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(12) **United States Design Patent**
Thomssen et al.

(10) **Patent No.:** **US D580,550 S**

(45) **Date of Patent:** **** Nov. 11, 2008**

(54) **DISPOSABLE DENTAL HANDPIECE**

(75) Inventors: **Eli Thomssen**, Kalamazoo, MI (US);
David Murphy, Ostego, MI (US);
Clayton Waldorf, Richland, MI (US);
Dirk Schipper, Kalamazoo, MI (US);
Kevin Turner, Highland Village, TX (US)

(73) Assignee: **Axenic Dental, Inc**, Kalamazoo, MI (US)

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

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Related U.S. Application Data

(62) Division of application No. 29/277,333, filed on Feb. 21, 2007, now abandoned.

(51) **LOC (8) Cl.** **24-03**

(52) **U.S. Cl.** **D24/152**

(58) **Field of Classification Search** D24/152,
D24/154, 146, 133; 433/3, 141, 114, 119,
433/118, 321, 322; 604/1; D7/393, 395
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D110,936 S 8/1938 Wiseman
(Continued)

FOREIGN PATENT DOCUMENTS

CH 686113 A5 1/1996
(Continued)

OTHER PUBLICATIONS

Supplementary European Search Report to European Application No. 04 72 0427, dated Apr. 5, 2007 listing document cited.

(Continued)

Primary Examiner—Charles A Rademaker

(74) *Attorney, Agent, or Firm*—Knobbe, Martens, Olson & Bear, LLP

(57) **CLAIM**

The ornamental design for a disposable dental handpiece, as shown and described.

DESCRIPTION

FIG. 1 is a top, front and left side perspective view of a disposable dental handpiece showing our new design;

FIG. 2 is a right side elevation thereof;

FIG. 3 is a left side elevation thereof;

FIG. 4 is a front elevation thereof;

FIG. 5 is a rear elevation thereof;

FIG. 6 is a top plan view thereof;

FIG. 7 is a bottom plan view thereof;

FIG. 8 is a bottom, rear and right side perspective view thereof;

FIG. 9 is a top, front and left side perspective view of a modified embodiment of the design shown in FIGS. 1 through 8;

FIG. 10 is a right side elevation thereof;

FIG. 11 is a left side elevation thereof;

FIG. 12 is a front elevation thereof;

FIG. 13 is a rear elevation thereof;

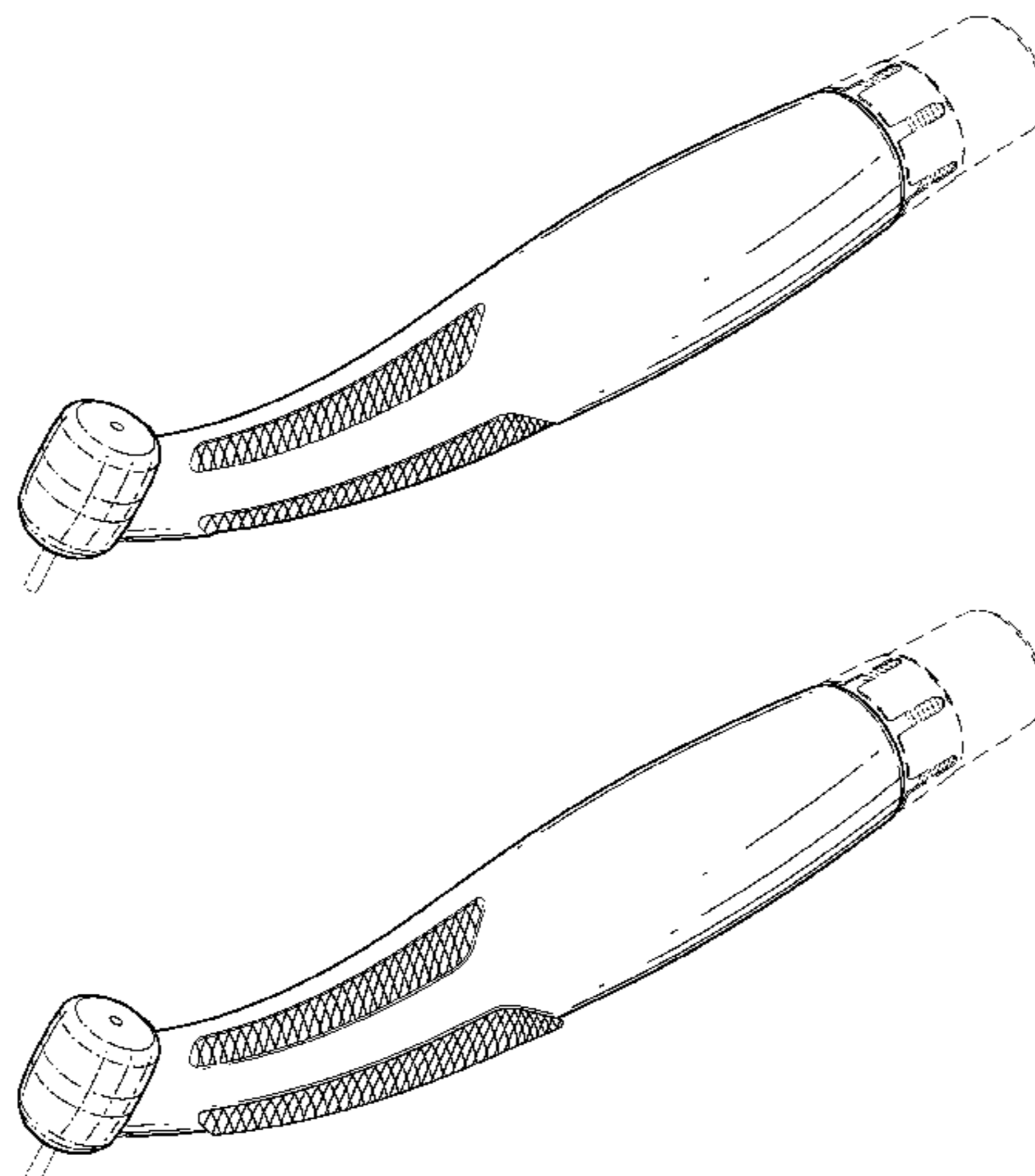
FIG. 14 is a top plan view thereof; and,

FIG. 15 is a bottom plan view thereof; and,

FIG. 16 is a bottom, rear, and right side perspective of the embodiment of FIG. 9.

The broken lines shown in the drawings are included for the purpose of illustrating environmental structure and form no part of the claimed design.

