



US00D861750S

(12) **United States Design Patent**  
**Hertel et al.**

(10) **Patent No.:** **US D861,750 S**

(45) **Date of Patent:** **\*\* Oct. 1, 2019**

- (54) **MULTI-AXIS MACHINE**
- (71) Applicant: **POCKET NC COMPANY**, Bozeman, MT (US)
- (72) Inventors: **Matthew Hertel**, Bozeman, MT (US);  
**Michelle Hertel**, Bozeman, MT (US)
- (73) Assignee: **POCKET NC COMPANY**, Bozeman, MT (US)
- (\*\*) Term: **15 Years**
- (21) Appl. No.: **29/646,229**
- (22) Filed: **May 2, 2018**
- (51) **LOC (12) Cl.** ..... **15-09**
- (52) **U.S. Cl.**  
USPC ..... **D15/122**
- (58) **Field of Classification Search**  
USPC ..... D15/122, 124, 126, 127, 130, 131;  
29/30, 39, 50, 563-566, 564.1-564.8;  
483/17-57  
CPC ..... B23B 13/02; B23B 29/26; B23Q 1/015;  
B23Q 7/048; B23Q 11/10; B23Q  
11/0028; B23Q 15/12; B23Q 17/22;  
B23Q 39/027; B23Q 2039/008  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D244,445 S *	5/1977	Lohneis	.....	D15/122
D257,042 S *	9/1980	Lohneis	.....	D15/127
D427,614 S *	7/2000	Miyake	.....	D15/127
D788,196 S *	5/2017	Hertel	.....	D15/122
2007/0251071 A1 *	11/2007	Ota	.....	B23C 1/002 29/27 C
2008/0219781 A1 *	9/2008	Hyatt	.....	B24B 5/02 407/11
2008/0276772 A1 *	11/2008	Ozawa	.....	B23B 7/06 82/117

- 2009/0010729 A1 \* 1/2009 Schaeferling ..... B23F 19/057  
409/6
- 2009/0123246 A1 \* 5/2009 Matsui ..... B23Q 1/44  
409/201
- 2010/0074703 A1 \* 3/2010 Makiyama ..... B23B 41/12  
408/146
- 2010/0189524 A1 \* 7/2010 Yin ..... B23Q 11/0046  
409/137
- 2010/0202848 A1 \* 8/2010 Tanizaki ..... B23Q 1/015  
409/134

(Continued)

*Primary Examiner* — Patricia A Palasik

(74) *Attorney, Agent, or Firm* — Dorsey & Whitney LLP

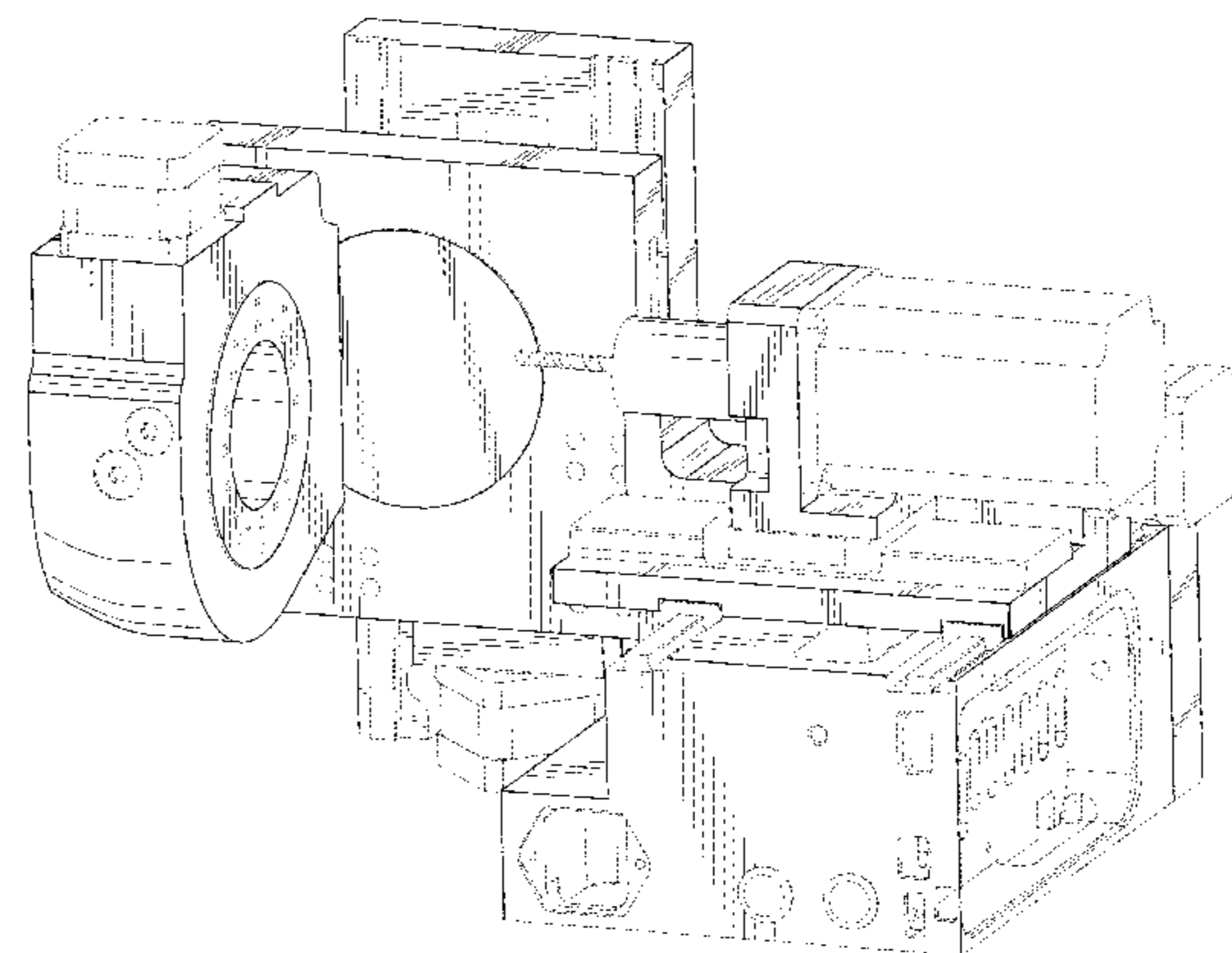
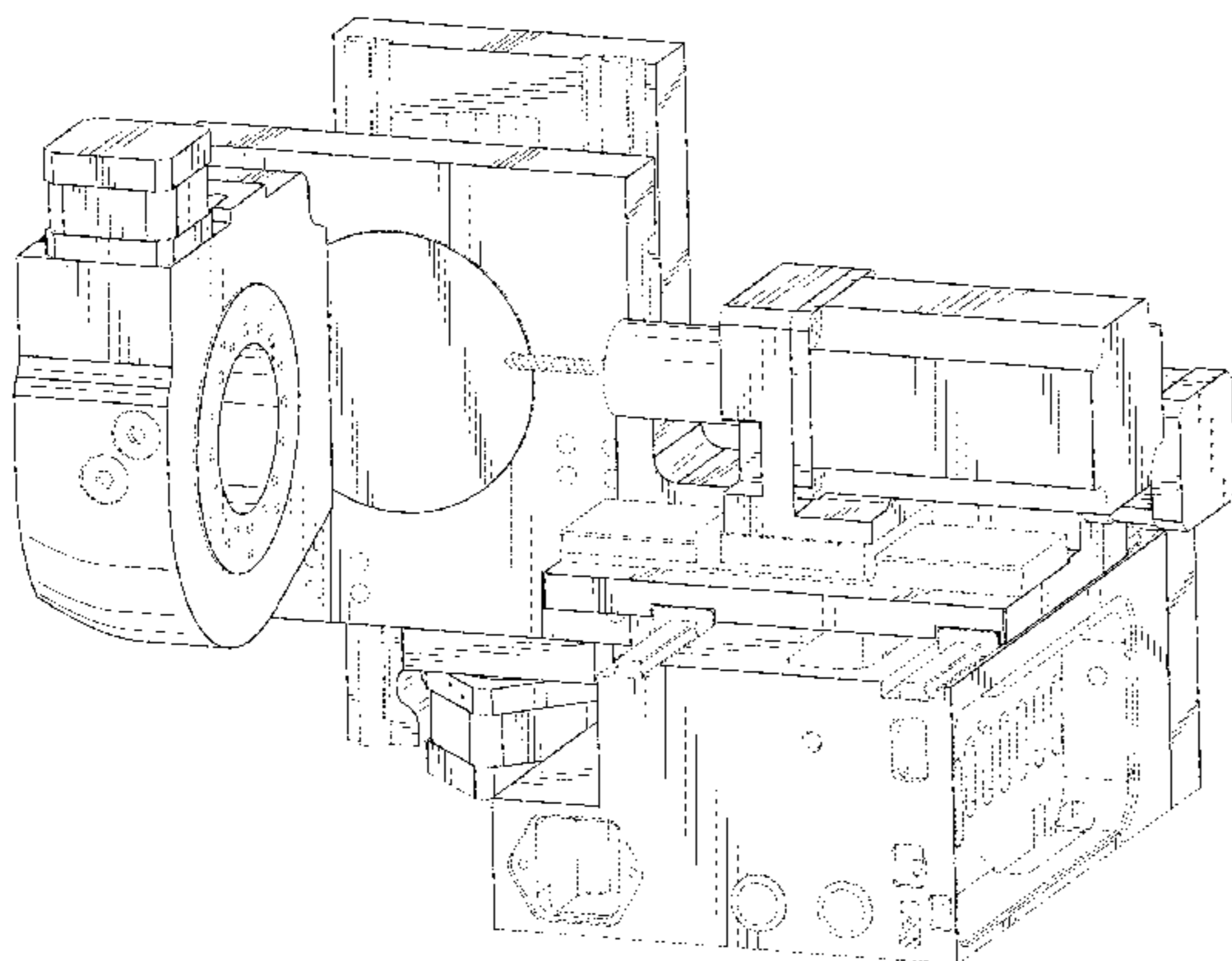
(57) **CLAIM**

The ornamental design for a multi-axis machine, as shown and described.

