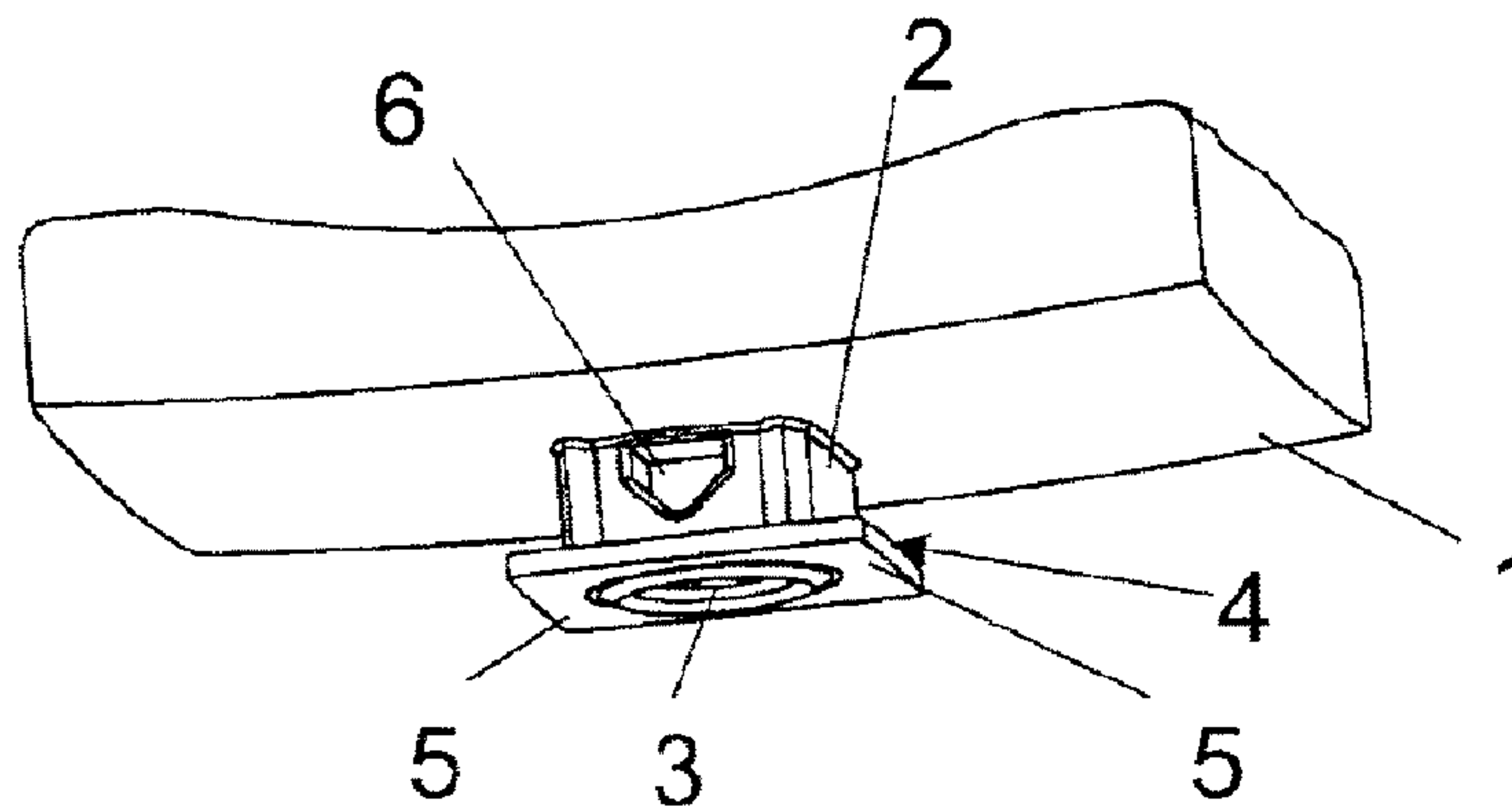




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(72) Inventeur/Inventor:
HAGLEITNER, HANS GEORG, AT
(73) Propriétaire/Owner:
HAGLEITNER, HANS GEORG, AT
(74) Agent: FETHERSTONHAUGH & CO.

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(57) **Abrégé/Abstract:**

The invention relates to a container having a neck (2) with an opening (3) and a removable closure (10), wherein at least one guide element (4) is provided on the neck (2), on or in which the closure (10) is displaceable. At least one free area (6), which is open towards the front in the sliding direction (arrow A), is formed on the face of the container, which is provided with the neck (2).

Abstract

The invention relates to a container having a neck (2) with an opening (3) and a removable closure (10), wherein at least one guide element (4) is provided on the neck (2), on or in which the closure (10) is displaceable. At least one free area (6), which is open towards the front in the sliding direction (arrow A), is formed on the face of the container, which is provided with the neck (2).

Container

The invention concerns a container having an opening provided on a connection and a closure removable by displacement of the container in a slide direction, wherein provided on the connection is at least one guide element, at or in which the closure is slidable relative to the container. The invention further concerns a dispensing system for a flowable product comprising at least one dispenser provided with a container mounting and at least one container containing the flowable product.

10 A container and a dispensing system of that kind are described for example in WO 95/09111 or WO 2008/089500. The dispenser serves for dispensing liquid or creamy products, in particular in the sanitary and hygiene area like for example soaps, disinfectants, creams and so forth.

A container can be fitted into a dispenser if the region of the container, that surrounds the opening, is compatible with the container mounting of the dispenser. That is thus a prerequisite for being able to use the container at all, but it has the disadvantage that all containers of the same configuration or at least all containers with regions of the same configuration around the opening can be used without a container having the wrong contents being noticeable. That matching relationship is also referred to as coding, in which respect various degrees of coding can be established, which involve the number of the cooperating coding elements.

The container described in the state of the art has a container neck or connection, from which a respective limb of a sliding guide projects at both sides parallel to the end face, and on to which a clip-like C-shaped part which engages behind the limbs is pushed as the closure. Therefore the container mounting on the dispenser is of the same configuration as the closure, that is to say the limbs projecting from the connection have the container mounting engaging therebehind. That makes changing the container easier as a new container can be fitted to and inserted into the container mounting without the closure having to be previously removed. That is advantageous in particular as the container is fitted upside down as the content cannot flow out of same or no additional measures are necessary to prevent that. As soon as the closure bears against the container mounting the container can be slid and the limbs of the connection slide in grooves of the container mounting, in which case finally the closure is released and lies loose in front of the container mounting.

As however it is desirable or also necessary to fill certain dispensers only with certain containers the object of the invention is to provide containers and a dispensing system which have a sliding closure and codings which extend beyond engagement of the sliding guide elements, to prevent the insertion of incorrect containers. According to the invention that is possible on the container in that provided at the side of the container that is provided with the connection is at least one projection projecting forwardly in the slide direction and/or at least one forwardly open socket. In corresponding relationship therewith provided on the container mounting is a recess or projection respectively corresponding to the projection or to the socket at the side of the container, that is provided with the connection. Upon insertion of the container therefore the projection and recess or the socket and projection engage into each other.

It is only in that way that the openings in the connection of the container and the container mounting of the dispenser come into alignment so that the content can flow out into the dispenser. Without a possibility of mutual engagement it would only be possible for the container to be pushed into the container mounting over a short length, in which respect that can be recognized by virtue of the fact that the container does not begin to empty and the closure is still hanging on the connection as it has also been pushed out only over the above-mentioned excessively short length.

Projections or sockets are possible at any suitable location on the side of the container, that is provided with the connection, preferably in that respect it is provided that at least one projection and/or at least one socket are provided on the connection.

If the connection has limbs projecting at both sides as guide elements, a preferred configuration provides that one of the two limbs is shortened, thereby providing the socket.

Depending on the respective size and nature of the socket it may be advantageous for at least one tab which is attached to the connection by way of an intended breaking location to be broken off to form the socket, for example to provide a precise container coding after filling with the medium.

If only one socket is provided on the container then it is not possible for the container to be turned through 180° . That can be important if for example writing on the inserted container is to be readable. If in contrast a specific position of the container in the dispenser mounting is unimportant then two sockets turned through 180° can be provided in the connection. Insertion of the container is simplified thereby.

If the container and the connection are square then the container can also be provided with four projecting limbs or four sockets. It is also possible to conceive arranging the coding elements in various planes parallel to the slide direction of the container, particularly in mutually superposed relationship, thereby substantially increasing the possible coding combinations.

As mentioned the arrangement of projections and sockets is not limited to the connection. In a further preferred embodiment therefore there are provided at least one projection and/or at least one socket at at least one upstanding limb of a U-shaped reinforcing plate of the container, that carries the connection and embraces the container at oppositely disposed edges. If the limb of the reinforcing plate extends perpendicularly to the slide direction a socket is preferably in the form of a hole in the limb.

A further preferred embodiment provides that the guide elements, the recess and/or the projection of the container mounting are provided on an exchangeable insert portion which is held in a cover plate of the lower part of the dispenser.

The substantial components of the dispenser therefore remain the same, irrespective of whether the projection and/or the socket in the connection are provided centrally or off-center as the container mounting which fits the container can be selected and fitted into the cover plate. The container mounting is raised in relation to the region of the cover plate in front thereof, by the thickness of the closure, in order to be able to insert the container connection into the container mounting without impediment. The container mounting is additionally preferably provided with a bevel at the front end to correct inaccuracies.

A further preferred configuration provides that a substantially L-shaped path is defined for insertion of the container into the dispenser, the first path portion of said L-shaped path extending perpendicularly to the slide direction and ending in particular in a depression in the cover plate in front of the container mounting. In that case, there are two conceivable options for the first path portion. In a first variant the L-shape extends overall parallel to the plane of the container opening so that the closed container can firstly be fitted laterally to the dispenser and can be displaced to in front of the container mounting and is then pushed in the slide direction, in which case the connection slides into the container mounting and the closure remains disposed in front of same. If it is blocked not only in the slide direction of the container but also in opposite relationship thereto on the cover plate then when changing a container the

closure is displaced on to the connection again so that the container which is now closed again can be pushed out laterally.

In the second variant the first path portion extends from above downwardly, in particular vertically or inclinedly rearwardly.

5 In both cases the location in front of the container mounting represents a positively locking deposit means for the closure, which is aligned with the container mounting.

The cover plate preferably represents an upper cover of a collecting chamber for the product to be dispensed, for example an intermediate chamber, a pump inlet chamber or the like. Therefore at least one projection is preferably of such a configuration that a hole into
10 the collecting chamber is opened by removal of the projection, for example in order to insert a non-correlating container, and the dispenser thereby loses sealing integrity.

In addition an embodiment is conceivable in which, in a socket in the connection of the container, there is provided a barrier to the through-flow of the medium, and that barrier is opened only when a corresponding projection of the container mounting can penetrate
15 sufficiently into that socket.

According to one aspect of the present invention, there is provided a dispensing system for a flowable product from the sanitary, hygiene or care area comprising: at least one dispenser provided with a container mounting and at least one container containing the flowable product, and held upside down in the container mounting after removal of a closure
20 of the container, said container comprising a side provided with a connection having an opening disposed in a plane, and said closure sealing the opening and slidable in the plane in order to free the opening, the closure being removed during displacement of the container in a slide direction, wherein provided on the closure and on the container mounting are guide elements having the same structure, the guide elements of the container mounting
25 supplementing and prolonging the guide elements of the closure when the closed container is placed in front of the container mounting, wherein provided at said side of the container that is provided with the connection is at least one projection projecting forwardly in the slide direction and/or at least one forwardly open socket, and wherein provided on the container mounting is at least one recess or at least one projection respectively corresponding to the at
30 least one projection or to the at least one socket at said side of the container so that the container is able to completely slide into the container mounting.

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Further advantages and particularities will be apparent from the appendant claims which are not repeated hereinbefore and the following specific description.

The invention will now be described in greater detail hereinafter by means of the Figures of the accompanying drawing, without being restricted thereto. In the drawing:

5 Figure 1 shows a perspective view of a closed container according to the state of the art,

Figure 2 shows a section through the uppermost region of the container of Figure 1,

10 Figures 3 and 4 show the uppermost region of the upside down container in section as shown in Figure 2 in opposite relationship to or in connection with a container mounting of a dispenser,

Figure 5 shows a perspective view of the uppermost region of a first embodiment according to the invention of a container in the position of use, without closure,

Figure 6 shows the container mounting of a dispenser, matching the container of Figure 5,

Figure 7 shows a horizontal section through the container mounting of Figure 6 with inserted container,

Figure 8 shows a section taken along line VIII-VIII in Figure 7,

Figures 9 and 10 are views corresponding to Figures 7 and 8 with a container
5 according to the state of the art without socket,

Figure 11 shows a perspective view of the uppermost region of a second embodiment according to the invention of a container in the position of use without closure,

Figure 12 shows the container mounting of a dispenser, matching the container
10 of Figure 11,

Figure 13 shows a horizontal section through the container mounting of Figure 12 with inserted container,

Figure 14 shows a section taken along line XIV-XIV in Figure 13,

Figures 15 and 16 are views corresponding to Figures 13 and 14 with a
15 container according to the state of the art without socket,

Figures 17 and 18 show perspective views of the uppermost regions of a third and a fourth embodiment according to the invention of a container, in each case without closure,

Figure 19 shows a diagrammatic perspective view of a first embodiment of the
20 dispenser for soap or the like,

Figure 20 shows a perspective view of the uppermost region of a fifth and a sixth embodiment according to the invention of a container, inserted into an insert portion of the dispenser,

Figure 21 shows a horizontal section taken along line XXI-XXI in Figure 22,

25 Figure 22 shows a front view of the elements shown in Figure 20,

Figure 23 shows a perspective view of a seventh embodiment of a container with closure,

Figure 24 shows a section through the uppermost region of the container of Figure 25,

30 Figure 25 shows a diagrammatic perspective view of a second embodiment of the dispenser for soap or the like,

Figure 26 shows a section as shown in Figure 8 or Figure 14 through the container mounting with an opened container as shown in Figure 25,

Figure 27 shows a perspective view of a first embodiment of a lower portion of
35 the dispenser of Figure 25,

Figure 28 shows a perspective view of a second embodiment of a lower portion of the dispenser of Figure 25,

Figure 29 shows a plan view of the embodiment of Figure 28 with a closure disposed in the deposit means, without container,

5 Figure 30 shows a part of the perspective view of a third embodiment of a lower portion of the dispenser as shown in Figure 25,

Figures 31 and 32 show a closure and a plan view of a third embodiment of a lower portion of the dispenser of Figure 25 with the closure disposed in the deposit means, without container,

10 Figures 33 and 34 show a closure and a plan view of a fourth embodiment of a lower portion of the dispenser of Figure 25 with the closure disposed in the deposit means, without container, and

Figures 35 and 36 show a closure and a plan view of a fifth embodiment of a lower portion of the dispenser of Figure 25 with the closure disposed in the deposit means, without container.

15 A container 1 comprising soft flexible material, for example thin plastic film, is approximately cuboidal and in a wall provided in particular with a reinforcing plate 13 has an opening 3 provided within a sealingly closable connection 2 or container neck. As Figure 1 shows the reinforcing plate 13 extends over a large part of the area of the wall and with side limbs 14 embraces two oppositely disposed edges of the container 1. Details about such a container 1 and its manufacture are to be found in above-mentioned WO 2008/089500.

20 The container 1 is intended in particular to receive liquid products like disinfectant, shampoo, soap or the like and, as shown in Figures 19 or 25, is fitted upside down into a dispenser 20 so that the wall provided with the reinforcing plate 13 and the connection 2 forms the support side or the container bottom.

As shown in detail in Figure 2 the connection 2 carries a guide element 4 in the form of limbs 5 projecting at both sides as a prolongation of its end face, and a sealing ring 7 projecting slightly from the end face. The closure 10 is in the form of an approximately clip-shaped or C-shaped body which is pushed on from the side, in which case it engages behind the limbs 5 with guide elements 11.

30 The configuration of a sliding guide on the connection 2, that embraces the guide elements 4, 11, simplifies insertion of the container 1 into the dispenser 20, of which further Figures 3, 4, 6 through 10 and 12 through 16 respectively only show the single element that is essential in that respect, namely the container mounting 40 on

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the cover plate 21 of the lower portion. The cover plate has an opening 46 which, when the container 1 is inserted and sealed by the sealing ring 7, aligns with the connection 2 and the opening 3 of the container 1 (Figures 4, 8, 14). As can be seen from the view in Figure 3 the container mounting 40 on the cover plate 20 is of the same structure in regard to the guide elements as the closure 10 and can therefore also engage with its guide elements 41 behind the limbs 5 of the connection 2 when the container 1 is inserted into the container mounting 40. That is indicated in Figure 6 showing the contour of the closure 10 in broken line. The container 1 is therefore applied with the closure 10 to the container mounting 40 in front of the guide device elements 41 and is then inserted by way of the bevel 45 in the direction of the arrow A, in which case the closure 10 becomes free and remains disposed at the application point, as shown in Figure 7.

In order now to ensure that only suitable containers or containers with suitable contents can be fitted into the dispenser, there is provided a coding, that is to say the container and the container mounting must be provided with mutually matching elements. In particular therefore at least one projection 42 is provided at the container mounting 40 and at least one corresponding socket 6, 6' (Figures 5, 11 and 17) is provided at or in the connection 2 of each corresponding container 1, the projection and the socket respectively extending in the slide direction (arrow A) of the container 1. If the correct container is inserted then, as can be clearly seen from Figures 4, 8 and 14, the openings 3 and 46 are aligned. The depth of insertion is limited by the depth of the socket 6 and the length of the projection 42 and by a transverse limb 44 on the container mounting 40. Figure 5 shows the upper region of a container 1 with a connection 2 in which there is provided a central socket 6 into which the central projection 42 shown in Figure 6 engages. The cross-sections and lengths of the socket 6 and the projection 42 are the same. The inserted position in which the openings 5 and 46 are aligned can be clearly seen in the section in Figure 8. The provision of a single central socket 6 is advantageous if only one installation position of the container 1 is wanted. If the aim is that the container 1 can also be inserted turned through 180° then a second central socket 6' is also provided in the connection 2, which is turned through 180° relative to the first, that is to say it is in diametrically opposite relationship, as shown in Figures 7 and 9. In cross-section therefore the connection 2 is of an H-shape. Like each socket 6, 6' in this embodiment the projection 42 has a cross-sectional area which is composed of a rectangle with adjoining triangle. If in spite of two mutually oppositely disposed sockets 6, 6' only one installation position is to be

allowed for the container 1 in the dispenser, the closure 10 which is suited thereto can have a projection which fits into the second socket 6' so that the closure 10 can be opened only towards that side.

Figure 11 shows the upper region of a second embodiment of a container 1. In this variant the socket 6 is provided not centrally but laterally, and therefore a corner region of the connection 2 is missing. Here too a second socket 6' is preferably arranged turned through 180°, as can be seen from Figure 13.

Figure 12 shows the associated container mounting 40 in which the projection 42 is also provided off-center in the corner region. The socket 6 and the projection 42 in this embodiment are of a trapezoidal cross-sectional area. Figure 13 shows a horizontal section through the connection 2 of the container 1 fitted into the container mounting, in which case by virtue of the socket 6 the connection 2 can be inserted as far as the abutment 44 so that the openings 3, 46 are aligned. That is again visible in the section in Figure 14.

The insertion of an incorrect conventional container corresponding to Figures 9 and 15 without socket is practically out of the question since, as Figures 10 and 16 show, it can admittedly be inserted over a short distance, but the openings 3 and 46 are so displaced that no through-flow is achieved.

In the two embodiments shown in Figures 5 and 11 the sockets 6, 6' are provided on the connection 2 below the limbs 5 of the sliding guide, which thus extend over the entire depth or length. In the Figure 17 embodiment the socket 6 extends over the entire height of the connection 2 so that one of the two limbs 5 is shortened. As more than half of the limb remains neither the sealed seat of the closure 10 on the connection 2 nor the seat of the connection 2 in the container mounting 40 is adversely affected.

As Figure 18 shows it is also conceivable for the socket 6 to be produced by breaking off at least one tab 9 which is held to the connection 2 by way of intended breaking lines 8.

In order to be able only later to establish the different coding options upon manufacture of the dispenser the projection 42, the guide elements 41 and the transverse limb 44 are advantageously provided on an insert portion 43 which can be arranged in matching relationship with the containers to be used with that dispenser, in the cover plate 21 of the lower portion of the container 1.

The above-described embodiments afford protection in particular against the insertion of conventional containers of different manufacturers as the projection in the

container mounting means that recesses and sockets are required on the container, which as far as possible cannot be subsequently provided.