1 Claim, 12 Drawing Sheets



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U.S. PATENT DOCUMENTS

D121,506 S 7/1940 Davis
 D162,002 S 2/1951 Brown
 D174,181 S * 3/1955 Howie D7/393
 3,120,705 A 2/1964 Hoffmeister et al.
 D219,979 S 2/1971 Coss
 3,893,242 A 7/1975 Lieb et al.
 D239,390 S 3/1976 Webb
 D241,550 S 9/1976 Morin
 4,014,099 A 3/1977 Bailey
 D251,304 S 3/1979 Leonard
 D254,570 S 3/1980 McDonald
 D255,929 S 7/1980 Austin, Jr.
 D255,930 S 7/1980 Nilles et al.
 D257,284 S 10/1980 Leonard
 4,249,896 A 2/1981 Kerfoot
 D261,032 S 9/1981 Marucci et al.
 D261,301 S 10/1981 Marucci et al.
 D263,877 S 4/1982 Podszus et al.
 D264,876 S 6/1982 Seid
 D267,036 S 11/1982 Podszus et al.
 4,370,132 A 1/1983 Wohlgemuth
 D269,122 S 5/1983 Seeley
 4,795,343 A 1/1989 Choisser
 4,842,516 A 6/1989 Choisser
 D305,935 S 2/1990 Straihammer et al.
 4,941,828 A 7/1990 Kimura
 4,978,297 A 12/1990 Vlock
 5,007,831 A 4/1991 Bierbaum et al.
 5,040,978 A 8/1991 Falcon et al.
 5,096,421 A 3/1992 Seney
 5,156,547 A 10/1992 Bailey
 D335,347 S * 5/1993 McKeown D24/133
 5,217,372 A 6/1993 Truocchio
 5,231,973 A 8/1993 Dickie
 5,263,606 A 11/1993 Dutt
 5,308,242 A 5/1994 McLaughlin et al.
 5,334,013 A 8/1994 Meller
 5,348,473 A 9/1994 Kivlighan, Jr.
 5,352,118 A 10/1994 Franetzki et al.
 5,352,119 A 10/1994 Sakurai
 5,374,189 A 12/1994 Mendoza
 D355,971 S 2/1995 Meller
 D356,866 S * 3/1995 Meller D24/152
 5,538,425 A 7/1996 Reeves
 D373,636 S 9/1996 Martin
 5,562,446 A 10/1996 Matsui et al.
 D378,235 S 2/1997 Mark
 5,674,068 A 10/1997 Eibofner
 5,681,409 A 10/1997 Lin et al.
 D389,912 S 1/1998 Emerson et al.
 5,733,120 A 3/1998 Yao et al.
 5,772,436 A 6/1998 Matsui et al.
 5,782,634 A 7/1998 Lingenhole et al.
 5,797,743 A 8/1998 Bailey
 5,807,108 A 9/1998 Schwenoha et al.
 5,810,588 A 9/1998 Cohen
 5,902,108 A 5/1999 Nakayama et al.
 5,911,577 A 6/1999 Henrikson
 5,921,777 A 7/1999 Dorman
 5,924,865 A 7/1999 Quinn
 5,984,654 A 11/1999 Mendoza et al.

D425,988 S 5/2000 Frank
 D426,636 S 6/2000 Herring
 D427,311 S 6/2000 Henrikson
 D427,682 S 7/2000 Novak
 6,099,309 A 8/2000 Cardarelli
 6,149,430 A 11/2000 Nemetz et al.
 6,186,784 B1 2/2001 Bailey
 D440,817 S * 4/2001 Armando et al. D7/401.2
 6,305,935 B1 10/2001 Cardarelli
 6,315,560 B1 11/2001 Krouglicof et al.
 6,350,124 B1 2/2002 Wade
 D463,556 S 9/2002 Bareth et al.
 D465,279 S 11/2002 Etter et al.
 D472,969 S 4/2003 Wilden
 6,579,093 B2 6/2003 Bailey et al.
 6,638,068 B2 10/2003 Lingenhole et al.
 6,676,374 B2 1/2004 Hashimoto et al.
 D489,134 S 4/2004 Nakanishi
 6,716,028 B2 4/2004 Rahman et al.
 6,821,119 B2 11/2004 Shortt et al.
 D499,486 S 12/2004 Kuhn et al.
 D504,949 S 5/2005 Kuhn et al.
 D513,927 S * 1/2006 Chen D7/395
 7,008,224 B1 3/2006 Browning et al.
 D533,276 S 12/2006 Nakanishi
 D555,972 S * 11/2007 Rae D7/395
 D556,323 S * 11/2007 Nakanishi D24/152
 2002/0119420 A1 8/2002 Bailey et al.
 2006/0121413 A1 6/2006 Turner
 2006/0183073 A1 8/2006 Browning et al.
 2006/0183074 A1 8/2006 Brennan

