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(54) **APPARATUS FOR MAKING CONTACT WITH A PART HAVING A BASE, IN PARTICULAR A GAS DISCHARGE LAMP**

VORRICHTUNG ZUR HERSTELLUNG EINES KONTAKTS MIT EINEM
SOCKELTEIL, INSBESONDERE EINER GASENTLADUNGSLAMPE

DISPOSITIF PERMETTANT D'ETABLIR UN CONTACT AVEC UNE PIECE POURVUE D'UNE BASE,
NOTAMMENT UNE LAMPE A DECHARGE GAZEUSE

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(73) Proprietor: **THE WHITAKER CORPORATION**
Wilmington, Delaware 19808 (US)

(72) Inventors:
• **HASS, Juergen**
D-64390 Erzhausen (DE)

• **HERTH, Edgar**
D-63225 Langen (DE)
• **TRAJKOV, Mile**
D-60316 Frankfurt (DE)

(74) Representative: **Heinz-Schäfer, Marion**
AMP International Enterprises Limited
AMPèrestrasse 3
9323 Steinach (SG) (CH)

(56) References cited:
EP-A- 0 701 306 **EP-A- 0 728 986**
DE-A- 19 546 797 **US-A- 5 434 763**

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Description

[0001] The invention relates to an apparatus for making contact with a part having a base, in particular a gas discharge lamp, having a two part housing which is made of a dielectric material, having a lower part and an upper part, the upper part having an opening for the introduction of the base, the apparatus having a centre contact and an external contact, and at least one electrical interference suppression element being arranged in the housing.

[0002] EP 701 306 A2 discloses a lamp bulb holder comprising an insulating two-part housing having a terminal receiving part and a socket for the lamp bulb. The holder includes an electrical interference suppression element, the housing having mounts to position the element. Clamping connectors fix the element. The center and external contacts for the lamp bulb are integrated in two clamping connectors.

[0003] EP 728 986 A1 discloses a plug for making contact with a gas discharge lamp. The plug has a two-part housing in which a printed circuit board with at least one electrical interference suppression element is arranged, which printed circuit board prevents propagation of the electromagnetic interference radiation generated by the gas discharge lamp during operation thereof. A mass made of a permanently elastic material is provided on a part of the periphery of at least one interference suppression element, between the latter and the adjoining housing part. The interference suppression element is decoupled from the housing by means of the elastic mass, with the result that thermal expansion of the interference suppression element is enabled and, in addition, vibrations of the plug are not rigidly transmitted thereto.

[0004] The object of the invention is to specify a contact-making arrangement which has interference suppression elements and is constructed in a particularly simple manner.

[0005] The object is achieved by means of an arrangement having the features of Patent Claim 1. Advantageous developments are specified in the sub-claims.

[0006] In the arrangement according to EP 728 986 a printed circuit board on which the interference suppression elements and also the contact elements are arranged is provided. The use of such a printed circuit board with soldered connections is not necessary in the case of the solution according to the invention. All components, both the interference suppression elements and the centre contact, the external contact and the connecting leads, can be positioned in mounts situated in a housing part. The connecting wires or prongs, of these components can also be positioned in mounts and are connected to one another and at the same time fixed in this housing part by means of clamping connectors. The components do not have to be soldered in the case of the solution according to the invention.

[0007] A compact arrangement that is particularly simple to produce is provided as a result. It is advantageous to provide the mount in the lower part of the housing. The lower part of the housing in this case has a planar area on which the mounts are situated. Into these mounts the corresponding components are then introduced. Automatic contact-making between the components is made possible by the clamping connectors. Afterwards, it is necessary only to fit the upper part of the housing and latch it.

[0008] The mounts for the clamping connectors and for the connecting prongs or wires are, in a special embodiment, designed in a particularly advantageous manner. First of all, the connecting prongs or wires are introduced into the corresponding U-shaped or V-shaped cutouts in the mutually opposite walls. Then the clamping connector is pressed on from above, which clamping connector simultaneously establishes contact-making and fixing of the connecting lugs or wires in the housing.

[0009] Situated between the parallel walls having the U- or V-shaped cutouts is a respective third wall portion which is considerably lower and reaches only as far as the bottom of the U or V. During the introduction of the clamping connector this third wall portion serves as an anvil on which the connecting wire or the connecting prong bears.

[0010] It is furthermore advantageous to provide a switching function which enables switching of the electrical circuit to the contact-making part for safety reasons.

[0011] It is furthermore particularly advantageous that the contact-making arrangement has, for example, a rotatable sleeve which is made of a dielectric material and can be rotated by means of at least one lug provided on the outer periphery of the base of the part with which contact is to be made. The sleeve has an externally accessible cutout, into which the lug of the base of the part with which contact is to be made can be introduced. Situated on the rotatable sleeve is a tongue which is rotated from a first position to a second position by means of the part with which contact is to be made. By moving the rotatable sleeve, firstly, the part with which contact is to be made is interlocked in the arrangement and, secondly, switching contacts are actuated and, consequently, the electrical circuit to the contact-making part is closed.

[0012] The application DE 195 46 797 describes a contact-making arrangement, in particular for making contact with gas discharge lamps having a housing made of a dielectric material having a centre contact and having an external contact, which arrangement has a switching function. Situated in the housing is a movable inner part made of a dielectric material, which can be moved by means of at least one lug provided on the outer periphery of the base of the part with which contact is to be made. The movable inner part has an accessible cutout into which the lug of the part with which contact

is to be made can be introduced. A tongue which, in a first position, interrupts the electrical circuit to the contact-making part and, in a second position, does not interrupt the electrical circuit is provided on the movable inner part. The tongue on the inner part is brought from one position to the other position by means of the introduction of the part with which contact is to be made.

