



US00D805559S

(12) **United States Design Patent** (10) **Patent No.:** **US D805,559 S**  
**Kudo et al.** (45) **Date of Patent:** **\*\* Dec. 19, 2017**

(54) **FLUID PRESSURE CYLINDER**(71) Applicant: **SMC CORPORATION**, Tokyo (JP)(72) Inventors: **Masayuki Kudo**, Tsukubamirai (JP);  
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**Masahiko Kawakami**, Tsukubamirai (JP); **Ken Tamura**, Tsukubamirai (JP)(73) Assignee: **SMC CORPORATION**, Tokyo (JP)(\*\*) Term: **15 Years**(21) Appl. No.: **29/577,898**(22) Filed: **Sep. 16, 2016**(30) **Foreign Application Priority Data**

Mar. 18, 2016 (CN) ..... 2016 3 0078459

(51) LOC (10) Cl. ..... **02-07**

(52) U.S. Cl.

USPC ..... **D15/7**(58) **Field of Classification Search**USPC ..... D15/7-9, 143; D23/231, 232, 225;  
417/60, 235, 265, 321, 355, 358, 363,  
(Continued)(56) **References Cited**

## U.S. PATENT DOCUMENTS

4,856,415 A \* 8/1989 Noda ..... F15B 15/082

384/42

D370,683 S \* 6/1996 Stahlman ..... D15/7

(Continued)

## FOREIGN PATENT DOCUMENTS

CN 303428901 S 11/2015  
JP D1528901 S 7/2015

Primary Examiner — Ralf T Seifert

(74) *Attorney, Agent, or Firm* — Birch, Stewart, Kolasch & Birch, LLP(57) **CLAIM**

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

**DESCRIPTION**

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

FIG. 10 is a rear, bottom and right side perspective view of FIG. 9;

FIG. 11 is a front view of FIG. 9;

FIG. 12 is a rear view of FIG. 9;

FIG. 13 is a top plan view of FIG. 9;

FIG. 14 is a bottom plan view of FIG. 9;

FIG. 15 is a left side view of FIG. 9;

FIG. 16 is a right side view of FIG. 9;

FIG. 17 is a front, top and left side perspective view of a fluid pressure cylinder showing a third embodiment of our new design;

FIG. 18 is a rear, bottom and right side perspective view of FIG. 17;

FIG. 19 is a front view of FIG. 17;

FIG. 20 is a rear view of FIG. 17;

FIG. 21 is a top plan view of FIG. 17;

FIG. 22 is a bottom plan view of FIG. 17;

FIG. 23 is a left side view of FIG. 17;

FIG. 24 is a right side view of FIG. 17;

(Continued)

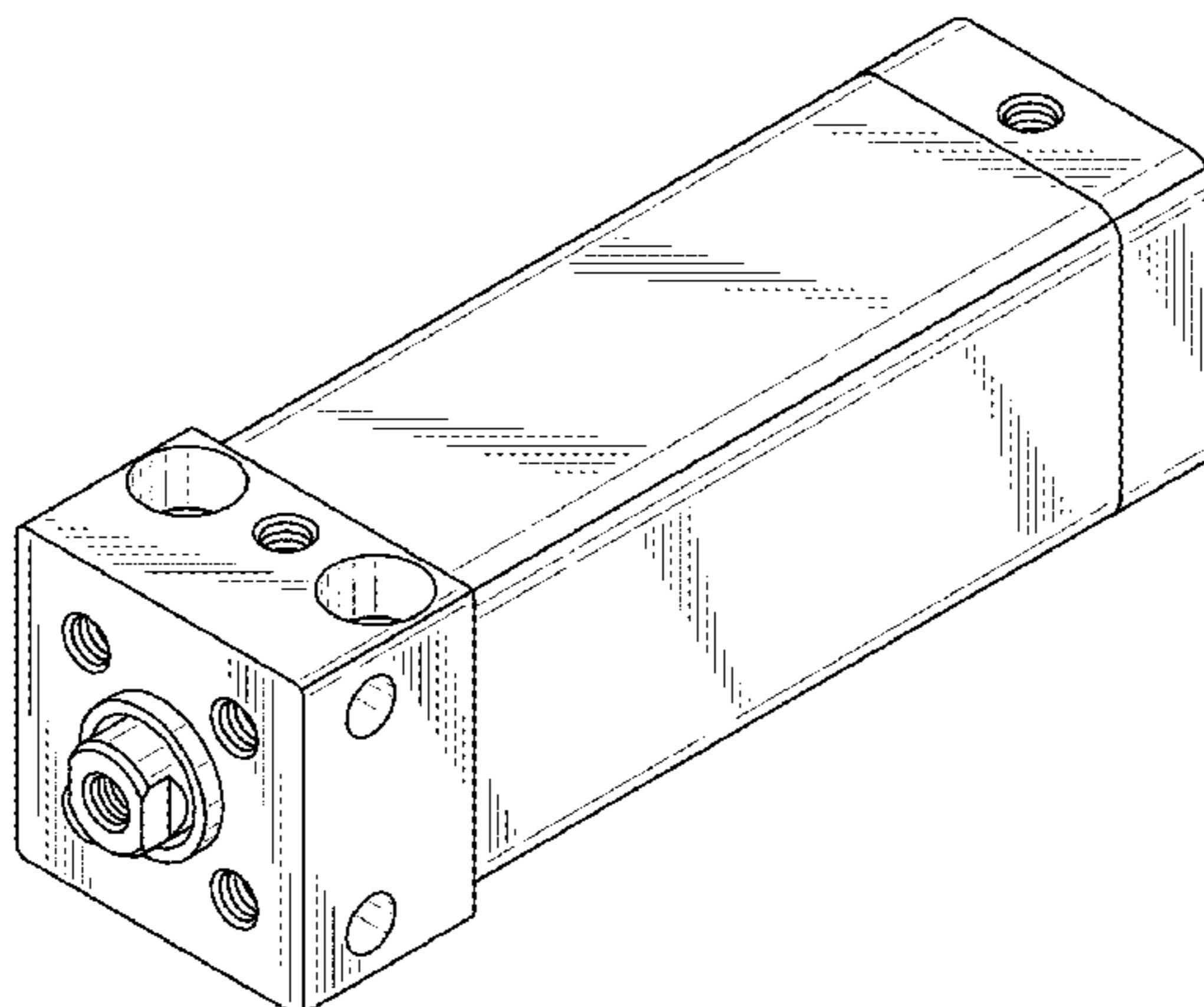


FIG. 25 is a front, top and left side perspective view of a fluid pressure cylinder showing a fourth embodiment of our new design;

FIG. 26 is a rear, bottom and right side perspective view of FIG. 25;

FIG. 27 is a front view of FIG. 25;

FIG. 28 is a rear view of FIG. 25;

FIG. 29 is a top plan view of FIG. 25;

FIG. 30 is a bottom plan view of FIG. 25;

FIG. 31 is a left side view of FIG. 25;

FIG. 32 is a right side view of FIG. 25;

FIG. 33 is a front, top and left side perspective view of a fluid pressure cylinder showing a fifth embodiment of our new design;

FIG. 34 is a rear, bottom and right side perspective view of FIG. 33;

FIG. 35 is a front view of FIG. 33;

FIG. 36 is a rear view of FIG. 33;

FIG. 37 is a top plan view of FIG. 33;

FIG. 38 is a bottom plan view of FIG. 33;

FIG. 39 is a left side view of FIG. 33;

FIG. 40 is a right side view of FIG. 33;

FIG. 41 is a front, top and left side perspective view of a fluid pressure cylinder showing a sixth embodiment of our new design;

FIG. 42 is a rear, bottom and right side perspective view of FIG. 41;

FIG. 43 is a front view of FIG. 41;

FIG. 44 is a rear view of FIG. 41;

FIG. 45 is a top plan view of FIG. 41;

FIG. 46 is a bottom plan view of FIG. 41;

FIG. 47 is a left side view of FIG. 41; and,  
FIG. 48 is a right side view of FIG. 41.

## 1 Claim, 48 Drawing Sheets

### (58) Field of Classification Search

USPC ..... 417/359, 410.1, 415–416, 405, 900;  
60/408, 412; 184/26–37; 415/140–147;  
123/495, 509

CPC .... F02M 37/04; F02M 31/14; F04D 29/4286  
See application file for complete search history.

### (56)

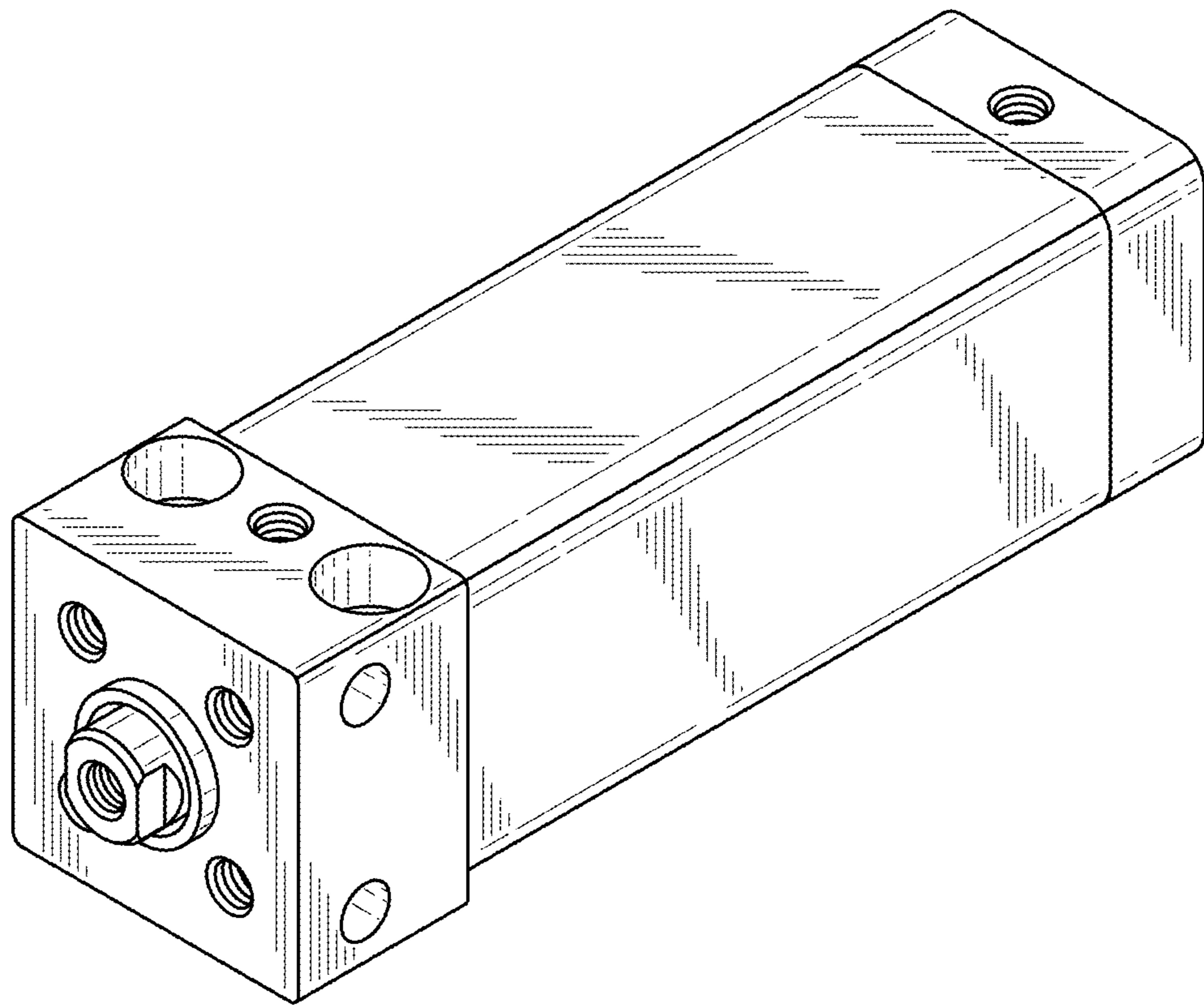
### References Cited

#### U.S. PATENT DOCUMENTS

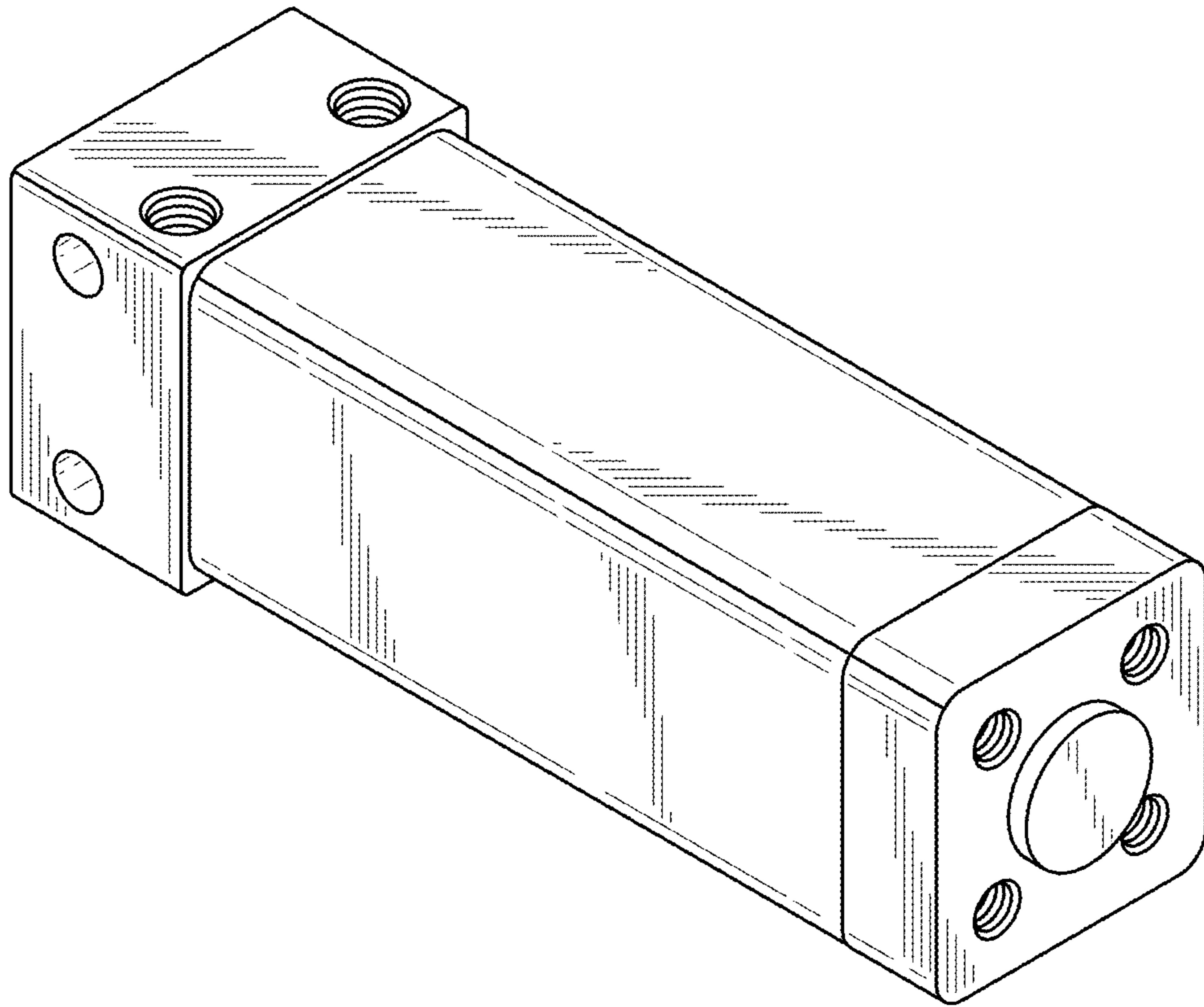
D378,214 S *	2/1997	Ikumi .....	D15/143
D378,680 S *	4/1997	Ikumi .....	D15/7
D417,457 S *	12/1999	Asahara .....	D15/7
D428,617 S *	7/2000	Hariwara .....	D15/7
D643,856 S *	8/2011	Taniguchi .....	D15/7
D669,097 S *	10/2012	Hariwara .....	D15/7
D669,098 S *	10/2012	Hariwara .....	D15/7
D699,759 S *	2/2014	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	Kudo .....	D15/7
D780,228 S *	2/2017	Kudo .....	D15/7
D780,229 S *	2/2017	Kudo .....	D15/7

