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

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(45) **Date of Patent: ** Jul. 3, 2018**

(54) **TOOL FOR FIXING A TENSION MEMBER OF COMPOSITE STRAND FOR PRESTRESSED CONCRETE REINFORCEMENT AND POST TENSIONING CONCRETE STRUCTURE**

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(73) Assignee: **TOKYO ROPE MFG. CO., LTD.**, Tokyo (JP)

(**) Term: **15 Years**

(21) Appl. No.: **29/609,291**

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Related U.S. Application Data

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(30) **Foreign Application Priority Data**

Dec. 21, 2015 (JP) 2015-028358
Dec. 21, 2015 (JP) 2015-028359
(Continued)

(51) **LOC (11) Cl.** **08-08**
(52) **U.S. Cl.**
USPC **D8/382**; D8/383
(58) **Field of Classification Search**
USPC D8/383, 382, 385, 393, 394, 396, 499, D8/354, 355, 14, 44, 47, 71, 72
(Continued)

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Assistant Examiner — Ieisha N Price
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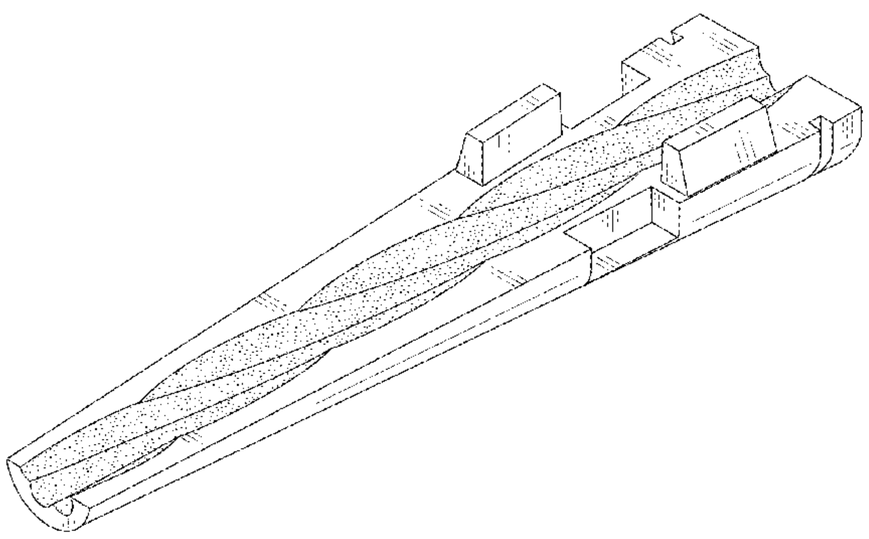
(57) **CLAIM**

The ornamental design for a tool for fixing a tension member of composite strand for prestressed concrete reinforcement and post tensioning concrete structure, as shown and described.

DESCRIPTION

FIG. **1** is a front, bottom and left side perspective view of a first embodiment of a tool for fixing a tension member of composite strand for prestressed concrete reinforcement and post tensioning concrete structure, showing our new design;
FIG. **2** is a front side view thereof;
FIG. **3** is a rear side view thereof;
FIG. **4** is a top side view thereof;
FIG. **5** is a bottom side view thereof;
FIG. **6** is a left side view thereof;
FIG. **7** is a right side view thereof;
FIG. **8** is an enlarged cross-sectional view thereof, taken along line **8-8** in FIG. **2**;
FIG. **9** is an enlarged cross-sectional view thereof, taken along line **9-9** in FIG. **2**; and
FIG. **10** is a perspective view showing the state of use thereof;
FIG. **11** is a front, bottom and left side perspective view of a second embodiment of a tool for fixing a tension member of composite strand for prestressed concrete reinforcement and post tensioning concrete structure, showing our new design;
FIG. **12** is a front view thereof;
FIG. **13** is a rear view thereof;
FIG. **14** is a top view thereof;
FIG. **15** is a bottom view thereof;
(Continued)



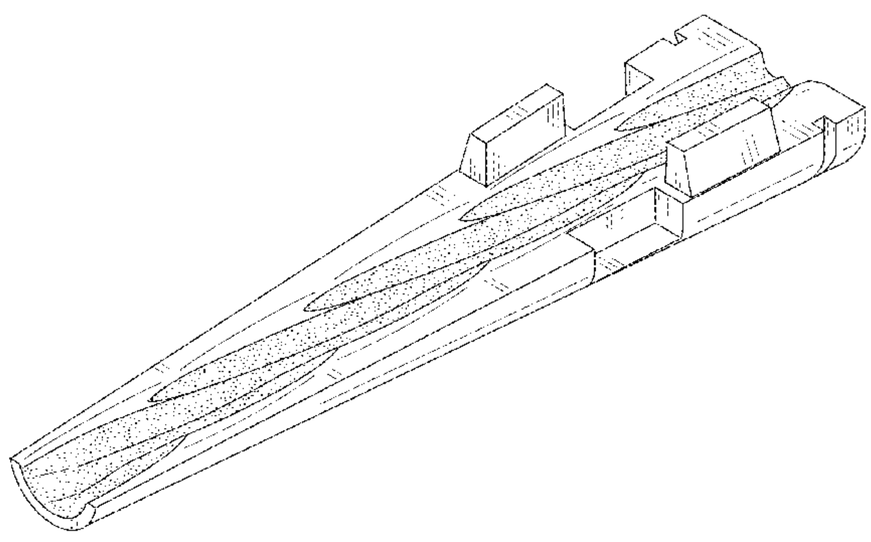


FIG. **16** a is left side view thereof;
FIG. **17** is a right side view thereof;
FIG. **18** is an enlarged cross-sectional view thereof, taken along line **18-18** in FIG. **12**;
FIG. **19** is an enlarged cross-sectional view thereof, taken along line **19-19** in FIG. **12**; and,
FIG. **20** is a perspective view showing the state of use thereof.
The broken line showing in FIGS. **10** and **20** illustrates the environment of the claimed design and forms no part thereof.

1 Claim, 12 Drawing Sheets

(30) **Foreign Application Priority Data**

Dec. 21, 2015 (JP) 2015-028360
Dec. 21, 2015 (JP) 2015-028361

(58) **Field of Classification Search**
CPC . D07B 1/18; D07B 1/005; D07B 9/00; D07B 2201/2083; D07B 2201/2084; D07B 2201/2085; D07B 2201/2089; F16G 11/00; F16G 11/03; F16G 11/04; F16G 11/048; F16G 11/08; F16G 11/10; F16G 11/105; F16G 11/108
See application file for complete search history.

