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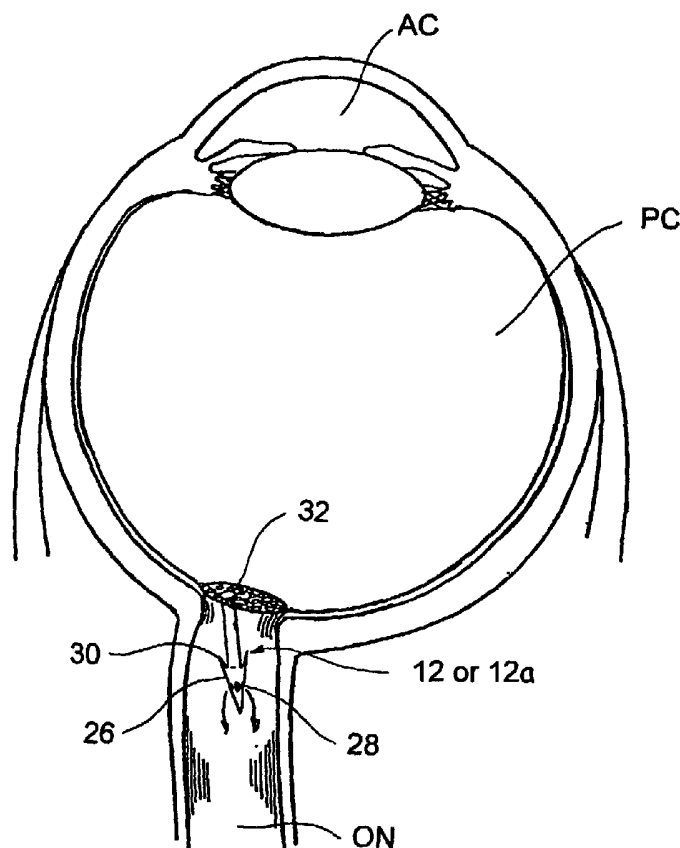
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[Continued on next page]

(54) Title: METHODS AND DEVICES FOR DRAINING FLUIDS AND LOWERING INTRAOCULAR PRESSURE



(57) Abstract: Methods, devices and systems for draining fluid from the eye and/or for reducing intraocular pressure. A passageway (e.g., an opening, puncture or incision) is formed in the lamina cribosa or elsewhere to facilitate flow of fluid from the posterior chamber of the eye to either a) a subdural location within the optic nerve or b) a location within the subarachnoid space adjacent to the optic nerve. Fluid from the posterior chamber then drains into the optic nerve or directly into the subarachnoid space, where it becomes mixed with cerebrospinal fluid. In some cases, a tubular member (e.g., a shunt or stent) may be implanted in the passageway. A particular shunt device and shunt-introducer system is provided for such purpose. A vitrectomy or vitreous liquefaction procedure may be performed to remove some or all of the vitreous body, thereby facilitating creation of the passageway and/or placement of the tubular member as well as establishing a route for subsequent drainage of aqueous humor from the anterior chamber, though the posterior chamber and outwardly through the passageway where it becomes mixed with cerebrospinal fluid.

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# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/04830

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : A61M 5/00; A61F 2/14  
 US CL : 604/9, 623/4

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
 U.S. : 604/9, 623/4, 604/8

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
 EAST BRS: optic nerve, subarachnoid, ocular

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------|
| Y          | US 5,266,580 A (CHIOU) 30 November 1993 (30.11.1993), entire document.             | 1-31                  |
| Y          | US 5,300,020 A (L'ESPERANCE, Jr.) 05 April 1994 (5.04.1994), entire document.      | 1-31                  |
| Y          | US 5,326,345 A (PRICE, Jr.) 05 July 1994 (05.07.1994), entire document.            | 1-31                  |
| Y          | US 5,626,559 A (SOLOMON) 06 May 1997 (06.05.1997), entire document.                | 1-31                  |
| Y          | US 6,306,114 B1 (FREEMAN et al) 23 October 2001 (23.10.2001), entire document.     | 1-31                  |

Further documents are listed in the continuation of Box C.

See patent family annex.

| * Special categories of cited documents:  |  |
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