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(12) United States Design Patent

Yamazaki et al.

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(54) **REACTION TUBE**

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(73) Assignee: **HITACHI KOKUSAI ELECTRIC INC.**, Tokyo (JP)

(**) Term: **14 Years**

(21) Appl. No.: **29/477,760**

(22) Filed: **Dec. 26, 2013**

(30) **Foreign Application Priority Data**

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Jun. 28, 2013 (JP) 2013-014829
Jul. 8, 2013 (JP) 2013-015552

(51) **LOC (10) Cl.** **13-03**

(52) **U.S. Cl.**
USPC **D13/182**

(58) **Field of Classification Search**
USPC D13/182; 118/50, 722, 724, 733, 715, 118/725; 219/385, 390, 391, 411, 496, 486, 219/523; 432/239, 241, 247, 251, 253, 266; 110/185; 373/109, 110, 111
CPC F27D 11/00; F27D 11/02; F27D 11/04; H05B 3/62; H05B 3/64; H05B 3/66; H05B 3/023; H05B 3/06; H05B 3/026; F27B 14/04; F27B 14/06; H01J 49/0468; H01L 21/67098; H01L 21/67103; H01L 21/67109; H01L 21/67115; C23C 16/455; C23C 16/45502; C23C 16/46
See application file for complete search history.

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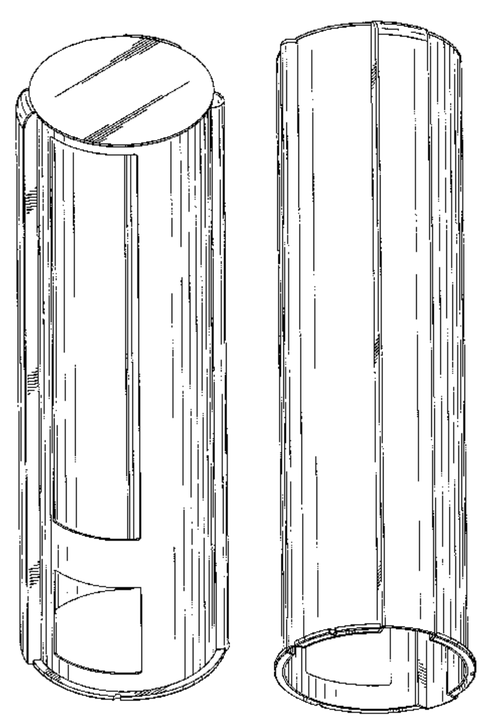
(57) **CLAIM**

We claim the ornamental design for a reaction tube, as shown and described.



DESCRIPTION

FIG. **1** is a front, top and right side perspective view of a first embodiment of a reaction tube showing our new design;
FIG. **2** is a rear, bottom and left side perspective view thereof;
FIG. **3** is a front elevational view thereof;
FIG. **4** is a rear elevational view thereof;
FIG. **5** is a left side elevational view thereof;
FIG. **6** is a right side elevational view thereof;
FIG. **7** is a top plan view thereof;
FIG. **8** is a bottom plan view thereof;
FIG. **9** is a cross sectional view taken along line **9-9** in FIG. **3**;
FIG. **10** is a cross sectional view taken along line **10-10** in FIG. **7**;
FIG. **11** is an enlarged portion view taken along line **11-11** in FIG. **9**;
FIG. **12** is a front, top and right side perspective view of a second embodiment of a reaction tube showing our new design;
FIG. **13** is a rear, bottom and left side perspective view thereof;
FIG. **14** is a front elevational view thereof;
FIG. **15** is a rear elevational view thereof;
FIG. **16** is a left side elevational view thereof;
FIG. **17** is a right side elevational view thereof;
FIG. **18** is a top plan view thereof;
FIG. **19** is a bottom plan view thereof;
FIG. **20** is a cross sectional view taken along line **20-20** in FIG. **14**;
FIG. **21** is a cross sectional view taken along line **21-21** in FIG. **18**;
FIG. **22** is an enlarged portion view taken along line **22-22** in FIG. **20**;
FIG. **23** is a front, top, and right side perspective view of a third embodiment of a reaction tube showing our new design;
FIG. **24** is a rear, top and left side perspective view thereof;
FIG. **25** is a front elevational view thereof;
FIG. **26** is a rear elevational view thereof;
FIG. **27** is a left side elevational view thereof;
FIG. **28** is a right side elevational view thereof;
FIG. **29** is a top plan view thereof;
FIG. **30** is a bottom plan view thereof;
FIG. **31** is an enlarged cross sectional view taken along line **31-31** in FIG. **25**;
FIG. **32** is an enlarged cross sectional view taken along line **32-32** in FIG. **25**; and,
FIG. **33** is a cross sectional view taken along line **33-33** in FIG. **29**.
The broken lines shown in the drawings represent portions of the reaction tube that form no part of the claimed design.

