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(12) **United States Patent**
Haller et al.

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(54) **AIRCRAFT HEADSET**

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(75) Inventors: **Larry D. Haller**, Hillsboro; **Charles E. Inmon**, Lake Oswego; **Christopher J. Jensen**, Hillsboro; **James D. Pileggi**, Beaverton; **Brian Vanderploeg**, Lake Oswego; **Stevan L. Wittenbrock**, Portland, all of OR (US)

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(73) Assignee: **Flightcom Corporation**, Portland, OR (US)

Primary Examiner—Curtis Kuntz
Assistant Examiner—Suhan Ni
(74) *Attorney, Agent, or Firm*—Robert D. Varitz, PC

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(57) **ABSTRACT**

An aircraft headset includes a headset band, including a head element and a pair of ear cup supports slidably received in the head element, ear cups pivotally attached at one end of each ear cup support; and a microphone boom pivotally attached to one of the ear cups; an improved ear cup tensioning mechanism including a tongue extending laterally from each end of the headset band and a conformal tongue receiver located adjacent the other end of each ear cup support; wherein the tongue receiver is conformal with the tongue, and wherein the tongue and the tongue receiver are constructed and arranged to provide near-constant lateral pressure between the ear cups and a wearer's head. An improved ear cup seal includes an outer seal covering formed of urethane-coated expanded vinyl; an inner flexible layer formed of scythed urethane foam; wherein the inner flexible layer has a memory which returns the ear seal to its original configuration when pressure is released therefrom, and wherein the ear cup seal has a variable configuration having its thickest region behind and below a wearer's ear, along the wearer's neck, and having its thinnest region adjacent the front of the wearer's ear along the jaw line. An improved microphone housing includes a hard outer shell having a cavity therein; and sound-absorbing material located inside the outer shell which enclose the microphone element.

(21) Appl. No.: **09/275,513**

(22) Filed: **Mar. 24, 1999**

(51) **Int. Cl.**⁷ **H04R 25/00**

(52) **U.S. Cl.** **381/374; 381/370; 381/371; 381/375; 381/376; 381/378; 381/379; 379/430**

(58) **Field of Search** 381/370, 371, 381/372, 375, 376, 377, 378, 379, FOR 149, FOR 150; 181/128, 129, 137; 379/430; 455/90

