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(54) **FLEXIBLE CONDUCTIVE TRACK**

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RAIL FLEXIBLE CONDUCTEUR

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Description

[0001] The present invention relates to a flexible conductive track for electrical or communication or other signals connection and, more particularly, for such tracks for installation around a room or office and accessible for connection at almost any position along its length for take off of electrical, communication, or other signals.

[0002] Prior art flexible electric conduit tracks are known. However, they all suffer from disadvantages which have prevented them from being commercially viable.

[0003] Such a prior art is US Patent 2,062,752 - Kindberg which has wires forming the power lines embedded in two slits in a rubber housing. This results in only a small area of contact - nominally a "point contact" - between the tines of a power take off device and the conductors of the track with resultant problems with connection failure. Further the configuration of the housing does not readily allow for bending of the track in a lateral direction with respect to the slots. It being necessary to cut one or more notches to facilitate the bending of the track around a corner.

[0004] US Patent 2,105,833 - Feuer, et al shows a track which comprises a flexible moulding having two slits with a wire embedded in each slit. Again only a "point contact" with a tine of a power take off device would occur. Further the moulding does not appear to be able to bend laterally to the slits.

[0005] US Patent 2, 175,245 - Brockman whilst showing a flexible track, requires that the contacts are in the form of separate jaws, and also only shows a shape of housing which does not permit bending of the track laterally, but only allows bending with the ingress to the contacts being internal or external to the bend direction.

[0006] In US Patent 2,240,180 - Frank this describes a flexible track. But does not show a track which can bend laterally. Further the contacts have individual jaws to assist bending with the ingress to the contacts being internal or external to the bend direction.

[0007] In International Patent Application No. PCT/SE86/00579 there is described a flexible conductor strip having an elongated wire conductor surrounded by a thin insulation layer with an elongated slot extending through the insulation layer to provide access to the conductor. This conductor strip only provides a small area of contact between the conductor and a take off device. Further, because of the small diameter of the conductor strip, the strip will twist during bending resulting in the slot twisting out of position.

[0008] Systems utilizing the above tracks as described in the abovementioned references do not allow a secure connection to the conductors in the track; but rely on a straight "push in" of the tines of the power take off into the slits containing the contacts, generally relying upon the resilience of the material of the house to retain engagement.

[0009] A rigid supply rail system having bus bars located in vertically extending elongated channels are known, and described in International Patent Application PCT/AU86/00252. This reference provides a single small diameter elongate conductor located adjacent to the roof of the channels. Access of the channels is by way of an elongated opening located on the side wall adjacent the base of the rail. Thus the connection of the take off device is dependent on the small area of contact between the tine of the take off device and the elongated conductor. Further, when a change of direction is required for the supply rail, a corner adaptor is required to be conected between the adjacent supply rails. Therefore because of the conections between straight rail sections and corner adaptors, an increase in impedence of the supply rail system occurs. Therefore if a high fidelity signal is required, this system could cause interference or noise, distorting the signal.

[0010] The use of a rigid supply rail is also shown in US Patents 4,243,284 - Humphreys, 4,462,650 - Humphreys and 4,479,687 - Humphreys et al. These references show a limited access to the conductors by way of discrete doorways with resultant complex arrangements for opening and closing.

[0011] The present invention seeks to ameliorate the beforementioned disadvantages by providing a flexible distributor and assembly to bend laterally.

[0012] According to a first aspect of the present invention there is provided an electrical distributor assembly as claimed in claim 1.

[0013] According to a second aspect of the present invention there is provided an electrical distribution system as claimed in claim 9.

[0014] Further features of the present invention are defined in the other appended claims.

[0015] It is thus possible to provide an electrical distributor assembly which can be bent to accommodate corners.

[0016] The invention will now be described by way of example with reference to the accompanying drawings in which:

FIG. 1 illustrates an end view of a flexible conductive track according to one embodiment of the present invention;

FIG. 2 shows an end view of a further embodiment of a flexible conductive track according to the present invention.

FIG. 3 illustrates an end view of one embodiment of a support housing to support the conductive track of Figure 1 or 2;

FIG. 4 illustrates a base adapted to be fitted to the housing of Figure 3;

FIG. 5 illustrates a connection member of a take off device according to one embodiment of the present invention; and

FIG. 5A illustrates a further form of a connection member according to another embodiment of the

present invention.

FIG. 6 illustrates a take off device according to one embodiment of the present invention.

FIG. 7 illustrates one embodiment of the supply system according to the present invention (with the corner adapter removed) and cutaway on the flexible track.

FIG. 8 shows a plan view of the system illustrated in Figure 7 to show the resultant configuration of one embodiment of the flexible track of the present invention during bending of the track;

FIG. 9 shows the section view taken in the direction of arrows 9-9 in Figure 8;

FIG. 10 shows a section view taken in the direction of arrows 10-10 in Figure 8;

FIG. 11 illustrates another embodiment of the flexible track of the present invention;

FIG. 12 illustrates another embodiment of the tracking system according to the present invention;

FIG. 13 illustrates a housing according to a further embodiment of the present invention;

FIG. 14 illustrates a distribution system of one embodiment of the present invention utilizing the housing shown in Figure 13;

FIG. 15 illustrates a further embodiment of a housing usable in the present invention;

FIG. 16 illustrates a further embodiment of a housing usable in the present invention;

FIG. 17 illustrates an adaptor plug usable with the distribution systems of the present invention; and

FIG. 18 shows a cutaway view of the adaptor plug illustrated in Figure 16, showing the engagement of the connecting prong forming an electrical contact with an adaptor plug.

[0017] As shown in Figure 1 a flexible conductive track (1), according to one embodiment of the present invention, comprises a flexible insulative plastics housing (2) of constant cross-section. This housing is substantially rectangular in shape with three recesses (3) open to one side of the housing.

[0018] A conductor (4) in the form of a copper wire is held in the bottom of each recess. Affixed to the wire (4) along the whole length of the wire is a conductive blade (5) which is conductively bonded to the wire (4) to form a double spring blade contact (5). In the flexible conductive track, as shown in Figure 1, the wire (4) is held in the recesses by shoulders (6) located adjacent the bottom of each recess (3).

[0019] The blade means can be a single blade with biasing means formed integrally with the walls of the recess to urge the tines of a take off unit into intimate contact with the blade (5). Further, the wire (4) and conductive blade (5) can be moulded into the housing wall by means of cross-head extrusion, when the housing is extruded.

[0020] As shown in Figure 2 a further embodiment of the flexible conductive track of the present invention comprises three recesses (3) with an elongated conductors (17) connected by pressure welding to arm (18) or (19), or both, of a bifurcated contact spring (20), which extends longitudinally along the length of the recesses (3). The contact spring (20) is held in the recess (3) by the free ends (21) of contact spring (20) resiliently bearing on shoulders (22) of the recesses (3) or held in the recess by crosshead extrusion. The contact spring (20) may provide both the spring action and conductivity in the single form.

[0021] Both flexible tracks (1), as shown in Figures 1 and 2, have a recess (16) located on the face opposite to the first face. This extends along the length of the track and enhances the flexibility of the track.

[0022] A suitable housing (8), as shown in Figure 3, can be affixed to the wall of an area, where the system of the present invention is to be used. A single continuous length of a flexible conductive track (1), as illustrated in Figures 1 or 2, for example, is fitted into the channel (7) of the housing (8). The channel (7) is configured to hold the conductive track (1) such that open ends of the recesses (3) face downwardly.

[0023] The base (9) as shown in Figure 4 closes the bottom of the housing (8), leaving an elongated side access opening (10) which extends along the entire length of the housing (8), as shown in Figure 7. Connection to the wires therefore can be made at any position along the length of the conductive track (1).

[0024] When the flexible track (1) is laterally bent around a corner as shown in Figures 7, 8, 9 and 10, the recesses (16 and 3) collapse to allow lateral bending.

[0025] A take off unit in the form of a power point is shown in Figure 6. The power point (11) has a projection (12) extending from the back with one or more tines (13) extending radially therefrom. A view of the projection is shown in Figure 5. To connect the power point (11) to the conductive strip (1), the tines (13) are aligned with the opening (10) and the projection (12) inserted into the opening (10) and the power point (11) rotated such that the tines (13) engage the respective blades (5) in the recesses (3). Because of the double blade spring construction, the blades (5) are urged into intimate engagement with each side of the tines (13) such that both flat areas (14), provide a relatively large contact area.

