



US00D983245S

(12) **United States Design Patent**  
**Liu**

(10) **Patent No.:** **US D983,245 S**  
(45) **Date of Patent:** **\*\* Apr. 11, 2023**

(54) **PALLET STRAPPING MACHINE**  
(71) Applicant: **DONGGUAN JINGDUAN  
PACKAGING TECHNOLOGY CO.  
LTD, Dongguan (CN)**  
(72) Inventor: **Xiaolong Liu, Dongguan (CN)**  
(73) Assignee: **DONGGUAN JINGDUAN  
PACKAGING TECHNOLOGY CO.  
LTD, Dongguan (CN)**

(\*\*) Term: **15 Years**  
(21) Appl. No.: **29/808,949**  
(22) Filed: **Sep. 24, 2021**  
(51) **LOC (14) Cl.** ..... **15-09**  
(52) **U.S. Cl.**  
USPC ..... **D15/145**  
(58) **Field of Classification Search**  
USPC ..... D15/122, 145, 146, 199  
CPC ..... B65B 13/00; B65B 13/06; B65B 13/16;  
B65B 13/18; B65B 13/32; B65B 57/04;  
B65B 59/04; B65B 2210/12  
See application file for complete search history.

(56) **References Cited**  
U.S. PATENT DOCUMENTS  
1,947,917 A \* 2/1934 Paxton ..... B65B 7/2842  
100/56  
3,232,217 A \* 2/1966 Harmon ..... B65B 13/06  
100/30  
4,271,655 A \* 6/1981 Nagayoshi ..... B65B 13/06  
53/589  
4,536,248 A \* 8/1985 Bullington ..... B65B 13/18  
100/33 PB  
D307,435 S \* 4/1990 Sakaki ..... D15/145  
D308,977 S \* 7/1990 Sakaki ..... D15/145  
5,613,432 A \* 3/1997 Hoshino ..... B65B 13/06  
53/589

6,367,732 B1 \* 4/2002 Bobren ..... B65B 13/184  
242/564.4  
6,415,712 B1 \* 7/2002 Helland ..... B65B 13/18  
53/589  
6,463,721 B1 \* 10/2002 Su ..... B65B 13/22  
100/29  
6,568,159 B2 \* 5/2003 Kawai ..... B65B 13/04  
100/29  
D488,822 S \* 4/2004 Shibazaki ..... D15/145  
(Continued)

**FOREIGN PATENT DOCUMENTS**

EP 1167196 A1 \* 1/2002 ..... B65B 13/184  
*Primary Examiner* — Patricia A Palasik

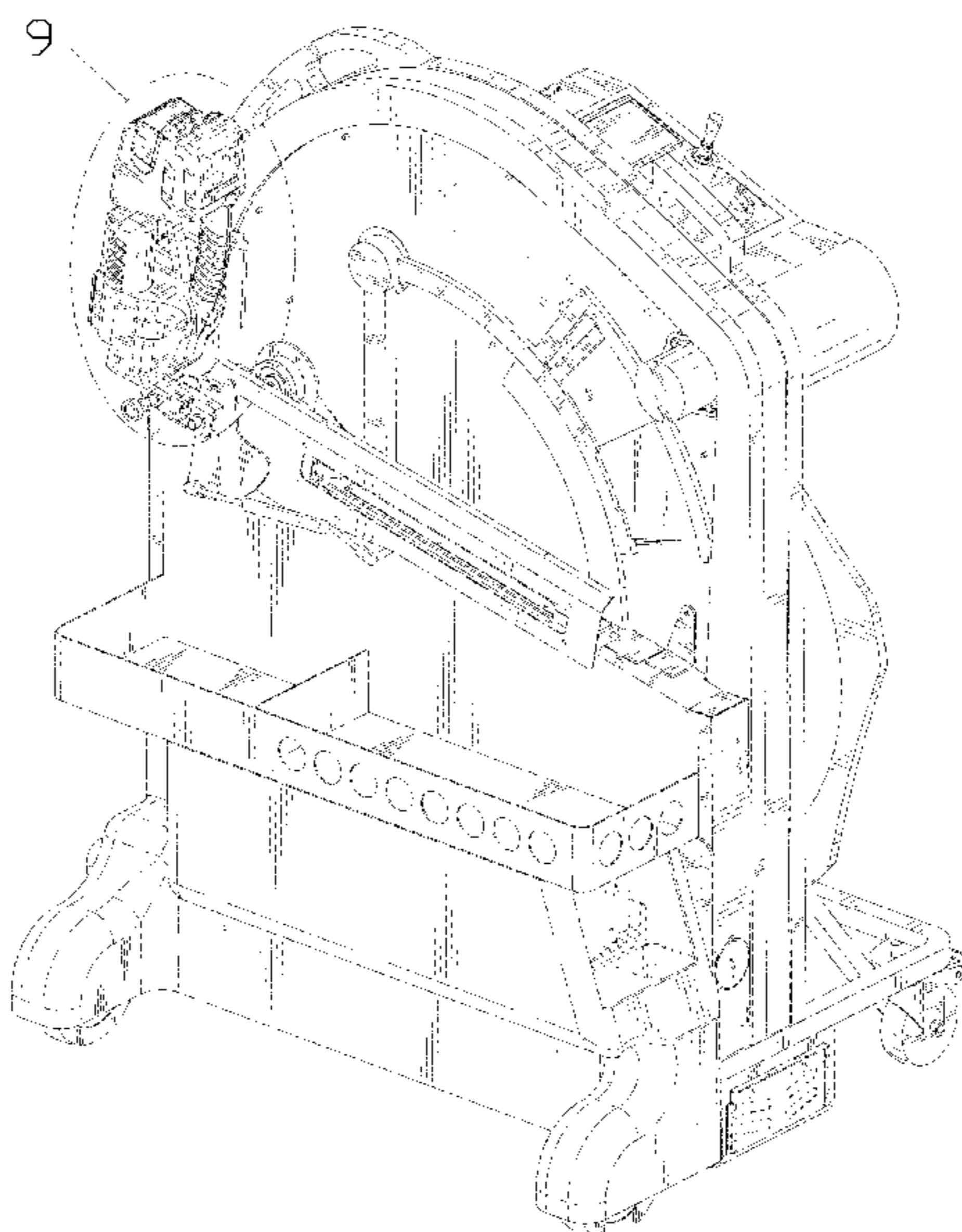
(57) **CLAIM**

The ornamental design for a pallet strapping machine, as shown and described.

