



US00D423670S

United States Patent [19]

Scheuble et al.

[11] Patent Number: Des. 423,670

[45] Date of Patent: ** Apr. 25, 2000

[54] ENDODONTIC SEALER CARTRIDGE

[75] Inventors: **Gustav A. Scheuble**, Des Plaines, Ill.;
Fritz Kohnke, Hudson, Fla.

[73] Assignee: **Dentsply Research & Development Corp.**, Los Angeles, Calif.

[**] Term: **14 Years**

[21] Appl. No.: **29/087,436**

[22] Filed: **Apr. 30, 1998**

[51] LOC (6) Cl. **24-02**

[52] U.S. Cl. **D24/152; D24/130**

[58] Field of Search D24/112, 130,
D24/129, 152, 176; 433/90, 89, 87, 81,
82, 83, 84; 604/272, 273, 275, 239

[56] References Cited

U.S. PATENT DOCUMENTS

D. 293,821	1/1988	Vaillancourt	D24/130 X
D. 345,419	3/1994	Horrigan et al.	D24/130
2,654,948	10/1953	Rubin	433/89
3,074,159	1/1963	Baldwin et al.	604/272
3,745,655	7/1973	Malmin .	
3,816,921	6/1974	Malmin .	
4,265,618	5/1981	Herskovitz et al. .	
4,276,880	7/1981	Malmin .	
4,362,508	12/1982	Söderström .	
4,704,088	11/1987	Newman .	
4,834,722	5/1989	Zenz	604/272
5,045,066	9/1991	Scheuble et al. .	
5,358,150	10/1994	Scheuble et al. .	
5,514,113	5/1996	Anderson et al.	604/272

FOREIGN PATENT DOCUMENTS

2360393 3/1978 France .

OTHER PUBLICATIONS

Kapsimalis, et al. (1965): Sealing Properties of Endodontic Filling Materials Using Radioactive Polar and Nonpolar Isotopes: 43rd Annual Meeting of the International Association for Dental Research, Toronto, Ontario Canada.

Skinner, et al., "The Sealing Ability of Injection-Molded Thermoplasticized Gutta-percha With and Without the Use of Sealers", *Journal of Endodontics*, vol. 13, No. 7 (1987).
Ono, et al., "The Physical Properties of a New Sealing Cement," *International Endodontic Journal*, 25, 130-133 (1992).

Benatti, et al., "Verification of the Consistency, Setting Time and Dimensional Changes of Root Canal Filling Materials," *Oral Surgery*, vol. 46, No. 1 (1978).

Higginbotham, "A Comparative Study of the Physical Properties of Five Commonly Used Root Canal Sealers," vol. 24, No. 1 (1967).

Georgopoulou, et al., "Effect of Thickness on the Sealign Ability of Some Root Canal Sealers", *Oral Surgery, Oral Medicine, & Oral Pathology*, vol. 80, No. 3 (1995).

Allen, "Method for Hermetically Sealing Smaller Root Canals," *JADA*, vol. 76 (1968).

Grossman, "Solubility of Root Canal Cements," *J. Dent. Res.*, (1978).

Wieman, et. al., "in Vitro Evaluation of Four Methods of Sealer Placement," *Journal of Endodontics* vol. 17, No. 9 (1981).

Juhlin, et al., "Adaptation of Thermafil Components to Canal Walls," *Journal of Endodontics*, vol. 19, No. 3 (1993).

Hoehn, et al., "Ultrasonic Endodontic Sealer Placement", *Journal of Endodontics*, vol. 14, No. 4 (1988).

(List continued on next page.)

Primary Examiner—Louis S. Zarfes

Assistant Examiner—I Simmons

Attorney, Agent, or Firm—Banner & Witcoff, Ltd.

[57] CLAIM

The ornamental design for an endodontic sealer cartridge, as shown and described.

DESCRIPTION

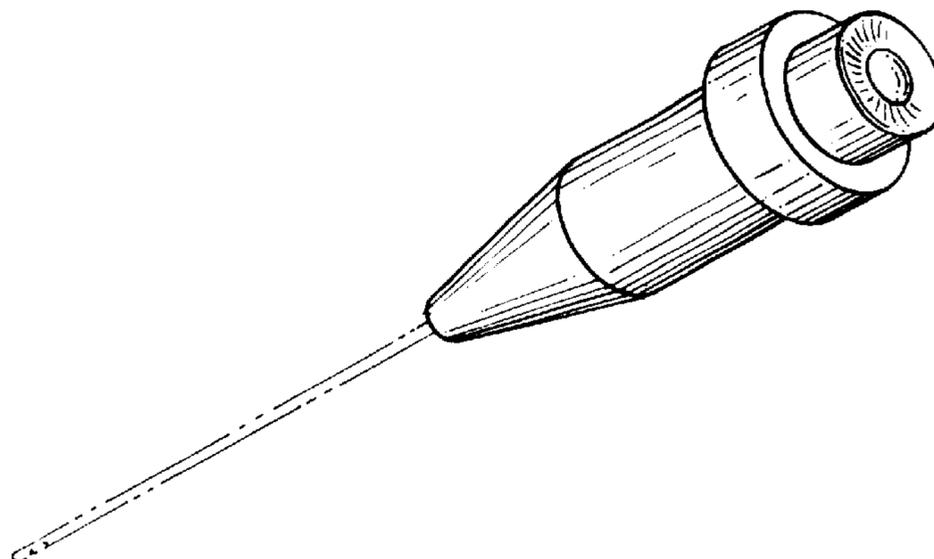
FIG. 1 is a perspective view of the endodontic sealer cartridge, with a cannula in broken lines, showing my new design;

