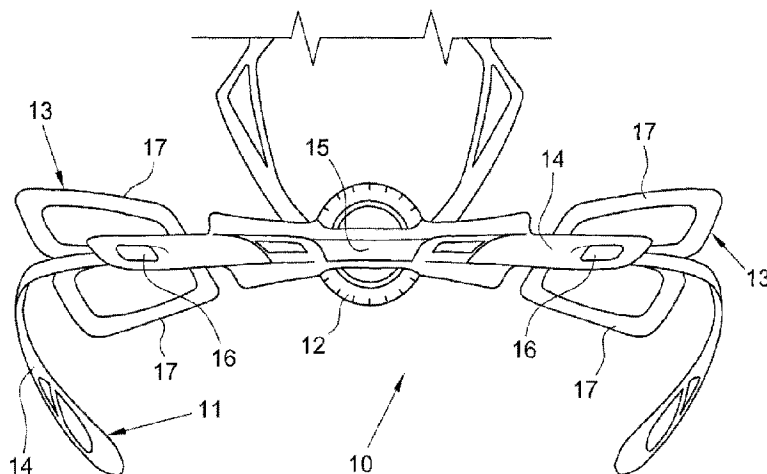




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(54) Titre : DISPOSITIF D'AJUSTEMENT DE TAILLE POUR CASQUES DE VELO OFFRANT UN AJUSTEMENT CONFORTABLE
(54) Title: SIZE ADJUSTER FOR HELMETS FOR CYCLING USE WITH CONFORTABLE FIT



(57) **Abrégé/Abstract:**

Size adjuster (10) for helmets for cycling use of the type that can be fixedly connected inside a helmet for cycling use and comprising an annular structure (11) arranged along the lower periphery of said helmet and able to be switched between a minimum diameter configuration and a plurality of increased diameter configurations to allow said helmet to be worn by different sized users, foreseeing a manual switching device (12) of the configuration of said annular structure (11), characterised in that it comprises headrest elements (13) for a user connected to said annular structure (11) in a freely orientable manner along at least one axis.

ABSTRACT

Size adjuster (10) for helmets for cycling use of the
type that can be fixedly connected inside a helmet for
5 cycling use and comprising an annular structure (11)
arranged along the lower periphery of said helmet and
able to be switched between a minimum diameter
configuration and a plurality of increased diameter
configurations to allow said helmet to be worn by
10 different sized users, foreseeing a manual switching
device (12) of the configuration of said annular
structure (11), characterised in that it comprises
headrest elements (13) for a user connected to said
annular structure (11) in a freely orientable manner
15 along at least one axis.

SIZE ADJUSTER FOR HELMETS FOR CYCLING USE WITH
COMFORTABLE FIT

The present invention refers to a size adjuster for
5 helmets for cycling use that offers a comfortable fit
for the user wearing it.

In general, a helmet for cycling use is very different
from helmets used in automobiles or on motorcycles and
usually it consists of a cap structure shaped so as to
10 at least partially cover the head of a user and
configured to protect it from bumps at the cranial
portion substantially from the ocular arch up to the
nuchal area, both on top and at the side.

In order to make such helmets adaptable to the various
15 possible sizes, now there are size adjuster devices
associated with the cap so that, by acting manually, it
is possible to tighten the helmet on the head of the
user.

In particular, such size adjusters comprise an annular
20 structure, either closed or open in a U, arranged along
the lower periphery of the cap of the helmet and able
to be switched between a minimum diameter configuration
and a plurality of increased diameter configurations to
allow the helmet to be worn by different sized users.

25 The manual switching device of the configuration of the
annular structure comprises a cogwheel element capable
of acting on telescopic portions that form the annular
structure.

Disadvantageously, however, as the size varies by
30 acting on the manual switching device, the helmet does
not always sit comfortably on the head of the user.

The solution currently proposed is to equip the annular

structure with support portions that, however, since they are fixed, only offer comfortable support for some sizes and not for all possible switching configurations.

5 The purpose of the invention is to make a size adjuster for helmets for cycling use that is an alternative to the known ones, offering, in particular, comfortable support for the user also as the size varies.

According to the general aspect of the invention, the
10 size adjuster for helmets for cycling use of the present invention comprises headrest elements for a user fixedly connected to the annular structure in a freely orientable manner along at least one axis, preferably the axis passing through the annular
15 structure.

In this way, also by acting on the manual switching device that extends or retracts the annular structure, the support elements are free to tilt to adapt in an optimal manner to the head in all configurations of the
20 adjuster.

Further characteristics of the invention are highlighted by the dependent claims.

