



US00D859310S

(12) **United States Design Patent** (10) **Patent No.:** **US D859,310 S**
Djeu et al. (45) **Date of Patent:** **** Sep. 10, 2019**

(54) **CRYSTAL OPTICAL FIBER**

DESCRIPTION

(71) Applicants: **Derek Djeu**, Tampa, FL (US); **Nicholas Djeu**, Tampa, FL (US)
(72) Inventors: **Derek Djeu**, Tampa, FL (US); **Nicholas Djeu**, Tampa, FL (US)
(**) Term: **15 Years**
(21) Appl. No.: **29/671,658**
(22) Filed: **Nov. 29, 2018**
(51) **LOC (12) Cl.** **13-03**
(52) **U.S. Cl.**
USPC **D13/133**
(58) **Field of Classification Search**
USPC D13/101, 118, 133, 147, 165, 180, 181,
D13/199; D14/217, 230; D1/121, 126,
D1/127, 199

(Continued)

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(Continued)

Primary Examiner — Derrick E Holland

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Kevin Prince

(57) **CLAIM**

The ornamental design for a crystal optical fiber, as shown and described.

FIG. 1 is a front elevational view of a crystal optical fiber, showing a first embodiment of our new design, the rear elevational view being a mirror image thereof;
FIG. 2 is greatly enlarged top plan view of FIG. 1;
FIG. 3 is a greatly enlarged bottom plan view of FIG. 1;
FIG. 4 is an enlarged cross-sectional view thereof, taken along line 4-4 of FIG. 1;
FIG. 5 is an enlarged cross-sectional view thereof, taken along line 5-5 of FIG. 1;
FIG. 6 is an enlarged cross-sectional view thereof, taken along line 6-6 of FIG. 1;
FIG. 7 is a perspective view thereof, taken about line 7 of FIG. 1;
FIG. 8 is a front elevational view of a second embodiment thereof, the rear elevational view being a mirror image thereof;
FIG. 9 is a greatly enlarged top plan view of FIG. 8;
FIG. 10 is a greatly enlarged bottom plan view of FIG. 8;
FIG. 11 is an enlarged cross-sectional view thereof, taken along line 11-11 of FIG. 8;
FIG. 12 is an enlarged cross-sectional view thereof, taken along line 12-12 of FIG. 8;
FIG. 13 is an enlarged cross-sectional view thereof, taken along line 13-13 of FIG. 8;
FIG. 14 is an enlarged cross-sectional view thereof, taken along line 14-14 of FIG. 8;
FIG. 15 is an enlarged cross-sectional view thereof, taken along line 15-15 of FIG. 8;
FIG. 16 is a perspective view thereof, taken about line 16 of FIG. 8;
FIG. 17 is a perspective view thereof, taken about line 17 of FIG. 8;
FIG. 18 is a front elevational view of a third embodiment thereof, the rear elevational view being a mirror image thereof;
FIG. 19 is a greatly enlarged top plan view of FIG. 18;
FIG. 20 is a greatly enlarged bottom plan view of FIG. 18;
FIG. 21 is an enlarged cross-sectional view thereof, taken along line 21-21 of FIG. 18;
FIG. 22 is an enlarged cross-sectional view thereof, taken along line 22-22 of FIG. 18;

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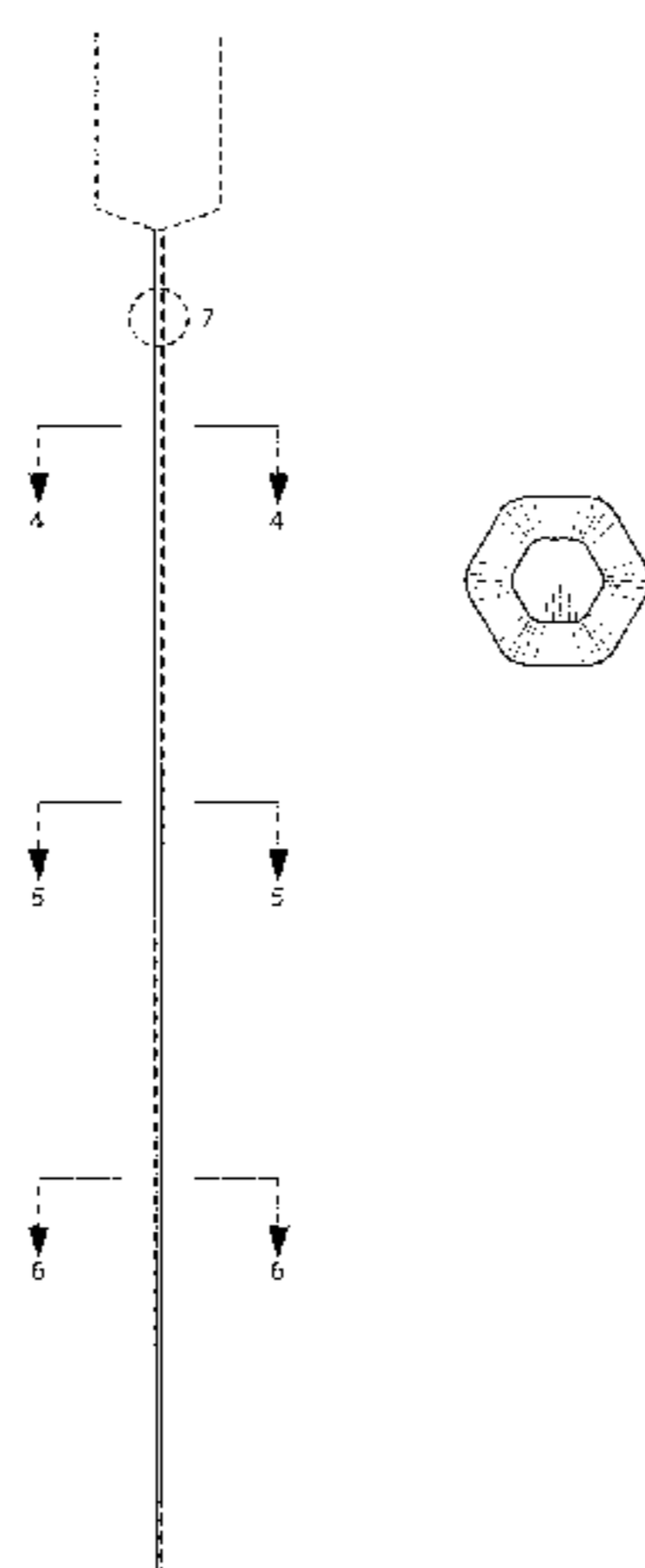


FIG. 23 is an enlarged cross-sectional view thereof, taken along line 23-23 of FIG. 18;

FIG. 24 is an enlarged cross-sectional view thereof, taken along line 24-24 of FIG. 18;

FIG. 25 is an enlarged cross-sectional view thereof, taken along line 25-25 of FIG. 18;

FIG. 26 is an enlarged cross-sectional view thereof, taken along line 26-26 of FIG. 18;

FIG. 27 is a perspective view thereof, taken about line 27 of FIG. 18;

FIG. 28 is a perspective view thereof, taken about line 28 of FIG. 18; and,

FIG. 29 is a perspective view thereof, taken about line 29 of FIG. 18.

