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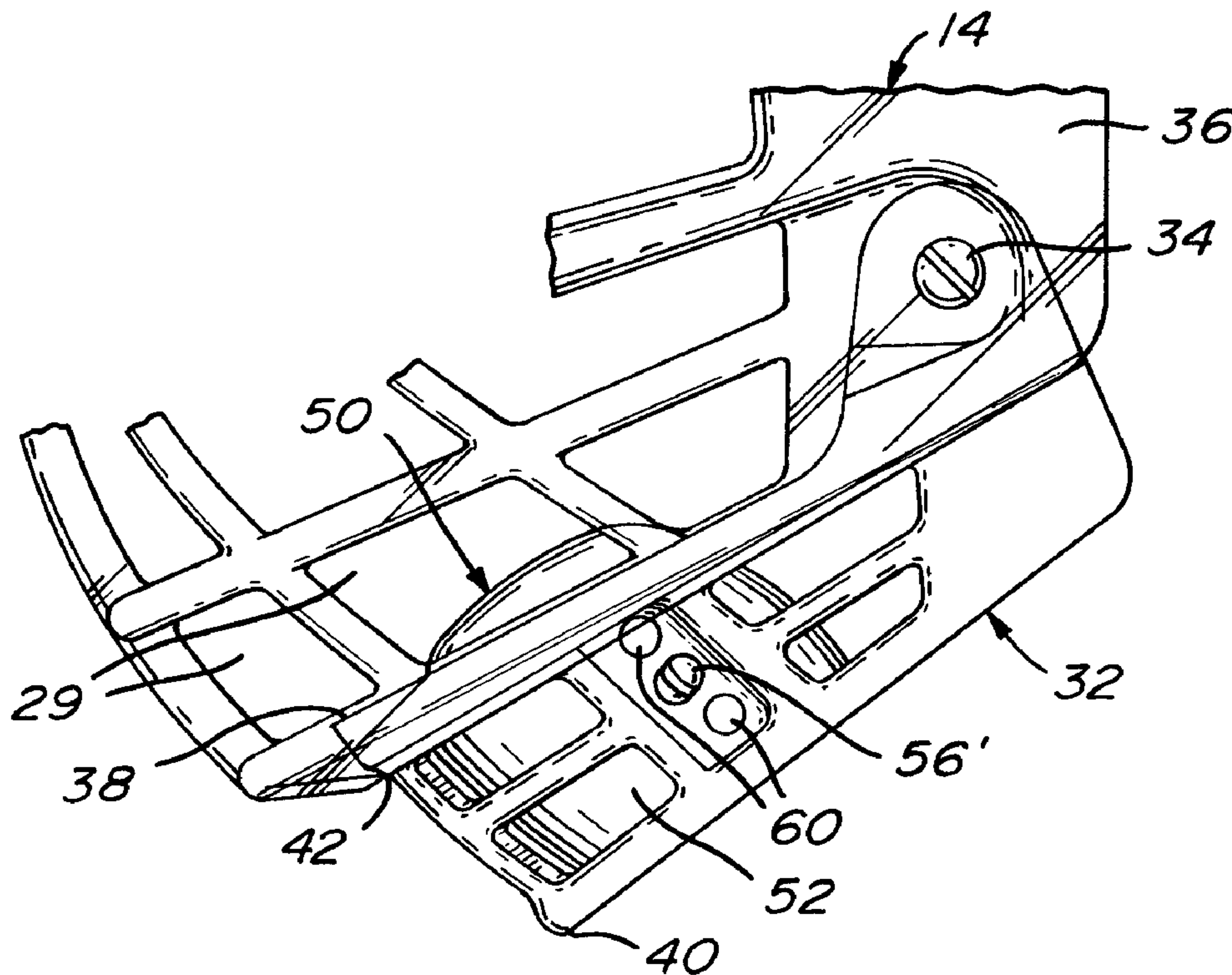
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(54) Titre : PROTECTEUR FACIAL MUNI D'UNE MENTONNIERE

(54) Title: FACE SHIELD WITH CHIN CONTACTING ELEMENT



(57) Abrégé/Abstract:

The disclosure herein describes a face guard for a sports headgear that comprises a face shield and a chin contacting element hingedly mounted to the lower part of the face shield, inwardly thereof. In one embodiment, the chin contacting element is pivotally mounted within a chin frame which is, itself, hingedly connected to the face shield, wherein the downward movement of the chin frame is limited by its upper edge contacting the lower edge of the face shield.

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ABSTRACT OF THE DISCLOSURE

The disclosure herein describes a face guard for a sports headgear that comprises a face shield and a chin contacting element hingedly mounted to the lower part of the face shield, inwardly thereof. In one embodiment, the chin contacting element is pivotally mounted within a chin frame which is, itself, hingedly connected to the face shield, wherein the downward movement of the chin frame is limited by its upper edge contacting the lower edge of the face shield.

TITLE OF THE INVENTION

Face shield with chin contacting element.

FIELD OF THE INVENTION

The present invention relates to a face shield for use with a sports headgear equipped with a chin contacting element.

5 BACKGROUND OF THE INVENTION

At present, face guards for sports headgear, such as football or hockey helmets, consist of a shield which can be either of the grill type, consisting of metallic bars, or of the visor type wherein a transparent plastic member extends at least over the viewing portion of the face guard.

