

- [54] **FABRICATION OF LIVING BLOOD VESSELS AND GLANDULAR TISSUES**
- [75] **Inventor:** Eugene Bell, Dedham, Mass.
- [73] **Assignee:** Massachusetts Institute of Technology, Cambridge, Mass.
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**Related U.S. Application Data**

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- [52] **U.S. Cl.** ..... 623/1; 128/92 C; 128/1 R; 623/12
- [58] **Field of Search** ..... 3/1, 1.4; 435/240, 241, 435/1; 128/DIG. 8, 1 R, 334 R

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- Primary Examiner*—Richard J. Apley  
*Assistant Examiner*—David J. Isabella  
*Attorney, Agent, or Firm*—Smith, Jr. Arthur A.; David E. Brook; Leo R. Reynolds

[57] **ABSTRACT**

A method and apparatus for producing a vessel-equivalent prosthesis is described. A contractile agent such as fibroblast cells, smooth muscle cells or platelets is incorporated into a collagen lattice and contracts the lattice axially around an inner core. After the structure has set, additional layers may be formed in an ordered manner depending on the intended function of the prosthesis. Capillary beds, blood vessels and glandular structures may be formed by this process.

**17 Claims, 6 Drawing Figures**