Reversal of the elements, namely a socket or a recess in the container mounting and a corresponding projection on the connection also represents a coding option in relation to a sliding closure. Such a configuration is desirable in particular when it is only a confusion of products from the same manufacturer, which in particular are not to be mixed up, that is to be excluded, as a conventional container without projection also fits into the container mounting. Such an embodiment is not shown in the Figures. Rather, Figures 20 through 22 show a hybrid form in which projections and sockets are provided both on the container 1 and also on the container mounting 40.

The container 1 (indicated in Figure 22) again has a reinforcing plate 13 which with the oppositely disposed limbs 14 embraces two container edges. Each limb 14 has between one and six holes which form sockets 6 belonging to the container 1 and into which between one and six projections 42 can pass upon insertion of the container 1 into the container mounting 40 or its insert portion 43.

In accordance with the rules of combinatorics it is possible to derive therefrom a relatively large number of possible options, each of which is then associated with a given product. Figure 20 shows for example two such projections 42.

Figures 20 through 22 further also show projections 12 in the form of limbs which project from connections 2 in the slide direction (arrow A) and penetrate into a corresponding orientation or socket 6 or a corresponding recess on the container mounting 40 when the container 1 is inserted. In addition arranged on the reinforcing plate 13 are limbs 15 which extend in the slide direction approximately over the second half of the slide travel distance until they come to bear against the projection, which is visible in Figures 21 and 22, of the inset portion 43, in the form of an abutment 47. In that end position the connection 2 bears against the transverse limb 44 while the projection 12 has passed into the socket 6 and the opening 3 aligns with the opening 46 (not shown in these Figures) in the container mounting 40. The abutment 47 is provided only at the left-hand side in the drawing and the second limb 15 provided at the right-hand side of the connection 2 does not impede insertion as an abutment 47 is missing at that side and a recess is thus also provided there. A container mounting 40 with an insert portion 43 as shown in Figures 20 through 22 prevents the insertion of conventional containers only by the projections 42 and the socket 6 in the region of the upstanding limbs 14 as no projections are provided, which require sockets on or in the

connection 2. Abutments 47 on the insert portion 43 or on the container mounting 40 itself as well as limbs 12 or 15 on the connection and the reinforcing plate 13 serve primarily to associate given products with given dispensers.

Figure 23 shows a perspective view of a second embodiment of a container 1, on to the connection 2 of which there is pushed a closure 10 provided with a coding. The closure 10 shown in a number of configurations in Figures 23 through 34, as in the embodiments shown in Figures 1 through 22, includes an approximately C-shaped body with limbs 11 which engage behind limbs 5 on the connection 2 and has a top side 19 parallel to the plane of the container opening 3, two side surfaces 17 disposed in the slide direction (arrow A) of the container 1 and two side surfaces 18 perpendicular thereto.

Figures 23 through 30 show closures 10 which in at least one of the two side surfaces 17 have a recess 16 serving as coding, in the form of a groove. In Figures 23 through 29 the groove 16 extends perpendicularly to the plane of the container opening 3 while in Figure 30 it extends inclinedly forwardly. As can be seen from Figure 24 the depth of the groove preferably corresponds to the wall thickness so that the limb 5 of the connection 2 is exposed or is not cut out. As counterpart elements in relation to the recess 16 it is possible to see corresponding projections 24 in the form of noses or limbs on the dispenser immediately in front of the container mounting 40. As can be seen from Figure 25 the region of the cover 21 of the lower portion of the dispenser 20 is provided with a depression into which two projections 24 project. A container 1 as shown in Figure 23 can now be introduced into the position in front of the container mounting 40 either horizontally from the side (Figure 27), vertically from above (Figures 28 and 29) or inclinedly from above (Figure 30). That signifies an at least approximately or precisely L-shaped travel path shown by the two arrows B and A.

In Figure 27 the L-shaped path is parallel to the plane of the container opening 3 and to the plane of the opening 46 of the container mounting 40 and the closure 10 shown in Figure 27 - the container is not shown for the sake of clarity - moves over the first path portion corresponding to the arrow B into the chamber forming the deposit means 23 in front of the container mounting 40, in which case the projection 24 passes into the recess 16 when the two coding elements are identical. The deposit means 23 is deeper than the container mounting 40 by the thickness of the top side of the closure 10 so that the container can be further displaced in the direction of the arrow A, wherein the closure 10 remains disposed in the deposit means 23 and the medium

contained in the container 1 can flow away through the openings 3 and 46 into the lower portion of the dispenser 20.

The deposit means 23 is defined by limbs 22 so that it receives the closure 10 in positively locking relationship. As a result the container 1 is moved on to the closure 10 again upon removal in opposite relationship to the slide direction (arrow A) and is then removed in a condition of again being closed in opposite relationship to the arrow B from the dispenser. The container 1 can therefore also be exchanged while still partly filled without a partial quantity of its contents being lost.

Referring to Figure 28 the closed containers are lowered vertically from above (arrow B) and the closure 10 is again in the deposit means 23, as shown in Figure 29, and the container can then be inserted into the container mounting 40 (arrow A).

Figure 30 shows the inclined arrangement of the coding elements 16 and 24 and thus also the inclined direction (arrow B) of insertion into the deposit means 23. The second part of the travel path is again indicated by the arrow A into the container mounting 40.

Figures 27, 28 and 30 each show a perspective view illustrating the lower portion of a dispenser 20 with the cover plate 21 on which the container mounting 40 and an insert portion 43 corresponding to Figures 20 through 22 is provided. The only difference is the transverse limb 44 which is continuous over the width so that the container to be used here is without projections. Likewise, the abutment 47 is missing, in comparison with the configuration shown in Figures 20 through 22.

Figures 31 and 32 show a closure 10 on which recesses 16 are provided in the narrow side surfaces 18, wherein recesses are optionally also possible in the side surfaces as shown in Figure 23.

The closure 10 shown in Figures 31 and 32 can only be introduced from above into the deposit means 23 so that insertion from the side, as shown in Figure 27, is not possible. The other two options shown in Figures 28 and 30 can also be implemented with the closure 10 of Figure 31. The closed container is inserted between the defining limbs 22 which project up from the cover plate 21, into the deposit means 23 adjoining the container mounting 40, the projections 24 passing into the recesses 16 (Figure 32). The container is now further pushed into the container mounting 40, with the closure 10 remaining in the deposit means 23. If the container 1 is to be replaced when empty or when still partially filled it is moved back again into the deposit means 23, in which case the closure 10 which is locked in that direction by the defining limb 22 is again pushed

on to the connection 2 and sealingly closes the container. Subsequently the closed container is removed.

In this embodiment also a number of coding options are afforded by a variation in the projections 24, in the region of the deposit means 23 for the closure 10. The
 5 projections 24 project from the edge of the container mounting 40 and engage into the recess 16 at the side surface 18 of the closure 10. The closure 10 again remains in the deposit means 23 when the container 1 is pushed into the container mounting 40.

Figures 33 through 36 show coding elements at the top side 19 of the closure 10, in which respect as shown in Figure 33 the recesses 16 are in the form of
 10 cylindrical depressions, possibly also holes, while in Figure 35 they are in the form of cylindrical projections 26. The corresponding counterpart portions are provided in the bottom surface of the deposit means 23, that is to say as shown in Figure 34 the projections 28 shown in broken lines project there in the form of cylindrical knobs or the like and in Figure 36 depressions 25 are in the form for example of cylindrical blind
 15 holes in the cover 21.

Projections 24, 27, 28 (limbs, noses, knobs and so forth) projecting into the deposit means 23 allow holes in the cover plate 21, which are covered over by the projections 24, 27, 28, to explain tamper protection. If those projections of the deposit means 23 are removed in order to be able to insert for example containers 1 as shown
 20 in Figure 1 without a recess 16 in the closure 10 then those holes are exposed.

Preferably provided in the dispenser 20 beneath the cover 21 is a chamber (in particular an intermediate container, a pump chamber or the like), into which the liquid flows out of the container 1 fitted into the container mounting 40 (Figure 19) and which loses sealing integrity due to the removal of the projection 24.

In Figures 29 and 32 the closure 10 is sectioned in each case parallel to the
 25 plane of the container opening 3 whereby engagement of the projections 24 into the recess 16 is more clearly apparent. The section plane extends directly beneath the limbs 11 of the closure 10.

The section planes in Figures 34 and 36 are in the same position, the closure
 30 10 not being shown in Figure 36.

In Figures 28 and 30 the projections 24 projecting into the deposit means 23 are subdivided horizontally whereby a second projection 27 remains at the bottom of the deposit means 23, and that projection, as mentioned above, exposes a hole in the cover when it is removed.

CLAIMS:

1. A dispensing system for a flowable product from the sanitary, hygiene or care area comprising:
 - 5 at least one dispenser provided with a container mounting and
at least one container containing the flowable product, and held upside down in the
container mounting after removal of a closure of the container,
said container comprising a side provided with a connection having an opening
disposed in a plane, and
 - 10 said closure sealing the opening and slidable in the plane in order to free the opening,
the closure being removed during displacement of the container in a slide direction,
wherein provided on the closure and on the container mounting are guide elements
having the same structure, the guide elements of the container mounting
supplementing and prolonging the guide elements of the closure when the closed
 - 15 container is placed in front of the container mounting,
wherein provided at said side of the container that is provided with the connection is
at least one projection projecting forwardly in the slide direction and/or at least one
forwardly open socket, and
wherein provided on the container mounting is at least one recess or at least one
 - 20 projection respectively corresponding to the at least one projection or to the at least
one socket at said side of the container so that the container is able to completely
slide into the container mounting.
2. A dispensing system as set forth in claim 1 wherein the guide elements, the at least
25 one recess and/or the at least one projection of the container mounting are provided on
an exchangeable insert portion which is held in a cover plate of a lower portion of the
dispenser.
3. A dispensing system as set forth in claim 1 wherein provided in front of the container
30 mounting is a depression in a cover plate in line with the container mounting as a
deposit means for the closure.

4. A dispensing system as set forth in claim 2 wherein provided in front of the container mounting is a depression in the cover plate in line with the container mounting as a deposit means for the closure.
- 5 5. A dispensing system as set forth in claim 1 wherein the at least one projection and/or the at least one socket is provided on the connection of the container.
6. A dispensing system as set forth in claim 5 in which the connection of the container has limbs projecting at both sides as guide elements for the closure, wherein one of the two
10 limbs is shorter than the closure in the slide direction, providing a socket of the at least one socket provided on the connection of the container.
7. A dispensing system as set forth in claim 6 wherein a tab which is attached to the connection by way of an intended breaking location is arranged so that it can be broken
15 off to form the socket.
8. A dispensing system as set forth in one of claims 1 through 7 wherein depth of the at least one socket is equal to an internal width of the opening in the slide direction.
- 20 9. A dispensing system as set forth in one of claims 1 through 8 wherein the at least one socket is covered over by the closure.
10. A dispensing system as set forth in claim 5 in which the connection of the container has limbs projecting at both sides as guide elements for the closure, wherein one of the two
25 limbs is longer than the closure in the slide direction, providing a forwardly protruding projection of the at least one projection provided on the connection of the container.
11. A dispensing system as set forth in one of claims 1 through 10 wherein provided on the connection is at least one projection projecting rearwardly in the slide direction and/or
30 at least one rearwardly open socket.
12. A dispensing system as set forth in claim 11 wherein the closure is provided with at least one projection engaging into the at least one rearwardly open socket.

13. A dispensing system as set forth in one of claims 1 through 12 further comprising at least one projection and/or at least one socket provided at at least one upstanding limb of a U-shaped reinforcing plate of the container, that carries the connection and embraces the container at oppositely disposed edges.
- 5 14. A dispensing system as set forth in claim 13 wherein the at least one upstanding limb extends perpendicularly to the slide direction and the at least one socket provided at the at least one upstanding limb is in the form of a hole.
- 10 15. A dispensing system as set forth in one of claims 1 through 14 wherein the opening is surrounded by a compressible sealing ring which projects slightly at an end of the connection.

Fig. 1

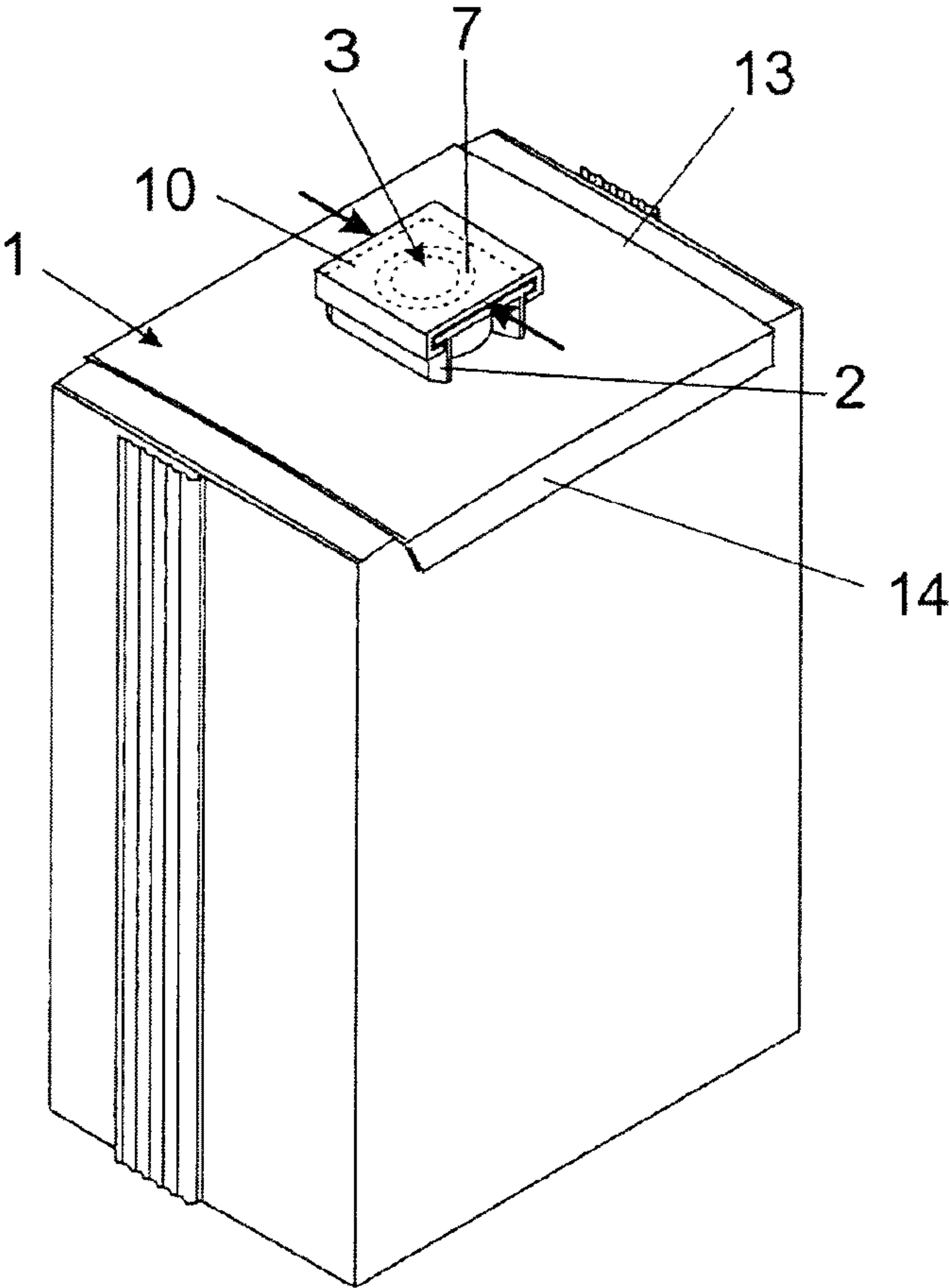
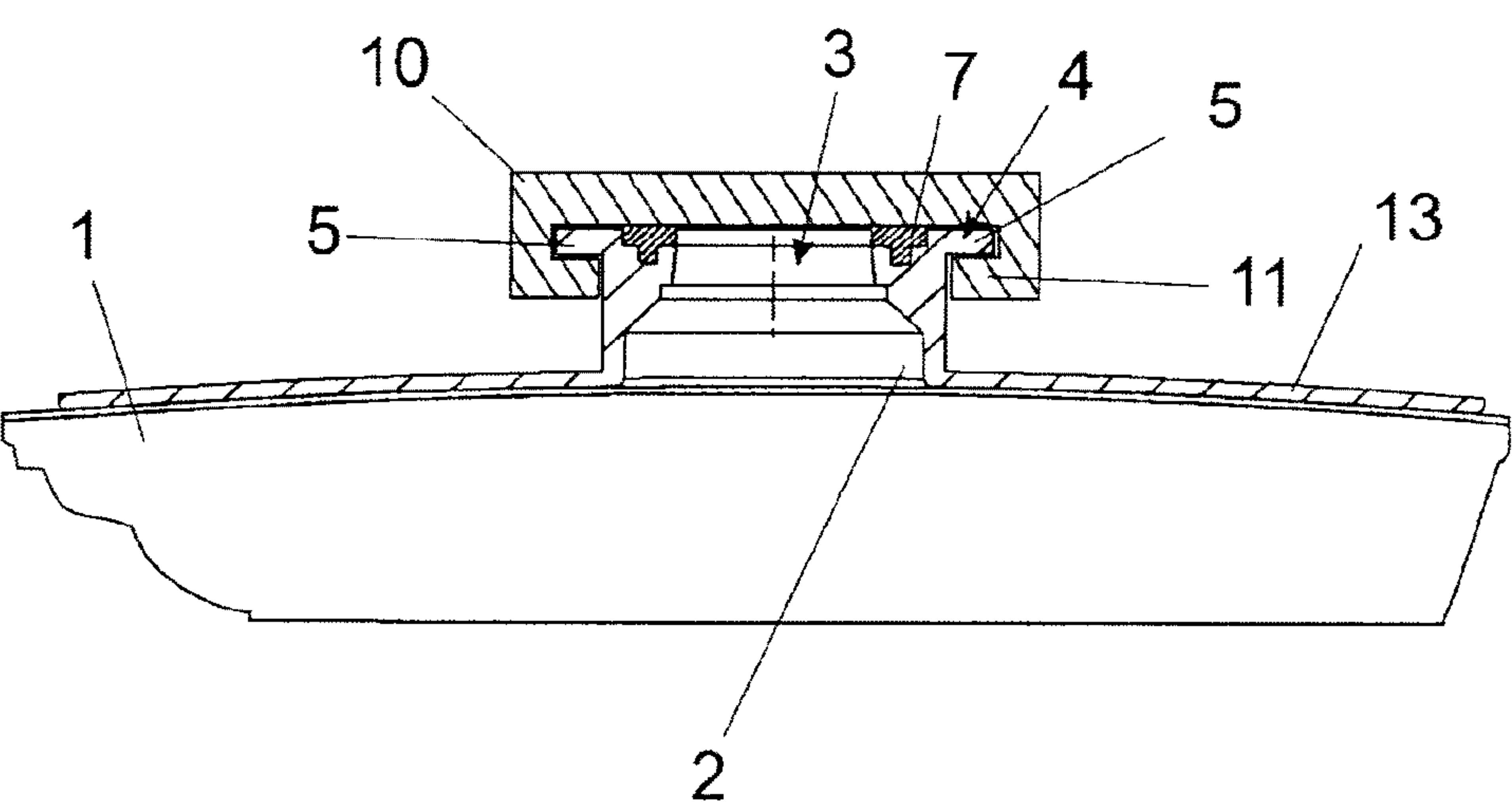