**DESCRIPTION**

FIG. 1 is a front, left perspective view of a multi-axis machine, according to a first embodiment; FIG. 2 is a back, right perspective view thereof; FIG. 3 is a top plan view thereof; FIG. 4 is a bottom plan view thereof; FIG. 5 is a front elevational view thereof; FIG. 6 is a back elevational view thereof; FIG. 7 is a right elevational side view thereof; FIG. 8 is a left elevational side view thereof; FIG. 9 is a front, left perspective view of a multi-axis machine, according to a second embodiment; FIG. 10 is a back, right perspective view thereof; FIG. 11 is a top plan view thereof; FIG. 12 is a bottom plan view thereof; FIG. 13 is a front elevational view thereof; FIG. 14 is a back elevational view thereof; FIG. 15 is a right elevational side view thereof; and, FIG. 16 is a left elevational side view thereof. The broken lines in the drawings depict portions of the multi-axis machine which form no part of the claimed design.

**1 Claim, 16 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

2011/0268521 A1\* 11/2011 Winckler ..... B23Q 5/263  
408/199  
2012/0020753 A1\* 1/2012 Tullmann ..... B23Q 1/012  
409/168  
2012/0020755 A1\* 1/2012 Hiroshima ..... B23Q 1/015  
409/219  
2012/0058872 A1\* 3/2012 Roders ..... B23Q 1/015  
409/212  
2012/0197424 A1\* 8/2012 Kimura ..... G05B 19/184  
700/103  
2013/0008002 A1\* 1/2013 Ueno ..... B23Q 15/24  
29/27 C  
2013/0028673 A1\* 1/2013 Onishi ..... B23Q 11/0007  
408/8  
2013/0104707 A1\* 5/2013 Nakagawa ..... B23Q 11/0007  
82/118  
2013/0129439 A1\* 5/2013 Hiroshima ..... B23Q 1/015  
409/212  
2013/0149055 A1\* 6/2013 Tsai ..... B23Q 1/626  
408/13  
2013/0149062 A1\* 6/2013 Kimura ..... B23Q 15/06  
409/80  
2013/0240227 A1\* 9/2013 Tauchmann ..... B23Q 17/00  
173/1  
2014/0004774 A1\* 1/2014 Falkner ..... B23Q 17/20  
451/49

2014/0037397 A1\* 2/2014 Tanaka ..... B23Q 1/70  
409/235  
2014/0039666 A1\* 2/2014 Kim ..... B23Q 5/56  
700/174  
2014/0105699 A1\* 4/2014 Lechleiter ..... B23Q 1/012  
409/80  
2014/0130320 A1\* 5/2014 Burri ..... B23F 17/006  
29/56.5  
2014/0341669 A1\* 11/2014 Fleischer ..... B23F 23/04  
409/20  
2014/0342889 A1\* 11/2014 Kraft ..... B23Q 3/15526  
483/1  
2014/0342891 A1\* 11/2014 Liu ..... B23Q 3/15553  
483/38  
2015/0251290 A1\* 9/2015 Braun ..... B24B 27/0061  
483/18  
2015/0298272 A1\* 10/2015 Murata ..... B23Q 7/1431  
414/222.07  
2016/0082558 A1\* 3/2016 Min ..... B23Q 1/012  
409/235  
2016/0167182 A1\* 6/2016 Seo ..... B23Q 1/015  
409/137  
2016/0184902 A1\* 6/2016 Liu ..... B23Q 11/0025  
82/159  
2016/0221134 A1\* 8/2016 Suzuki ..... B23Q 1/017  
2016/0246282 A1\* 8/2016 Matsushita ..... G05B 19/404