In football, a strap extends from both sides of the helmet and supports an intermediate chin contacting element. The strap, when secured to the helmet by means of snaps, serves to tightly maintain the helmet to the head of the wearer. In hockey, there is usually a loose strap extending under the player's chin, the strap being secured again to opposite side snaps on the helmet. In

both sports, it has been found that the strap is cumbersome. In football, for example, very often the strap must be unsnapped after each play in order to release the pressure exerted on the player's head. In
5 hockey, the strap must be maintained loose in order to enable the player to remove his helmet for cooling.

OBJECTS AND STATEMENT OF THE INVENTION

An object of the present invention is to overcome the above problems with presently used sports
10 face guards. This is achieved by providing a face guard with a shield equipped with a chin contacting element mounted to the face shield instead of being secured to the helmet by snaps or other attachment means.

It is another object of the present invention
15 to hingedly connect the chin element to the face shield thus allowing the device to follow the jaw movements of the user.

In one embodiment of the present invention, the face guard comprises a face shield defining an arc-

shaped body having a front viewing section and opposite side sections, the side sections being adapted for mounting to a helmet forming part of the sports headgear;

a chin device defining an arc-shaped rigid frame hingedly mounted at a lower part of and within the arc-shaped body, the frame defining a central region and opposite side regions, the side regions being pivotally connected to the side sections of the face shield;

a chin contacting element mounted to the central region of the frame; and

means limiting downward pivotal movement of the frame.

In one form of this embodiment of the invention, the downward limiting movement of the frame is accomplished by having the upper edge of the frame contacting the lower edge of the face shield.

In another form, the chin contacting element is pivotally connected to the frame of the chin device.

Other objects and further scope of applicability of the present invention will become apparent from the detailed description given hereinafter. It should be understood, however, that this detailed description, while indicating preferred embodiments of the invention, is given by way of illustration only, since various changes and modifications within the spirit and scope of the invention will become apparent to those skilled in the art.

10 **IN THE DRAWINGS**

Figure 1 is a perspective view of one embodiment of a face guard made in accordance with the present invention;

15 Figure 2 is an enlarged side elevation view of the chin device mounted to the lower part of the face shield, partially shown;

Figure 3 is a view similar to that of figure 2 showing another position of the chin frame;

20 Figure 4 is a cross-sectional view of the chin contacting element;

Figure 5 is a perspective view of the chin device;

Figure 6 is a top plan view thereof;

Figure 7 is a bottom perspective view showing
5 another embodiment of the present invention; and

Figure 8 is a cross-sectional view of the chin contacting element of figure 7.

DESCRIPTION OF PREFERRED EMBODIMENTS

Referring to figure 1, there is shown a first
10 embodiment of a sport headgear, generally denoted 10,
consisting of a helmet 12 and of a face guard 14, the
latter being hingedly connected to the helmet at opposite
sides thereof through appropriate hinge elements 16.
These elements are mounted for pivotal movement to an
15 adapter 18 secured to the helmet and serving as an
intermediate member between the helmet and the shield.
Interlocking elements 20 and 22 respectively mounted to
the adapter and to the face shield allow the face shield
to be secured to the helmet; on the other hand, these
20 interlocking elements are releasable to enable a manual
disengagement whereby the face shield may be lifted

outwardly over the helmet. The particular construction of this face shield and its interconnection with the helmet is described in a co-pending application filed concurrently herewith.

5 The face guard 14 consists in the present embodiment of a transparent arc-shaped body made of plastics material and having an upper part defining a central viewing section and opposite side sections. The side sections are secured by fastening elements 24
10 received in a slotted member 26 which serves to permit various positionings of the face guard relative to the helmet.

 The lower part of the face shield has a grill type structure with a series of openings 29 allowing for
15 ventilation. Similar openings 30 are provided on each side section of the transparent body to also provide ventilation to the user.

 Referring to figures 2 to 6, a chin device 32 in the shape of an arc-shaped rigid frame has a pair of

opposite side wings 32a, 32b which are pivotally
connected by appropriate fastening hinge elements 34 to
the sides 36 of the face shield 14. Preferably, the
common axis extending through both hinges 34 coincides
5 with the pivotal axis of a human jaw. However the
position of this axis may vary, as described in the
above-mentioned co-pending application, to conform with
the varying face configurations of users; this is
achieved by manipulating and adjusting the fastening
10 elements 24 on each side of the face shield.

The arc-shaped rigid frame comprises an upper
edge 38 and a lower edge 40 (see figure 4). The downward
movement of the frame 32 is limited by the upper edge 38
of the frame when contacting the lower edge 42 of the
15 face shield 14.

As illustrated in figures 4, 5 and 6, a chin
contacting element 50 is mounted in the front central
region of the frame 32. This element comprises a rigid
outer shell 52 and an inner chin contacting cushion
20 element 54. Shell 52 is mounted to the frame in a manner

that it can pivot relative to the frame about a pair of hinge elements 56 and 58. The hinges 56 and 58 each have a head portion (see 56' in figure 3) which can be snapped in and out of a series of vertically spaced openings 60
5 in the frame, again to provide comfortable positioning of the chin device on the chin of a user.

Hence, the chin contacting device has a double pivot adjustability with respect to the user's chin in that it pivots about the hinges 56 and 58 of the frame
10 which, in turn, may pivot about the pivots 34 on each side of the frame.

Figures 7 and 8 show another embodiment of the present invention wherein a chin contacting device 100 is mounted directly to the lower part of a face shield 102.
15 In this embodiment, the lower grill-like structure 104 of the face shield is provided with one or more openings 106 on opposite sides of the central region of the face shield so that the head of hinge elements 108, 110 may be snappily engaged therein. Again, an adjustment is
20 possible by properly locating the hinge elements in the

desired opening. These hinge elements are fixed to the rigid outer shell 112 of the chin device which also includes an inner cup-shaped cushion element 114.

