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Plainfield, IN (US)(51) **Int. Cl.****H04R 1/02** (2006.01)**H04R 31/00** (2006.01)**H04R 25/00** (2006.01)(52) **U.S. Cl.** **381/351; 29/594; 381/380**

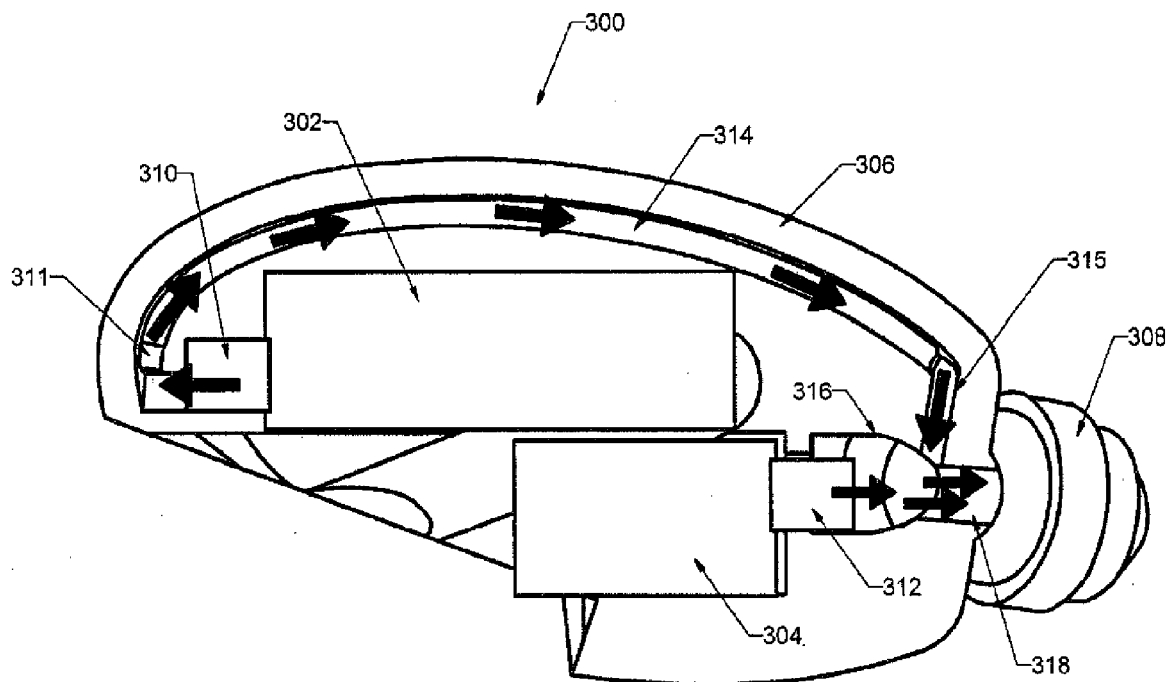
(57)

ABSTRACT

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KRIEG DEVAULT LLP**ONE INDIANA SQUARE, SUITE 2800****INDIANAPOLIS, IN 46204-2079 (US)**(21) Appl. No.: **12/797,886**(22) Filed: **Jun. 10, 2010****Related U.S. Application Data**(63) Continuation of application No. PCT/US2008/
013536, filed on Dec. 10, 2008.(60) Provisional application No. 61/012,482, filed on Dec.
10, 2007.

An earphone is disclosed that is used in connection with reproducing audio sounds that are supplied from an audio-frequency source. The earphone includes a housing that includes a boot assembly positioned in the housing. A first audio driver is positioned in the boot assembly such that a first output of the first audio driver is in acoustic communication with a mixing chamber. A second audio driver is also positioned in the boot assembly such that a second output of the second audio driver is in acoustic communication with a chamber in the boot assembly. A tubular needle is positioned in the boot assembly having a first end in acoustic communication with the chamber and a second end in acoustic communication with the mixing chamber.