\* cited by examiner

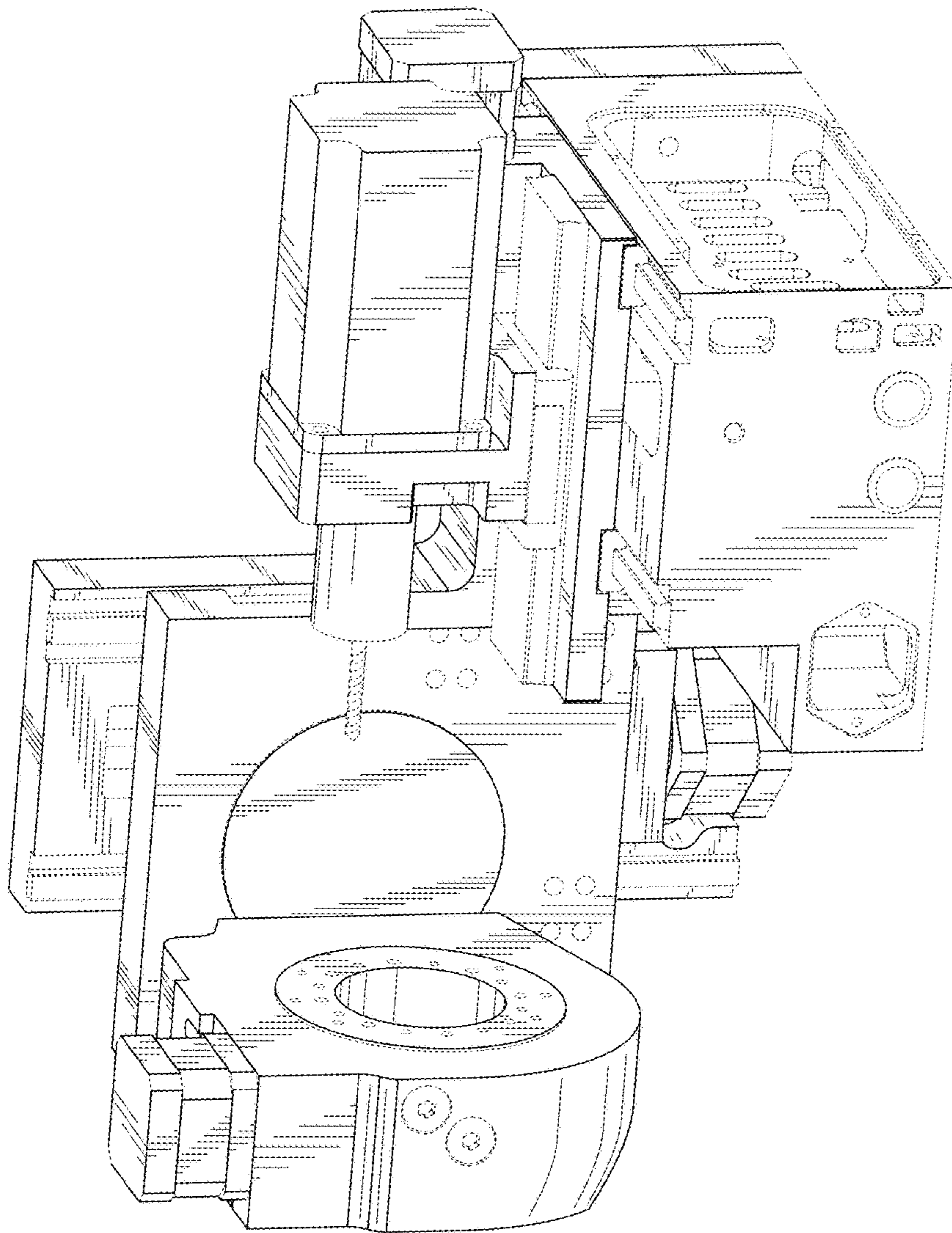


FIG. 1

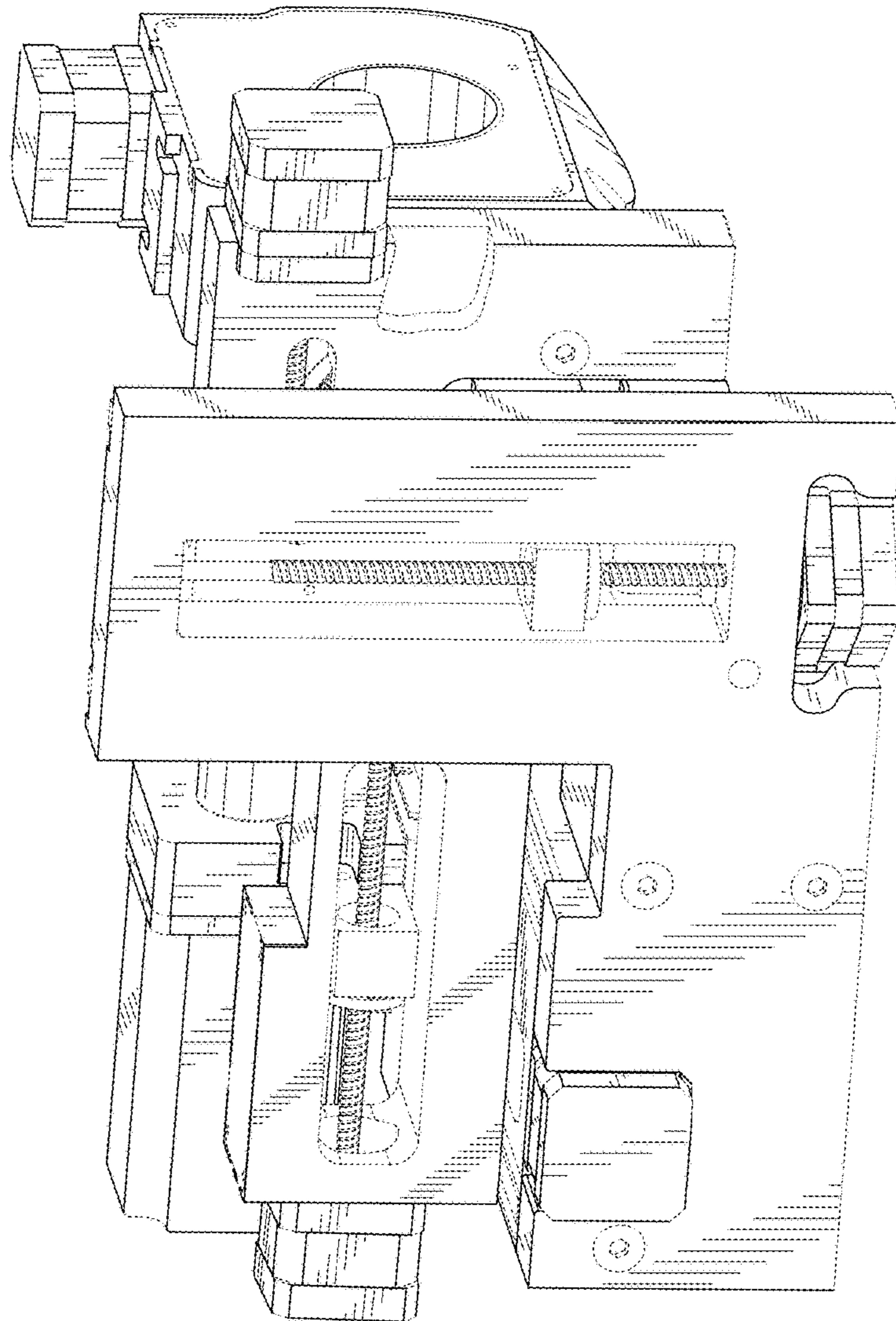


FIG. 2

