



US00D941164S

(12) **United States Design Patent** (10) **Patent No.:** **US D941,164 S**
Krywyj et al. (45) **Date of Patent:** **** Jan. 18, 2022**

(54) **LOCATION SENSOR AND FLOW RATE METER**

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(73) Assignee: **Orbis Intelligent Systems, Inc.**, San Diego, CA (US)

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

(21) Appl. No.: **29/723,771**

(22) Filed: **Feb. 10, 2020**

Related U.S. Application Data

(62) Division of application No. 29/643,348, filed on Apr. 6, 2018, now Pat. No. Des. 874,954.

(51) **LOC (13) Cl.** **10-04**

(52) **U.S. Cl.**
USPC **D10/70; D10/46**

(58) **Field of Classification Search**
USPC **D10/46, 70**
(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

D699,604 S * 2/2014 Dunkin D10/70
D874,954 S 2/2020 Krywyj et al.
D878,944 S 3/2020 Krywyj et al.
D892,651 S * 8/2020 Bailey D10/70

OTHER PUBLICATIONS

Ex Parte Quayle Office Action dated Jun. 28, 2019 in U.S. Appl. No. 29/650,752.

(Continued)

Primary Examiner — Antoine Duval Davis
(74) *Attorney, Agent, or Firm* — Weaver Austin Villeneuve & Sampson LLP

(57) **CLAIM**

We claim the ornamental design for a location sensor and flow rate meter, as shown and described.

DESCRIPTION

FIG. 1 depicts an isometric view of a first example location sensor and flow rate meter.

FIG. 2 depicts a front view of the location sensor and flow rate meter of FIG. 1.

FIG. 3 depicts a side view of the location sensor and flow rate meter of FIG. 1.

FIG. 4 depicts an off-angle view of the location sensor and flow rate meter of FIG. 1.

FIG. 5 depicts a back view of the location sensor and flow rate meter of FIG. 1.

FIG. 6 depicts an opposite side view of the location sensor and flow rate meter of FIG. 1.

FIG. 7 depicts another off-angle view of the location sensor and flow rate meter of FIG. 1.

FIG. 8 depicts a bottom view of the location sensor and flow rate meter of FIG. 1.

FIG. 9 depicts a top view of the location sensor and flow rate meter of FIG. 1.

FIG. 10 depicts an isometric view of a second example location sensor and flow rate meter; the second example location sensor and flow rate meter of FIGS. 10-18 depicts the same location sensor and flow rate meter of FIGS. 1-9, but without a back plate.

FIG. 11 depicts a front view of the location sensor and flow rate meter of FIG. 10.

FIG. 12 depicts a side view of the location sensor and flow rate meter of FIG. 10.

FIG. 13 depicts an off-angle view of the location sensor and flow rate meter of FIG. 10.

FIG. 14 depicts a back view of the location sensor and flow rate meter of FIG. 10.

FIG. 15 depicts an opposite side view of the location sensor and flow rate meter of FIG. 10.

(Continued)

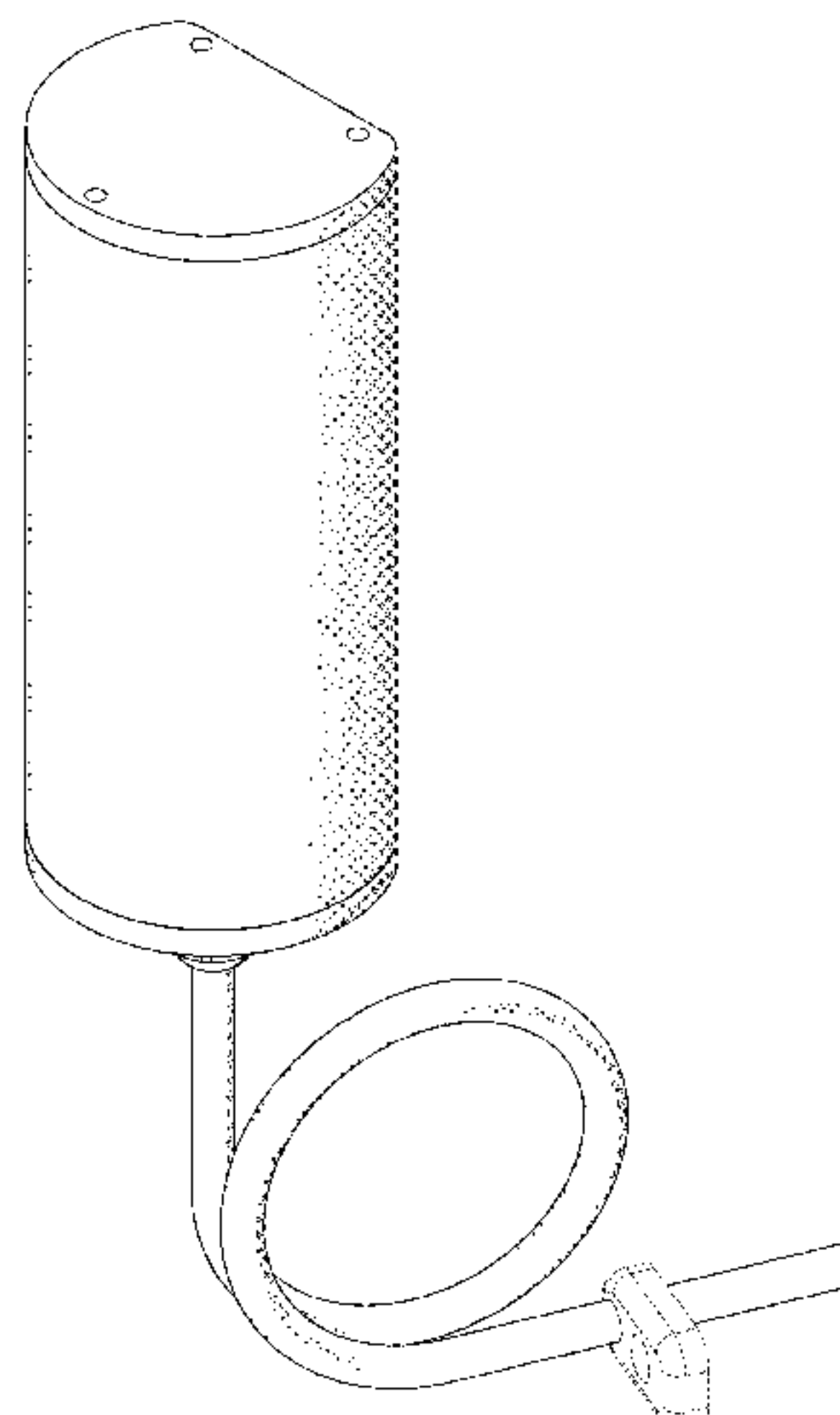


FIG. 16 depicts another off-angle view of the location sensor and flow rate meter of FIG. 10.

FIG. 17 depicts a bottom view of the location sensor and flow rate meter of FIG. 10.

FIG. 18 depicts a top view of the location sensor and flow rate meter of FIG. 10.

FIG. 19 depicts an isometric view of a third example location sensor and flow rate meter; the location sensor and flow rate meter of FIGS. 19-27 depicts the same location sensor and flow rate meter of FIGS. 10-18, but without a back plate and some exterior features.

FIG. 20 depicts a front view of the location sensor and flow rate meter of FIG. 19.

FIG. 21 depicts a side view of the location sensor and flow rate meter of FIG. 19.

FIG. 22 depicts an off-angle view of the location sensor and flow rate meter of FIG. 19.

FIG. 23 depicts a back view of the location sensor and flow rate meter of FIG. 19.

FIG. 24 depicts an opposite side view of the location sensor and flow rate meter of FIG. 19.

FIG. 25 depicts another off-angle view of the location sensor and flow rate meter of FIG. 19.

FIG. 26 depicts a bottom view of the location sensor and flow rate meter of FIG. 19; and,

FIG. 27 depicts a top view of the location sensor and flow rate meter of FIG. 19.

The location sensor and flow rate meter in the accompanying figures may be positioned on or near a fluid conduit, such as a pipe or a standpipe.

Stipple shading is used in all of the accompanying Figures to convey surface contouring and not texture.

It is to be understood that many of the surface intersections in the depicted embodiments may intersect such that a blended or lightly-rounded edge is formed. As such, there may be no “hard” edge present at such locations. A virtual edge may nonetheless be defined at such locations, as represented by a “tangent line” or “tangent edge” which are depicted as grey, dash-dot-dot lines. The tangent edges, for the sake of clarity, represent transitions between a surface and a rounded surface, i.e., where these two surfaces are tangent to one another.

Broken lines are used to depict features or elements that are not considered to be part of the claimed design, for example, as evidenced in FIGS. 1-27 by the removal of shading within

the disclaimed features and elements, and the presence of shading outside of the disclaimed features and elements.

1 Claim, 12 Drawing Sheets

(58) Field of Classification Search

CPC F16L 55/28; F16L 55/30; F16L 55/46;
F16L 55/40; F16L 2101/30; G01M 3/005;
G01M 3/246; G01M 3/38; G03B 37/005;
B08B 9/045; B65H 61/00; B65H 75/364;
G01N 3/02; G01N 21/954; G01N
29/0654; G01N 29/265; G01N
2021/9544; G01N 2291/2636; G01S 7/03;
G01S 13/88; G01S 13/885; G01V 3/08;
G01V 3/081; G01V 3/15; G06F 3/016;
G06F 3/0346; H04N 7/185

See application file for complete search history.

(56) References Cited

OTHER PUBLICATIONS

U.S. Notice of Allowance dated Oct. 31, 2019 in Design U.S. Appl. No. 29/650,752.

Ex Parte Quayle Office Action dated Jun. 25, 2019 in U.S. Appl. No. 29/643,348.

U.S. Notice of Allowance dated Sep. 30, 2019 in Design U.S. Appl. No. 29/643,348.

Australian Office Action dated Nov. 7, 2018, issued in Australian Patent Application No. 201815982.

New Zealand Office Action dated Oct. 24, 2018, issued in New Zealand Patent Application No. 425060.

Australian Office Action dated Jan. 14, 2019, issued in Australian Patent Application No. 201817338.

New Zealand Office Action dated Dec. 21, 2018, issued in New Zealand Patent Application No. 425481.

Canadian Examination Report dated Dec. 3, 2019 in CA Design Application No. 185082.

New Zealand Examination Report dated Oct. 18, 2019 in NZ Design Application No. 425481.

Australian Office Action dated Jul. 30, 2019, issued in Australian Patent Application No. 201913444.

New Zealand Office Action dated Jul. 9, 2019, issued in New Zealand Patent Application No. 426148.

New Zealand Examination Report dated Sep. 17, 2019 in NZ Design Application No. 426457.

U.S. Appl. No. 29/674,638, filed Dec. 21, 2018, Krywyj, et al.

U.S. Appl. No. 29/723,772, filed Feb. 10, 2020, Krywyj, et al.

Preliminary Amendment dated May 11, 2020 in U.S. Appl. No. 29/723,772.