**DESCRIPTION**

FIG. 1 is a perspective view of a pallet strapping machine showing my new design;  
FIG. 2 is another perspective view thereof;  
FIG. 3 is a front elevational view thereof;  
FIG. 4 is a rear elevational view thereof;  
FIG. 5 is a left side elevational view thereof;  
FIG. 6 is a right side elevational view thereof;  
FIG. 7 is a top plan view thereof;  
FIG. 8 is a bottom plan view thereof;  
FIG. 9 is an enlarged view of portion 9 shown in FIG. 1;  
FIG. 10 is an enlarged view of portion 10 shown in FIG. 2;  
and,  
FIG. 11 is an enlarged view of portion 11 shown in FIG. 7.  
The dash-dash broken lines in the drawings depict portions of the pallet strapping machine that form no part of the claimed design. The dot-dash broken lines represent boundaries of the enlarged portions and form no part of the claimed design.

**1 Claim, 11 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

6,745,678 B1 *	6/2004	Liu	.....	B65B 13/06	53/589	2004/0255562 A1 *	12/2004	Haberstroh	.....	B65B 13/06	53/589
6,820,402 B1 *	11/2004	Haberstroh	.....	B65B 13/18	53/589	2005/0061163 A1 *	3/2005	Kobiella	.....	B65B 13/06	100/26
6,931,986 B1 *	8/2005	Liu	.....	B65B 13/22	53/64	2008/0072539 A1 *	3/2008	Morrison	.....	B65B 13/22	53/399
D547,779 S *	7/2007	Shimajima	.....	D15/145		2008/0236409 A1 *	10/2008	Cozzutto	.....	B65B 13/06	100/2
7,240,612 B1 *	7/2007	Kirar	.....	B65B 13/20	100/29	2010/0154661 A1 *	6/2010	Bobren	.....	B65B 13/185	100/4
7,263,928 B1 *	9/2007	Holden	.....	B65B 13/06	100/29	2011/0056389 A1 *	3/2011	Neeser	.....	B65B 13/322	100/29
7,270,055 B1 *	9/2007	Haberstroh	.....	B65B 13/32	100/29	2011/0120321 A1 *	5/2011	Oehm	.....	B65B 13/06	100/18
D653,923 S *	2/2012	Neeser	.....	D8/67		2011/0146505 A1 *	6/2011	Schwede	.....	B65B 13/185	100/8
9,932,135 B2 *	4/2018	Finzo	.....	B65B 13/025		2013/0098252 A1 *	4/2013	Haberstroh	.....	B65B 13/18	100/8
D837,850 S *	1/2019	Longo	.....	D15/145		2014/0083310 A1 *	3/2014	Hohn	.....	B65B 13/18	100/2
D904,151 S *	12/2020	Hochstrasser	.....	D15/145		2014/0290179 A1 *	10/2014	Keller	.....	B65B 13/22	53/399
2002/0088202 A1 *	7/2002	Van Rens	.....	B65B 9/2028	53/139.2	2019/0039325 A1 *	2/2019	Takidis	.....	B29C 66/1122	
2003/0025610 A1 *	2/2003	Helmrich	.....	B65B 13/06	340/9.17	2019/0055039 A1 *	2/2019	Hendriks	.....	B65B 13/06	
2004/0098953 A1 *	5/2004	Devine	.....	B65B 13/18	53/589						