\* cited by examiner

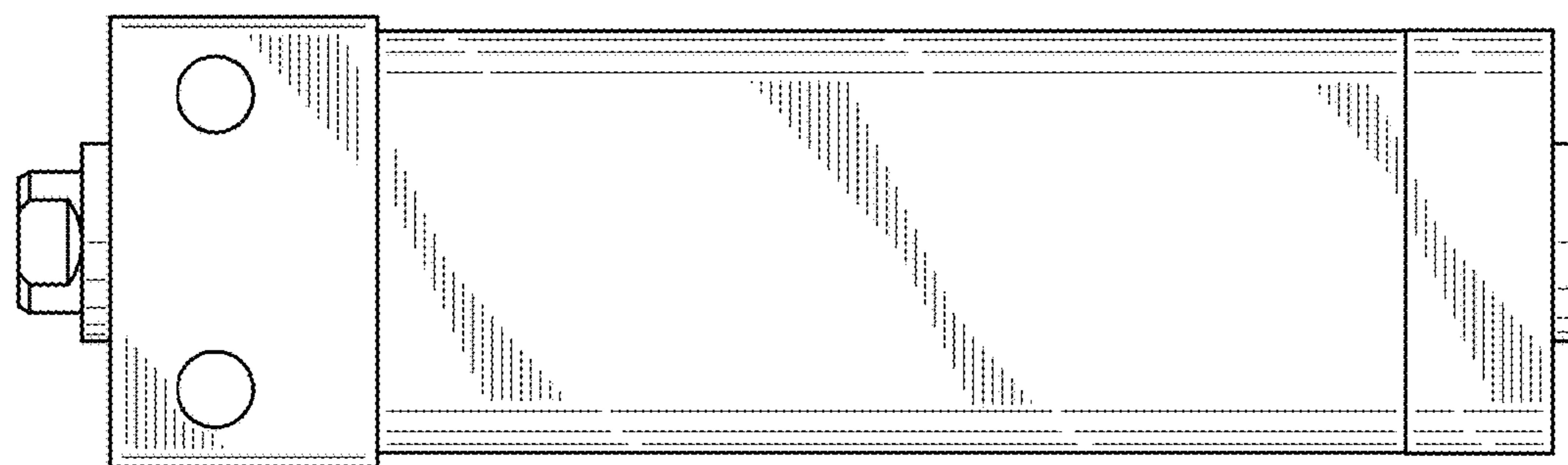
**FIG. 1**



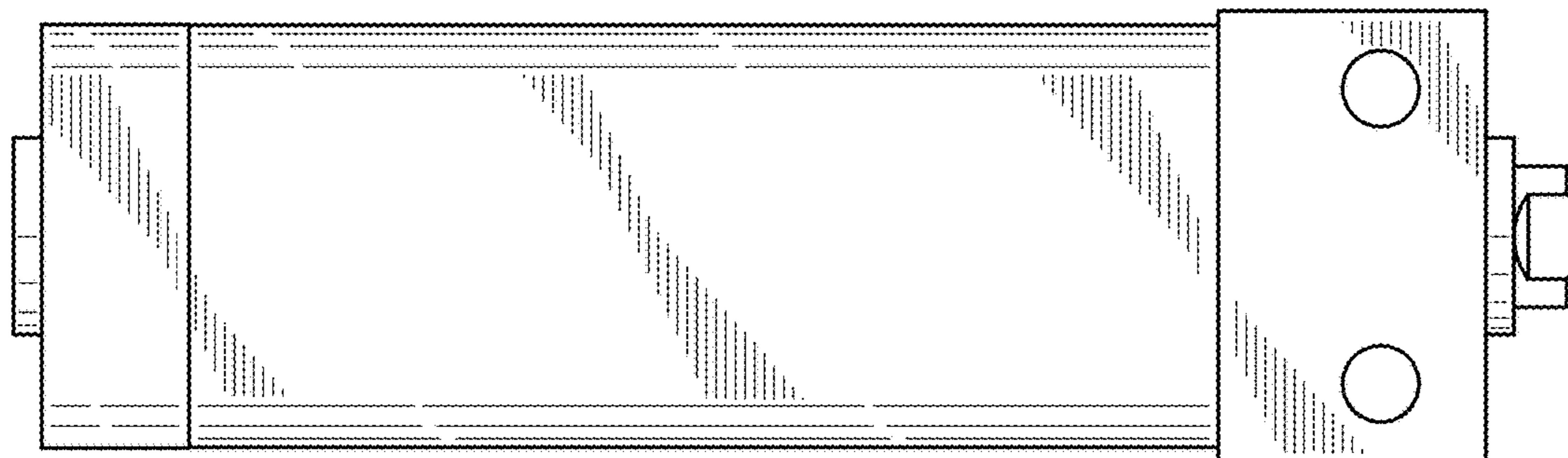
**FIG. 2**



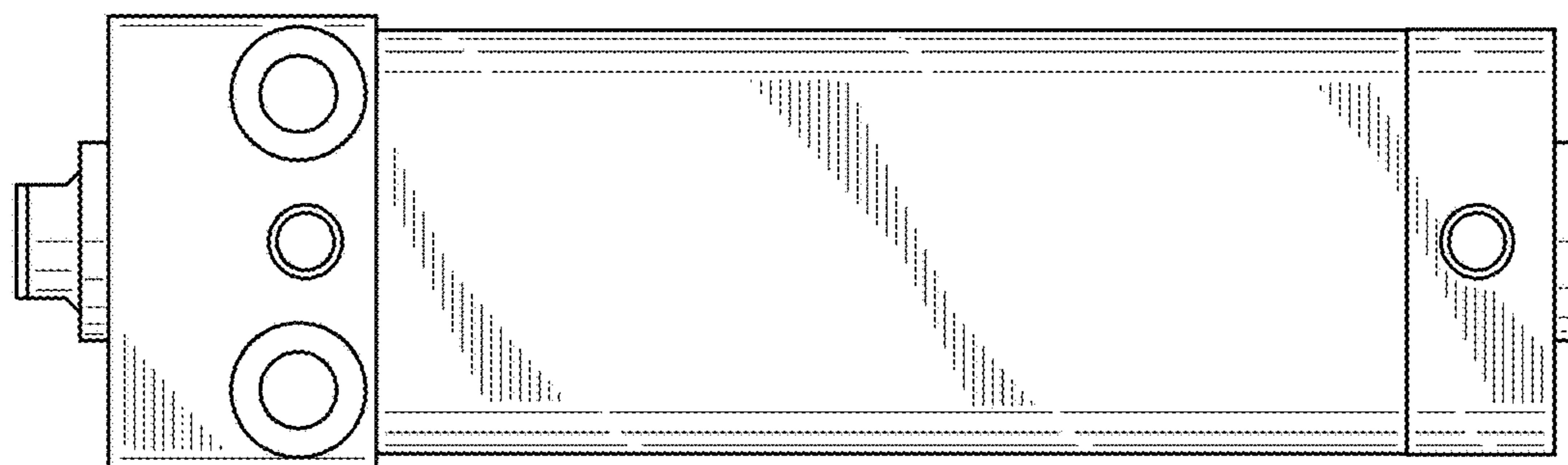
**FIG. 3**



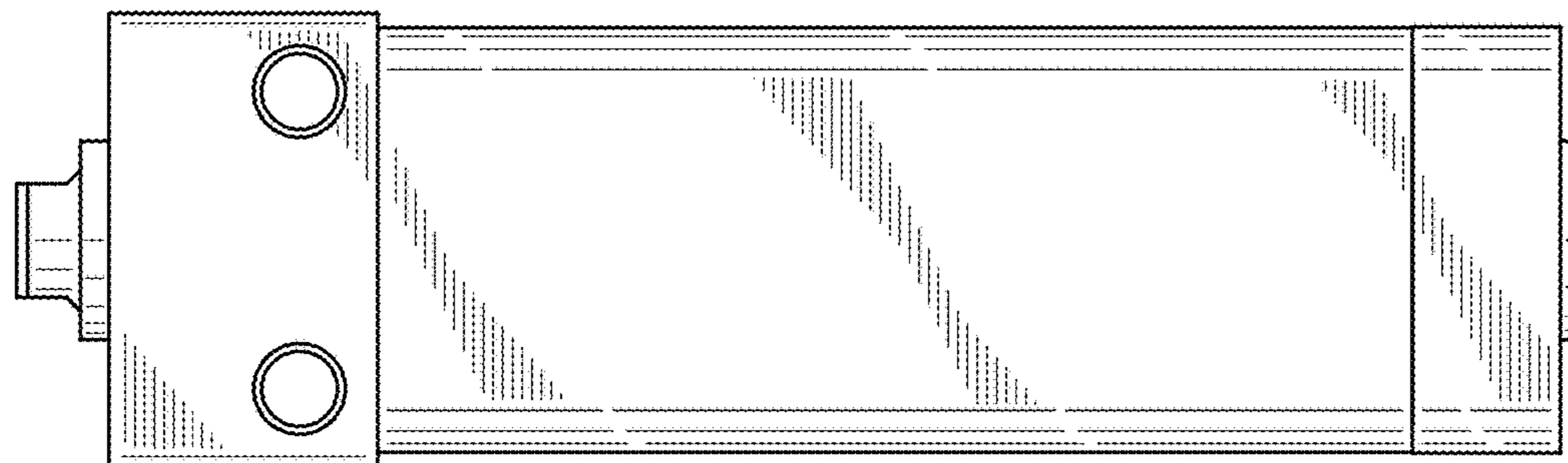
**FIG. 4**



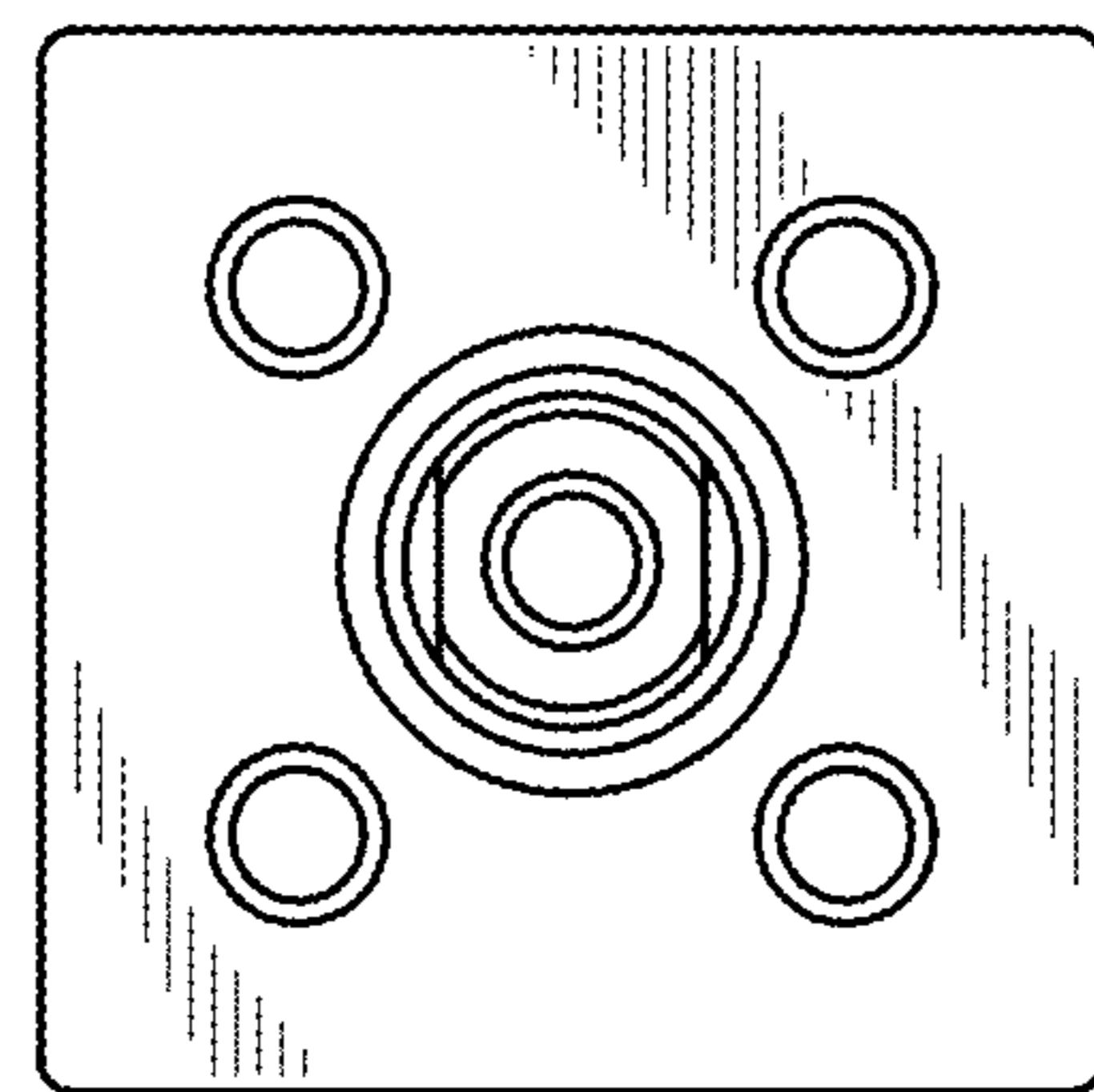
**FIG. 5**



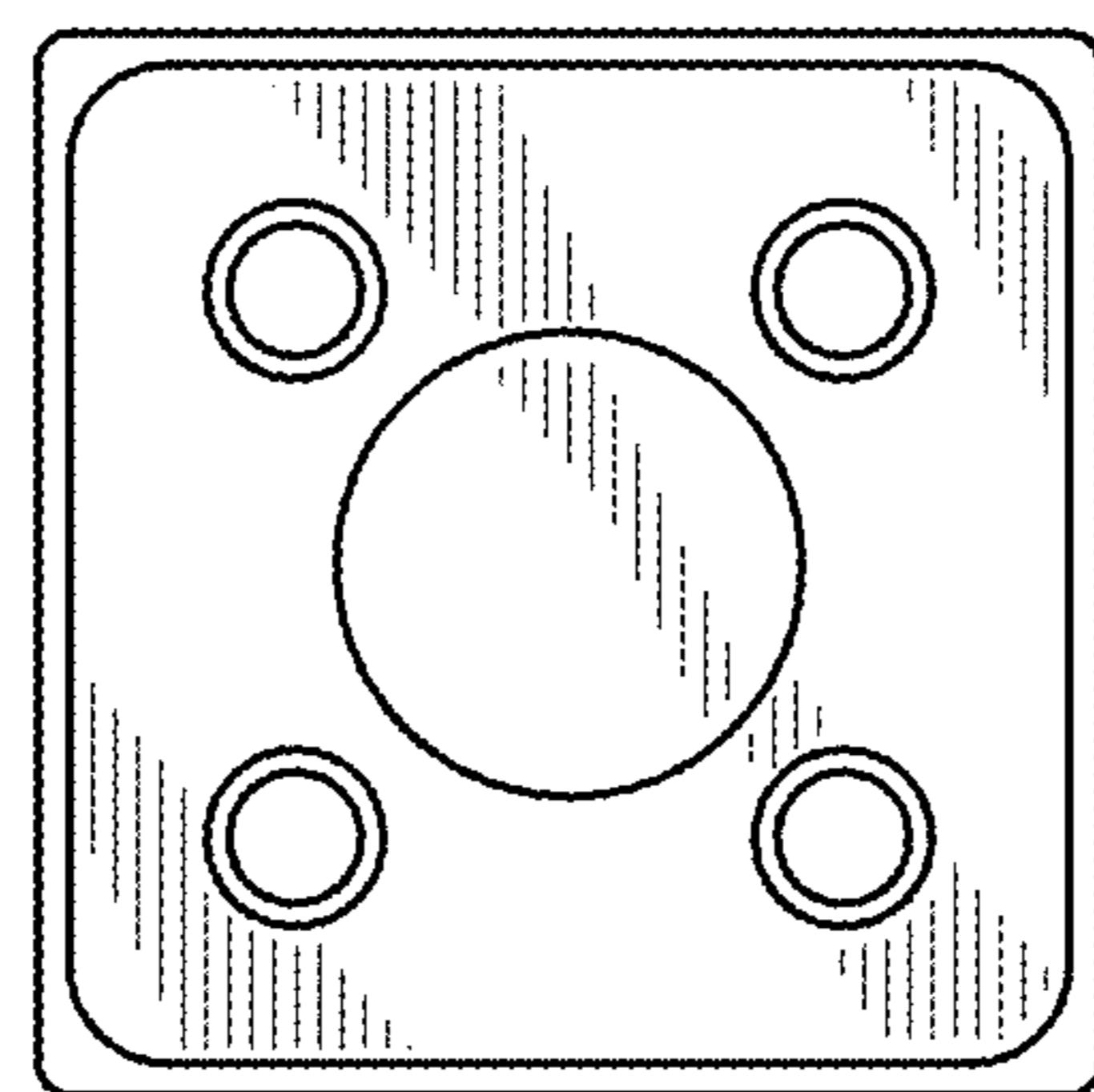
**FIG. 6**



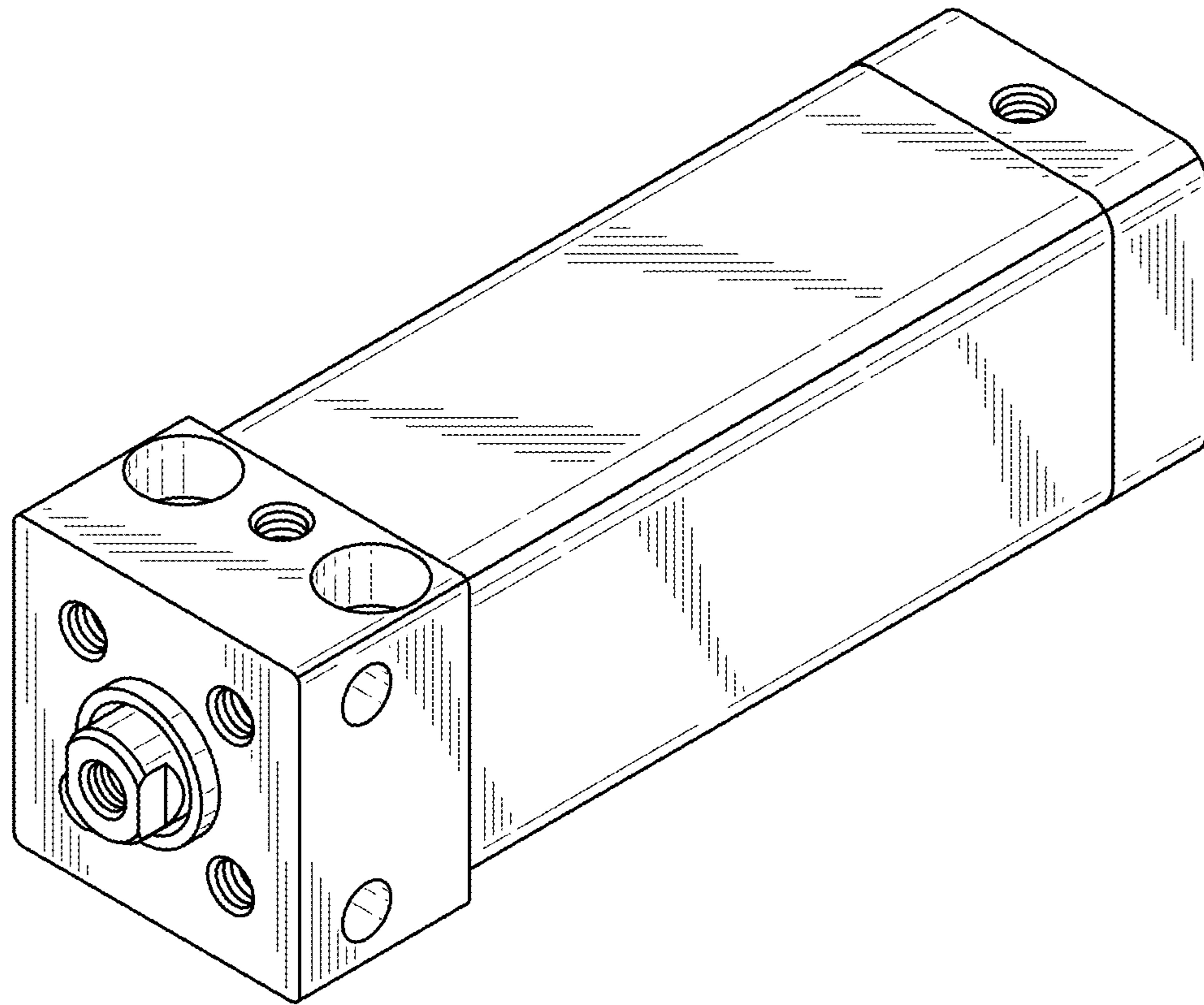
