Verbindungsmittels (5) ausgebildet ist.

6. Öffnungsbegrenzer nach einem vorstehenden Anspruch, wobei das Vorspannmittel (47) eine Zunge (51) aus belastbarem Material umfasst, die sich von einer tragenden Platte (49) erstreckt, wobei die Zunge in den Sicherungshebel (35) eingreift. 5
7. Öffnungsbegrenzer nach einem vorstehenden Anspruch, wobei das Vorspannmittel (47) innerhalb des Hauptteils (1) durch Schraubbefestigungen angebracht ist. 10
8. Öffnungsbegrenzer nach Anspruch 7, wobei die Schraubbefestigungen in hohler zylindrischer Form vorliegen und in Öffnungen (25, 27), die durch das Hauptteil (1) durchgehen, gesichert sind, wodurch Befestigungen für die Sicherung des Hauptteils an dem Rahmen durch die Öffnungen und durch die hohlen zylindrischen Schraubbefestigungen durchgehen können. 15 20
9. Öffnungsbegrenzer nach Anspruch 8, wobei eine Grundplatte (53) zwischen dem Vorspannmittel (47) und den hohlen zylindrischen Schraubbefestigungen bereitgestellt ist. 25
10. Öffnungsbegrenzer nach einem vorstehenden Anspruch, wobei das Arretiermittel (23) in seinem nicht arretierten Zustand beweglich ist, um den Sicherungshebel (35) gegen das Vorspannmittel (47) zu drücken, um den Sicherungshebel zu seiner zweiten Position zu bewegen. 30

Revendications

1. Dispositif de restriction d'ouverture comprenant une partie de corps (1), un moyen de fixation (3) et un moyen de connexion (5) fixé au moyen de fixation et adapté pour être fixé de manière détachable à la partie de corps, la partie de corps étant dotée d'ouvertures (25, 27) destinées à recevoir des attaches pour fixer la partie de corps à un cadre d'une ouverture et comportant un moyen de verrouillage détachable (23) fixé dans une ouverture (37) dans la partie de corps (1) pour fixer de manière détachable le moyen de connexion à la partie de corps, la partie de corps (1) étant formée avec une ouverture latérale (33) dimensionnée pour recevoir une fiche (17) du moyen de connexion (5) de telle sorte que quand le moyen de connexion est fixé à la partie de corps la fiche s'étende en travers de l'une des ouvertures (27), la fiche étant formée avec une partie profilée (19) et une extrémité arrondie (20) qui permettent de fixer de manière détachable la fiche à la partie de corps, et le moyen de fixation étant adapté pour être fixé à un élément d'ouverture monté sur le cadre, 40 45 50 55

moyennant quoi l'ouverture de l'élément d'ouverture est restreinte quand le moyen de connexion est fixé à la partie de corps et n'est pas restreinte quand le moyen de connexion est détaché de la partie de corps, **caractérisé en ce que** le moyen de fixation (3) est adapté pour être fixé à l'élément d'ouverture entre l'élément d'ouverture et un moyen de commande d'ouverture et de fermeture de l'élément d'ouverture, la partie de corps (1) comportant un levier de fixation (35), le levier de fixation étant formé avec une ouverture (39) dans une région d'extrémité de celui-ci pour monter le levier au sein de la partie de corps de manière pivotante au moyen d'une broche de fixation (41) et étant formé à son autre extrémité avec une partie d'enclenchement (43) destinée à s'enclencher avec la partie profilée (19) de la fiche (17) et lequel étant déplaçable entre une première position dans laquelle le moyen de connexion est fixé au sein de l'ouverture latérale (33) dans la partie de corps (1) et une seconde position dans laquelle le moyen de connexion peut être retiré de la partie de corps, un bord externe de la partie d'enclenchement (43) étant formé avec un chanfrein (45) de telle sorte que l'insertion de l'extrémité arrondie (20) de la fiche dans l'ouverture latérale (33) amène le levier (35) à pivoter de la première position à la seconde position et permette à la fiche (17) d'entrer dans l'ouverture latérale, après quoi le levier (35) revient à la première position sous l'influence d'un ressort de sollicitation (47) de manière à verrouiller la fiche dans la partie de corps (1).

