



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**

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Masahiko Kawakami, Tsukubamirai (JP); **Ken Tamura**, Tsukubamirai (JP)

(57) **CLAIM**

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

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

DESCRIPTION

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

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;

(21) Appl. No.: **29/577,898**

FIG. 3 is a front view thereof;

(22) Filed: **Sep. 16, 2016**

FIG. 4 is a rear view thereof;

(30) **Foreign Application Priority Data**

FIG. 5 is a top plan view thereof;

Mar. 18, 2016 (CN) 2016 3 0078459

FIG. 6 is a bottom plan view thereof;

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

FIG. 7 is a left side view thereof;

(52) **U.S. Cl.**

FIG. 8 is a right side view thereof;

USPC **D15/7**

FIG. 9 is a front, top left side perspective view of a fluid pressure cylinder showing a second embodiment of our new design;

(58) **Field of Classification Search**

USPC D15/7-9, 143; D23/231, 232, 225;
417/60, 235, 265, 321, 355, 358, 363,
(Continued)

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

(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)

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)

Primary Examiner — Ralf T Seifert

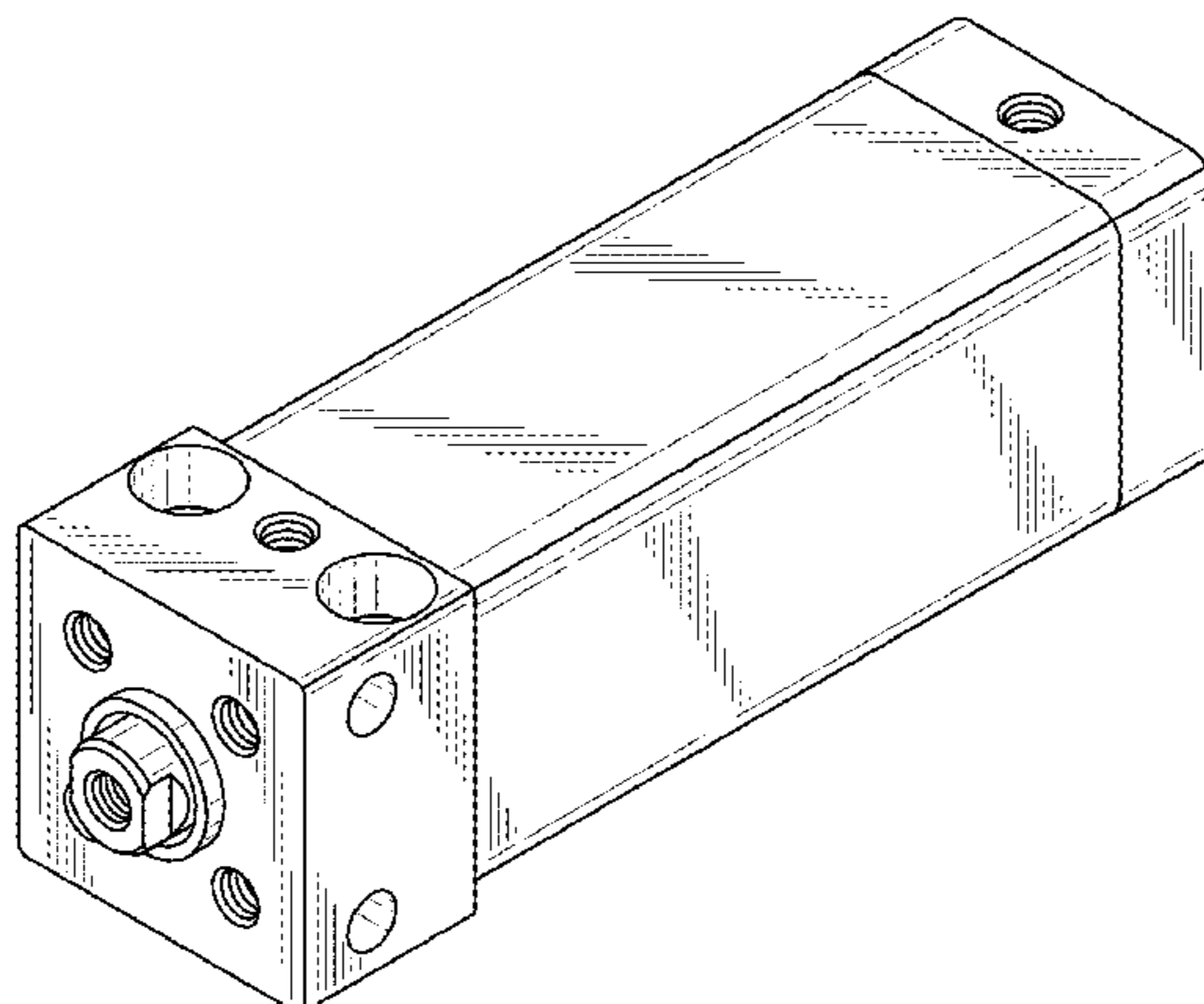


FIG. 25 is a front, top and left side perspective view of a fluid pressure cylinder showing a fourth embodiment of our new design;
 FIG. 26 is a rear, bottom and right side perspective view of FIG. 25;
 FIG. 27 is a front view of FIG. 25;
 FIG. 28 is a rear view of FIG. 25;
 FIG. 29 is a top plan view 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