[0026] To further inhibit arcing between adjacent tines (13), when connected to the conductors/blades (5) in the flexible conductive track (1), the walls (23) of the housing (8) have their free ends (25) configured to mate with recesses (24) on the projection (12), isolating each tine (13) from the others.

[0027] Alternatively as shown in Figure 5A, part of the length of one or more of the tines (13) can be sheathed in plastics, with or without the recesses (24), such that upon insertion of the tine into the recess (3), the plastics sheath (26) extends into the recess (3) to inhibit any arcing or discharging between the tines (13).

[0028] The powerpoint (11), as shown in Figure 6,

comprises a combined locking means and an on/off switch (15) to secure the powerpoint to the housing (8), wherein when said power point (11) is rotated, after the insertion of the tines (13) into the opening (10), power is only available to the external output (72) upon manual operation of the locking means (15).

[0029] In another embodiment the projection 12 may be moulded directly to a power lead.

[0030] If required a cover strip could be used to seal the opening (10).

[0031] As shown in Figure 3, the housing can comprise two channels one for telecommunication and one for power. However any number of channels could be used, for example one respectively for power, stereo systems, computer lines, gas, optical fibres, etc.

[0032] The flexible conductive strip can be of any suitable configuration and have any number of recesses.

[0033] To assist in the lateral bending of the flexible track an embodiment as shown in Figure 11 can be used.

[0034] In the flexible insulative housing (27) are located three recesses (28) similar to those described previously which each contain a conductive blade (29) as shown in Figure 11. A conductor (30) may be connected to the arcuate end of the connector blades (29). The conductor (30) could be standard copper wiring while the blade (29) could be formed of phosphorous bronze. Alternatively, the conductive blade (29) could be constructed so as to be used on its own, without the necessity of the additional conductor in the form of a copper wire (30).

[0035] At preselected positions along the length of the conductive blade (29), cutouts (31) are located along its length. These cutouts (31) do not extend into the contact area (32) of the arms (33) of the conductive blade. These cutouts (31) enhance the flexibility of the conductive blades (29) and hence the flexible conductive tracks (27) into which they are inserted.

[0036] Additional as shown in Figure 12, the housing (34) used to contain the flexible insulative track (35) can have external fittings (36) for the affixing of suitable colour strips (not shown).

[0037] One embodiment of a floor mounted system according to the present invention is shown in Figure 13 comprises an open face housing (37), with two opposed side walls (38) and (39), and a channel portion (40), which has a base support (41). This embodiment is used to be inserted into a recess (42) in a floor (43) as shown in Figure 14.

[0038] Located on the sides and base of the channel portion (40) are cutouts (44) to allow any moisture to drain out of the housing, and along and out of the floor recess (42).

[0039] A mounting means (45) is provided to hold an elongated cassette (46) therein. The mounting means (45) comprises two parallel projections, one (47) with a hook (48) located along the free end thereof.

[0040] The cassette (46) comprises an elongated recess (49), and a cutout (50) located at one end. The projection (51) is fitted into the recess (49) of the cassette (46) and the hook (48), because of the resilience of the material of the housing (37) snaps into the cutout (50), locking the cassette (46) in position. In the embodiment shown, the cassette (46) has its open mouth (52) facing downwardly. A cover strip (53) can be inserted into the opening (54) below the cassette (46), where it rests on the elongated support (55) and locks into the cassette (46) by means of the projection (56) to close the mouth (52) of the cassette (46).

[0041] Fitted into the cassette (46) can be any form of conductive track, (however preferably a flexible conductive track (1) shown in Figures 1 to 11 is used), as shown in Figure 14, with the shoulders (57) of the cassette locking over the outer walls (58) of the flexible conductive track (1), with the barbed projection (59) engaging in the locating recess (16) of the flexible track (27).

[0042] A take off means (60) as described previously can be used to connect to the conductors (20), whereby power or the like is supplied external of the recess (42) as shown in Figure 14. To close the recess a cover (61) rests on the top supports (62) and (63) of the housing (37), aligning flush with the flooring as shown in Figure 14. The cover (61) has cutouts (64) located at appropriate positions along the cover (61) to allow for egress of suitable cable. These cutouts could be preformed or cutout when needed, and a cord cover strip (65) fits into the channel (66).

[0043] Other embodiments of the present invention are shown in Figure 15 utilising multiple cassette mountings (45).

[0044] In Figure 16 the housing 34 as illustrated in Figure 12 can be used in a floor mounted arrangement similar to Figures 14 and 15.

[0045] Preferably the housing and cassettes are made from suitable plastics.

[0046] The cassette in use can also face sideways with a suitable hinged or flapped cover slip covering its mouth to prevent ingress of contaminants.

[0047] As is shown in Figures 17 and 18, the electrical connector (67) of the power point adaptor (68) comprises two arms (69) which are made of resilient metal. The prong (70) of an appliance (not shown) slides into engagement between the arms (69) and the screw (71) is tightened to urge the arms (69) into intimate contact with the prong (70). Sufficient pressure can be generated by the screw (71) to provide the equivalent of a fixed contact between the prong (70) and the arms (69).

[0048] In a further embodiment not shown, the prong could have a recess or bore into which the screw will engage to rigidly connect the prong to the electrical connectors.

[0049] This form of connection is not only limited to distribution systems, as before described, but can also

be used with respect to standard power points and double adaptor connections.

Claims

1. An electrical distributor assembly including:-

a longitudinally extending elongate flexible insulated housing (2) having two opposed faces,
and at least two elongate flexible conductors (4, 5);
characterised in that:
said insulated housing (2) has a plurality of longitudinally extending slots (3) opening inwardly from one said face thereof and at least one longitudinally extending slot (16) opening inwardly from said opposite face thereof;
a conductor (4, 5) is located in at least two of the slots in said one face; and
the arrangement is such that the said slots collapse to allow lateral bending of the electrical distributor assembly.

2. An electrical distributor assembly as claimed in claim 1, characterised in that said at least one longitudinally extending slot (16) is a first longitudinally extending slot located substantially centrally in said opposite face and said plurality of extending slots (3) includes second and third longitudinally extending slots located off-centre in said one face.

3. An electrical distributor assembly as claimed in claim 2, characterised in that said plurality of extending slots (3) includes a fourth longitudinally extending slot located substantially centrally in said one face.

4. An electrical distributor assembly as claimed in claim 3, characterised in that the slots in said one face include support means (6, 22) for supporting said conductor assembly.

5. An electrical distributor assembly as claimed in claim 4, characterised in that said insulated housing is an extrusion.

6. An electrical distributor assembly as claimed in any one of the preceding claims, characterised in that said conductor includes a flexible elongate conductor (4) and a flexible elongate blade member (5) in electrical contact with said conductor and adapted to closely receive a tine (12) of a plug assembly (11) and establish electrical contact herewith.

7. An electrical distributor assembly as claimed in claim 6, characterised in that said elongate blade member is substantially U-shaped in cross-section and has a pair of opposed and inwardly biased substantially arcuate arms, the closed portion of said blade member housing said conductor.

8. An electrical distributor assembly as claimed in claim 7, characterised in that said elongate blade member has a plurality of spaced cut-outs (31) located along said closed portion.

9. An electrical distribution system including:-

a support housing (8, 34) having at least one longitudinally extending chamber;

an electrical distributor assembly located in said chamber, and

at least one plug assembly (11) having a plurality of tines (13) for establishing electrical contact with said electrical distributor assembly;
characterised in that

said electrical distributor assembly is an assembly as claimed in any one of the preceding claims and is located in said chamber and spaced from a wall of said chamber to define a substantially continuous longitudinally extending access channel therewith,

the arrangement being such that following the insertion of said plug assembly tines (13) received within said access channel, said plug assembly tines are rotatable within said access channel to cause the tines to engage the conductors establish electrical contact.

10. An electrical distribution system as claimed in claim 9, characterised in that said plug assembly is adapted to abut said support housing and includes a projecting member (12) receivable within said access channel when said plug assembly abuts said support housing, said tines (13) extending radially from said projecting member.

11. An electrical distribution system as claimed in claim 9, characterised in that said chamber includes an engagement member (59) adapted to be lockingly engaged in said first slot for supporting said insulated housing.

