



(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2001/0002445 A1**

Vesely (43) **Pub. Date: May 31, 2001**

(54) **BIOPROSTHETIC CARDIOVASCULAR VALVE SYSTEM**

Related U.S. Application Data

(75) Inventor: **Ivan Vesely**, Cleveland Heights, OH (US)

(63) Continuation-in-part of application No. 09/597,918, filed on Jun. 19, 2000, which is a continuation of application No. PCT/US98/27481, filed on Dec. 23, 1998 and which is a non-provisional of provisional application No. 60/068,711, filed on Dec. 29, 1997.

Correspondence Address:

ARTER & HADDEN, LLP
1100 HUNTINGTON BUILDING
925 EUCLID AVENUE
CLEVELAND, OH 44115-1475 (US)

Publication Classification

(51) **Int. Cl.⁷** **A61F 2/24**
(52) **U.S. Cl.** **623/2.11; 623/2.12; 623/2.38;**
623/900; 623/904

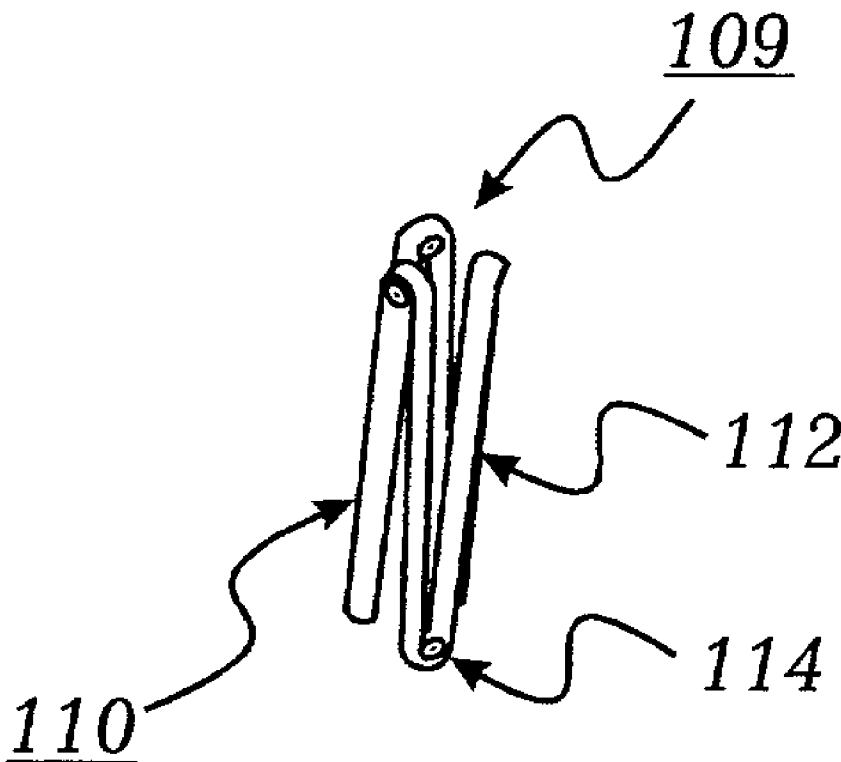
(73) Assignee: **The Cleveland Clinic Foundation**

(57) **ABSTRACT**

A cardiovascular valve system including a permanent base unit that is affixed to the patient using conventional sutures or staples, and a collapsible valve having a collapsible frame that mates with the permanent base unit, and supports valve leaflets. An installed collapsible frame may be re-collapsed and disengaged from the permanent housing. A new collapsible valve is then installed, to resume the function of the prosthesis.

