

**(12) INNOVATION PATENT**  
**(19) AUSTRALIAN PATENT OFFICE**

(11) Application No. **AU 2011101018 A4**

(54) Title  
**Helmet Brim**

(51) International Patent Classification(s)  
**A42B 3/16** (2006.01)

(21) Application No: **2011101018**

(22) Date of Filing: **2011.08.12**

(45) Publication Date: **2011.09.15**

(45) Publication Journal Date: **2011.09.15**

(45) Granted Journal Date: **2011.09.15**

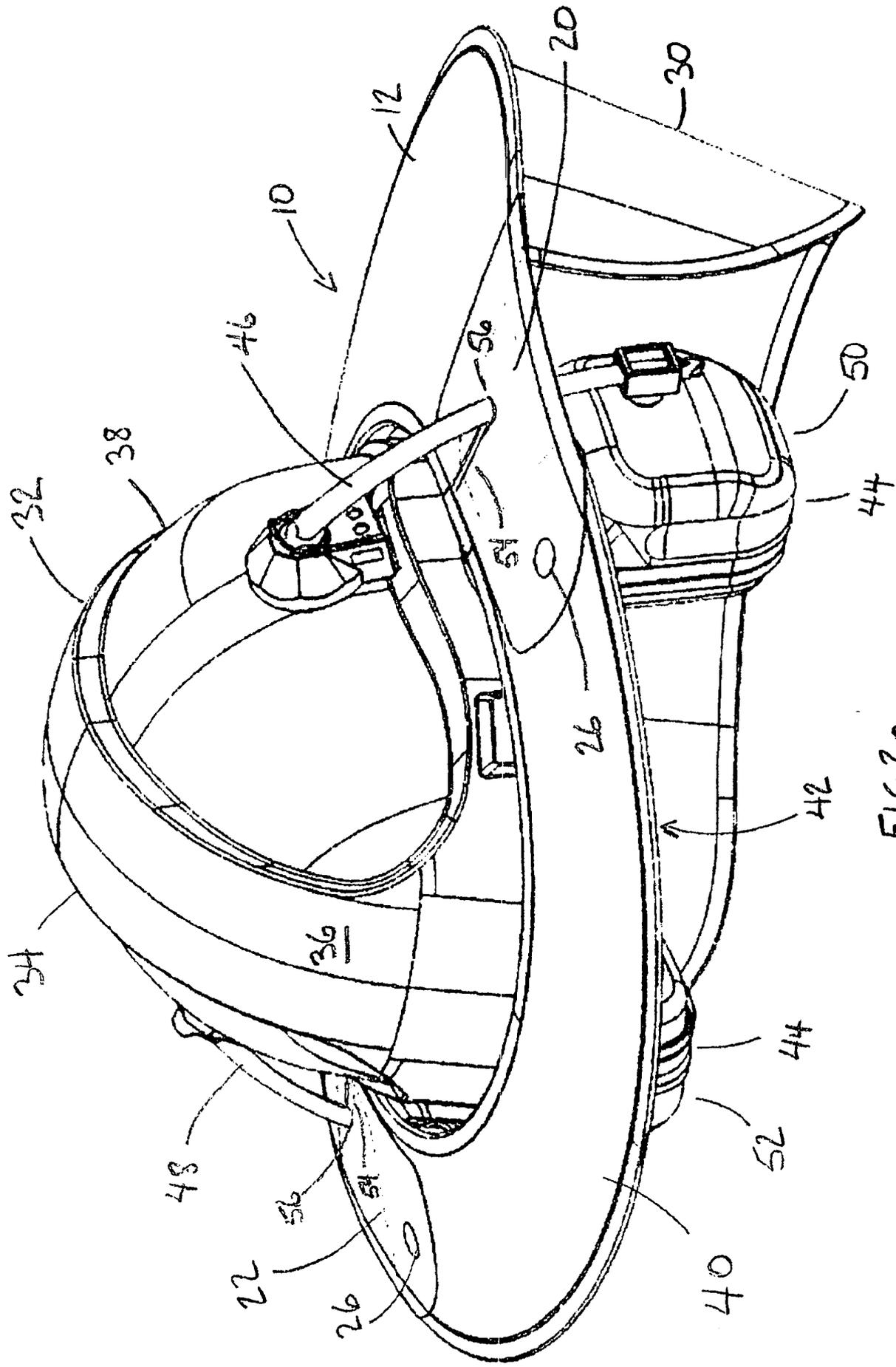
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**ABSTACT**