The broken lines showing a fiber-optic connector in FIGS. 1, 8, and 18 depict environmental matter and form no part of the claimed design. The remaining broken lines represent portions of the crystal optical fiber in FIGS. 8 and 18 that form no part of the claimed design.

1 Claim, 9 Drawing Sheets

(58) **Field of Classification Search**

CPC C03B 37/028; C03B 37/075; C03B 37/01205; C03B 37/01211; C03B 37/01214; C30B 13/00; Y10S 117/904; Y10S 117/911; G02B 5/00; G02B 5/0221; G02B 5/0231; G02B 5/0252

See application file for complete search history.

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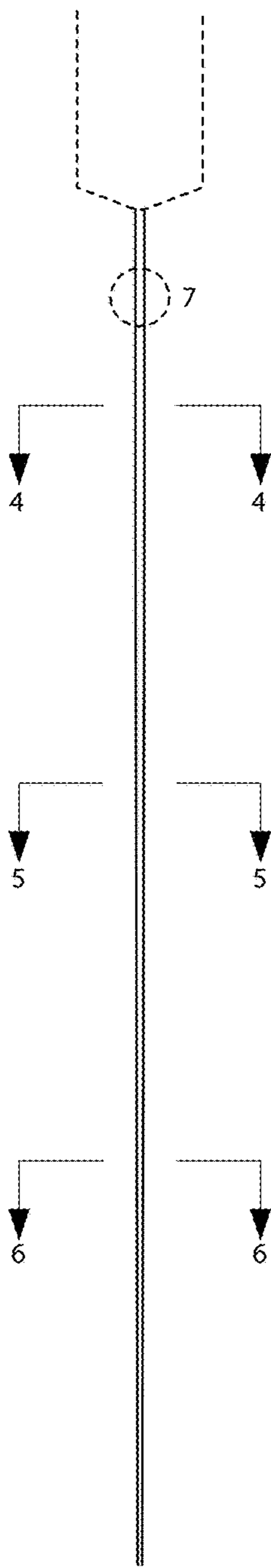