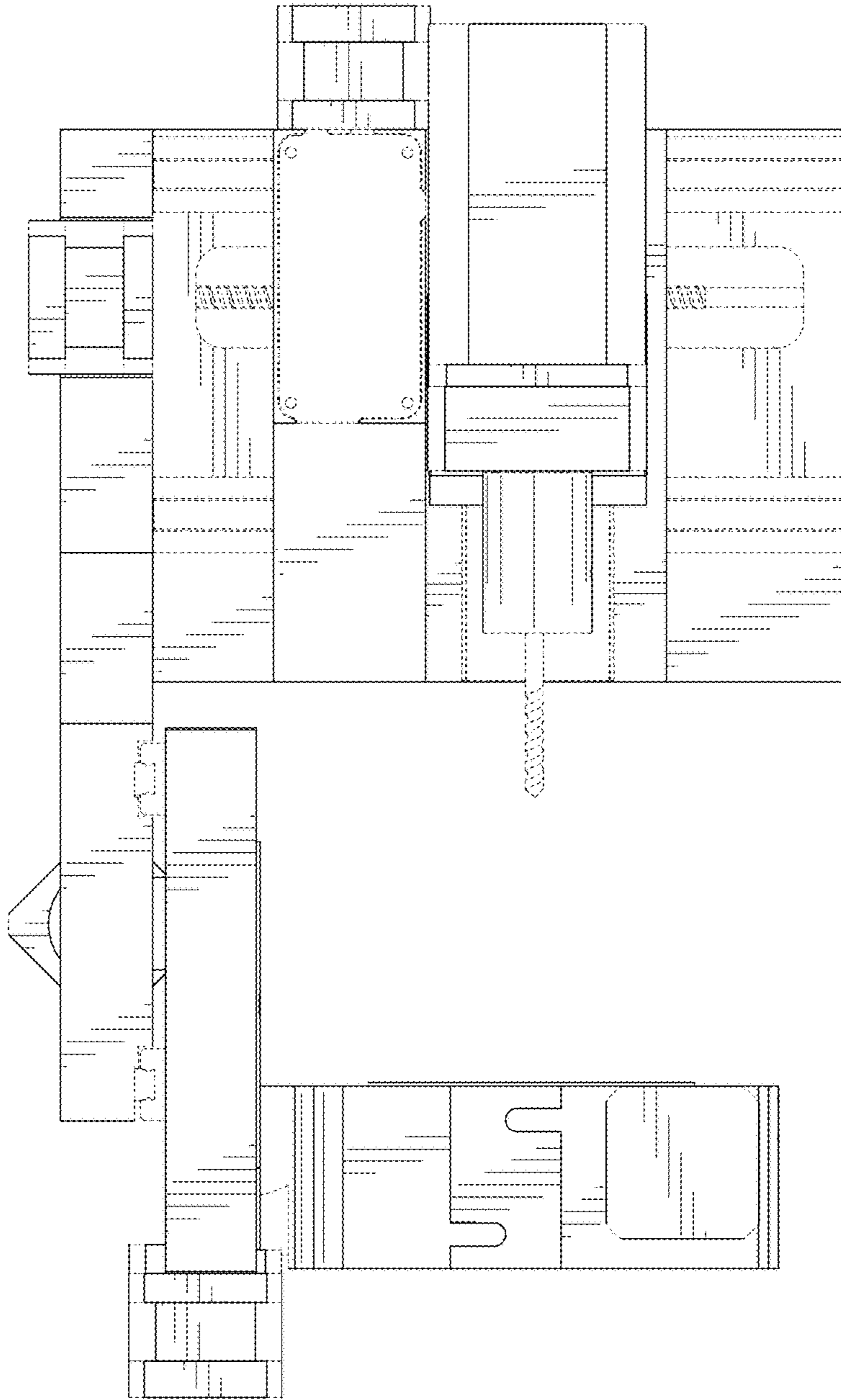


FIG. 3

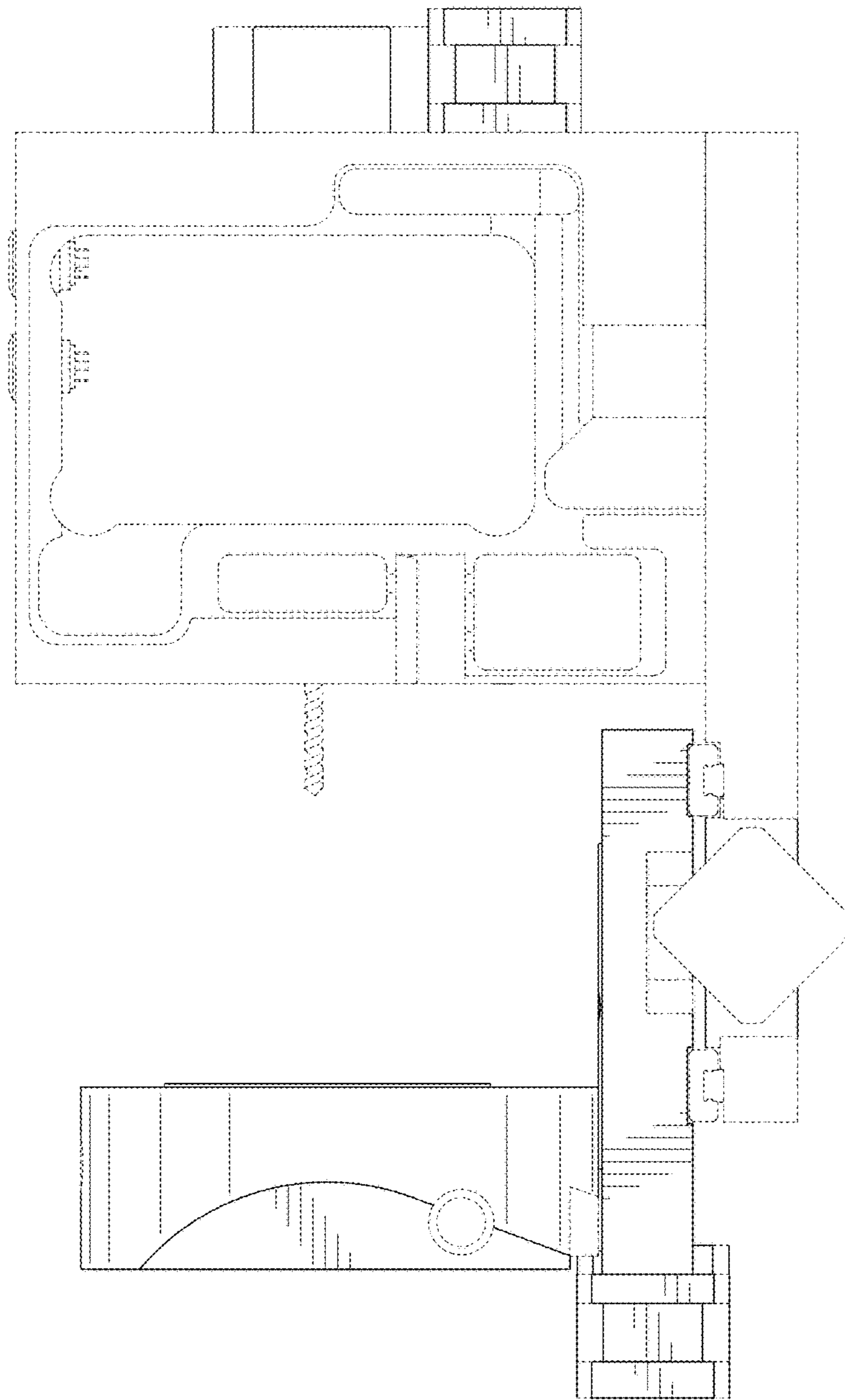


FIG. 4

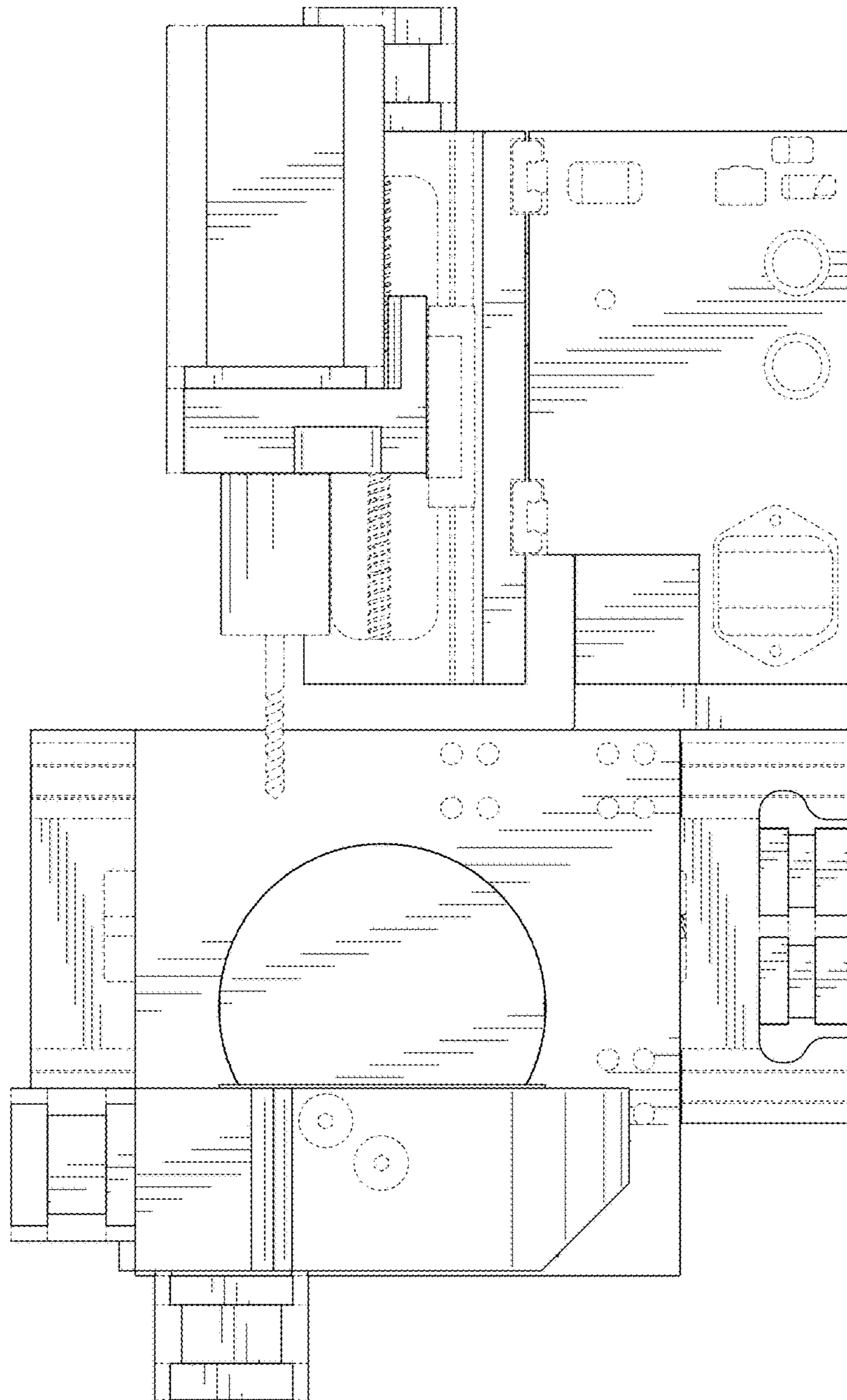


FIG. 5