5 A helmet brim has a substantially disc shaped portion having a central opening for receiving the dome portion of a helmet. Cutouts are formed in the disc portion brim for accommodating hearing protection for each ear of the wearer. In addition, flaps may be opened to uncover the cutouts allowing placement of the attachment arms through the cutouts. The brim may also include a downwardly extending rear portion.



2011101018 12 Aug 2011

AUSTRALIA

Patents Act. 1990

COMPLETE SPECIFICATION

Innovation Patent

Applicant(s):

*Scott Health & Safety Ltd*

Invention Title:

*Helmet Brim*

The following statement is a full description of this invention,  
including the best method for performing it known to me/us:

**HELMET BRIM****FIELD OF THE INVENTION**

5 This invention relates to safety equipment, and more particularly, to a helmet  
brim for accommodating a hearing protection in combination with the use of a safety  
helmet. The helmet brim may be used with a helmet with integral attachment arms  
supporting earmuffs (also referred to as "hearing protection") or as a fixed component  
to the helmet used in combination with detachable hearing protection.

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**BACKGROUND OF THE INVENTION**

Hazardous work environments are becoming increasingly common in the  
industry. Workers are protected from injury in such environments by utilizing safety  
15 equipment in conjunction with procedures which promote a safe work environment.  
The safety equipment may include protective headgear such as a safety helmet which  
provides a level of protection against injury to a user's head by absorbing mechanical  
energy and protecting against penetration. In addition to their energy-absorption  
capability, a helmet's weight and weight distribution are important considerations, since  
20 increases weight and unequal weight distribution affect comfort. Work environments  
are also frequently noisy and require the use of hearing protection devices such as  
earmuffs. It would be desirable to provide additional protection for a user in such work  
environments while also providing hearing protection.

**25 SUMMARY OF THE INVENTION**

A helmet brim accommodates a helmet having a dome portion and first and  
second attachment arms for holding earmuffs. The brim includes a preferably  
substantially disc shaped portion having a central opening for receiving the dome  
30 portion. First and second cutouts are formed in the disc portion for accommodating the  
first and second attachment arms, respectively. In addition, first and second flaps are  
provided for covering the first and second cutouts, respectively. Alternatively the hat  
brim may be fixed to the helmet accommodating removable hearing protections having  
first and second cutouts and first and flaps provided for covering the first and second  
35 cutouts with the first and second cutouts are formed in the disc portion for  
accommodating a first and second arm portion of hearing protection. Preferably the  
brim also includes a downwardly extending rear portion.

**BRIEF DESCRIPTION OF THE DRAWINGS**

Fig. 1 is a perspective view of a helmet brim in accordance with the present invention.

Figs. 2a – 2b are left and right perspective views, respectively, of the brim assembled with a safety helmet.

Fig. 3 is a right side view of the brim and helmet.

Fig. 4 is a front view of the brim and helmet.

**DESCRIPTION OF THE PREFERRED EMBODIMENT OF THE INVENTION**

Before any embodiments of the invention are explained in detail, it is to be understood that the invention is not limited in its application to the details of construction and the arrangement of components set forth in the following description or illustrated in the following drawings. The invention is capable of other embodiments and of being practiced or of being carried out in various ways. Also, it is to be understood that the phraseology and terminology used herein is for the purpose of description and should not be regarded as limiting. The use of “including,” “comprising,” or “having” and variations thereof herein is meant to encompass the items listed thereafter and equivalents thereof as well as additional items. Unless specified or limited otherwise, the terms “mounted,” “connected,” “supported,” and “coupled” and variations thereof are used broadly and encompass direct and indirect mountings, connections, supports, and couplings. Further, “connected” and “coupled” are not restricted to physical or mechanical connections or couplings. In the description below, like reference numerals and labels are used to describe the same, similar or corresponding parts in the several views of Figs. 1-4.