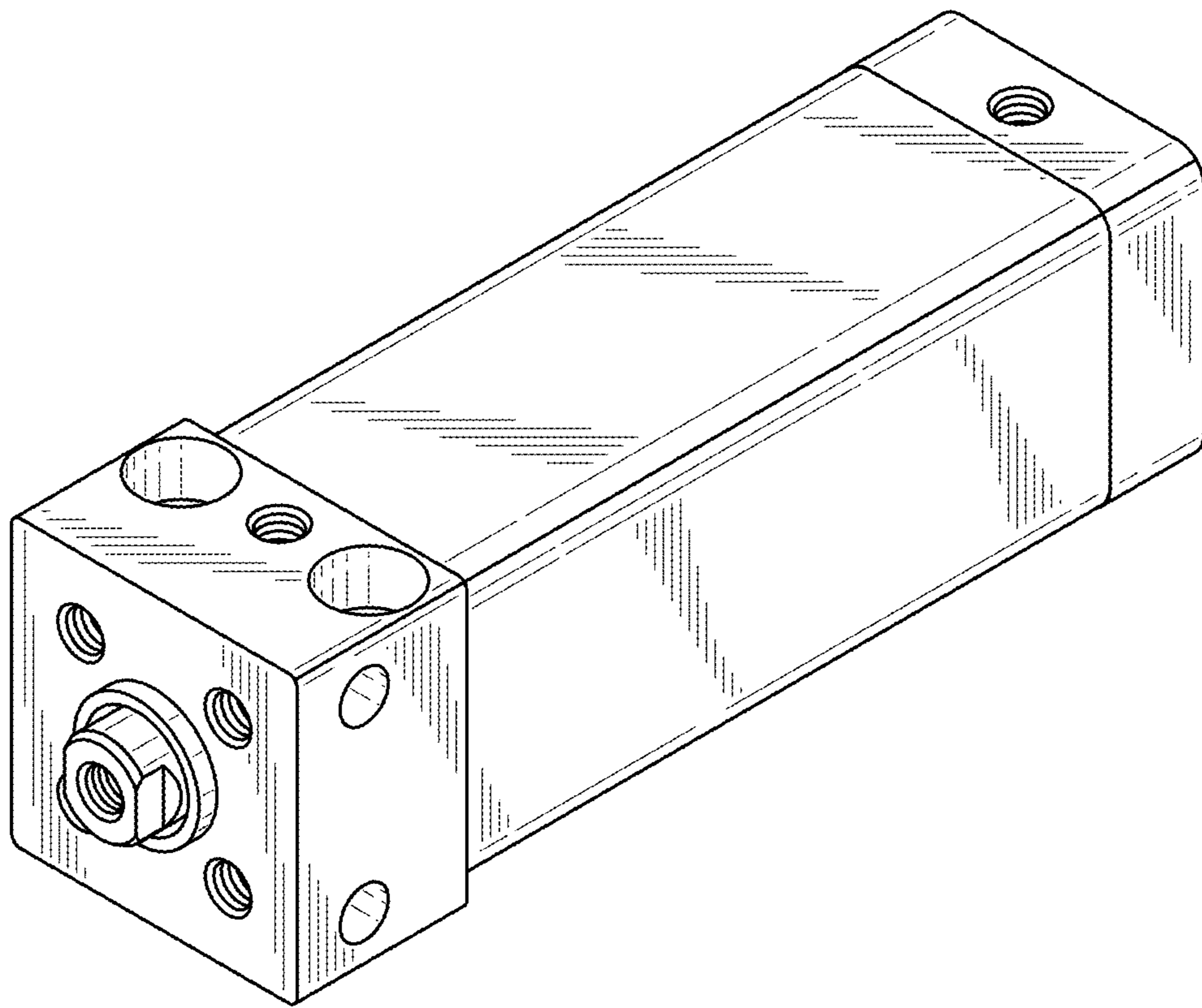


FIG. 2

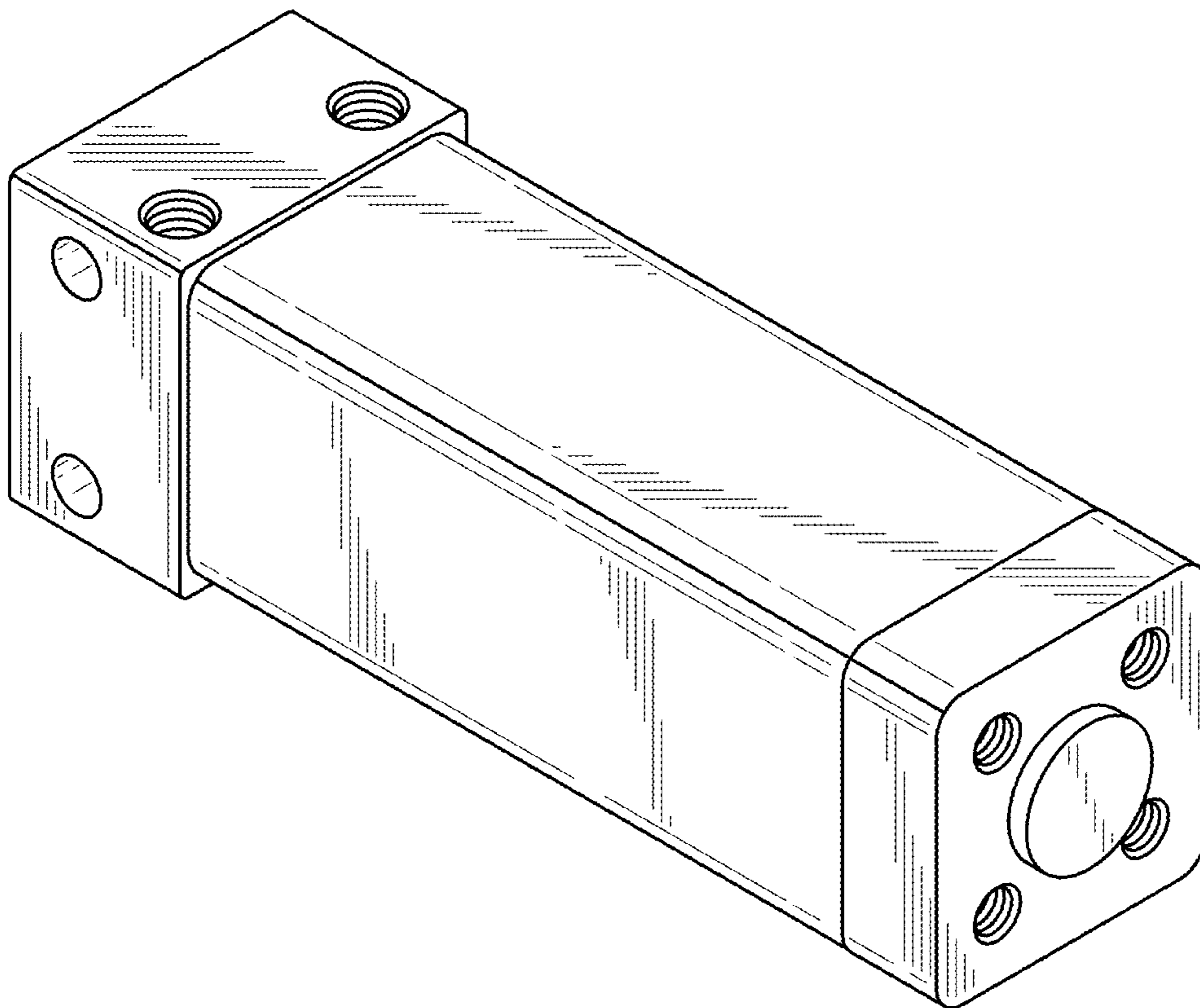


FIG. 3

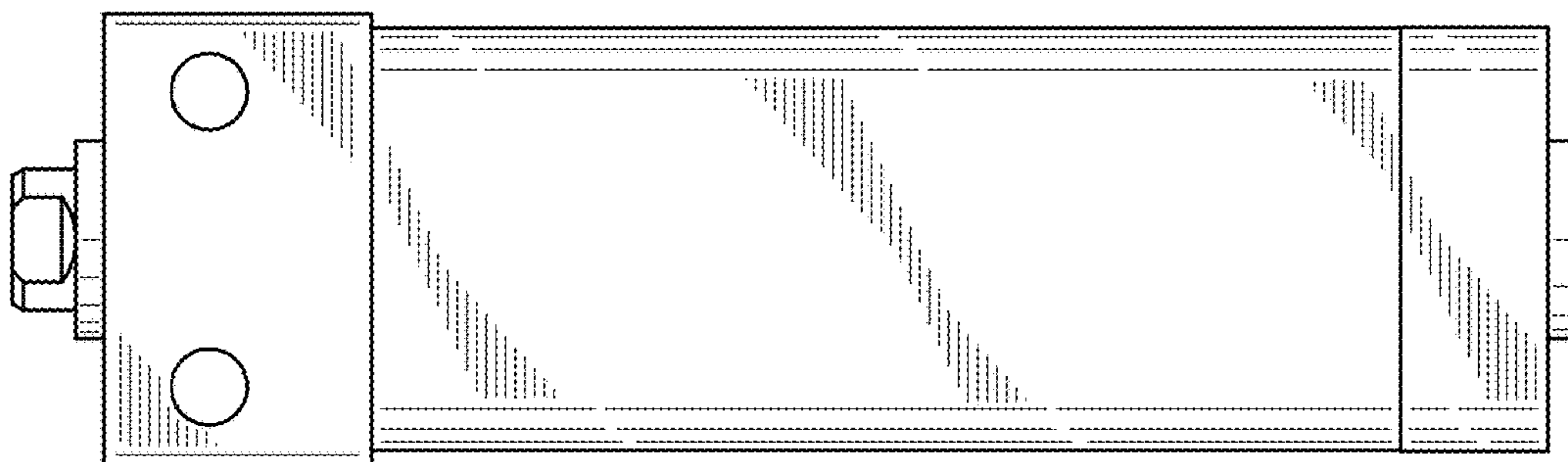


FIG. 4

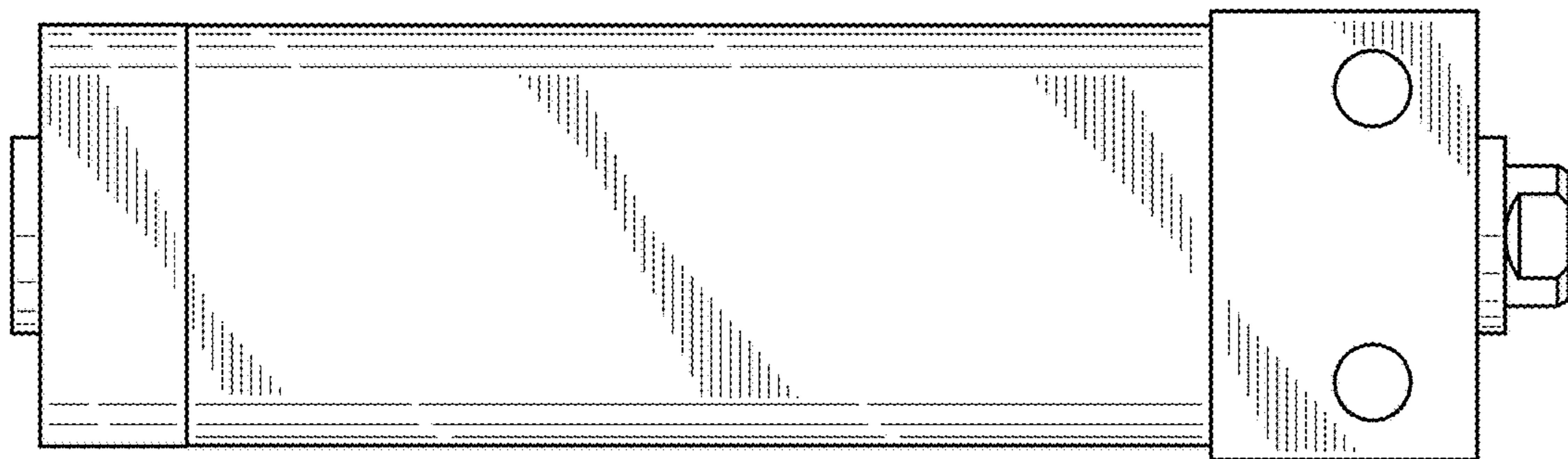


FIG. 5

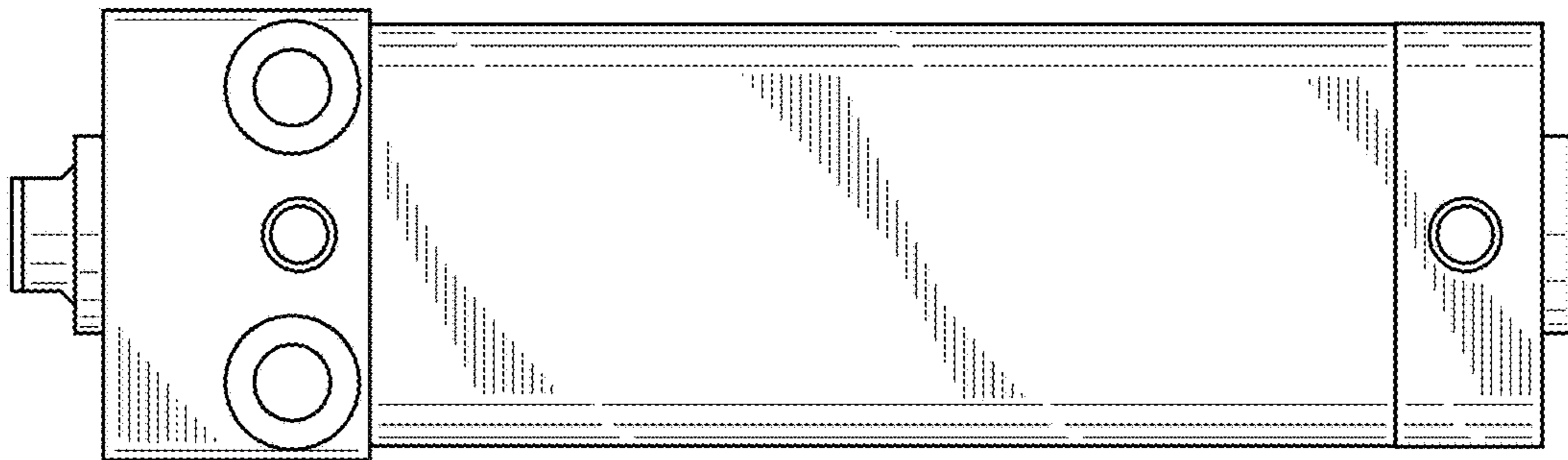


FIG. 6

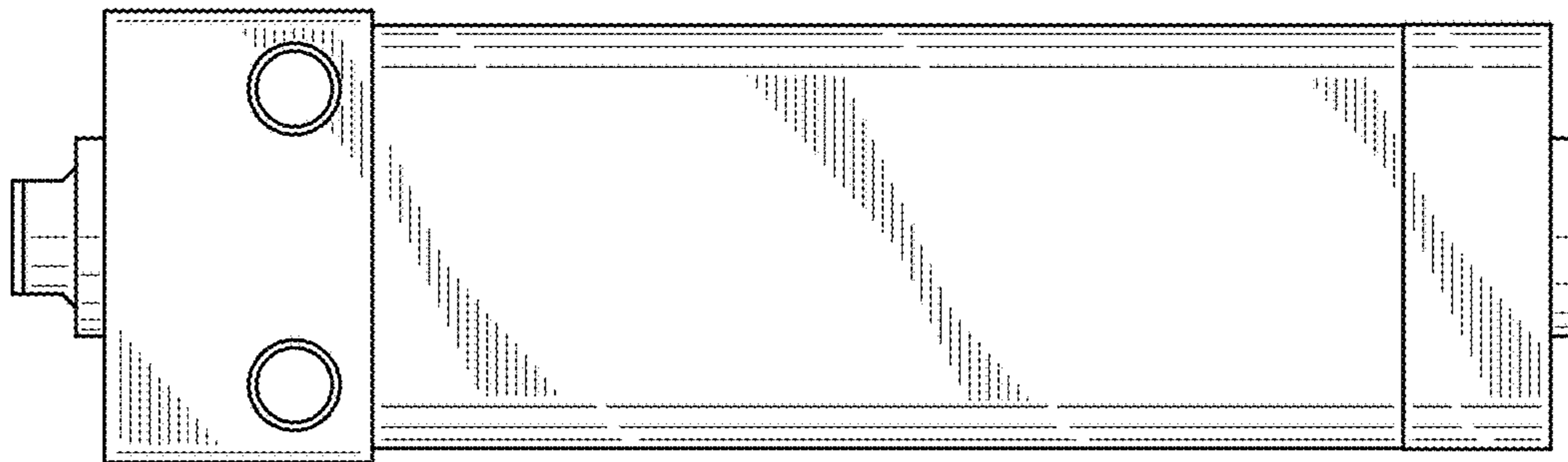


FIG. 7

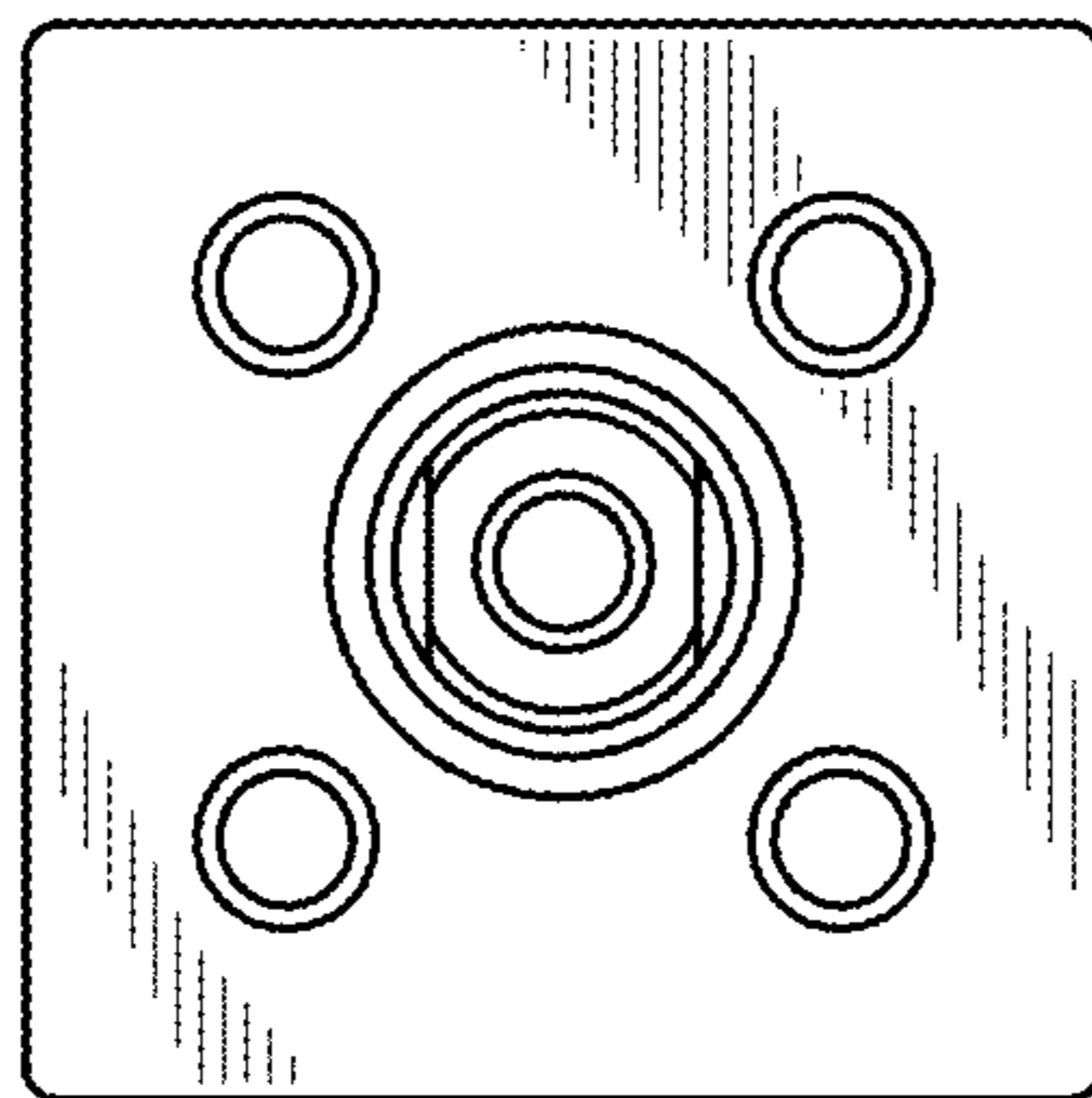


