



US00D890213S

(12) **United States Design Patent** (10) **Patent No.:** **US D890,213 S**
Sato et al. (45) **Date of Patent:** **** Jul. 14, 2020**

(54) **FLUID PRESSURE CYLINDER**

(71) Applicant: **SMC CORPORATION**, Tokyo (JP)
(72) Inventors: **Soichi Sato**, Kashiwa (JP); **Ken Tamura**, Noda (JP); **Makoto Yaegashi**, Tsukubamirai (JP); **Kazufumi Waki**, Moriya (JP); **Naoki Shinjo**, Nagareyama (JP); **Seiichi Nagura**, Moriya (JP); **Kenta Onuki**, Tsukuba (JP)
(73) Assignee: **SMC CORPORATION**, Tokyo (JP)

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

(21) Appl. No.: **29/679,990**

(22) Filed: **Feb. 12, 2019**

(30) **Foreign Application Priority Data**

Aug. 30, 2018 (JP) 2018-018864
Aug. 30, 2018 (JP) 2018-018865

(51) **LOC (12) Cl.** **15-02**

(52) **U.S. Cl.**
USPC **D15/7**

(58) **Field of Classification Search**
USPC D15/7, 9, 143, 148, 149, 199; D10/85; D23/233, 235

(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

D370,683 S * 6/1996 Stahlman D15/7
D417,457 S * 12/1999 Asahara D15/7

(Continued)

FOREIGN PATENT DOCUMENTS

JP 1575588 S 5/2007
JP 1317457 S 12/2007

(Continued)

OTHER PUBLICATIONS

Found on amazon [online], [site visited Apr. 2, 2020]. Available from internet, URL: <[https://www.automationdirect.com/ad/shopping/catalog/pneumatic_components/pneumatic_air_cylinders/nfpa_tie_rod_air_cylinders_\(d-series\)/d40080dt-m](https://www.automationdirect.com/ad/shopping/catalog/pneumatic_components/pneumatic_air_cylinders/nfpa_tie_rod_air_cylinders_(d-series)/d40080dt-m)> (Year:2020) (Year: 2020).*

Primary Examiner — Sheryl Lane

Assistant Examiner — Mark T Philipps

(74) *Attorney, Agent, or Firm* — Birch, Stewart, Kolasch & Birch, LLP

(57) **CLAIM**

The ornamental design for a fluid pressure cylinder, as shown and described.

DESCRIPTION

FIG. 1 is a front, top and left side perspective view of a fluid pressure cylinder showing a first embodiment of our new design;

FIG. 2 is a rear, bottom and right side perspective view thereof;

FIG. 3 is a front view thereof;

FIG. 4 is a rear view thereof;

FIG. 5 is a top plan view thereof;

FIG. 6 is a bottom plan view thereof;

FIG. 7 is a left side view thereof;

FIG. 8 is a right side view thereof;

FIG. 9 is a sectional view taken along the line 9-9 of FIG. 3;

FIG. 10 a front, top and left side perspective view of a fluid pressure cylinder showing a second embodiment of our new design;

FIG. 11 is a rear, bottom and right side perspective view of FIG. 10;

FIG. 12 is a front view of FIG. 10;

FIG. 13 is a rear view of FIG. 10;

FIG. 14 is a top plan view of FIG. 10;

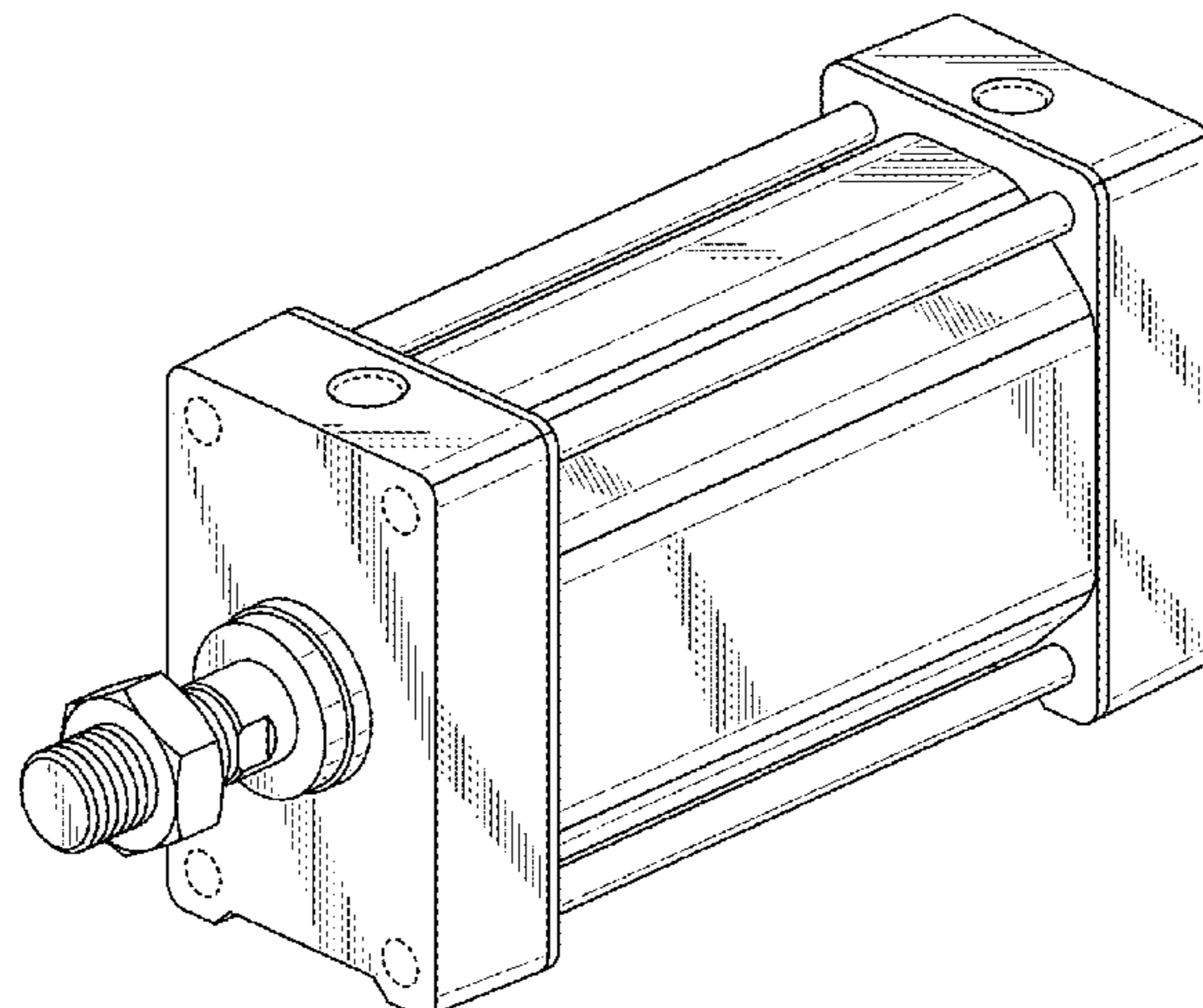
FIG. 15 is a bottom plan view of FIG. 10;

FIG. 16 is a left side view of FIG. 10;

FIG. 17 is a right side view of FIG. 10; and,

FIG. 18 is a sectional view taken along the line 18-18 of FIG. 12.

(Continued)



US D890,213 S

Page 2

The broken lines depict portions of the fluid pressure cylinder that form no part of the claimed design.

1 Claim, 18 Drawing Sheets

(58) Field of Classification Search

CPC F02M 37/04; F02M 31/14; F04D 29/4286;
F15B 15/14; F15B 15/16; F15B 15/26;
F15B 14/1919; F15B 16/1414

See application file for complete search history.