The characteristics and advantages of a size adjuster for helmets for cycling use according to the present
25 invention will become clearer from the following description, given as an example and not for limiting purposes, referring to the attached schematic drawings, in which:

- figures 1 and 2 are internal and external views of
30 the adjuster according to the present invention;
- figures 3-6 show details of the present invention;
- figures 6 and 7 show how the present invention can

adapt to the different sizes of the user;

- figures 8-10 show another embodiment of the adjuster according to the present invention; and

- figure 11 shows another embodiment of the adjuster according to the present invention.

With reference to the figures, a size adjuster for helmets for cycling use according to the present invention is shown with 10.

Such a size adjuster for helmets for cycling use is of the type that can be fixedly connected inside a helmet for cycling use and comprising an annular structure 11 arranged along the lower periphery of the helmet.

The adjuster is able to be switched between a minimum diameter configuration and a plurality of increased diameter configurations to allow the helmet to be worn by different sized users.

annular structure 11 comprises both a structure that is effectively closed in a circle and a structure open in a U.

In the figures, the adjuster is shown only in part since the portions that are not shown are totally identical to those of the prior art.

The switching device 12 shown is also of the known and manual type.

In particular, the headrest elements 13 of the present invention are fixedly connected to the annular structure 11 in a freely orientable manner along at least one axis, preferably to the axis passing through the annular structure 11.

The annular structure 11 comprises two side arms 14 able to move telescopically with respect to a central portion 15 by acting on the manual switching device 12.

In this case, the headrest elements 13 are fixedly connected to the side arms 14.

Alternatively, as shown in figure 11, the headrest elements 13 can be directly associated with the central
5 portion 15.

In this case, the headrest elements 13 are able to move along the opposite side portions of the central portion 15 so as to be able to be fixedly connected in a plurality of positions different distances from the
10 manual switching device 12.

According to a preferred embodiment, the headrest elements 13 are orientable along all axes in space being fixedly connected to the arms 14 through spherical supports 16.

15 According to the embodiment shown, the headrest elements 13 are shaped like a butterfly comprising two lobes 17 arranged on opposite sides with respect to the side arms 14.

In particular, the central portion 18 of the headrest
20 elements 13, i.e. the portion arranged at the side arms 14, is made of rubber and has a recessed seat to facilitate the flexing about the axis passing through the side arms 14.

According to the embodiment shown in figures 8-10 the
25 headrest elements 13 can be configured to be oriented just along an axis, in particular the axis of the arms 14.

In order to make such a coupling a cylindrical pin 18' is provided formed on the headrest elements 13 and
30 corresponding cylindrical seats 16' formed on the annular structure 11.

In particular, the cylindrical pin 18' and the seats

16' are shaped to snap-couple.

The peripheral portions 19 of the headrest elements 13, i.e. the portions distal from the side arms 14, comprise gel inserts 20 to offer comfortable support.

5 Said support is shown schematically in figures 6 and 7. Preferably, the headrest elements 13 are replaceable.

It has thus been seen that a size adjuster for helmets for cycling use according to the present invention achieves the purposes outlined earlier.

10 Indeed, the size adjuster for helmets for cycling use of the present invention offers an alternative solution to the known ones, as well as comfortable support for the user also as the size changes.

The size adjuster for helmets for cycling use of the present invention thus conceived can undergo numerous modifications and variants, all of which are covered by the same inventive concept; moreover, all of the details can be replaced by technically equivalent elements. In practice, the materials used, as well as
15
20 their sizes, can be whatever according to the technical requirements.

CLAIMS

1) Size adjuster for helmets for cycling use of the type that can be fixedly connected inside a helmet for cycling use and comprising an annular structure arranged along a lower periphery of said helmet and able to be switched between a minimum diameter configuration and a plurality of increased diameter configurations to allow said helmet to be worn by different sized users, being provided a manual switching device of the configuration of said annular structure, said size adjuster comprises headrest elements for a user connected to said annular structure in a freely orientable manner along at least one axis, characterized in that said annular structure comprises two side arms able to move telescopically with respect to a central portion by acting on said manual switching device; said headrest elements being associated in a moveable manner along opposite side portions of said central portion so as to be able to be fixedly connected in a plurality of positions different distances from said manual switching device.

2) Adjuster according to claim 1 characterised in that said headrest elements are orientable with respect to an axis passing through said side arms.

3) Adjuster according to claim 1 or 2 characterised in that said headrest elements are orientable along all axes in space.

4) Adjuster according to any one of claims 1 to 3 characterised in that said headrest elements are shaped like a butterfly comprising two lobes arranged on opposite sides with respect to said side arms.

5) Adjuster according to claim 4 characterised in that a central portion of said headrest elements at said side arms is made of rubber with a flexing seat about said side arms.

6) Adjuster according to claim 5 characterised in that a peripheral portion of said headrest elements distal from said side arms comprises gel inserts.