FIG. 8

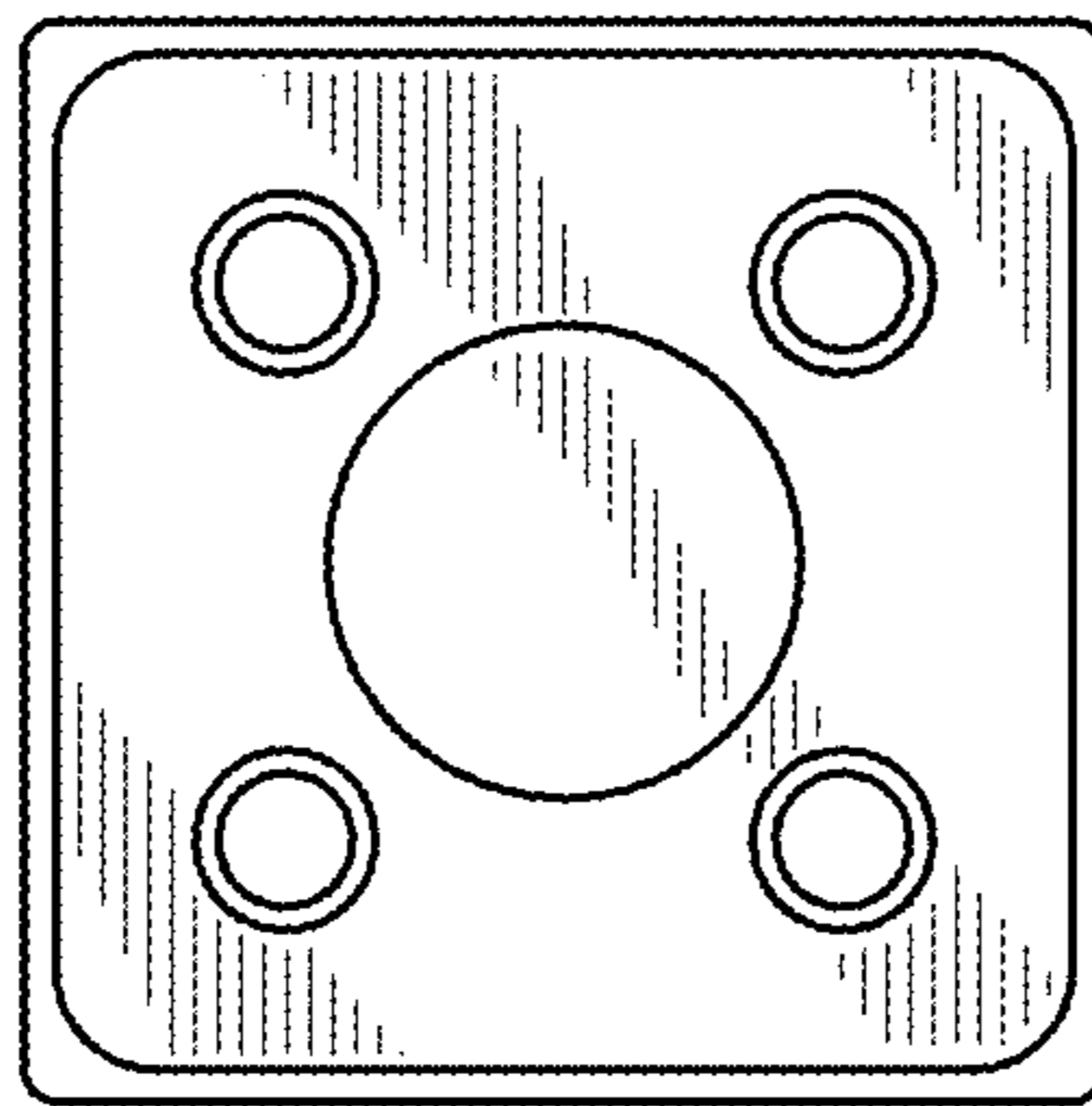


FIG. 9

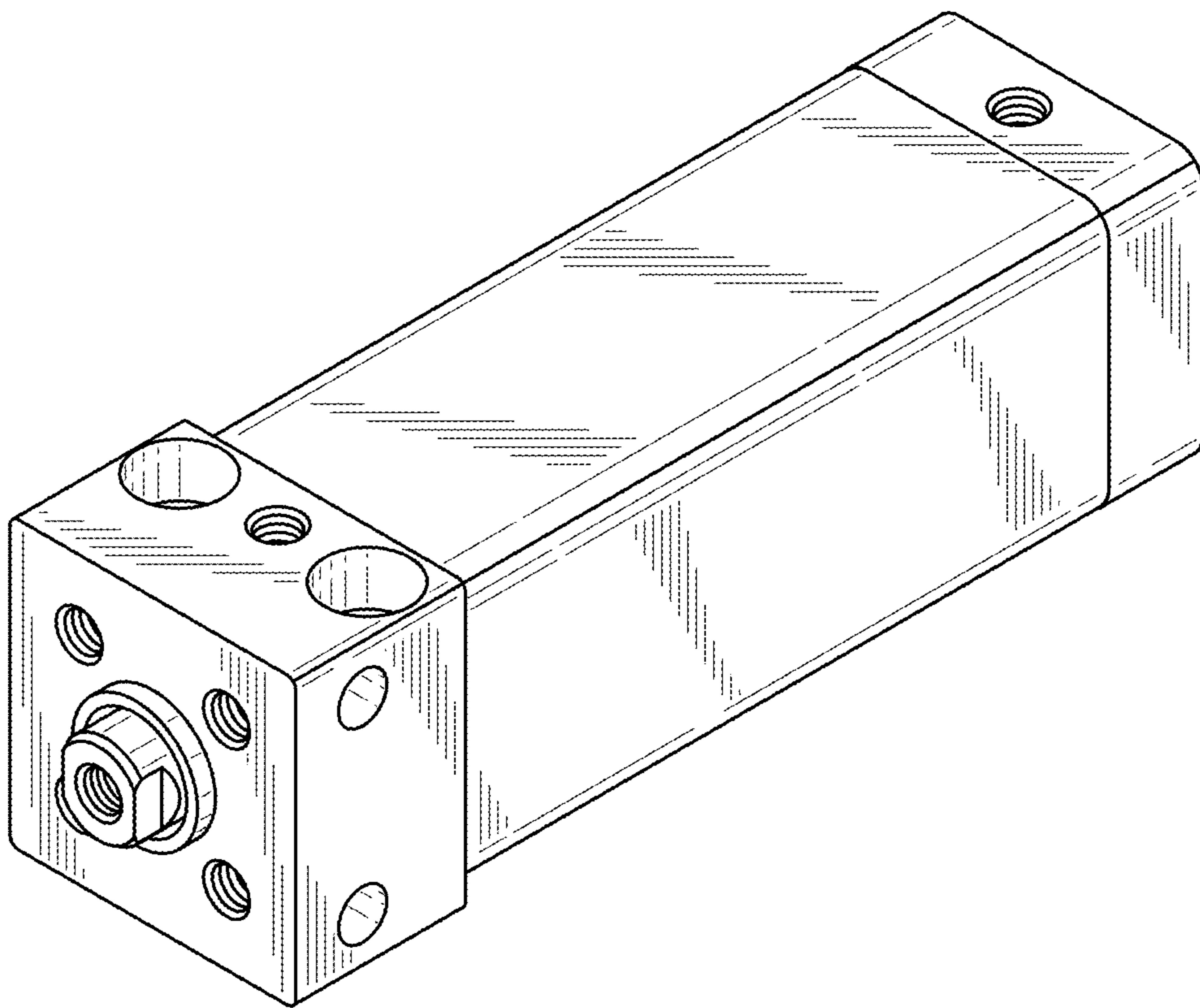


FIG. 10

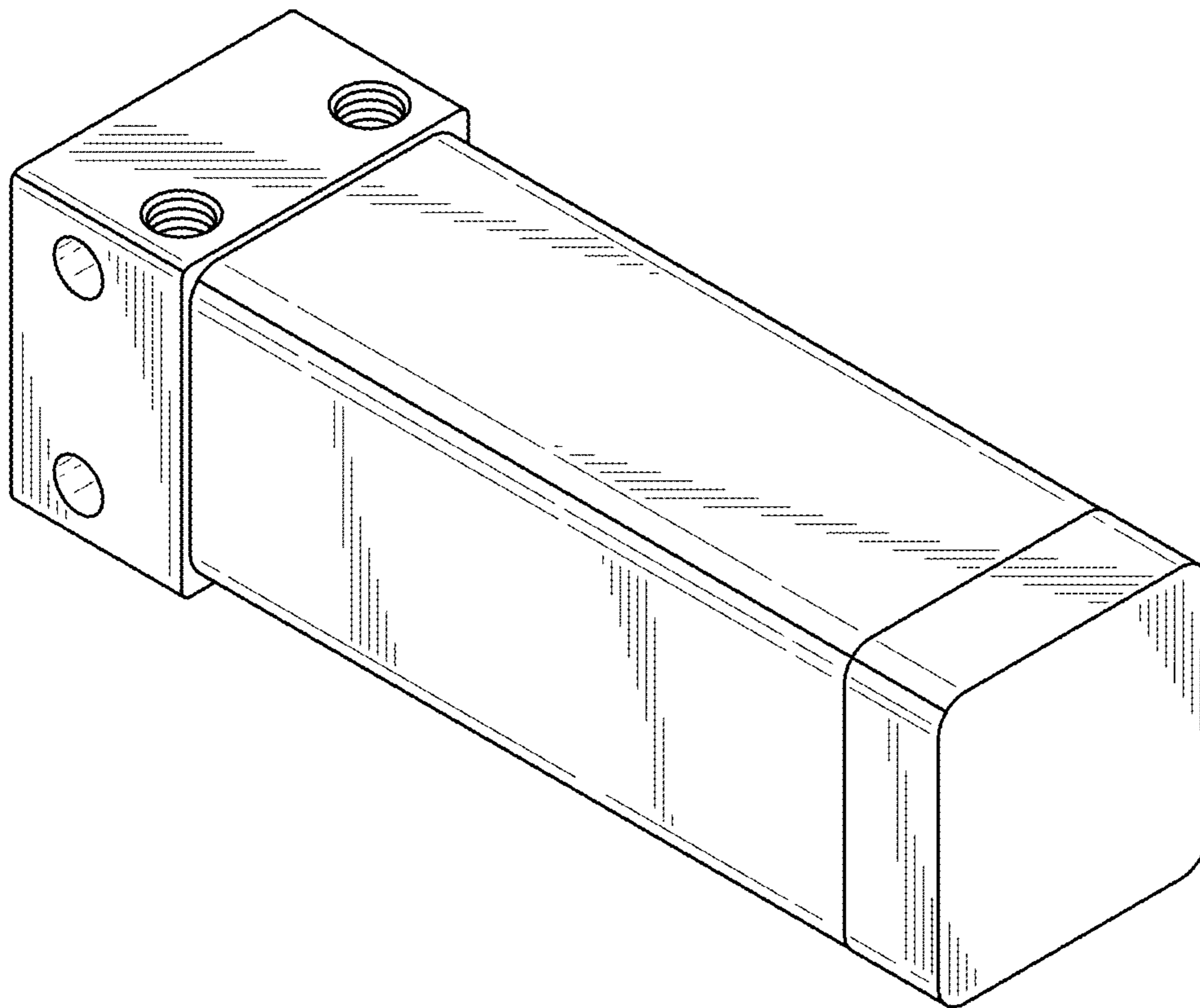


FIG. 11

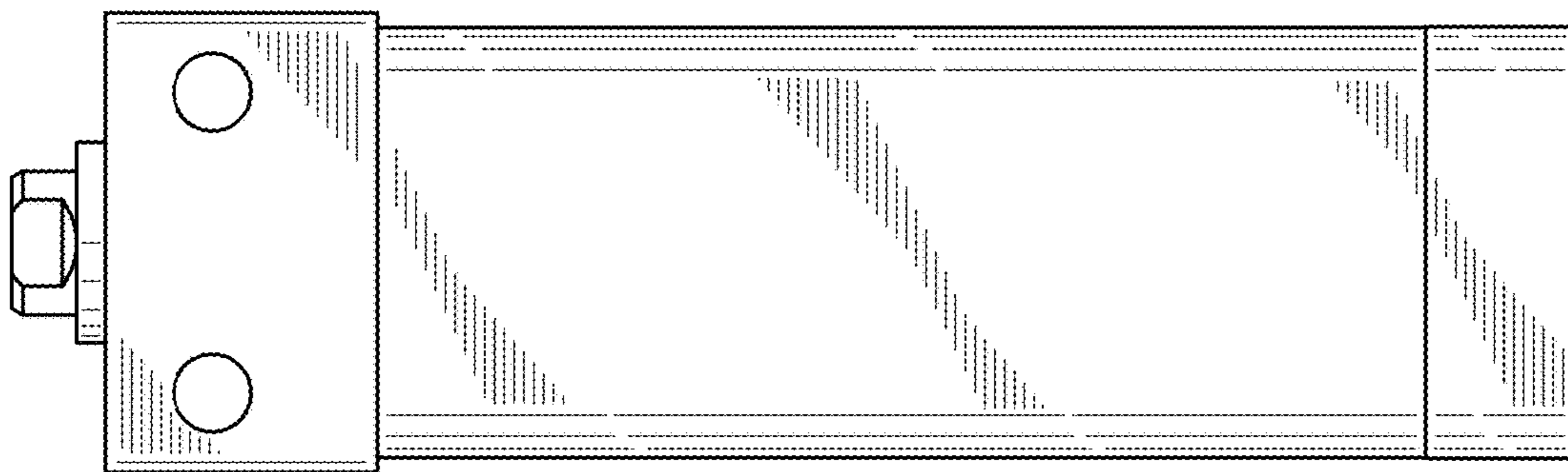


FIG. 12

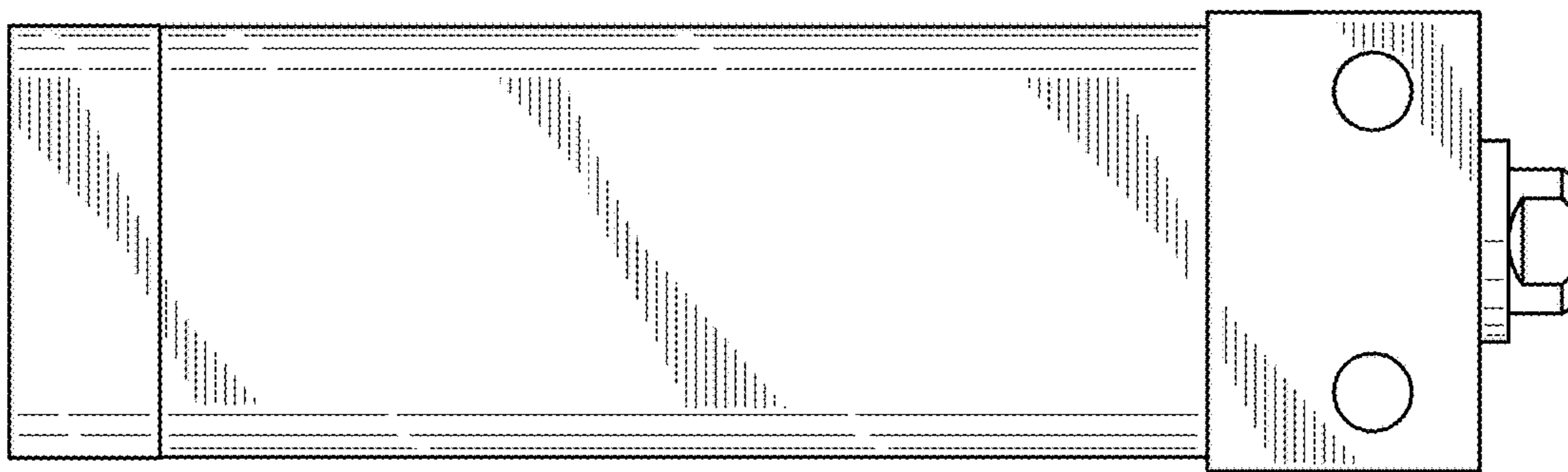


FIG. 13

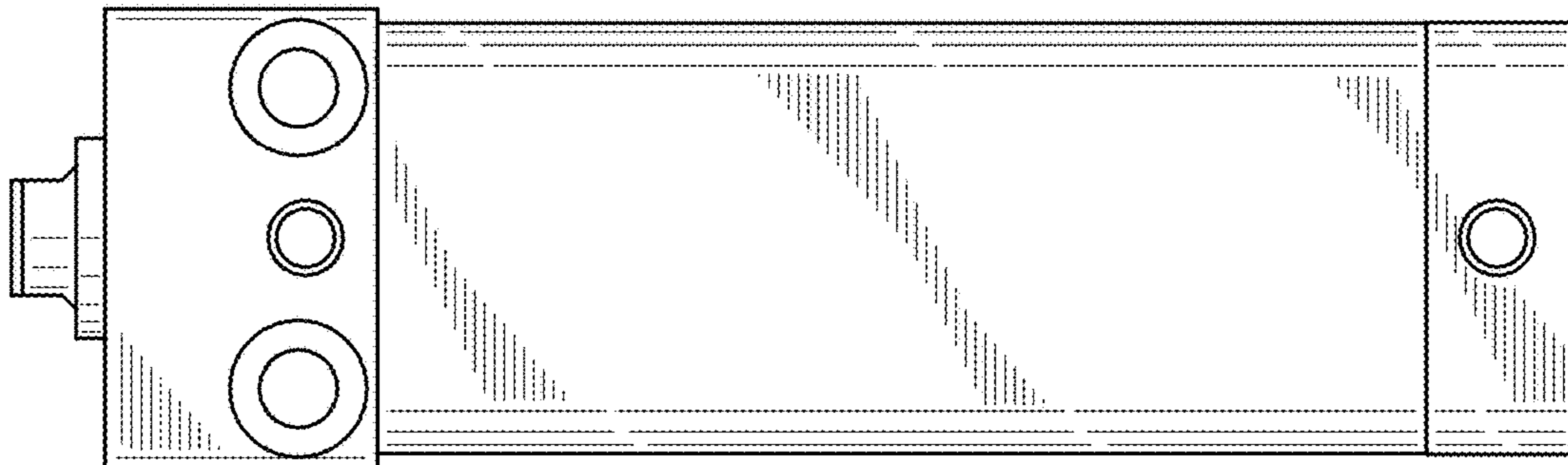


FIG. 14

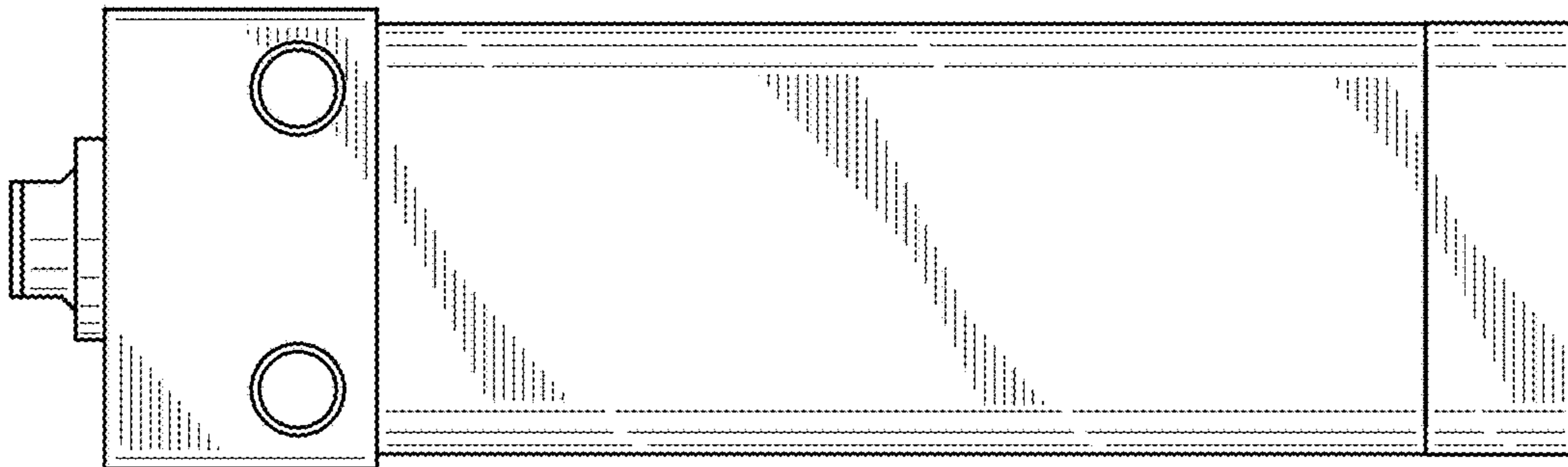