* cited by examiner

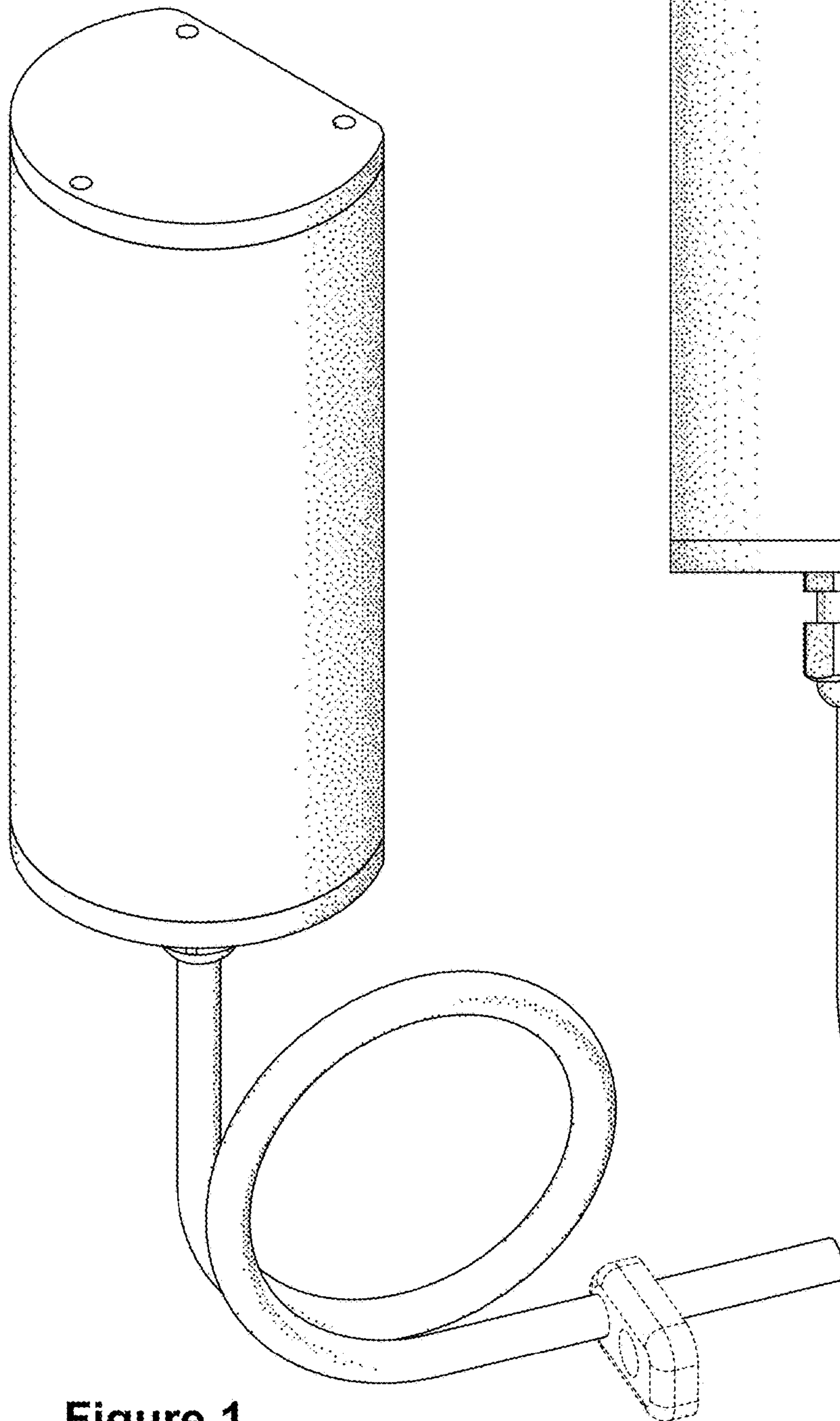


Figure 1

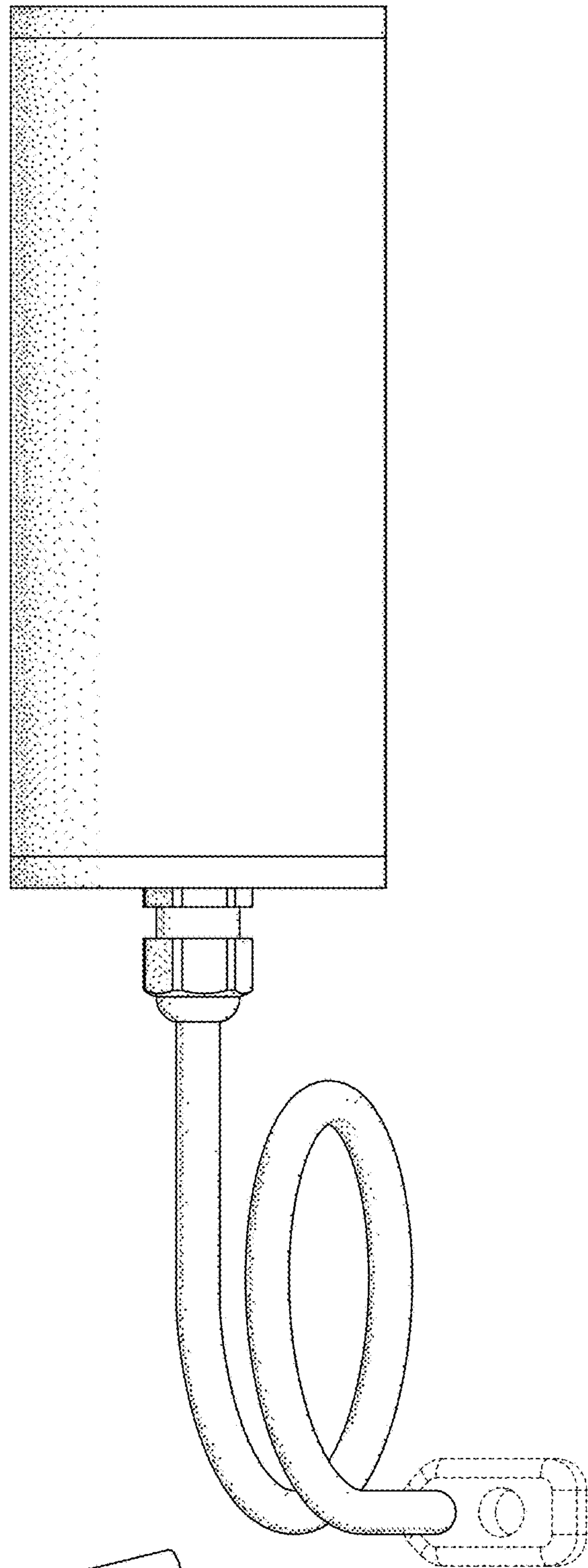


Figure 2

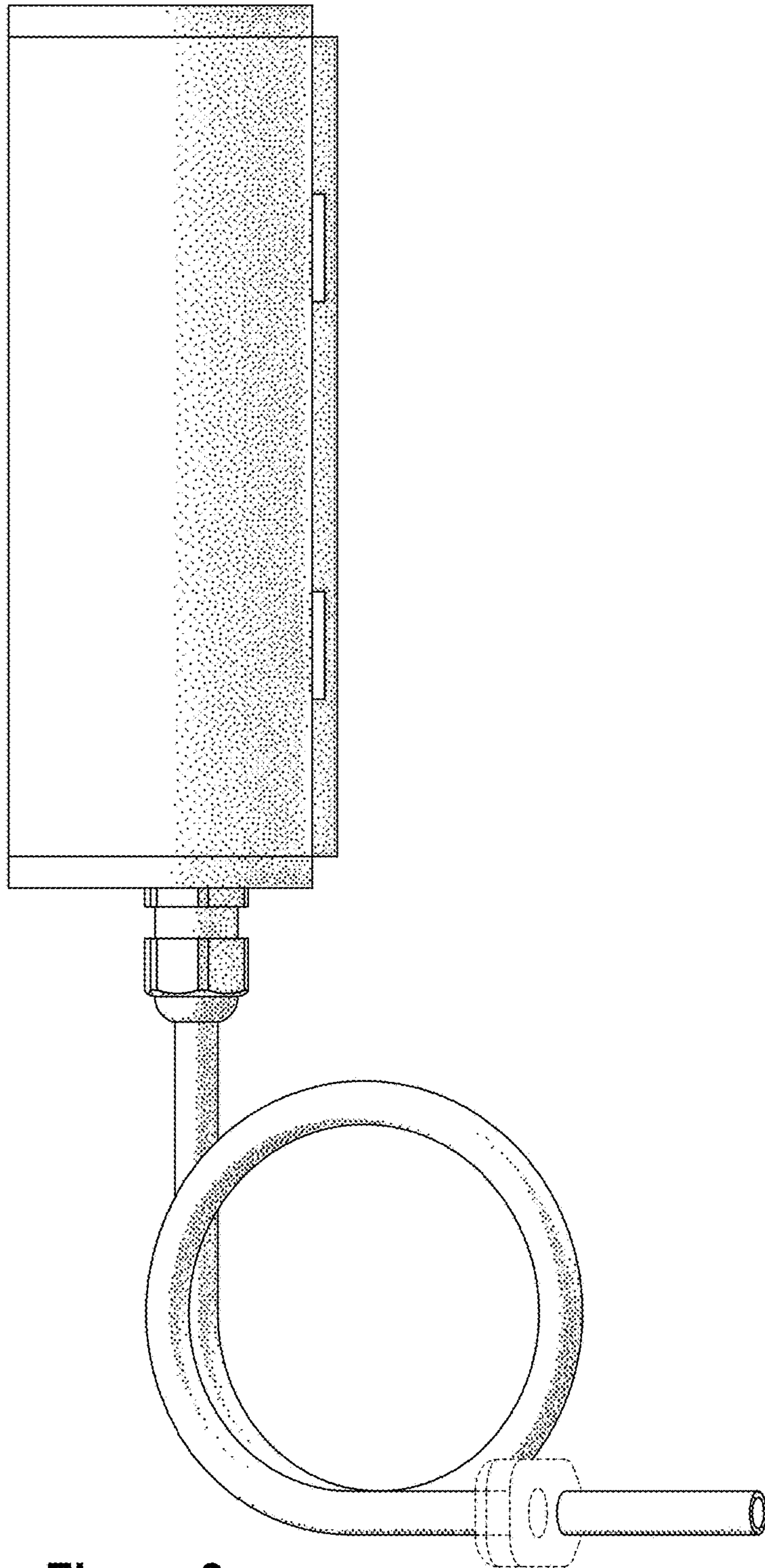


Figure 3

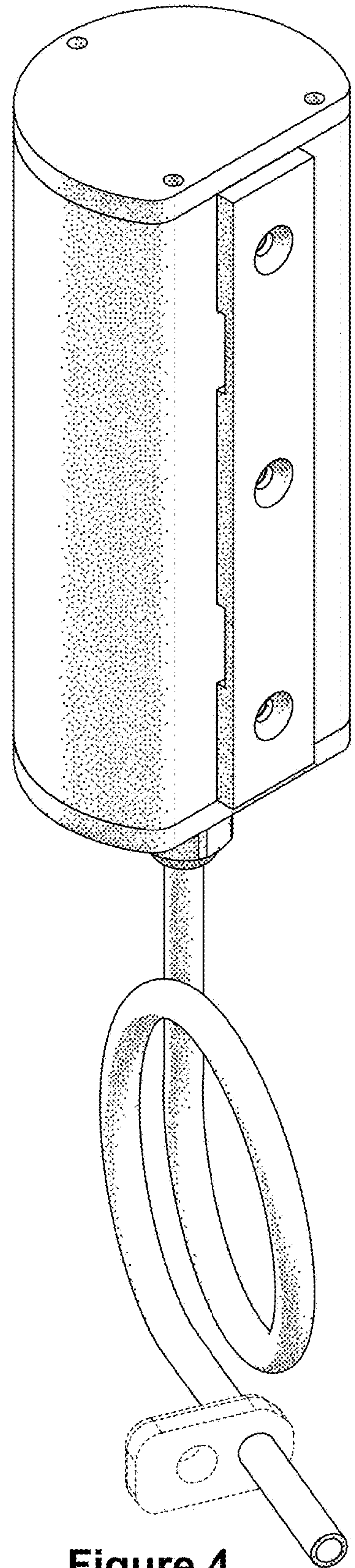


Figure 4

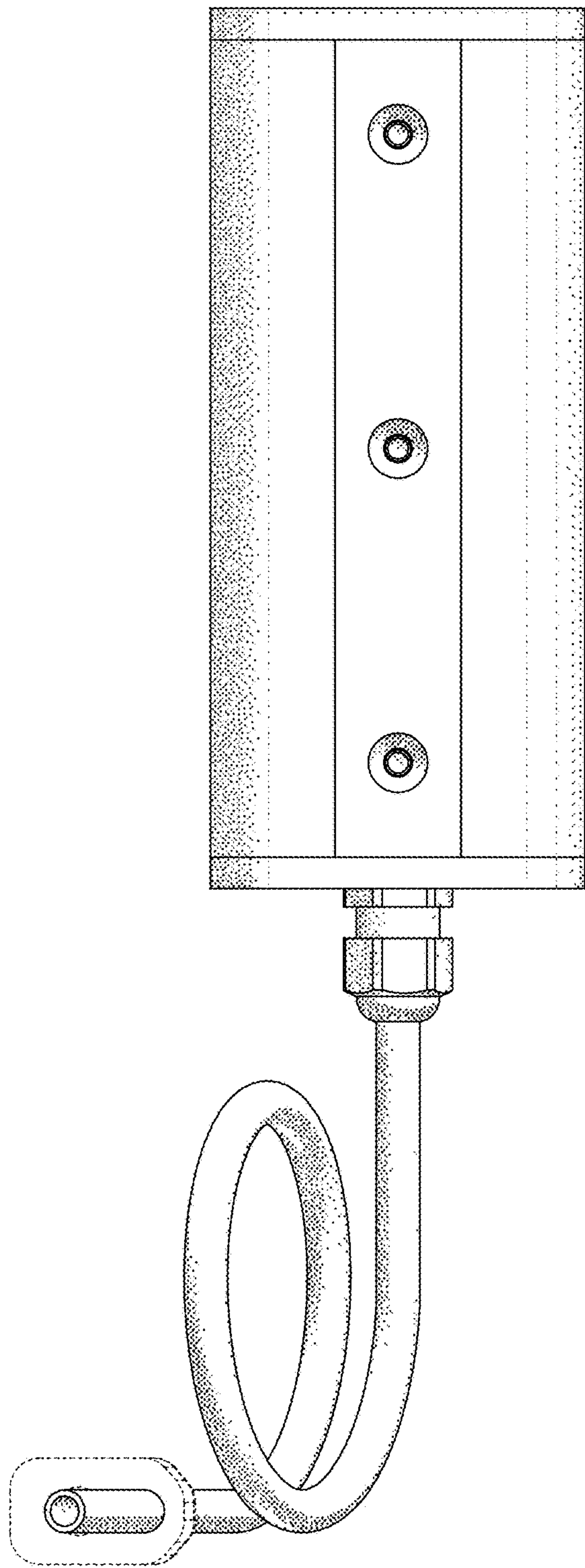


