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(12) United States Design Patent

Nishimura et al.

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(45) Date of Patent: ** Oct. 18, 2022

(54) **WIRELESS POWER TRANSFER DEVICE**

(71) Applicant: **IHI Corporation**, Tokyo (JP)

(72) Inventors: **Kenji Nishimura**, Tokyo (JP); **Seishiro Nakajima**, Tokyo (JP); **Tatsuya Matsui**, Tokyo (JP)

(73) Assignee: **IHI CORPORATION**, Tokyo (JP)

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

(21) Appl. No.: **29/692,050**

(22) Filed: **May 22, 2019**

(30) **Foreign Application Priority Data**

Mar. 29, 2019 (JP) 2019-006865

(51) **LOC (13) Cl.** **13-02**

(52) **U.S. Cl.**
USPC **D13/110**

(58) **Field of Classification Search**
USPC D13/103, 105–110, 118, 119, 184, 199; D14/230, 234

(Continued)

(56) **References Cited**

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(Continued)

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Applicant's Exhibit 1: Online Press Release for IHI Forum 2018 Exhibition, where Applicant exhibited its Wireless Power Transfer Device (Nov. 14, 2018 to Nov. 17, 2018) (with English concise explanation of relevance provided by English translation of relevant portions of document).

(Continued)

Primary Examiner — Christy Nemeth

(74) *Attorney, Agent, or Firm* — Volpe Koenig

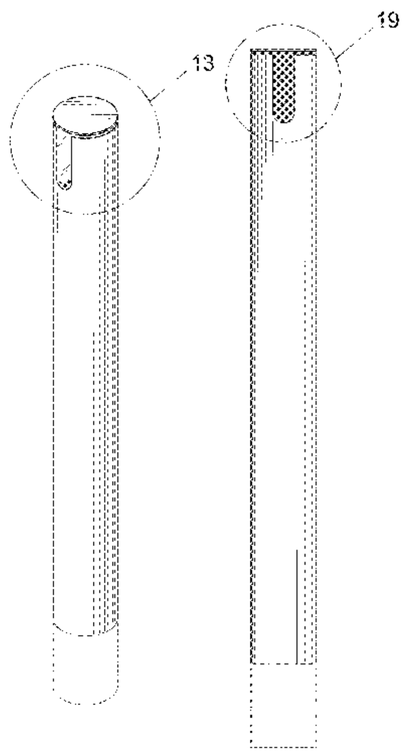
(57) **CLAIM**

The ornamental design for a wireless power transfer device, as shown and described.

DESCRIPTION

FIG. **1** is a perspective view of an wireless power transfer device with a first image displayed on a display portion;
FIG. **2** is a front view thereof;
FIG. **3** is a front view thereof with a second image displayed on a display portion;
FIG. **4** is a front view thereof with a third image displayed on a display portion;
FIG. **5** is a front view thereof with a fourth image displayed on a display portion;
FIG. **6** is a front view thereof with a fifth image displayed on a display portion;
FIG. **7** is a front view thereof with a sixth image displayed on a display portion;
FIG. **8** is a rear view thereof;
FIG. **9** is a top plan view thereof;
FIG. **10** is a bottom view thereof;
FIG. **11** is a right side view thereof;
FIG. **12** is a left side view thereof;
FIG. **13** is an enlarged fragment shown encircled in FIG. **1**, showing a first image displayed on a display portion;
FIG. **14** is an enlarged fragment shown encircled in FIG. **2**, showing a first image displayed on a display portion;
FIG. **15** is an enlarged fragment shown encircled in FIG. **3**, showing a second image displayed on a display portion;
FIG. **16** is an enlarged fragment shown encircled in FIG. **4**, showing a third image displayed on a display portion;
FIG. **17** is an enlarged fragment shown encircled in FIG. **5**, showing a fourth image displayed on a display portion;
FIG. **18** is an enlarged fragment shown encircled in FIG. **6**, showing a fifth image displayed on a display portion;
FIG. **19** is an enlarged fragment shown encircled in FIG. **7**, showing a sixth image displayed on a display portion; and,
FIG. **20** is a perspective view of the wireless power transfer device, showing a first image displayed on a display portion, and in an environment of use.

(Continued)



The dot-dot broken lines are for the purpose of illustrating environmental subject matter and portions of the article that form no part of the claimed design. The dot-dash broken lines are for the purpose of illustrating a boundary and form no part of the claimed design. The dot-dot-dash broken lined in FIGS. **1-7** and **13-19** depict the limits of the enlarged fragments and form no part of the claimed design. The grey-toned shading depicts a contrast of appearance.

The appearance of the display portion sequentially transitions between the images shown in FIGS. **2-7** and **14-19**. The process or period in which one image transitions to another image forms no part of the claimed design.

1 Claim, 20 Drawing Sheets

(58) **Field of Classification Search**
CPC .. H01Q 1/36; H01Q 1/38; H01Q 7/00; H01Q 9/285; H01Q 13/10; H01Q 19/12; H01Q 19/30; H04B 1/0475; H04B 1/034; H05K 11/00; Y02E 60/10; Y02E 60/12; Y02E 60/122; Y02E 60/124; Y02E 60/50; H01M 2/02; H01M 2/022; H01M 2/0202; H01M 2/0207; H01M 2/0212; H01M 2/1061; H01M 10/44; H01M 10/46; H01M 10/465; H01M 10/482
See application file for complete search history.

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Applicant's Exhibit 2: Official Website for Nikkei Xtrend Expo 2018 Exhibition, where Applicant exhibited its Wireless Power Transfer Device, (Nov. 28, 2018 to Nov. 29, 2018) (with English concise explanation of relevance provided by English translation of relevant portions of document).

Applicant's Exhibit 3: Official Website for "Latest Trends in Electric Vehicle Technology—The Future of Electric Vehicle Technology as Seen by JSAE—" Symposium, where Applicant exhibited its Wireless Power Transfer Device (Jan. 24, 2019) (with English concise explanation of relevance provided by English translation of relevant portions of document).

Applicant's Exhibit 4: Applicant's Website Featuring Applicant's Wireless Power Transfer Device, Available at: https://www.ihi.co.jp/mobility/ev/ (Nov. 27, 2018).