FIG. 2 is a side plan view thereof;

FIG. 3 is a top view thereof; and,

FIG. 4 is a bottom view thereof.

1 Claim, 1 Drawing Sheet



OTHER PUBLICATIONS

Lin, et al., "Factors Associated With Endodontic Treatment Failures", *Journal of Endodontics*.

Seltzer, et al., "Endodontic Failures—An Analysis Based on Clinical, Roentgenographic, and Histologic Findings," *Oral Surgery, Oral Medicine & Oral Pathology*, vol. 23, No. 4 (1967).

Kahn, et al., "An In Vitro Evaluation of the Irrigating Characteristics of Ultrasonic and Subsonic Handpieces and Irrigating Needles and Probes," *Journal of Endodontics*, vol. 21, No. 5, May 1995, 277–280.

The Sani-Tip® System, Dec. 1996, Dental Products Report.

Max-I-Probe® Irrigation Products, The Key to Better Dental Health, MPL Technologies, A SoloPak® Company, PRMT 18 Rev. Jan. 1996.

Centrix Omnisyringe™ Instruction/Technique Manual, 1981 Centrix Inc.

Innovative Products For Successful Endodontic Therapy, ESPE–Premier Prior Art.

FIG.1

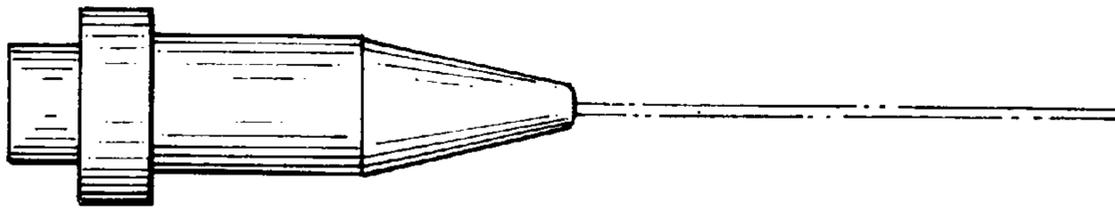
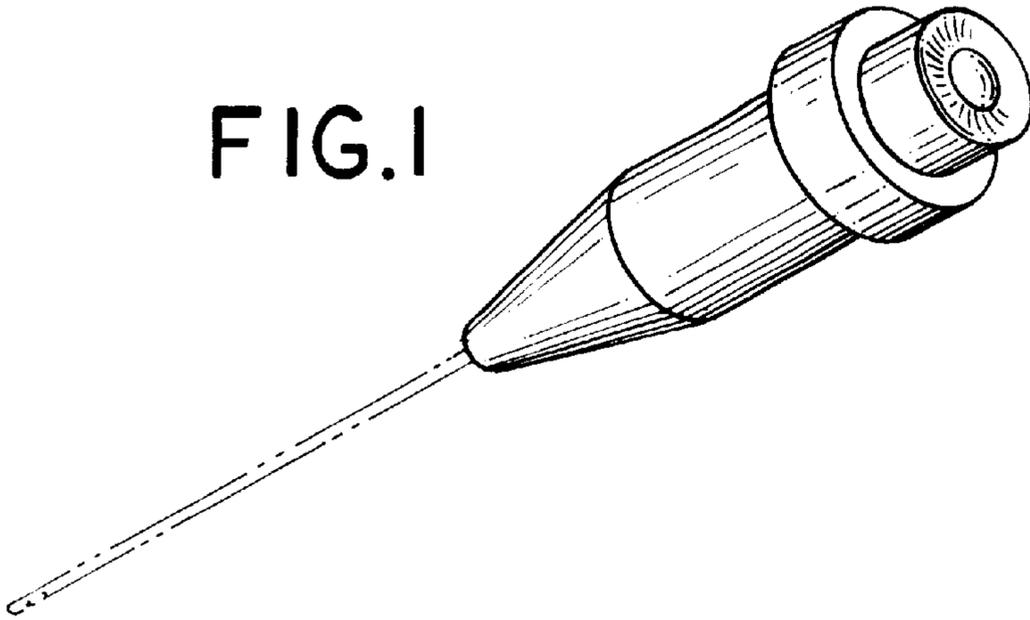


FIG.2

FIG.3

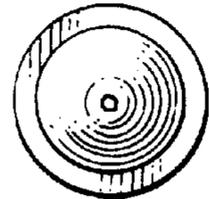


FIG.4

