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- (73) Patenthaver: **ELEKTRA Gesellschaft für elektrotechnische Geräte mbH, Werkstraße 7, 32130 Enger, Tyskland**
- (72) Opfinder: **Flögel, Michael, Gartenstrasse 10, 07950 Zeulenroda-Triebes, Tyskland**
Piper, Jürgen, Geroldstraße 10, 32257 Bünde, Tyskland
- (74) Fuldmægtig i Danmark: **Plougmann Vingtoft A/S, Strandvejen 70, 2900 Hellerup, Danmark**
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Conductor rail pickup and furniture conductor rail system

The invention relates to a conductor rail pickup, in particular a furniture conductor rail pickup, for forming an electrical connection with a conductor rail of a furniture conductor rail system according to the features in the preamble of claim 1. The invention further relates to a furniture conductor rail system for distributing power in and/or to a furniture having the features of claim 16.

Beyond the purely storage and design functions of furniture items these now also more often include networking functions, such as connecting with the electrical systems in buildings. By way of example the integration of lighting systems in furniture items has already been known for a long time, with the standard power supply being provided by power cables. The “invisible” laying of cables which is already desired for aesthetic reasons is indeed generally possible, but this is mostly linked with a loss in the flexible use of the furniture item equipped with same. Changing or removing a shelf already leads to corresponding problems where this shelf is connected to a cable or projects into the region of a laid cable.

In order to maintain the flexibility of furniture items in spite of their connectivity, suitable furniture conductor rail systems have been used for a long time. These are based on a, by way of example current-carrying, rail connected to a fixed part of the furniture, whilst by way of example the devices or lights arranged on movable parts of the furniture are connected to the rail via suitable collectors or conductor rail pickups. Collectors and rails are then in a releasable contact wherein the connection of the rail and the collector can again be provided via standard cables. In this way the movable part of the furniture can be moved without problem so long as the current collector and the rail are in a current-conveying contact with one another.

The US 2011 273 867 and DE 20 2008 016 956 U1 disclose a furniture conductor rail system which contains at least one conductor rail and at least one conductor rail pickup. The conductor rail pickup comprises a coupling member which has a head with two contact bodies which are displaceable elastically parallel to a compensating direction. The conductor rail has two terminal strips arranged in a longitudinal groove with which the contact bodies of the conductor rail pickup can move into a current-conveying contact. For this the head of the coupling member is inserted so far into the longitudinal groove of the conductor rail until each contact body comes to bear against the associated terminal strip. As a result of the elastic mobility of the contact bodies the conductive connection to the conductor rail is ensured so long as the head of the conductor rail pickup and the terminal strips meet one another within a tolerance distance which can be compensated by the mobility of the contact bodies. Tolerances can already arise during the manufacture of the individual parts of the furniture conductor rail system.

With tolerances arising from the manufacture and assembly of a furniture item, a furniture conductor rail system of this kind can reach its limits however. Thus, by way of example the side walls of a furniture body can often have slight bulges which can correspondingly add up in the case of two side walls which are curved away from one another. This can lead to the possible tolerance compensation of the elastically movable contact bodies no longer being sufficient to produce a connection of the conductor rail pickup mounted on a shelf and the terminal strips of the conductor rail.

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An obvious extension of the contact bodies in combination with an enlargement of their displacement path is not expedient here. Apart from the thus increased sensitivity to bending and a more complicated precision guide of the contact bodies these can cause a disadvantageous visual effect since as the length of the contact bodies increases so the possible insert depth of the conductor rail pickup into the conductor rail decreases further and further. In view of these

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observations, therefore, the furniture conductor rail systems already known up until now still have room for improvements.

5 Against this background, the present invention is based on the problem of developing a conductor rail pickup and a furniture conductor rail system with a conductor rail pickup of this kind so that whilst retaining a suitable length of the contact bodies an optical improvement in the tolerance compensation is possible at the same time in the connection between the conductor rail pickup and a conductor rail.

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This is achieved according to the invention by a conductor rail pickup having the features of claim 1. This is furthermore achieved with a furniture conductor rail system according to the features of claim 16. Advantageous further developments form the contents of the respective dependent claims.

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The basic idea of the invention is based on making the coupling member of the conductor rail pickup itself movable so that the possible tolerance compensation is based on its linear flexibility, in particular on an addition of the possible linear displacement paths of the coupling member and the contact bodies.

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According to the invention the conductor rail pickup has for this a pickup housing in which the coupling member is now fitted. The coupling member can preferably be inserted beforehand into the pickup housing by an end facing away from its head. The coupling member is fitted so deep in the pickup housing that its head
25 projects in the unloaded state at least in part out from the pickup housing. In this way it is ensured that the head can project at least partially into the longitudinal groove of a conductor rail. The coupling member is then guided in movable manner so that it can be displaced elastically in the compensating direction with respect to the pickup housing.

In this way the invention enables an extremely advantageous tolerance compensation in the connection between the conductor rail pickup and a conductor rail. In particular the possibility of retaining an acceptable length for the conductor bodies results in no extra expense in its configuration and/or storage. As a result of the preferably laterally closed design of the coupling member, a solution is achieved meeting high aesthetic demands since the tolerance compensation which is required is restricted in the compensating direction only to a lengthening or shortening of the part of the conductor rail pickup which is optically discernible during its intended use.

Within the scope of the invention an electrically conductive contact between the conductor rail pickup and a conductor rail is not solely restricted to purely a power supply. This connection can thus also be utilised to exchange or direct by way of example data over the structural interface thus provided. The invention is also not restricted to the arrangement of only two contact bodies, but can also have three or more of these. This is in particular against the background of a multiwire connection which can have by way of example two or more separate power supplies. Alternative or additional configurations with control lines and/or data lines are thus likewise conceivable.

According to a preferred further development of the basic inventive idea, the contact bodies can project in at least some sections out from an end side of the head of the coupling member. Thus, the contact bodies can indeed also be arranged by way of example at the side on the head of the coupling member and protrude accordingly, but the end side position of the contact bodies enables the terminal strips to be arranged as deep as possible in the conductor rail required for forming an electrical connection. In particular, in order to restrict the depth of mobility in the compensating direction, the pickup housing can comprise a through opening which receives the coupling member and has two ledges projecting into

the through opening. Opposite this the coupling member can have two shoulders wherein the two ledges of the through openings then correspond with the two shoulders of the coupling member. This means that the two ledges of the through openings are each opposite a shoulder of the coupling member. In this way two
5 spring elements extending parallel to the compensating direction are provided so that these are each incorporated between one of the ledges and one of the associated shoulders. Consequently, the coupling member is supported by its shoulders on the ledges in the through opening of the pickup housing wherein the spring elements each arranged between a ledge and an associated shoulder
10 enable an elastic displacement of the coupling member relative to the pickup housing.