1 Claim, 18 Drawing Sheets

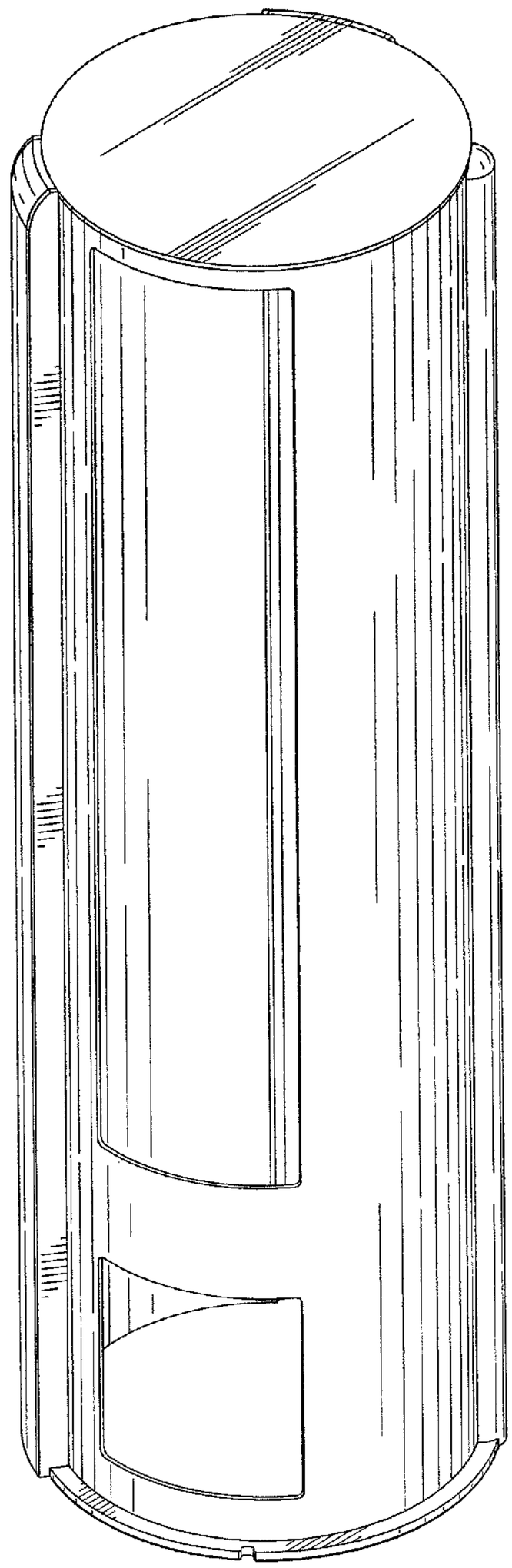


FIG. 1

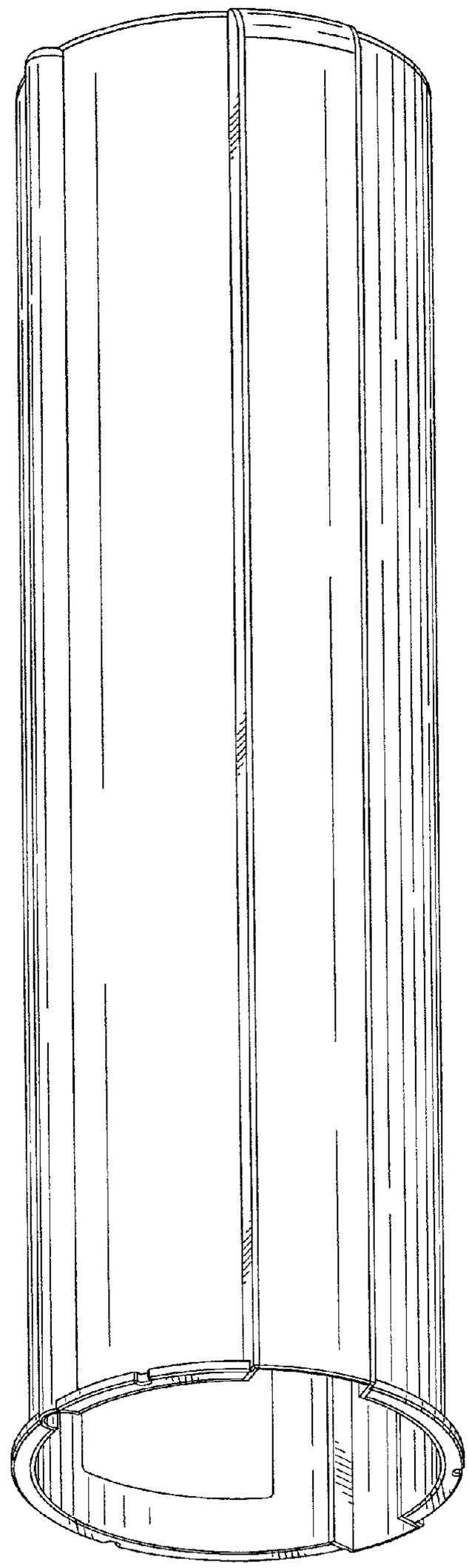


FIG. 2

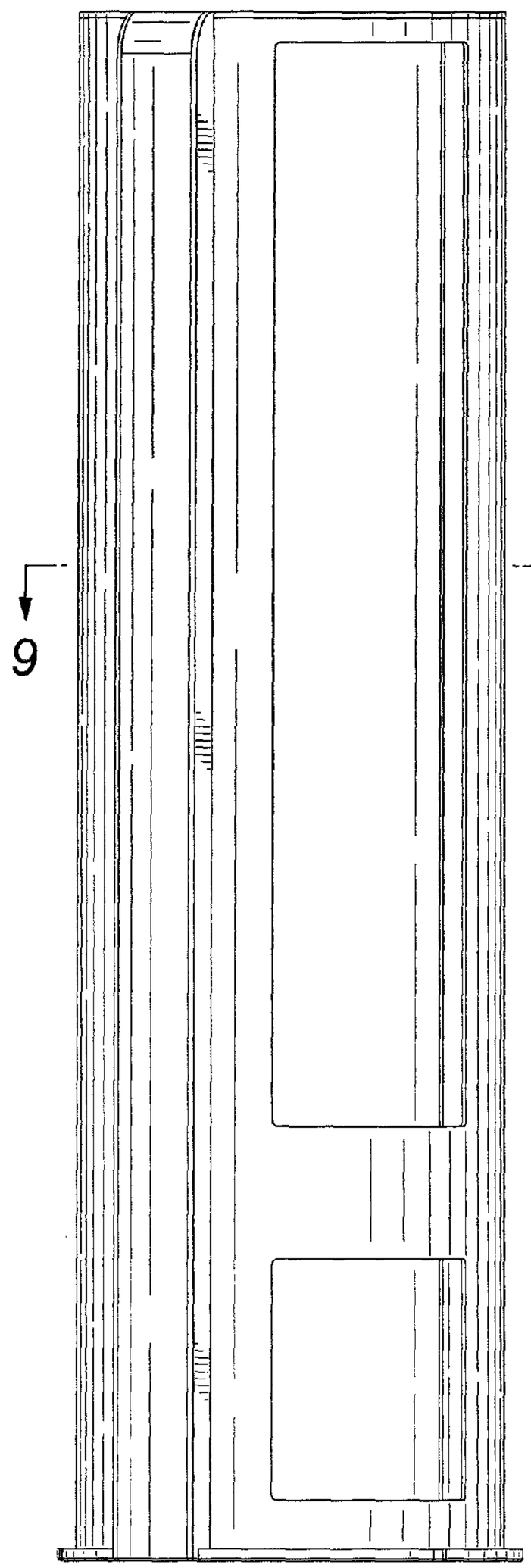
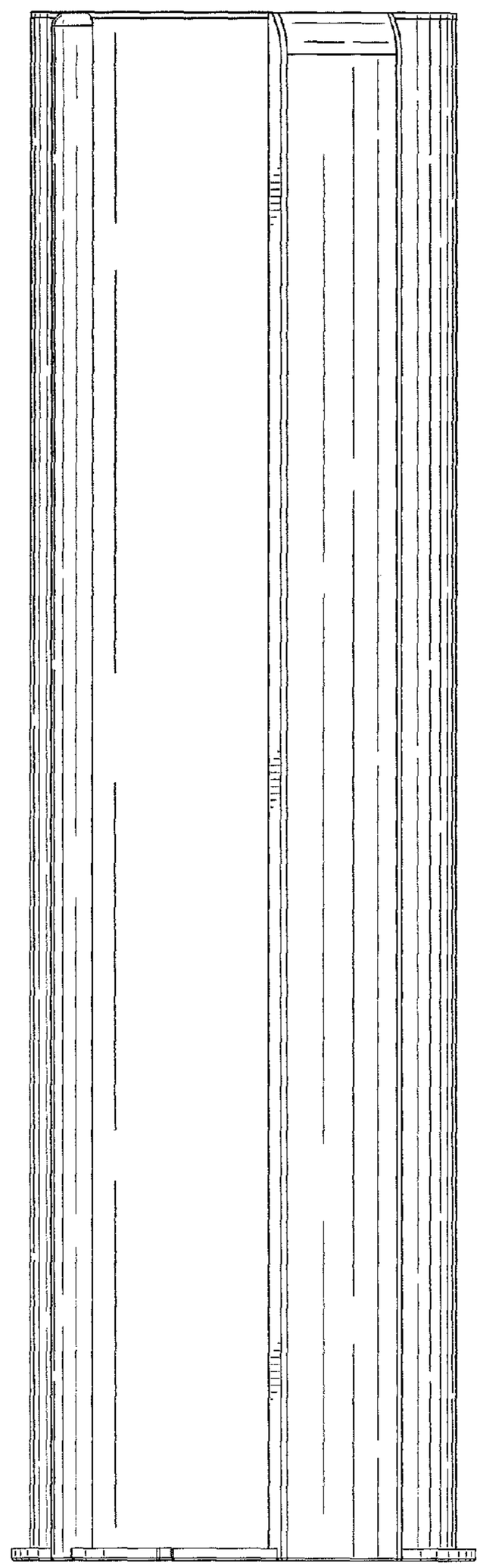


FIG. 3



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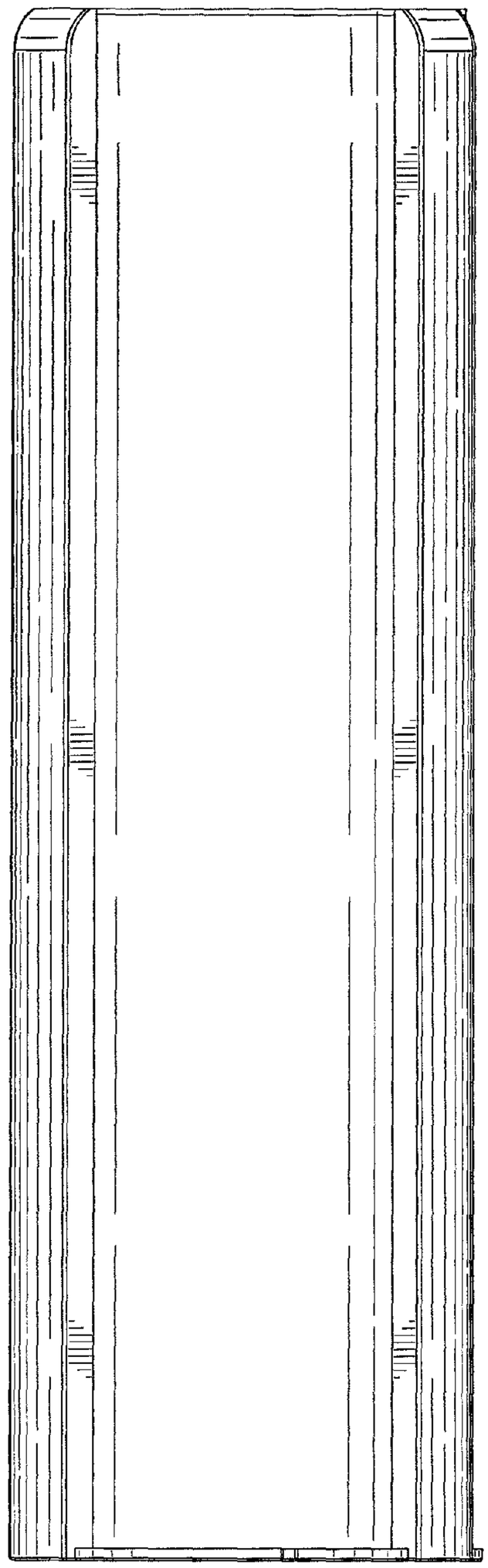
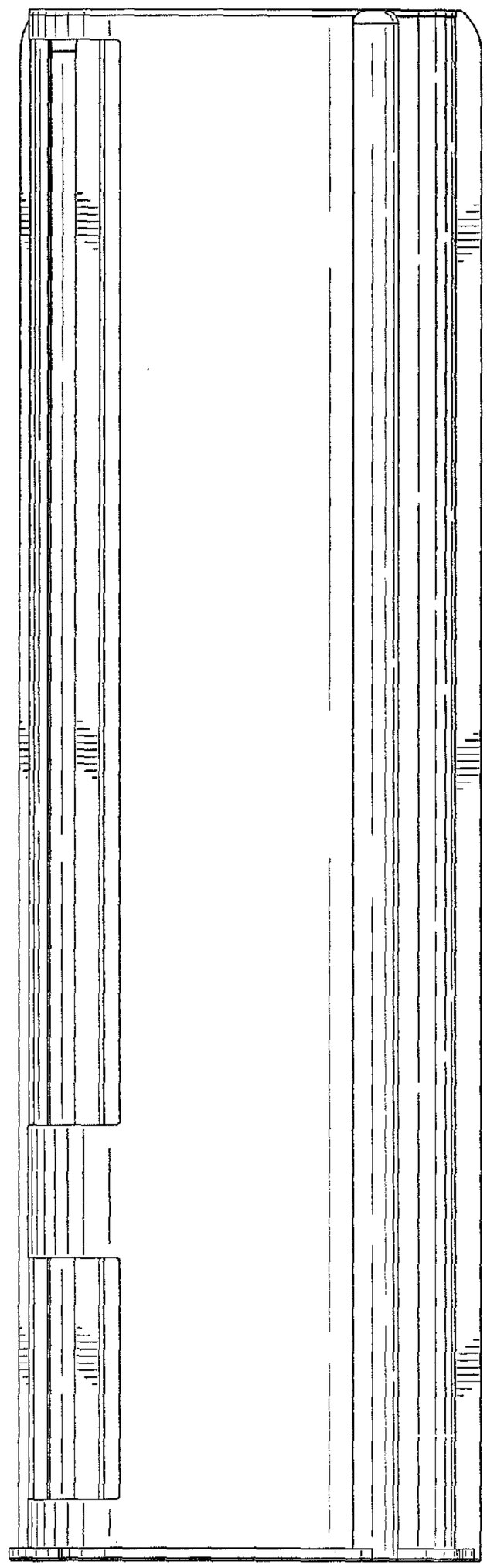


FIG. 5



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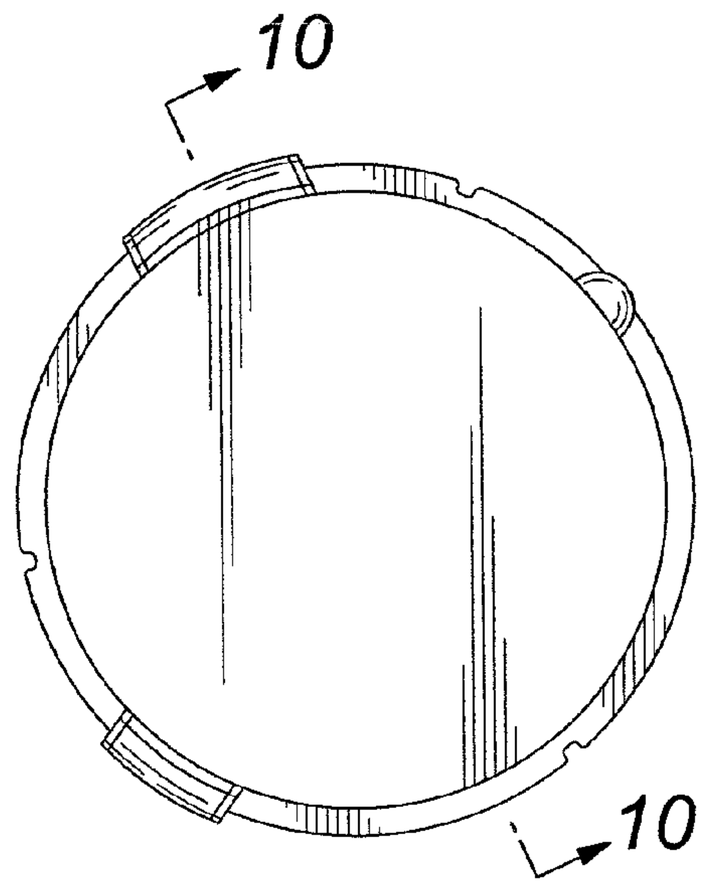


