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(12) **United States Design Patent** (10) **Patent No.:** **US D971,409 S**  
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(54) **TOOTH CLEANER**  
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D838,991 S \* 1/2019 Choi ..... D4/101  
D873,025 S \* 1/2020 Kim ..... D24/111  
D890,528 S \* 7/2020 Albay ..... D4/101  
D908,886 S 1/2021 Wang  
D913,484 S \* 3/2021 Li ..... D24/111  
D922,586 S \* 6/2021 Zhou ..... D24/176  
D922,775 S \* 6/2021 Albay ..... D4/101  
D940,854 S 1/2022 Liu  
D952,851 S \* 5/2022 Chang ..... D16/208  
D958,364 S \* 7/2022 Han ..... D24/152

(Continued)

**FOREIGN PATENT DOCUMENTS**

CN 304647951 \* 5/2018  
CN 306134257 \* 10/2020

**OTHER PUBLICATIONS**

Urtue Teeth Cleaning Set, Amazon.com, date published Oct. 5, 2021, date retrieved Aug. 3, 2022—<https://amzn.to/3OUJxV> (Year: 2021).\*

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*Primary Examiner* — Jennifer L Rempfer  
*Assistant Examiner* — Danielle Nichole Bowly

(57) **CLAIM**

The ornamental design for a tooth cleaner, as shown and described.

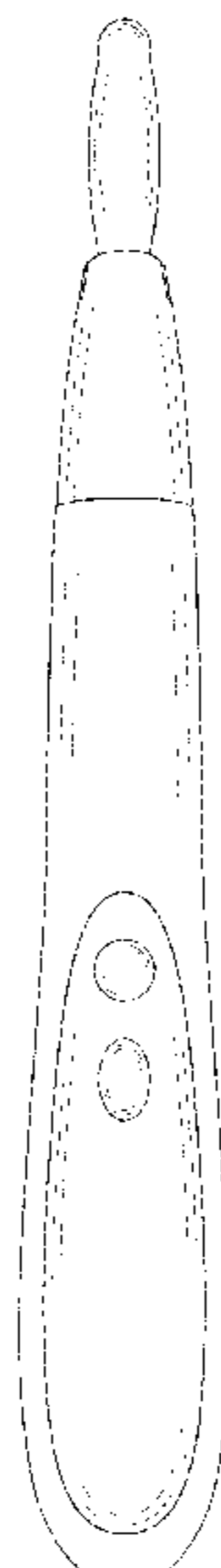
**DESCRIPTION**

FIG. 1 is a front elevational view of a tooth cleaner showing my new design;  
FIG. 2 is a rear elevational view thereof;  
FIG. 3 is a left side elevational view thereof;  
FIG. 4 is a right side elevational view thereof;  
FIG. 5 is a top plan view thereof;  
FIG. 6 is a bottom plan view thereof;  
FIG. 7 is a top, right perspective view thereof; and,  
FIG. 8 is a bottom, right, perspective view thereof.

**1 Claim, 8 Drawing Sheets**

(\*\*) Term: **15 Years**  
(21) Appl. No.: **29/823,472**  
(22) Filed: **Jan. 18, 2022**  
(30) **Foreign Application Priority Data**  
Dec. 29, 2021 (CN) ..... 202130870026.2  
(51) **LOC (13) Cl.** ..... **24-02**  
(52) **U.S. Cl.**  
USPC ..... **D24/152**  
(58) **Field of Classification Search**  
USPC ..... D24/108, 111, 112, 152, 176; D4/102, D4/110, 111, 138  
CPC ..... A61C 17/02; A61C 17/0202; A61C 17/26  
See application file for complete search history.

(56) **References Cited**  
**U.S. PATENT DOCUMENTS**  
D414,867 S \* 10/1999 Moriwaki ..... D24/152  
D509,585 S \* 9/2005 Kling ..... D24/111  
D548,334 S \* 8/2007 Izumi ..... D24/111  
D627,471 S \* 11/2010 Mueller ..... D24/176  
D634,014 S \* 3/2011 Noui ..... D24/176  
D648,026 S \* 11/2011 Okawa ..... D24/152  
D653,340 S \* 1/2012 Goerge ..... D24/152  
D674,091 S \* 1/2013 Carlson ..... D24/152  
D790,859 S \* 7/2017 McGarry ..... D4/101  
D824,029 S \* 7/2018 Cai ..... D24/152



(56)