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8 Claims, 5 Drawing Sheets

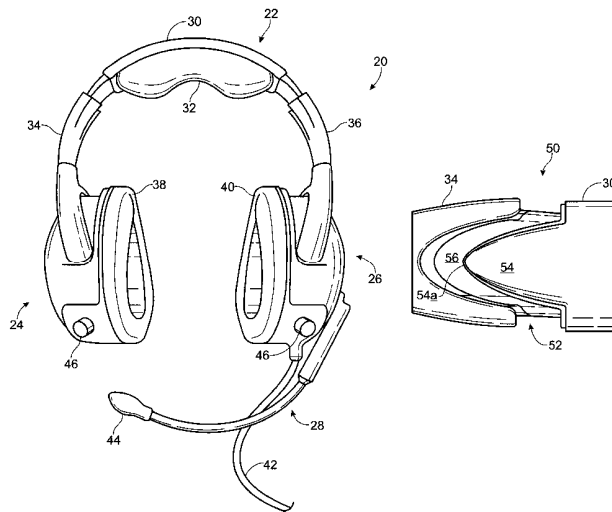


Fig. 1

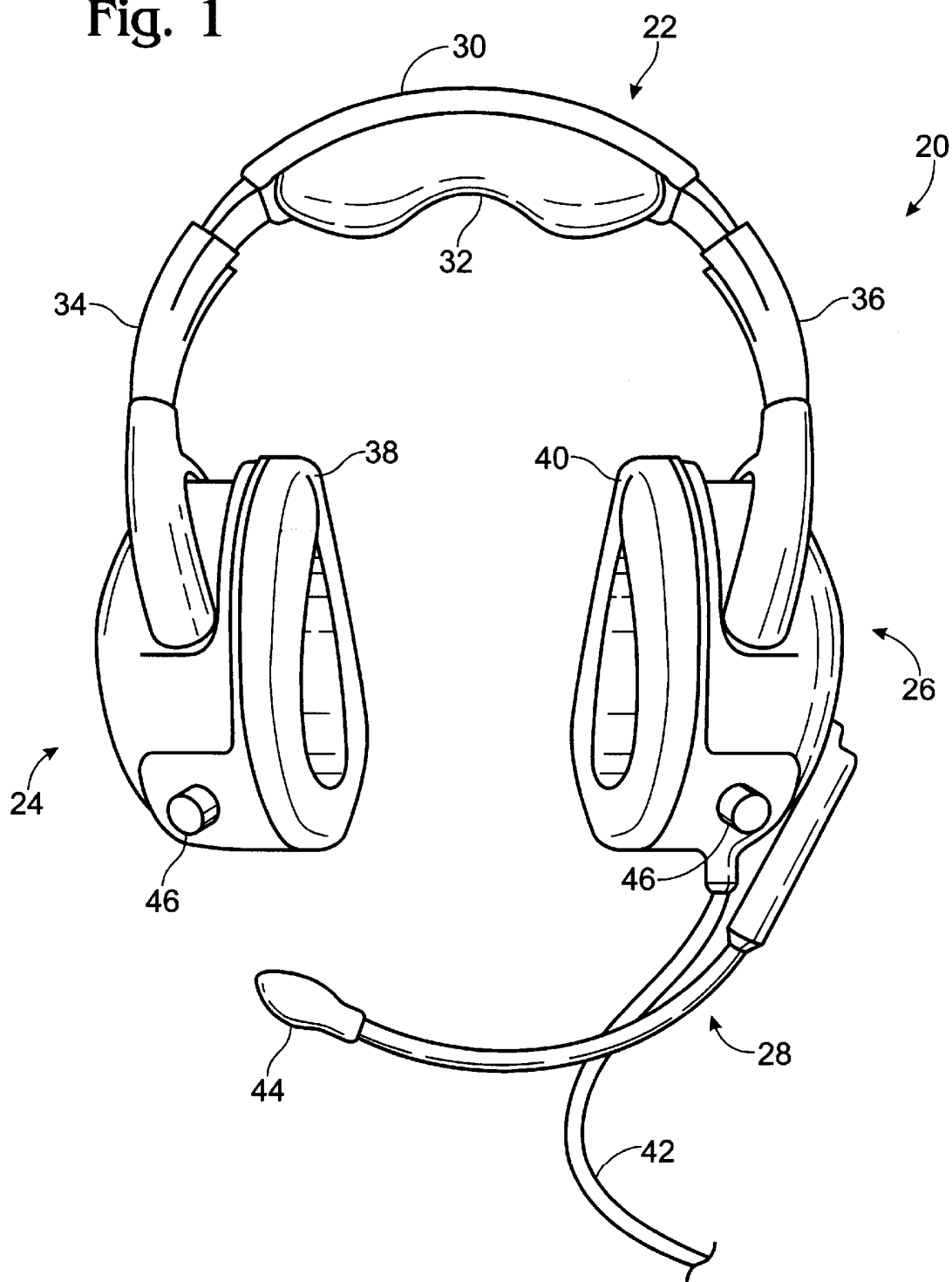


Fig. 2

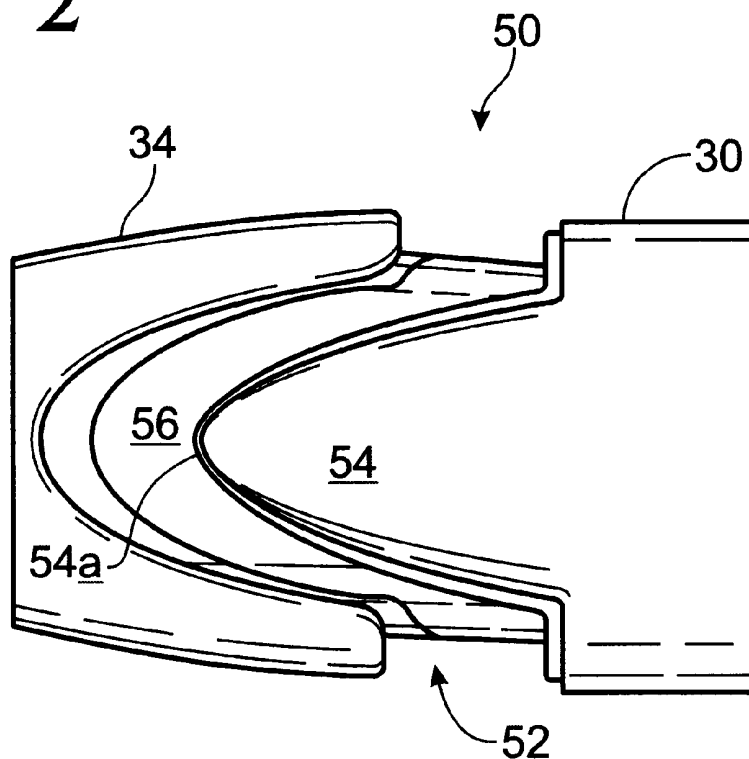


Fig. 3

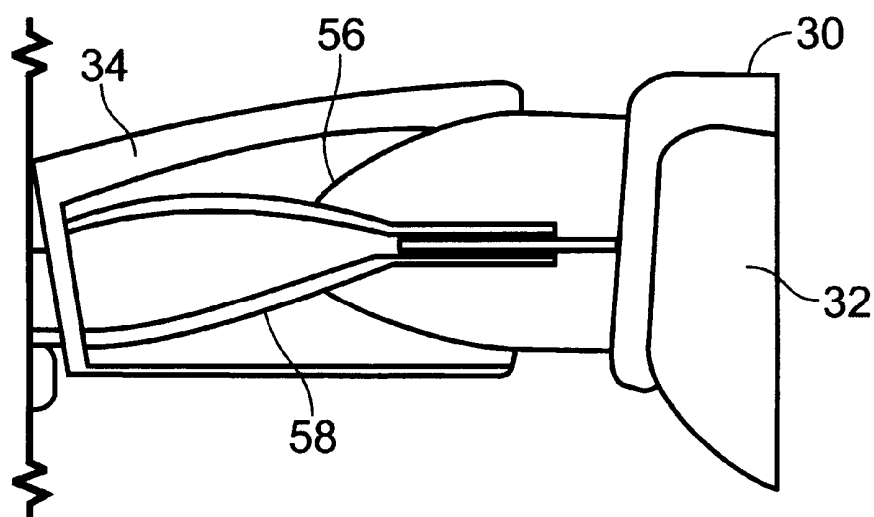