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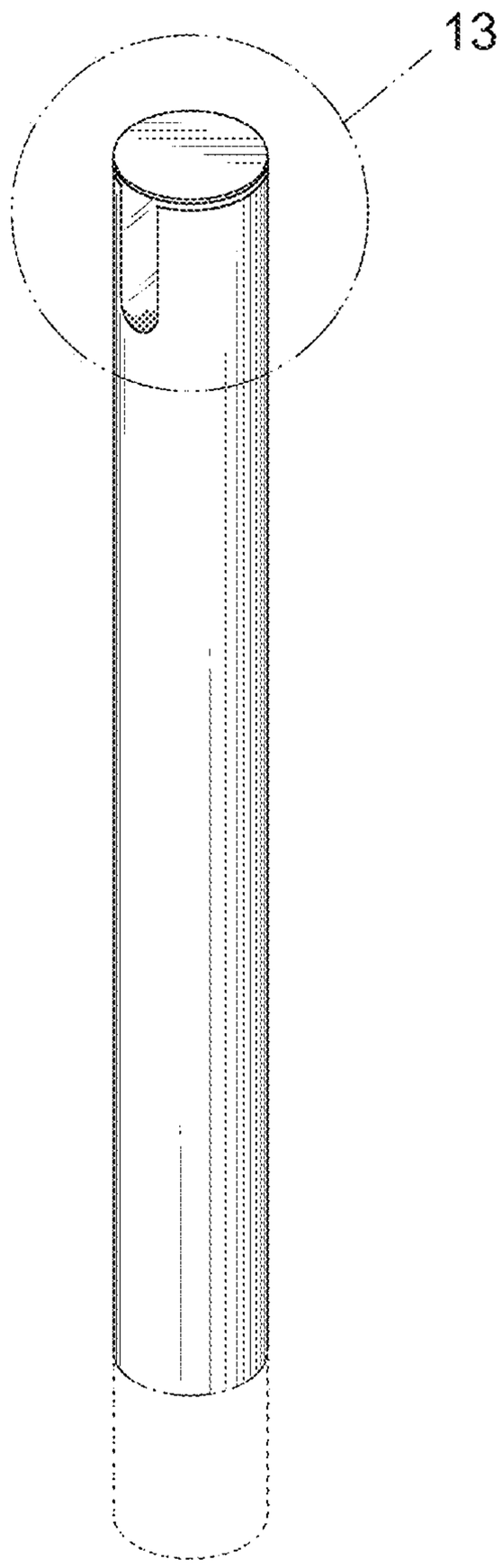