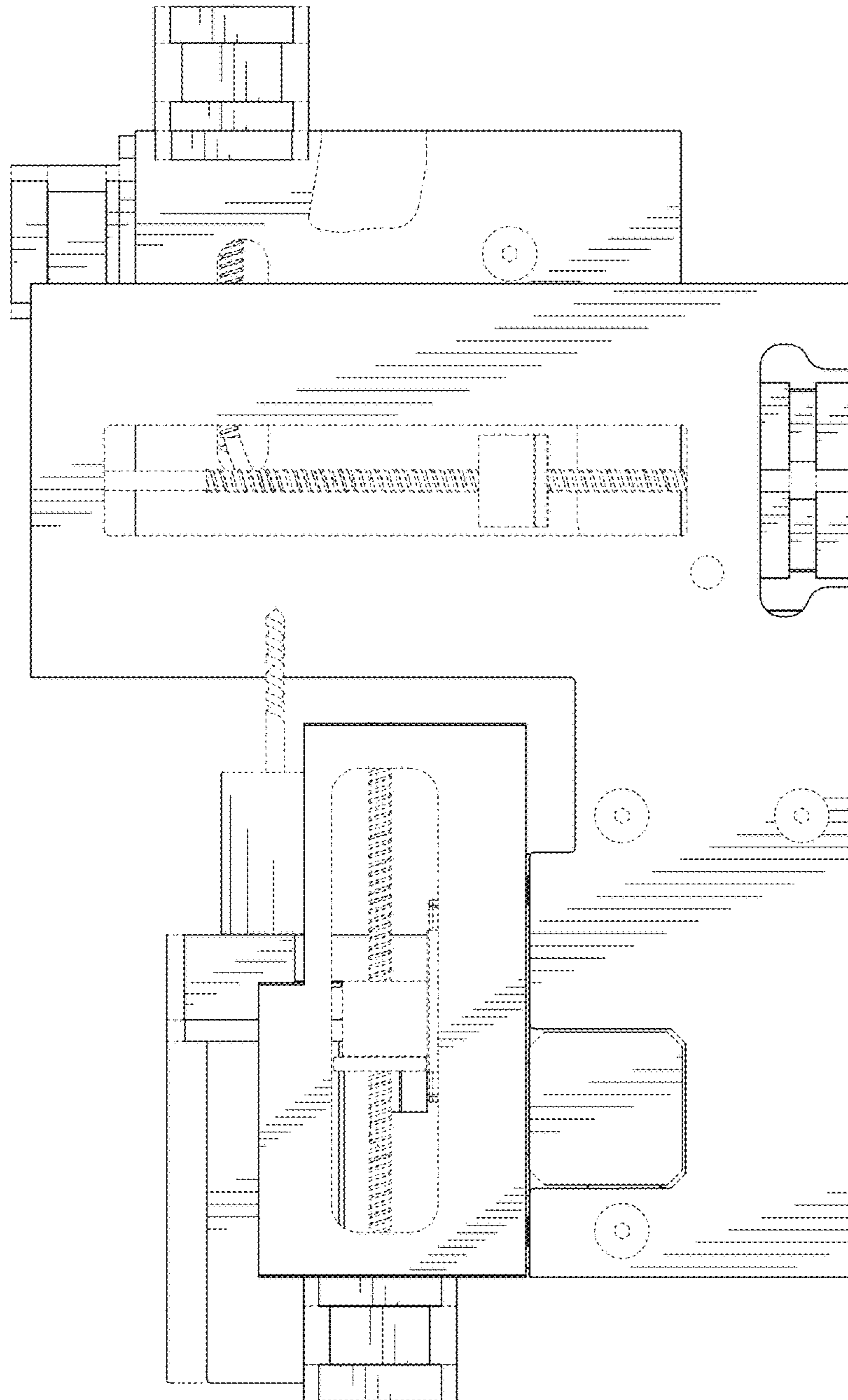


FIG. 6



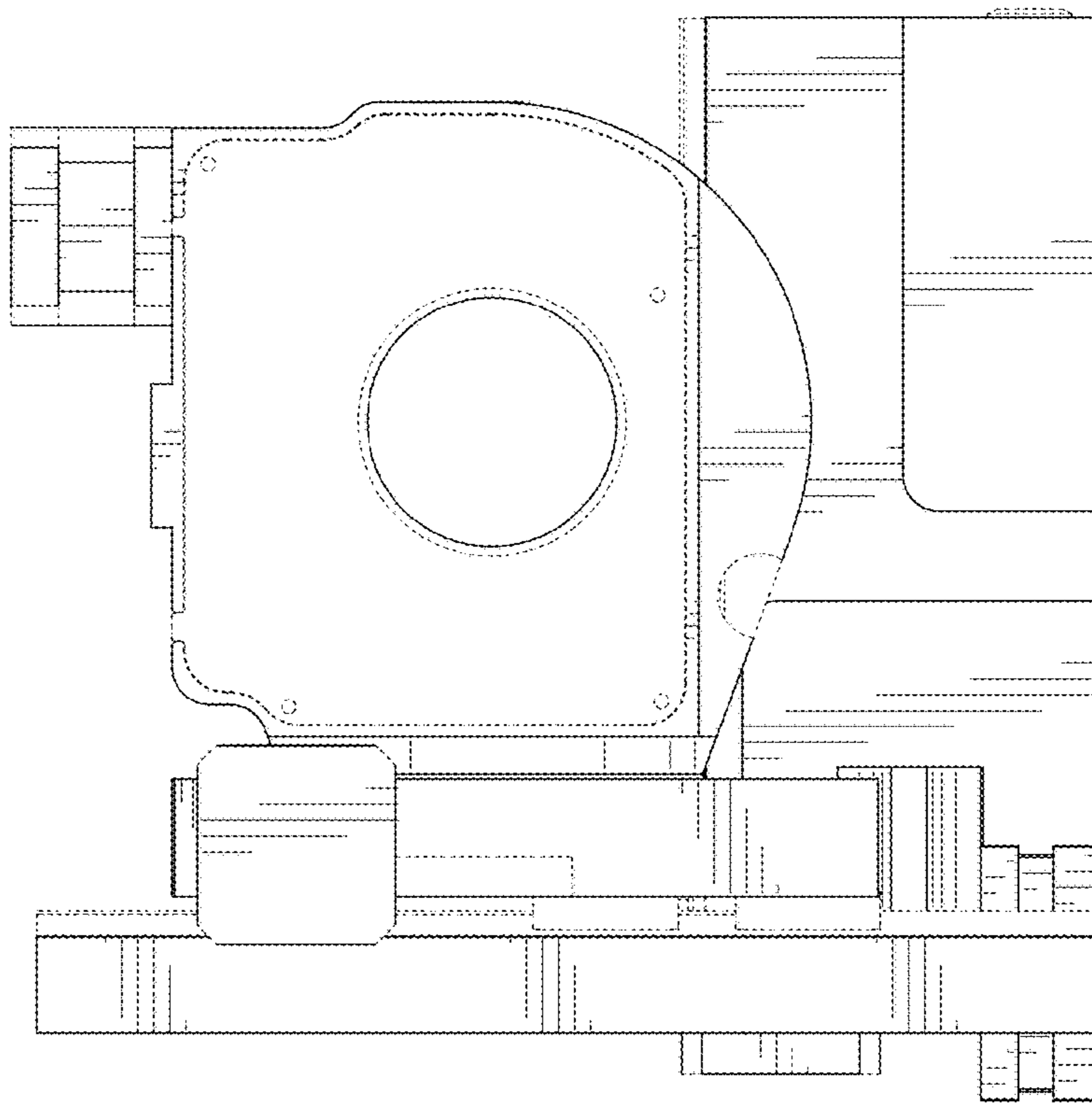


FIG. 7

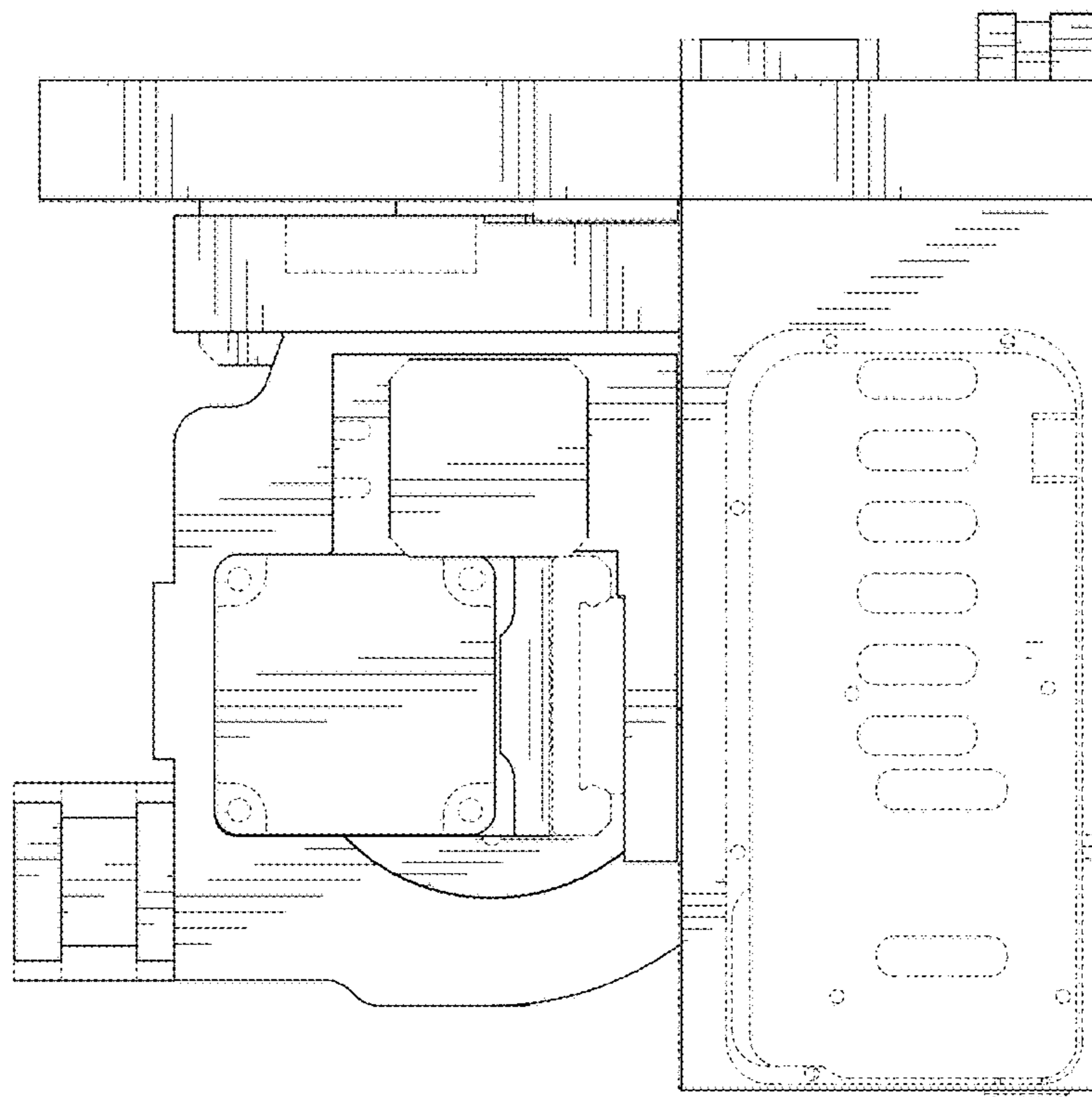