FIG. 7

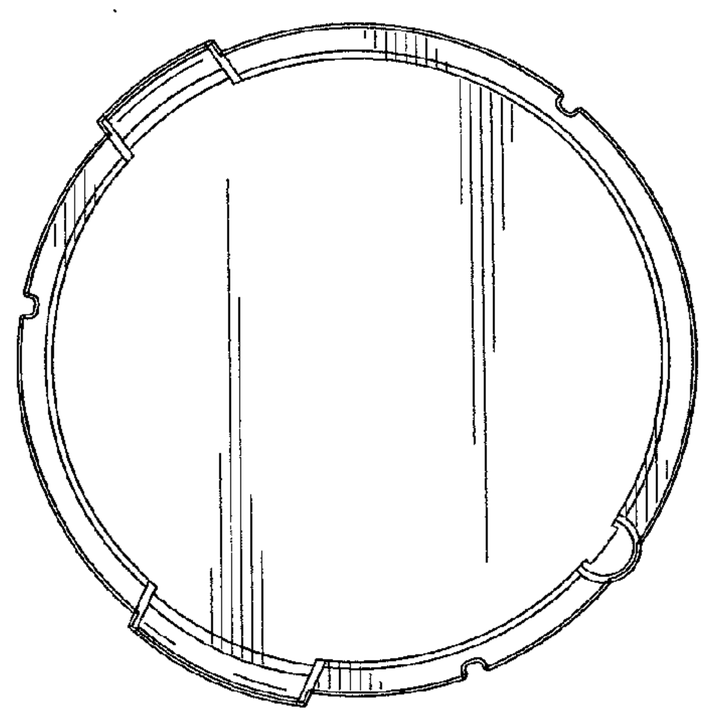
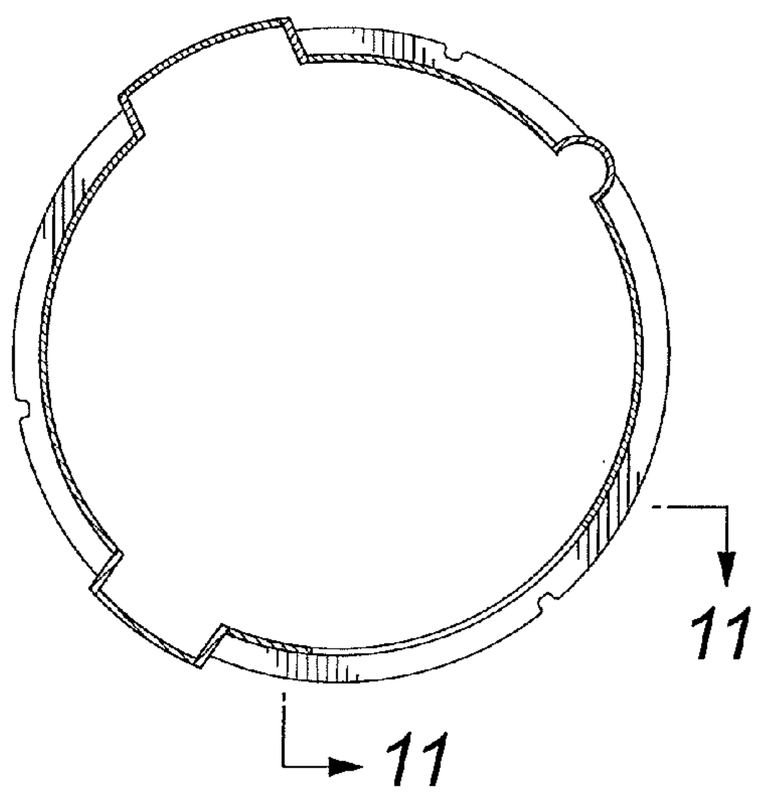


FIG. 8



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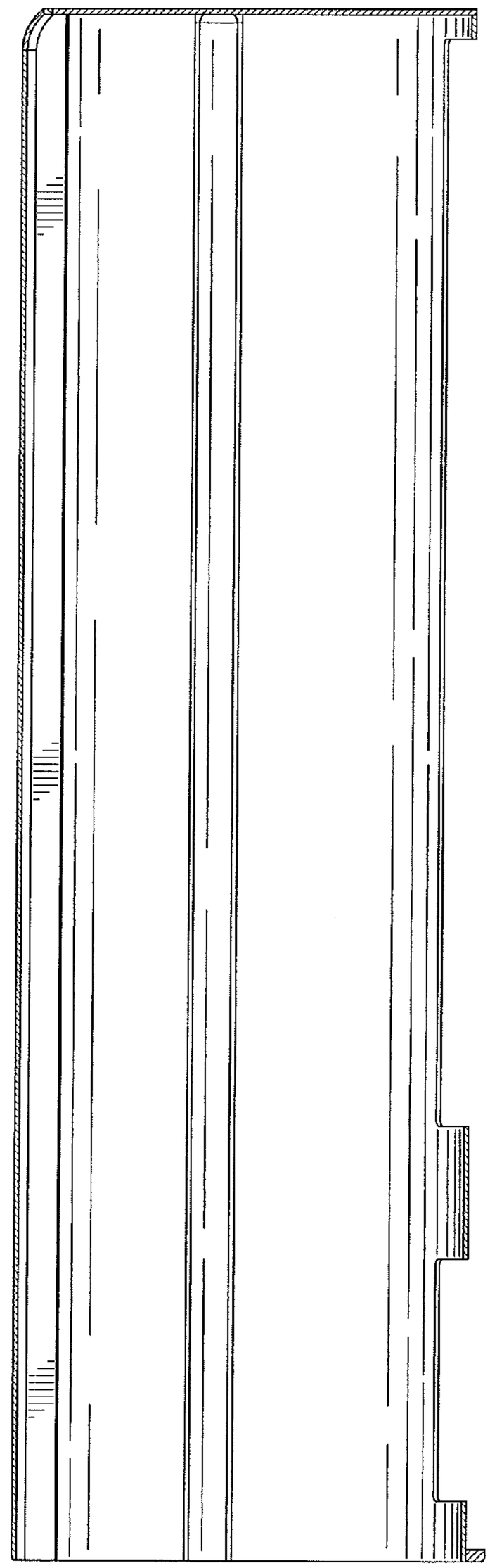