7) Adjuster according to any one of claims 1 to 6 characterised in that said headrest elements are replaceable.

8) Adjuster according to claim 1 characterised in that said headrest elements are orientable along the axis passing through said annular structure and comprise a cylindrical pin able to be coupled in relative cylindrical seats formed on said annular structure.

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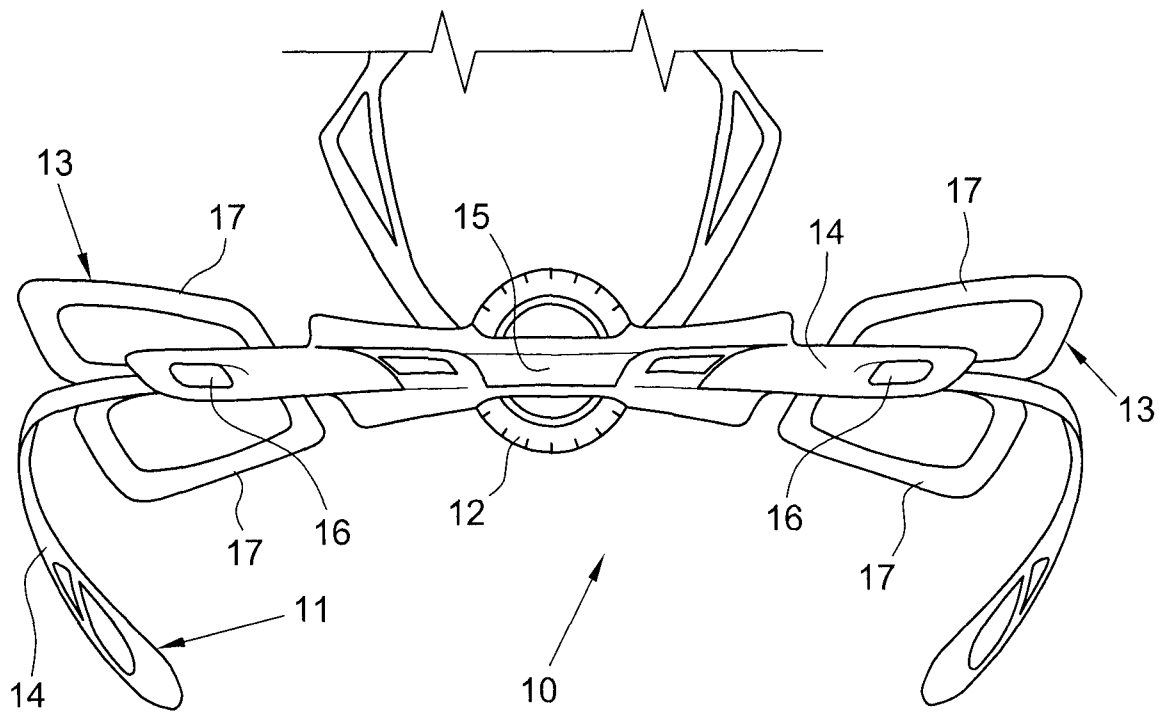


