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⑤④ **Guide for sliding curtains and similar.**

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Description

This invention refers to a guide for sliding curtains and similar, of the type known in practice to the prior art comprising a support rail, with straight and/or curved sections, provided as required with slotted holes for direct attachment to the ceiling, with its side arms bent inwards at the ends. The multiple hangers, from which the curtain or similar is suspended, and reversible devices for crossing over and/or overlapping the outside edges of the curtains slide along the inside of the rail. The guide also comprises curtain cord guide and/or return terminal pieces at its ends, other intermediate angle connectors between adjacent rail sections, support fixtures for fastening the guide to the wall or ceiling, and stretchers for the afore-mentioned curtain cord.

There are many curtain guides known nowadays, but in all of them, when the curtains has to follow the recesses and protrusions of the walls in a room, the guide installer is compelled to use an adequate tool to bend the guide on site, adapting it to each variation of shape of the wall (columns, window spaces, blind cases, etc.)

Moreover, if the guide shows several bends or non-aligned sections, it is necessary to install independent guides in order to ease the motion of the curtain, either if this motion is carried out manually or by a cord. This causes the inconvenience of the curtains remaining separate, losing unavoidably their decorative unity.

By means of the guide subject of the present invention, all these inconveniences are completely avoided, since with it the installer will assemble the guide very comfortably and in accordance with his needs, using the appropriate guide elements which, all together, constitute the subject of the present invention.

The guide in question is characterised by the fact that the above-mentioned rail is fitted with inner lips designed for contacting at the bottom with the top of corresponding inside shoulders provided on the above-mentioned terminal pieces. The rail is also fitted with longitudinal recesses designed to receive their respective close-fitting connectors, consisting of rods provided with a centre slot.

According to a preferred feature of the invention, each terminal piece consists of a framework which comprises a main body with two side skirts linked by three bridge portions. These have four inner side slots cut in them, facing each other in pairs. Curtain cord guide and/or return pulley spindles can engage in these, with a choice of two positions each. Each of these spindles is firmly engaged at the bottom of a corresponding pair of slots by the tight fit of its outside edges against the bottom. Each spindle end is prevented from coming out of its portion of slot since this narrows near the bottom. The main body is provided in one end bridge portion with a self-tapping screw to be applied against the inside face of the top centre arm of the rail. Each terminal piece may be fitted with an end cover piece or an intermediate

cover piece, for coupling to the respective terminal and for housing at least one curtain hanger.

Other features and advantages of this curtain guide in question will be drawn from the description set out below with reference to the drawings attached, which illustrate, solely by way of example, one way in which it may be produced.

Figs. 1 and 2 are diagrammatic plan and elevational views, respectively, of a guide according to the invention;

Figs. 3 and 4 represent respective cross-sectional and plan views of a rail according to the invention, for attachment to the ceiling or to a wall by means of support fixtures;

Figs. 5 and 6 are views similar to those in Figs. 3 and 4, but referring to a rail for direct ceiling attachment;

Fig. 7 shows respective side and front elevational views of a connector between two rail sections;

Figs. 8 and 9 illustrate respective elevational and plan views of a curved section of the rail in Figs. 3 and 4;

Figs. 10 and 11 are views similar to those in Figs. 8 and 9, but referring to the rail in Figs. 5 and 6;

Fig. 12 is a sectional view according to XII—XII in Fig. 13;

Fig. 13 shows a plan view of a terminal;

Figs. 14 and 15 are sectional views according to XIV—XIV and XV—XV in Fig. 12, respectively;

Figs. 16, 17 and 18 show corresponding side, rear front and forward front elevational views, respectively, of a cover piece;

Fig. 19 shows two respective plan and sectional views of a height shim;

Figs. 20 and 21 are a cutaway elevational view, according to XX—XX in Fig. 1, and a plan view, also partly cutaway, of a cover piece applied to a right-angle union of two rail spans;

Figs. 22 and 23 show a semi-cutaway side elevational and a front elevational view of a hanger;

Figs. 24 and 25 are views similar to those in Figs. 22 and 23, but referring to another hanger;

Figs. 26, 27 and 28 illustrate corresponding side elevational, front elevational and plan views, respectively, of a stop and suspension piece;

Figs. 29 and 30 represent corresponding elevational and plan views, respectively, of a sealing piece for the longitudinal opening in the rail;

Fig. 31 is an elevational view of a cross-over device according to the invention;

Fig. 32 shows a sectional view according to XXXII—XXXII in Fig. 31;

Fig. 33 illustrates an elevational view of a cross-over device carriage; and

Fig. 34 is a sectional view according to XXXIV—XXXIV in Fig. 32.

Fig. 35 shows an axial sectional view of a gravity cord tensioning device, along the line XXXV—XXXV in Fig. 36.

Fig. 36 shows a plan view of the tensioning device shown in Fig. 35.

Fig. 37 shows a partially sectioned view of a

guide supporting part for fastening to an angle bracket.

Fig. 38 shows a sectional view of the supporting part in Fig. 37, along the section line XXXVIII—X-XXVIII.

Fig. 39 shows a lockplate for direct fastening to the ceiling.

In these figures we may see that the guide in question, represented diagrammatically in Figs. 1 and 2 in just one of the ways in which it may be produced, comprises a support rail 1 with either straight sections (Figs. 4 and 6) or curved sections (Figs. 8, 9, 19 and 11), provided as required with slotted holes, with its side sections 3 bent inwards at the ends 4. Multiple hangers 5, from which the curtain or similar, not shown, is suspended, and reversible devices 6 for crossing over and/or overlapping the end edges of the curtains slide along the inside of the rail 1.

The guide 1 also comprises guide and/or return terminals 7 for the curtain cord 11, other intermediate angle connections 27 between adjacent sections of rail 1, support fixtures 9 for attaching the guide to the wall or ceiling, and stretches 10 for the curtain cord 11.

The rail 1 is equipped with inner lips 12 designed for contacting at the bottom with the top of corresponding inner shoulders 13 provided on the respective terminals 7.

The rail 1 is also provided with longitudinal recesses 14 designed to receive respective close-fitting couplings 15, consisting of cylindrical rods provided with three incisions 16 with centre slots.

Each terminal 7 is made up of a framework which consists of a main body with two side skirts 17 linked by three bridge portions 18, 19 and 20. Cut in each of these are four inner side slots 22, opposite each other in pairs, in which the respective spindles of the curtain cord guide and/or return pulleys can engage, with a choice of two positions each. Each of these spindles is engaged firmly at the bottom of a corresponding pair of slots through the tight fit of its edges against the bottom. Each spindle end is prevented from coming out of its portion of slot through a constriction 24 in it near the bottom.

In the end bridge portion 18 the main body is provided with a self-tapping screw 25 for tightening against the inside face of the top middle arm of the rail 1.

Each terminal 7 may be fitted with an end cover piece (Figs. 16, 17 and 18) or an intermediate cover piece 27 (Figs. 20 and 21) for coupling to the respective terminal 7 and for housing at least one curtain hanger 5.

Either of these cover pieces 26 and 27 comprises a first hollow outer portion 28 designed for its attachment 5 to the wall or to the ceiling by means of the holes 29 and 30 drilled in it. Each cover piece 26 or 27 comprises a second middle portion 31 with inner shoulder 32 designed for resting against the inner flanges of the rail 1 and with a bottom recess 33 for housing the head of a curtain hanger 5. It also has a third inner portion 34 consisting of a block designed so that a vertical

screw 25 may be threaded in for tightening against the inside face of the top arm of rail 1 for attachment purposes.

The guide comprises at least one stop and hanger piece 35 (Figs. 26, 27 and 28), consisting of a lower portion with a hanger ring 36 and an upper portion which is made up of a vertical stem 37 and a rectangular-shaped plate 38 perpendicular to the stem 37. This plate is slightly domed underneath and it has a width somewhat less than that of the bottom longitudinal opening 40 in the rail and a length somewhat less than that of the inside width of the rail 1.

If the vertical stem 37 of the piece 35 is inserted vertically inside the rail 1 so that the plate 38 perpendicular to the stem 37 is situated lengthwise to the opening 40 and this stop and hanger piece 35 is then turned 90°, it becomes firmly engaged in the rail 1 with the stem 37 resting against the inside of the top horizontal arm of the rail 1 and with the plate 38 perpendicular to the stem 37 resting against the in-bent ends 4 of the side arms 3 (Fig. 26).

The guide also comprises at least one locking piece 39 for the opening 40 in the rail 1, which has a basically flattened rectangular configuration with an inverted U cross section. The side arms 42 of the piece 39 have lengthwise grooves 43 designed to receive the respective free edges of the arms 3 of the rail 1.