**FIG. 7**



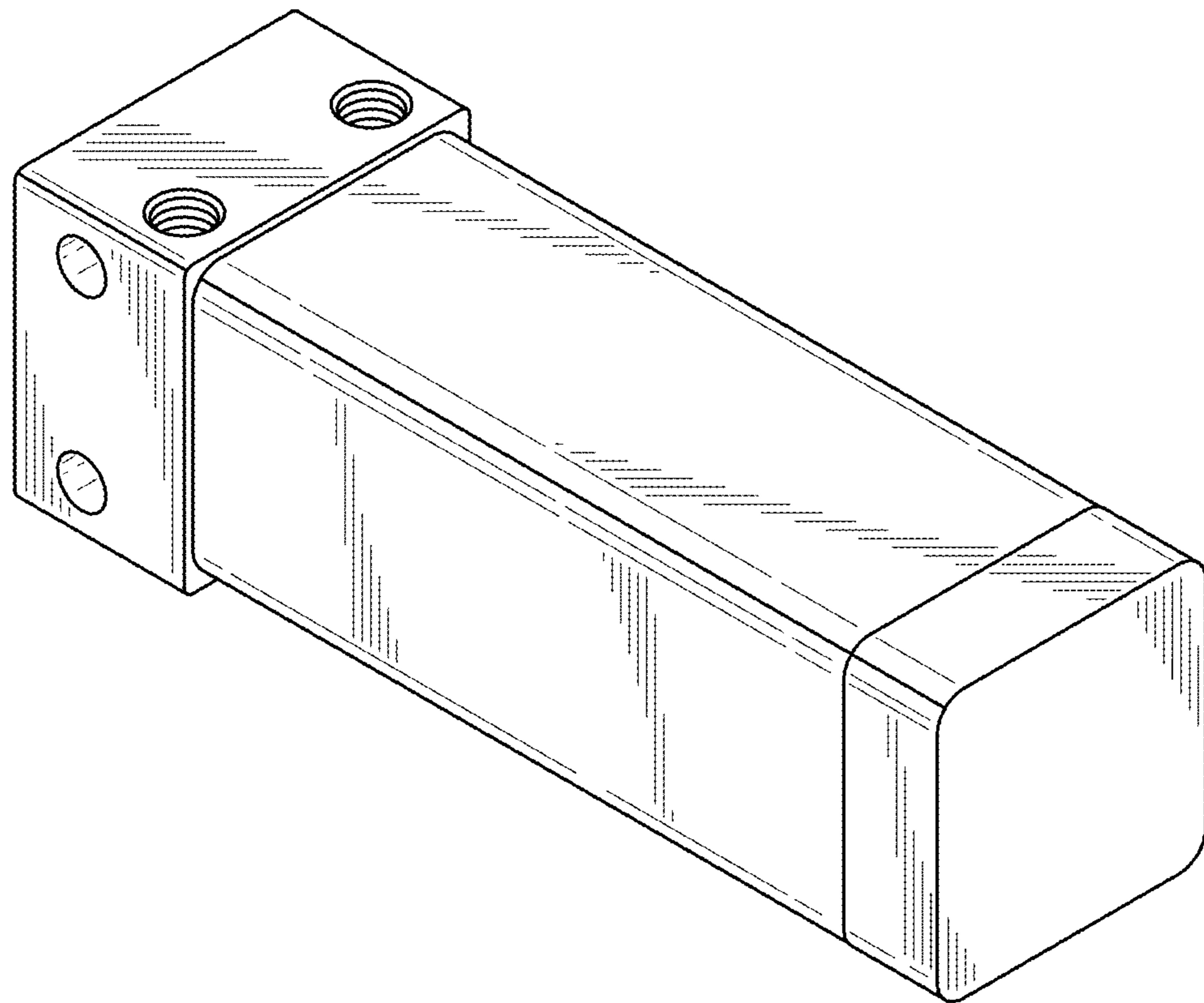
**FIG. 8**



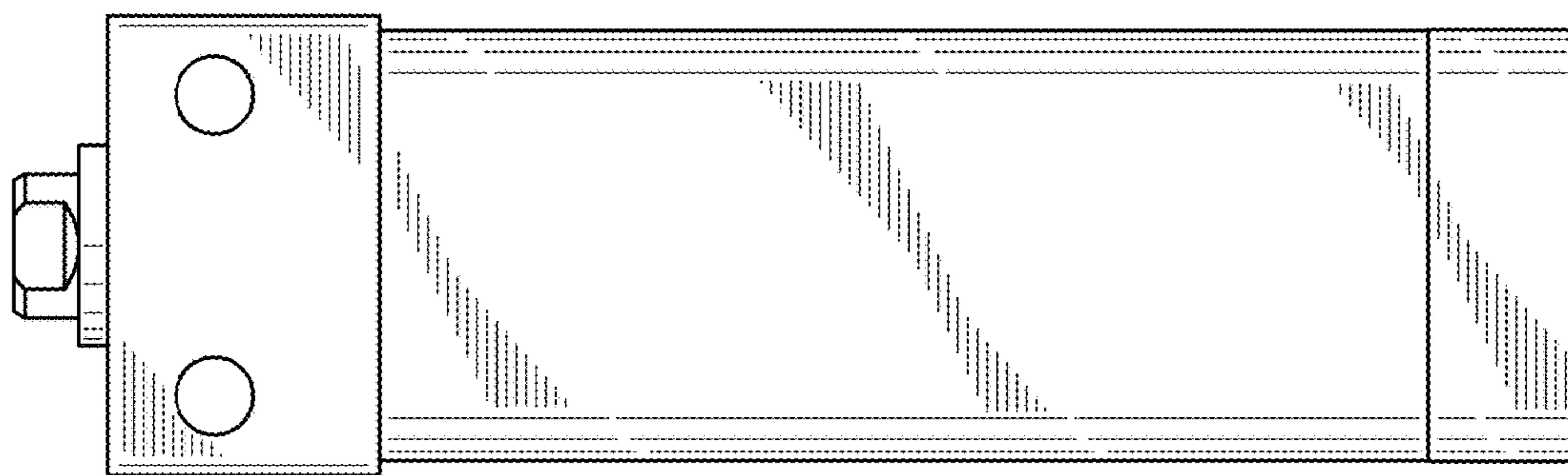
**FIG. 9**



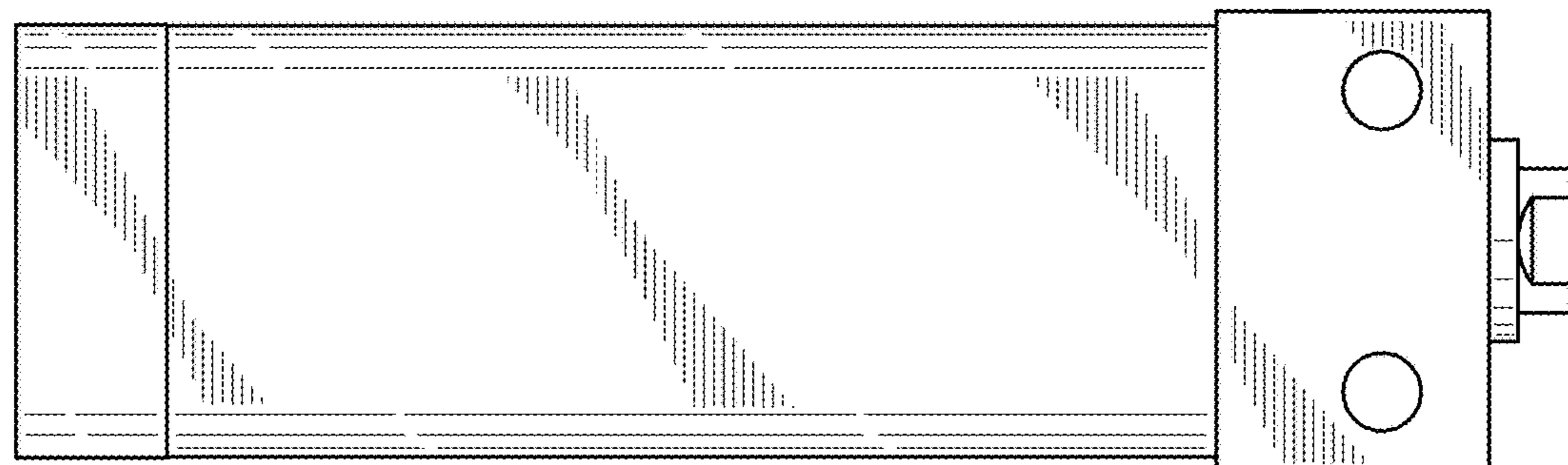
**FIG. 10**



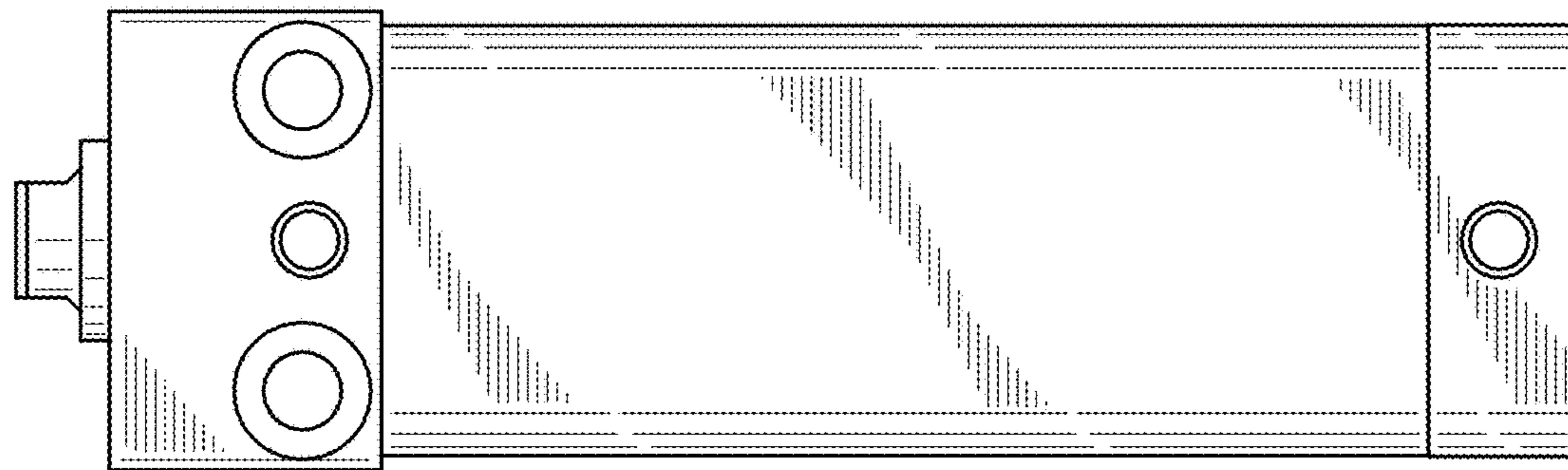
**FIG. 11**



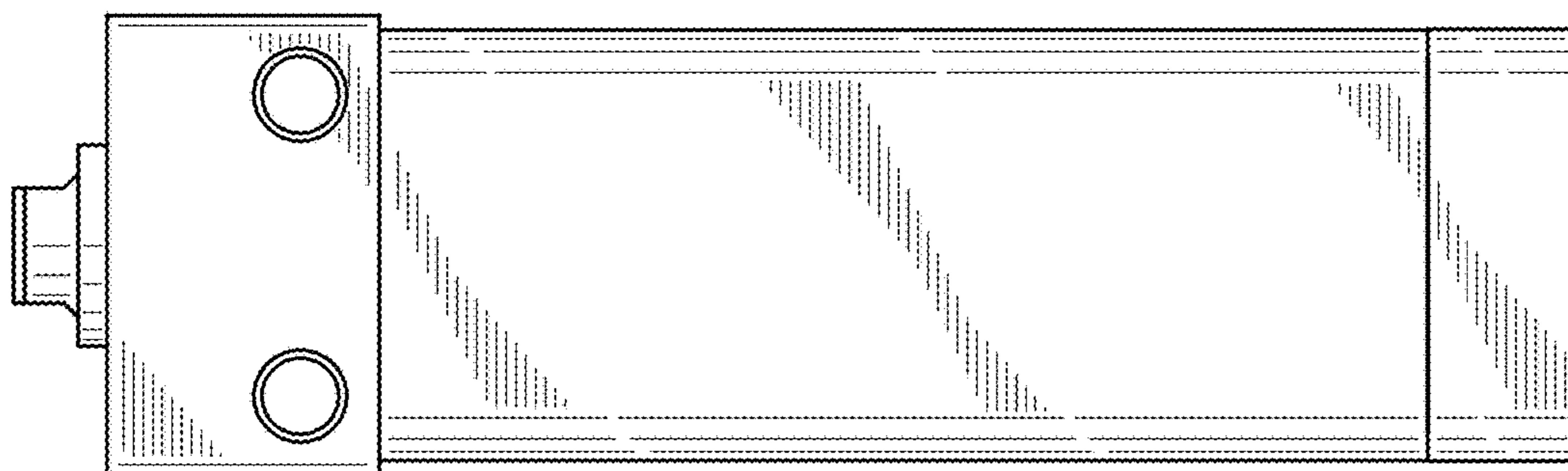
**FIG. 12**



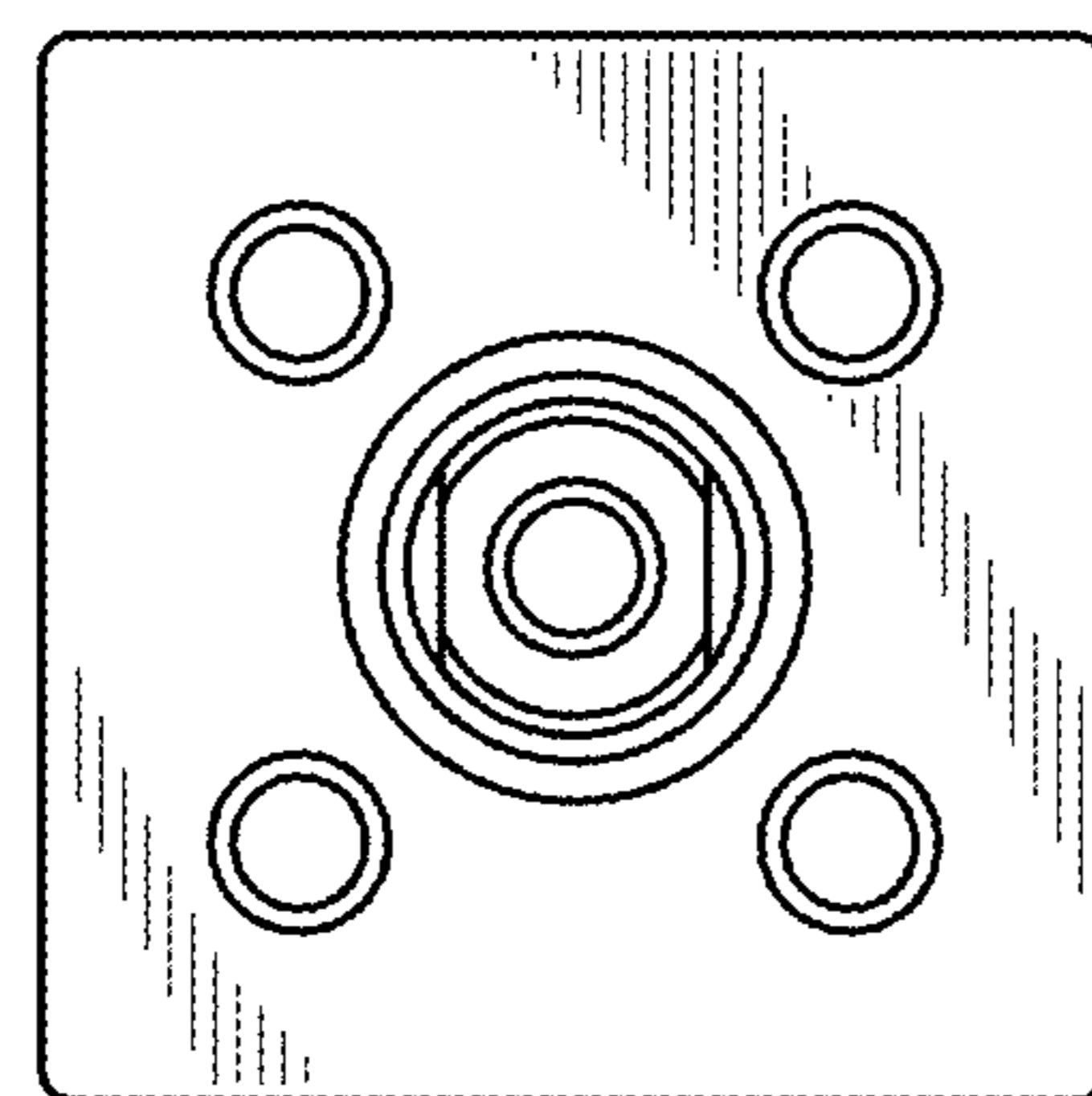
**FIG. 13**



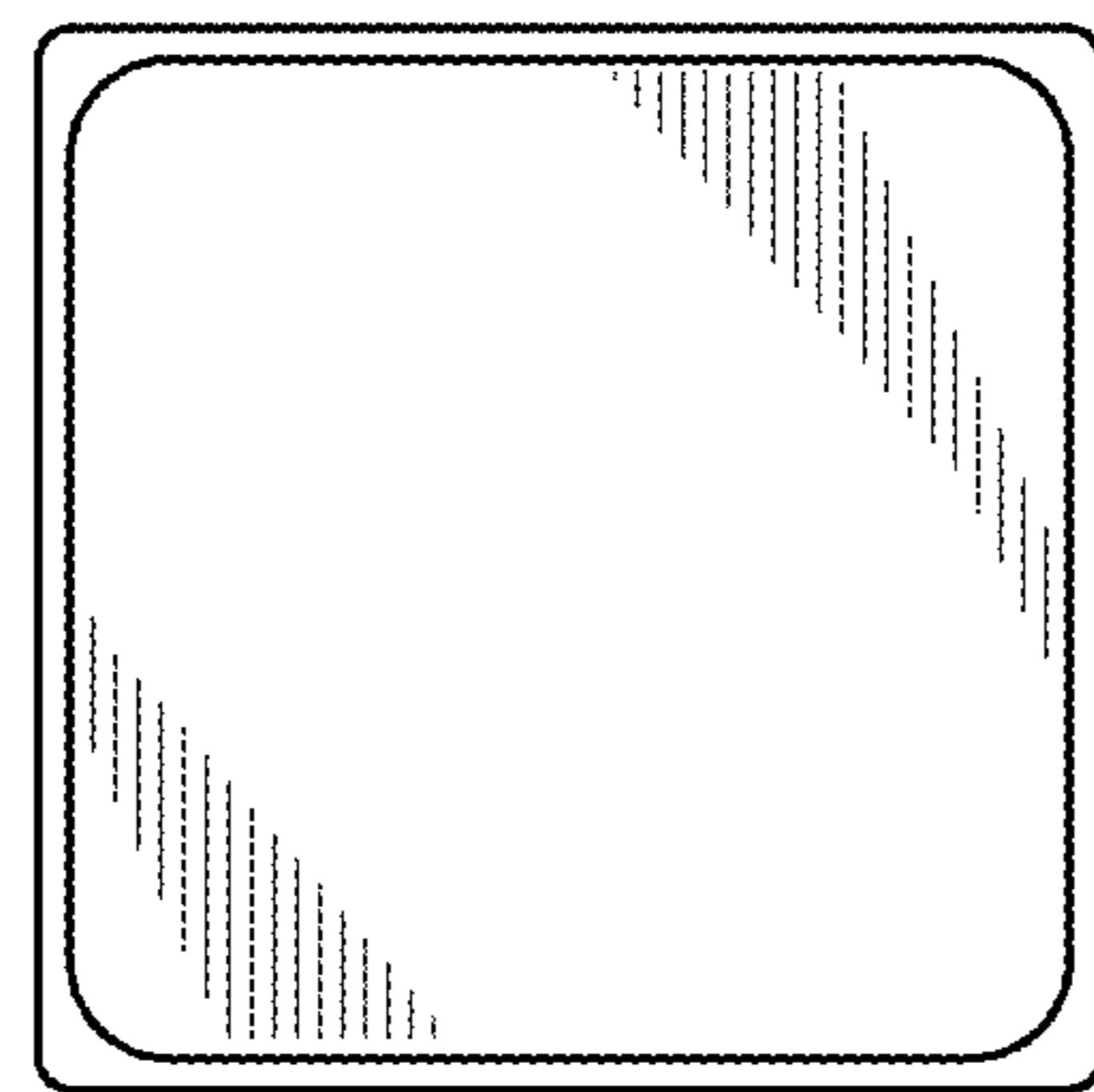
