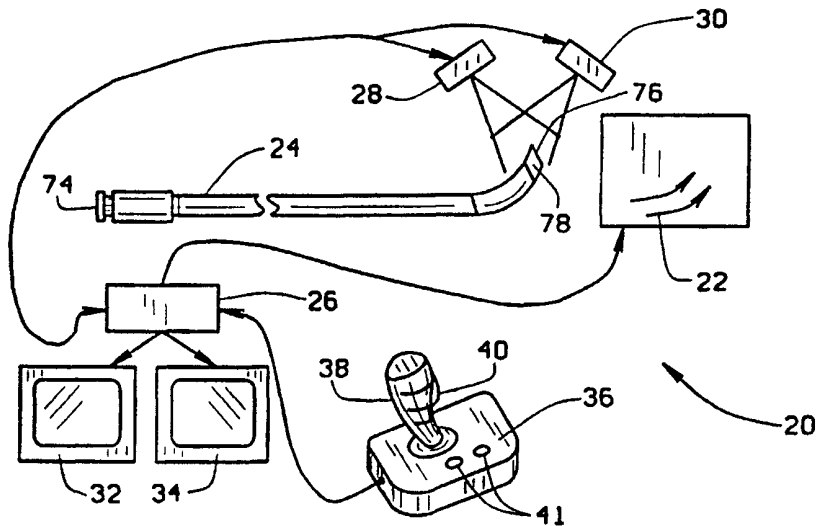




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<p>(21) International Application Number: PCT/US99/17775 (22) International Filing Date: 6 August 1999 (06.08.99) (30) Priority Data: 60/095,710 7 August 1998 (07.08.98) US (71) Applicant: STEREOTAXIS, INC. [US/US]; 4041 Forest Park Avenue, St. Louis, MO 63108 (US). (74) Agent: WHEELLOCK, Bryan, K.; Howell &amp; Haferkamp, L.C., Suite 1400, 7733 Forsyth Boulevard, St. Louis, MO 63105 (US).</p>	<p>(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</p> <p><b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i></p> <p>(88) Date of publication of the international search report: 15 June 2000 (15.06.00)</p>	

(54) Title: METHOD AND APPARATUS FOR MAGNETICALLY CONTROLLING CATHETERS IN BODY LUMENS AND CAVITIES



(57) Abstract

An apparatus (20) for navigating a magnet tipped medical device (24) through the body includes a magnet system (22) for applying a magnetic field to the magnet tipped distal end of the medical device to orient the distal end (78) of the medical device; a computer (26) for controlling the magnet system to generate a specific magnetic field in the body part; first and second imaging devices (28) (30) connected to the computer, for providing bi-planar images of the body part through which the medical device is being navigated; first, and second displays (32) (34) for displaying the images from the image devices; and an input device (36) for inputting points identifying the desired path of the medical device on each of the displays. The computer is programmed to determine the magnetic field necessary to control/orient the medical device on the path input on the displays.

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INTERNATIONAL SEARCH REPORT

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**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) :A61B 5/00

US CL :128/899; 600/424, 427, 429

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. : 128/899; 600/424, 427, 429

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)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,E	US 6,014,580 A (BLUME et al.) 11 January 2000, entire document.	1-4, 6-8, 18-20
A	US 5,647,361 A (DAMADIAN) 15 July 1997, col. 7 lines 41-65.	1-3

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Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

RUTH S. SMITH

Telephone No. (703) 308-3063