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(54) **FIXED-SHAPE CANNULA FOR POSTERIOR DELIVERY OF RADIATION TO AN EYE**

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(**) Term: **14 Years**

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Related U.S. Application Data

(63) Continuation-in-part of application No. 29/368,501, filed on Aug. 24, 2010, now abandoned, and a continuation-in-part of application No. 29/368,499, filed on Aug. 24, 2010, now Pat. No. Des. 642,266, and a continuation-in-part of application No. 12/917,044, filed on Nov. 1, 2010, and a continuation-in-part of application No. 12/497,644, filed on Jul. 3, 2009, now abandoned, and a continuation-in-part of application No. 12/350,079, filed on Jan. 7, 2009, now Pat. No. 8,430,804.

(51) **LOC (9) Cl.** **24-02**

(52) **U.S. Cl.**
USPC **D24/150**

(58) **Field of Classification Search**
USPC D24/107, 108, 112, 113, 127, 130, D24/133, 150, 144, 145, 147; 600/1-8; 606/161, 166; 604/20, 27, 93.01, 264; 623/6.12; D19/65
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,309,302 A 1/1943 Butler et al.
2,559,793 A 7/1951 Pregel

(Continued)

FOREIGN PATENT DOCUMENTS

AU 323700 S 1/2009
AU 323701 S 1/2009

(Continued)

OTHER PUBLICATIONS

JC Wen et al; Ocular complications following I-125 brachytherapy for choroidal melanoma; Eye; 2009; 23; 1254-1268.

(Continued)

Primary Examiner — Ian Simmons
Assistant Examiner — Carissa C Fitts

(57) **CLAIM**

The ornamental design for a fixed-shape cannula for posterior delivery of radiation to an eye, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of a fixed-shape cannula for posterior delivery of radiation to an eye showing my new design;

FIG. 2 is a front view of thereof;

FIG. 3 is a side view (opposite side view is mirror image) thereof;

FIG. 4 is a back view thereof;

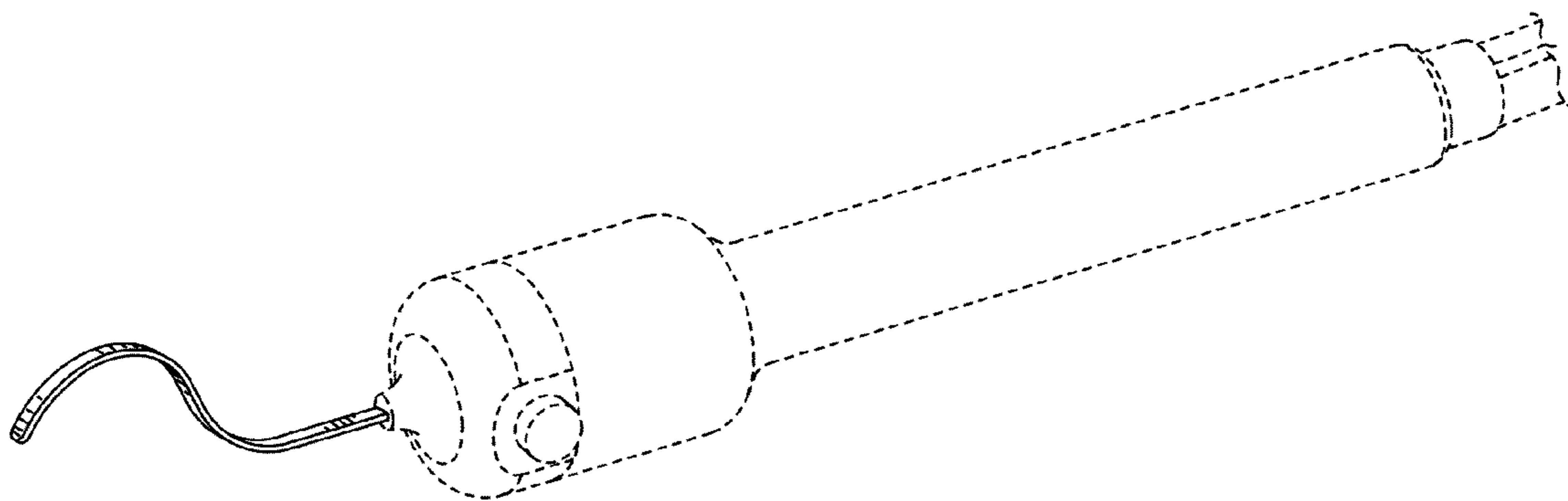
FIG. 5 is top view thereof;

FIG. 6 is a bottom view thereof; and,

FIG. 7 is a side view in use thereof.

In FIGS. 1-7, the broken lines showing of environmental structure for purposes of illustrating the fixed-shape cannula for posterior delivery of radiation to an eye in a condition of use. The broken lines and the structure they depict form no part of the claimed design.