The invention proposes that the coupling member can preferably have at least two chambers in each of which one of the contact bodies is mounted. The chambers
15 extend parallel to the compensating direction wherein they are separated from one another by a wall. The contact bodies are hereby separated sufficiently away from one another. The chambers themselves can also serve for linearly guiding the contact bodies.

20 In order to ensure the necessary connection of the conductor rail pickup by way of example to a power network, the conductor rail pickup according to the invention can have a suitable connecting section. The connecting section can preferably be mounted on one end of the coupling member facing away from the head. The connecting section can then advantageously protrude in at least some sections out
25 from the pickup housing so that it can be easily reached. The connecting section can in a particularly preferred manner be fitted with a connector socket which is designed for detachable or non-detachable connection with at least one power cable section. Obviously, a connector plug can be provided instead of or in addition to the connector socket.

According to a further development of the invention the coupling member can have two power line elements electrically insulated from one another. The power line elements can serve primarily to produce an internal electrical connection between each one of the contact bodies and by way of example a power cable section. It is particularly preferred if each of these power line elements can have a guide slot extending parallel to the compensating direction in which each one of the contact bodies is movably guided. In this way each contact body is mounted linearly movable on each one of these power line elements wherein at the same time a permanent electrically conductive direct contact can be provided between one power line element and the associated contact body.

In this connection it is regarded as advantageous if the individual power line elements each extend between one chamber and one connector socket of the coupling member. These can preferably be the chambers already previously mentioned and the connector socket. In each case the power line elements serve to produce an electrical connection inside the conductor rail pickup, in particular between the contact bodies and by way of example each one wire of a power cable section coupled or connected to the connector socket.

In connection with the arrangement of the power line elements the invention proposes that these can each have a sleeve section laid in the region of a connector socket of the coupling member. This means a configuration which is sleeve-like in at least some sections and which is open towards the free end of the respective power line element. The power line elements are hereby configured to receive a plug or a wire of a cable which can then be detachably inserted or permanently bonded, by way of example by soldering, in the associated sleeve section. This can be the previously mentioned connector socket, which is particularly preferred. In a particularly advantageous manner, the connector socket can have a wall separating the sleeve sections from one another so that the power supply elements are electrically insulated from one another in the region of their sleeve sections.

With regard to the configuration of the contact bodies, it is deemed advantageous if these are formed from a flat material. This can be by way of example sheet metal which has a contour provided to form the respective contact body. The contact bodies can be economically produced in the form of a stamped part with high precision and at the same time low expense. With regard to the shape of the contact bodies it is proposed that these can each have two arms as well as a connecting web connecting the arms to one another. The respective contact body is preferably configured so that its connecting web protrudes at least in some sections out from the coupling member. This guarantees a simple contact with the terminal strips of a conductor rail.

Spring elements can advantageously be provided in order to slide the contact bodies elastically into a quasi-linearly extended position out from the coupling member wherein the spring elements at the same time ensure that the contact bodies in combination with a conductor rail are placed securely against the terminal strips thereof. For this at least one of the arms of a contact body can be spring loaded by one of the spring elements extending parallel to the compensating direction. The spring elements can each be arranged in a chamber of the coupling member which can preferably be the chambers already mentioned.

According to a further development in the configuration of the contact bodies it is proposed that these can have flanges arranged at the free end sections of their arms. The flanges of a contact body advantageously extend away from each other which causes an enlargement of the narrow sides of the contact bodies which are in contact with the spring elements. Particularly in combination with the power line elements each arranged in a chamber, each two spring elements can be arranged per chamber next to a power line element wherein the flanges of the contact bodies guided on the power line elements have a contact with the spring elements. In order to ensure a simple assembly and/or exchange of the individual

parts of the conductor rail pickup according to the invention the head of the coupling member can have a cover. The cover can in a particularly preferred embodiment be connected in detent engagement with the coupling member. The cover can have two openings advantageously matched in shape to the contact
5 bodies and through which the contact bodies extend at least in some sections. The contact bodies as well as the spring elements can be easily installed through the opened cover and conversely removed again from the coupling member.

The coupling member can preferably be a plastics part so that this can be
10 manufactured as a whole easily and with high precision. Independently of this it is regarded as particularly advantageous if the connecting section of the coupling member is a one-piece integral part of the coupling member.

In practical use it is proposed that the conductor rail pickup according to the
15 invention can be integrated by way of example into a narrow side of a shelf. For this, the shelf can have a blind hole extending parallel to its cover faces and in which the conductor rail pickup can be integrated at least in some sections. The conductor rail pickup can have a circumferential mounting collar which extends in a plane running perpendicular to the compensating direction. As an alternative to
20 this, the conductor rail pickup can have at least one and preferably two mounting arms facing away from one another, with the mounting arms running in the plane. Mounting collars or mounting arms serve to fix the conductor rail pickup on a component, by way of example on a shelf. It is proposed that mounting collars or mounting arms can be arranged on an end section of the pickup housing facing
25 the contact bodies.

According to a preferred configuration of the conductor rail pickup, the head of the coupling member can have a rectangular cross-section. Compared to a circular cross-section, here, particularly in combination with the longitudinal groove of a
30 conductor rail, a type of automatic guidance is achieved which causes an ideal

alignment of the head of the coupling member projecting into the longitudinal groove. The contact bodies are hereby ideally aligned with respect to the terminal strips of the conductor rail in order to produce a secure electrically conductive connection. Where the conductor rail has some longitudinal slits, behind which the
5 terminal strips are arranged, then particularly in combination with contact bodies made of flat material, these can be easily passed through the longitudinal slits.