This locking piece 39 is composed of a resilient flexible material which allows it to be pressed up into the opening 40 in the rail 1 through elastic deformation of the piece. It is also removed through elastic deformation by pressing the side arms 42 of this piece 39 towards each other until the ends 4 of the side arms 3 of the rail 1 are freed from the side grooves 43 in the piece 39.

The crossover and overlap device 6 comprises one or two supplementary curtain support slides 44. Each of these has a pair of slip elements 45 located on top of the ends of the slide 44 and provided with a flat, smooth, horizontal top surface 46 designed to support the curtain cords 11.

Each of these slip elements 45 has a transverse rear sharp edge 48 designed to help guide the cords 11 on their way down to the body of the slide 44.

This body consists of a horizontal U-section plate placed vertically and provided with a centre hole 50, two notches 51 in the bottom edge and a lower transverse flange 52 with an inverted T cross section. All this is to allow the cord 11 to be wound through the hole 50 and the notches 51 so that the slide 44 is attached firmly to the cord 11.

The body of each slide 44 has a hole 47 below each slip element 45 either to receive a hanger of the moving end or ends of the curtain or suitable fastenings for a reversible crossover or overlap plate 53. This also has holes 54 for receiving curtain hangers 5 or else an operating rod 55 (Fig. 2).

The stretchers 10 comprises at least one gravity tensioning device for cords 11 which consists of (Figs. 35 and 36) a centre weight body 56 with

heads 57 firmly attached at either end that also hang from the cord loop 11.

Each head 57 comprises a hollow outer cap 58 with an inlet 59 in its end base for the cord 11 in approximately semicircumferential arc. It also has an L-section inner middle portion 60 with a half-doughnut-shaped notch 61 where cord 11 slides and an inward-facing lip 62 designed to prevent fortuitous movement of the cord 11. Inside each cap 58 there are reinforcement ribs 63 which also act as buffers for the centre load body 56.

Each fixture 9 for supporting or attaching the guide to the wall or ceiling comprises a lockplate 64 for fastening to the horizontal arm of an angle bracket (Figs. 37 and 38) or directly to the ceiling (Fig. 39). The lockplate 64 is fitted with a swivel plate 65 with bottom fins 66 for fitting into side grooves 14 (Fig. 3) of a lengthwise inverted T-section channel in the rail 1. This swivel plate 65 has a curved operating rod 67.

In Fig. 19 we may a shim 41 designed to be applied over piece 26 or piece 27 (Figs. 16 and 20) in order to compensate for the difference in height of the rail 1, in the event of it not being attached directly to the ceiling.

Two ways of producing a hanger 5 are illustrated in Figs. 22 to 25. In both cases they comprise a bottom part with a hole 68 and, in the case of Figs. 22 and 23, rolling members 69, whilst in the case of Figs. 24 and 25 they include sliding members 70 and a flange 71 to stop them getting inside the rail 1.

Claims

1. Guide for sliding curtains and similar, of the type comprising a support rail (1), with straight and/or curved sections, provided as required with slotted holes (2) for direct attachment to the ceiling, with its side arms bent inwards at their ends (4), the multiple hangers (5), from which the curtain or similar is hung, and reversible devices (6) for crossing over and/or overlapping the outside edges of the curtains sliding along the inside of the rail (1), the guide also comprising curtain cord guide and/or return terminals (7) at its ends, other intermediate angle connections (27) between adjacent rail sections (1), support fixtures (9) for fastening the guide to the wall or ceiling, and stretchers (10) for the curtain cord, characterised in that the above-mentioned rail (1) is fitted with inner lips (12) designed to contact at the bottom with the top of corresponding inner shoulders (13) provided on the terminals (7), the rail also having longitudinal recesses (14) designed to receive respective close-fitting connections (15), consisting of rods provided with a centre slot (16).

2. Guide according to claim 1, characterised in that each terminal piece (7) consists of a framework which comprises a main body having two side skirts (17) linked by three bridge portions, (8, 19, 20) each one of these skirts having four inner side slots (22) cut in them, facing each other in pairs, in which respective curtain cord

guide and/or return pulley spindles can engage, with a choice of two positions each, each spindle being firmly engaged at the bottom of a corresponding pair of slots by the tight fit of its outside edges against the bottom, every spindle end being prevented from coming out of its portion of slot by a constriction (24) near the bottom, being the main body, in one end bridge (18) portion provided with a self-tapping screw (25) to be applied against the inside of the top centre arm of the rail (1), each terminal (7) may be fitted either with an end cover piece (26) or an intermediate cover piece (24), for coupling to the respective terminal (7) and for housing at least one curtain hanger (5).

3. Guide according to claim 1, characterised in that said cover piece (26, 27) for coupling at least one end of a section of rail comprises a first hollow outer portion (28) designed for its attachment to the wall or ceiling; a second middle portion (31) with inner shoulders (32) designed for resting against the inner flanges of the rail (1) and with a lower recess (33) for housing the head of a curtain hanger (5); and a third inner portion (34) consisting of a block designed so that a vertical screw (25) may be threaded in for tightening against the inside of the top arm of the rail (1) for attachment purposes.

4. Guide according to claim 1, characterised in that it comprises at least one stop and hanger piece (35), consisting of a lower portion with a hanger ring (36) and an upper portion which is made up of a vertical stem (37) and a rectangular-shaped plate (38) perpendicular to the stem (37), said plate being slightly domed underneath and its has a width somewhat less than that of the bottom longitudinal opening (40) in their rail and a length somewhat less than that of the inside width of the rail (1) being all this so designed that if the vertical stem (37) of the stop and hanger piece (35) is inserted vertically into the rail (1) in such a way that the plate (38) perpendicular to the stem (37) is situated lengthwise to the longitudinal opening (40) in the rail this stop and hanger piece (35) is then turned through 90°, it becomes firmly engaged in the rail with the stem (37) resting against the inside of the top horizontal arm of the rail (1) and with the plate (38) perpendicular to the stem (37) resting against the in-bent ends of the side arms (3).

5. Guide according to claim 1, characterised in that it comprises at least one locking piece (39) for the opening (40) in the rail which has a basically flattened rectangular configuration with an inverted U cross section, having its side arms (42) lengthwise grooves (43) designed to accept the respective free edges of the rail arms (3), this locking piece being composed of a resilient flexible material which allows it to be pressed up into the opening (40) in the rail (1) through elastic deformation of the piece, and it is also removed through elastic deformation by pressing its side arms (42) towards each other until the ends (4) of the rail side arms (3) are released from the side grooves (43) in the piece (39).

6. Guide according to claim, 1 characterised in that the afore-mentioned crossover and overlap device (6) comprises one or two supplementary curtain support slides (44), each of these having a pair of slip elements (45) located on top of the ends of the slide (44) and provided with a flat, smooth, horizontal top surface (46) designed to carry the curtain cords (11), each of these slip elements (45) having a transverse sharp edge (48) at the back designed to help guide the cords (11) on their way down to the body of the slide (44), this body consisting of a horizontal U-section (49) plate positioned vertically and provided with a centre hole (50), two notches (51) in the bottom edge and a lower transverse flange (52) with an inverted T cross section, being all this to allow the cord (11) to be wound through the hole (50) and the notches (51) so that the slide (44) is firmly attached to the cord (11), every slide body having a hole (47) below each slip element (45) either to receive a hanger of the moving end or ends of the curtain or suitable fastenings for a conventional reversible crossover or overlap plate (53), having also holes (54) for receiving curtain hangers (5) or an operating rod (55).

7. Guide according to claim 1, characterised in that the stretchers (10) comprise at least one cord gravity tensioning device, which consists of a centre weight body (56) with heads (57) firmly attached at either end that also hang from the cord loop, each of these comprising a hollow outer cap (58) with an inlet (59) in its end base for the cord (11), in approximately semicircumferential arc, it also having an L-section inner middle portion (60) with a half-doughnut-shaped notch (61) to prevent fortuitous movement of the cord (11), inside each cap (58) there being reinforcement ribs (62) which also act as stops for the central load body (56).

8. Guide according to claim 1, characterised in that each support fixture (9) comprises a lockplate (64) for fastening to the horizontal arm of an angle bracket or directly to the ceiling, the lockplate (64) being fitted with a swivel plate (65) with bottom fins (66) for fitting into side grooves (14) of a lengthwise inverted T-section channel in the rail (1), having this swivel plate (65) a curved operating rod (67).