FIG. 1

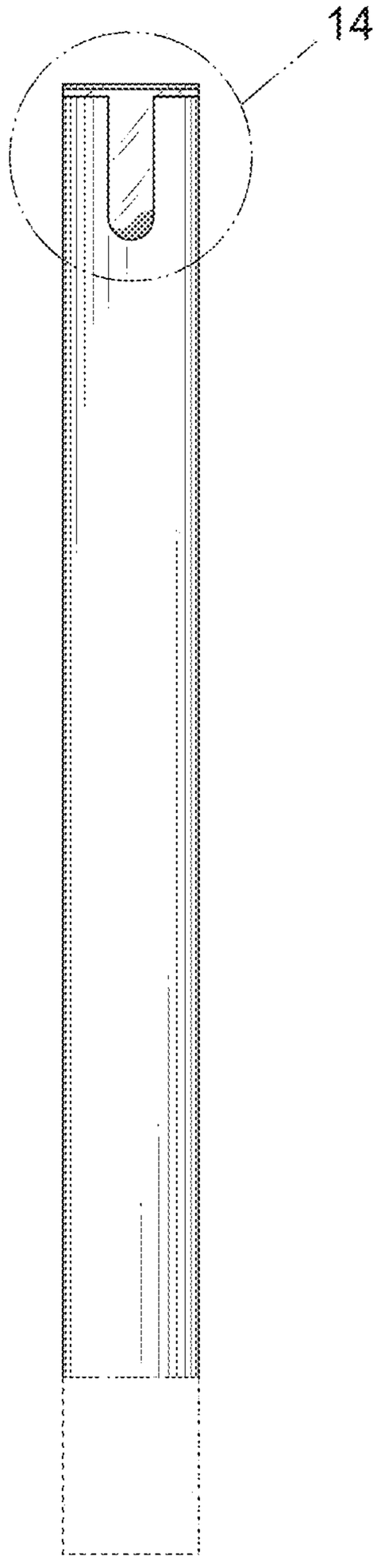

FIG. 2

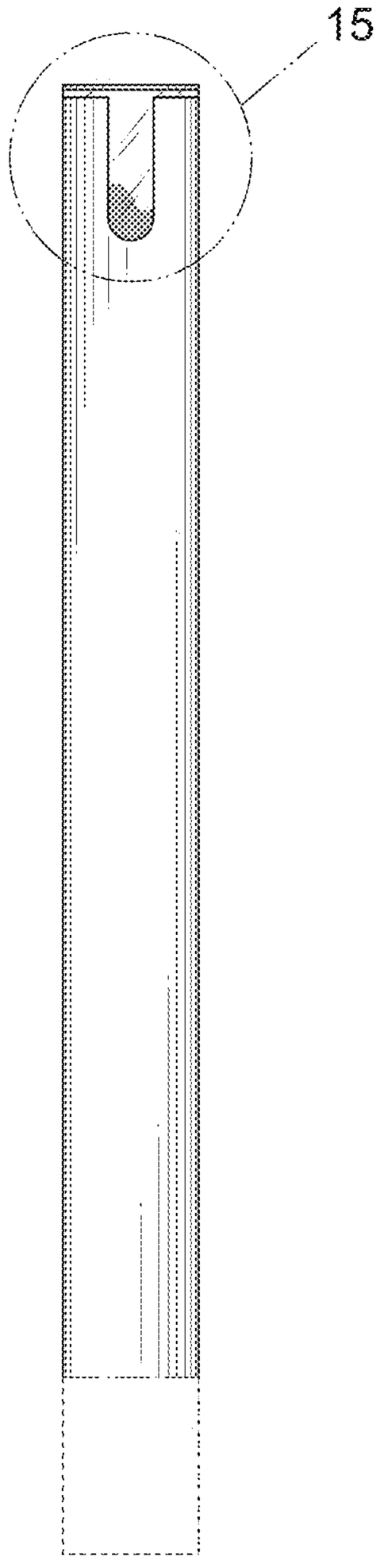

FIG. 3

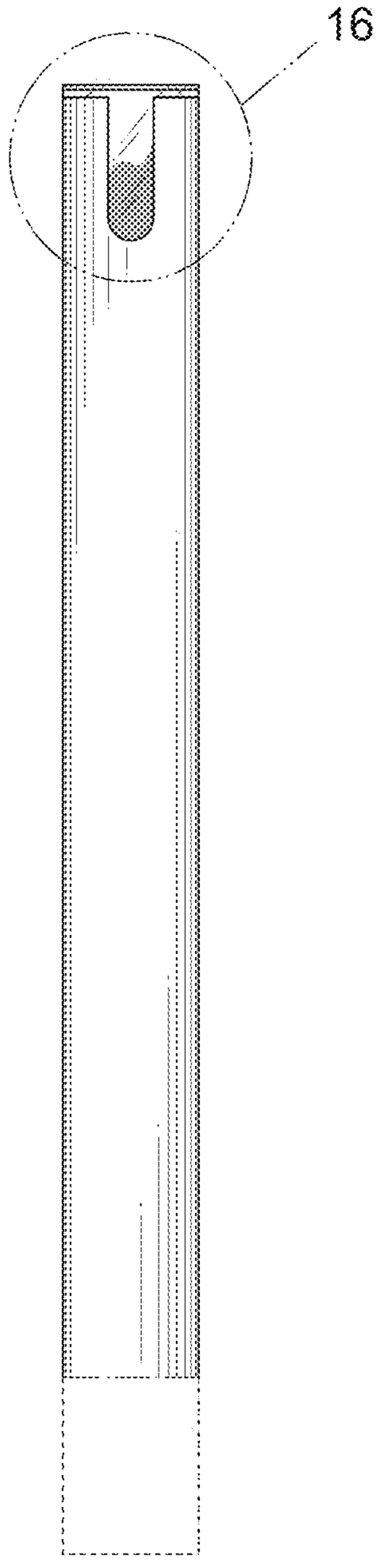

FIG. 4