According to an advantageous further development to the invention the conductor rail pickup can have a power cable section which is connected detachably or non-
10 detachably to a connector socket of a connecting section of the coupling member. This can advantageously be the connecting section already previously described as well as its connector socket. The power cable section furthermore has an electrical connecting means arranged at its free end. The connecting means can preferably be a plug connector so that a detachable connection of the conductor
15 rail pickup can be easily produced by way of example with an electrical device or lighting unit.

The invention proposed here has an extremely advantageous conductor rail pickup whose essential improvement lies in an extremely effective and optically
20 acceptable tolerance compensation in relation to fluctuating distances between the head of the conductor rail pickup and a conductor rail.

The invention is furthermore aimed at a furniture conductor rail system for distributing power in and/or to a furniture unit. The furniture conductor rail system
25 according to the invention comprises at least one conductor rail as well as at least one conductor rail pickup according to the invention as previously described.

The advantages arising from the furniture conductor rail system according to the invention were essentially explained in further detail already in connection with the

proposal for the conductor rail pickup according to the invention so that at this point reference is initially made to the previous designs.

5 According to an advantageous further development of the furniture conductor rail system according to the invention its at least one conductor rail can have a longitudinal groove designed to receive in at least some sections the head of the coupling member of the conductor rail pickup.

10 The conductor rail can advantageously have two terminal strips provided for contacting connection with the contact bodies of the conductor rail pickup wherein the terminal strips are insulated electrically from one another.

15 According to a particularly advantageous further development of the furniture conductor rail system according to the invention the terminal strips of the conductor rail can be arranged in two longitudinal channels of the conductor rail which are separated from one another. Structural separation of the two terminal strips is hereby achieved. Each longitudinal channel can then preferably be opened towards the longitudinal groove via a longitudinal slit which is adapted in shape to the contact bodies of the conductor rail pickup.

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Advantageous details and effects of the invention will now be explained in further detail below with reference to an exemplary embodiment shown diagrammatically in the drawings. In the drawings:

25 Fig. 1 shows a side view of a conductor rail pickup according to the invention in section in a first position;

- Fig. 2 shows the conductor rail pickup of Fig. 1 in a second position in an otherwise identical view;
- Fig. 3 shows a side view, turned by 90°, of the conductor rail pickup of Fig. 2 in section;
- Fig. 4 shows an end view of the conductor rail pickup of Figs. 1 to 3;
- Fig. 5 shows a furniture conductor rail system according to the invention with a conductor rail pickup of Figs. 1 to 4 in a perspective view;
- Fig. 6 shows a sectional view of the furniture conductor rail system of Fig. 5 looking in the longitudinal direction of its conductor rail;
- Fig. 7 shows the furniture conductor rail system of Figs. 5 and 6 in the installed state in a furniture unit.

Figs. 1 and 2 each show the same side view of a conductor rail pickup 1 according to the invention in section. The two illustrations differ in that Fig. 1 shows the conductor rail pickup 1 in a tensioned position A, whilst Fig. 2 shows a relaxed position B of the conductor rail pickup 1.

The conductor rail pickup 1 comprises a coupling member 2 which is arranged in a through opening 3 of a pickup housing 4. The coupling member 2 is guided movably here inside the pickup housing 4 so that it is displaceable in a compensating direction x relative to the pickup housing 4.

Looking at the coupling member 2, it can be seen that this has a head 5 projecting at least in some sections out from the pickup housing 4. The head 5 has two contact bodies 6a, 6b, not shown in section, of which here only one of the contact bodies 6a, 6b can be seen whilst the other is covered. The contact bodies 6a, 6b are arranged so that these protrude noticeably at least in some sections out from an end side 5a of the head 5. For this, the head 5 has a cover 7 with two openings 8a, 8b adapted in shape to the contact bodies 6a, 6b and of which here only one of the openings 8a, 8b can be seen whilst the other is covered by the contact body 6a, 6b which is shown here. The contact bodies 6a, 6b extend at least in some sections through the openings 8a, 8b of the cover 7.

The through opening 3 of the pickup housing 4 has two opposing ledges 9a, 9b which project into the through opening 3. The coupling member 2 has on the other hand two opposing shoulders 10a, 10b which are arranged relative to the ledges 9a, 9b of the through opening 3 so that the ledges 9a, 9b of the through opening 3 each correspond with one of the shoulders 10a, 10b of the coupling member 2. Two spring elements 11a, 11b are arranged inside the pickup housing 4 and each extend parallel to the compensating direction x. The two spring elements 11a, 11b are placed here so that each of the spring elements 11a, 11b is housed between of the ledges 9a, 9b of the through opening 3 and the associated shoulder 10a, 10b of the coupling member 2. In this way the coupling member 2 arranged inside the pickup housing 4 is spring-loaded by the spring elements 11a, 11b wherein the distance between the ledges 9a, 9b and the shoulders 10a, 10b allows an elastic displacement of the coupling member 2 relative to the pickup housing 4 in the compensating direction x.

The contact bodies 6a, 6b are here formed from a flat material which has a substantially U-shaped configuration. From the contact bodies 6a, 6b shown here and described as representative of the other contact body 6a, 6b, it can be seen that these each have two arms 13a, 13b which are connected to one another via a connecting web 12. A flange 15a, 15b is arranged at each of the free end sections

14a, 14b of the arms 13a, 13b wherein the two flanges 15a, 15b extend noticeably away from one another, in particular transversely to the compensating direction x.

Two spring elements 16a, 16b are provided here per contact body 6a, 6b inside
5 the coupling member 2 and extend parallel to the compensating direction x. The
spring elements 16a, 16b are each supported on one of two plateaus 17a, 17b,
opposite the respective shoulders 10a, 10b of the coupling member 2. As a result
of the installation position of the two spring elements 16a, 16b the two arms 13a,
13b of the contact bodies 6a, 6b are spring-loaded, more particularly in the region
10 of their respective flanges 15a, 15b, by one each of the spring elements 16a, 16b.
As a result of the distance of the arms 13a, 13b from the plateaus 17a, 17b, an
elastic displacement is possible of the contact bodies 6a, 6b relative to the head 5
of the coupling member 2 in the compensating direction x.