FIG. 1

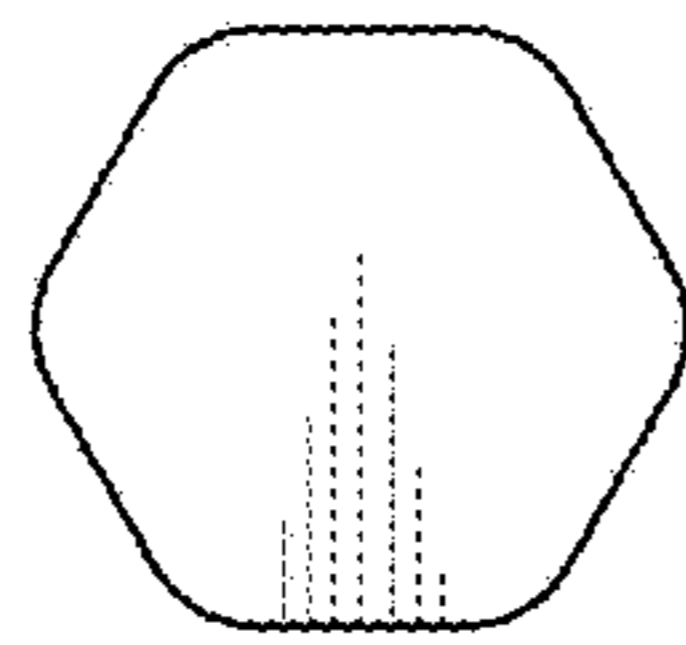


FIG. 2

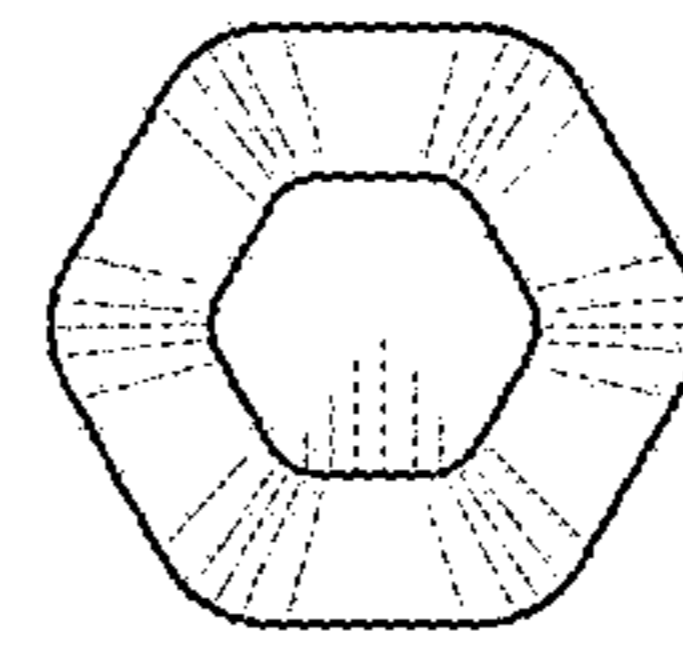


FIG. 3

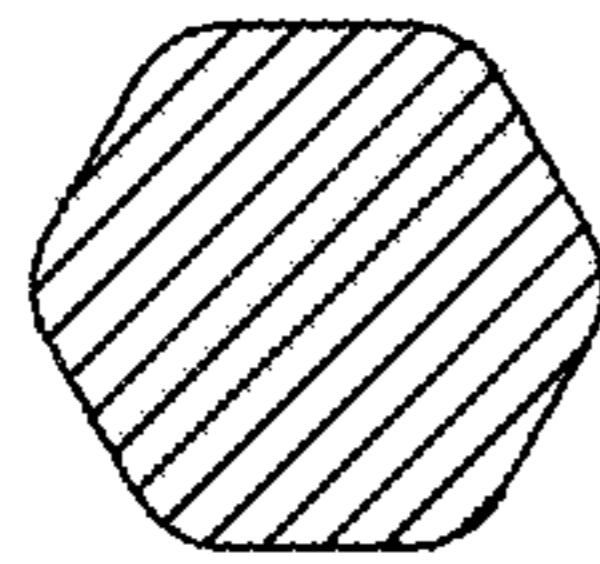


FIG. 4

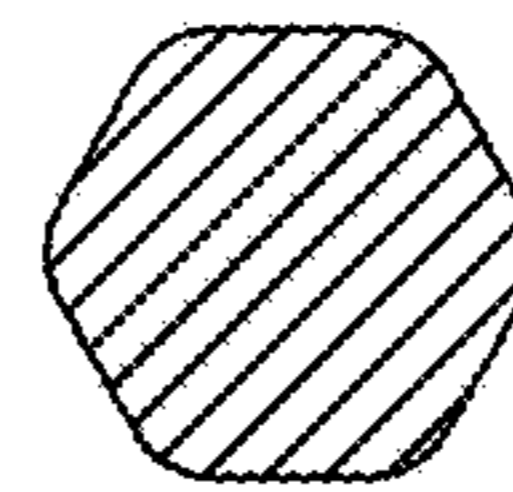


FIG. 5

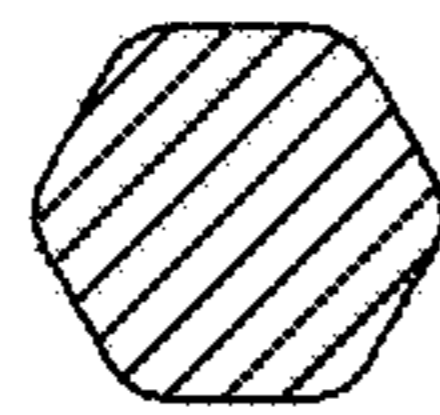


FIG. 6

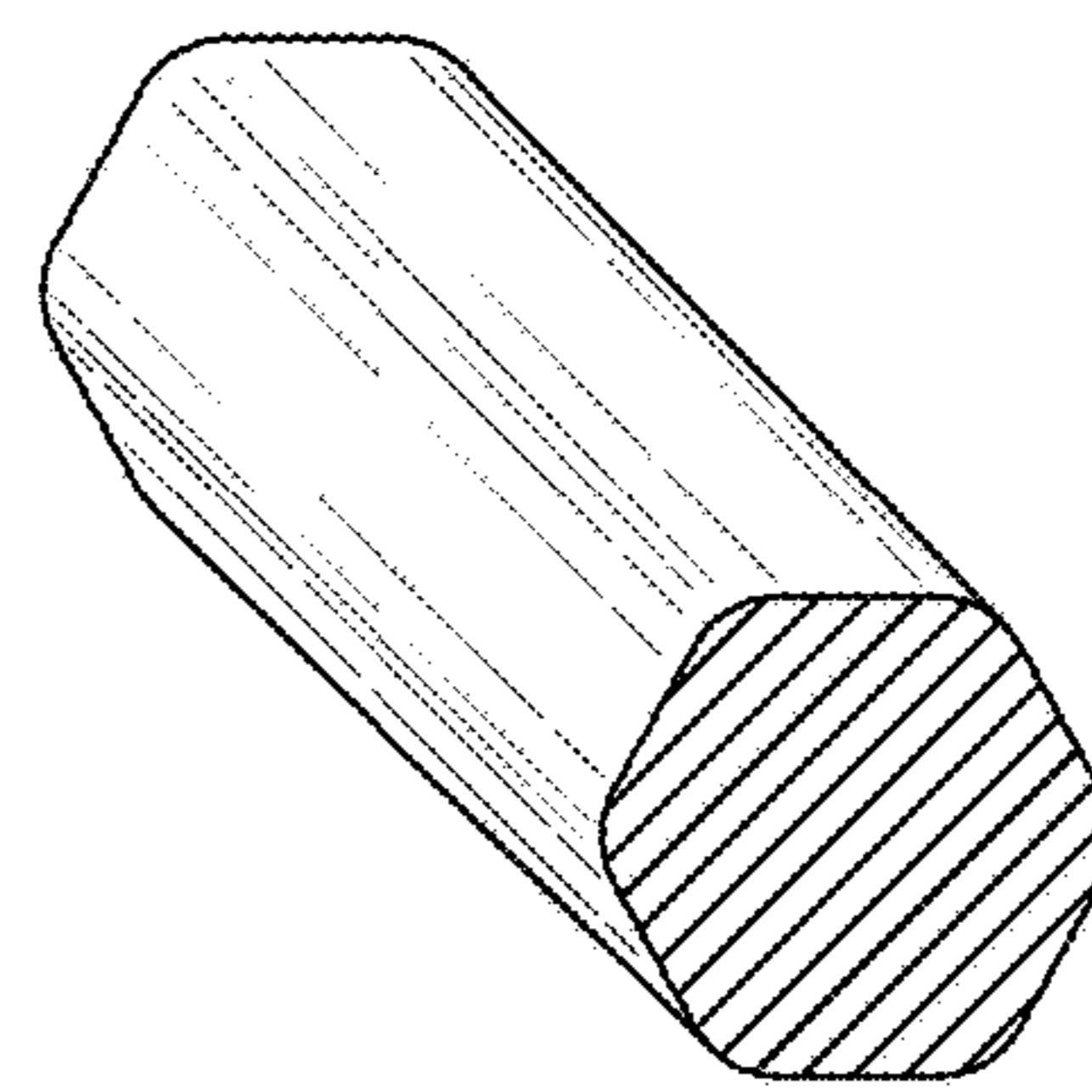
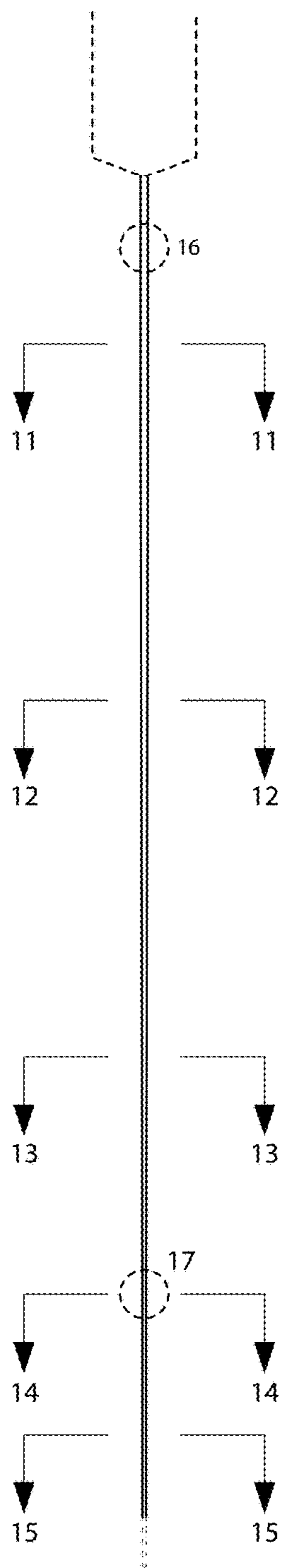


