



US00D459084S

(12) **United States Design Patent**
Harada

(10) **Patent No.:** **US D459,084 S**
(45) **Date of Patent:** **** Jun. 25, 2002**

- (54) **TOOTHBRUSH HEAD WITH STEPPED BRISTLE ARRAY**
- (76) Inventor: **Stephen D. Harada**, 614 Blair Ave., Piedmont, CA (US) 94111
- (**) Term: **14 Years**
- (21) Appl. No.: **29/134,555**
- (22) Filed: **Dec. 21, 2000**
- (51) **LOC (7) Cl.** **04-02**
- (52) **U.S. Cl.** **D4/104**
- (58) **Field of Search** D4/104–112, 130, D4/132–134, 136; 15/159.1, 160, 167.1, 167.2, 186, 187, DIG. 5, DIG. 6; 132/308, 309; 601/139, 141

- 4,010,509 A 3/1977 Huish 15/167.1
- 4,109,339 A 8/1978 Dietrich 15/167.1
- 4,115,894 A 9/1978 Peterson 15/167.1
- D251,038 S 2/1979 Hill et al. D4/104
- D252,597 S 8/1979 Holzworth et al. D4/25
- 4,185,349 A 1/1980 Papas 15/106
- D259,977 S 7/1981 Porper D4/110
- 4,306,327 A 12/1981 Zeski 15/167.1
- D265,527 S 7/1982 Macaluso D4/110
- 4,429,434 A 2/1984 Sung-shan 15/167.1 X
- 4,463,470 A 8/1984 Willis 15/167.1
- D282,603 S 2/1986 Piero D4/108
- D287,790 S * 1/1987 Fay D4/104
- D289,231 S 4/1987 Fleisher D4/110
- 4,654,921 A * 4/1987 Dinner D4/104
- D289,704 S 5/1987 Marthaler et al. D4/104
- 4,667,360 A 5/1987 Marthaler et al. 15/167 R
- 4,672,706 A 6/1987 Hill 15/167 R
- D292,948 S 12/1987 Parina D4/104
- 4,763,375 A 8/1988 Vieten 15/167.1
- 4,800,608 A 1/1989 Key 15/167.1

(56) **References Cited**

U.S. PATENT DOCUMENTS

- D44,997 S 12/1913 Carroll
- D47,669 S 8/1915 Hunt
- 1,251,250 A 12/1917 Libby 15/110
- D56,858 S 1/1921 Cahill
- 1,494,448 A 5/1924 Sookne
- D73,245 S 8/1927 Straehly
- D77,115 S 12/1928 Mowry
- 1,948,233 A 2/1934 Janik 15/110 X
- 1,968,303 A 7/1934 McMath 15/167.1
- D96,749 S 7/1935 Hellonen
- 2,051,687 A 8/1936 Dressler 15/167.1
- D107,228 S 11/1937 Goodman
- 2,111,880 A 3/1938 Waters 15/176.6
- D139,264 S 10/1944 Littig 15/167.1
- D140,438 S 2/1945 Cohen 15/167.1
- D160,604 S 1/1950 Hutson
- 2,685,703 A 8/1954 Dellenbach 15/167.1
- 2,697,239 A 12/1954 Funk 15/167.1
- D175,894 S 10/1955 Krueger D14/104
- 2,864,111 A 12/1958 Rotceig 15/168
- 2,934,776 A 5/1960 Clemens 15/167.1
- D189,414 S 12/1960 Kisky D4/110
- 3,103,679 A 9/1963 Clemens 15/167.1
- 3,258,805 A 7/1966 Rossnan 15/110
- D231,872 S * 6/1974 Spaulding D4/104

(List continued on next page.)

FOREIGN PATENT DOCUMENTS

- DE 297 12 284 9/1997
- DE 198 16 098 10/1999

(List continued on next page.)