FIG. 8

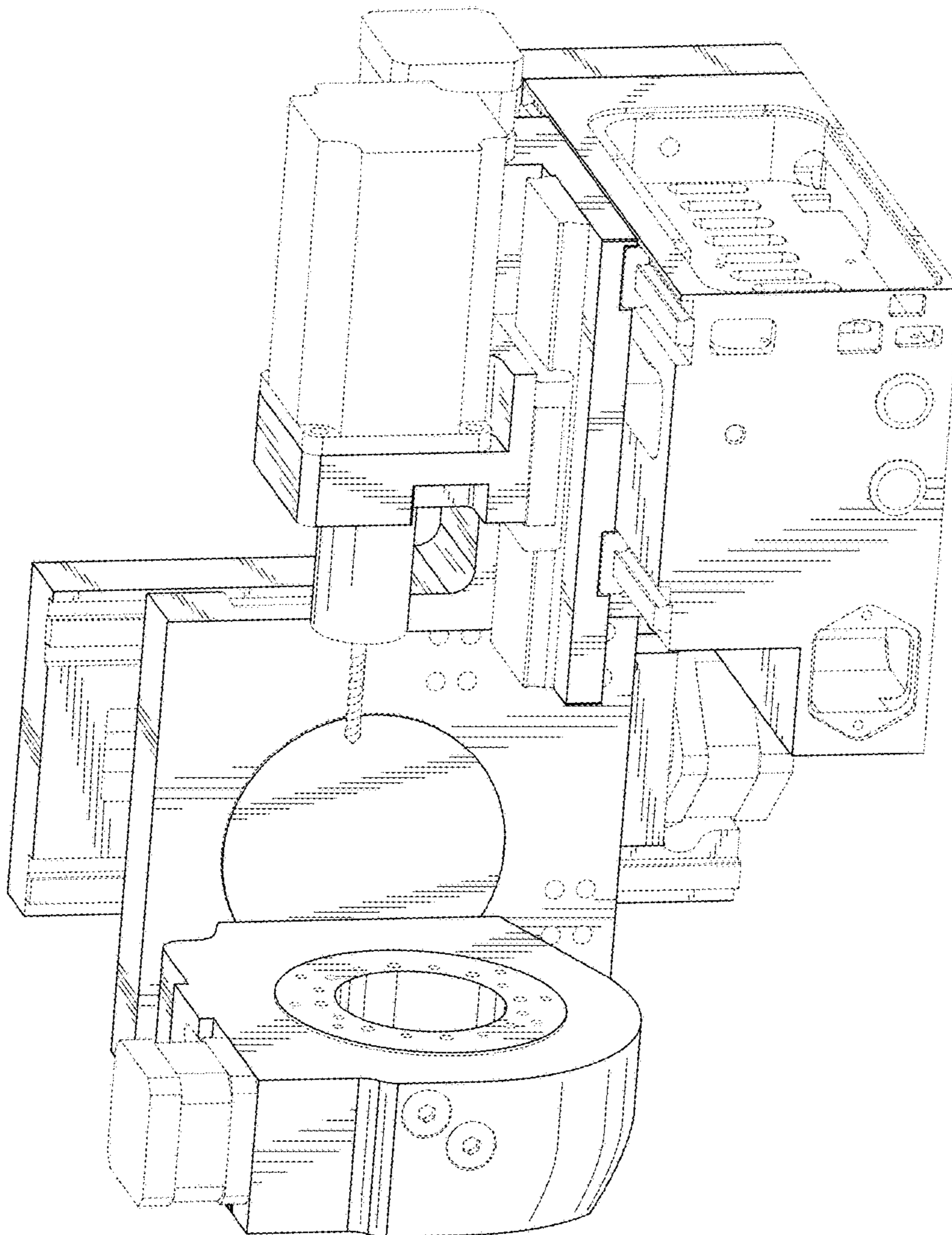


FIG. 9

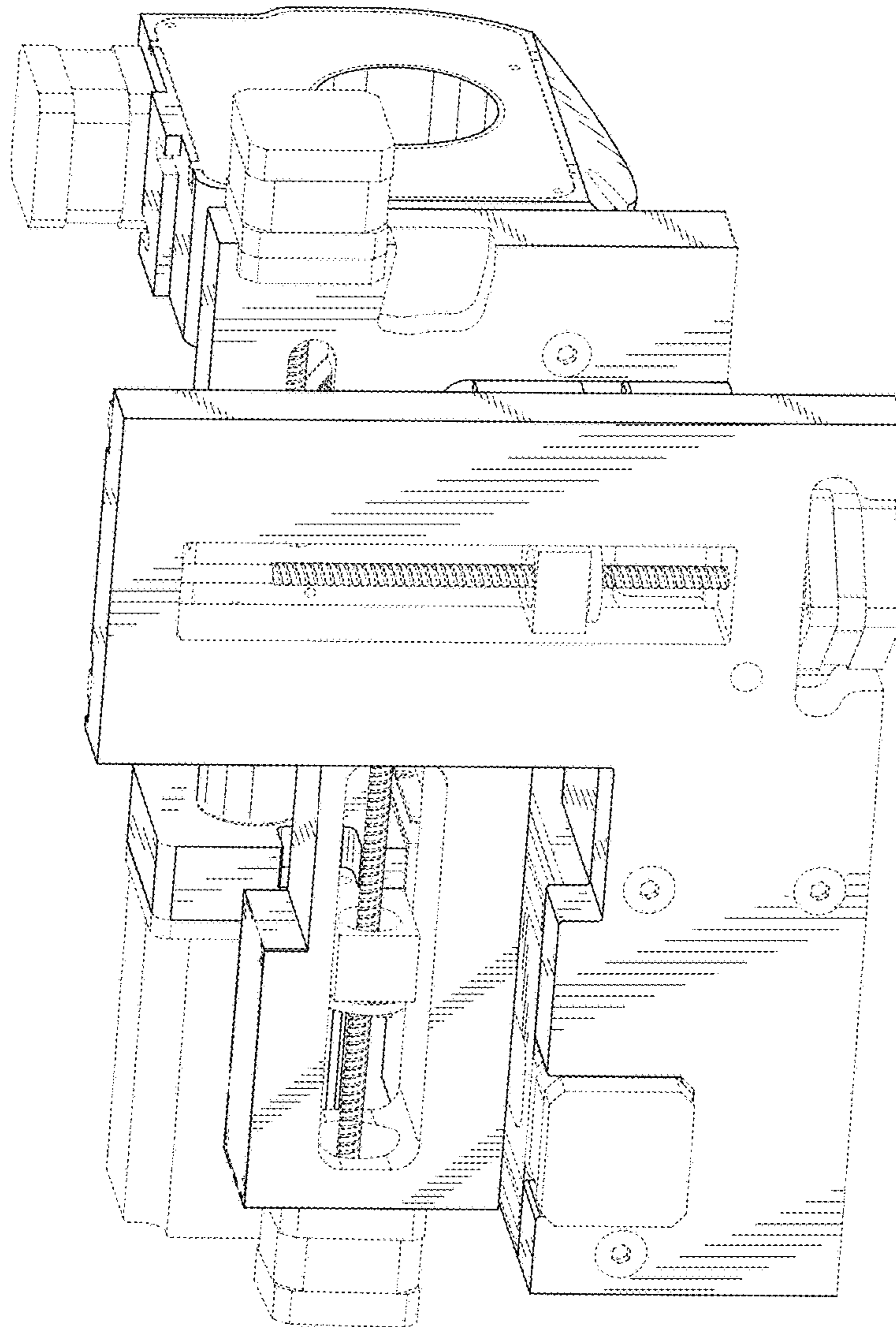


FIG. 10

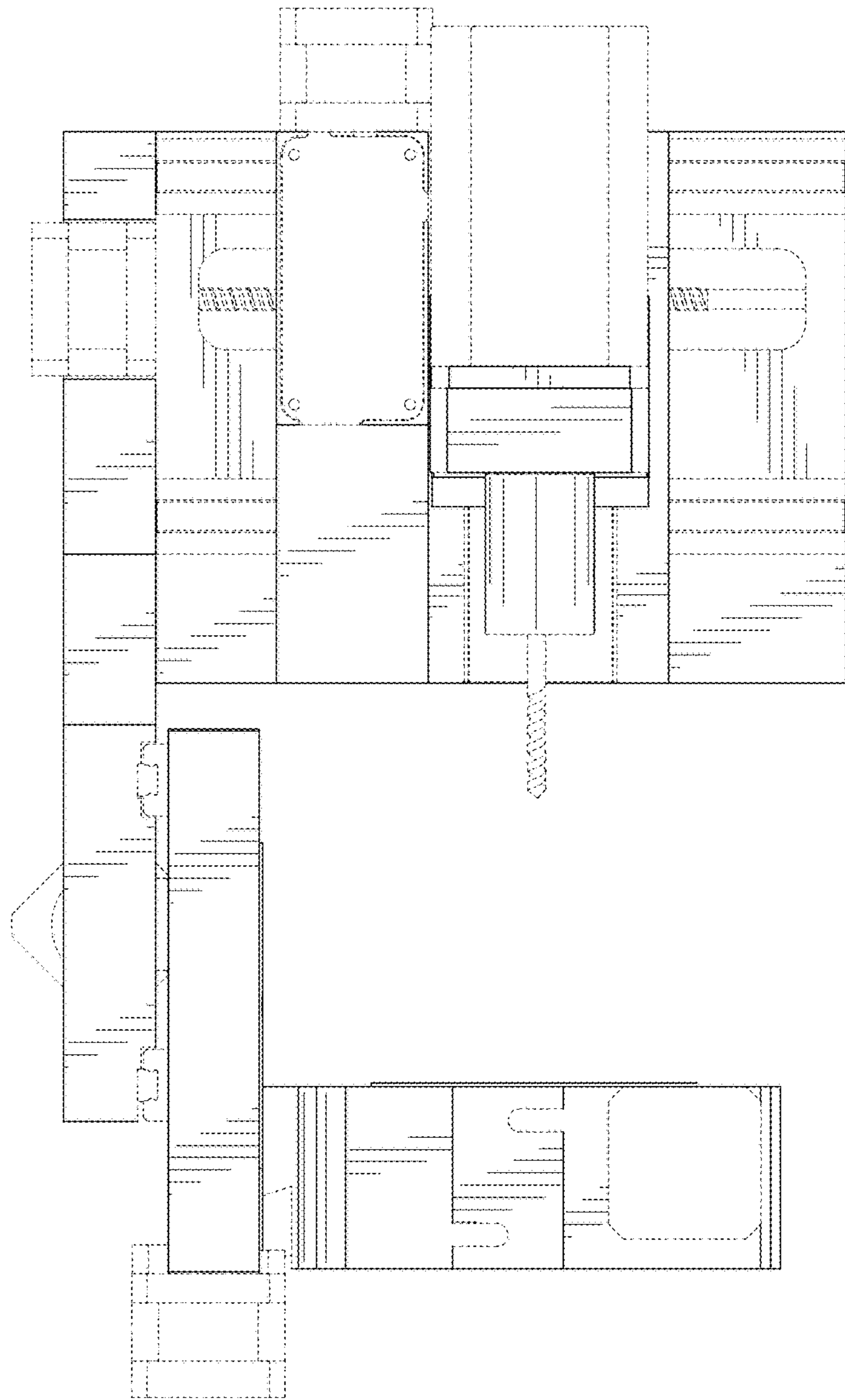