(21) Appl. No.: **09/745,240**

(22) Filed: **Dec. 21, 2000**



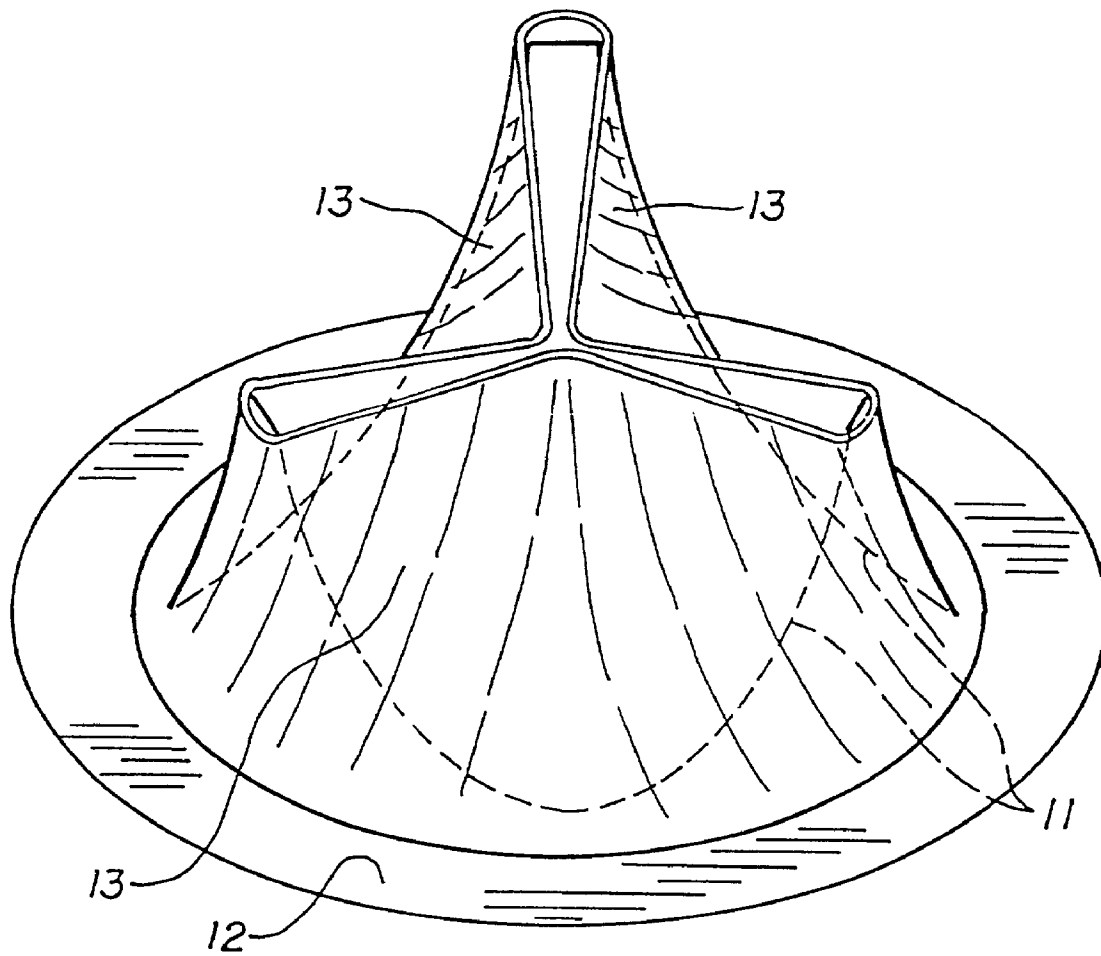


Fig. 1
(PRIOR ART)

