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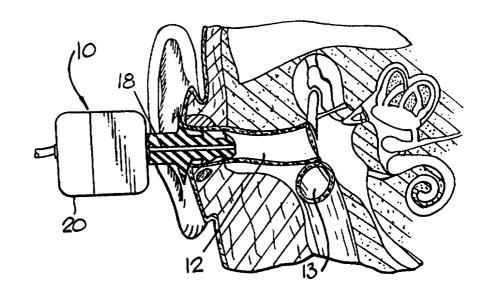
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(54) Title: METHOD AND APPARATUS FOR CONTINUOUS, NON-INVASIVE MONITORING OF BLOOD PRESSURE PARAM-**ETERS** 

#### (57) Abstract

Continuous, non-invasive and apparatus method for measuring blood pressure parameters and the like are disclosed. The apparatus includes an earpiece (10) for sealing an individual's ear canal so that arterial blood pressure changes adjacent the sealed ear canal (12) produce air pressure changes in the sealed ear canal (12). The apparatus further includes pressure sensing means (24) for measuring the air pressure changes in the sealed ear canal (12) and producing a signal related to the measured air pressure changes. In addition, the apparatus preferably includes means (52) for processing processing the signal to measure



blood pressure parameters, as well as means for displaying (58) and/or recording (50) the processed signal. The method may be used to determine heart rate, blood pressure, cardiac output, stroke volume, cardiac function, circulatory function, and other parameters. To obtain absolute pressure readings, two sensors (24a, 24b), one in each ear, may be used to monitor pulse time transit delay.

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| A. CLASSIE<br>IPC 6  | FICATION OF SUBJECT MATTER<br>A61B5/021   |   |  |
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| According to   | International Patent Classification (IPC) or to both national classific   | cation and IPC  |  |
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| Documentati  | on searched other than minimum documentation to the extent that st  | ich documents are included in the fields sea  | arched   |
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