FIG. 7

FIG. 8



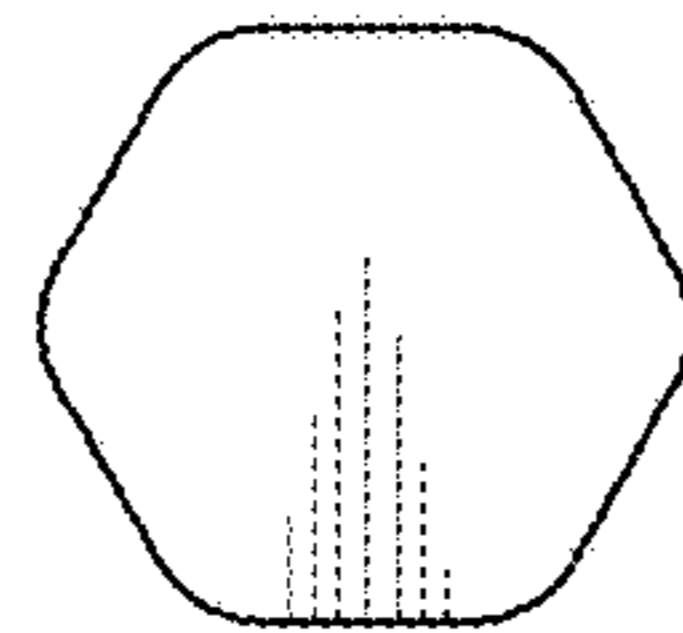


FIG. 9

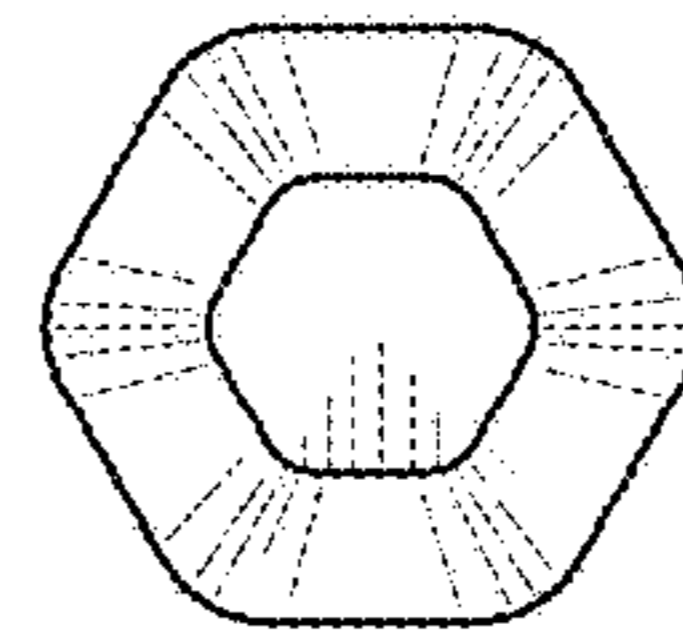


FIG. 10

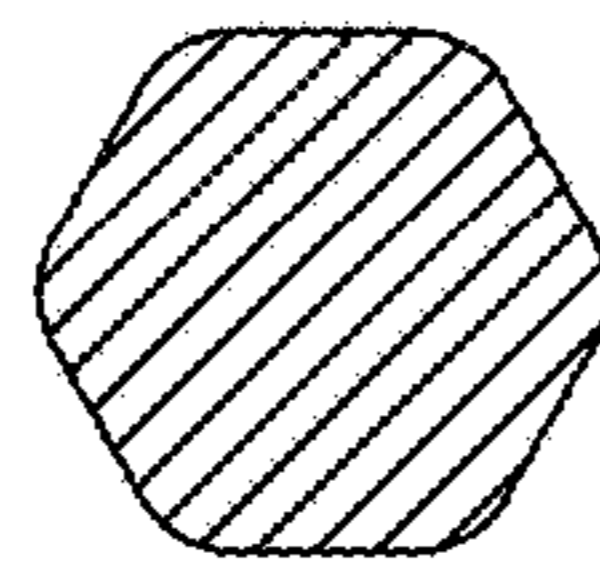


FIG. 11

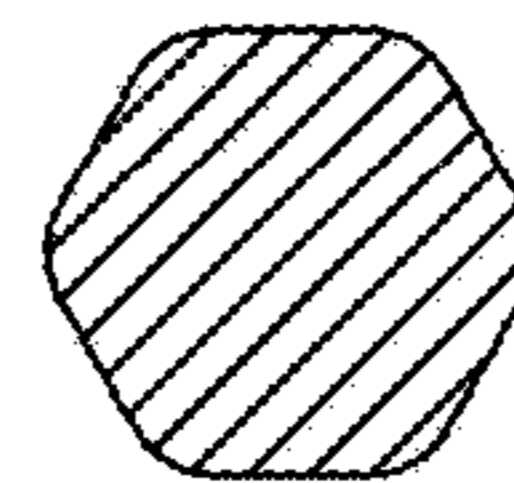


FIG. 12

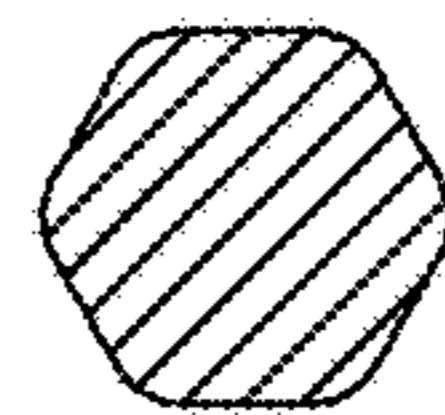


