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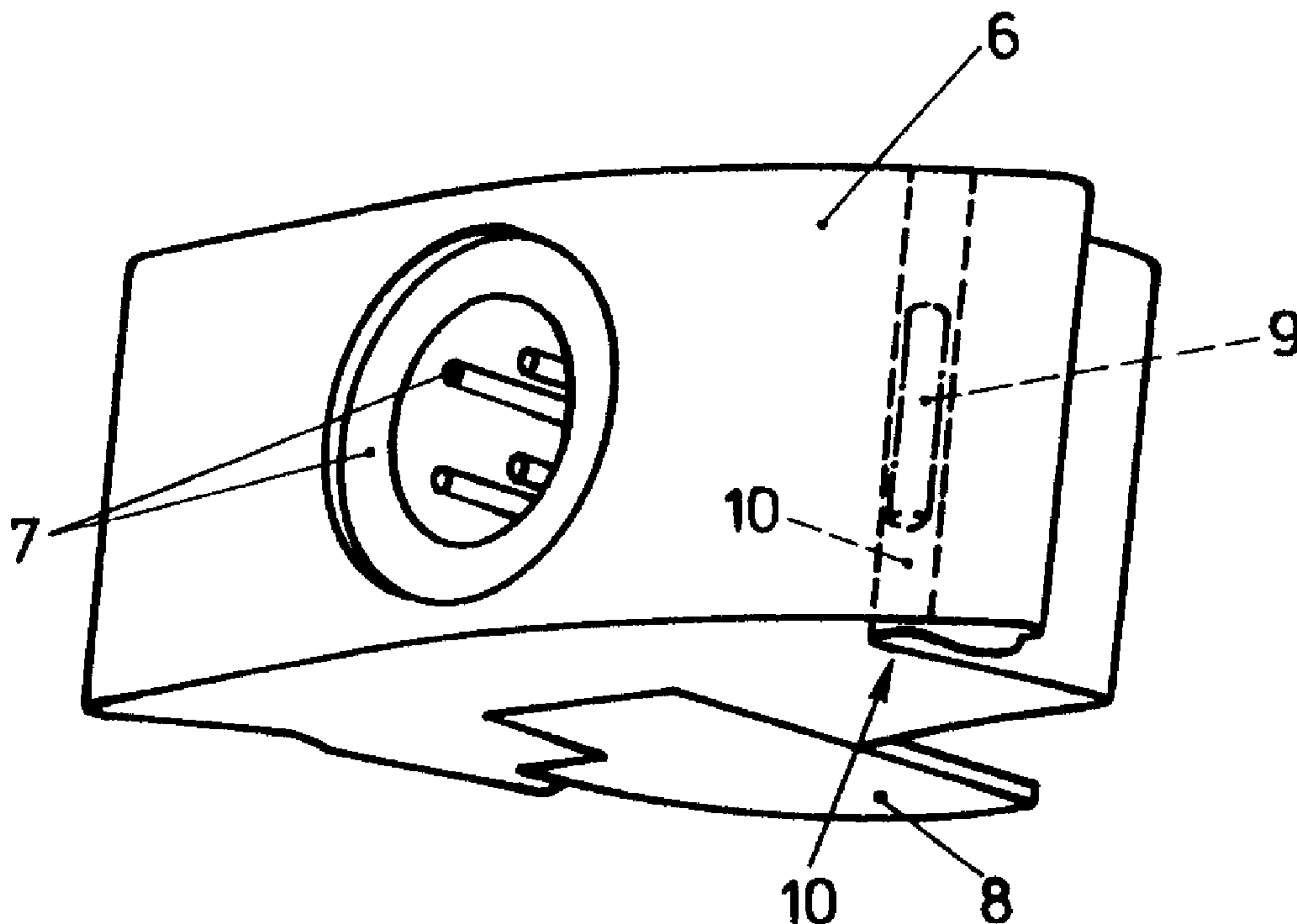
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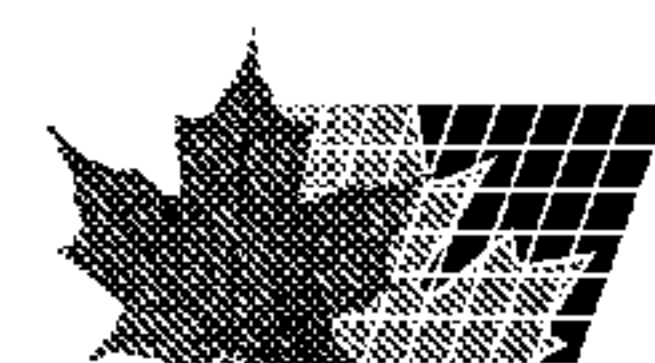
(54) Titre : PROTHESE AUDITIVE

