US009636094B2

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

(10) **Patent No.: US 9,636,094 B2**
(45) **Date of Patent: May 2, 2017**

(54) **SEALING DEVICE AND DELIVERY SYSTEM**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 918 days.

(21) Appl. No.: **12/498,586**

(22) Filed: **Jul. 7, 2009**

(65) **Prior Publication Data**

US 2010/0324652 A1 Dec. 23, 2010

Related U.S. Application Data

(60) Provisional application No. 61/219,120, filed on Jun. 22, 2009.

(51) **Int. Cl.**

A61B 17/08 (2006.01)
A61B 17/00 (2006.01)
A61B 90/00 (2016.01)

(52) **U.S. Cl.**

CPC ***A61B 17/0057*** (2013.01); ***A61B 17/00234*** (2013.01); *A61B 90/39* (2016.02); *A61B 2017/00243* (2013.01); *A61B 2017/00292* (2013.01); *A61B 2017/00575* (2013.01); *A61B 2017/00592* (2013.01); *A61B 2017/00597* (2013.01); *A61B 2017/00606* (2013.01); *A61B 2017/00623* (2013.01); *A61B 2017/00867* (2013.01)

(58) **Field of Classification Search**

CPC A61B 17/0057; A61B 19/54; A61B 2017/00867; A61B 2017/00606; A61B 2017/00575; A61B 2017/00597; A61B 2017/00592; A61B 2017/00623

USPC 606/213, 215, 221, 151, 157, 158

See application file for complete search history.

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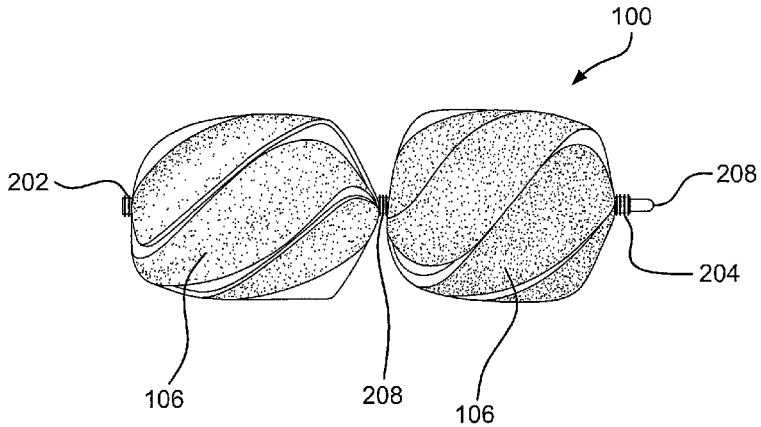
(57) **ABSTRACT**

The invention relates to a sealing device for repair of cardiac and vascular defects or tissue opening such as a patent foramen ovale (PFO) or shunt in the heart, the vascular system, etc. and particularly provides an occluder device and trans-catheter occluder delivery system. The sealing device would have improved conformity to heart anatomy and be easily deployed, repositioned, and retrieved at the opening site.

22 Claims, 17 Drawing Sheets