**FIG. 14**



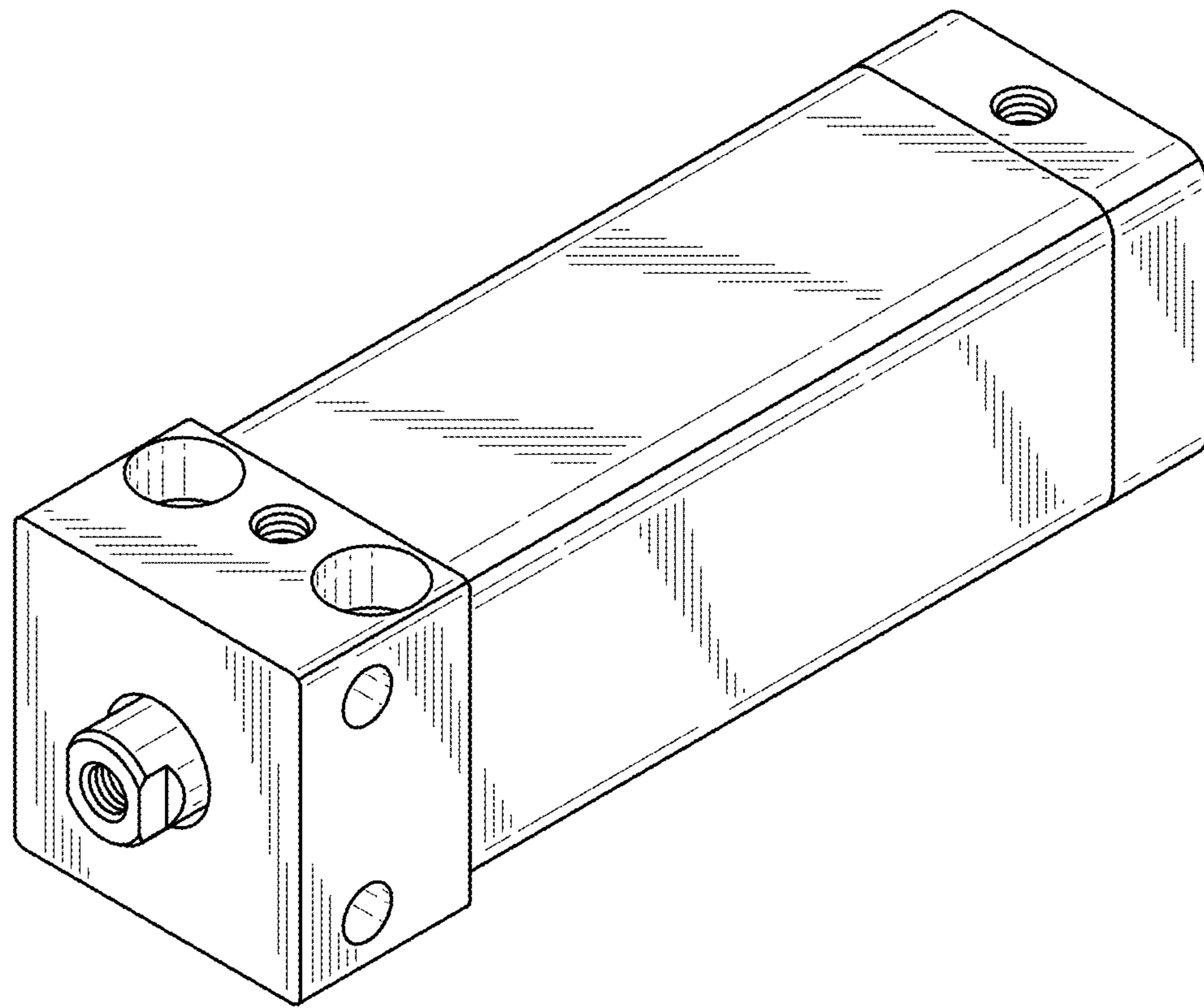
**FIG. 15**



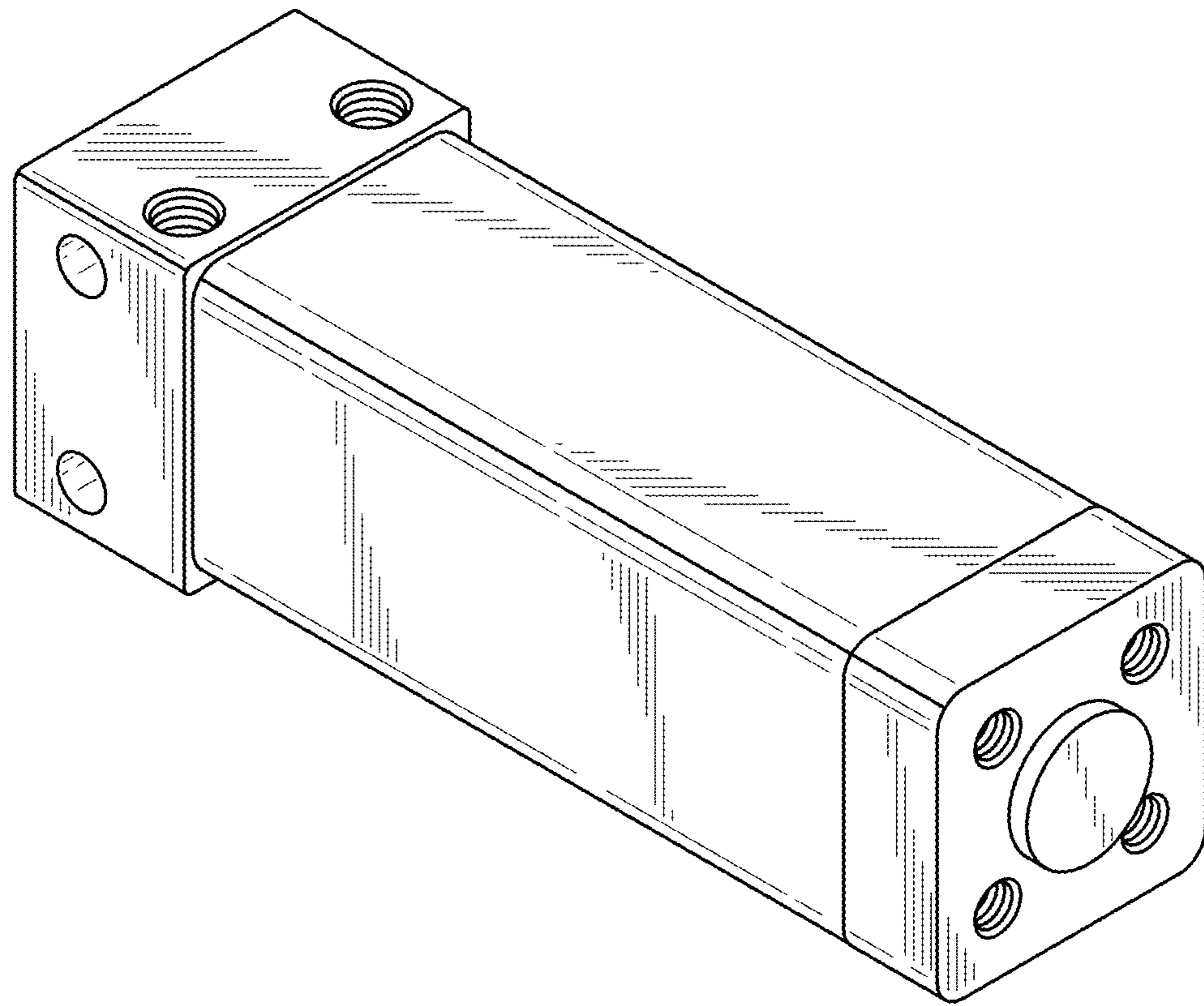
**FIG. 16**



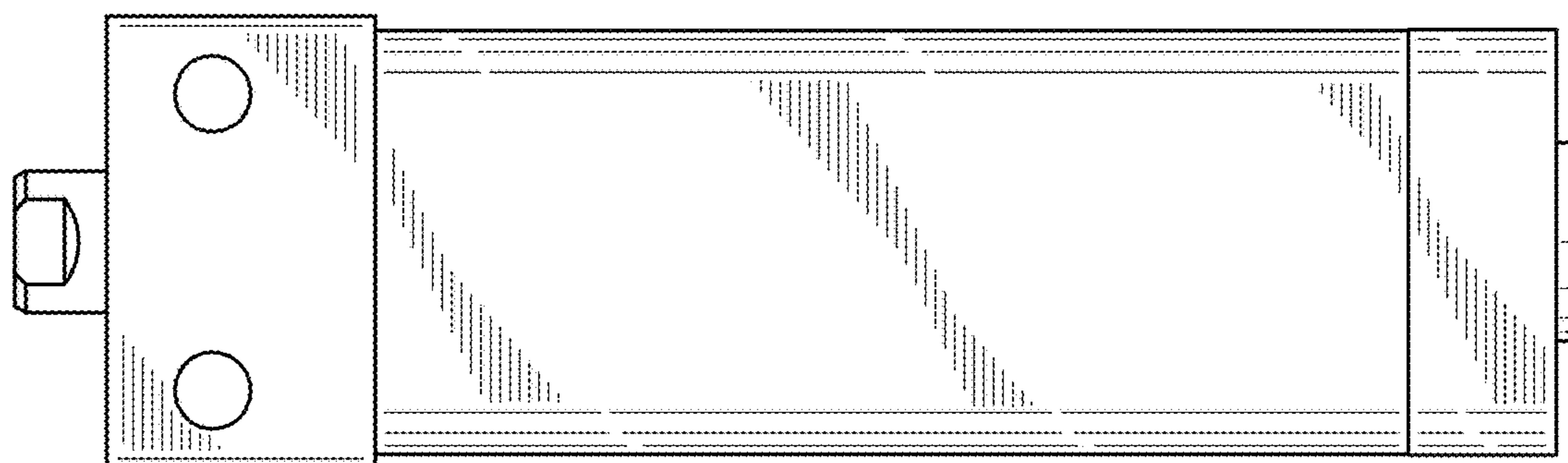
**FIG. 17**



**FIG. 18**



**FIG. 19**



**FIG. 20**

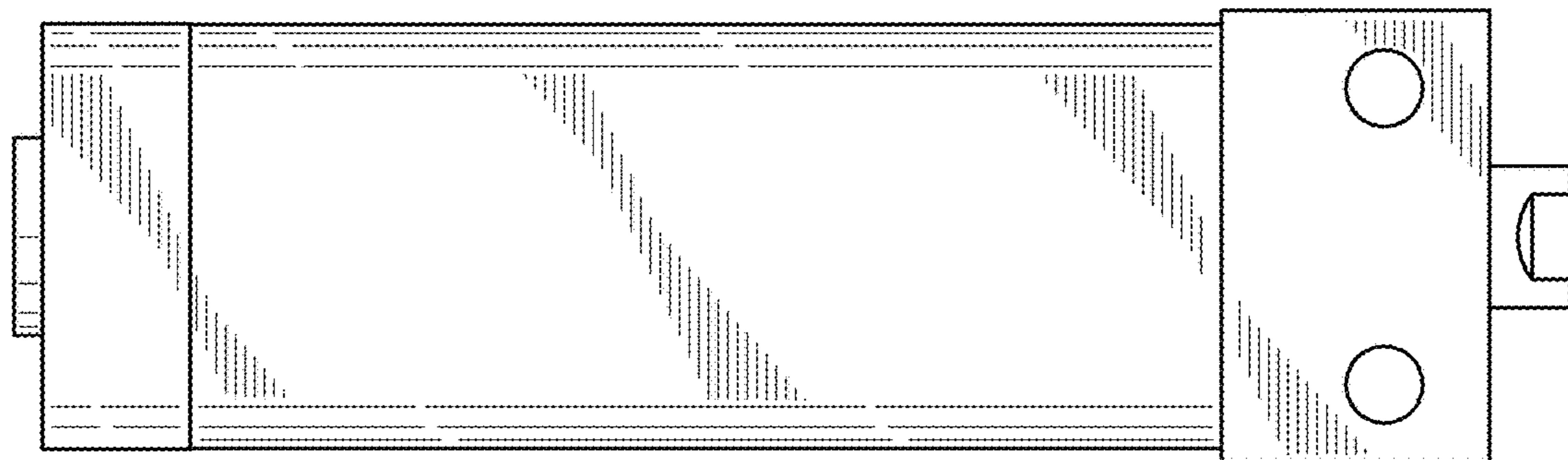
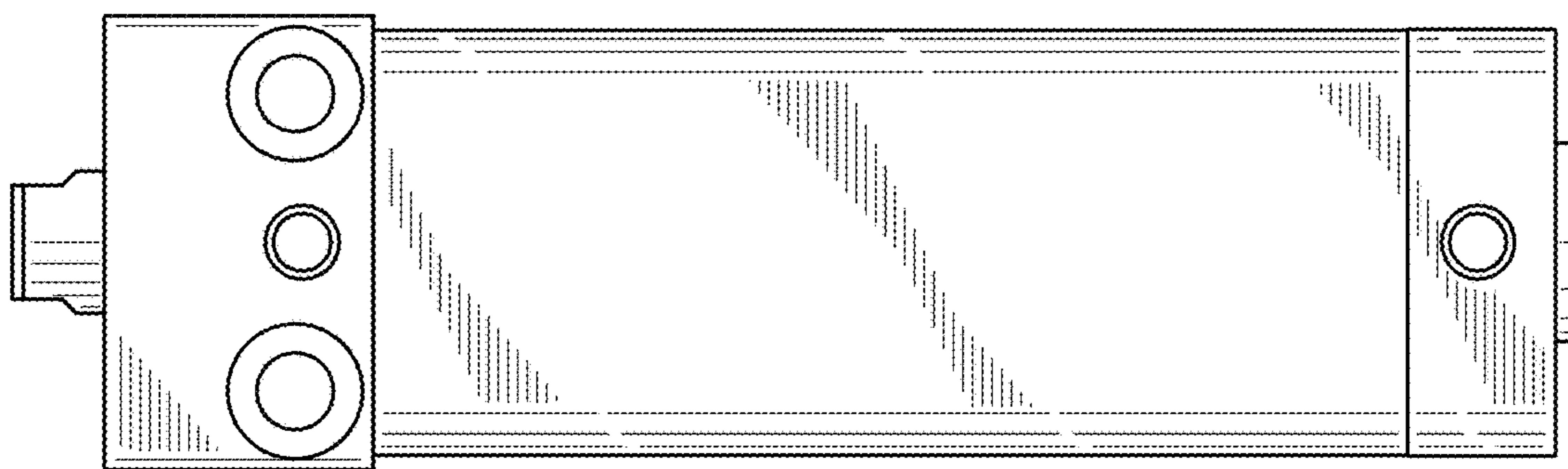
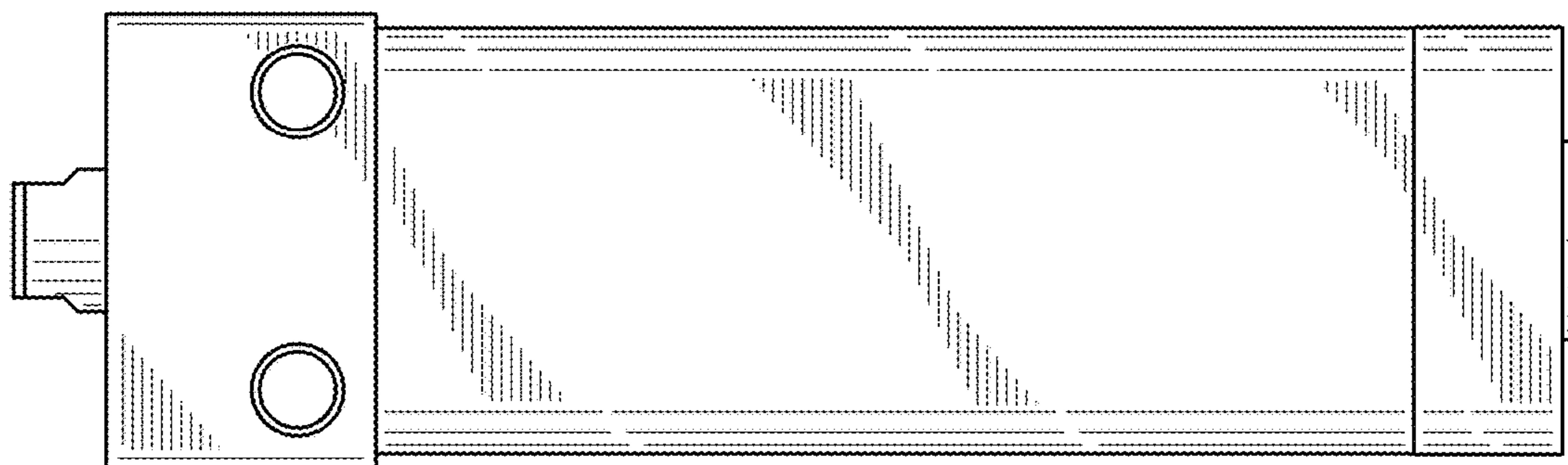