\* cited by examiner

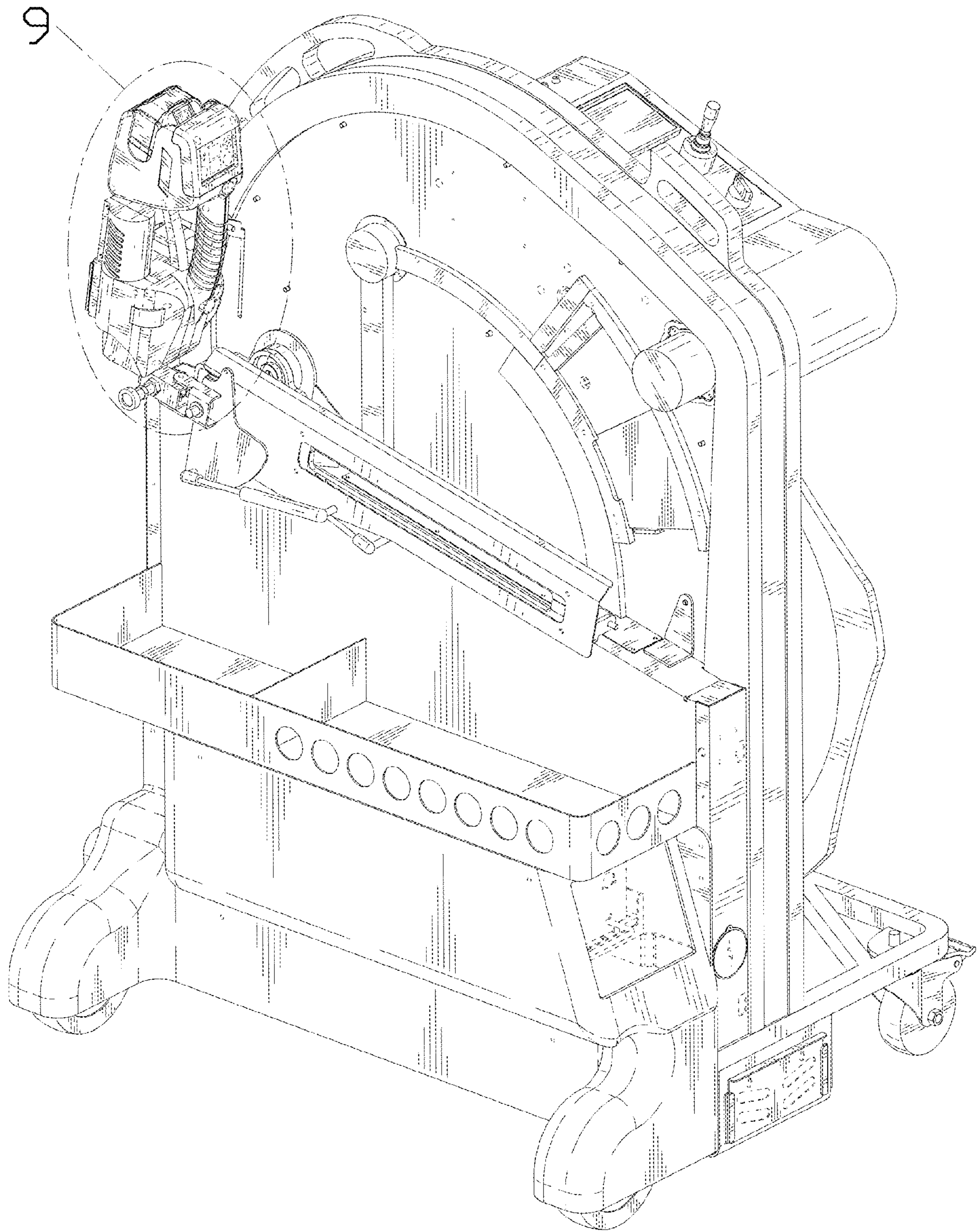


FIG. 1