FIG. 11

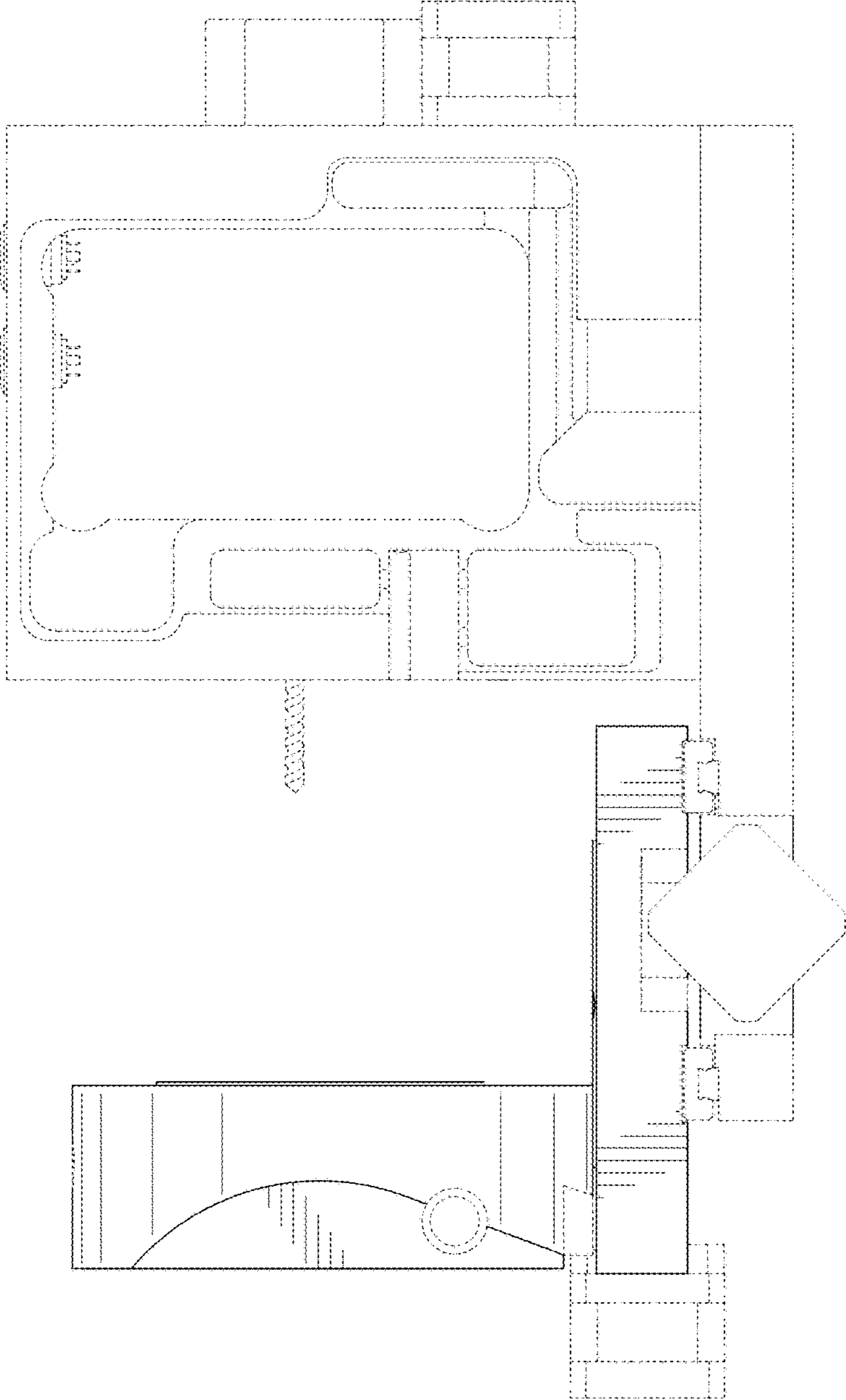


FIG. 12

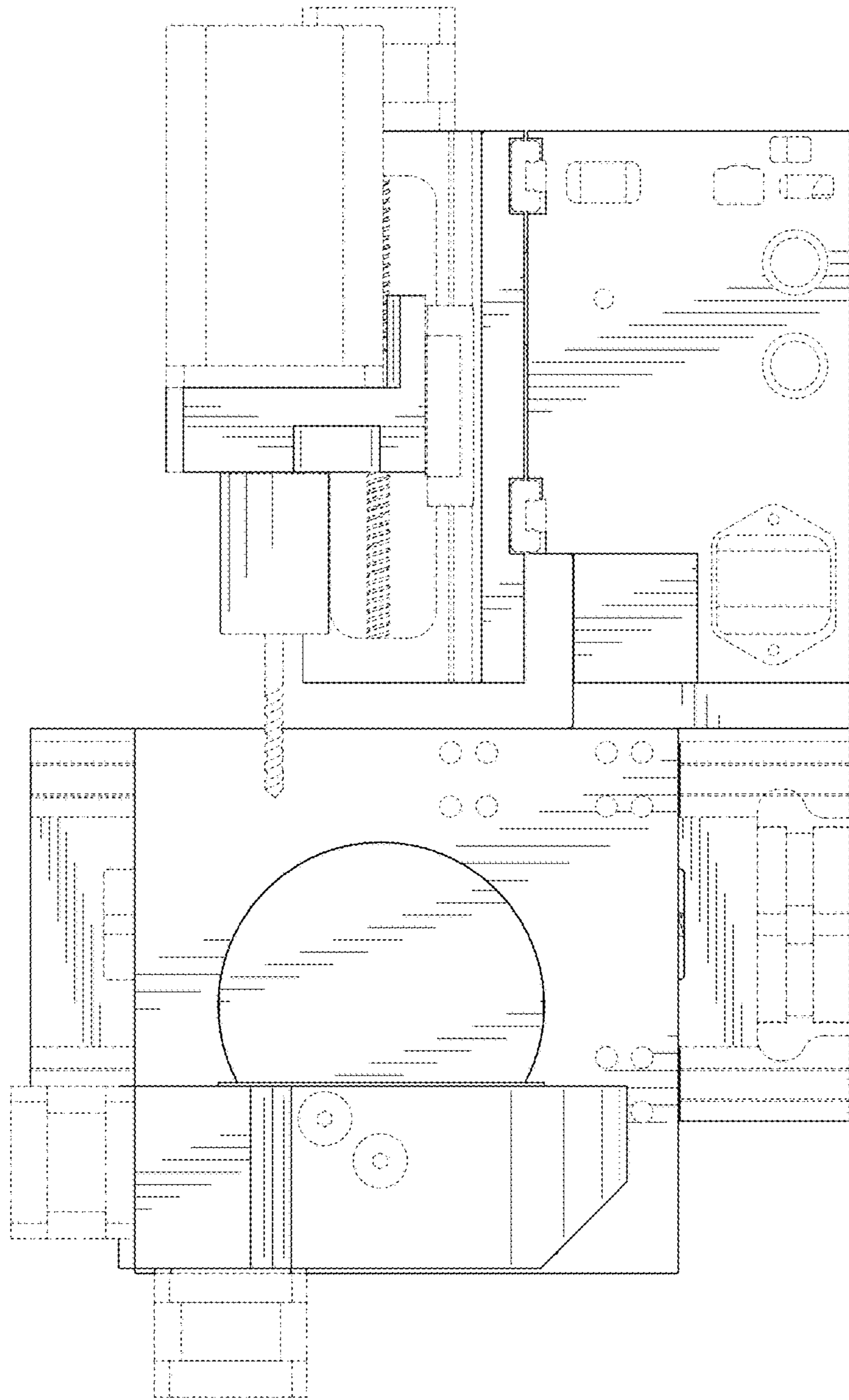


FIG. 13