1 Claim, 3 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D183,820 S	10/1958	Yohe	7,153,316 B1	12/2006	McDonald
3,169,527 A	2/1965	Sheridan	D534,650 S	1/2007	Inman et al.
3,662,882 A	5/1972	Obermayer	D543,626 S	5/2007	Watschke et al.
D235,171 S	5/1975	Boone	7,217,263 B2	5/2007	Humayun et al.
D235,172 S	5/1975	Boone	7,220,225 B2	5/2007	DeJuan, Jr. et al.
D236,920 S	9/1975	Sheridan	7,223,225 B2	5/2007	DeJuan, Jr. et al.
4,248,354 A	2/1981	Metzger	7,228,181 B2	6/2007	Greenberg et al.
4,265,231 A *	5/1981	Scheller et al. 606/80	7,252,006 B2	8/2007	Tai et al.
4,300,557 A	11/1981	Refojo et al.	7,273,445 B2	9/2007	Pulido et al.
D272,089 S	1/1984	Glassman	D553,738 S	10/2007	Simpson
4,643,716 A *	2/1987	Drach 604/8	7,276,019 B2	10/2007	DeJuan, Jr. et al.
4,782,819 A *	11/1988	Adair 600/109	7,308,487 B1	12/2007	Dansie et al.
4,925,450 A	5/1990	Imonti et al.	7,321,796 B2	1/2008	Fink et al.
4,976,266 A	12/1990	Huffman et al.	7,351,193 B2	4/2008	Forman et al.
5,007,689 A	4/1991	Kelly et al.	7,357,770 B1	4/2008	Cutrer et al.
5,109,844 A	5/1992	de Juan, Jr. et al.	7,402,155 B2	7/2008	Palasis et al.
5,127,831 A	7/1992	Bab	D575,396 S	8/2008	Wu
5,163,928 A *	11/1992	Hobbs et al. 604/532	7,422,557 B2 *	9/2008	Arnal et al. 600/30
5,167,647 A	12/1992	Wijkamp et al.	7,485,113 B2	2/2009	Varner et al.
5,199,939 A	4/1993	Dake et al.	7,503,474 B2	3/2009	Hillstead et al.
5,245,992 A *	9/1993	Nye 128/200.26	7,537,593 B2	5/2009	Humayun
D340,111 S	10/1993	Yoshikawa	7,547,323 B2	6/2009	Lavigne
D345,417 S	3/1994	Sharipov	7,560,460 B2	7/2009	Fotsch et al.
D347,473 S	5/1994	Nitzsche	7,563,222 B2	7/2009	Larsen et al.
5,308,349 A *	5/1994	Mikhail 606/88	7,571,004 B2	8/2009	Roy et al.
5,364,374 A	11/1994	Morrison et al.	7,575,566 B2 *	8/2009	Scheib 604/41
5,392,914 A	2/1995	Lemieux et al.	7,579,347 B2	8/2009	Bo et al.
5,399,298 A	3/1995	Kelly et al.	7,600,533 B2	10/2009	Tai et al.
5,637,073 A	6/1997	Freire	7,654,716 B1	2/2010	Bhadri et al.
5,709,692 A *	1/1998	Mollenauer et al. 606/141	7,661,676 B2	2/2010	Smith et al.
D390,656 S	2/1998	Linder	7,684,868 B2	3/2010	Tai et al.
5,743,853 A *	4/1998	Lauderdale 600/210	D615,645 S	5/2010	Brigatti et al.
5,810,882 A *	9/1998	Bolduc et al. 606/213	D616,087 S	5/2010	Brigatti et al.
5,871,481 A	2/1999	Kannenberg et al.	D616,088 S	5/2010	Brigatti et al.
5,893,873 A	4/1999	Rader et al.	D616,540 S	5/2010	Brigatti et al.
5,935,155 A	8/1999	Humayun et al.	7,729,739 B2	6/2010	Acar et al.
5,944,747 A	8/1999	Greenberg et al.	7,744,520 B2	6/2010	Larsen et al.
5,947,891 A	9/1999	Morrison	7,774,931 B2	8/2010	Tai et al.
5,970,457 A	10/1999	Brant et al.	7,794,437 B2	9/2010	Humayun et al.
6,053,900 A	4/2000	Brown et al.	7,803,102 B2	9/2010	Larsen et al.