Referring to Fig. 1, a helmet brim 10 in accordance with the present invention is shown. The brim 10 includes a substantially disc shaped portion 12 having a central opening 14 for receiving a dome portion 32 of a helmet 32 (see Figs. 2-4). The disc portion 12 is fabricated from a relatively lightweight and semi rigid material and has a flat configuration which extends from a relatively lightweight and semi rigid material and has a flat configuration which extends outwardly from the central opening 14 to

provide additional protection to a user from the sun or objects which may impact the helmet 32. The disc portion 12 further includes left 16 and right 18 (from a user's perspective) U-shaped cutouts located approximately 180 degrees from each other. Left 20 and right 22 flap portions are located adjacent the left 16 and right 18 cutouts, respectively. A bottom edge 24 of the left 20 and right 22 flap portions is attached to the disc portion 12 to enable rotation of left 20 and right 22 flap portions. In Fig. 1, the left 20 and right 22 flap portions are shown in an open position wherein the left 20 and right 22 flap portions rest on the brim 10. The left 20 and right 22 flap portions may be rotated to a closed position wherein the left 20 and right 22 flap portions cover the left 16 and right 18 cutouts, respectively. The left 20 and right 22 flap portions each include a fastening device 26 which is adapted to mate with a corresponding fastening device 28 on the disc portion 12 in order to removably secure the left 20 and right 22 flap portions to the disc portion 12. By way of example, buttons or hook and loop fastening devices may be used, such as VELCRO® brand hook and loop fasteners. The brim 10 further includes a front section 40 and a rear section 30 which extends downwardly from the disc portion 12 and which is also fabricated from a semi rigid material. The rear section 30 serves to protect a rear portion for a user's neck and helmet.

Referring to Figs. 2-4, the brim 10 is shown assembled to the helmet 32. The helmet 32 may be any type of safety helmet, such as that supplied by Scott Safety. The brim 10 is assembled to the helmet 32 by aligning front 36 and rear 38 sections of the helmet 32 with the front 40 and rear 30 sections of the brim 10, respectively. The dome portion 34 of the helmet 32 is then inserted into the central opening 14 until a visor or lip portion of the helmet 32 abuts against a bottom surface 42 of the disc portion 12. The brim 10 may then be affixed to the helmet 32 by fasteners such as hook and loop fasteners or may be supported by visor and lip portions.

Earmuffs 44 for protecting against user hearing damage are attached to the helmet 32. The earmuffs 44 may be any type of earmuffs which provide hearing protection, such as that supplied by Scott Safety. The earmuffs 44 include left 50 and right 52 cups which are attached to the dome portion 34 by the left 46 and right 48 arms, respectively. The left 50 and right 52 cups each include structure and materials adapted for attenuating unwanted noise in order to protect a user from hearing damage. Alternatively, the left 50 and right 52 cups may include active noise protection technologies or a combination of active and passive technologies for attenuating noise. The left 46 and right 48 arms are fabricated from a resilient material such that when the helmet 32 is worn by a user, the left 50 and right 52 cups are urged against the

user's ears to enclose the ear area.

5       Once the brim 10 and helmet 32 are assembled, the left 46 and right 48 arms  
extend through the left 16 and right 18 cutouts, respectively, thus avoiding interference  
between the left 46 and right 48 arms and the brim 10. In addition, the left 20 and right  
22 flap portions each include a slit 54 which extends to a hole 56. The left 46 and right  
48 arms slide through a corresponding slit 54 as the left 20 and right 22 flap portions  
are rotated to the closed position. Once the left 20 and right 22 flap portions are in the  
closed position, the left 46 and right 48 arms extend through a corresponding hole 56.  
10   In accordance with the present invention, the brim 10 and earmuffs 44 are worn  
simultaneously to provide additional protection for a user. Further, the brim 44 has a  
symmetrical configuration to provide equal weight distribution thus enabling the brim  
10 to be comfortably worn by the user. In an alternate embodiment, the brim 10 and  
helmet 32 may be a one piece configuration.