2. Dispositif de restriction d'ouverture selon la revendication 1, dans lequel le moyen de fixation comporte une partie allongée sensiblement plane (7) adaptée pour être montée entre l'élément d'ouverture et le moyen de commande d'ouverture et de fermeture de l'élément d'ouverture, la partie allongée étant dotée d'ouvertures (9) pour le passage de moyens d'attache du moyen de commande, et d'une partie (11) adaptée pour s'étendre vers l'extérieur de l'élément d'ouverture pour fixer une extrémité du moyen de connexion (5). 35 40
3. Dispositif de restriction d'ouverture selon la revendication 2, dans lequel la partie (11) de la partie allongée (7) s'étend vers l'extérieur de l'élément d'ouverture sensiblement en angle droit avec celui-ci. 45
4. Dispositif de restriction d'ouverture selon l'une quelconque des revendications précédentes, dans lequel le moyen de connexion (5) comprend un câble flexible. 50
5. Dispositif de restriction d'ouverture selon l'une quelconque des revendications précédentes, dans lequel la partie profilée a la forme d'un évidement an-

nulaire formé autour de la périphérie du moyen de connexion (5).

6. Dispositif de restriction d'ouverture selon l'une quelconque des revendications précédentes, dans lequel le moyen de sollicitation (47) comprend une languette (51) de matériau élastique partant d'une feuille de support (49), la languette se mettant en prise avec le levier de fixation (35). 5
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7. Dispositif de restriction d'ouverture selon l'une quelconque des revendications précédentes, dans lequel le moyen de sollicitation (47) est monté à l'intérieur de la partie de corps (1) au moyen de dispositifs d'attache à vis. 15
8. Dispositif de restriction d'ouverture selon la revendication 7, dans lequel les dispositifs d'attache à vis sont de forme cylindrique creuse et sont fixés dans des ouvertures (25, 27) qui traversent la partie de corps (1), moyennant quoi des attaches pour fixer la partie de corps au cadre peuvent passer à travers les ouvertures et à travers les dispositifs d'attache à vis cylindriques creux. 20
25
9. Dispositif de restriction d'ouverture selon la revendication 8, dans lequel une plaque de base (53) est fournie entre le moyen de sollicitation (47) et les dispositifs d'attache à vis cylindriques creux. 30
10. Dispositif de restriction d'ouverture selon l'une quelconque des revendications précédentes, dans lequel le moyen de verrouillage (23) peut être déplacé dans son état non verrouillé de manière à pousser le levier de fixation (35) contre le moyen de sollicitation (47) pour déplacer le levier de fixation vers sa seconde position. 35
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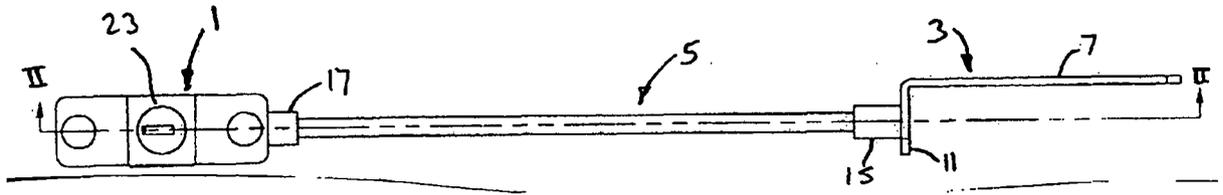