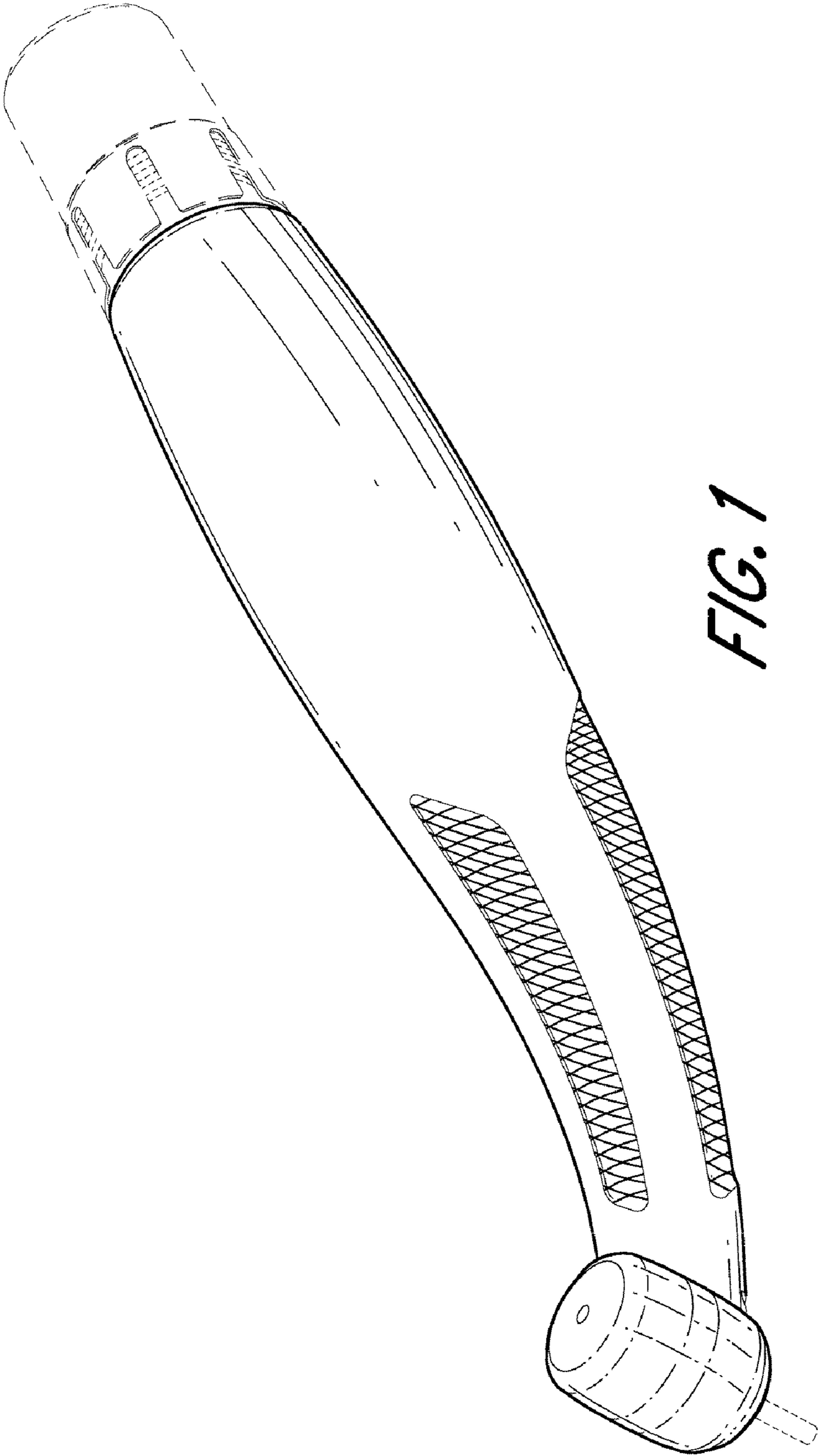
FOREIGN PATENT DOCUMENTS

EP 0925762 A1 6/1999
 GB 1023481 5/1985
 GB 2071913 5/1998
 JP 1211559 8/1989
 WO WO 91/15160 10/1991
 WO WO 95/12361 5/1995
 WO WO 02/076308 A2 10/2002
 WO WO 2004-082501 A2 9/2004

OTHER PUBLICATIONS

International Search Report Accompanying WO 91/15160.
 International Search Report Accompanying WO 95/12361.
 KaVo ELECTROtorque plus Brushless Electric Motor System Brochure in 17 pages, KaVo America Corporation, Lake Zurich, IL.
 Dentsply Professional Midwest Stylus Brochure in 2 pages, 2005 Dentsply International, Des Plaines, IL.
 Dentsply Professional Midwest System Brochure in 8 pages, 2002 Dentsply International, Des Plaines, IL.
 Dental EZ Group Star Dental Solara Series Brochure in 6 pages, 2003 Dental EZ Group, Malvern, PA.
 The Dental Company Sirona Handpieces Brochure in 14 pages, Sirona Dental Systems LLC, Charlotte, NC.
 Dental EZ Group StarDental 430 Series LubeFree High-Speed Handpiece System Brochure in 4 pages, 2005 Dental EZ Group, Lancaster, PA.
 Office Action dated Jul. 20, 2007 for Japanese Design Application No. 2007-7115.