FIG. 15

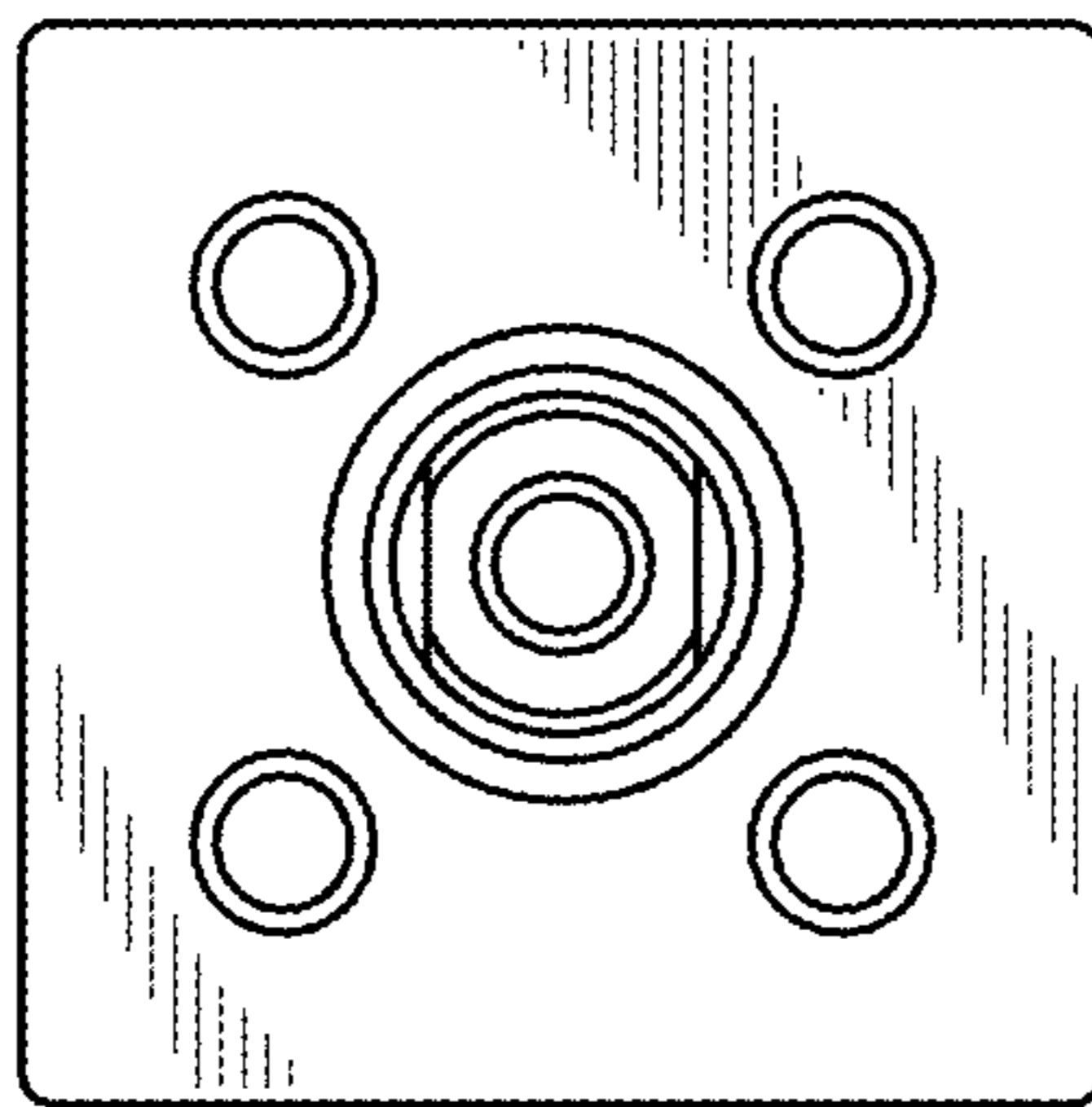


FIG. 16

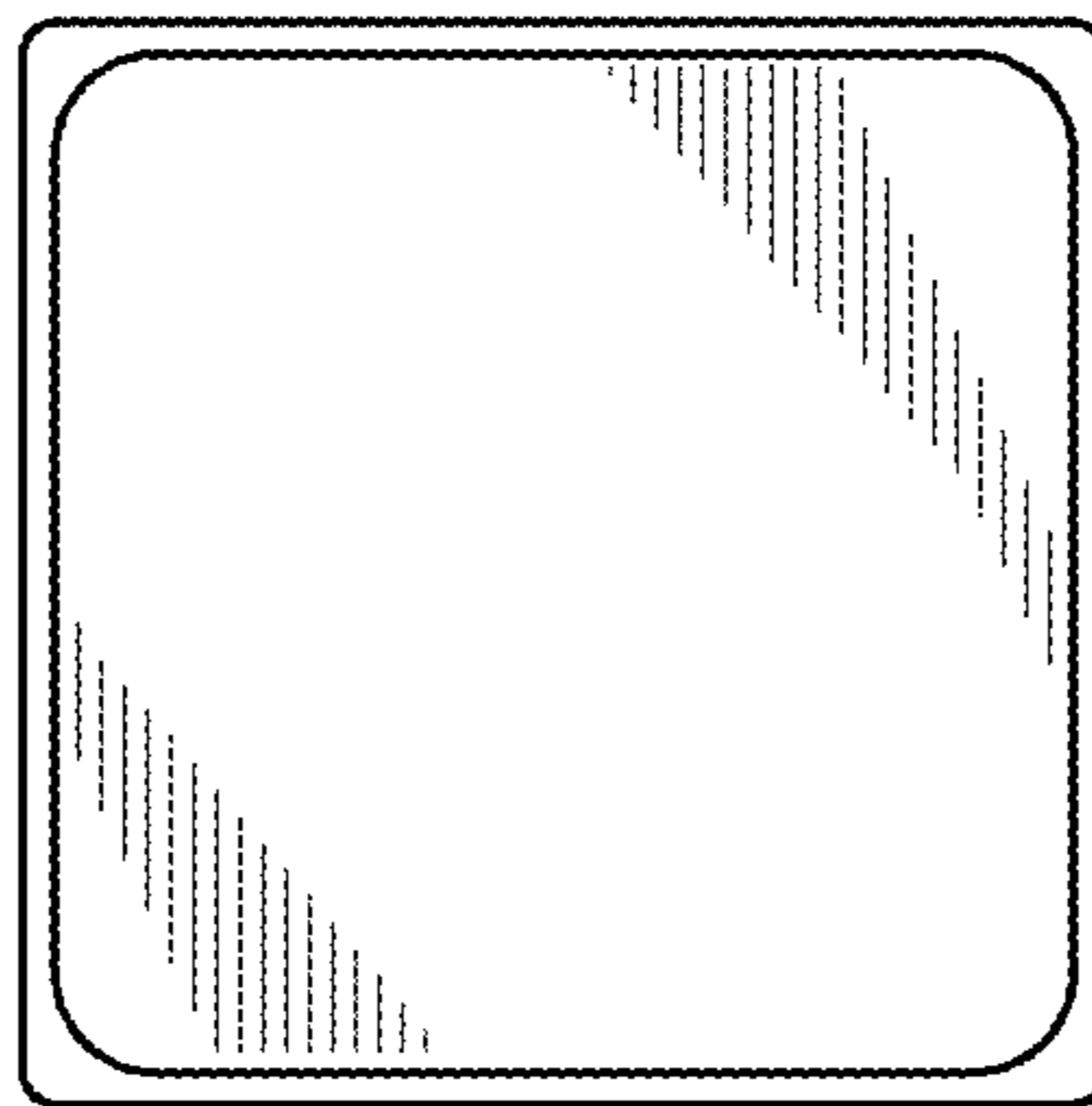


FIG. 17

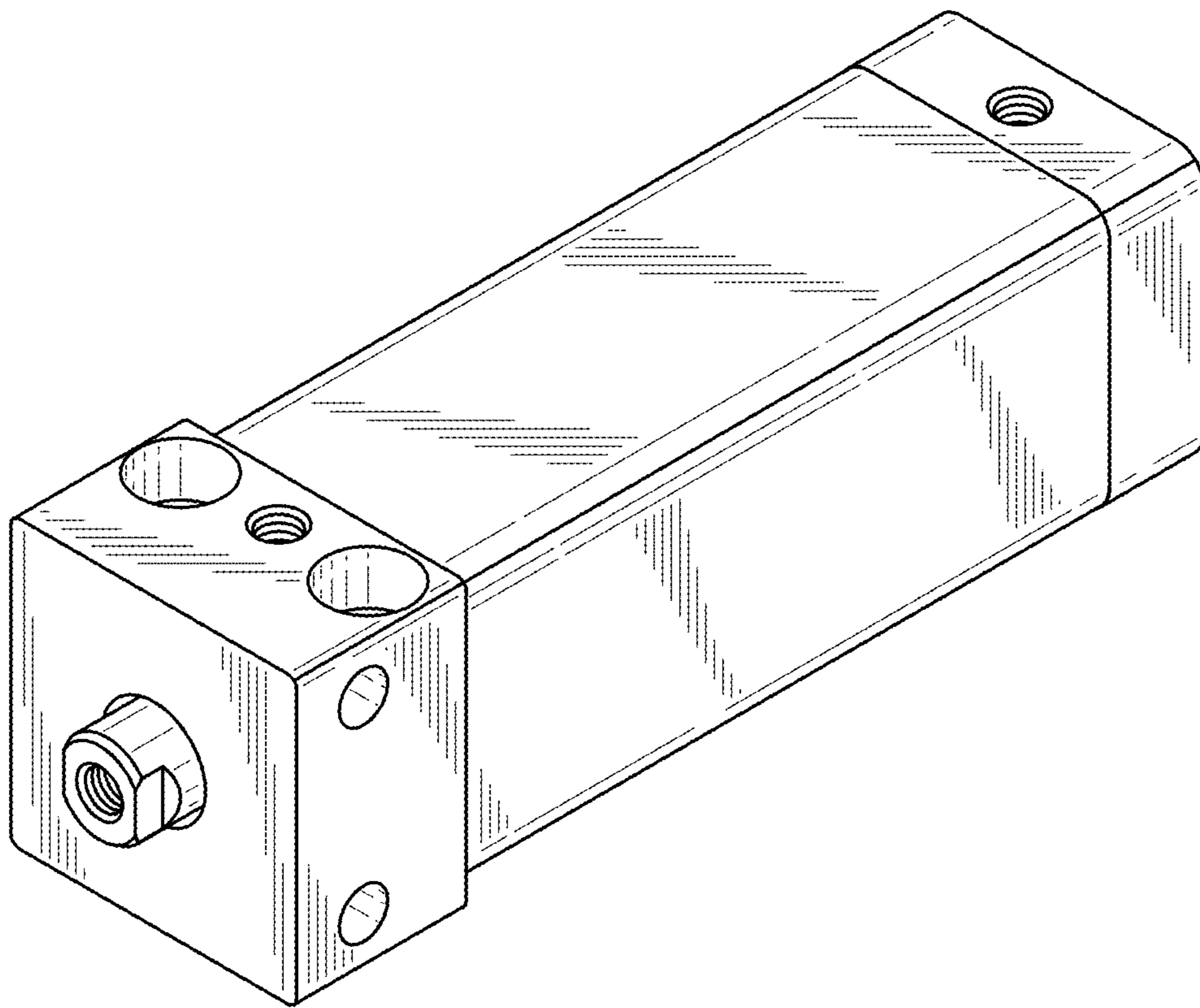


FIG. 18

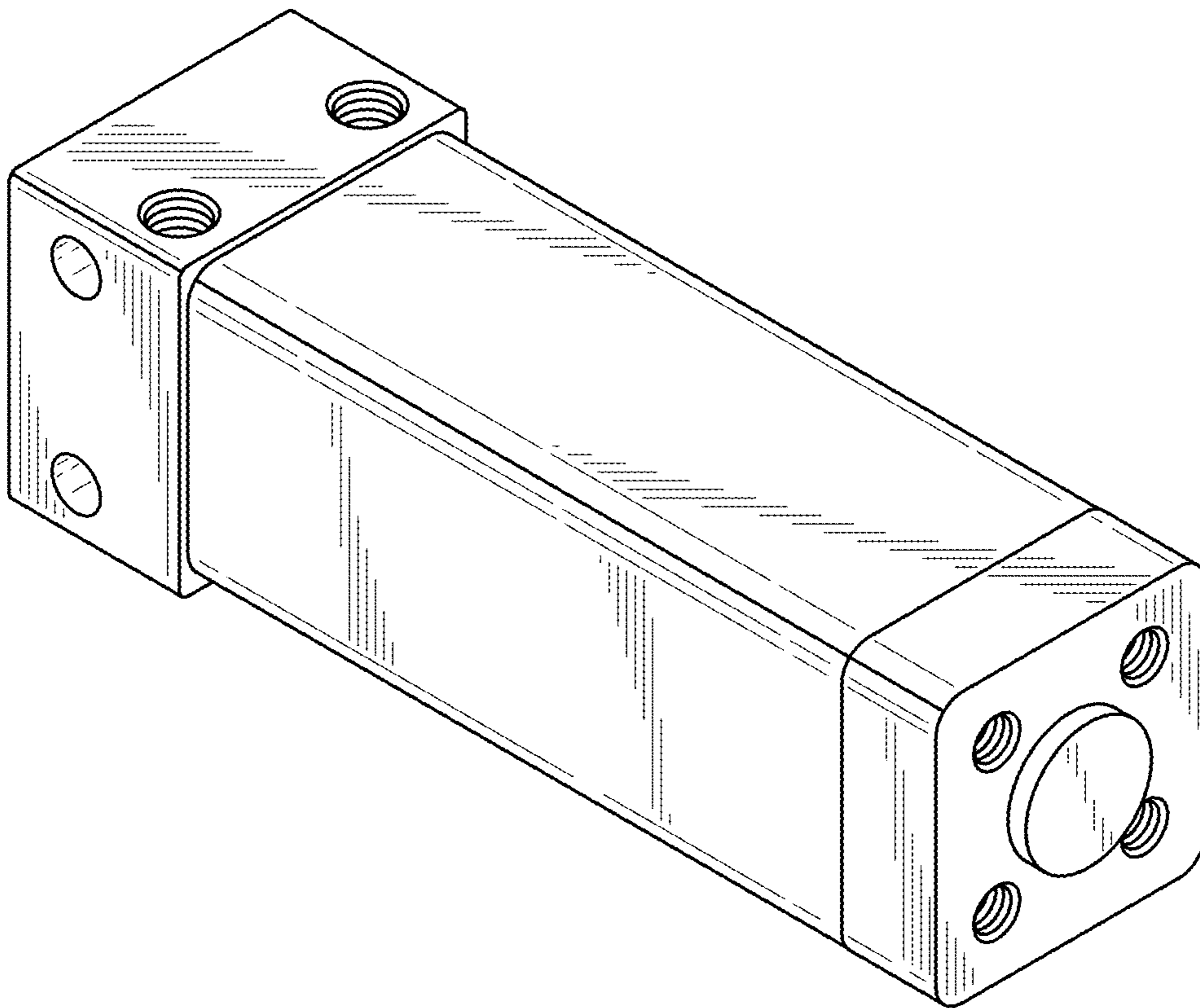


FIG. 19

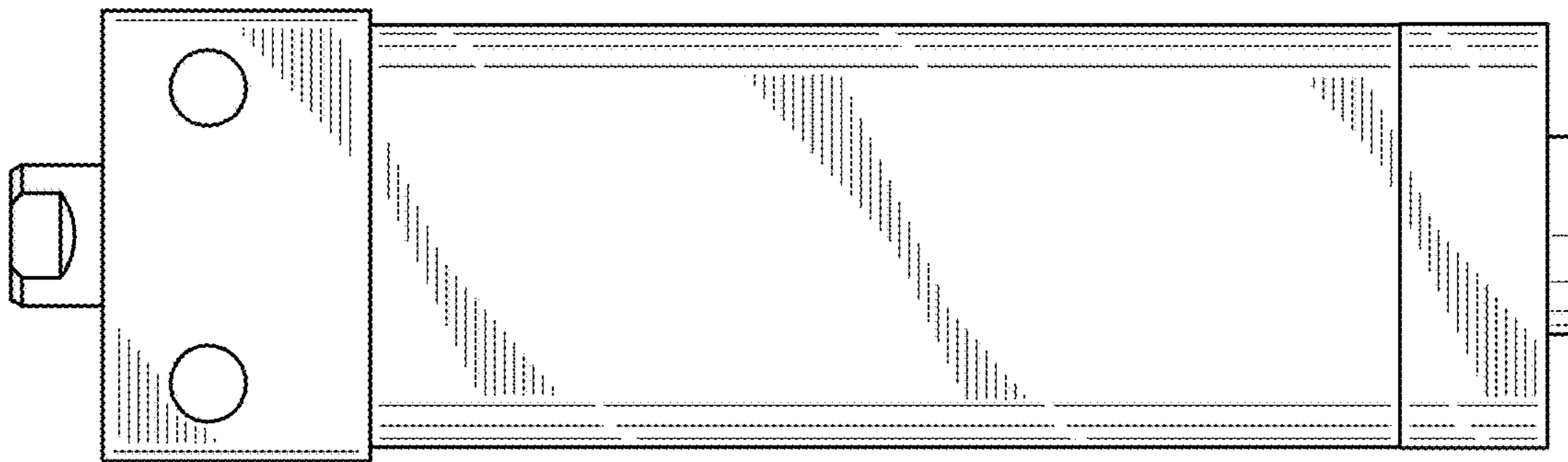


FIG. 20

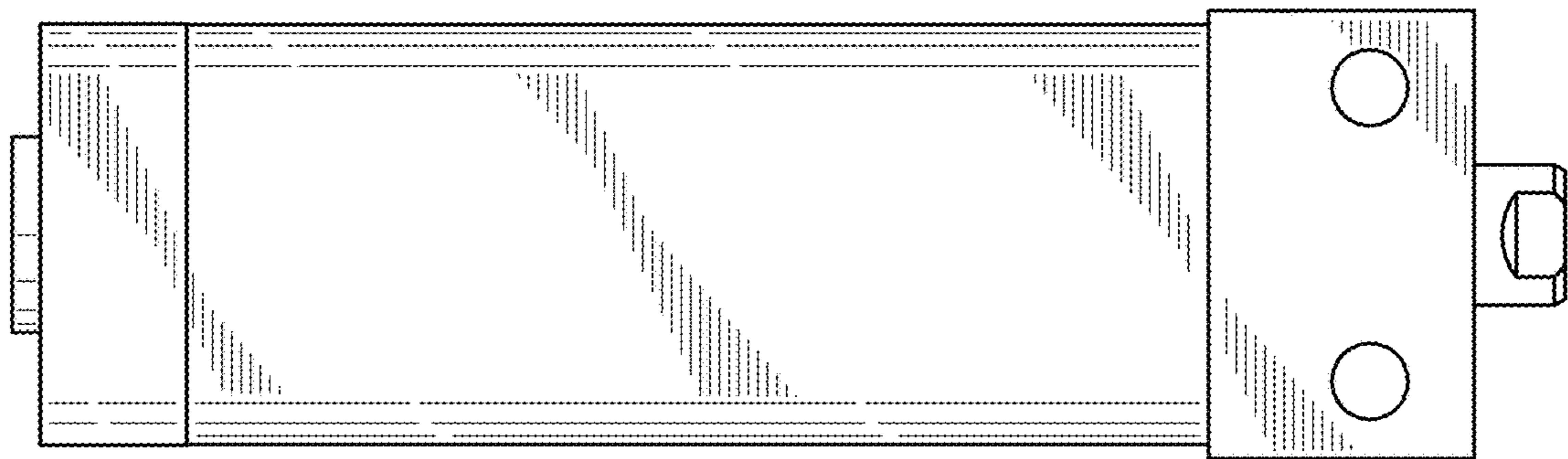


FIG. 21