Primary Examiner—Lisa Lichtenstein
(74) *Attorney, Agent, or Firm*—Holland & Knight LLP

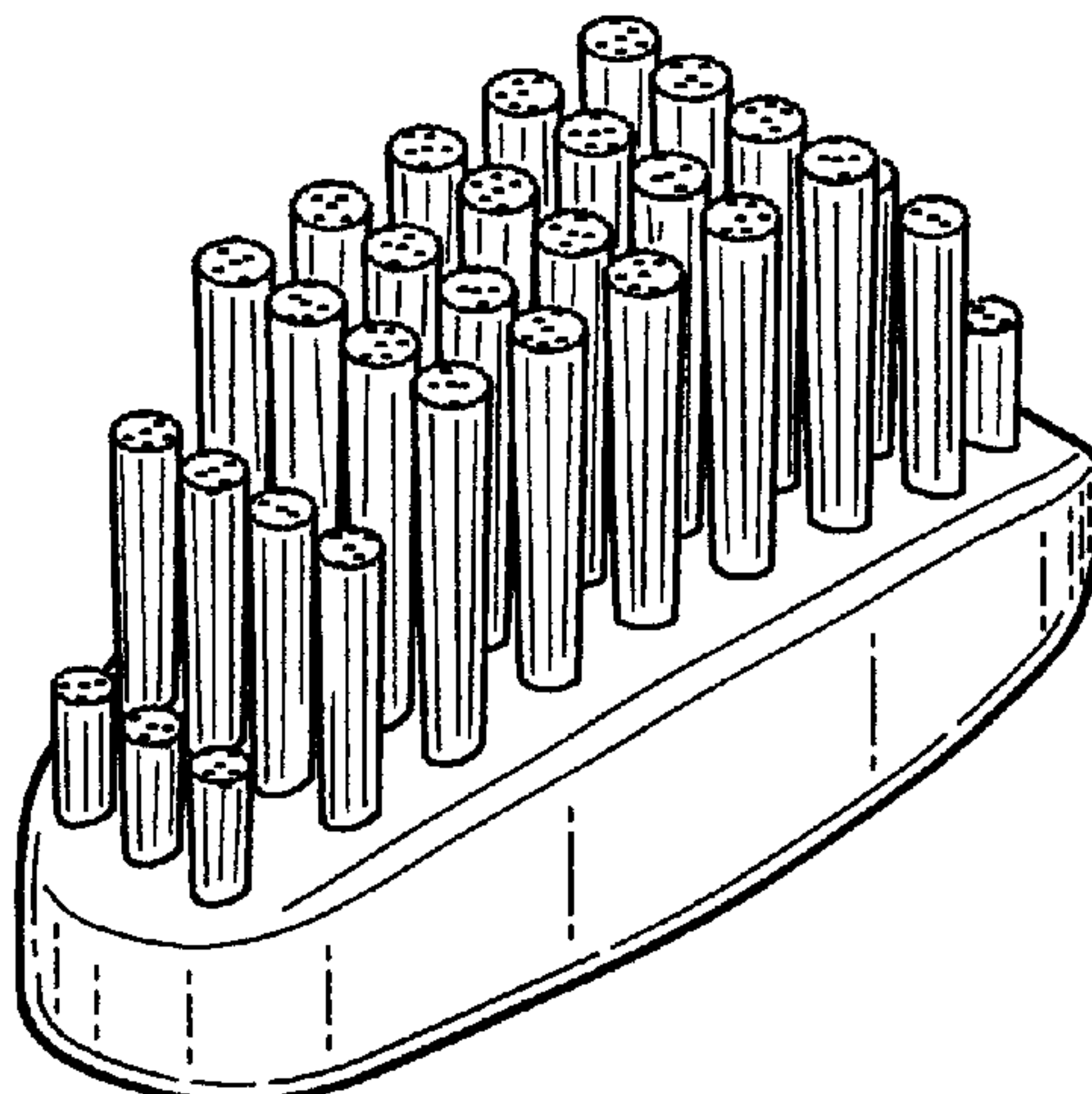
(57) **CLAIM**

The ornamental design for a toothbrush head with stepped bristle array, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of of my ornamental design for a toothbrush head;
FIG. 2 is a front view of the design thereof;
FIG. 3 is a rear view of the design thereof;
FIG. 4 is a plan, bottom view of the design thereof;
FIG. 5 is a plan, top view of the design thereof; and,
FIG. 6 is a side view of the design thereof.