Fig. 4

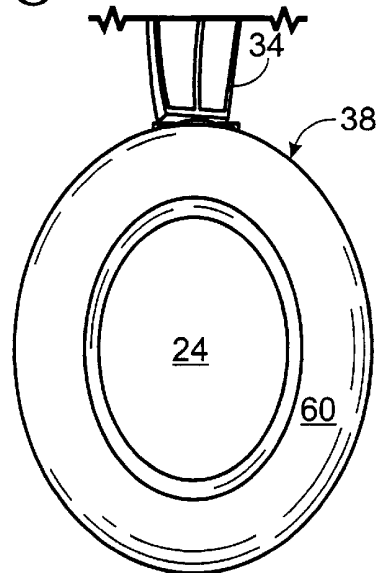


Fig. 5

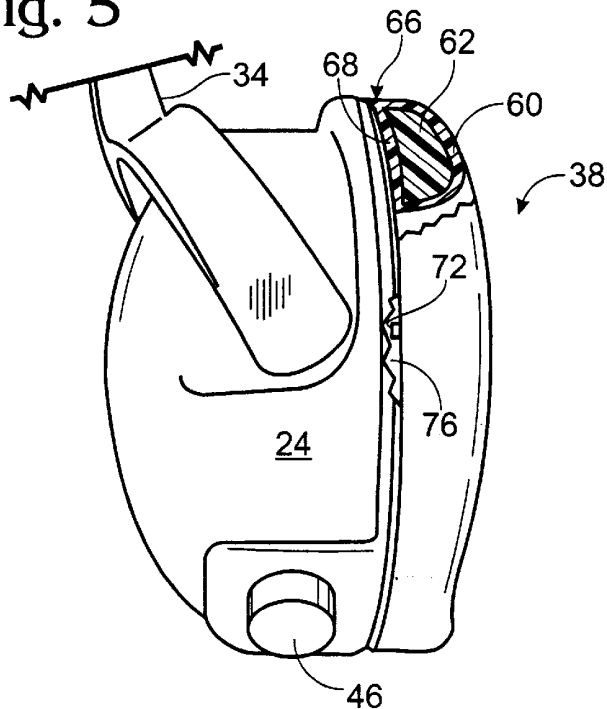


Fig. 6

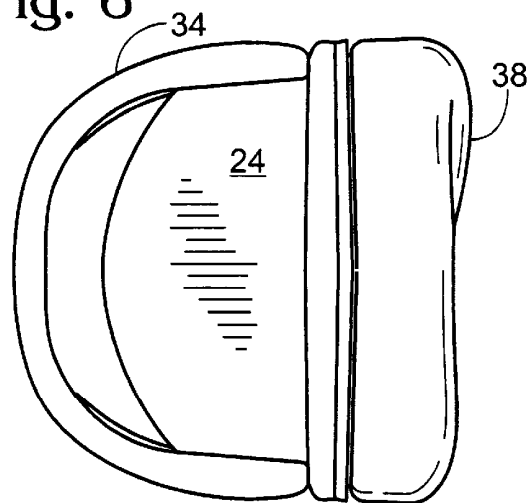


Fig. 7

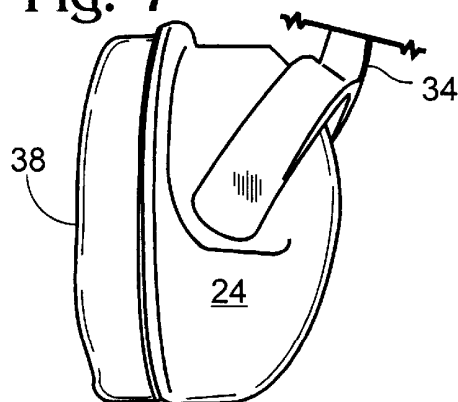


Fig. 8

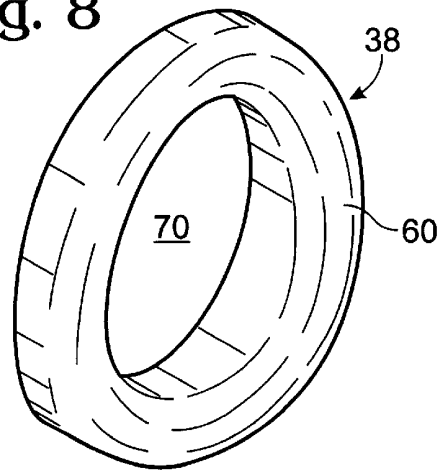