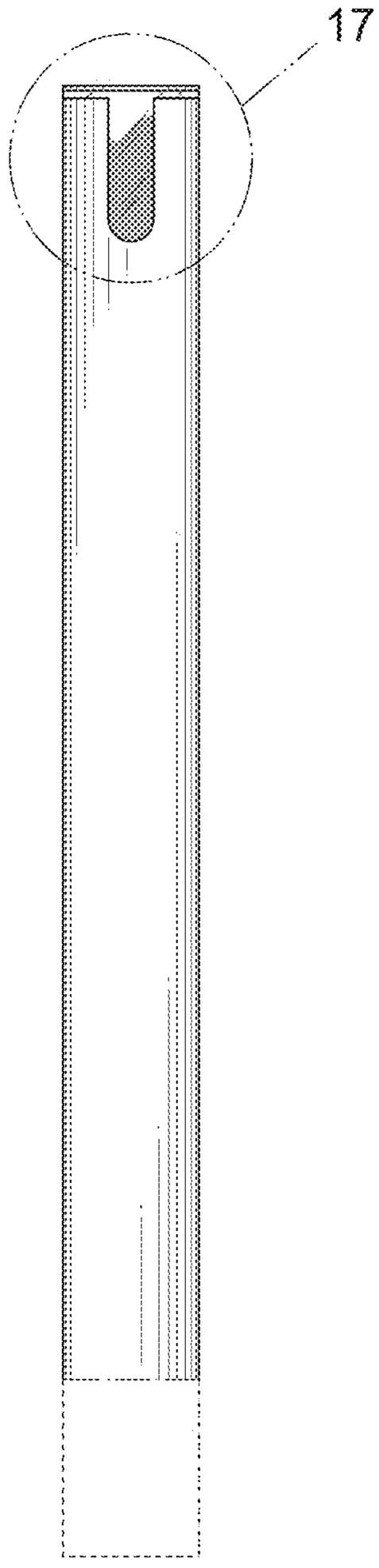

FIG. 5

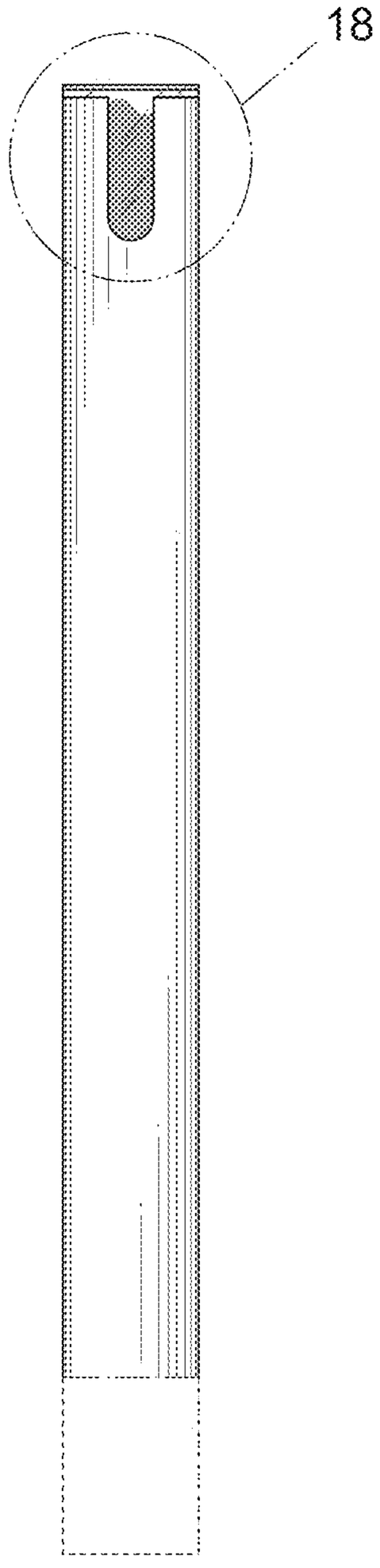

FIG. 6

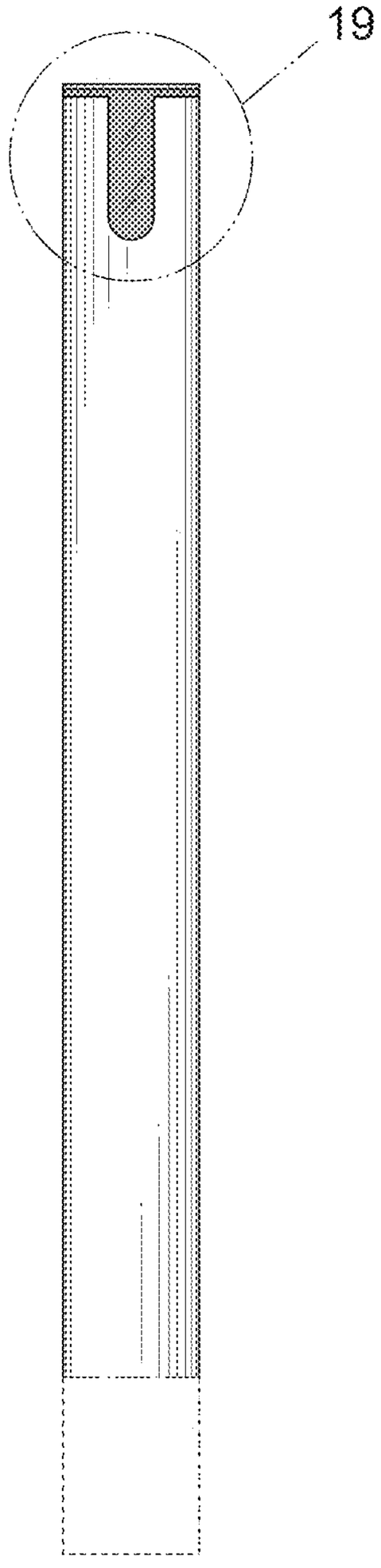

FIG. 7