D428,140 S	7/2000	Swan	7,803,103 B2	9/2010	Hillstead et al.
6,135,984 A	10/2000	Dishler	7,810,233 B2	10/2010	Krulevitch et al.
6,149,643 A	11/2000	Herekar et al.	7,819,868 B2 *	10/2010	Cao et al. 606/41
6,159,205 A	12/2000	Herekar et al.	7,827,038 B2	11/2010	Richard et al.
6,183,410 B1	2/2001	Jacobsen et al.	7,831,309 B1	11/2010	Humayun et al.
6,183,435 B1	2/2001	Bumbalough et al.	7,842,686 B2	11/2010	Anderson et al.
D442,687 S *	5/2001	Schulz D24/135	7,846,954 B2	12/2010	Zimmermann et al.
6,278,975 B1	8/2001	Brant et al.	7,879,564 B2	2/2011	Brice et al.
6,302,839 B1	10/2001	Chernomorsky et al.	7,883,717 B2	2/2011	Varner et al.
6,306,074 B1 *	10/2001	Waksman et al. 600/7	7,887,508 B2	2/2011	Meng et al.
6,402,734 B1	6/2002	Weiss	D642,266 S	7/2011	Marsteller et al.
6,413,245 B1	7/2002	Yaacobi et al.	D642,680 S *	8/2011	Brucker et al. D24/145
6,443,881 B1	9/2002	Finger	7,988,615 B2 *	8/2011	Anderson et al. 600/30
6,450,938 B1	9/2002	Miller	8,048,024 B2 *	11/2011	Tah et al. 604/95.04
6,527,692 B1	3/2003	Weinberger	8,062,358 B2 *	11/2011	Mathis et al. 623/2.37
6,575,887 B1	6/2003	Schrayer	8,066,693 B2 *	11/2011	Tanghoj et al. 604/544
6,613,026 B1	9/2003	Palasis et al.	D650,076 S *	12/2011	Dapri et al. D24/133
6,641,518 B2	11/2003	Wolfson et al.	2001/0008950 A1	7/2001	Vitali et al.
6,676,590 B1	1/2004	Urick et al.	2001/0049464 A1	12/2001	Ganz
6,719,750 B2	4/2004	Varner et al.	2002/0002362 A1	1/2002	Humayun et al.
6,749,553 B2	6/2004	Brauckman et al.	2002/0026174 A1	2/2002	Wallace
6,755,338 B2	6/2004	Hahnen et al.	2002/0062136 A1	5/2002	Hillstead et al.
D492,778 S	7/2004	Narini	2002/0065448 A1	5/2002	Bradshaw et al.
6,800,076 B2	10/2004	Humayun	2002/0077687 A1	6/2002	Ahn
6,824,532 B2	11/2004	Gillis et al.	2002/0099363 A1	7/2002	Woodward et al.
6,830,174 B2	12/2004	Hillstead et al.	2002/0115902 A1	8/2002	DeJuan, Jr. et al.
6,875,165 B2	4/2005	DeJuan, Jr. et al.	2002/0164061 A1	11/2002	Paik et al.
6,918,894 B2	7/2005	Fleury et al.	2002/0198511 A1	12/2002	Varner et al.
6,958,055 B2	10/2005	Donnan et al.	2003/0014306 A1	1/2003	Marko
6,964,653 B2	11/2005	Negron	2003/0045900 A1	3/2003	Hahnen et al.
6,977,264 B2	12/2005	Fotsch et al.	2003/0103945 A1	6/2003	Chen et al.
7,070,556 B2	7/2006	Anderson et al.	2003/0153804 A1	8/2003	Tornes et al.
7,103,416 B2	9/2006	Ok et al.	2003/0171722 A1	9/2003	Paques et al.
7,115,607 B2	10/2006	Fotsch et al.	2003/0184859 A1	10/2003	Liang et al.
7,141,048 B1 *	11/2006	Charles 606/4	2003/0195201 A1	10/2003	Bo et al.
			2003/0220324 A1	11/2003	Fotsch et al.
			2004/0006067 A1	1/2004	Fotsch et al.
			2004/0039312 A1	2/2004	Hillstead et al.
			2004/0053309 A1	3/2004	Holt et al.

