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

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

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

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Related U.S. Application Data

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(51) **LOC (11) Cl.** **08-08**

(52) **U.S. Cl.**
USPC **D8/383**; D8/382

(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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Related U.S. Appl. No. 29/610,086; First Named Inventor: Daisuke Manabe; Title: "Tool for Fixing Tension Member of Composite Strand for Prestressed Concrete Reinforcement and Post Tensioning for Concrete Structure"; Filed: Jul. 10, 2017.

Primary Examiner — Sandra S Snapp

Assistant Examiner — Ieisha N Price

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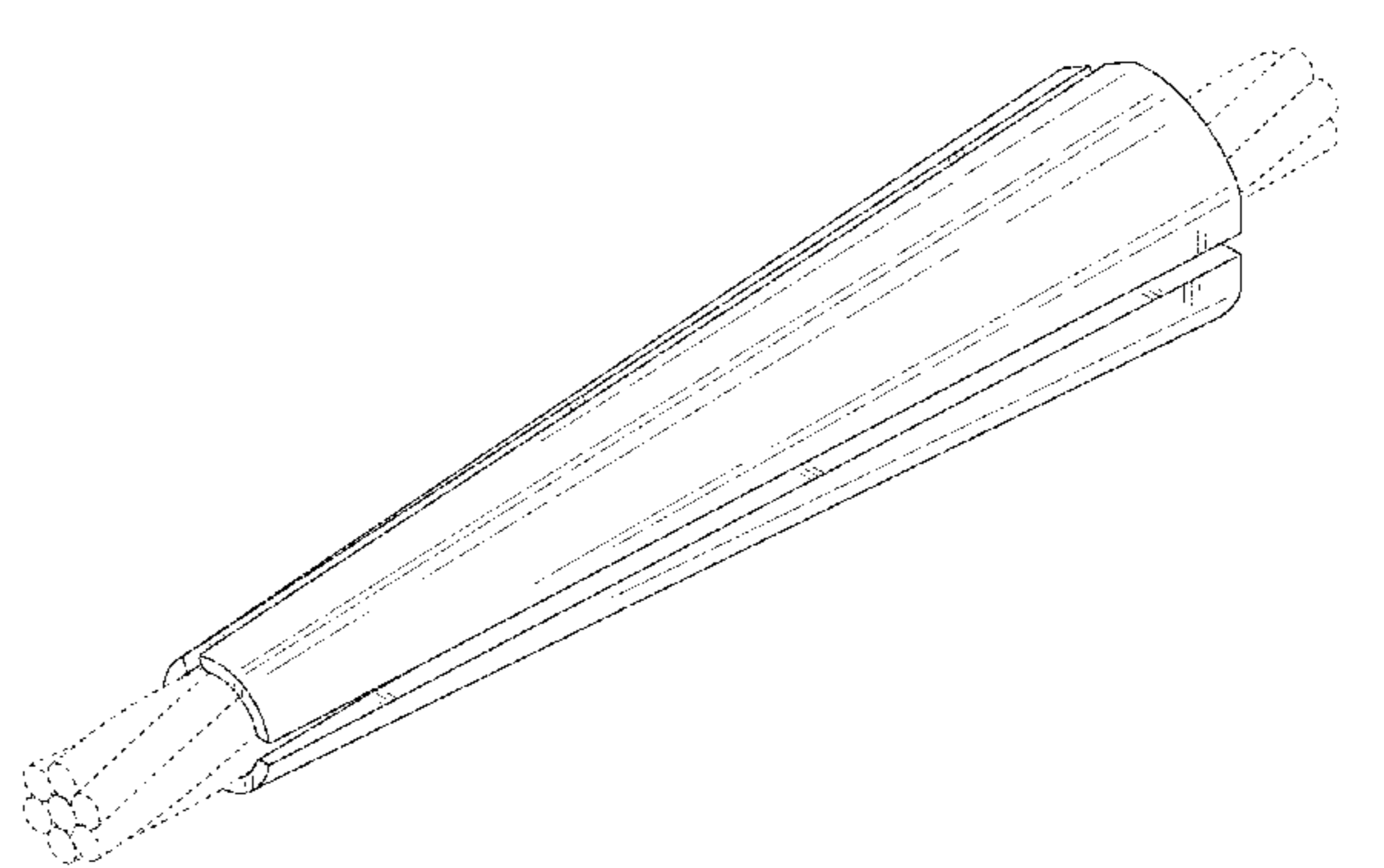
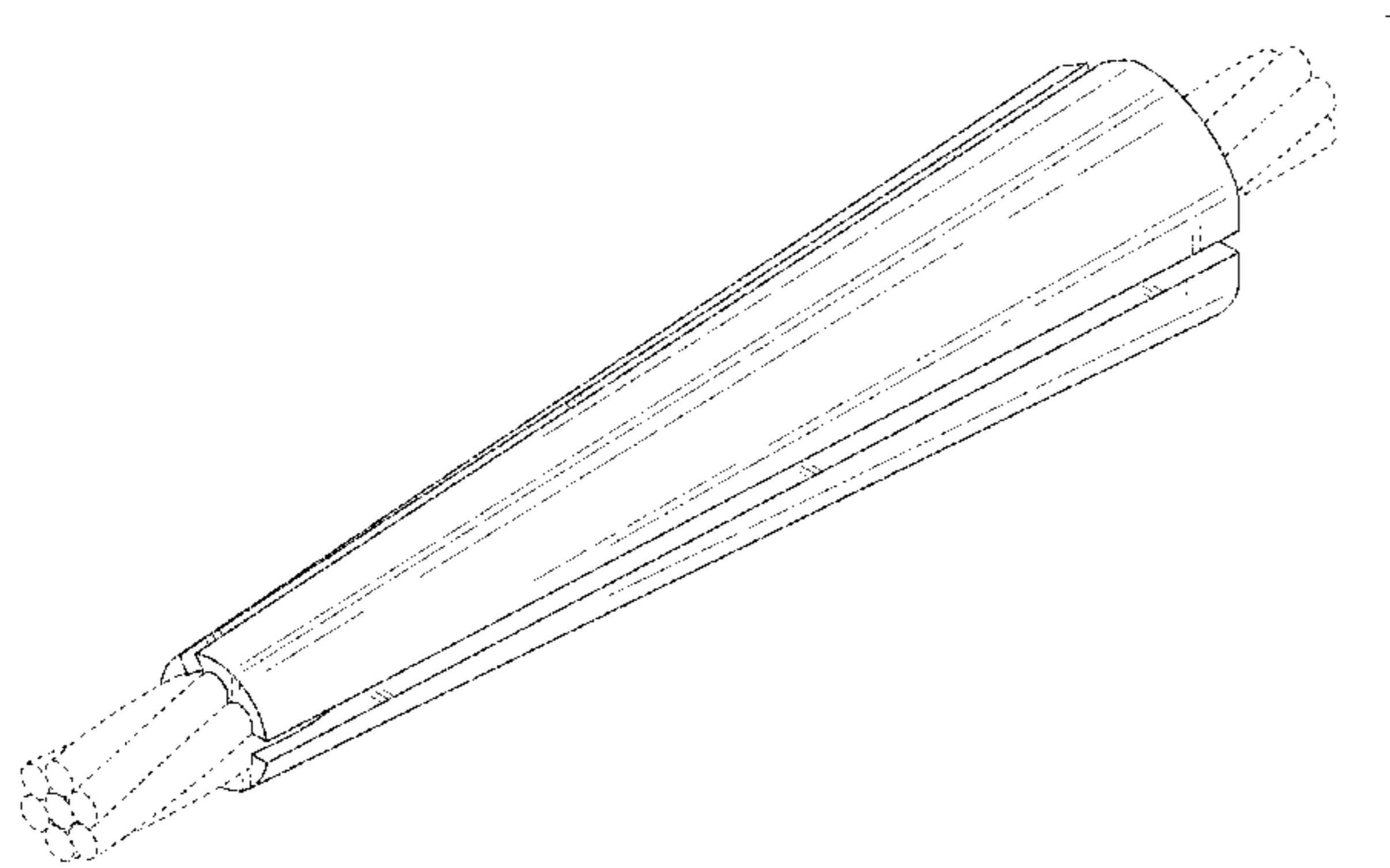
(57) **CLAIM**

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

DESCRIPTION

FIG. 1 is a front, top 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 view thereof; FIG. 3 is a rear view thereof; FIG. 4 is a left side view thereof; FIG. 5 is a right side view thereof; FIG. 6 is a top plan view thereof; FIG. 7 is a bottom plan view thereof; FIG. 8 is a front view thereof, wherein two-thirds of the article has been removed for ease of illustration; FIG. 9 is a rear view of FIG. 8; FIG. 10 is a left side view of FIG. 8; FIG. 11 is a right side view of FIG. 8; FIG. 12 is a top plan view of FIG. 8; FIG. 13 is a bottom plan view of FIG. 8; FIG. 14 is a perspective view showing the environmental use thereof; and FIG. 15 is an exploded perspective view showing the environmental use thereof. FIG. 16 is a front, top and left side perspective view of a second embodiment of a tool for fixing a tension member of

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composite strand for prestressed concrete reinforcement and post tensioning concrete structure, showing our new design; FIG. 17 is a front view thereof; FIG. 18 is a rear view thereof; FIG. 19 is a left side view thereof; FIG. 20 is a right side view thereof; FIG. 21 is a top plan view thereof; FIG. 22 is a bottom plan thereof; FIG. 23 is a front view thereof, wherein two-thirds of the article has been removed for ease of illustration; FIG. 24 is a rear view of FIG. 23; FIG. 25 is a left side view of FIG. 23; FIG. 26 is a right side view of FIG. 23; FIG. 27 is a top plan view of FIG. 23; FIG. 28 is a bottom plan view of FIG. 23; FIG. 29 is an enlarged cross sectional view taken along line 29-29 in FIG. 17 thereof; FIG. 30 is a perspective view showing the environmental use thereof; and, FIG. 31 is an exploded perspective view showing the environmental use thereof. The broken line showing of tension members shown in FIGS. 14, 15, 30 and 31 illustrates the environment of the claimed design and forms no part thereof. The broken lines shown in FIG. 29 illustrate portions of the tool for fixing a tension member of composite strand for prestressed concrete reinforcement and post tensioning concrete structure and form no part of the claimed design.

