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(54) Title: EAR-WEARABLE OXYGEN MONITORING SYSTEM

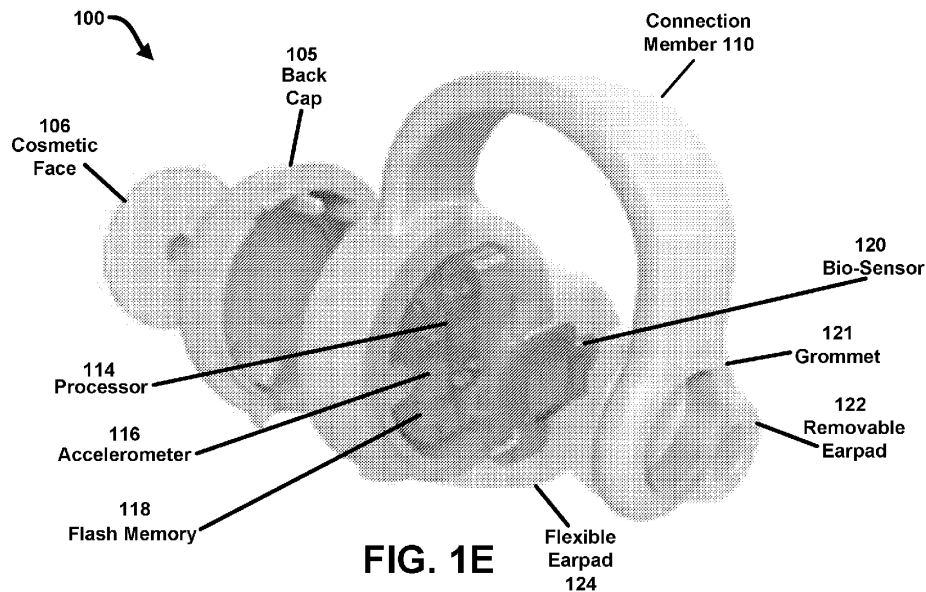


FIG. 1E

(57) Abstract: An apparatus for monitoring an oxygen saturation level of a wearer includes a first body portion, a second body portion, and a connection member. The first body portion contains a processor, a memory operably coupled to the processor, at least one light-emitting diode, and at least one optical sensor configured to detect, during operation, a reflected portion of light emitted from the at least one light-emitting diode. The second body portion includes a grommet, and the connection member is mechanically coupled to each of the first body portion and the second body portion. The memory stores instructions to cause the processor to cause light to be emitted from the at least one light-emitting diode when the apparatus is positioned on an ear of a wearer and during operation of the apparatus, and to calculate a blood oxygen saturation level of the wearer based on the reflected portion of light.

[Continued on next page]

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