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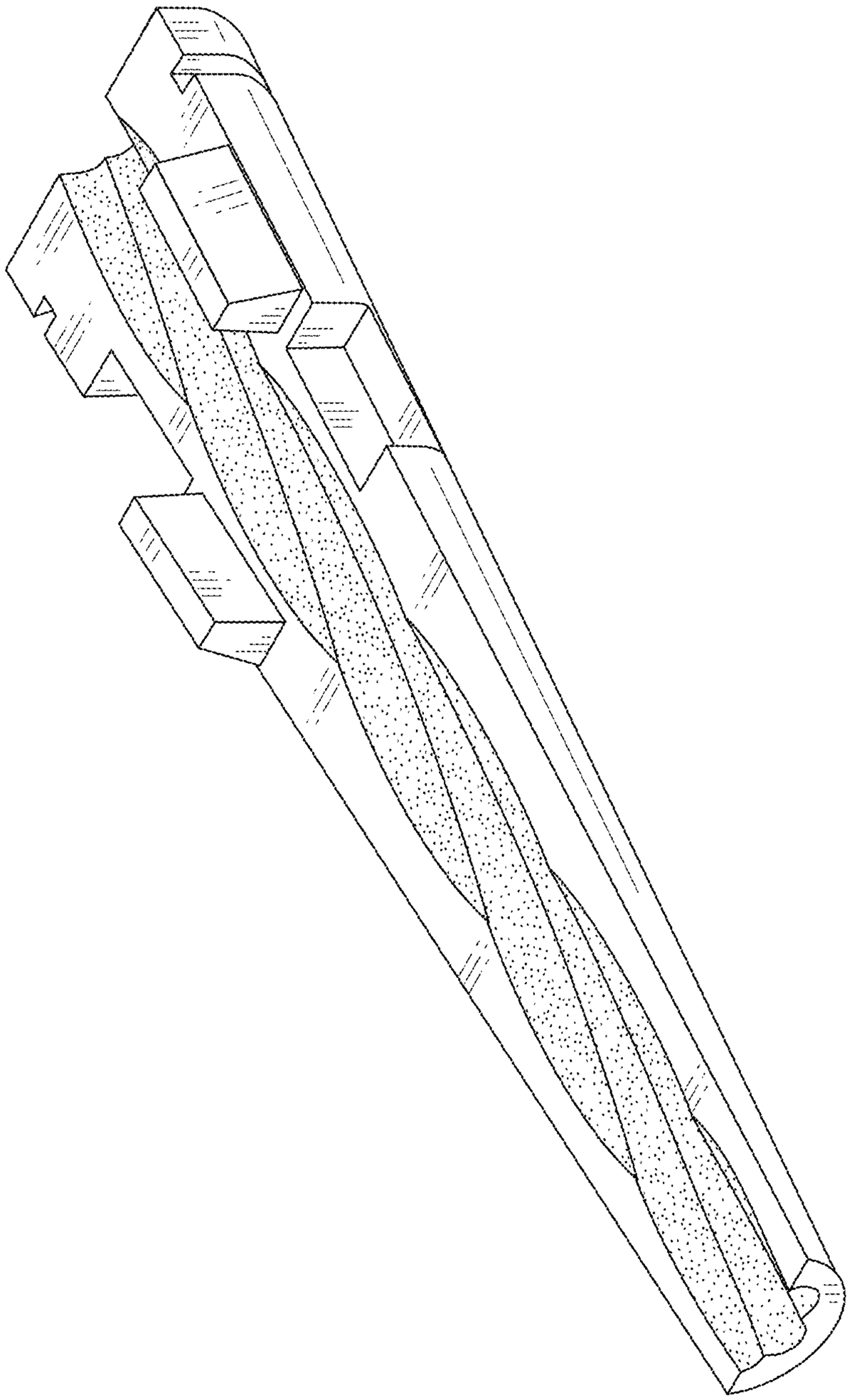