FIG. 10

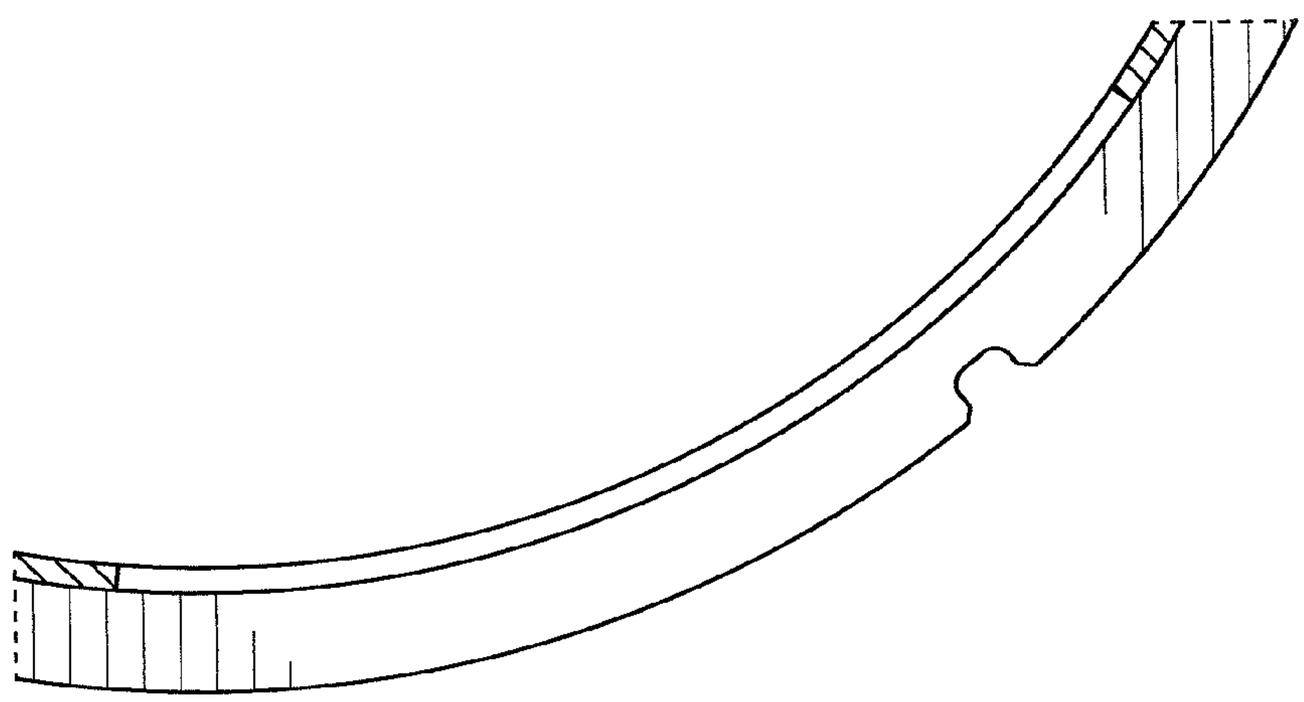


FIG. 11

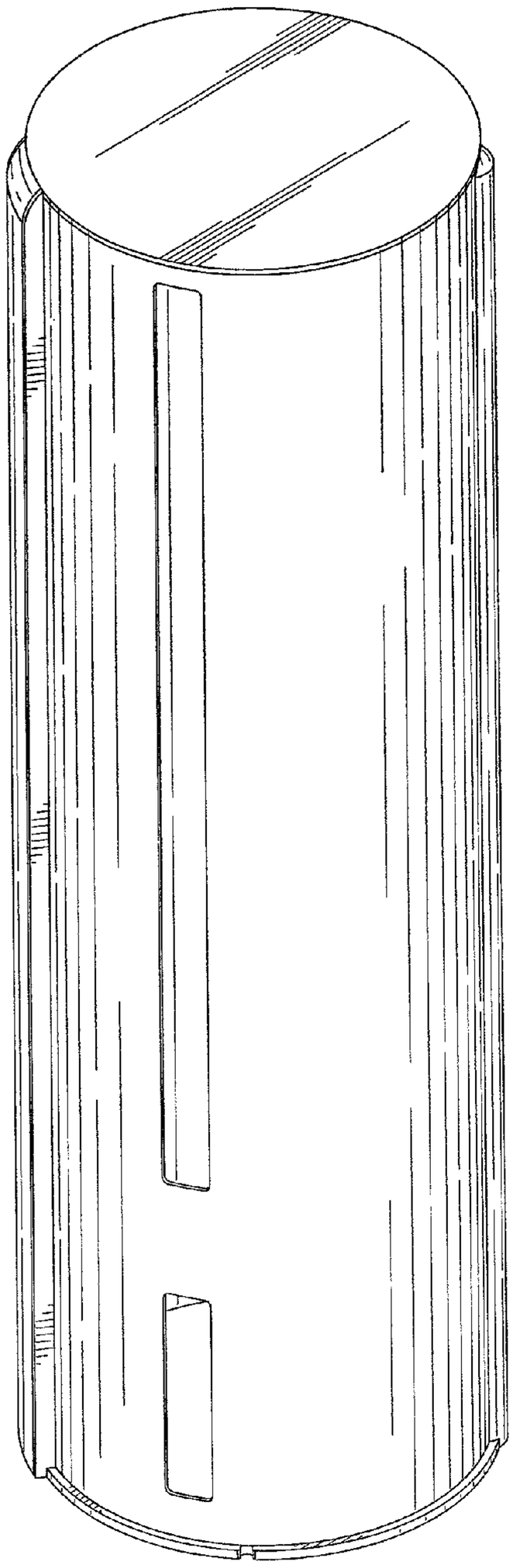


FIG. 12

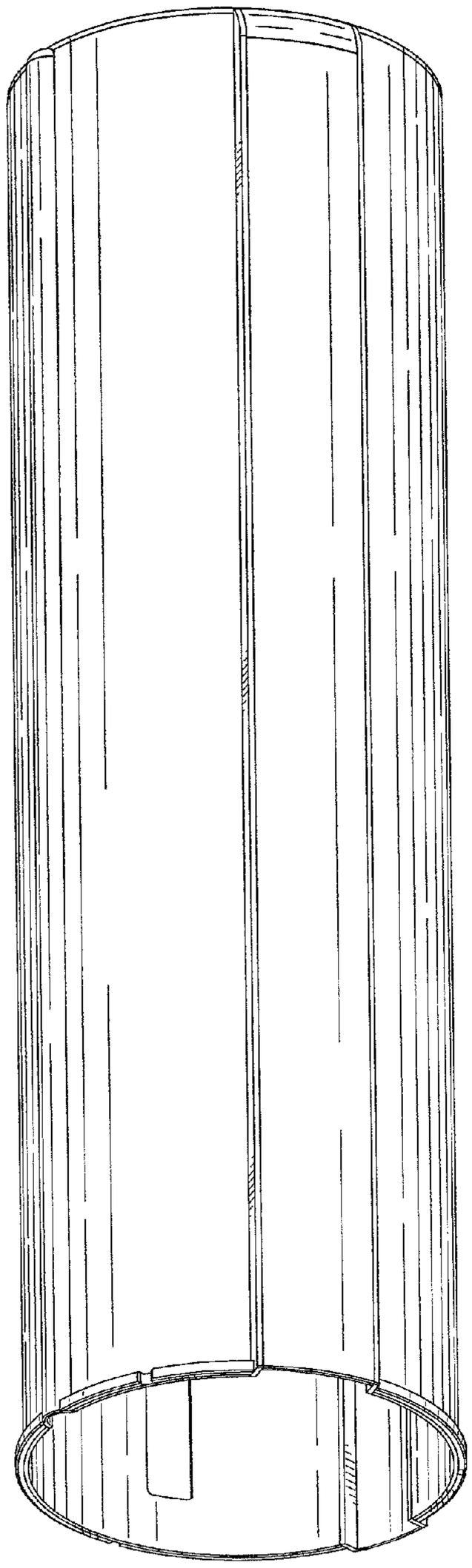


FIG. 13

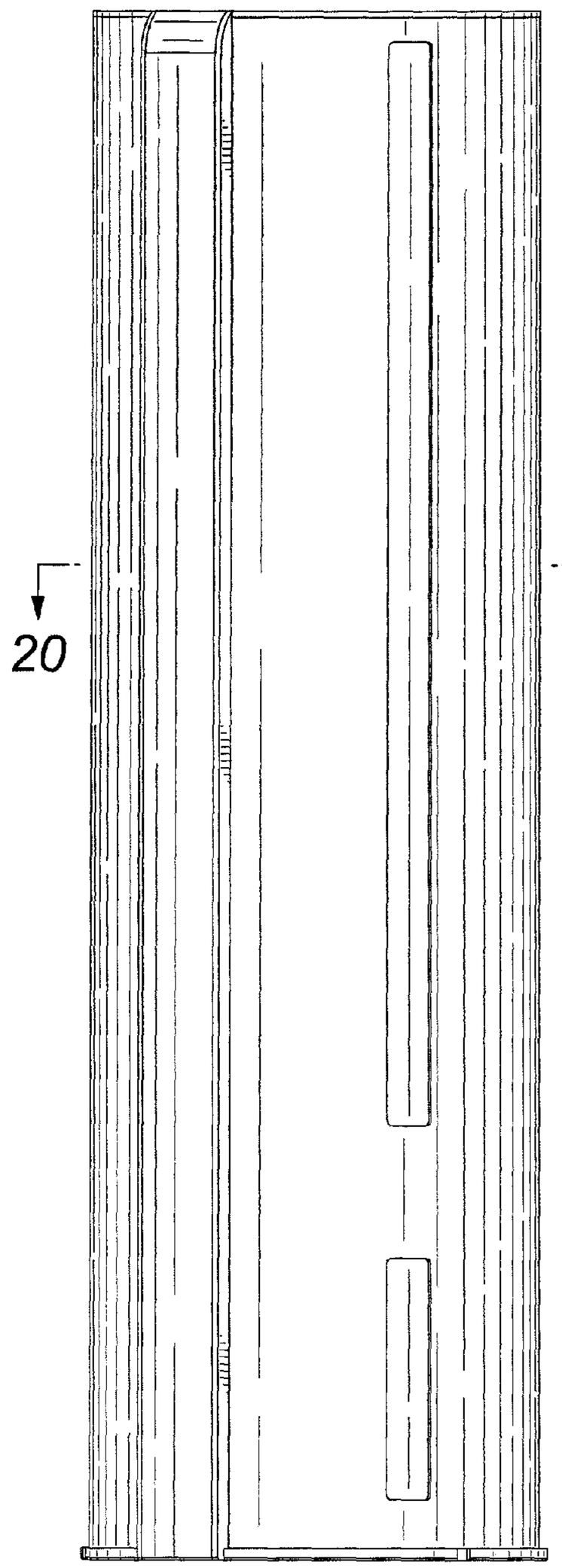


FIG. 14

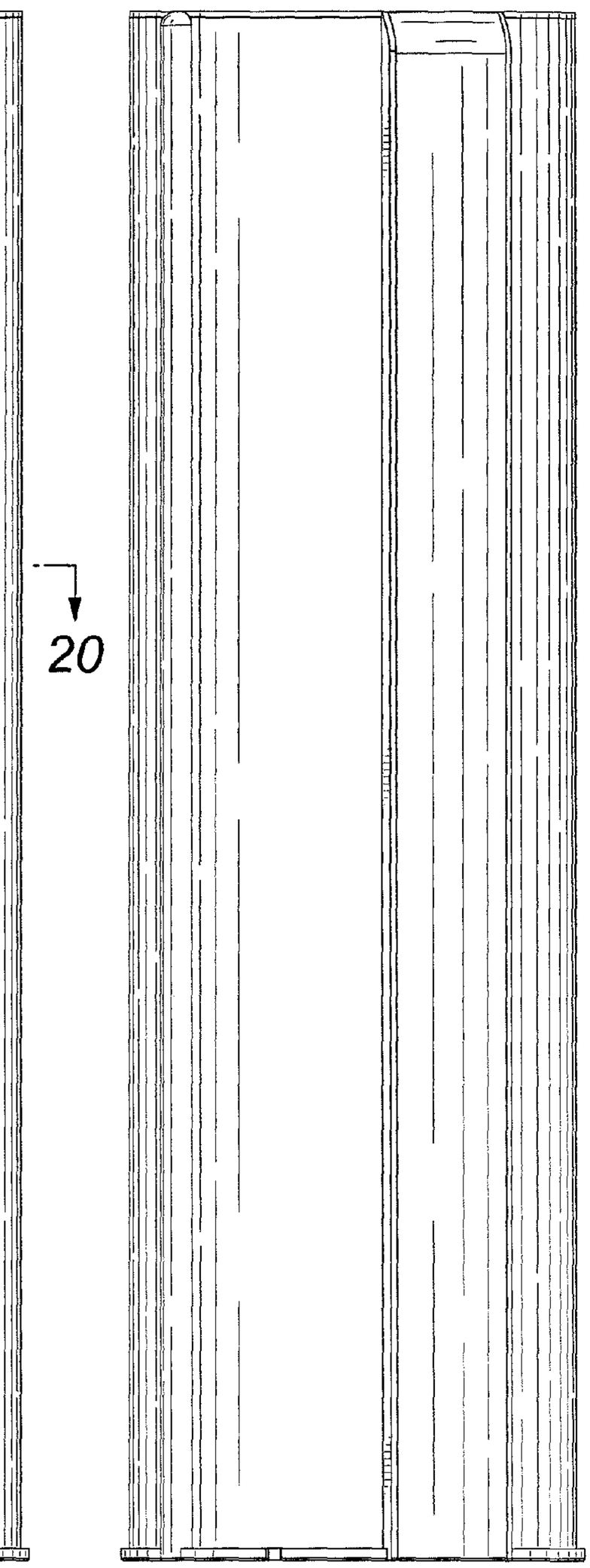


FIG. 15