[0013] An exemplary embodiment of the invention will now be explained with reference to the figures, in which:

Figure 1 shows a side view of an apparatus according to the invention,

Figure 2 shows a plan view of the apparatus according to the invention, from the side with the opening,

Figure 3 shows a cross-section along the line BB according to Figure 2,

Figure 4 shows a cross-section along the line AA according to Figure 2,

Figure 5 shows a plan view of the lower part of the housing fitted with the interference suppression elements,

Figure 6 shows a cross-section along the line CC according to Figure 5,

Figure 7 shows a view of the lower part of the housing with the mounts,

Figure 8 shows a side view of the lower part of the housing,

Figure 9 shows a cross-section of the lower part of the housing along the line AA according to Figure 7,

Figure 10 shows a section through the lower part of the housing along the line BB according to Figure 7,

Figure 11 shows a side view of the lower part of the housing from the connecting-lead exit side,

Figure 12 shows a section through the lower part of the housing along the line CC according to Figure 7,

Figure 13 shows a view of the lower part of the housing from underneath,

Figure 14 shows a section through the lower part of the housing along the line FF according to Figure 7,

Figure 15 shows a section through the lower part of the housing along the line EE according to Figure 7,

Figure 16 shows a section through the lower part of the housing along the line DD according to Figure 7,

Figure 17 shows a cross-section through the arrangement illustrated in Figure 16,

Figure 18 shows a side view of the clamping connector,

Figure 19 shows a plan view of a clamping connector,

Figure 20 shows a side view of the clamping connector from the end, and

Figure 21 shows an illustration of the stamping layout of the clamping connector.

[0014] Figure 1 illustrates a side view of an apparatus for making contact with a gas discharge lamp. An insulating, two-part housing 1 comprises an upper part 2 and a lower part 3. The upper part 2 has an opening for the

introduction of the base of the gas discharge lamp. It is clearly discernible that an angular cable outlet 4 is provided for the cable 5 with the connecting leads. The direction from which the base with the gas discharge lamp can be introduced is illustrated by an arrow with an R.

[0015] Figure 2 illustrates a plan view of the corresponding arrangement from the direction R. The upper part 2 of the housing and the cable outlet 4 with the cable 5 with the electrical connecting leads 6 and 7 are clearly discernible. The upper part 2 of the housing essentially has a hollow cylinder 8 which surrounds the opening 9 into which the base of the gas discharge lamp can be introduced. The external contact 10 and the centre contact 11, for making contact with the base of the gas discharge lamp, are arranged in the opening 9. Furthermore, cutouts 12 into which the lugs situated on the base of the gas discharge lamp can be introduced are arranged on the upper part. The housing can then be rotated and, consequently, interlocked on the gas discharge lamp. If a switching function is provided for safety reasons, then it is possible to carry along a cylindrical sleeve during rotation, which sleeve actuates switching contacts and, consequently, effects switching on and off of the electrical circuit with the gas discharge lamp.

[0016] Figure 3 illustrates a section through the fitted housing along the line BB. The upper part 2 of the housing and the lower part 3 of the housing are shown. In addition the external contact 10 and the centre contact 11 can be seen. An electrical interference suppression element 13 is arranged in the lower part 3.

[0017] Figure 4 illustrates a section along the line AA according to Figure 2. Here, too, an interference suppression element 14, in this case a capacitor, can be discerned, and, in addition, the centre contact 11 is illustrated very clearly. The centre contact 11 is introduced between two walls which are fixed to the bottom of the lower part 3. The structure of the mounts and the special arrangement of the mounts on the lower part 3 are illustrated in Figure 5. Figure 6 illustrates a cross-section through the part according to Figure 5 along the line CC.

[0018] Figure 5 illustrates a plan view of the lower part 3 without the upper part 2. The arrangement of three interference suppression elements, namely the capacitor 14 and two coils 13 and 13' is shown. The cable 5 with the connecting leads 6, 7 is fed to the lower part 3 through the cable connection piece 4. The connecting leads 7 and 6 are respectively received there in a U-shaped receptacle. The U-shaped receptacle is formed by two parallel walls in which a respective U-shaped cutout is situated and which are fixed on the bottom of the lower part 3. The respective connecting wires of the two inductors 13 and 13' and of the capacitor 14 are also introduced into such a U-shaped receptacle. The centre contact 11 and the external contact 10 also have a respective connecting prong 15 and 16, which are introduced into such a U-shaped cutout. All the connecting leads, connecting wires or connecting prongs are there-

fore positioned in mounts 17 on the lower part 3. The more detailed structure of the mounts 17 is described comprehensively in connection with Figures 16 and 17. Clamping connections as are illustrated in Figures 18 to 21 are in each case introduced into the mounts 17. The

The clamping connections connect the respectively introduced connecting leads, prongs or wires to one another and fix them in the mounts 17. Figure 6 again illustrates the position of the inductors 13, 13' in the lower part 3.

[0019] The position of the mounts can be discerned considerably more clearly in the plan view in Figure 7, which illustrates a lower part 3 without components.

[0020] Figures 7 to 15 illustrate a lower part without components having a cable outlet which is oriented at right angles to the receiving direction of the gas discharge lamp. Figure 7 is very similar to the illustration of Figure 5, but the lower part 3 of the housing 1 does not have components mounted to it in this case. As a result, the mounts 17 for the clamping connectors and the corresponding connecting wires, prongs or connecting leads can be discerned more clearly. The mounts 18 for the external contact, 19 for the centre contact and 20 for the inductors can also be discerned more clearly.

[0021] Figure 8 again illustrates a side view of the lower part 3. A section along the section line AA of Figure 7 is illustrated in Figure 9. A corresponding section along the line BB is shown by Figure 10, and a side view from the cable end is shown by Figure 11. A view from underneath and a section along the section line CC are illustrated in Figures 12 and 13. Figures 14 and 15 show sections along the line FF and EE, respectively, of Figure 7.

[0022] Figure 16 then illustrates a section along the line DD of Figure 7. An enlarged view of a mount 17 can thus be discerned. Figure 17 illustrates a corresponding cross-section through this mount. Two parallel walls 21 and 22 each have two cutouts 23. The cutouts 23 are each arranged opposite one another in pairs. A third wall portion 24, whose height essentially coincides with the bottom of the cutouts 23, is additionally situated between the two parallel walls 21 and 22. Situated between the parallel walls 21 and 22 are respective walls 25 which are arranged at right angles thereto and ensure corresponding stability. Clamping connectors can in each case be introduced between the walls 25 and the parallel walls 21 and 22.

[0023] An illustration of the clamping connectors can be found in Figures 18 to 21. The clamping connector 26 comprises a stamped and bent metal sheet. It has two parallel walls 27 and 28, which are connected to one another by a bend. Each wall 27, 28 has two slots 29 and 30, which have different widths and are aligned with one another in pairs. The slot 29 serves as clamping connector for the connecting lead and components, while the slot 30 enables contact-making and piercing of an enamel-insulated wire, for example. This is necessary particularly in order to connect the connecting wires of the inductors. It is likewise conceivable to de-

sign a slot as an IDC.