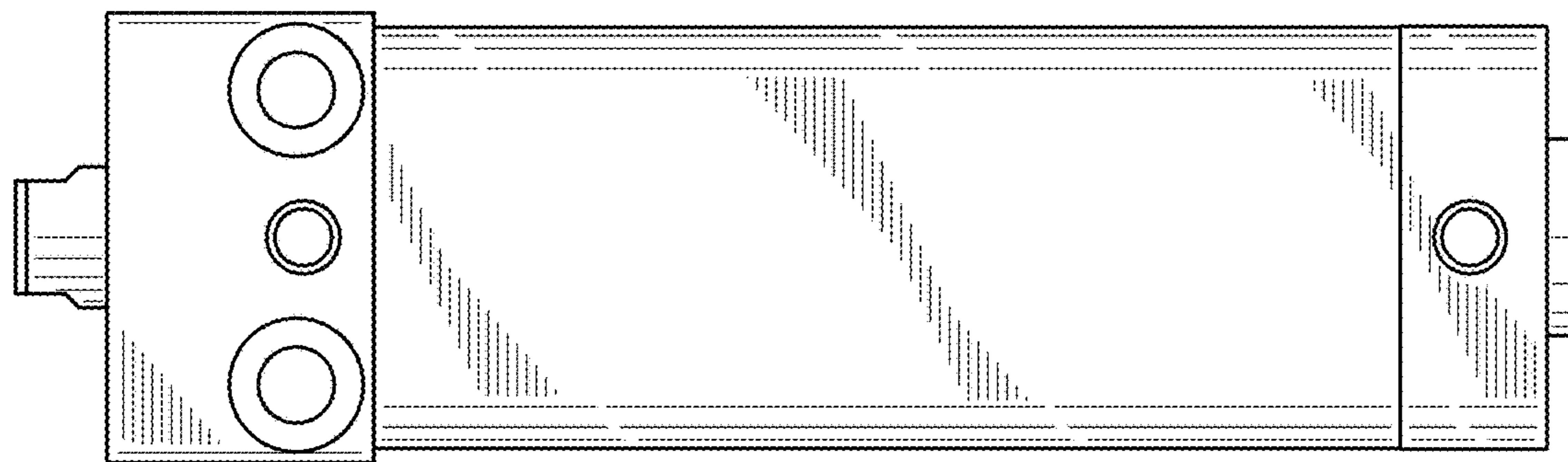


FIG. 22

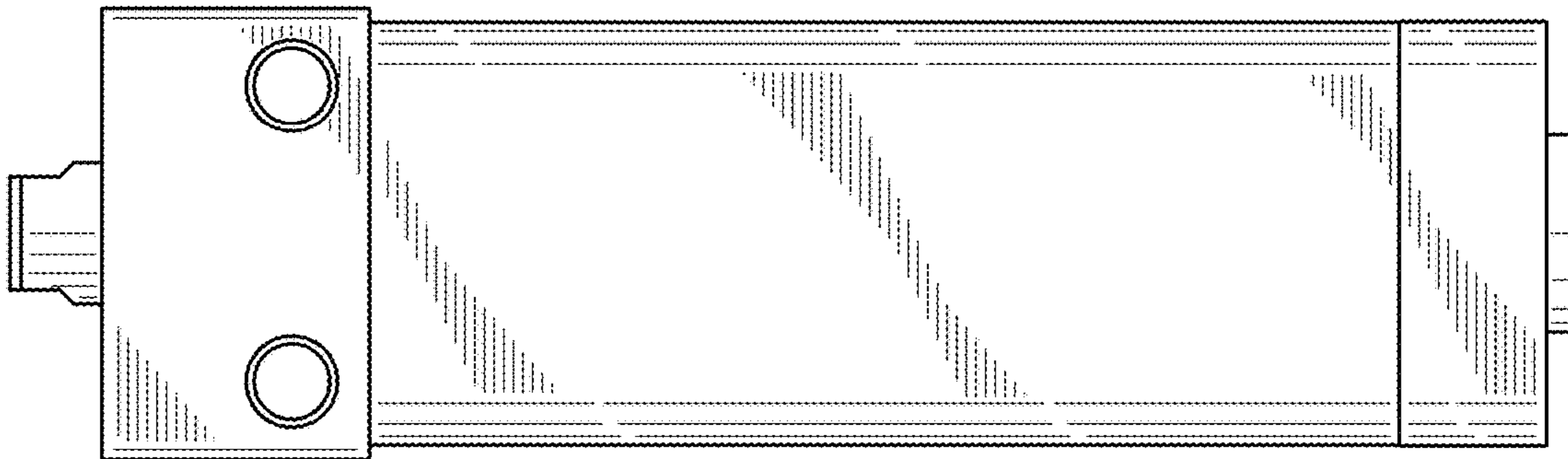


FIG. 23

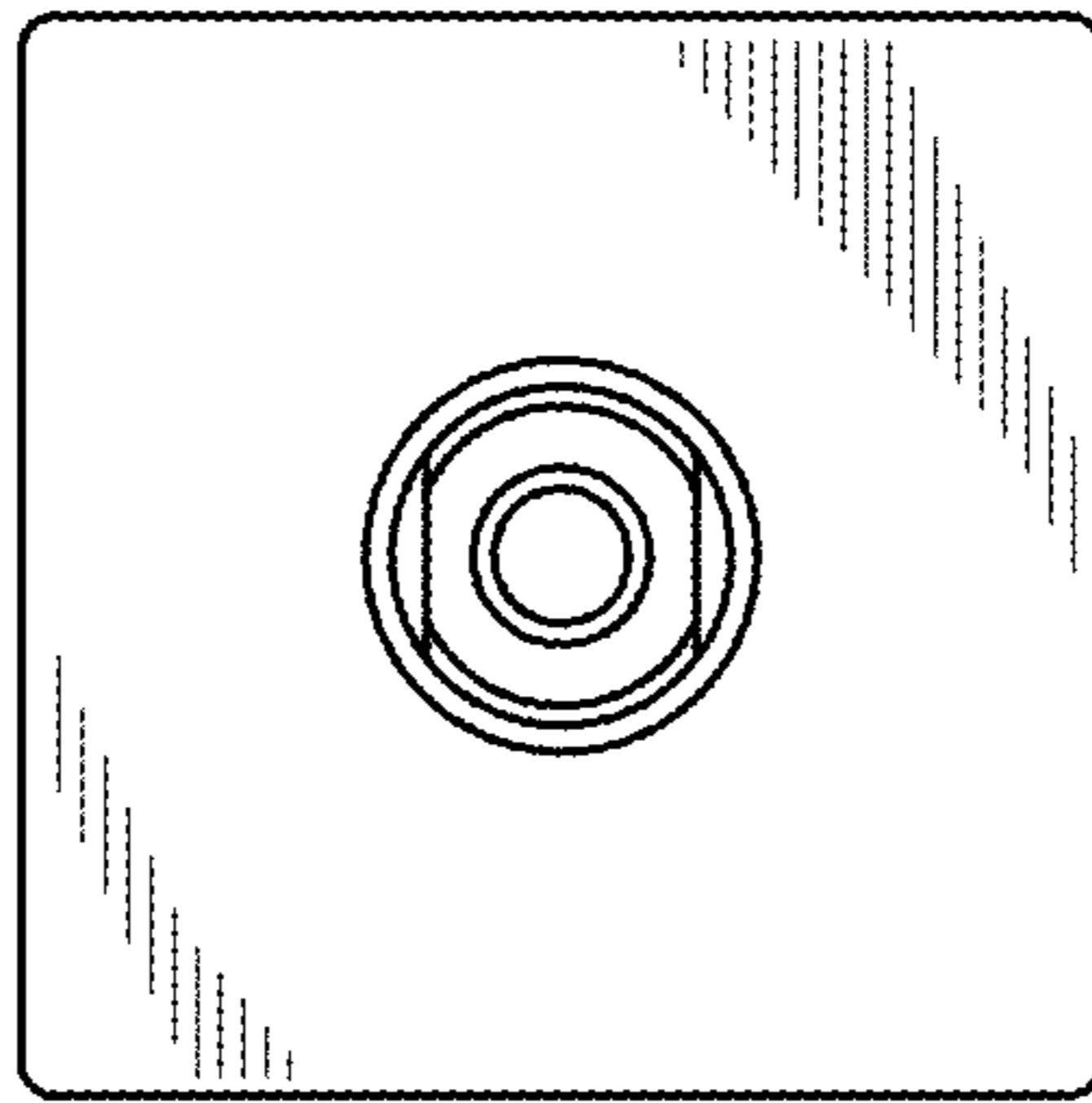


FIG. 24

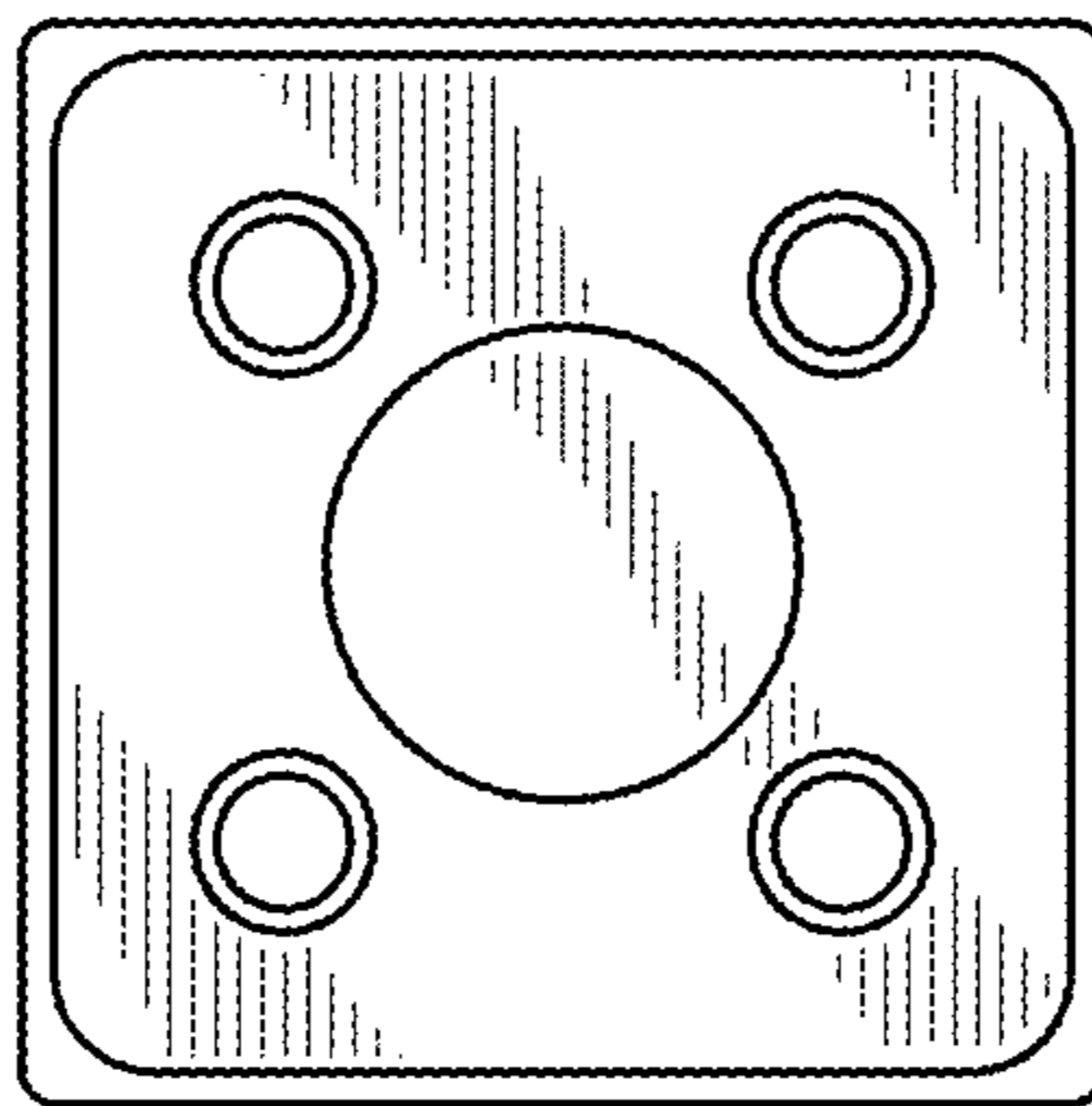


FIG. 25

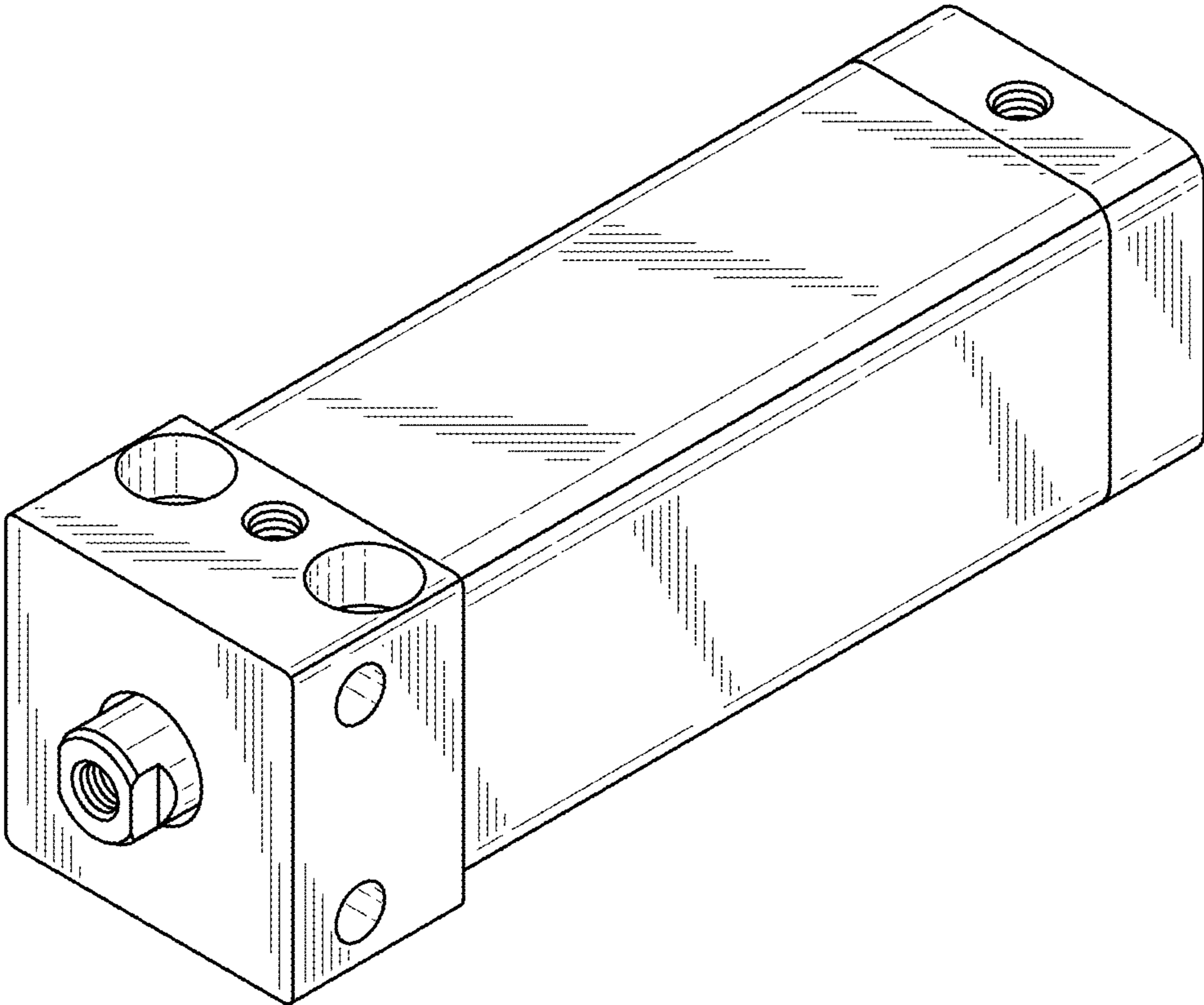


FIG. 26

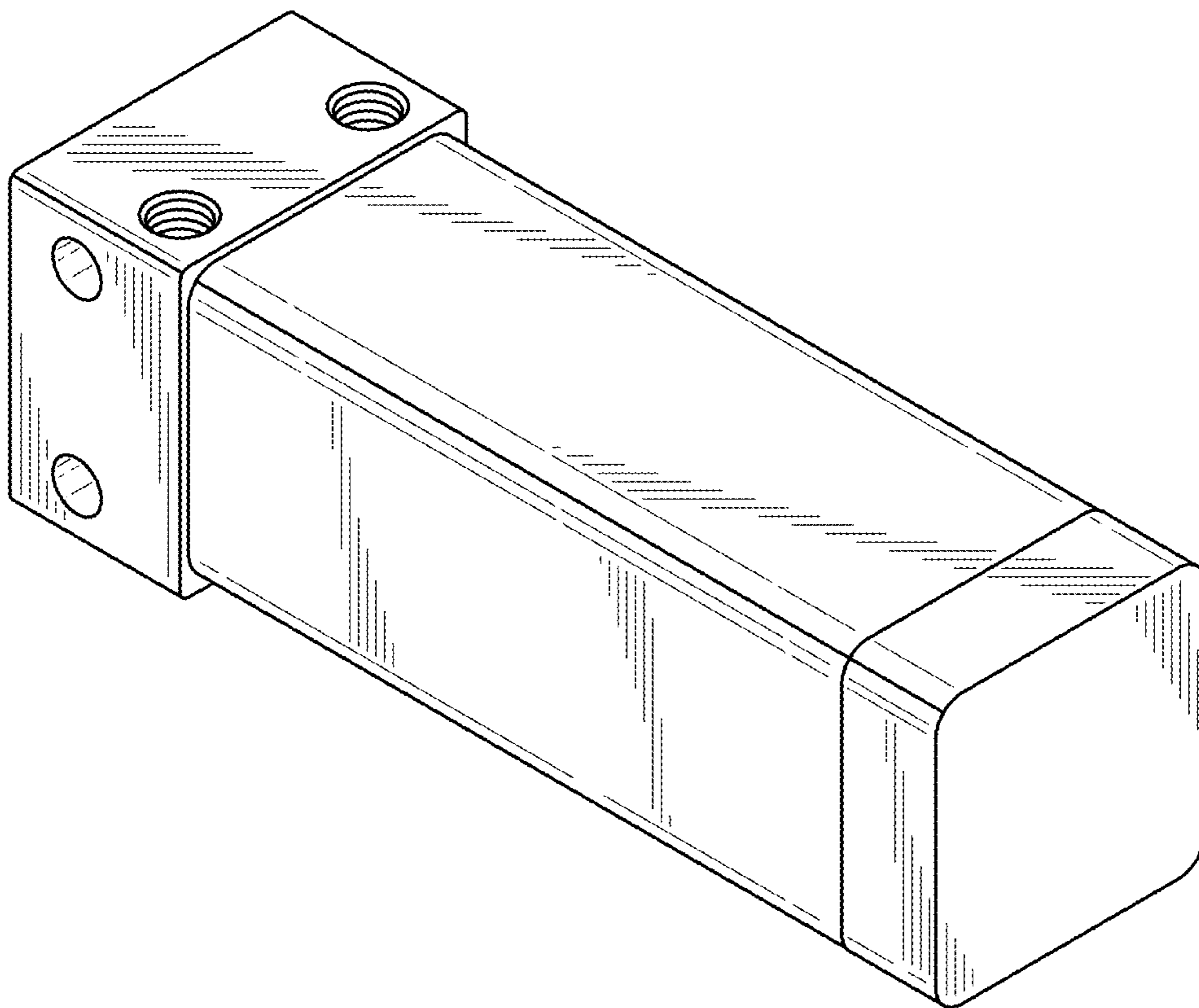


FIG. 27

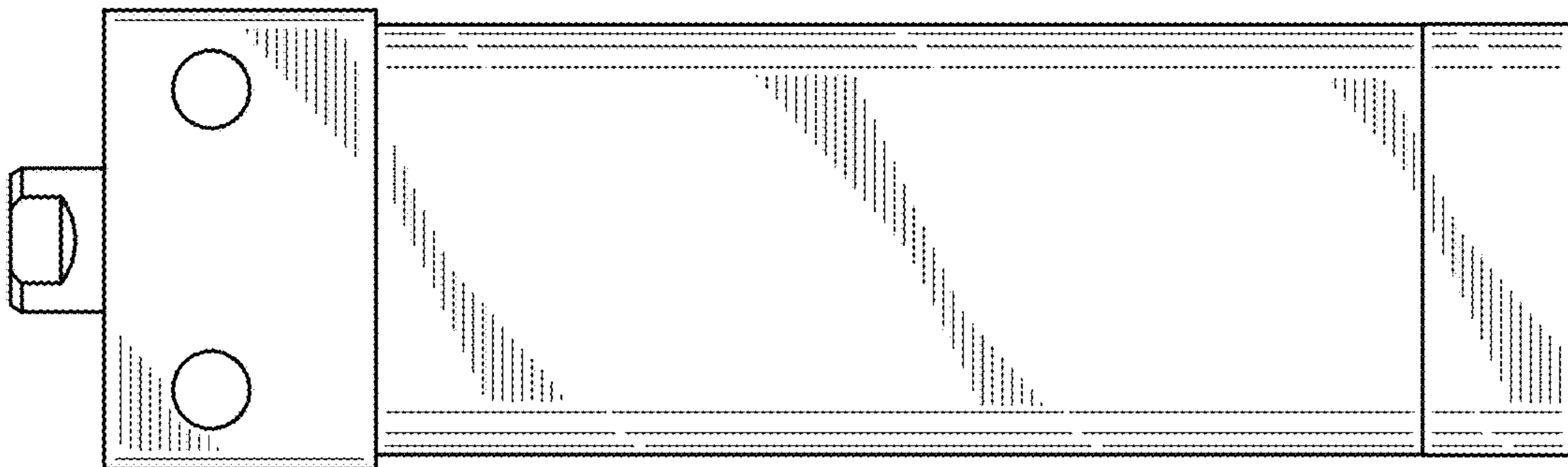


FIG. 28