FIG. 13

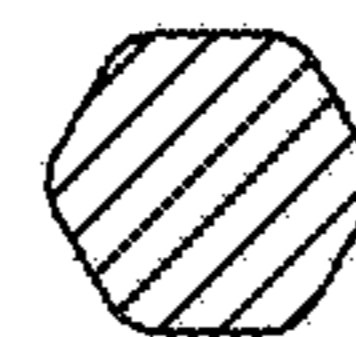


FIG. 14

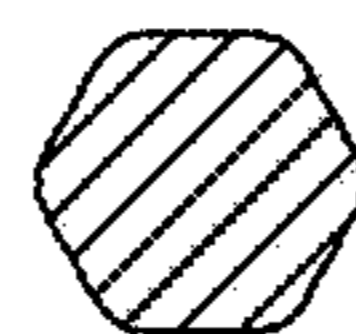


FIG. 15

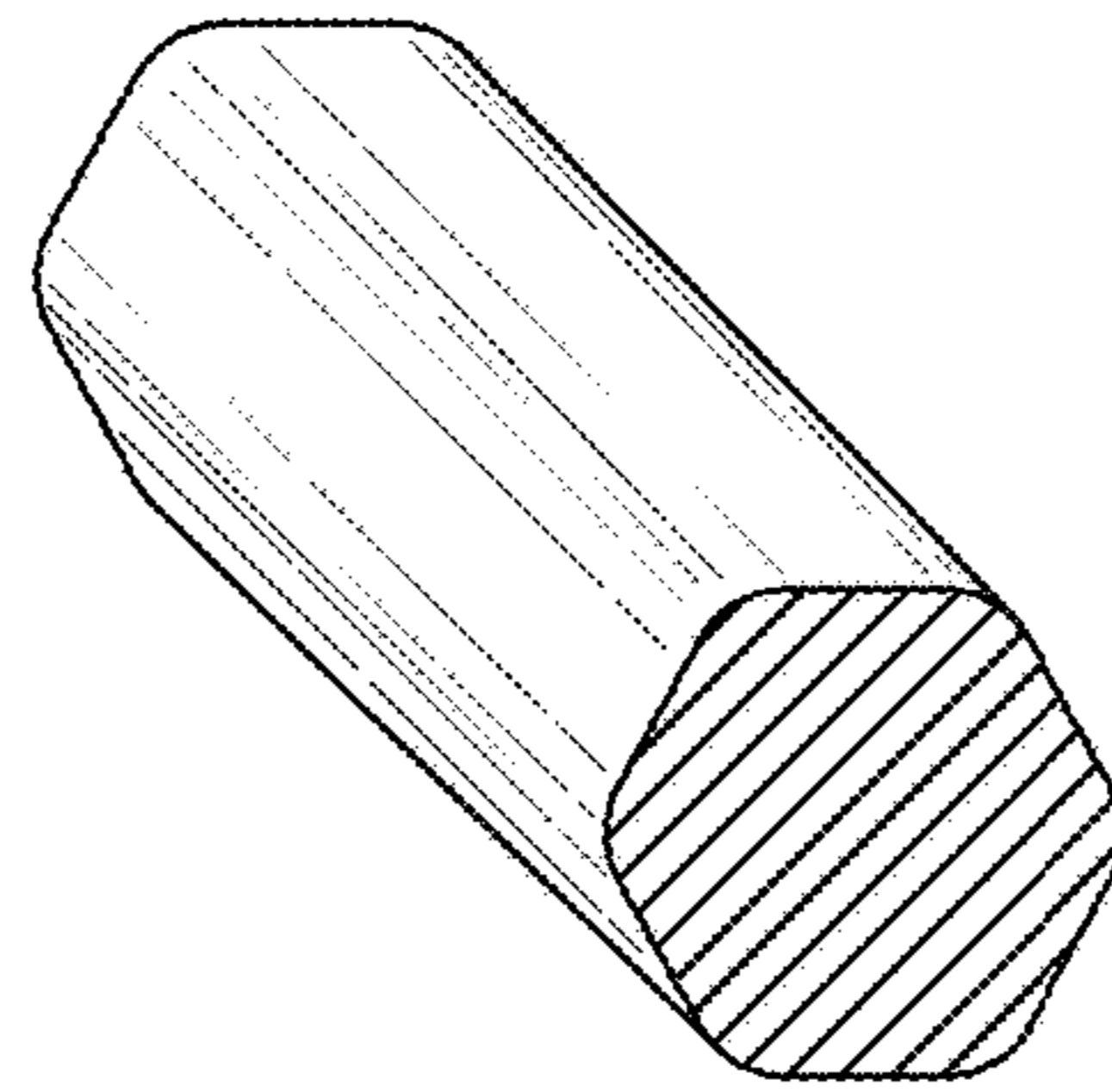


FIG. 16

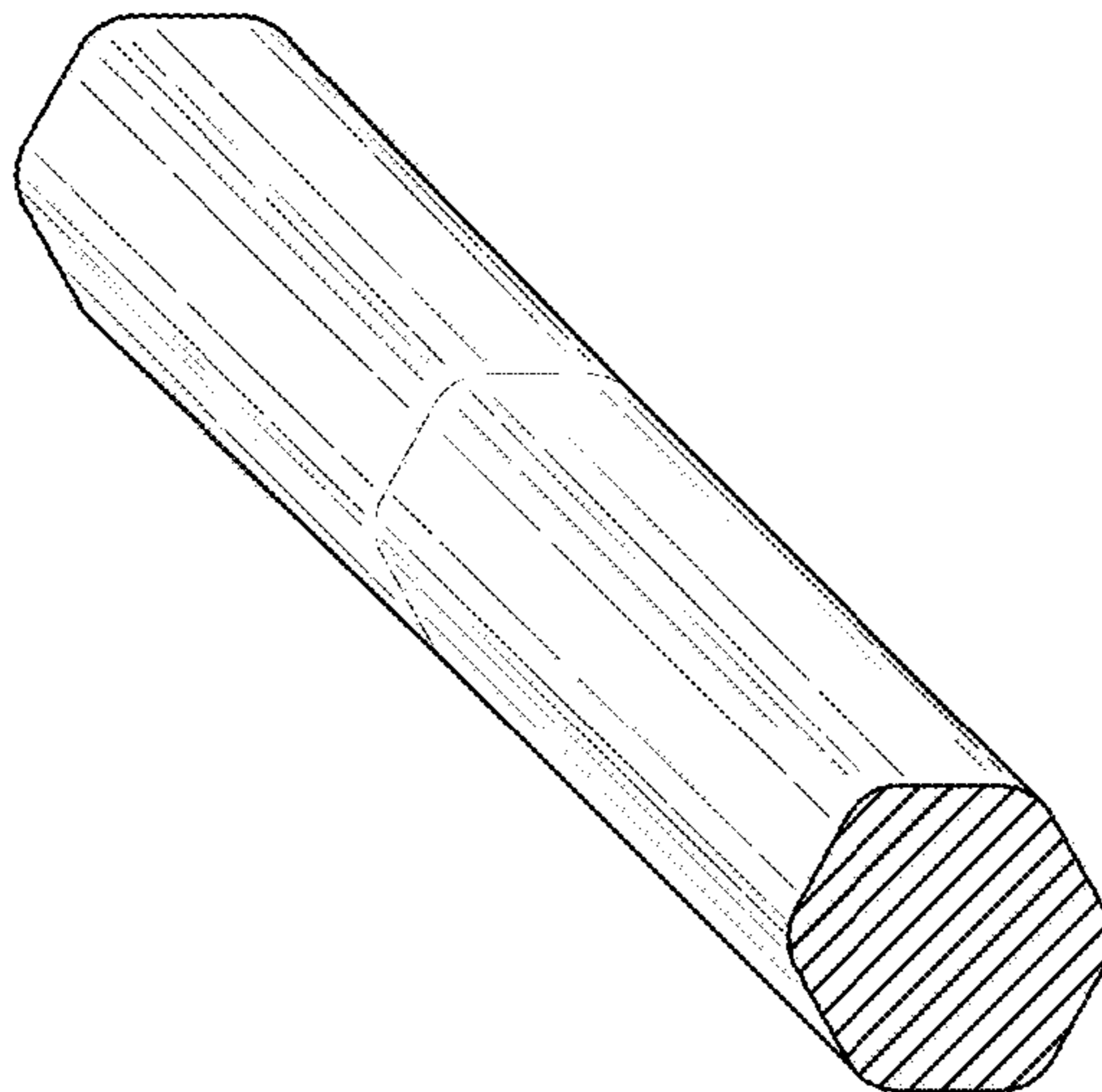
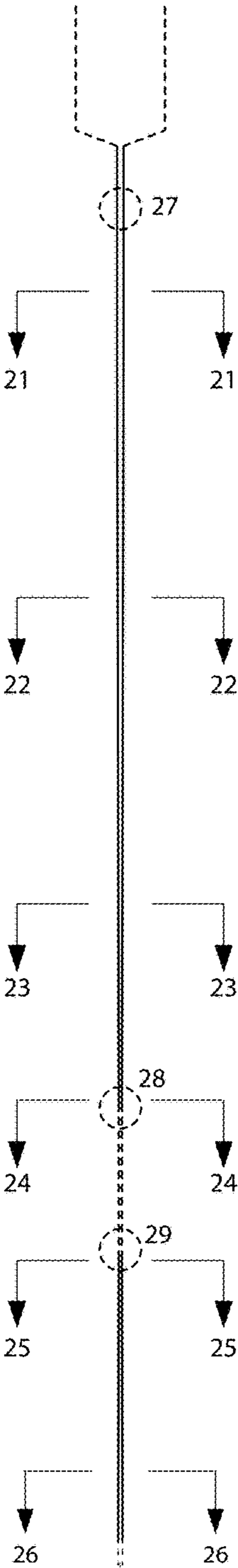