1 Claim, 1 Drawing Sheet



US D459,084 S

Page 2

U.S. PATENT DOCUMENTS

D300,990 S	5/1989	Jagger	.....	D4/104	5,613,262 A	3/1997	Choy-Maldonado	.....	15/160
D301,399 S	6/1989	Kreyer, Jr.	.....	D4/104	5,622,502 A	4/1997	Wilkes et al.	.....	15/167.1
D305,385 S	1/1990	Schneider	.....	D4/104	5,628,082 A	5/1997	Moskovich	.....	15/110
D311,454 S	10/1990	Rethman	.....	D4/106	D391,764 S	3/1998	Falleiros et al.	.....	D4/104
5,046,212 A	9/1991	O'Conke	.....	15/105	5,787,540 A	8/1998	Hirschmann	.....	15/167.1
D321,092 S	10/1991	Woll et al.	.....	D4/106	5,792,159 A	8/1998	Amin	.....	606/161
5,054,154 A	10/1991	Schiffer et al.	.....	15/167.1	5,836,033 A	11/1998	Berge	.....	15/110
5,114,214 A	5/1992	Barman	.....	15/DIG. 5	5,850,659 A	12/1998	Butler et al.	.....	15/167.1
D337,201 S	7/1993	Haddad	.....	D4/107	5,884,354 A	3/1999	Anderson	.....	15/167.1
D342,160 S	12/1993	Curtis et al.	.....	D4/104	D414,938 S	10/1999	Von Stein	.....	D4/104
D344,414 S	2/1994	Rahman	.....	D4/104	D428,256 S	7/2000	Harada	.....	D4/104
5,315,730 A	5/1994	Kim et al.	.....	15/167.1	D428,260 S	7/2000	Harada	.....	D4/110
5,341,537 A	8/1994	Curtis et al.	.....	15/167.1	D430,401 S	9/2000	Harada	.....	D4/104
D351,732 S	10/1994	Dair et al.	.....	D4/104	D431,908 S	10/2000	Harada	.....	D4/104
5,369,835 A	12/1994	Clark	.....	15/167.1					
5,371,915 A	12/1994	Key	.....	15/167.1					
5,383,244 A	1/1995	Ahrens et al.	.....	15/167.1					
5,392,483 A	2/1995	Heinzelman et al.	.....	15/167.1					
D360,076 S	* 7/1995	Schneider	.....	D4/104					
5,481,775 A	1/1996	Gentile et al.	.....	15/167.1					
D368,804 S	4/1996	Yost et al.	.....	D4/104					
D370,347 S	6/1996	Heinzelman et al.	.....	D4/104					
5,522,109 A	6/1996	Chan	.....	15/167.1					
5,570,487 A	11/1996	Schneider	.....	15/167.1					

FOREIGN PATENT DOCUMENTS

EP	285-121	10/1988	.....	15/167.1
GB	7787	6/1886	.....	15/167.1
GB	17732	9/1895	.....	15/167.1
JP	53-30970	3/1978		
JP	60-60937	4/1985		
JP	9-19323	1/1997		
GB	723	2/1880	.....	15/167.1