1 Claim, 15 Drawing Sheets

(58) **Field of Classification Search**

CPC . D07B 1/18; D07B 1/005; D07B 9/00; D07B 2201/20; 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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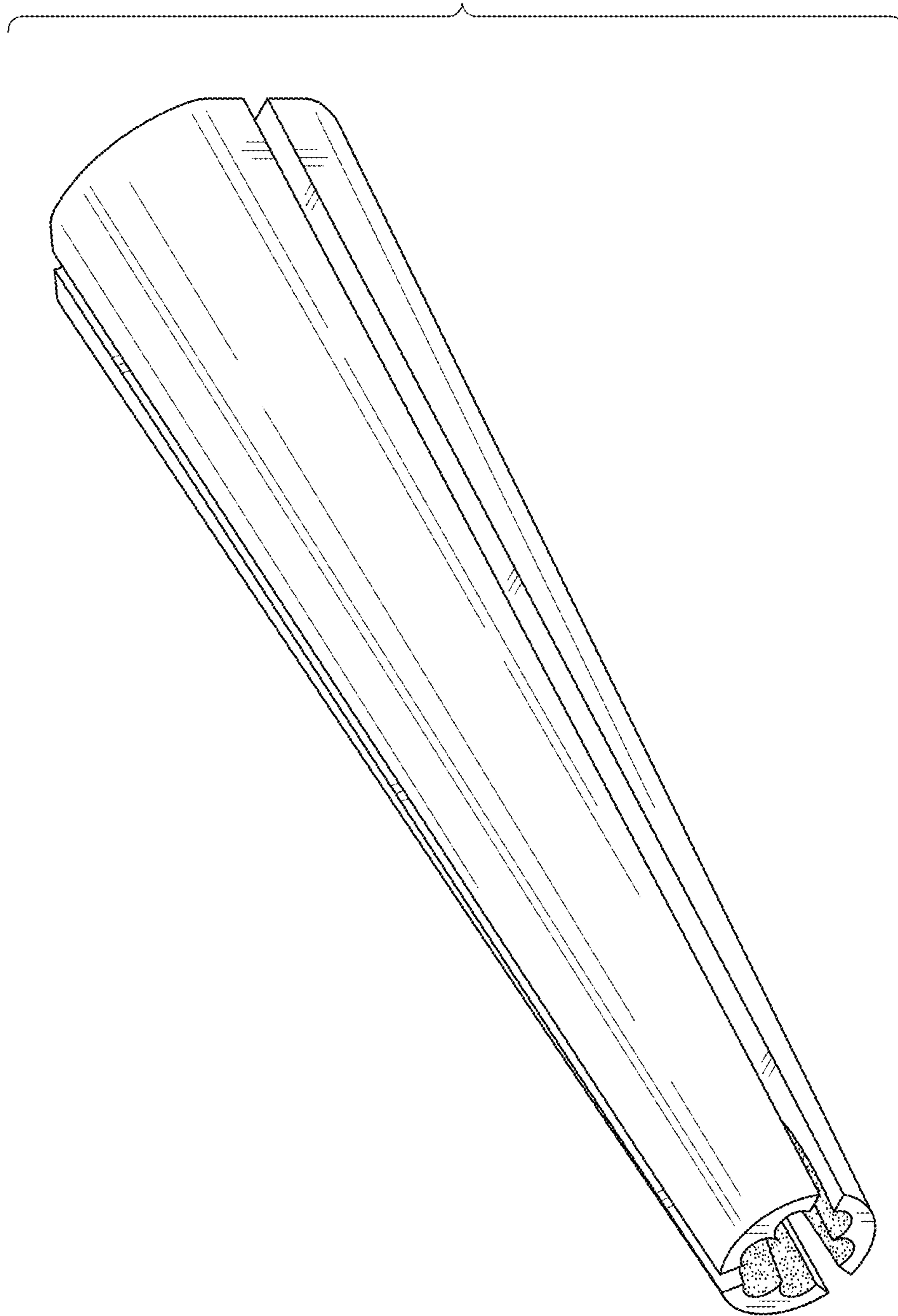