[0024] The connections of the connecting prongs, wires or leads are performed as follows:

[0025] The connecting wires of the inductors are inserted into the narrow slots 23. The connecting prongs or connecting leads are inserted into the wide slots 23. The clamping connectors 26 are then pressed into the mounts 17 with the slot 30 over the connecting wires of the inductors and the slot 29 over the connecting prongs. As a result, an electrical connection is established between the connecting wires and the connecting prongs. The wall portions 24 act as an anvil and retain the connecting leads against the force which is applied during the introduction of the clamping connector. The clamping connector has lateral teeth 31 which engage in the walls 25 of the mounts 17 and fix the clamping connector and, consequently, the connecting prongs, wires and leads.

[0026] Casting of the housing may be necessary since, with the compact design, the clearances are too small to avoid voltage flashovers.

Claims

1. An apparatus for making contact with a part having a base, in particular a gas discharge lamp, having a two part housing (1) of dielectric material, comprising a lower part (3) and an upper part (2), the upper part having an opening (9) for the introduction of the base, the apparatus having a centre contact (11), an external contact (10), and at least one electrical interference suppression element (13, 13', 14) being arranged in the housing (1), characterized in that mounts (17, 18, 19, 20) for all the components (13, 13', 14, 10, 11) with which contact is to be made and for the connecting leads (6, 7) are provided in one of the housing parts, upper part (2) or lower part (3), and enable positioning of these components in the housing part (3), and in that corresponding components are connected to one another and fixed in the housing part (3) by means of clamping connectors (26), that are received in said mounts (17).
2. The contact-making apparatus according to Claim 1, characterized in that the centre contact (11), the external contact (10), at least one electrical interference suppression element (13, 13', 14) and the connecting leads (6, 7) are positioned in mounts (17) and are connected and fixed in the housing part (3) by means of clamping connectors (26).
3. The contact-making apparatus according to either of Claims 1 and 2, characterized in that the mounts (17) are provided in the lower part (3) of the housing (1).
4. The contact-making apparatus according to one of

Claims 1 to 3, characterized in that two inductors (13, 13') and one capacitor (14) are provided as electrical interference suppression elements, the inductors (13, 13') being respectively situated between connecting leads (6, 7) and the centre or external contact (10, 11), and the capacitor (14) being situated between the centre contact and the external contact (10, 11).

5. The contact-making apparatus according to one of Claims 1 to 4, characterized in that mounts (18, 19, 20) are provided which are designed as corresponding walls and between or on which components are arranged, and in that further mounts (17) are provided for the purpose of receiving the connecting wires or prongs, the respective components or the connecting leads. 10
6. The contact-making apparatus according to one of Claims 1 to 5, characterized in that the centre contact (11) and the external contact (10) have a connecting prong (15, 16). 15
7. The contact-making apparatus according to one of Claims 1 to 6, characterized in that the mounts (17) for receiving the connecting prongs, wires or leads each comprise two parallel walls (21, 22), which each have two V- or U-shaped cutouts (23) aligned in pairs. 20
8. The contact-making apparatus according to Claim 7, characterized in that a respective third wall portion (24) is arranged between the two aligned walls (21, 22) having the U- or V-shaped aligned cutouts (23), which third wall portion is lower than the other walls (21, 22) and essentially reaches as far as the height of the bottom of the cutouts. 25
9. The contact-making apparatus according to either of Claims 7 and 8, characterized in that a clamping connector (26) can be introduced between the aligned walls (21, 22). 30
10. The apparatus according to Claim 9, characterized in that the mount (17) for the clamping connector (26) and the clamping connector (26) are designed in such a way that the latter is fixed after introduction in the mount (17). 35
11. The contact-making apparatus according to one of Claims 1 to 10, characterized in that the housing (1) is at least partially filled with a casting compound made of an electrically insulating material. 40
12. The contact-making apparatus according to one of Claims 1 to 11, characterized in that a movable inner part made of a dielectric material is situated in the housing (1), which can be moved by means of at 45

least one lug provided on the outer periphery of the base of the part with which contact is to be made, and in that a tongue is provided on the movable part, which in a first position, interrupts the electrical circuit to the contact-making part and, in a second position, closes the electrical circuit.

Patentansprüche

1. Vorrichtung zur Herstellung eines Kontaktes mit einem Sockelteil, insbesondere einer Gasentladungslampe, die ein zweiteiliges Gehäuse (1) aus dielektrischem Material aufweist, das aufweist: einen unteren Teil (3); und einen oberen Teil (2), wobei der obere Teil eine Öffnung (9) für das Einführen des Sockels aufweist, wobei die Vorrichtung aufweist: einen mittleren Kontakt (11); einen äußeren Kontakt (10); und mindestens ein elektrisches Entstörungselement (13, 13', 14), das im Gehäuse (1) angeordnet ist, dadurch gekennzeichnet, daß Halterungen (17, 18, 19, 20) für alle Bauelemente (13, 13', 14, 10, 11), mit denen ein Kontakt hergestellt werden soll, und für die Verbindungsleitungen (6, 7) in einem der Gehäuseteile, dem oberen Teil (2) oder dem unteren Teil (3), bereitgestellt werden und die Anordnung dieser Bauelemente im Gehäuseteil (3) ermöglichen; und dadurch, daß entsprechende Bauelemente mittels Klemmverbinder (26), die in den Halterungen (17) aufgenommen werden, im Gehäuseteil (3) miteinander verbunden und befestigt werden.
2. Vorrichtung zur Herstellung eines Kontaktes nach Anspruch 1, dadurch gekennzeichnet, daß der mittlere Kontakt (11), der äußere Kontakt (10), mindestens ein elektrisches Entstörungselement (13, 13', 14) und die Verbindungsleitungen (6, 7) in Halterungen (17) angeordnet und im Gehäuseteil (3) mittels Klemmverbinder (26) verbunden und befestigt werden.
3. Vorrichtung zur Herstellung eines Kontaktes nach einem der beiden Ansprüche 1 und 2, dadurch gekennzeichnet, daß die Halterungen (17) im unteren Teil (3) des Gehäuses (1) bereitgestellt werden.
4. Vorrichtung zur Herstellung eines Kontaktes nach einem der Ansprüche 1 bis 3, dadurch gekennzeichnet, daß zwei Induktoren (13, 13') und ein Kondensator (14) als elektrische Entstörungselemente bereitgestellt werden, wobei die Induktoren (13, 13') entsprechend zwischen Verbindungsleitungen (6, 7) und dem mittleren oder äußeren Kontakt (10, 11) angeordnet werden, und wobei der Kondensator (14) zwischen dem mittleren Kontakt und dem äußeren Kontakt (10, 11) angeordnet wird.