Fig. 1

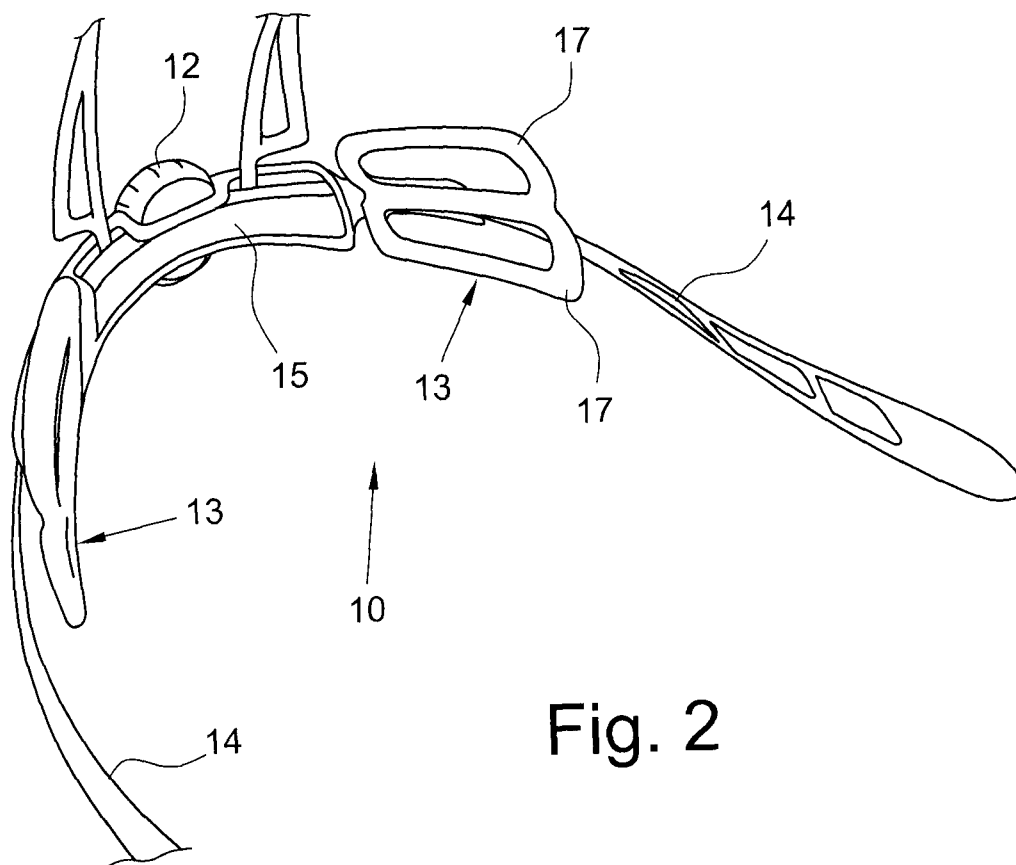


Fig. 2

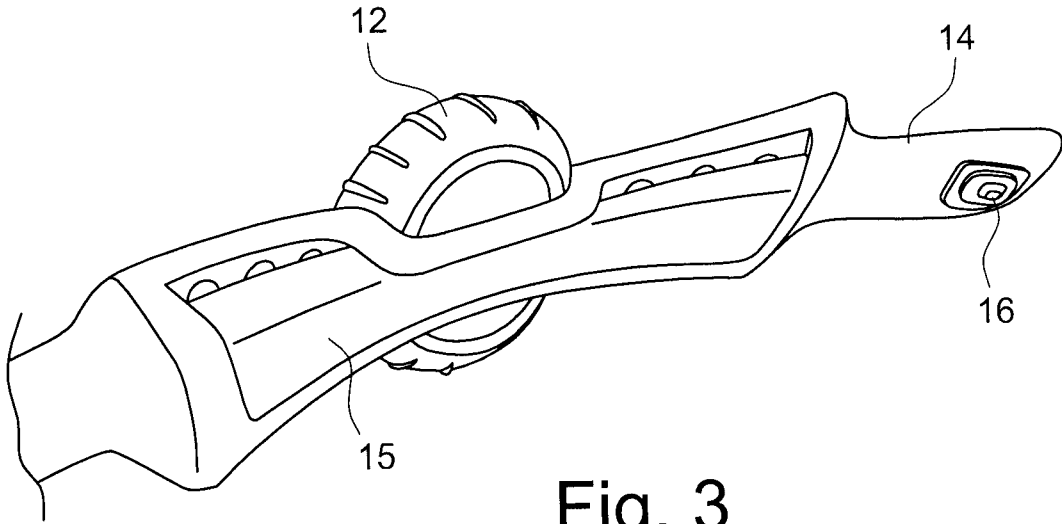


Fig. 3

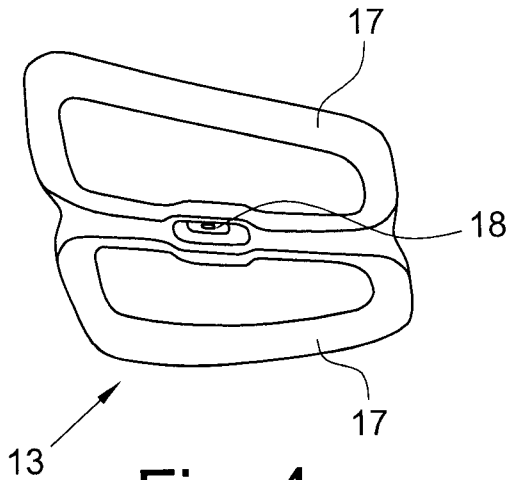