Fig. 1

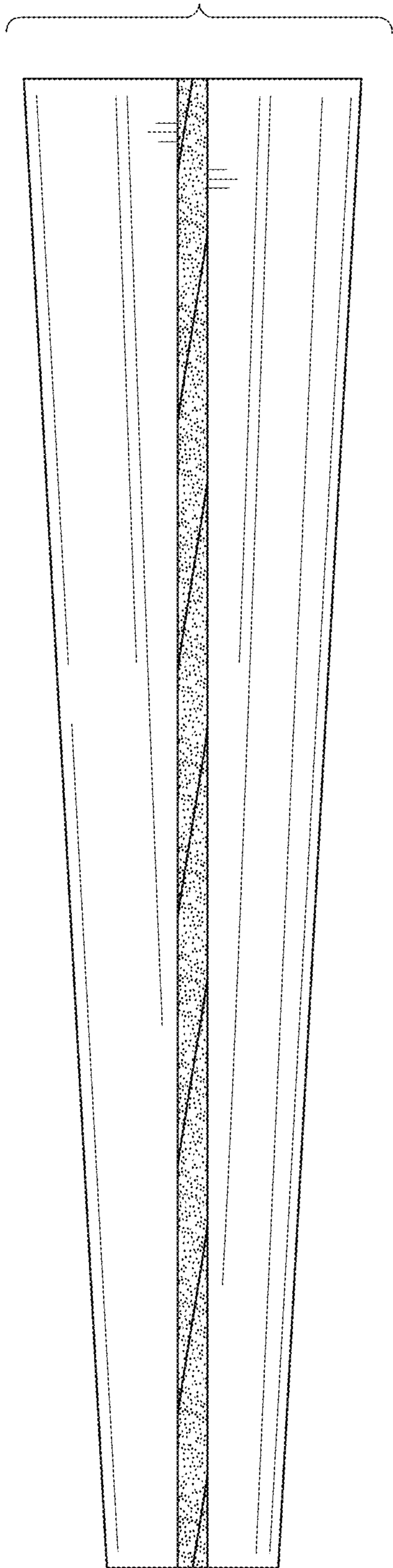


Fig. 2

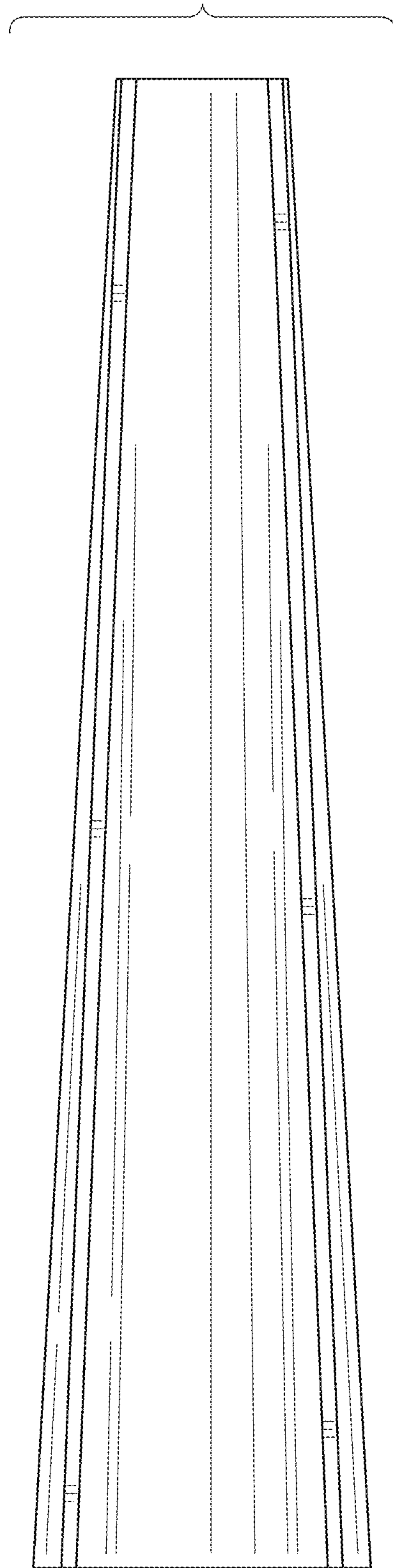


Fig. 3

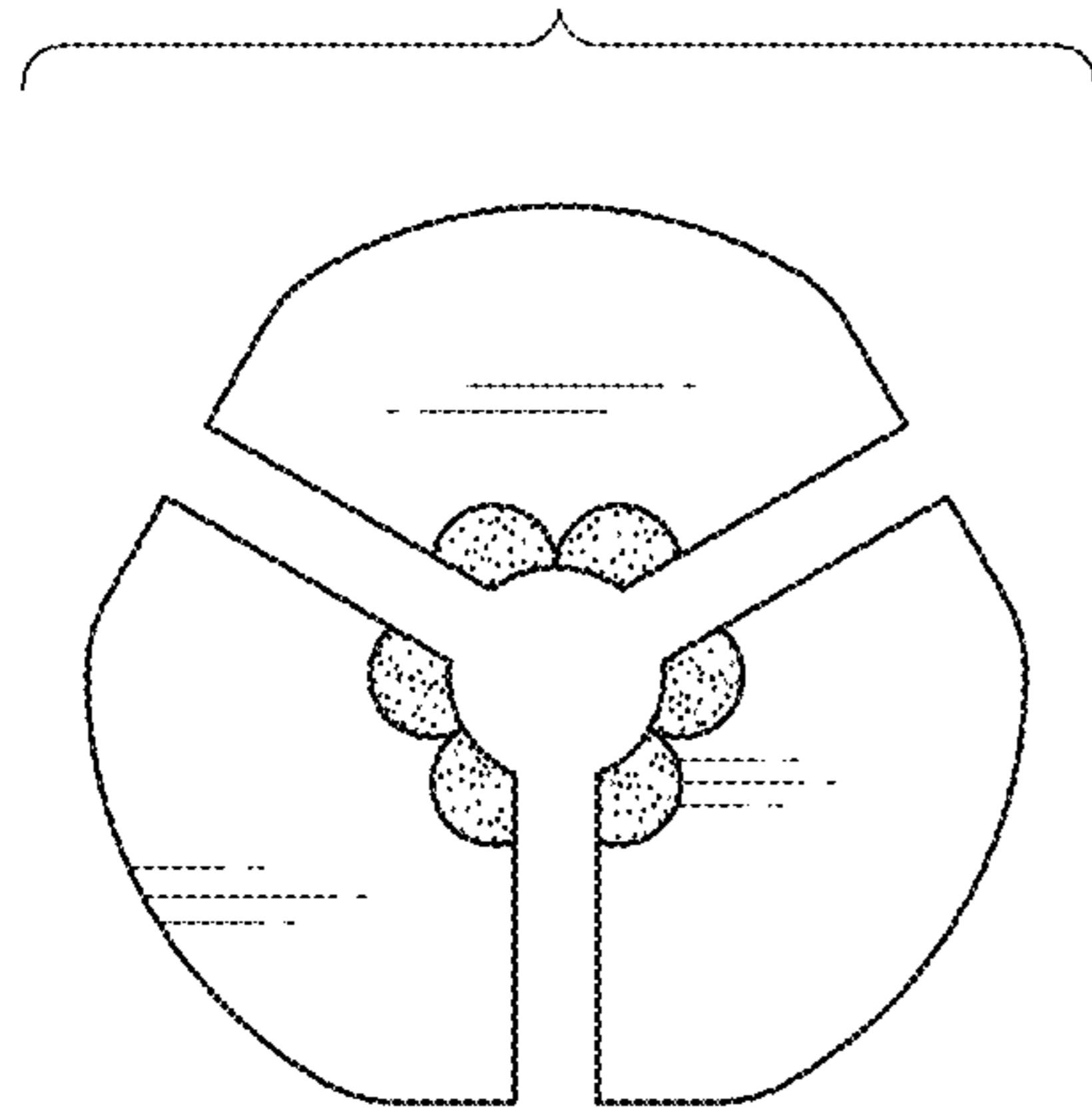


Fig. 5

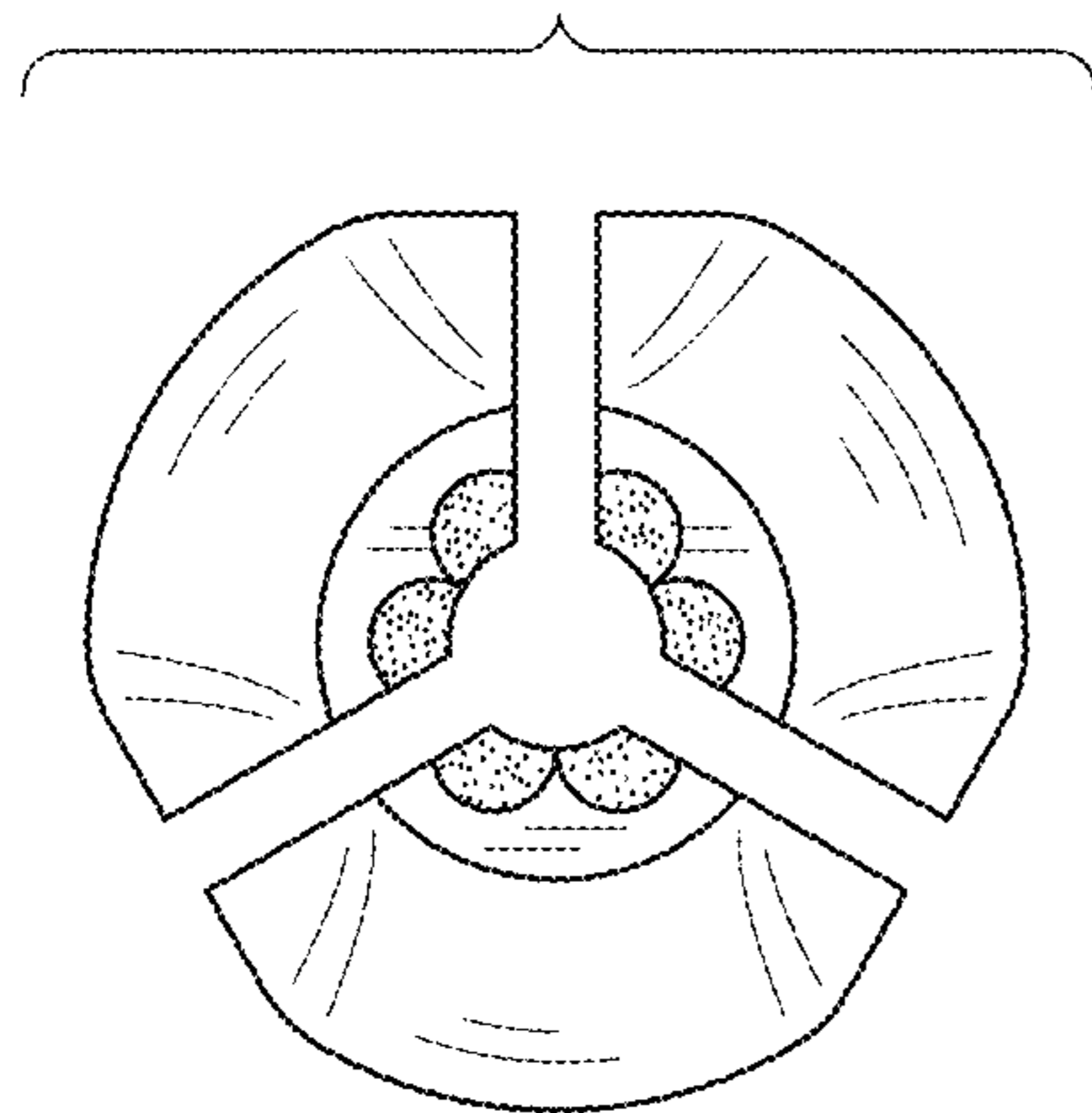


Fig. 4

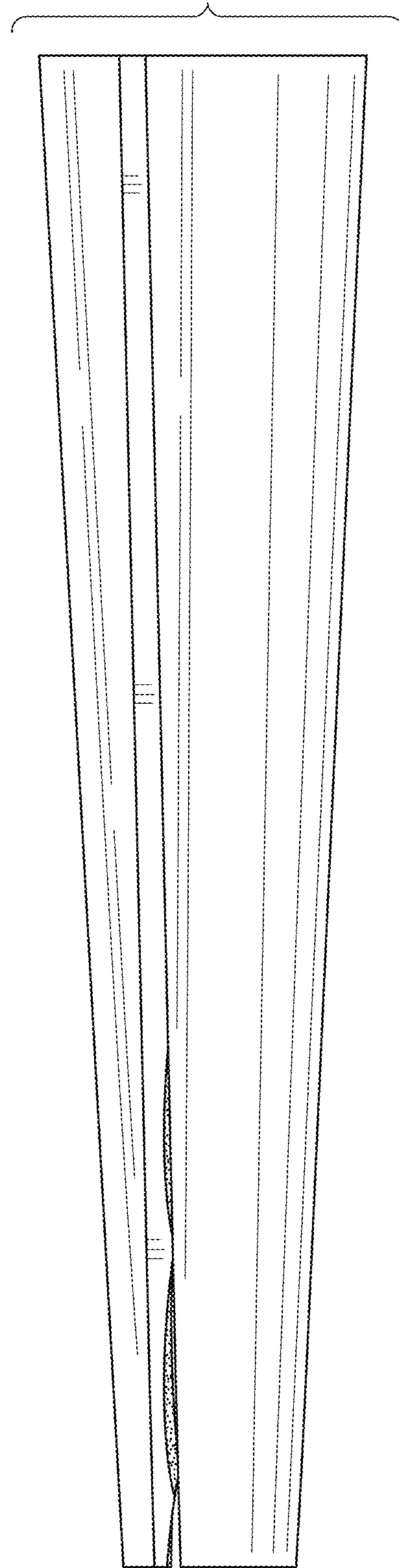


Fig. 6

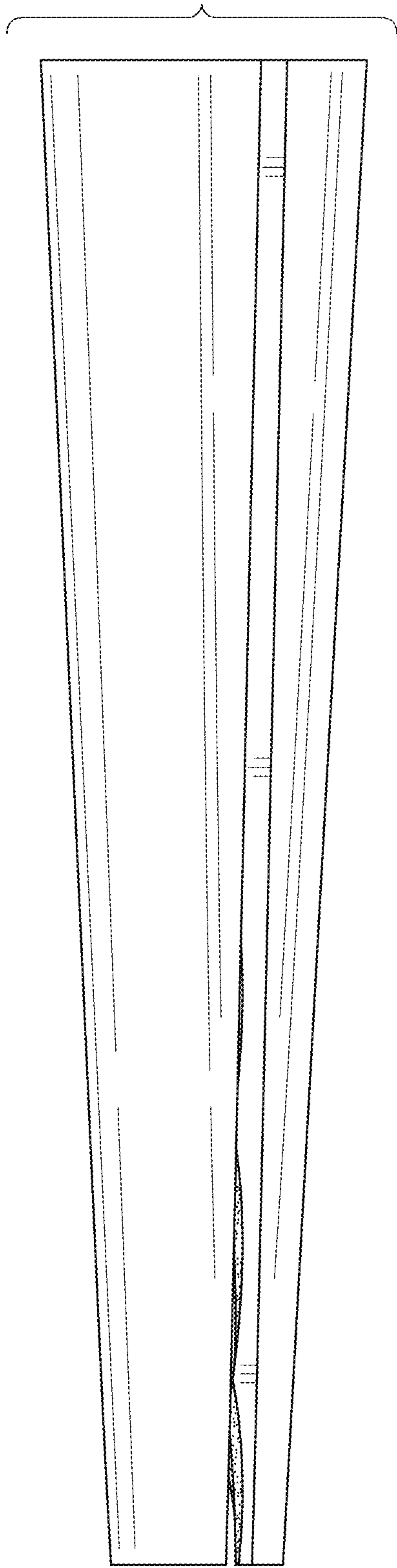


Fig. 7