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      While the invention has been described in conjunction with specific  
embodiments, it is evident that many alternatives, modifications, permutations and  
variations will become apparent to those skilled in the art in light of the foregoing  
description. Accordingly, it is intended that the present invention embrace all such  
20   alternatives, modifications and variations.

**THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:**

1. A helmet brim for a helmet having a dome and attachment arms which extend from said helmet, comprising:
  - 5 a portion forming a central opening for receiving the dome;  
first and second cutouts formed in said disc portion for accommodating said attachment arms, and
  - first and second flaps for individually covering said first and second cutouts.
- 10 2. The brim according to claim 1, wherein said cutouts are substantially U-shaped.
3. The brim according to either claim 1 or 2, wherein said portion of the brim is substantially disc shaped.
- 15 4. The brim according to any one of the preceding claims, further comprising a downwardly extending rear portion.
5. The brim according to any one of the preceding claims, wherein said first and second flaps each include a slit and hole for accommodating said attachment arms.

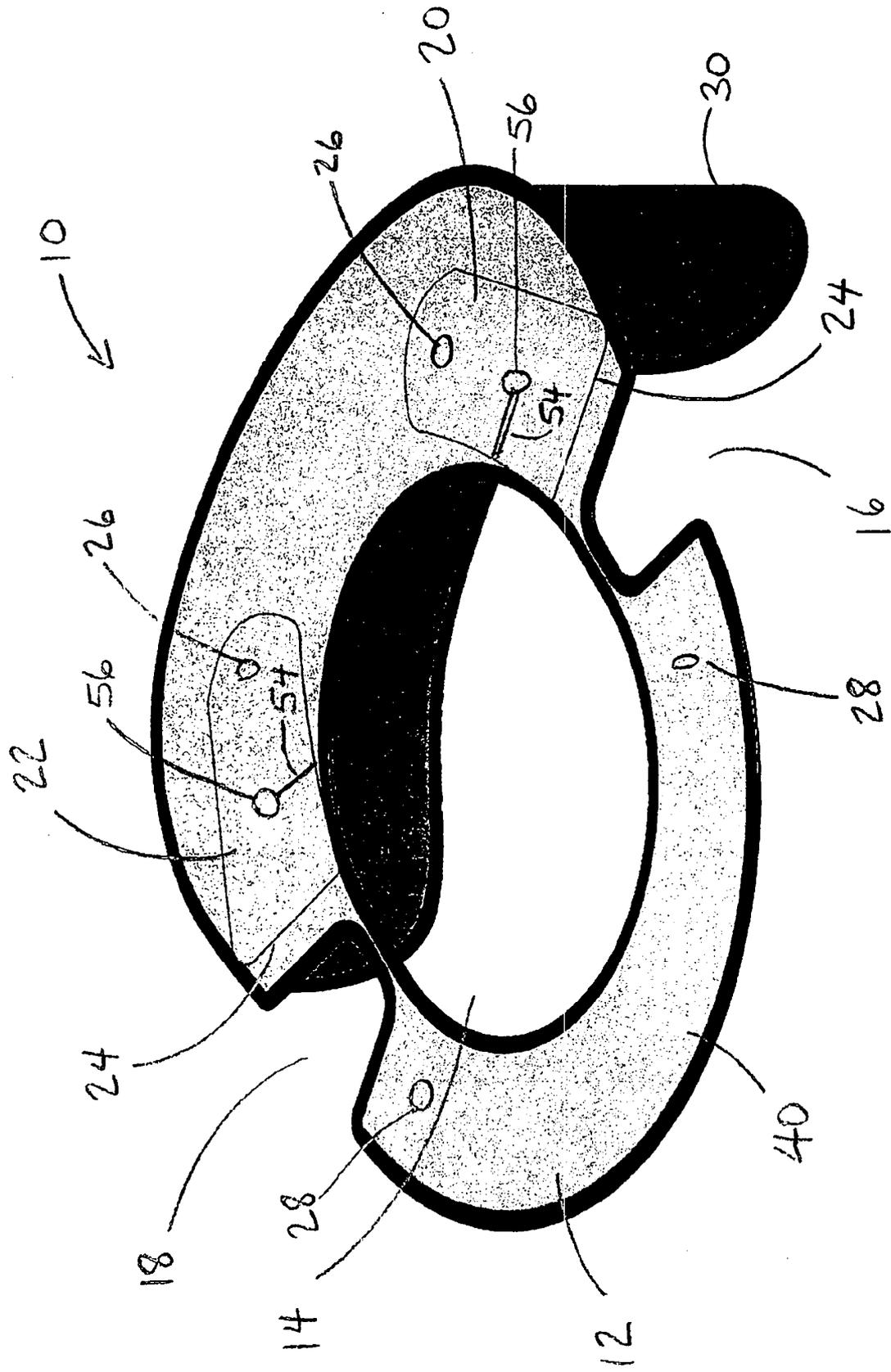
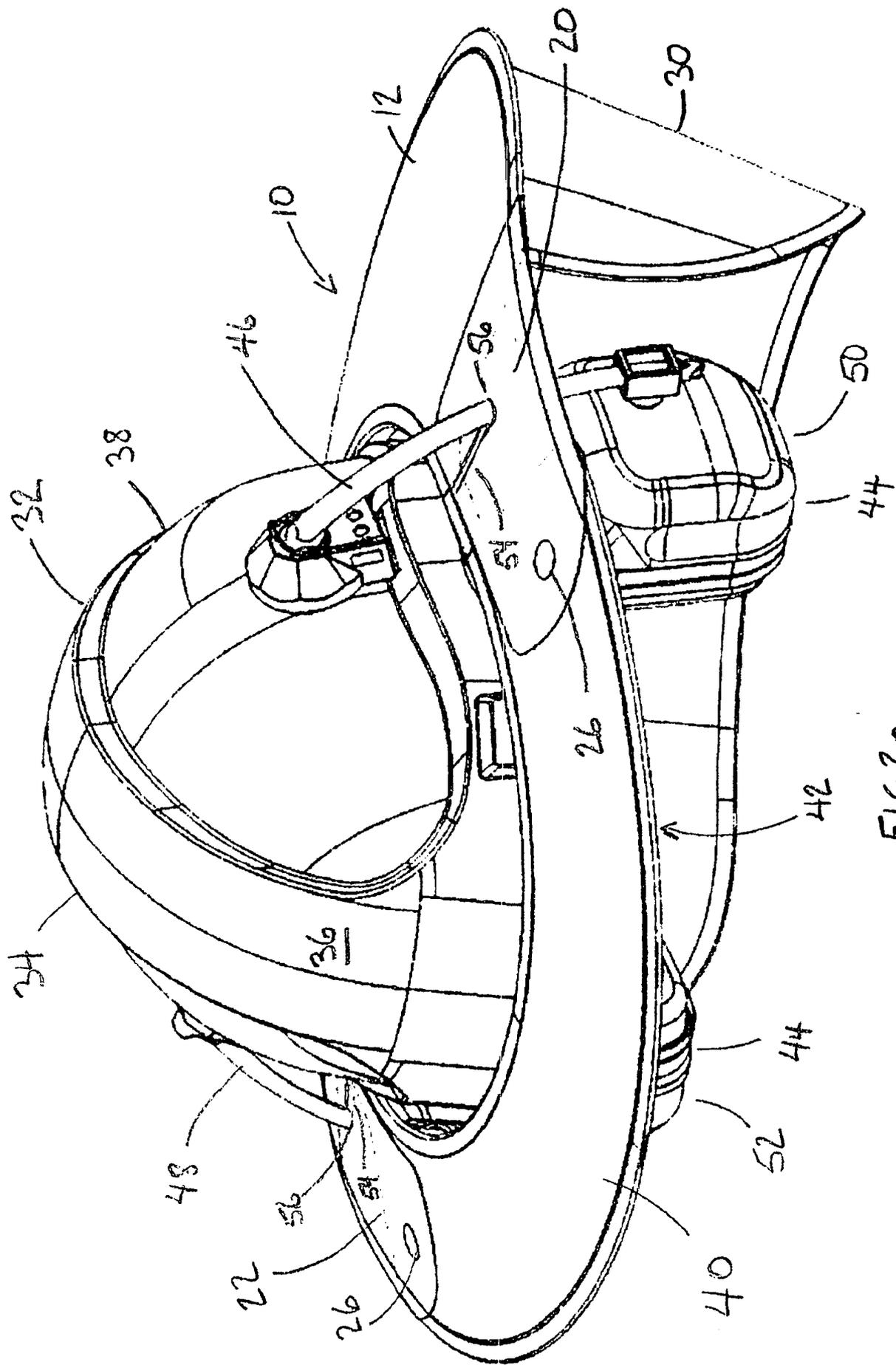
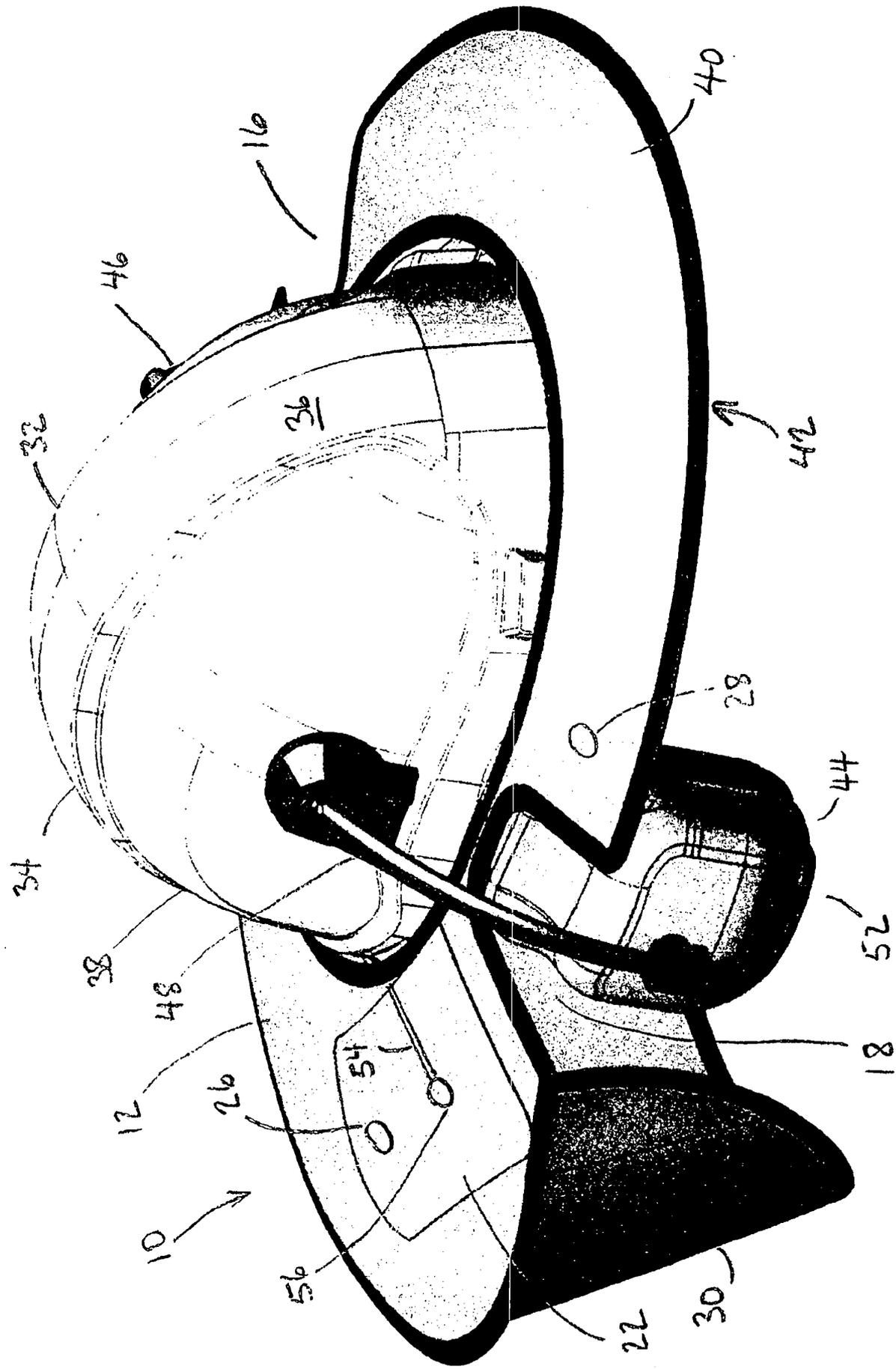