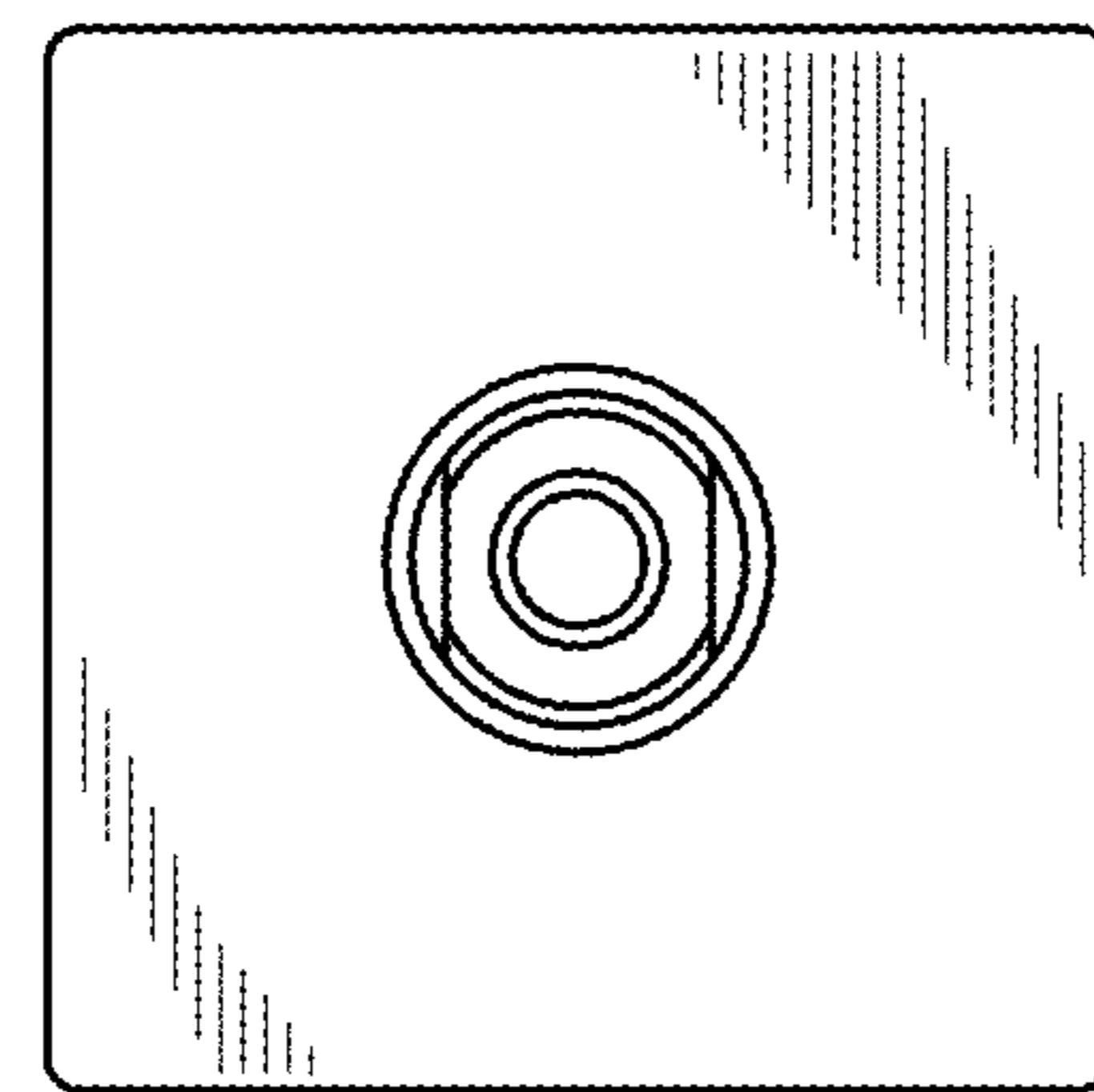
FIG. 21



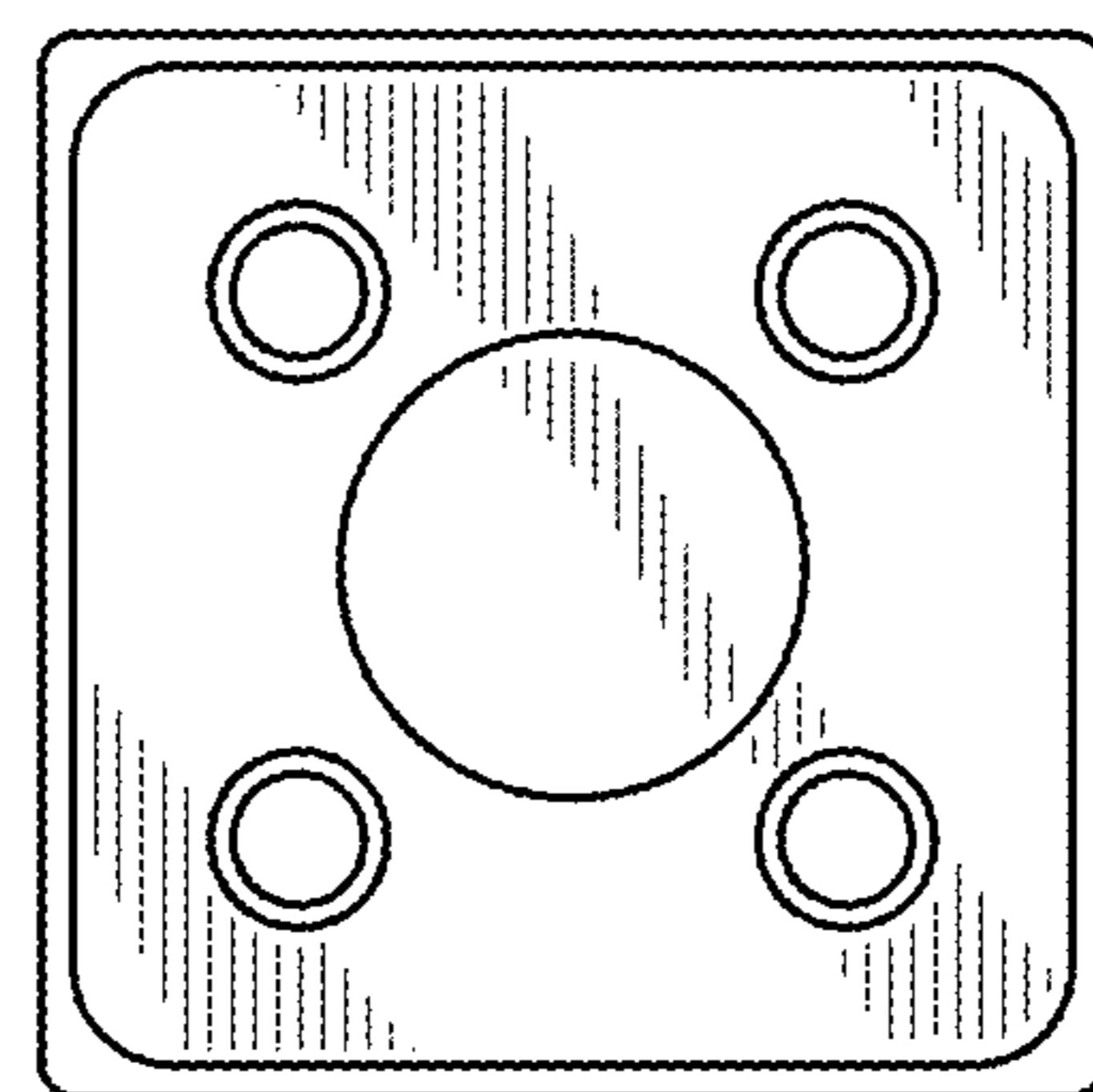
**FIG. 22**



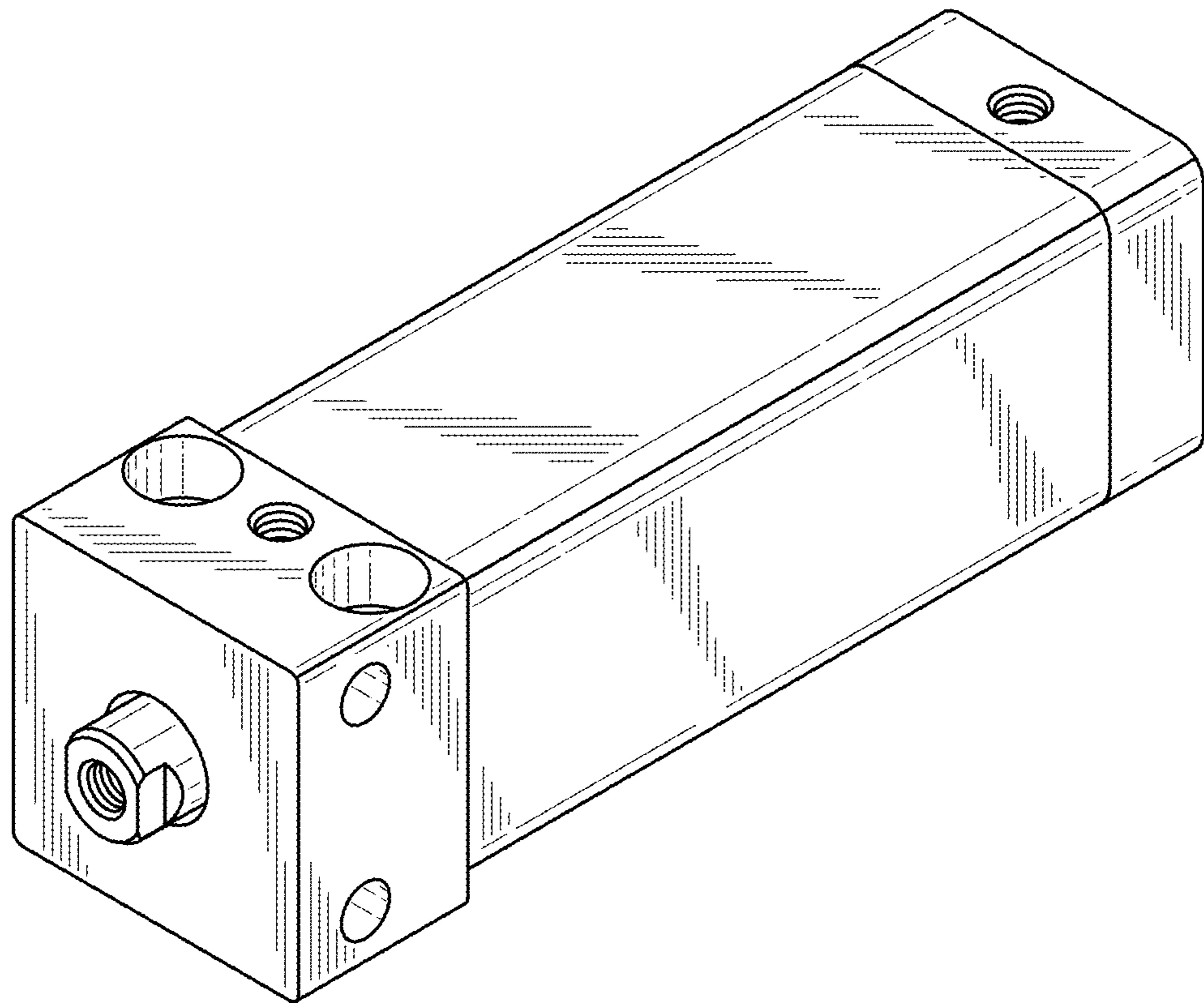
**FIG. 23**



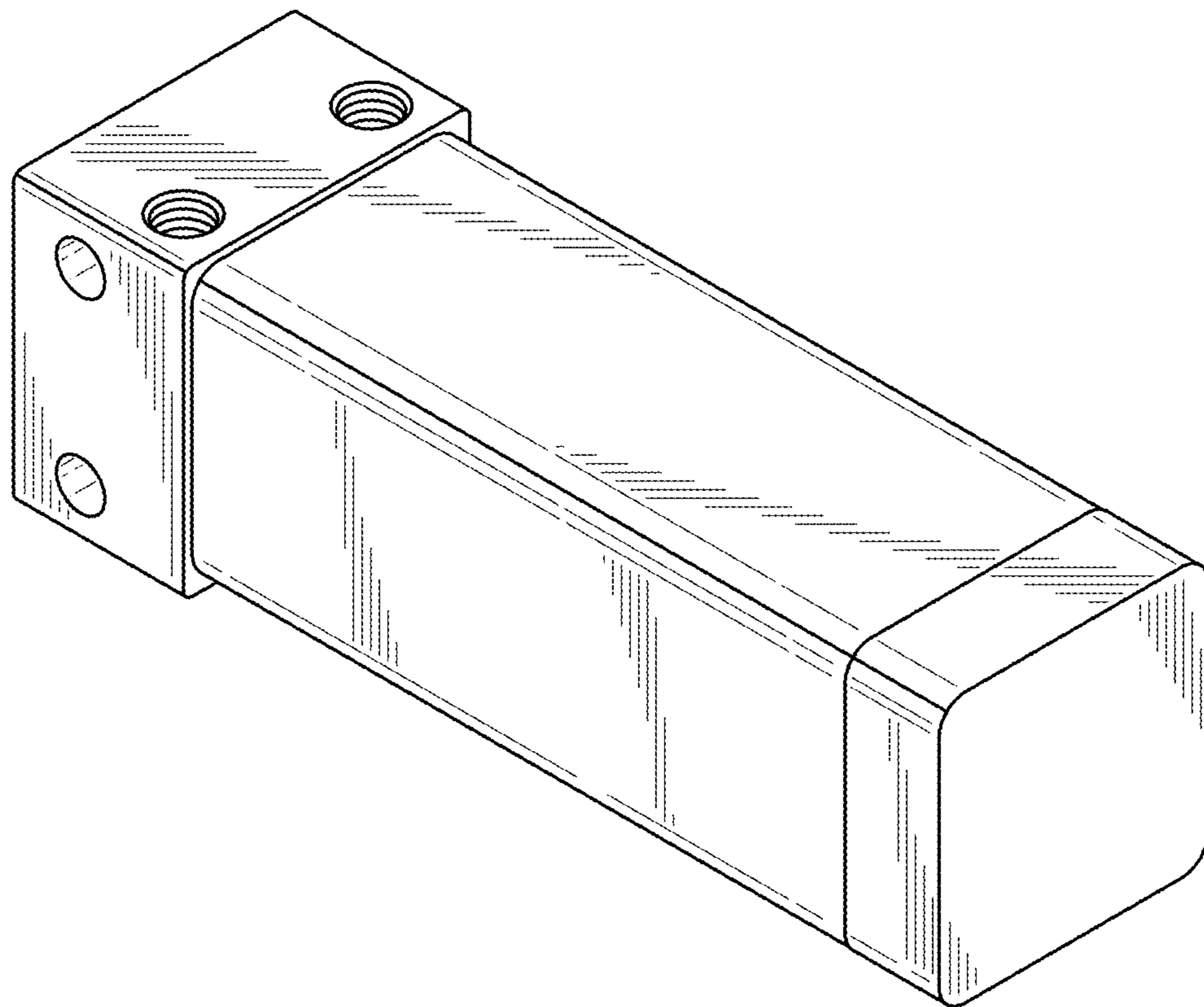
**FIG. 24**



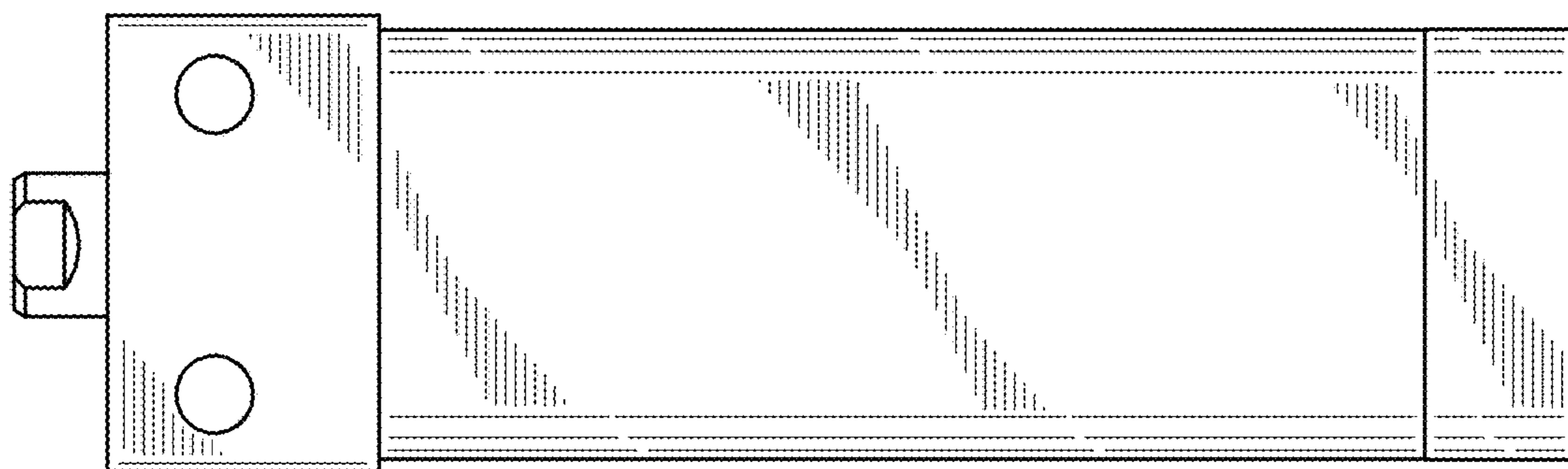
**FIG. 25**



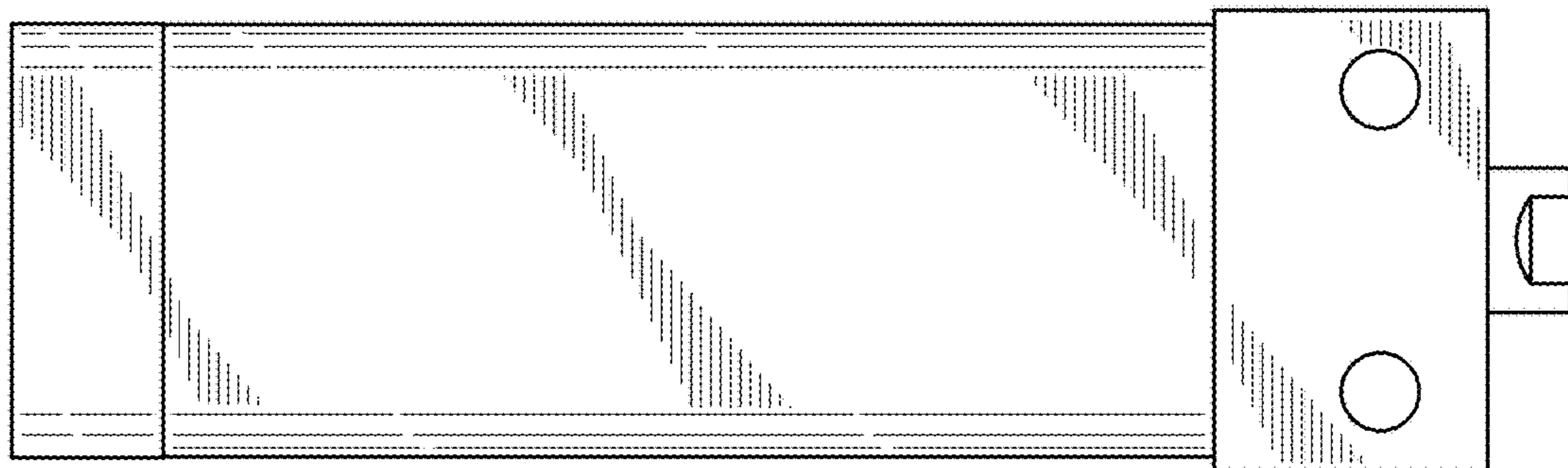
**FIG. 26**



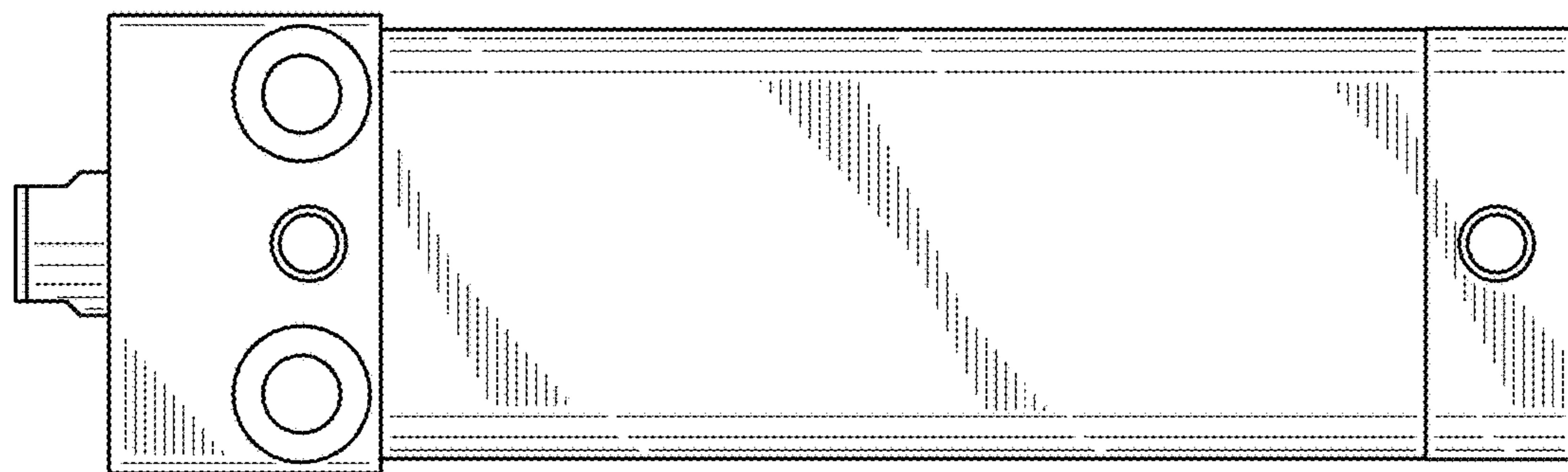