Fig. 1

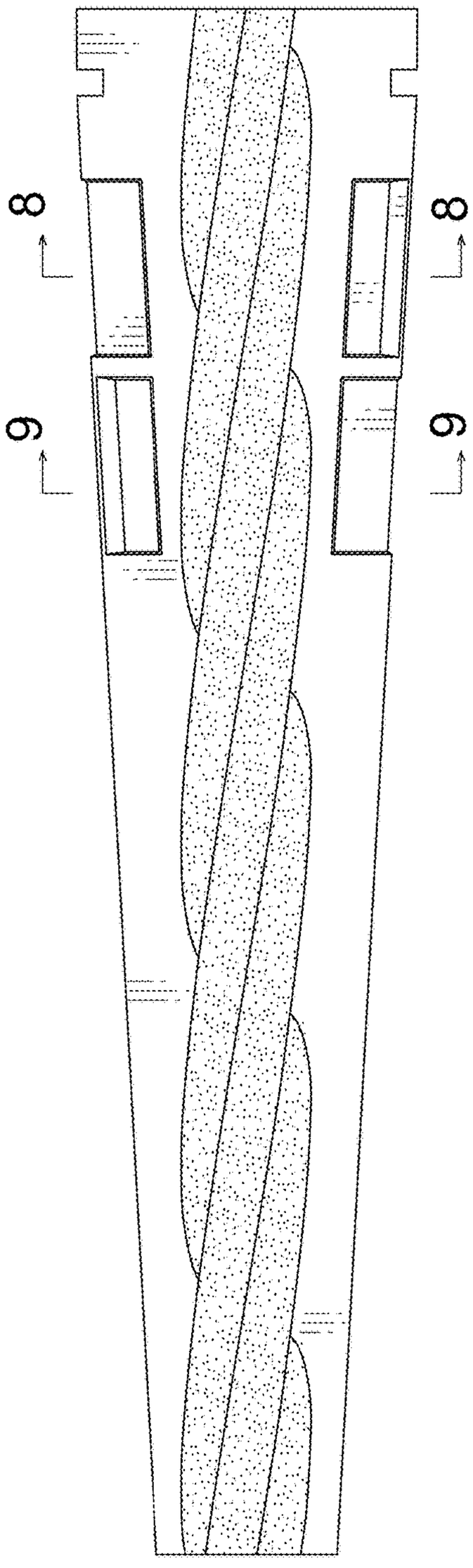


Fig. 2

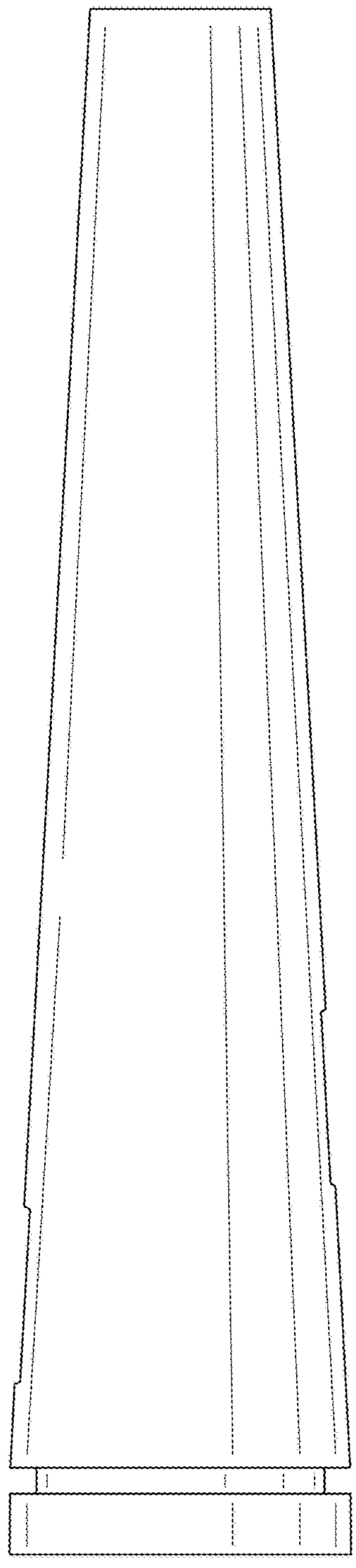


Fig. 3

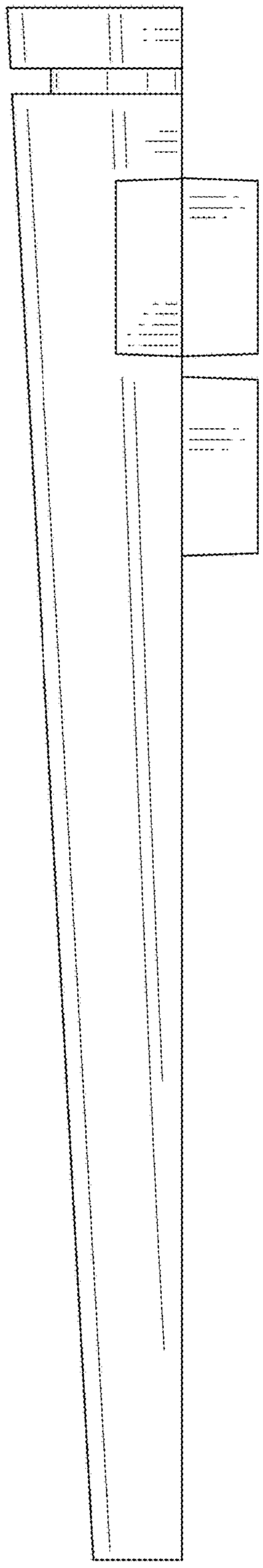


Fig. 4