Figure 5

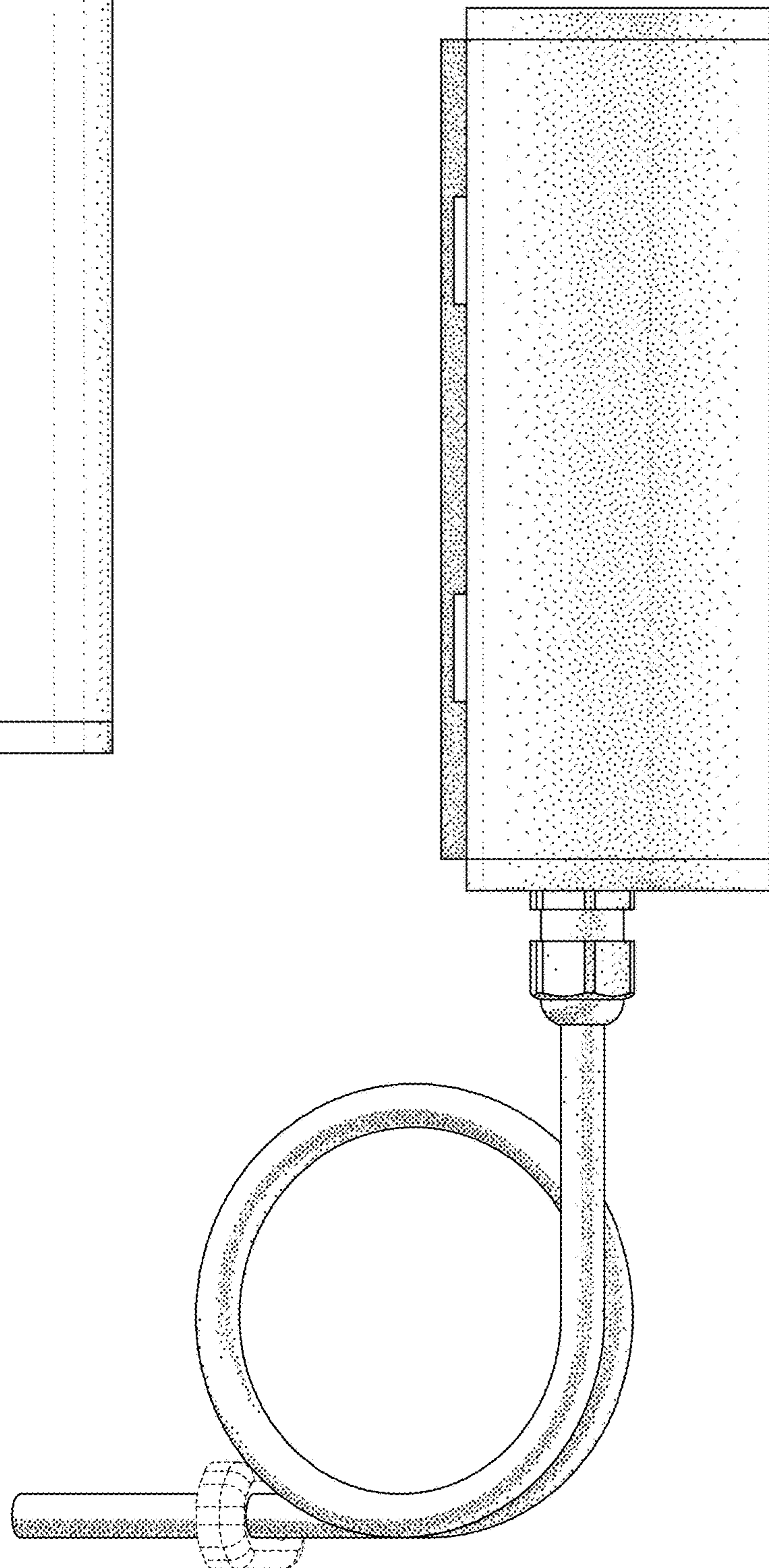


Figure 6

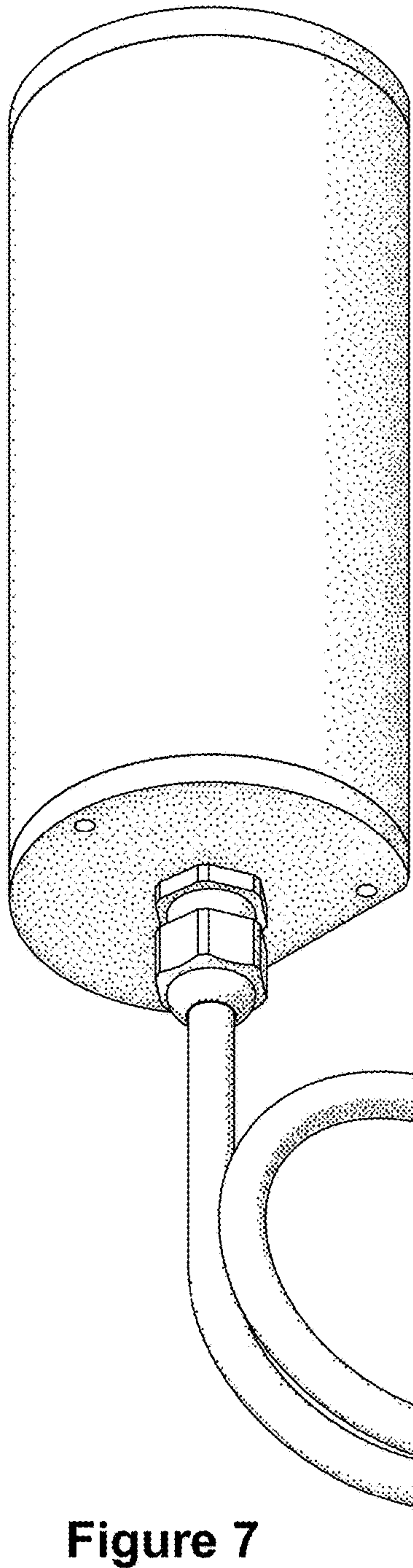


Figure 7

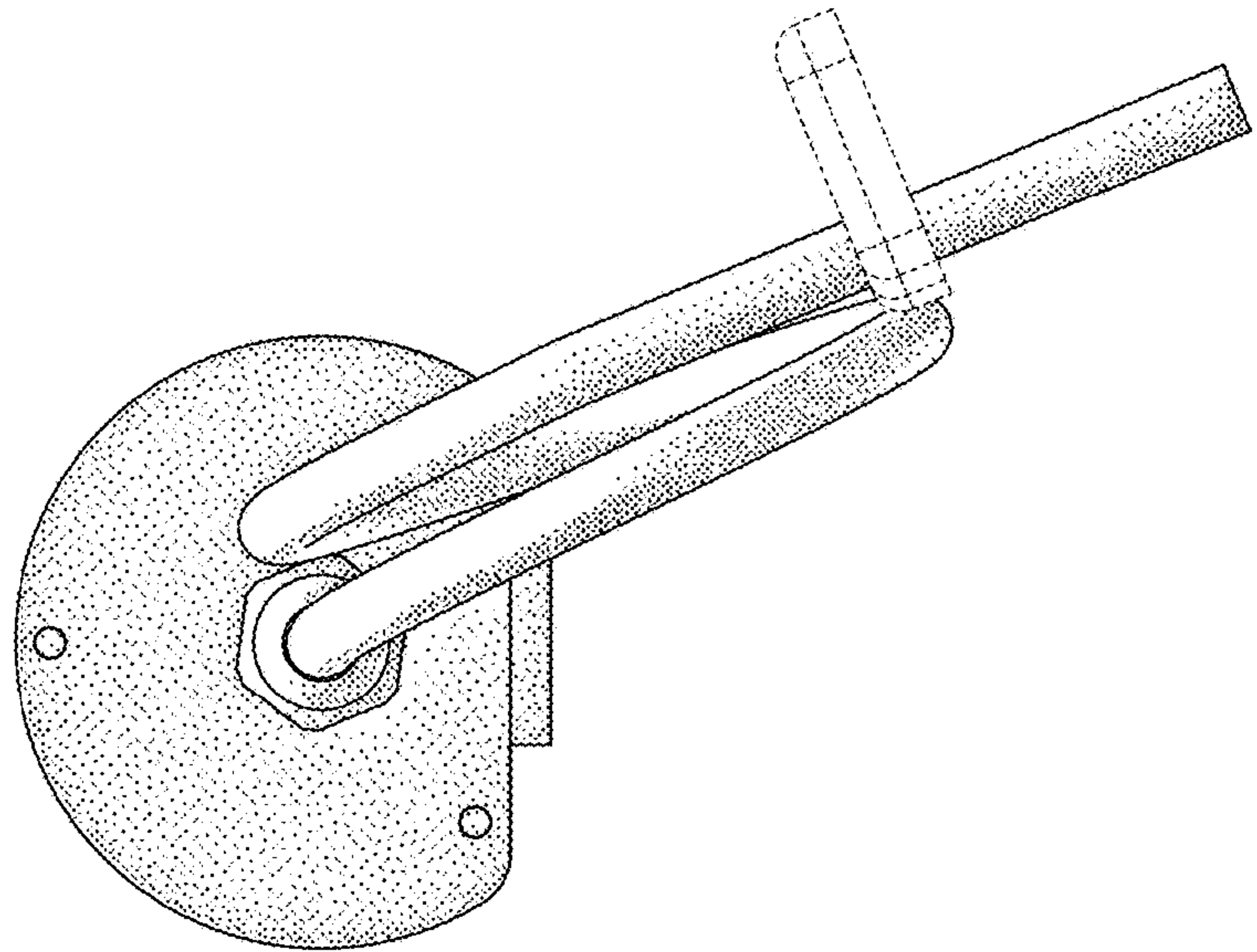


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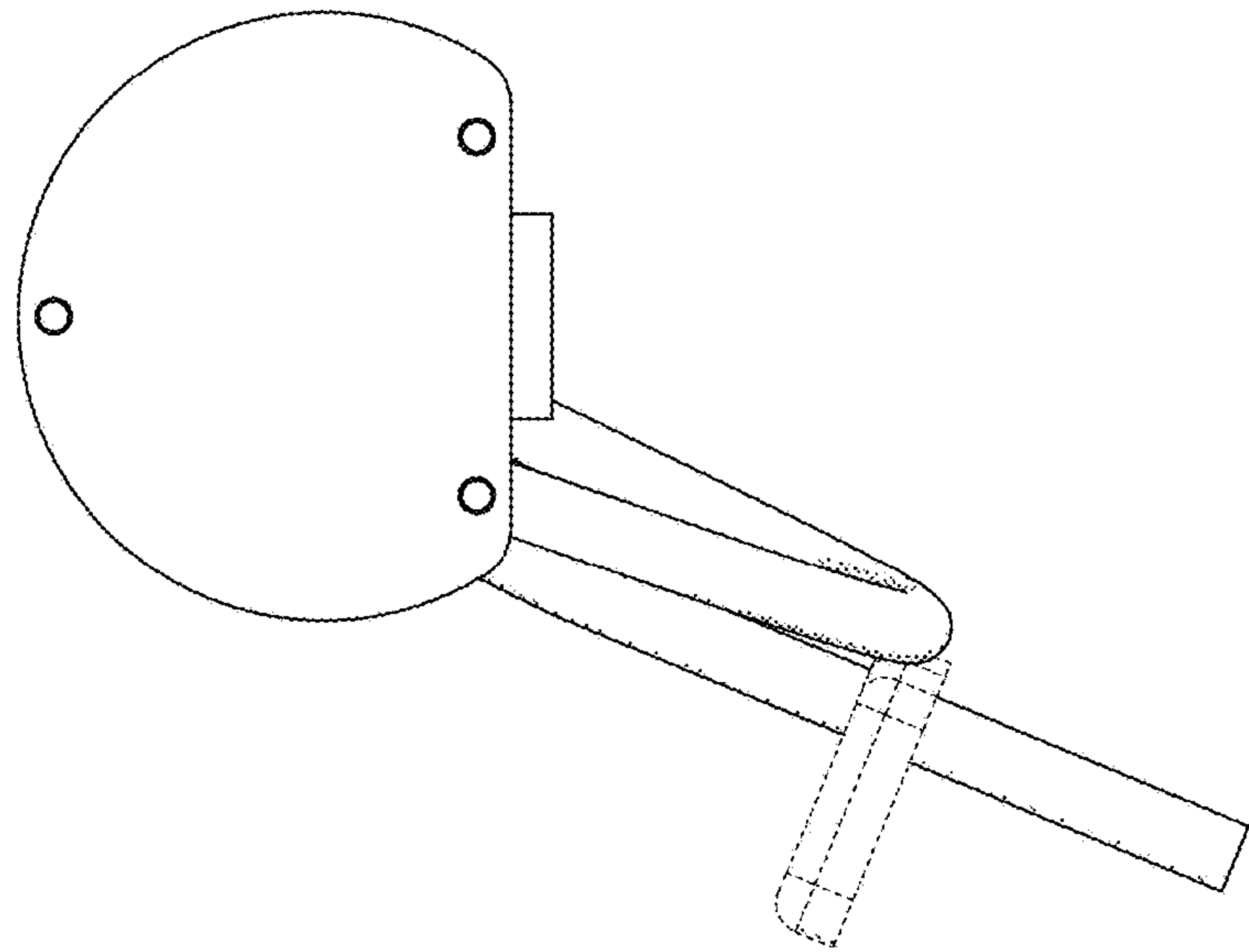