(54) Title: HEARING AID



(57) Abrégé/Abstract:

The hearing aid with a faceplate is characterized in that the axle for the mounting of a part which can be pivoted outwards consists of an electrically conductive material and serves as connection between mentioned part and the electronics of the apparatus.



ABSTRACT

The hearing aid with a faceplate is characterized in that the axle for the mounting of a part which can be pivoted outwards consists of an electrically conductive material and serves as connection between mentioned part and the electronics of the apparatus.

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A HEARING AID

BACKGROUND OF THE INVENTION

5 FIELD OF THE INVENTION

The present invention relates to a hearing aid including a casing and a covering plate provided on the casing, which covering plate has an opening and an axle located in the
10 opening, and including an outwards pivotable part fitting into the opening and having an electrical input plug and contact pieces for a connection to electronics of the hearing aid.

15 DESCRIPTION OF THE PRIOR ART

Such hearing aids are known for instance from the Swiss Patent No. CH 689,851 of the present applicant.

20 In order to occupy still less space commensurate with the present state of miniaturisation, there has arisen the desire to optimize the design still further without having to suffer a larger structural expenditure.

25 SUMMARY OF THE INVENTION

It is, therefore, a general object of the invention to provide a hearing aid which occupies still less space without suffering from a large structural expenditure.

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A further object is to provide a hearing aid of the kind set forth above and in which the axle consists of an electrically conductive material.

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According to the present invention, there is provided a hearing device comprising a casing and a covering plate provided on the casing, and in which are provided an opening and a pin disposed therein on which is provided a pivoting
5 part adapted to the opening with an electrical inlet plug and contact pieces for connection with counter-contacts leading to electronics of the device, characterized in that said pin consists of an electrically conducting material and is connected on the one hand to the electronics of the
10 device and forms, on the other hand, one of the counter-contacts.

According to the present invention, there is also provided a hearing aid having a housing containing internal
15 electronics, a covering plate at said housing, said covering plate having an opening for the reception of an outwardly pivotable adapter having an electrical input plug for a programming or audio cable, a first electrical contact piece at said opening connected to said internal electronics, a
20 second electrical contact piece on said adapter in contact engagement with said first contact piece at said opening upon insertion of said adapter into said opening, an axle of electrically conducting material mounted in said covering plate, one end of said axle spanning said opening to provide
25 a pivot engaged by a groove provided in said adapter to facilitate pivotable movement thereof into and out of said opening, another end of said axle being connected to said internal electronics, and said adapter having a third electrical contact piece at said groove for contacting said
30 one end of said axle upon said pivotable movement, wherein fewer electrically connecting parts are required for said adapter and said plate.

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BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will be better understood and objects other than those set forth above will become apparent when
5 consideration is given to the following detailed description thereof. Such description makes reference to the annexed drawings wherein:

Fig. 1 is a purely schematical top view of a covering plate
10 mounted onto a casing of a hearing aid;

Fig. 2 is a section, also purely schematical, along line A-A of Fig. 1;

15 Fig. 3 is a section along line B-B of Fig. 1; and

Fig. 4 is a part designed as a programming adapter, structured to be inserted into the opening of the covering plate.

20

DESCRIPTION OF THE PREFERRED EMBODIMENT

The covering plate 1 illustrated in Fig. 1 is provided on the housing (not illustrated) of a hearing aid. An opening 2
25 is provided in the covering plate 1 (also called faceplate), into which opening a part which fits thereinto (see e.g. Fig. 4) may be inserted. This part can be set onto an axle 3 and can be pivoted outwards around the axle (in a way as a cover which can be pivoted outwards).