15 At one end 2a of the coupling member 2 facing away from the head 5 there is a
connecting section 18 which has a connector socket 19. The connector socket 19
serves for detachable or non-detachable connection with at least one power
cable section 39 not shown here (see Fig. 7). The connecting section 18 forms a
one-piece integral part of the coupling member 2. The coupling member 2 has
20 furthermore two power line elements 20a, 20b which are electrically insulated from
one another and extend parallel to the compensating direction x, and of which only
one power line element 20a, 20b can be seen here whilst the other is covered by
the visible power line element 20a, 20b. From the power line element 20a, 20b
visible here it is apparent that these each have a sleeve section 21a, 21b placed in
25 the region of the connector socket 19.

Fig. 3 shows a side view, turned by 90°, of the conductor rail pickup 1 of Fig. 2. It
can likewise be seen in the sectional view of the conductor rail pickup 1 that its
coupling member 2 has two chambers 22a, 22b extending parallel to the
30 compensating direction x and separated from one another by a wall 23. The two

power line elements 20a, 20b then each extend between one of the chambers 22a, 22b and the connector socket 19 positioned on the connecting section 18. In this connection it should also be mentioned that the connector socket 19 likewise has a wall 24, clearly shown here, through which the two sleeve sections 21a, 21b of the power line element 20a, 20b are separated from one another, in particular are electrically insulated from one another. The contact bodies 6a, 6b are shown arranged in each one of the two chambers 22a, 22b. Each of the two power line elements 20a, 20b has a guide slit 25a, 25b extending parallel to the compensating direction x, wherein the two contact bodies 6a, 6b are each guided movably in one of these guide slits 25a, 25b. The spring element 16a of the spring elements 16a, 16b which are each arranged in one of the two chambers 22a, 22b is visible at least through the guide slit 25a of the power line element 20a positioned at the top with reference to the illustration of Fig. 3. A circumferential mounting collar 27 is arranged here at an end section 26 of the pickup housing 4 facing the contact bodies 6a, 6b and extends substantially in a plane running perpendicular to the compensating direction x.

Fig. 4 shows a view of the end side 5a of the coupling member 2 of the conductor rail pickup 1 of Figs. 1 to 3. As can be seen, the head 5 has a rectangular cross-section. In this view the configuration of the circumferential mounting collar 27 can also be clearly seen which has a substantially rectangular shape with rounded corners. Furthermore, two holes 28a, 28b are formed in the mounting collar 27 and serve to fasten the conductor rail pickup 1 by means of releasable connecting means which are not shown in further detail here. Looking at the openings 8a, 8b inside the cover 7 it is clear that these are adapted to the configuration of the contact bodies 6a, 6b which are made from flat material. These have here the shape of two slots running parallel to one another.

Fig. 5 shows a furniture conductor rail system 29 according to the invention in a perspective view. The furniture conductor rail system 29 comprises a conductor rail 30, in particular made of a non-conductive material such as by way of example

plastics, as well as a conductor rail pickup 1 as previously shown in Figs. 1 to 4. The conductor rail pickup 1 is here in engagement via its head 5 in at least some sections with a longitudinal groove 31 of the conductor rails 30. In this configuration the furniture conductor rail system 29 serves to form an electrical
5 connection between the conductor rail 30 and at least one conductor rail pickup 1.

Fig. 6 shows the furniture conductor rail system 29 of Fig. 5 looking in the longitudinal direction of its conductor rail 30. The conductor rail 30 is shown here in section. It can be seen that the conductor rail 30 has two longitudinal channels
10 32a, 32b separated from one another and in each of which a, by way of example current-conveying, terminal strip 33a, 33b is arranged. As a result of the structural separation of the two longitudinal channels 32a, 32b, the two terminal strips 33a, 33b are electrically insulated from one another. It can be seen that each of the two longitudinal channels 32a, 32b is opened towards the longitudinal groove 31
15 via a longitudinal slit 34a, 34b which matches the shape of the contact bodies 6a, 6b of the conductor rail pickup 1.

Fig. 7 shows in an exploded view the furniture conductor rail system 29 of Figs. 5 and 6 in a quasi-installed state in a furniture 35. The furniture 35 comprises a side
20 wall 36, shown here in section, as well as a shelf 37 provided for arrangement on the side wall 36. It can be seen that the conductor rail pickup 1 is integrated inside the shelf 37 wherein its pickup housing 4 is connected to the shelf 37 via detachable connecting means 38a, 38b, - which can be attached through the holes 28a, 28b in the mounting collar 27 -. On the other hand, the conductor rail
25 30 of the furniture conductor rail system 29 is integrated in the side wall 36 of the furniture 35 so that its longitudinal groove 31 is aligned towards the shelf 37 and is open and accessible for the conductor rail pickup 1. It is apparent that a power cable section 39 is arranged on the connecting section 18 of the coupling member 2 and is connected detachably or non-detachably to the connector socket 19. An
30 electrical connecting means 40 in the form of a plug connector is furthermore

arranged on a free end 39a of the power cable section 39 opposite the conductor rail pickup 1.

Patentkrav

1. Strømskinneaftager (1), især møbelstrømskinneaftager, til dannelse af en elektrisk forbindelse med en strømskinne (30) i et møbelstrømskinnesystem (29),
5 omfattende et koblingsstykke (2), som har et hoved (5) med mindst to kontaktlegemer (6a, 6b), der kan forskydes elastisk parallelt med en kompensationsretning (x),

kendetegnet ved

- et aftagerhus (4), i hvilket koblingsstykket (2) er anbragt således, at dets hoved i
10 det mindste i afsnit rager frem (5), og styret således bevægeligt, at koblingsstykket (2) kan forskydes elastisk i kompensationsretningen (x) i forhold til aftagerhuset (4).

2. Strømskinneaftager ifølge krav 1,

- 15 **kendetegnet ved,**

at kontaktlegemerne (6a, 6b) i det mindste i afsnit stikker frem fra en endeside (5a) af hovedet (5).

3. Strømskinneaftager ifølge krav 1 eller 2,

- 20 **kendetegnet ved,**

at aftagerhuset (4) har en gennemgangsåbning (3), der optager koblingsstykket (2), med to i dette fremspringende afsatse (9a, 9b), som korresponderer med to skuldre (10a, 10b) på koblingsstykket (2), idet der er tilvejebragt to fjederelementer (11a, 11b), der forløber parallelt med kompensationsretningen
25 (x), og som hver især er indsat mellem en af afsatsene (9a, 9b) og de tilhørende skuldre (10a, 10b).