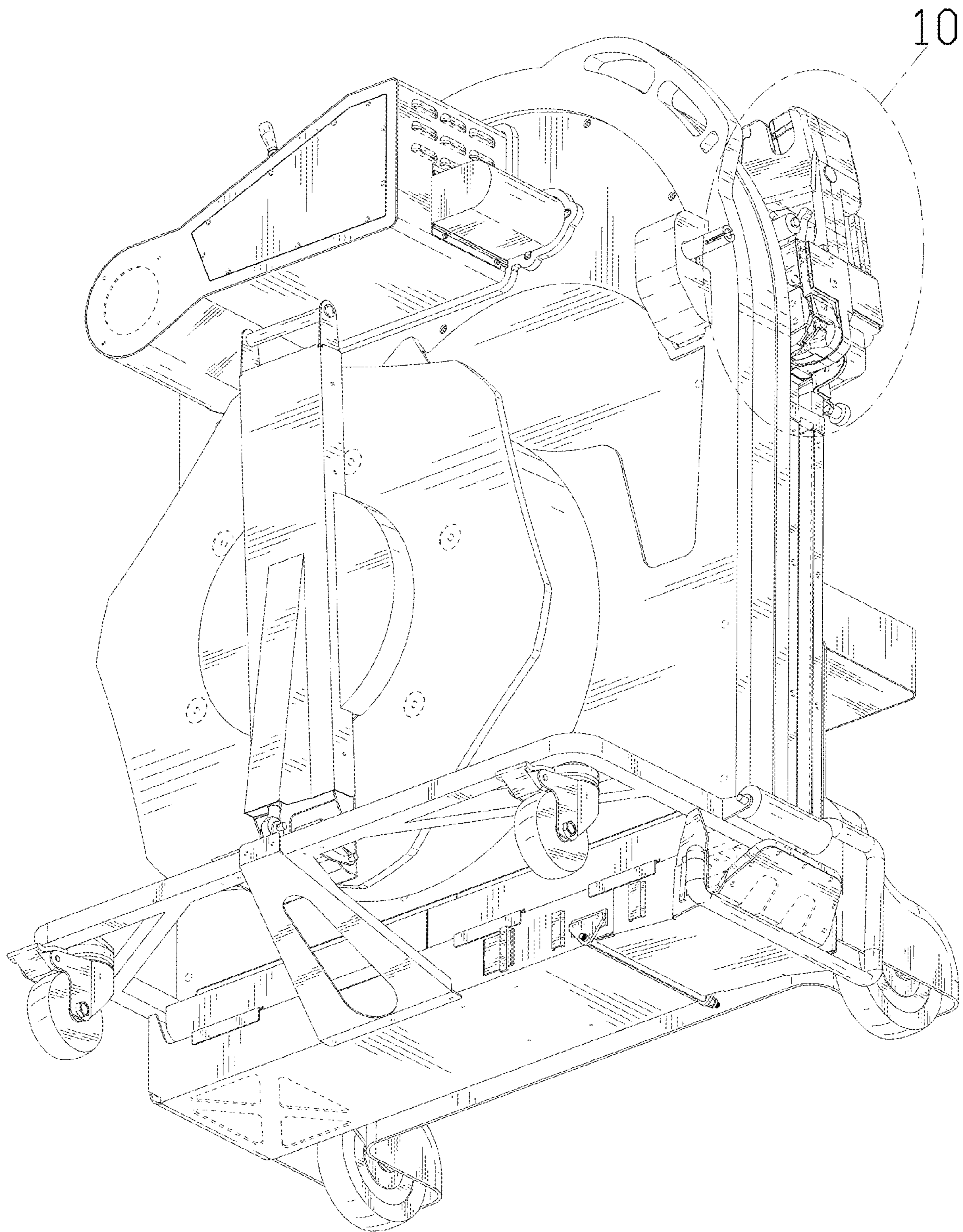


FIG. 2

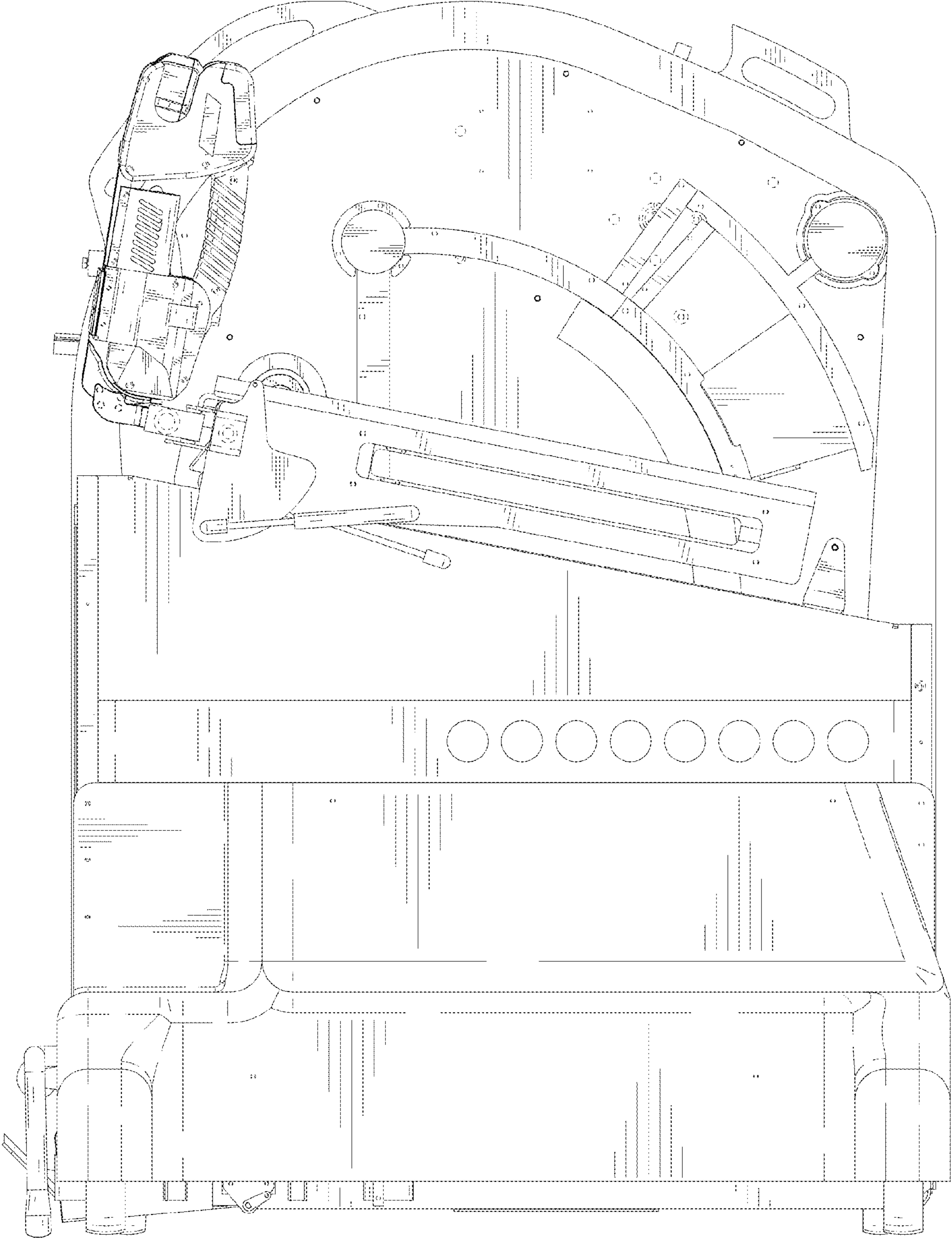


FIG. 3