**References Cited**

U.S. PATENT DOCUMENTS

D959,648 S \* 8/2022 Yang ..... D24/111  
2022/0249213 A1 \* 8/2022 He ..... A61B 1/00034

OTHER PUBLICATIONS

Ocallcoo Plaque Remover, Amazon.com, date published Dec. 4, 2021, date retrieved Aug. 3, 2022—<https://amzn.to/3Jtc9sv> (Year: 2021).\*

\* cited by examiner

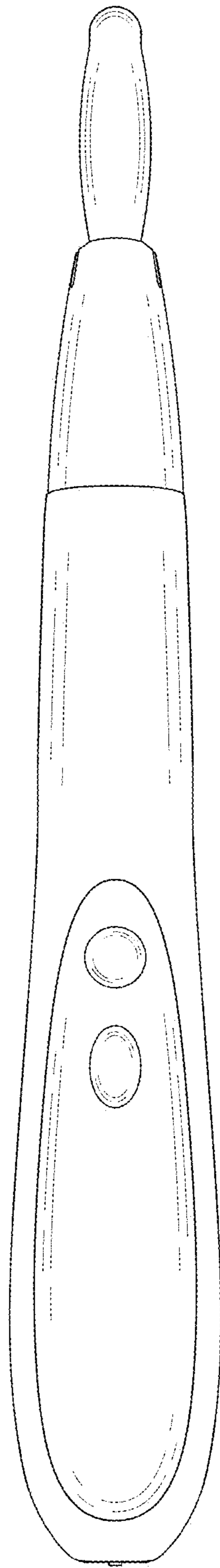


FIG. 1

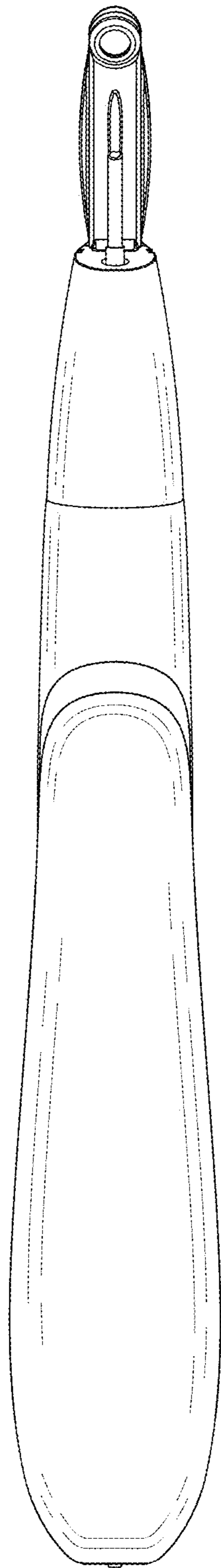


FIG. 2

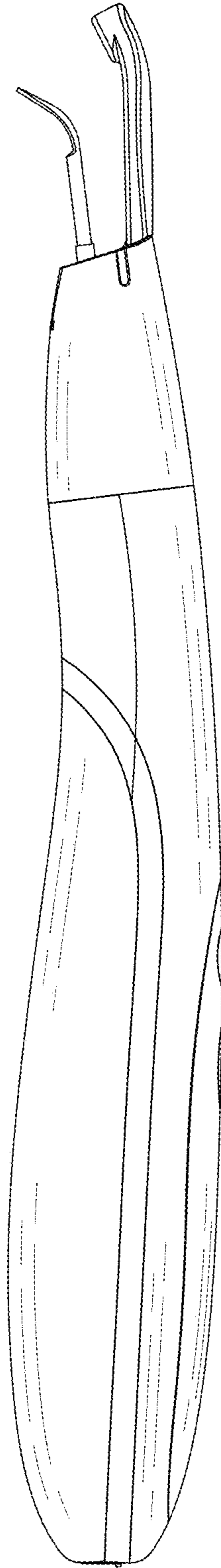


FIG. 3