Fig. 2



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Fig. 3

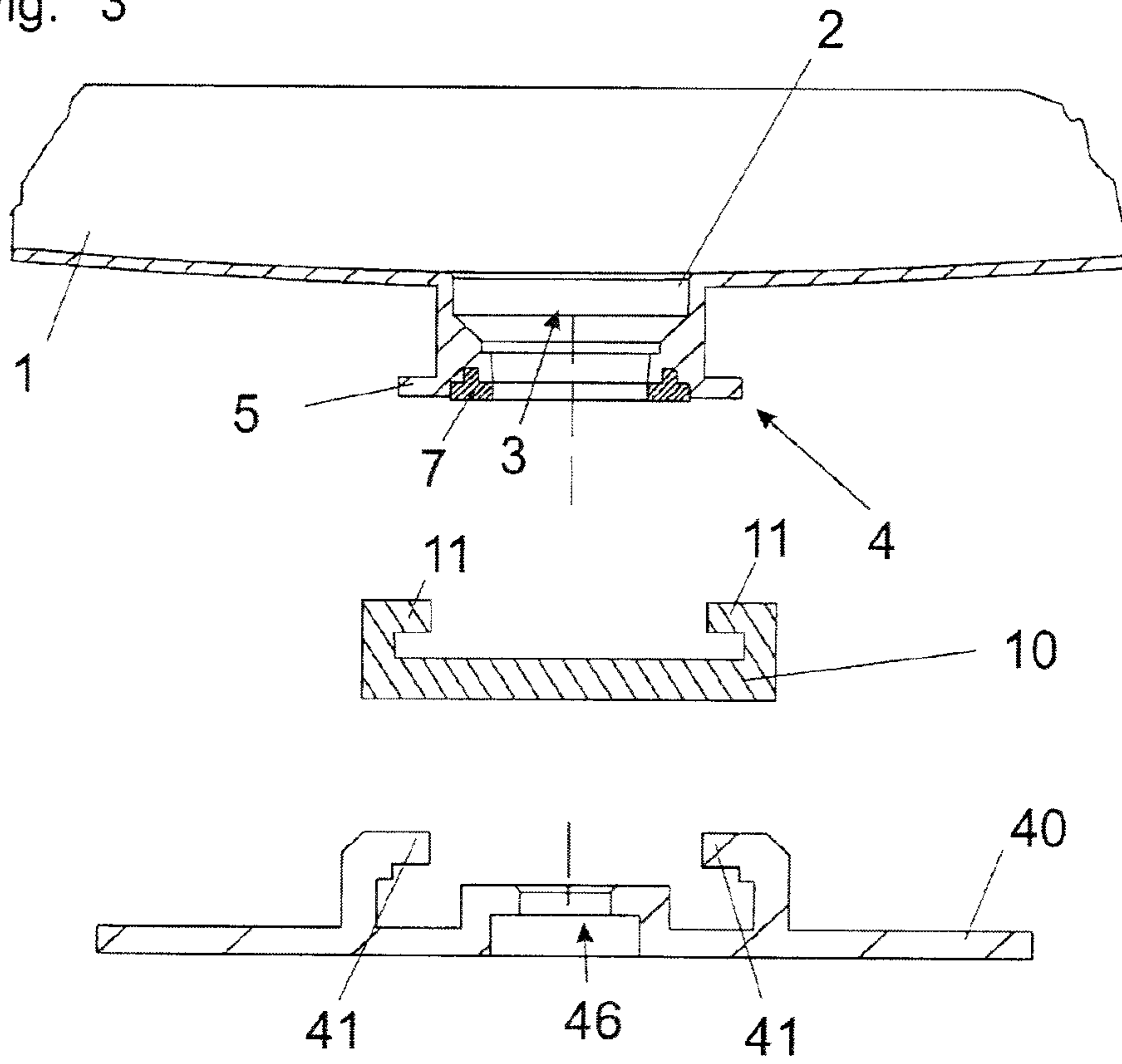
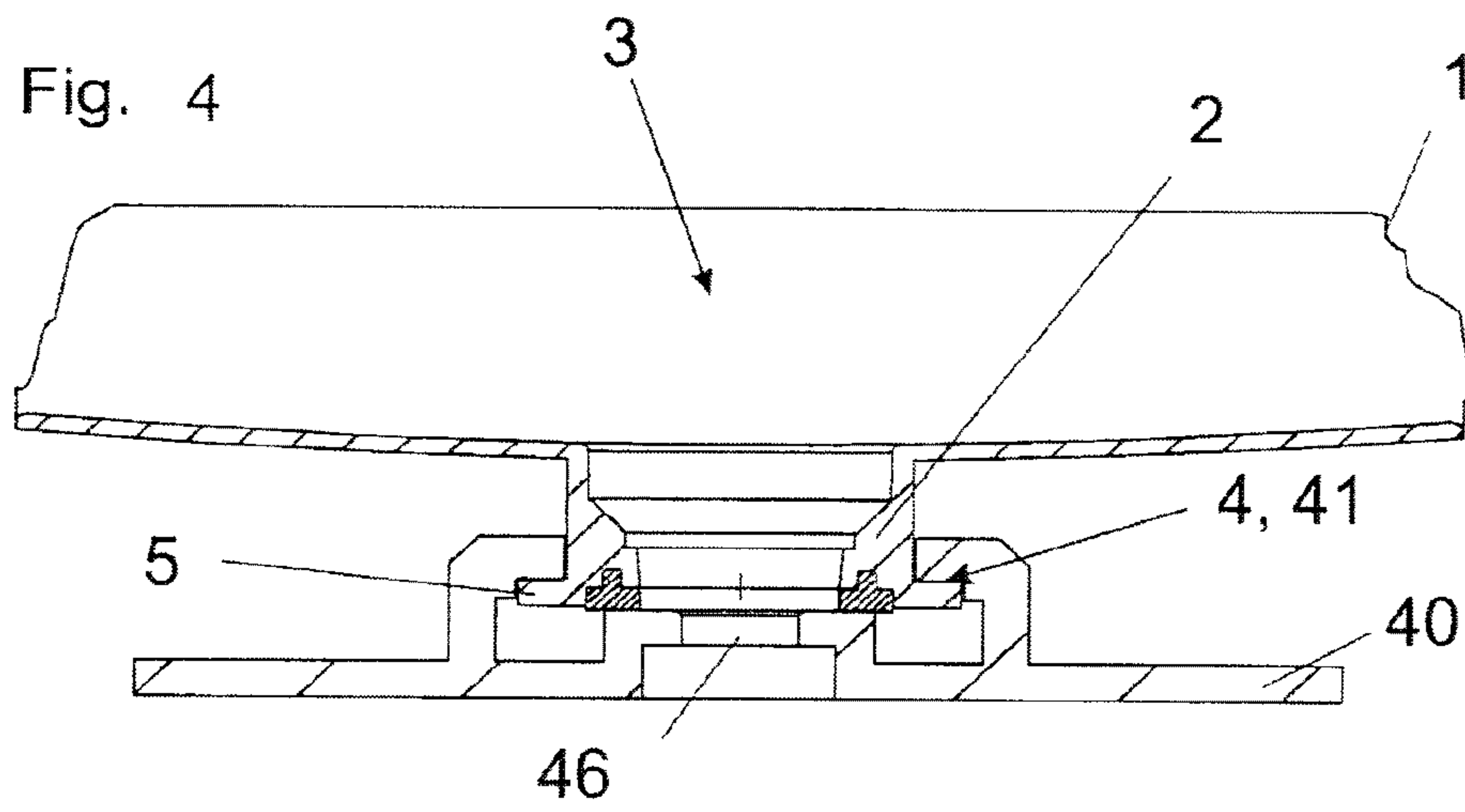


Fig. 4



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Fig. 5

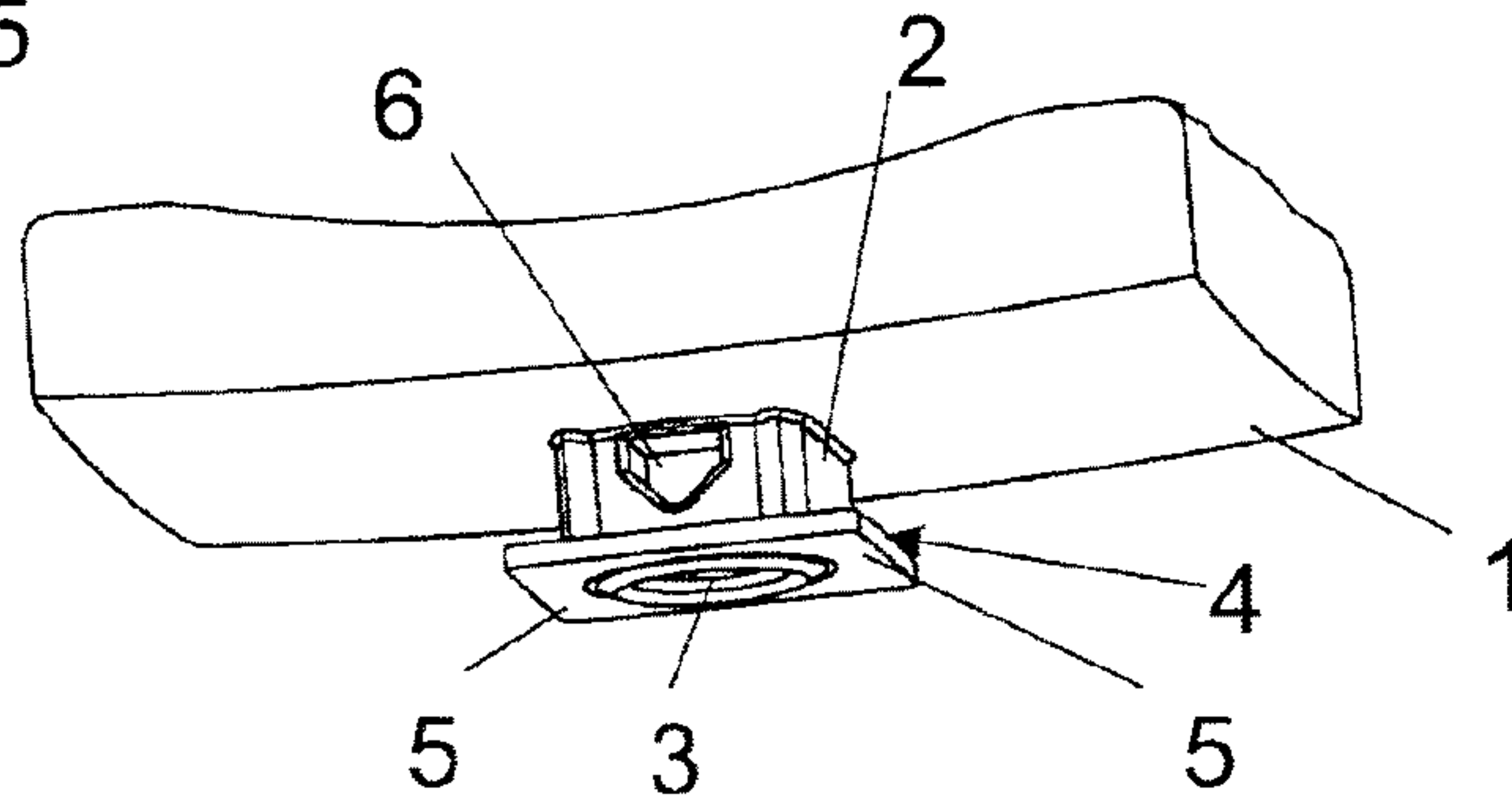


Fig. 6

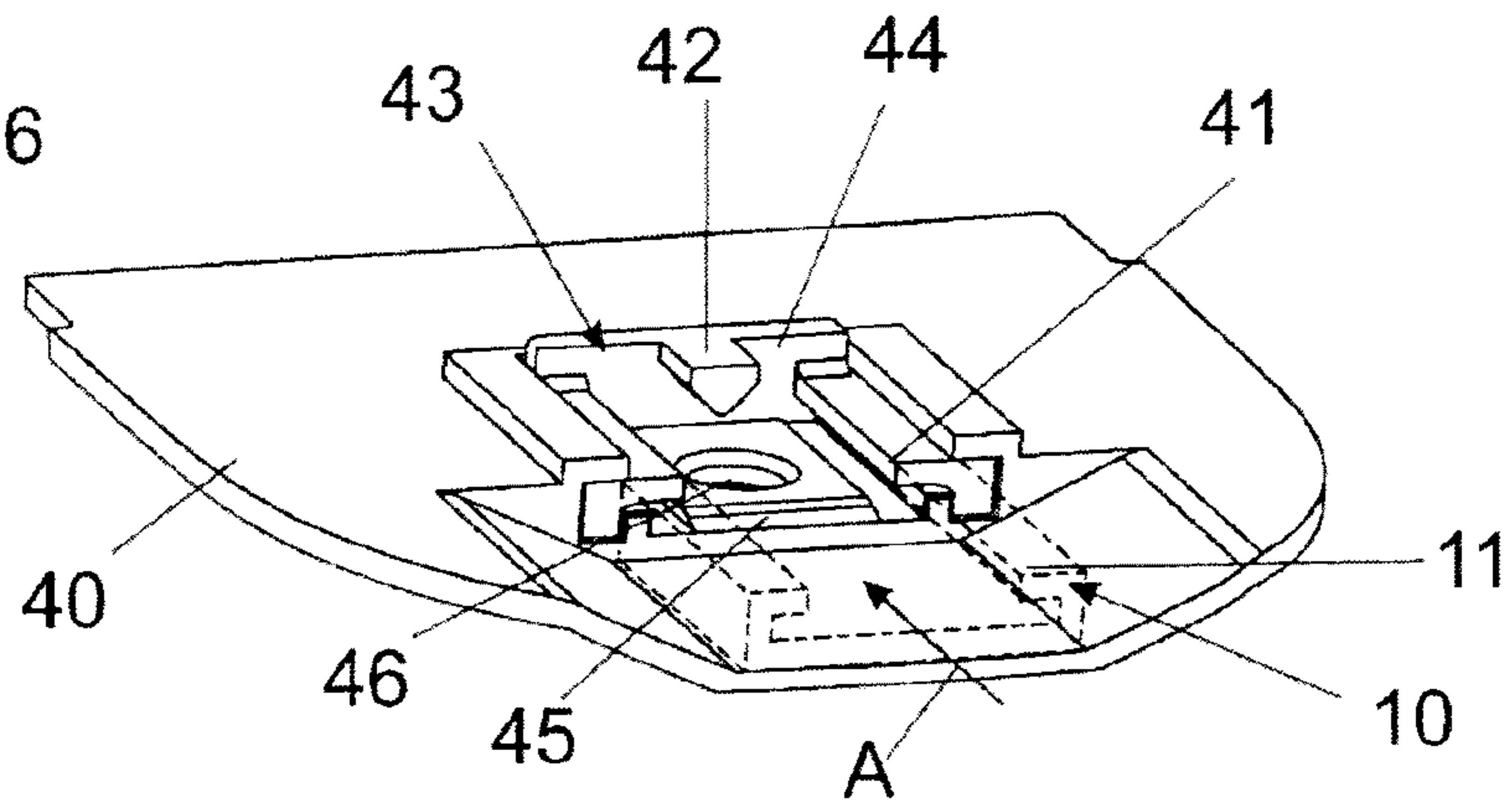
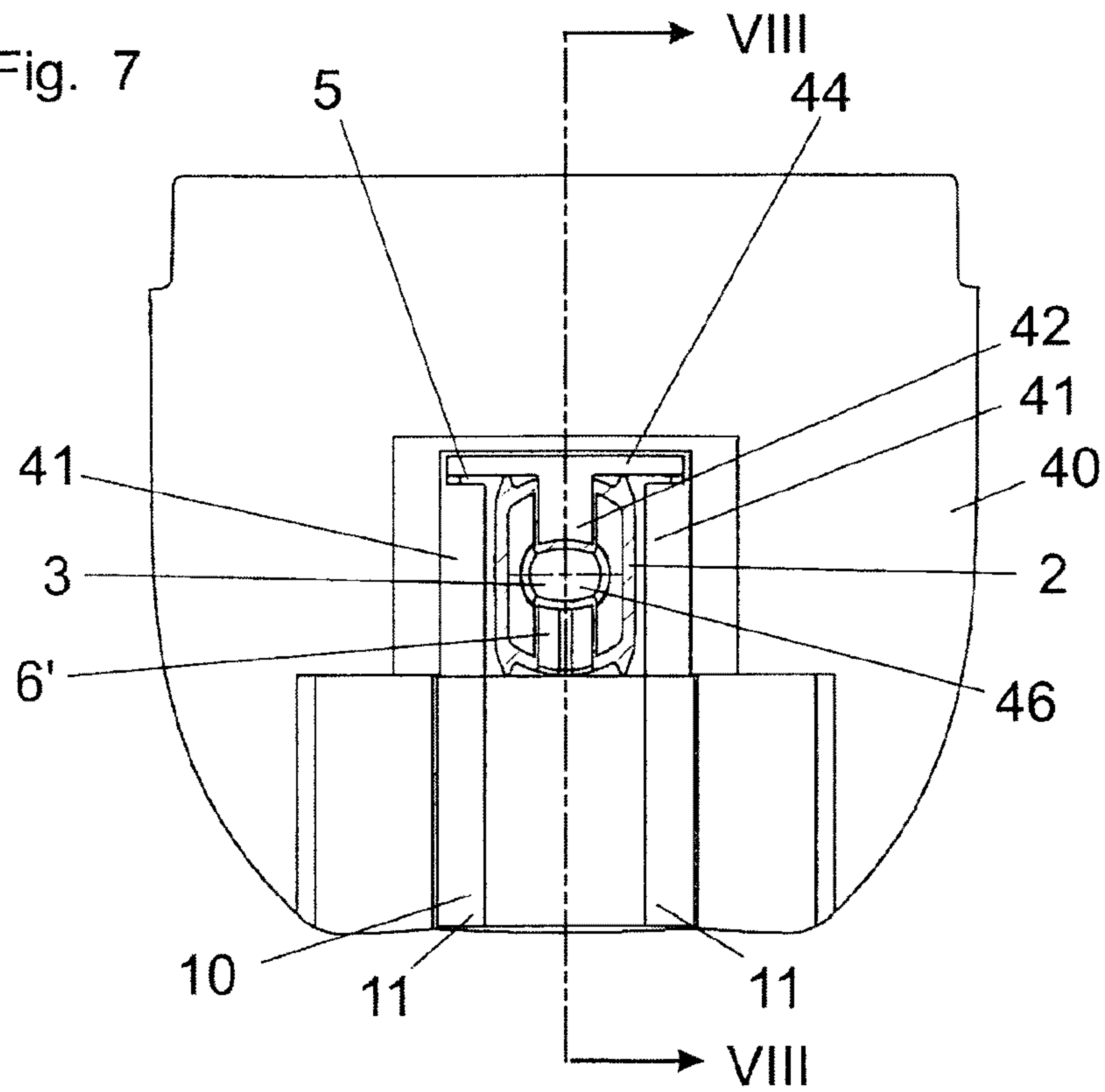