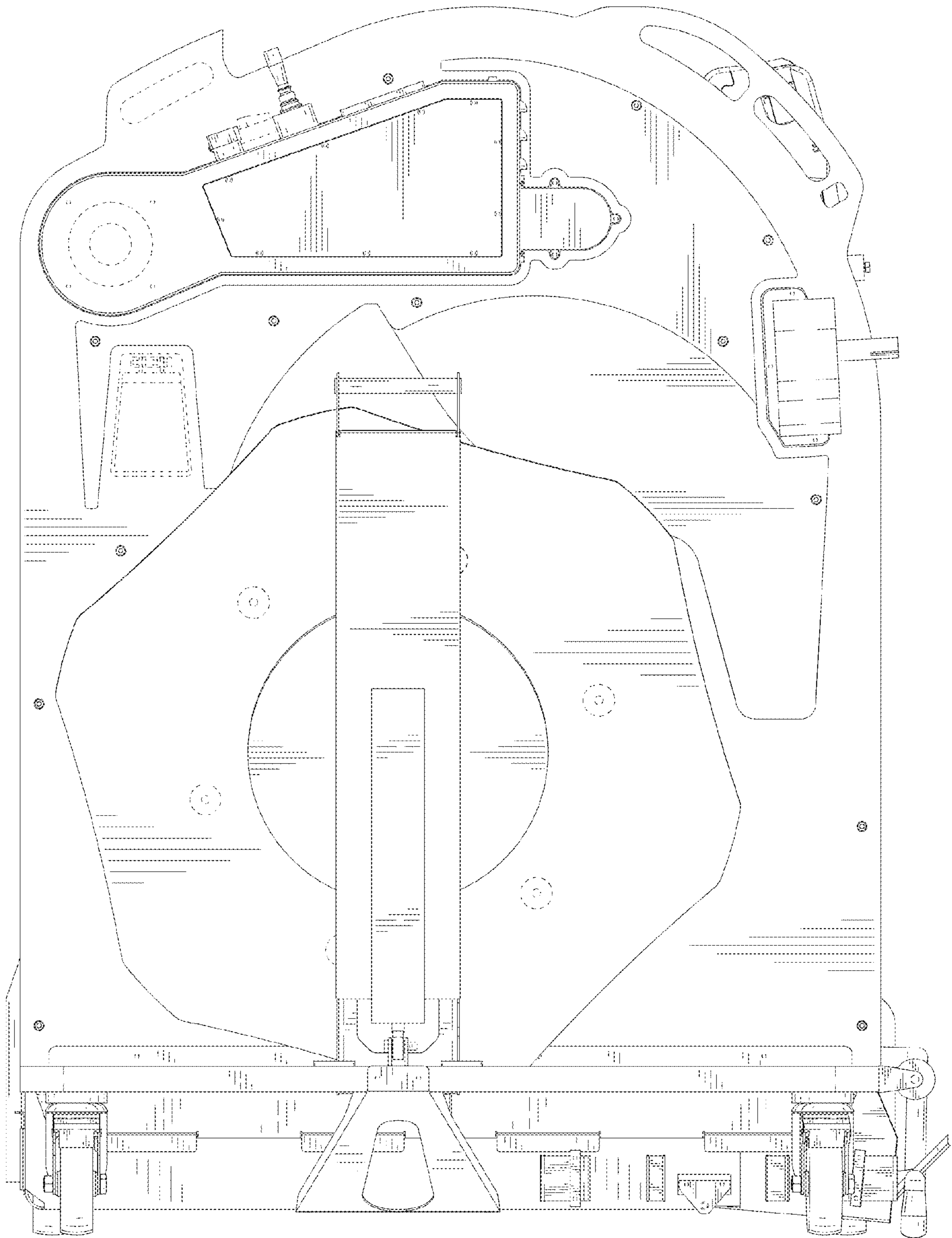


FIG. 4

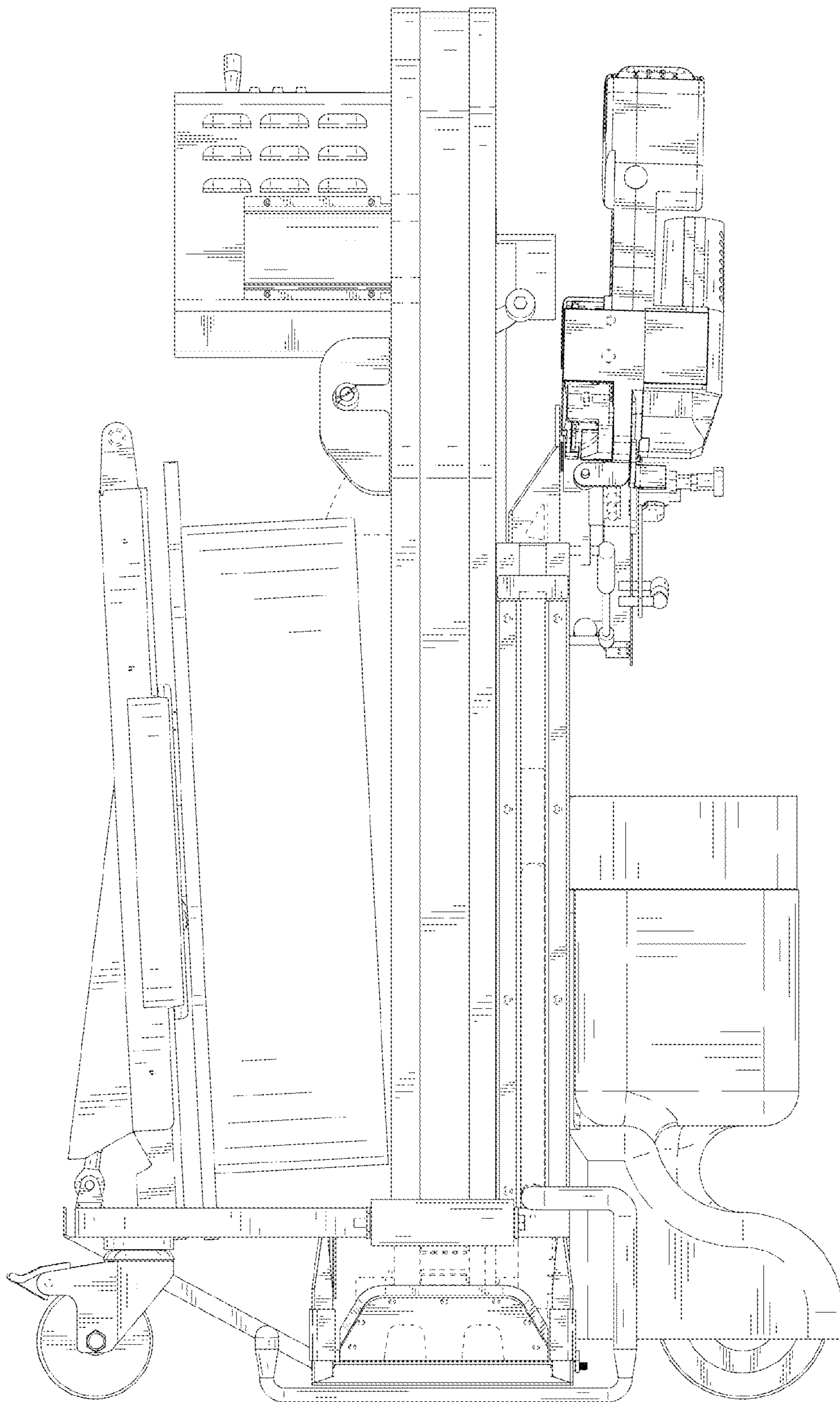