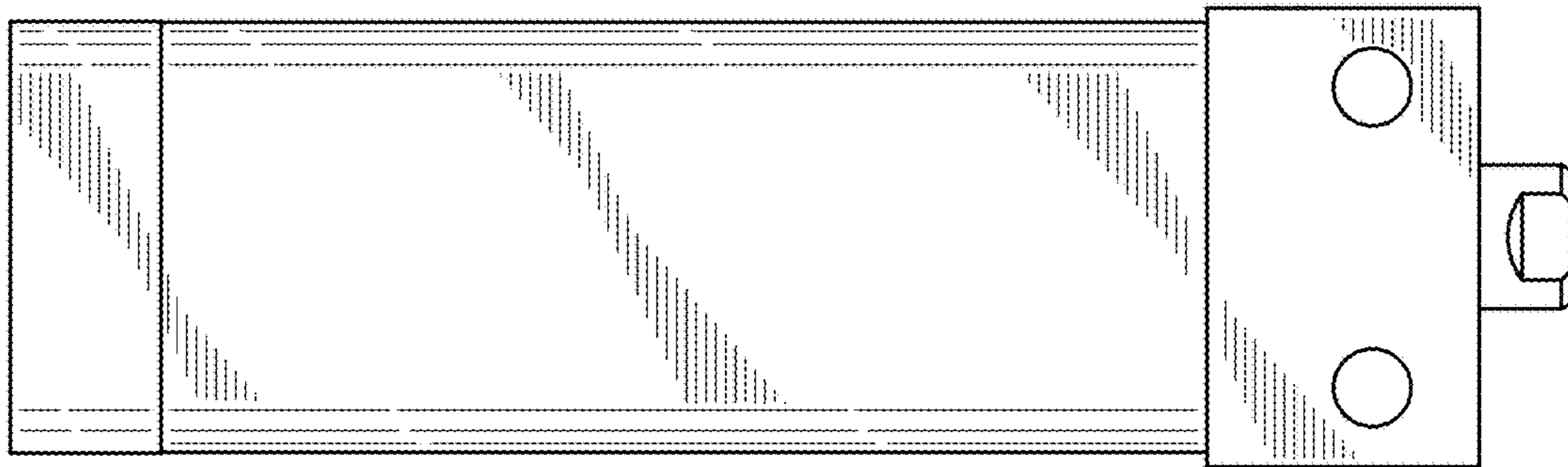


FIG. 29

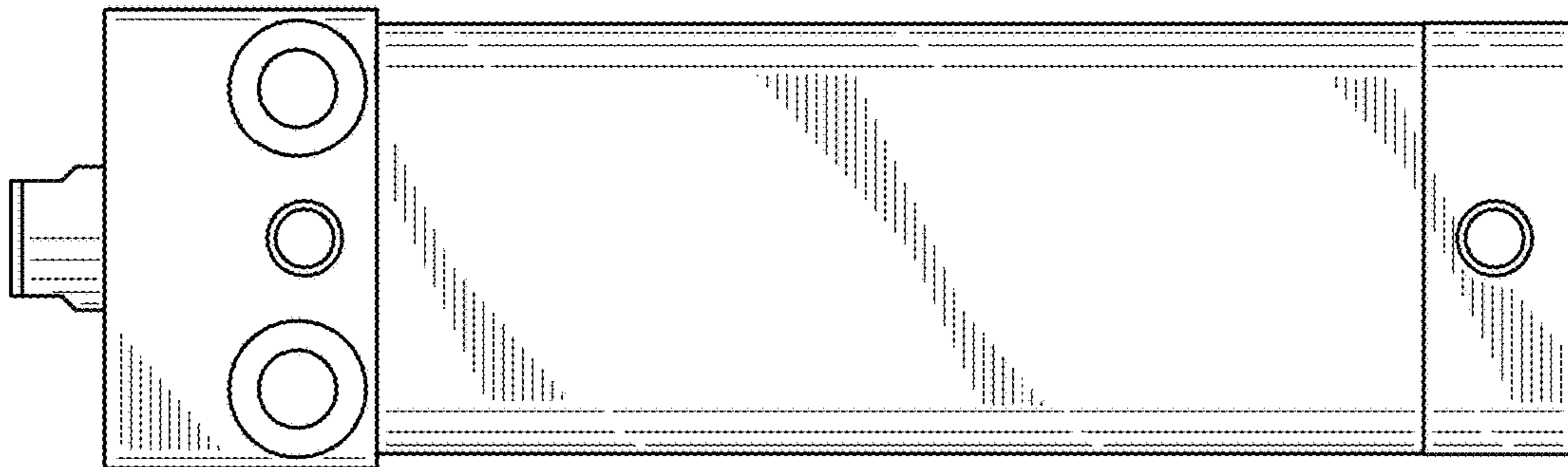


FIG. 30

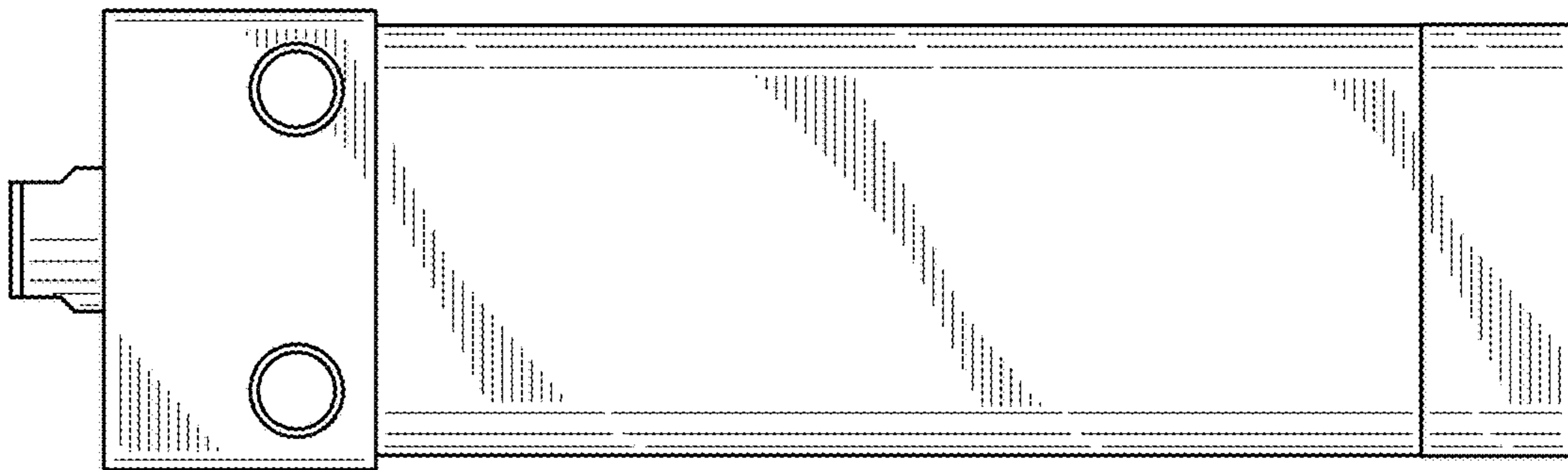


FIG. 31

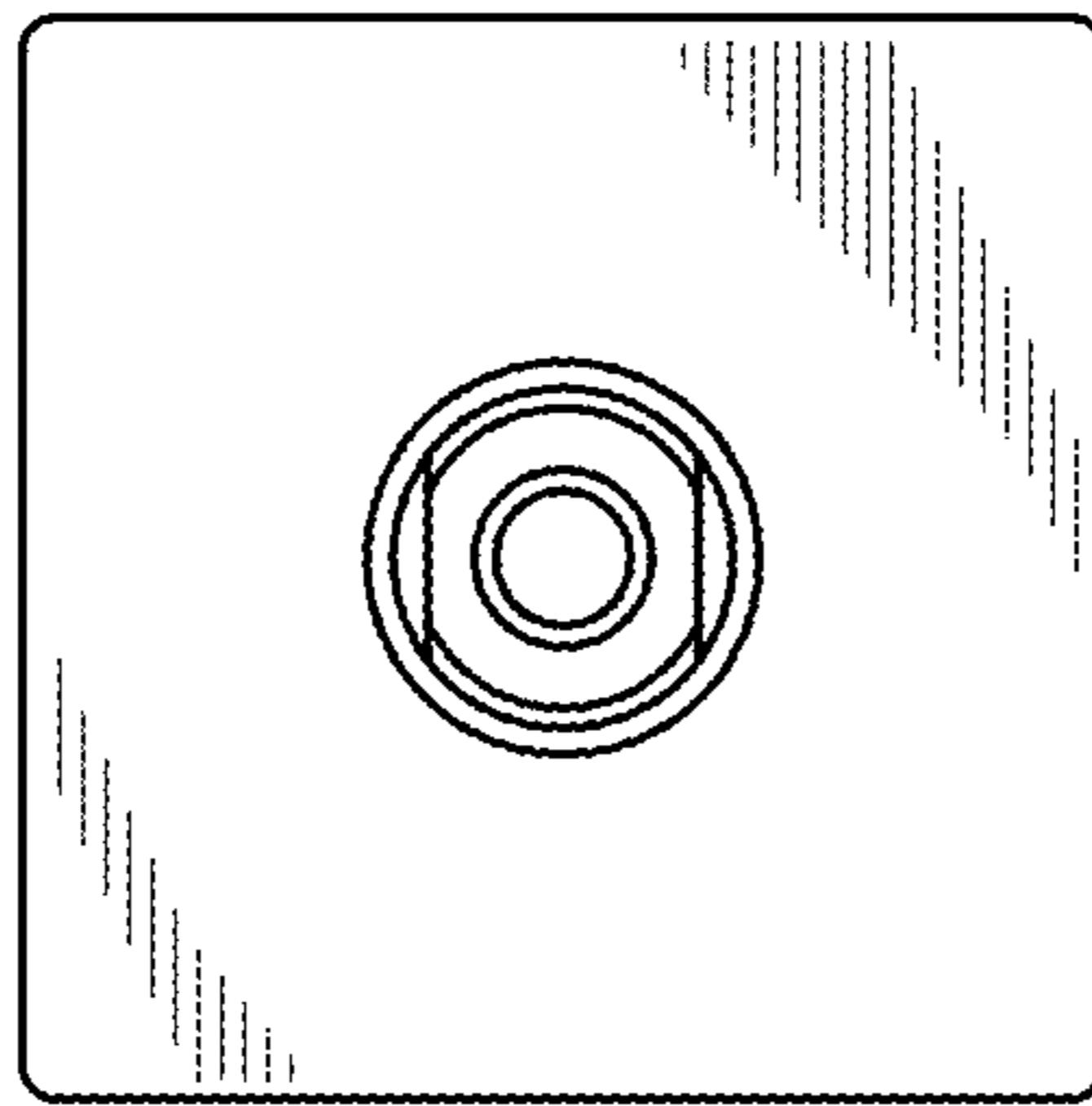


FIG. 32

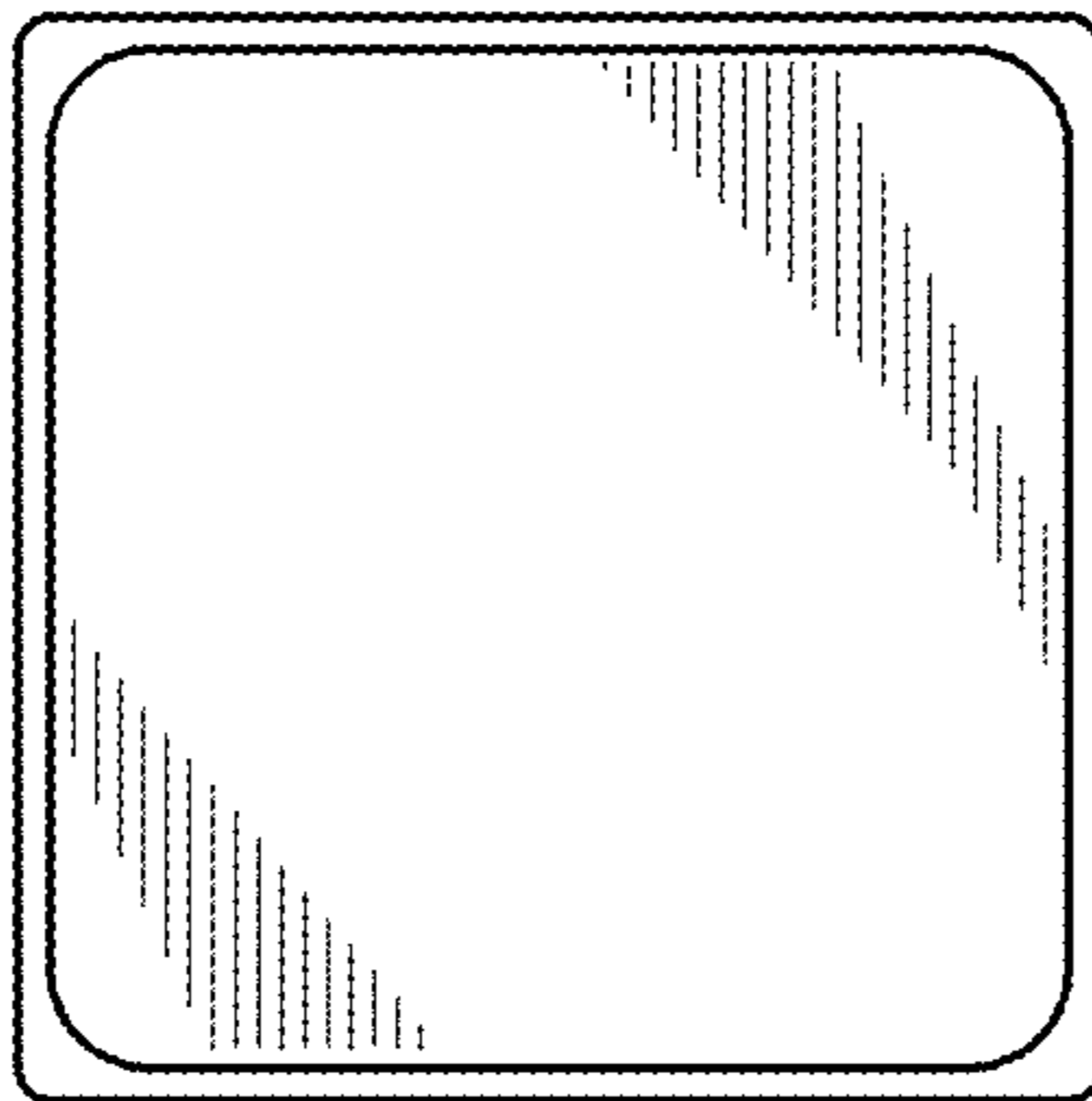


FIG. 33

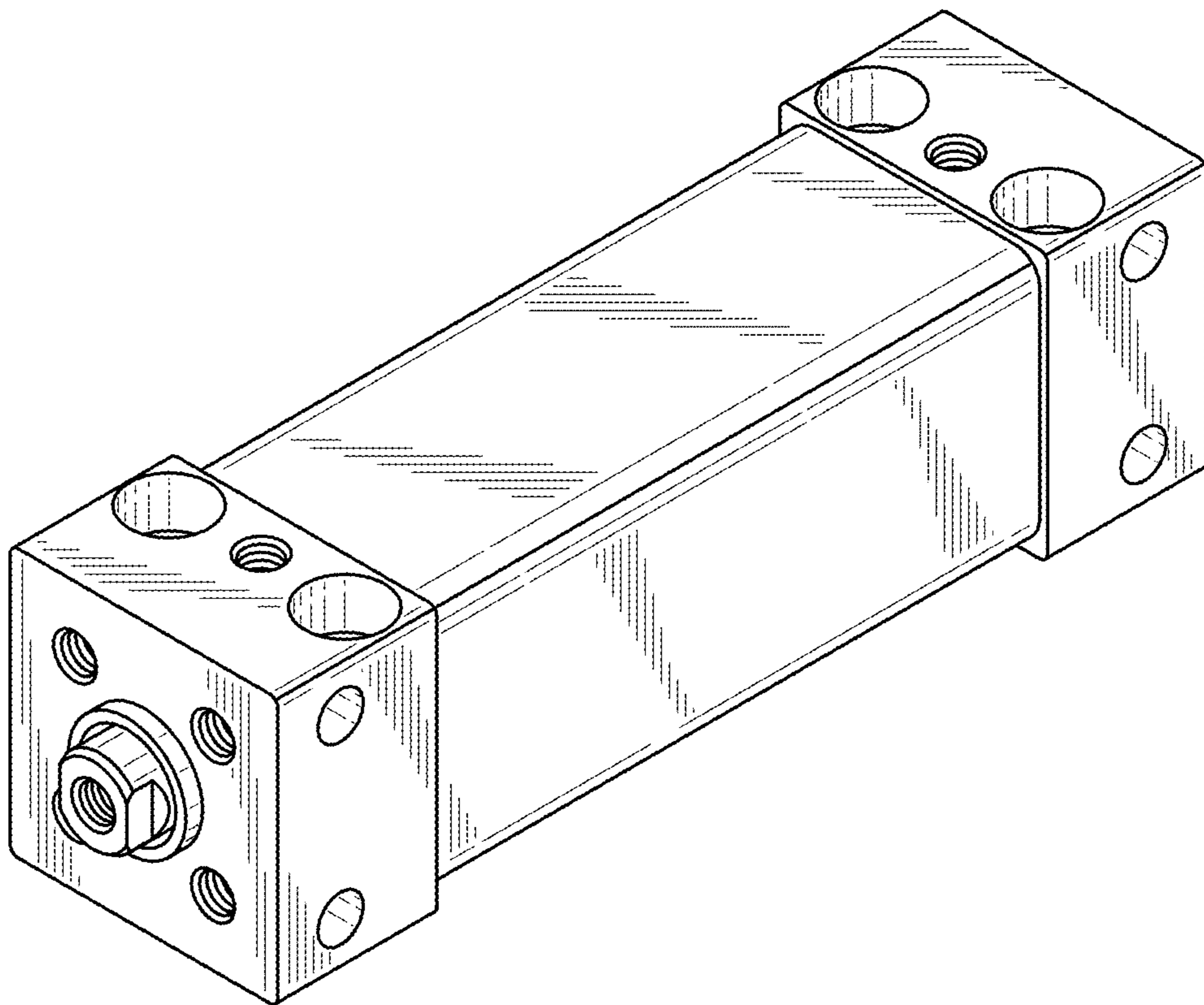


FIG. 34

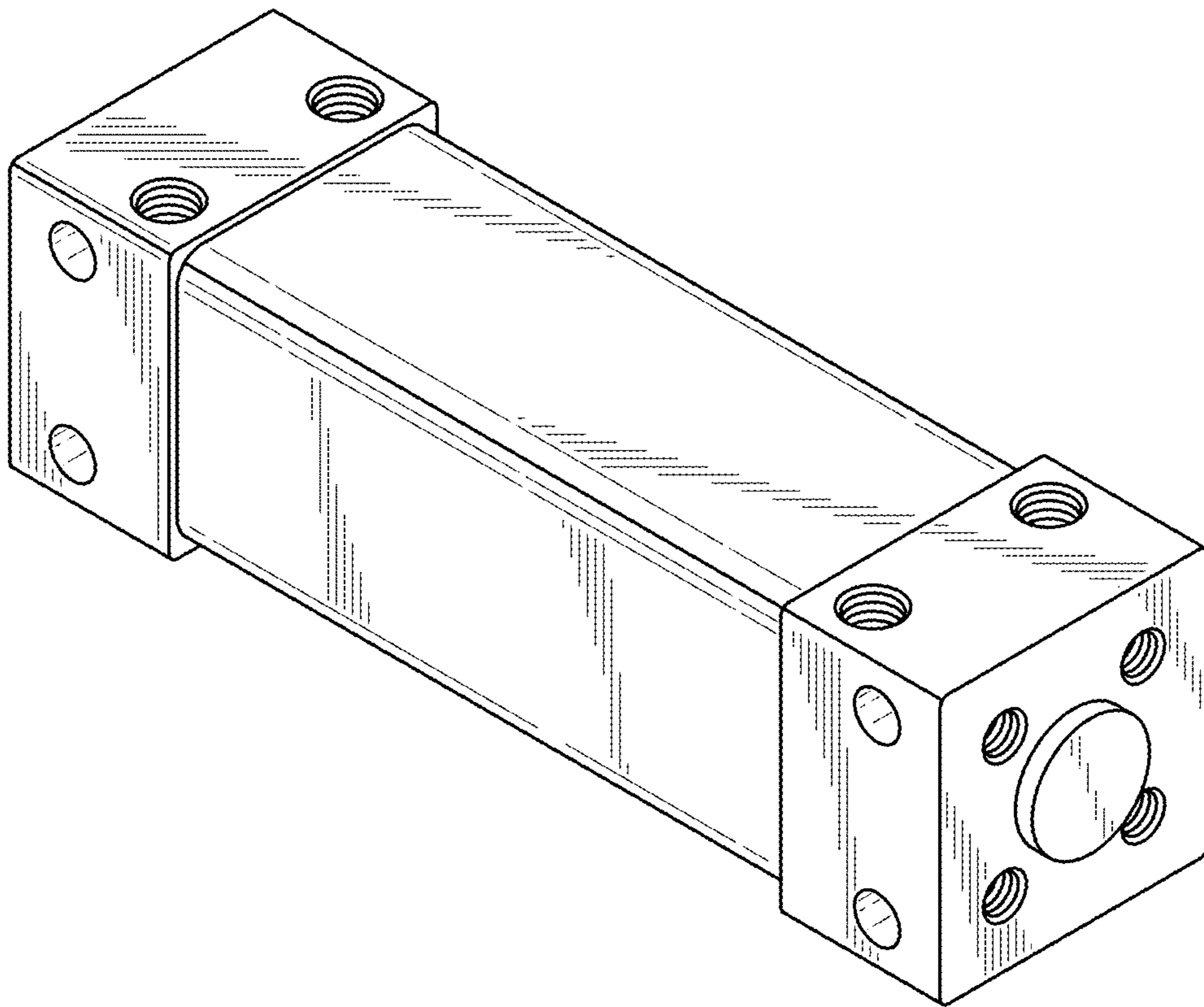