4. Strømskinneaftager ifølge et af de foregående krav,

kendetegnet ved,

- 30 **at** koblingsstykket (2) har to fra hinanden af en væg (23) adskilte kamre (22a, 22b), der forløber parallelt med kompensationsretningen (x), idet hvert af kontaktlegemerne (6a, 6b) er anbragt hver især i et disse kamre (22a, 22b).

5. Strømskinneaftager ifølge et af de foregående krav,

- 35 **kendetegnet ved**

et forbindelsesafsnit (18), som er anbragt ved en bort fra hovedet (5) vendende ende (2a) af koblingsstykket (2), idet forbindelsesafsnittet (18) har en til aftagelig eller ikke aftagelig forbindelse med mindst et strømkabelafsnit (39) udformet tilslutningsfatning (19).

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6. Strømskinneaftager ifølge et af de foregående krav,

kendetegnet ved,

at koblingsstykket (2) har to elektrisk fra hinanden isolerede strømlederelementer (20a, 20b), idet hvert af disse strømlederelementer (20a, 20b) har en parallelt
10 med kompensationsretningen (x) forløbende styreslids (25a, 25b), i hvilken hver især et af kontaktlegerne (6a, 6b) er ført bevægeligt.

7. Strømskinneaftager ifølge krav 6,

kendetegnet ved,

15 **at** strømlederelementerne (20a, 20b) hver især forløber mellem et kammer (22a, 22b) og tilslutningsfatning (19) på koblingsstykket (2).

8. Strømskinneaftager ifølge krav 6 eller 7,

kendetegnet ved,

20 **at** strømlederelementerne (20a, 20b) hver især har et i en tilslutningsfatnings område (19) af koblingsstykket (2) liggende muffeafsnit (21a, 21b), idet tilslutningsfatningen (19) har en væg (24), der skiller muffeafsnittene (21a, 21b) fra hinanden.

25 **9.** Strømskinneaftager ifølge et af de foregående krav,

kendetegnet ved,

at kontaktlegerne (6a, 6b) er dannet af et fladt materiale, som hver især har to arme (13a, 13b) samt en forbindelsesbøjle (12), der forbinder armene (13a, 13b) med hinanden og stikker frem fra koblingsstykket (2), idet mindst en af
30 armene (13a, 13b) på et kontaktleger (6a, 6b) er fjederbelastet gennem et parallelt med kompensationsretningen (x) forløbende, især i et kammer (22a, 22b) i koblingsstykket (2) anbragt fjederelement (16a, 16b).

10. Strømskinneaftager ifølge krav 9,

35 **kendetegnet ved,**

at kontaktlegemerne (6a, 6b) har ved deres armer (13a, 13b) frie endeafsnit (14a, 14b) anbragte flanger (15a, 15b), idet flangerne (15a, 15b) på et kontaktlegeme (6a, 6b) forløber bort fra hinanden.

5 **11.** Strømskinneaftager ifølge et af de foregående krav,
kendetegnet ved,

at koblingsstykkets (2) hoved (5) har et, især i indgreb med koblingsstykket (2) forbundet, dæksel (7), idet dækslet (7) har to åbninger (8a, 8b), gennem hvilke kontaktlegemerne (6a, 6b) forløber i det mindste i afsnit.

10

12. Strømskinneaftager ifølge et af kravene 5 til 11,
kendetegnet ved,

at forbindelsesafsnittet (18) er en bestanddel af koblingsstykket (2) i et stykke af ensartet materiale.

15

13. Strømskinneaftager ifølge et af de foregående krav,
kendetegnet ved

en omløbende montagekrave (27) eller mindst en montagearm, som er anbragt ved et mod kontaktlegemerne (6a, 6b) vendende endeafsnit (26) af aftagerhuset
20 (4).

14. Strømskinneaftager ifølge et af de foregående krav,
kendetegnet ved,

at koblingsstykkets (2) hoved (5) har et rektangulært tværsnit.

25

15. Strømskinneaftager ifølge et af de foregående krav,
kendetegnet ved

et strømkabelafsnit (39), som er aftageligt eller ikke aftageligt forbundet med en tilslutningsfatning (19) på et forbindelsesafsnit (18) på koblingsstykket (2), idet
30 strømkabelafsnittet (39) har et på dets frie ende (39a) anbragt elektrisk forbindelsesmiddel (40), især en stikforbindelse.

16. Møbelstrømskinnesystem til fordeling af strøm i og/eller ved et møbel, omfattende mindst en strømskinne (30) samt mindst en strømskinneaftager (1)

ifølge et af de foregående krav.

17. Møbelstrømskinnesystem ifølge krav 16,

kendetegnet ved,

- 5 **at** strømskinnen (30) har en til i det mindste afsnitsvis optagelse af hovedet (5) på strømskinneaftagerens (1) koblingsstykke (2) udformet langsgående not (31).