2004/0133155	A1	7/2004	Varner et al.	2009/0306594	A1	12/2009	Pang et al.
2004/0138515	A1	7/2004	White et al.	2009/0306595	A1	12/2009	Shih et al.
2004/0224777	A1	11/2004	Smith et al.	2009/0311133	A1	12/2009	Pang et al.
2004/0243176	A1	12/2004	Hahnen et al.	2009/0312742	A1	12/2009	Pang et al.
2005/0059956	A1	3/2005	Varner et al.	2010/0004499	A1	1/2010	Brigatti et al.
2005/0101824	A1	5/2005	Stubbs	2010/0004581	A1	1/2010	Brigatti et al.
2005/0107824	A1	5/2005	Hillstead et al.	2010/0004639	A1	1/2010	Pang et al.
2005/0148948	A1	7/2005	Caputa	2010/0025613	A1	2/2010	Tai et al.
2005/0149286	A1	7/2005	Acar et al.	2010/0026957	A1	2/2010	Tanguay, Jr. et al.
2005/0177019	A1	8/2005	DeJuan, Jr. et al.	2010/0030010	A1	2/2010	Vermeere et al.
2005/0203331	A1	9/2005	Szapucki et al.	2010/0076271	A1	3/2010	Humayun
2005/0227986	A1	10/2005	Bo et al.	2010/0100104	A1	4/2010	Yu et al.
2005/0272931	A1	12/2005	Bo et al.	2010/0105454	A1	4/2010	Weber et al.
2005/0277802	A1	12/2005	Larsen et al.	2010/0114039	A1	5/2010	Cazzini
2006/0009493	A1	1/2006	Koenig et al.	2010/0119696	A1	5/2010	Yu et al.
2006/0030618	A1	2/2006	Bo et al.	2010/0121248	A1	5/2010	Yu et al.
2006/0052796	A1	3/2006	Perez et al.	2010/0121249	A1	5/2010	Yu et al.
2006/0110428	A1	5/2006	deJuan et al.	2010/0131075	A1	5/2010	Ludlow et al.
2006/0111605	A1	5/2006	Larsen et al.	2010/0157620	A1	6/2010	Bhadri et al.
2006/0142629	A1	6/2006	DeJuan, Jr. et al.	2010/0168646	A1	7/2010	Greenbaum et al.
2006/0189838	A1	8/2006	DeJuan, Jr. et al.	2010/0174415	A1	7/2010	Humayun et al.
2006/0223026	A1	10/2006	Kuroiwa et al.	2010/0197826	A1	8/2010	Agrawal et al.
2006/0235877	A1	10/2006	Richard et al.	2010/0228119	A1	9/2010	Brennan et al.
2006/0257451	A1	11/2006	Varner et al.	2010/0228123	A1	9/2010	Brennan et al.
2006/0287662	A1	12/2006	Berry et al.	2010/0228124	A1	9/2010	Brennan et al.
2007/0019790	A1	1/2007	Lewis et al.	2010/0228132	A1	9/2010	Brennan et al.
2007/0055089	A1	3/2007	Larsen et al.	2010/0228238	A1	9/2010	Brennan et al.
2007/0118010	A1	5/2007	Hillstead et al.	2010/0229384	A1	9/2010	Krulevitch et al.
2007/0179471	A1	8/2007	Christian et al.	2010/0238288	A1	9/2010	Klaerner et al.
2007/0219546	A1	9/2007	Mody et al.	2010/0267647	A1	10/2010	Greenbaum et al.
2007/0233037	A1	10/2007	Gifford, III et al.	2010/0268013	A1	10/2010	Larsen et al.
2007/0248545	A1	10/2007	Brice et al.	2010/0294041	A1	11/2010	Tai et al.
2007/0265248	A1	11/2007	Fotsch et al.	2010/0305550	A1	12/2010	Meng et al.
2007/0265485	A1	11/2007	DeJuan, Jr. et al.	2011/0004045	A1	1/2011	Larsen et al.
2008/0027266	A1	1/2008	Lebovic et al.	2011/0021906	A1	1/2011	Hillstead et al.
2008/0108933	A1	5/2008	Yu et al.				
2008/0154204	A1	6/2008	Varner et al.				
2008/0161762	A1	7/2008	Stehr et al.				
2008/0172086	A1	7/2008	Hillstead et al.				
2008/0200747	A1	8/2008	Wagner et al.				
2008/0214887	A1	9/2008	Heanue et al.				
2008/0221653	A1	9/2008	Agrawal et al.				
2008/0249412	A1	10/2008	Huang et al.				
2008/0262512	A1	10/2008	Humayun et al.				
2008/0262569	A1	10/2008	Greenberg et al.				
2008/0262570	A1	10/2008	Greenberg et al.				
2008/0262571	A1	10/2008	Greenberg et al.				
2008/0272023	A1	11/2008	McCormick et al.				
2008/0281142	A1	11/2008	Lubock et al.				
2008/0281254	A1	11/2008	Humayun et al.				
2008/0288036	A1	11/2008	Greenberg et al.				
2008/0294223	A1	11/2008	Greenberg et al.				
2008/0305320	A1	12/2008	Laude et al.				
2008/0306611	A1	12/2008	Rowley et al.				
2008/0319319	A1	12/2008	Humayun et al.				
2009/0016075	A1	1/2009	Bhadri et al.				
2009/0030323	A1	1/2009	Fawzi et al.				
2009/0036827	A1	2/2009	Cazzini				
2009/0069340	A1	3/2009	Balestra et al.				
2009/0088784	A1	4/2009	DeBoer et al.				
2009/0088843	A1	4/2009	Lu et al.				
2009/0101841	A1	4/2009	Boyden et al.				
2009/0104960	A1	4/2009	Kelly et al.				
2009/0104987	A1	4/2009	Kelly et al.				
2009/0112287	A1	4/2009	Greenberg et al.				
2009/0131175	A1	5/2009	Kelly et al.				
2009/0143124	A1	6/2009	Hughes et al.				
2009/0143633	A1	6/2009	Edmundson et al.				
2009/0143734	A1	6/2009	Humayun et al.				
2009/0146583	A1	6/2009	Bhadri et al.				
2009/0149915	A1	6/2009	Greenberg et al.				
2009/0177245	A1	7/2009	Ameri et al.				
2009/0192493	A1	7/2009	Meng et al.				
2009/0227856	A1	9/2009	Russell et al.				
2009/0228086	A1	9/2009	Greenberg et al.				
2009/0240215	A1	9/2009	Humayun et al.				
2009/0264424	A1	10/2009	Bo et al.				
2009/0287276	A1	11/2009	Greenberg et al.				
2009/0306585	A1	12/2009	Pang et al.				