* cited by examiner



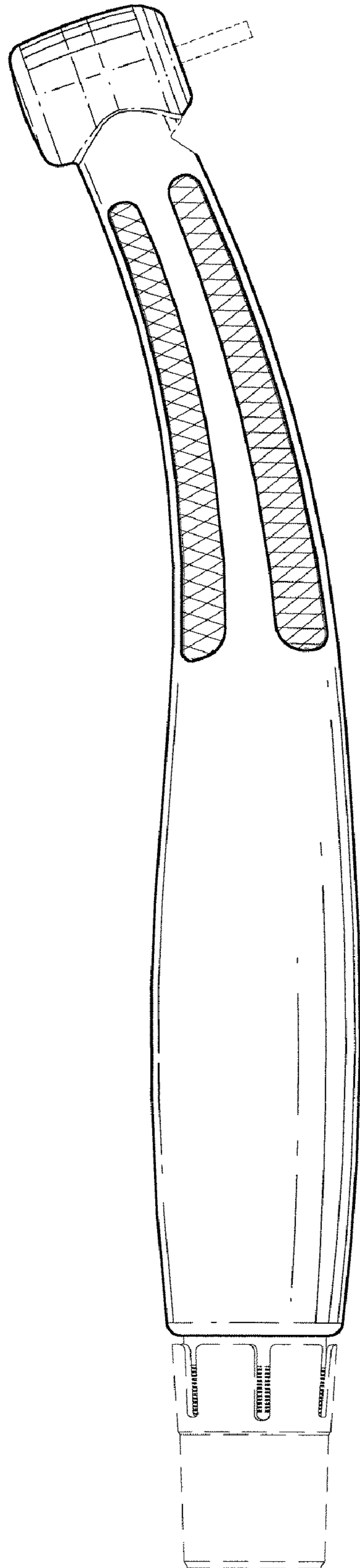


FIG. 2

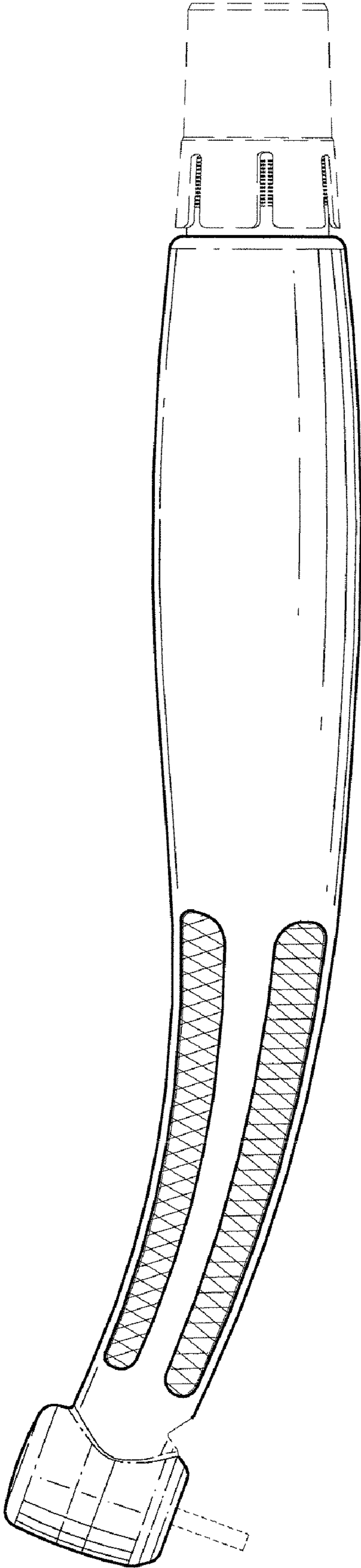


FIG. 3

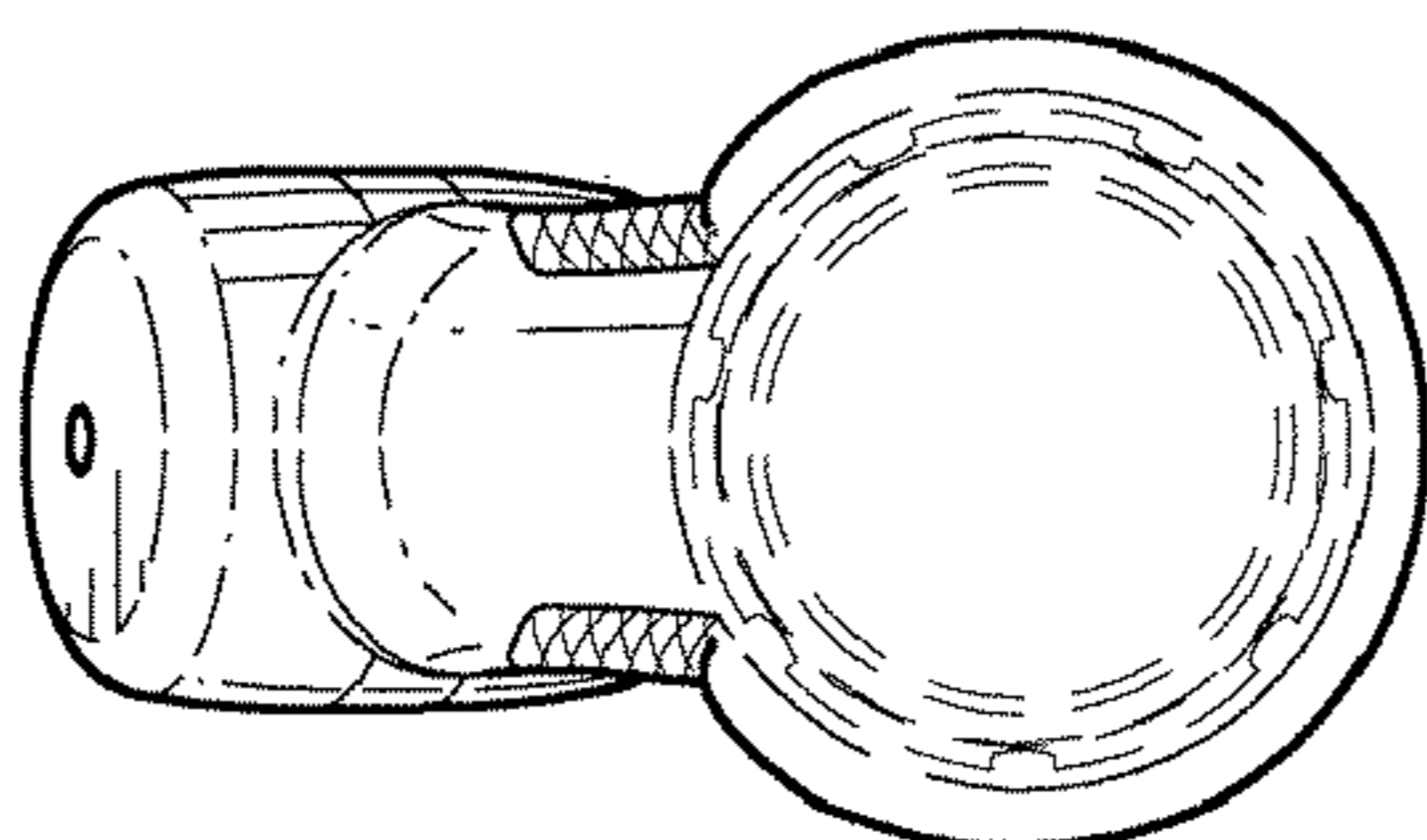