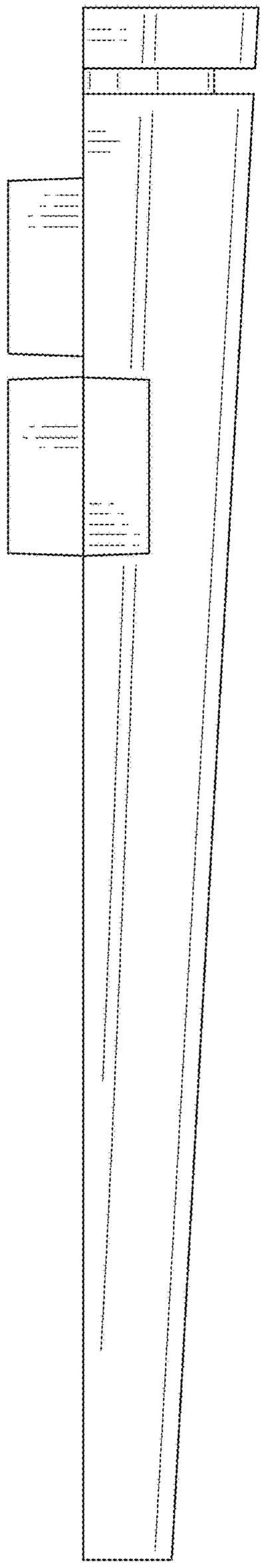


Fig. 5

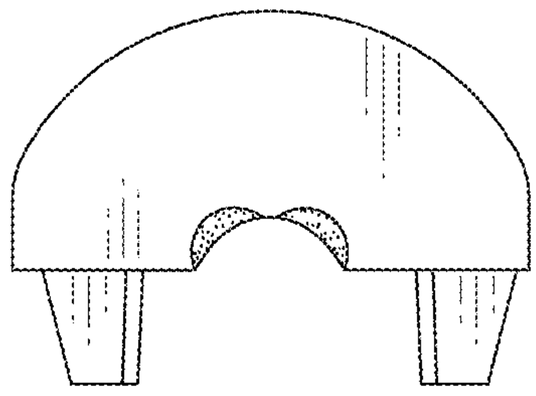


Fig. 7

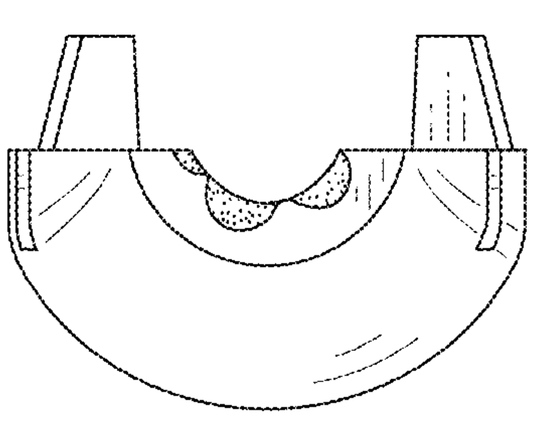


Fig. 8

Fig. 9

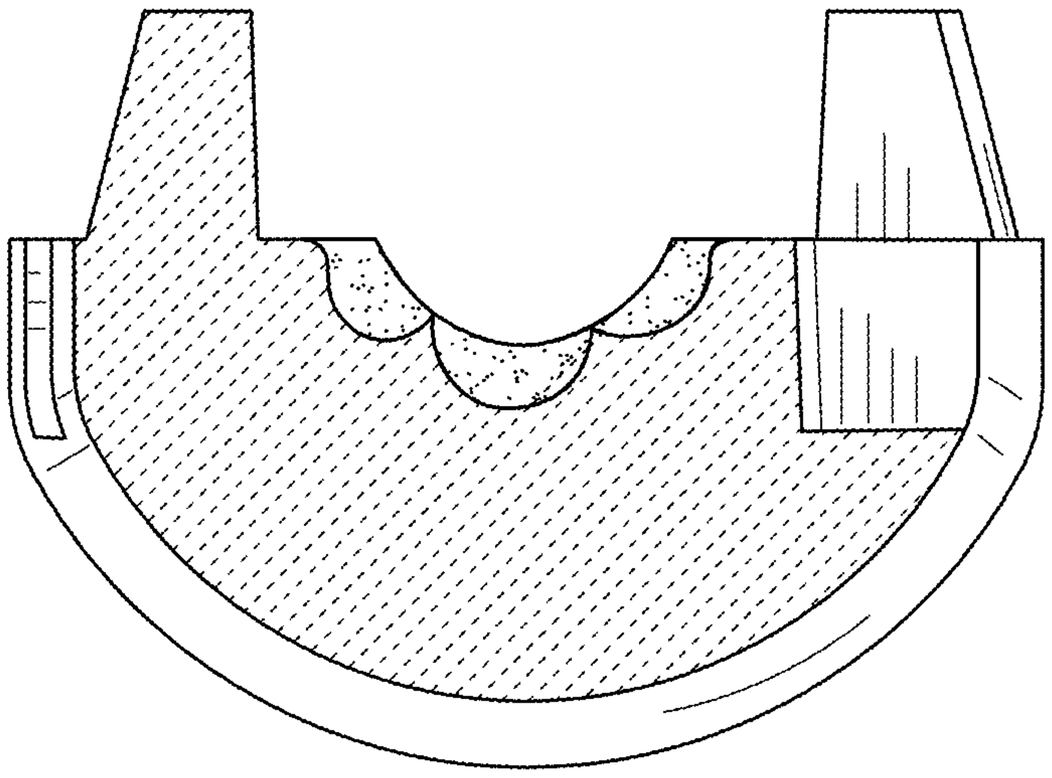


