



US00D849953S

(12) **United States Design Patent** (10) **Patent No.:** **US D849,953 S**
Lapaev (45) **Date of Patent:** **** May 28, 2019**

(54) **SURGICAL APPARATUS**

(71) Applicant: **Intuitive Surgical Operations, Inc.**,
Sunnyvale, CA (US)

(72) Inventor: **Roman Lapaev**, San Francisco, CA
(US)

(73) Assignee: **Intuitive Surgical Operations, Inc.**,
Sunnyvale, CA (US)

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

(21) Appl. No.: **29/609,305**

(22) Filed: **Jun. 29, 2017**

Related U.S. Application Data

(63) Continuation of application No. 29/601,378, filed on
Apr. 21, 2017, now abandoned.

(51) **LOC (11) Cl.** **24-01**

(52) **U.S. Cl.**
USPC **D24/170**

(58) **Field of Classification Search**
USPC D24/185, 158, 184, 186, 175, 232;
D14/452; D15/199
CPC A61B 34/30; A61B 34/32; A61B 34/35;
A61B 2034/301; A61B 2034/302; A61B
2034/303; A61B 2034/304; A61B
2034/305; A61B 2034/306
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D572,739 S *	7/2008	Jennings	.....	D15/199
D655,324 S *	3/2012	Wong	.....	D15/199
D749,223 S *	2/2016	Vargas	.....	D24/185
D768,219 S *	10/2016	Kraus	.....	D15/199
2007/0119274 A1 *	5/2007	Devengenzo	.....	B25J 15/04 74/490.01
2007/0142971 A1 *	6/2007	Schena	.....	B25J 19/0029 700/251

(Continued)

OTHER PUBLICATIONS

Da Vinci Xi introduction/Engadget, posted at youtube, posted on
Apr. 3, 2014, online, URL https://www.youtube.com/watch?v=_q-YQwFjlj0 (Year: 2014).*

(Continued)

Primary Examiner — Anhdao Doan

Assistant Examiner — Mary Shannon Malley

(74) *Attorney, Agent, or Firm* — Fish & Richardson P.C.