Patentansprüche

1. Gardinenstange für verschiebbare Gardinen und dgl. in der Art, dass sie eine Befestigungsschiene (1) mit geraden und/oder gebogenen Strecken umfasst, welche ggf. entsprechende Löcher (2) zur unmittelbaren Befestigung an der Decke aufweist und allgemein umgekehrt U-förmig ausgebildet ist, wobei die seitlichen Schenkel an ihren Enden (4) nach innen abgebogen werden, während innen zahlreiche Aufhängeelemente (5) gleiten, an denen die Gardine oder dgl. hängt, sowie umkehrbare Vorrichtungen (6) zur Kreuzung und/oder Überlappung der Gardinenränder vorsieht; an ihren Enden weist die Stange (1) ausserdem Endstücke (7) zur Vor- und/oder

Rückführung der Gardinenschnur (11), Zwischenstücke (27) für Eckverbindungen zwischen benachbarten Strecken der Schiene (1), Halterungen (9) zur Befestigung der Stange an der Wand bzw. an der Decke und Spannmittel (10) für die erwähnte Gardinenschnur (11) auf, dadurch gekennzeichnet, dass die Gardinenstange (1) über innere, entsprechend angepasste Leisten (12) verfügt, deren Unterseite mit dem oberen Bereich entsprechender innerer Vorsprünge (13) in Kontakt steht, welche an den jeweiligen, bereits erwähnten Endstücken (7) angeordnet sind, und dass die Stange (1) mit angepassten Längsaushöhungen (14) ausgestattet ist, welche ohne Spielraum Verbindungsstücke (15) aufnehmen, die aus mit einer mittleren Vertiefung (16) versehenen Zapfen bestehen.

2. Gardinenstange, nach Anspruch 1 dadurch gekennzeichnet, dass jedes Endstück (7) aus einem Rahmen besteht, der eine Hauptkörper umfasst, welcher über zwei seitliche Schürzen (17) verfügt, die durch drei Brücken-Stücke (18; 19; 20) miteinander verbunden sind und in welche jeweils vier seitliche Innenrillen (22) eingearbeitet werden, die sich paarweise gegenüberliegen und in welche, je nach Wahl in zwei Stellungen, die Achsen entsprechender Leitscheiben für die Vor- und/oder Rückwärtsbewegung der Gardinenschnur einrasten, wobei jede einzelne dieser Achsen fest bis zum Boden des entsprechenden Rillenpaares vordringt und dort durch Anpassung der äusseren Enden am Boden einliegt, während jedes Achsende, dank einer Verendung (24) in der Achse in der Nähe des Bodens, daran gehindert ist, aus dem Rillbereich herauszurutschen; dieser Hauptkörper weist in einem äusseren Brückenbereich (18) eine selbstdrehende Schraube (25) auf, welche gegen die Innenseite des mittleren oberen Schenkels der Schiene (1) angezogen wird, wonach jedes Endstück (7) ein äusseres Deckelteil (26) oder ein Zwischen-Deckelteil (27) aufweisen kann, die dazu bestimmt sind, sich dem jeweiligen Endstück (7) anzupassen und zumindest einen Aufhänger (5) für die Gardine aufzunehmen.

3. Gardinenstange, nach Anspruch 1 dadurch gekennzeichnet, dass das zumindest an einem Ende einer Schienenstrecke anpassbare Deckelteil (26 und 27) einen ersten äusseren hohlen Bereich (28) besitzt, der zur Befestigung an der Wand bzw. an der Decke dient; ein zweiter Zwischenbereich (31) ist mit inneren Vorsprüngen (32) versehen, die sich gegen die Innenleisten der Schiene (1) abstützen, und weist eine untere Vertiefung auf, welche den Kopf eines Aufhängers (5) für die Gardine aufnimmt; ein dritter Innenbereich (34), besteht aus einem angepassten Block zur Ermöglichung des Eindrehens einer vertikalen Schraube (25) und rastet zur Befestigung an der Innenseite des oberen Schenkels der Schiene (1) ein.

4. Gardinenstange, nach Anspruch 1 dadurch gekennzeichnet, dass sie zumindest ein Anschlag- und Aufhängungsstück (35) besitzt, das aus einem unteren Bereich mit Aufhängering (36) und aus einem oberen Bereich besteht, der durch

einen Vertikalzapfen (37) und durch eine im Grundriss rechteckige, senkrecht zum Zapfen (37) liegende Platte (38) gebildet wird, die auf der Unterseite leicht gewölbt ausgebildet wird und deren Breite etwas geringer als die der unteren Längsöffnung (40) der Schiene ist, während das Mass der Länge leicht unter dem der Innenbreite der Schiene (1) liegt, wobei alle Teile so angepasst werden, das bei Einschieben des Vertikalzapfens (37) des Anschlag- und Aufhängestücks (35) in die Schiene (1), und zwar auf die Weise, dass die senkrecht zum Zapfen (37) liegende Platte (38) längs zur Öffnung (40) der Schiene zu liegen kommt und das Anschlag- und Aufhängestück (35) danach um 90° gedreht wird, ein festes Einrasten desselben in der Schiene (1) erfolgt, wobei sich der Zapfen (37) an der Innenseite des oberen horizontalen Schenkels desselben und die senkrechte Platte (38) des Zapfens (37) an den nach innen gebogenen Enden (4) der seitlichen Schenkel (3) abstützen.

5. Gardinenstange, nach Anspruch 1 dadurch gekennzeichnet, dass sie zumindest ein im wesentlichen flach ausgeführtes Verschlusssteil (39) rechteckigen Grundrisses und mit umgekehrten U-förmigen Querschnitt aufweist, das zum Verschliessen der Längsöffnung (40) der Schiene (1) dient und dessen Seitenschenkel (42) eine entsprechende Anzahl von Längsrillen (43) vorsehen, welche zur Aufnahme der jeweiligen freien Kanten der Seitenschenkel (3) der Schiene (1) ausgebildet sind, wobei das Verschlusssteil (39) aus einem flexiblen, elastischen Material besteht, das ein Einschieben von unten nach oben in die Längsöffnung (40) der Schiene (1) durch elastische Verformung des Teils, und ein Herausziehen desselben, ebenfalls durch elastische Verformung, ermöglicht; dabei nähern sich die Seitenschenkel (42) dieses Verschlusssteiles (39) bis zur Freigabe der Enden (4) der Seitenschenkel (3) der Schiene (1) aus dem Inneren der seitlichen Rillen (43) des Teiles (32).

6. Gardinenstange, nach Anspruch 1 dadurch gekennzeichnet, dass die erwähnte Kreuzungs- und Überlappungsvorrichtung (6) ein oder zwei zusätzliche kleine Schlitten (44) zum Aufhängen der Gardine umfasst, welche je mit zwei Gleitelementen (45) ausgestattet sind, die im oberen Bereich der Enden des Schlittens (44) angeordnet werden und über eine glatte, flache horizontale Oberfläche (46) verfügen, welche die Gardinenschnur hält; jedes Gleitelement (45) zeigt hinter und quer einer scharfen Kante (48), die eine Führung der Schnüre in ihrem Abstieg zum Körper des Schlittens (44) erleichtert, der aus einer im Querschnitt u-förmigen, horizontalen Platte (49), die hauptsächlich vertikal angeordnet wird, besteht und eine mittlere Öffnung (50), zwei Ausnehmungen (51) am unteren Rand und eine untere Querleiste (52) aufweist, die im Querschnitt die Form eines umgekehrten T's besitzt, wobei alle diese Teile dazu dienen, ein wellenförmiges Gleiten der Schnur (11) durch die Öffnung (50) und die Ausnehmungen (51) zum ermöglichen, um den Schlitten (44) fest an der Schnur

(11) zu befestigen; der Körper eines jeden Schlittens (44) ist unter jedem Gleitelement (45) mit einer Gewindeöffnung (47) versehen, die entweder einen Aufhänger des bzw. der beweglichen Enden der Gardine, oder aber geeignete Befestigungsmittel einer üblichen umdrehbaren Kreuzungs- oder Überlappungsschaukel (53) aufnimmt, die ebenfalls mit Aufnahmeöffnungen (54) für die Aufhänger (5) der Gardine oder für eine Stange (55) zum Hin- und Herschieben der Gardine ausgestattet ist.