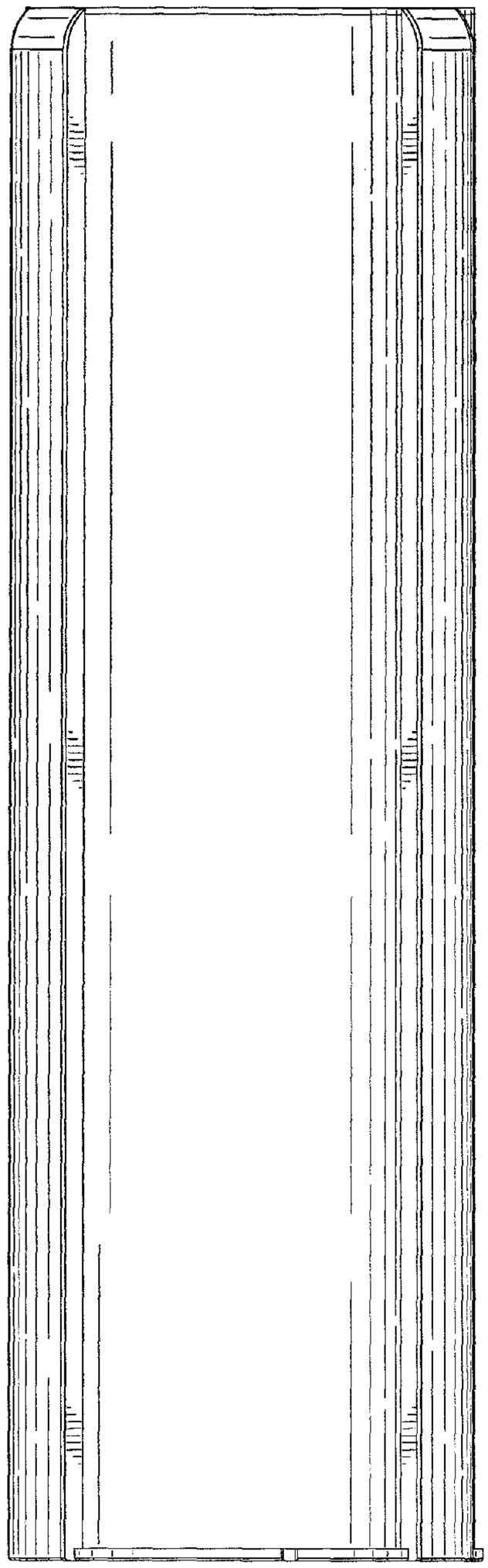


FIG. 16

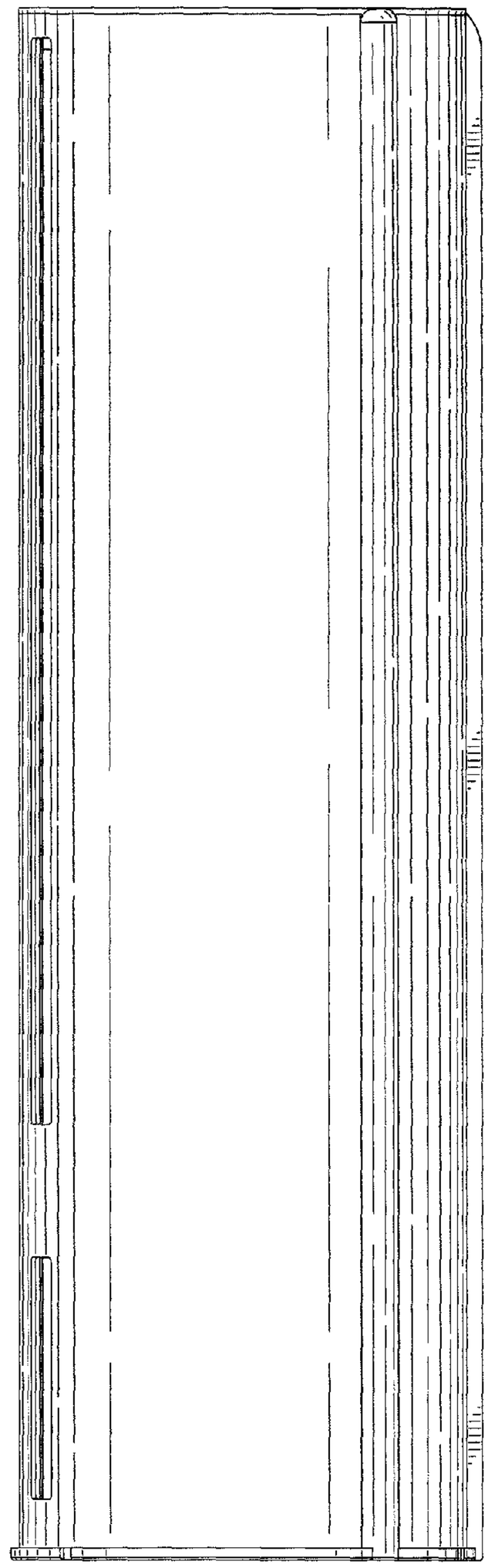


FIG. 17

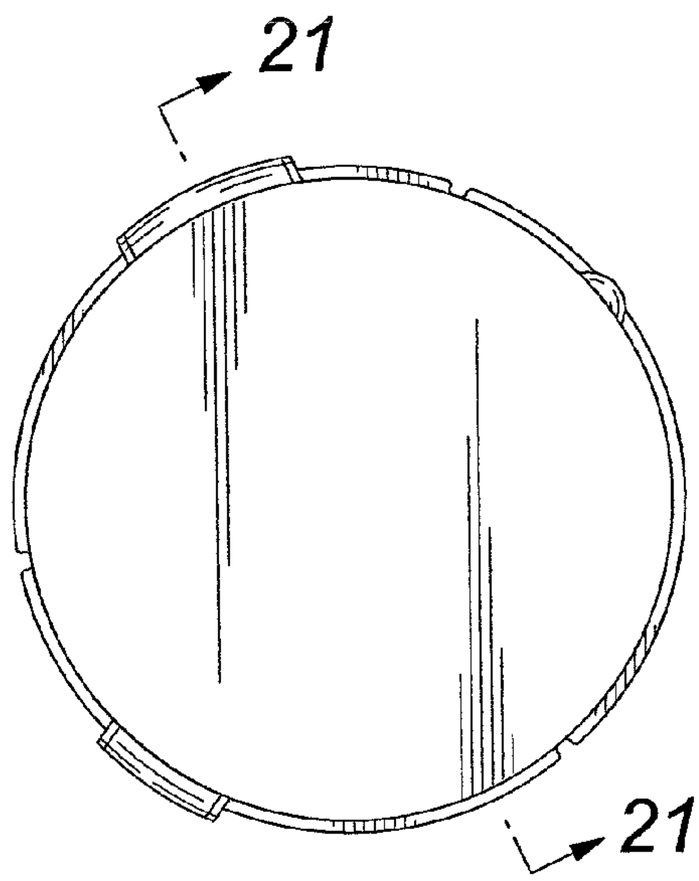


FIG. 18

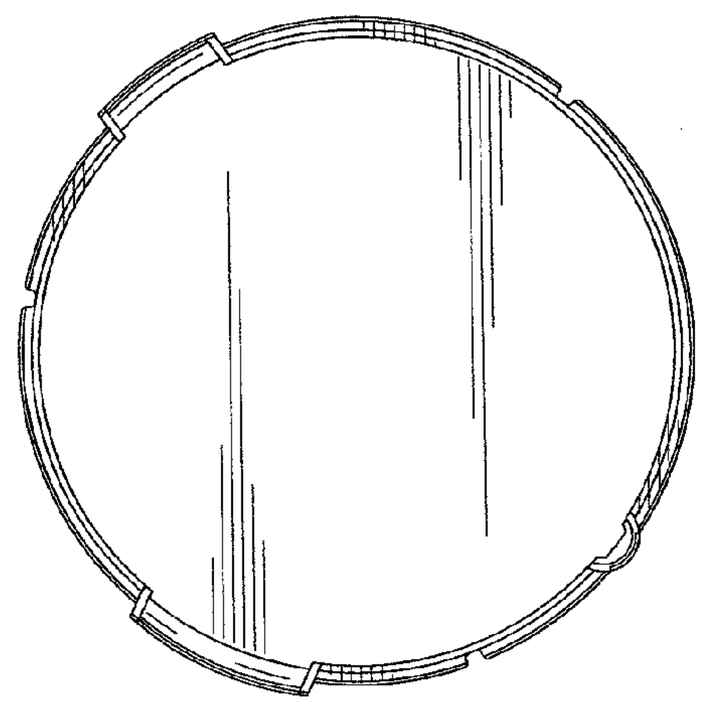


FIG. 19

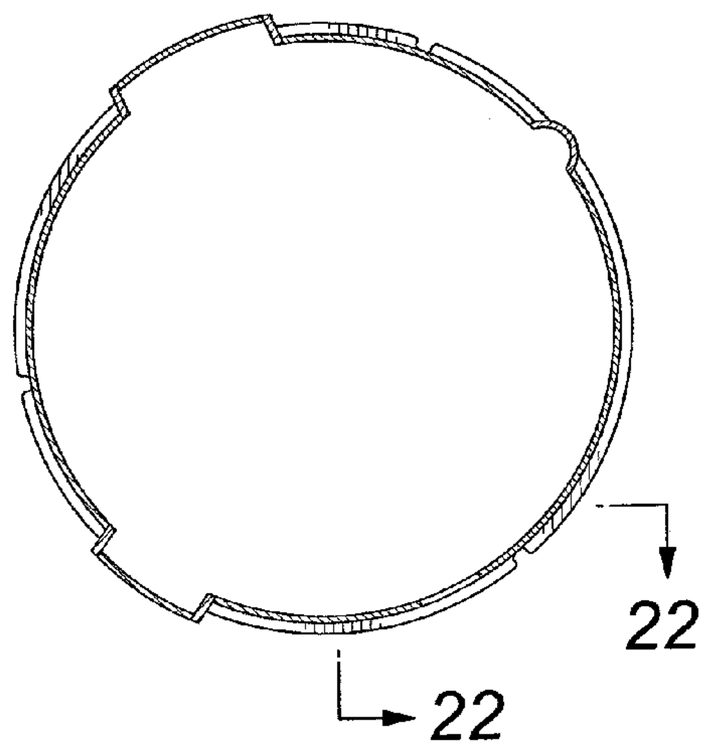


FIG. 20

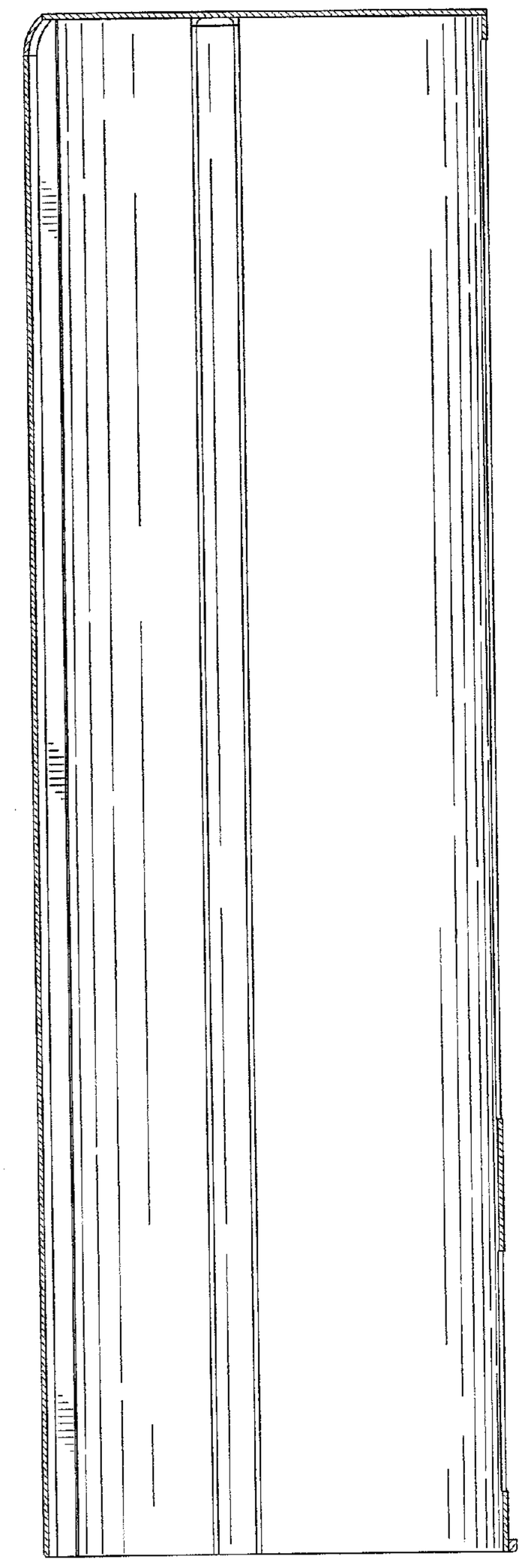