FIG. 5

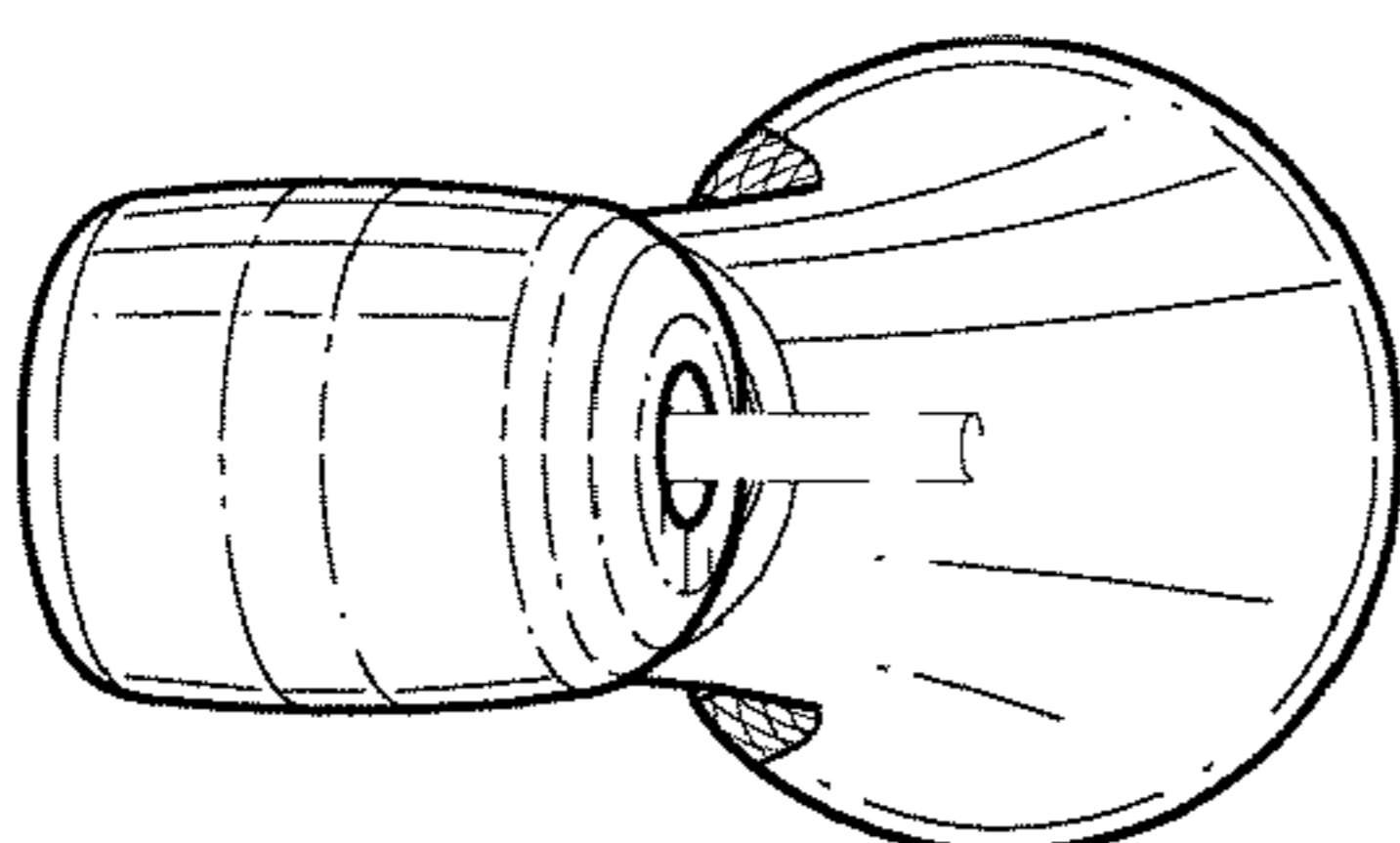


FIG. 4

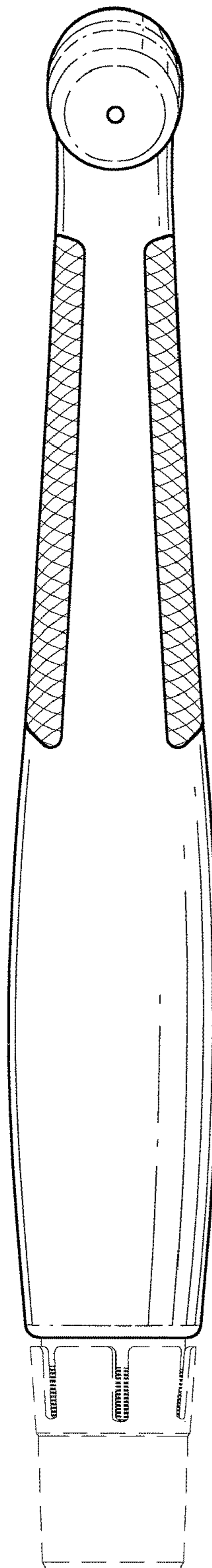


FIG. 6

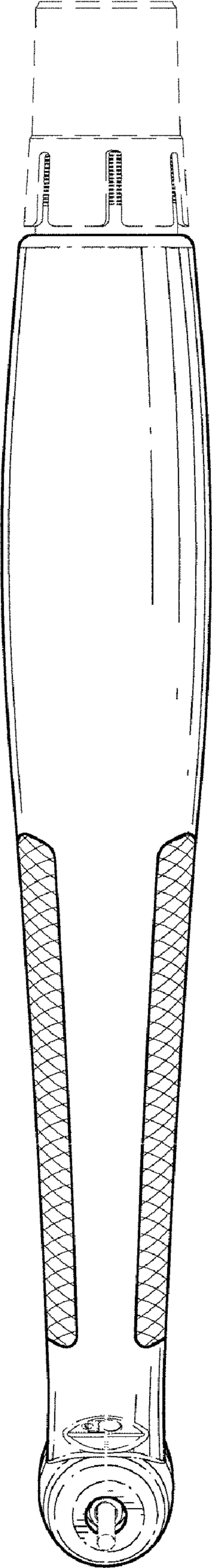