7. Gardinenstange, nach Anspruch 1 dadurch gekennzeichnet, dass die genannten Spannelemente (10) mindestens eine Spannvorrichtung für die Schnüre (11) aufweist, die aus einem mittleren Ballastkörper (56) besteht, an dessen beiden Enden fest gleiche Kopfstücke (57) der Schnurschleife (11) angebracht werden, und welche jeweils eine hohle äussere Haube (58) umfassen, die im unteren Endbereich einen Eingang (59) für die Schnur (11), mehr oder weniger in Halbkreisform, sowie einen mittleren Innenbreich (60) mit L-förmigem Querschnitt aufweist, der mit einer semitoroidalen Kerbe (61) für die Gleitbewegung der Schnur (11) und mit einer nach innen gerichteten Leiste (62) ausgestattet ist, die ein unabsichtliches Gleiten der Schnur (11) verhindert, wobei im Innern einer jeden Haube (58) Verstärkungsrillen (62) vorgesehen sind, die gleichzeitig als Anschlag für den mittleren Ballastkörper (56) dienen.

8. Gardinenstange, nach Anspruch 1 dadurch gekennzeichnet, dass jede Halterung (9) eine Platte (64) aufweist, die am horizontalen Schenkel des Winkelrahmens oder unmittelbar an der Decke befestigt wird und welche mit einer drehbaren Platte (65) ausgestattet ist, die über untere Flügel (66) zum Einschieben in entsprechende Seitenrillen (14) einer Längssicke der Schiene (1) umgekehrten T-förmigen Querschnitts verfügt und einen gebogenen Betätigungshebel (67) aufweist.

Revendications

1. Guide pour des rideaux coulissants et analogues, du genre de ceux qui comportent un rail de soutien (1), avec des tronçons droits et/ou courbes, pourvu, le cas échéant, d'orifices (2) pour assurer sa fixation directe au plafond, généralement sous forme d'un U renversé, avec ses branches latérales repliées à leurs extrémités (4) en dedans et à l'intérieur duquel glissent de multiples crochets (5) auxquels se trouve suspendu le rideau ou un objet semblable et des dispositifs réversibles (6) de croisement et/ou de chevauchement des extrémités des bords des rideaux, le guide (1) comprenant en même temps à ses bouts des pièces terminales (7) de guidage et/ou de retour du cordon d'actionnement (11) du rideau, d'autres pièces intermédiaires (27) de jonction angulaire entre les tronçons contigus du rail (1), des pièces de support (9) pour la fixation du guide au mur ou au plafond et des tendeurs (10) du cordon d'actionnement mentionné plus

haut (11), caractérisé par le fait que ce rail (1) est doté de languettes intérieures (12) adaptées pour entrer en contact par leur face inférieure avec la partie supérieure de protubérances internes (13) correspondantes, que se trouvent disposées sur les pièces terminales (7) respectives mentionnées plus haut, le rail (1) étant en même temps doté de cavités longitudinales (14) aptes à recevoir de manière ajustée des pièces respectives de jonction (15), constituées par des tiges pourvues d'une fente au centre (16).

2. Guide pour des rideaux, conforme à la première revendication, caractérisé par le fait que chaque pièce terminale (7) est constituée par une armature, que comporte un corps principal, pourvu de deux jupes latérales (17), réunies par trois portions de pont (18, 19 et 20) et dans chacune desquelles se trouvent creusées quatre rainures latérales (22) intérieures, placées par paires les unes en face des autres, dans lesquelles peuvent s'emboîter, en optant chacun pour deux positions, les axes respectifs des poulies de guidage et/ou de retour du cordon d'actionnement, chacun de ces axes en question s'emboîtant solidement au fond d'une paire correspondante de rainures, moyennant l'ajustement de ses bords extrêmes contre ce fond et chaque extrémité de l'axe étant empêchée de sortir de sa portion de rainure grâce à un certain rétrécissement (24) de celle-ci près de son fond, ce corps principal étant pourvu, dans une portion de pont (18) au bout, d'une vis taraud (25) prête à être serrée contre la face intérieure de la branche supérieure centrale du rail (1), chaque pièce terminale (7) pouvant être dotée d'une pièce servant de couvercle (26) à l'extrémité ou d'une pièce-couvercle intermédiaire (27), destinées à s'accoupler avec la pièce terminale respective (7) et à loger pour le moins un crochet (5) du rideau.

3. Guide pour des rideaux, conforme à la première revendication, caractérisé par le fait que cette pièce-couvercle (26 et 27) qui peut s'accoupler tout au moins à une extrémité d'un tronçon du rail, comporte une première portion extérieure creuse (28), adaptée à sa fixation au mur ou au plafond; une deuxième portion intermédiaire (31), dotée de protubérances internes (32), prêtes à s'appuyer contre les languettes internes du rail (1) et d'une cavité inférieure (33) destinée à permettre le logement de la tête d'un crochet (5) du rideau; et une troisième portion interne (34), constituée par un bloc adapté pour permettre le vissage d'une vis verticale (25), susceptible d'être enfoncée contre la face intérieure de la branche supérieure du rail, en vue d'assurer la fixation.

4. Guide pour des rideaux, conforme à la première revendication, caractérisée par le fait qu'il comprend tout au moins une pièce d'arrêt et de suspension (35), constituée par une portion inférieure dotée d'un anneau de suspension (36) et par une portion supérieure que est formée par une tige verticale (37) et une plaque de forme rectangulaire, perpendiculaire à la tige (37), dont la face inférieure est légèrement bombée et dont la largeur est un peu plus petite que celle de

l'ouverture longitudinale (40) inférieure du rail et dont la longueur est un peu plus petite que la largeur intérieure du rail (1), tout cela étant adapté de telle sorte qu'en introduisant la tige verticale (37) de la pièce d'arrêt et de suspension (35) verticalement à l'intérieur du rail (1), de manière à ce que la plaque perpendiculaire (38) à la tige (37) soit placée dans le sens de la longueur par rapport à l'ouverture (40) longitudinale du rail et en faisant ensuite tourner de 90° cette pièce d'arrêt et de suspension (35), celle-ci soit fortement emboîtée dans le rail (1), avec la tige (37) appuyée contre la face interne de la branches horizontale supérieure du rail et avec la plaque perpendiculaire (38) à la tige (37) appuyée contre les extrémités (4) repliées en dedans des branches latérales (3).

5. Guide pour des rideaux, conforme à la première revendication, caractérisé par le fait qu'il comporte au moins une pièce de fermeture (39) de l'ouverture longitudinale (40) du rail (1), ayant une forme essentiellement aplanie et rectangulaire ainsi qu'une section transversale en forme de U renversé, dont les branches latérales (42) sont pourvues de rainures longitudinales (43), adaptées pour recevoir les bords libres respectifs des branches (3) latérales du rail (1), cette pièce (39) étant constituée d'une fermeture en matière souple et élastique, que permette de l'introduire à pression, de bas en haut, dans l'ouverture longitudinale (40) du rail (1), par déformation élastique de la pièce et de l'en retirer de même par déformation élastique, en rapprochant les branches latérales (42) de cette pièce de fermeture (39) jusqu'à ce qu'on libère les extrémités (4) des branches latérales (3) du rail de l'intérieur des rainures (43) latérales de la pièce (32).

6. Guide pour des rideaux, conforme à la première revendication, caractérisé par le fait que le dispositif de croisement et de chevauchement (6) cité plus haut comprend un ou deux petits chariots (44) complémentaires de soutien du rideau, dont chacun est doté d'une paire d'éléments de glissement (45), disposés dans la partie supérieure des extrémités du petit chariot (44) et dotés d'une surface supérieure (46) horizontale lisse et plate, adaptée pour supporter les cordons (11) d'actionnement, chaque élément de glissement (45) étant pourvu d'un bord vif (48) postérieur et transversal, adapté pour faciliter le guidage des cordons (11) dans leur descente vers le corps du petit chariot (44), lequel est constitué par une plaque de section horizontale en forme de U, placée dans le sens vertical et dotée d'un orifice central (50), de deux échancrures (51) sur le bord inférieur et d'une languette transversale inférieure (52), ayant une section transversale en forme de T renversé, tout cela devant permettre le passage sinueux du cordon (11) par l'orifice (50) et les échancrures (51), dans le but de fixer solidement le chariot (44) au cordon (11), le corps de chaque chariot (44) étant doté, au-dessous de chaque élément de glissement (45) d'un orifice en forme de pass de vis (47), destiné soit à recevoir

un crochet de l'extrémité ou des extrémités mobiles du rideau, soit à recevoir les moyens adéquats pour la fixation d'une lame (53) conventionnelle de croisement ou de chevauchement, pourvue aussi d'orifices (54) récepteurs des crochets (5) du rideau, soit à recevoir une tringle lanceuse (55) d'actionnement.