12. An electrical distribution system as claimed in claim 11, characterised in that said chamber includes rib or shoulder means for supporting said insulated housing.

13. An electrical distribution system as claimed in claim 12, characterised in that said plug assembly includes recess means (24) between said tines (13)

for closely receiving an edge (25) of a wall member (23) formed between adjacent slots in said one face.

Patentansprüche

1. Eine elektrische Verteileranordnung, umfassend:

   ein sich in Längsrichtung erstreckendes längliches, flexibles Isoliergehäuse (2) mit zwei einander gegenüberliegender Stirnflächen
   und wenigstens zwei sich in Längsrichtung erstreckenden, flexiblen Leitern (4,5),
   gekennzeichnet durch:
   das Isoliergehäuse (2) hat eine Mehrzahl von sich längs erstreckenden Schlitzen (3), die sich zu einer der erwähnten Stirnflächen öffnen, also an der einen Stirnfläche austreten, und wenigstens einen sich längs erstreckenden Schlitz (16), der sich zu der gegenüberliegenden Stirnflache hin öffnet, also an dieser austritt;
   je ein Leiter (4, 5) ist vorgesehen in wenigsten zwei der Schlitze in der einen Stirnfläche; und
   die Anordnung ist derart, dass die Schlitze kollabieren, um eine seitliche Biegung der elektrischen Verteileranorduung zu ermöglichen.

2. Eine elektrische Verteileranordnung gemäss Anspruch 1, dadurch gekennzeichnet, dass ein Längsschlitz (16) im wesentlichen zentral in der gegenüberliegenden Stirnfläche angeordnet ist und dass die Mehrzahl von sich längs erstreckenden Schlitzen (3) zweite und dritte Längsschlitze aufweist, die gegenüber dem Zentrum der einen Stirnfläche seitlich versetzt sind.

3. Eine elektrische Verteileranordnung nach Anspruch 2, dadurch gekennzeichnet, dass die sich längs erstreckenden Schlitze (3) einen vierten Längsschlitz umfassen, der sich im wesentlichen zentral in der einen Stirnfläche erstreckt.

4. Eine elektrische Verteileranordnung nach Anspruch 3, dadurch gekennzeichnet, dass die Schlitze in der einen Stirnfläche Stützmittel (6, 22) zum Stützen oder Festhalten der Leiter aufweisen.

5. Eine elektrische Verteileranordnung nach Anspruch 4, dadurch gekennzeichnet, dass das Isoliergehäuse ein Extrusions-Teil, also durch Extrudieren hergestellt ist.

6. Eine elektrische Verteileranordnung nach einem der vorhergehenden Ansprüche, dadurch gekennzeichnet, dass der besagte Leiter einen sich in Längsrichtung erstreckenden, flexiblen Leiter (4) und ein flexibles, längliches Blatt-Teil (5) in elektrischem Kontakt mit dem Leiter (4) aufweist, eingerichtet zur engen Aufnahme einer Zinke bzw. eines Kontaktteiles (12) einer Stöpselanordnung (11), zur Herstellung eines elektrischen Kontaktes mit diesem.

7. Eine elektrische Verteileranordnung nach Anspruch 6, dadurch gekennzeichnet, dass das längliche Blatt- oder Flügelteil im wesentlich U-förmig im Querschnitt ist und ein Paar einander gegenüberliegender, nach innen vorgespannter, im wesentlichen gewölbter Arme aufweist, wobei der geschlossene oder verengte Teil oder Bereich des Flügelteiles den Leiter aufnimmt.

8. Eine elektrische Verteileranordnung nach Anspruch 7, dadurch gekennzeichnet, dass das längliche Flügelglied eine Vielzahl beabstandeter Ausschnitte (31) aufweist, die längs des geschlossenen Teiles angeordnet sind.

9. Eine elektrisches Verteilersystem, enthaltend:

   ein stützendes Gehäuse (8, 34) mit wenigstens einem sich längs erstreckenden Kammer;
   eine elektrische Verteileranordnung, aufgenommen in der Kammer und
   wenigstens eine Steckeranordnung (11) mit einer Vielzahl von Kontaktteilen (13) zur Herstellung elektrischen Kontaktes mit der elektrischen Verteileranordnung,
   dadurch gekennzeichnet,
   dass die elektrische Verteileranordnung eine Anordnung gemäss einem der vorhergehenden Ansprüche ist und lokalisiert oder angeordnet ist in der Kammer und beabstandet ist von einer Wand der Kammer zur Bildung eines im wesentlichen kontinuierlichen, sich längs erstreckenden Zugangs-Kanals in der Kammer;
   die Anordnung ist derart, dass nach dem Einstecken der Steckeranordnung die Kontaktteile (13) in dem Kanal aufgenommen sind, wobei die Steckerteile drehbar sind innerhalb des Zugangskanals, derart dass der elektrische Kontakt hergestellt wird.

10. Eine elektrisches Verteilersystem nach Anspruch 9, dadurch gekennzeichnet, dass die Steckeranordnung eingerichtet ist zum Anliegen gegen das Gehäuse und ein vorstehender Teil (12) in dem Zugangskanal aufgenommen ist, wenn die Steckeranordnung gegen das Gehäuse anliegt, wobei sich die Kontaktstifte (13) radial von dem vorstehenden Teil aus erstrecken.

11. Eine elektrisches Verteilersystem nach Anspruch 9, dadurch gekennzeichnet, dass die Kammer ein

Eingriffsglied (59) aufweist, welches eingerichtet ist zum sperrenden Eingriff in den Schlitz zum Stützen des Isoliergehäuses.

12. Eine elektrisches Verteilersystem nach Anspruch 11, dadurch gekennzeichnet, dass die Kammer Rippen- oder Schultermittel aufweist zum Stützen des Isoliergehäuses.

13. Ein elektrisches Verteilersystem nach Anspruch 12, dadurch gekennzeichnet, dass die Steckeranordnung Ausnehmungen (24) zwischen Kontaktstiften (13) zur engen Aufnahme einer Kante (25) eines Wandungsteiles (23) aufweist, der zwischen benachbarten Schlitzen in der einen Stirnfläche angeformt ist.

Revendications

1. Ensemble de distributeur électrique comprenant un logement allongé isolé et flexible (2) s'étendant longitudinalement présentant deux faces opposées et au moins deux conducteurs allongés et flexibles (4,5) caractérisé en ce que :

- le logement isolé (2) comporte une pluralité de fentes (3) s'étendant longitudinalement et s'ouvrant vers l'intérieur à partir d'une première desdites faces et au moins une fente (16) s'étendant longitudinalement s'ouvrant vers l'intérieur à partir de cette face opposée ;
- un conducteur (4,5) placé dans au moins deux des fentes de cette première desdites faces ;

et en ce que l'arrangement est tel que les fentes fléchissent pour permettre la courbure latérale de l'ensemble de distributeur électrique.

2. Ensemble de distributeur électrique selon la revendication 1 caractérisé en ce qu'au moins l'une des fentes (16) s'étendant longitudinalement est une première fente s'étendant longitudinalement et disposée sensiblement au centre de cette face opposée et en ce que cette pluralité de fentes (3) s'étendant longitudinalement comprend une seconde et une troisième fente s'étendant longitudinalement et étant placées décentrées sur cette première face.

3. Ensemble de distributeur électrique selon la revendication 2 caractérisé en ce que la pluralité de fentes (3) s'étendant longitudinalement comprend une quatrième fente s'étendant longitudinalement située en position centrale sur cette première desdites faces.

4. Ensemble de distributeur électrique selon la revendication 3 caractérisé en ce que les fentes dans la première desdites faces présentent des moyens de support (6,22) pour supporter l'ensemble conducteur.

5. Ensemble de distributeur électrique selon la revendication 4 caractérisé en ce que le logement isolé est réalisé par extrusion.

6. Ensemble de distributeur électrique selon l'une quelconque des revendications précédentes caractérisé en ce qu'un ensemble conducteur comprend un conducteur flexible et allongé (4) et une lame flexible et allongée (5) en contact électrique avec le conducteur et adaptée à recevoir de façon ajustée un ressort de contact (12) d'un ensemble prise (11) pour établir ainsi le contact électrique.

7. Ensemble de distributeur électrique selon la revendication 6 caractérisé en ce que cette pièce en lame allongée est de forme générale de section en U et possède deux bras opposés sensiblement incurvés en arc en rappel vers l'intérieur, la partie fermée de cette lame renfermant ledit conducteur.