5. Vorrichtung zur Herstellung eines Kontaktes nach einem der Ansprüche 1 bis 4, dadurch gekennzeichnet, daß Halterungen (18, 19, 20) bereitgestellt werden, die als entsprechende Wände konstruiert sind, und zwischen denen oder auf denen Bauelemente angeordnet werden; und dadurch, daß weitere Halterungen (17) für den Zweck des Aufnehmens der Verbindungsdrähte oder -stifte, der entsprechenden Bauelemente oder der Verbindungsleitungen bereitgestellt werden. 5
6. Vorrichtung zur Herstellung eines Kontaktes nach einem der Ansprüche 1 bis 5, dadurch gekennzeichnet, daß der mittlere Kontakt (11) und der äußere Kontakt (10) einen Verbindungsstift (15, 16) aufweisen. 15
7. Vorrichtung zur Herstellung eines Kontaktes nach einem der Ansprüche 1 bis 6, dadurch gekennzeichnet, daß die Halterungen (17) für das Aufnehmen der Verbindungsstifte, -drähte oder -leitungen jeweils zwei parallele Wände (21, 22) aufweisen, die jeweils zwei V- oder U-förmige Aussparungen (23) aufweisen, die in Paaren ausgerichtet sind. 20
8. Vorrichtung zur Herstellung eines Kontaktes nach Anspruch 7, dadurch gekennzeichnet, daß ein entsprechender dritter Wandabschnitt (24) zwischen den zwei ausgerichteten Wänden (21, 22) mit den U- oder V-förmigen ausgerichteten Aussparungen (23) angeordnet ist, wobei der dritte Wandabschnitt niedriger ist als die anderen Wände (21, 22) und im wesentlichen so weit reicht wie die Höhe des untersten Teils der Aussparungen. 25
9. Vorrichtung zur Herstellung eines Kontaktes nach einem der beiden Ansprüche 7 und 8, dadurch gekennzeichnet, daß ein Klemmverbinder (26) zwischen die ausgerichteten Wände (21, 22) eingeführt werden kann. 30
10. Vorrichtung nach Anspruch 9, dadurch gekennzeichnet, daß die Halterung (17) für den Klemmverbinder (26) und der Klemmverbinder (26) so konstruiert sind, daß letzterer nach Einführen in die Halterung (17) befestigt wird. 35
11. Vorrichtung zur Herstellung eines Kontaktes nach einem der Ansprüche 1 bis 10, dadurch gekennzeichnet, daß das Gehäuse (1) mindestens teilweise mit einer Vergußmasse aus einem elektrisch isolierenden Material gefüllt wird. 40
12. Vorrichtung zur Herstellung eines Kontaktes nach einem der Ansprüche 1 bis 11, dadurch gekennzeichnet, daß ein bewegliches inneres Teil aus einem dielektrischen Material im Gehäuse (1) angeordnet ist, das mittels mindestens eines Ansatzes 45

bewegt werden kann, der auf dem äußeren Umfang des Sockels des Teils bereitgestellt wird, mit dem ein Kontakt hergestellt werden soll; und dadurch, daß eine Zunge auf dem beweglichen Teil bereitgestellt wird, die in einer ersten Position den elektrischen Stromkreis zum Kontaktherstellungsteil unterbricht und in einer zweiten Position den elektrischen Stromkreis schließt.

Revendications

1. Dispositif destiné à établir un contact avec une pièce comportant une base, en particulier une lampe à décharge gazeuse, comportant un boîtier en deux pièces (1) composé de matériau diélectrique, comprenant une partie inférieure (3) et une partie supérieure (2), la partie supérieure comportant une ouverture (9) pour l'introduction de la base, le dispositif comportant un contact central (11), un contact externe (10) et au moins un élément de suppression des interférences électriques (13, 13', 14) agencé dans le boîtier (1), caractérisé en ce que des organes de montage (17, 18, 19, 200) pour tous les composants (13, 13', 14, 10, 11) avec lesquels le contact doit être établi, et pour les conducteurs de connexion (6, 7) sont agencés dans une des parties du boîtier, la partie supérieure (2) ou la partie inférieure (3), permettant le positionnement de ces composants dans la partie du boîtier (3), et en ce que des composants correspondants sont connectés les uns aux autres et fixés dans la partie du boîtier (3) par l'intermédiaire de connecteurs de serrage (26) reçus dans lesdits organes de montage (17). 50
2. Dispositif destiné à établir un contact selon la revendication 1, caractérisé en ce que le contact central (11), le contact externe (10), au moins un élément de suppression des interférences électriques (13, 13', 14) et les conducteurs de connexion (6, 7) sont positionnés dans des organes de montage (17) et connectés et fixés dans la partie du boîtier (3) par l'intermédiaire de connecteurs de serrage (26). 55
3. Dispositif destiné à établir un contact selon l'une des revendications 1 ou 2, caractérisé en ce que les organes de montage (17) sont agencés dans la partie inférieure (3) du boîtier (1).
4. Dispositif destiné à établir un contact selon l'une des revendications 1 à 3, caractérisé en ce que deux dispositifs d'induction (13, 13') et un condensateur (14) constituent des éléments de suppression des interférences, les dispositifs d'induction (13, 13') étant respectivement agencés entre les conducteurs de connexion (6, 7) et le contact cen-

tral ou externe (10, 11), le condensateur (14) étant agencé entre le contact central et le contact externe (10, 11).