7. Guidé pour des rideaux, conforme à la première revendication, caractérisé par le fait que les tendeurs cités plus haut (10) comportent au moins un dispositif de tension des cordons (11), par gravité, qui est constitué par un corps (56) central de lest, aux deux bouts duquel sont solidement fixées des têtes (57) identiques de suspension de la boucle du cordon (11), dont chacune comprend un chaperon creux (58) extérieur, pourvu au bout de sa base d'une entrée (59) pour le cordon (11), en forme d'arc décrivant à peu près une demi-circonférence, et d'une partie centrale intérieure (60) ayant une section en

forme de L, pourvue d'une mortaise (61) semithorique pour le glissement du cordon (11) et d'une languette (62) en dedans, adaptée pour éviter le déplacement fortuit du cordon (11), des nervures de renforcement (63) se trouvant placées à l'intérieur de chaque chaperon (58), lesquelles servent à leur tour d'arrêt au corps central de lastre.

8. Guide pour des rideaux, conforme à la première revendication, caractérisé par le fait que chaque pièce de support (9) comporte un fer-plat (64), susceptible d'être fixé à la branche horizontale d'une armature en équerre ou directement au plafond, ce fer-plat (64) étant pourvu d'une plaque giratoire (65), dotée d'ailettes inférieures (66) destinées à s'introduire dans les rainures latérales (14) d'une strie longitudinale du rail (1), ayant une section en forme de T renversé, cette plaque giratoire (65) étant pourvue d'un levier d'actionnement recourbé (67).

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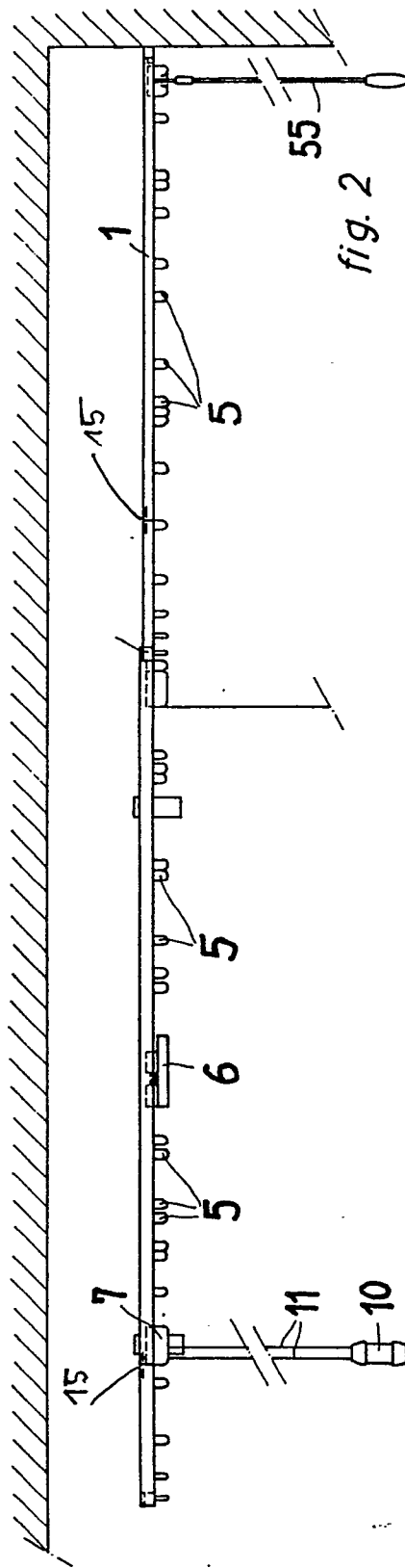
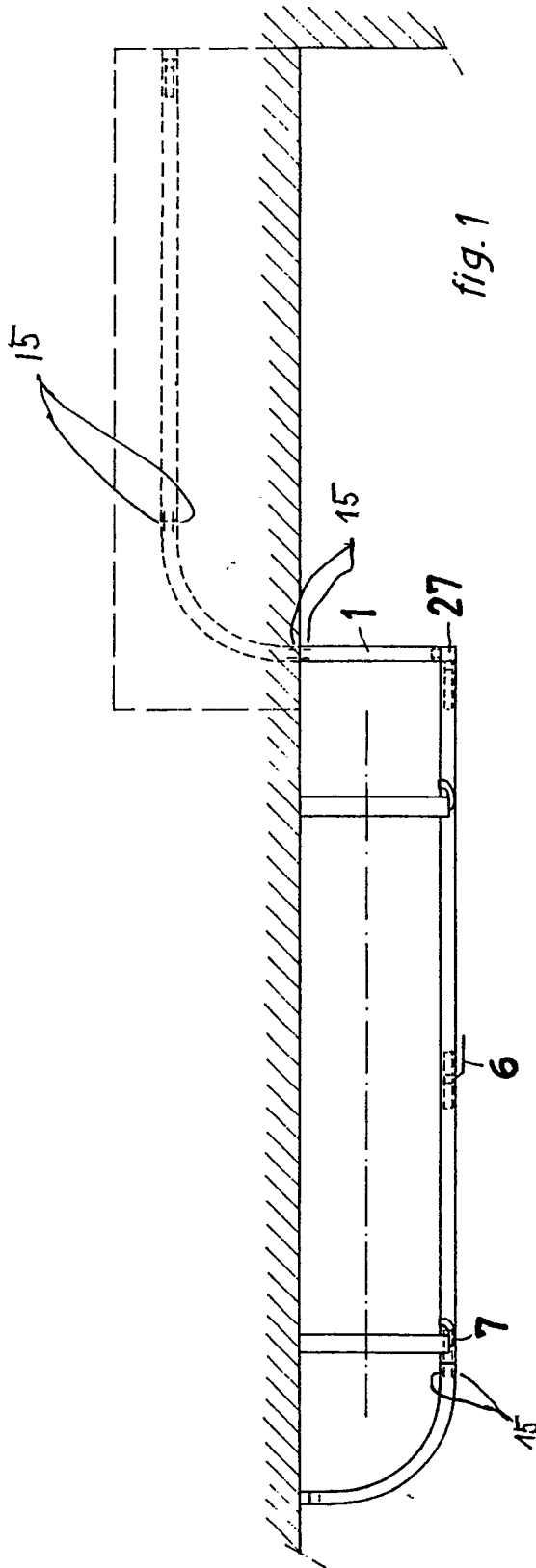
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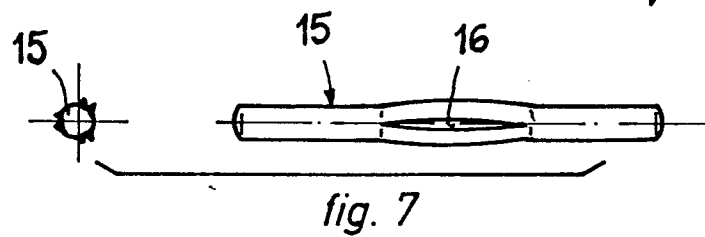
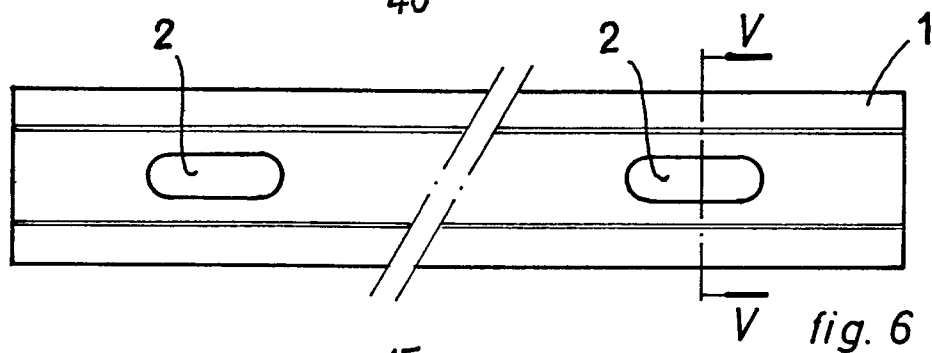
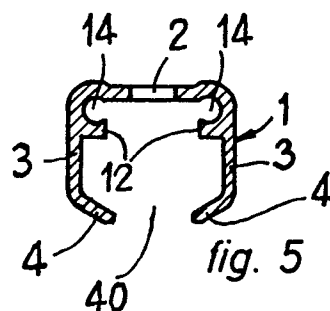
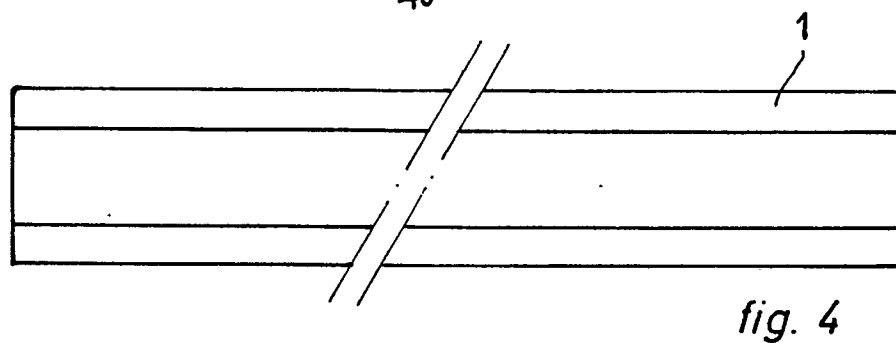
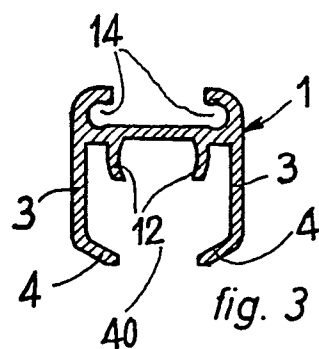
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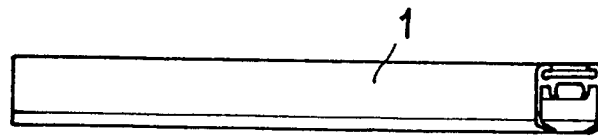