Fig. 7



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Fig. 8

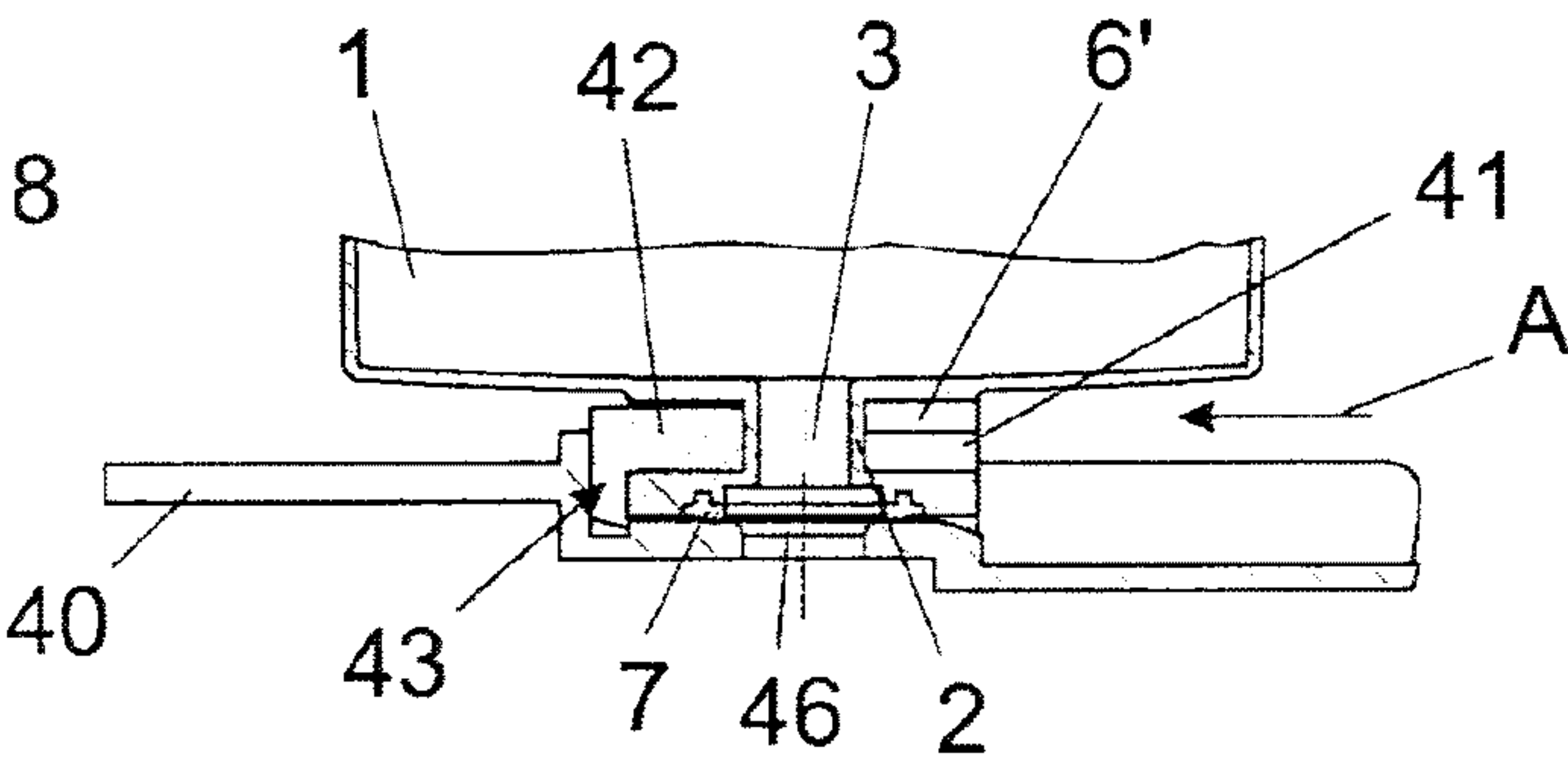


Fig. 9

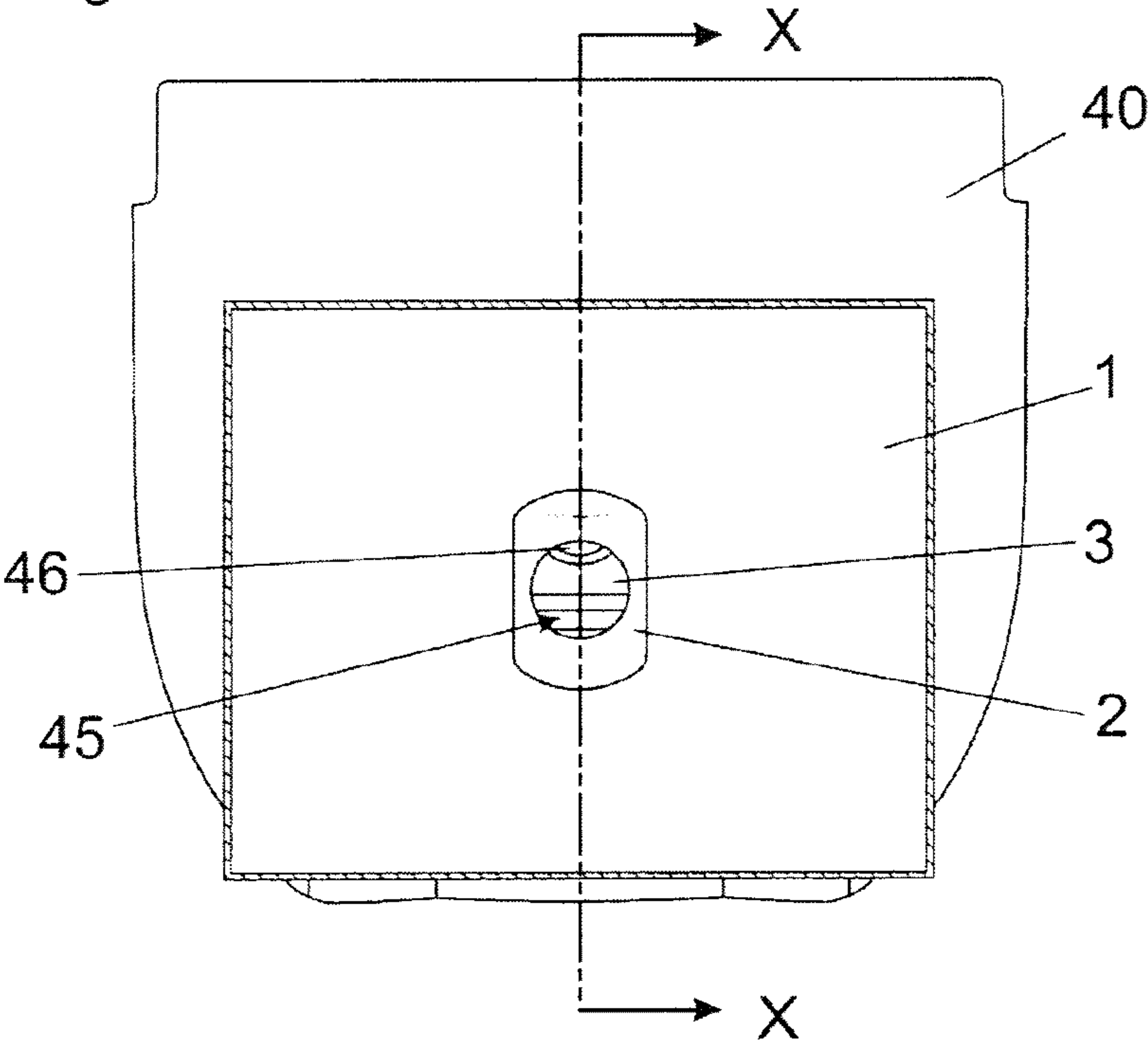
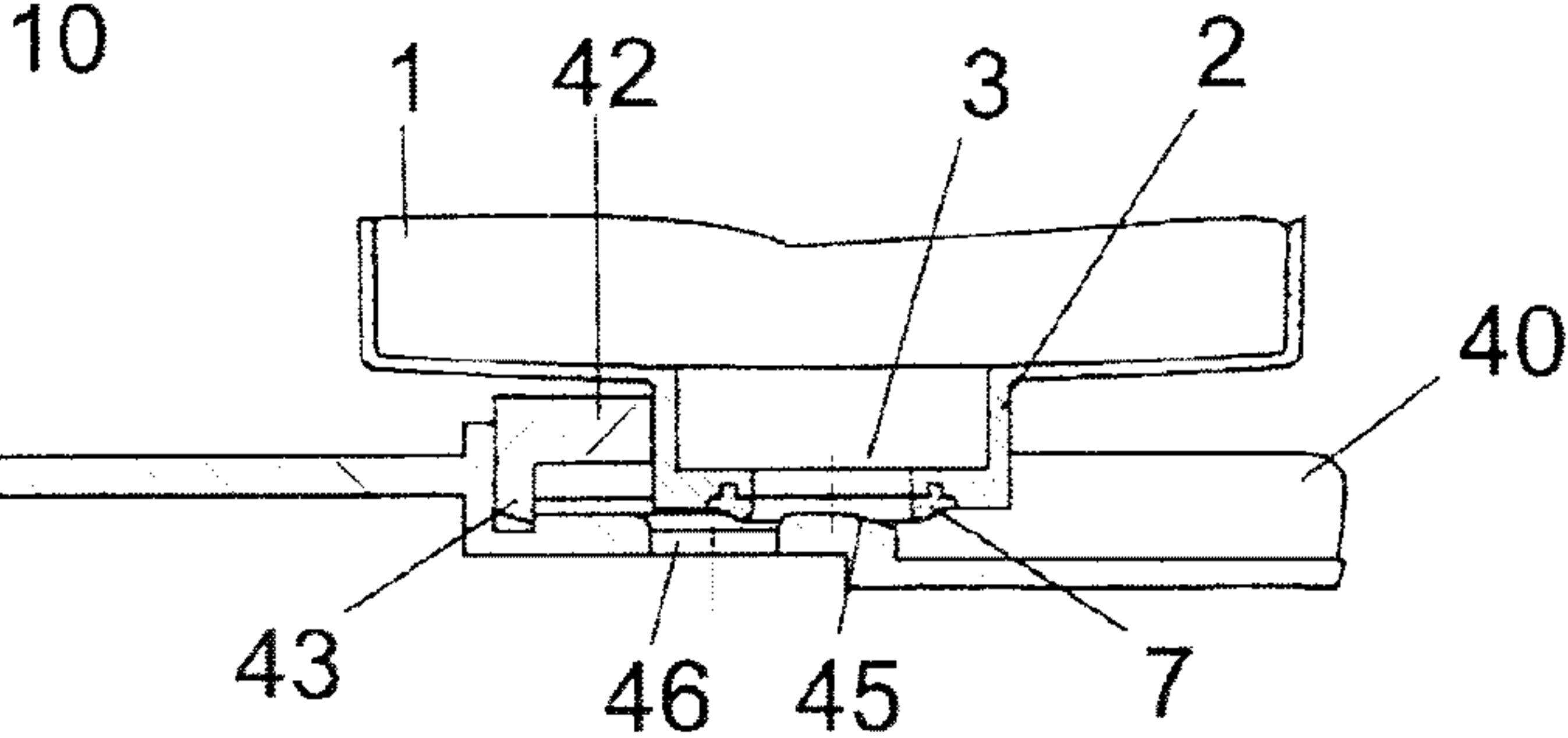