Figure 9

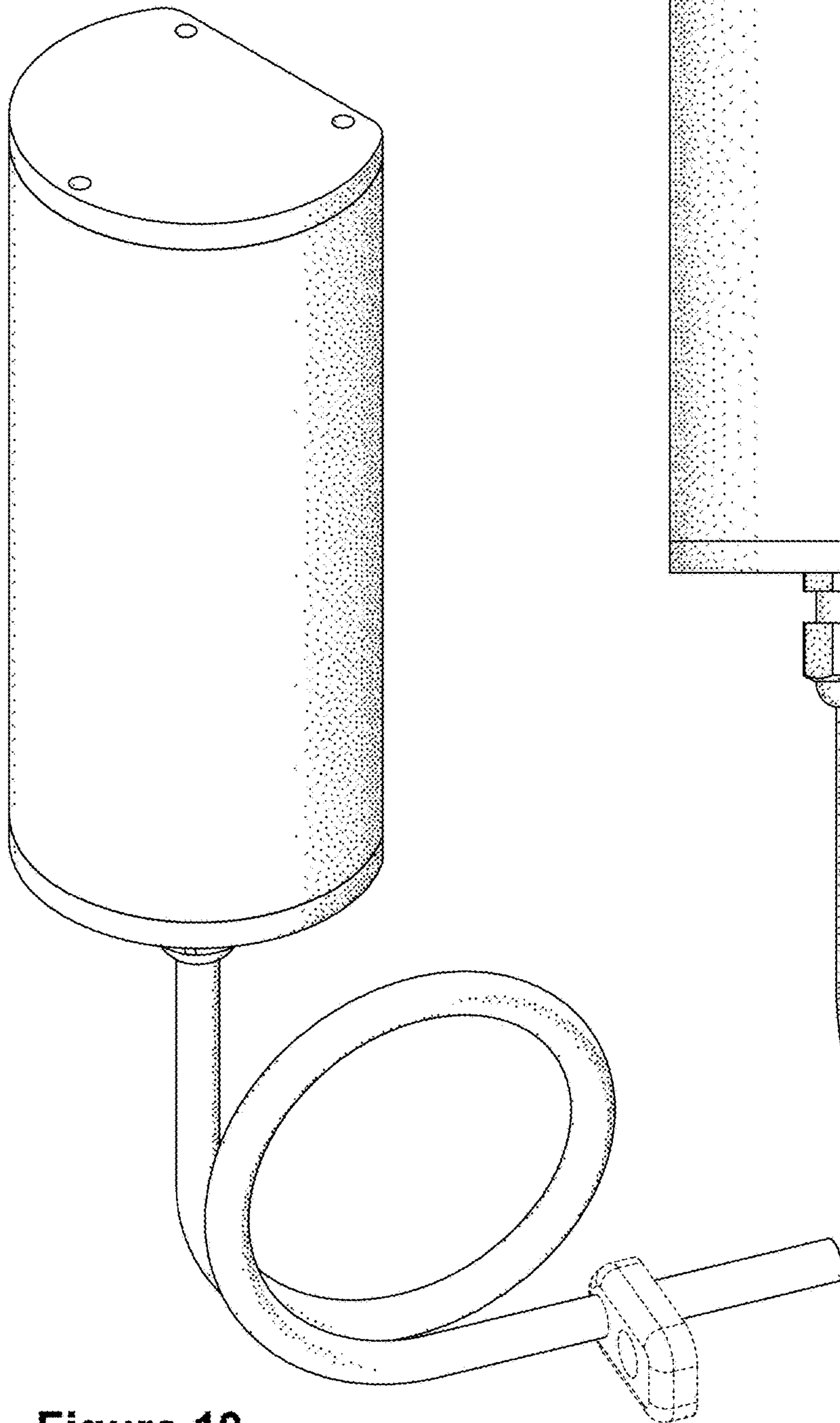


Figure 10

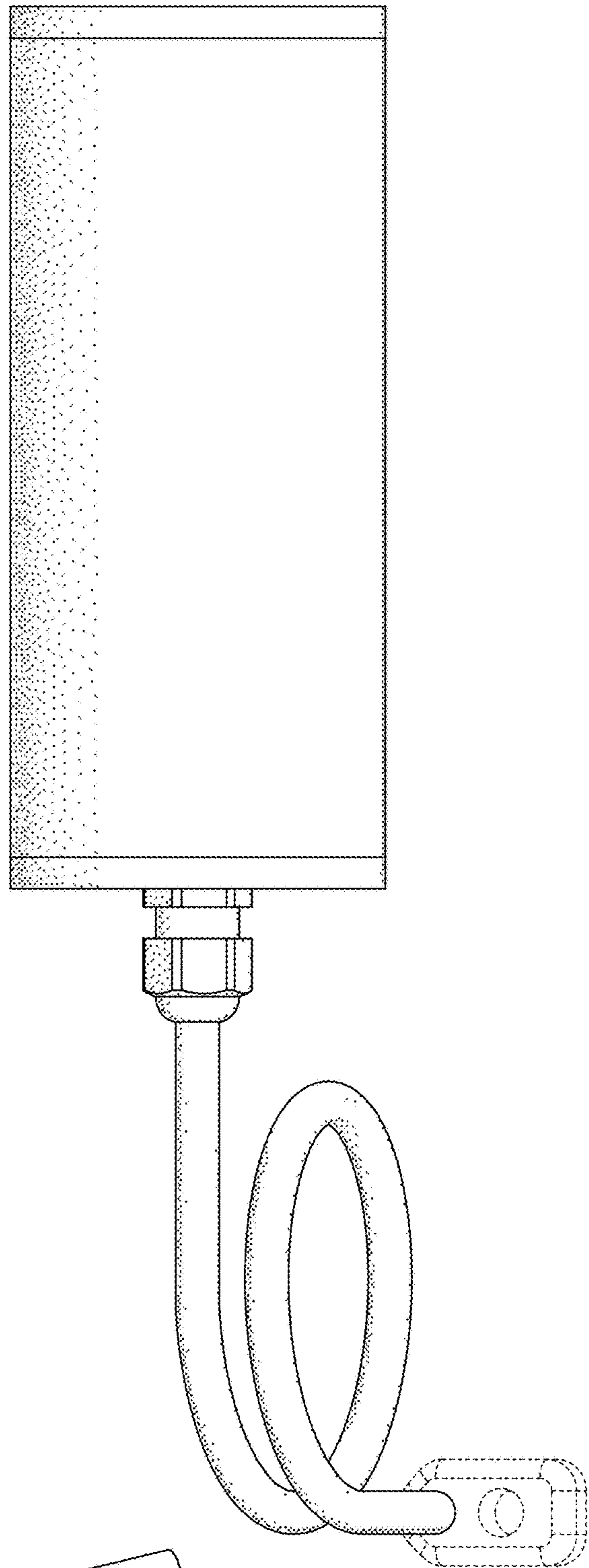


Figure 11

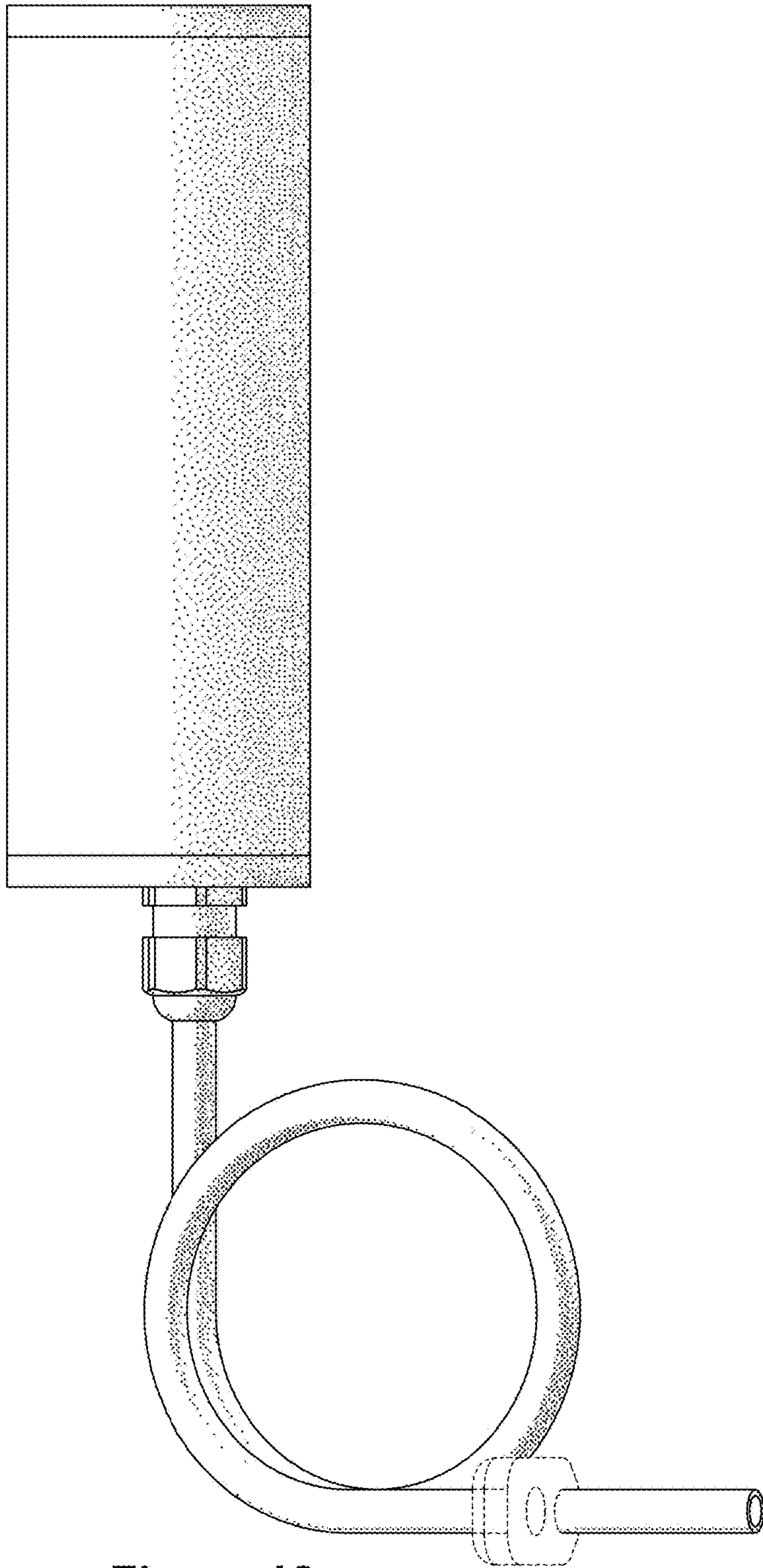


Figure 12

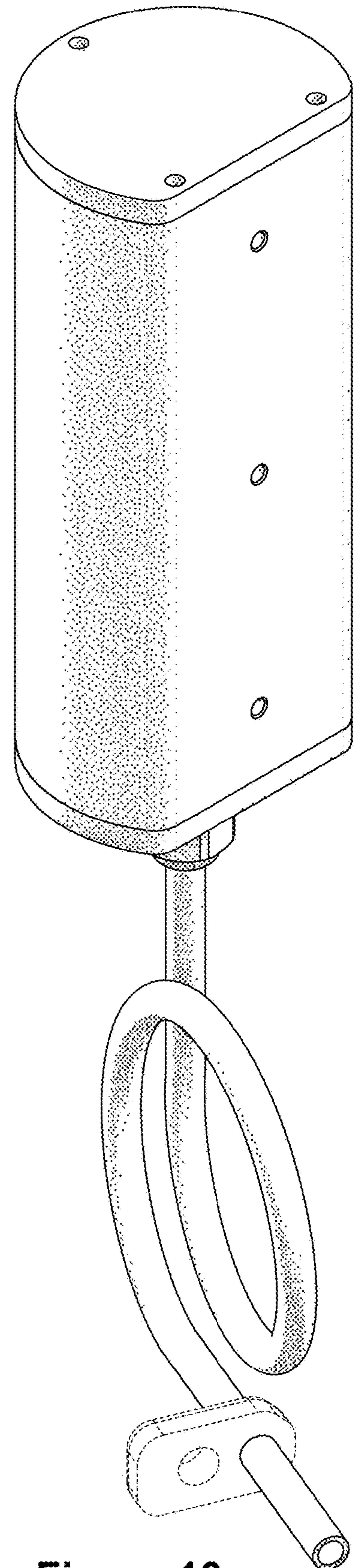