FIG. 21

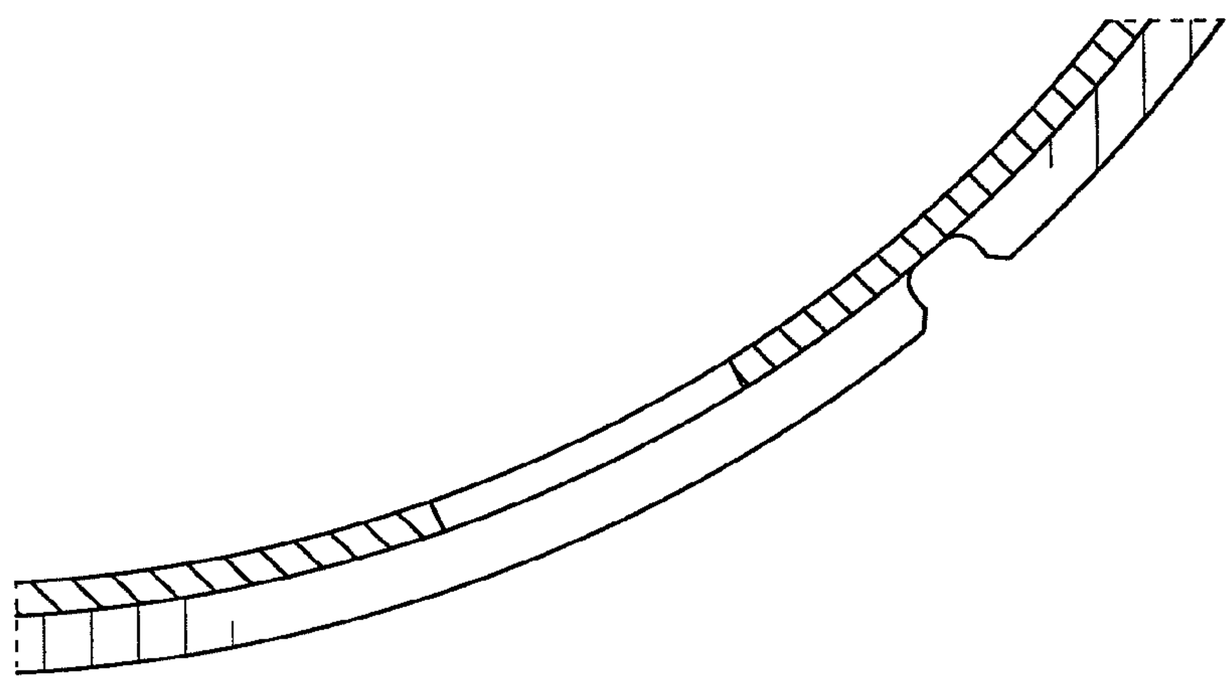


FIG. 22

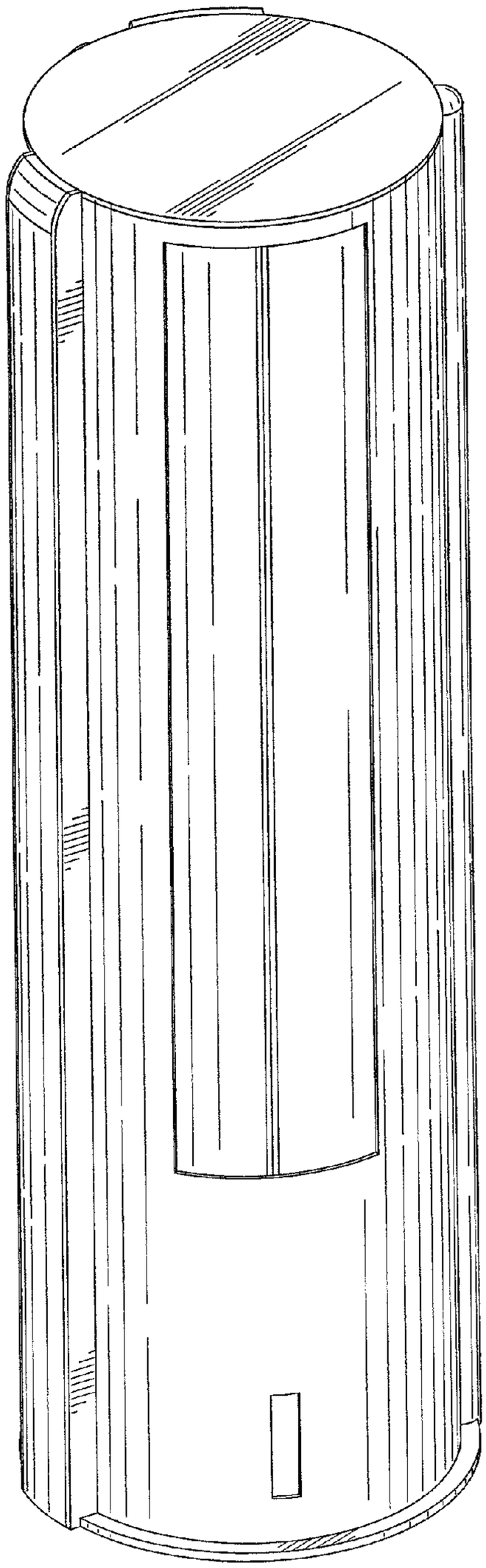


FIG. 23

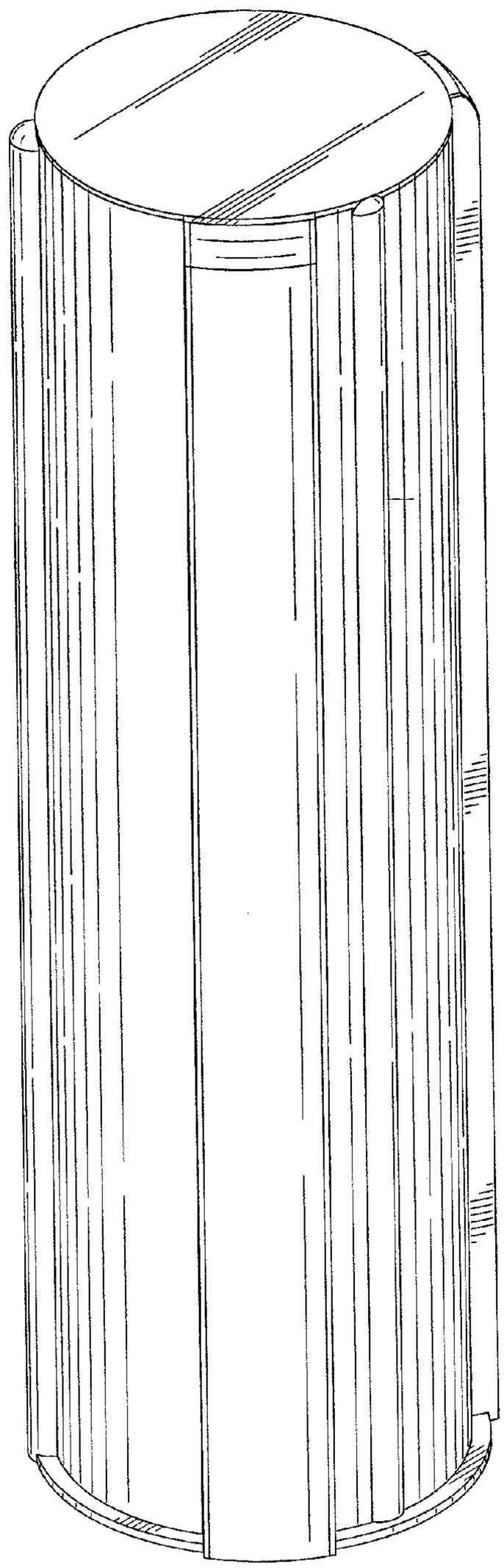


FIG. 24

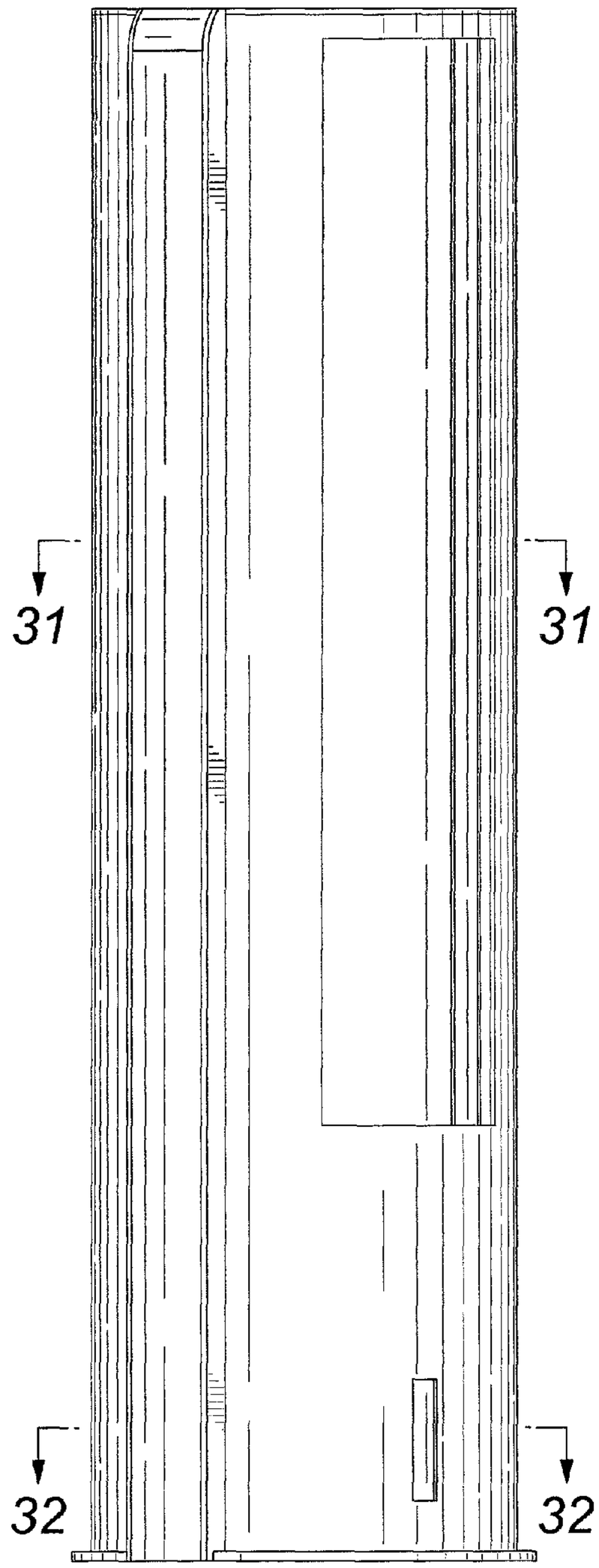
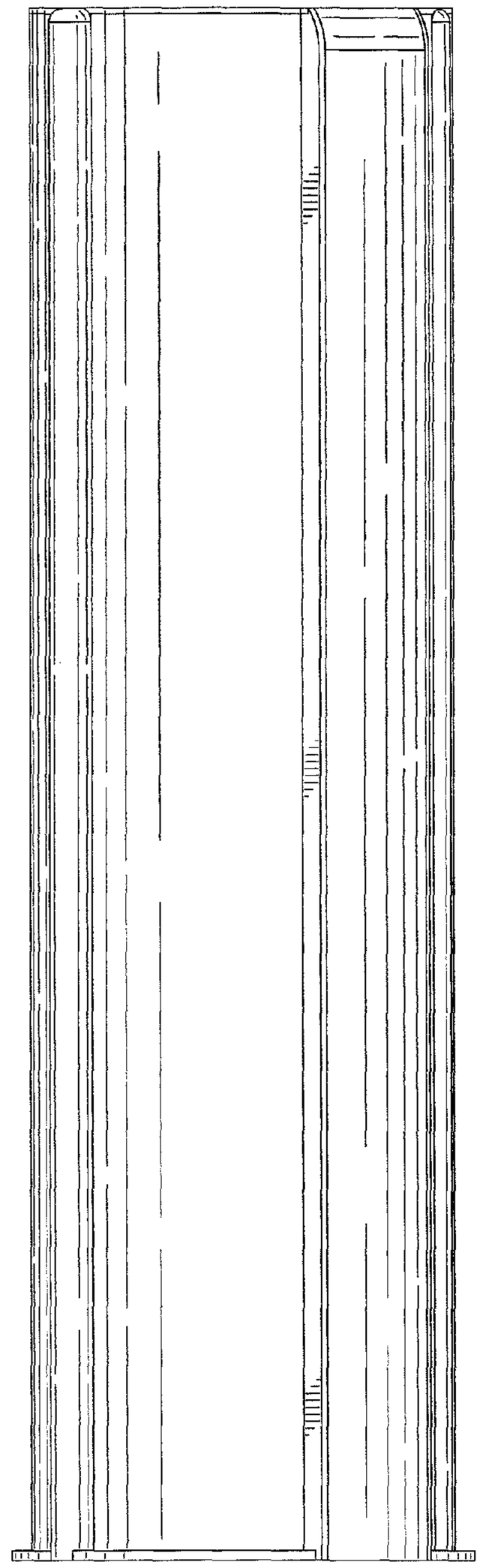


FIG. 25