Fig. 10



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Fig. 11

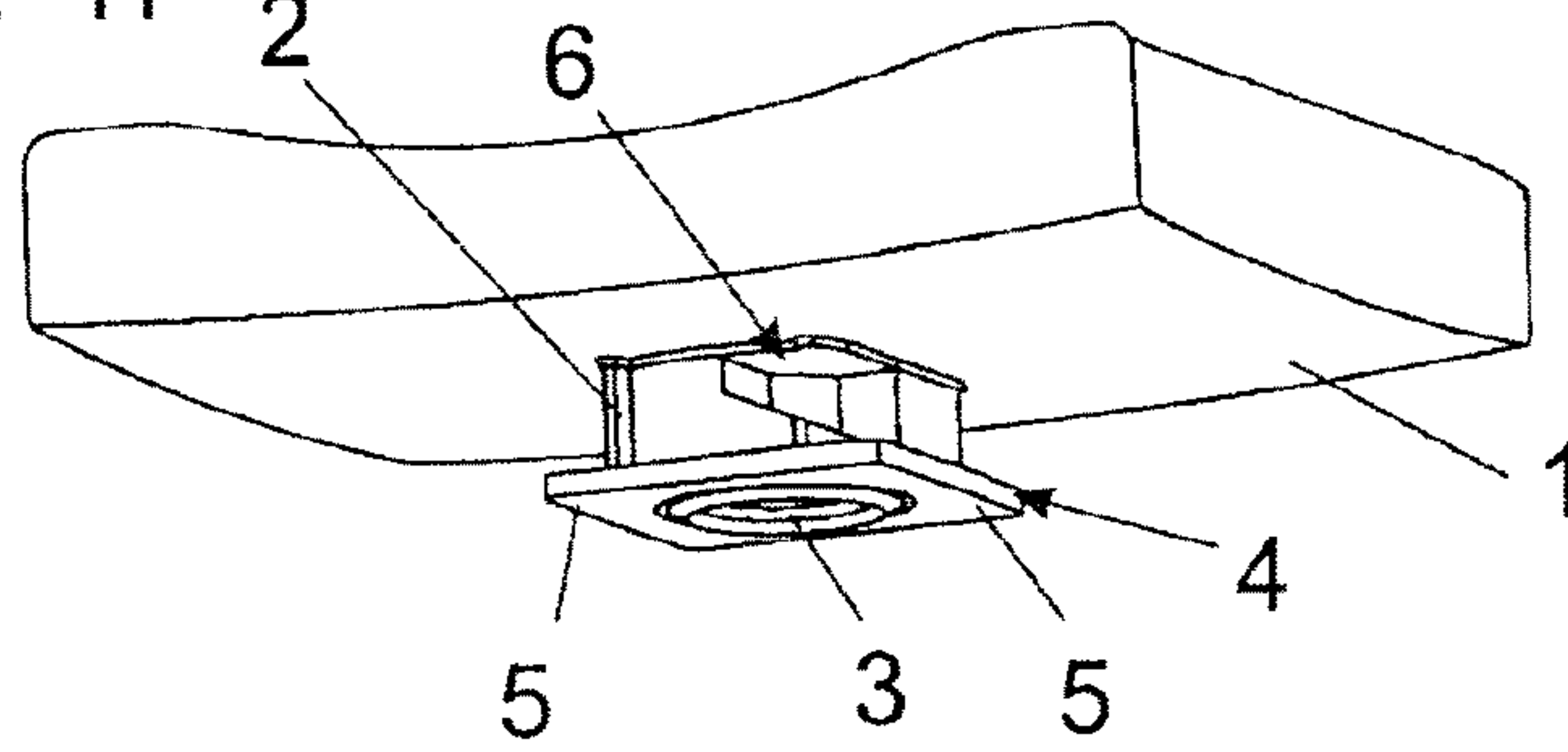


Fig. 12

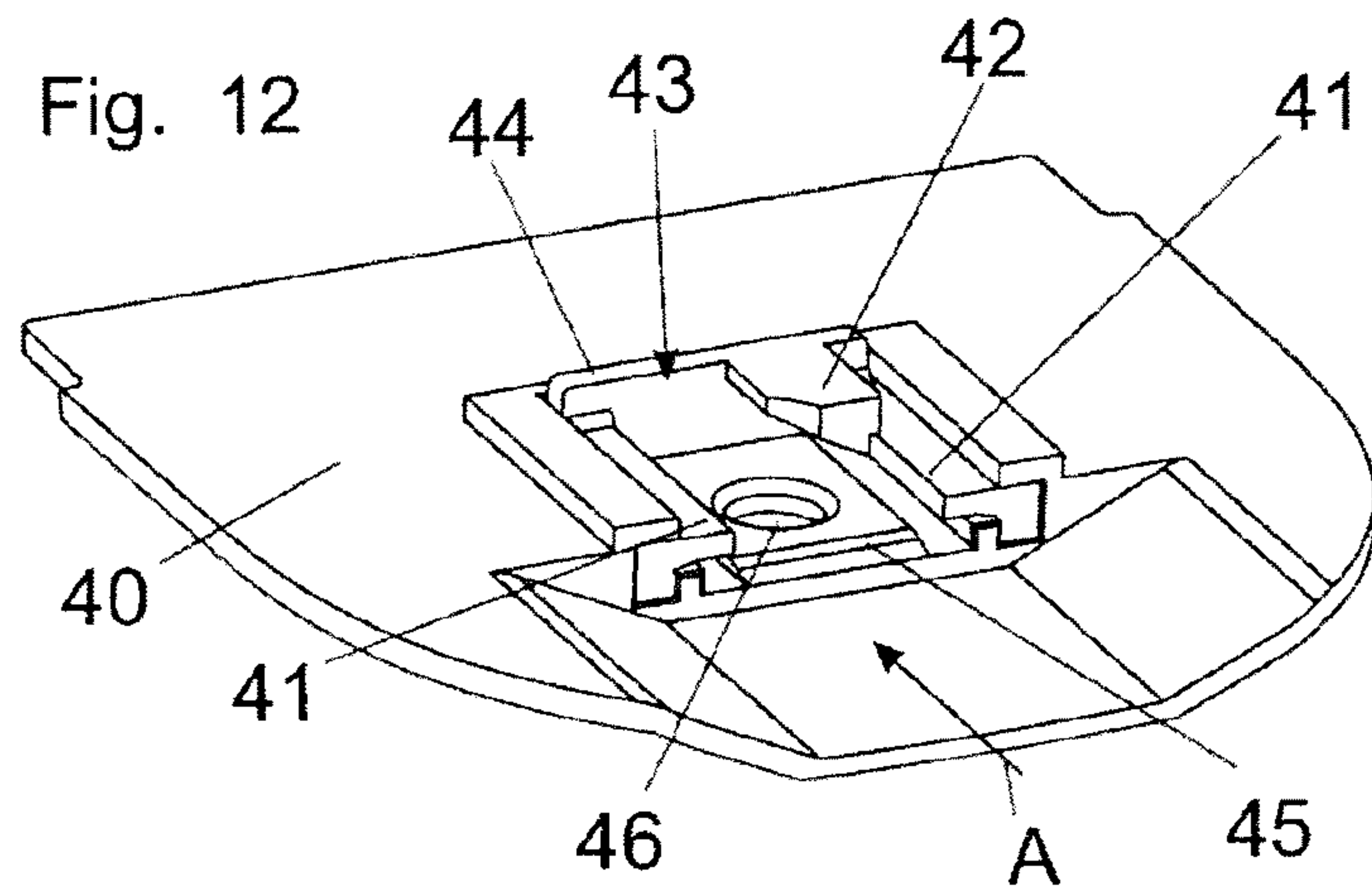


Fig. 13

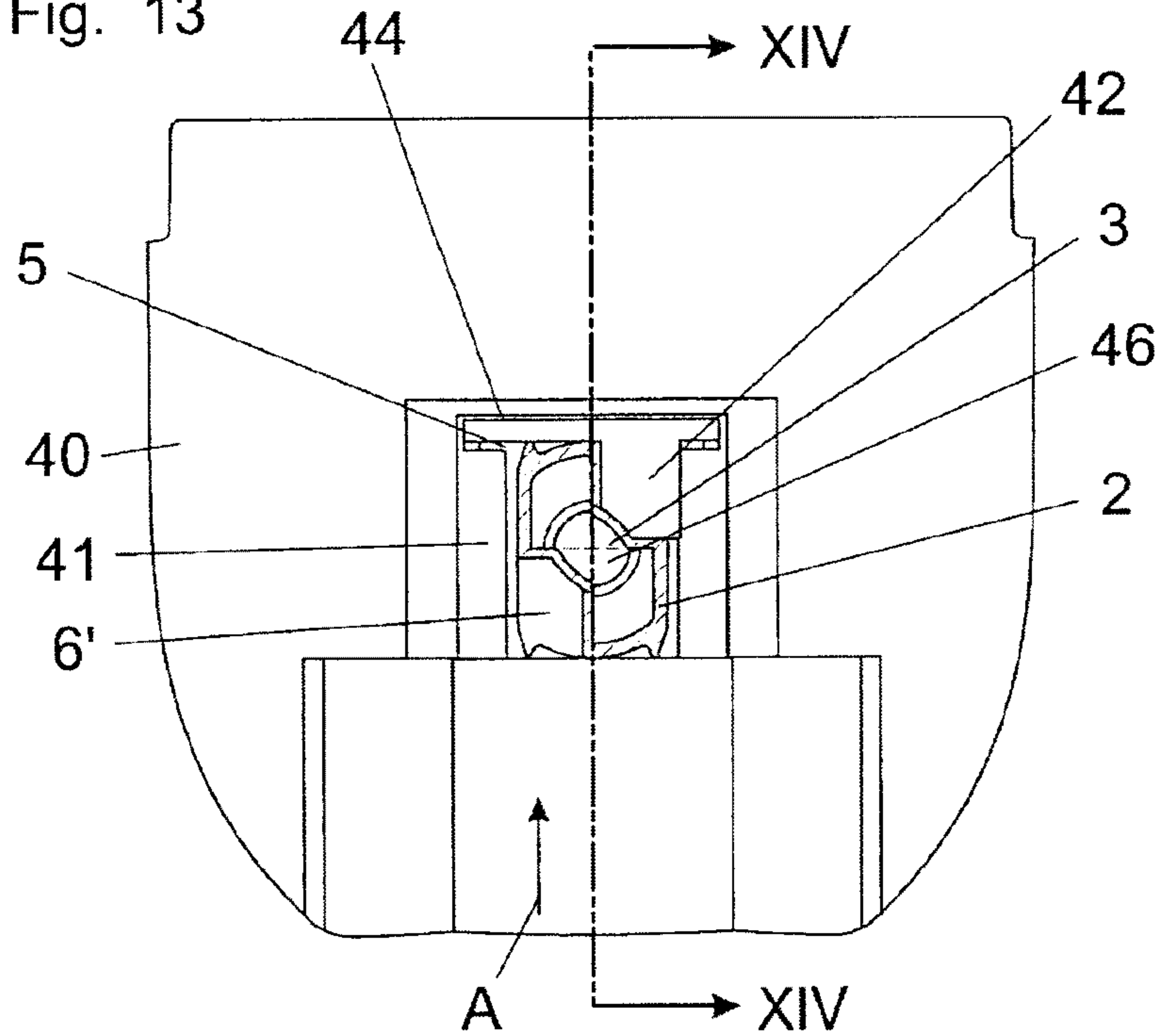


Fig. 14

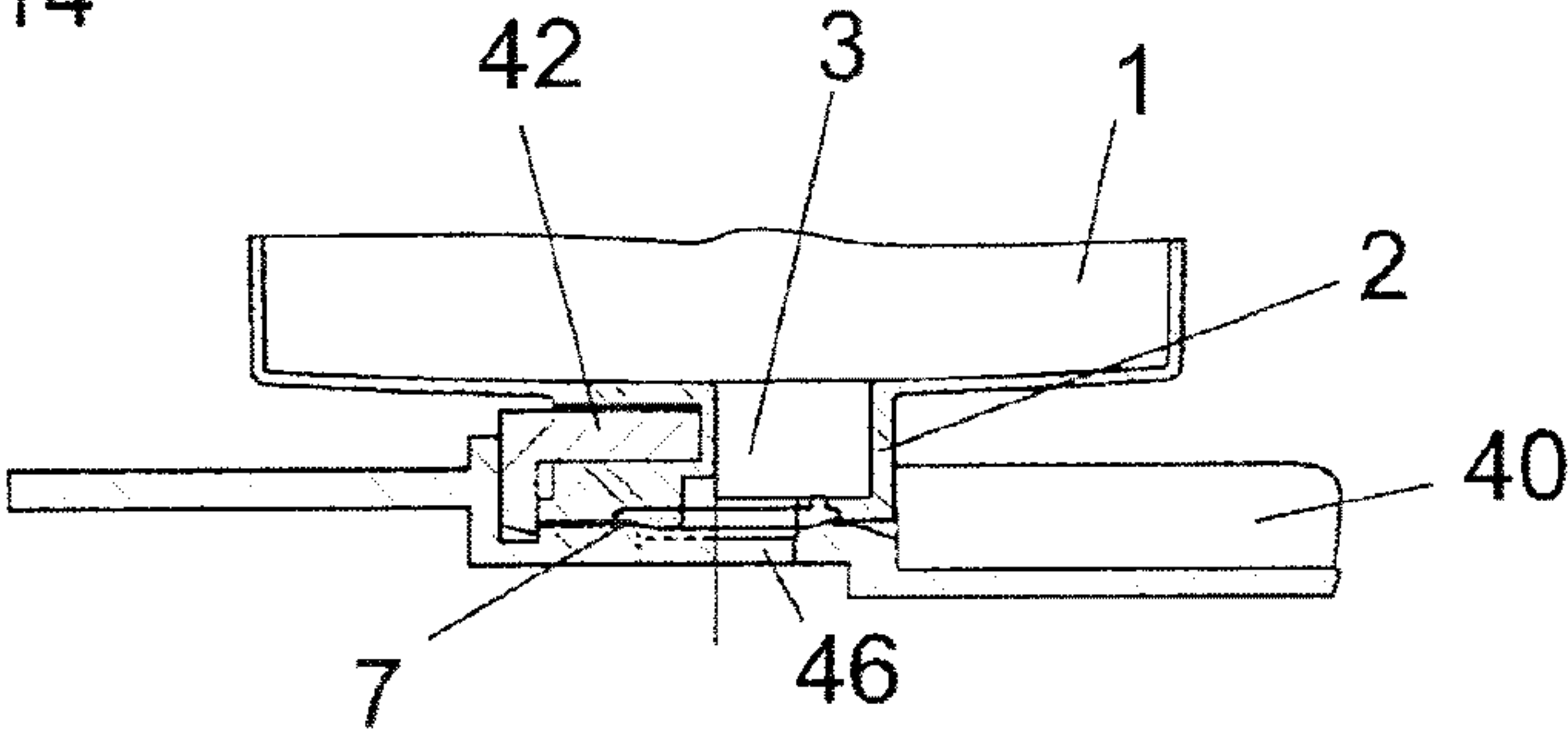


Fig. 15

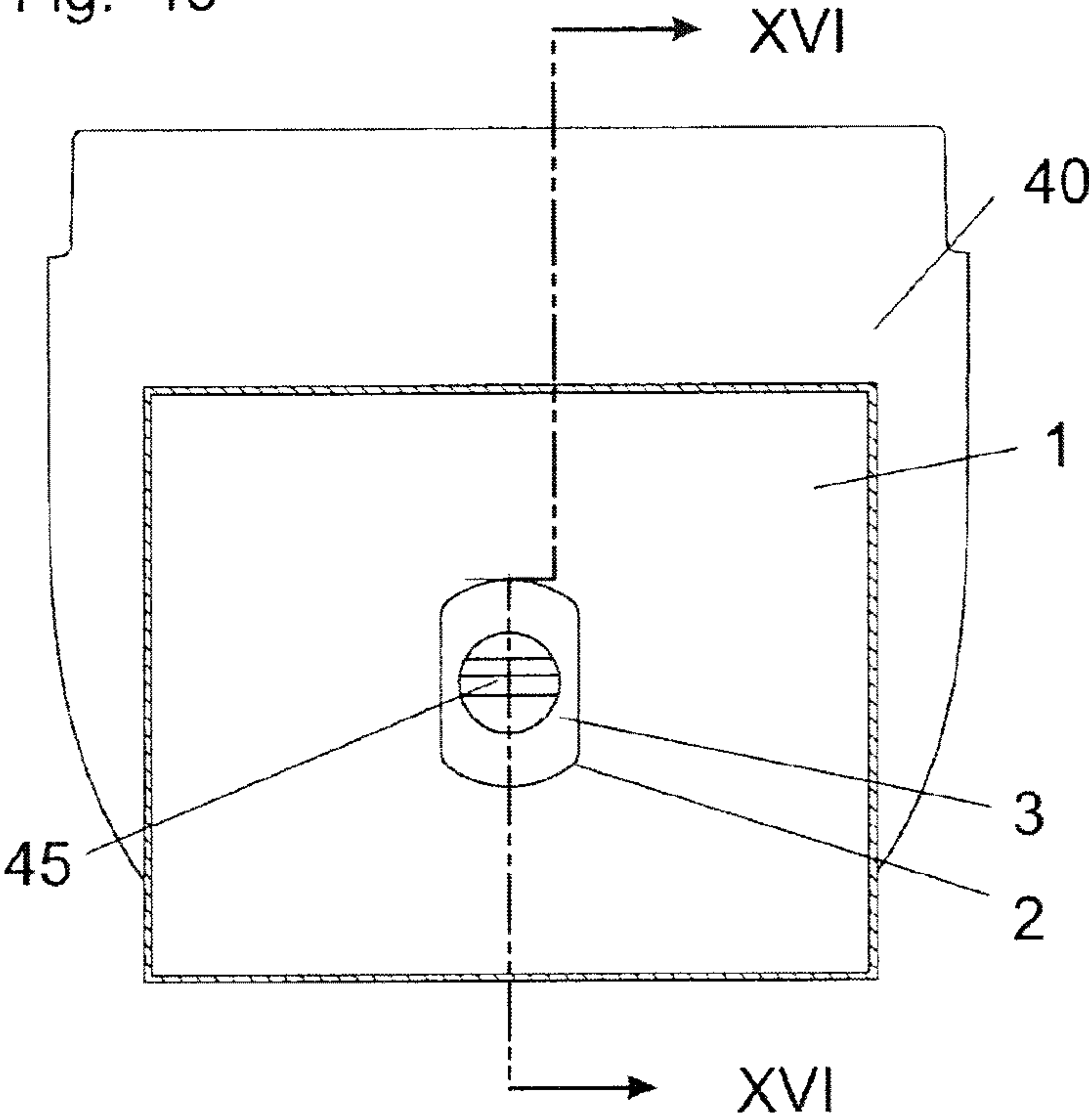


Fig. 16