8. Ensemble de distributeur selon la revendication 7 caractérisé en ce que cette pièce en lame allongée présente une pluralité de découpes (31) espacées disposées le long de cette partie fermée.

9. Système de distributeur électrique comprenant :

- un logement support (8,34) possédant au moins une cavité s'étendant longitudinalement ;
- un ensemble de distributeur électrique placé dans cette cavité et,
- au moins un ensemble de fiches (11) possédant une pluralité de languettes (13) pour établir un contact électrique avec l'ensemble de distributeur électrique

caractérisé en ce que :

- l'ensemble de distributeur électrique est un ensemble tel que revendiqué selon l'une quelconque des revendications précédentes et est placé dans ladite cavité à distance d'une paroi de cette cavité pour définir un canal d'accès sensiblement continu et s'étendant longitudinalement ; l'ensemble étant arrangé de telle façon qu'après l'insertion des fiches languettes (13) reçues dans ce canal d'accès, cet ensemble de fiches languettes sont pivotantes dans ce canal d'accès afin de provoquer leur engagement avec les conducteurs pour établir le contact électrique.

10. Système de distribution électrique selon la revendication 9 caractérisé en ce que l'ensemble à fiches est adapté pour arriver en butée avec le logement support et comprend une pièce (12) en saillie reçue

dans ce canal d'accès lorsque l'ensemble de fiches arrive en butée avec le logement support, lesdites languettes (13) s'étendant radialement à partir de cette pièce en saillie.

11. Système de distribution électrique selon la revendication 9 caractérisé en ce que la cavité comprend une pièce d'engagement (59) adaptée pour venir s'engager à verrouillage dans cette première fente afin de supporter ce logement isolant.

12. Système de distribution électrique selon la revendication 11 caractérisé en ce que la cavité comprend un moyen de nervure ou d'épaulement pour supporter ce logement isolant.

13. Système de distribution électrique selon la revendication 12 caractérisé en ce que l'ensemble de fiches comprend un moyen de retrait (24) entre les languettes (13) pour recevoir de façon ajustée un bord (25) d'une paroi (23) formée entre les fentes adjacentes dans cette première face.