Although the invention has been described above
5 with respect to two specific forms, it will be evident to a person skilled in the art that it may be modified and refined in various ways. It is therefore wished to have it understood that the present invention should not be limited in scope, except by the terms of the following
10 claims.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A face guard for a sports headgear comprising:

a face shield defining an arc-shaped body having a front viewing section and opposite side sections, said side sections being adapted for mounting to a helmet forming part of the sports headgear;

a chin device defining an arc-shaped rigid frame hingedly mounted at a lower part of and within said arc-shaped body of said face shield; said frame defining a central region and opposite side regions, said side regions being pivotally connected to said side sections of said face shield;

a chin contacting element mounted to said central region of said frame; and

means limiting downward pivotal movement of said frame.

2. A face guard as defined in claim 1, wherein said face shield body has a lower part defining a lower peripheral edge; said frame of said chin device defining an upper peripheral edge; said limiting means consisting of said upper peripheral edge contacting said lower peripheral edge on downward movement thereof.

3. A face guard as defined in claim 1, wherein said chin contacting element is hingedly mounted to said frame.

4. A face guard as defined in claim 3, wherein said chin contacting element is cup-shaped with opposite sides thereof pivotally connected to said frame.

5. A face guard as defined in claim 3, wherein said chin contacting element consists of an outer rigid shell and of an inner cushion material.

6. A face guard as defined in claim 1, wherein said frame defines a grill structure.

7. A face guard as defined in claim 2, wherein said face shield is made of a transparent plastics material.

8. A face guard as defined in claim 7, including a series of ventilation openings in said opposite side sections of said face shield.

9. A face guard as defined in claim 7, wherein said lower part of said face shield defines a grill structure including ventilation openings.