Fig. 4

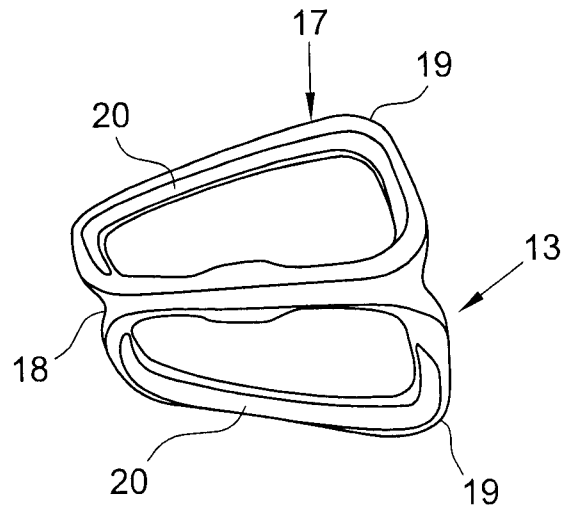


Fig. 5

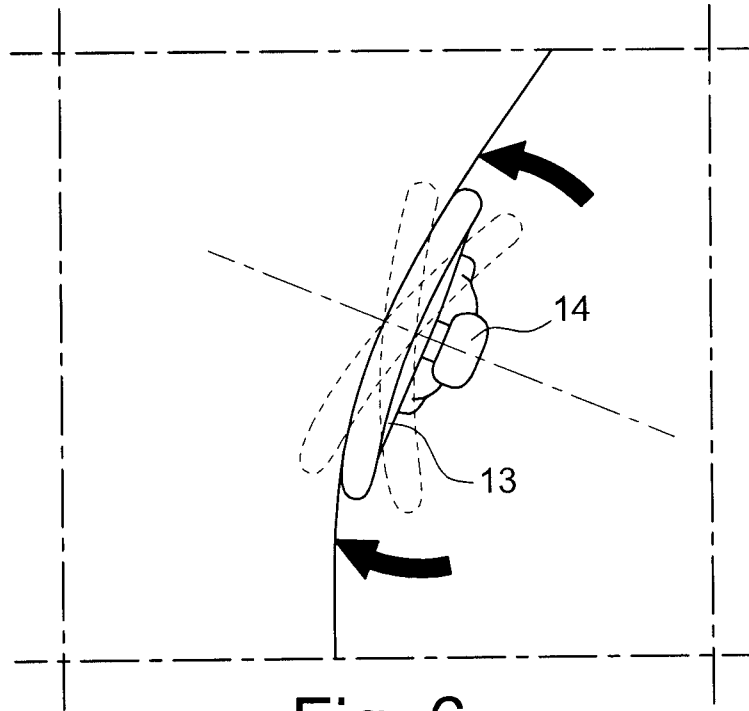


Fig. 6