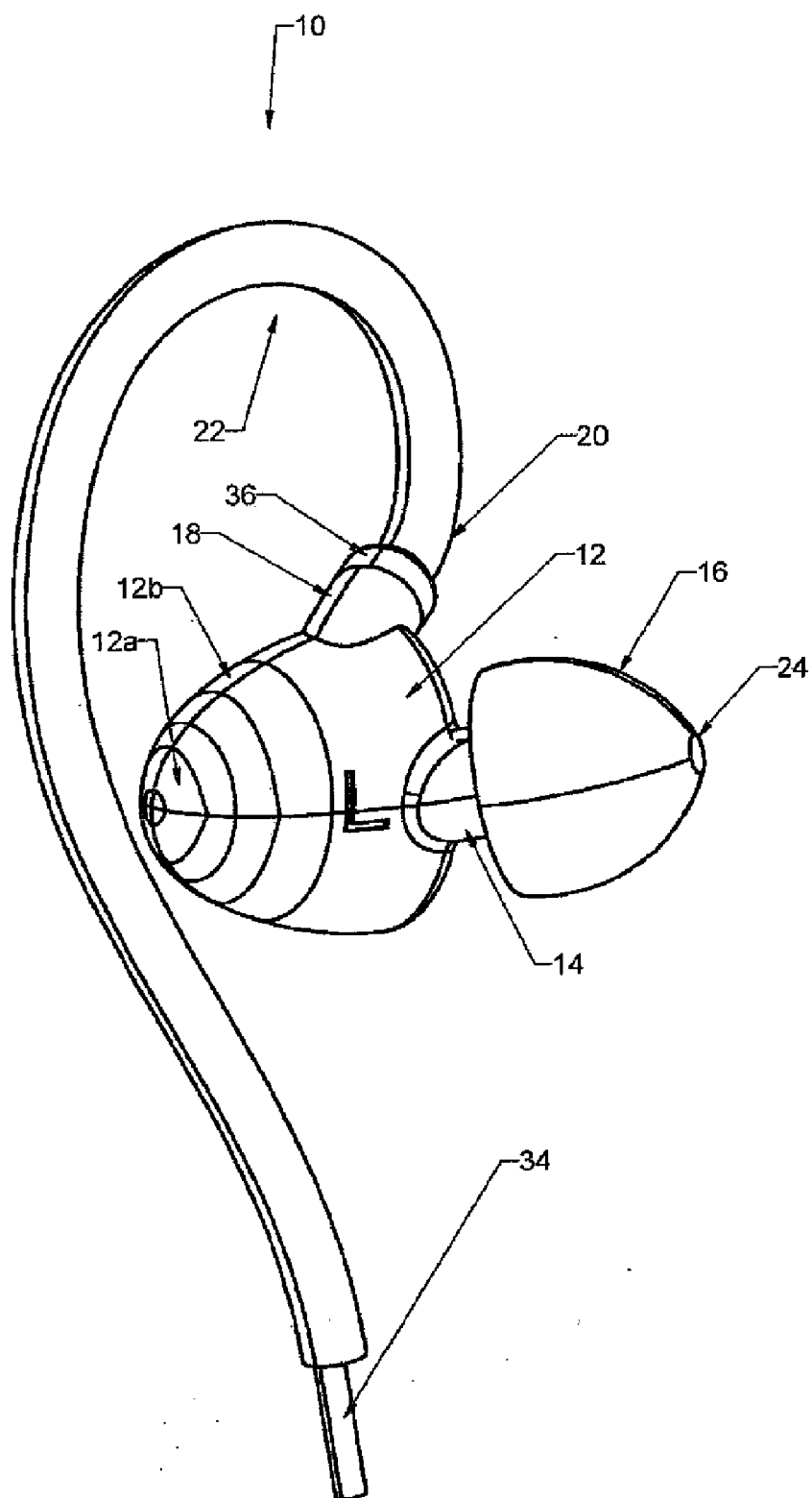


Fig. 1