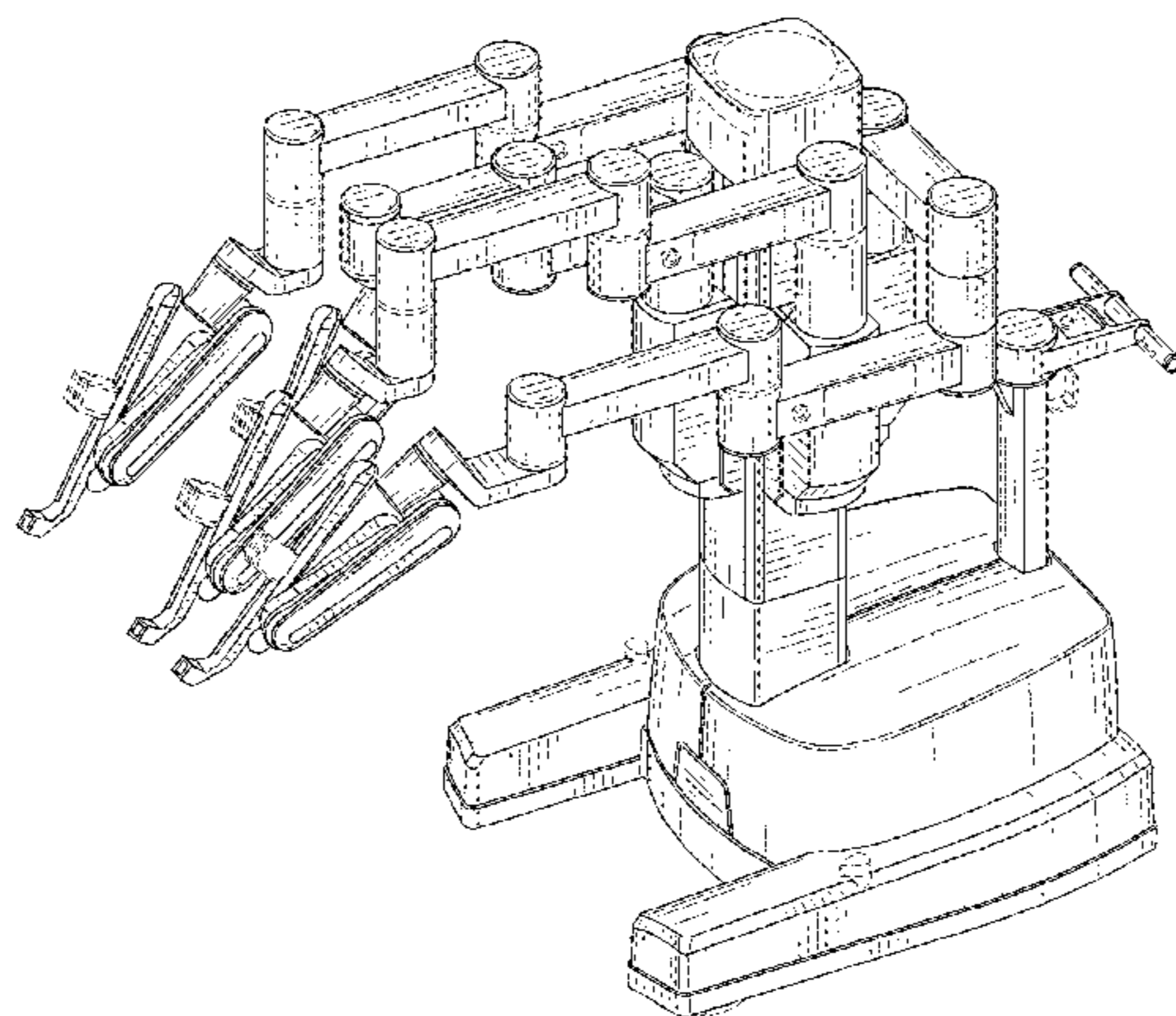
(57) **CLAIM**

The ornamental design for a surgical apparatus, as shown
and described.

DESCRIPTION

FIG. 1 is a perspective view of a first configuration of my
surgical apparatus.
FIG. 2 is a front view of the configuration of FIG. 1.
FIG. 3 is a back view of the configuration of FIG. 1.
FIG. 4 is a left side view of the configuration of FIG. 1.
FIG. 5 is a right side view of the configuration of FIG. 1.
FIG. 6 is a top view of the configuration of FIG. 1.
FIG. 7 is a bottom view of the configuration of FIG. 1.
FIG. 8 is a perspective view of a second configuration of my
surgical apparatus, with the arms moved to a different set of
positions.
FIG. 9 is a front view of the configuration of FIG. 8.
FIG. 10 is a back view of the configuration of FIG. 8.
FIG. 11 is a left side view of the configuration of FIG. 8.
FIG. 12 is a right side view of the configuration of FIG. 8.
FIG. 13 is a top view of the configuration of FIG. 8; and,
FIG. 14 is a bottom view of the configuration of FIG. 8.
The broken lines show portions of the surgical apparatus that
form no part of the claimed design.

1 Claim, 12 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

2009/0171374 A1* 7/2009 Omori A61B 34/71
606/130
2009/0192524 A1* 7/2009 Itkowitz B25J 9/1666
606/130
2011/0071541 A1* 3/2011 Prisco A61B 17/3421
606/130
2012/0078245 A1* 3/2012 Morrissette A61B 18/14
606/34
2013/0107207 A1* 5/2013 Zhao A61B 3/0058
351/206
2013/0325032 A1* 12/2013 Schena A61B 34/30
606/130
2014/0276951 A1* 9/2014 Hourtash A61B 19/2203
606/130
2014/0282196 A1* 9/2014 Zhao G06F 3/013
715/771
2017/0000575 A1* 1/2017 Griffiths A61B 34/25
2017/0179857 A1* 6/2017 Liao H02P 6/10

OTHER PUBLICATIONS

Intuitive Surgical, Inc., da Vinci® Si HD™ Surgical System (2014)(marketing brochure), 8 pages.
Intuitive Surgical, Inc., da Vinci® Xi™ Surgical System (2014)(marketing brochure), 6 pages.