fig. 8

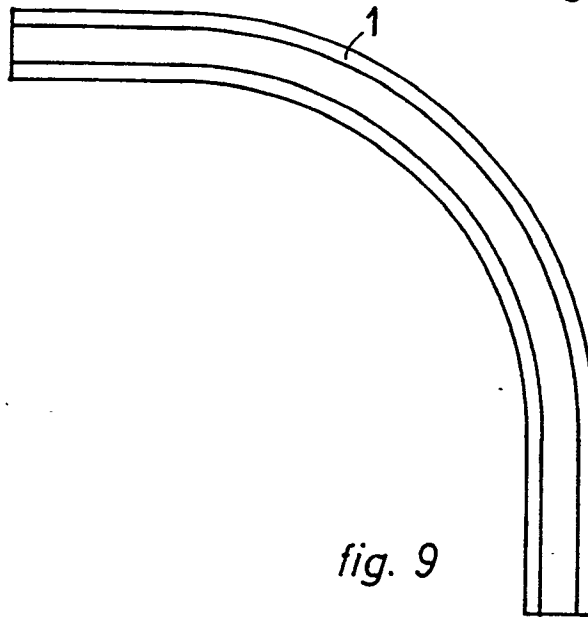


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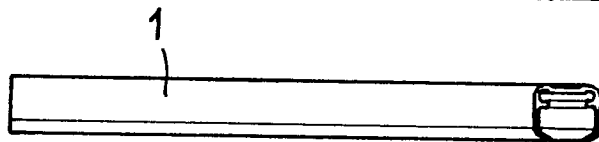