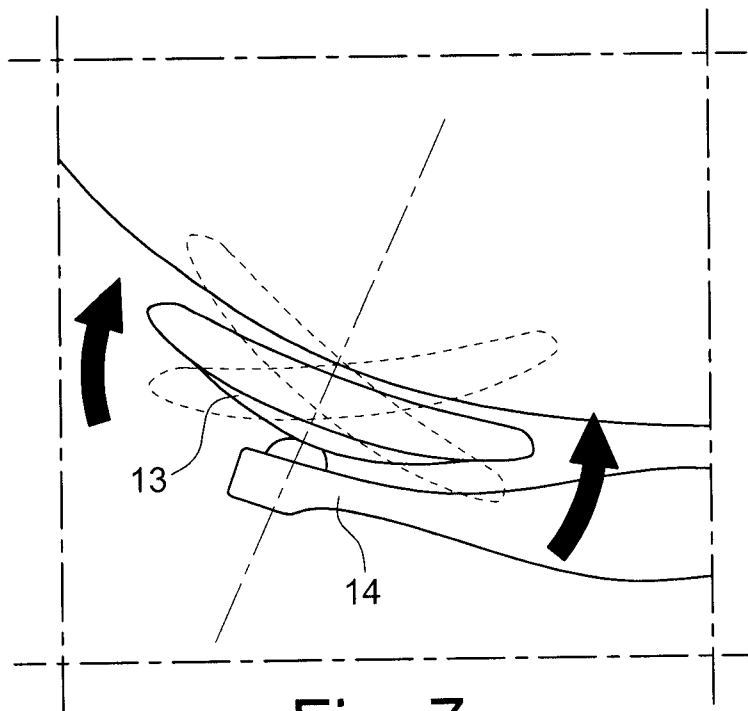


Fig. 7

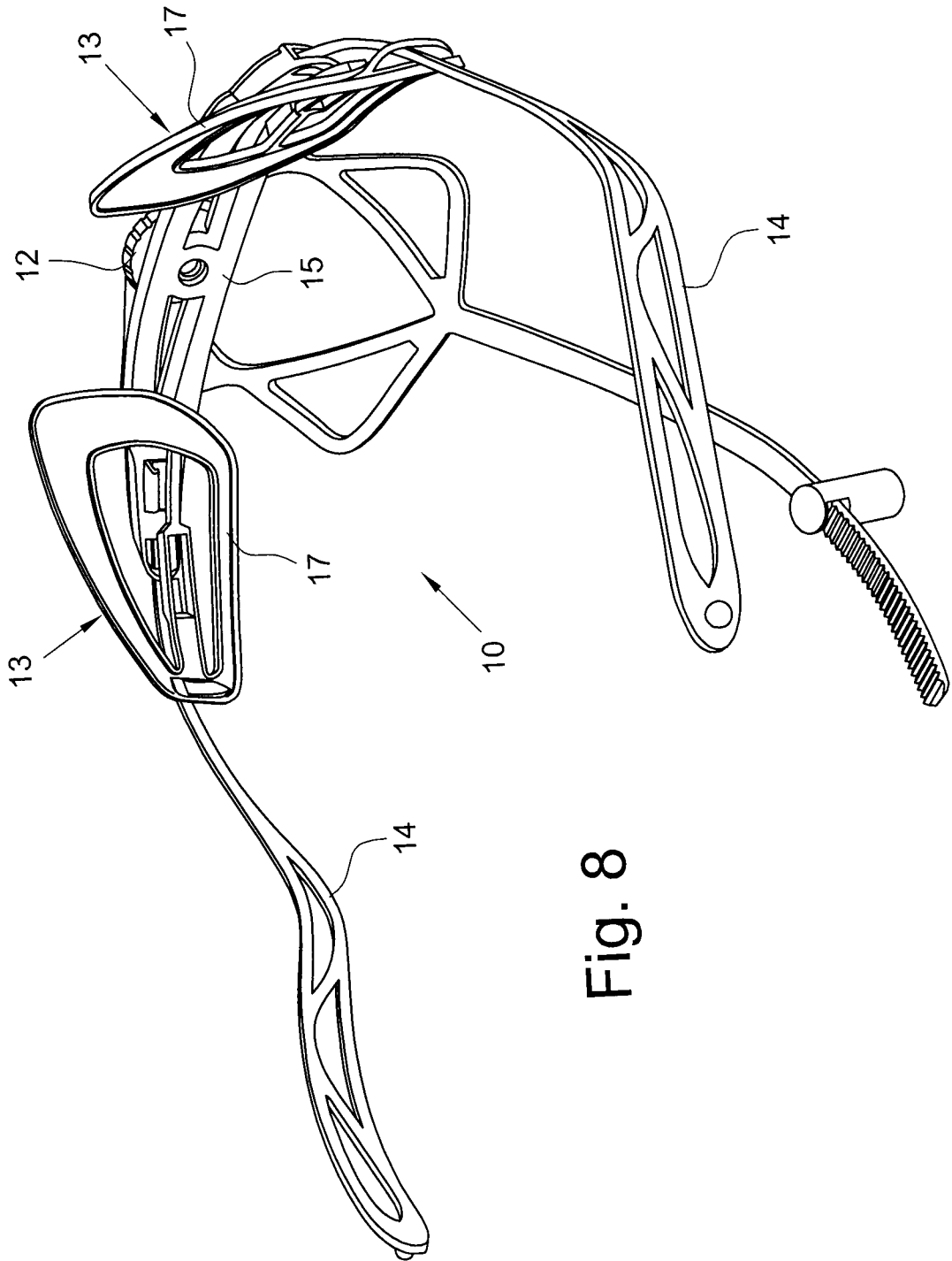


Fig. 8

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