Figure 13

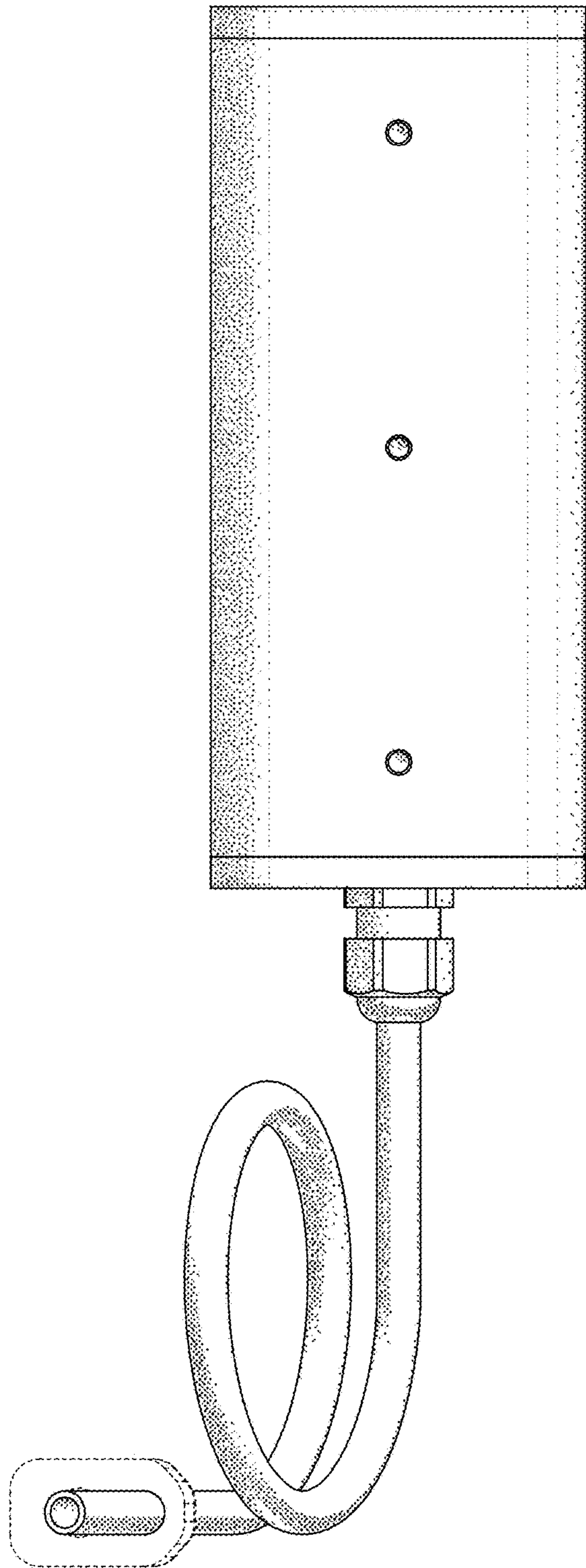


Figure 14

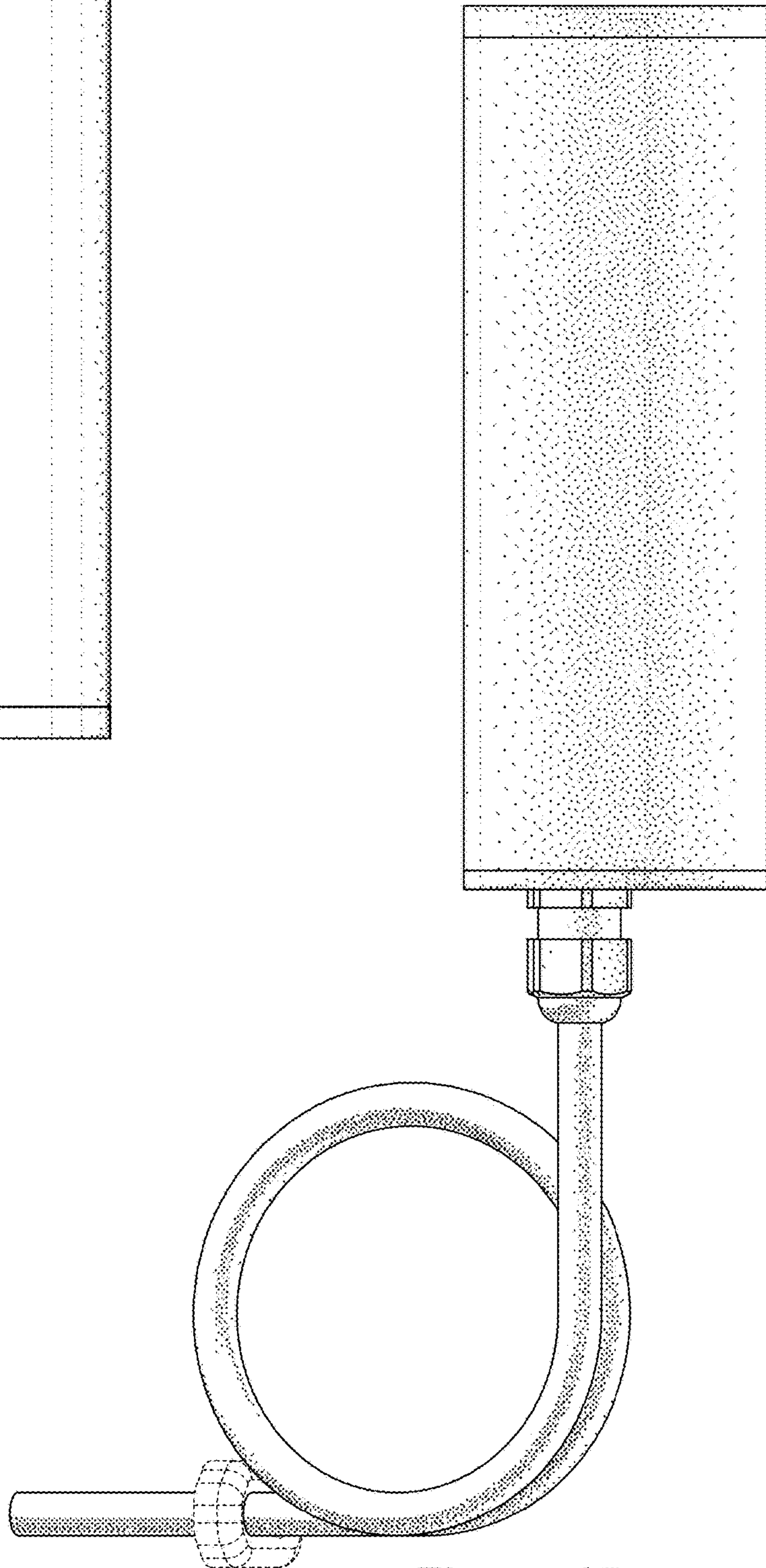


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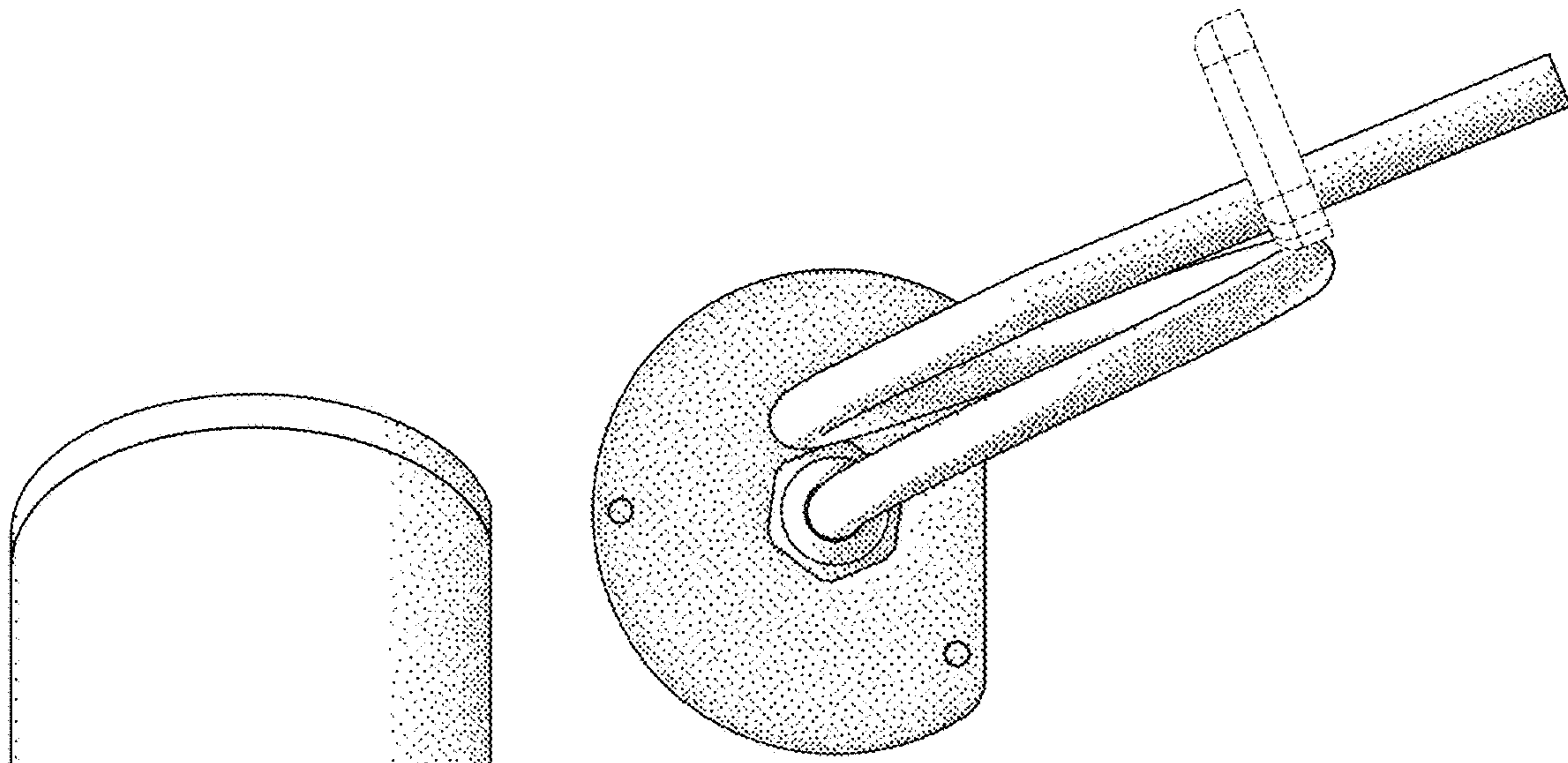