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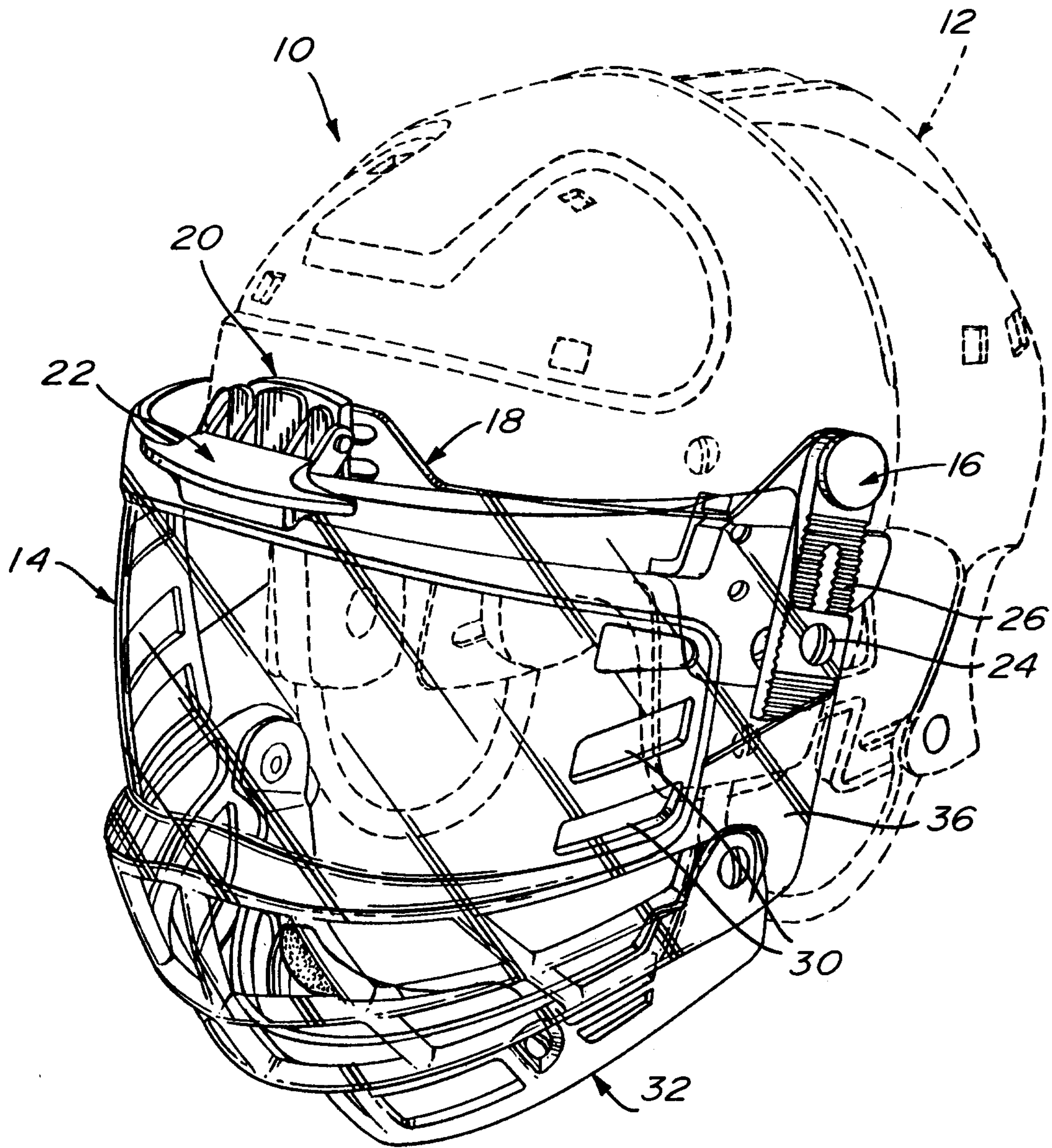