Fig. 9

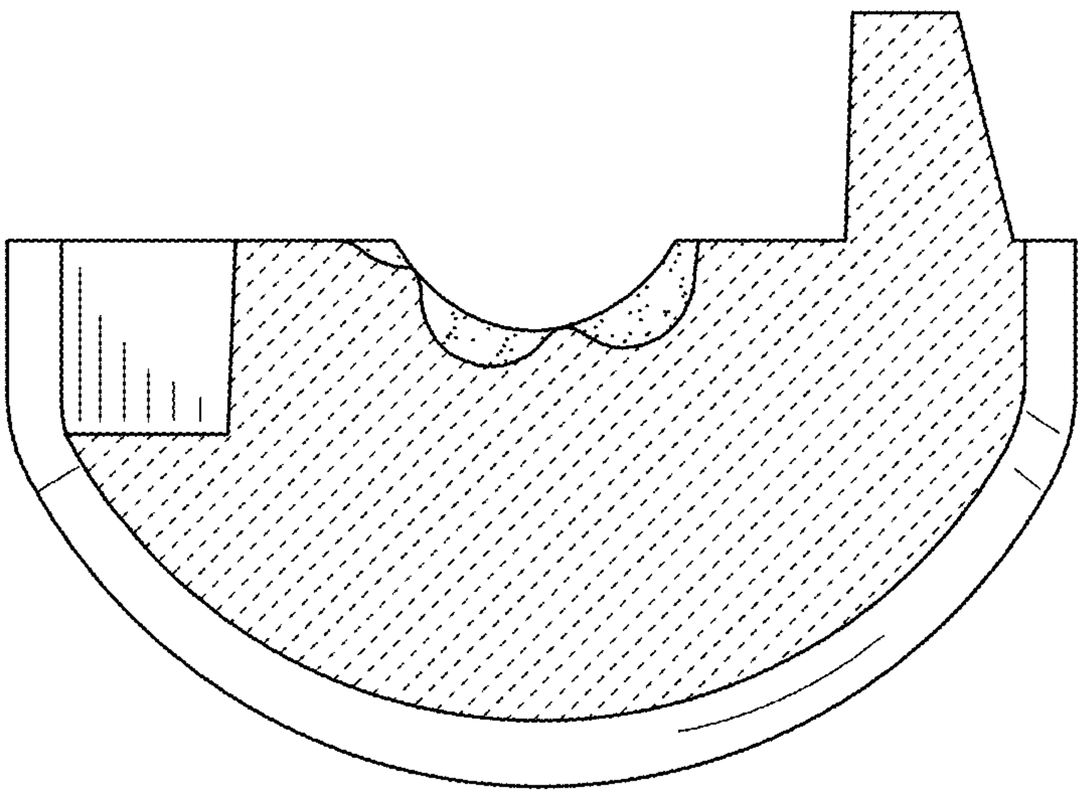


Fig. 8

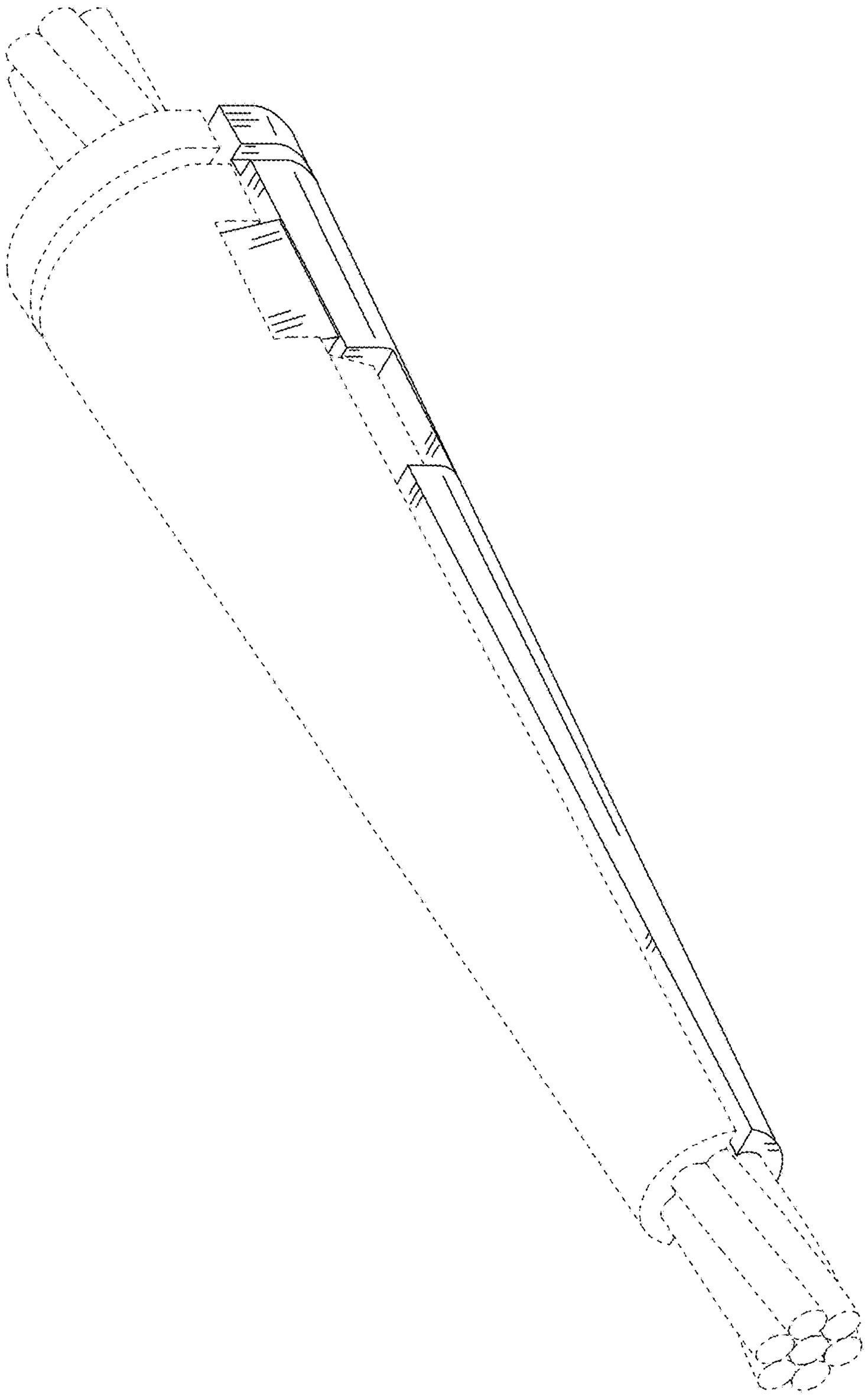


Fig. 10

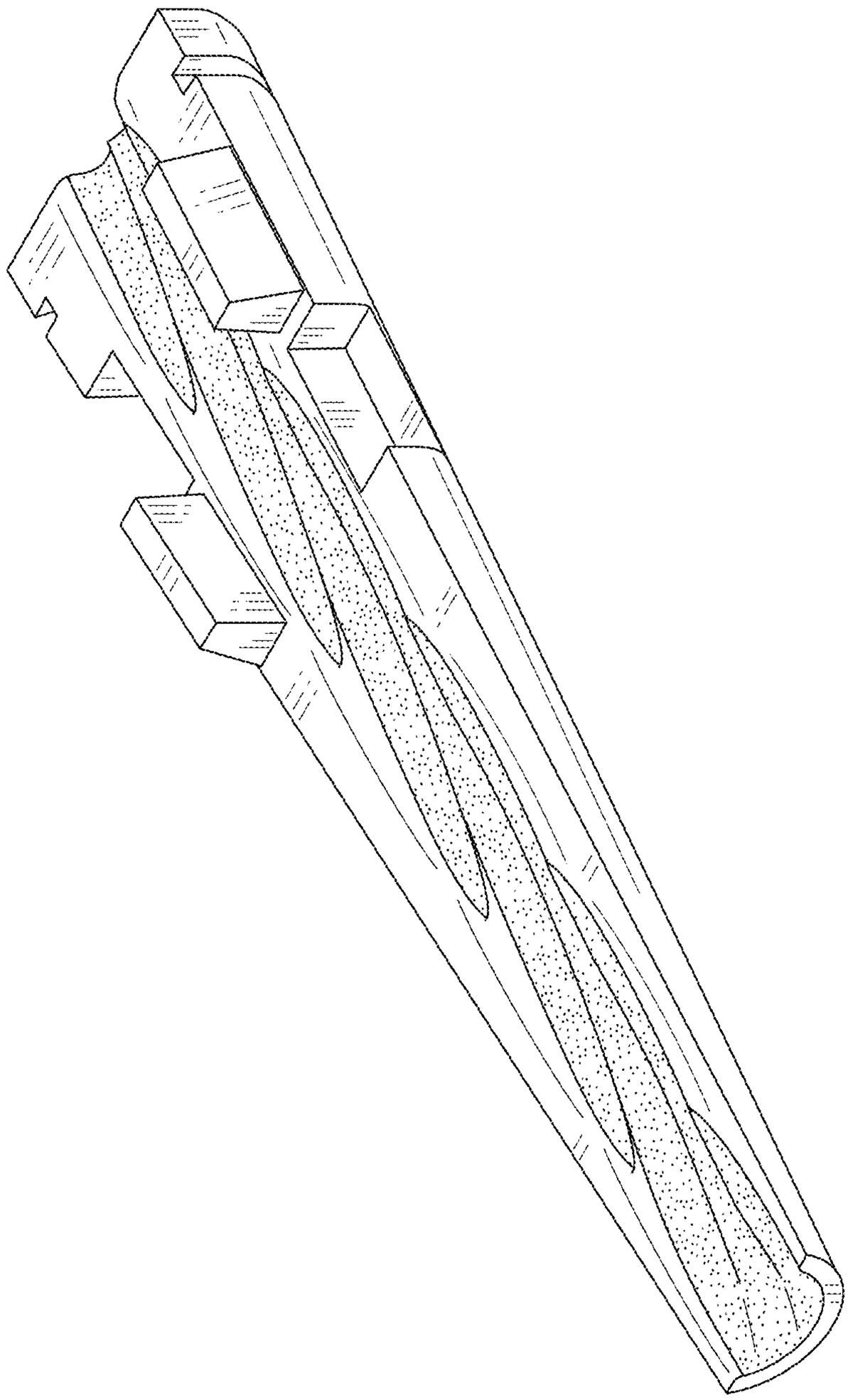


Fig. 11