(56) References Cited

U.S. PATENT DOCUMENTS

D480,405 S * 10/2003 Kleffmann D15/143
D500,258 S * 12/2004 Kita D10/85
D500,259 S * 12/2004 Kita D10/85
D575,175 S * 8/2008 Suzuki D10/85

D669,097 S * 10/2012 Hariwara D15/7
D669,098 S * 10/2012 Hariwara D15/7
D682,901 S * 5/2013 Peschel D15/143
D699,759 S * 2/2014 Peschel D15/7
D699,760 S * 2/2014 Peschel D15/7
D699,761 S * 2/2014 Peschel D15/7
D757,120 S * 5/2016 Kudo D15/7
D760,805 S * 7/2016 Monden D15/7
D772,302 S * 11/2016 Zhang D15/7
D780,228 S * 2/2017 Kudo D15/7
D805,559 S * 12/2017 Kudo D15/7
D805,560 S * 12/2017 Kudo D15/7
D819,700 S * 6/2018 Kudo D15/7
D820,321 S * 6/2018 Kudo D15/7
D871,457 S * 12/2019 Ikari D15/7

FOREIGN PATENT DOCUMENTS

JP 1444539 S 6/2012
JP 1444540 S 6/2012
JP 1520205 S 3/2015

* cited by examiner

FIG. 1

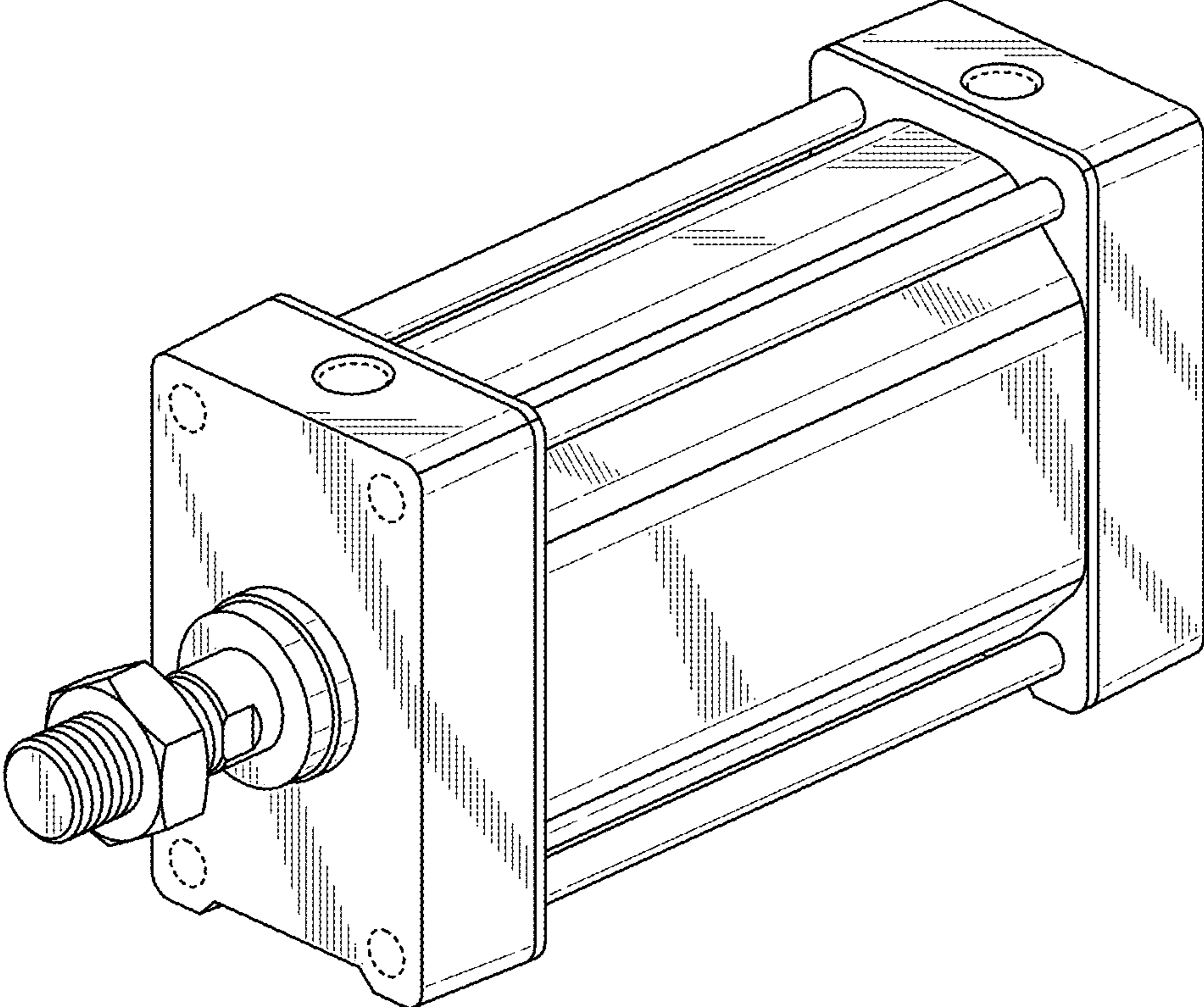


FIG. 2

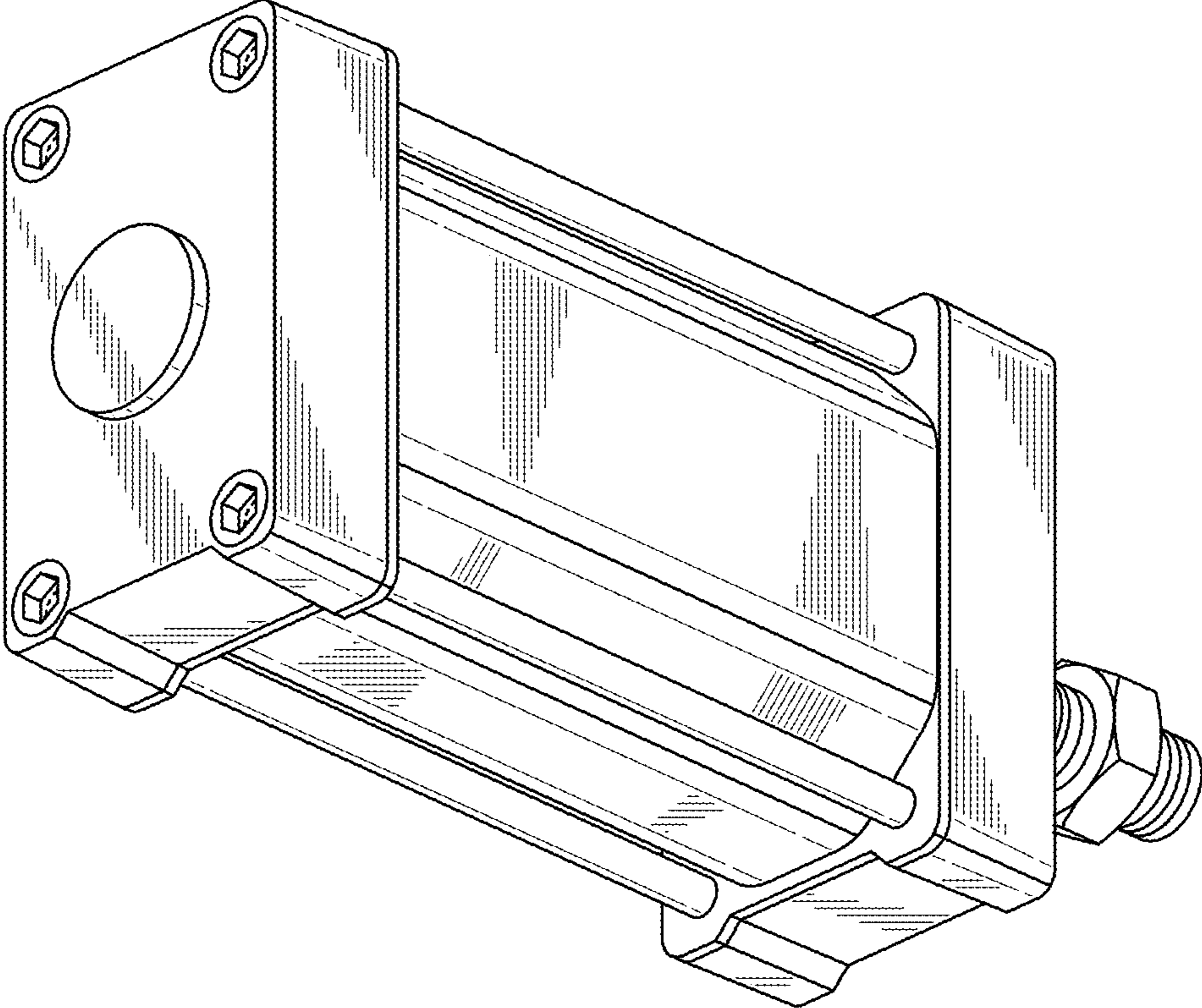


FIG. 3

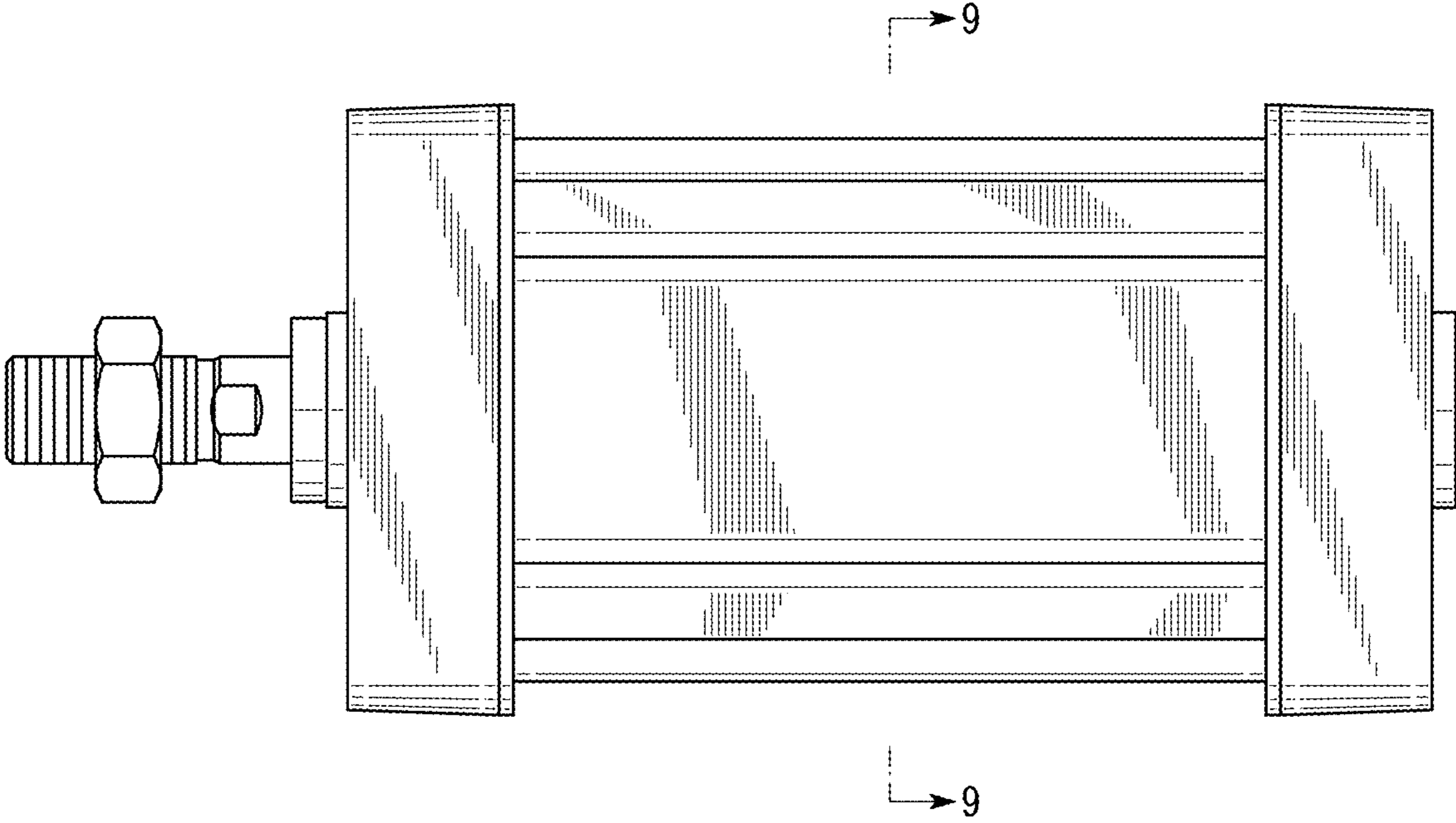


FIG. 4