* cited by examiner

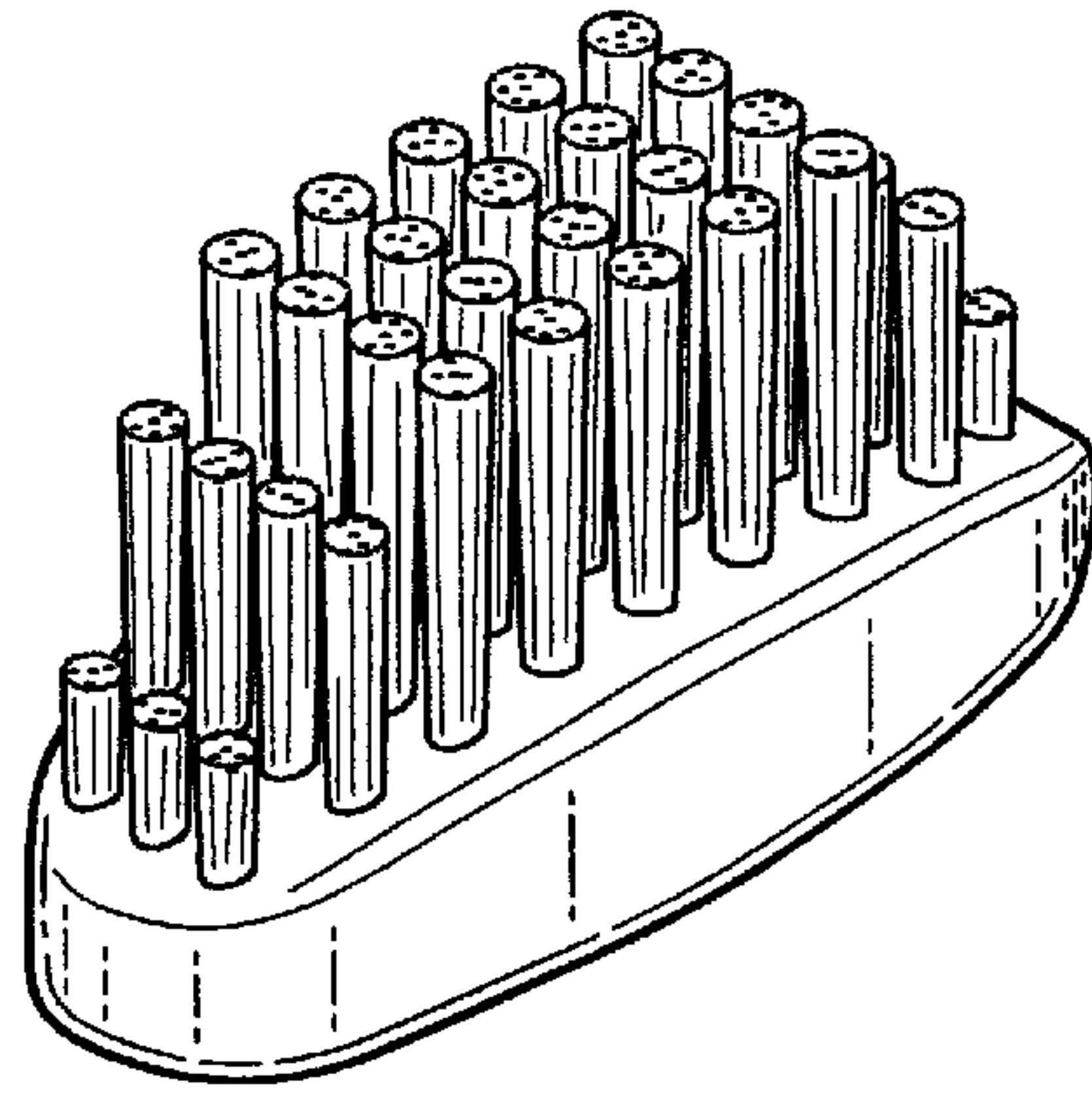