5. Dispositif destiné à établir un contact selon l'une des revendications 1 à 4, caractérisé en ce qu'il comporte des organes de montage (18, 19, 20), ayant la forme de parois correspondantes, les composants étant agencés entre ceux-ci ou sur ceux-ci, et en ce qu'il comporte des organes de montage additionnels (17) destinés à recevoir les fils ou fourches de connexion, les composants respectifs ou les conducteurs de connexion. 5
10
6. Dispositif destiné à établir un contact selon l'une des revendications 1 à 5, caractérisé en ce que le contact central (11) et le contact externe (10) comportent une fourche de connexion (15, 16). 15
7. Dispositif destiné à établir un contact selon l'une des revendications 1 à 6, caractérisé en ce que les organes de montage (17) destinés à recevoir les fourches, les fils ou les conducteurs de connexion comprennent chacun deux parois parallèles (21, 22) comportant chacune deux entailles en V ou en U (23), alignées par paires. 20
25
8. Dispositif destiné à établir un contact selon la revendication 7, caractérisé en ce qu'une troisième partie de paroi respective (24) est agencée entre les deux parois alignées (21, 22), comportant les entailles en U ou en V alignées (23), cette troisième partie de paroi étant plus basse que les autres parois (21, 22) et n'atteignant pour l'essentiel que la hauteur du fond des entailles. 30
35
9. Dispositif destiné à établir un contact selon l'une des revendications 7 et 8, caractérisé en ce qu'un connecteur de serrage (26) peut être introduit entre les parois alignées (21, 22). 40
10. Dispositif selon la revendication 9, caractérisé en ce que l'organe de montage (17) pour le connecteur de serrage (26) et le connecteur de serrage (26) sont conçus de sorte que ce dernier est fixé après l'introduction dans l'organe de montage (17). 45
11. Dispositif destiné à établir un contact selon l'une des revendications 1 à 10, caractérisé en ce que le boîtier (1) est au moins partiellement rempli d'une composition de moulage composé d'un matériau à isolation électrique. 50
12. Dispositif destiné à établir un contact selon l'une des revendications 1 à 11, caractérisé en ce qu'une partie interne mobile du matériau diélectrique est agencée dans le boîtier (1), pouvant être déplacée par l'intermédiaire d'au moins une patte agencée 55

sur la périphérie externe de la base de l'élément avec lequel le contact doit être établi, et en ce qu'une languette est agencée sur la partie mobile, celle-ci interrompant dans une première position le circuit électrique avec l'élément d'établissement du contact et ferment dans une deuxième position le circuit électrique.