**FIG. 27**



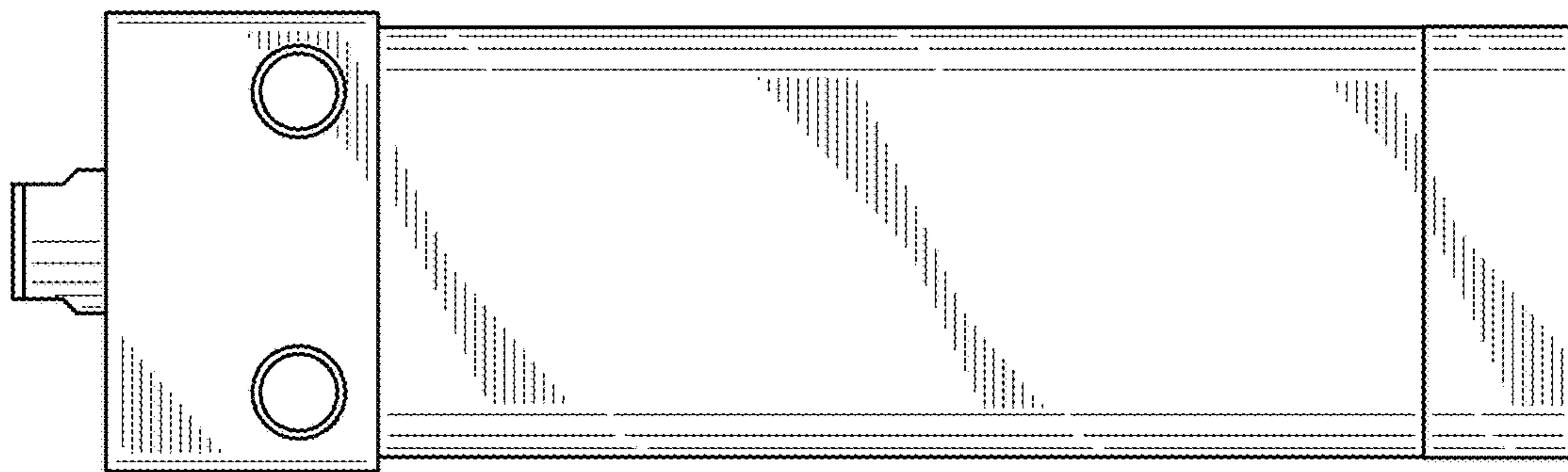
**FIG. 28**



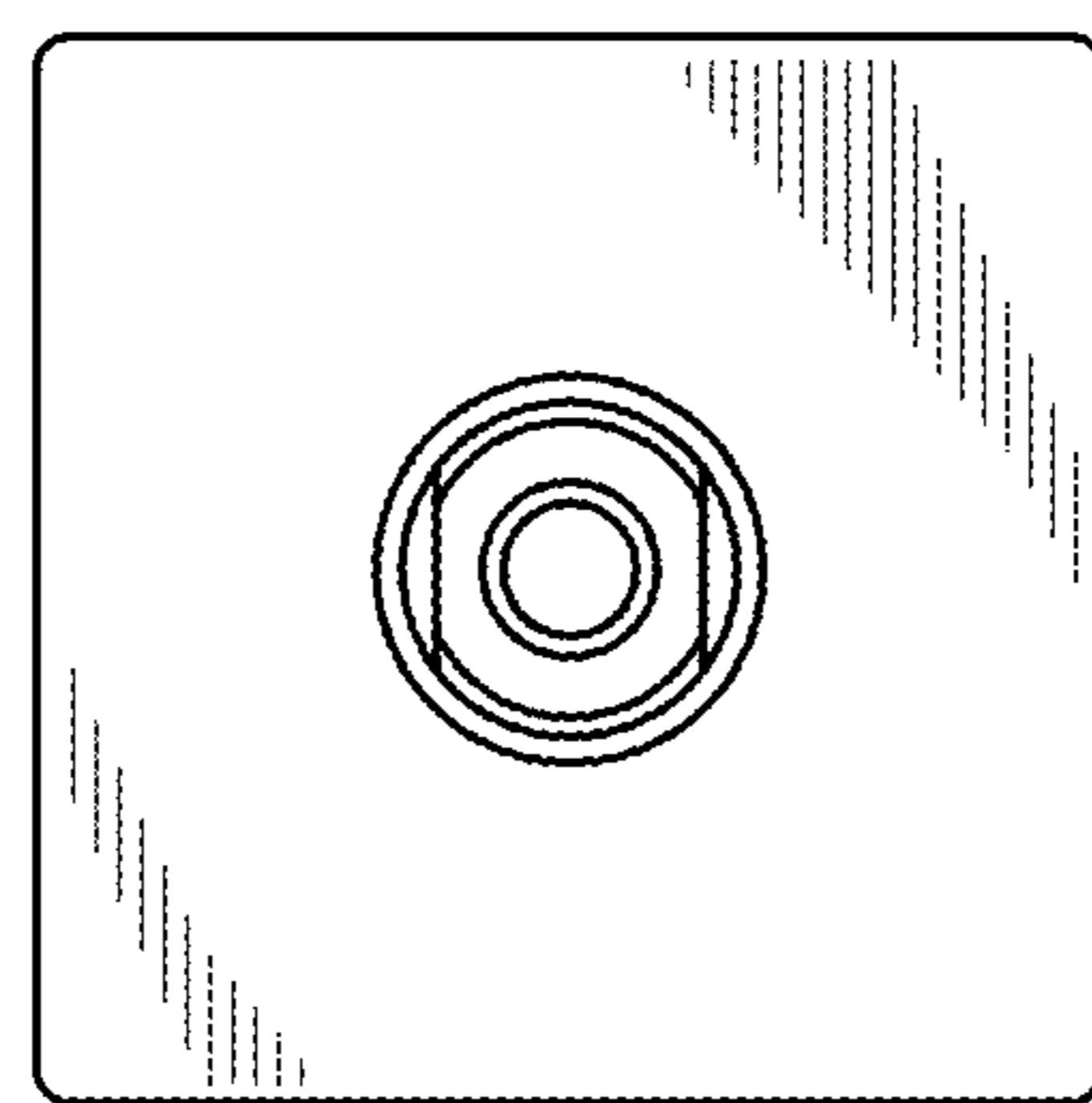
**FIG. 29**



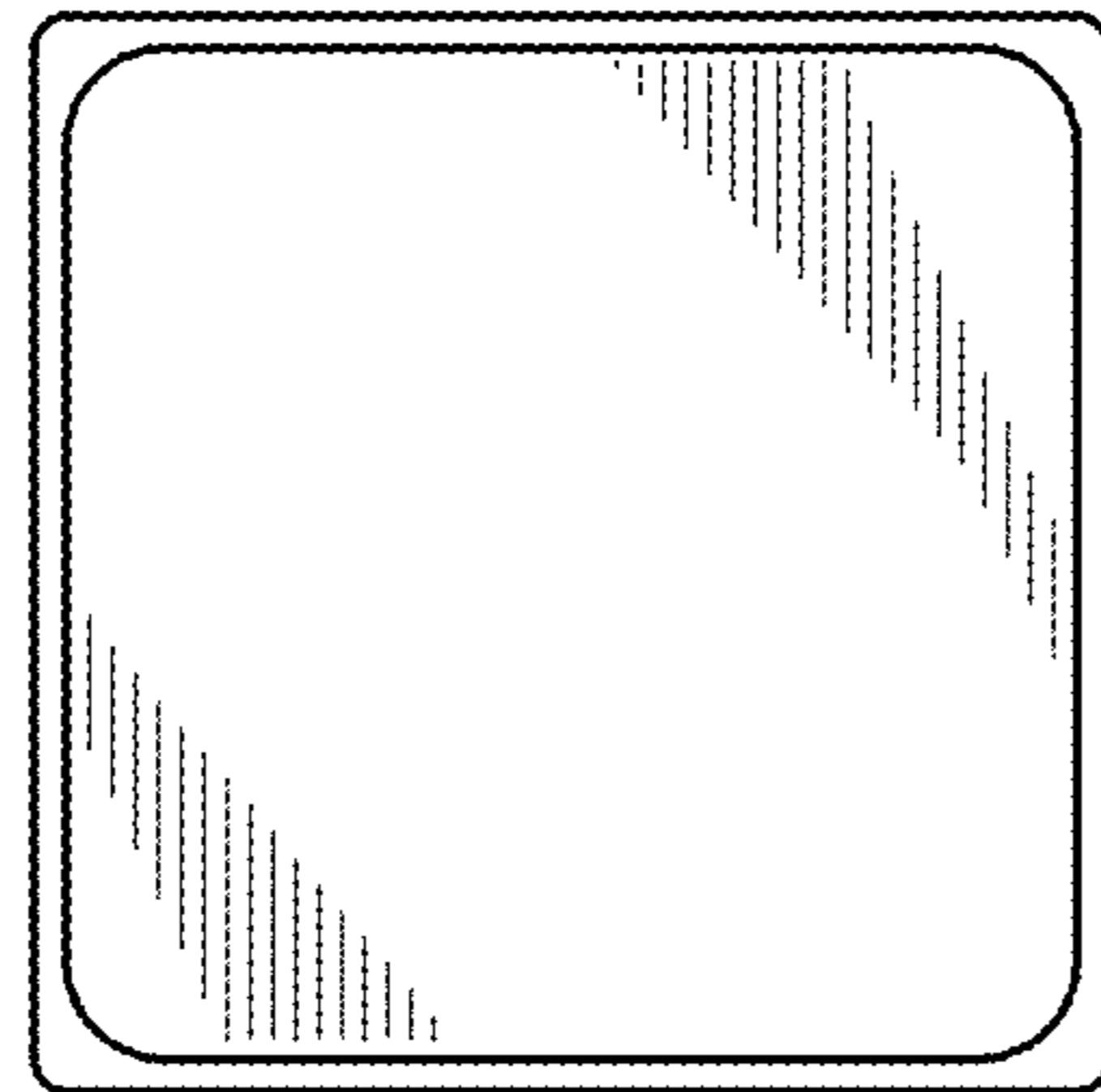
**FIG. 30**



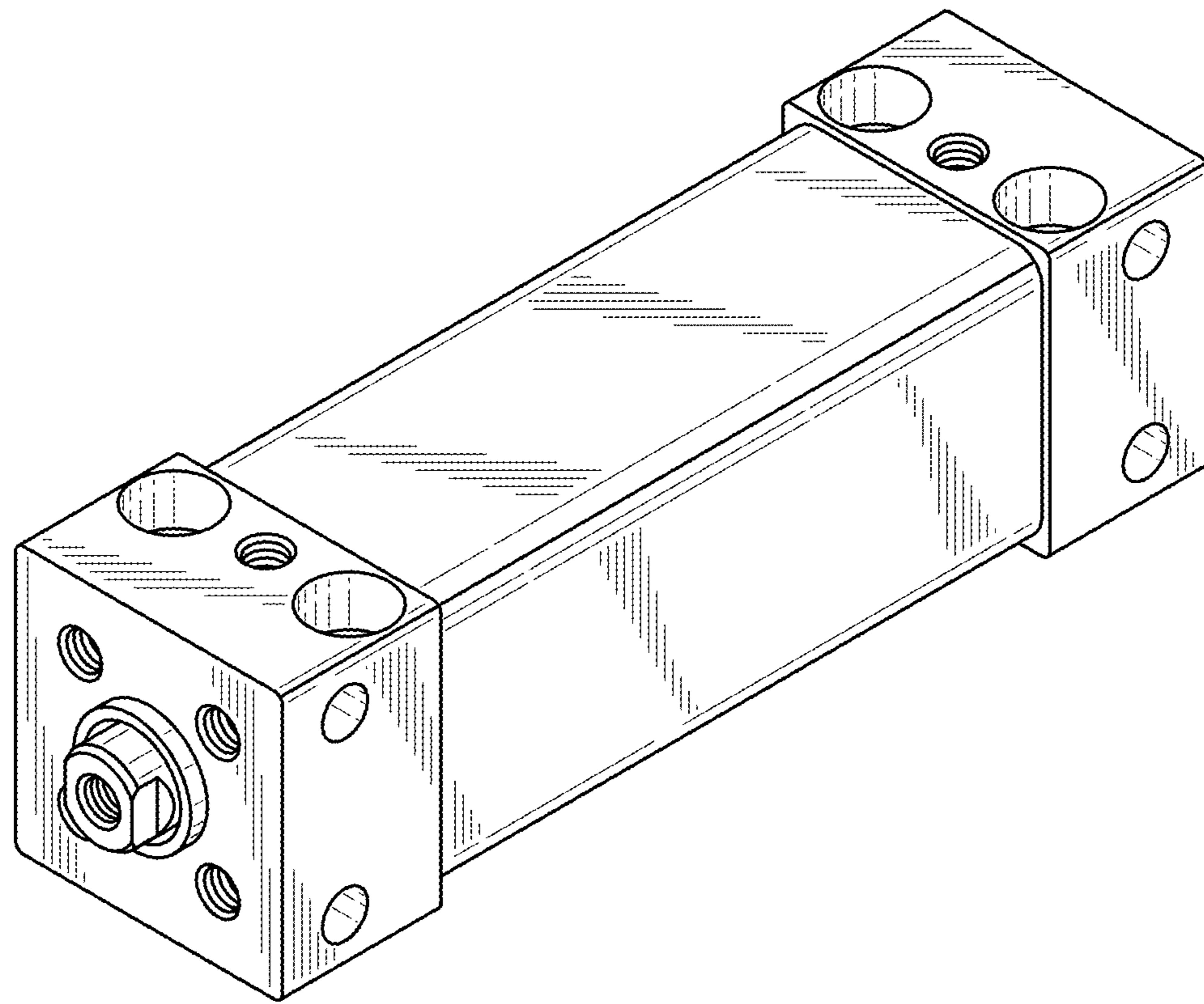
**FIG. 31**



**FIG. 32**



**FIG. 33**



**FIG. 34**

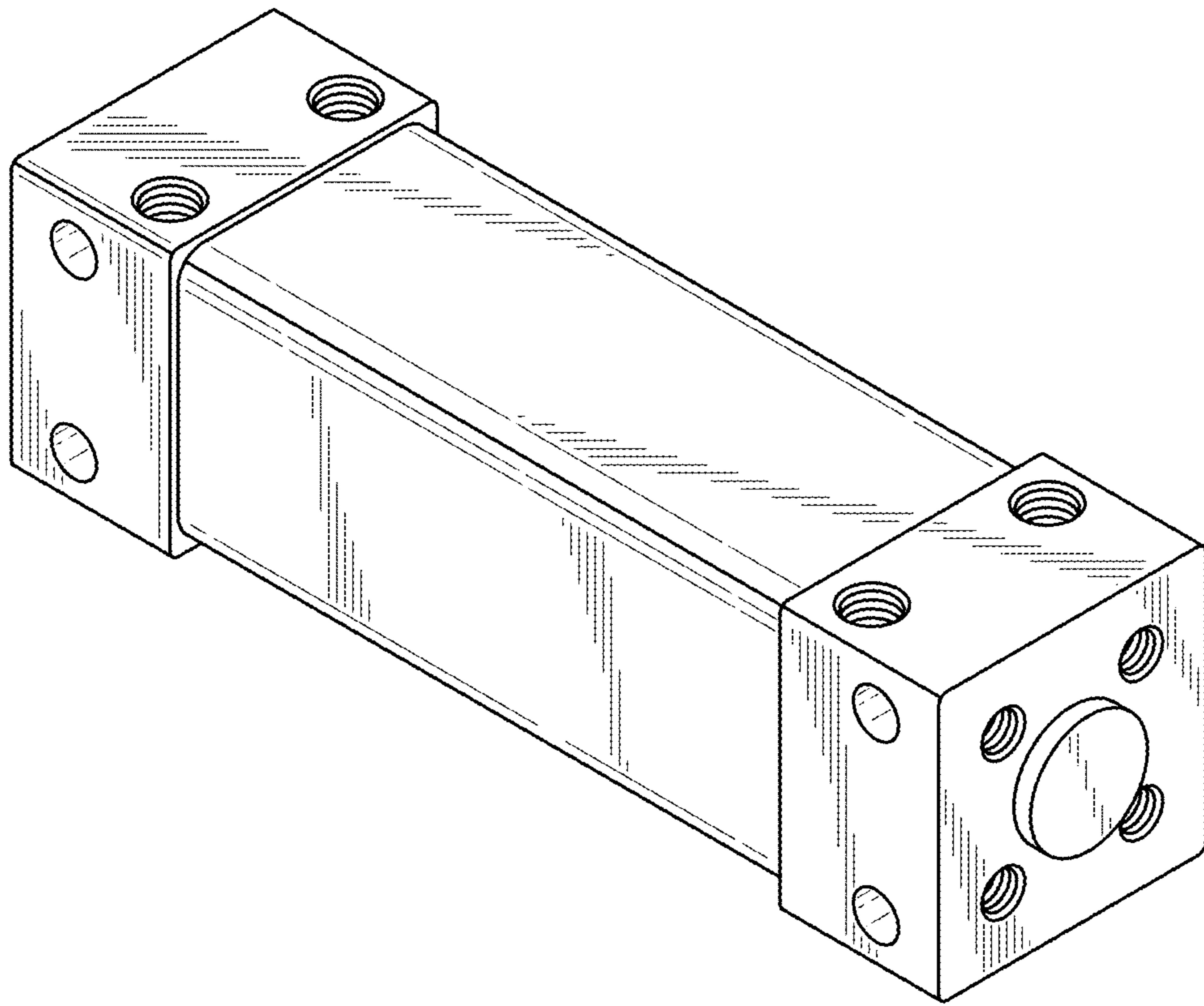
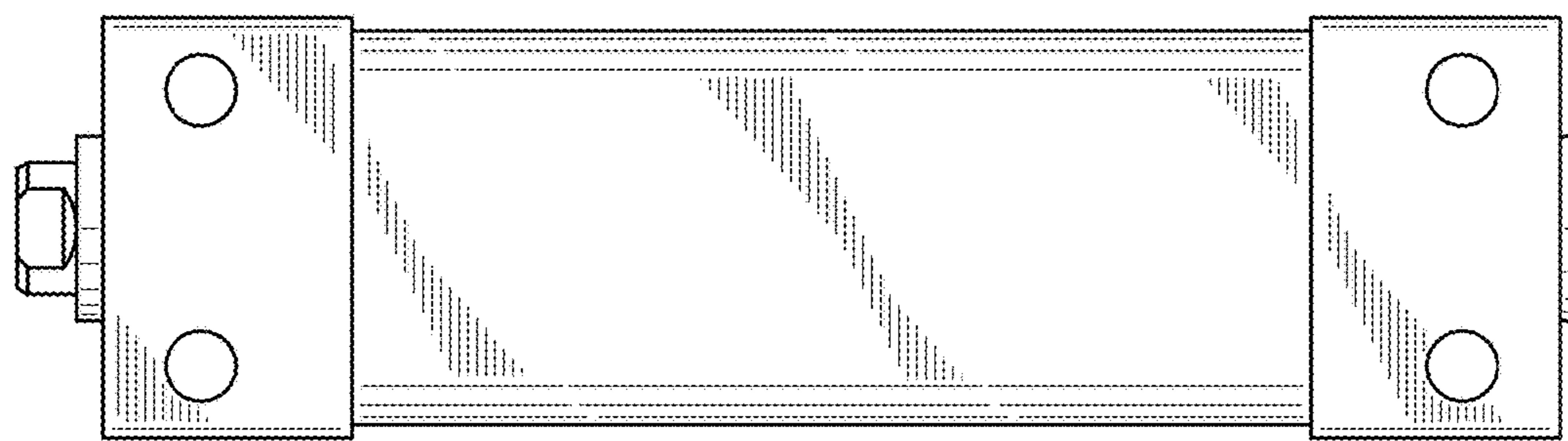
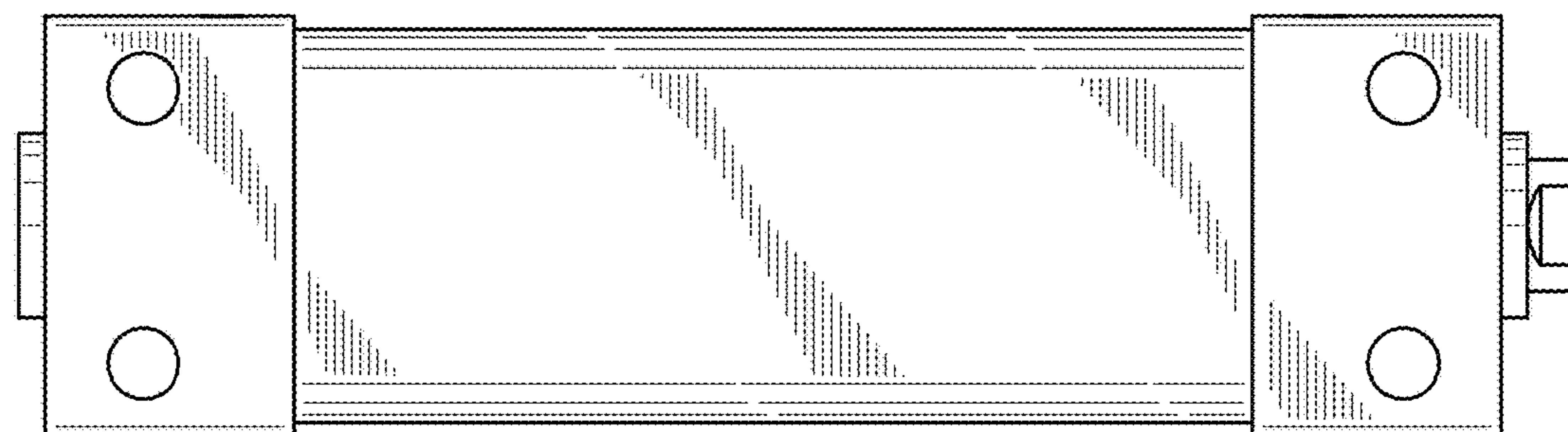