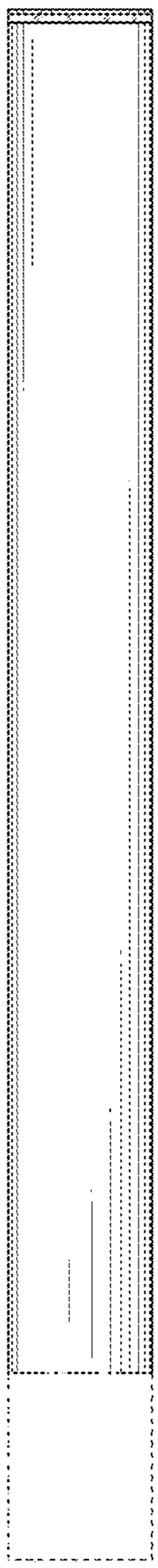

FIG. 8

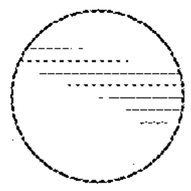

FIG. 9

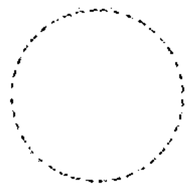

FIG. 10

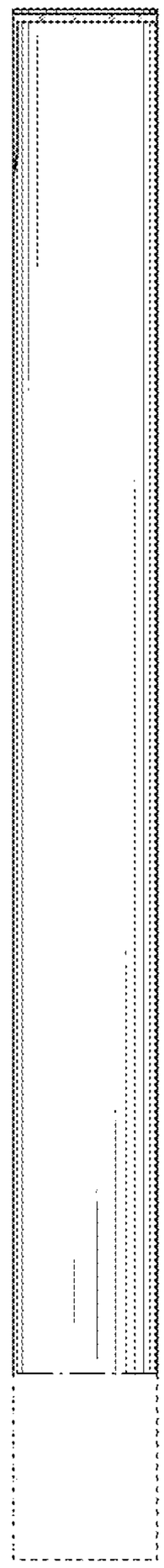