FIG. 7

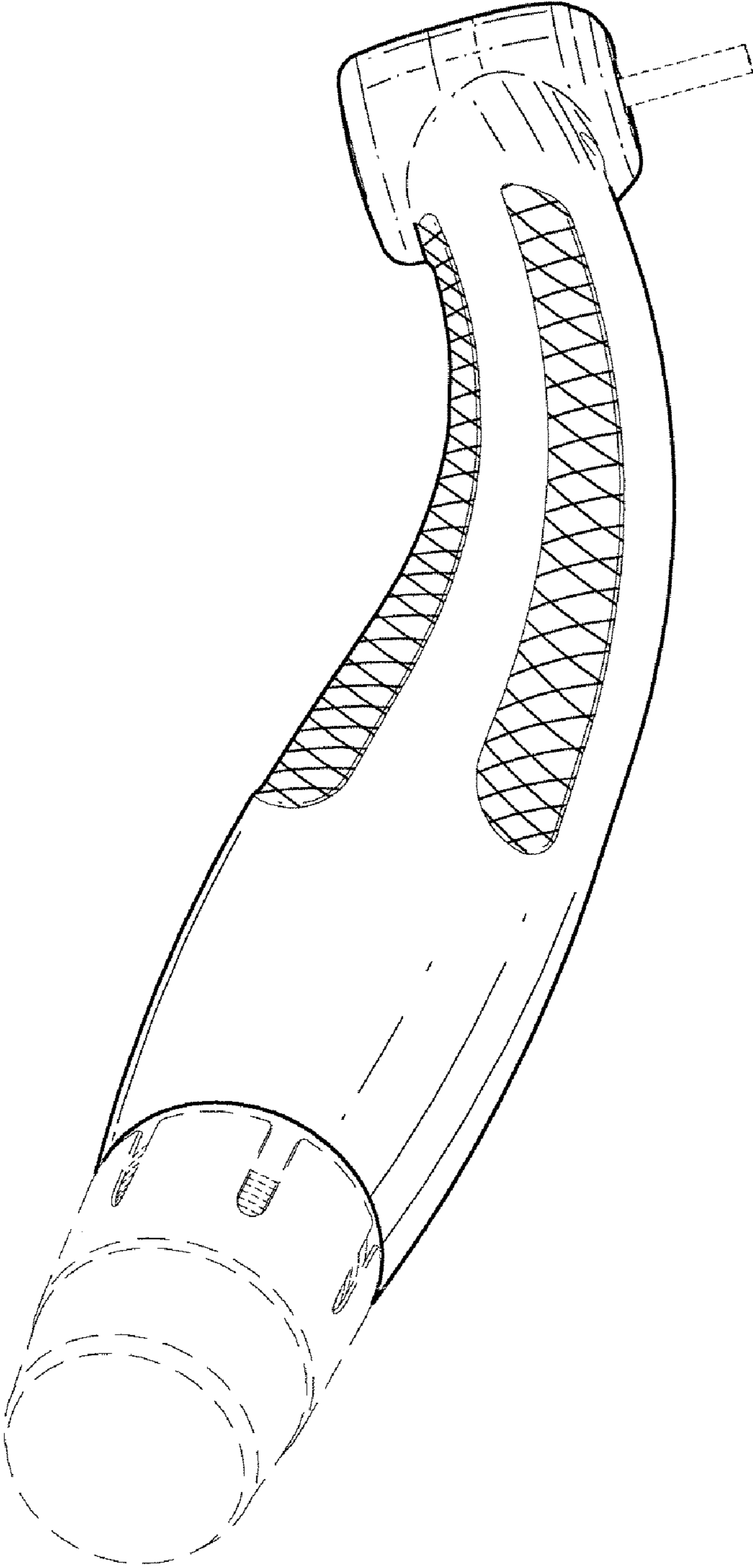


FIG. 8

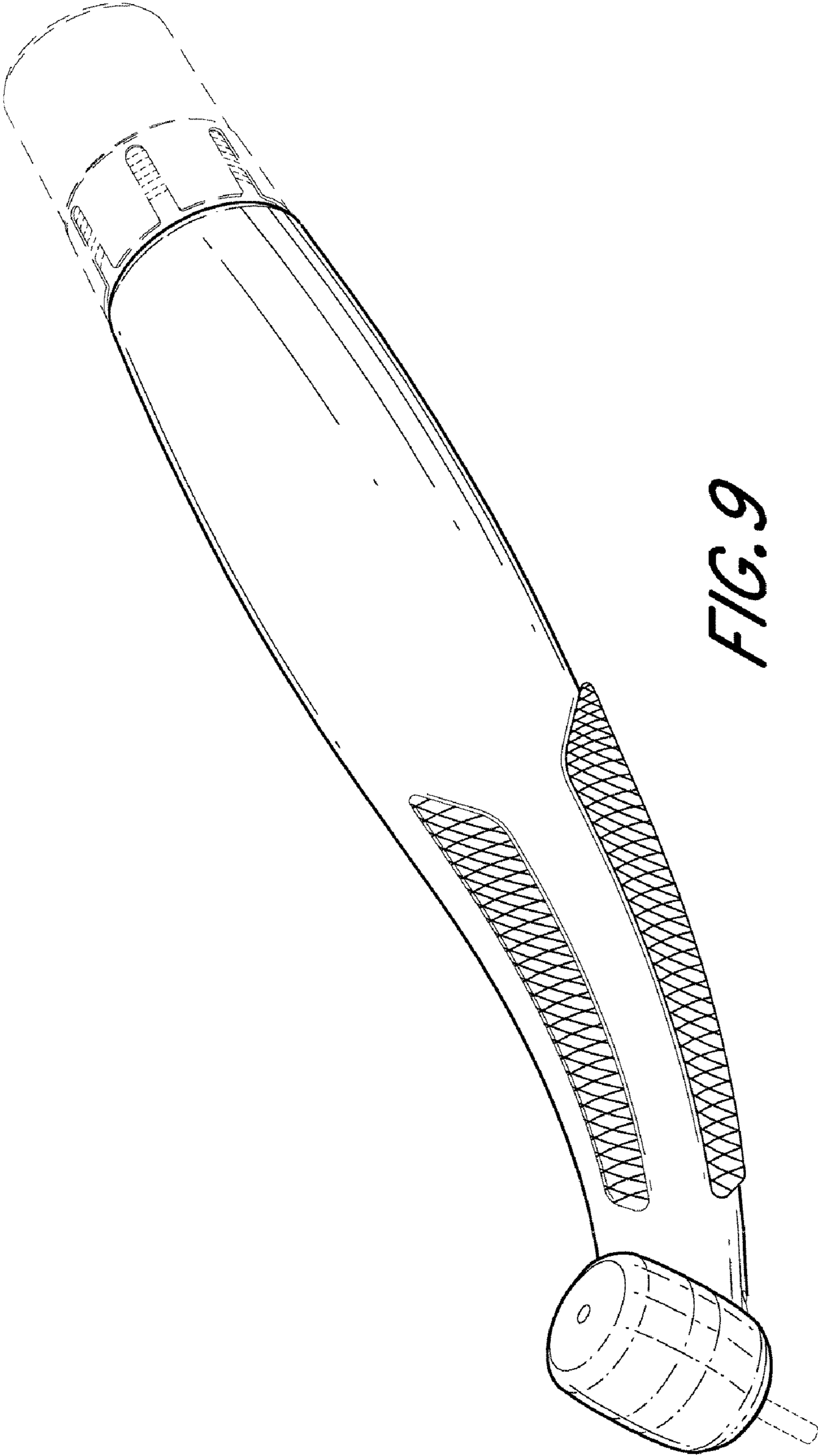


FIG. 9

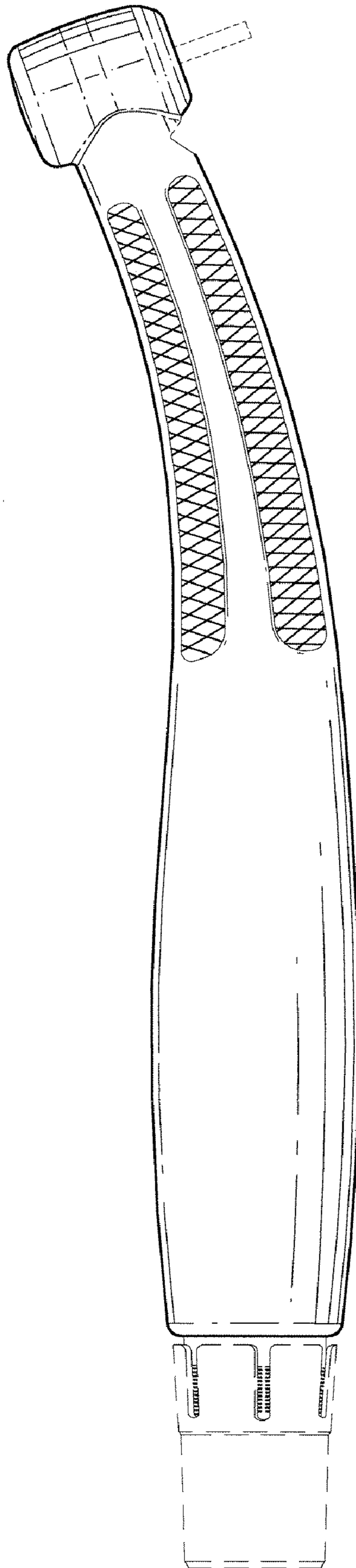