FOREIGN PATENT DOCUMENTS

AU	323703	S	1/2009
AU	323704	S	1/2009
WO	2005016258	A2	2/2005
WO	2007059208	A2	5/2007

OTHER PUBLICATIONS

Messmer E et al.; Histopathologic findings in eyes treated with a ruthenium plaque for uveal melanoma; Graefes Arch Clin Exp Ophthalmol.; 1992; 230 (4): 391-6.

Raghava et al.; Periocular routes for retinal drug delivery, 2004, pp. 99-114, Ashley Publications.

Venkatesh et al.; Comparison of the Efficacy and Safety of Different Methods of Posterior Subtenon Injection; Ocular Immunology and Inflammation; Oct. 1, 2007; pp. 217-223; Infoma Healthcare USA, Inc.

Tenon's Capsule; Fundamentals and Principles; p. 39.

Canavan et al.; Sub-Tenon's administration of local anaesthetic: a review of the technique; 2003; pp. 787-793; British Journal of Anaesthesia.

Dafflon et al.; Posterior sub-Tenon's steroid injections for the treatment of posterior ocular inflammation: indications, efficacy and side effects, Graefes Arch Clin Exp Ophthalmol, 1999, pp. 289-295; Springer-Verlag 1999.

Tanner et al.; Posterior sub-Tenon's triamcinolone injections in the treatment of uveitis; Royal College of Ophthalmologists; 1998; pp. 679-685.

Thach, MD et al.; A Comparison of Retrobulbar versus Sub-Tenon's Corticosteroid Therapy for Cystoid Macular Edema Refractory to Topical Medications; pp. 2003-2008; Ophthalmology Volue 104, No. 12, Dec. 1997.

Hubbard et al.; A New Ocular Brachytherapy System for the Treatment of Exudative AMD; 2005; Invest Ophthalmol Vis Sci 2005; 46; E-Abstract 2425.

Hubbard, III et al.; A Progress Report on the TheraSight Ocular Brachytherapy Safety and Feasibility Study; 2006; Invest Ophthalmol Vis Sci 2006; 47: E-Abstract 2101.

The Collaborative Ocular Melanoma Study Group; Design and Methods of a Clinical Trial for a Rare Condition: The Collaborative

- Ocular Melanoma Study; COMS Report No. 3; 1993; Controlled Clinical Trials 14: 362-391; Elsevier Science Publishing Co., Inc.
- COMS Coordinating Center; Collaborative Ocular Melanoma Study; Manual of Procedures; Jan. 1995; pp. 1-330; The Wilmer Ophthalmological Institute; The Johns Hopkins School of Medicine (*reduced to cover and Table of Contents due to excessive data [330 pages]).
- Hubbard et al.; Cadaver Evaluation of a New Ocular Brachytherapy System; Invest Ophthalmol Vis Sci 2004; 45: E-Abstract 5139.
- Golden; SubTenon Injection of Gentamicin for Bacterial Infections of the Eye; pp. S271-S277; The Journal of Infectious Diseases; vol. 124, Supplement; Dec. 1971; University of Chicago.
- Snyder, MD, PhD et al.; Antibiotic Therapy for Ocular Infection; Conferences and Reviews; pp. 579-584; WJM, Dec. 1994; vol. 161, No. 6; Therapy for Ocular Infection—Snyder and Glasser.
- Baum, M.D. et al.; The Evolution of Antibiotic Therapy for Facterial Conjunctivitis and Keratitis: 1970-2000; pp. 659-672; Cornea, vol. 19, No. 5, 2000; Lippincott Williams & Wilkins, Inc., Philadelphia.
- Scoper; Review of Third- and Fourth-Generation Fluoroquinolones in Ophthalmology: In-Vitro and In-Vivo Efficacy; Adv Ther. 2008; 25(10): 979-994; Springer Healthcare Communications.
- Yilmaz, MD et al.; Severe Fungal Keratitis Treated With Subconjunctival Fluconazole; 2003; pp. 454.e1-454.e7; vol. 140, No. 3; Elsevier Inc.
- Yilmaz, Md et al.; Severe Fungal Keratitis Treated With Subconjunctival Fluconazole; Apr. 2006; pp. 783-784; vol. 141, No. 4, Correspondence; American Journal of Ophthalmology.
- Ikewaki et al.; Peribulbar fungal abscess and endophthalmitis following posterior subtenon injection of triamcinolone acetonide; Diagnostics/Therapy in Ophthalmology; 2008; pp. 102-104; Acta Ophthalmologica; The Authors, Journal compilation, Acta Ophthalmol.
- Nayak et al.; Acute orbital abscess complicating deep posterior subtenon triamcinolone injection; Indian Journal of Ophthalmology; vol. 56, No. 3; May-Jun. 2008; downloaded from <http://www.ijo.in> on Monday, Nov. 2, 2009.
- Kusaka et al.; Orbital infection following posterior subtenon triamcinolone injection; 2207; pp. 692-693; Acta Ophthalmologica Scandinavica.
- Walker et al.; Conservative management of refractory steroid-induced glaucoma following anterior subtenon steroid injection; 2007; Letters to the Editor; pp. 197-198; The Authors, Journal compilation, Royal Australian and New Zealand College of Ophthalmologists.
- Au et al.; Localised abscess following an injection of subtenon triamcinolone acetonide; Correspondence; Eye (2007) 21, 627-674, doi:10. 1038/sj.eye.6702671; published online Dec. 15, 2006.
- Venkatesh MD, et al.; Posterior subtenon injection of corticosteroids using polytetrafluoroethylene (PEFE) intravenous cannula; Clinical and Experimental Ophthalmology (2002) 30, 55-57; All India Institute of Medical Sciences Campus, India.
- Sou-Tung Chiu-Tsao, Ph.D., Episcleral Eye Plaques for Treatment of Intraocular Malignancies and Benign Diseases; Chapter 34; pp. 673-705.
- Sou-Tung Chiu-Tsao, Ph.D., Pterygium Brachytherapy Physics; Chapter 35; pp. 707-717.
- Nath, Ravinder, Ph.D. et al.; Brachytherapy Physics Second Edition; Medical Physics Monograph No. 31; 1013 pages; Medical Physics Publishing; Madison, Wisconsin, USA; 2005.
- Jaakkola, Aino; Heikkonen, Jorma; Tarkkanen, Ahti and Immonen, Ilkka; Visual function after strontium-90 plaque irradiation in patients with age-related subfoveal choroidal neovascularization; Acta Ophthalmologica Scandinavica 1999; 77; pp. 57-61.
- Hokkanen, J.; Heikkonen, J.; Holmberg, P.; Theoretical calculations of dose distributions for beta-ray eye applicators; Med. Phys. 24 (2); Feb. 1997pp. 211-213.
- Jaakkola, Aino; Heikkonen, Jorma; Tommila, Petri; Laatikainen, Leila; Immonen, Ilkka; Strontium plaque irradiation of subfoveal neovascular membranes in age-related macular degeneration; Graefe's Arch Clin Exp Ophthalmol (1998); 236; pp. 24-30.
- J. M. Capping; Radiation scleral necrosis simulating early scleromalacia perforans; Brit. J. Ophthalmol.; 1973; 57; pp. 425-428.