Fig. 1

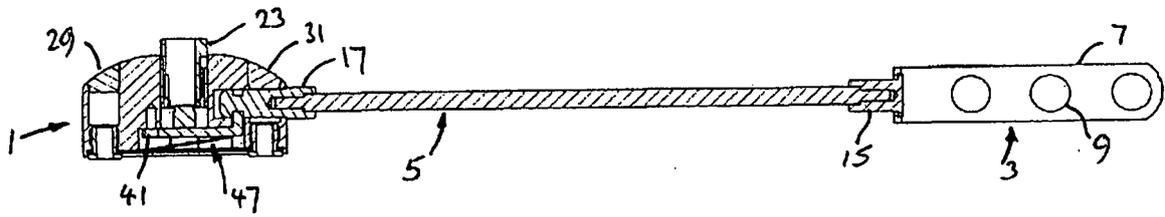


Fig. 2

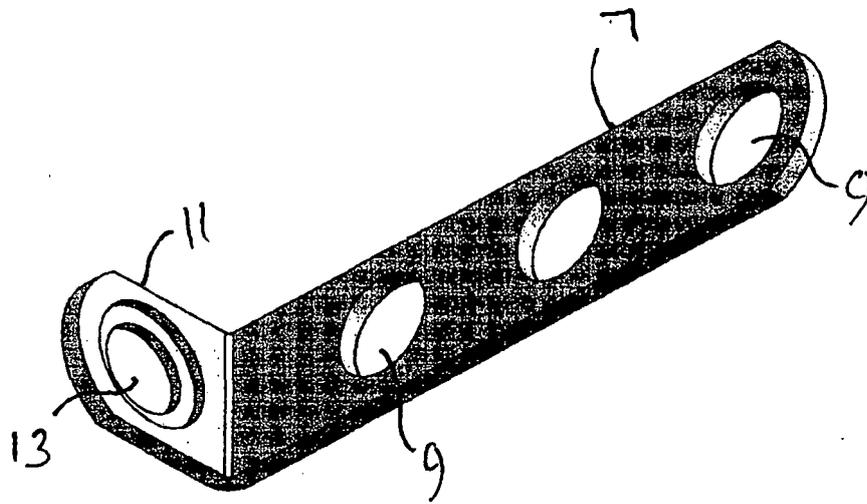


Fig. 3

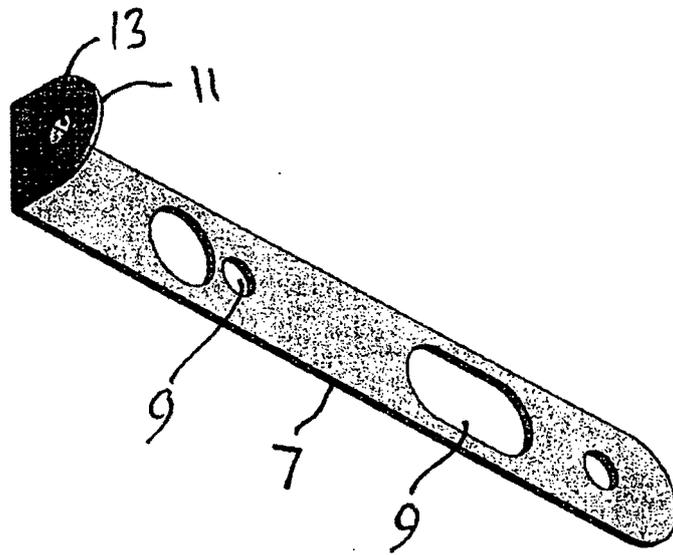


Fig. 4

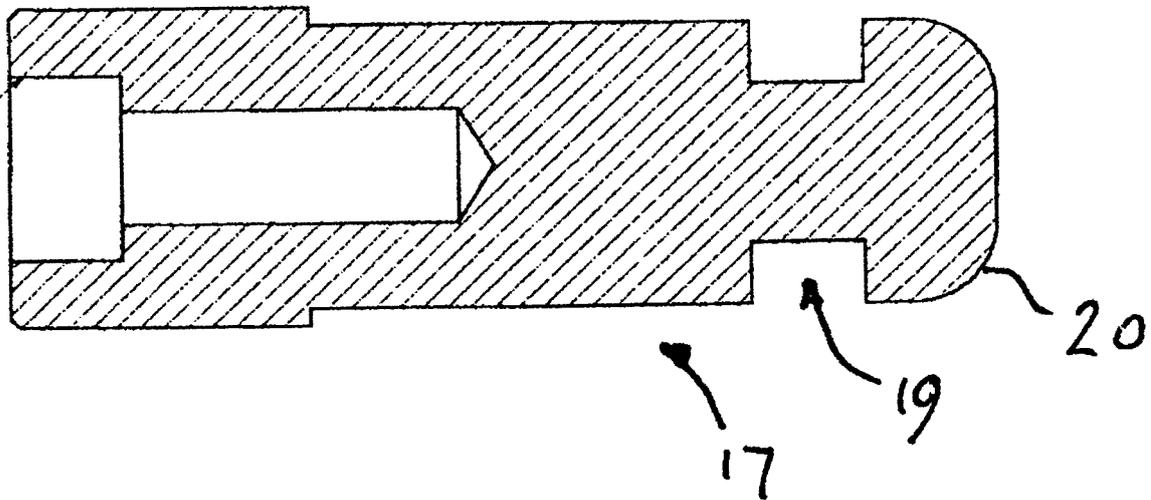