FIG. 17

FIG. 18



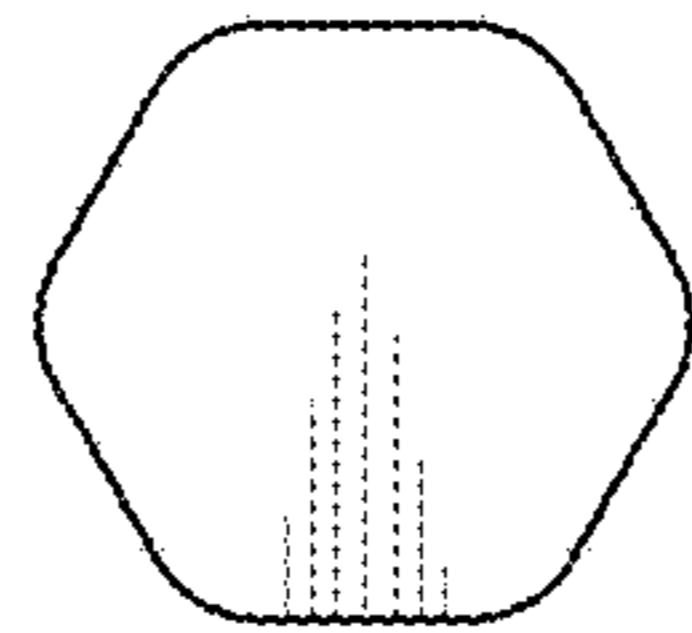


FIG. 19

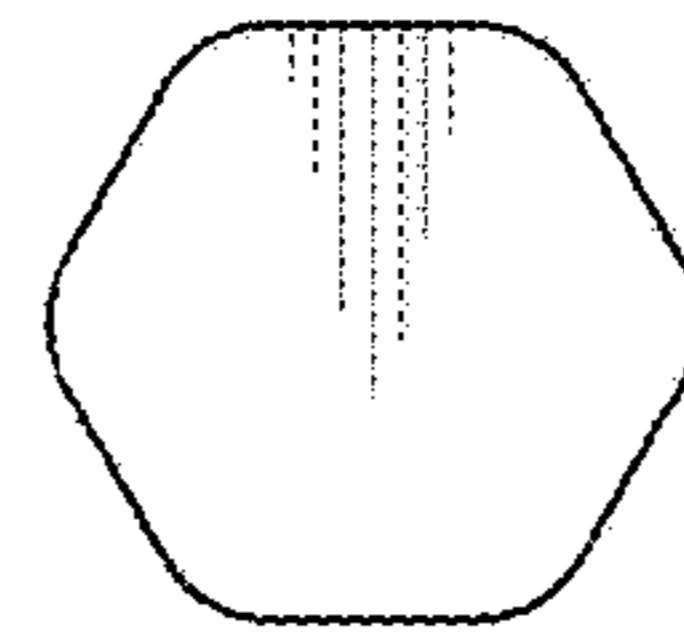


FIG. 20

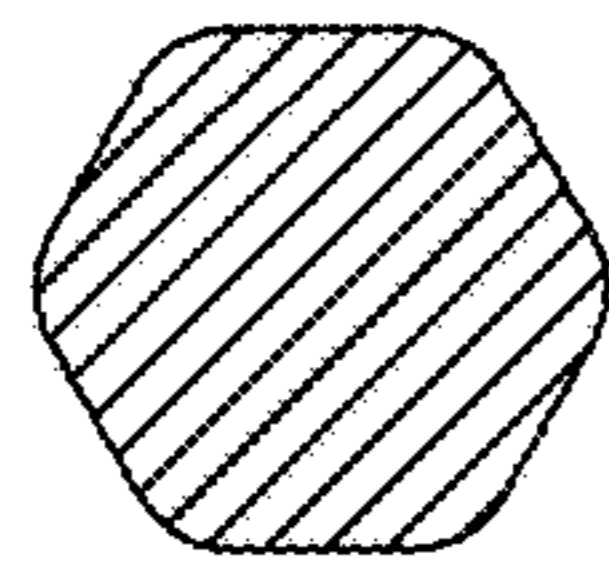


FIG. 21