18. Møbelstrømskinnesystem ifølge krav 16 eller 17,

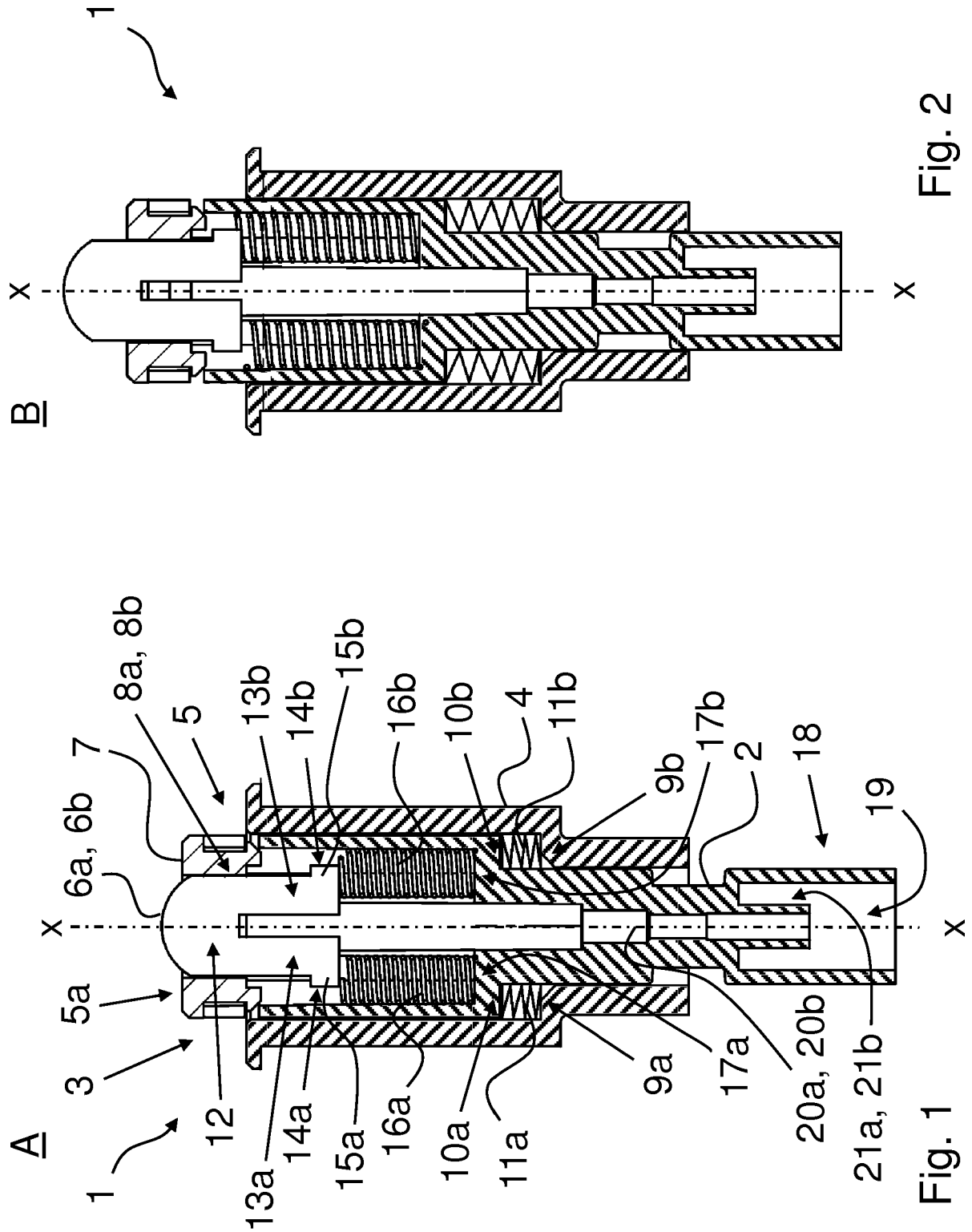
kendetegnet ved,

- 10 **at** strømskinnen (30) har to til forbindelse i kontakt med kontaktlegemer (6a,6b) på strømskinneaftageren (1) tilvejebragte tilslutningslister (33a, 33b), idet tilslutningslisterne (33a, 33b) er isoleret elektrisk fra hinanden.

19. Møbelstrømskinnesystem ifølge krav 18,

15 **kendetegnet ved,**

- at** tilslutningslisterne (33a, 33b) er anbragt i to fra hinanden adskilte langsgående kanaler (32a, 32b) i strømskinnen (30), idet hver langsgående kanal (32a, 32b) er åbnet hen imod den langsgående not (31) gennem en, især til strømskinneaftagerens (1) kontaktlegemer (6a, 6b) formtilpasset, langsgående
20 slids (34a, 34b).