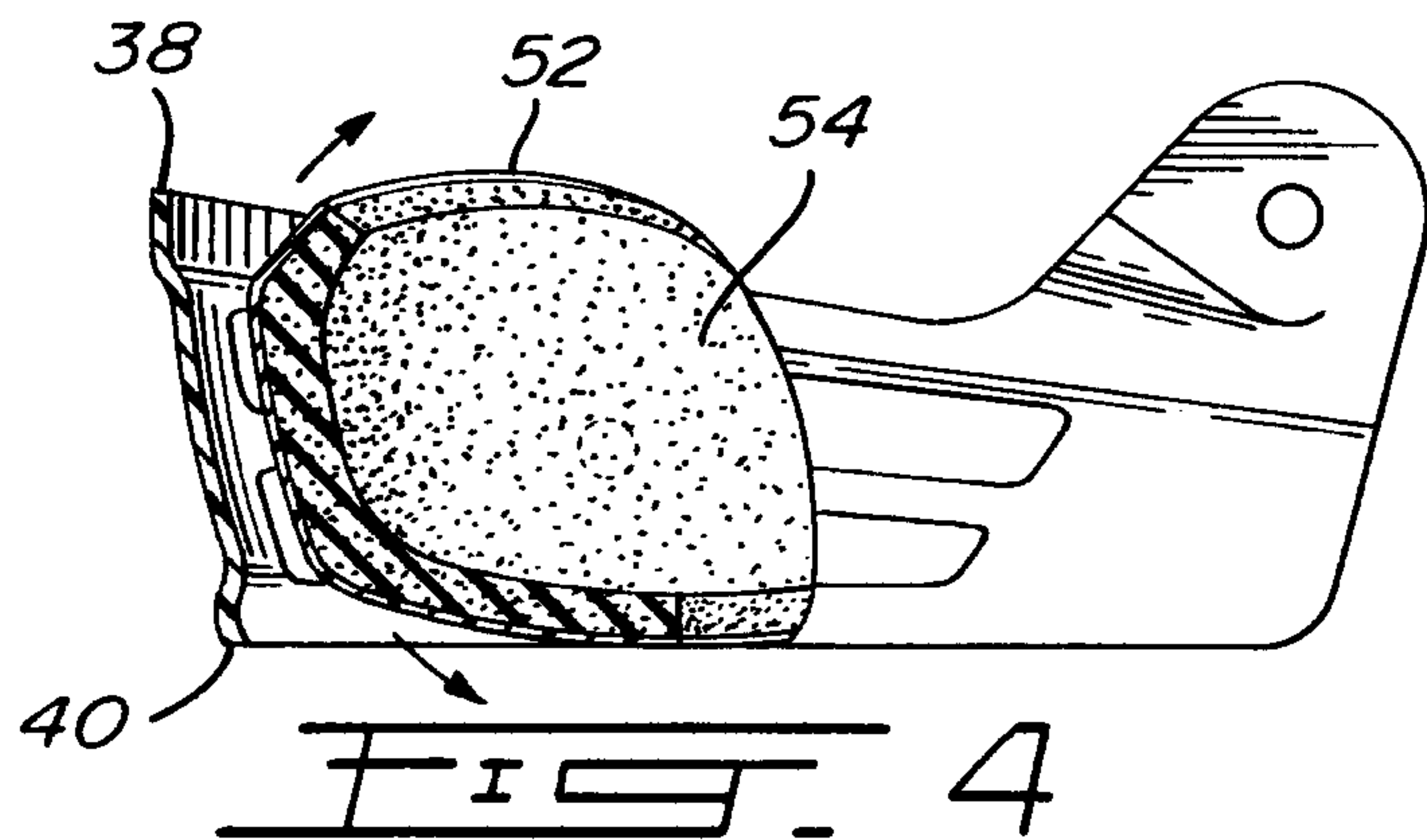
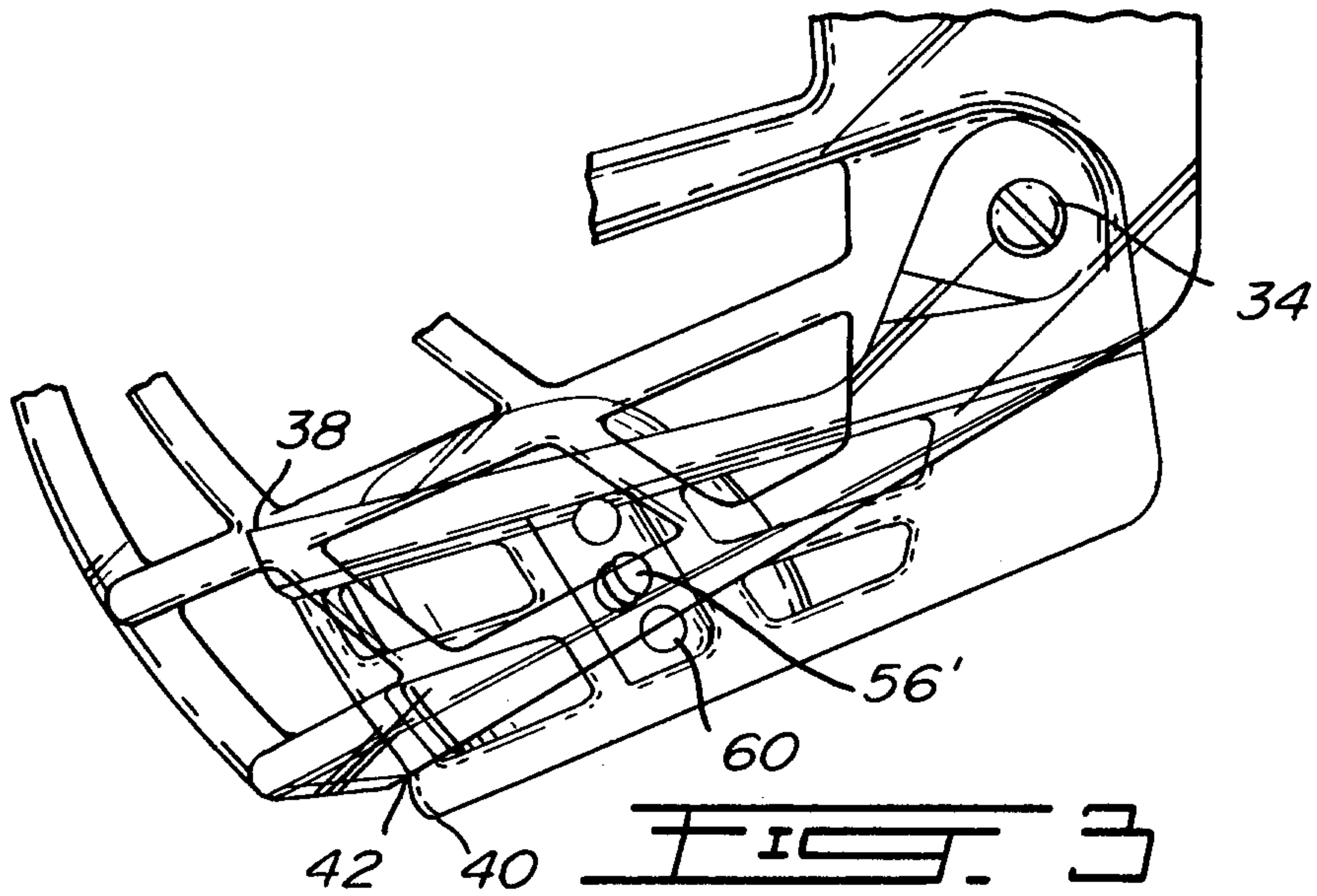
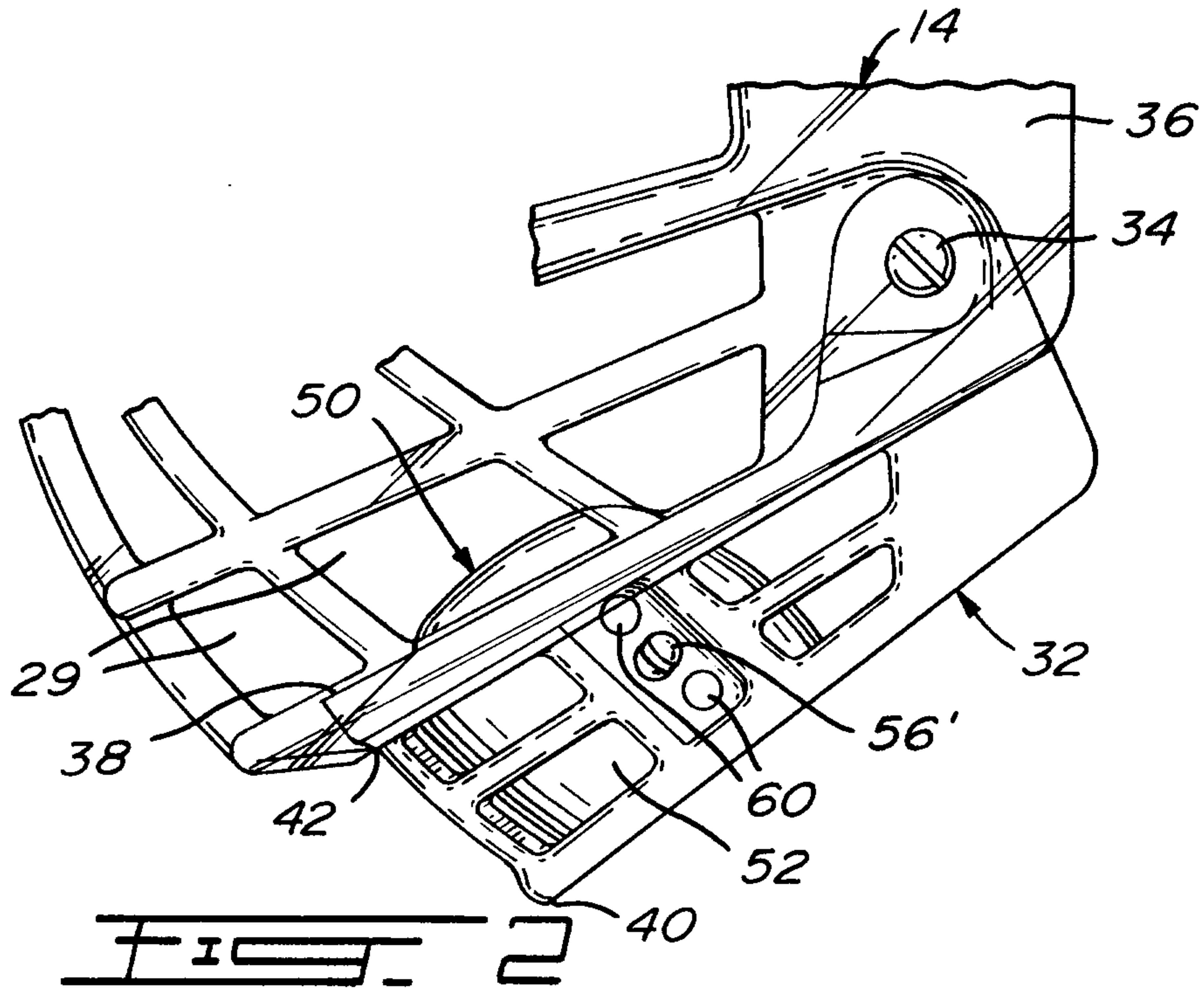