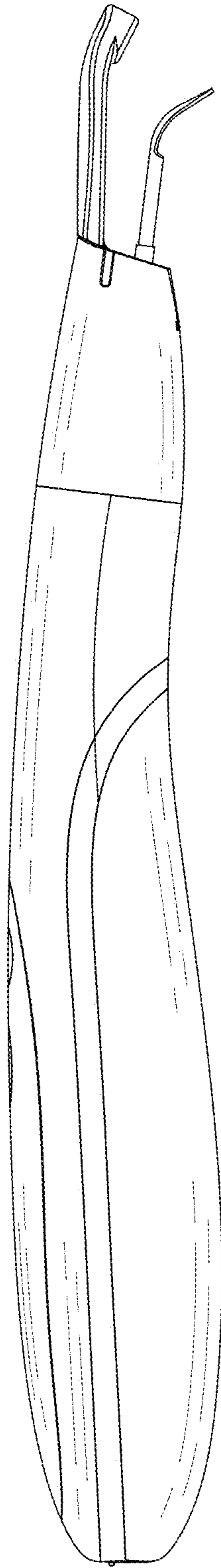


FIG. 4

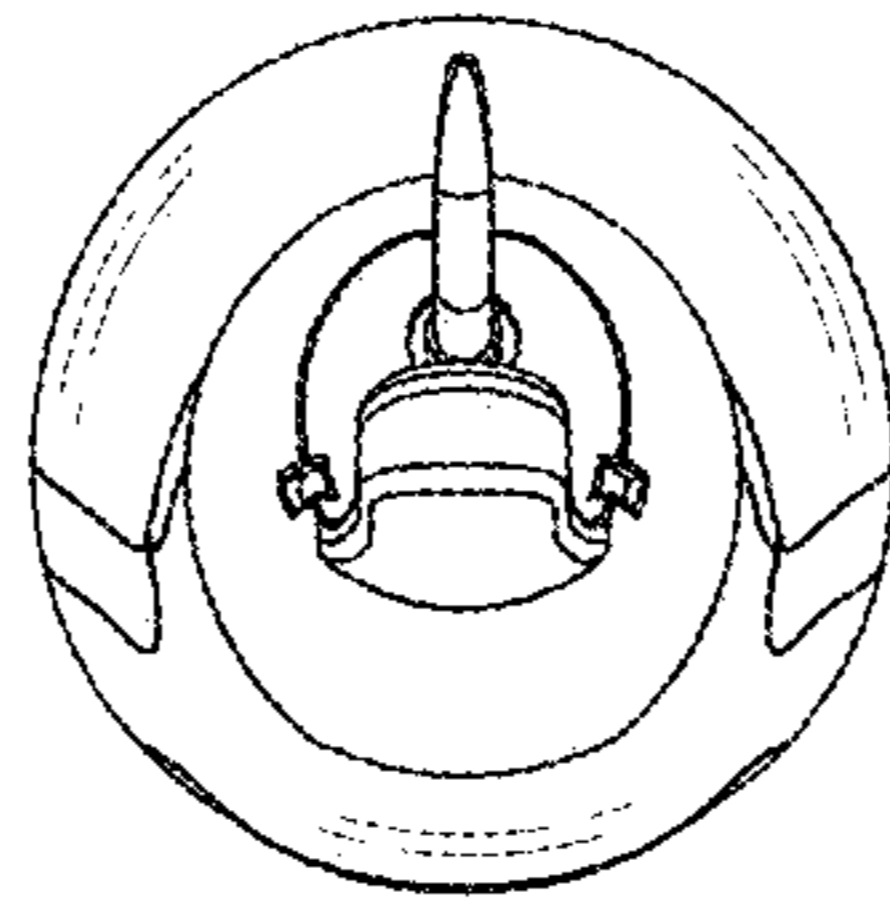


FIG. 5

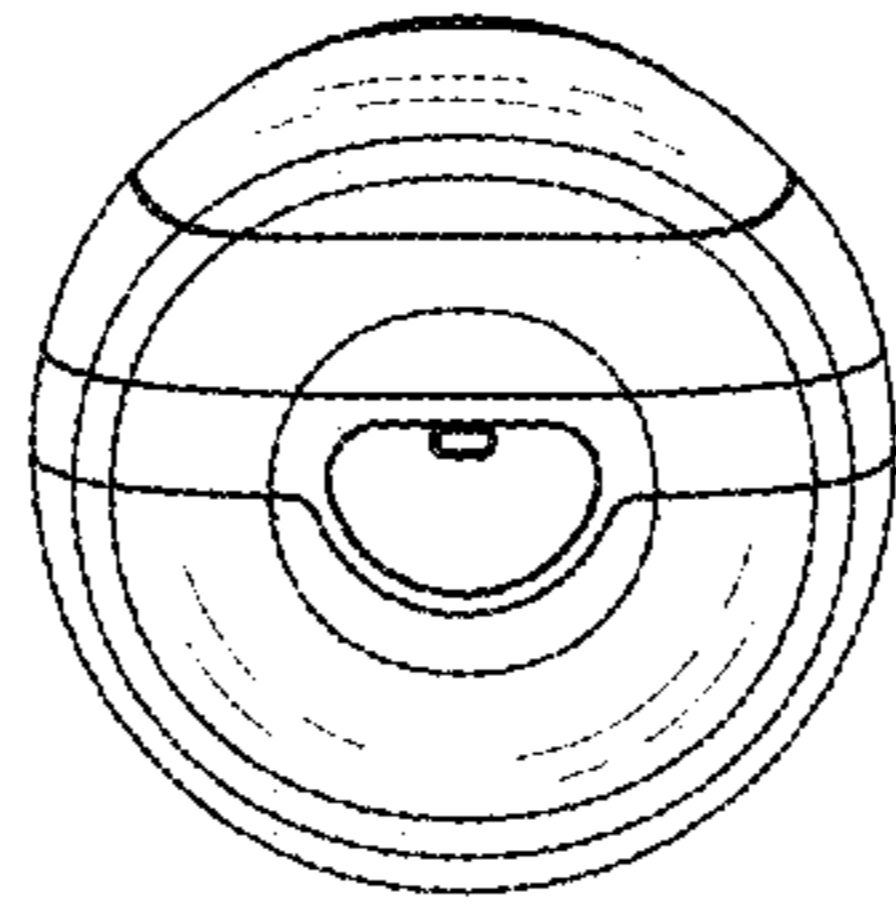


FIG. 6



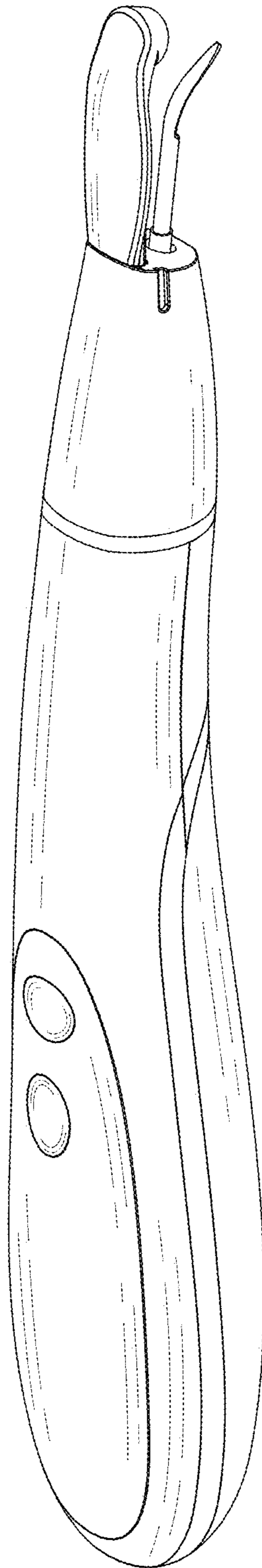


FIG. 7

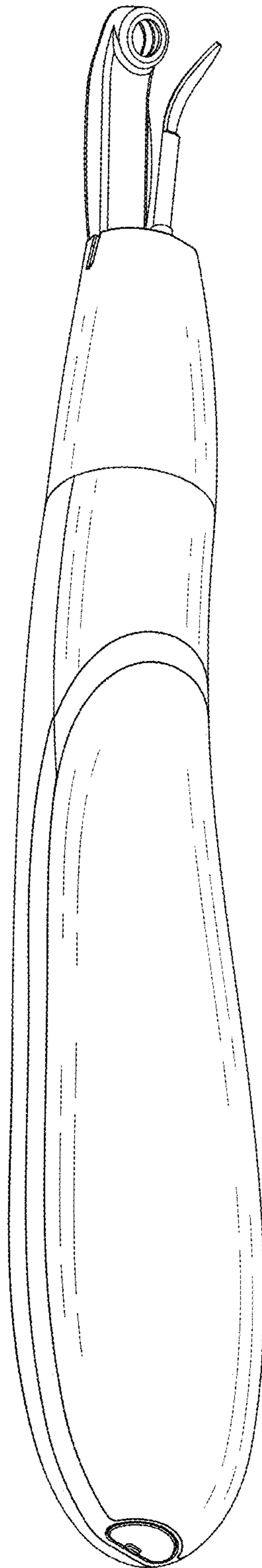


FIG. 8