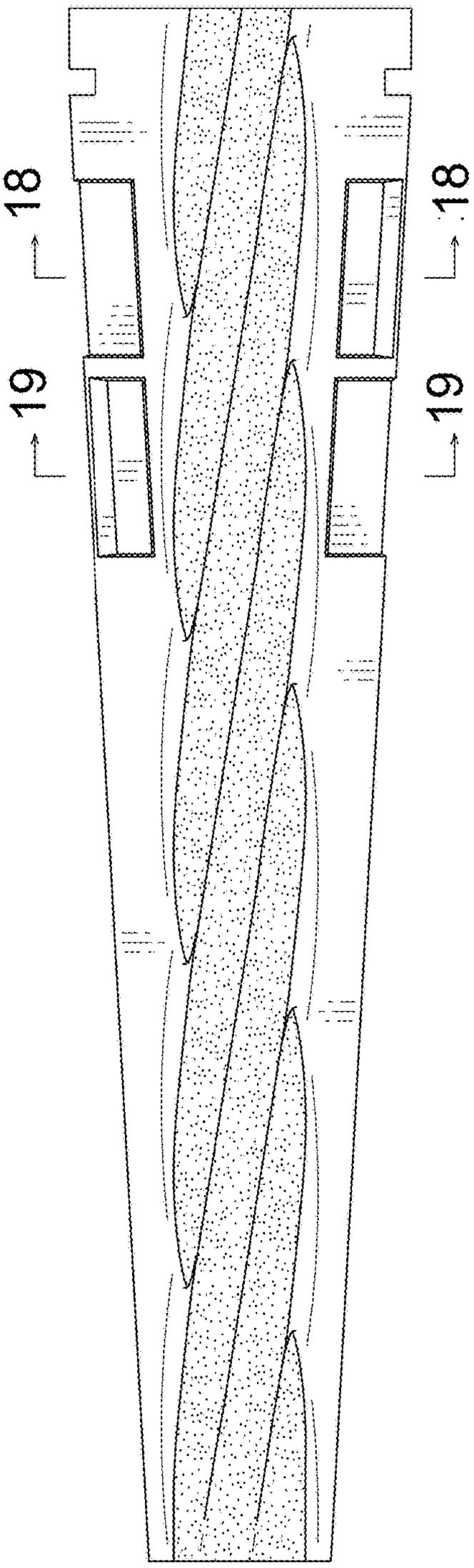


Fig. 12

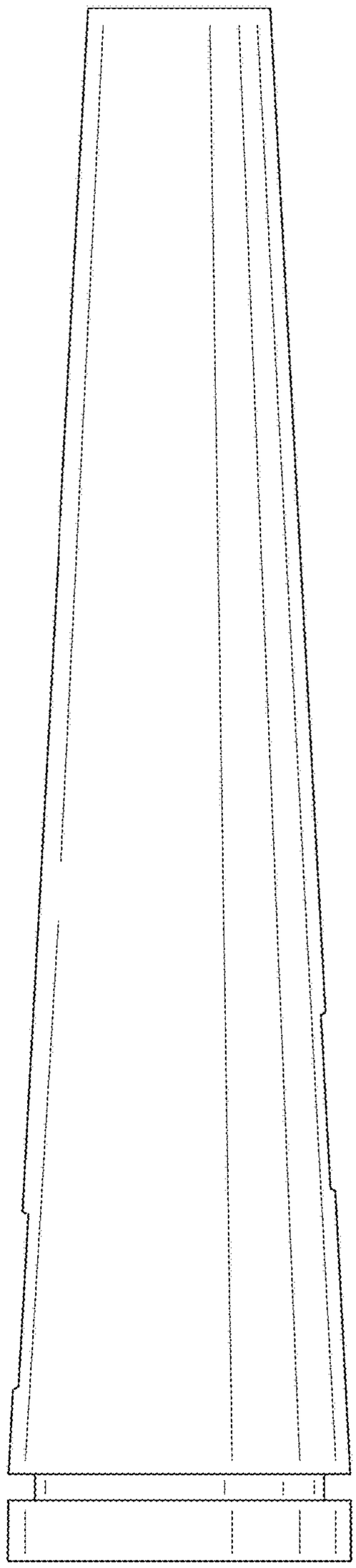


Fig. 13

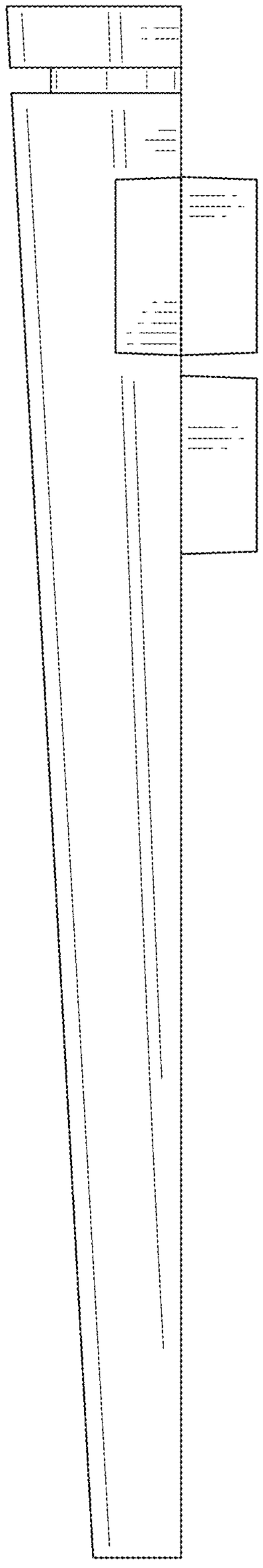
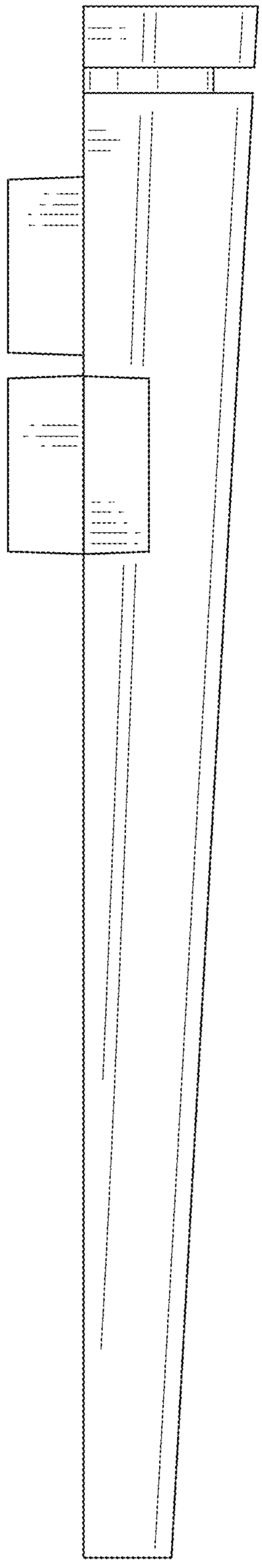