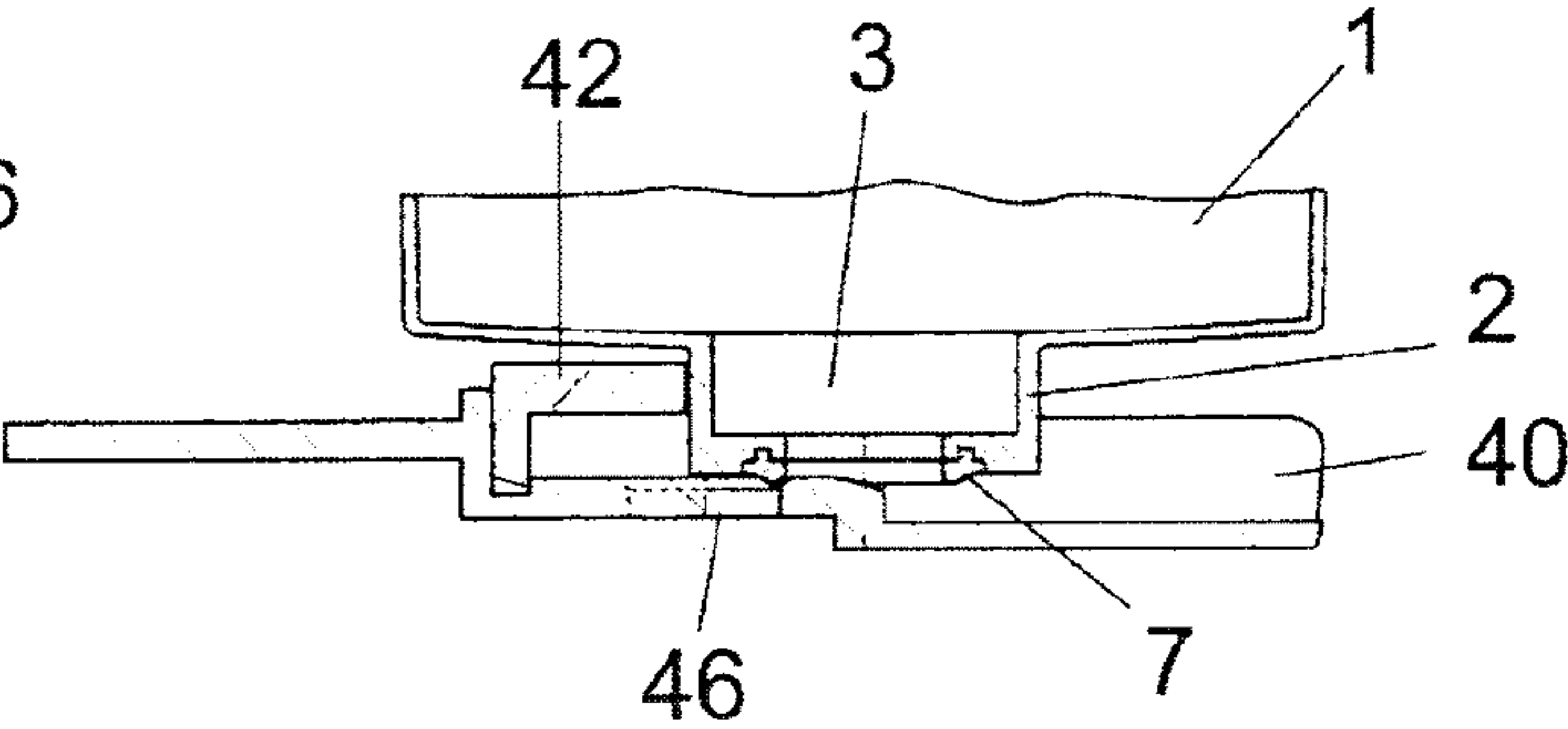


Fig. 17

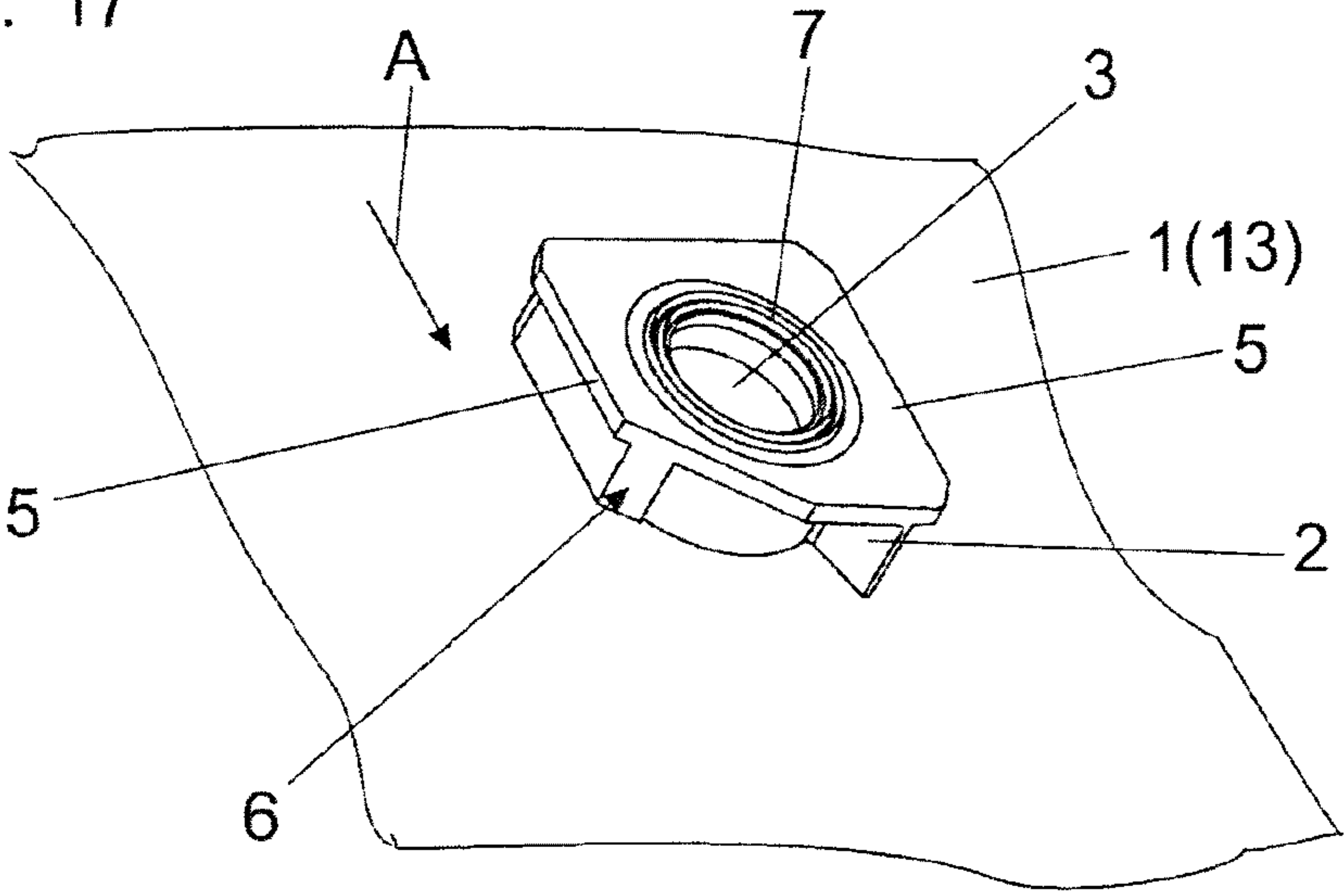


Fig. 18

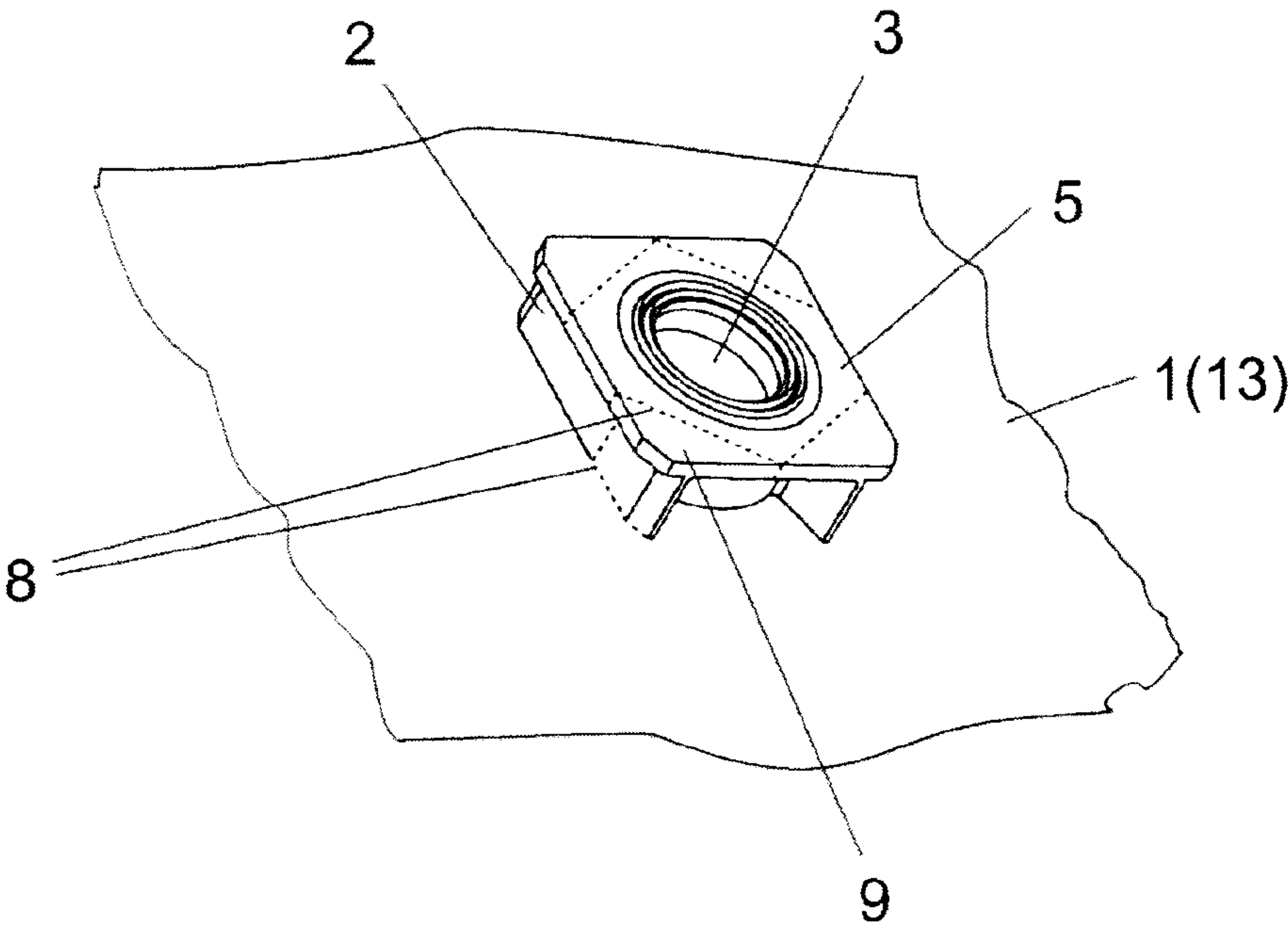


Fig. 19

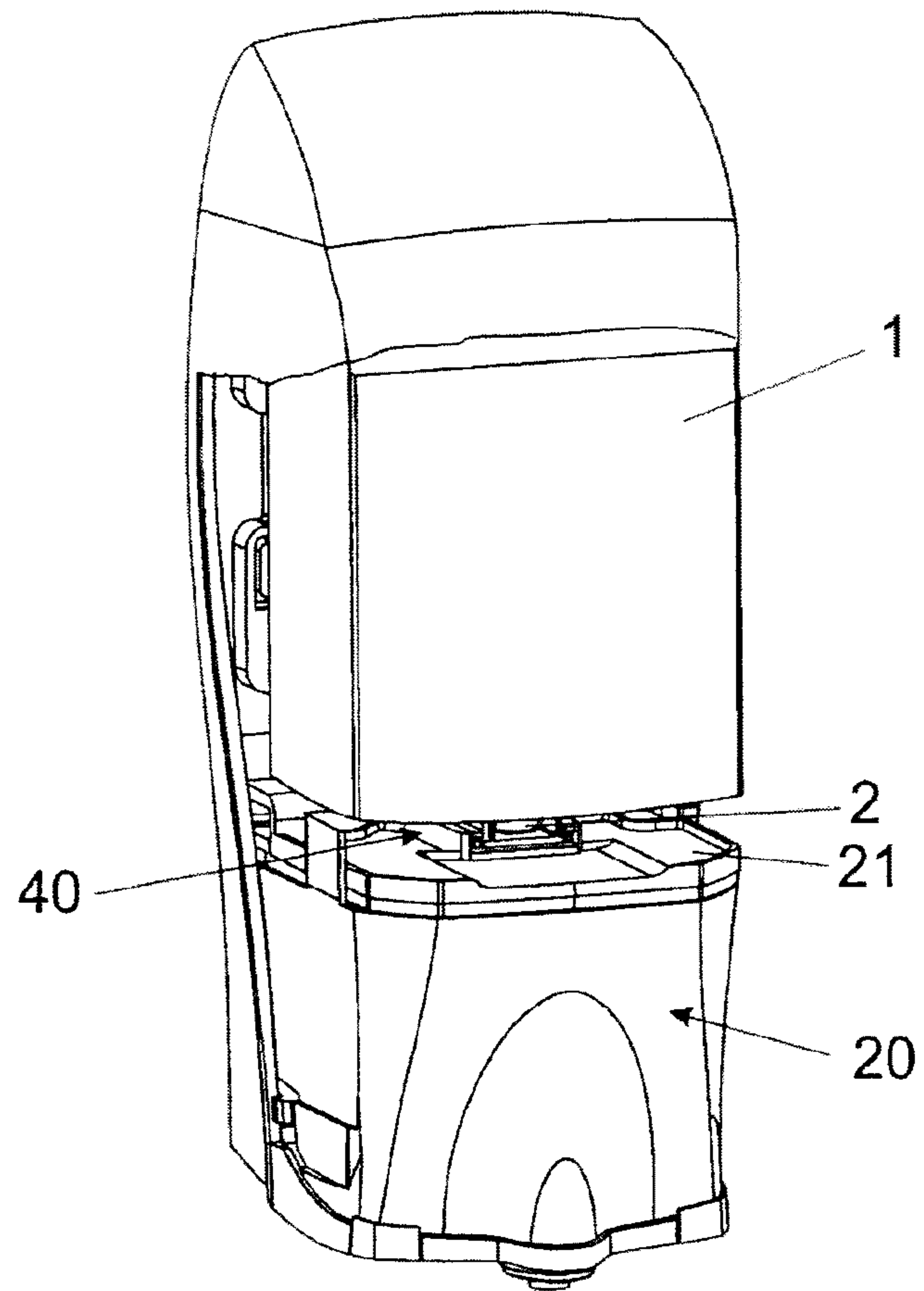


Fig. 20

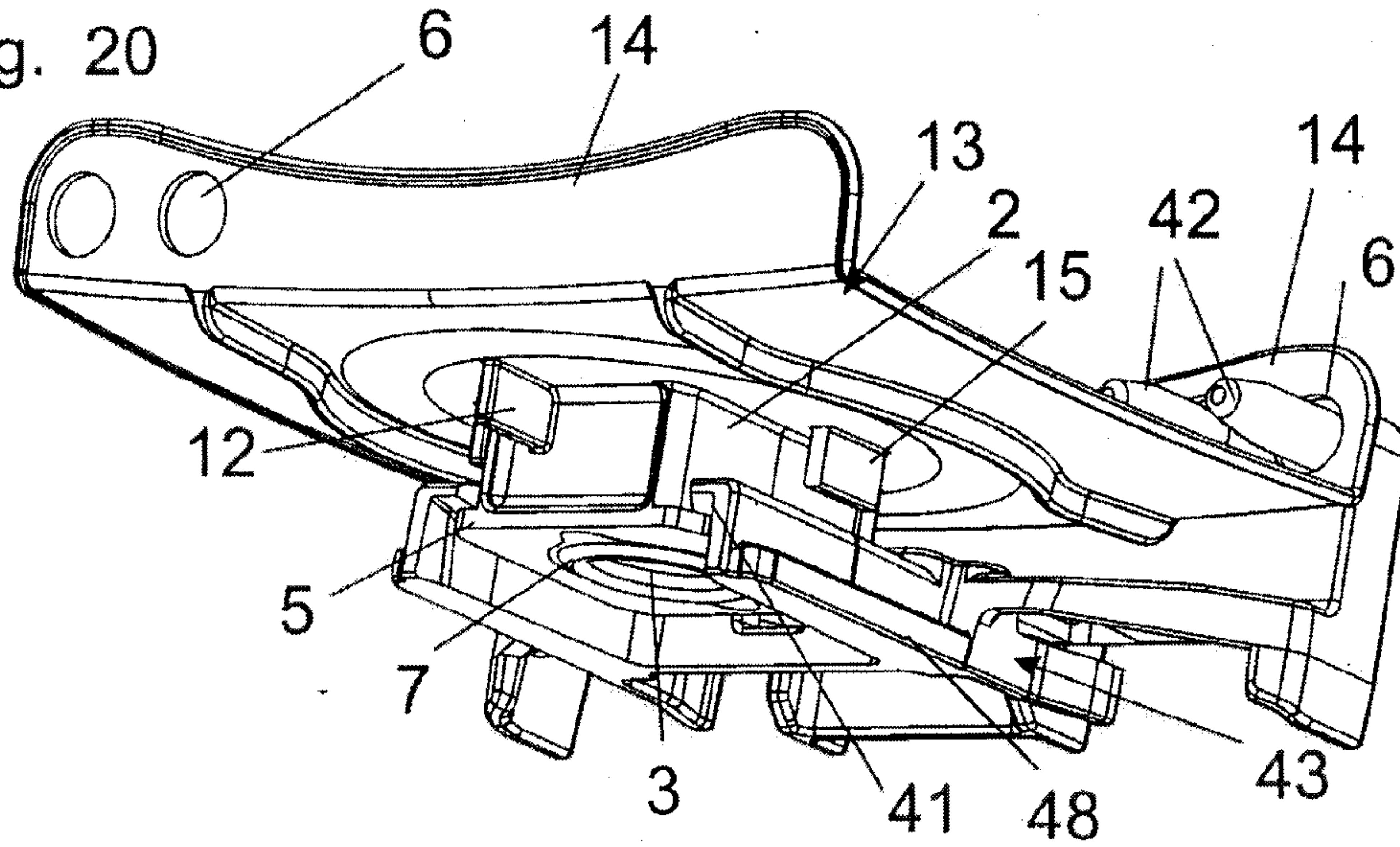


Fig. 21

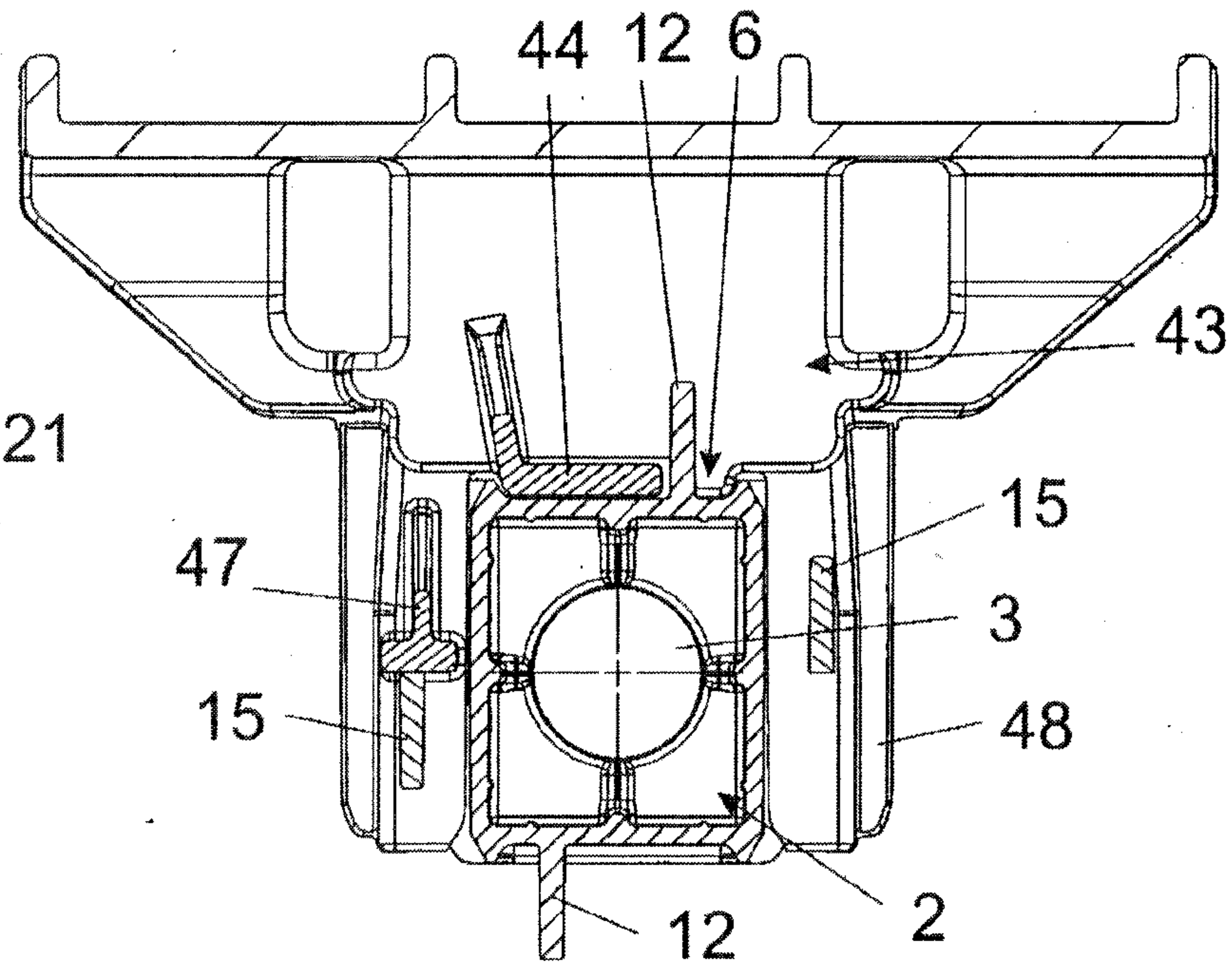
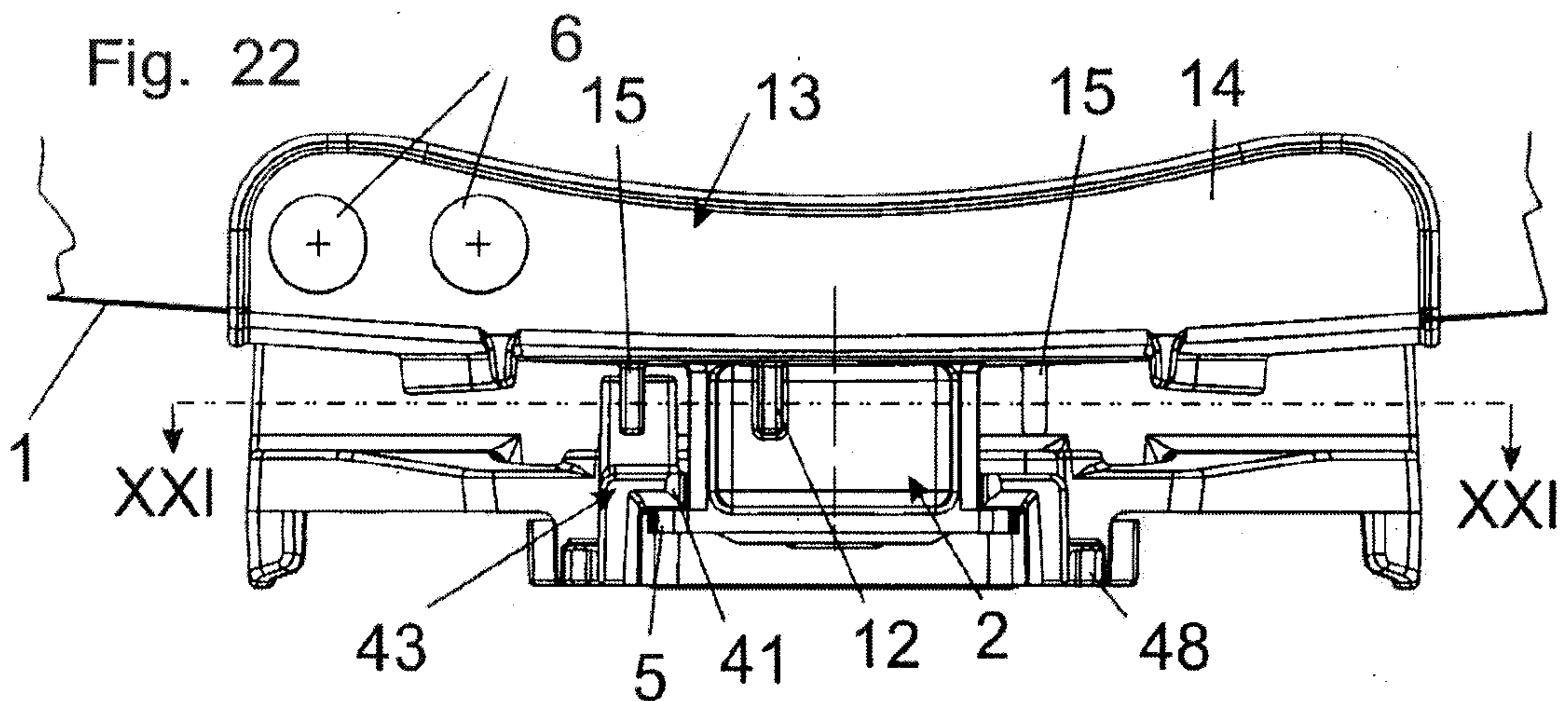