FIG. 1

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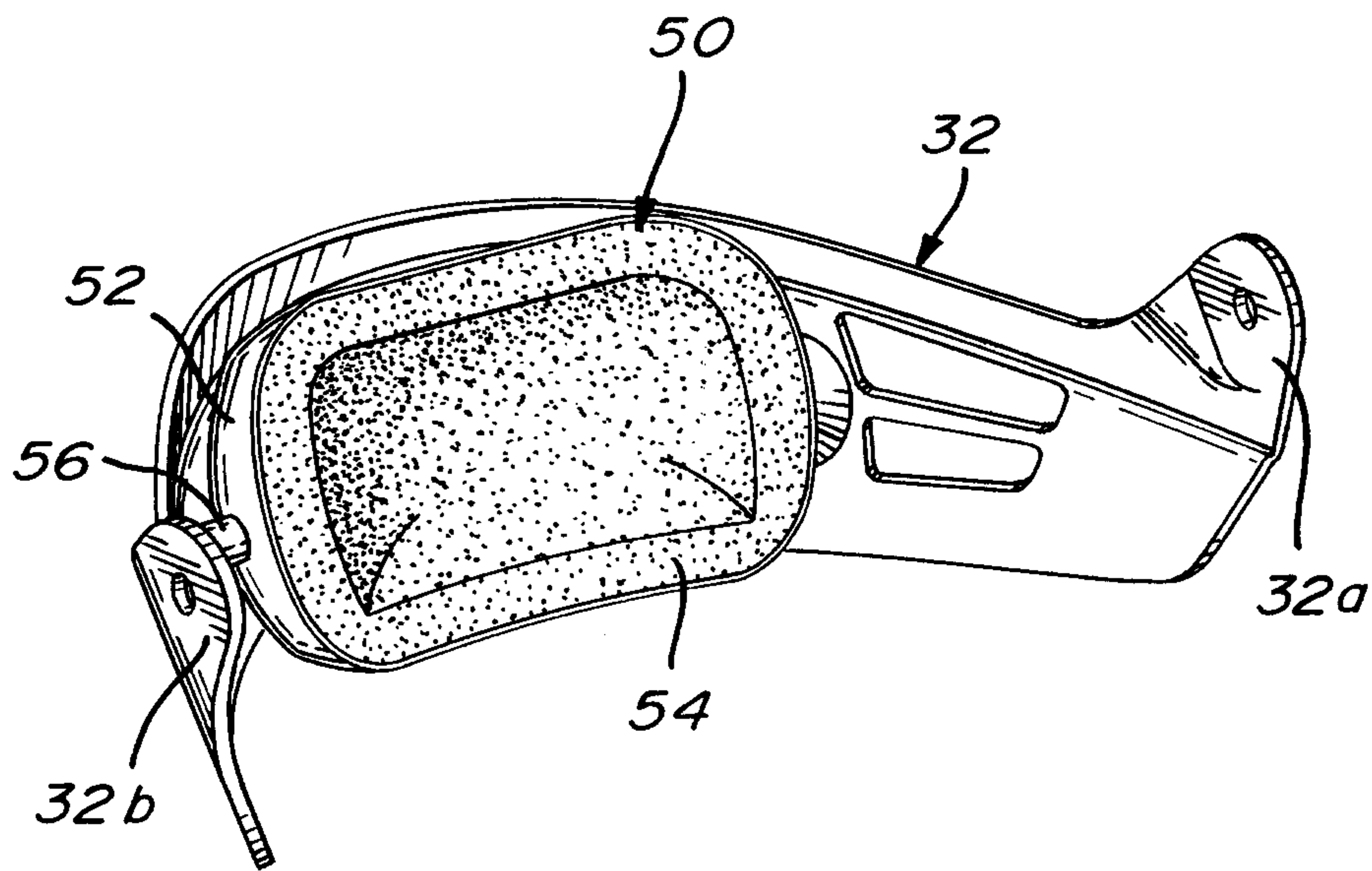