FIG. 5

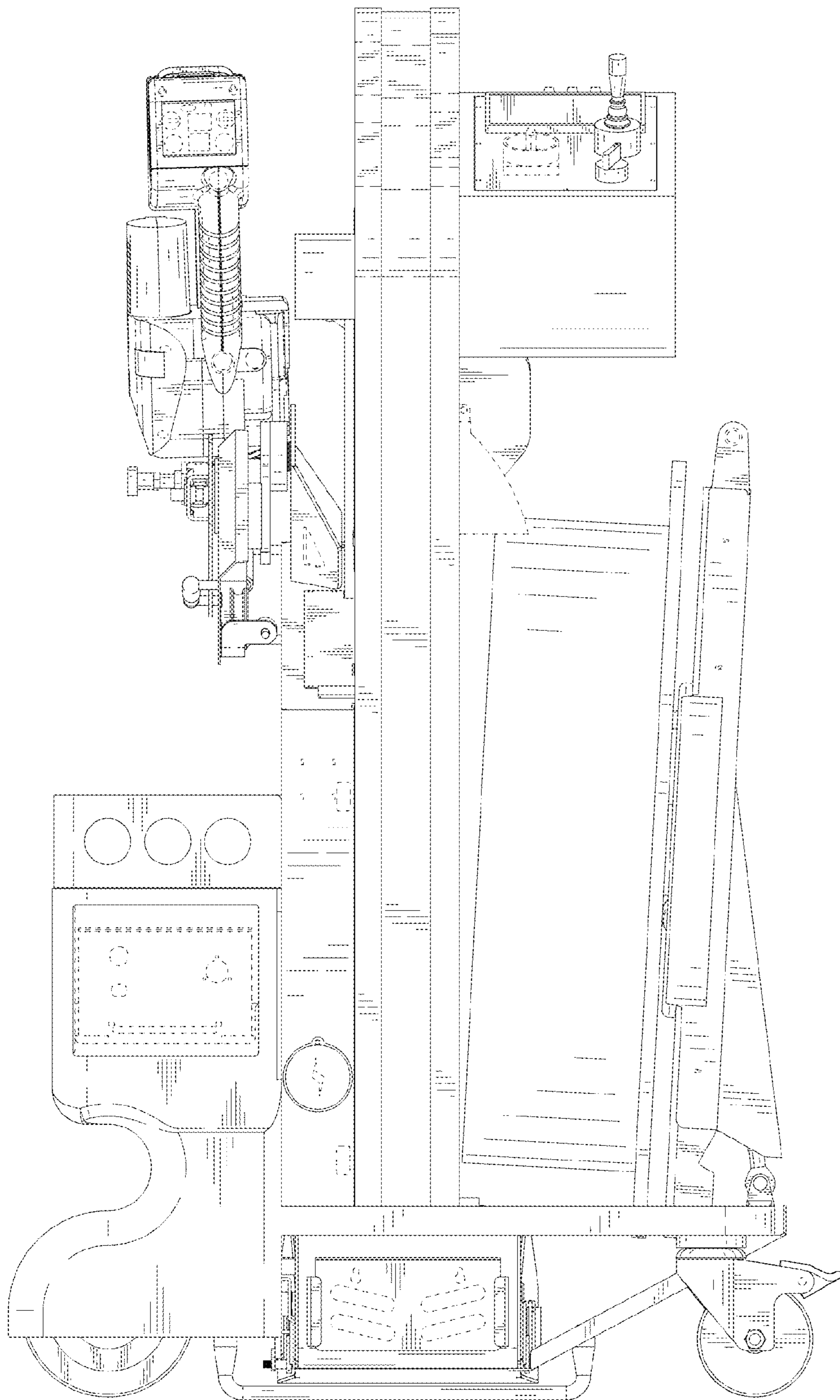
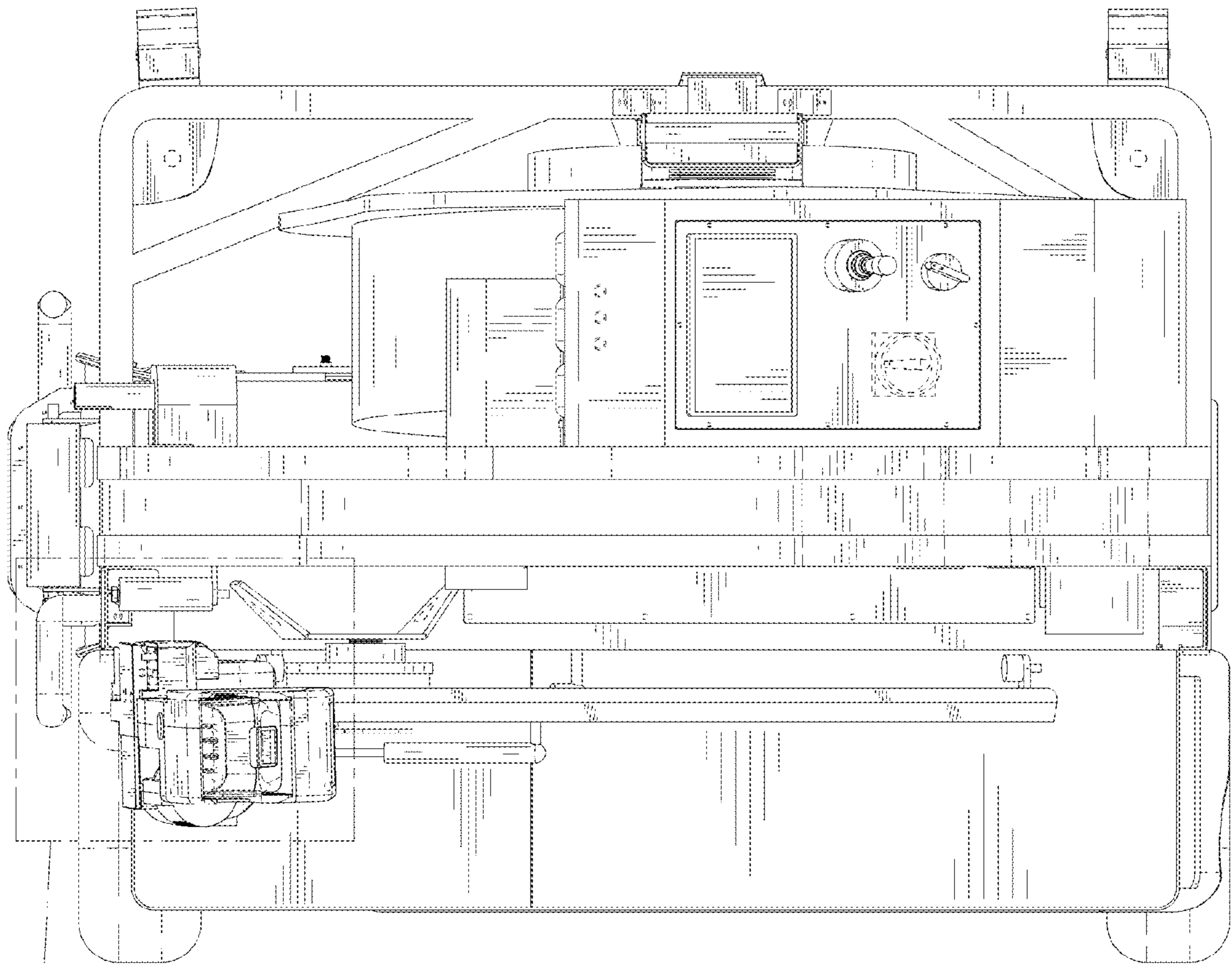