FIG. 10

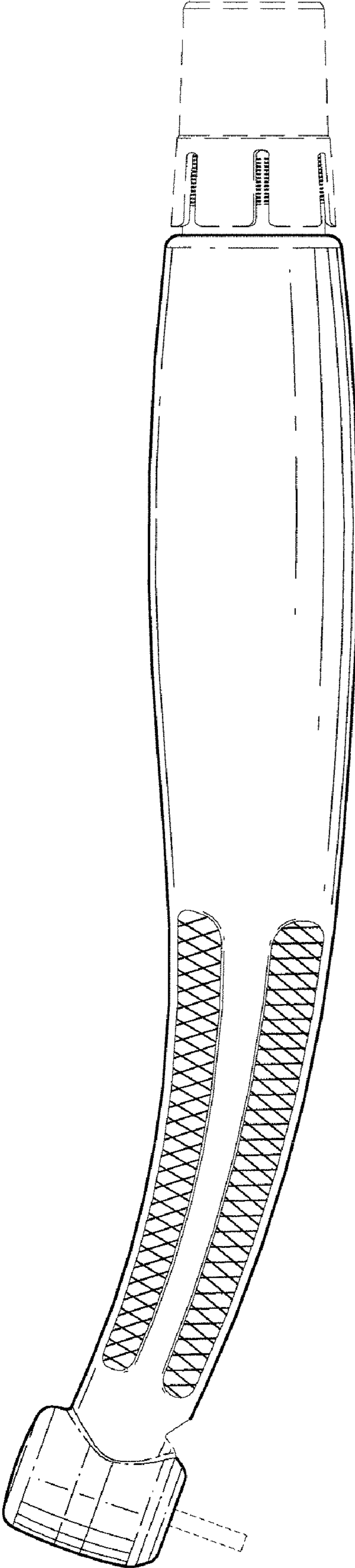


FIG. 11

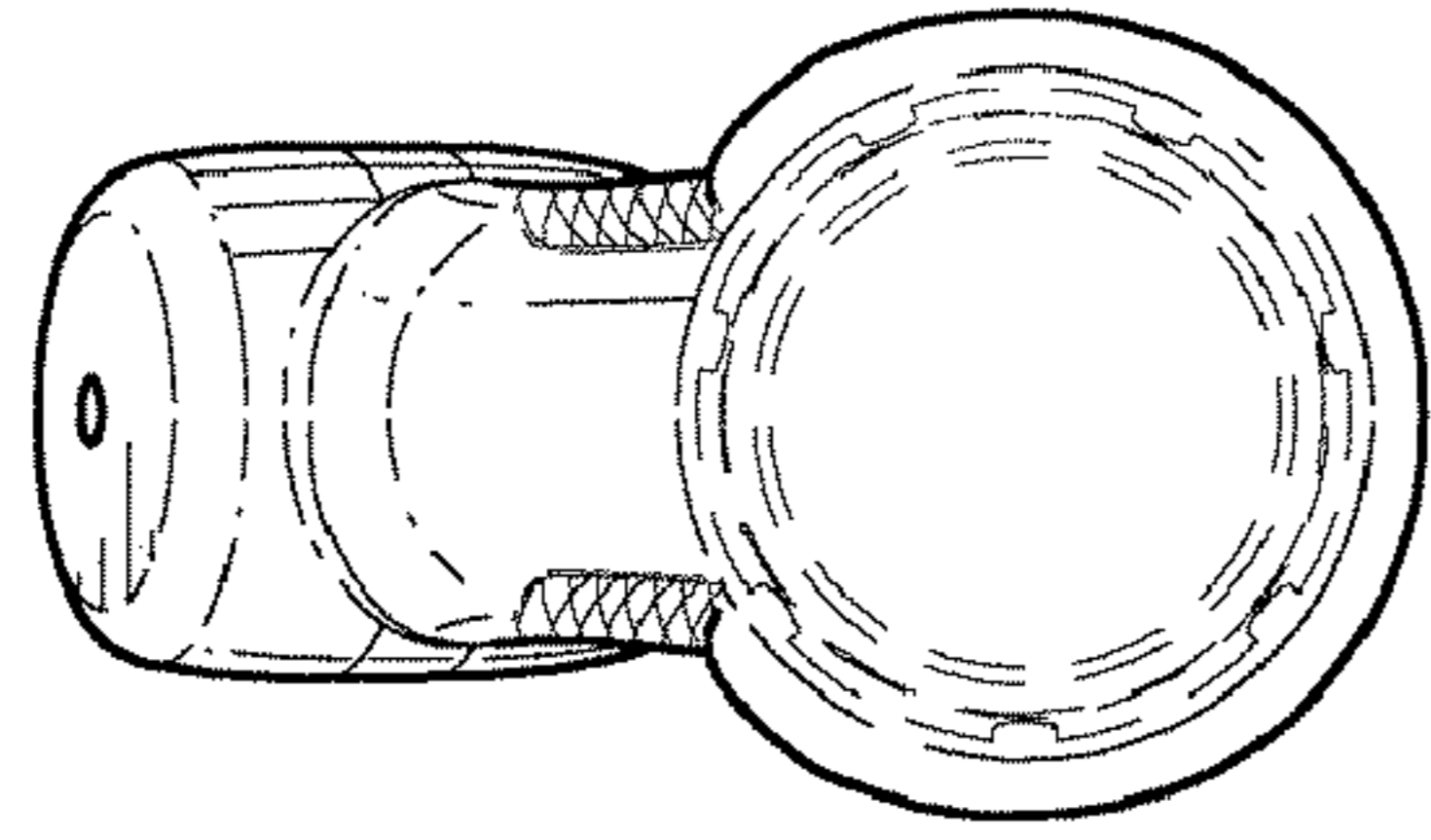


FIG. 13

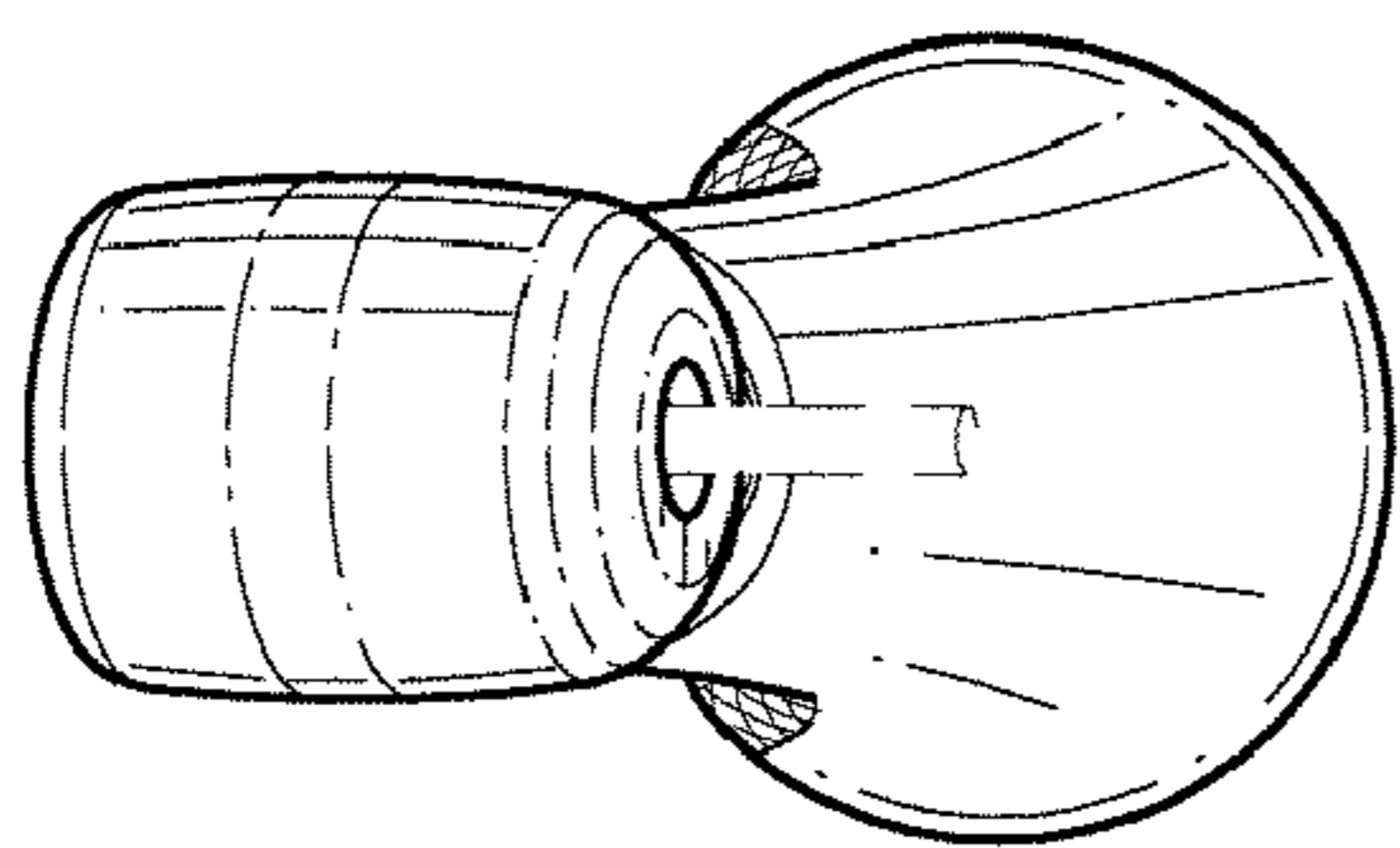