Fig. 10

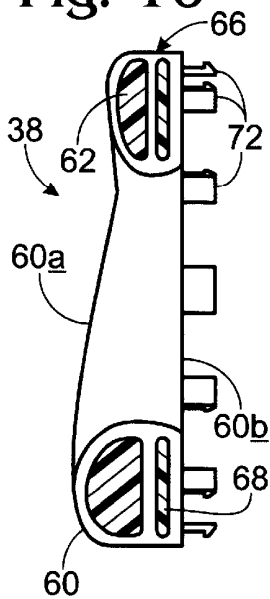


Fig. 9

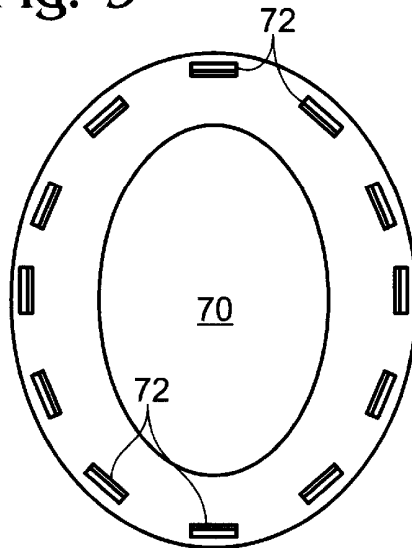


Fig. 11

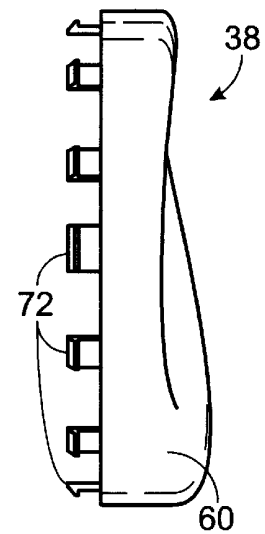
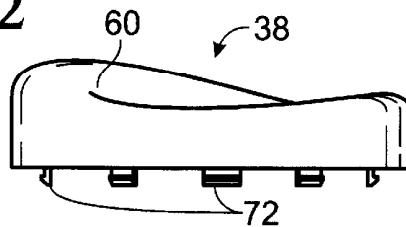


Fig. 12



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