FIG. 5

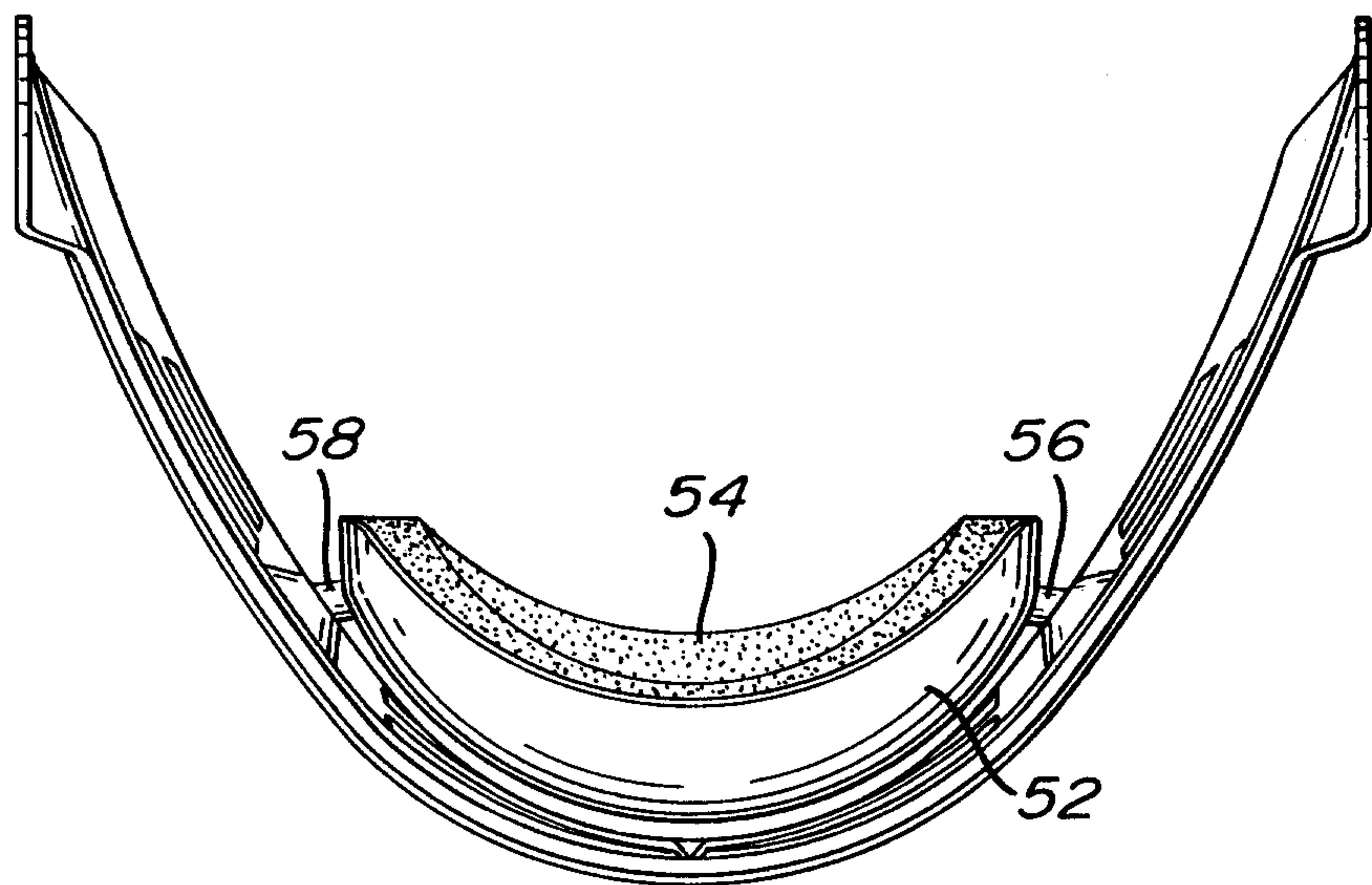
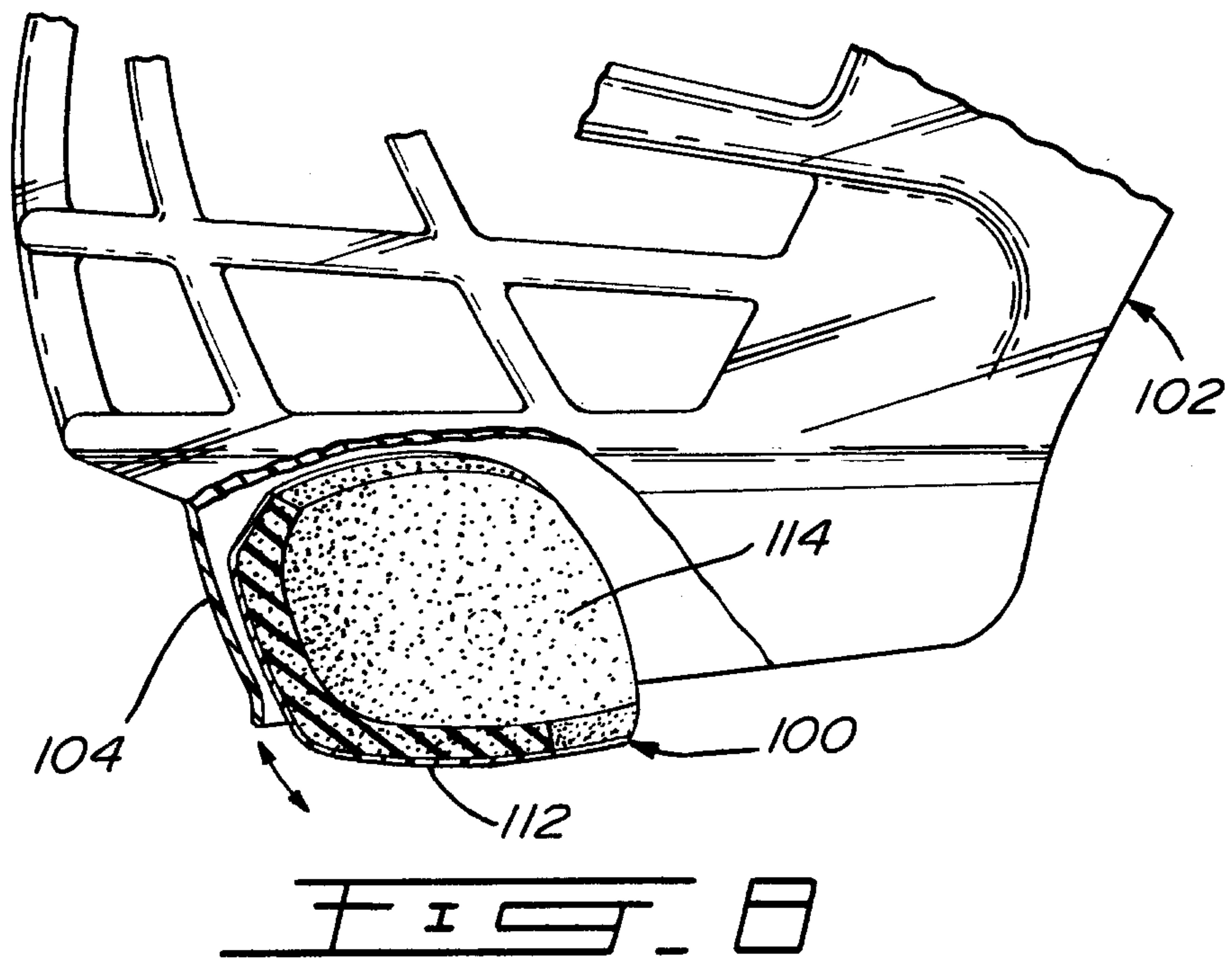