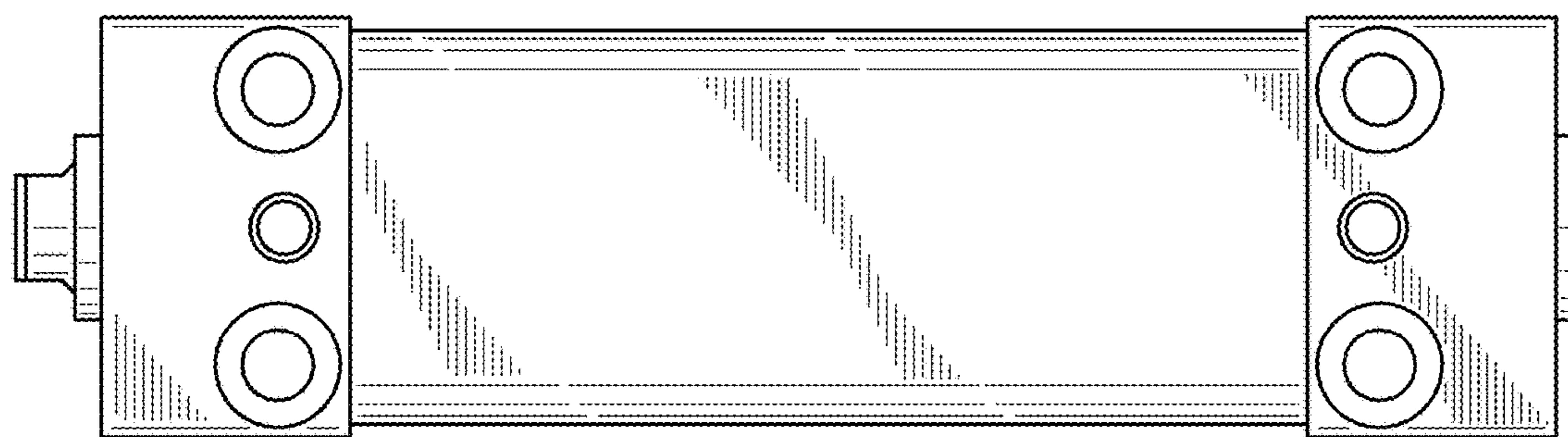
FIG. 35



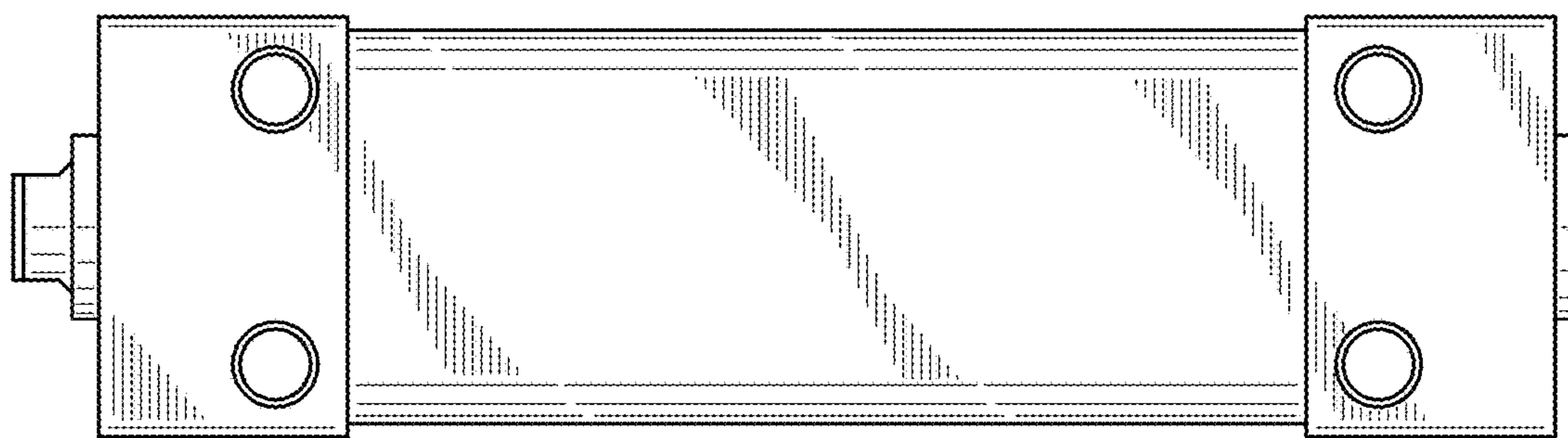
**FIG. 36**



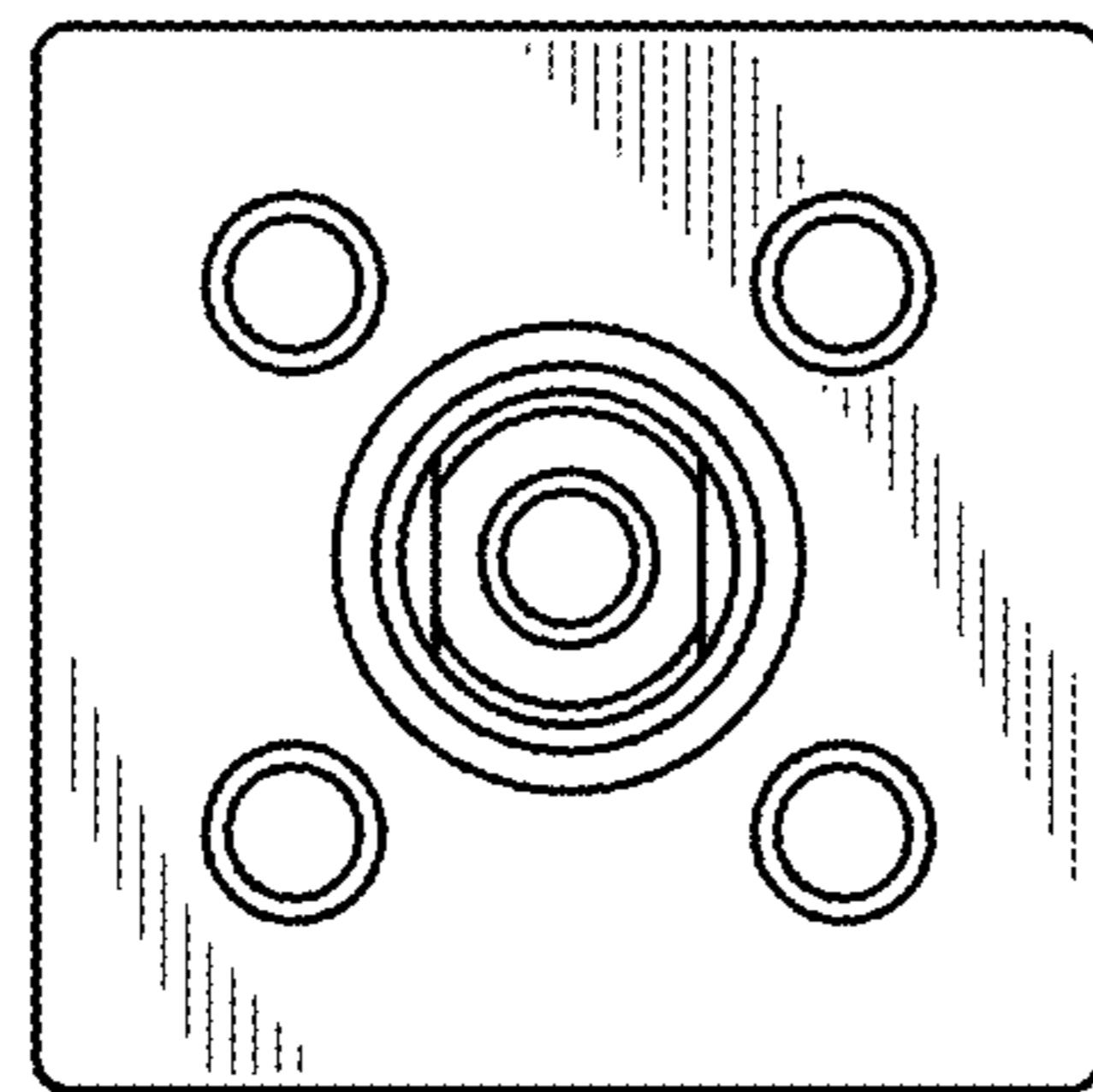
**FIG. 37**



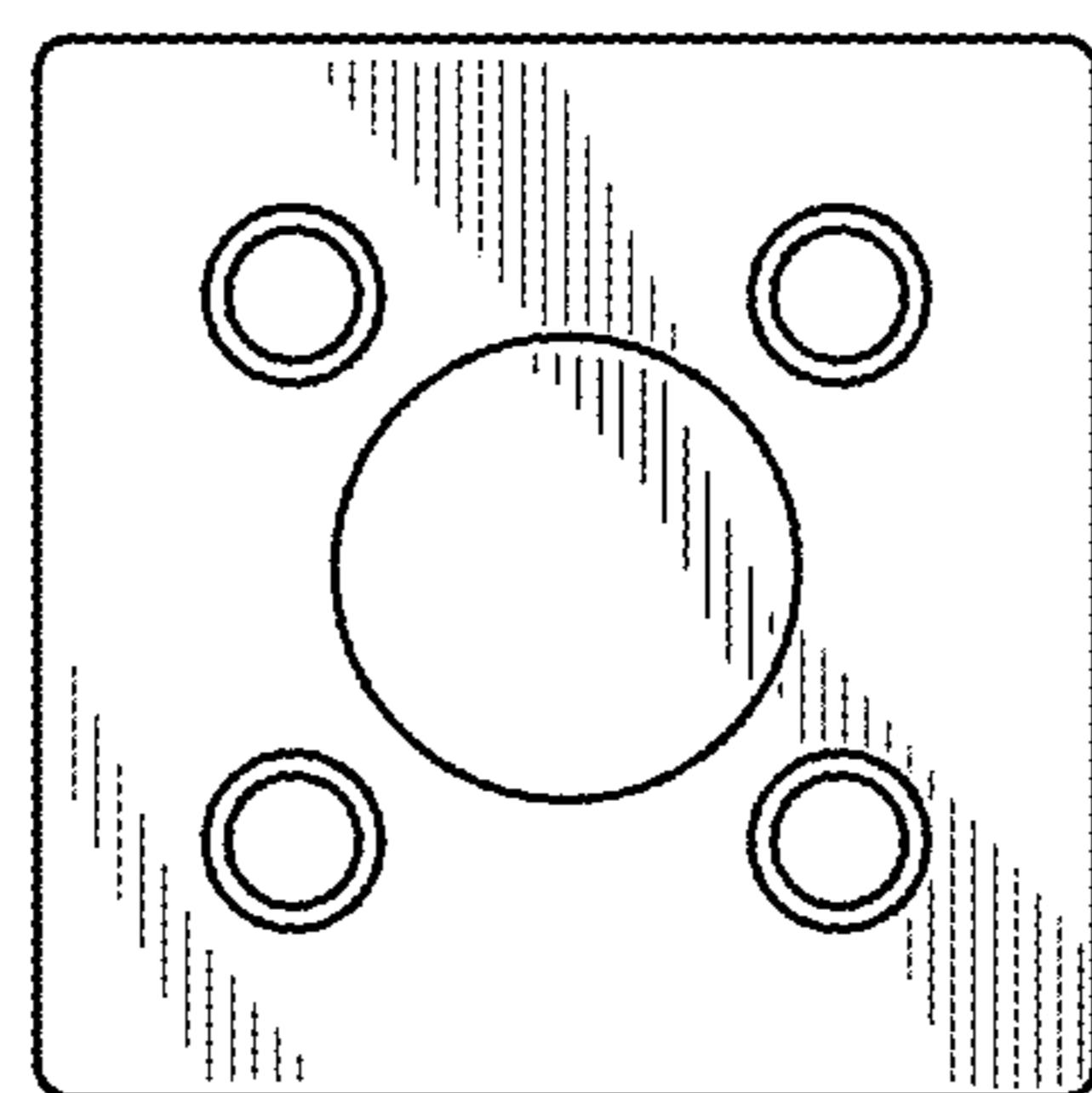
**FIG. 38**



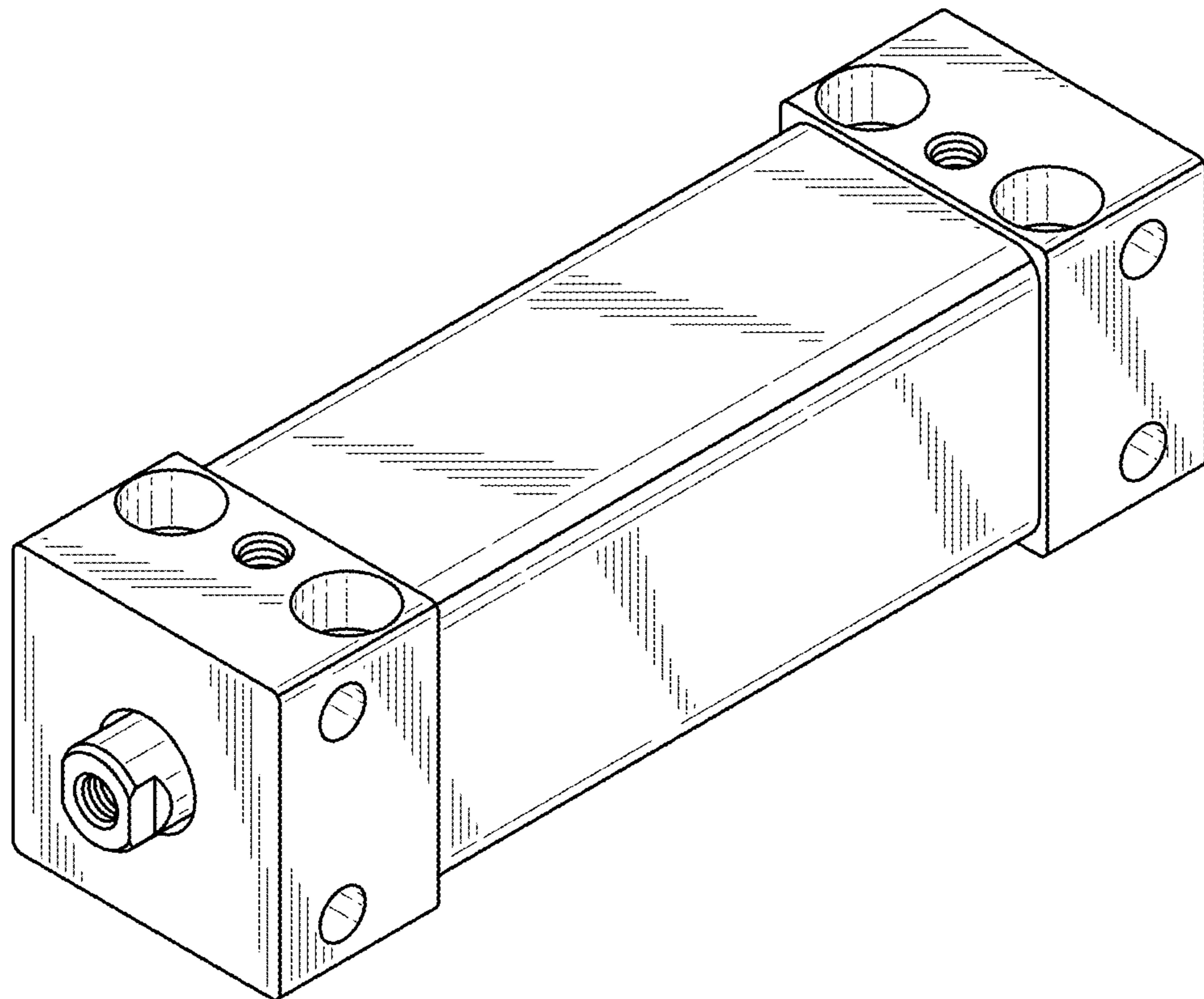
**FIG. 39**



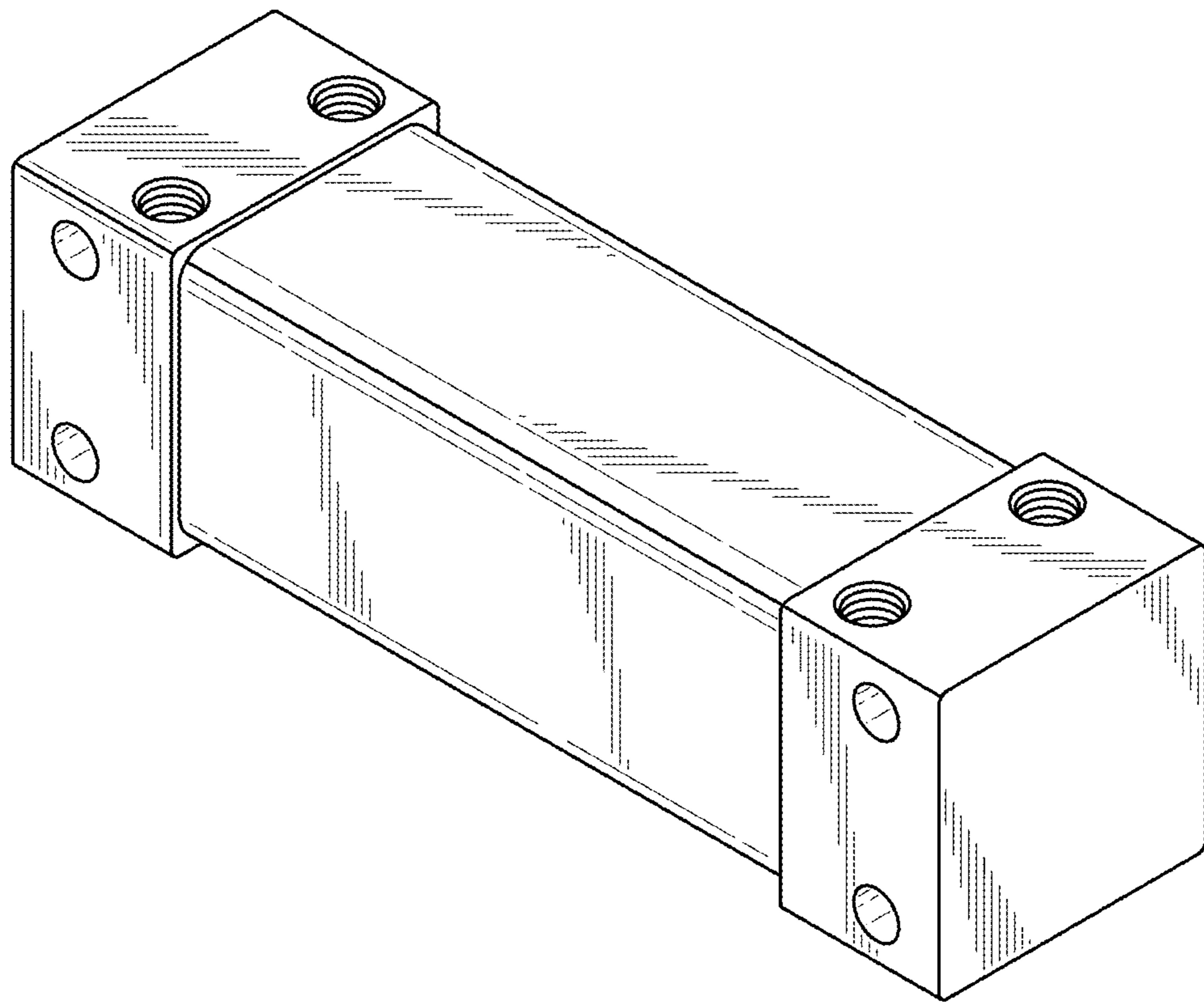