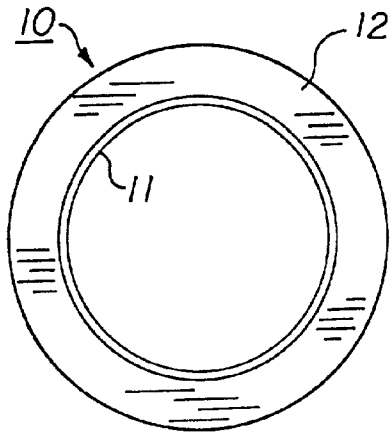


Fig. 2

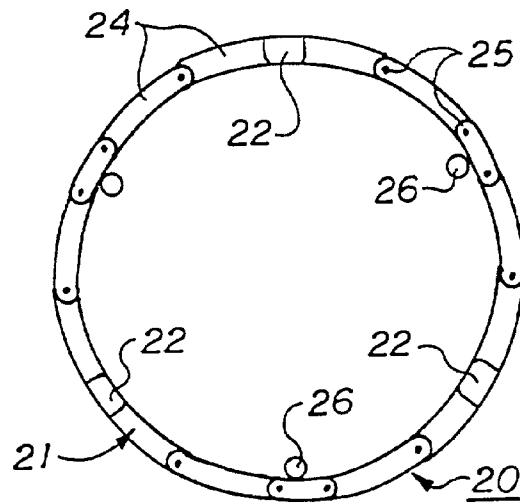


Fig. 3B

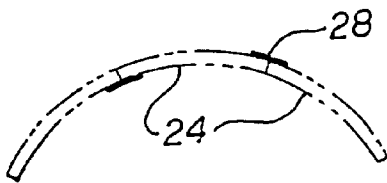


Fig. 4A

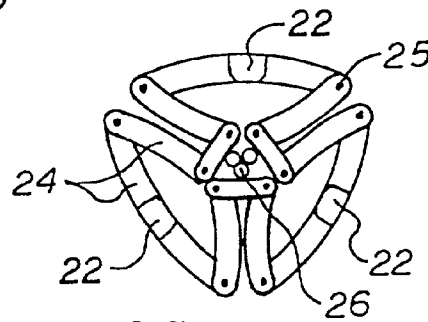


Fig. 3C



Fig. 4B

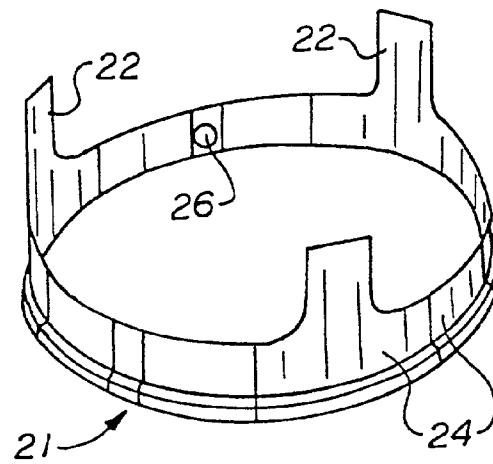