* cited by examiner

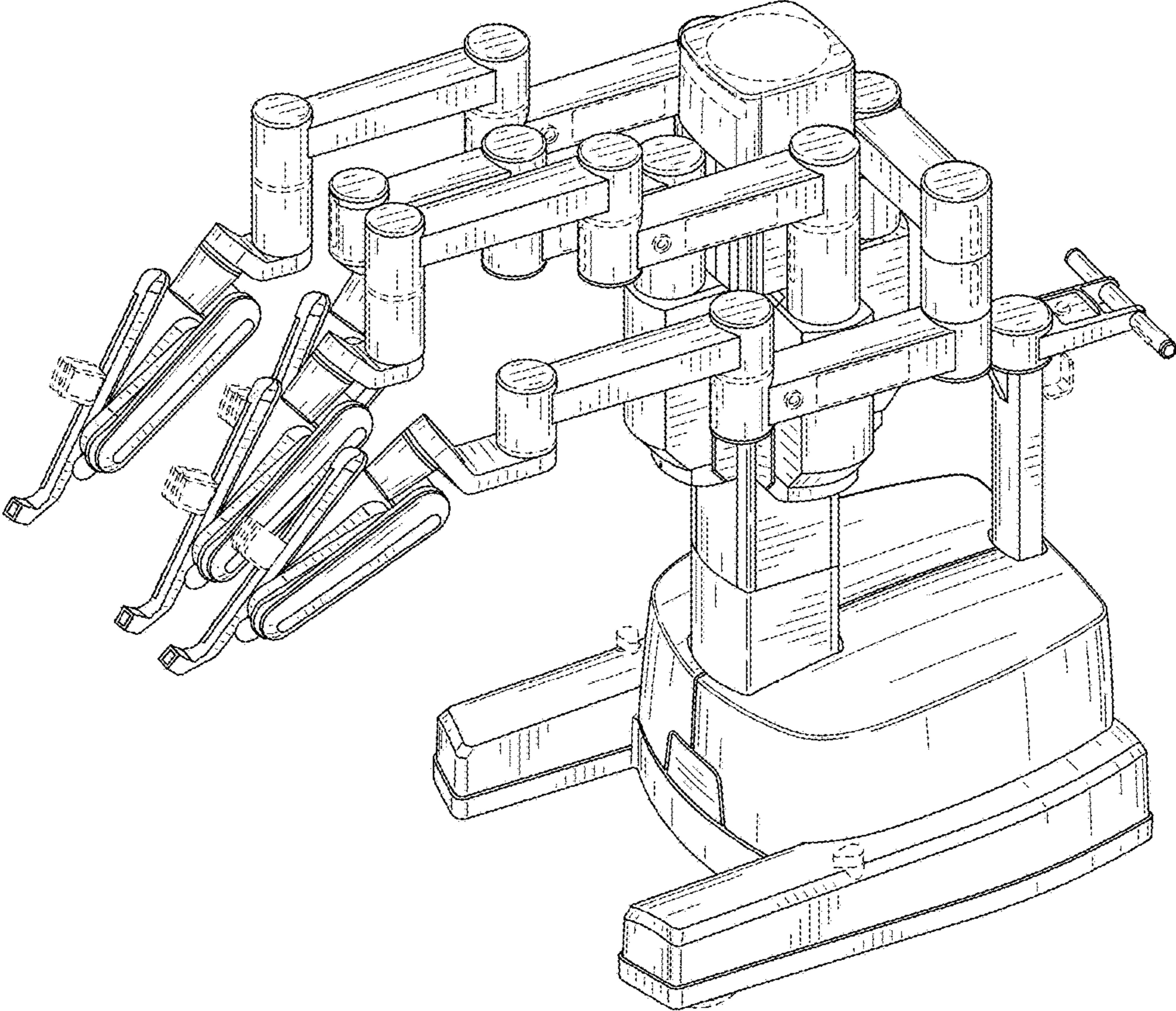