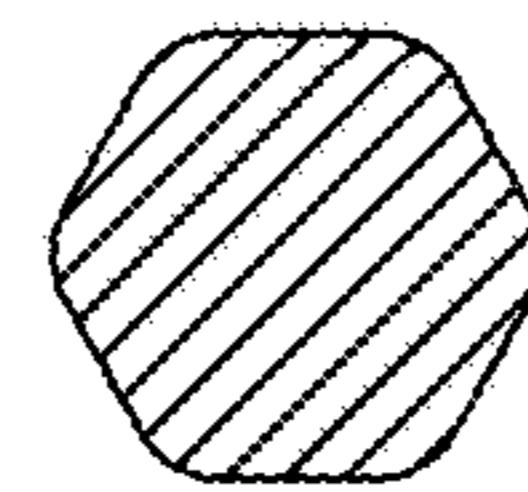


FIG. 22

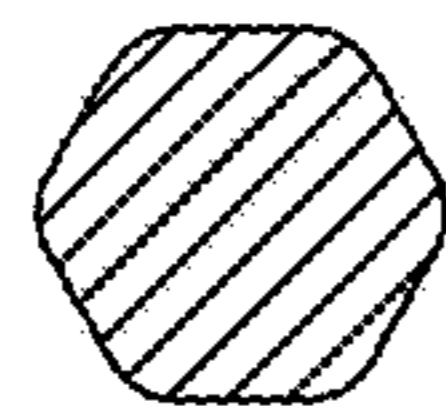


FIG. 23

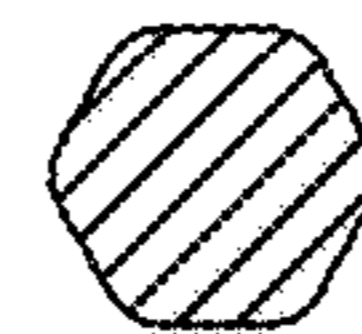


FIG. 24

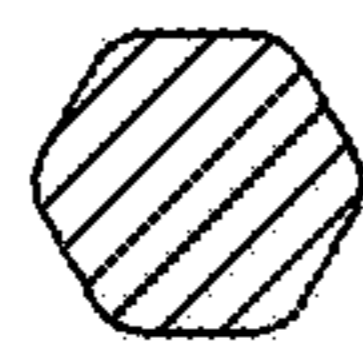


FIG. 25