FIG. 35

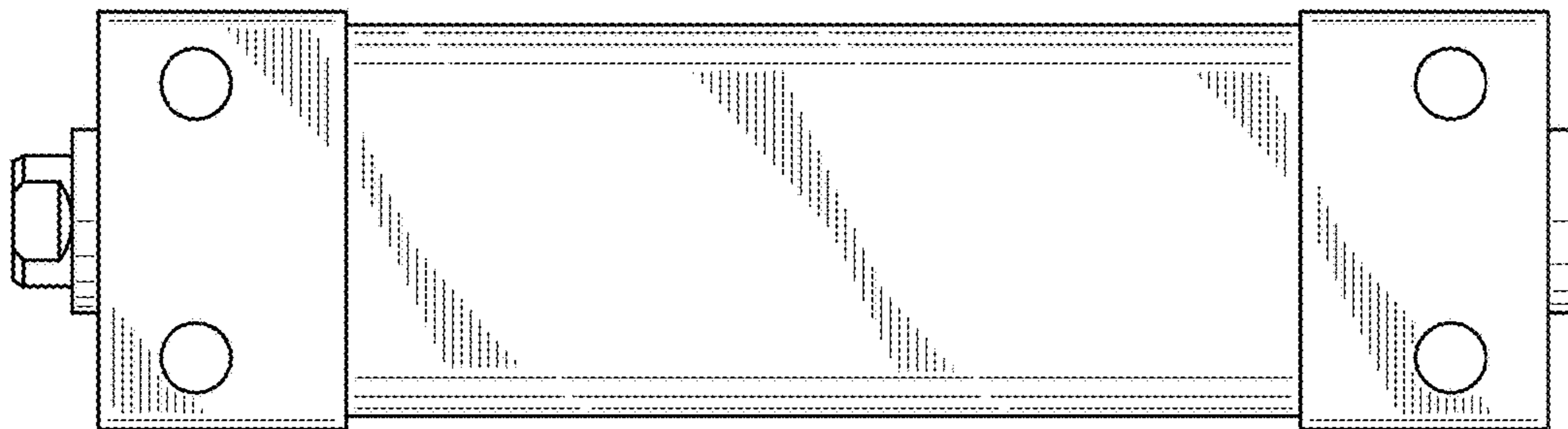


FIG. 36

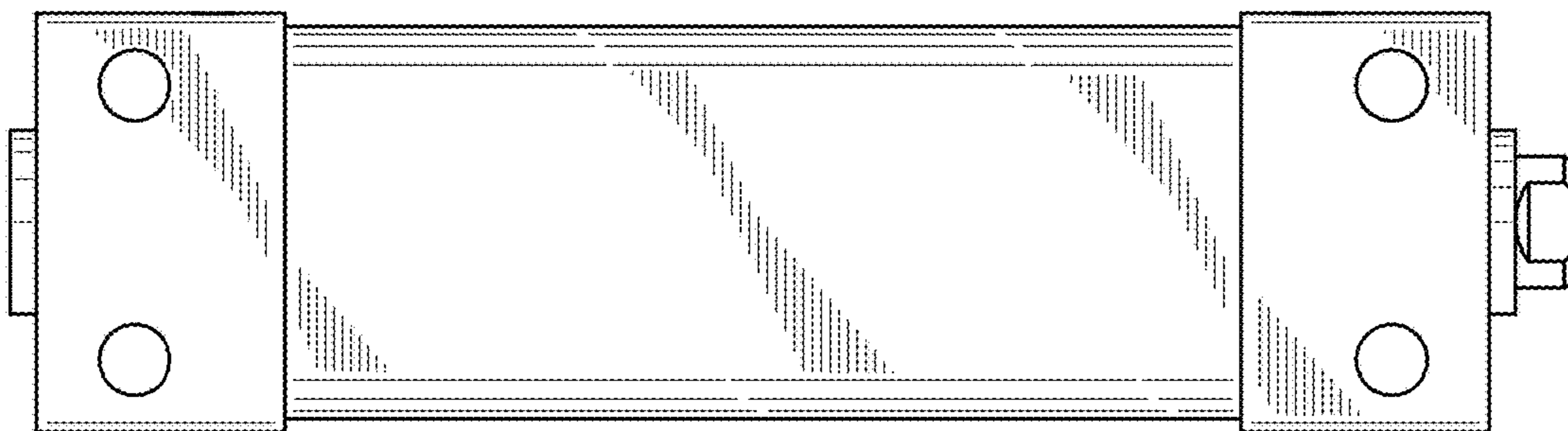


FIG. 37

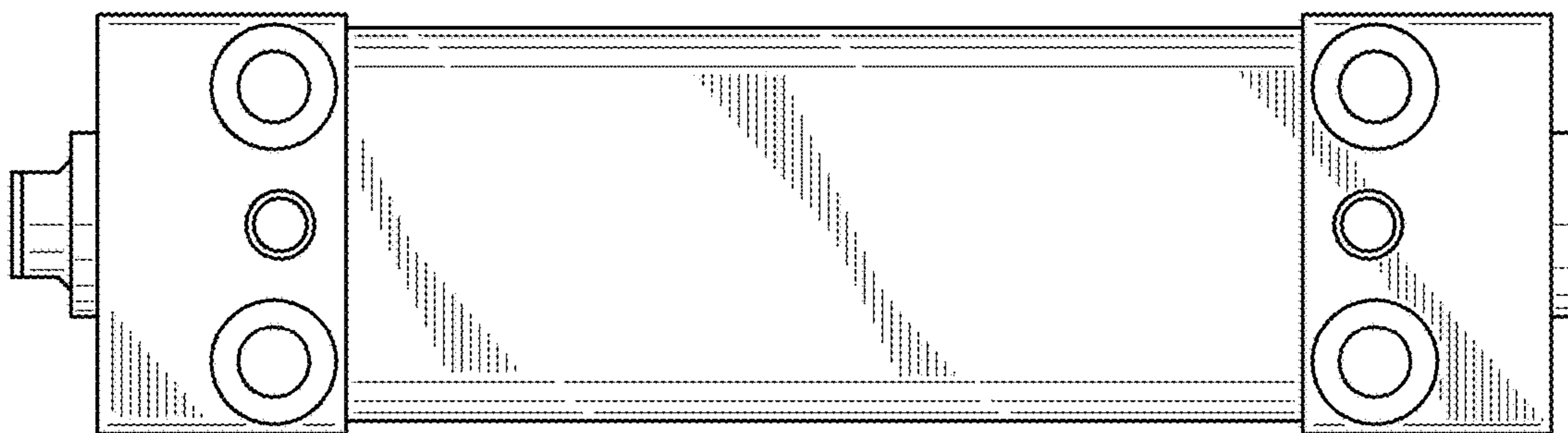


FIG. 38

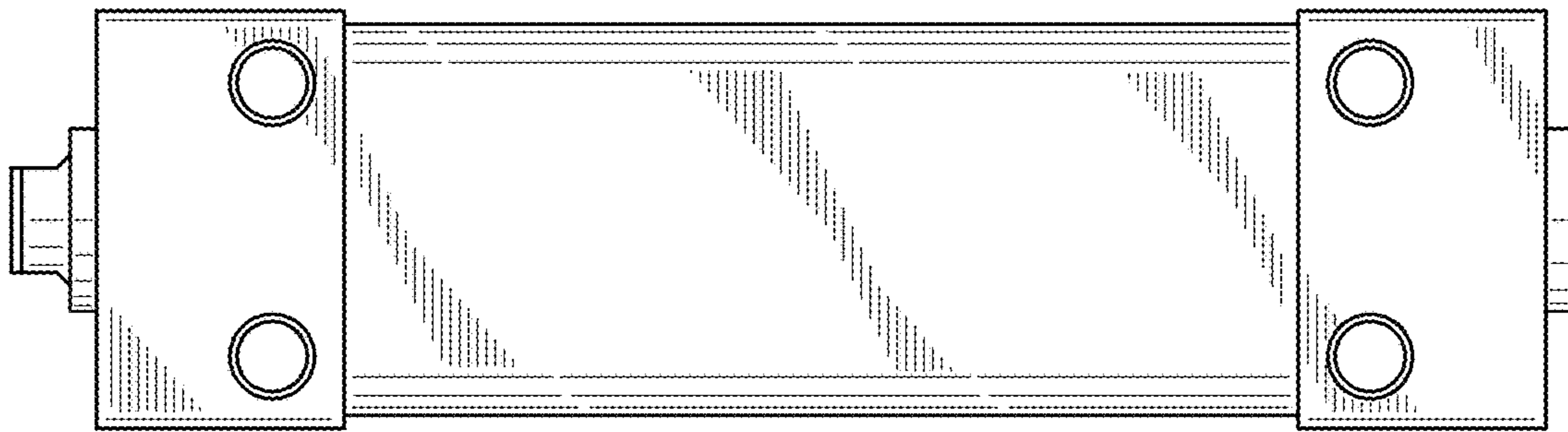


FIG. 39

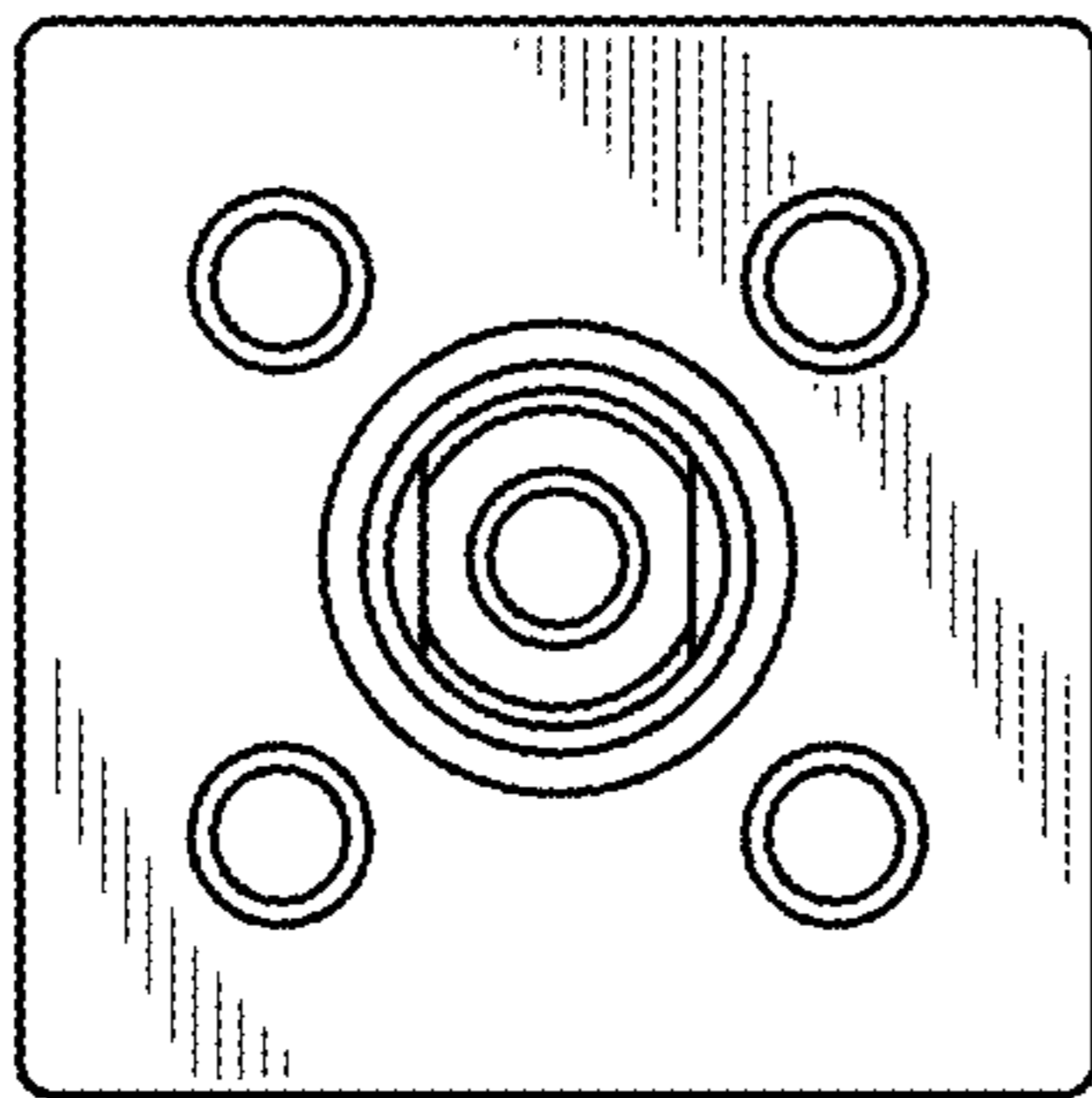


FIG. 40

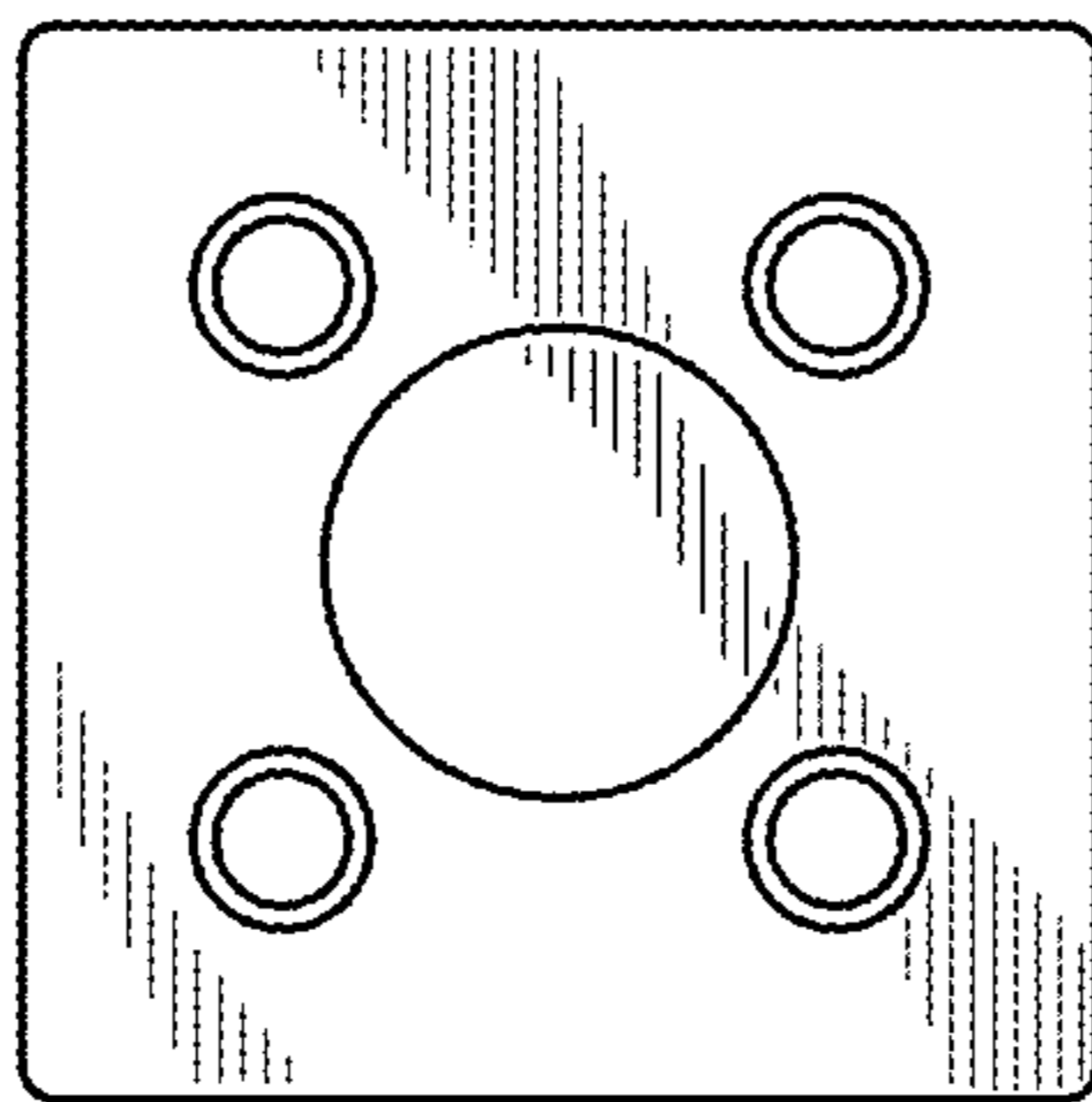


FIG. 41