Fig. 22



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Fig. 23

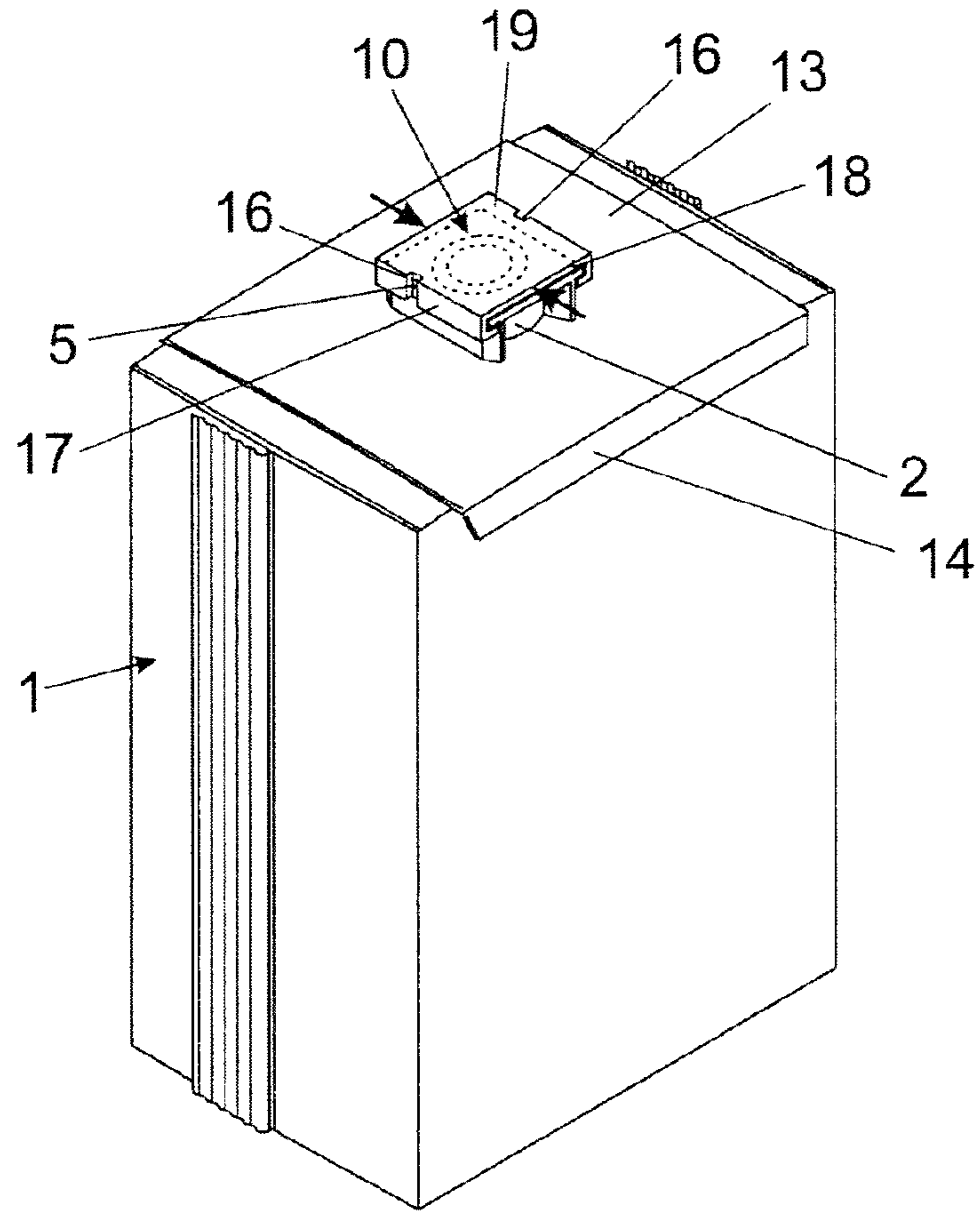


Fig. 24

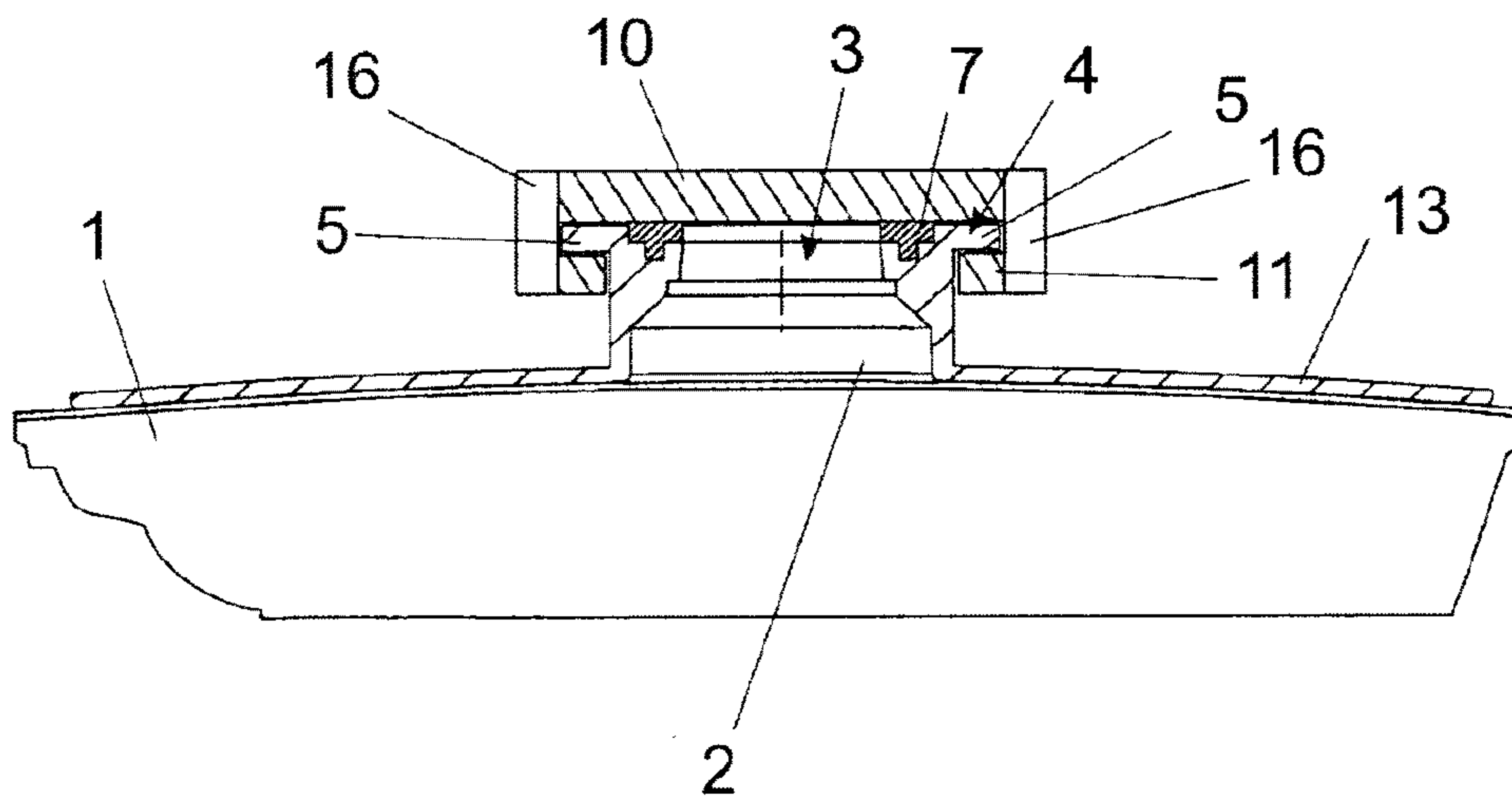


Fig. 25

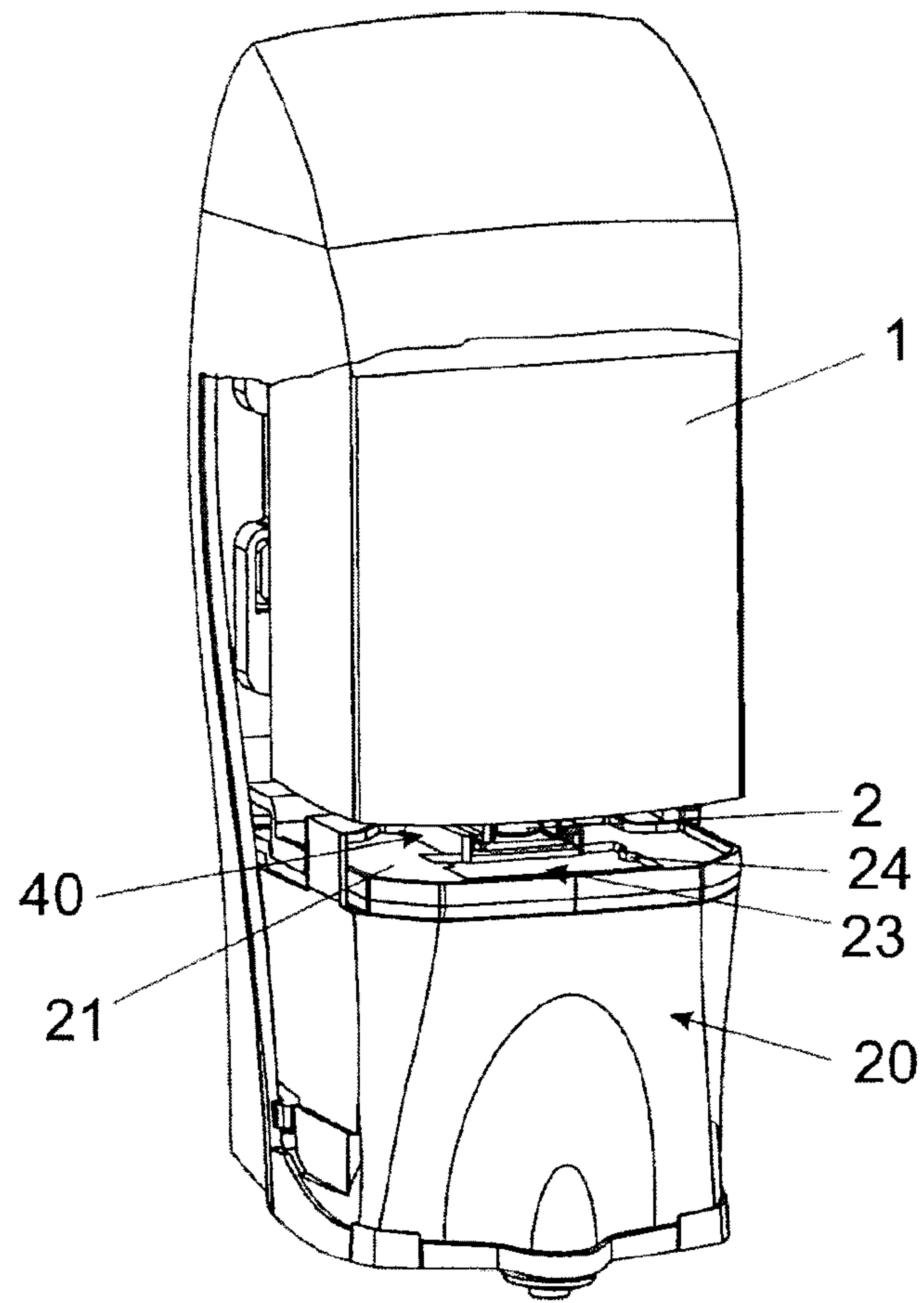


Fig. 26

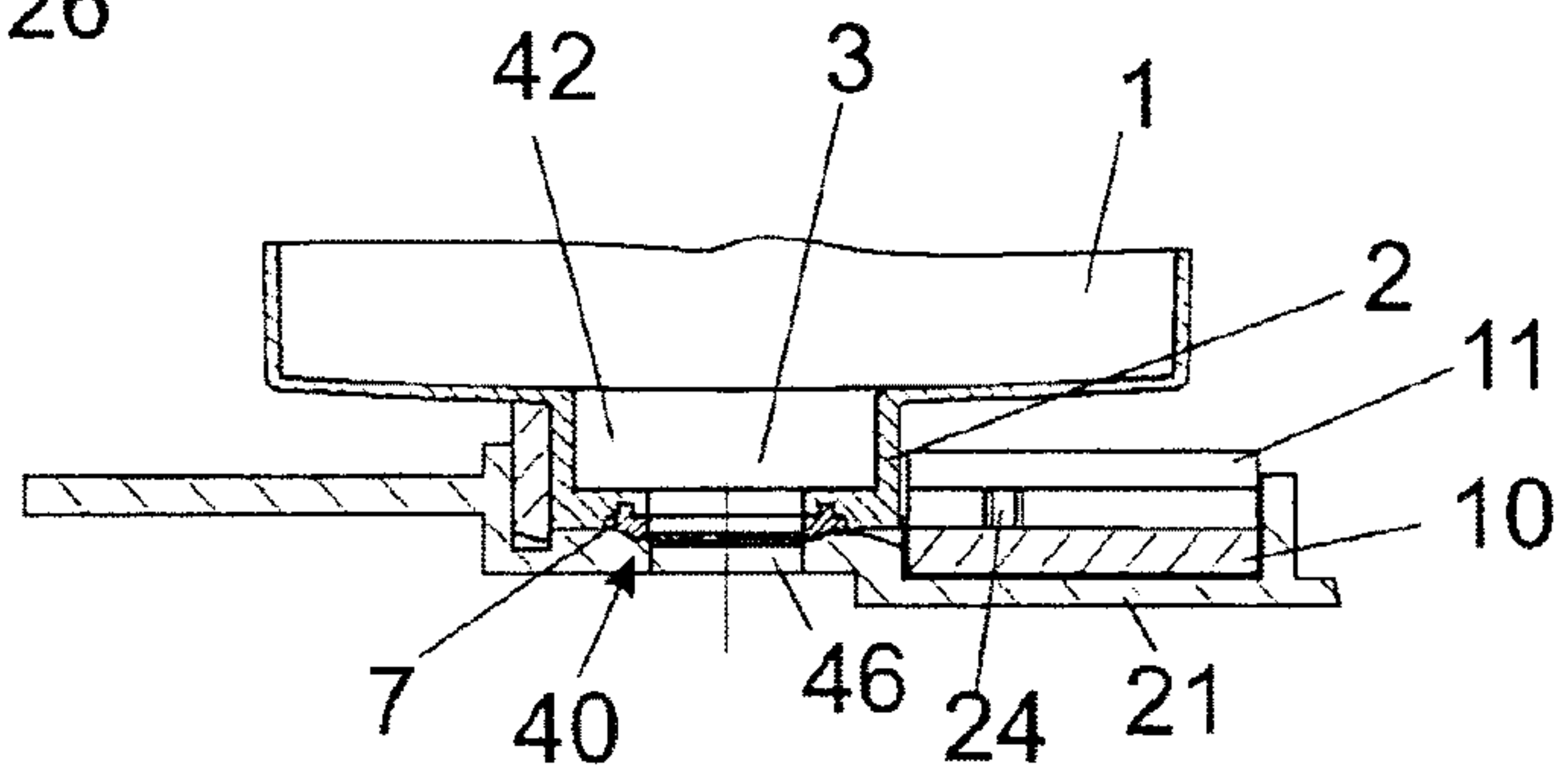


Fig. 27

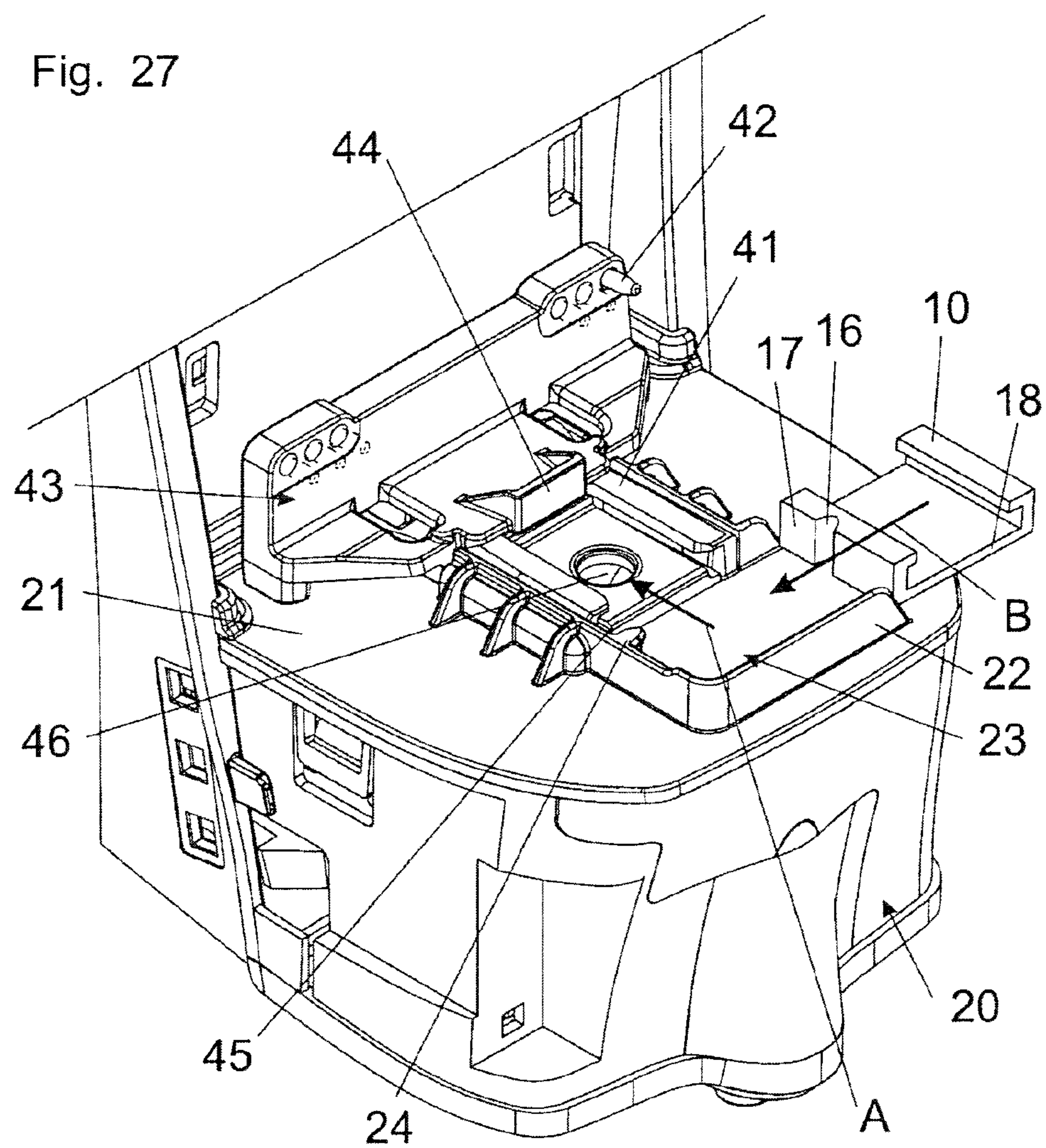
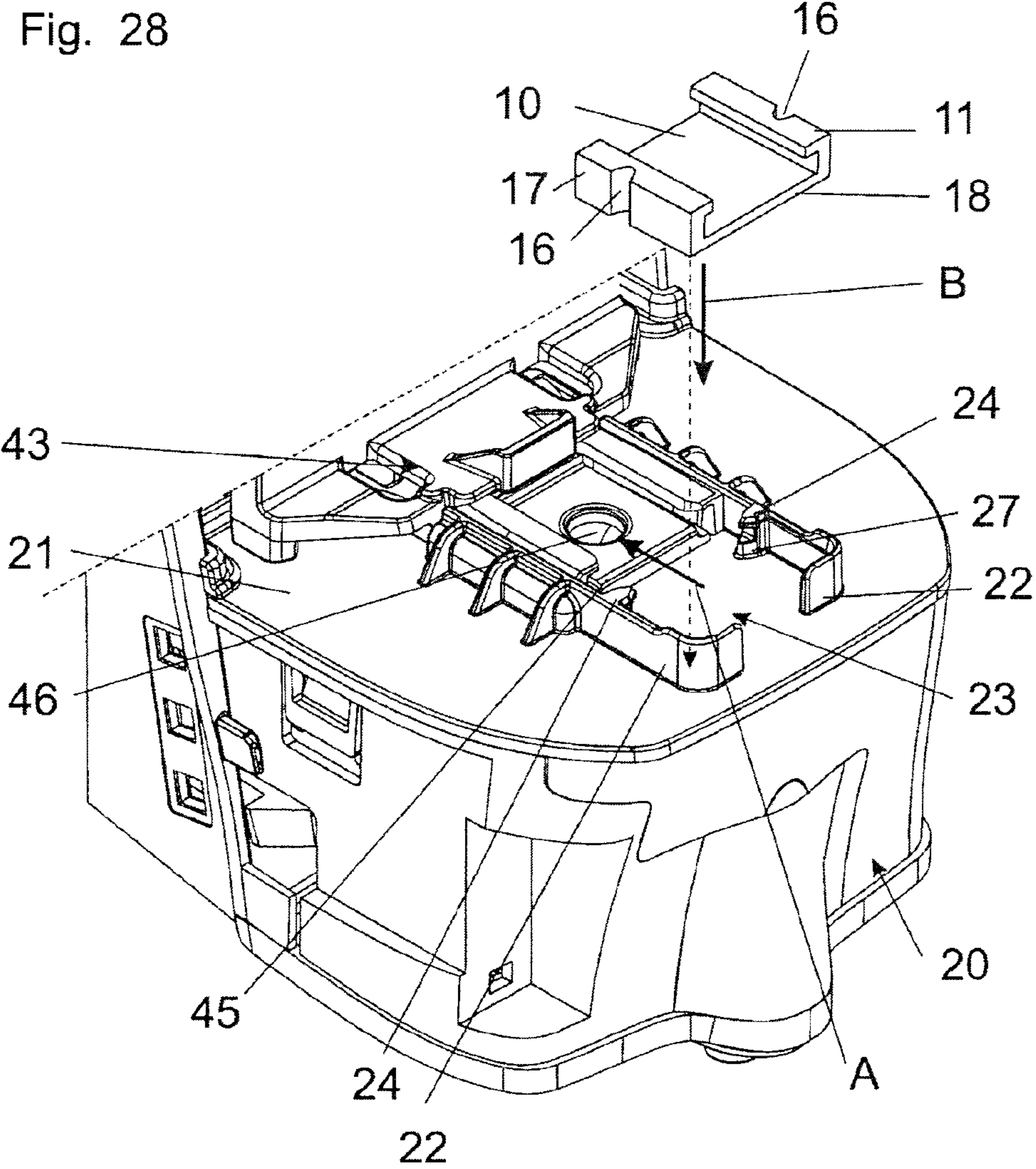