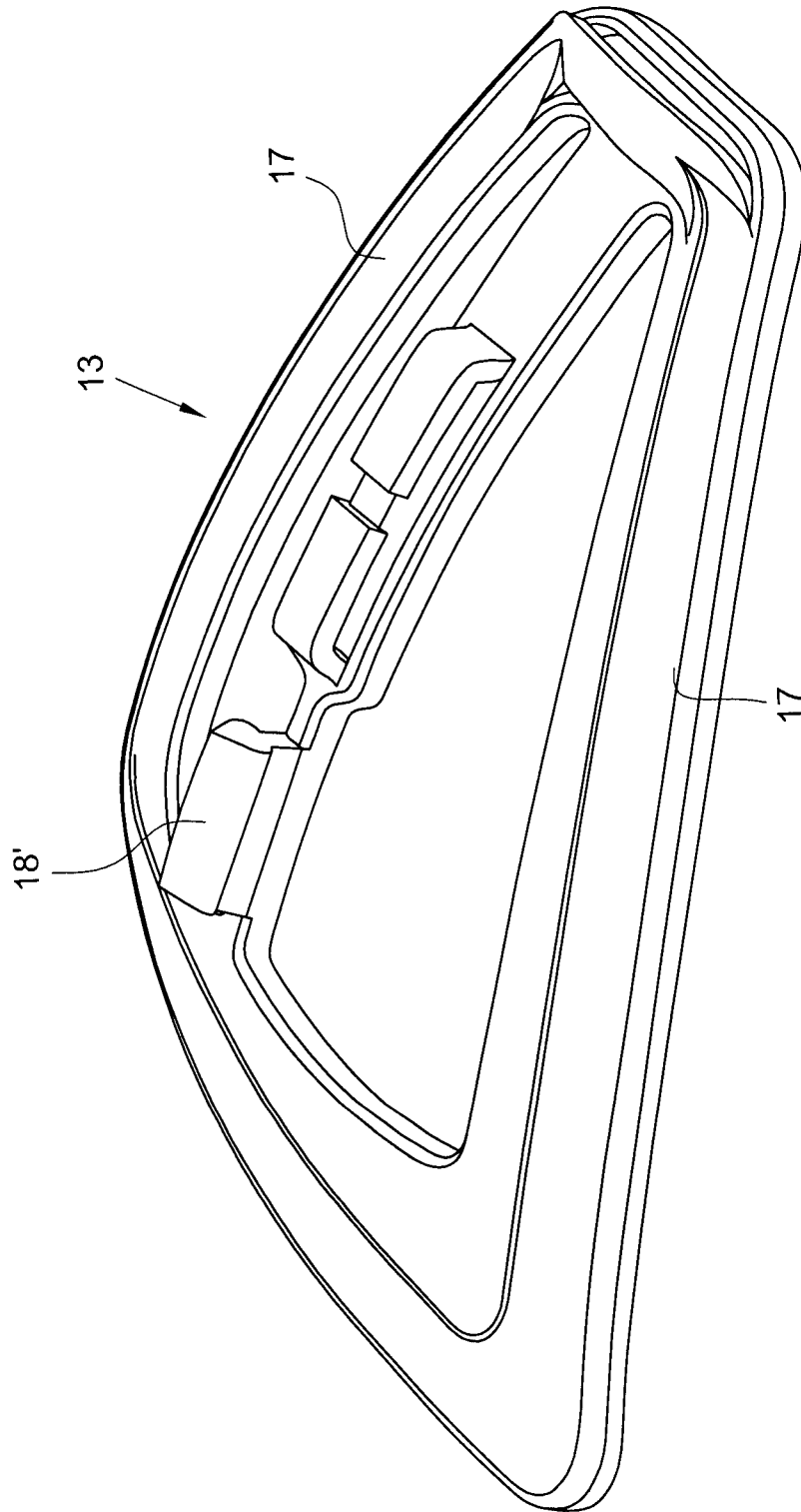


Fig. 9

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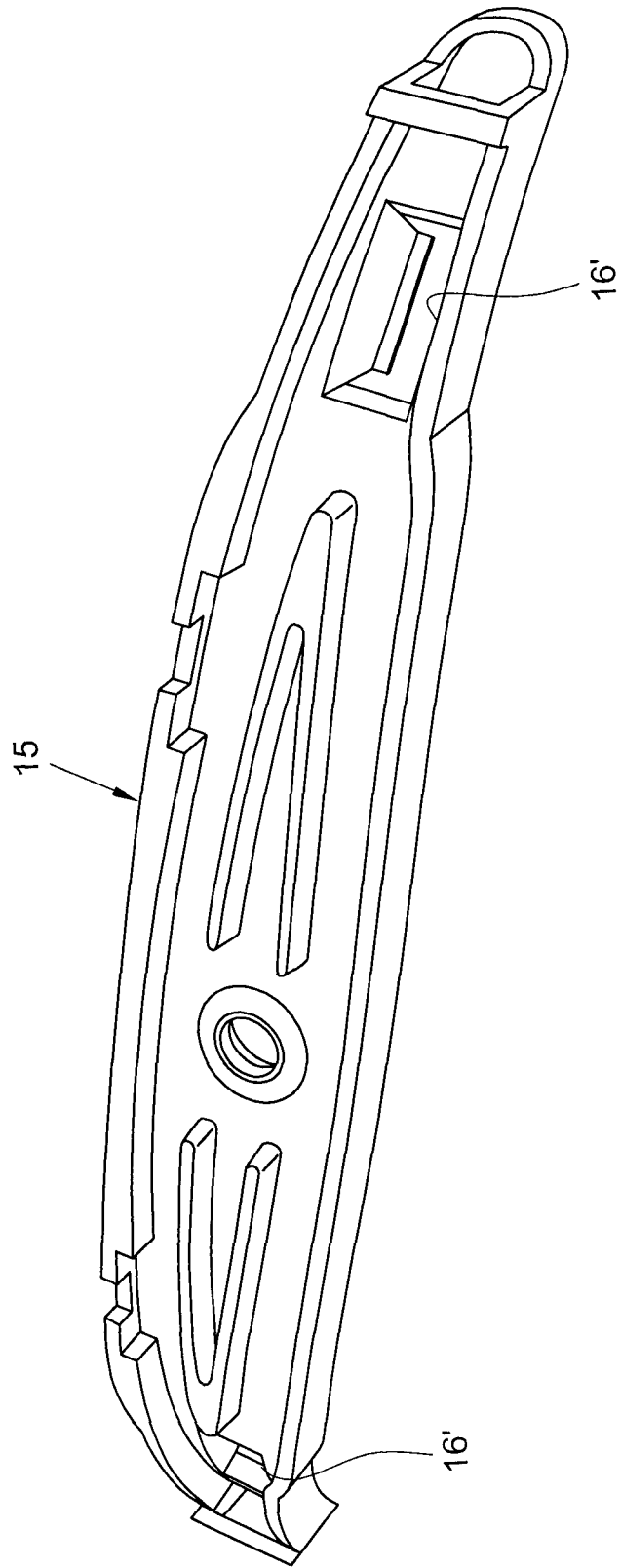