Figure 16

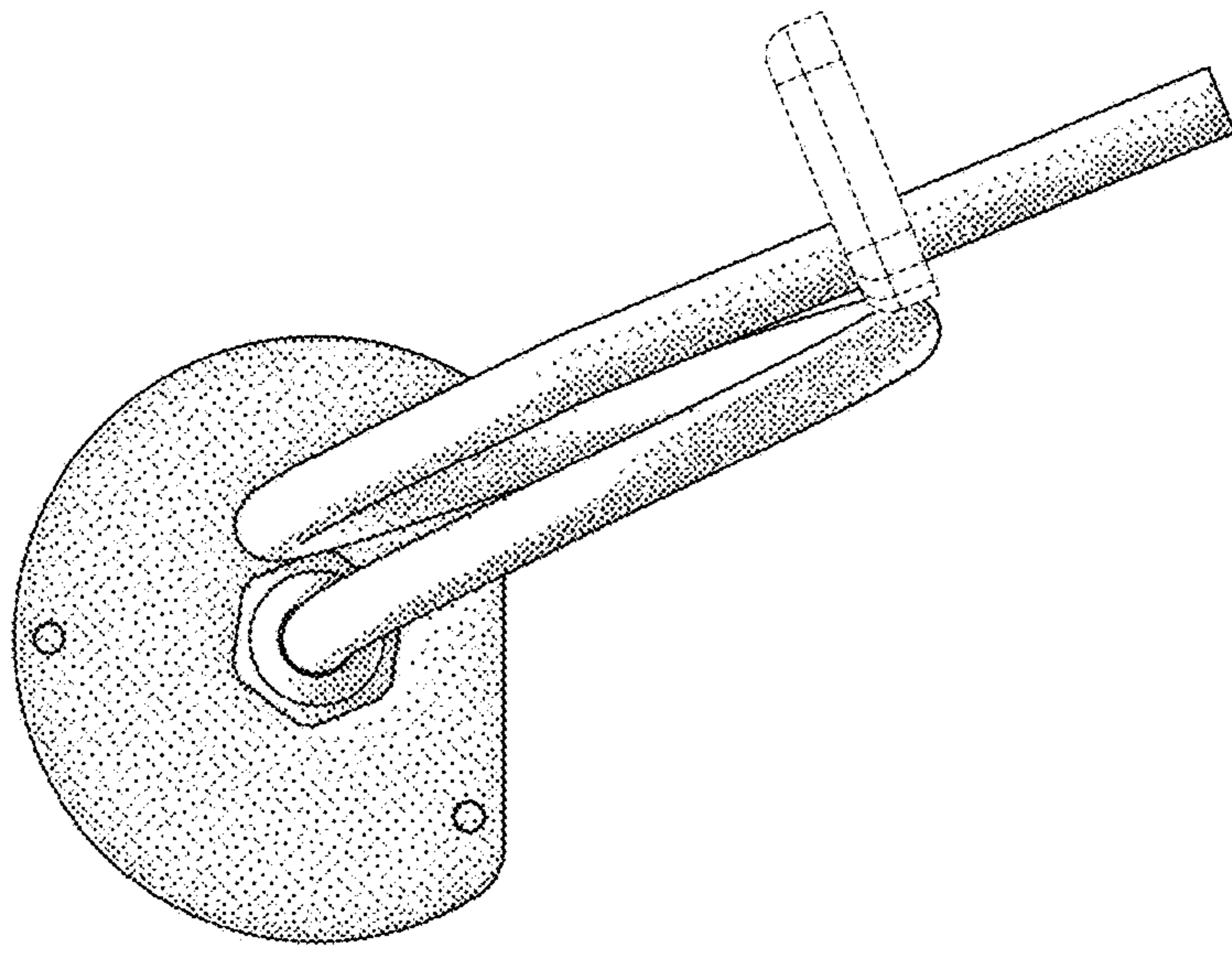


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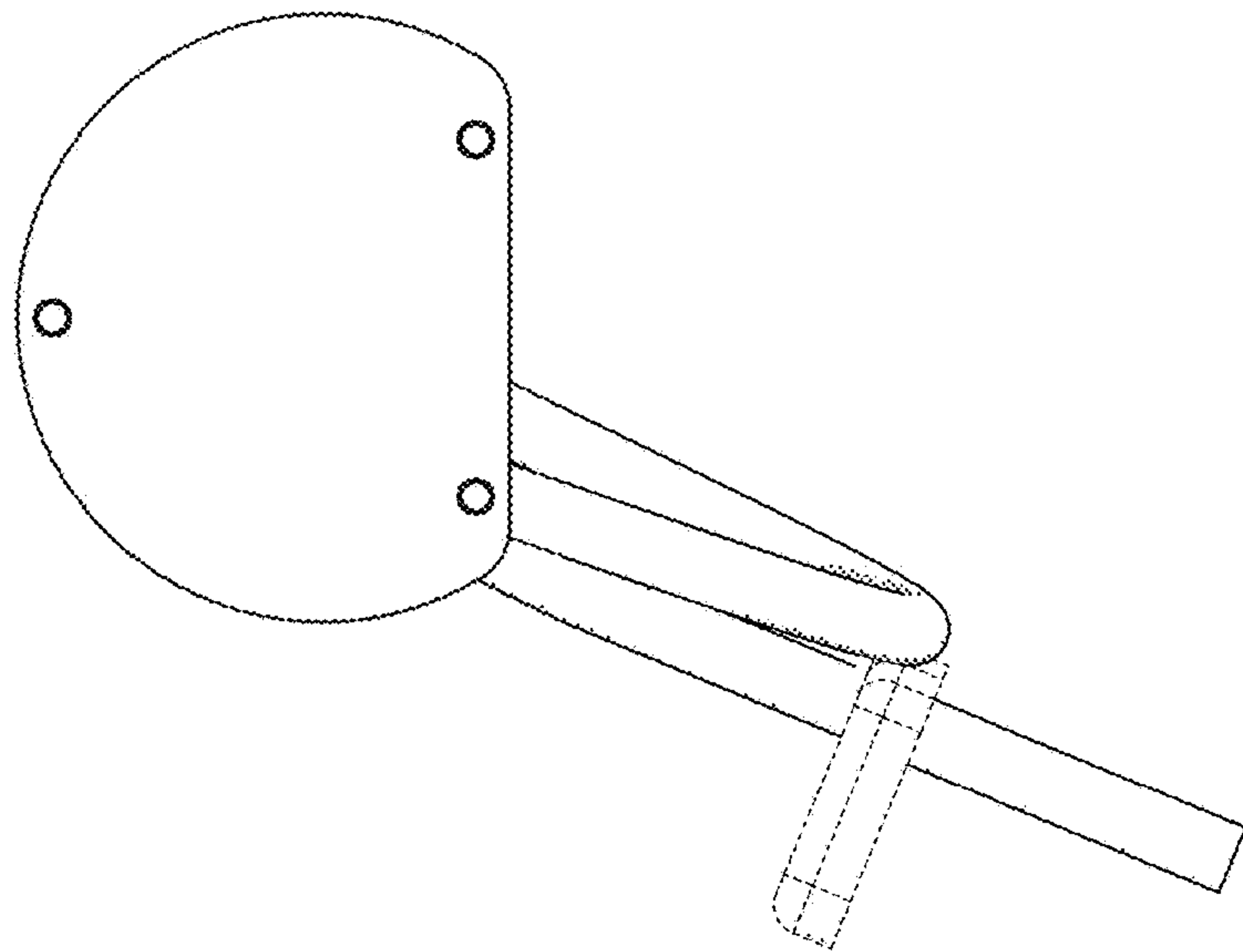


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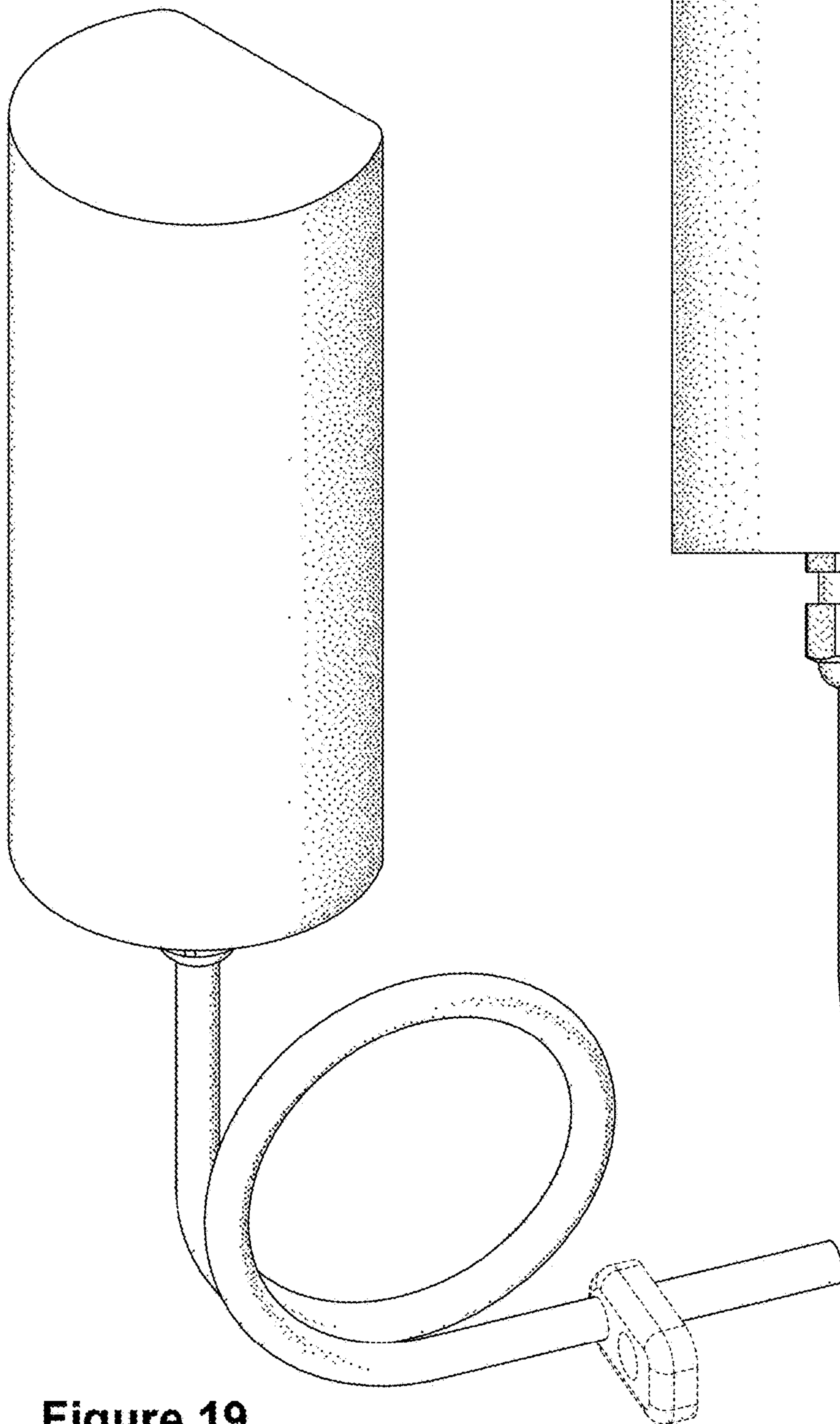