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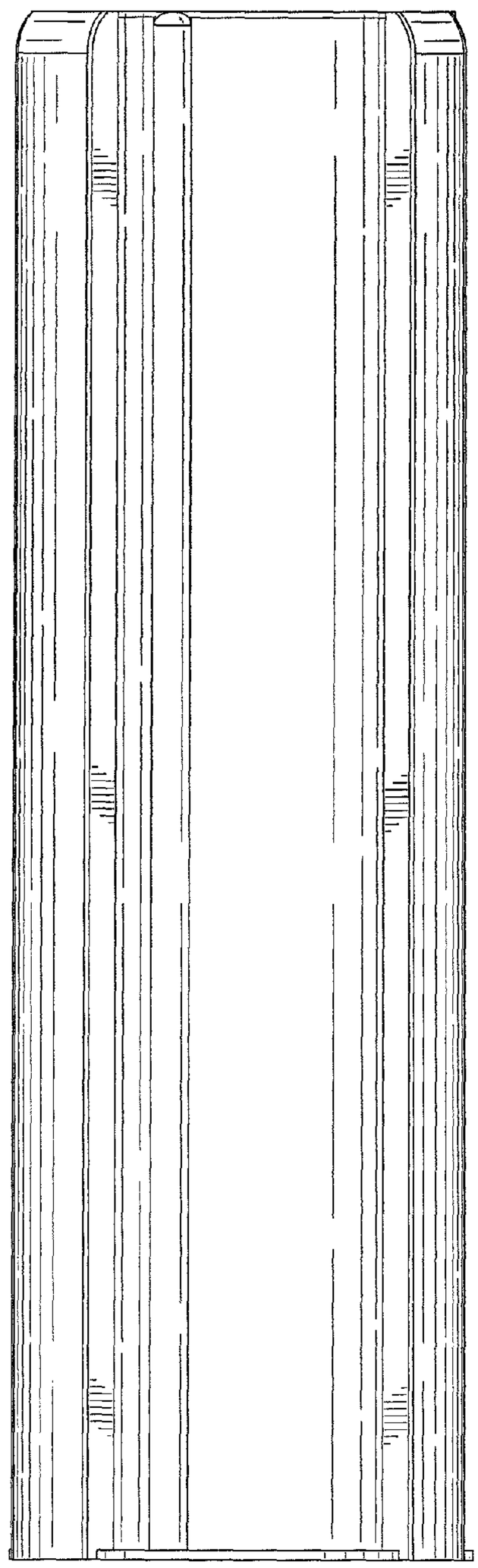

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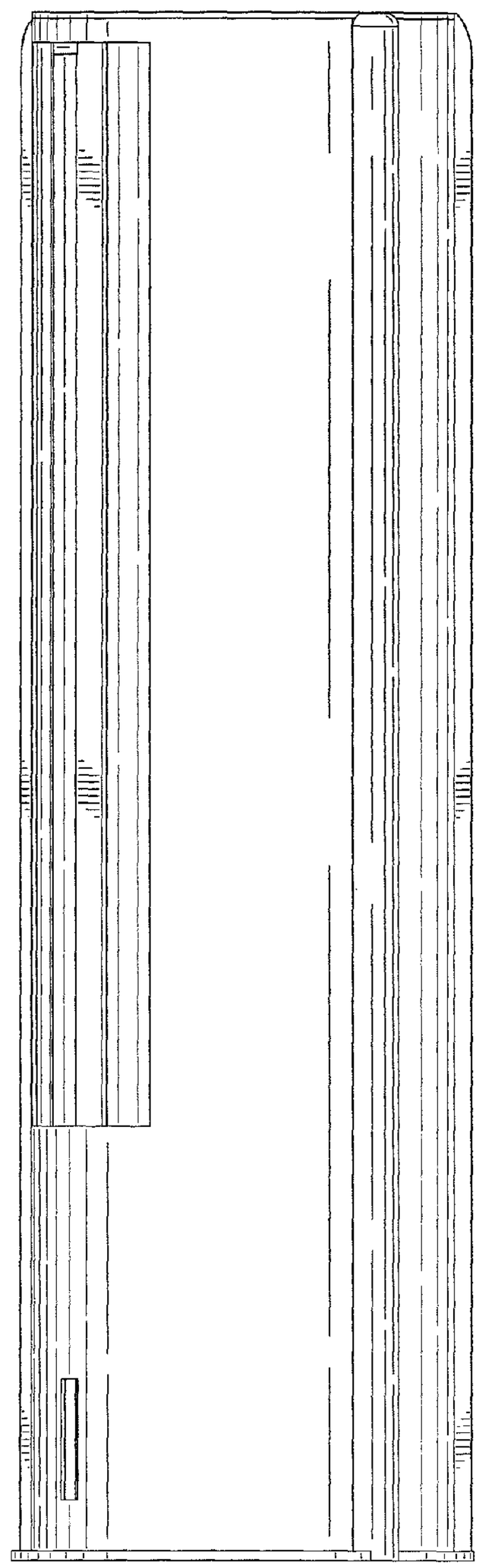

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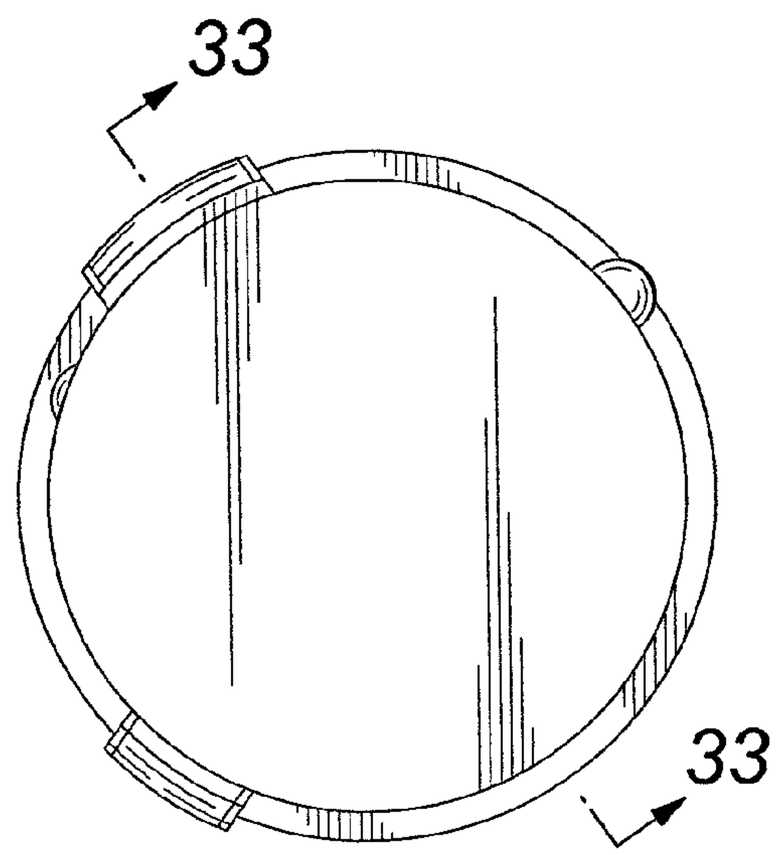