Fig. 10

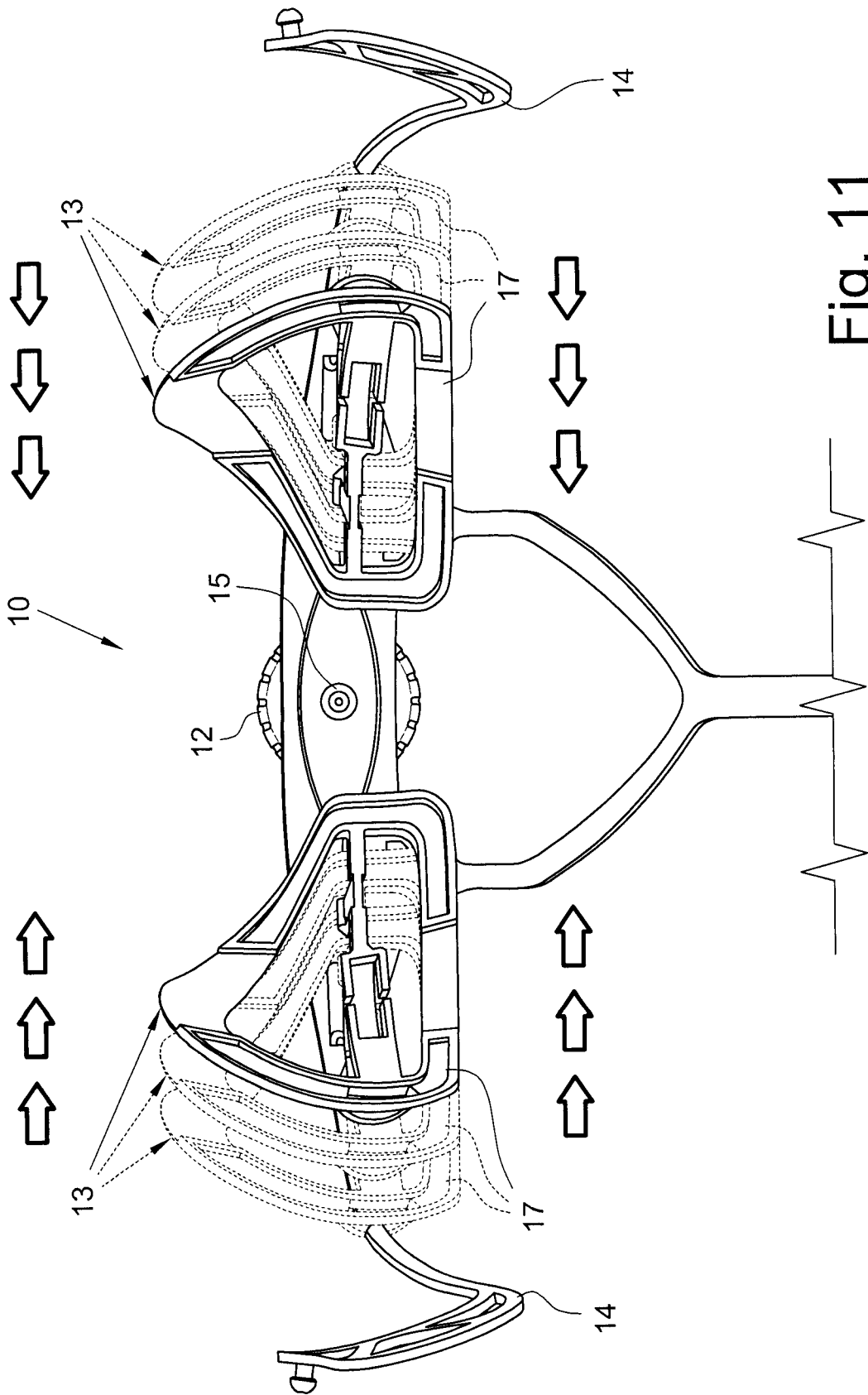


Fig. 11