Fig. 28



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Fig. 29

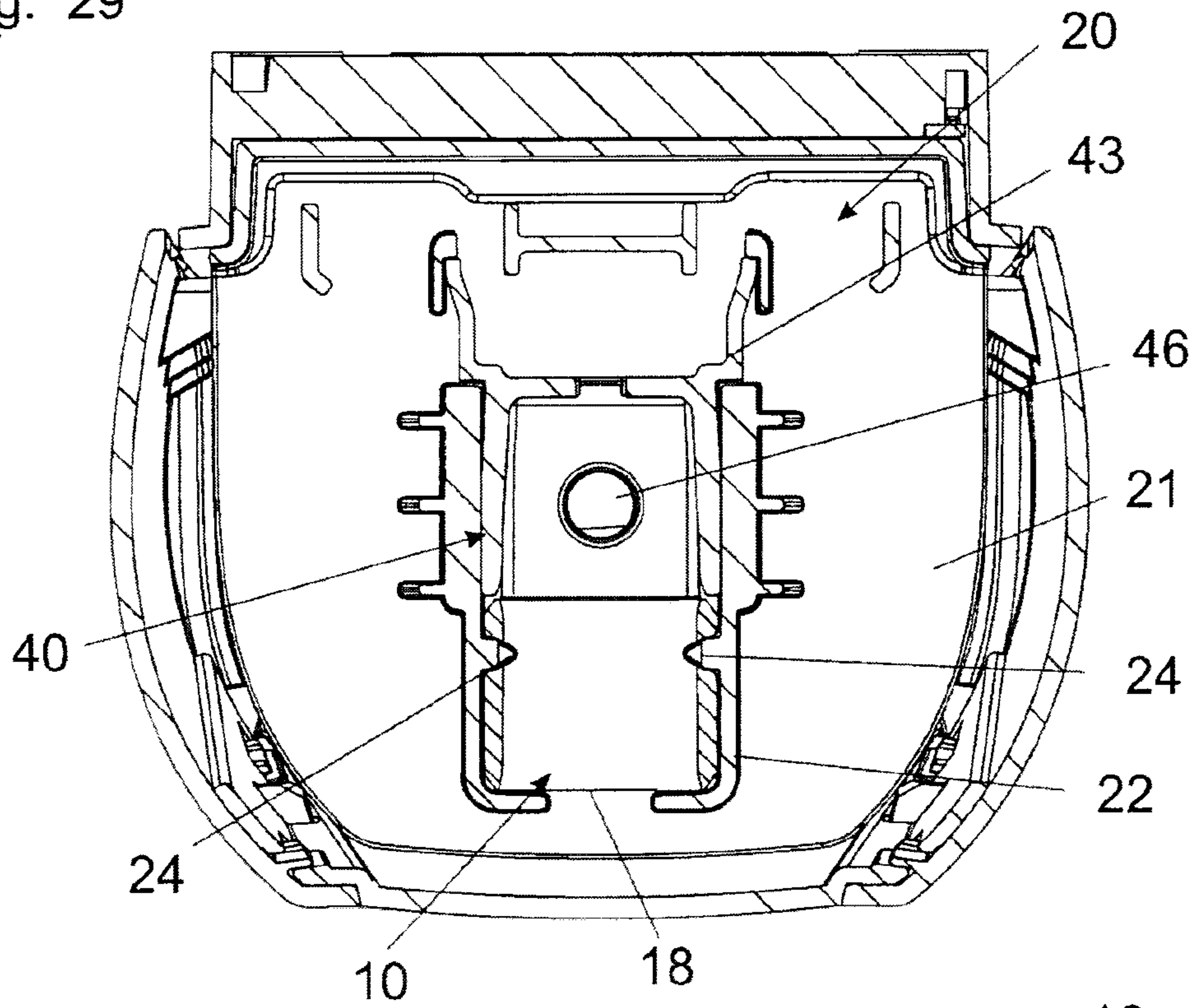


Fig. 30

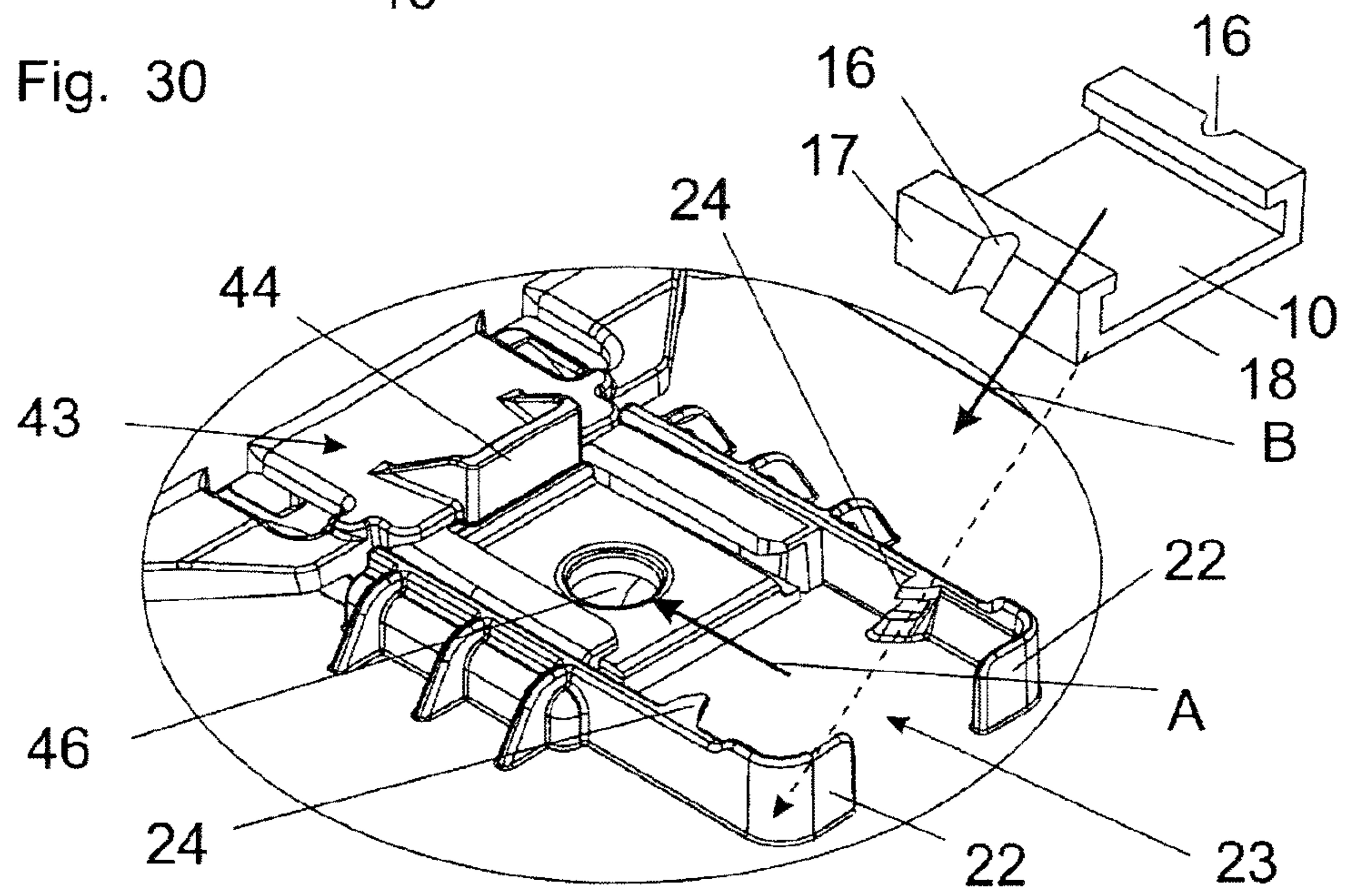


Fig. 31

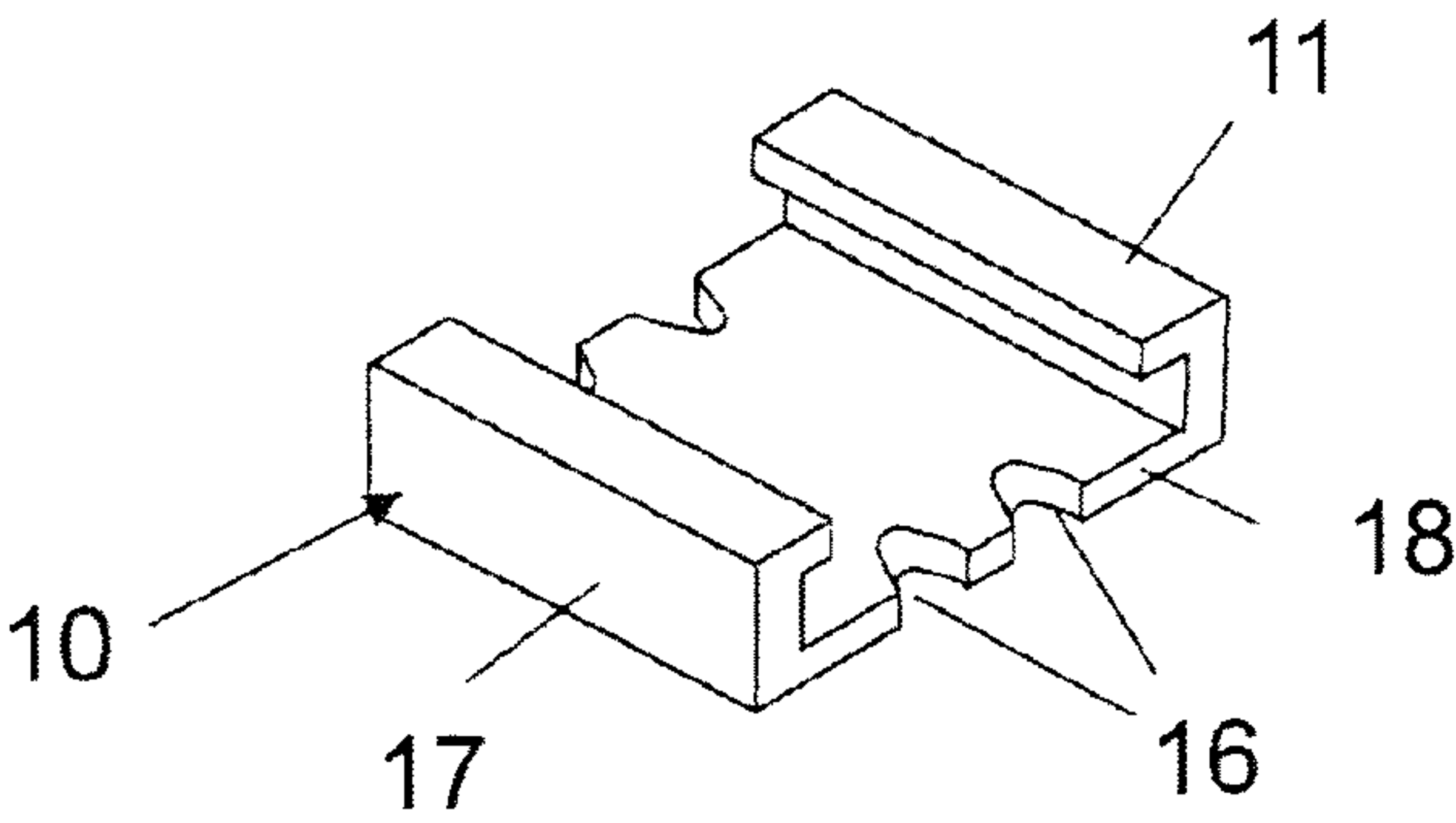
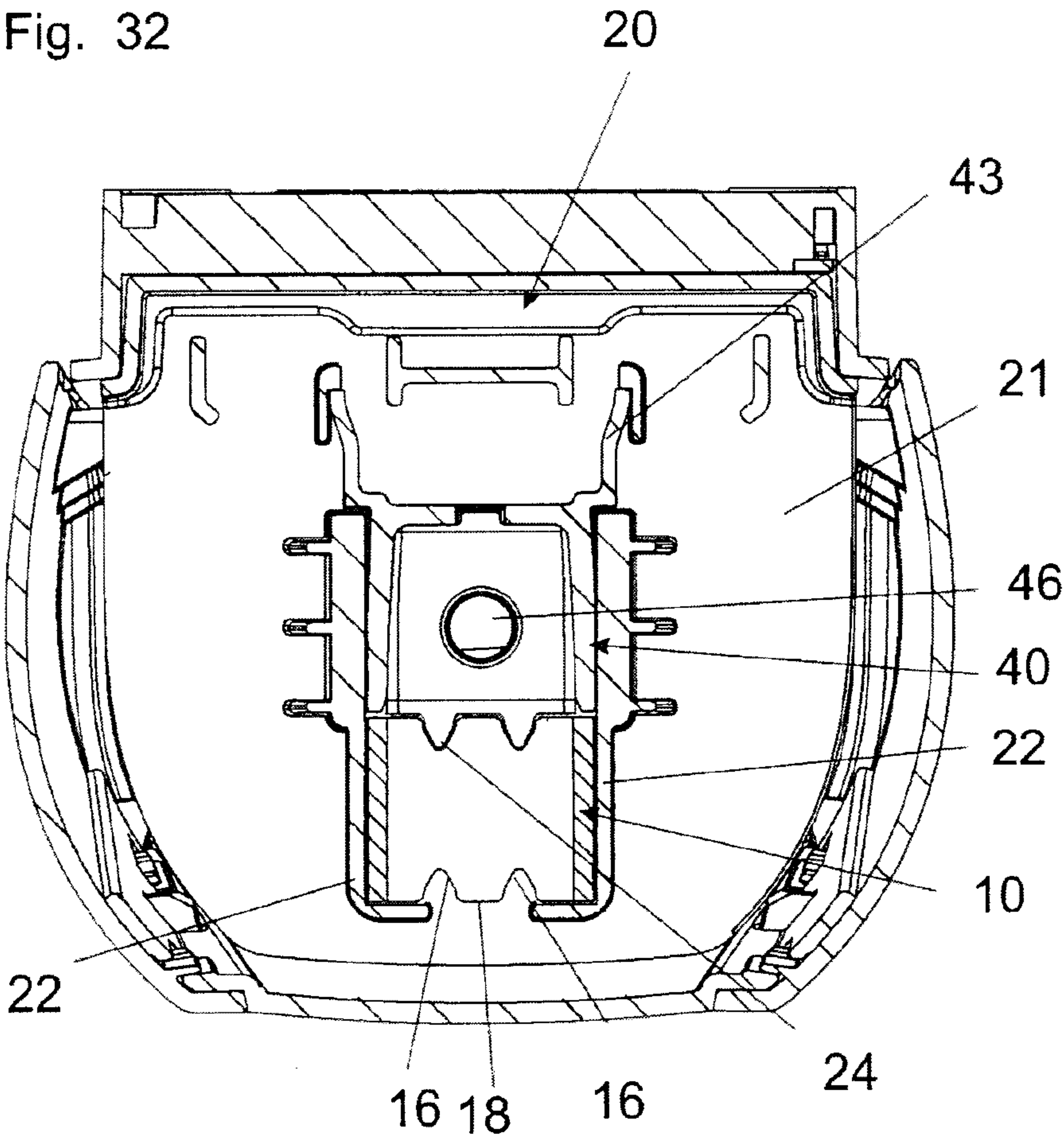


Fig. 32



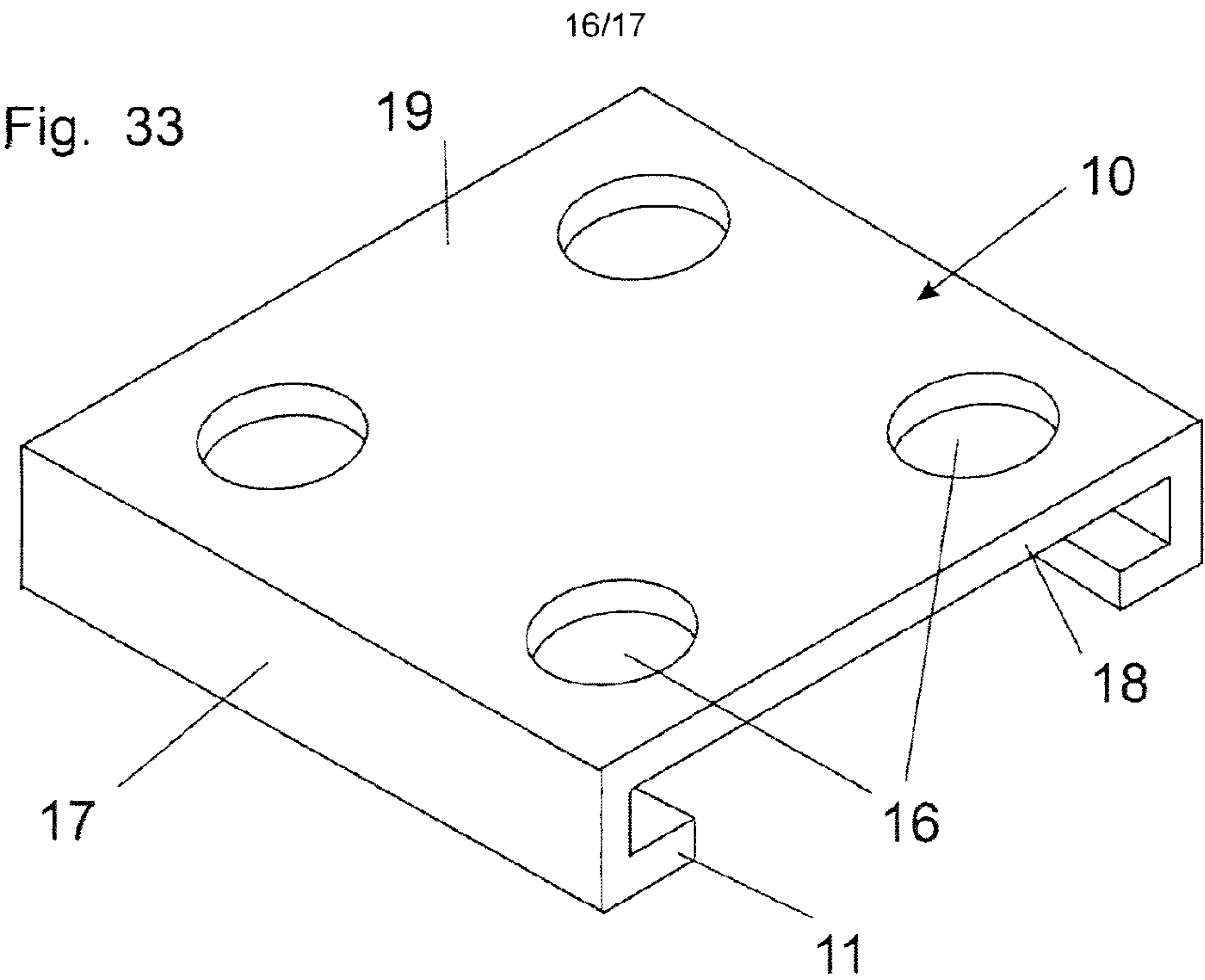
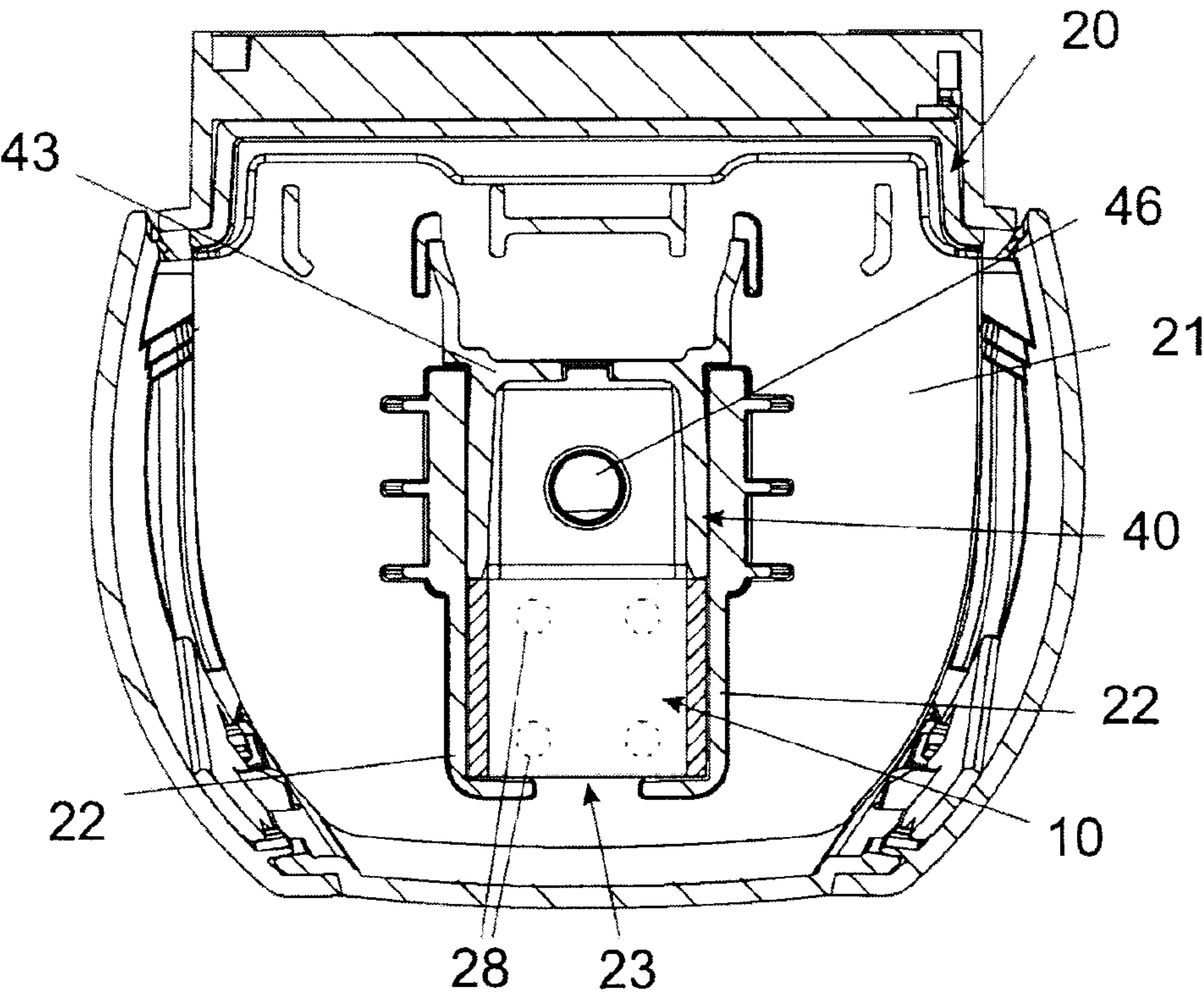


Fig. 34



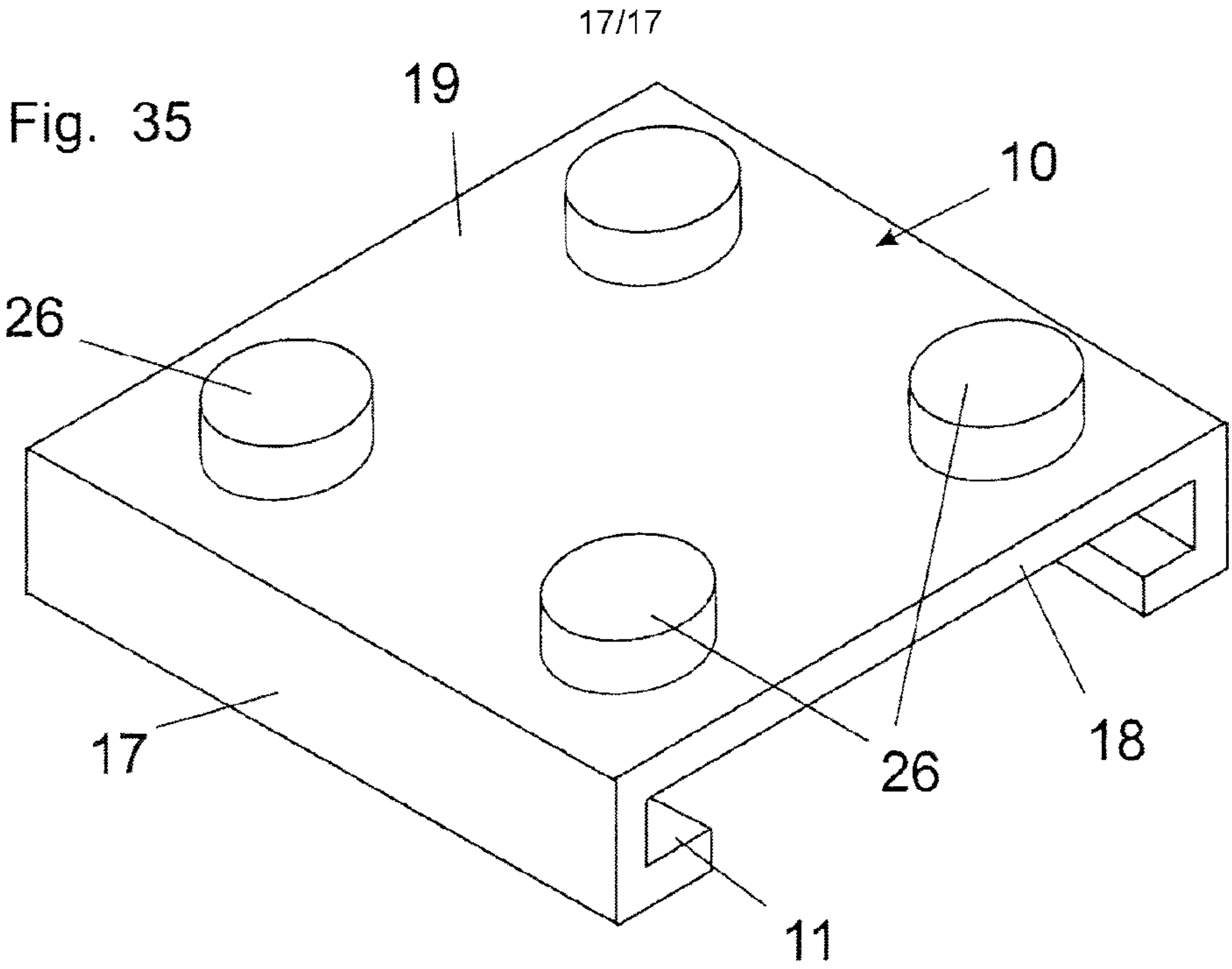


Fig. 36

