



US006436034B1

(12) **United States Patent**
Funatogawa

(10) **Patent No.:** **US 6,436,034 B1**
(45) **Date of Patent:** **Aug. 20, 2002**

(54) **INTRABUCCAL STRETCHER**

(76) Inventor: **Hiroyuki Funatogawa**, c/o Dokuta Eru
Kabushiki Kaisya 3208-1, Tori
5-Chome, Asikaga-city, Tochigi-Pref.
(JP)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

1,450,419	A	*	4/1923	Heidbrink	
1,773,588	A	*	8/1930	Linde	
2,651,300	A	*	9/1953	Fehrman	128/19
3,241,550	A	*	3/1966	Gelarie	128/12
3,916,880	A	*	11/1975	Schroer	128/12
3,938,508	A	*	2/1976	Buckner	128/76 R
4,200,089	A	*	4/1980	Inoue	128/12
4,356,821	A	*	11/1982	Rind	128/207.14
4,408,989	A	*	10/1983	Cleary	433/7

* cited by examiner

(21) Appl. No.: **09/379,466**

(22) Filed: **Aug. 24, 1999**

(30) **Foreign Application Priority Data**

Aug. 31, 1998 (JP) 10-260949

(51) **Int. Cl.⁷** **A61B 1/32**

(52) **U.S. Cl.** **600/238**; 600/239; 600/243;
433/7; 433/140

(58) **Field of Search** 600/237, 238,
600/242, 243, 244; 433/7, 140

(56) **References Cited**

U.S. PATENT DOCUMENTS

404,652	A	*	6/1889	Palmer
776,302	A	*	11/1904	Crockett
1,067,572	A	*	7/1913	Abbott
1,389,436	A	*	8/1921	Cameron

Primary Examiner—John G. Weiss

Assistant Examiner—Mital Patel

(74) *Attorney, Agent, or Firm*—Lorusso & Loud

(57) **ABSTRACT**

Disclosed is an intrabuccal stretcher having essentially a supporting bar and a pushing part formed at each distal end of the supporting bar; the pushing parts having such a thickness and such a roundish shape as are suitable for pushing internal sides of buccae; the supporting bar being bent symmetrically with respect to the vertical axis; the pushing parts being extended outward from the distal ends of the supporting bar; wherein the pushing parts are inserted into an oral cavity with the supporting bar remaining partly outside the oral cavity to push and simulate internal sides of the buccae.

5 Claims, 6 Drawing Sheets