FIG. 1

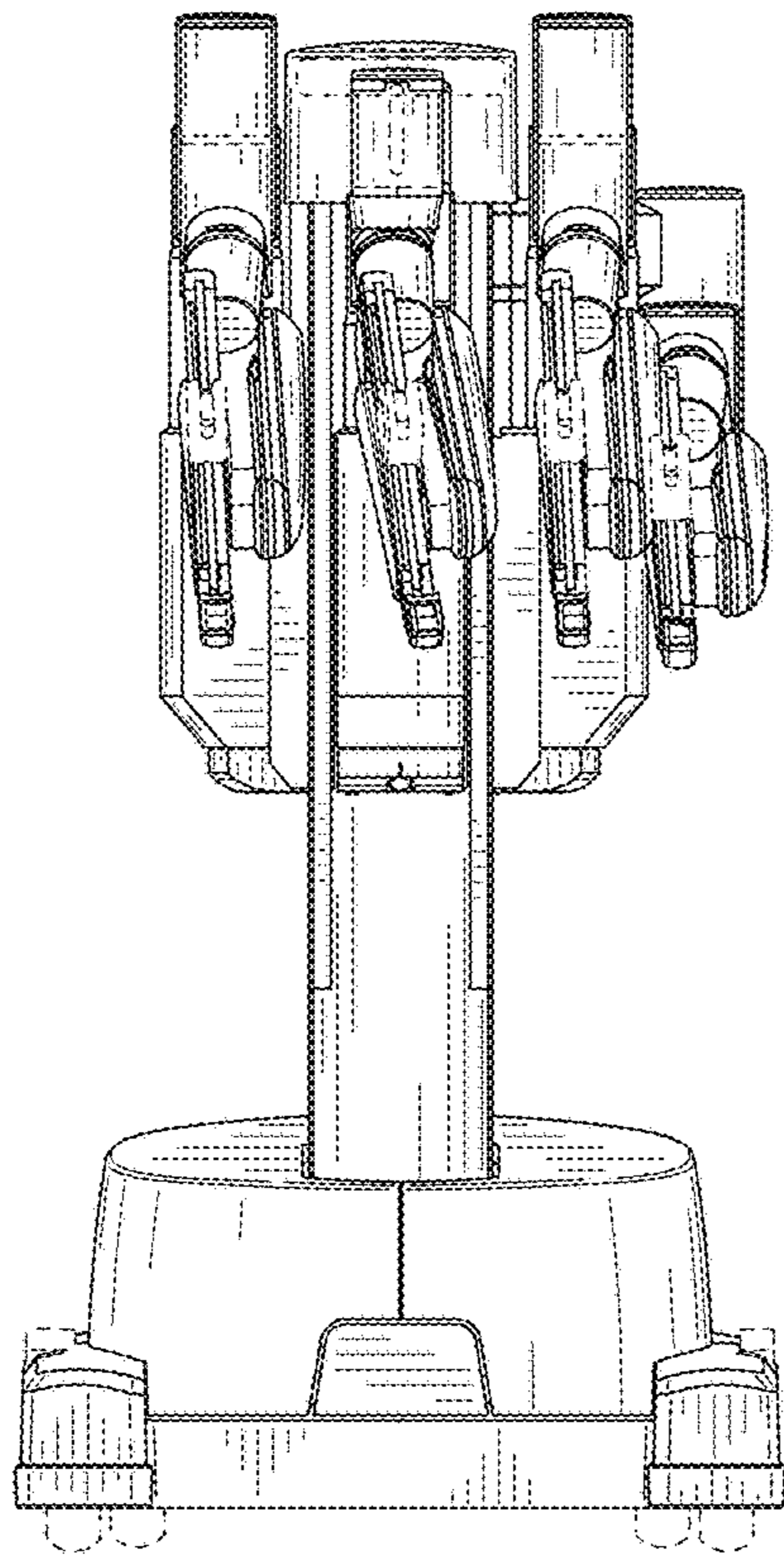