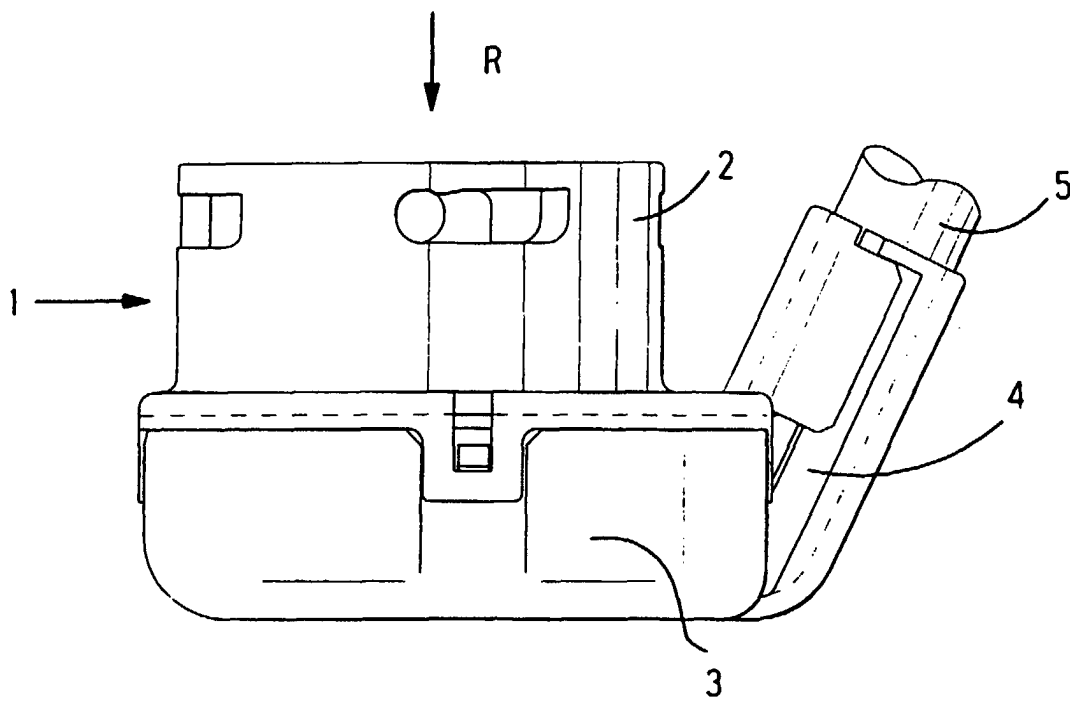


Fig. 1

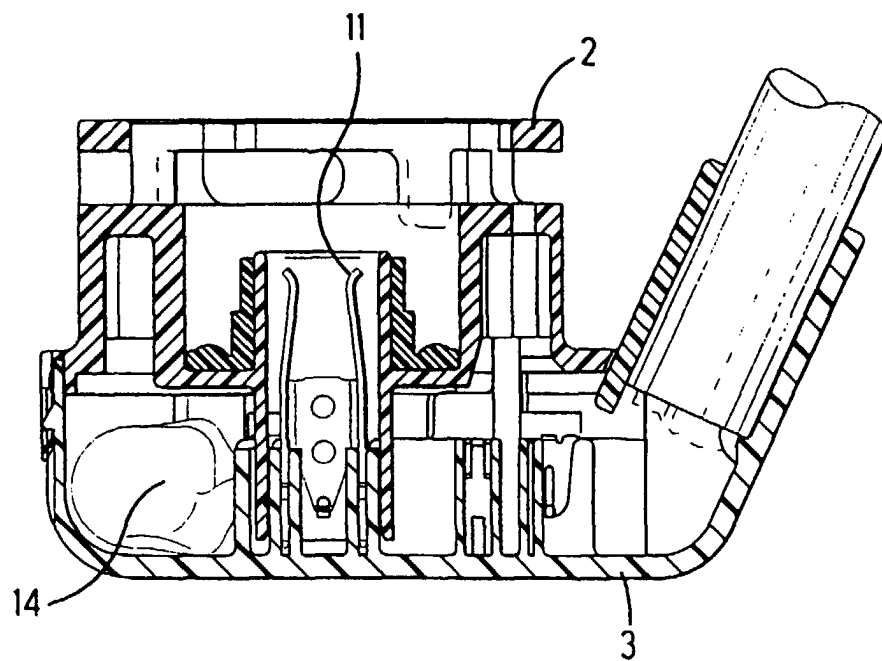


Fig. 4

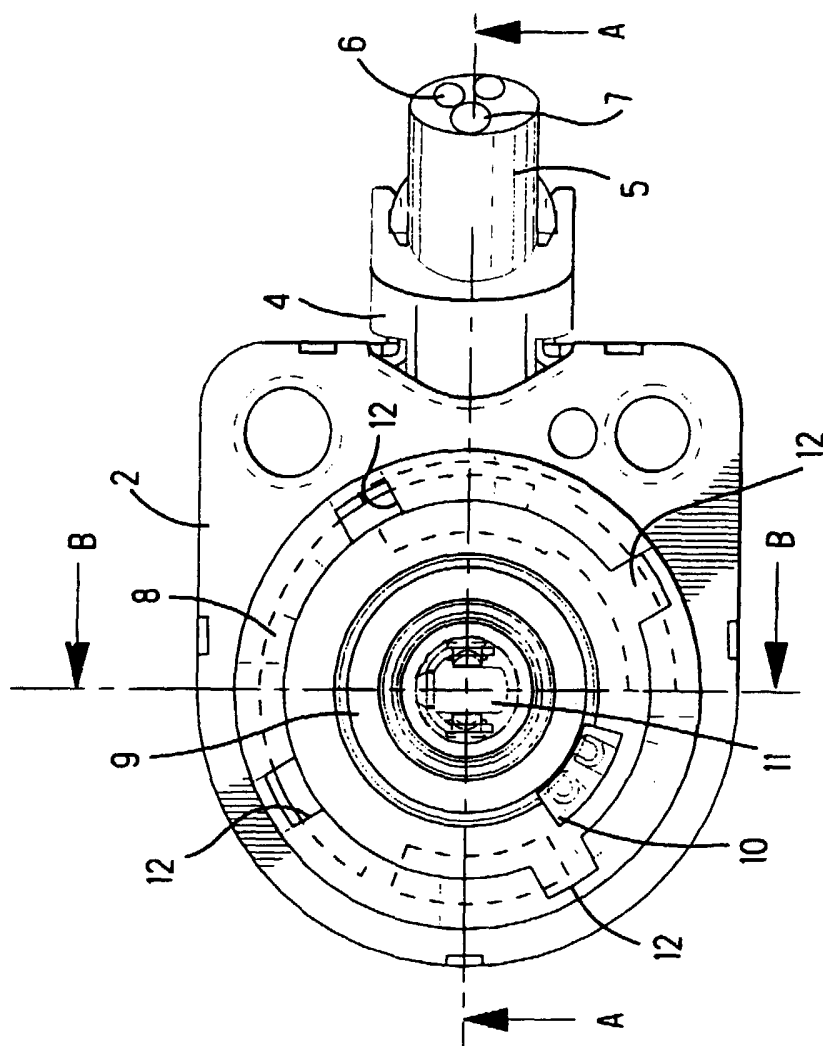


Fig. 2

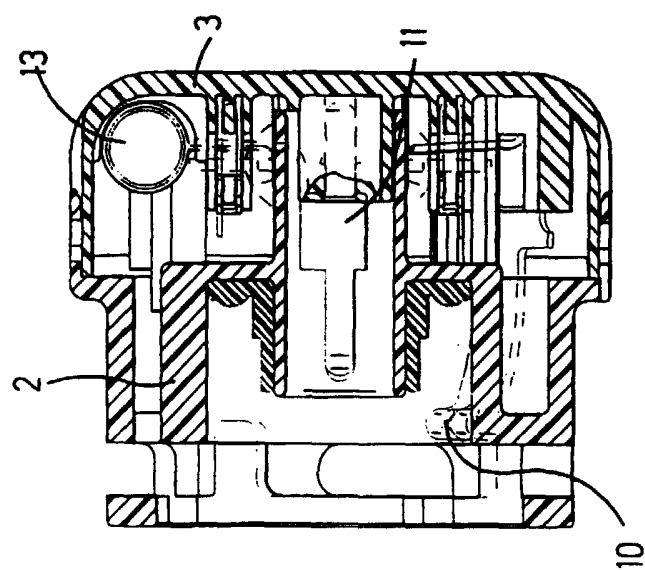


Fig. 3

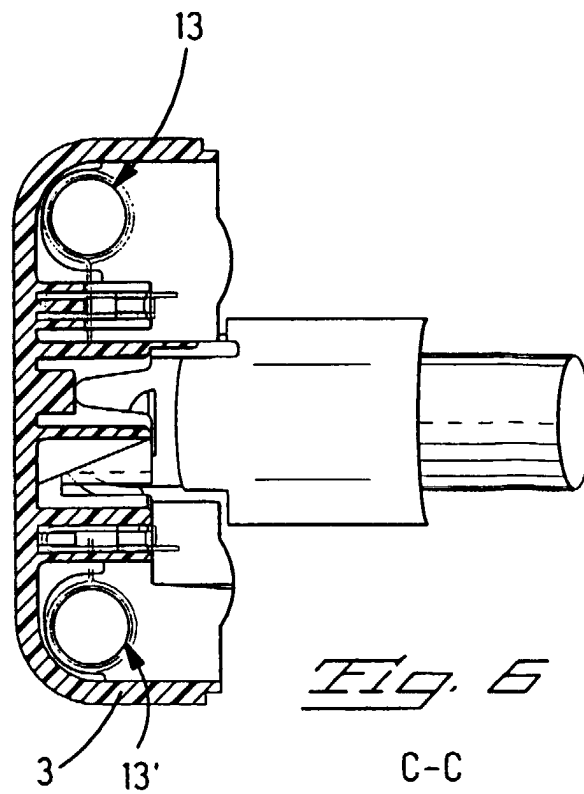
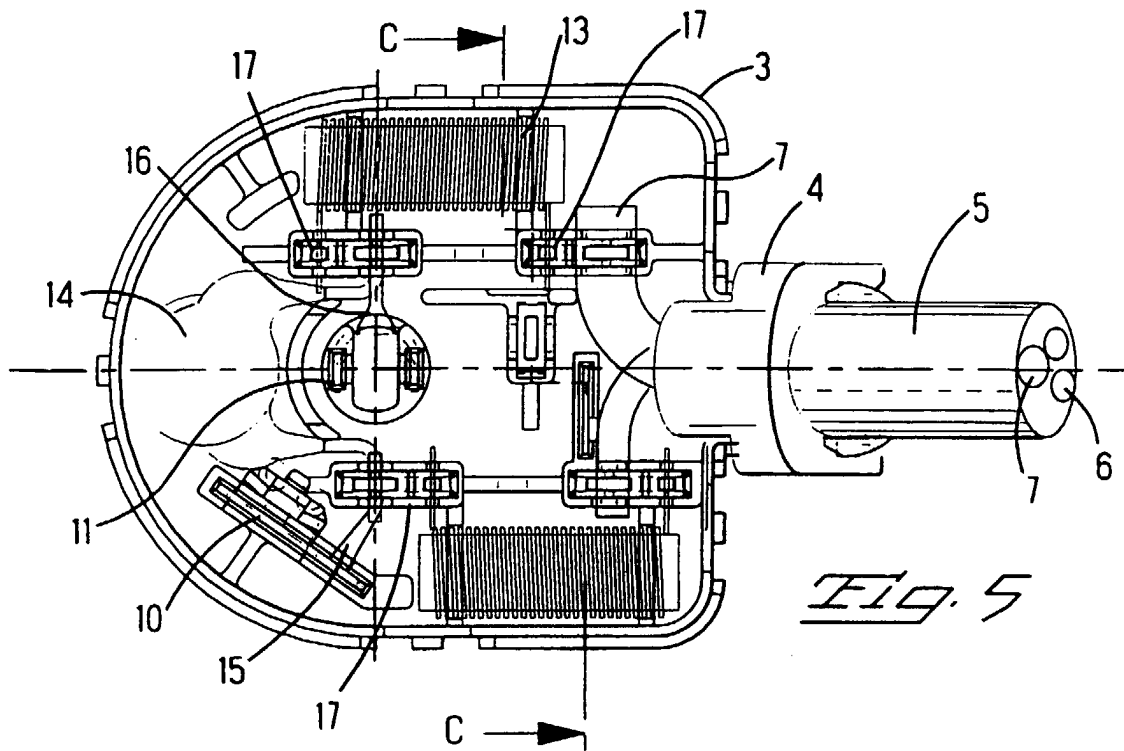