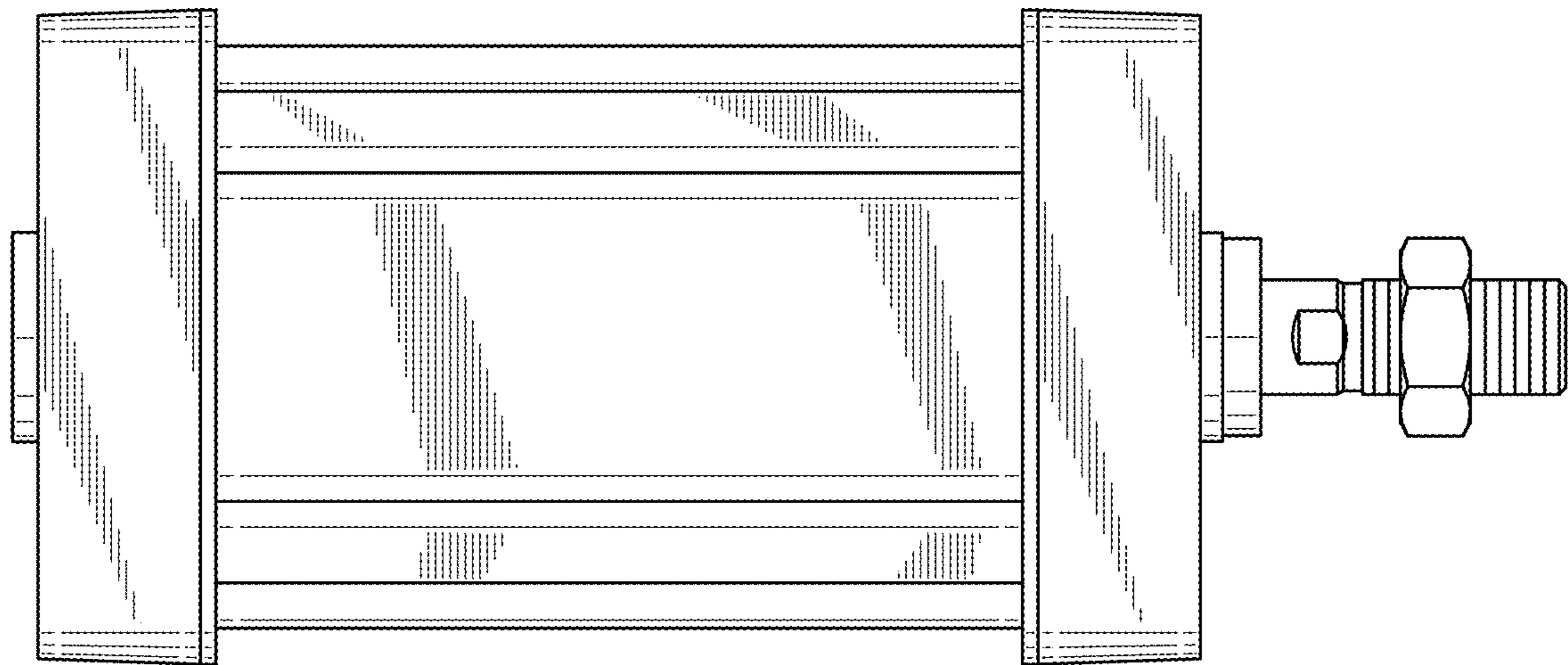


FIG. 5

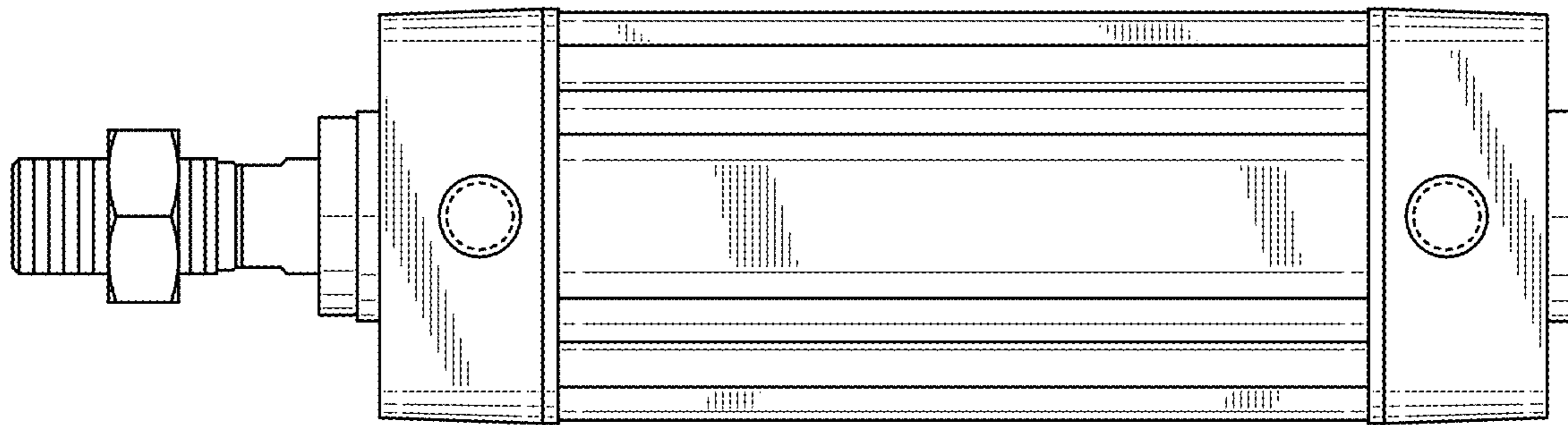


FIG. 6

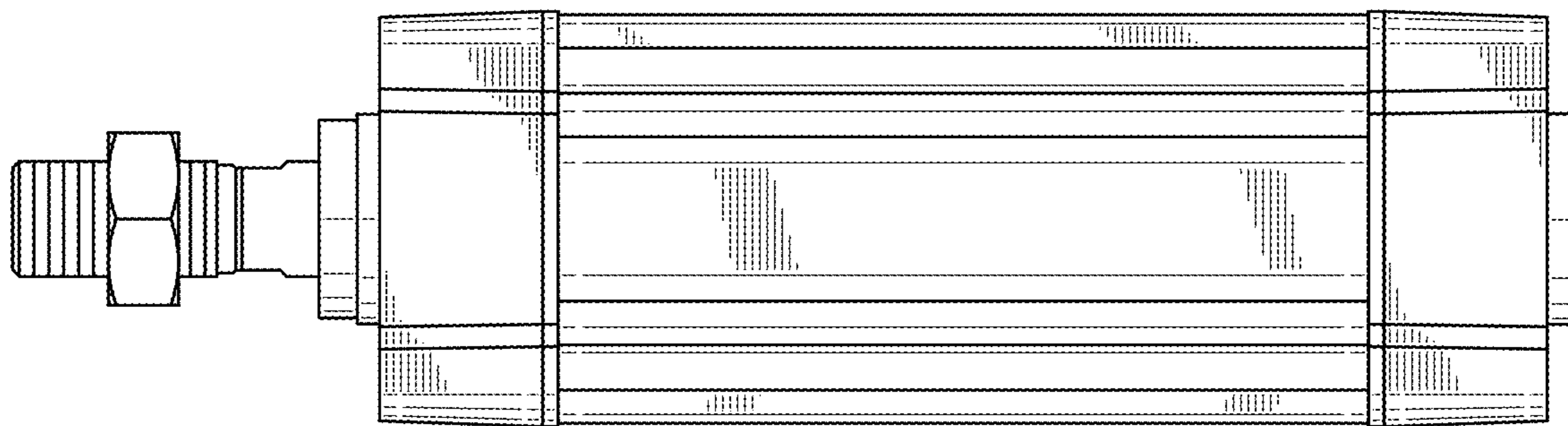


FIG. 7

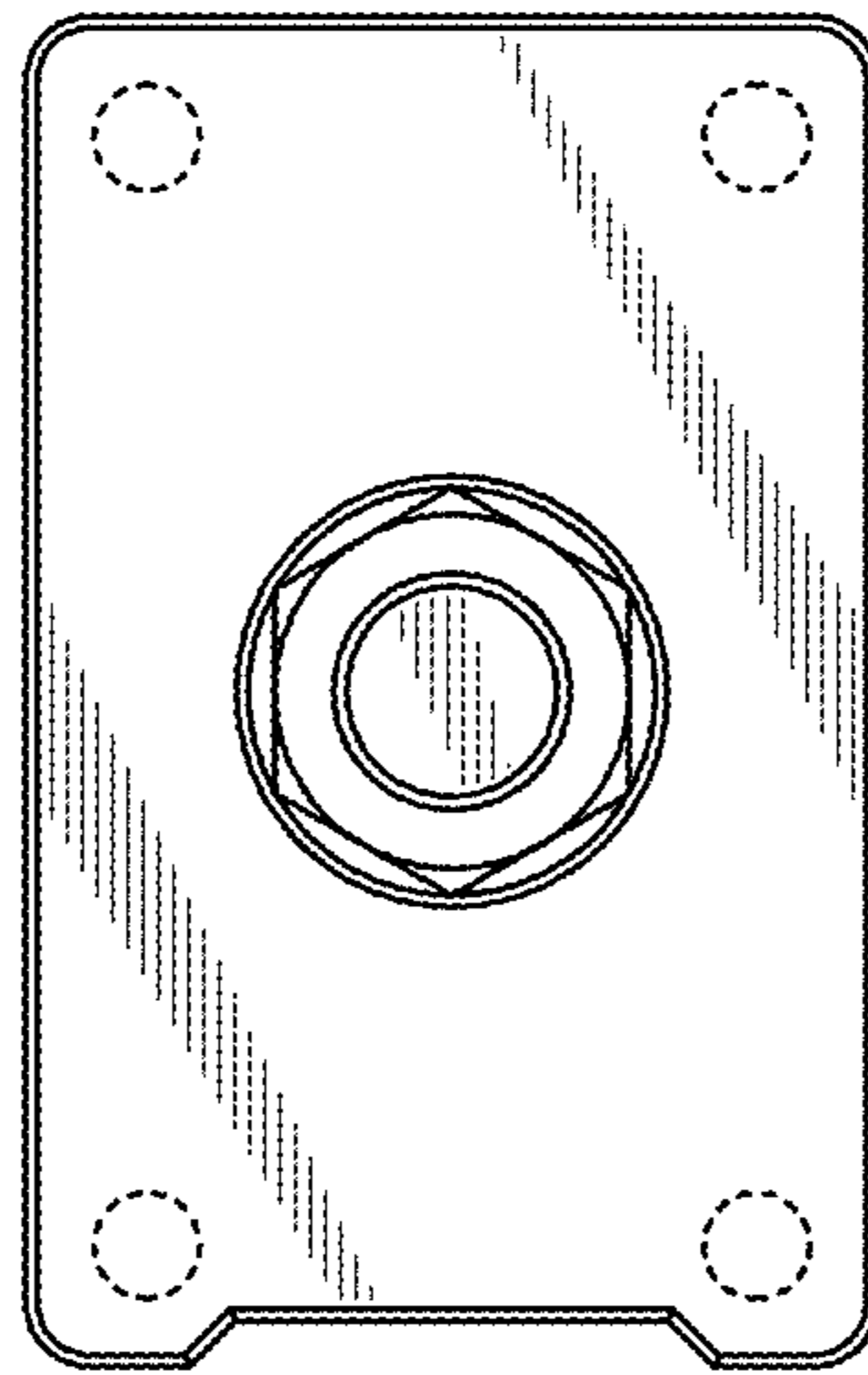


FIG. 8

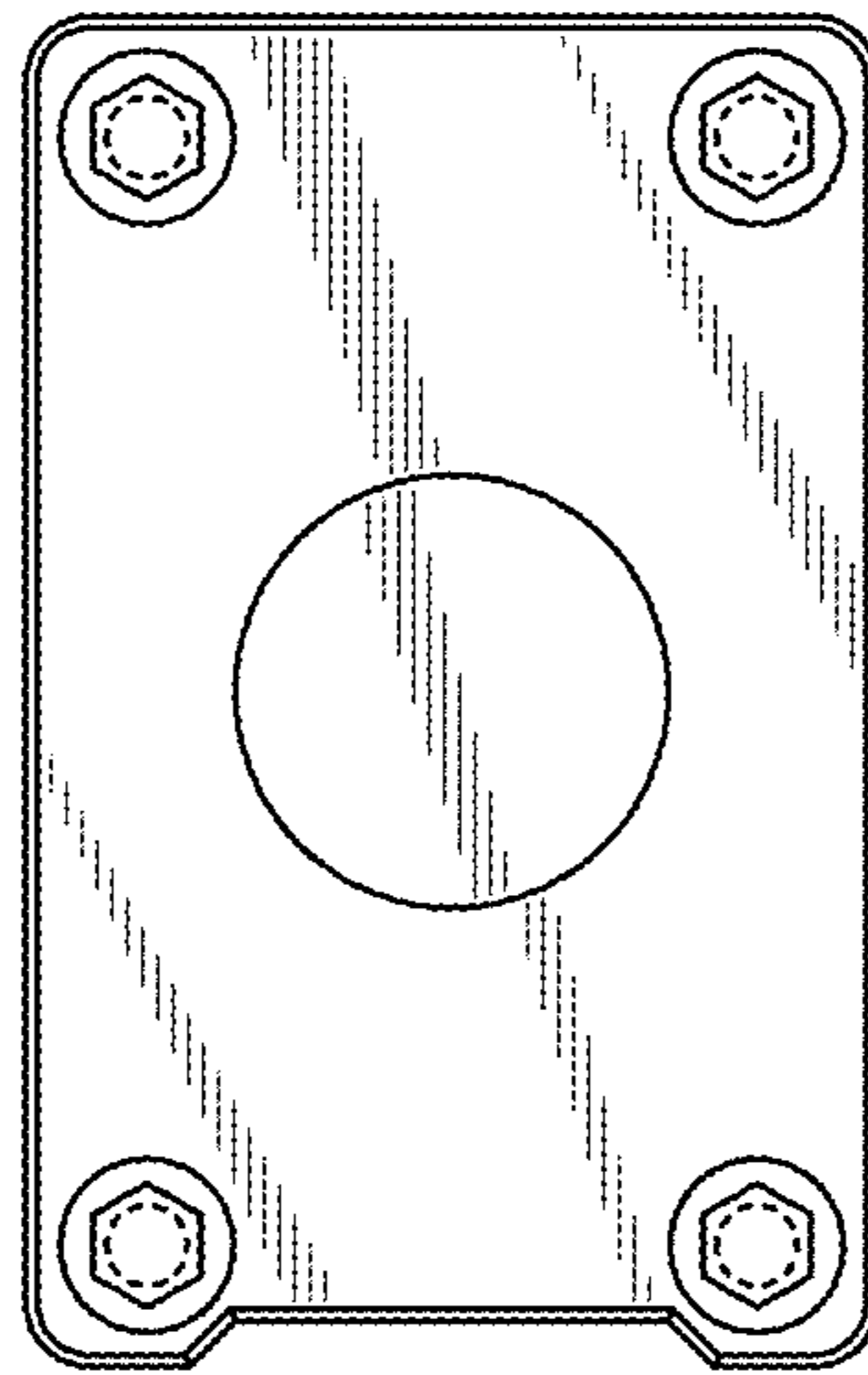