Fig. 14



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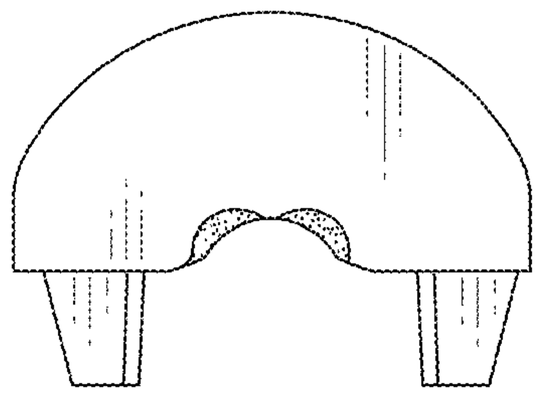

Fig. 17

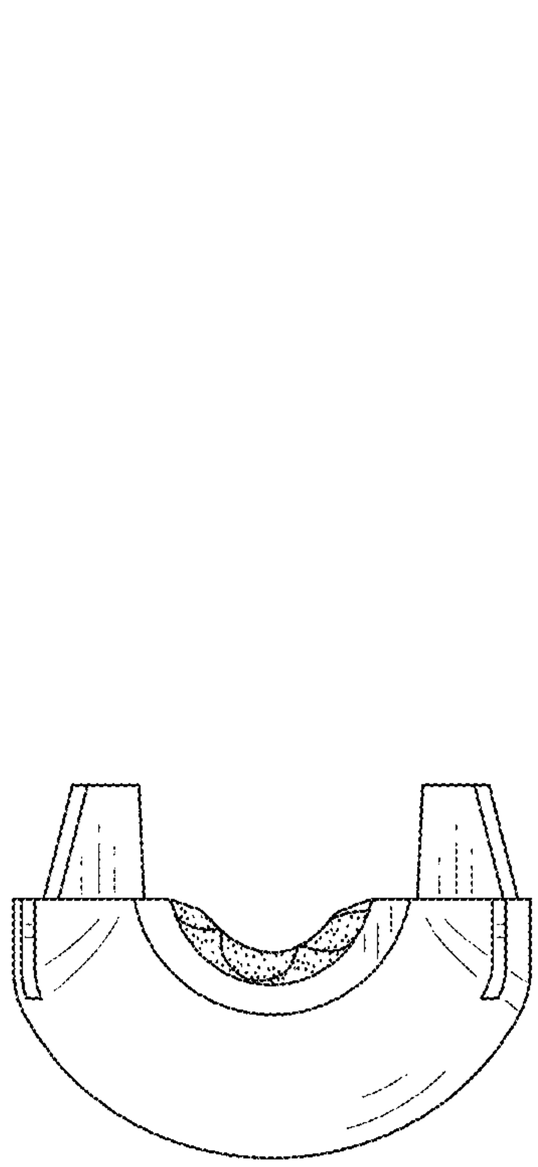