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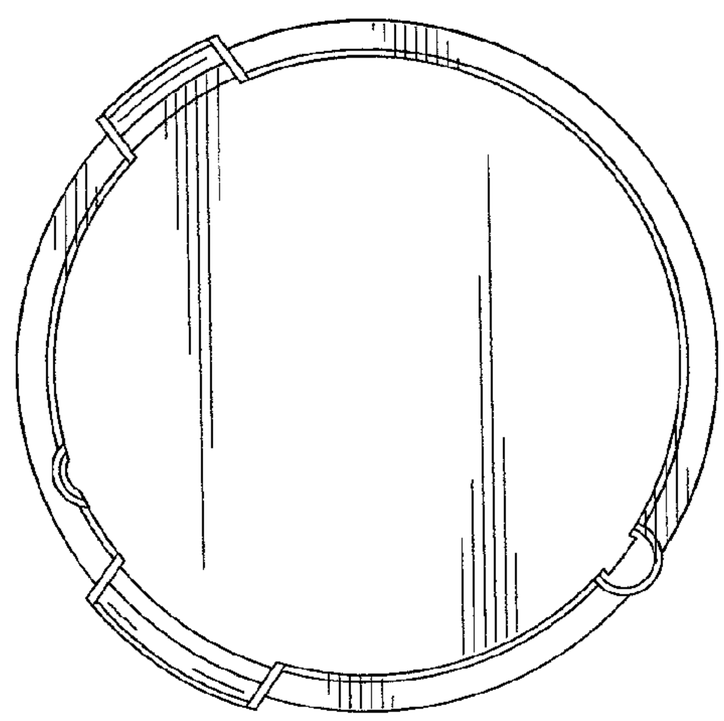

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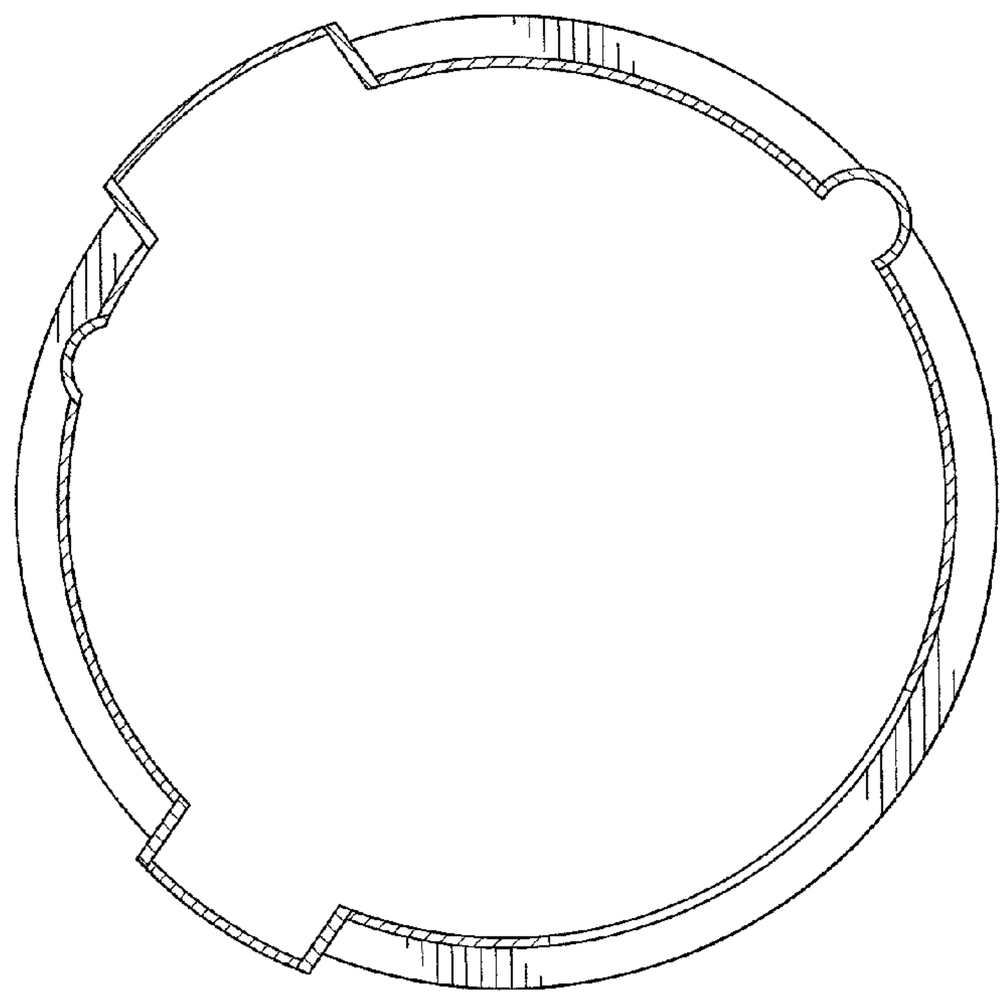
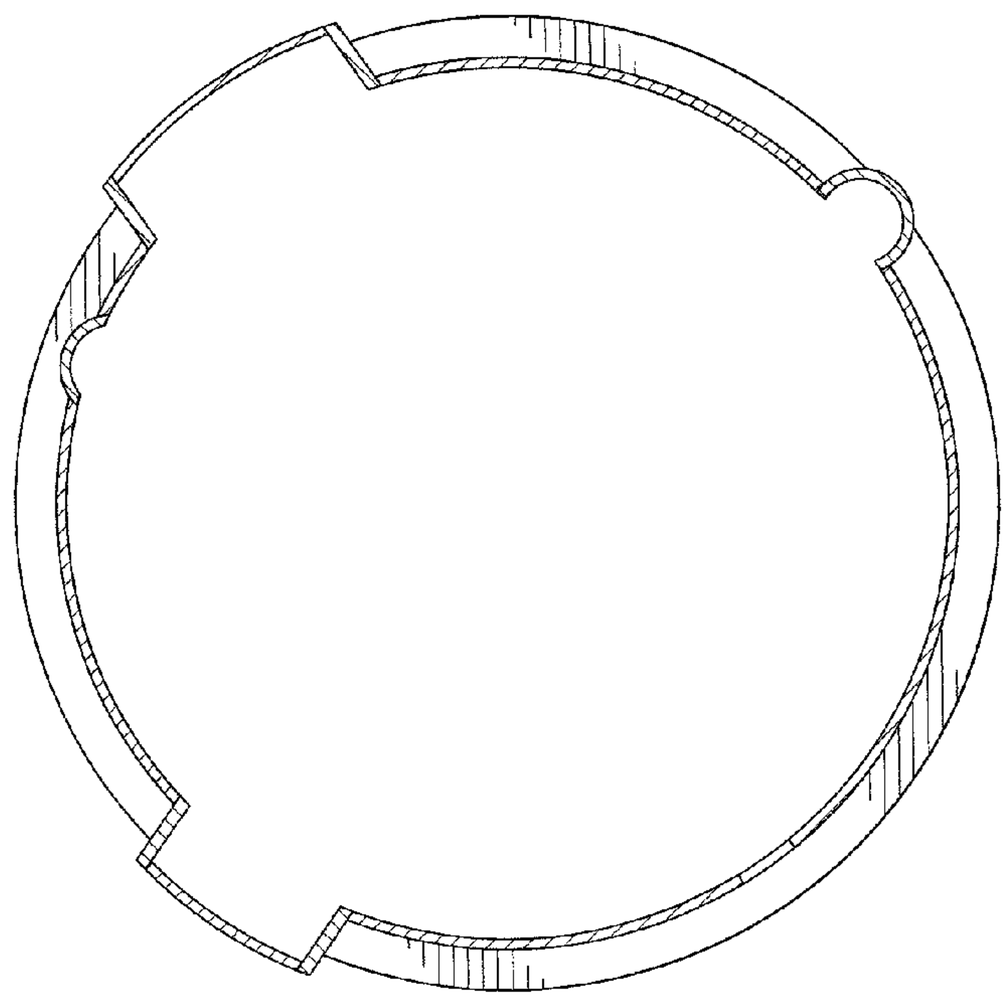


FIG. 31



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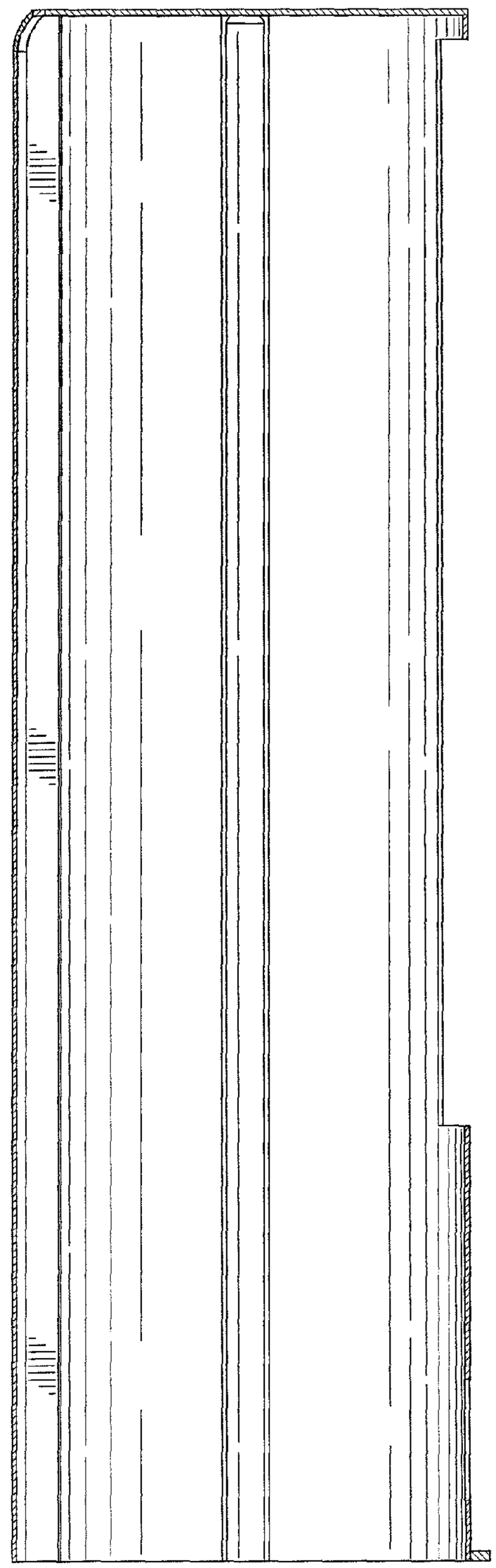

FIG. 33