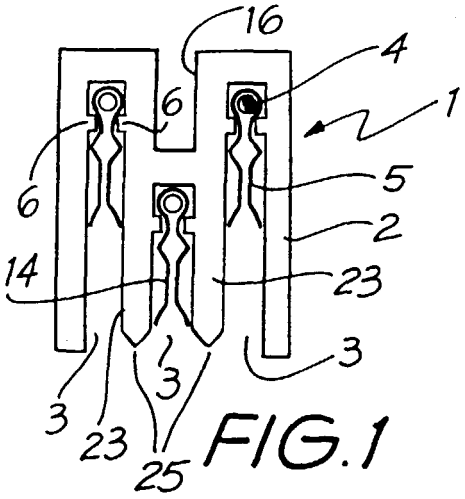


FIG.1

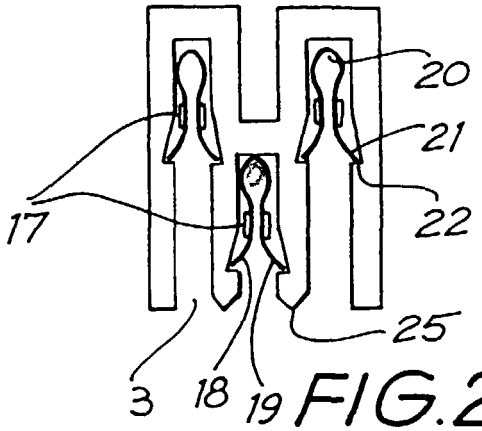


FIG.2

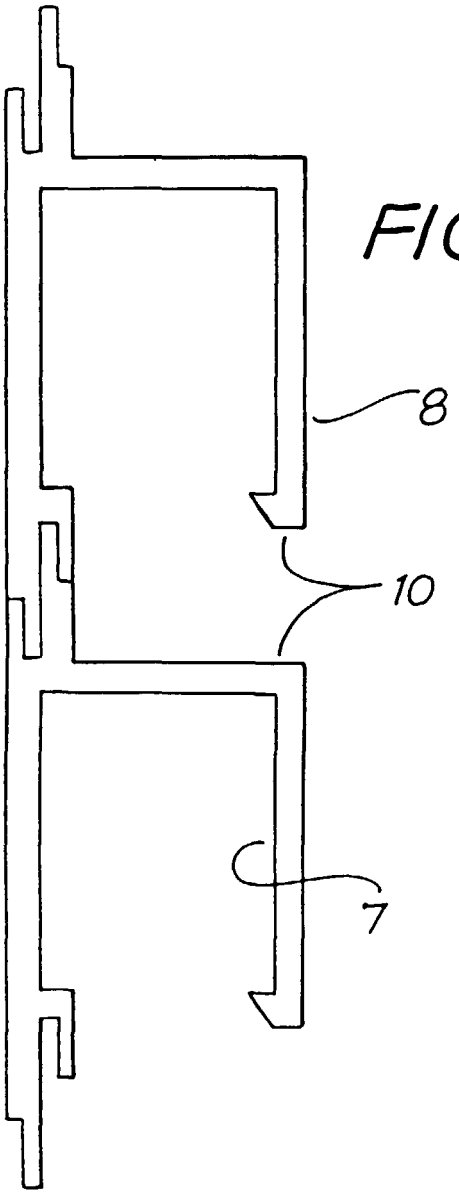


FIG.3

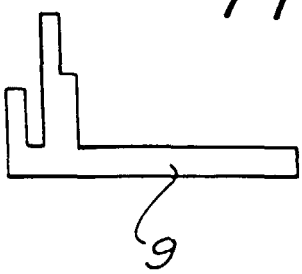


FIG.4

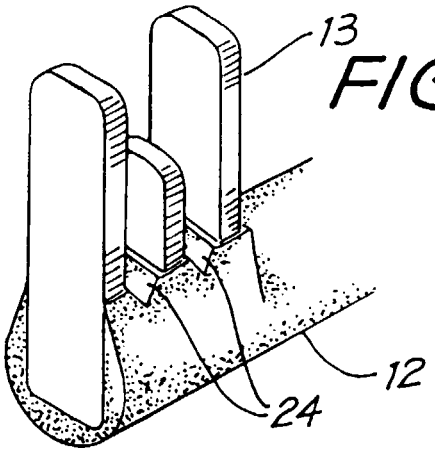


FIG. 5

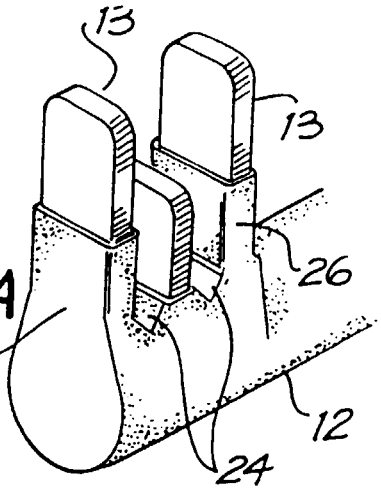


FIG. 5A

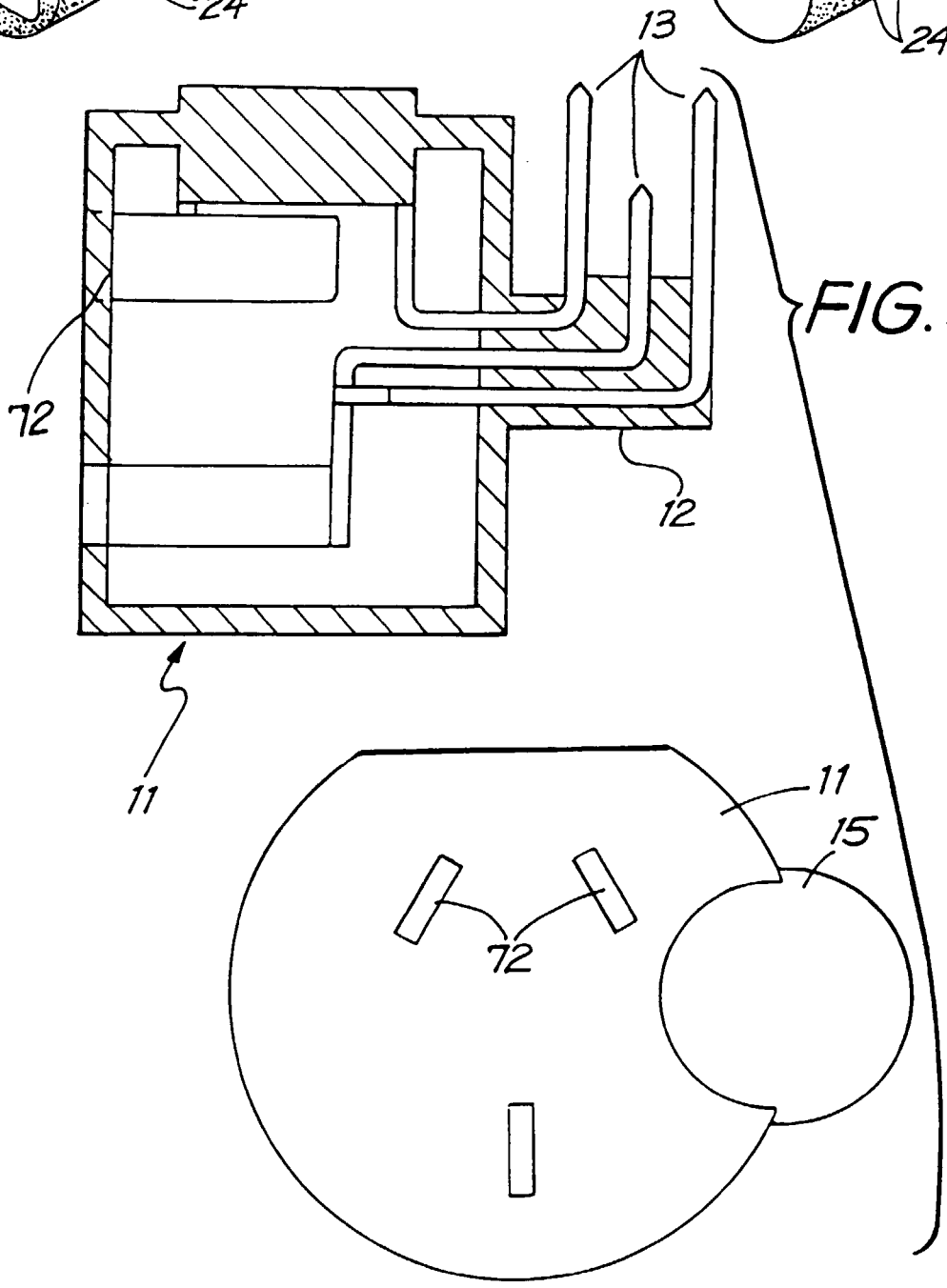
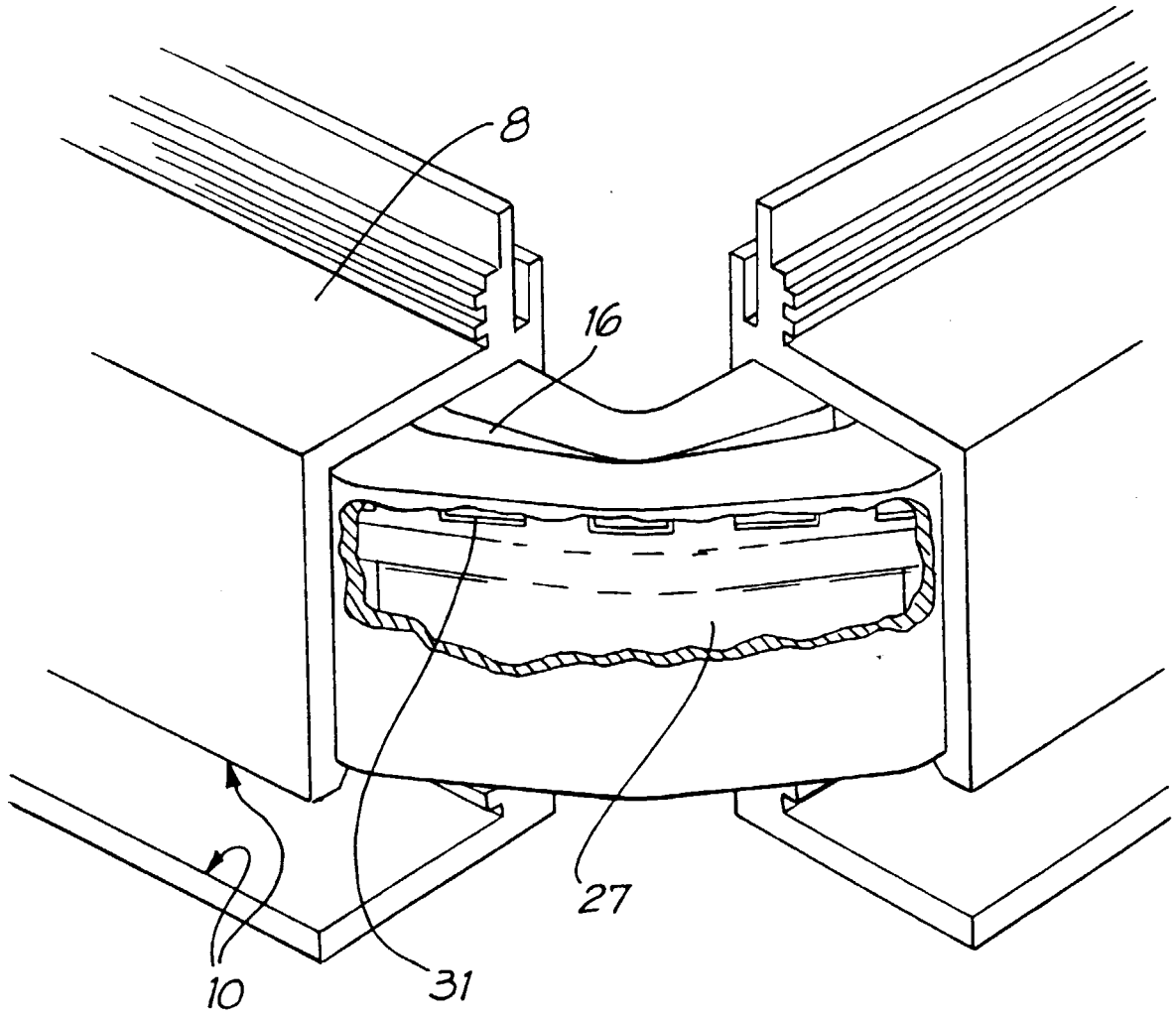