FIG. 6





11

FIG. 7

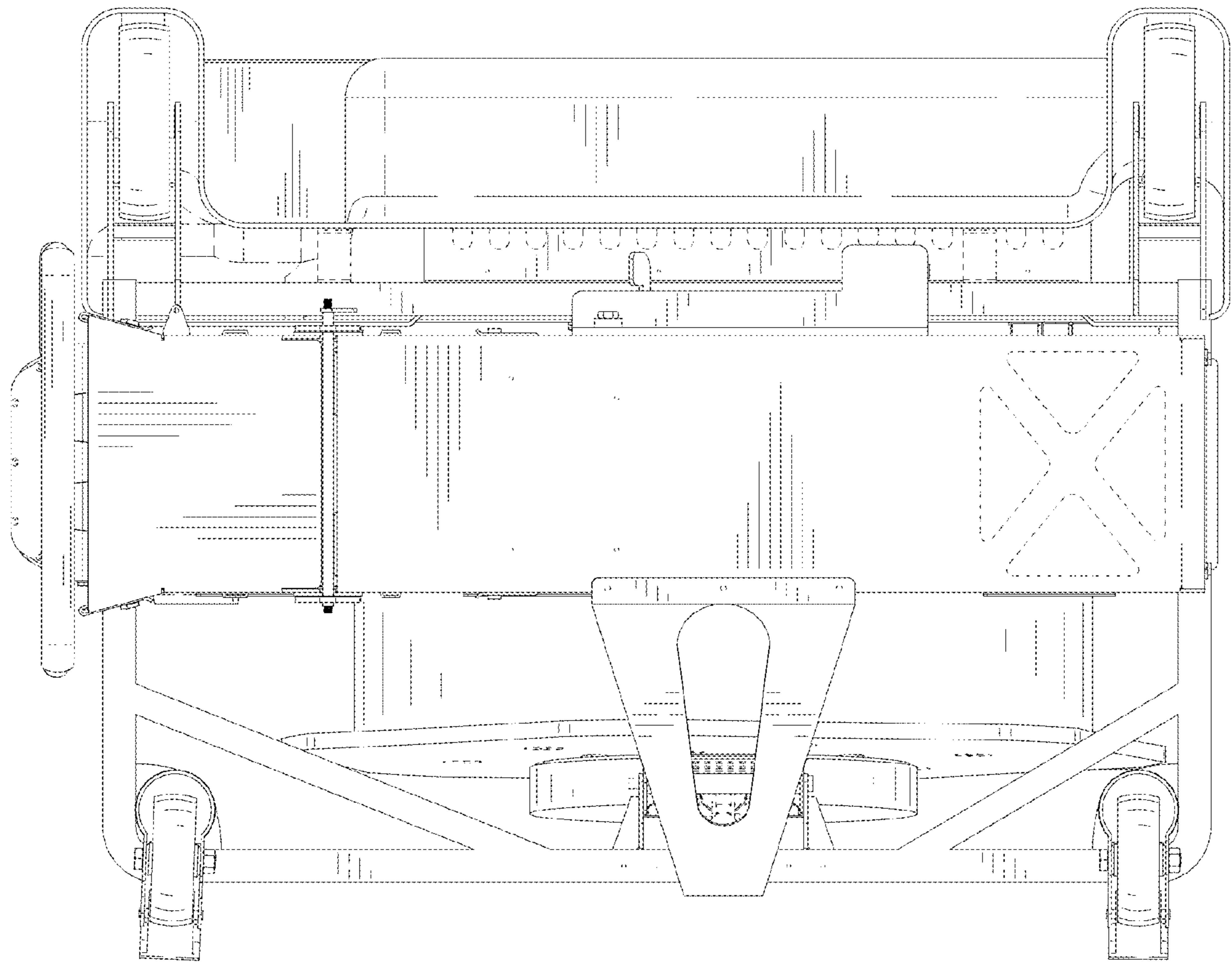


FIG. 8

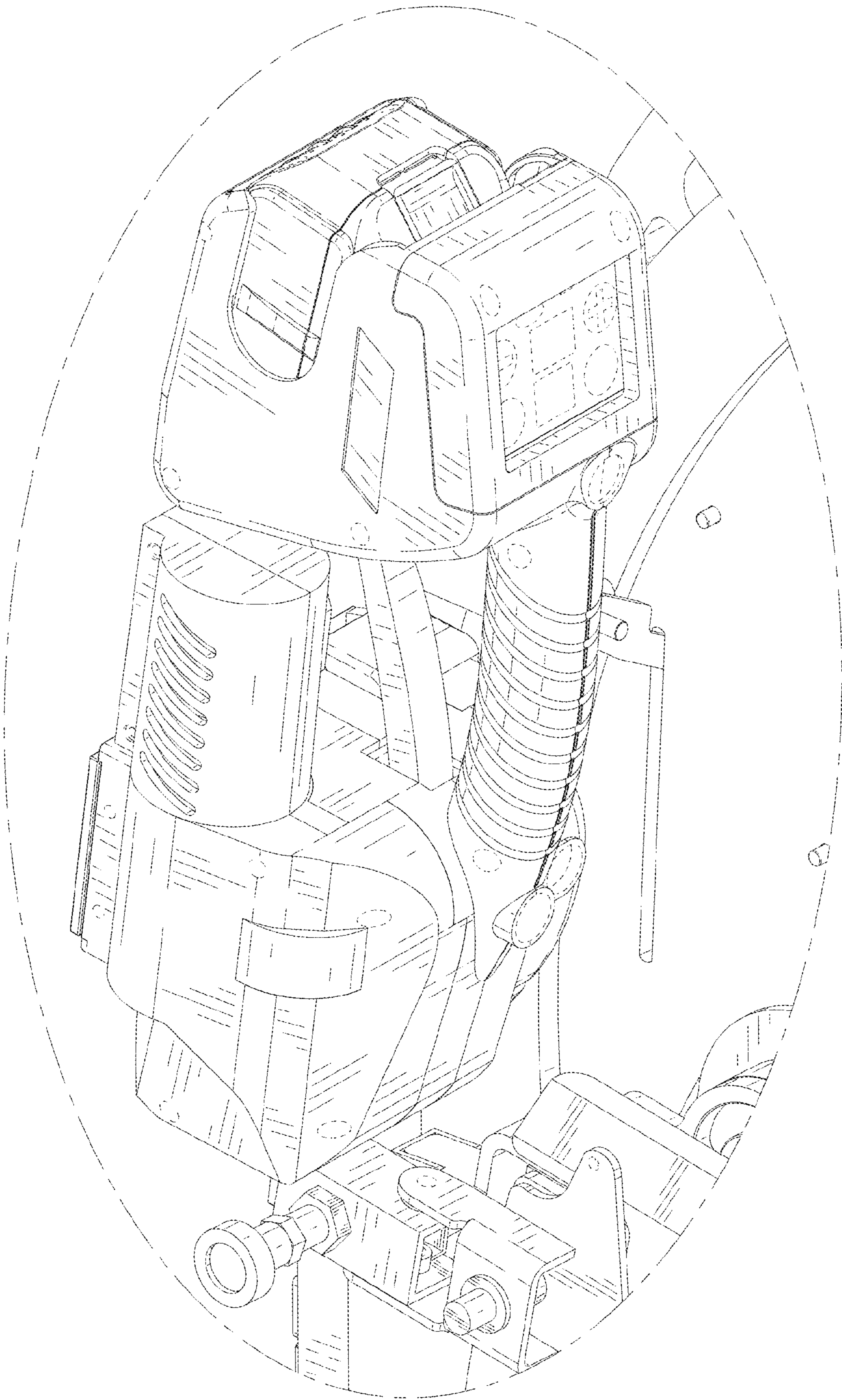