FIG. 1

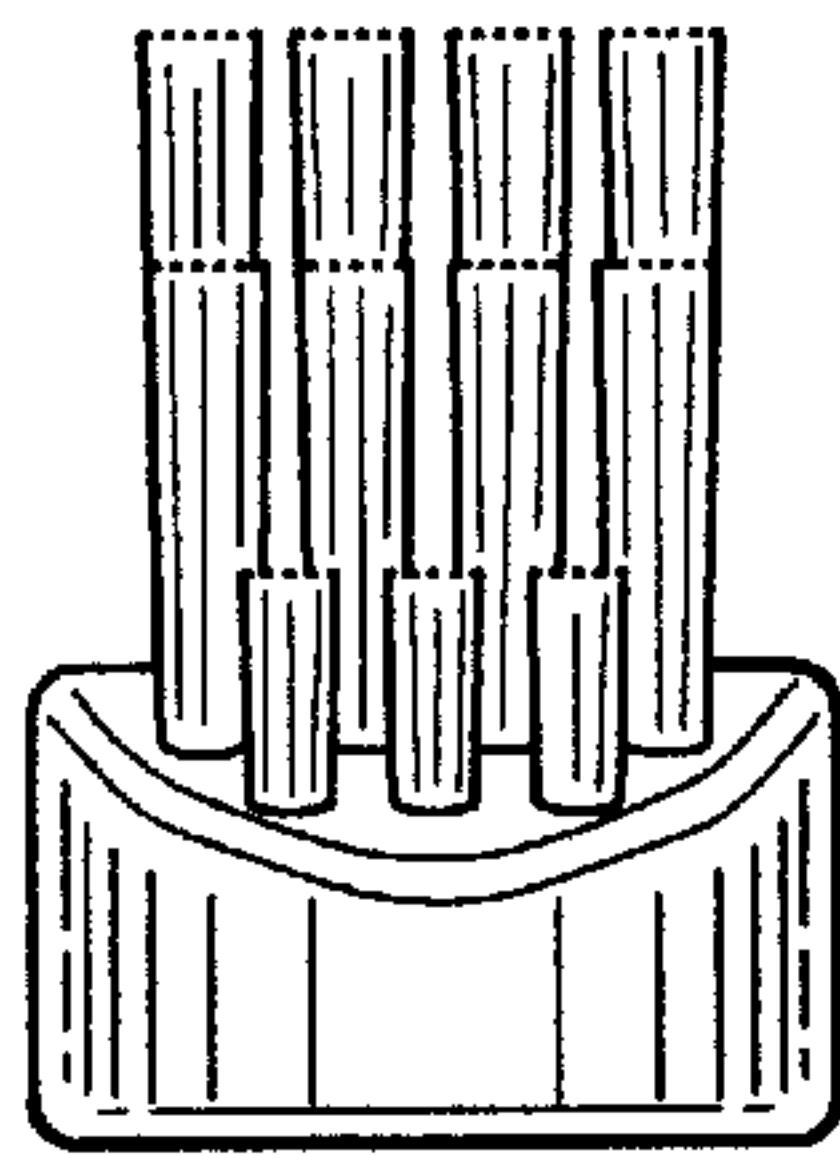


FIG. 2

