

(12) United States Design Patent (10) Patent No.: US D536,792 S Krueger et al. (45) Date of Patent: ** Feb. 13, 2007

(54) **IMPLANT DELIVERY TOOL**

- (75) Inventors: Kurt D. Krueger, Stacy, MN (US);
 John P. Sopp, Forest Lake, MN (US);
 Brian J. Erickson, Woodbury, MN (US); John R. Frigstad, St. Anthony, MN (US); Larry A. Walter, Minneapolis, MN (US)
- (73) Assignee: Restore Medical, Inc., St. Paul, MN

OTHER PUBLICATIONS

Ersek et al., "Minimally Invasive Macro Implants," *Worldplast*, vol. I, No. 4, pp. 275–285 (1996). Boudewyns, A. et al., "Temperature–controlled Radiofrequency Tissue Volume Reduction of the Soft Palate (Somnoplasty®) in the Treatment of Habitual Snoring: Results of a European Multicenter Trial," *Acta Otolaryngol*, vol. 120, pp. 981–985 (2000).

Brietzke, S. et al., "Injection snoreplasty: How to treat

(US)

(**) Term: 14 Years

(21) Appl. No.: 29/224,232

(56)

(22) Filed: Feb. 25, 2005

Related U.S. Application Data

- (63) Continuation-in-part of application No. 10/665,941, filed on Sep. 19, 2003, and a continuation-in-part of application No. 10/665,760, filed on Sep. 19, 2003, now Pat. No. 6,899,105.
- (52) U.S. Cl. D24/147; D24/113; D24/133
- (58) Field of Classification Search D24/113, D24/146, 141, 108, 112, 155, 133, 114; 606/185, 606/117, 184, 167, 181; 604/57, 59, 60, 64, 604/502, 506; 623/23.74; 128/897, 898, 848
 See application file for complete search history.

snoring without all the pain and expense," *Otolaryngology*— *Head and Neck Surgery*, vol. 124, No. 5, pp. 503–510 (May 2001).

Cole, P. et al., "Snoring: A Review and a Reassessment," *The Journal of Otolaryngology*, vol. 24, No. 5, pp. 303–306 (1995).

Coleman, S. et al., "Midline radiofrequency tissue reduction of the palate for bothersome snoring and sleep-disordered breathing: A clinical trial," *Otolaryngology—Head and Neck Surgery*, vol. 122, No. 3, pp. 387–394 (Mar. 2000).

(Continued)

Primary Examiner—Ian Simmons
Assistant Examiner—W. Laymon
(74) Attorney, Agent, or Firm—Merchant & Gould P.C.

(57) CLAIM

The ornamental design for an implant delivery tool, as shown and described.

References Cited

DESCRIPTION

FIG. 1 is a top and front side perspective view of an implant delivery tool showing our new design, the broken line showing is for illustrative purposes only and forms no part of the claimed design;

U.S. PATENT DOCUMENTS

4,643,188 A	*	2/1987	Weiss	606/185
4,909,250 A		3/1990	Smith	
4,946,035 A		8/1990	Grimm et al.	
D320.270 S	*	9/1991	Ball et al	D24/113

(Continued)

FOREIGN PATENT DOCUMENTS

DE	44 12 190 A1	10/1995
DE	199 20 114 A1	11/2000
EP	1 039 859 B1	12/2003
GB	2 355 936 A	5/2001
WO	WO 2004/084709 A2	10/2004

FIG. 2 is a front view of the embodiment of FIG. 1; FIG. 3 is a right side elevation view of the embodiment of FIG. 1;

FIG. **4** is a left side elevation view of the embodiment of FIG. **1**;

FIG. **5** is a top plan view of the embodiment of FIG. **1**; and, FIG. **6** is a bottom plan view of the embodiment of FIG. **1**.

1 Claim, 2 Drawing Sheets



US D536,792 S

Page 2

U.S. PATENT DOCUMENTS

RE34,086	Е	*	10/1992	George 606/185
5,284,161			2/1994	-
5,456,662	Α		10/1995	Edwards et al.
5,514,131	Α		5/1996	Edwards et al.
5,674,191	Α		10/1997	Edwards et al.
5,718,702	Α		2/1998	Edwards
5,792,067	Α		8/1998	Karell
D402,757	S	*	12/1998	Davis et al D24/133
5,843,021	Α		12/1998	Edwards et al.
5,988,171	Α		11/1999	Sohn et al.
6,098,629	Α		8/2000	Johnson et al.
6,216,702	Β1		4/2001	Gjersøe
6,250,307	Β1		6/2001	Conrad et al.
6,387,113	Β1		5/2002	Hawkins et al.
6,431,174	B1		8/2002	Knudson et al.
6,432,035	Β1		8/2002	Ravins et al.
6,513,530	B2		2/2003	Knudson et al.
6,523,542	B2		2/2003	Knudson et al.
6,530,896	Β1		3/2003	Elliott
6,578,580	B2		6/2003	Conrad et al.
6,626,916	Β1		9/2003	Yeung et al.
6,748,950	B2		6/2004	Clark et al.
D497,990	S	*	11/2004	Jutila D24/146
2004/0045556	A1		3/2004	Nelson et al.
2004/0134491	A1		7/2004	Pflueger et al.
2005/0065615	A1		3/2005	Krueger et al.

Huang, L. et al., "Biomechanics of snoring," *Endeavour*, vol. 19, No. 3, pp. 96–100 (1995).

LaFrentz et al., "Palatal Stiffening Techniques for Snoring in a Novel Canine Model," *Abstracts of the Twenty–Second Annual Mid Winter Research Meeting of the Association for Research in Otolaryngology*, Abstract No. 299, vol. 22, p. 125–126 (Feb. 13–18, 1999).

Lorenz, C., "If he Snores—what can you do about it," *Today's Woman*, 2 pgs. (Jul. 1948).

Parker, J., "Clinical Scientific Feature, An Overview of Snoring and Obstructive Sleep Apnea, Part One: Evaluation and Diagnosis," *Northwest Dentistry*, pp. 17–22 (Jan.–Feb. 1995).

OTHER PUBLICATIONS

Harries, P. et al., "Review Article, The surgical treatment of snoring," *The Journal of Laryngology and Otology*, vol. 110, pp. 1105–1106 (Dec. 1996).

Scwartz, R. et al., "Effects of electrical stimulation to the soft palate on snoring and obstructive sleep apnea," *The Journal of Prosthetic Dentistry*, vol. 76, No. 3, pp. 273–281 (Sep. 1996).

Wiltfang, J. et al., "First results on daytime submandibular electrostimulation of suprahyoidal muscles to prevent night– time hypopharyngeal collapse in obstructive sleep apnea syndrome," *International Journal of Oral & Maxillofacial Surgery*, vol. 28, pp. 21–25 (1999).

Dec. 18, 2005 510k clearance K011723 from the U.S. Food and Drug Administration.

Jul. 28, 2004 510k clearance K040417 from the U.S. Food and Drug Administration.

* cited by examiner

U.S. Patent Feb. 13, 2007 Sheet 1 of 2 US D536, 792 S





F G.J

U.S. Patent Feb. 13, 2007 Sheet 2 of 2 US D536,792 S