FIG. 6

FIG. 7



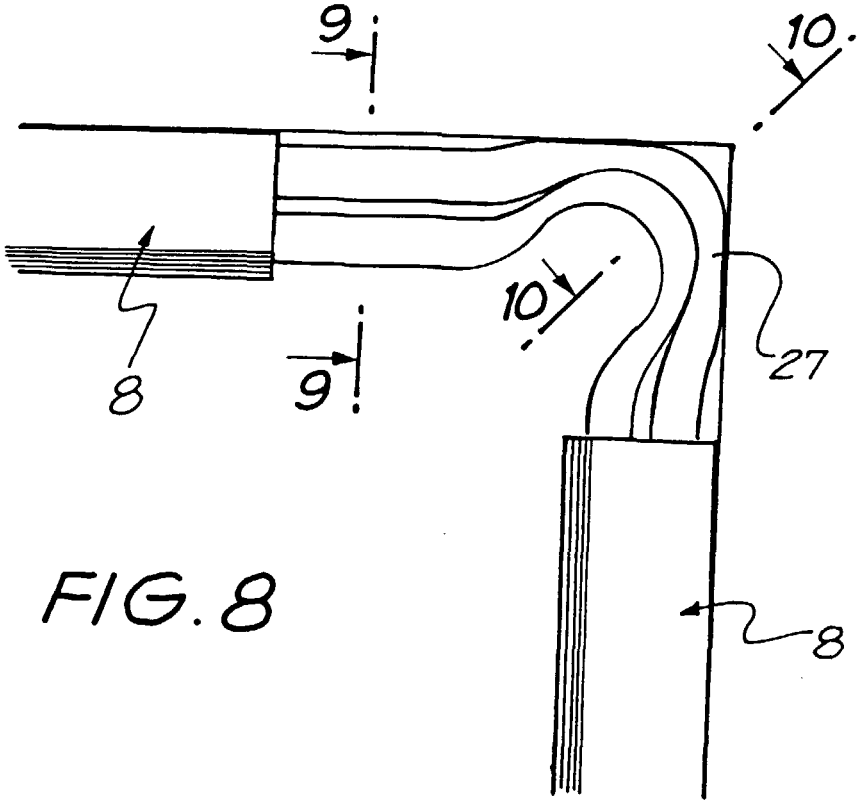


FIG. 8

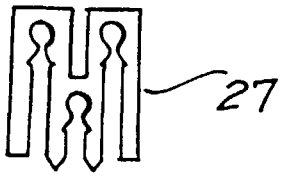


FIG. 9

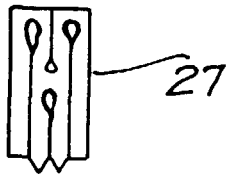


FIG. 10

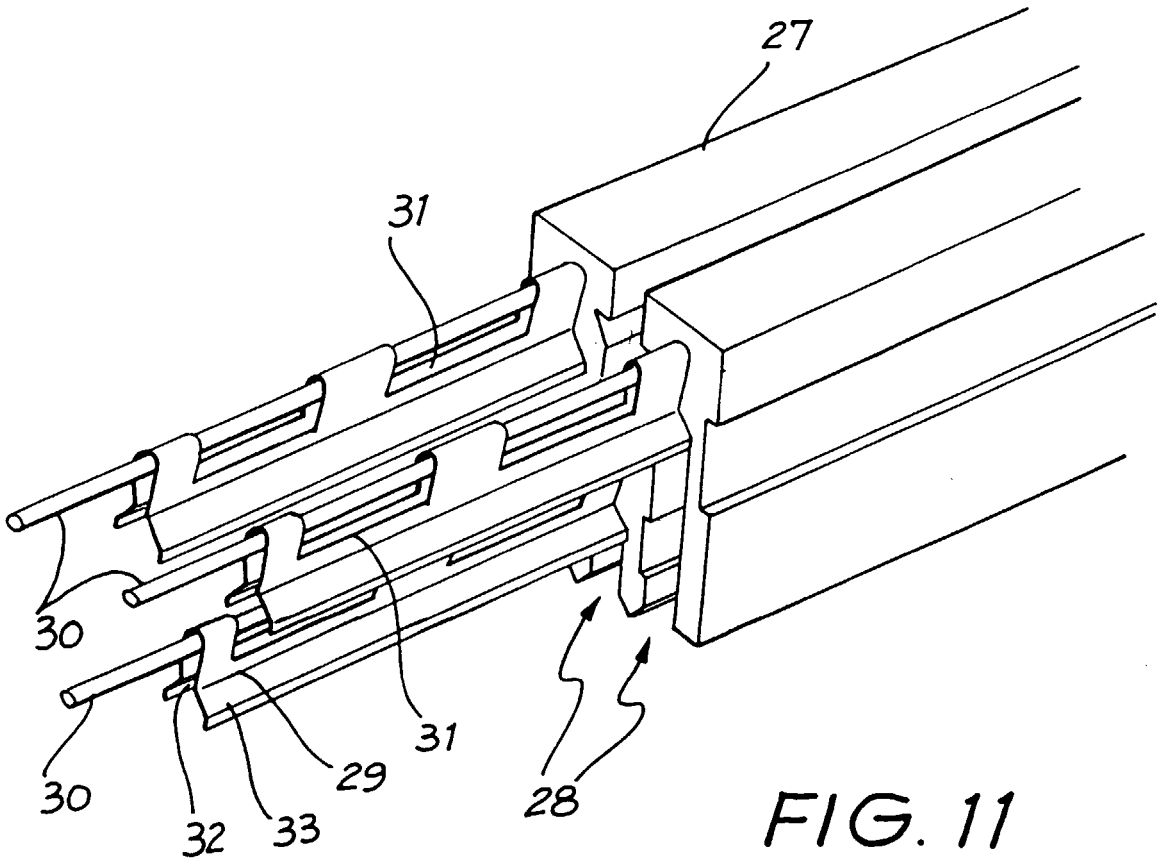
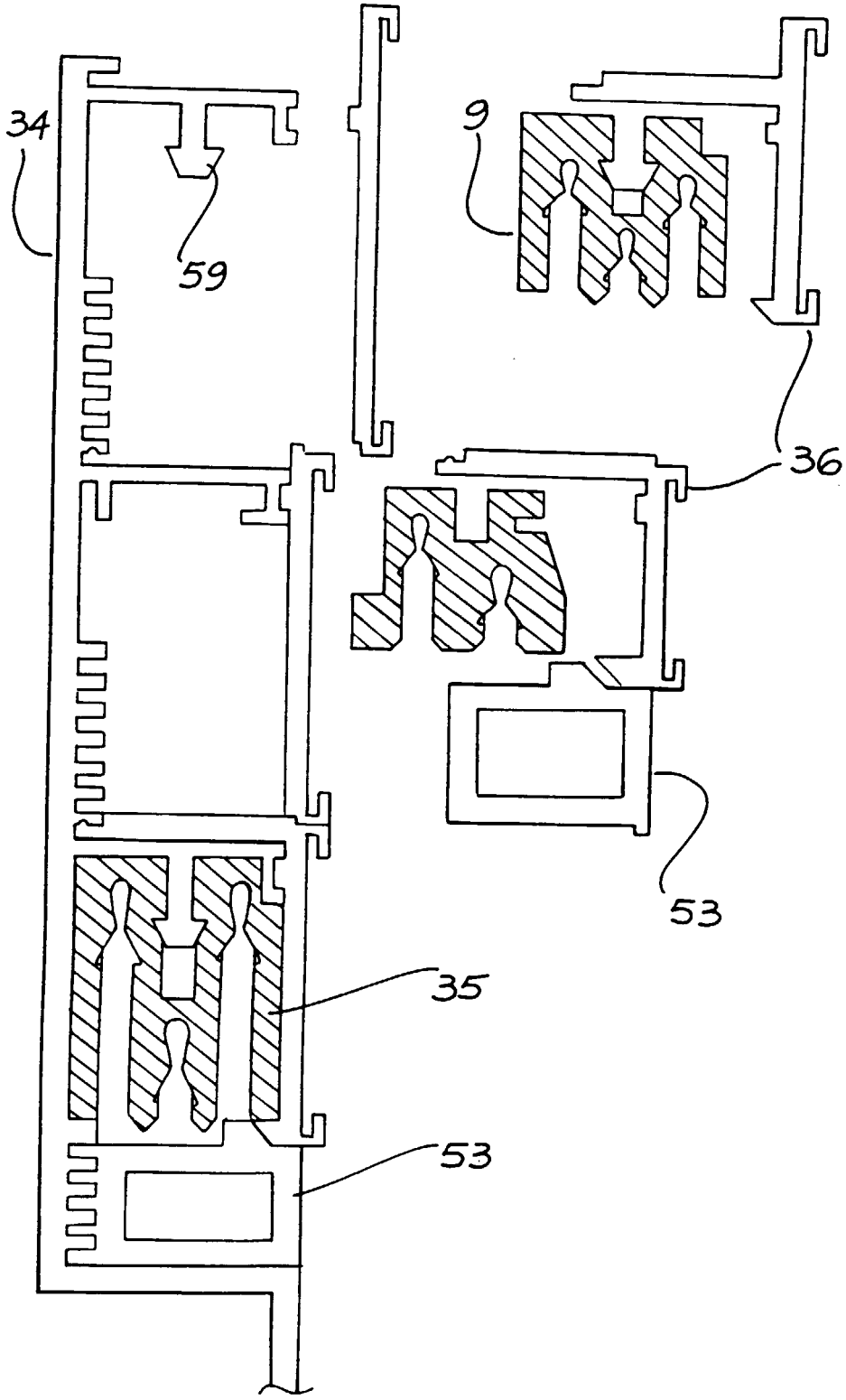