* cited by examiner

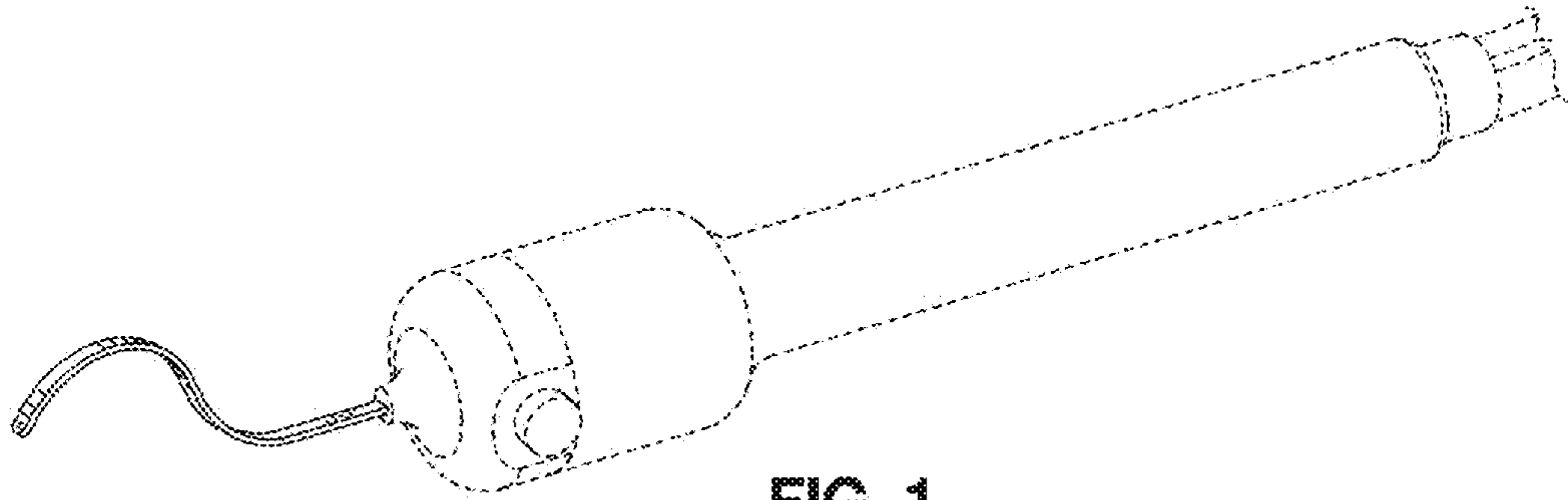


FIG. 1

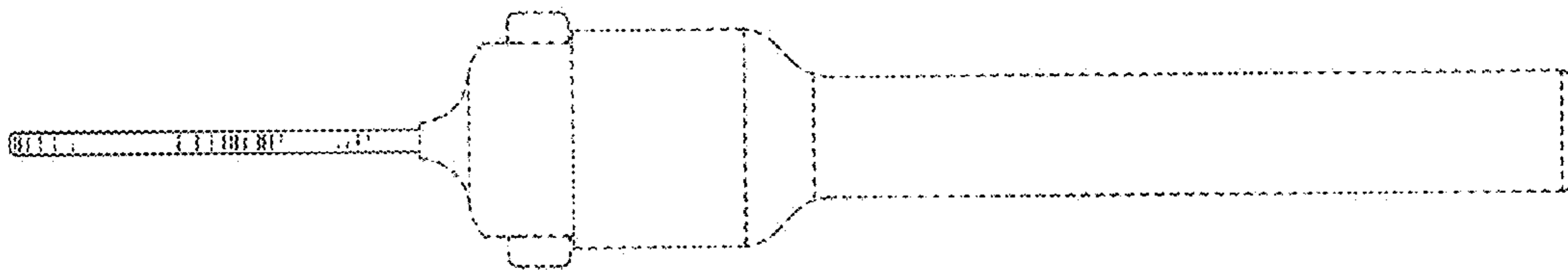


FIG. 2

