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US005727561A

United States Patent [19]

Owsley

[11] **Patent Number: 5,727,561**

[45] **Date of Patent: Mar. 17, 1998**

[54] **METHOD AND APPARATUS FOR NON-INVASIVE DETECTION AND ANALYSIS OF TURBULENT FLOW IN A PATIENT'S BLOOD VESSELS**

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[21] Appl. No.: **641,049**

[22] Filed: **Apr. 23, 1996**

[51] **Int. Cl.**[6] **A61B 5/026**

[52] **U.S. Cl.** **128/691**; 128/687

[58] **Field of Search** 128/672, 687–691

[56] **References Cited**

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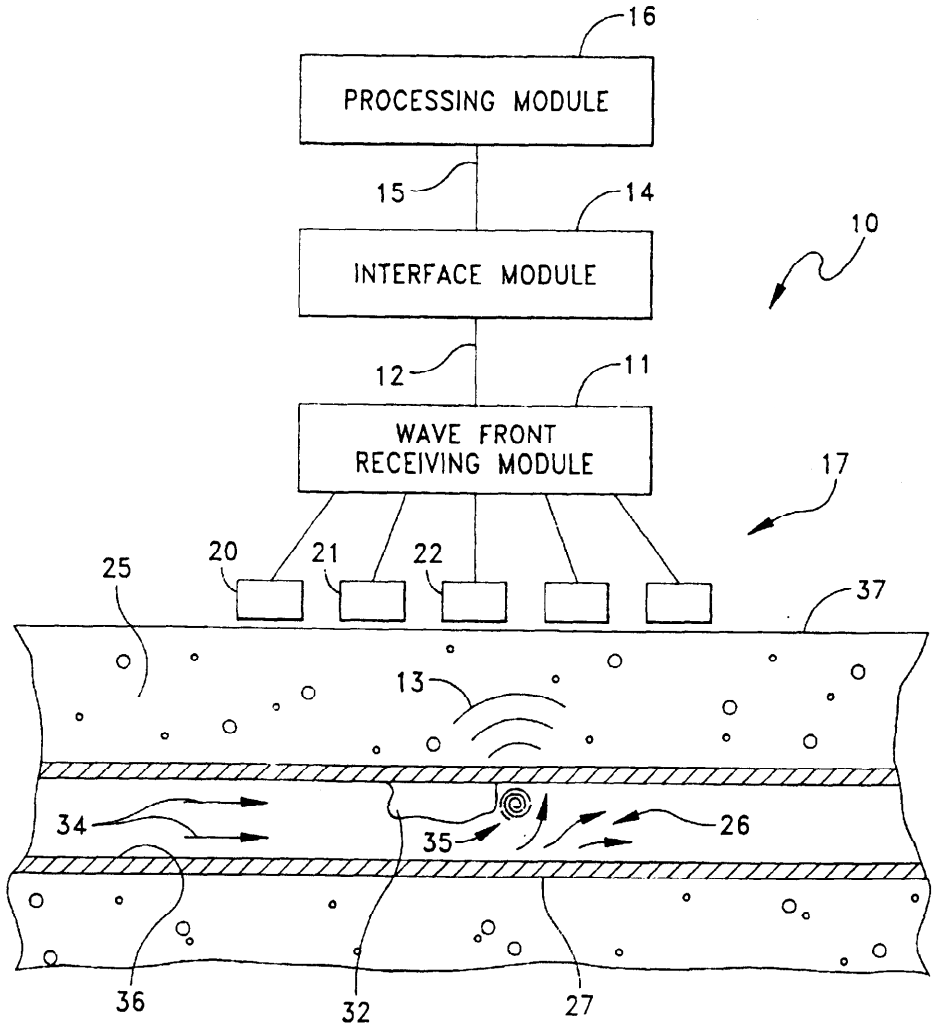
[57] **ABSTRACT**

A method and apparatus for the diagnosis of pathological turbulent arterial blood flow in a patient includes energy wave detectors for sensing at a plurality of spaced positions on the patient forces generated by turbulent arterial blood flow. The detectors generate a plurality of space time signals that are arranged in a vectorized data structure. A processor converts the vectorized data structures into an output that indicates the form of the waves propagated from the site of the turbulent arterial blood flow, the location and spatial configuration of that site.

21 Claims, 6 Drawing Sheets