30

The part which can be pivoted outwards may be designed e.g. as adapter with an input plug for a programming or audio

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cable (e.g. connector to a telephone apparatus) or as battery case with a battery held therein.

The part supported to pivot on the axle 3 can be detached
5 from the axle, i.e. may be removable and exchanged for another part.

Contact pieces 4,5 are provided in the contact plate at the lateral limiting surfaces of the opening 2, which
10 communicate with the electronics of the apparatus. At the other side, the part which can be pivoted outwards and can be fitted into the opening is provided with an electrical input plug with contact pieces, whereby latter are adapted to come into an electrical communication with the contact
15 pieces 4,5 when in the operative position in order to thereby form a communication between an external component (e.g. programming apparatuses) which is coupled via the plug in the part which can be pivoted outwards and the electronics of the apparatus.

20

Such structures have already been developed and are described specifically in the Swiss Patent No. CH 689,851 of the same applicant.

25 The basic idea of the present invention consists now in, due to the confined conditions in such miniaturized apparatuses, designing the axle 3 for the part which can be pivoted outwards electrically conductive (of metal) and to utilize it as one of the electrical connecting parts. For this
30 reason the metal axle 3 is connected on the one hand to the electronics of the apparatus and on the other hand it forms a counter contact for a contact piece at the part which can be pivoted outwards and is set into the opening 2.

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The design is specifically excellently suitable for the programming of hearing aids in that a so called programming adapter with input plug is set into the opening 2 of the covering plate.

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Fig. 4 illustrates a programming adapter 6 with input plugs 7 and contact pieces 8, 9. The contact piece 9 is set into the groove 10 via which the adapter can be set onto the electrically conducting axle 3.

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What is claimed is:

1. A hearing device comprising a casing and a covering
5 plate provided on the casing, and in which are provided an opening and a pin disposed therein on which is provided a pivoting part adapted to the opening with an electrical inlet plug and contact pieces for connection with counter-contacts leading to electronics of the device, characterized
10 in that said pin consists of an electrically conducting material and is connected on the one hand to the electronics of the device and forms, on the other hand, one of the counter-contacts.
- 15 2. Hearing device according to claim 1, characterized in that the pivoting part is provided as an adapter with an inlet plug for a programming-cable or audio-cable.
3. Hearing device according to claim 1, characterized in
20 that the pivoting part is provided as a storage cell case cover with a storage cell held therein.
4. Hearing device according to any one of claims 1-3, characterized in that the pivoting part is removably or
25 interchangeably mounted on the pin.
5. A hearing aid having a housing containing internal electronics, a covering plate at said housing, said covering plate having an opening for the reception of an outwardly
30 pivotable adapter having an electrical input plug for a programming or audio cable, a first electrical contact piece at said opening connected to said internal electronics, a second electrical contact piece on said adapter in contact

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engagement with said first contact piece at said opening upon insertion of said adapter into said opening, an axle of electrically conducting material mounted in said covering plate, one end of said axle spanning said opening to provide
5 a pivot engaged by a groove provided in said adapter to facilitate pivotable movement thereof into and out of said opening, another end of said axle being connected to said internal electronics, and said adapter having a third electrical contact piece at said groove for contacting said
10 one end of said axle upon said pivotable movement, wherein fewer electrically connecting parts are required for said adapter and said plate.