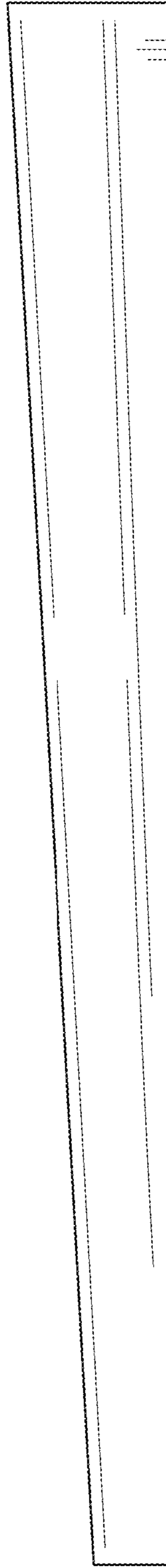


Fig. 8



Fig. 9

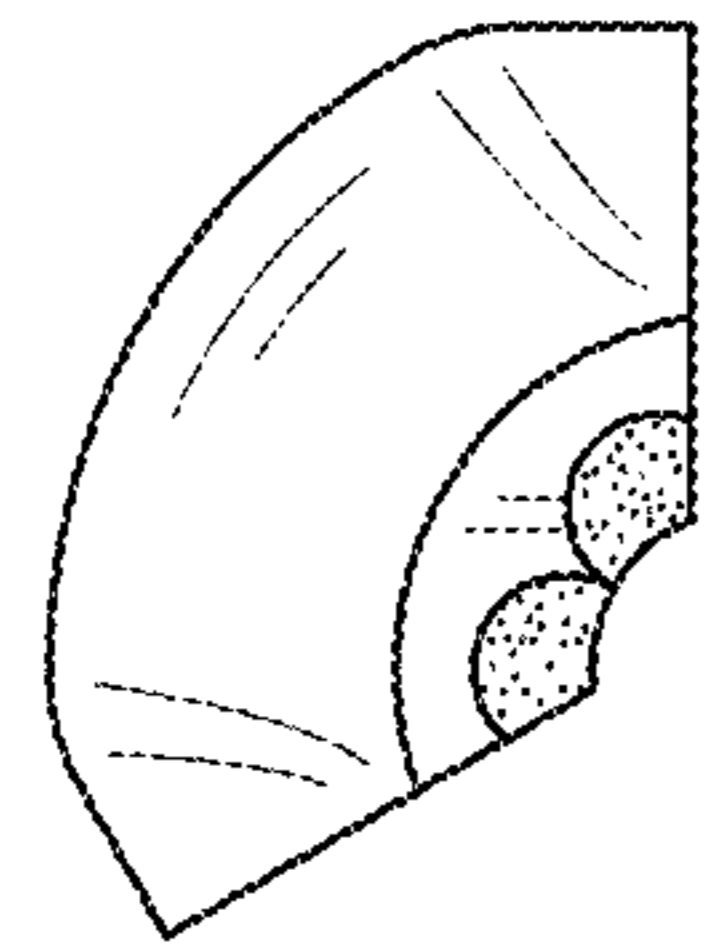


Fig. 10

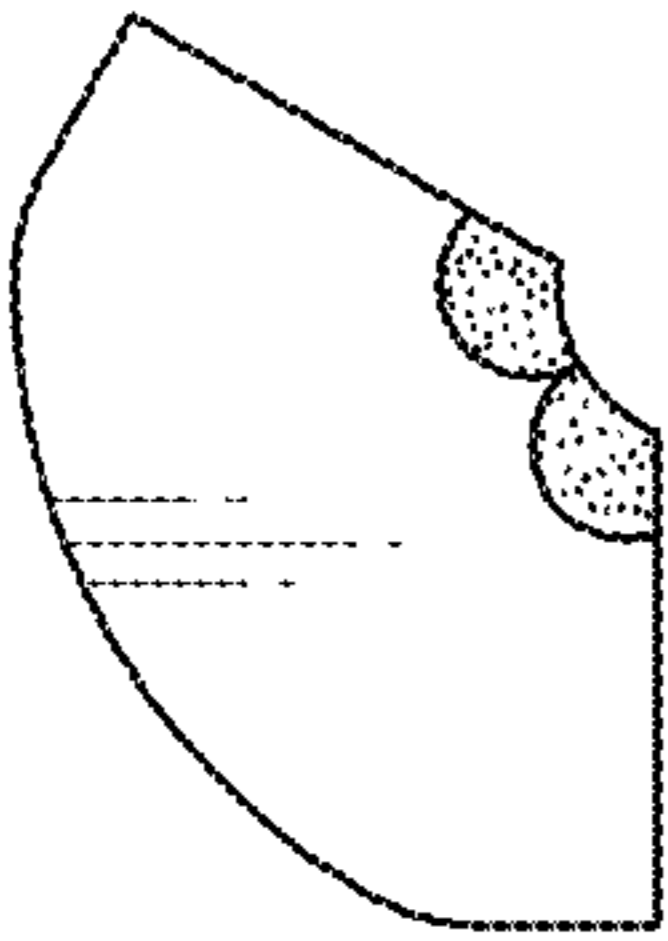


Fig. 11

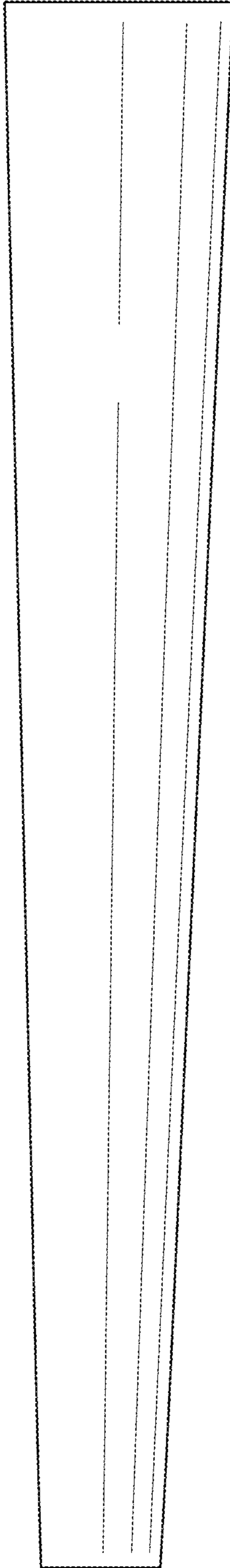


Fig. 12

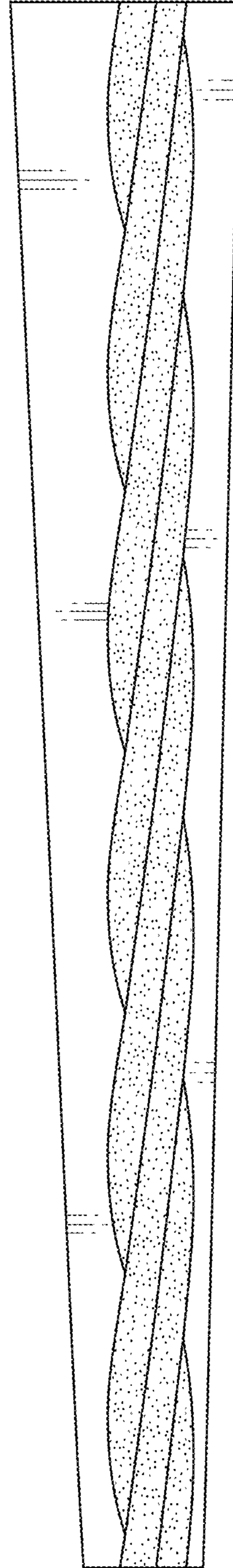


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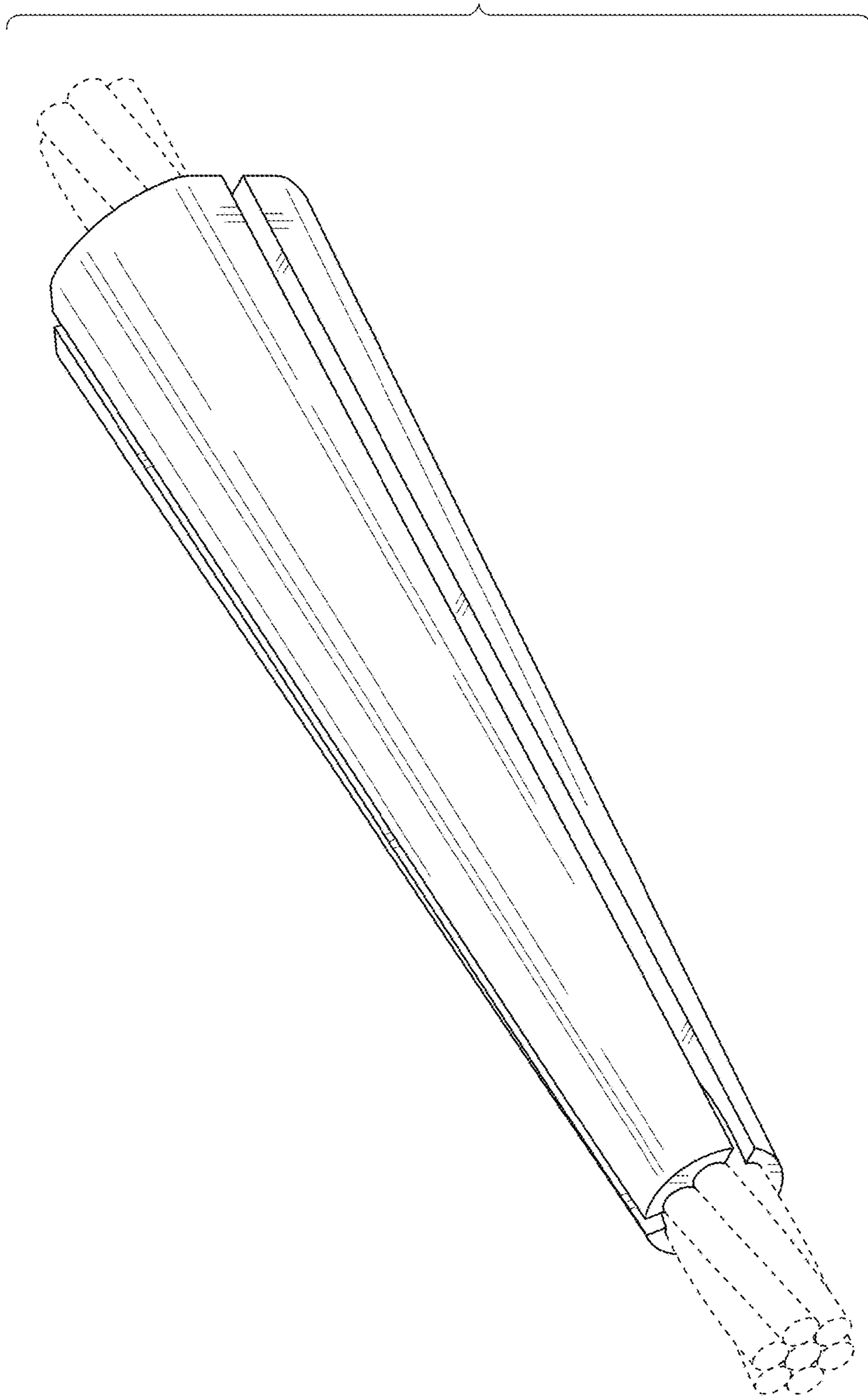