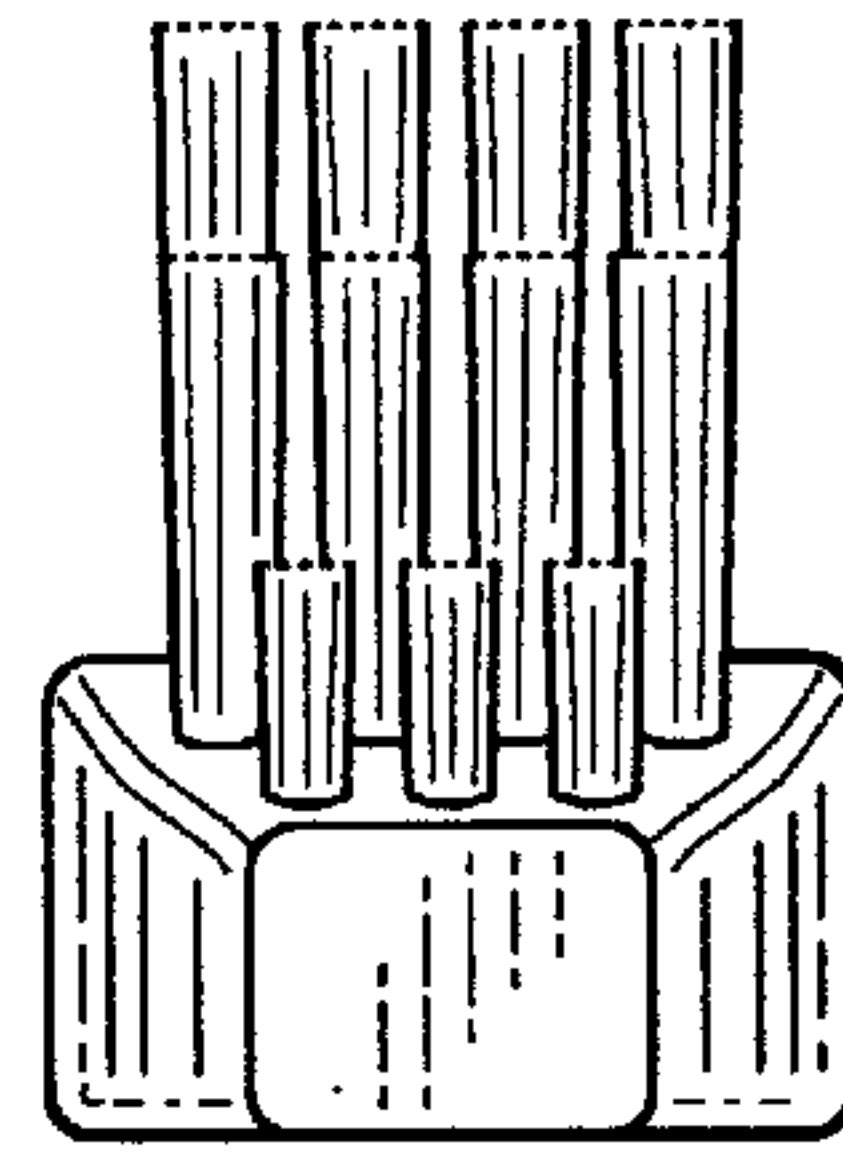


FIG. 3

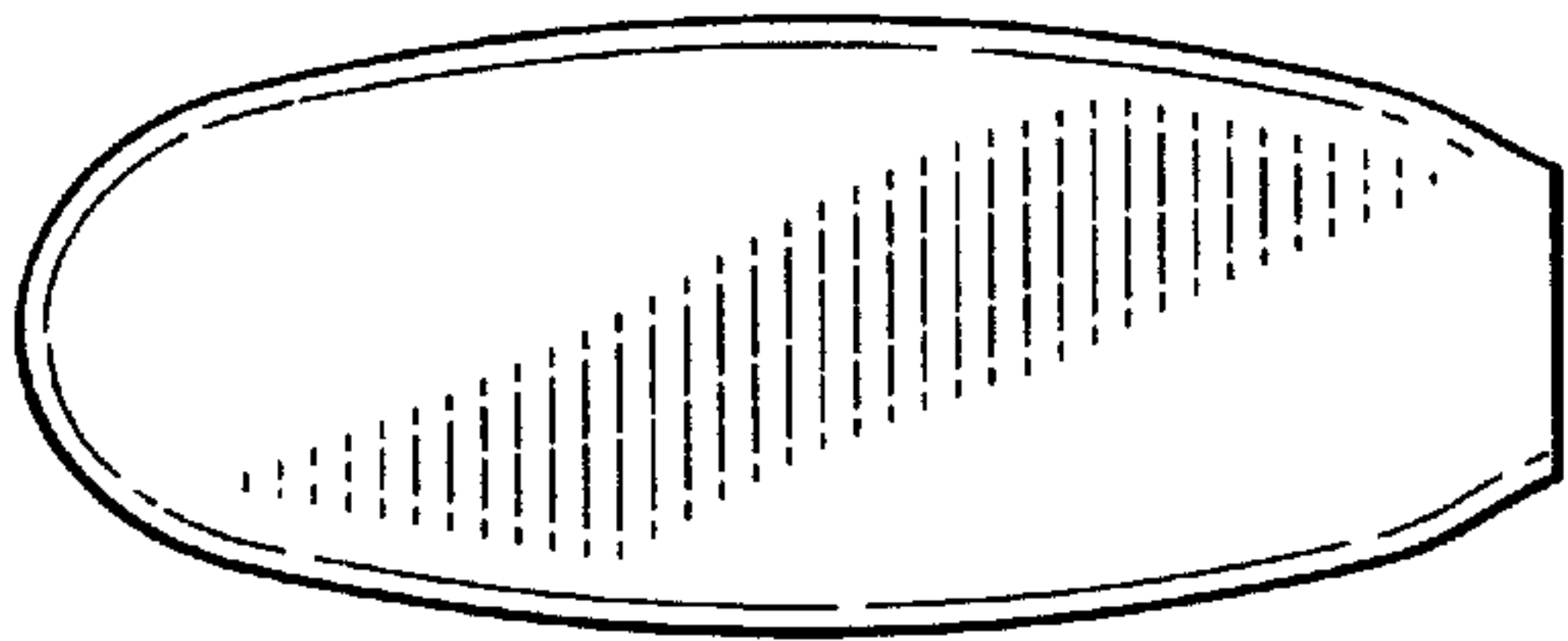