Figure 19

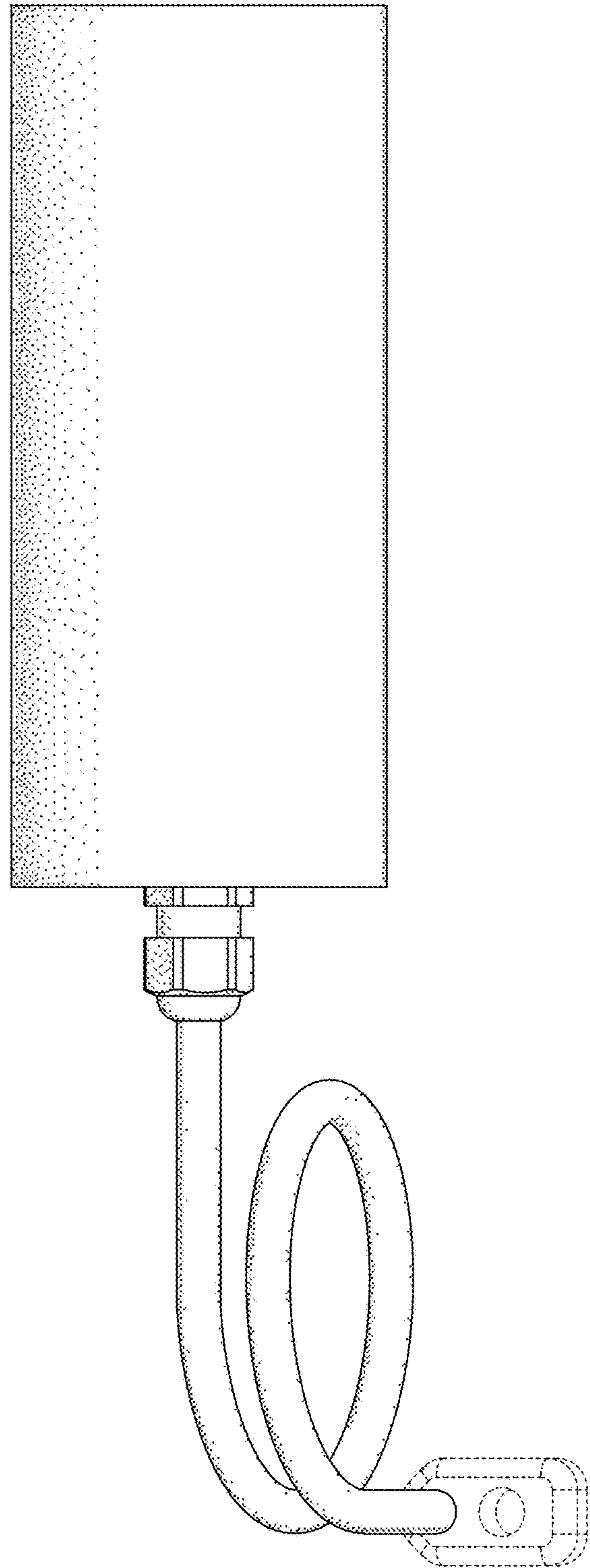


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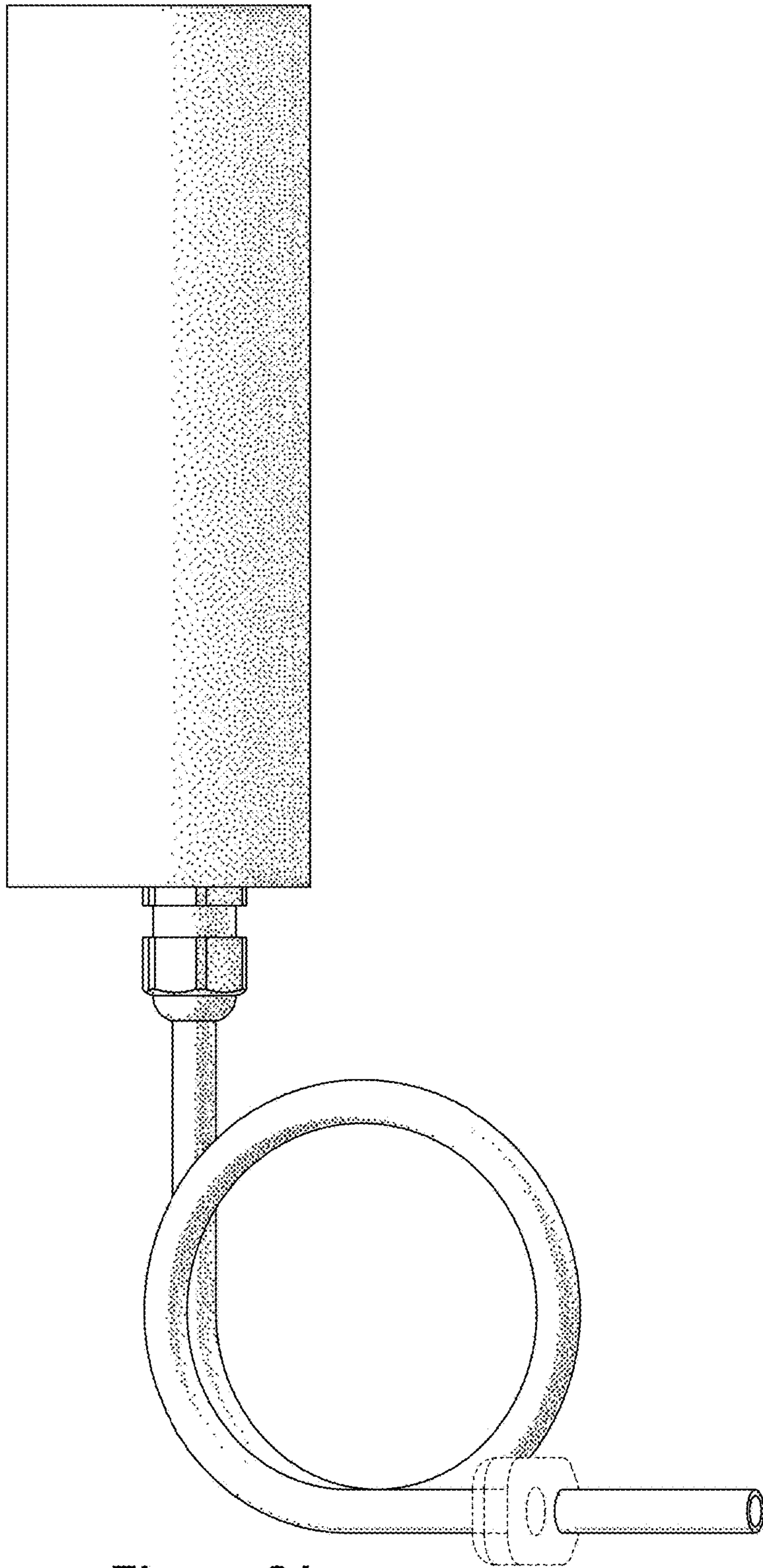


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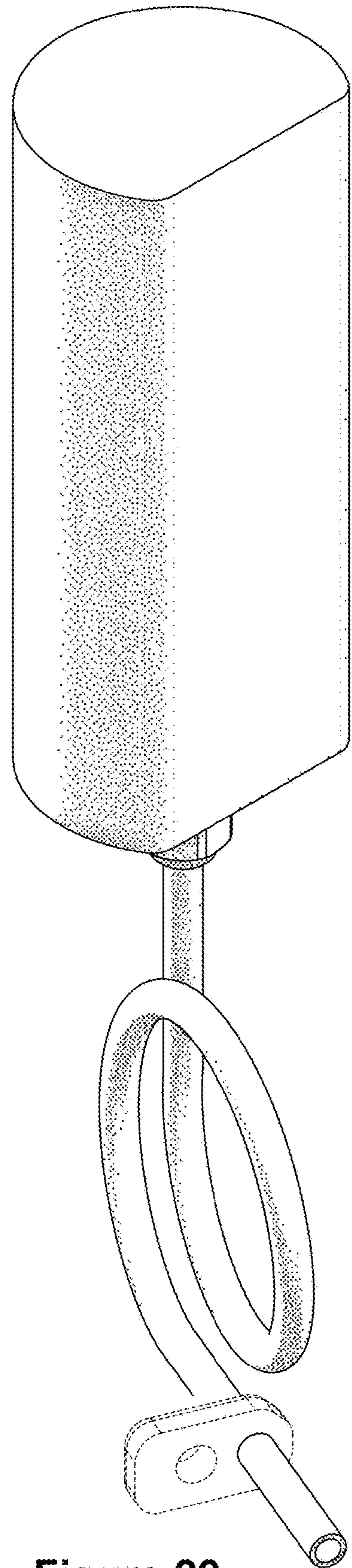


Figure 22

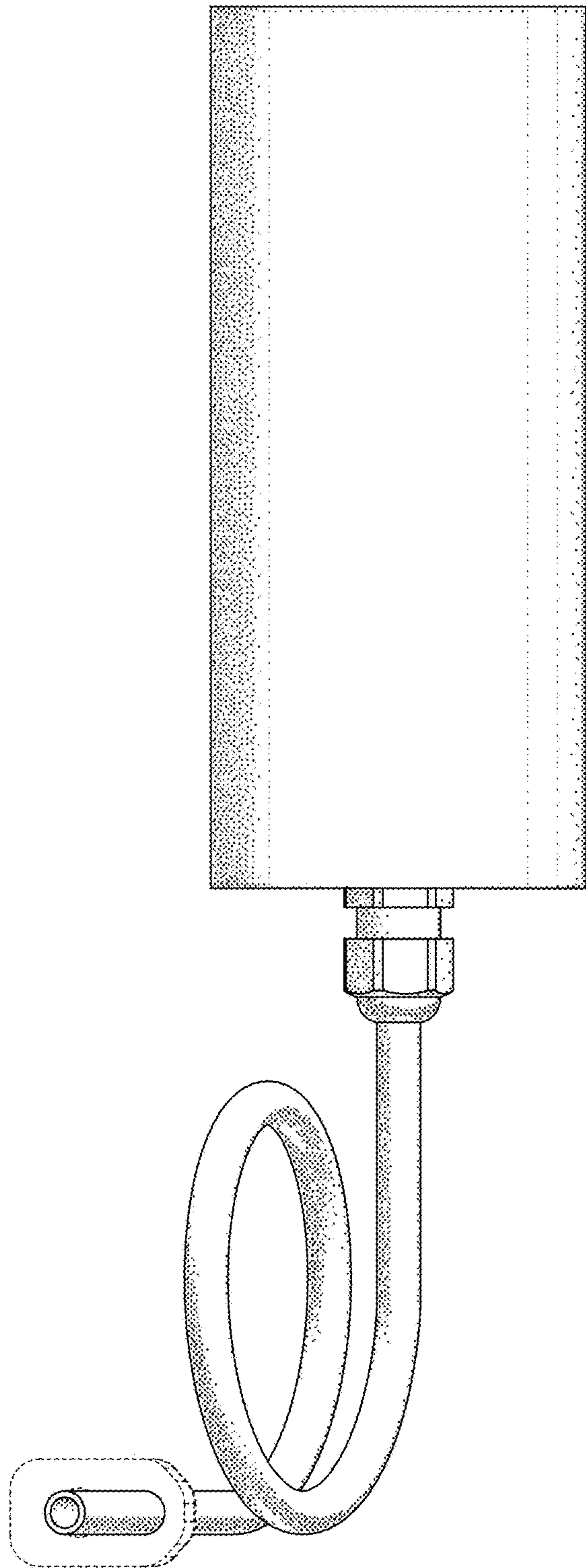


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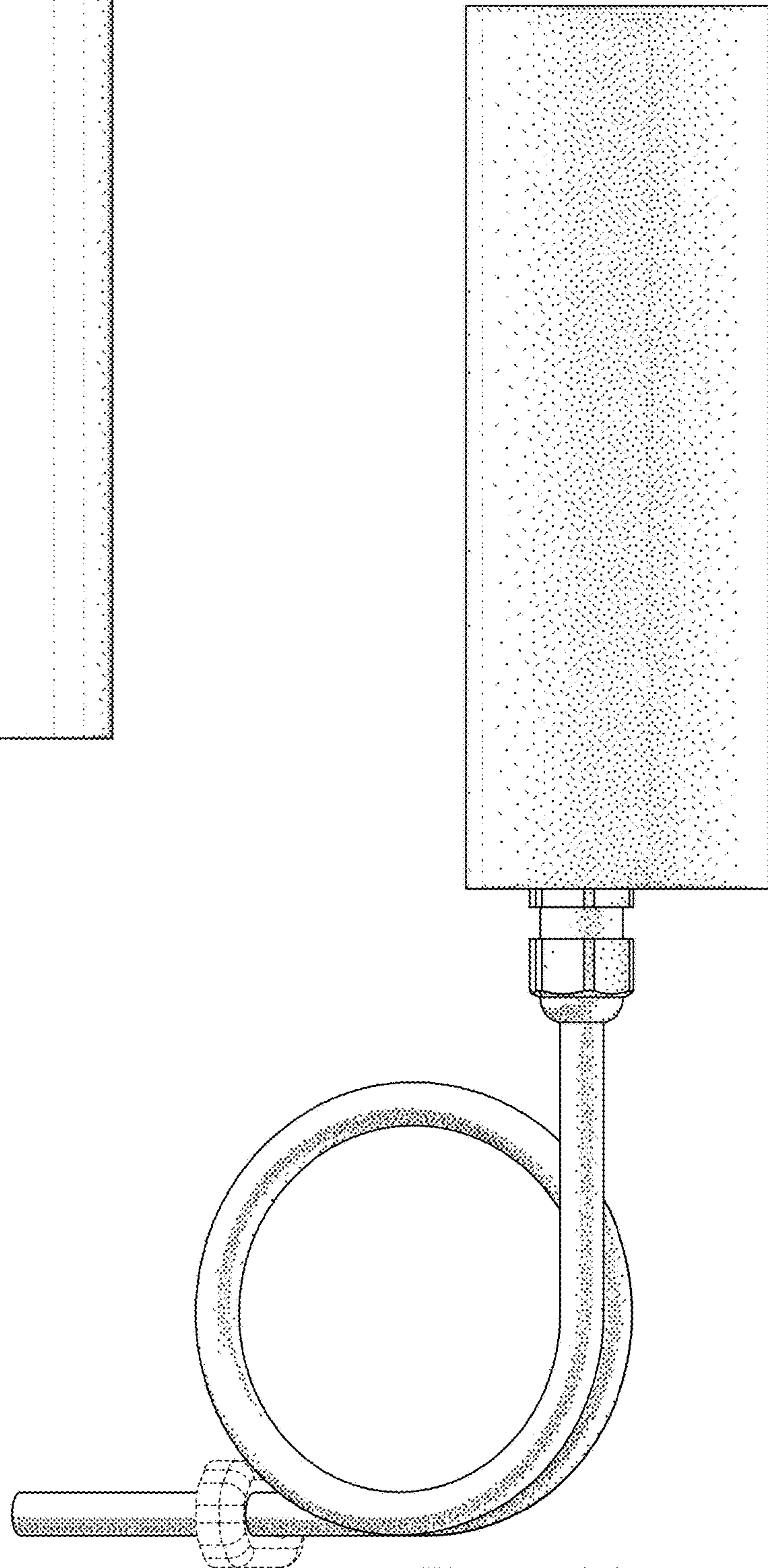