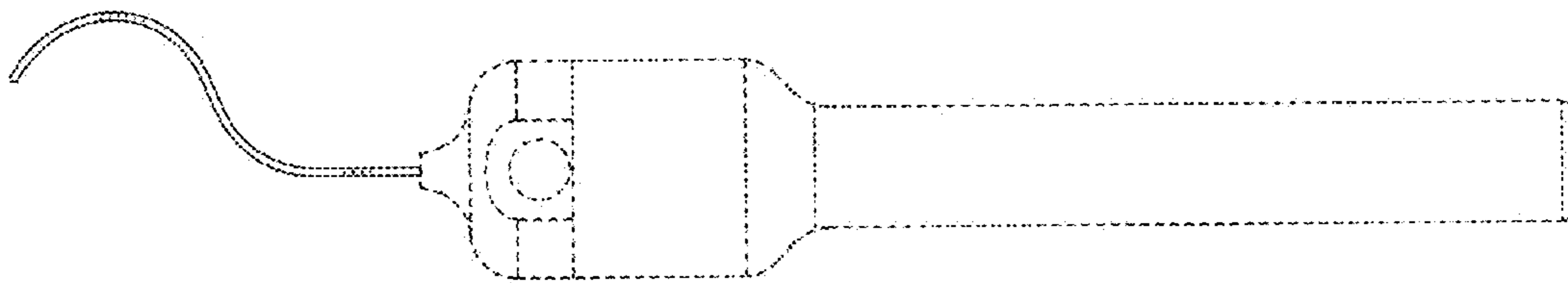


FIG. 3

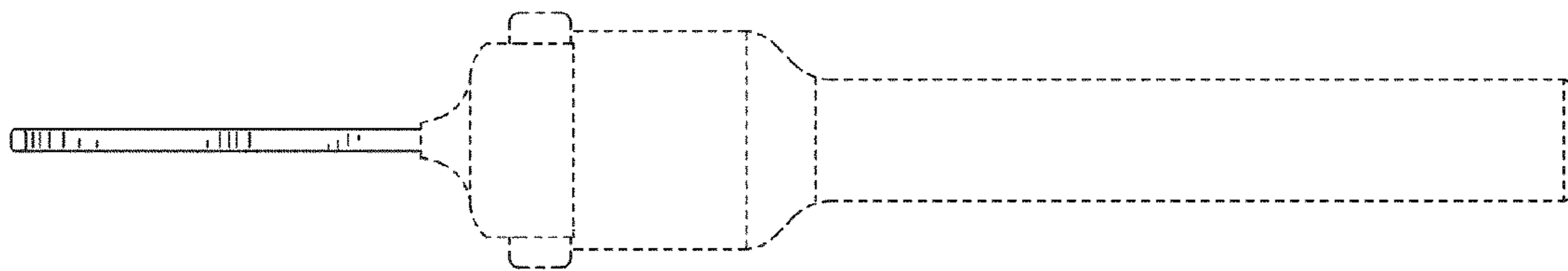


FIG. 4

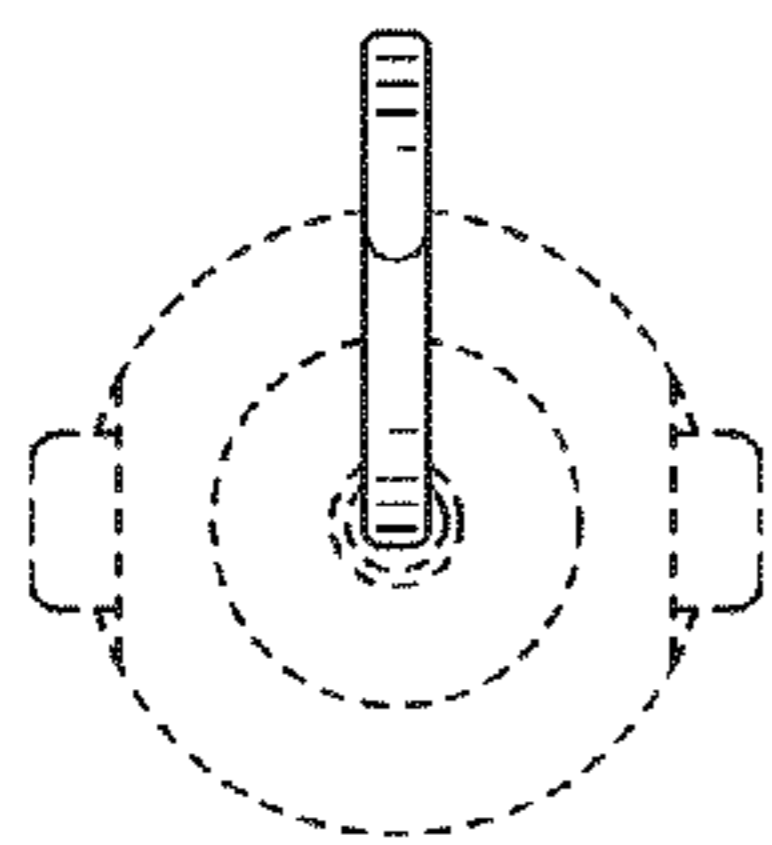