6. The hearing aid of claim 5, wherein said adapter is
15 removably mounted onto said one end of said axle.

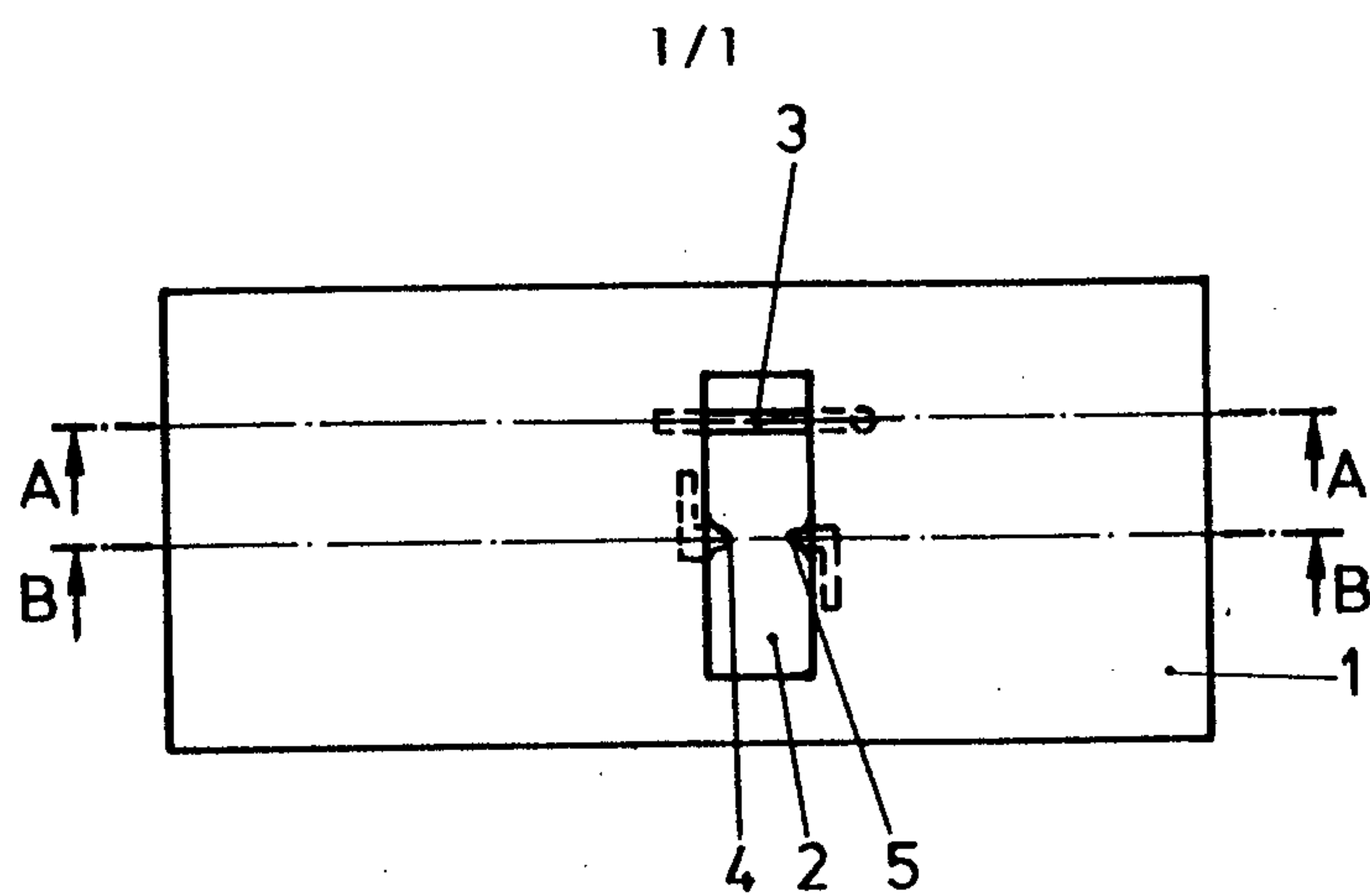


FIG. 1

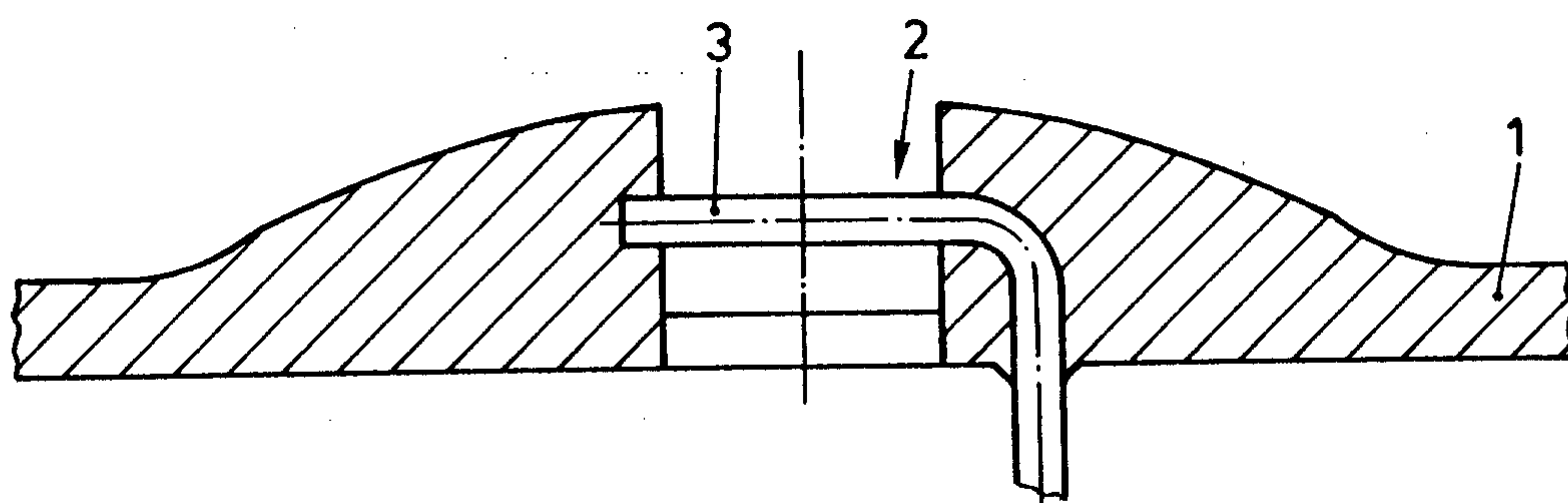


FIG. 2