**FIG. 40**



**FIG. 41**



**FIG. 42**



**FIG. 43**

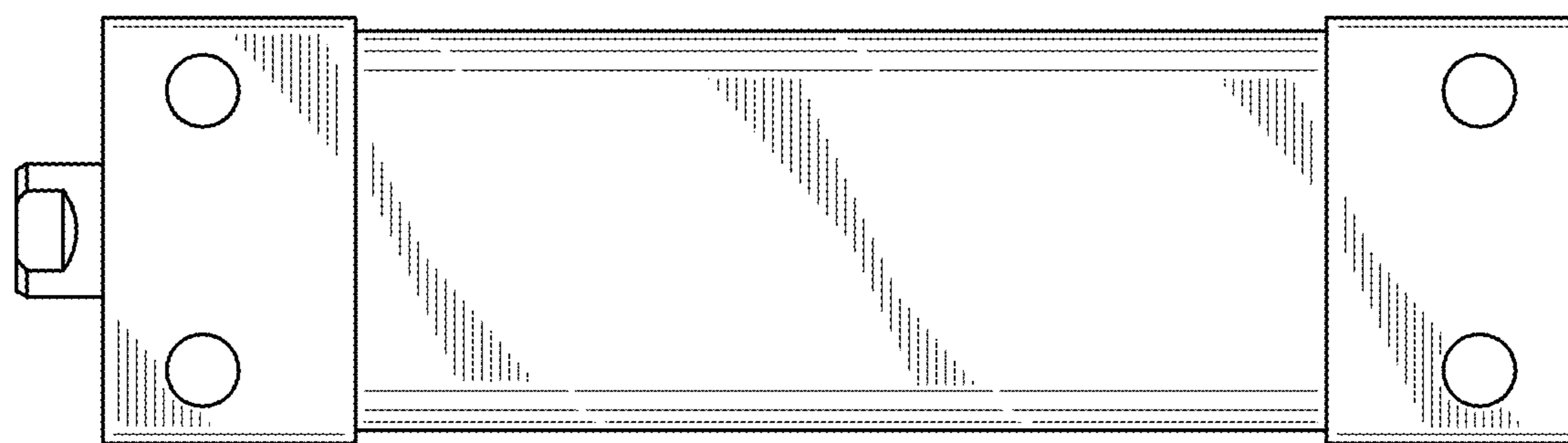
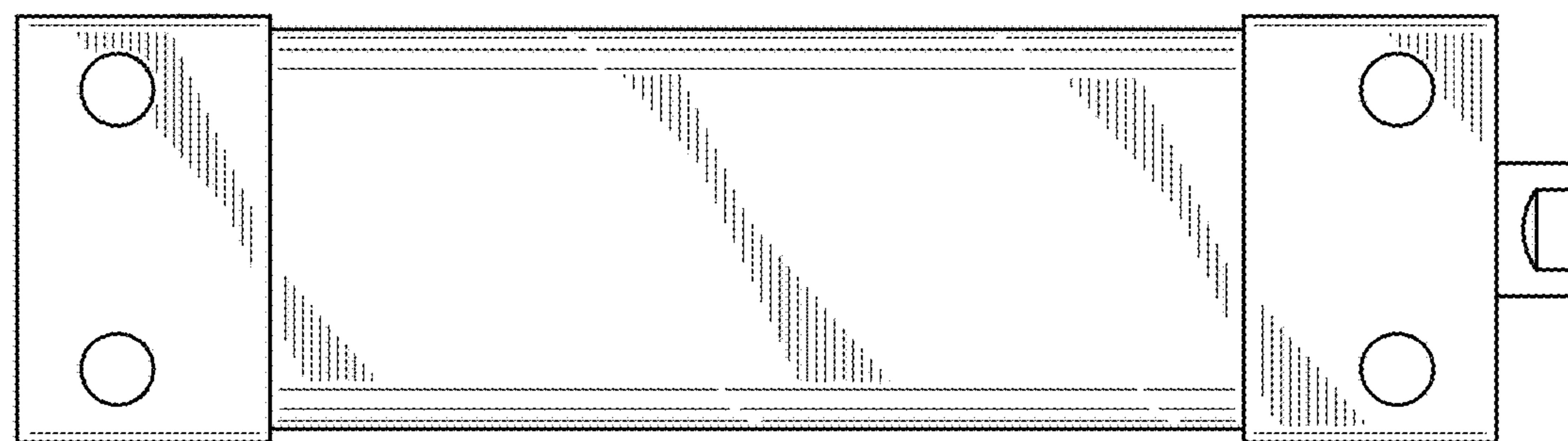
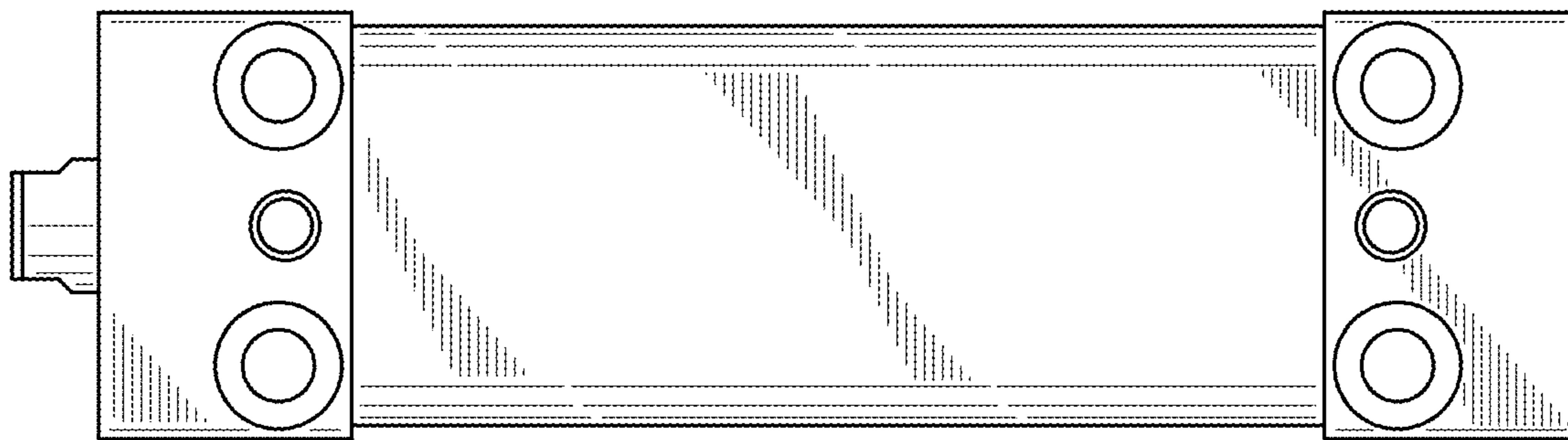


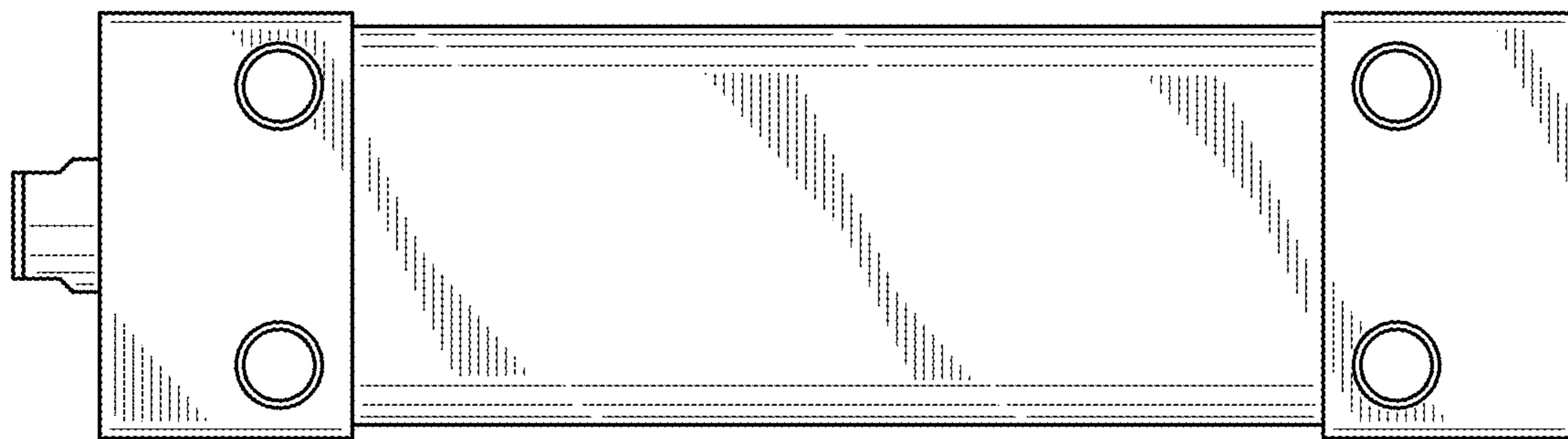
FIG. 44



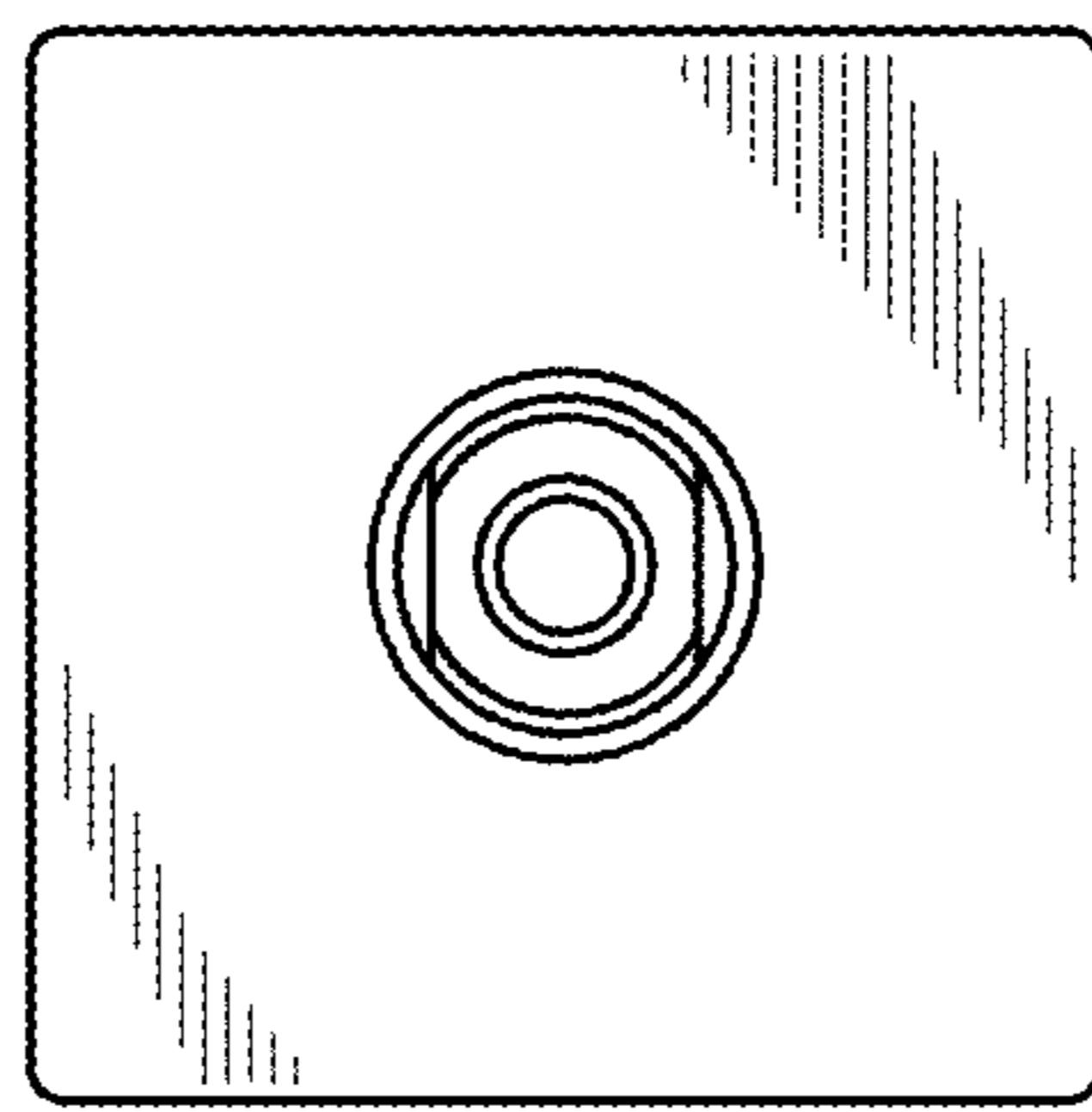
**FIG. 45**



**FIG. 46**



**FIG. 47**



**FIG. 48**