FIG. 9

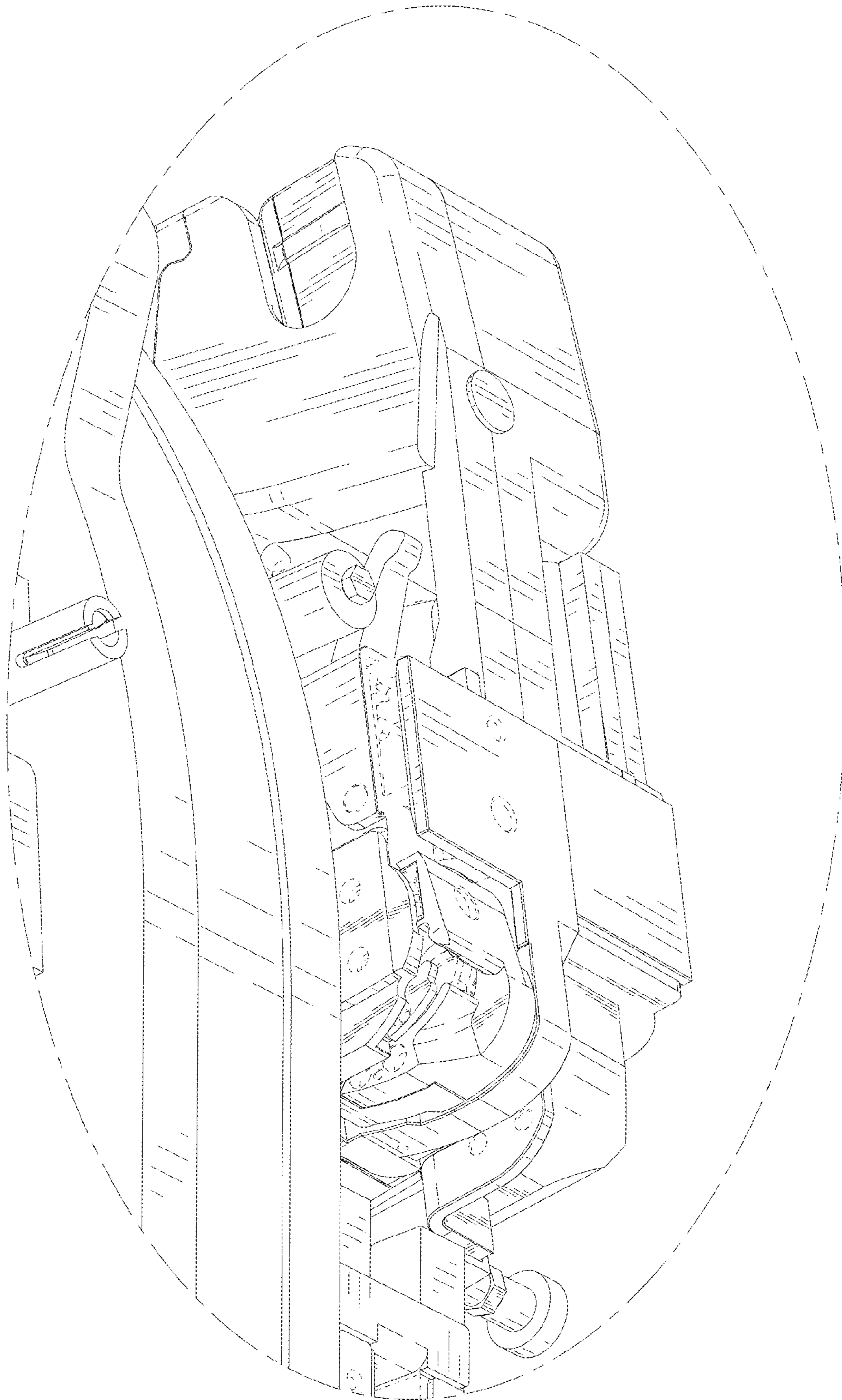


FIG. 10

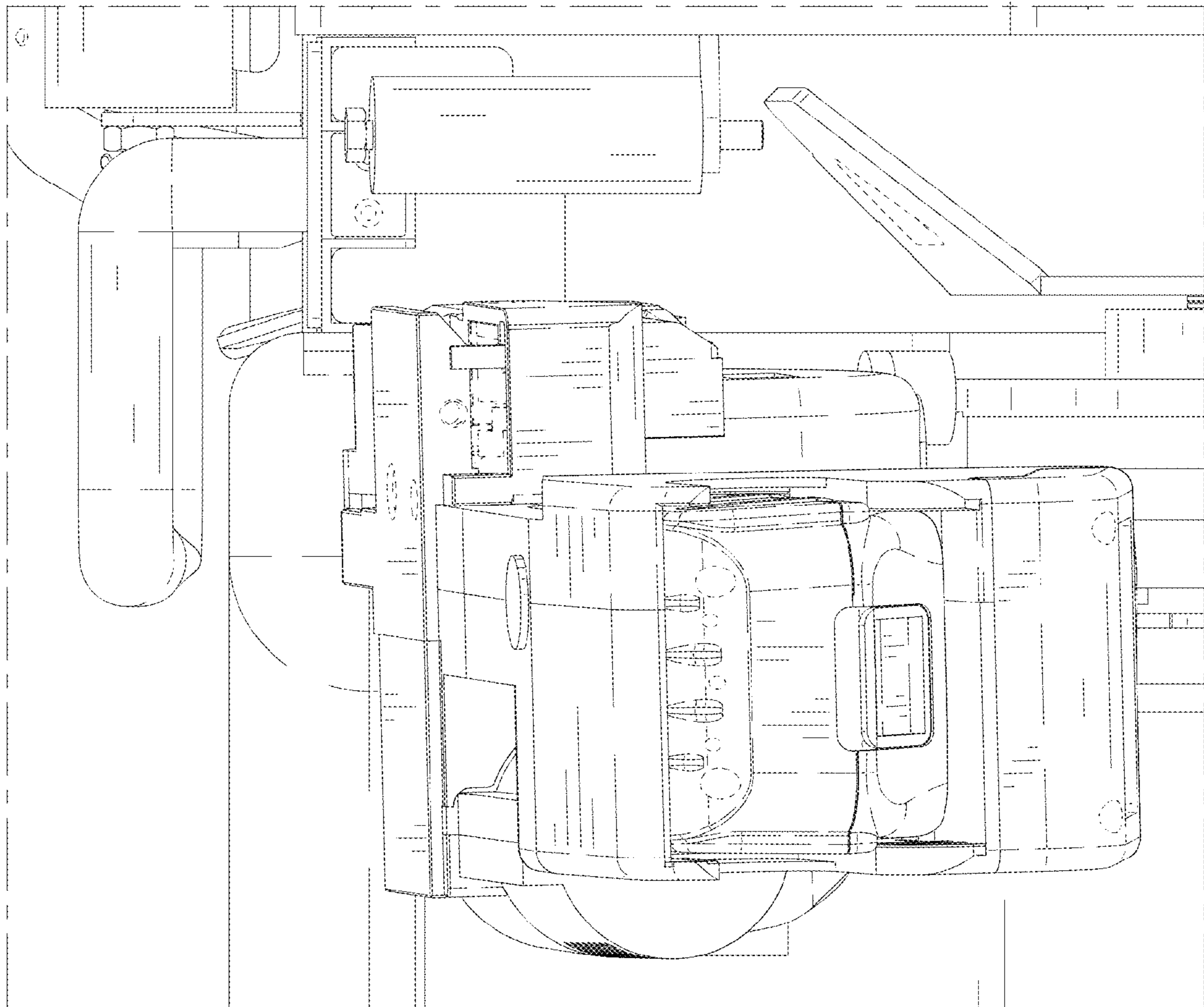


FIG. 11