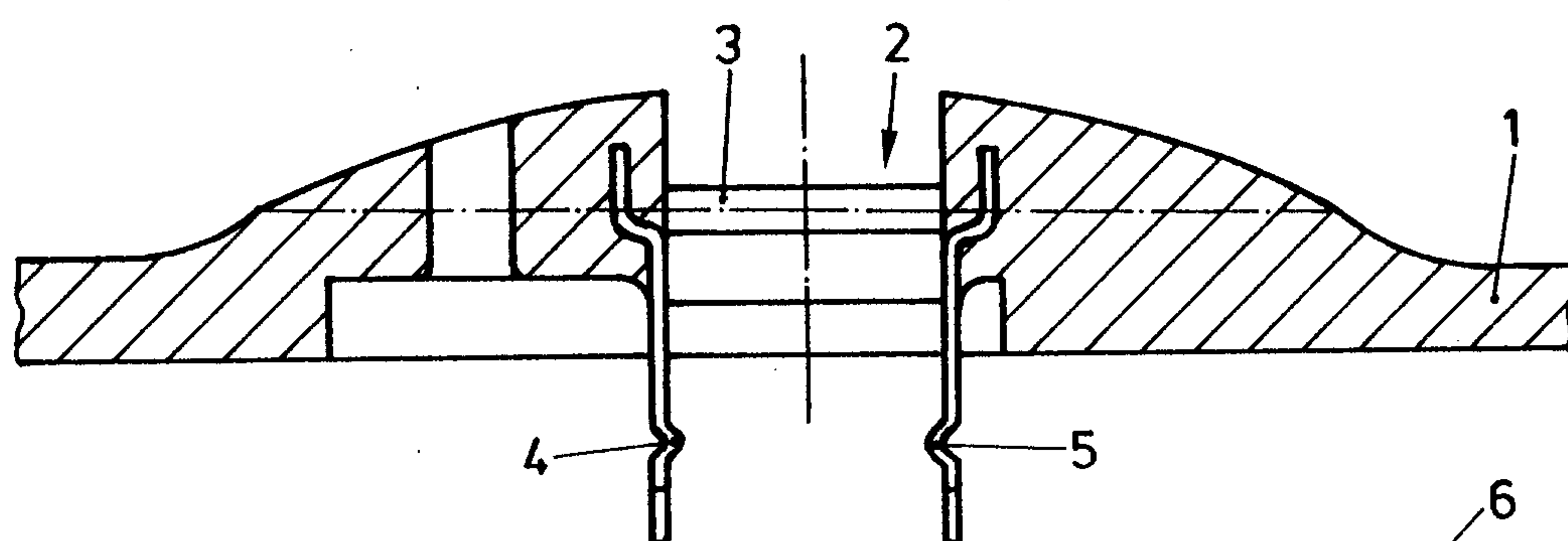


FIG. 3

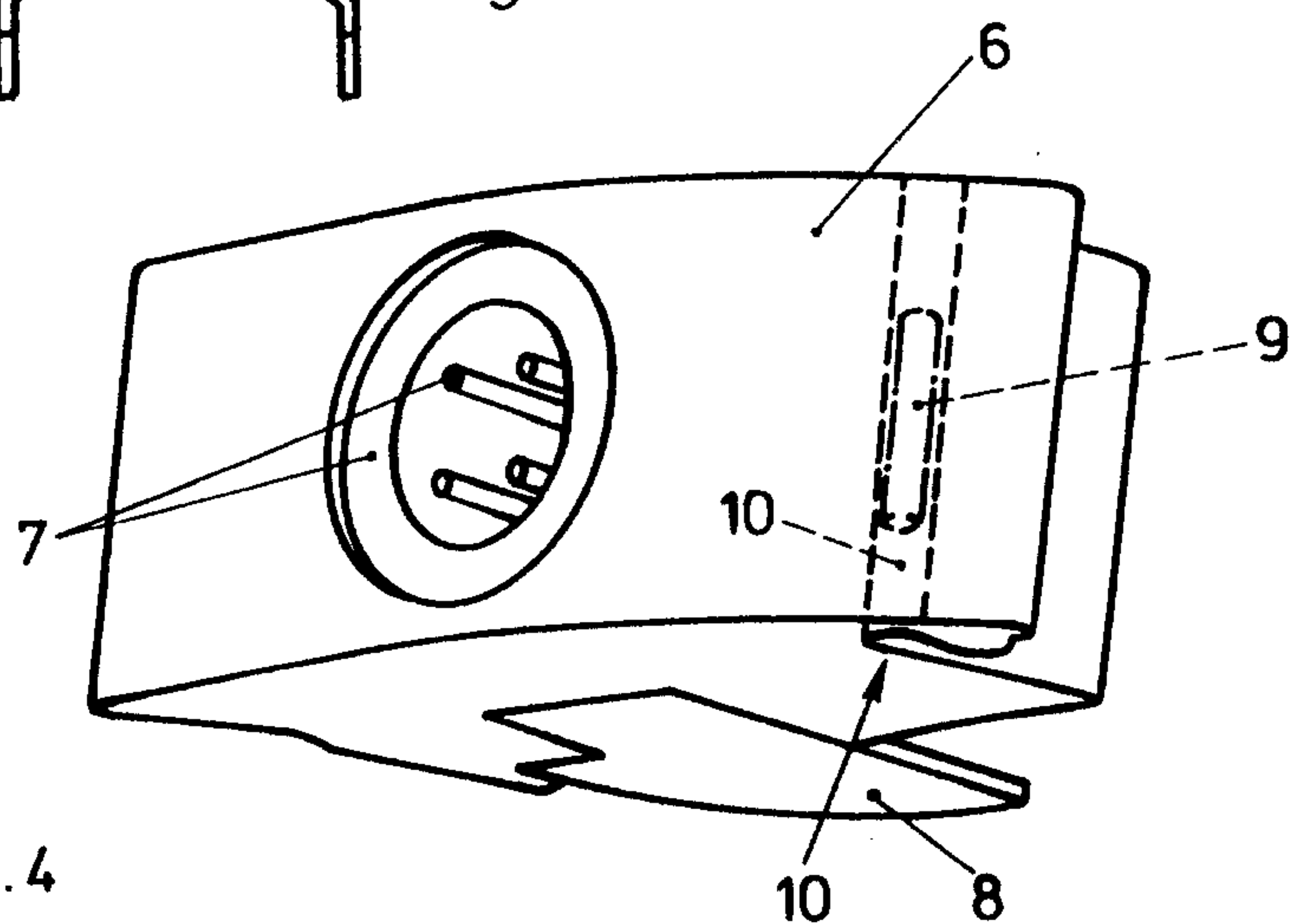


FIG. 4