FIG. 2

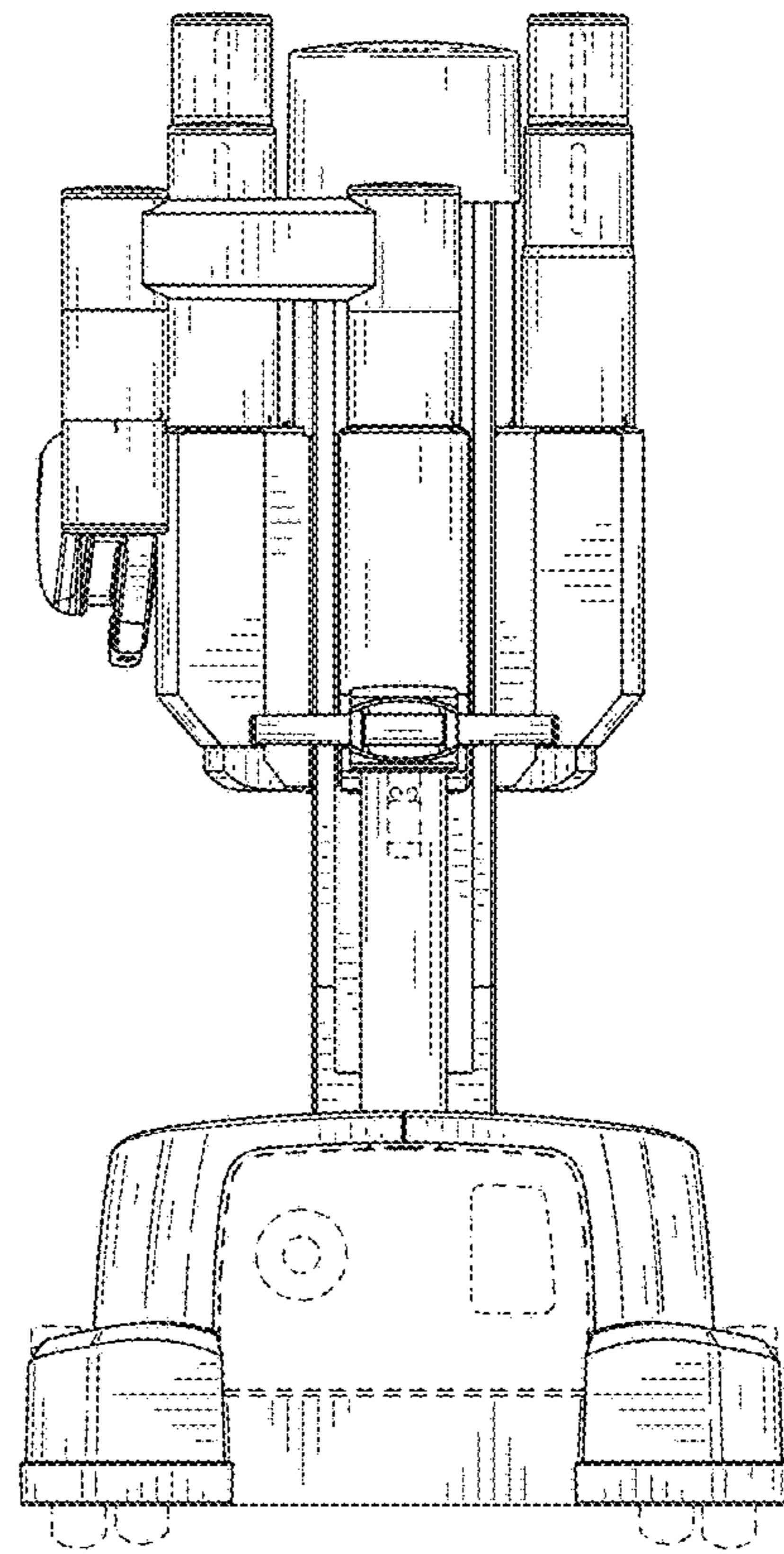