FIG 1





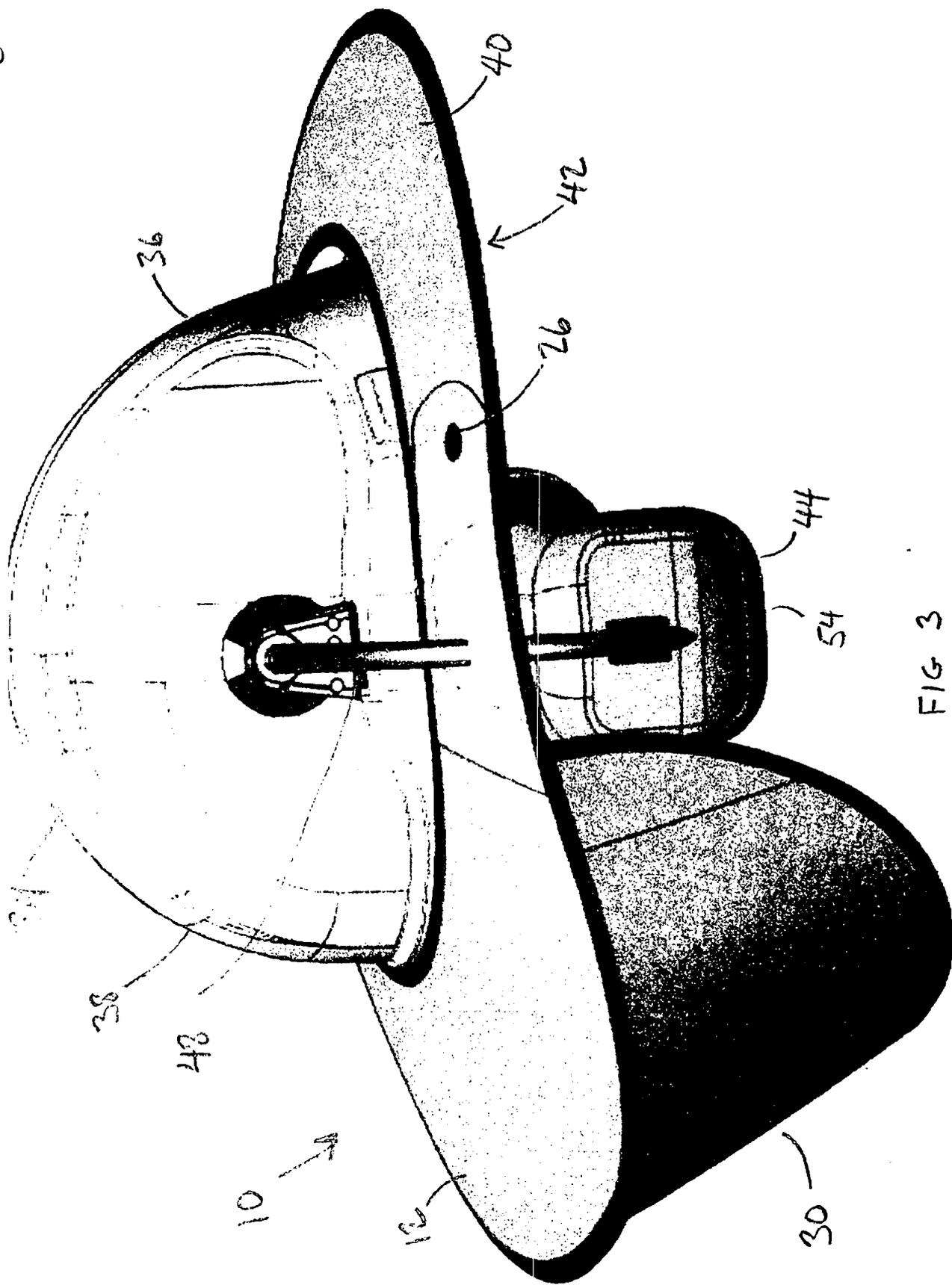