FIG. 9

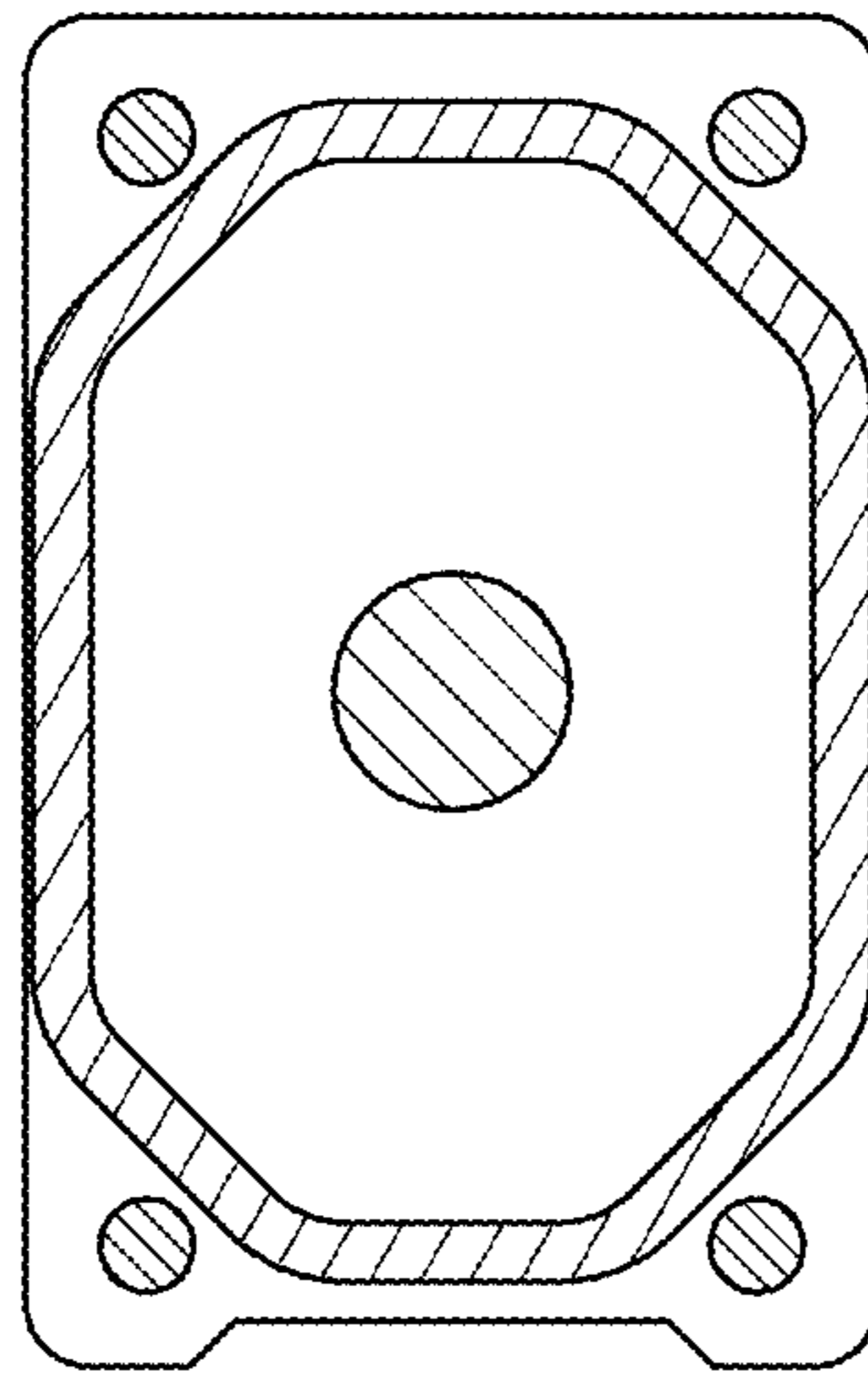


FIG. 10

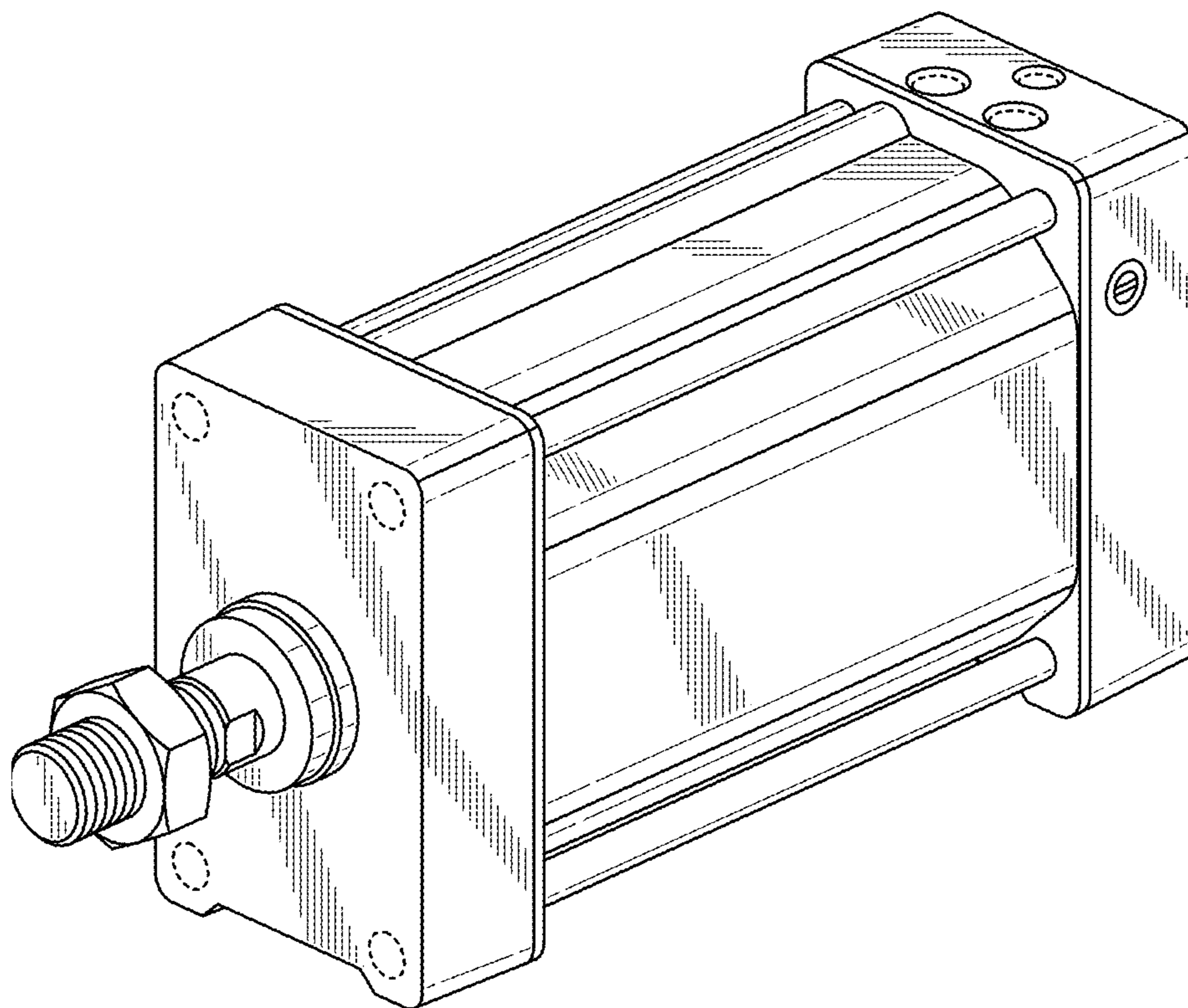


FIG. 11

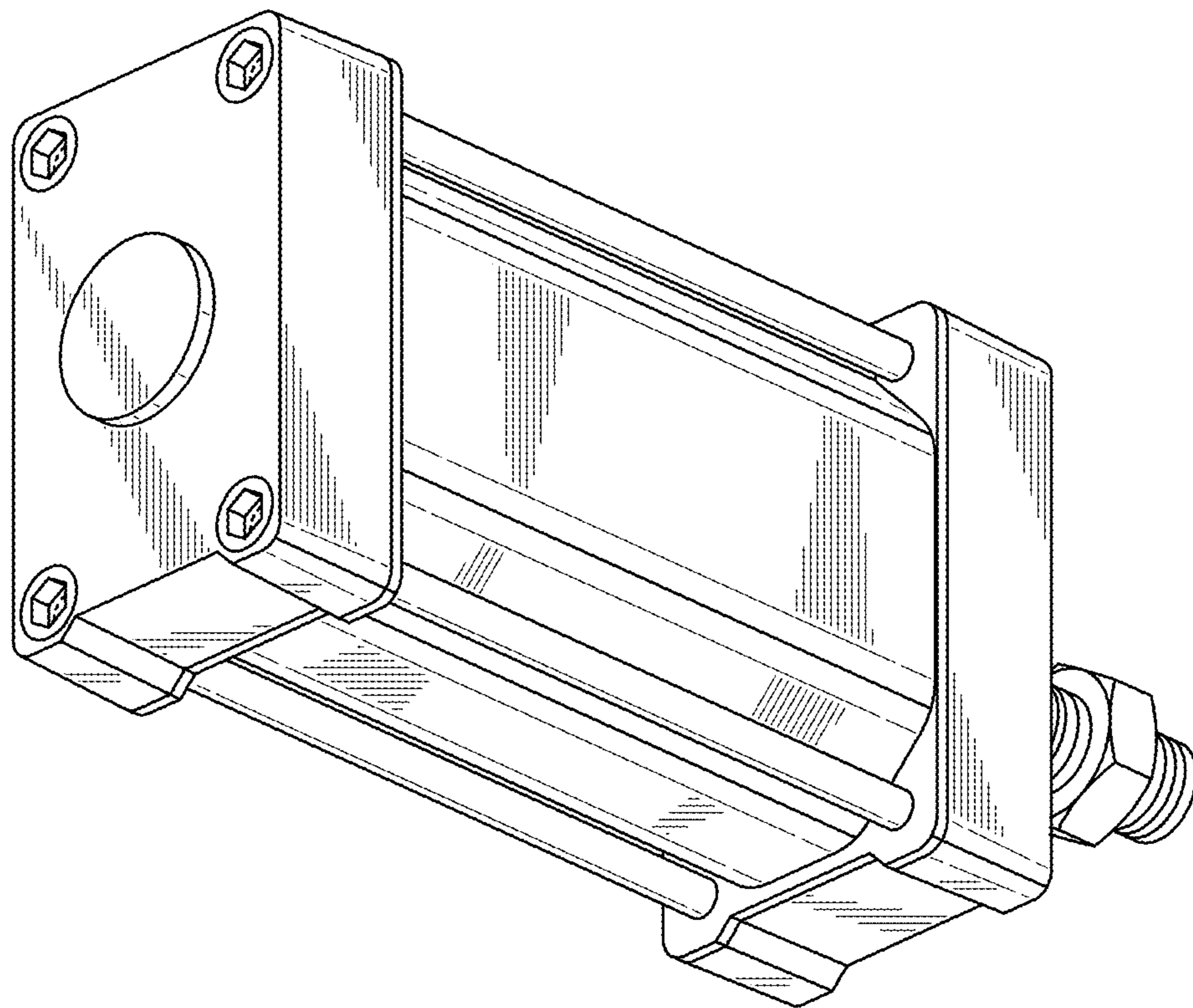


FIG. 12

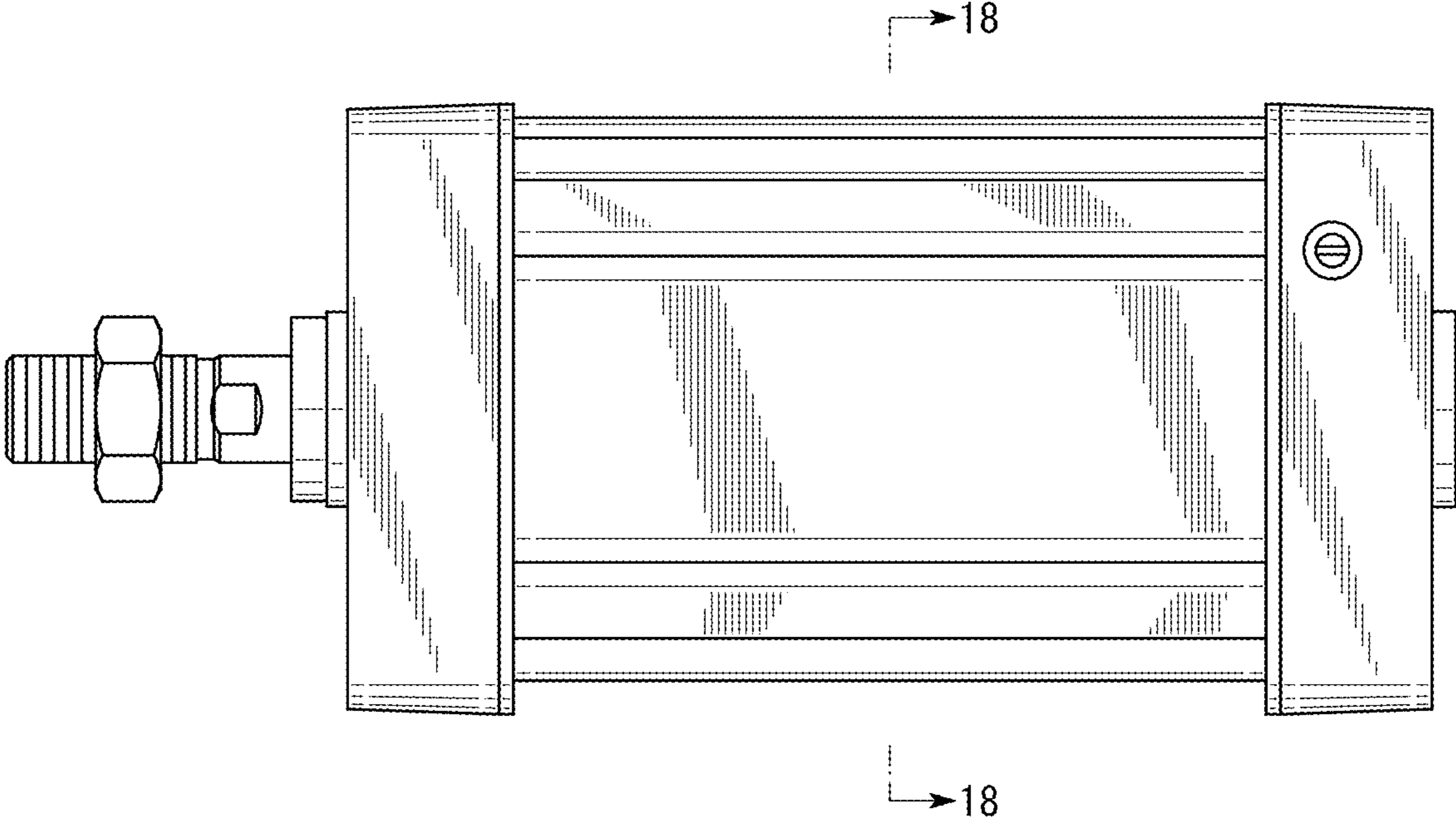


FIG. 13