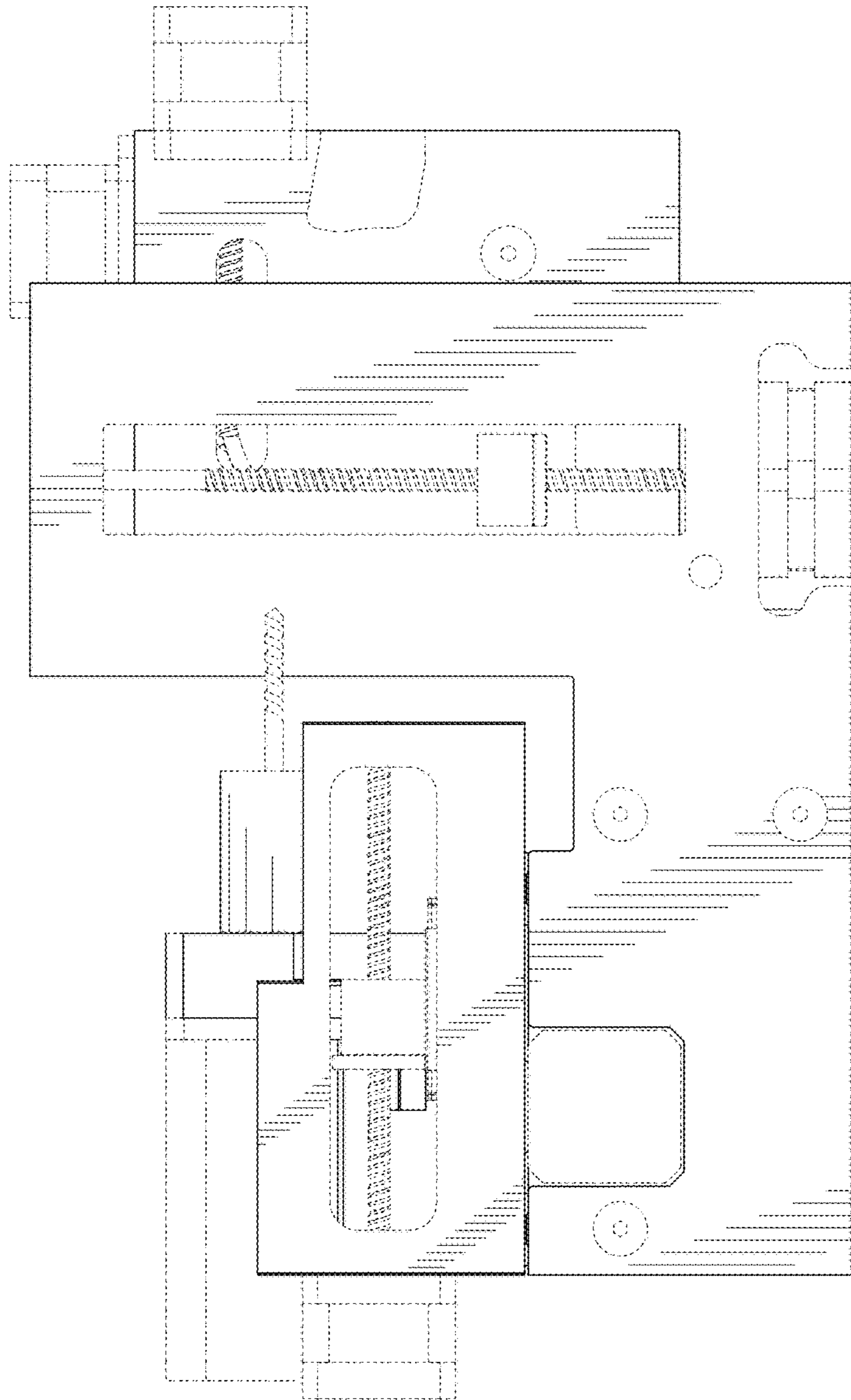


FIG. 14



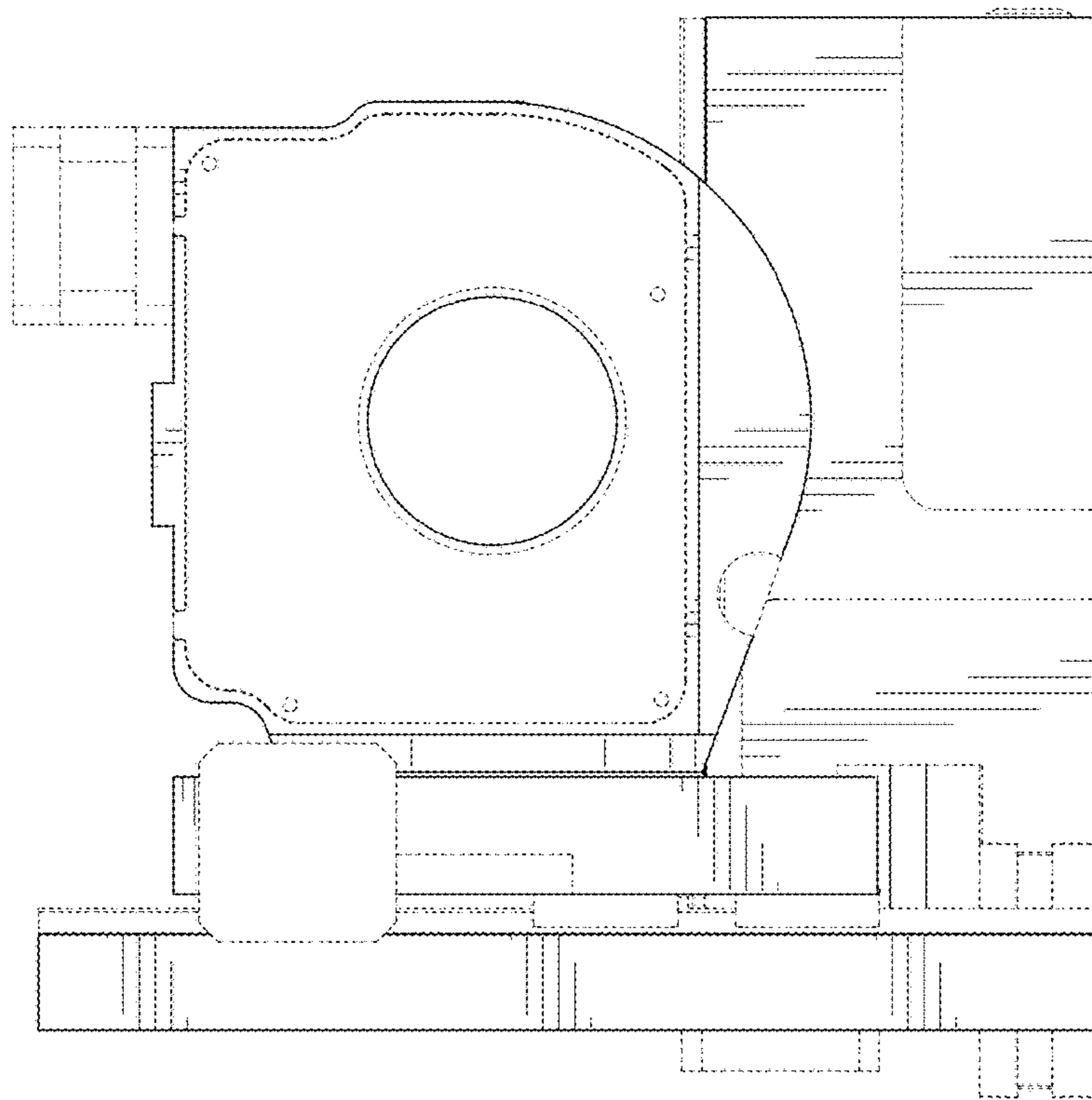


FIG. 15

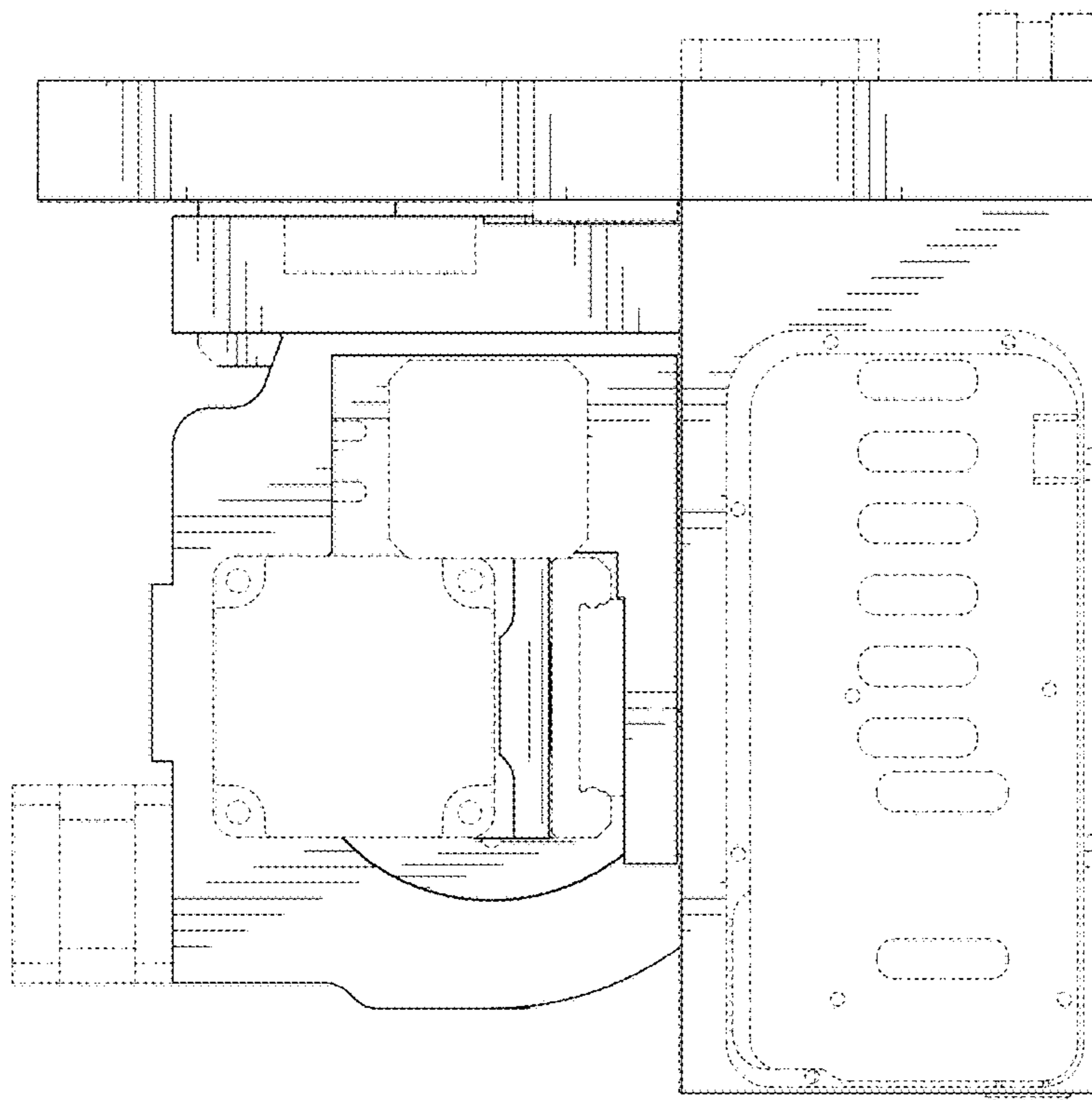


FIG. 16