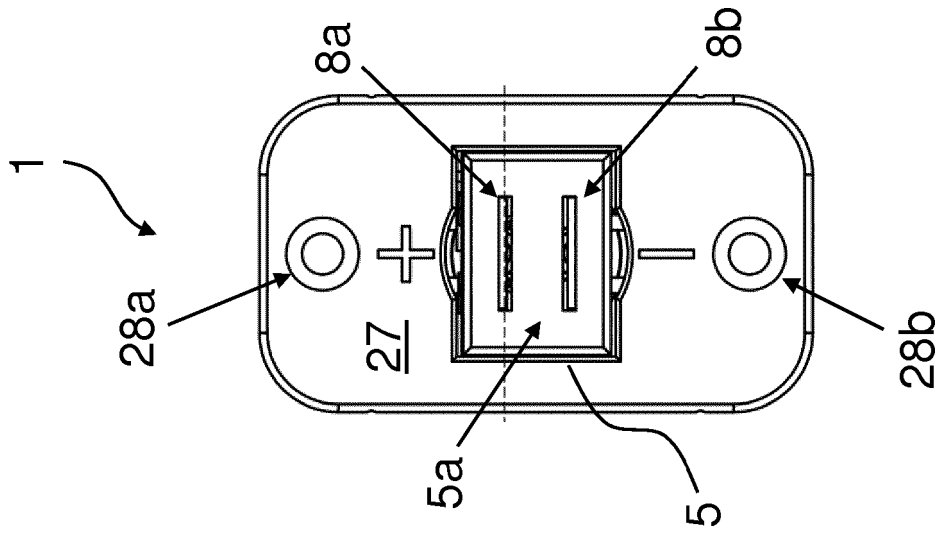


Fig. 4

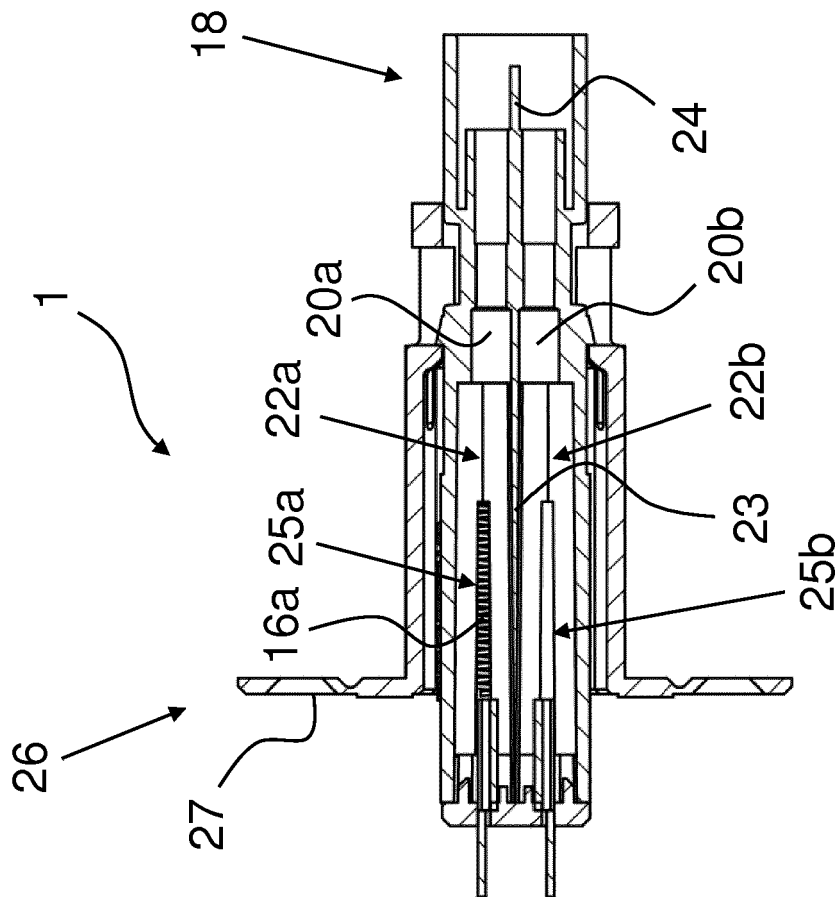


Fig. 3

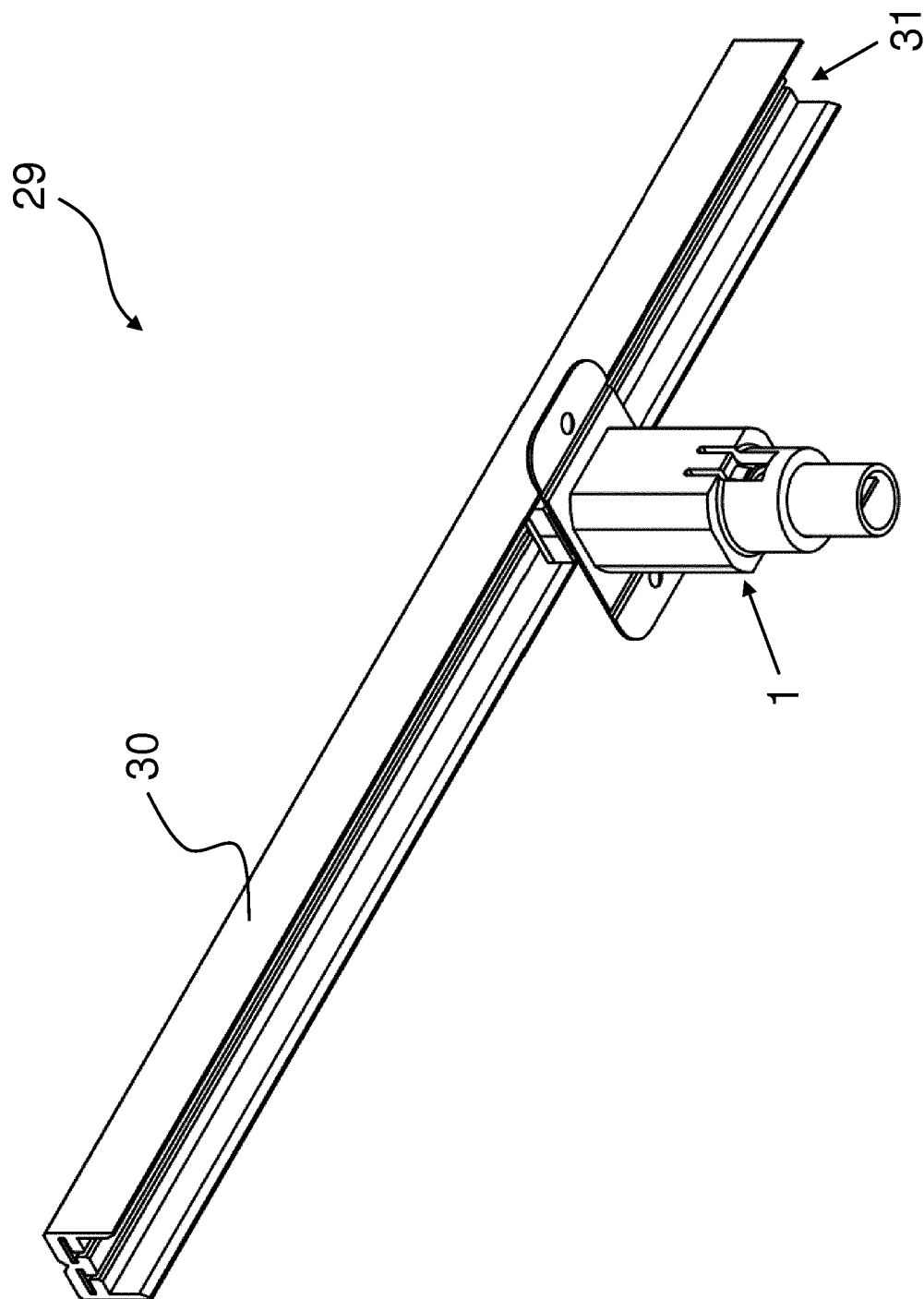