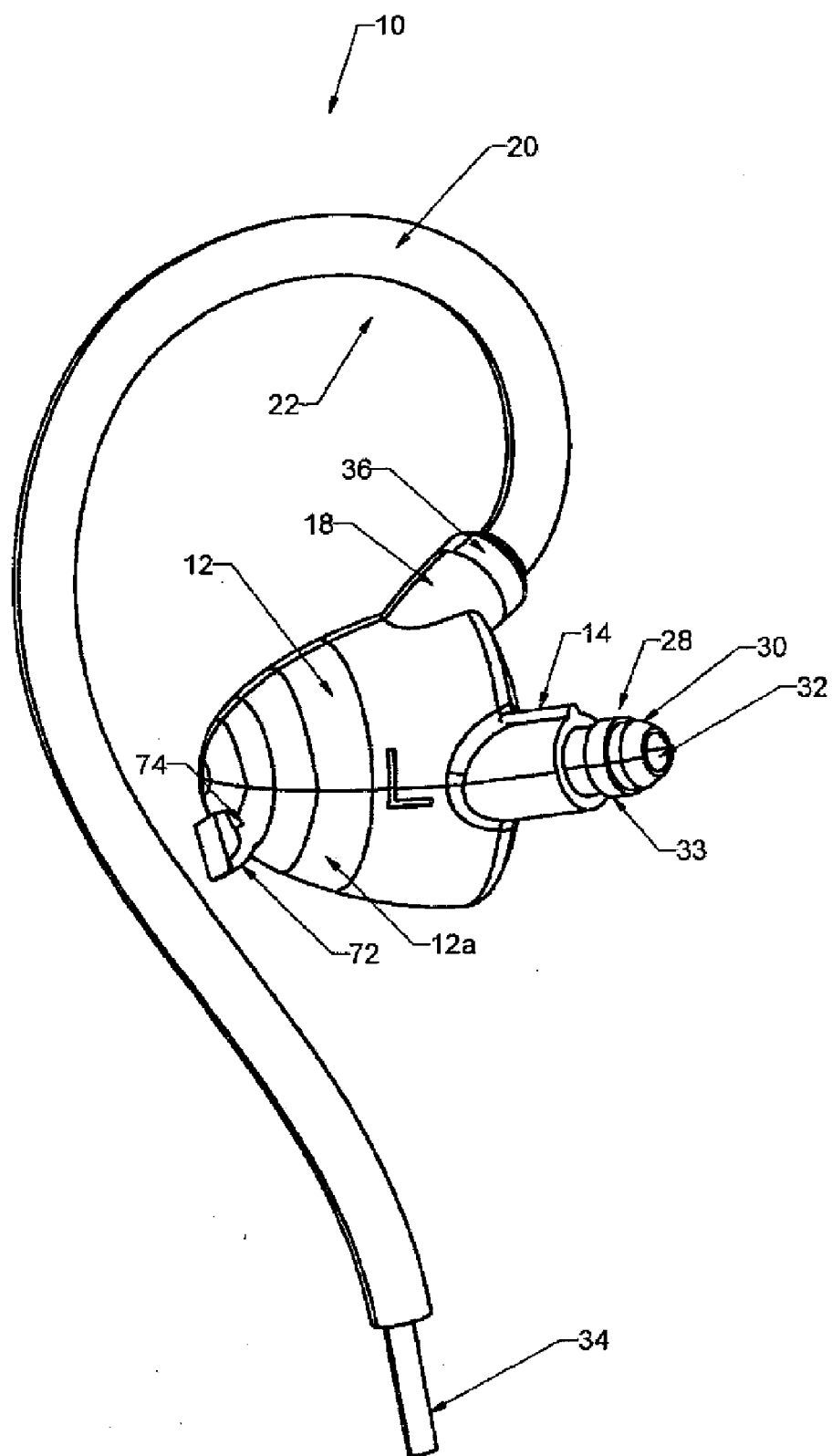


Fig. 2

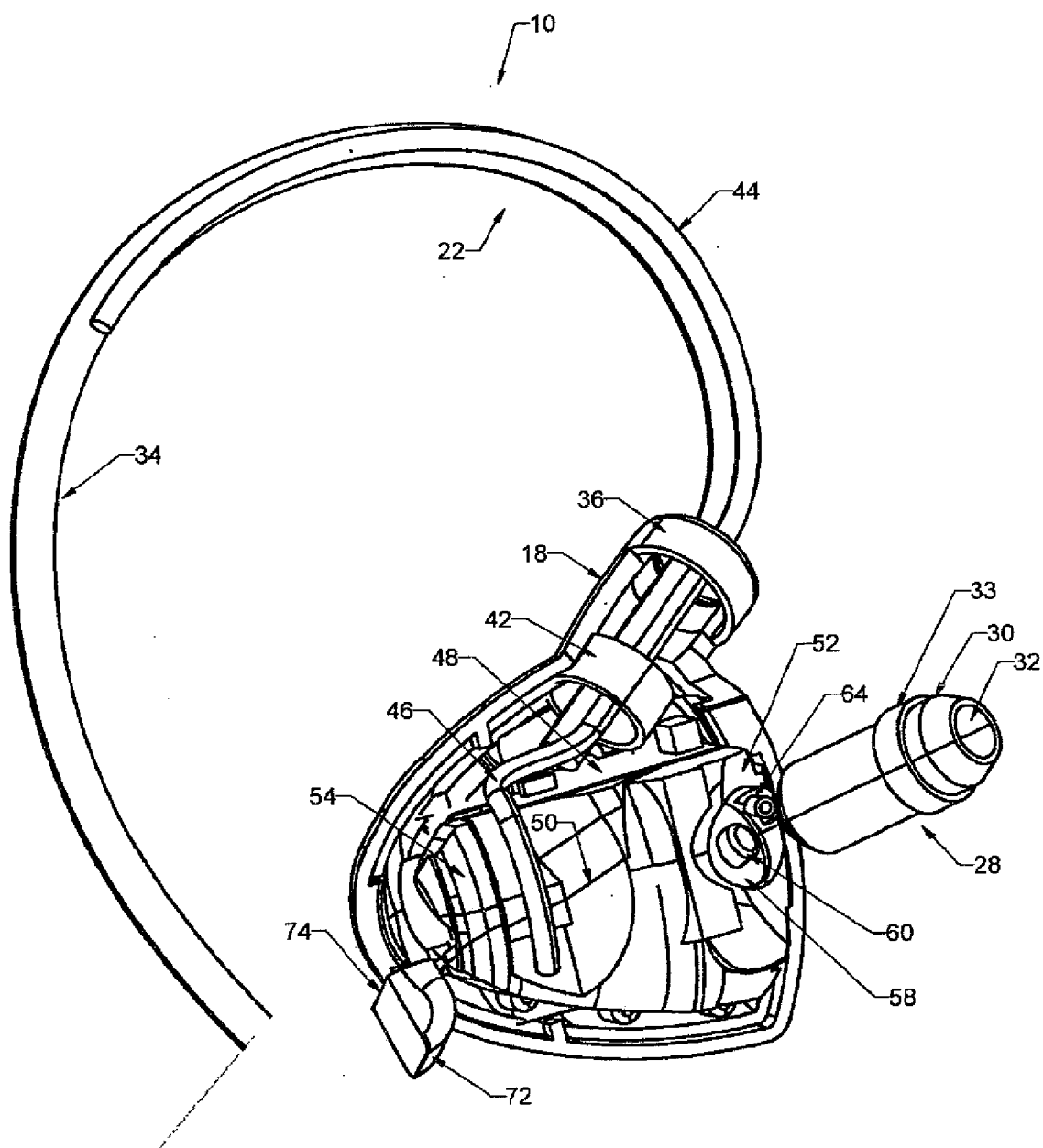


Fig. 4

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