Fig. 9
A-A

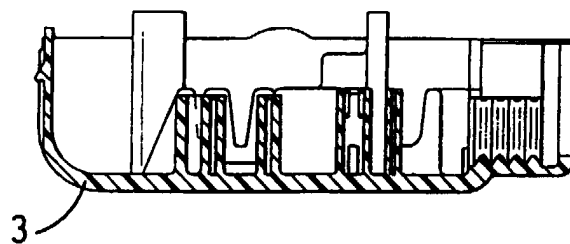


Fig. 8

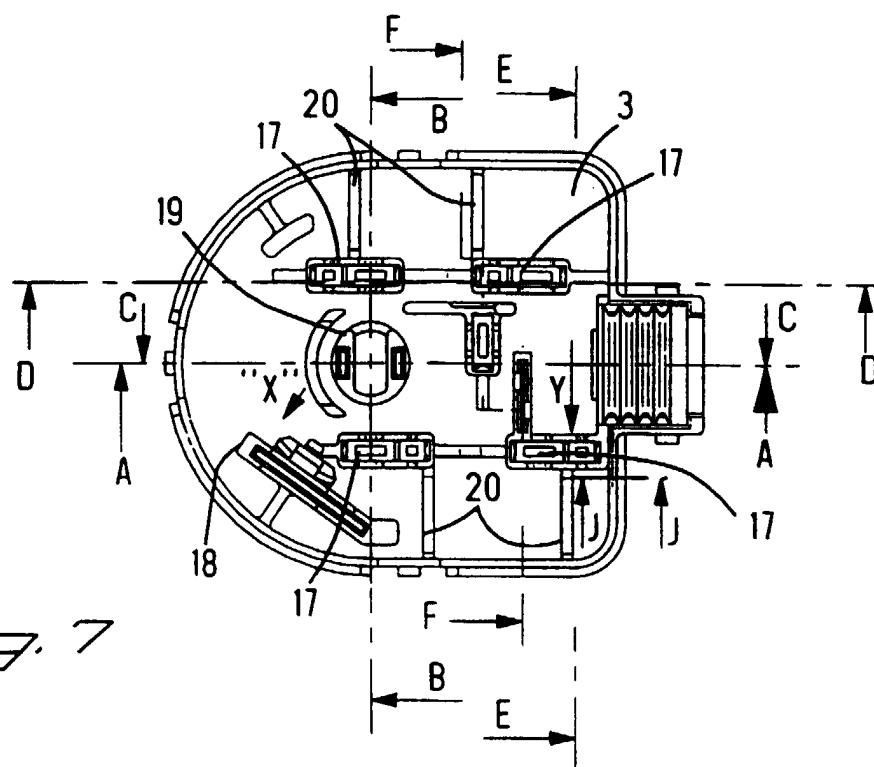
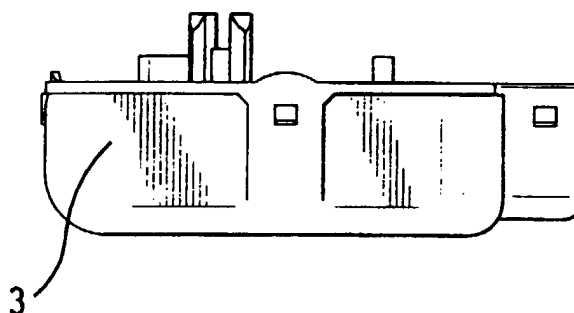
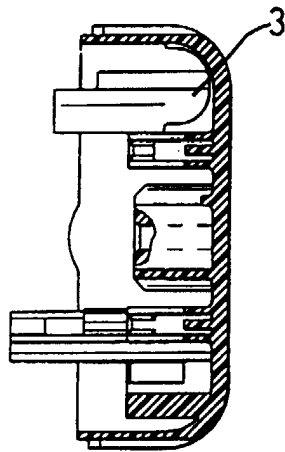