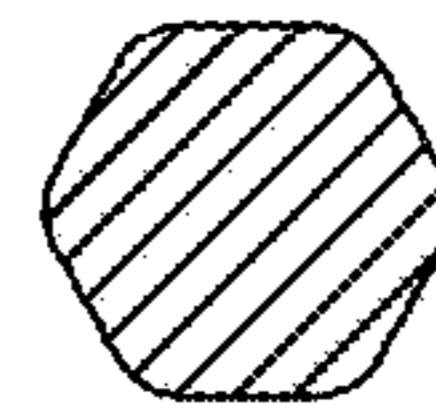


FIG. 26

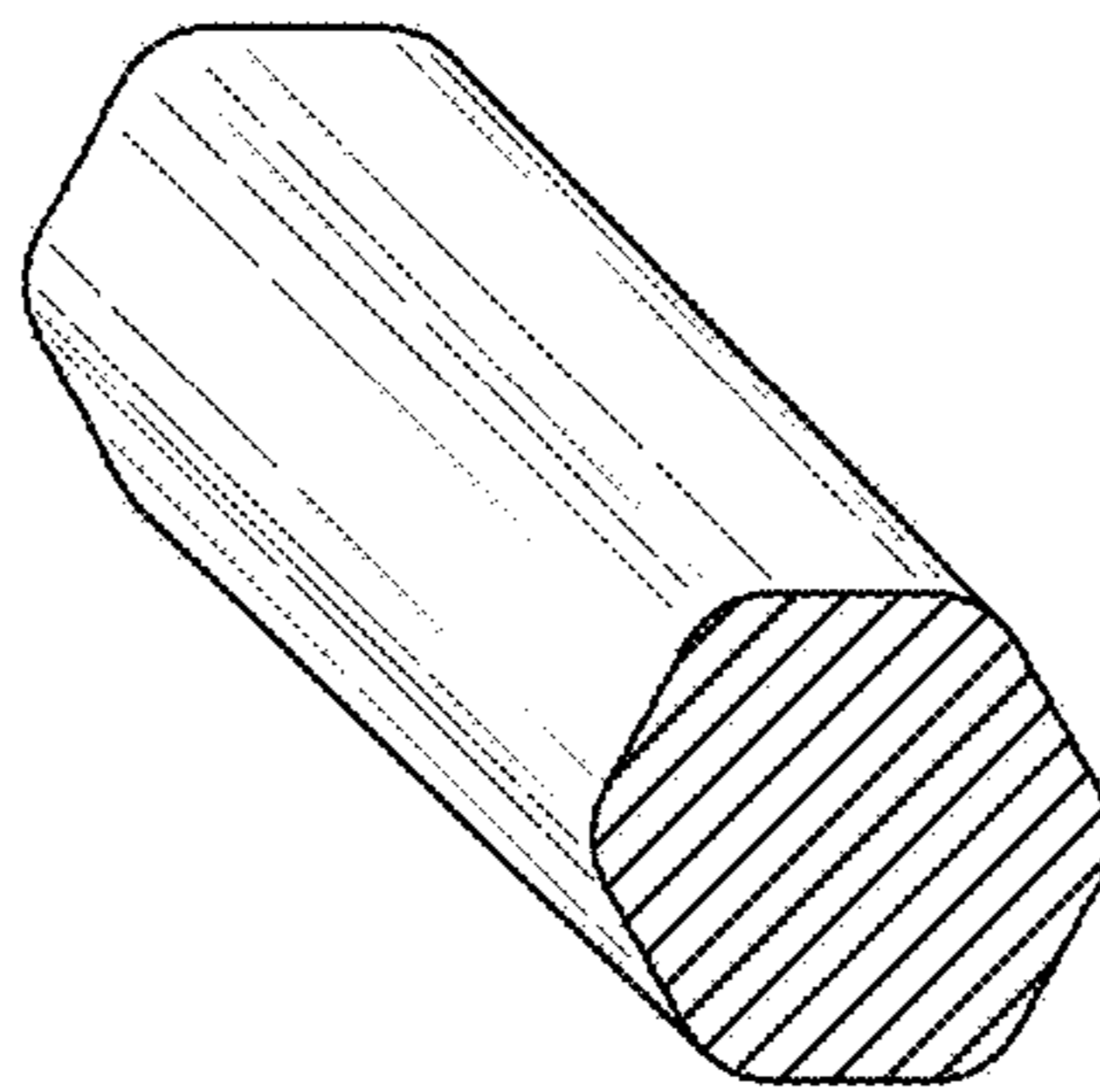


FIG. 27

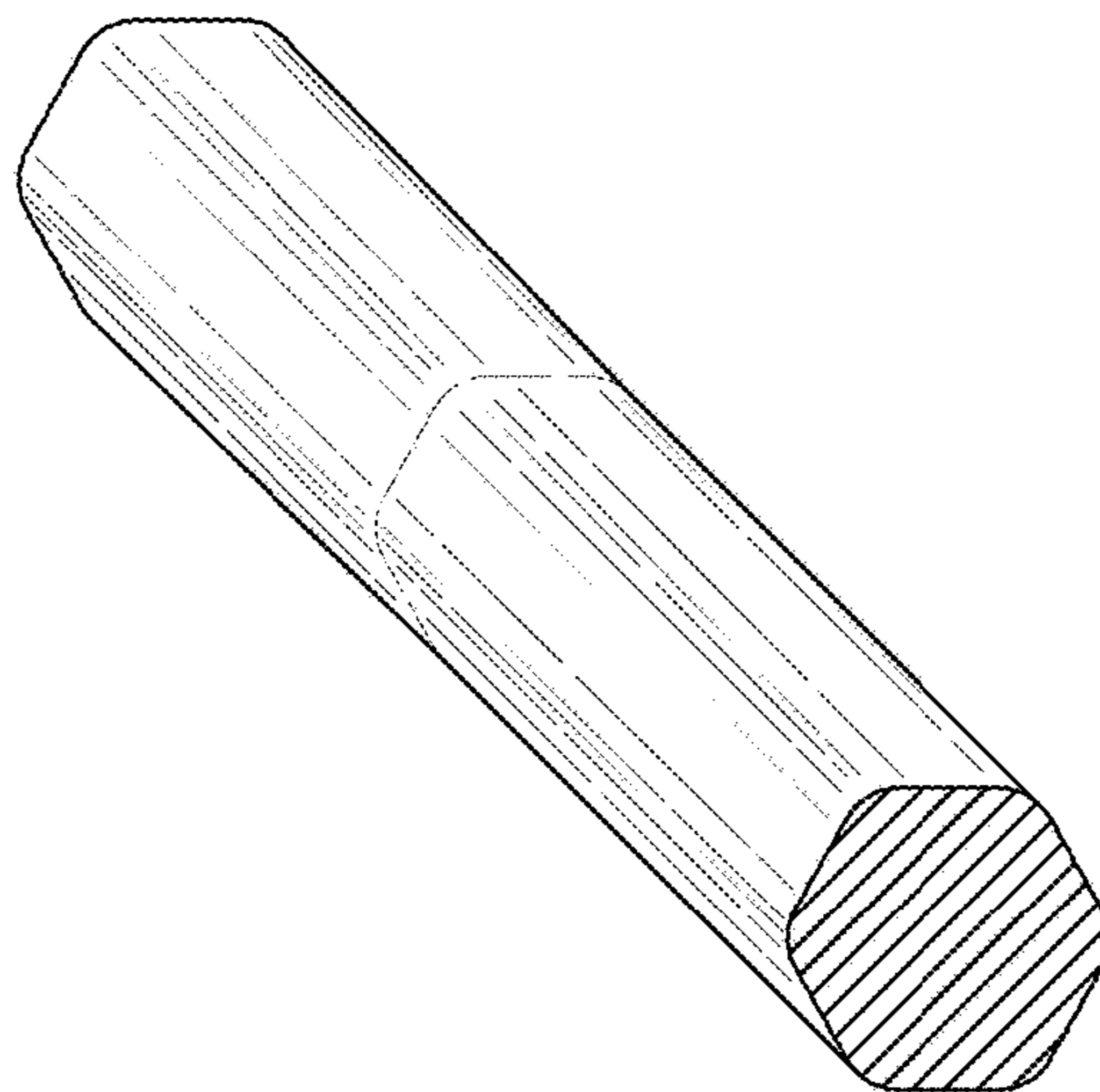


FIG. 28

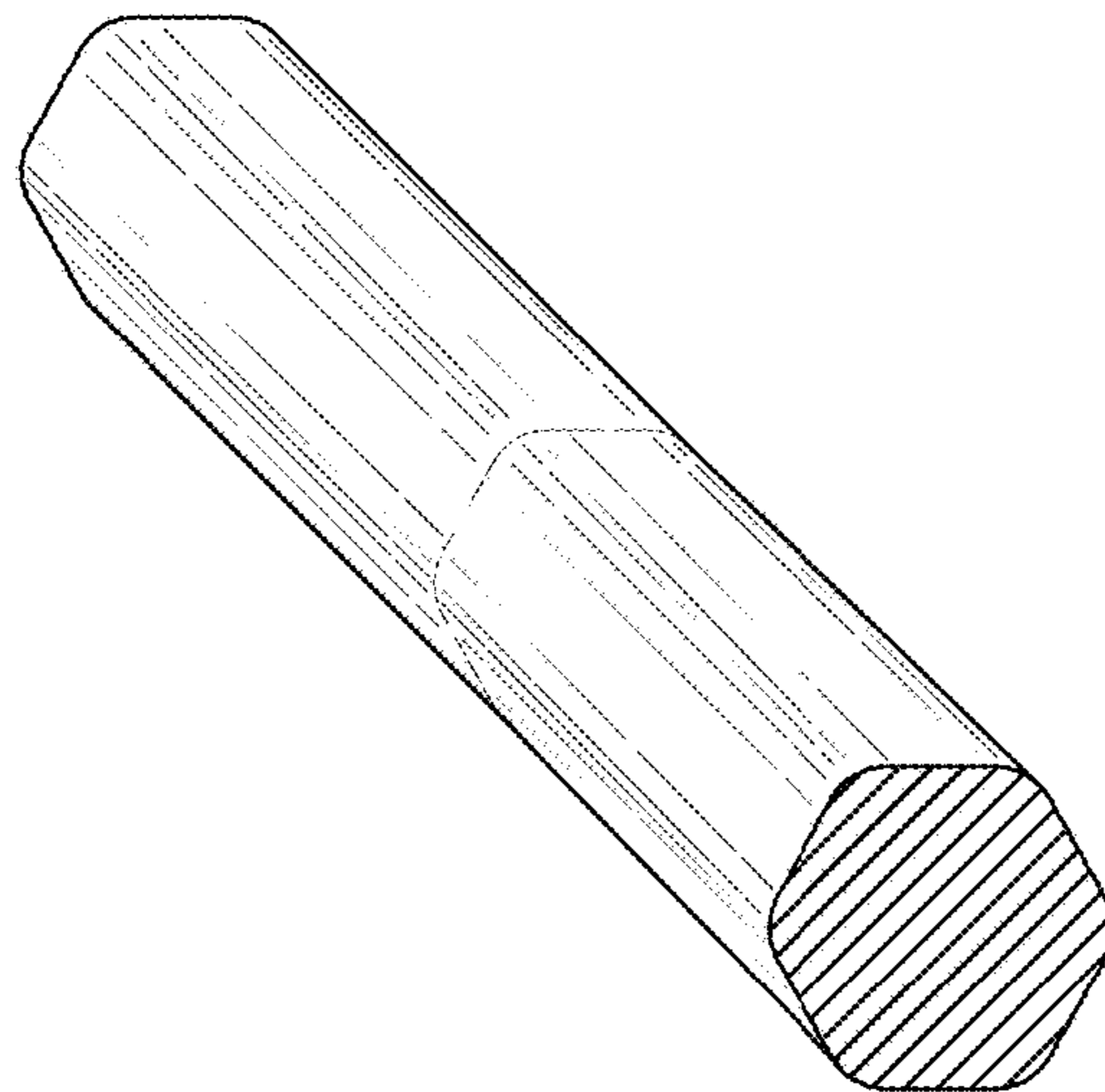


FIG. 29