FIG. 11

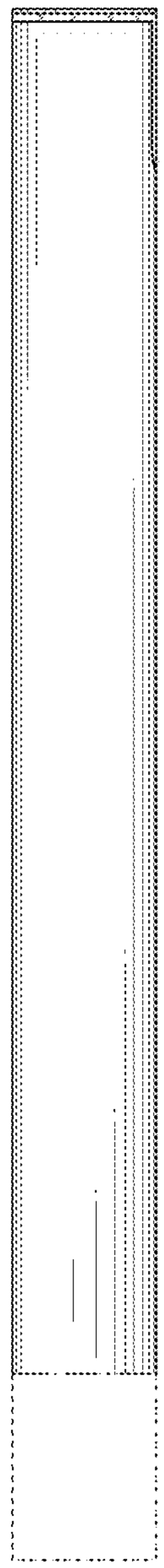

FIG. 12

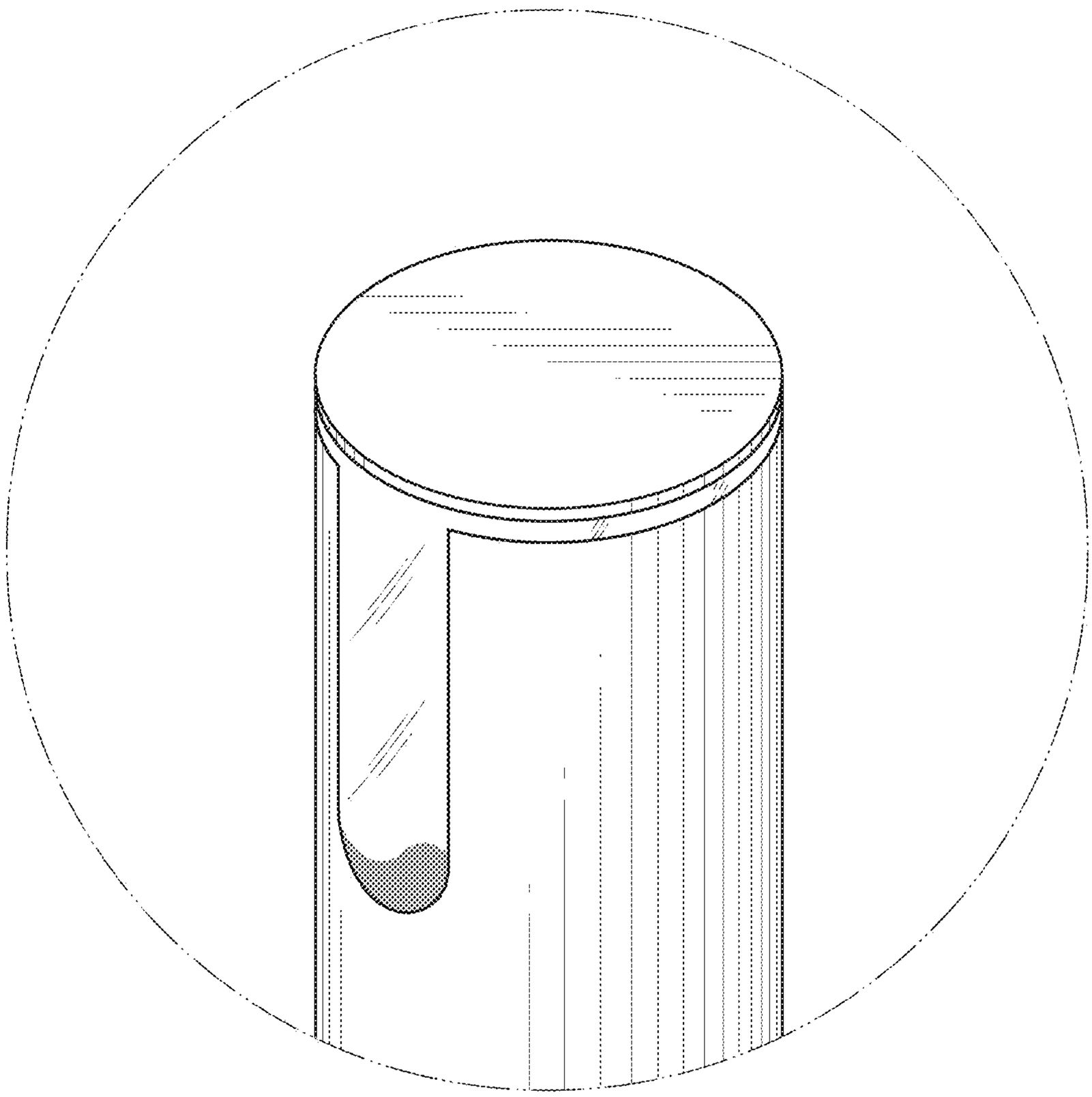

FIG. 13

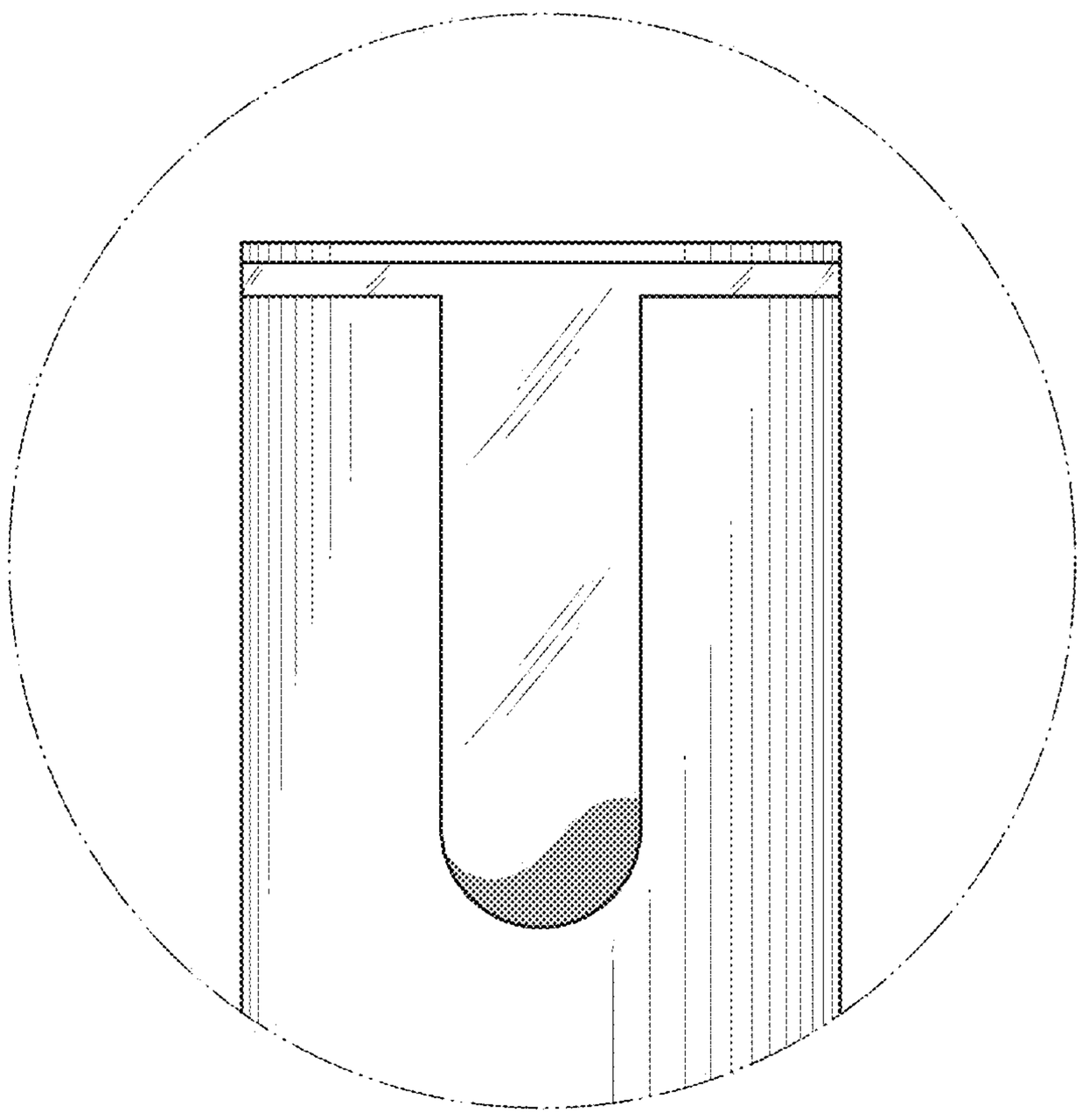