fig. 10

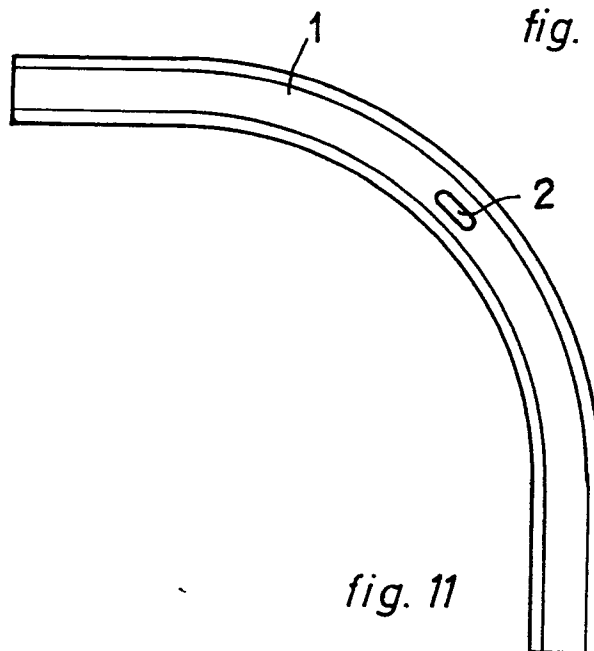
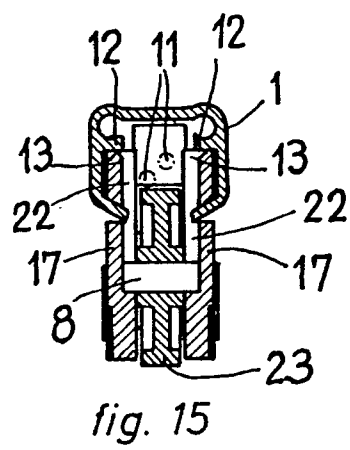
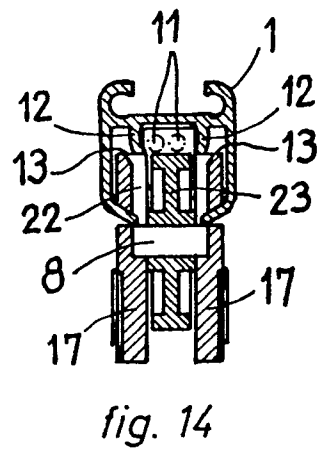
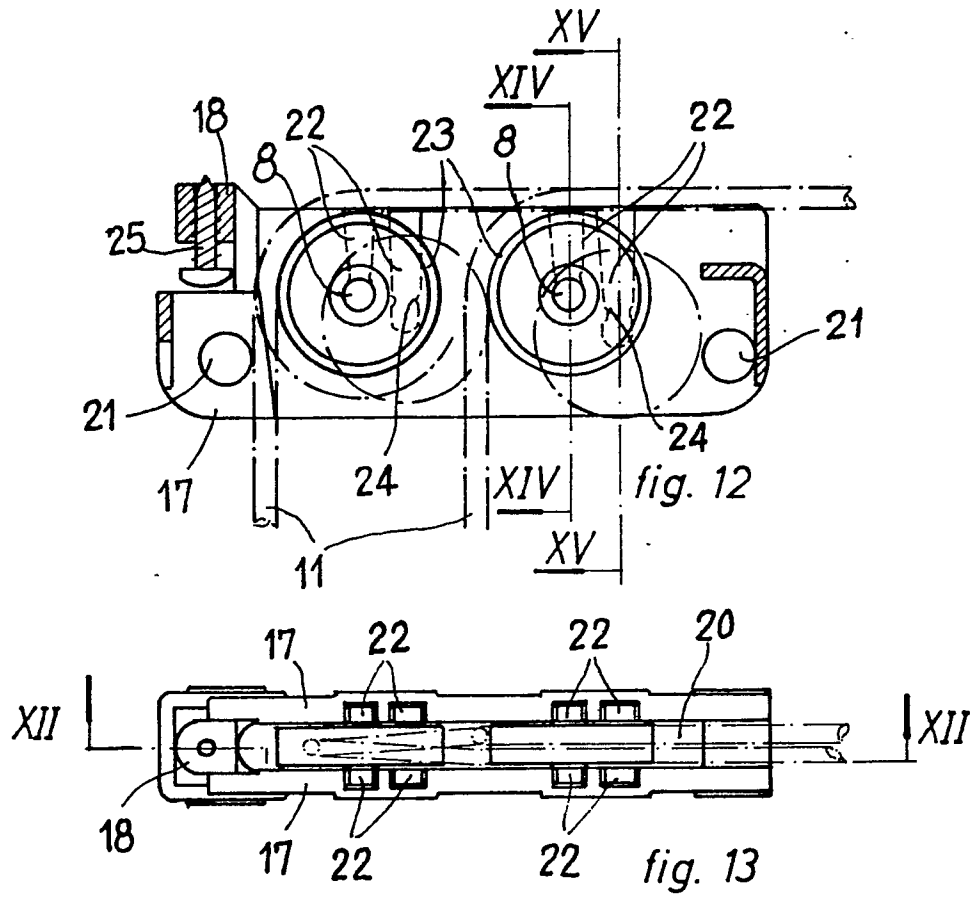
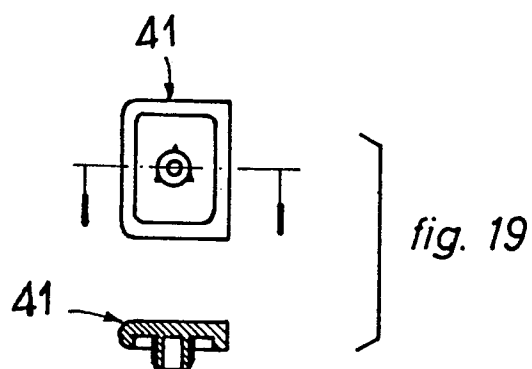
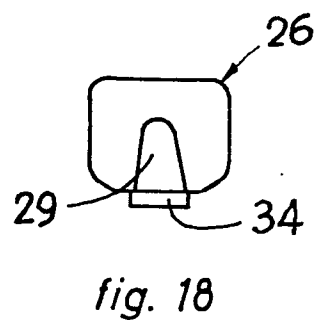
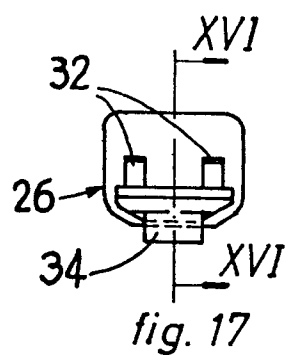
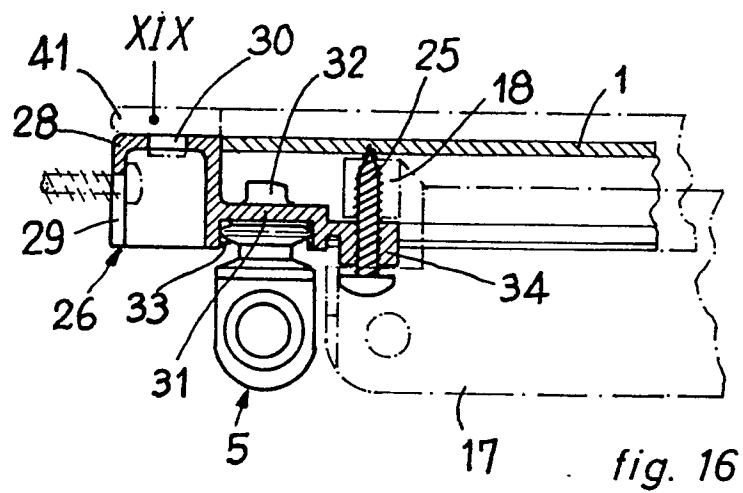
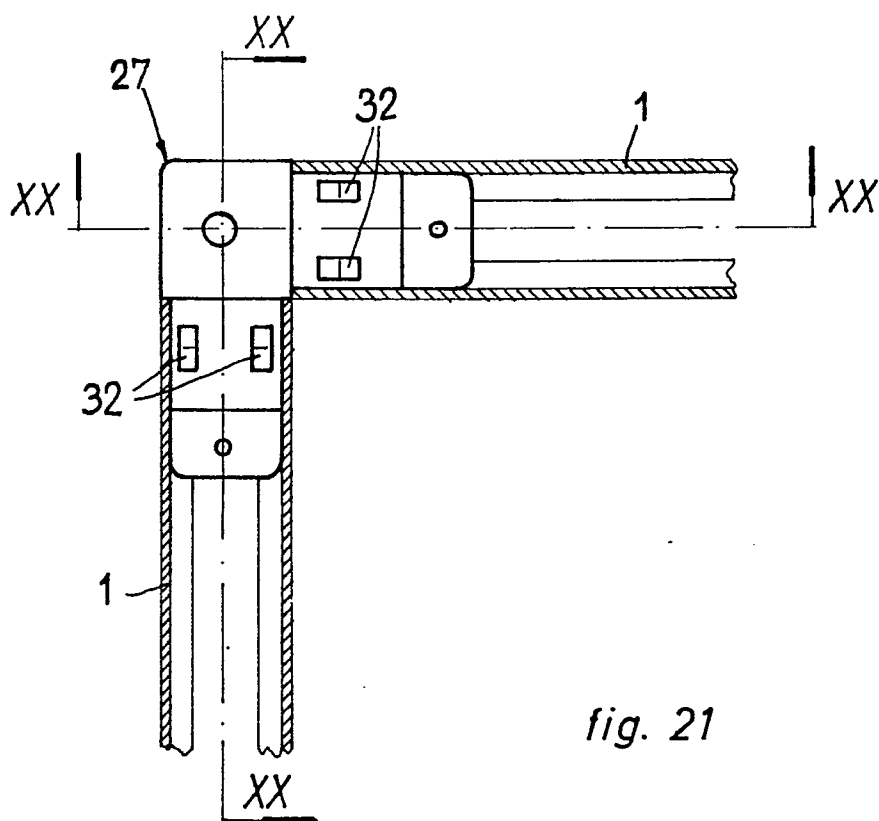
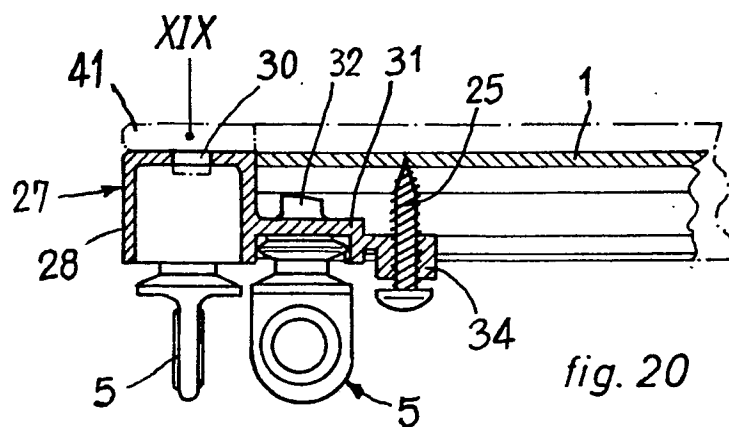
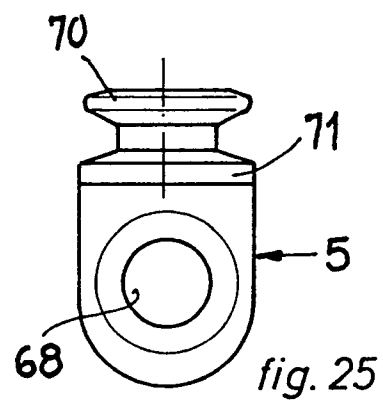
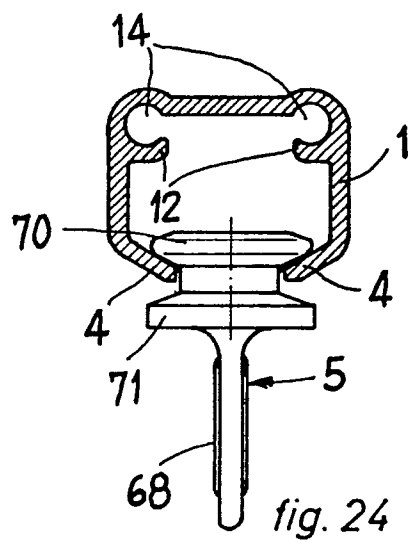
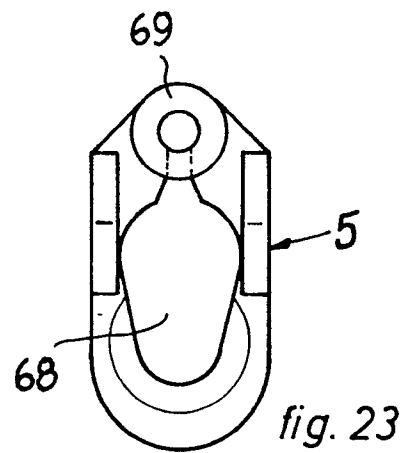
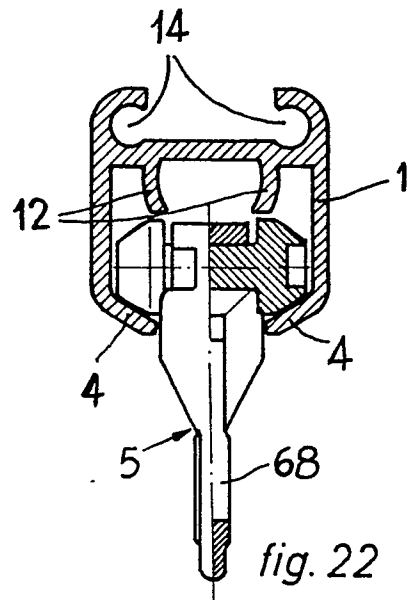