FIG 3

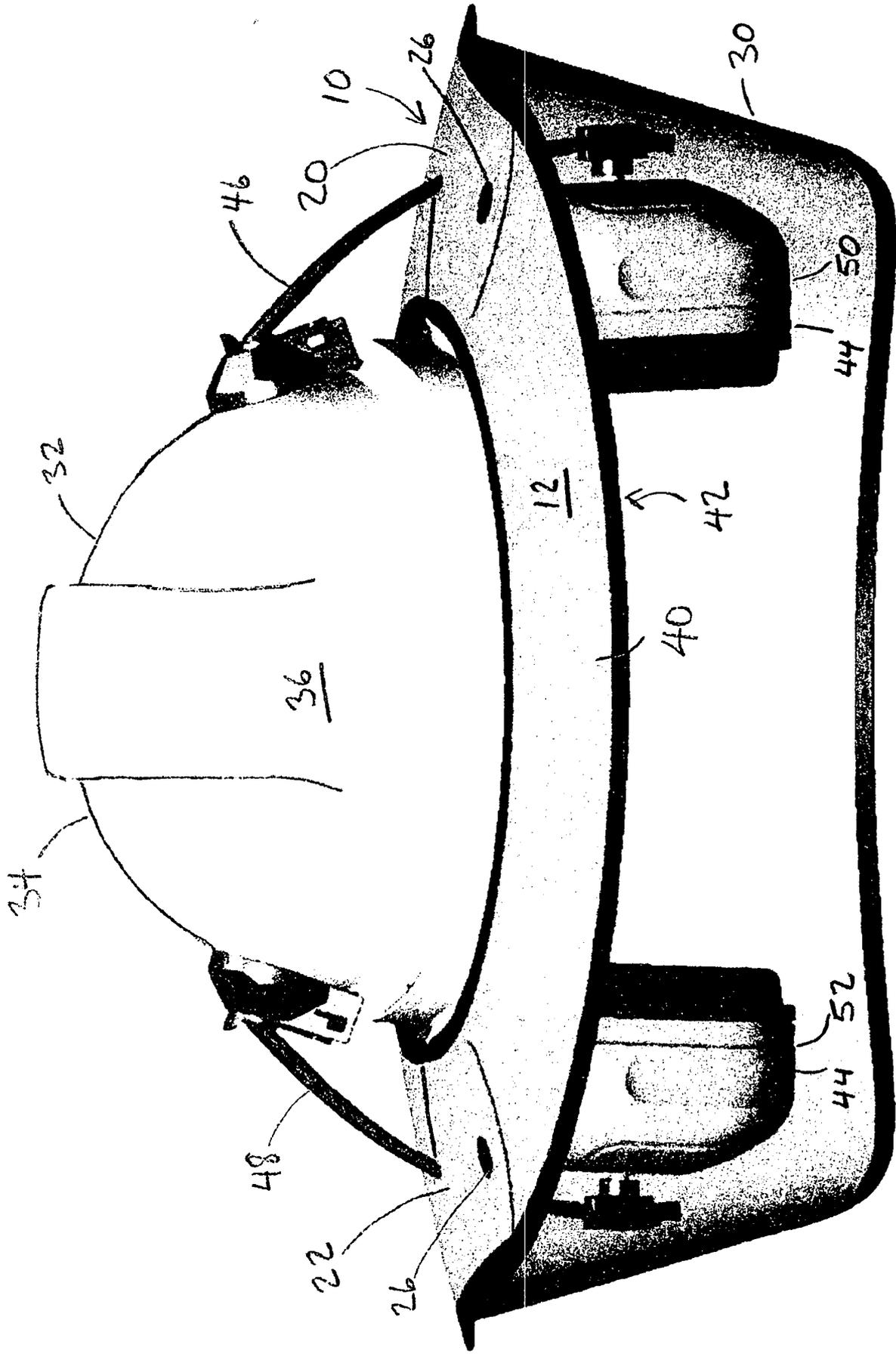


FIG 4