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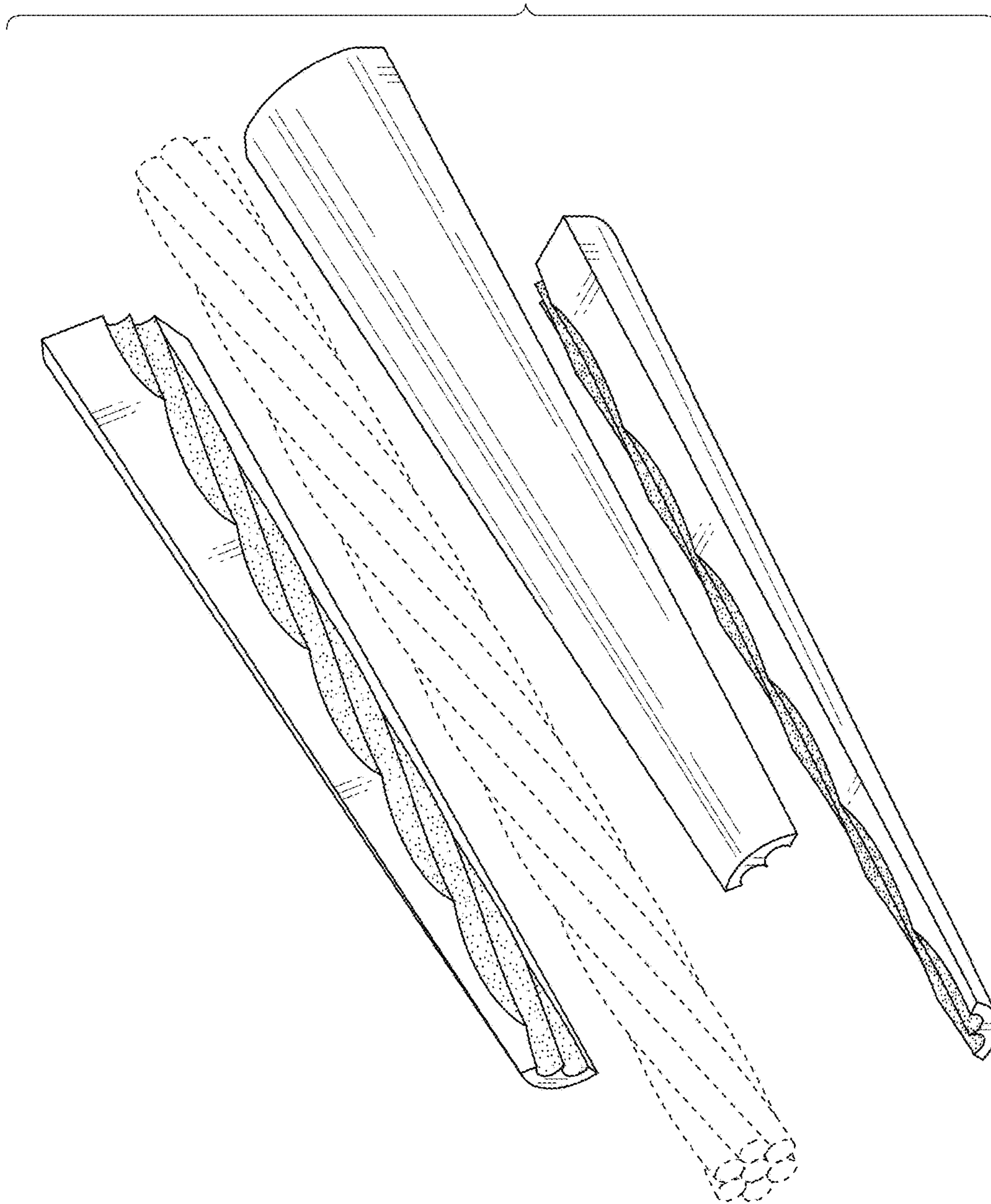


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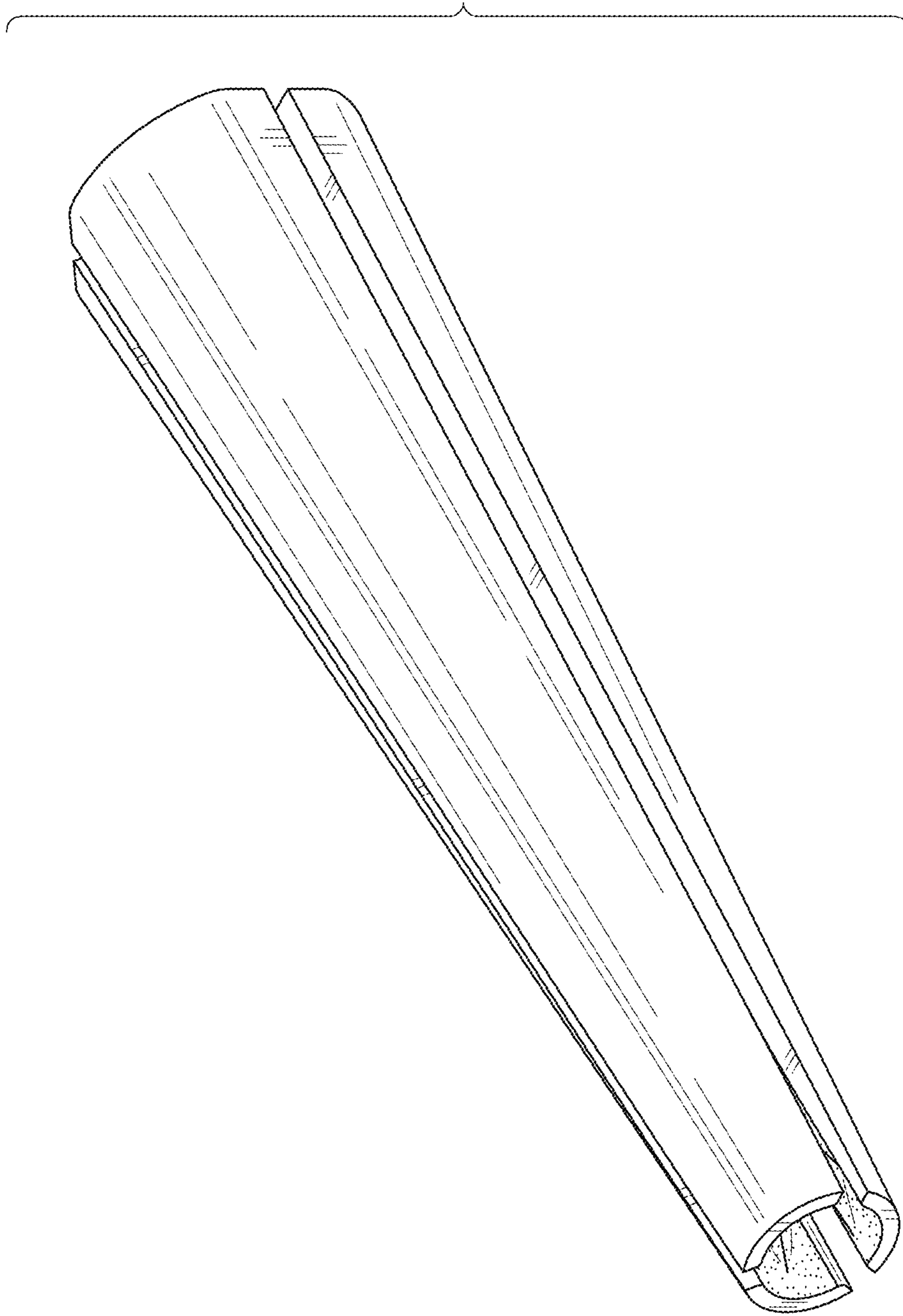


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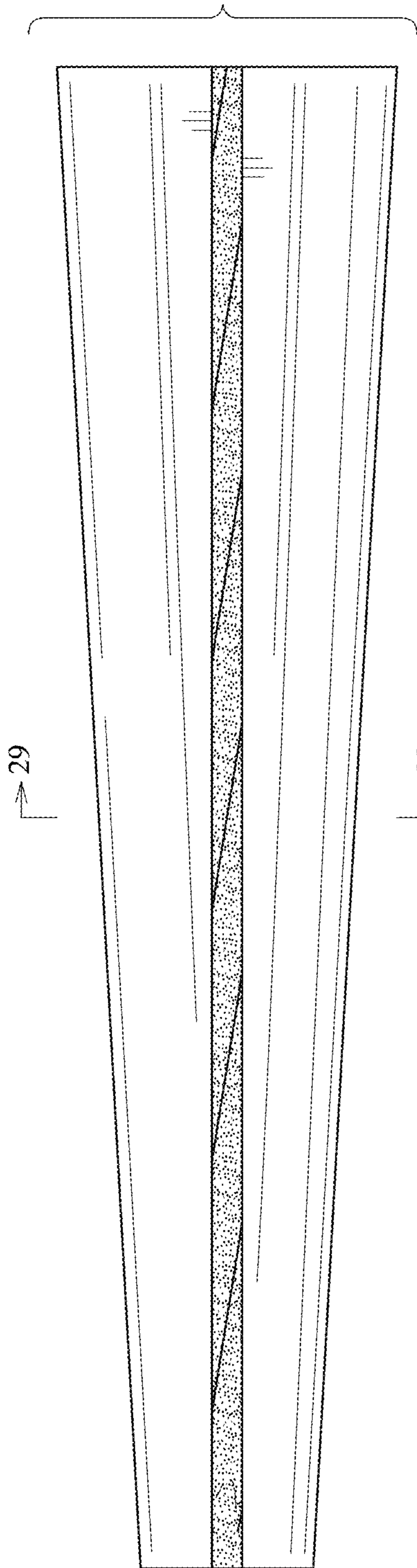


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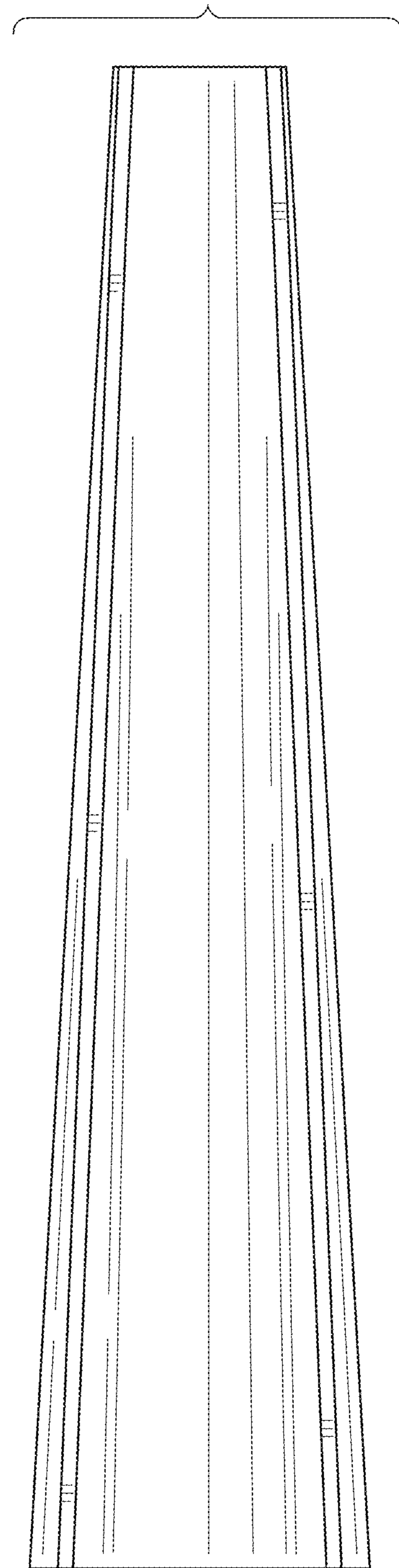