FIG. 11

FIG. 12



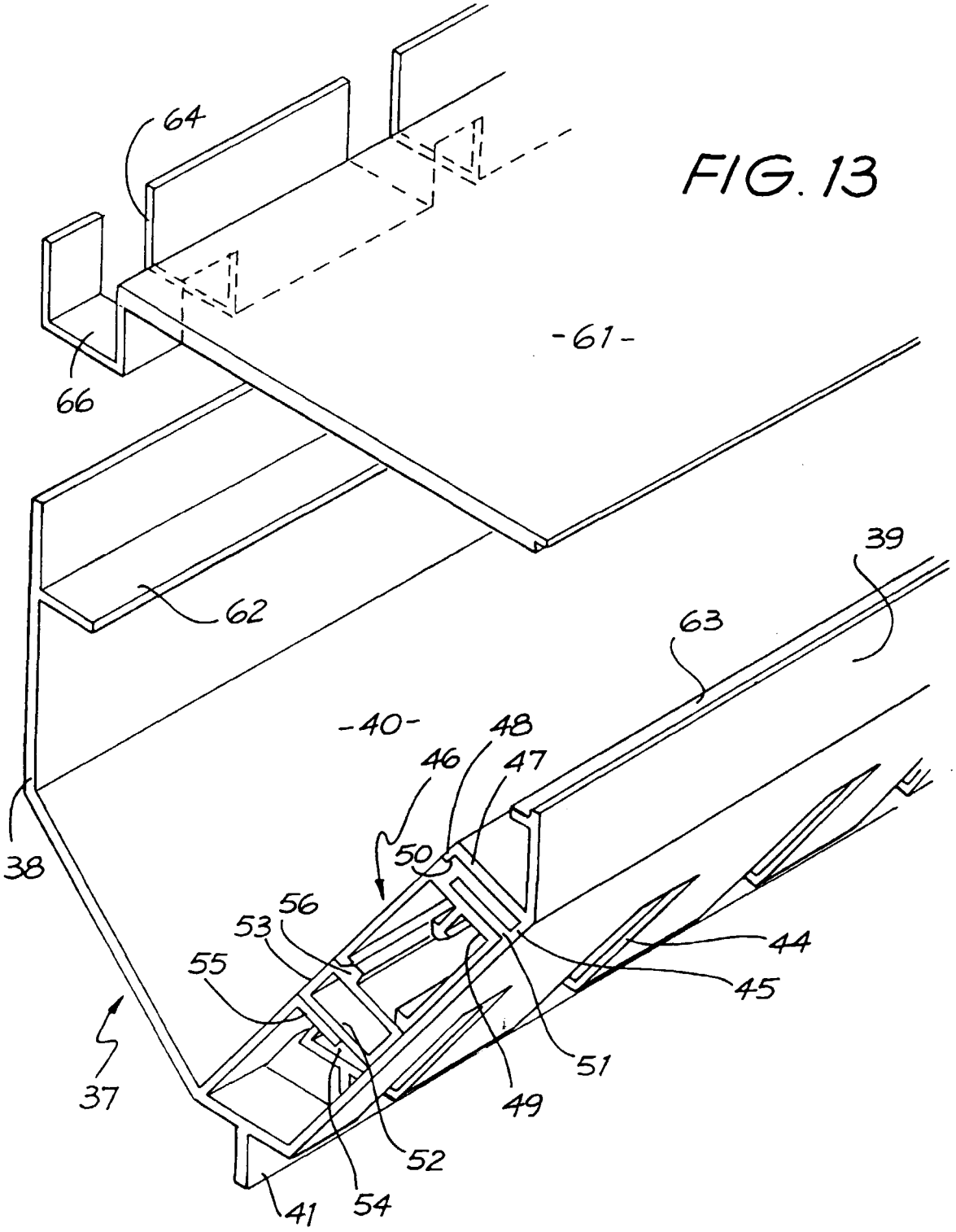


FIG. 13

FIG. 14

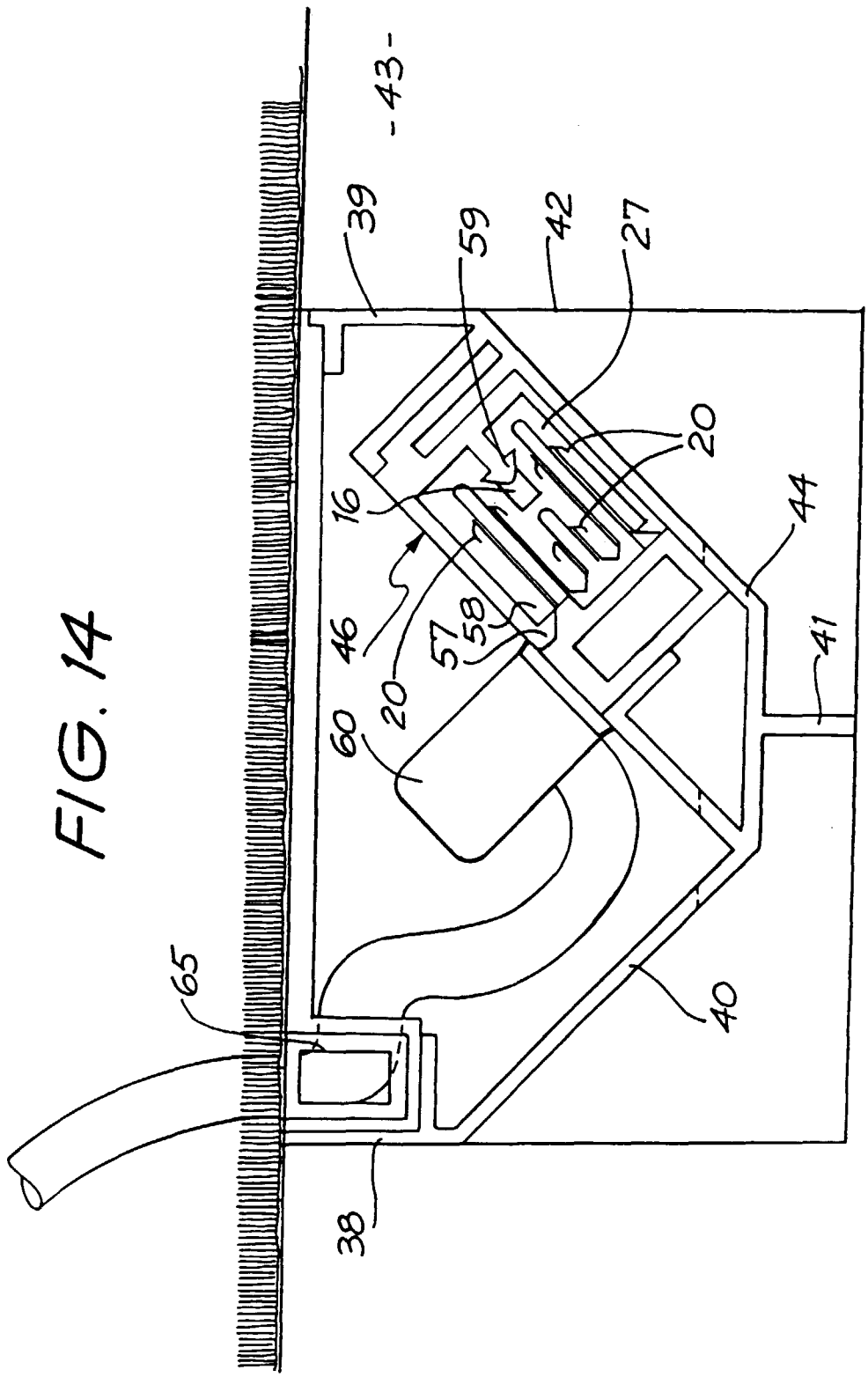
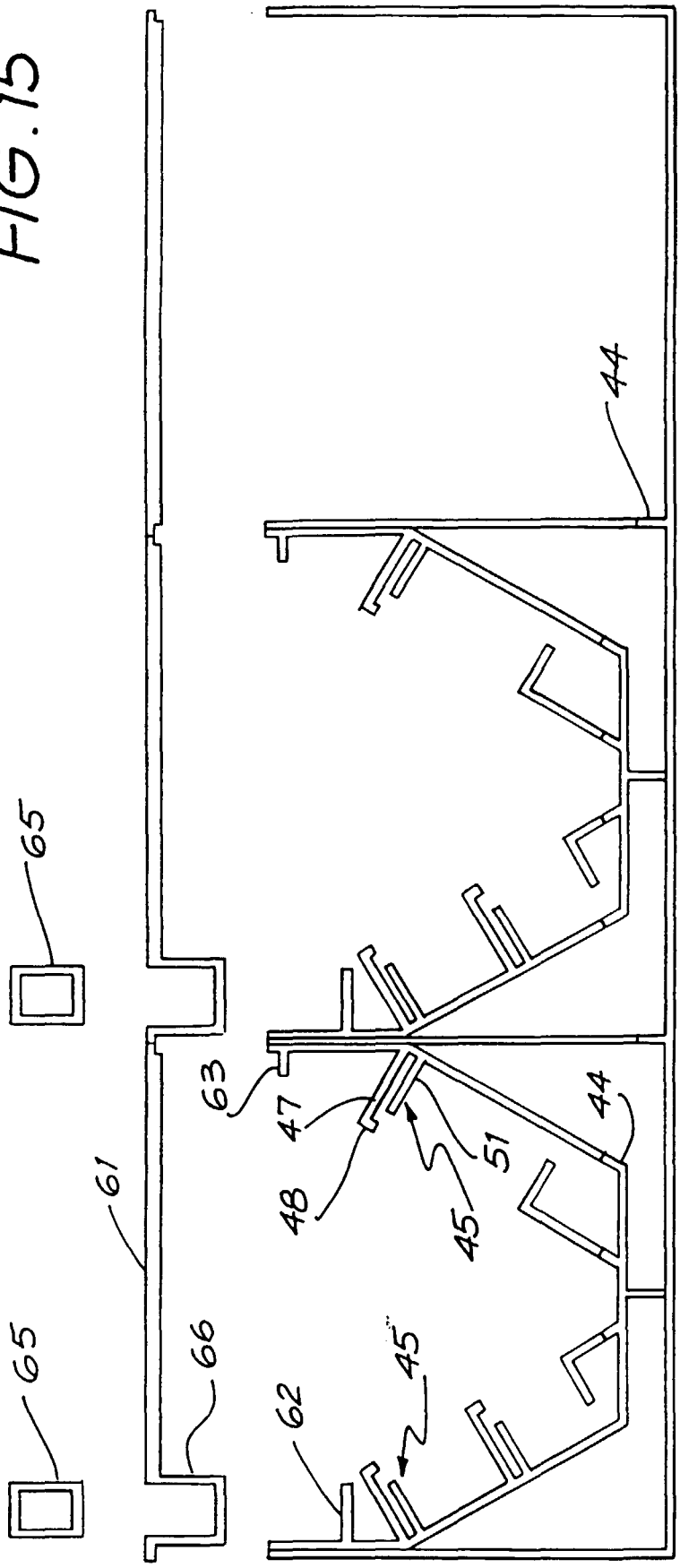