fig. 11









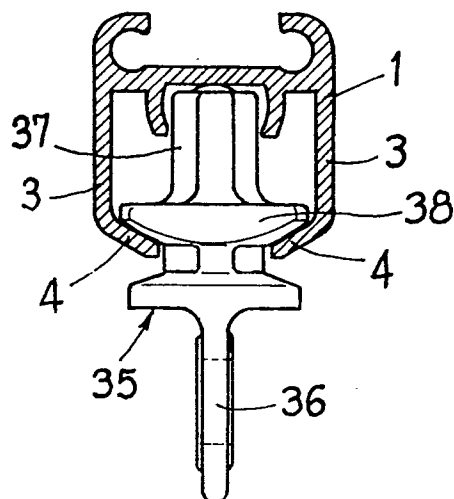


fig. 26

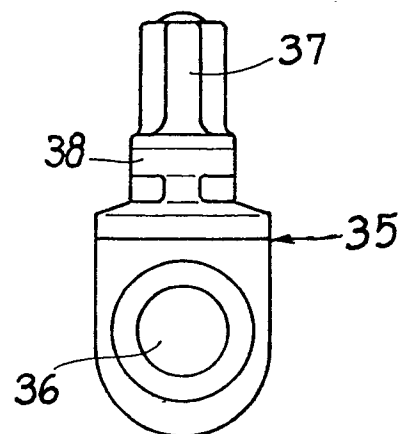


fig. 27

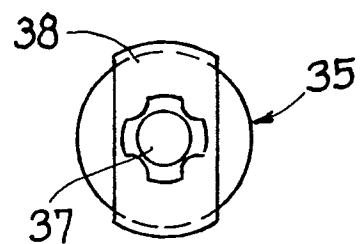


fig. 28

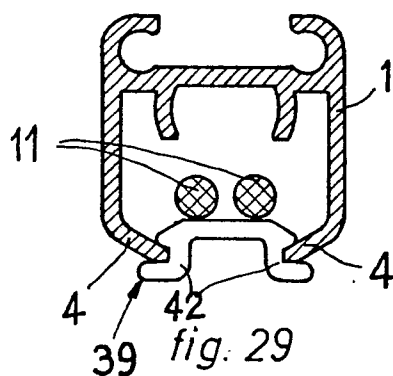


fig. 29

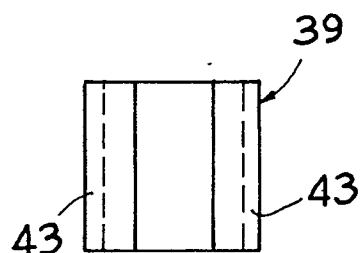
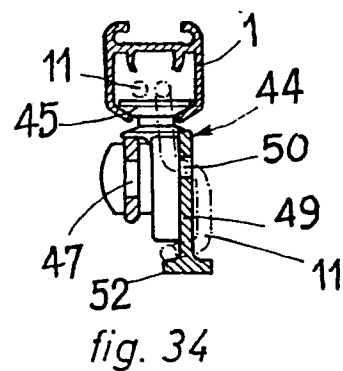
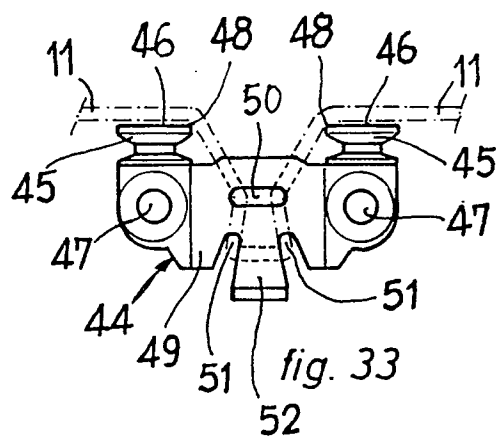
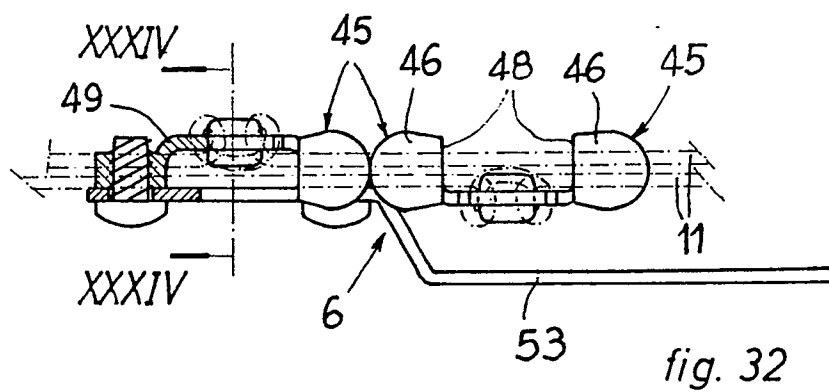
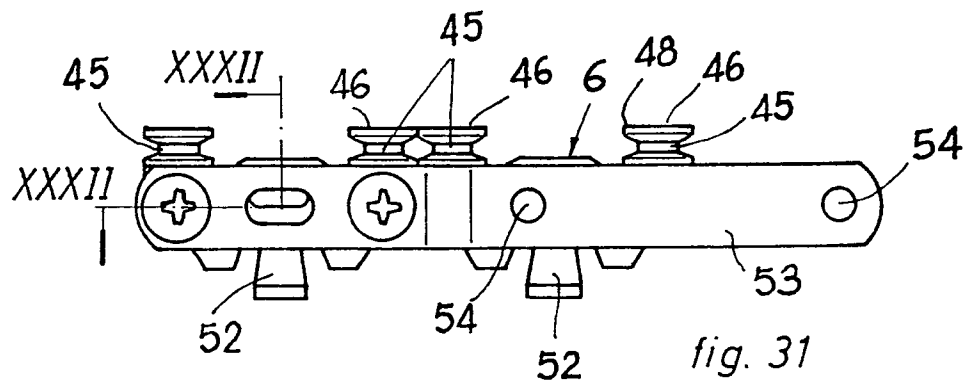


fig. 30



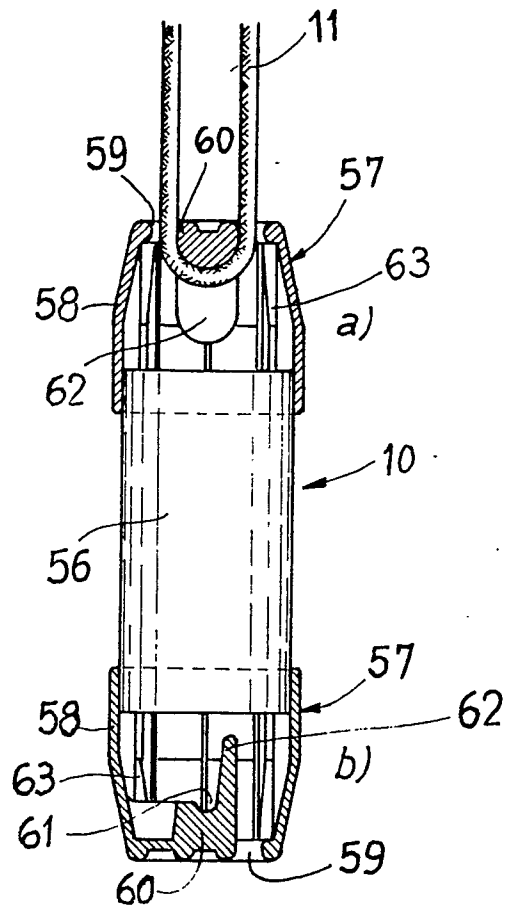


fig. 35

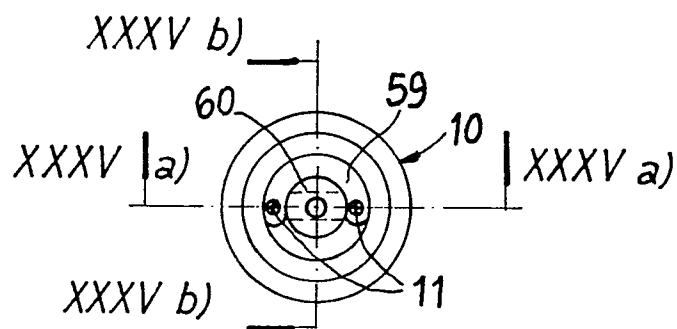


fig. 36