FIG. 4

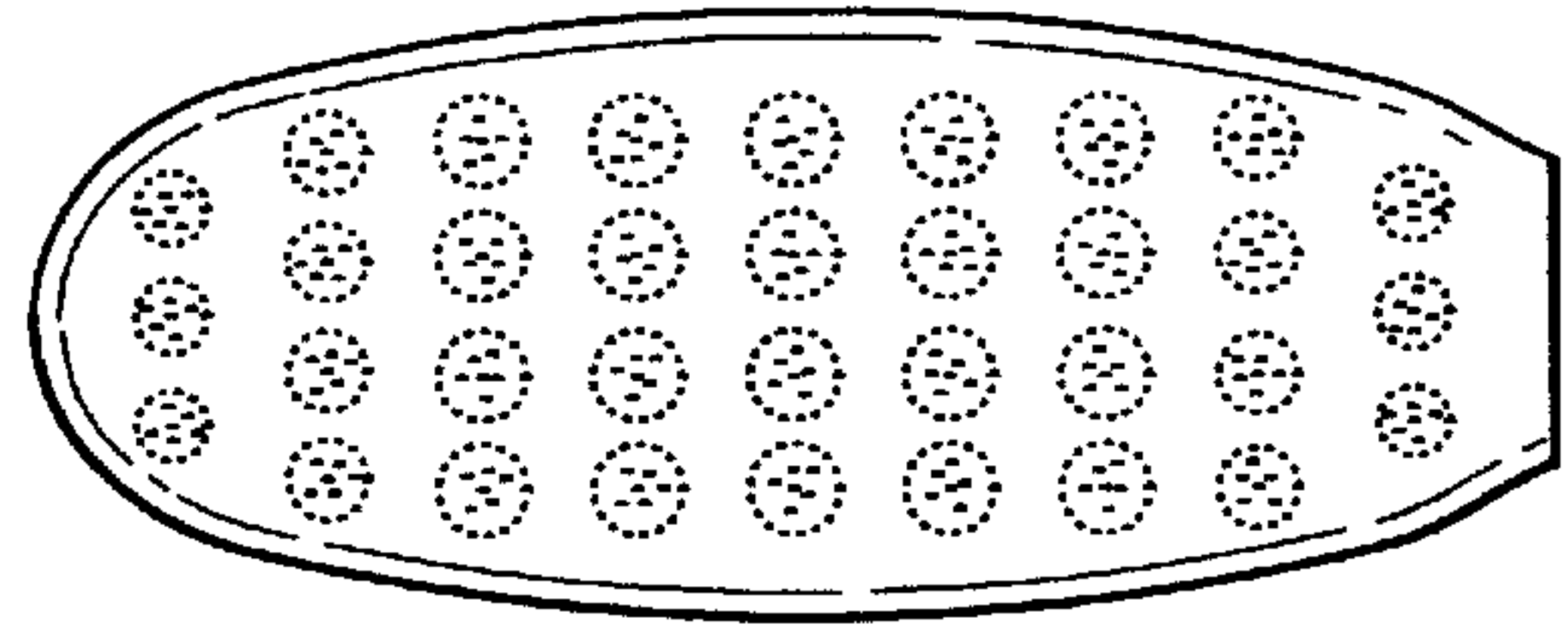