FIG. 14

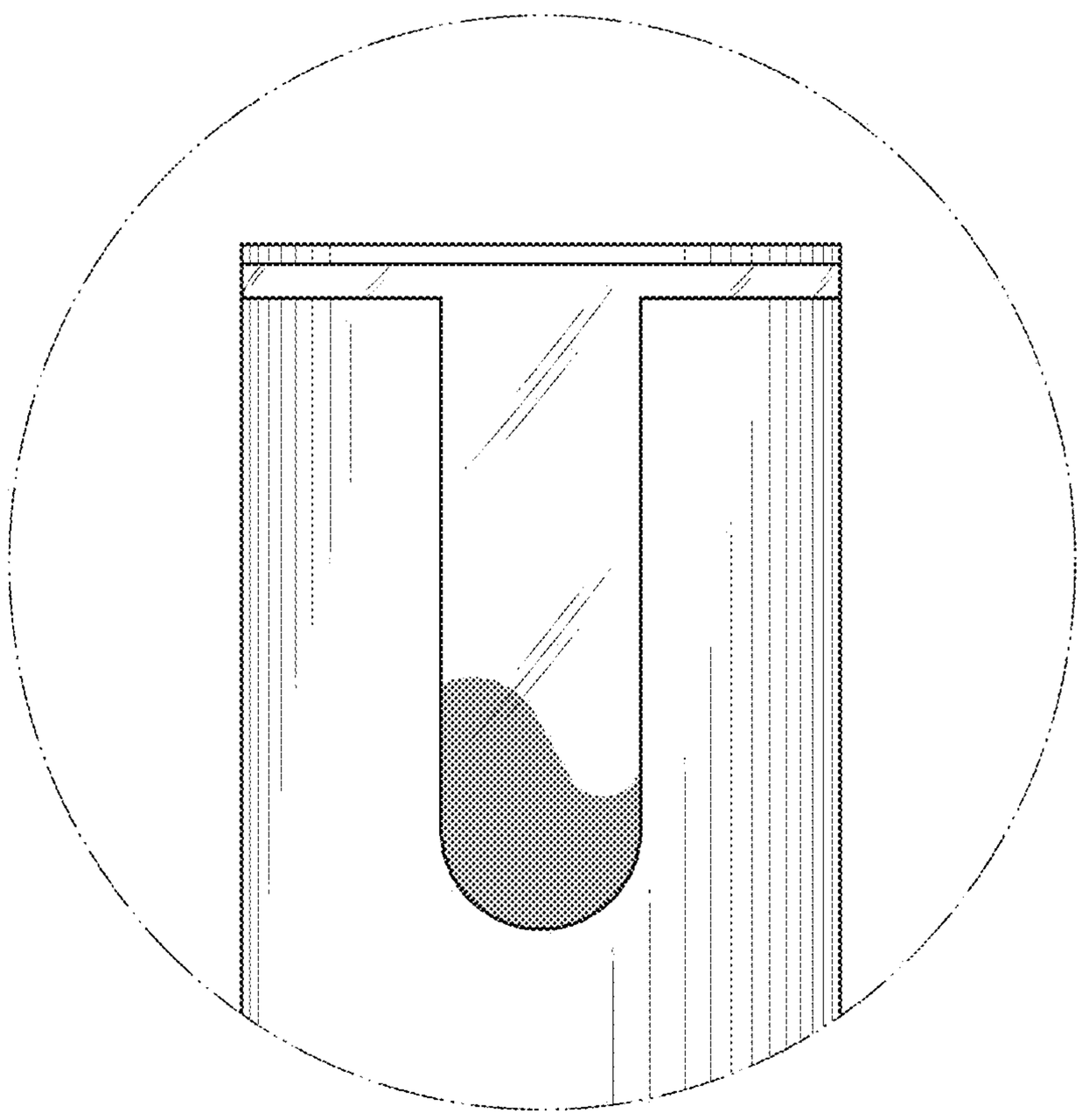

FIG. 15

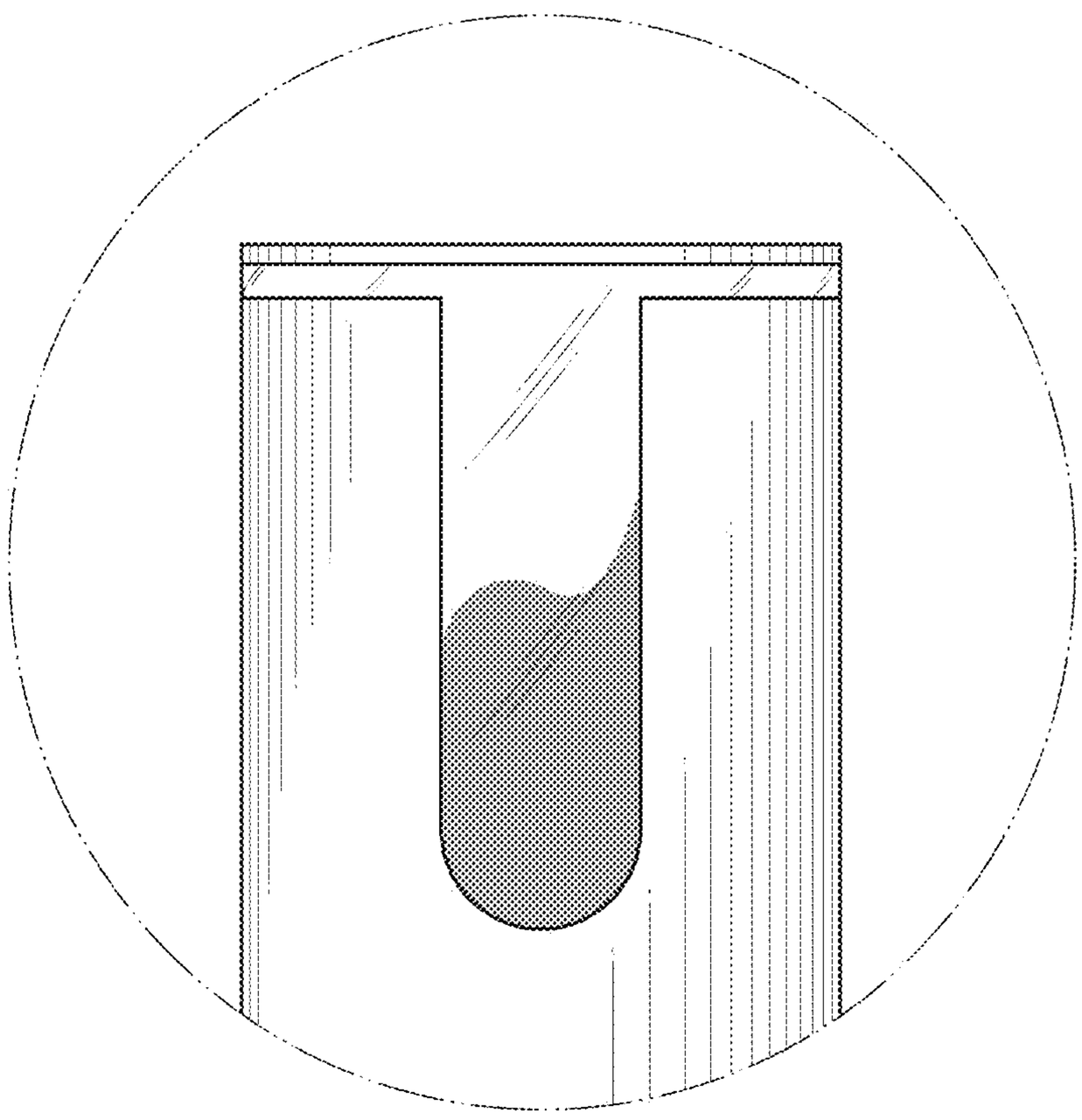

FIG. 16

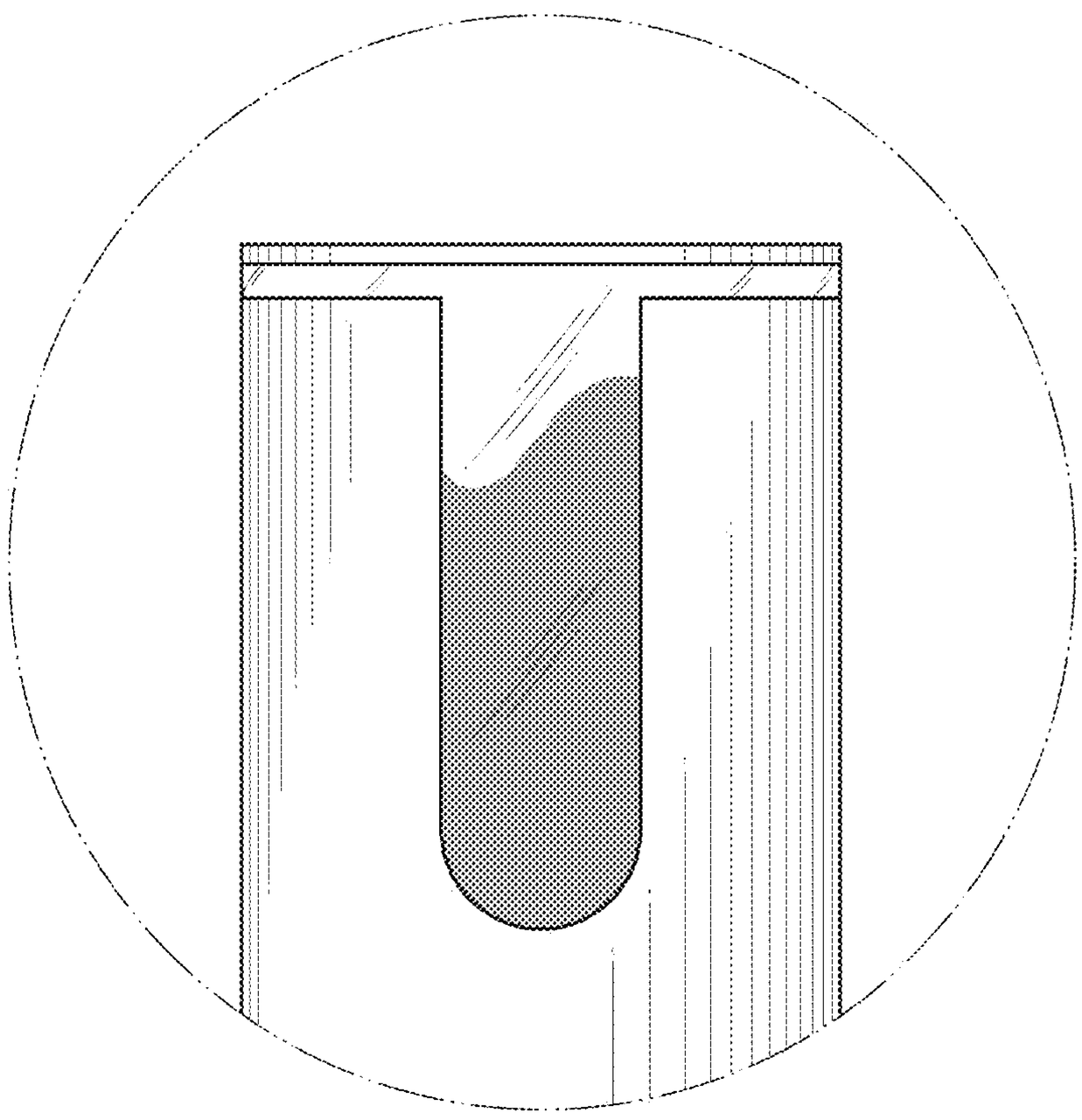