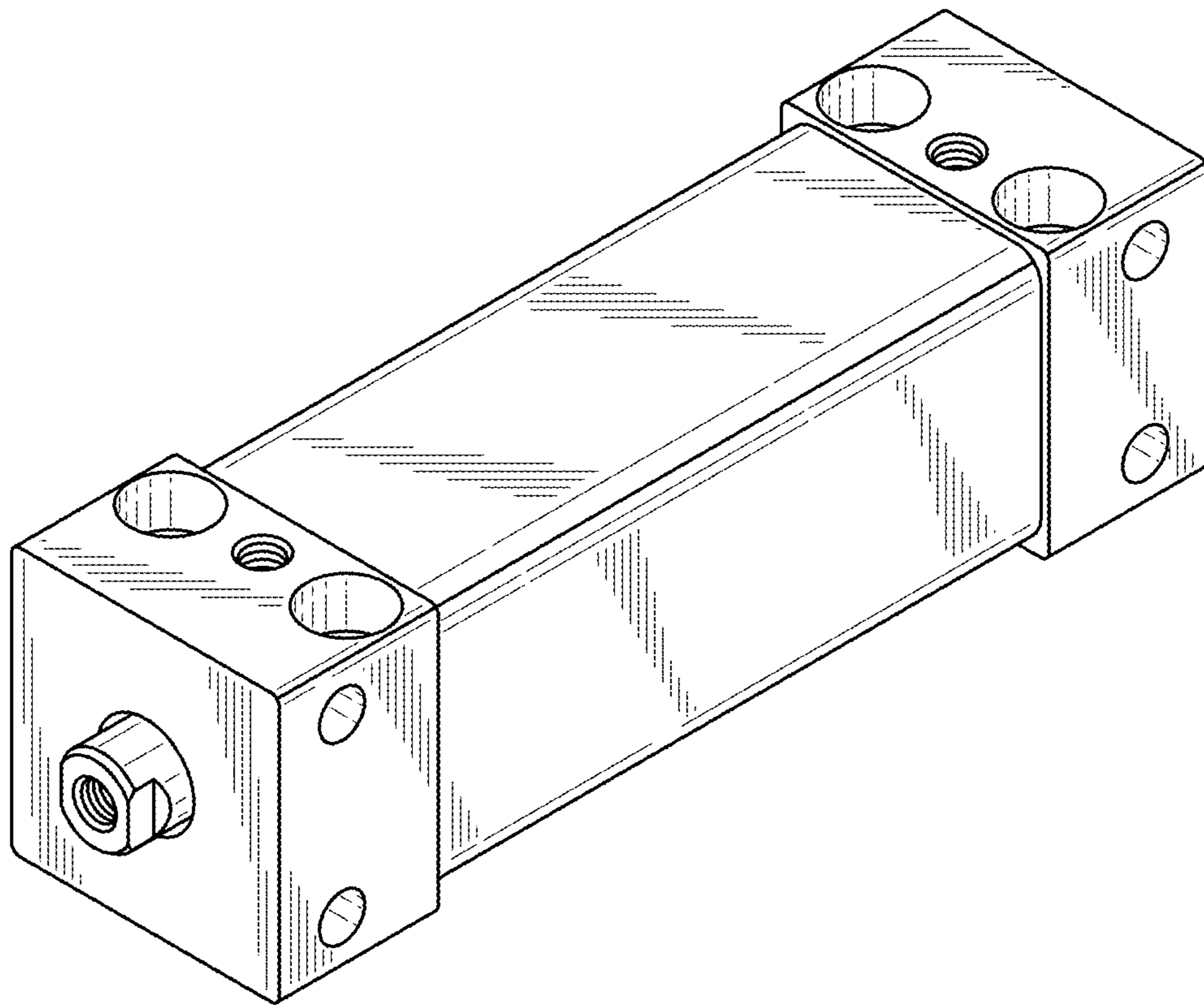


FIG. 42

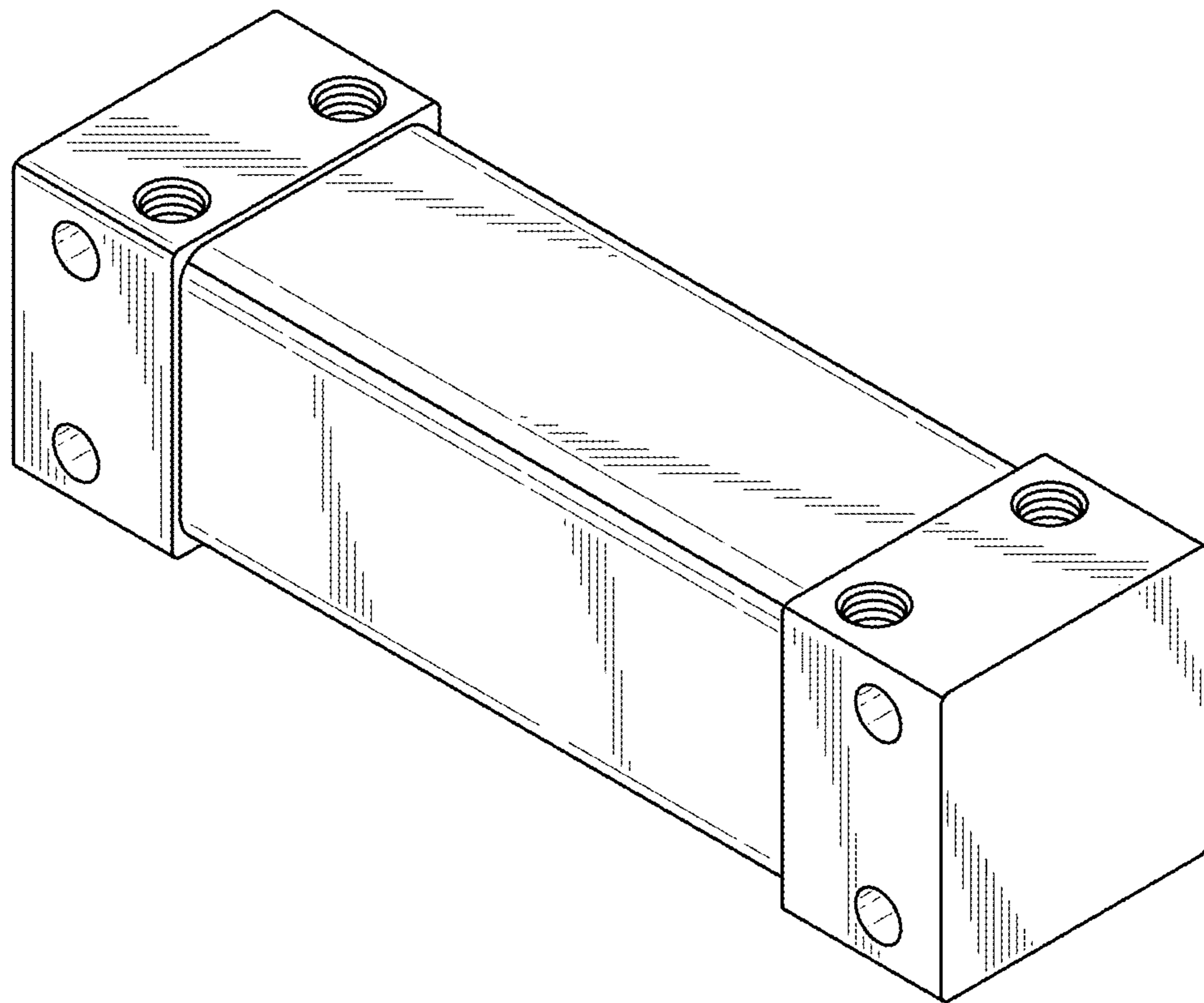


FIG. 43

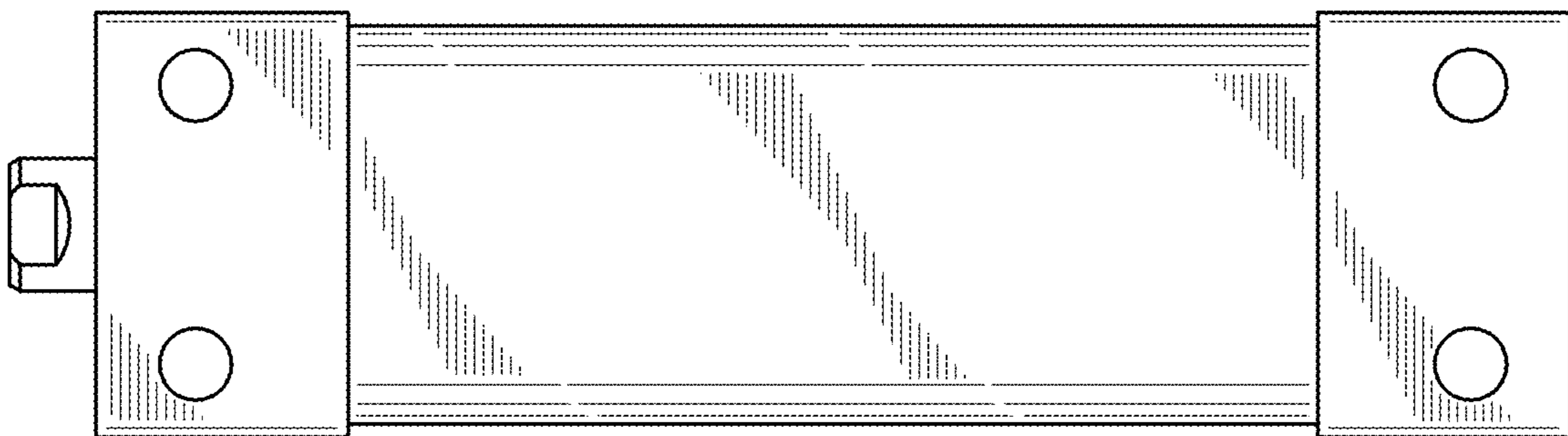


FIG. 44

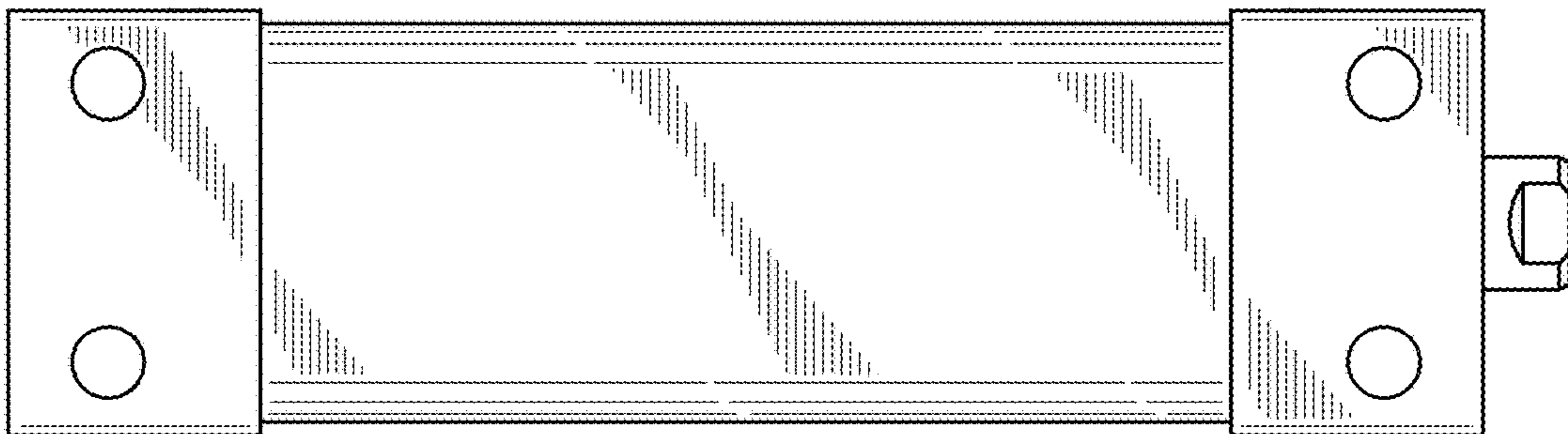


FIG. 45

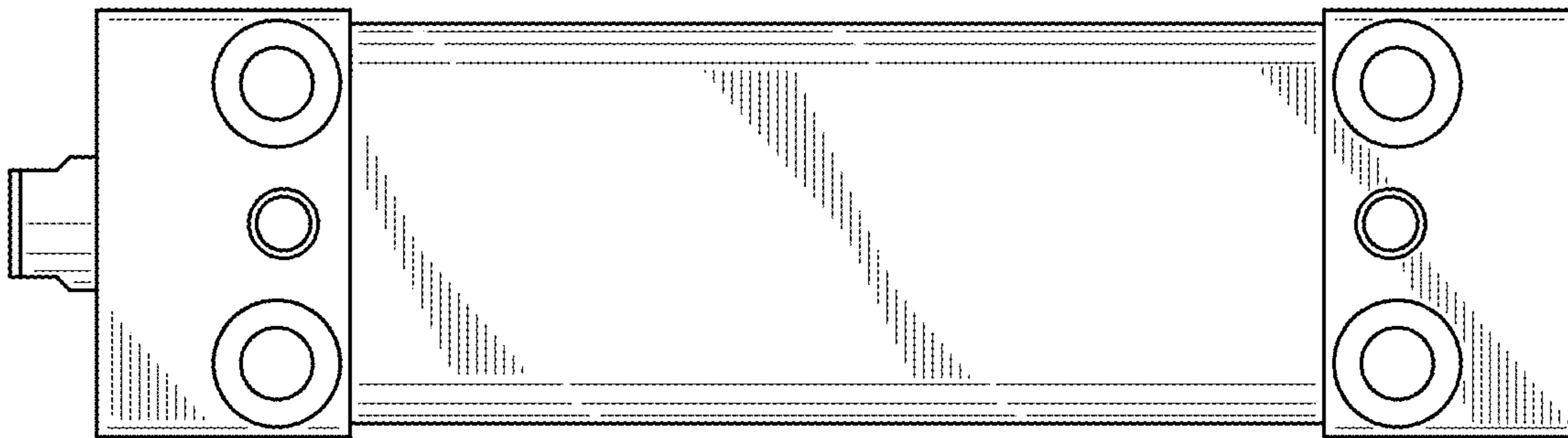


FIG. 46

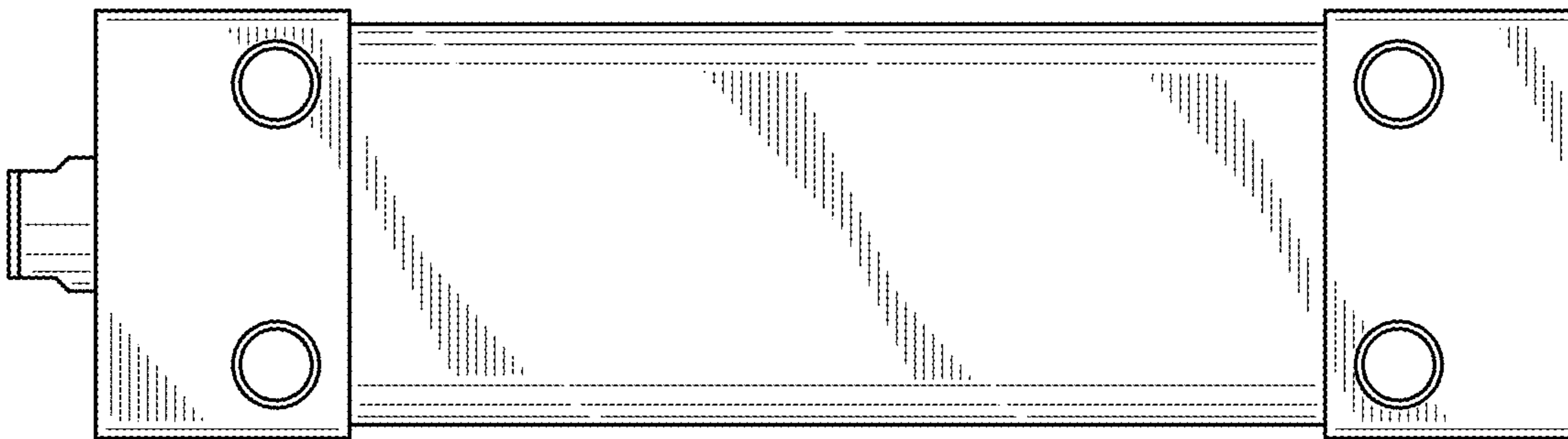


FIG. 47

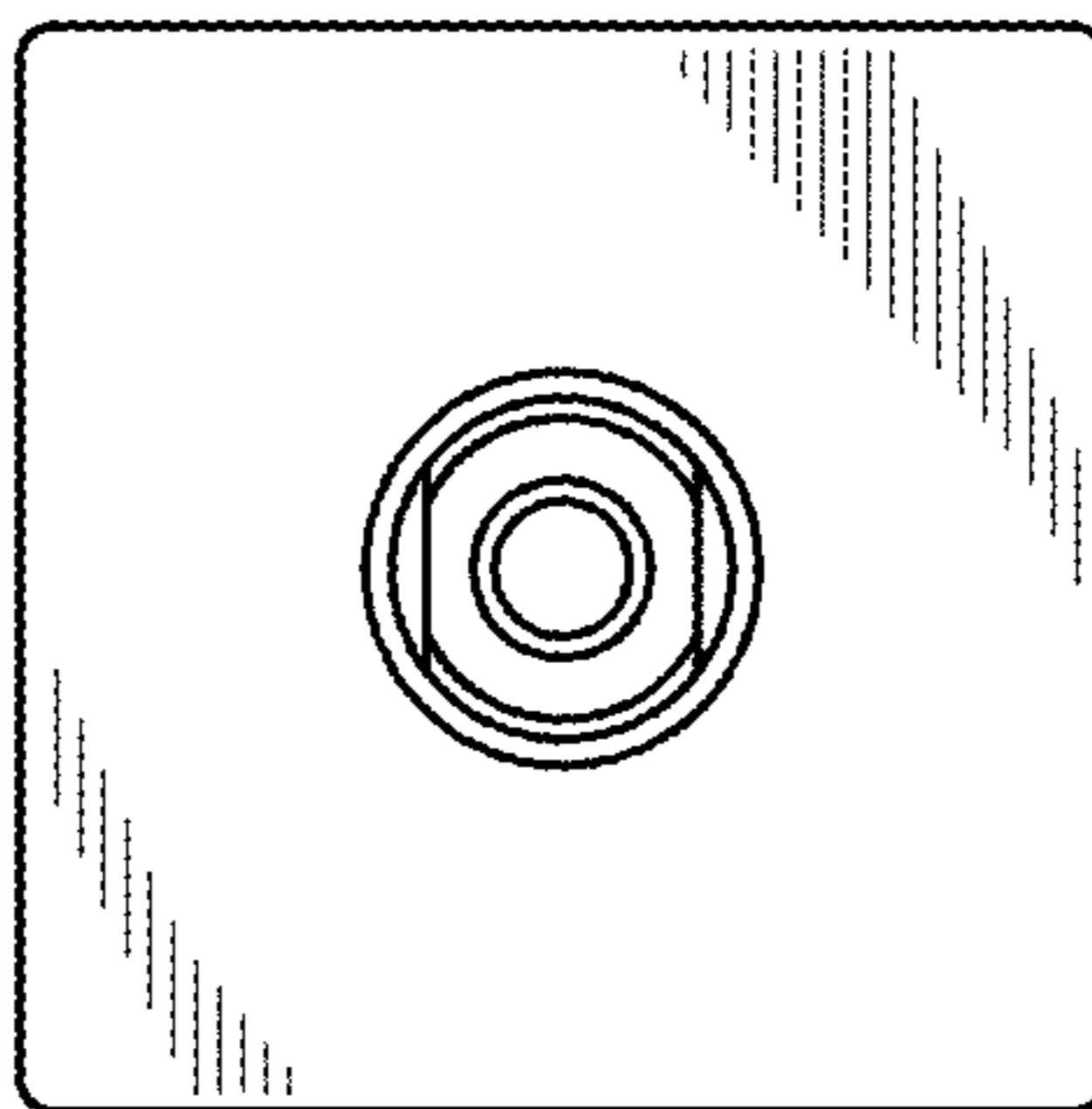


FIG. 48