Fig. 16

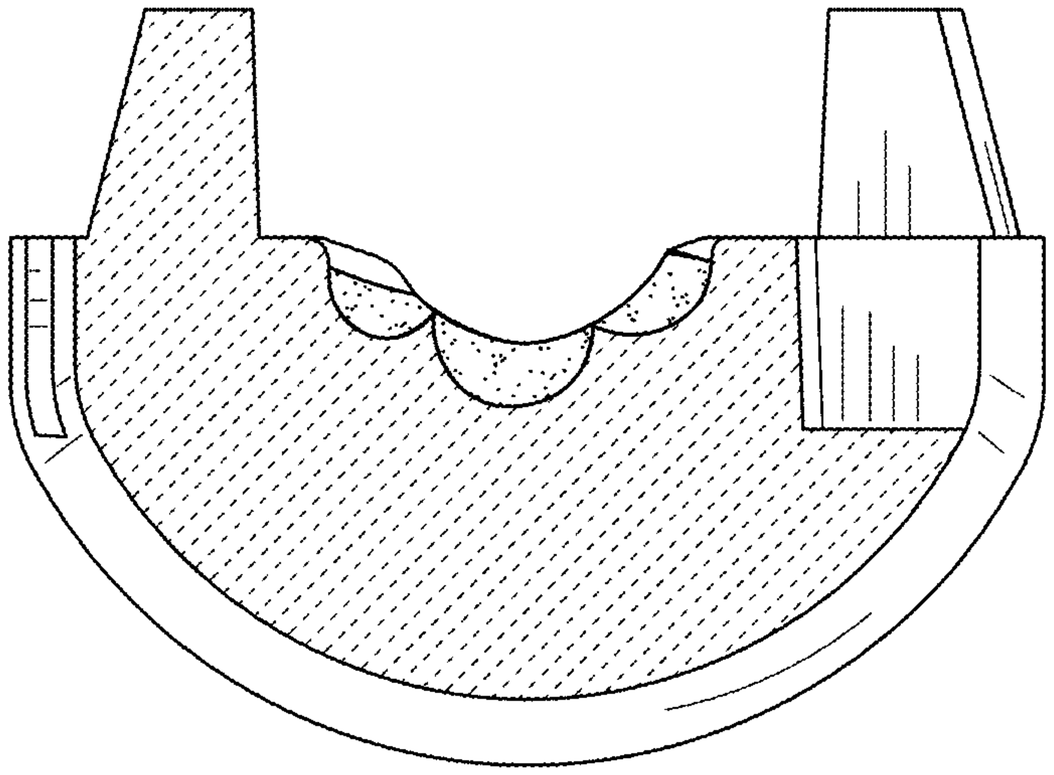

Fig. 19

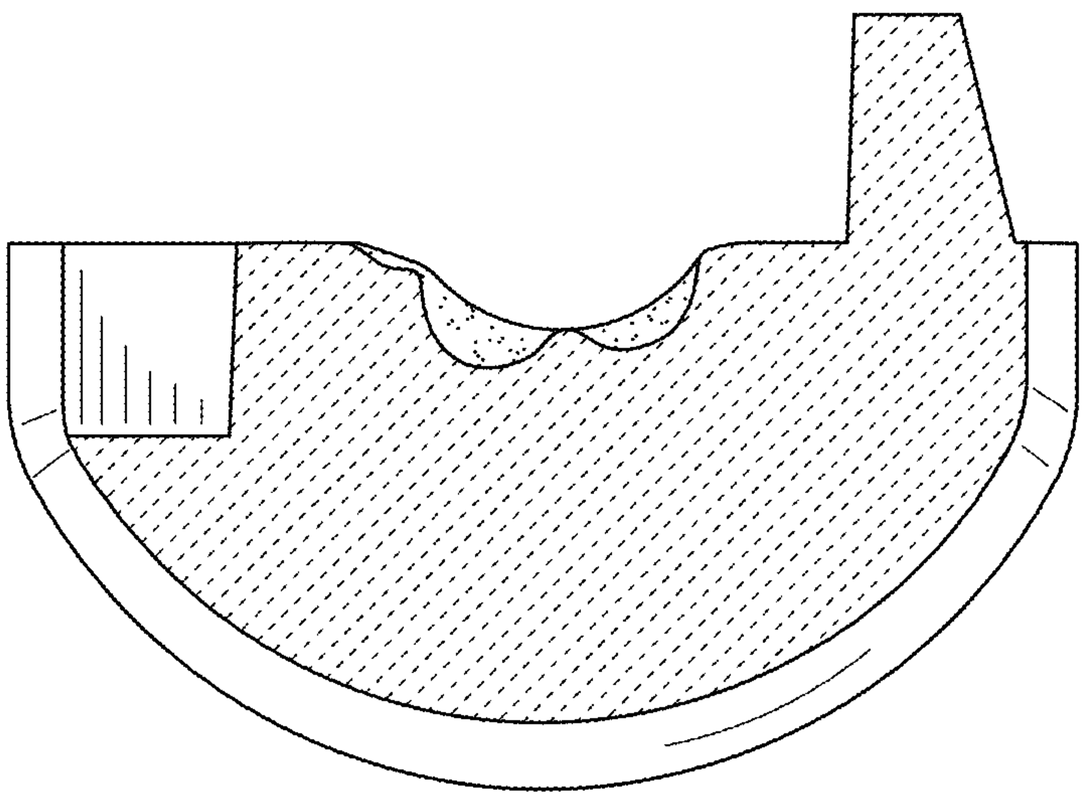

Fig. 18

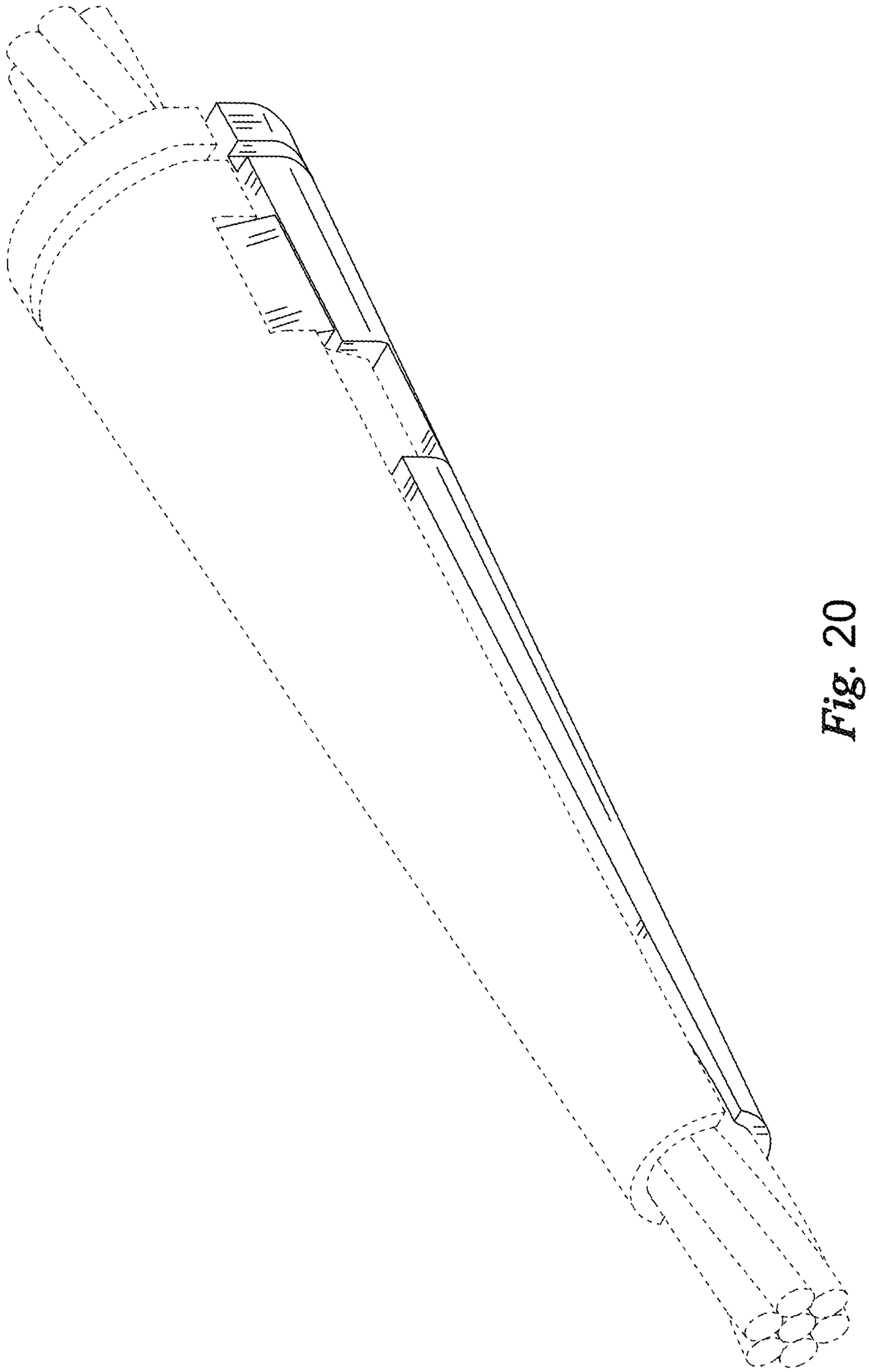

Fig. 20