Fig. 5

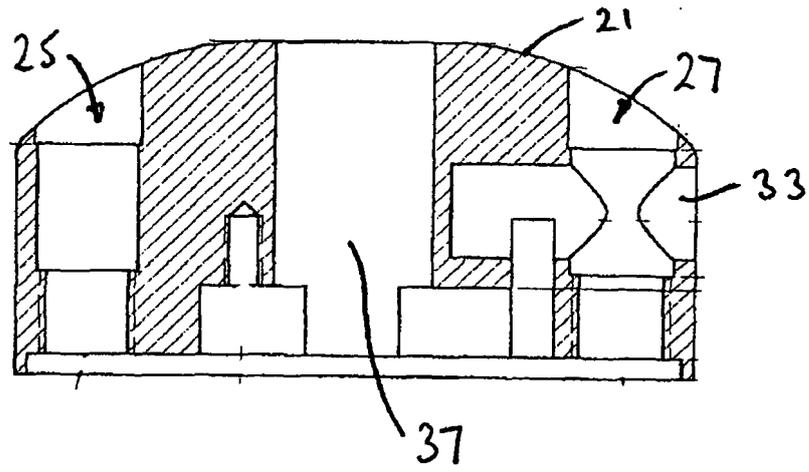


Fig. 6

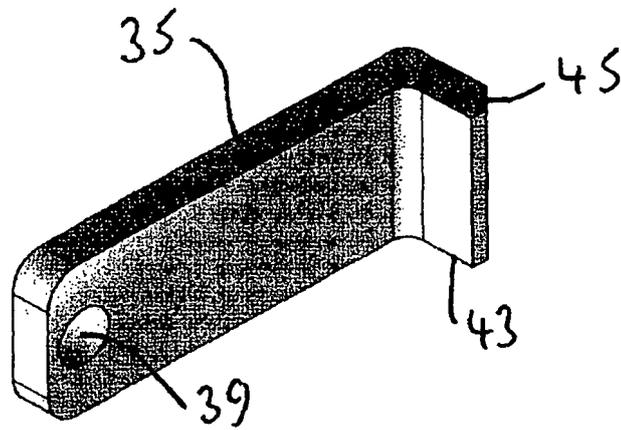


Fig. 7

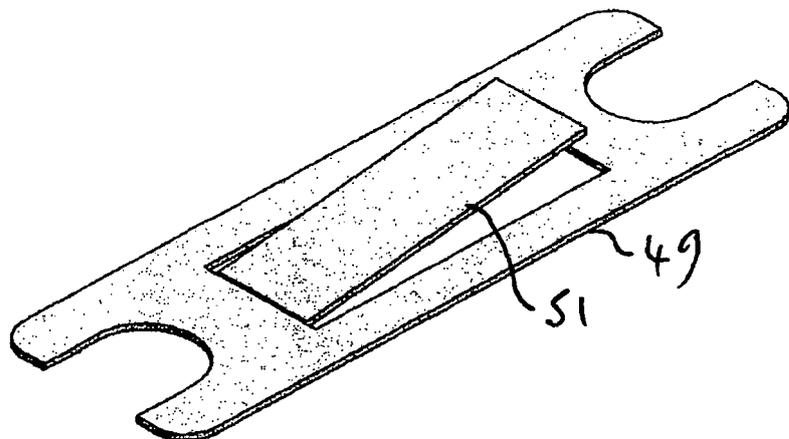


Fig. 8

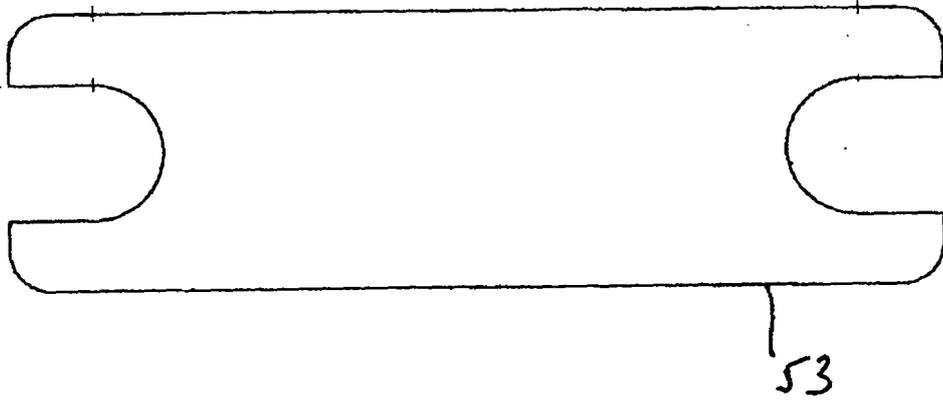


