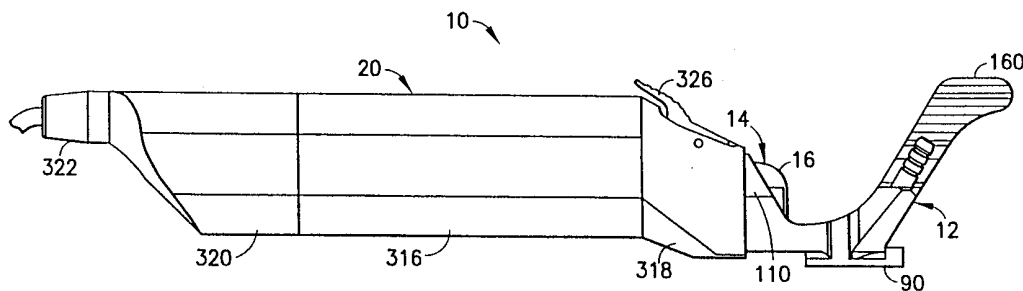




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification ⁷ : A61F 9/013, A61B 17/32</p>	<p>A3</p>	<p>(11) International Publication Number: WO 00/25711 (43) International Publication Date: 11 May 2000 (11.05.00)</p>
<p>(21) International Application Number: PCT/US99/26159 (22) International Filing Date: 4 November 1999 (04.11.99) (30) Priority Data: 60/107,187 5 November 1998 (05.11.98) US (71) Applicant: INSIGHT TECHNOLOGIES INSTRUMENTS, LLC [US/US]; 18 Higgins Drive, Milford, CT 06460 (US). (72) Inventors: SUTTON, David, F.; 33 Snug Harbor Road, Milford, CT 06460 (US). LEVESQUE, Gaston; 128 Edward Street, New Haven, CT 06511 (US). (74) Agent: FREDERICK, James, R.; Ware, Fressola, Van der Sluys & Adolphson LLP, Bradford Green, Building Five, 755 Main Street, P.O. Box 224, Monroe, CT 06468 (US).</p>	<p>(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, 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, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, 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>Published <i>With international search report.</i></p> <p>(88) Date of publication of the international search report: 31 August 2000 (31.08.00)</p>	

(54) Title: KERATOME AND BLADE CHANGER



(57) Abstract

A keratome includes a cutting instrument having a cutter head with a reciprocating blade extending below a sole surface of the cutter head, an automated drive unit mounting the cutting instrument for powered translational movement of at least the cutter head thereof, and a suction ring including an eye ring adapted to be secured to an eye by suction and defining a cornea aperture for presenting the outer layer of the cornea of the eye for cutting. The suction ring has a shoe from which the eye ring extends, the shoe defining a cutting guideway configured for receiving the cutter head advanced by the drive unit in precision mating sliding engagement when the cutting edge of the blade is positioned over the cornea aperture of the eye ring, and an entrance guideway extending from and generally aligned with the cutting guideway.

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/26159

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 A61F9/013 A61B17/32

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)
 IPC 7 A61F A61B

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 practical, 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.
A	US 5 586 980 A (F.B. KREMER ET AL.) 24 December 1996 (1996-12-24) abstract; figures column 3, line 33 - line 39 ---	1,20
A	EP 0 442 156 A (L.A.RUIZ) 21 August 1991 (1991-08-21) column 5, line 9 - line 29; figures 4-4B abstract ---	1,2,30
A	US 5 658 303 A (R.G. KOEPNICK) 19 August 1997 (1997-08-19) abstract; figures 28,29 ---	1,20
A	EP 0 771 553 A (HERBERT SCHWIND GMBH&CO.) 7 May 1997 (1997-05-07) figures -----	1,20

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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- *O* document referring to an oral disclosure, use, exhibition or other means
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- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

2 March 2000

Date of mailing of the international search report

14.06.2000

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 99/26159

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-33

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International Application No. PCT/US 99/26159

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

1. Claims: 1-33

keratome with cutter head, a blade and many characteristics

2. Claims: 30-33

Blade insertion tool for a keratome cutter head

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 99/26159

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