FIG. 5

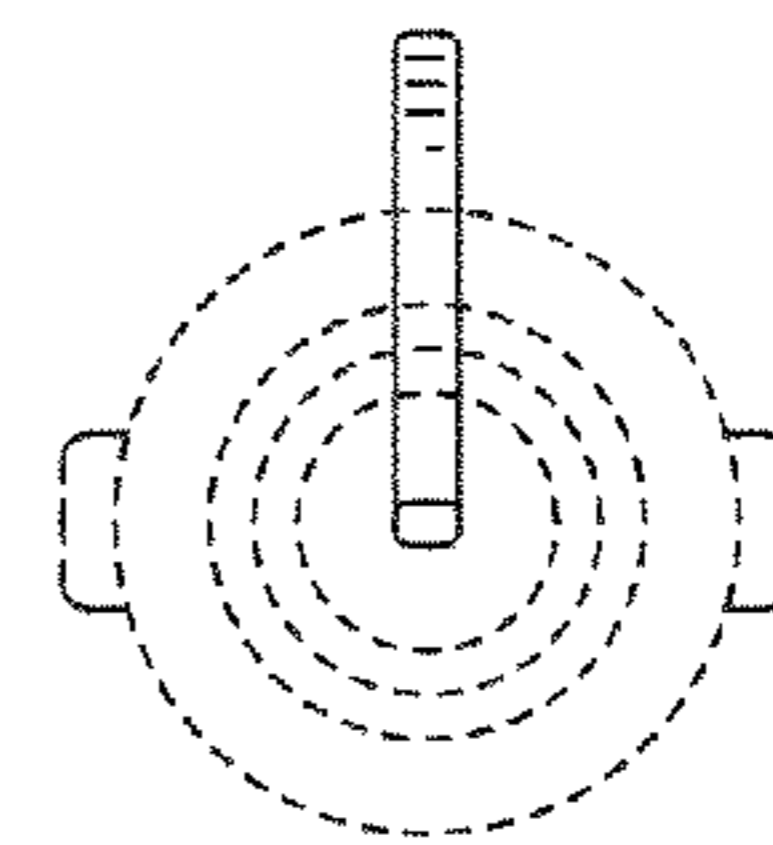


FIG. 6

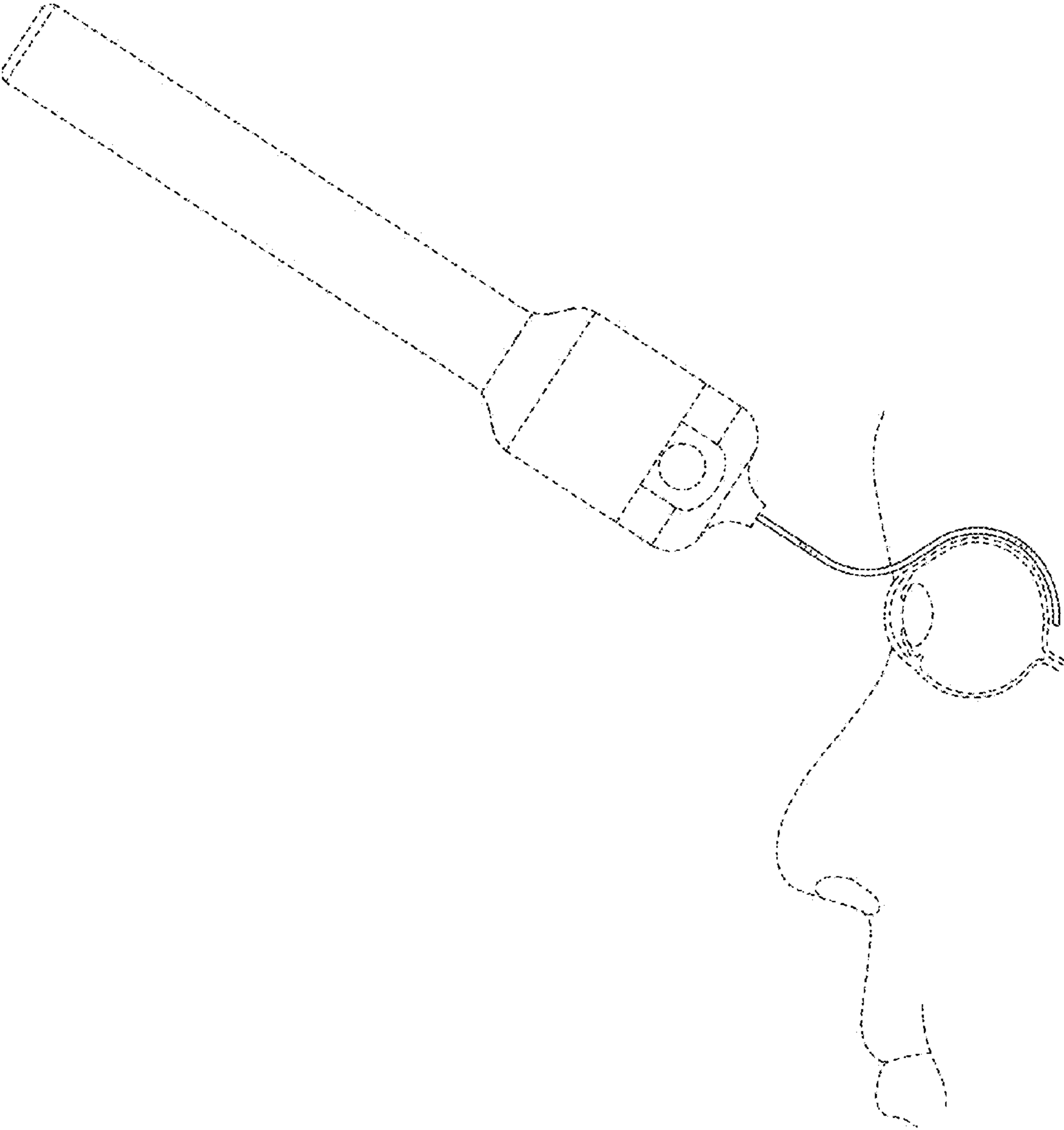


FIG. 7