Fig. 7



B-B
Fig. 10

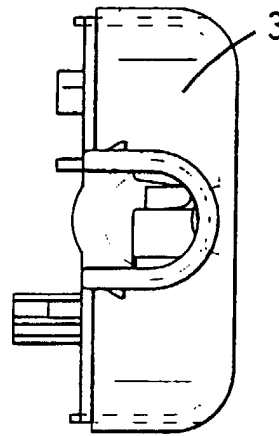


Fig. 11

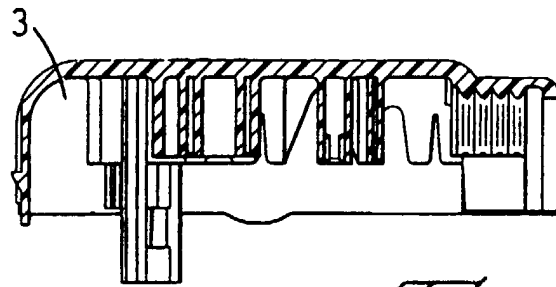


Fig. 12
C-C

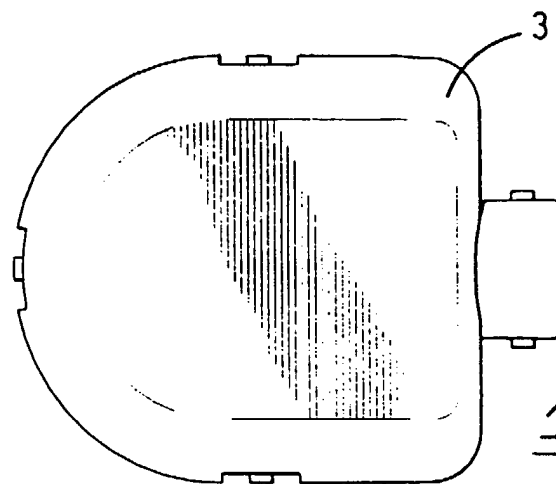
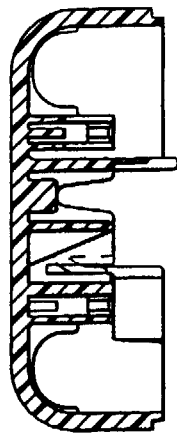
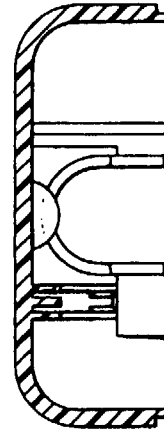


Fig. 13



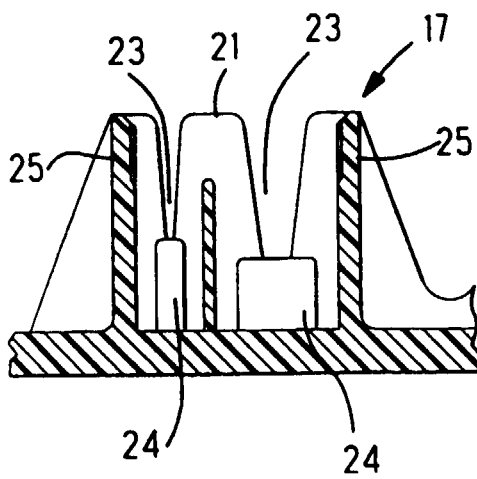
F-F

Fig. 14



E-E

Fig. 15



D-D

Fig. 16

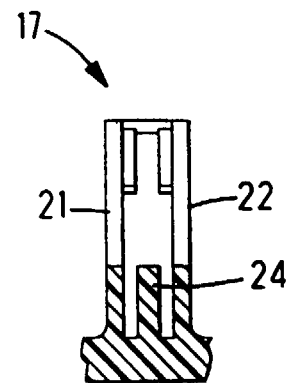


Fig. 17

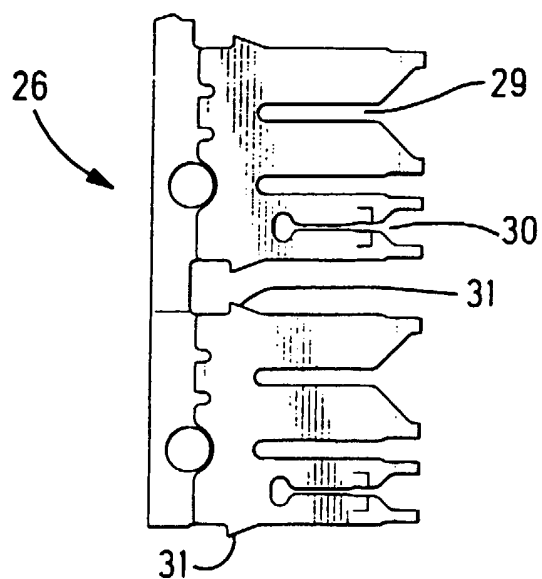


Fig. 18

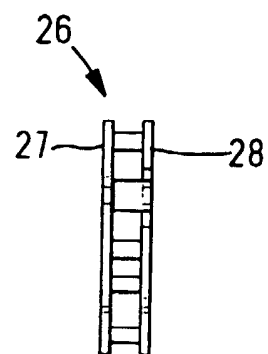


Fig. 19

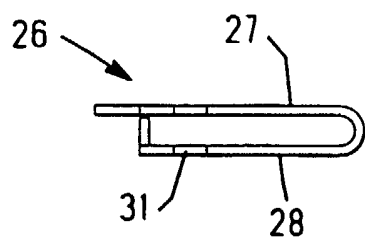


Fig. 20

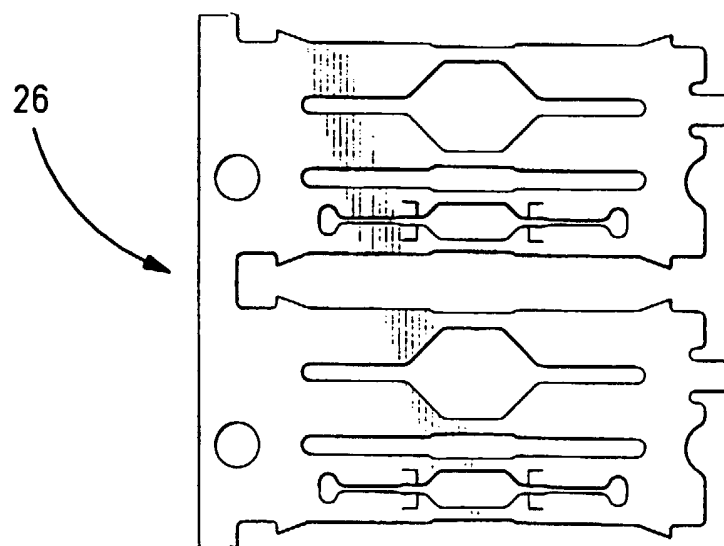


Fig. 21