Figure 24

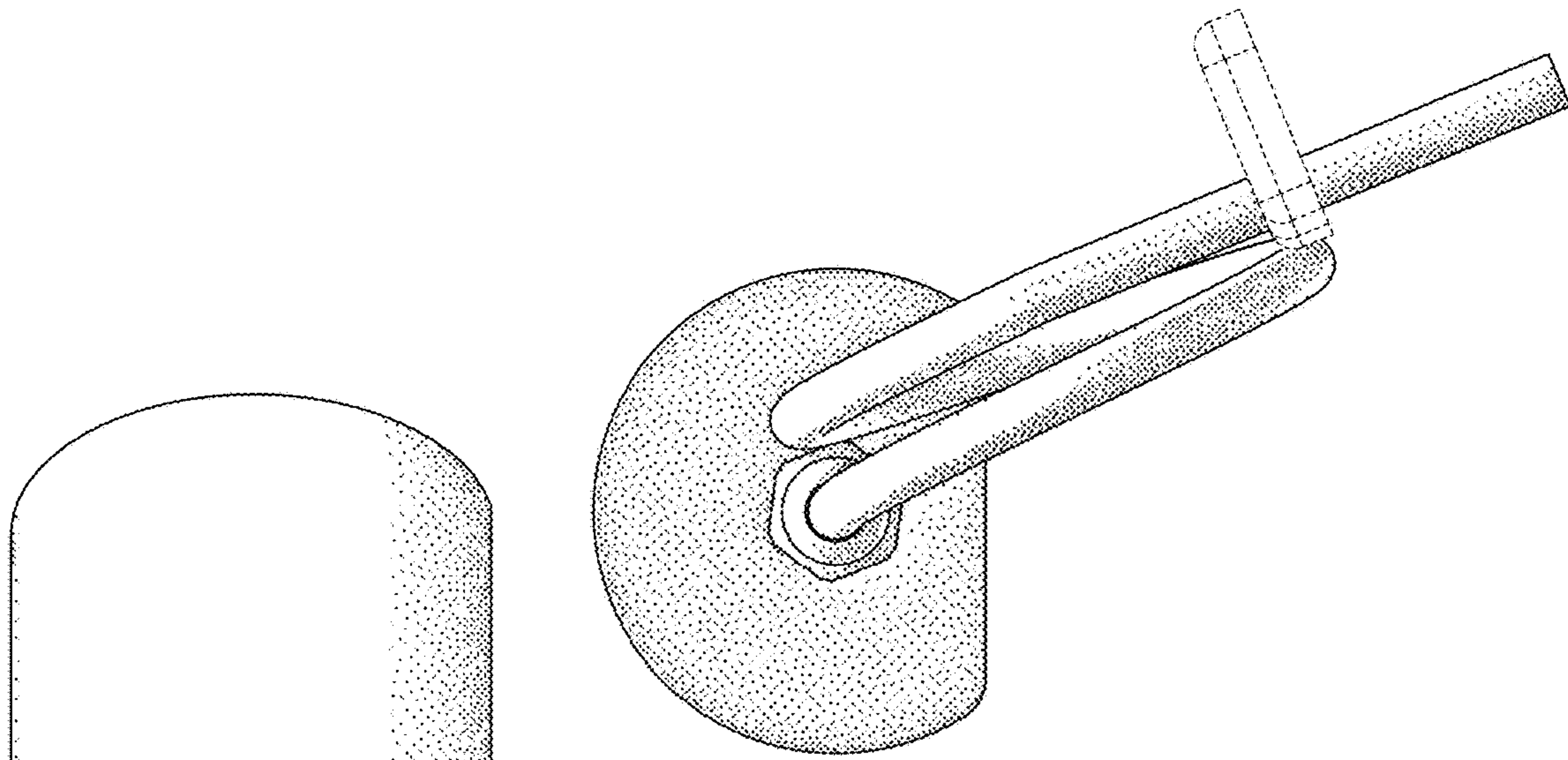


Figure 25

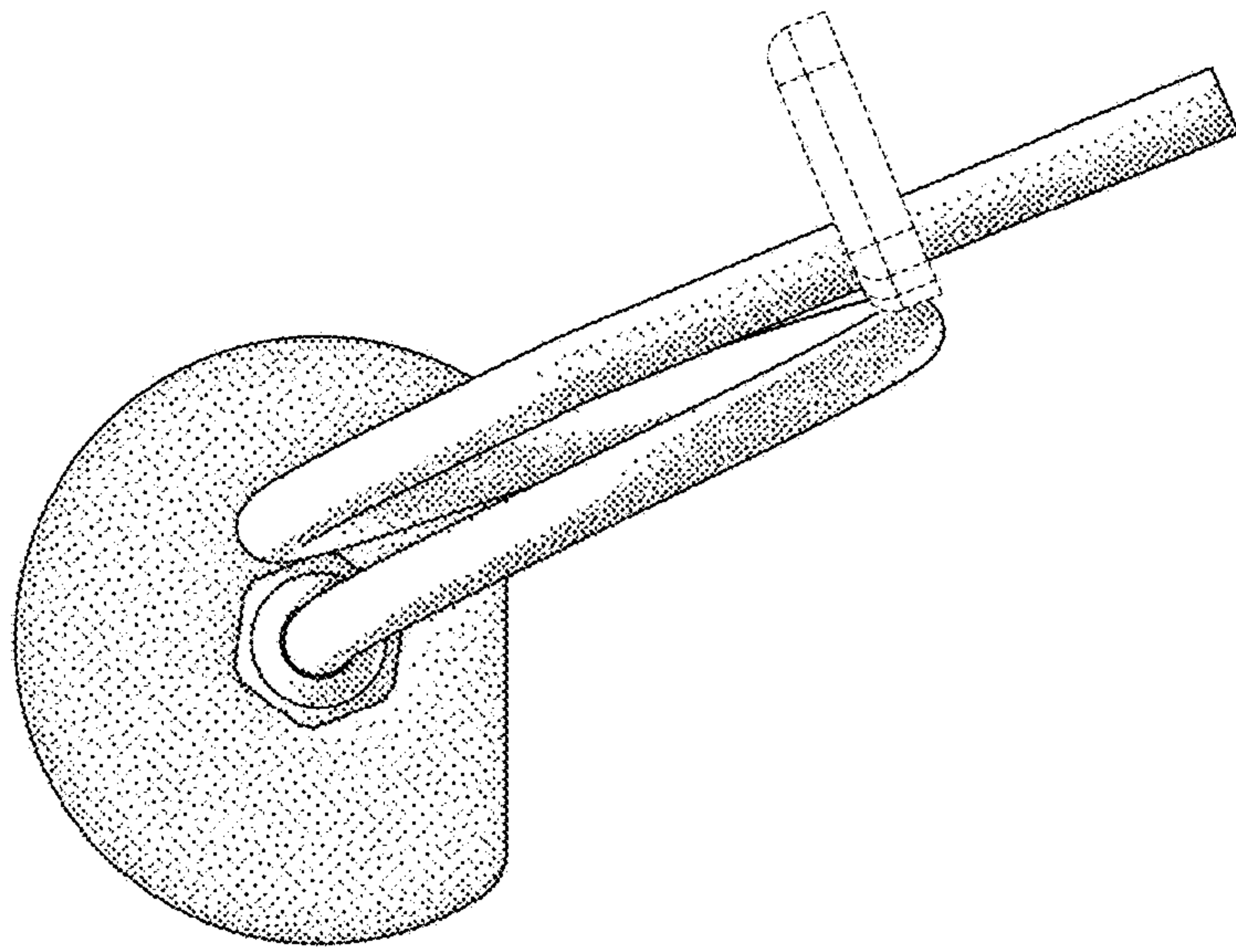


Figure 26

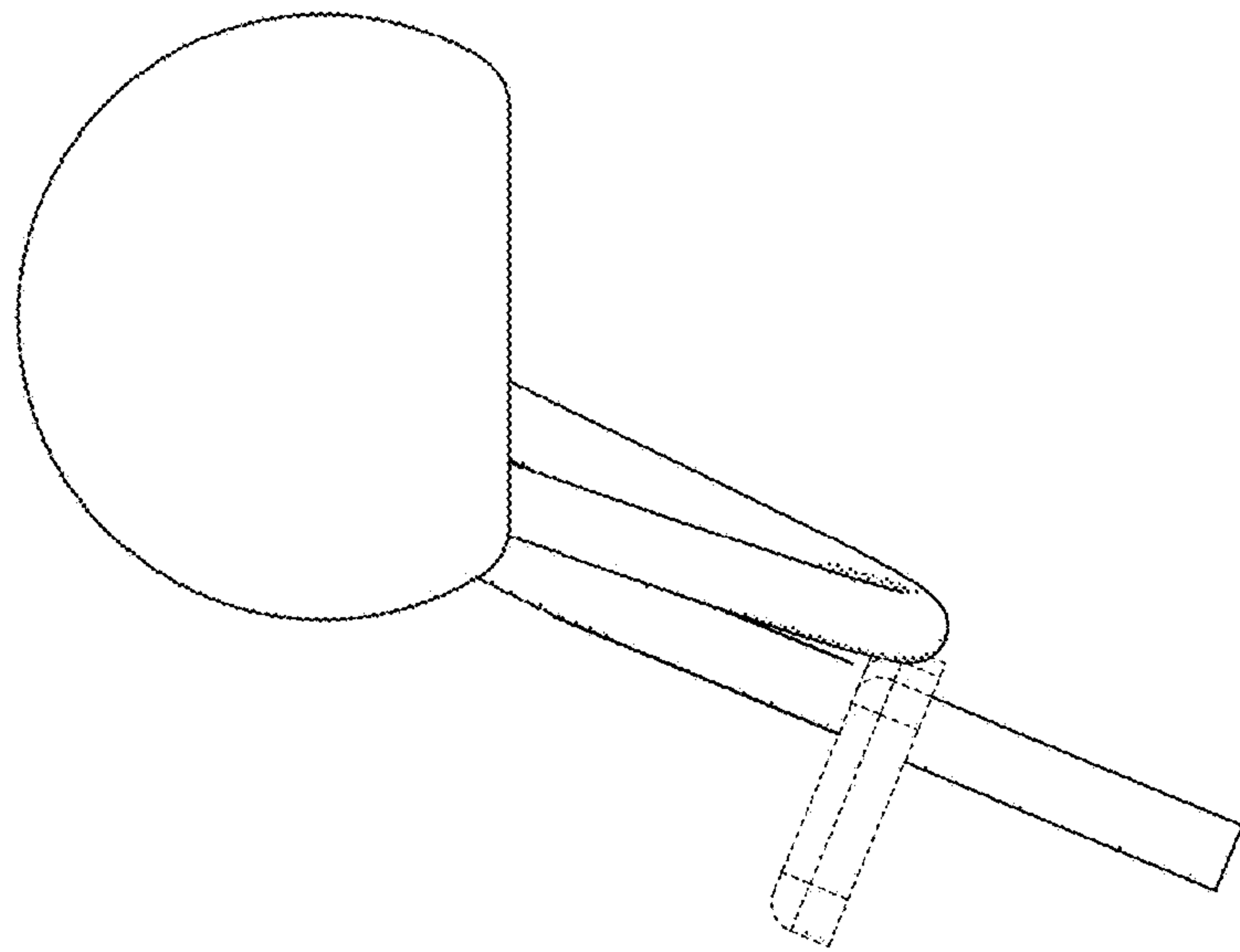


Figure 27