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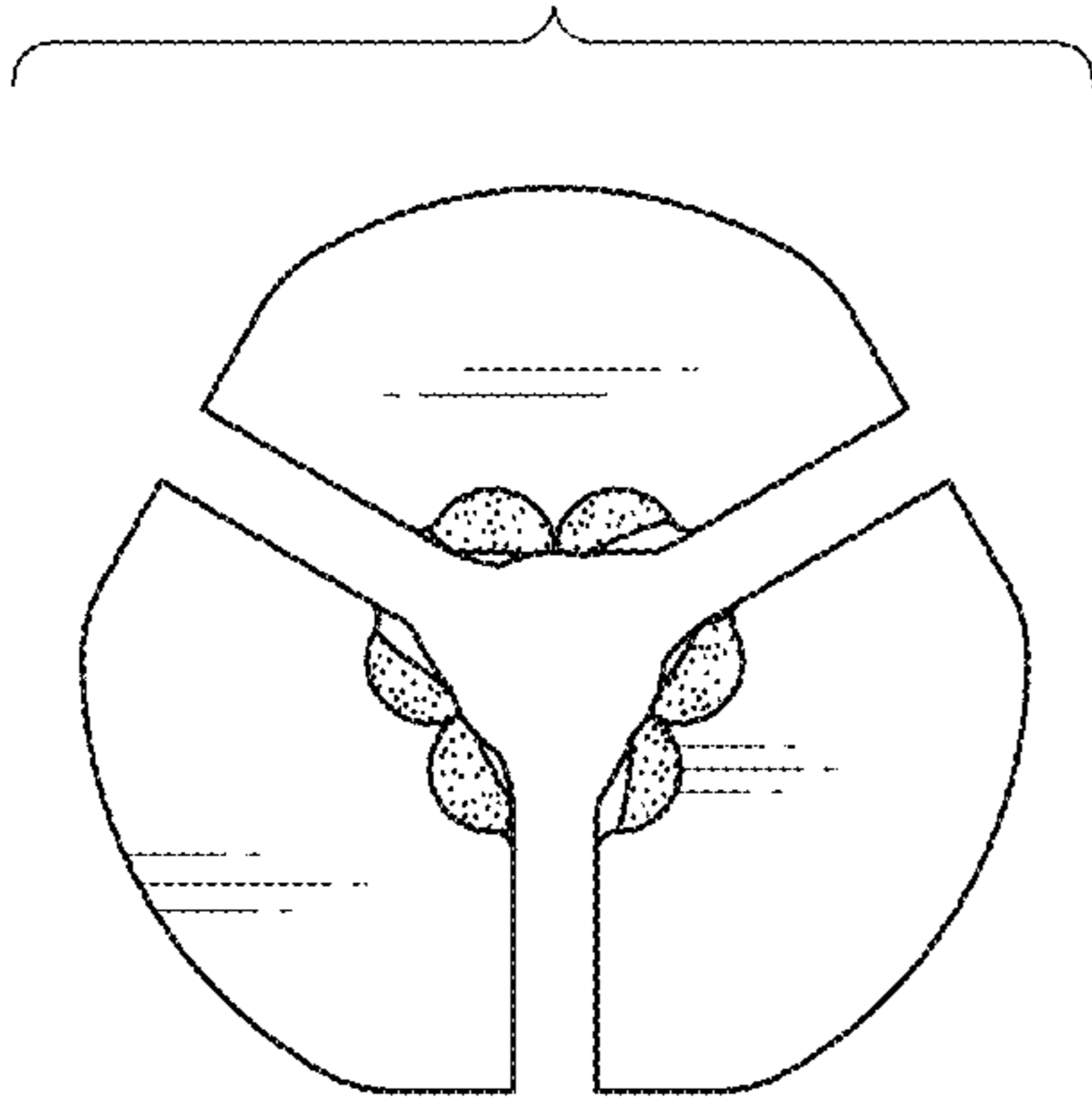


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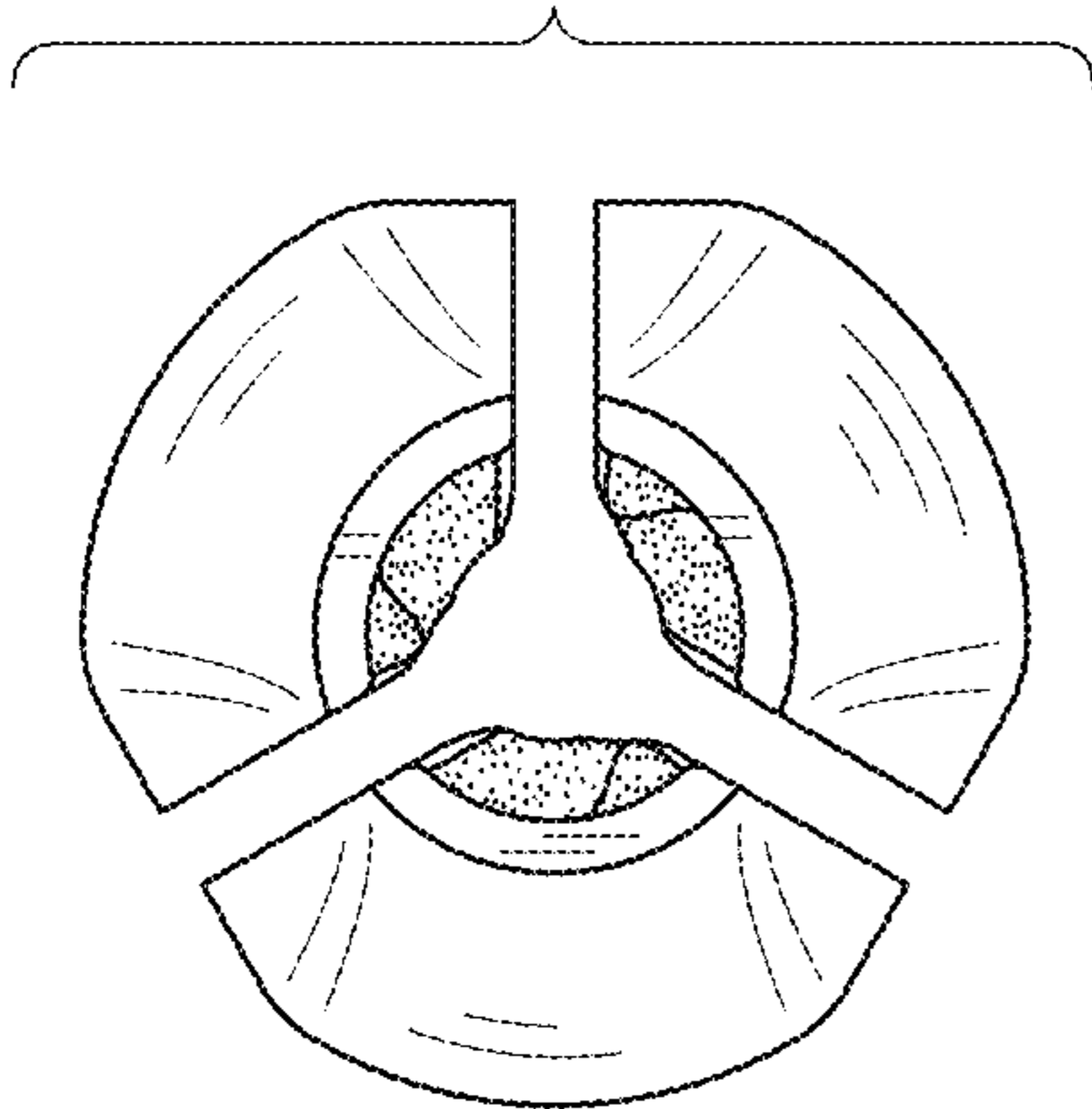


Fig. 20

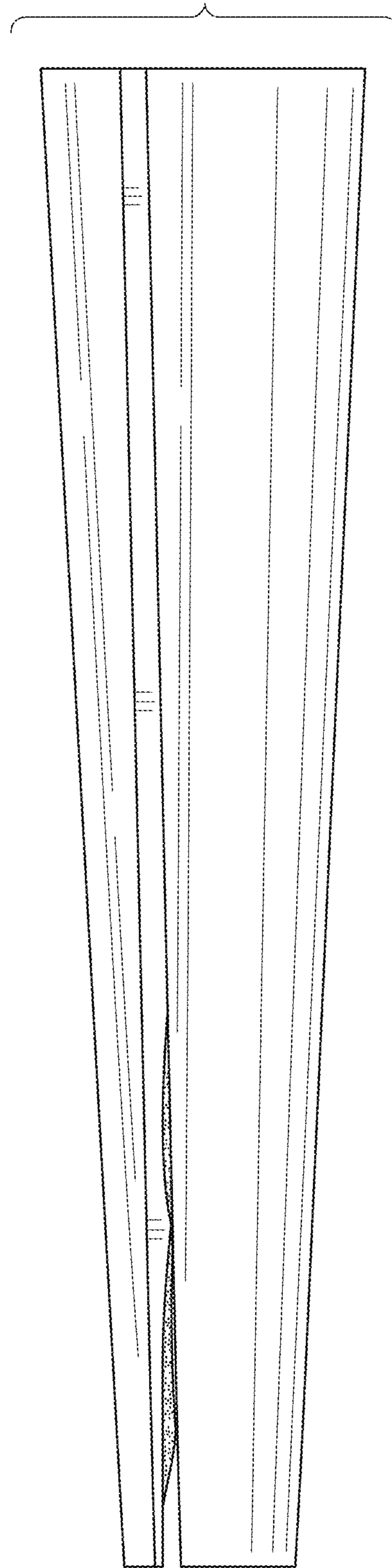


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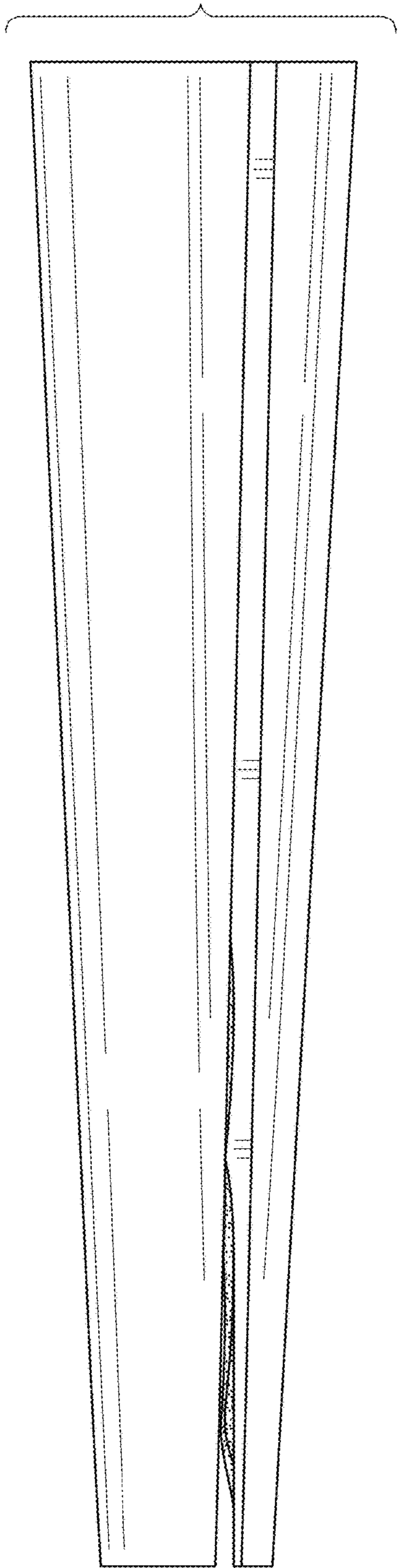