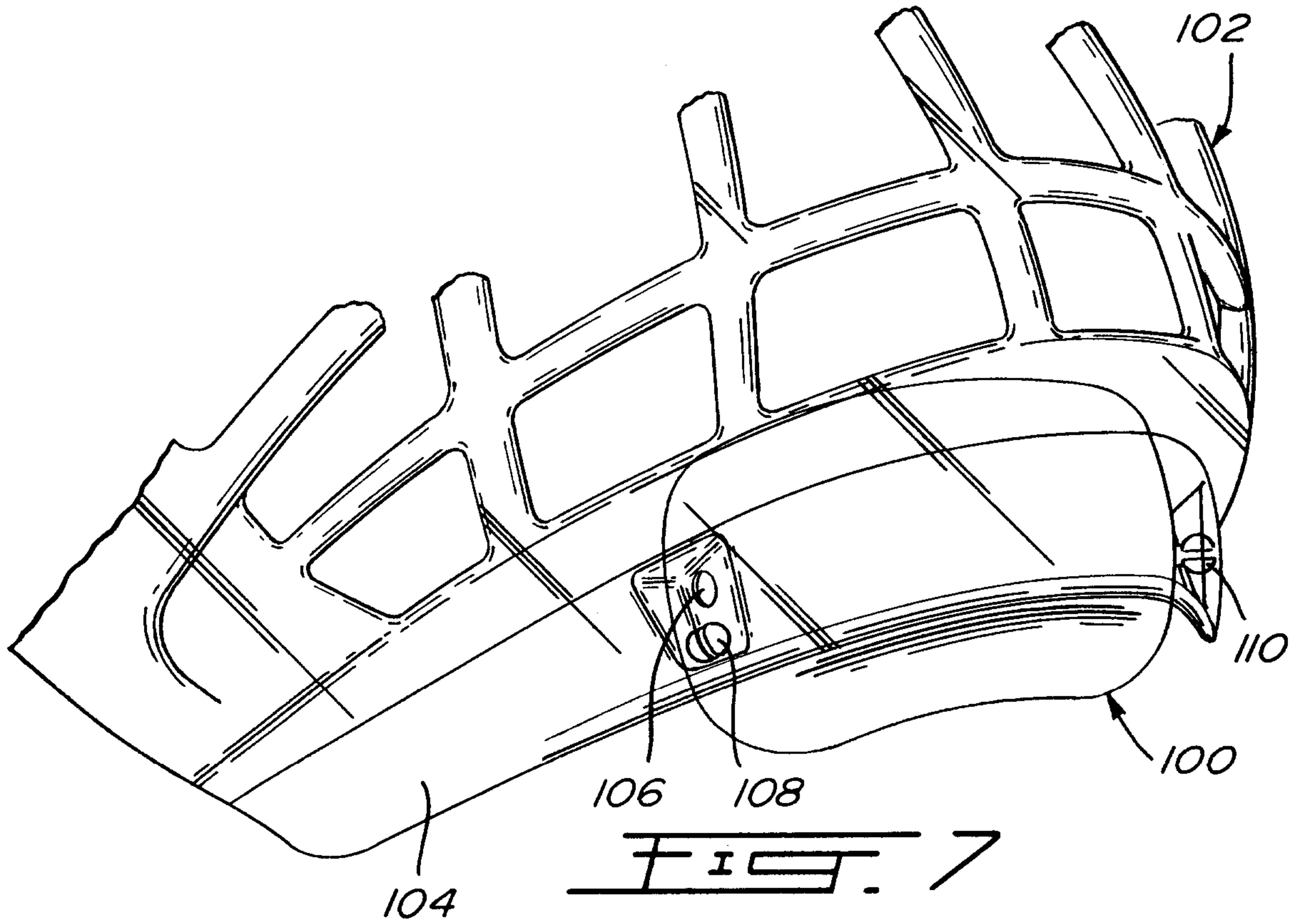


FIG. 6

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