FIG. 12

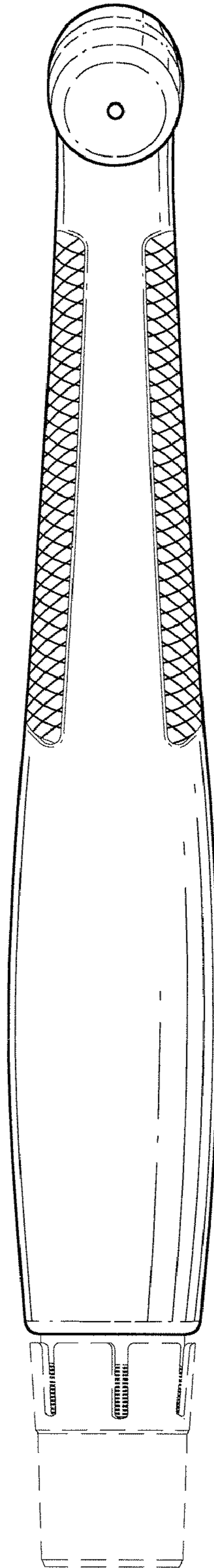


FIG. 14

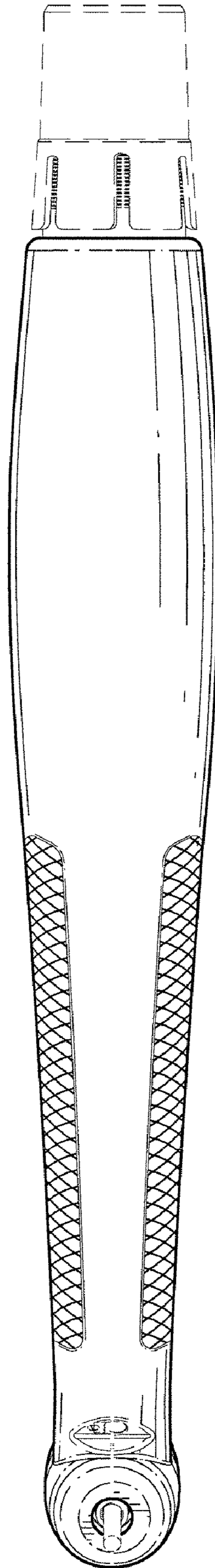


FIG. 15

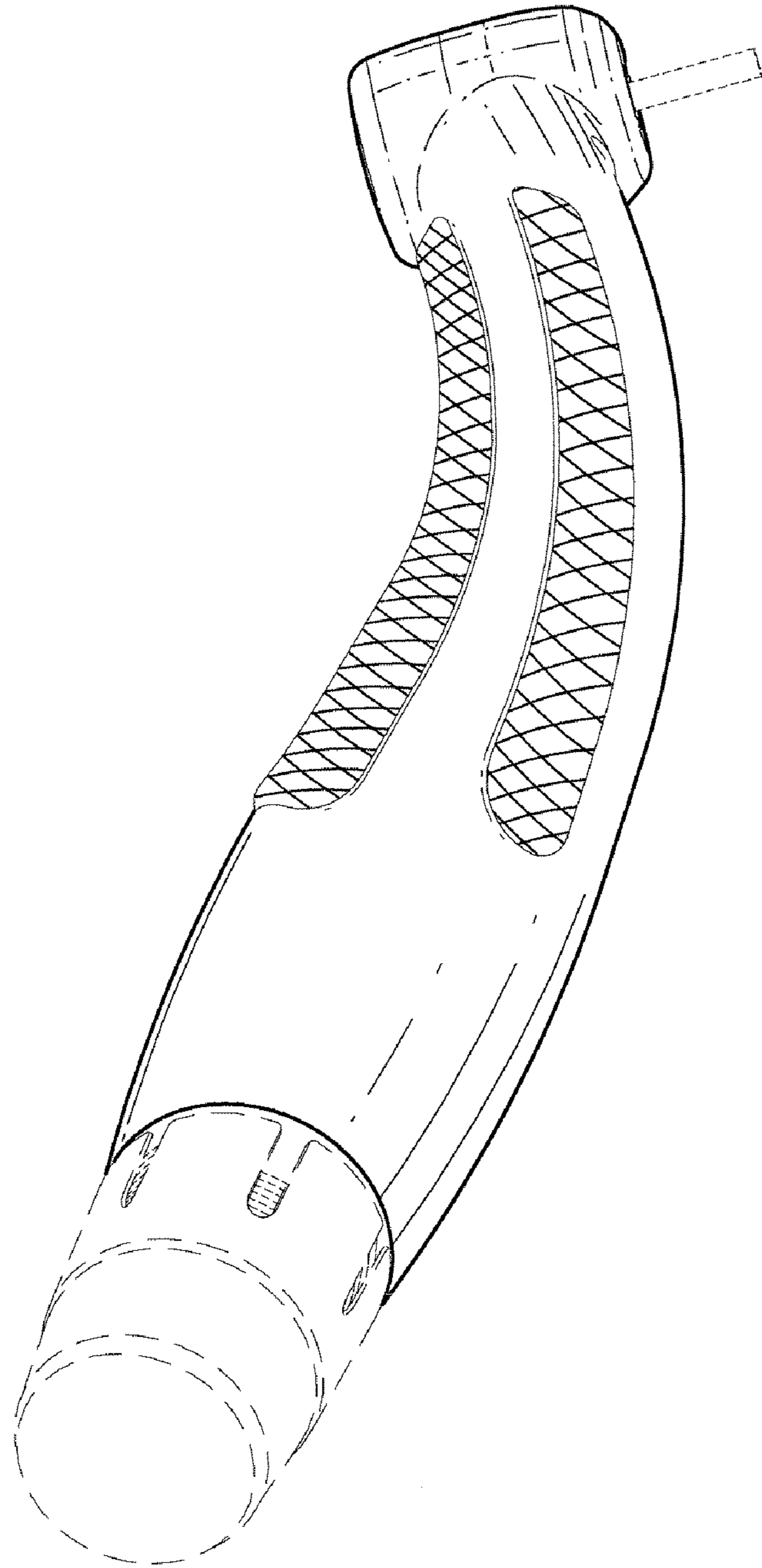


FIG. 16