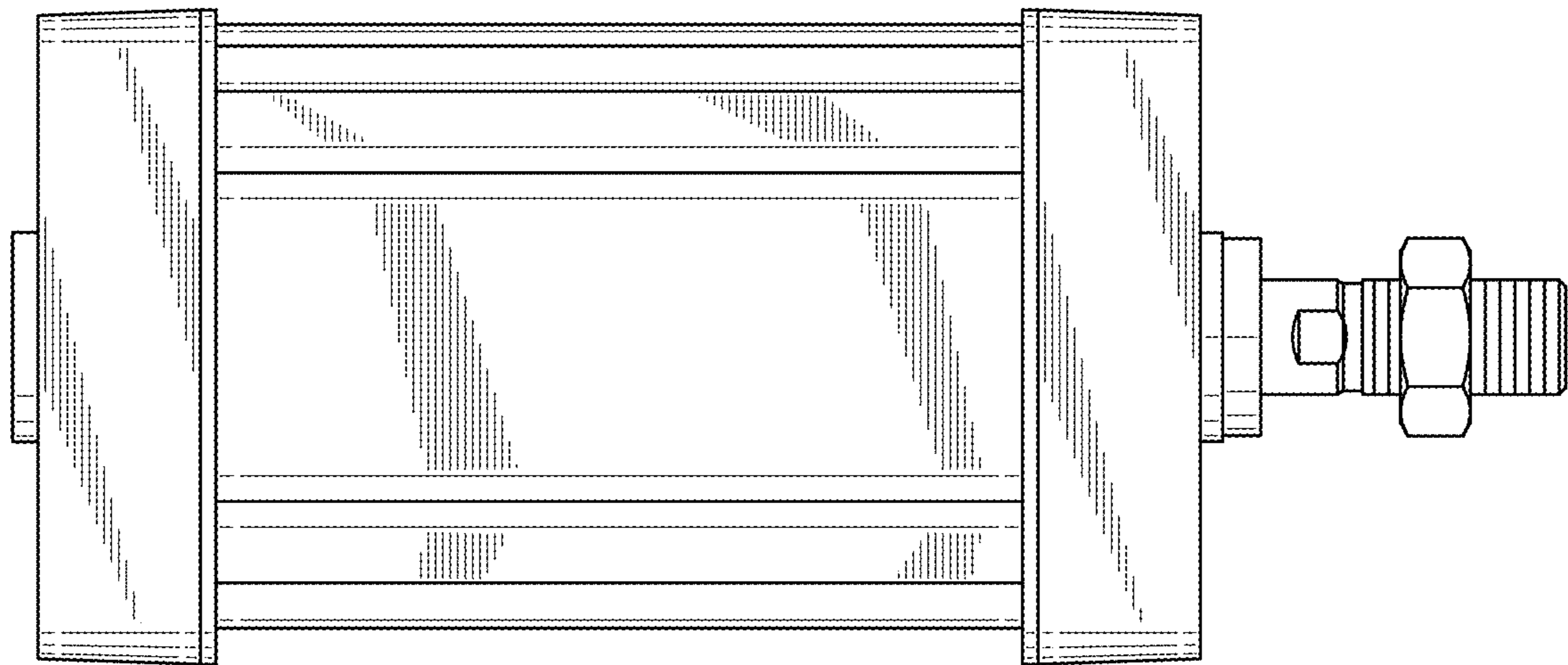


FIG. 14

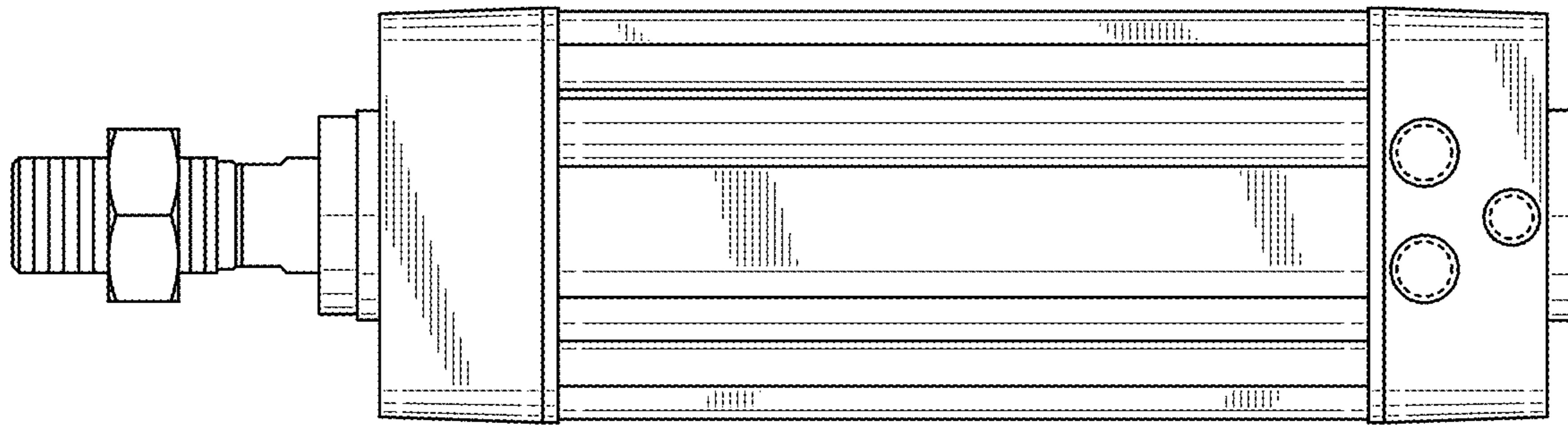


FIG. 15

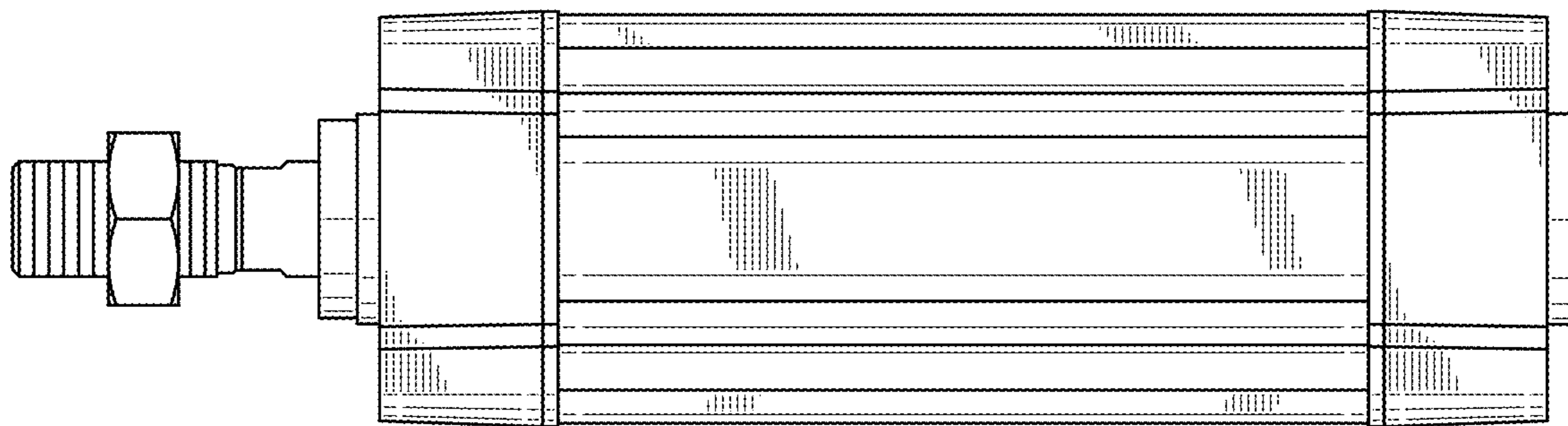


FIG. 16

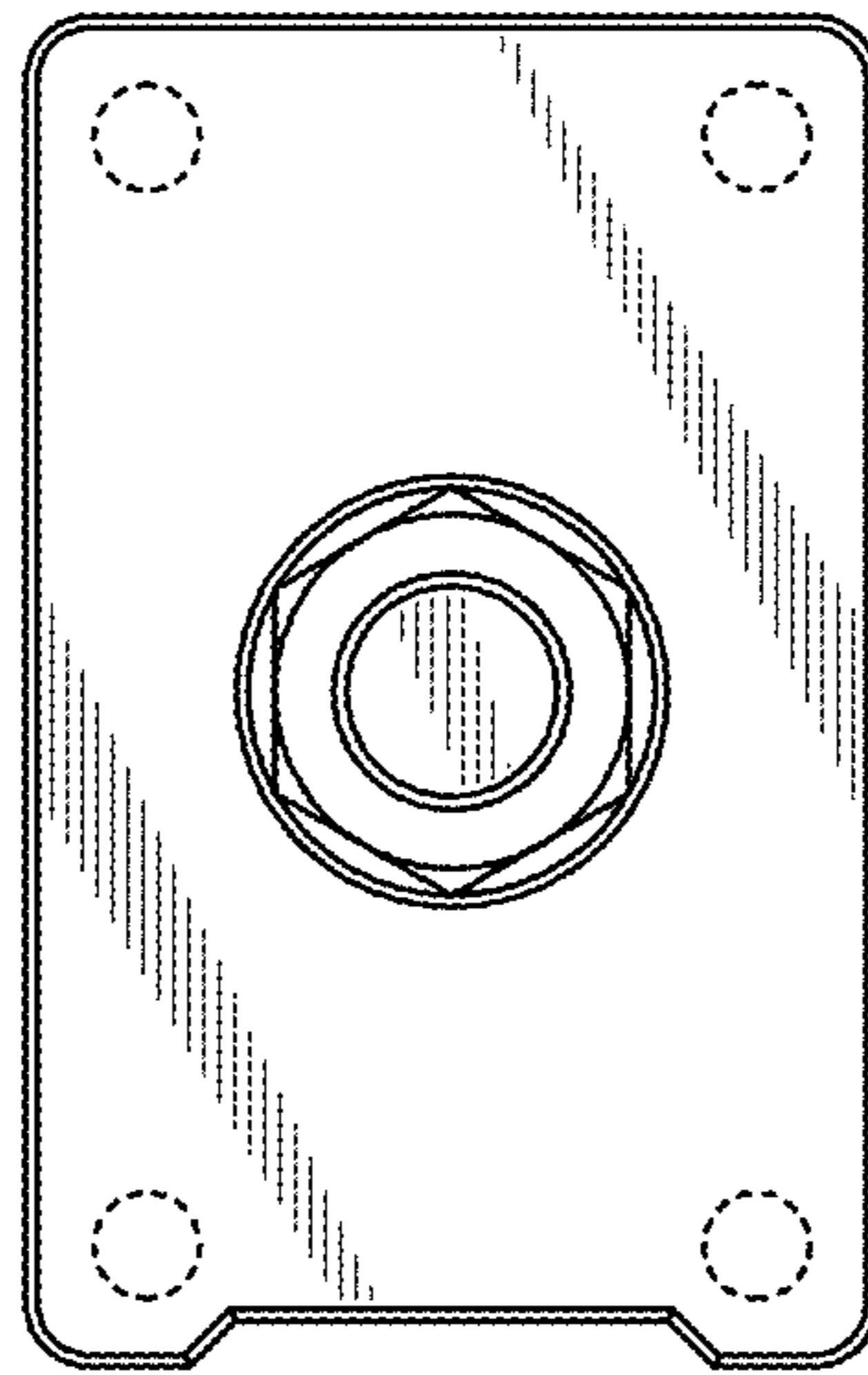


FIG. 17

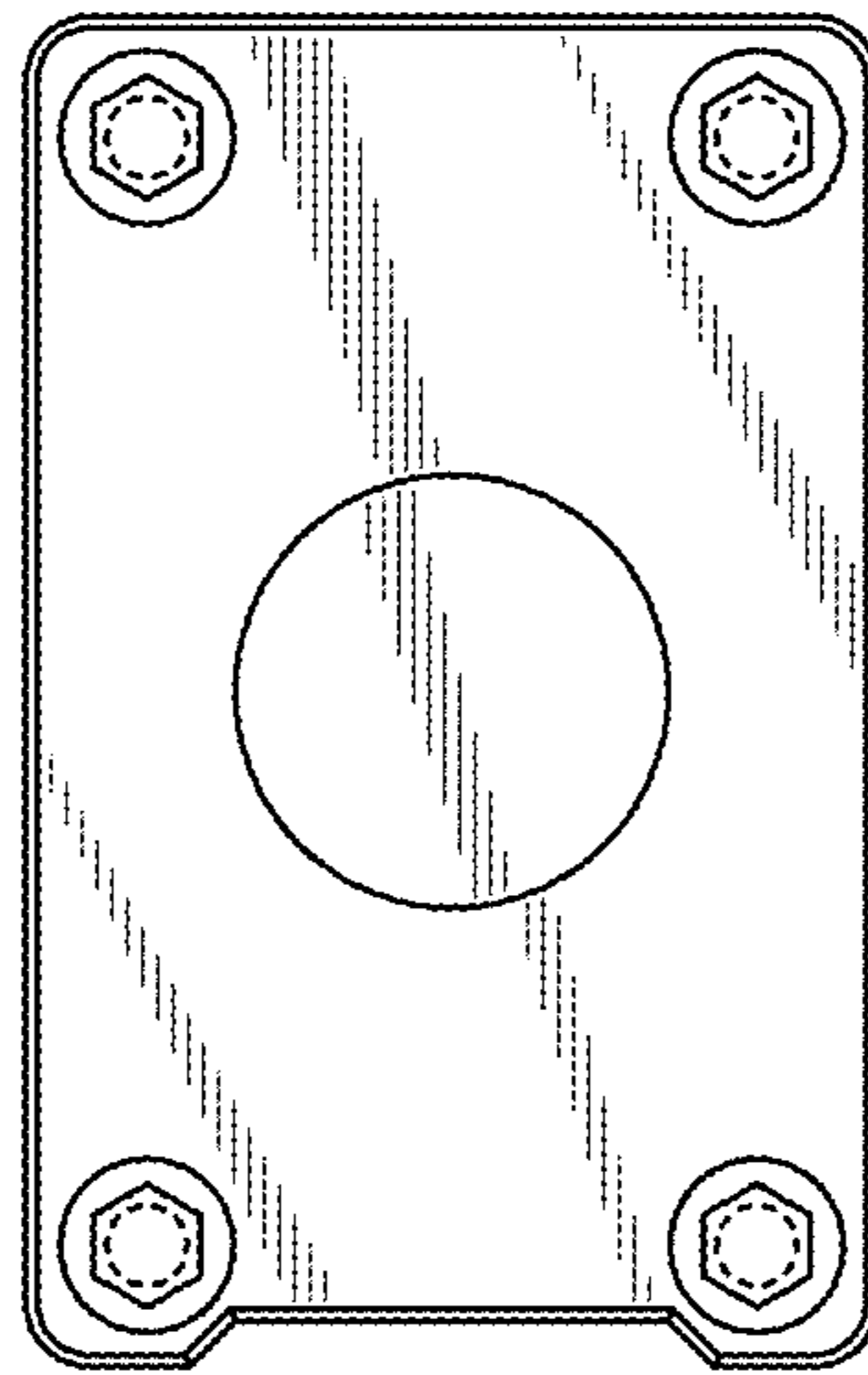


FIG. 18