Fig. 5

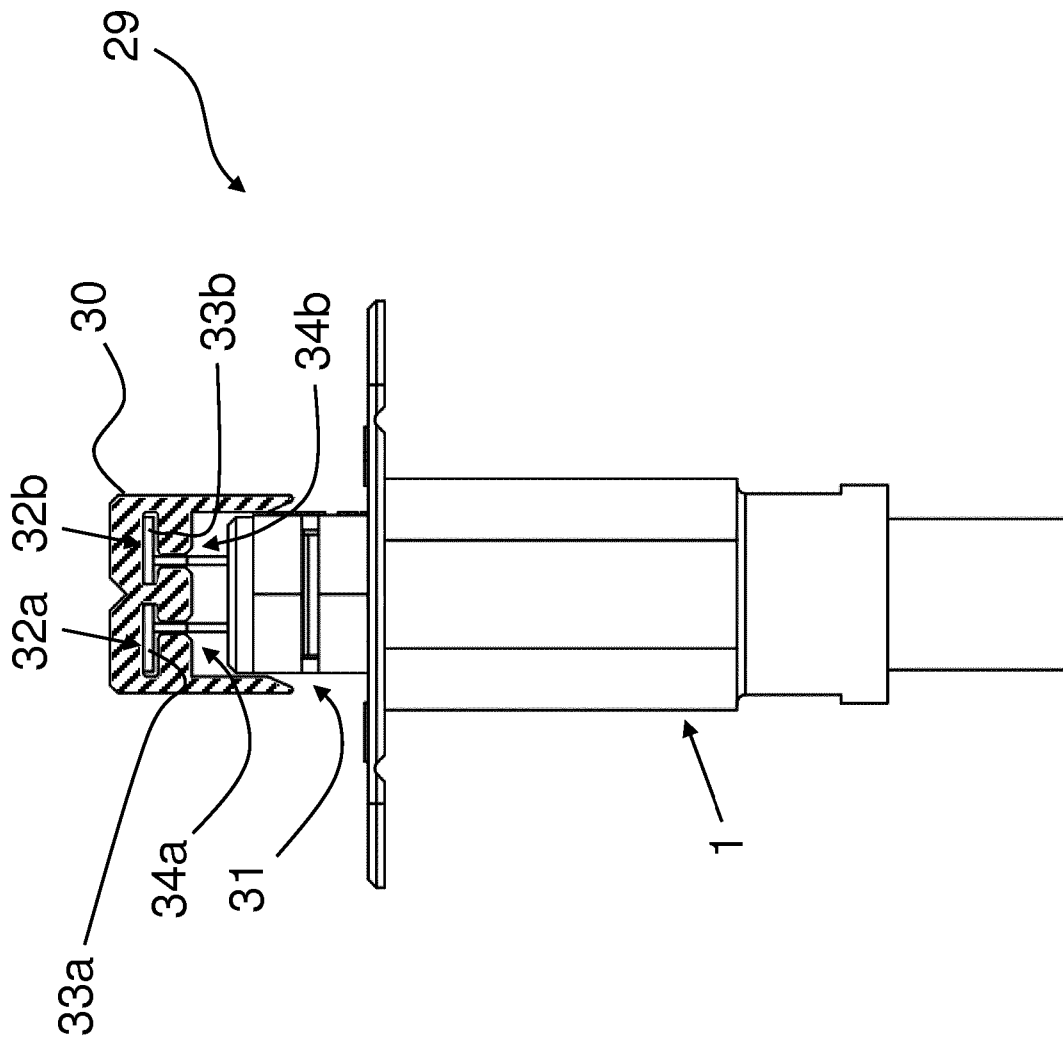


Fig. 6

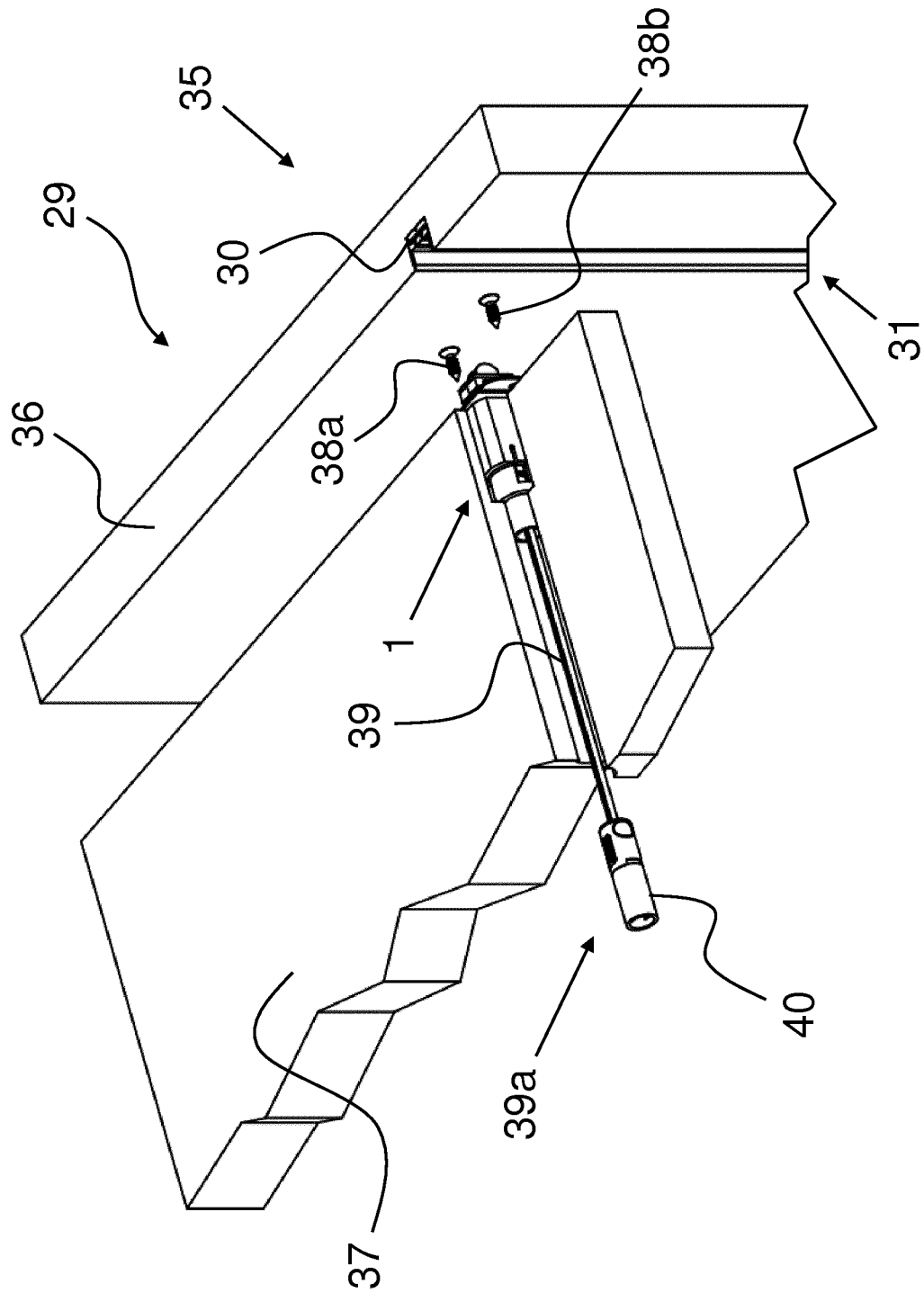


Fig. 7