FIG. 17

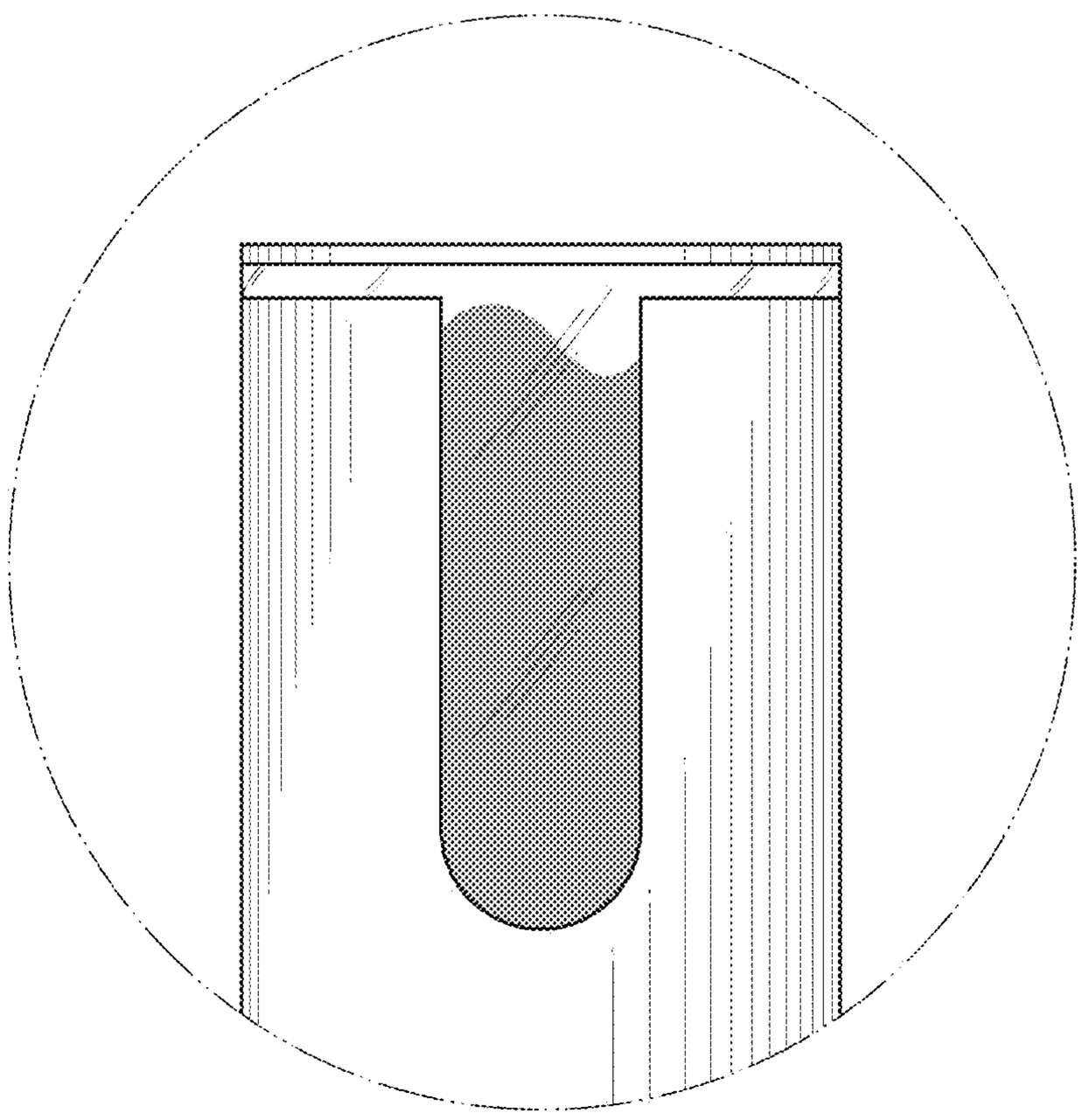

FIG. 18

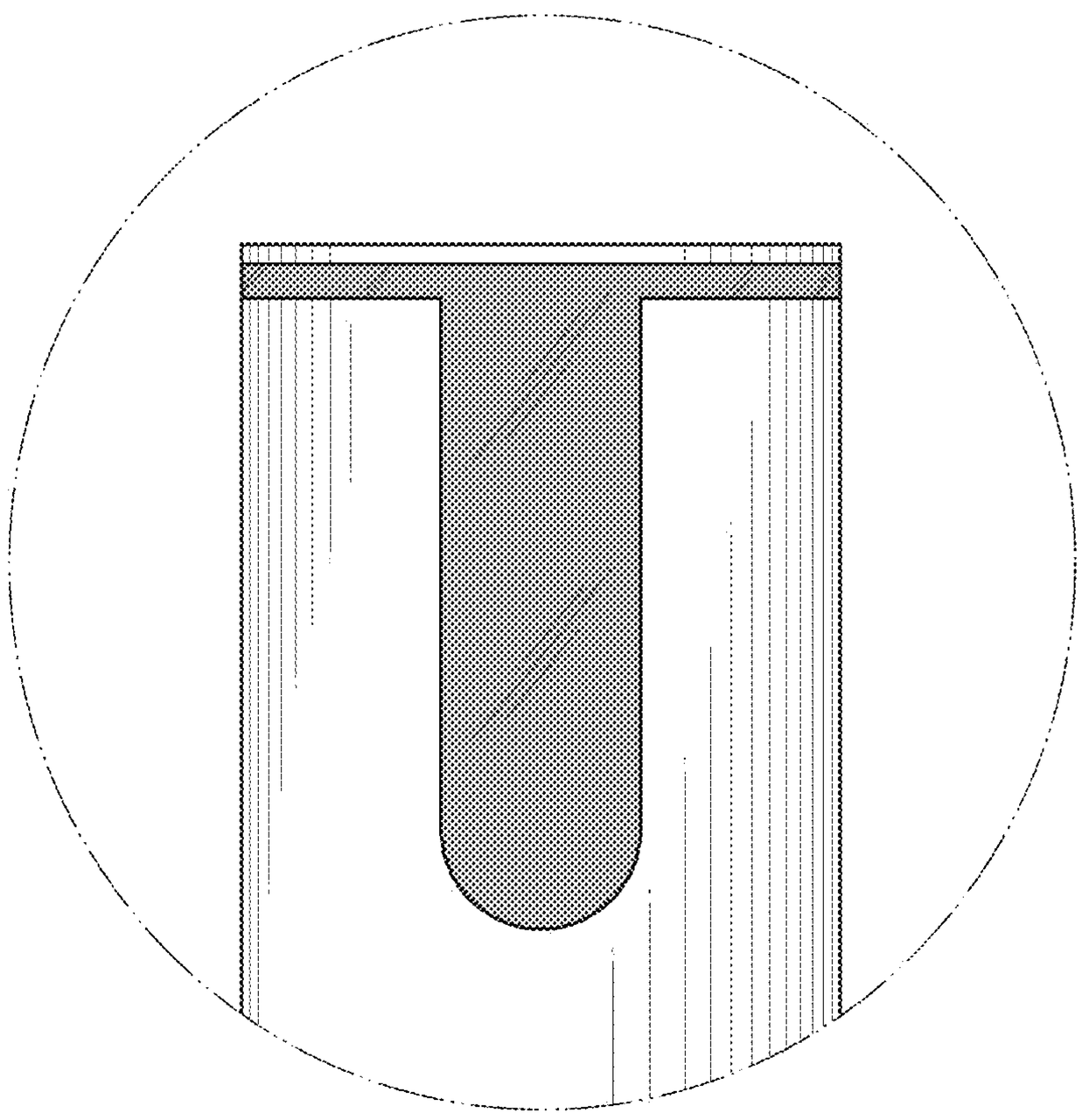

FIG. 19

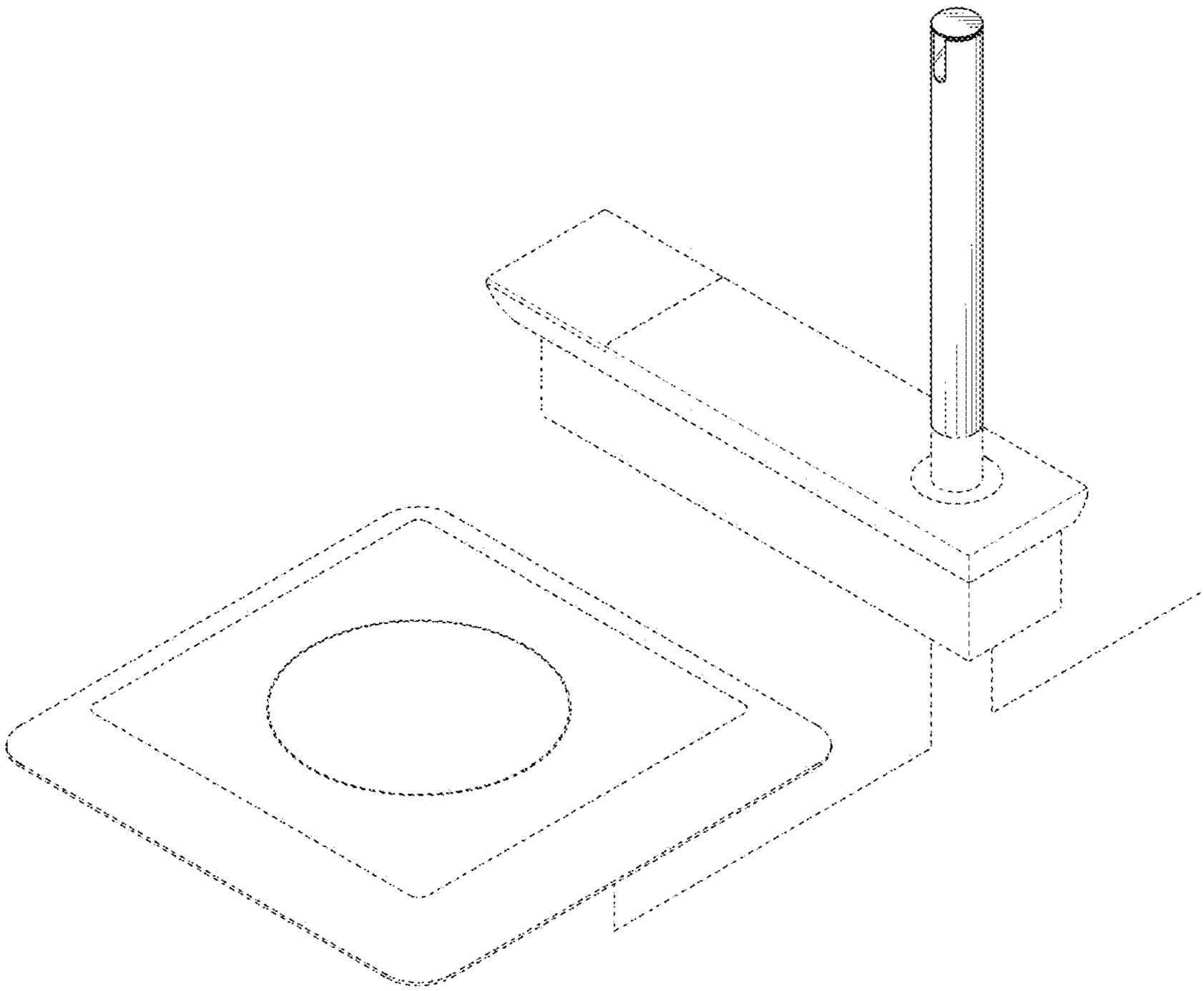

FIG. 20