FIG. 5

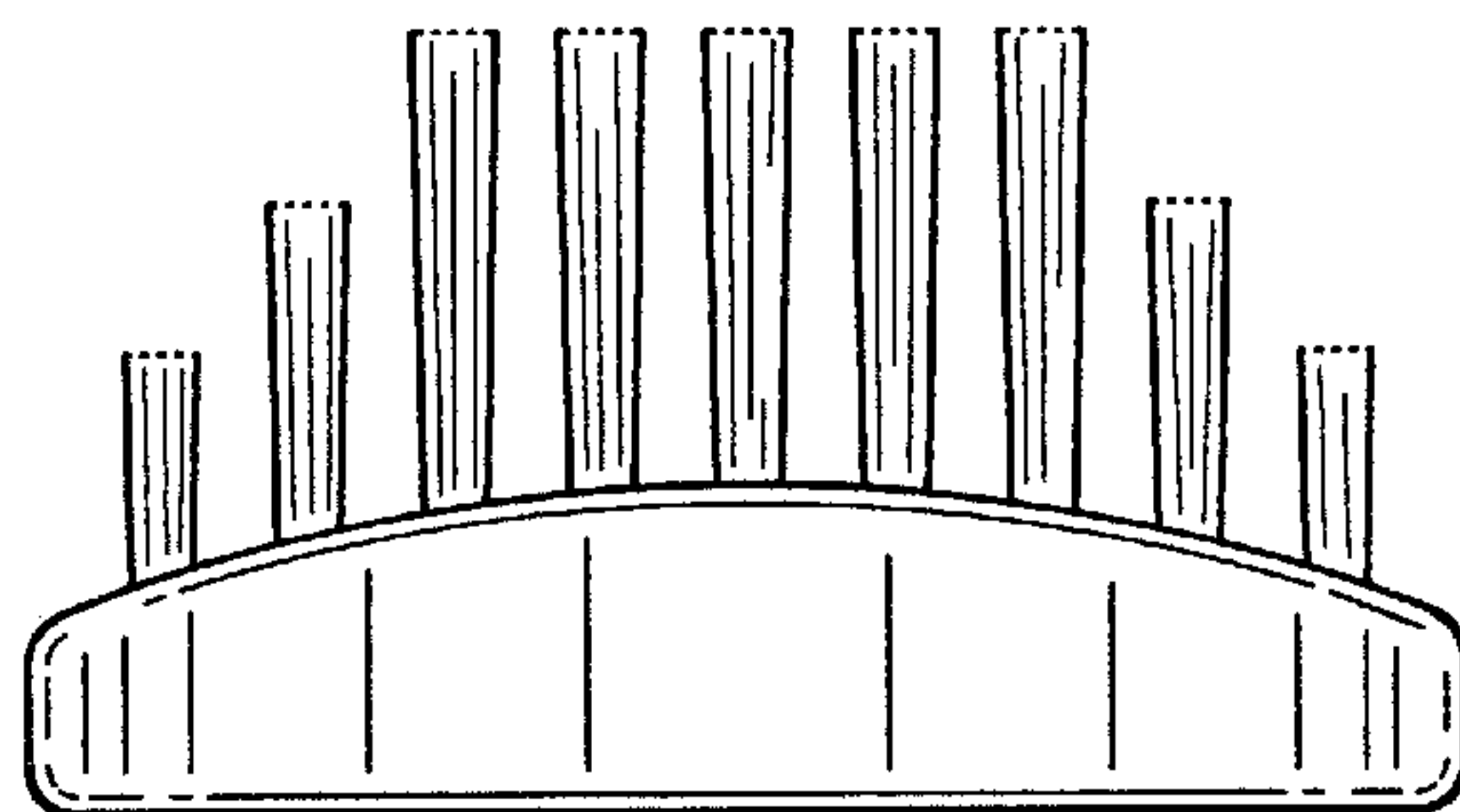


FIG. 6