FIG. 15



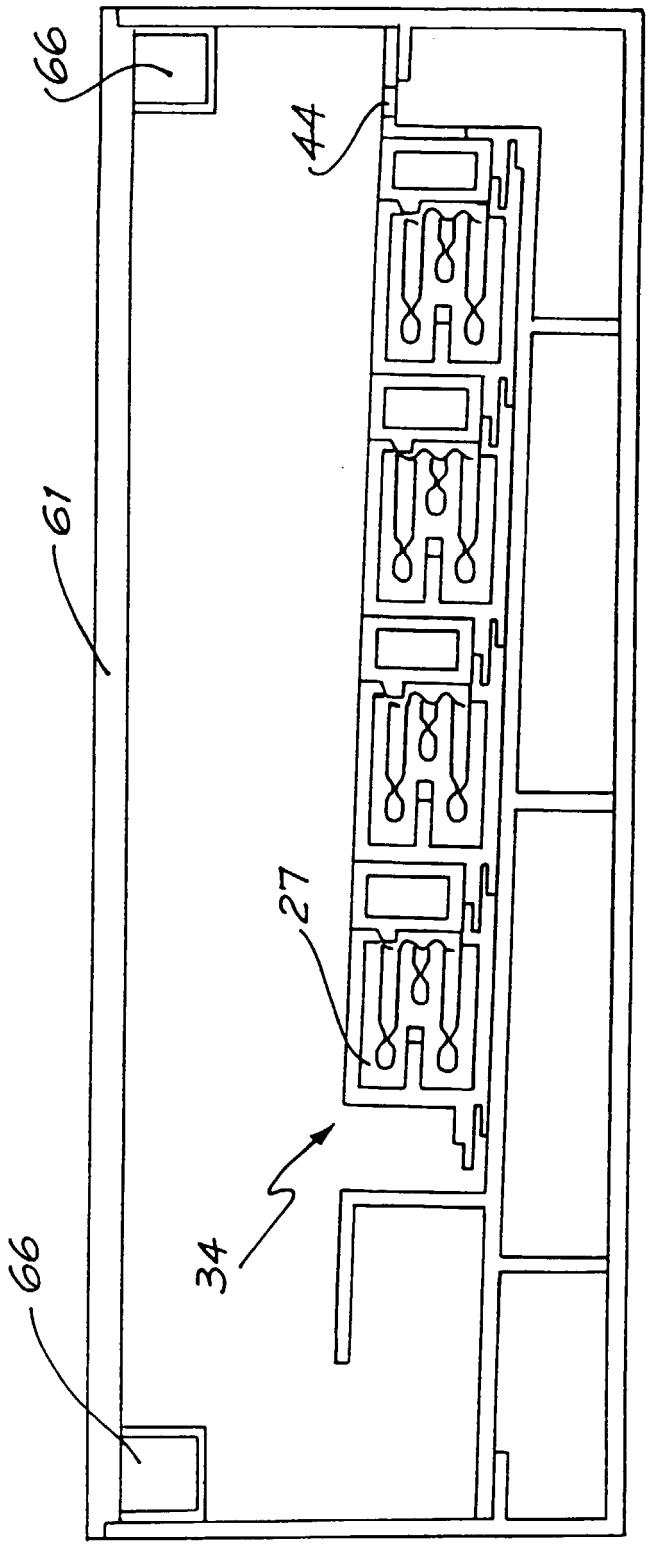


FIG. 16

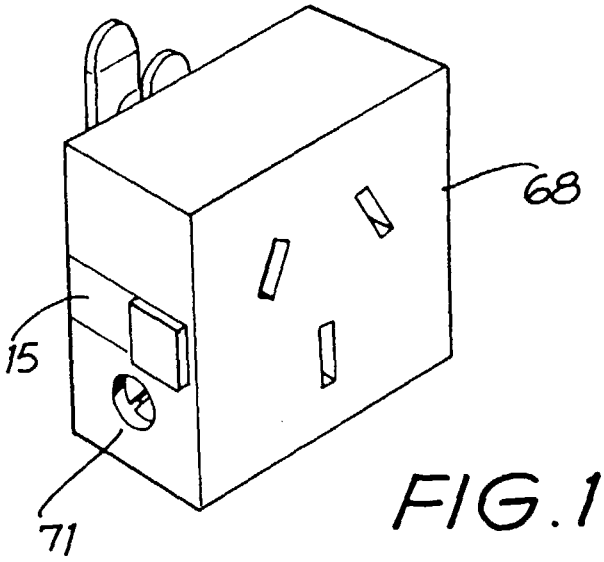


FIG.17

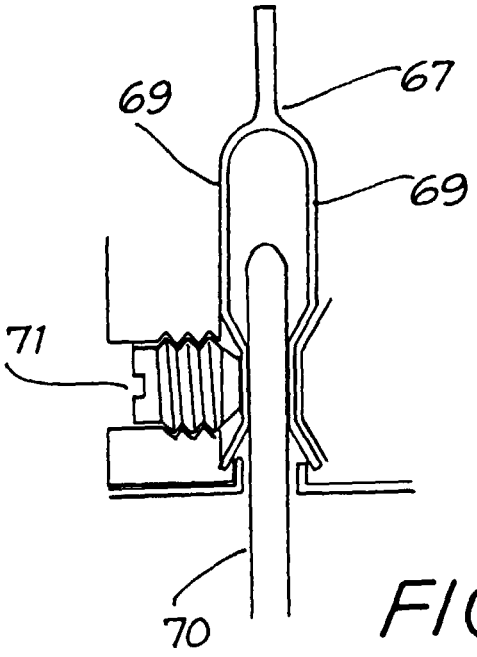


FIG.18