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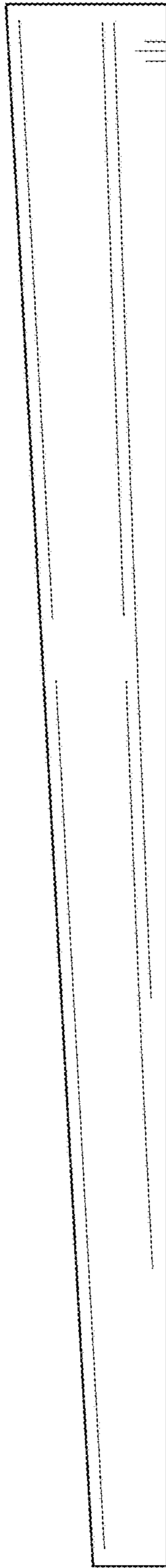


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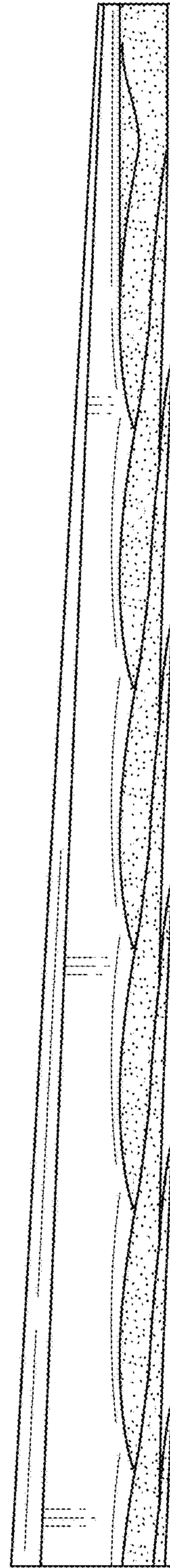