Fig. 3A

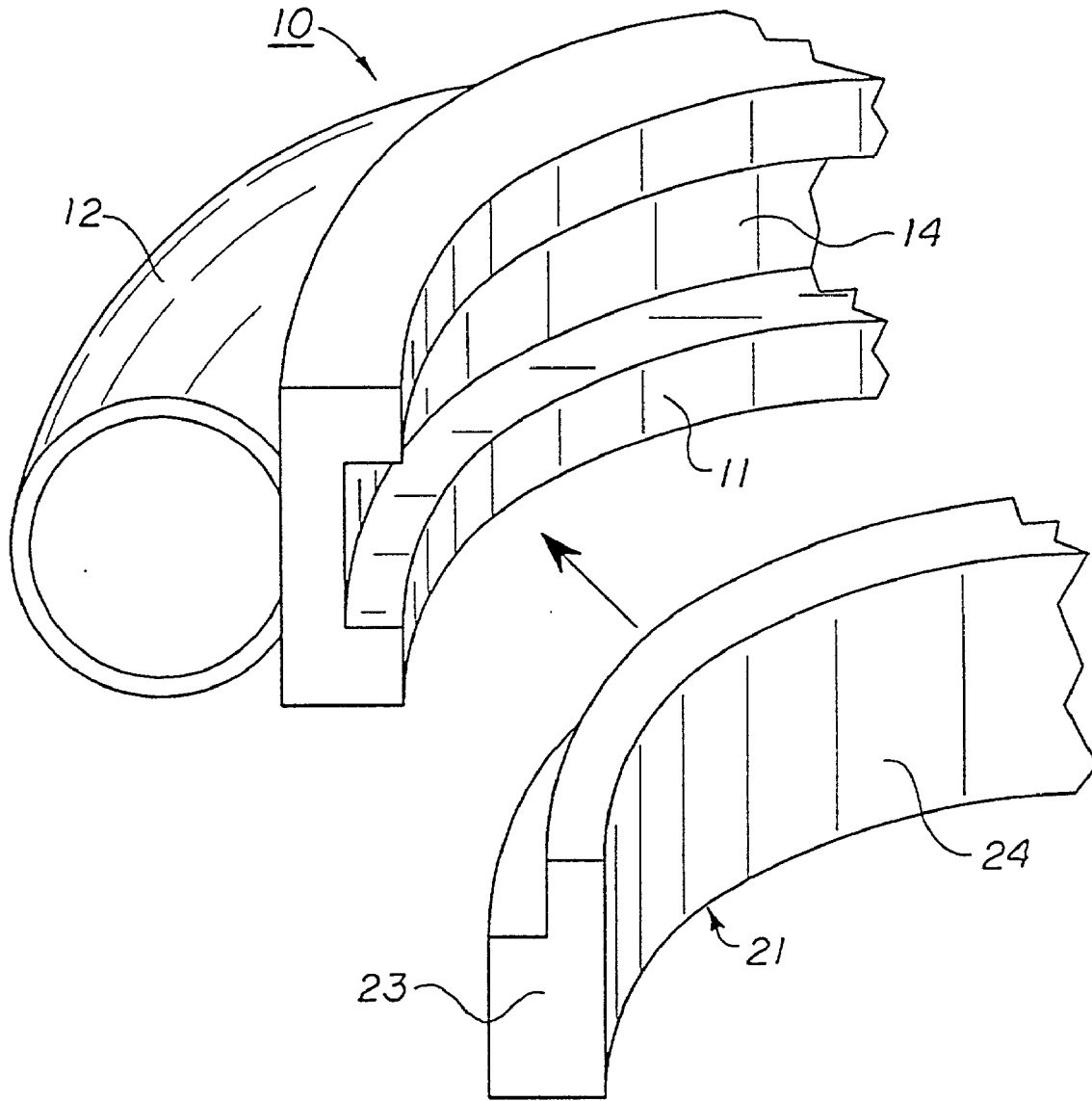
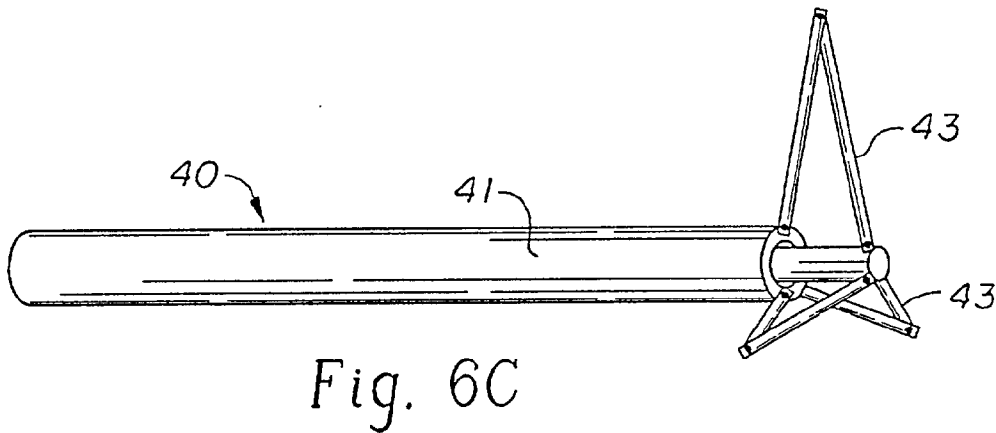
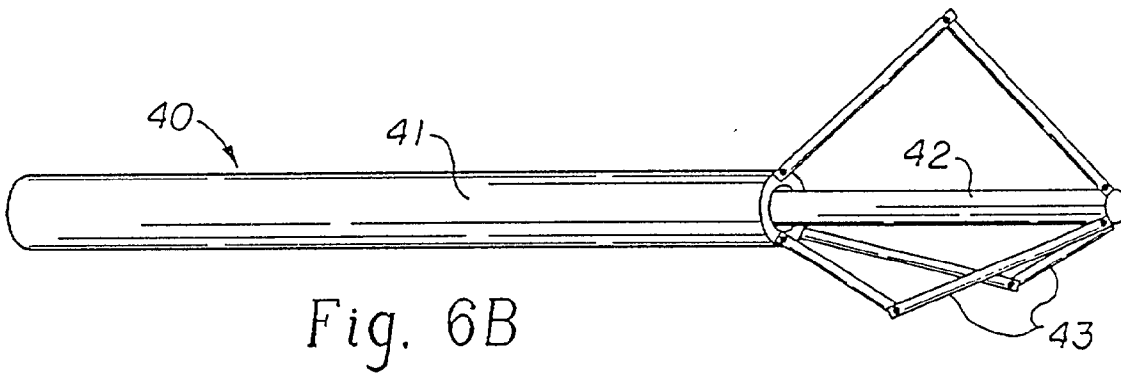
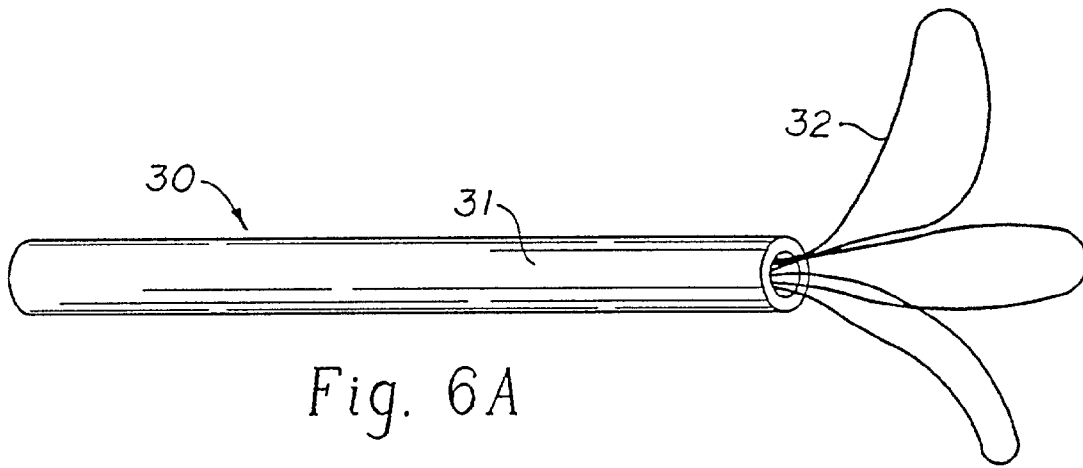


Fig. 5



Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.