Fig. 9

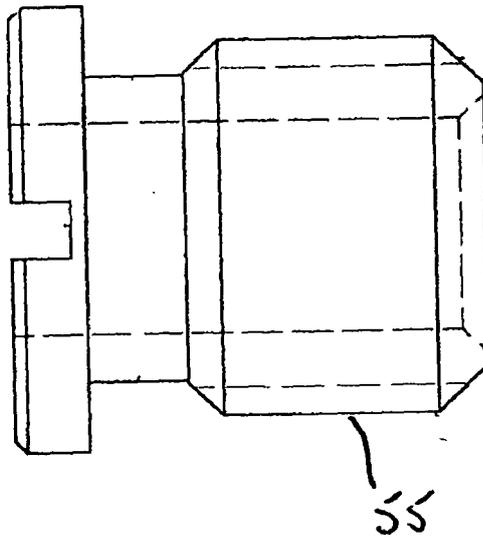


Fig. 10

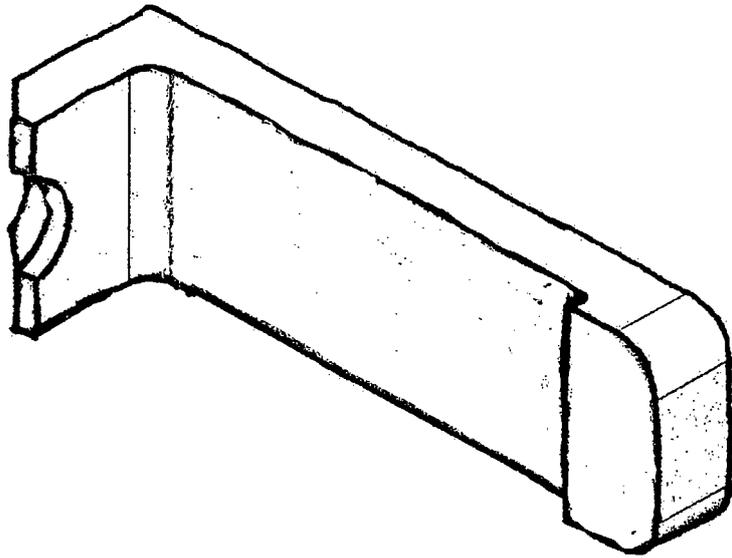


Fig. 11

REFERENCES CITED IN THE DESCRIPTION

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