Fig. 24

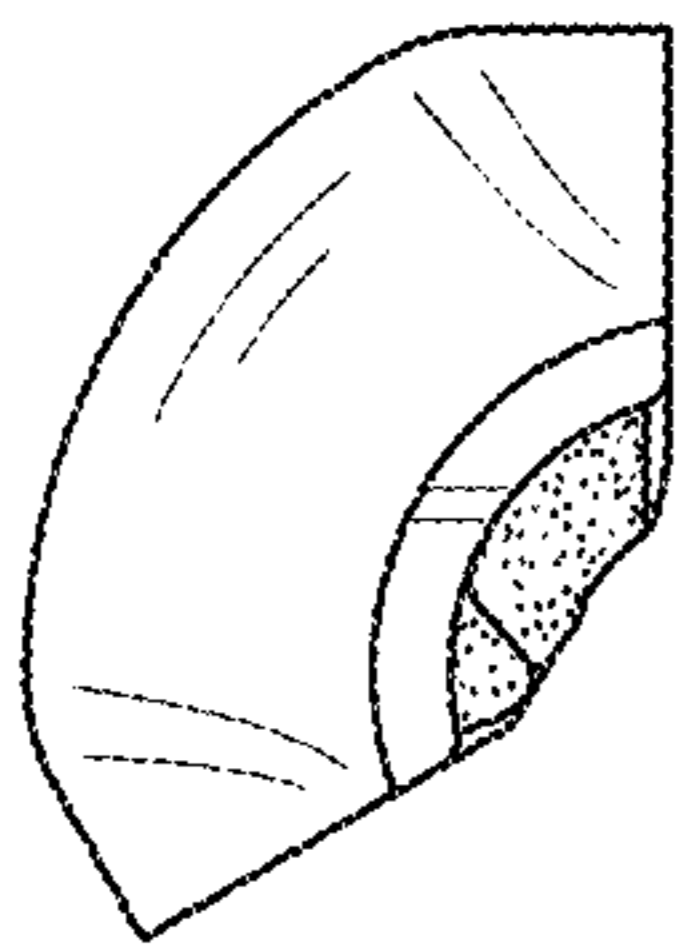


Fig. 25

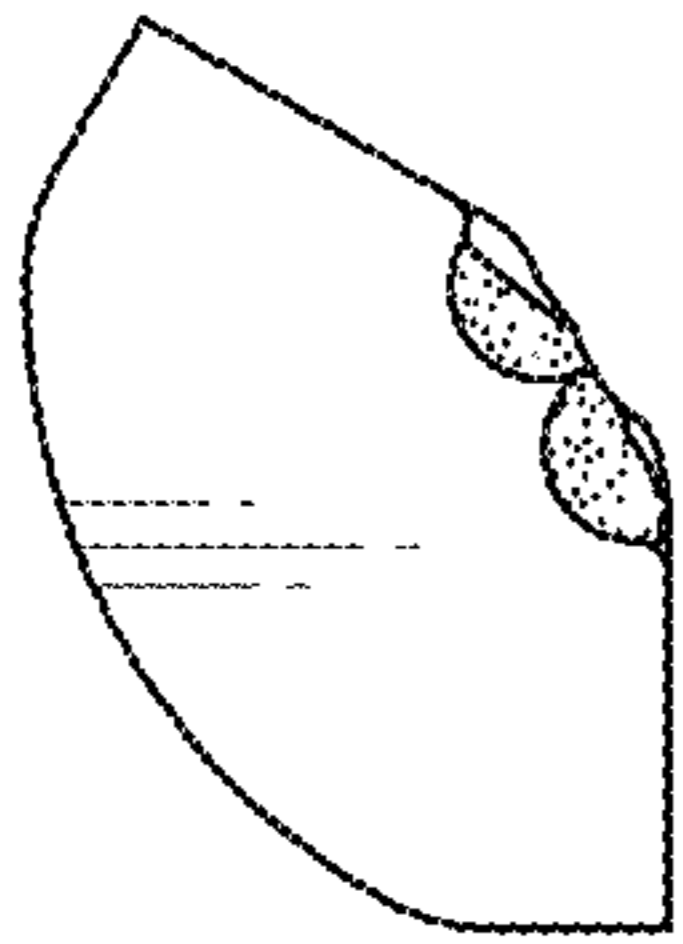


Fig. 26

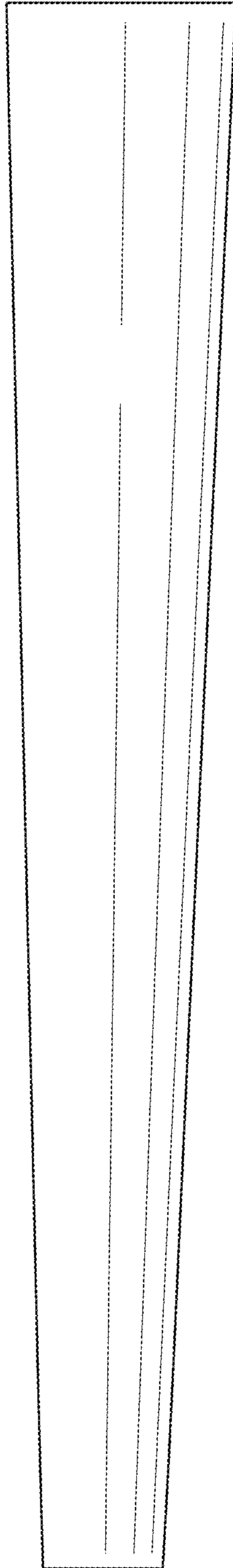


Fig. 27

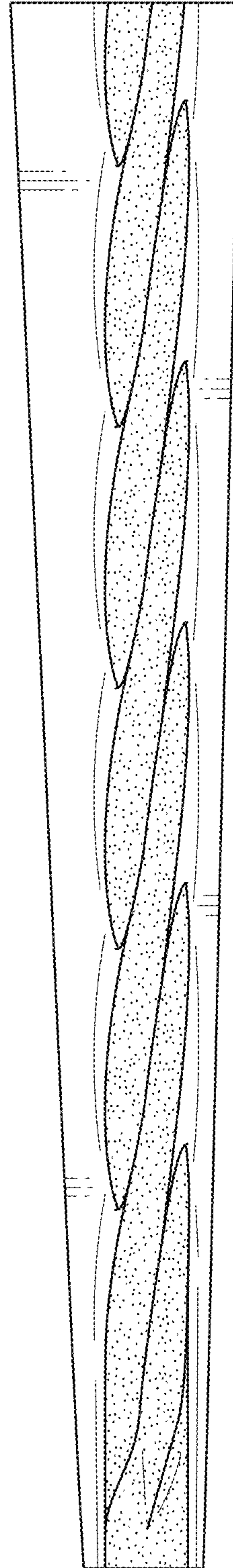


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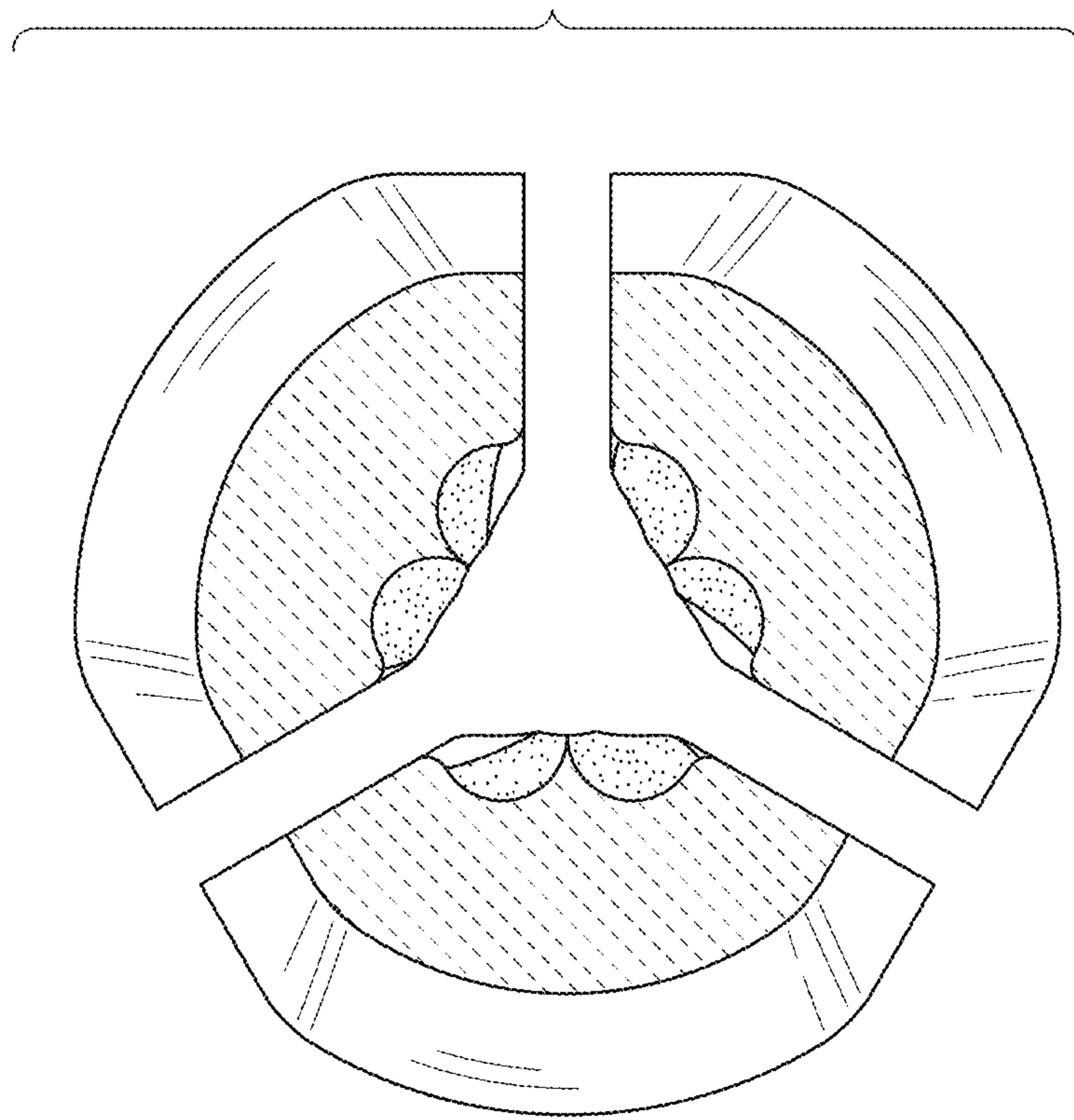


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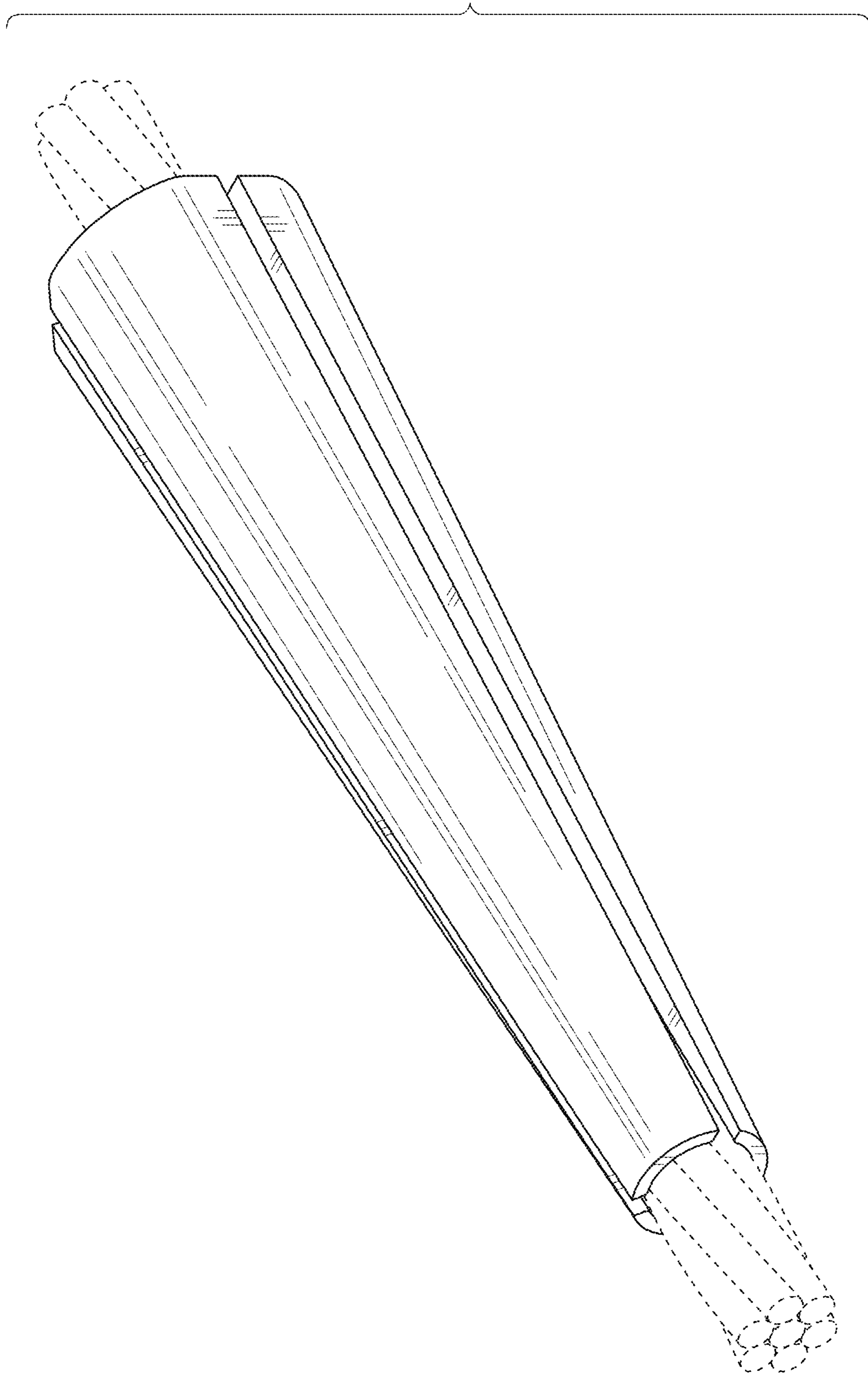


Fig. 30

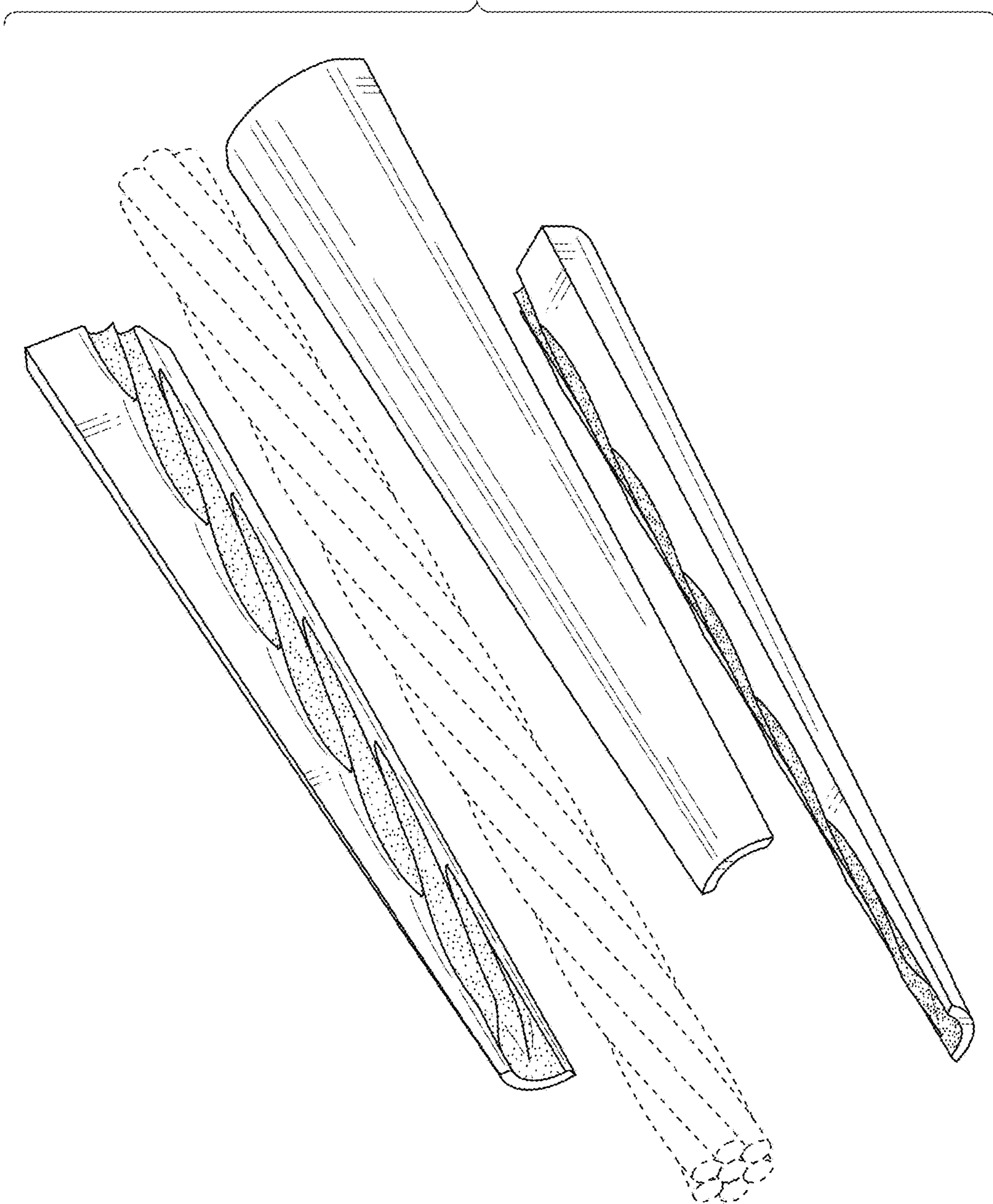


Fig. 31