FIG. 3

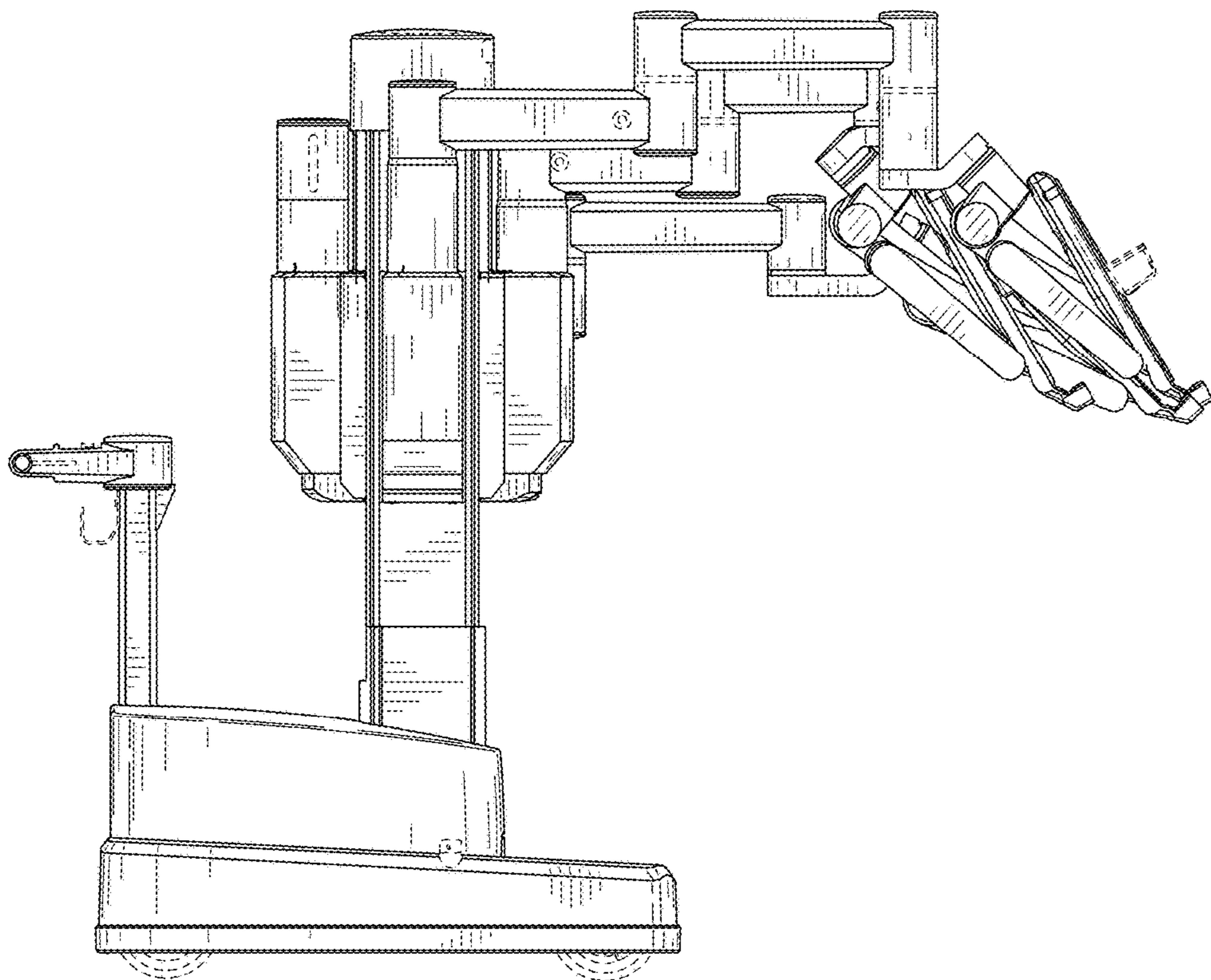


FIG. 4

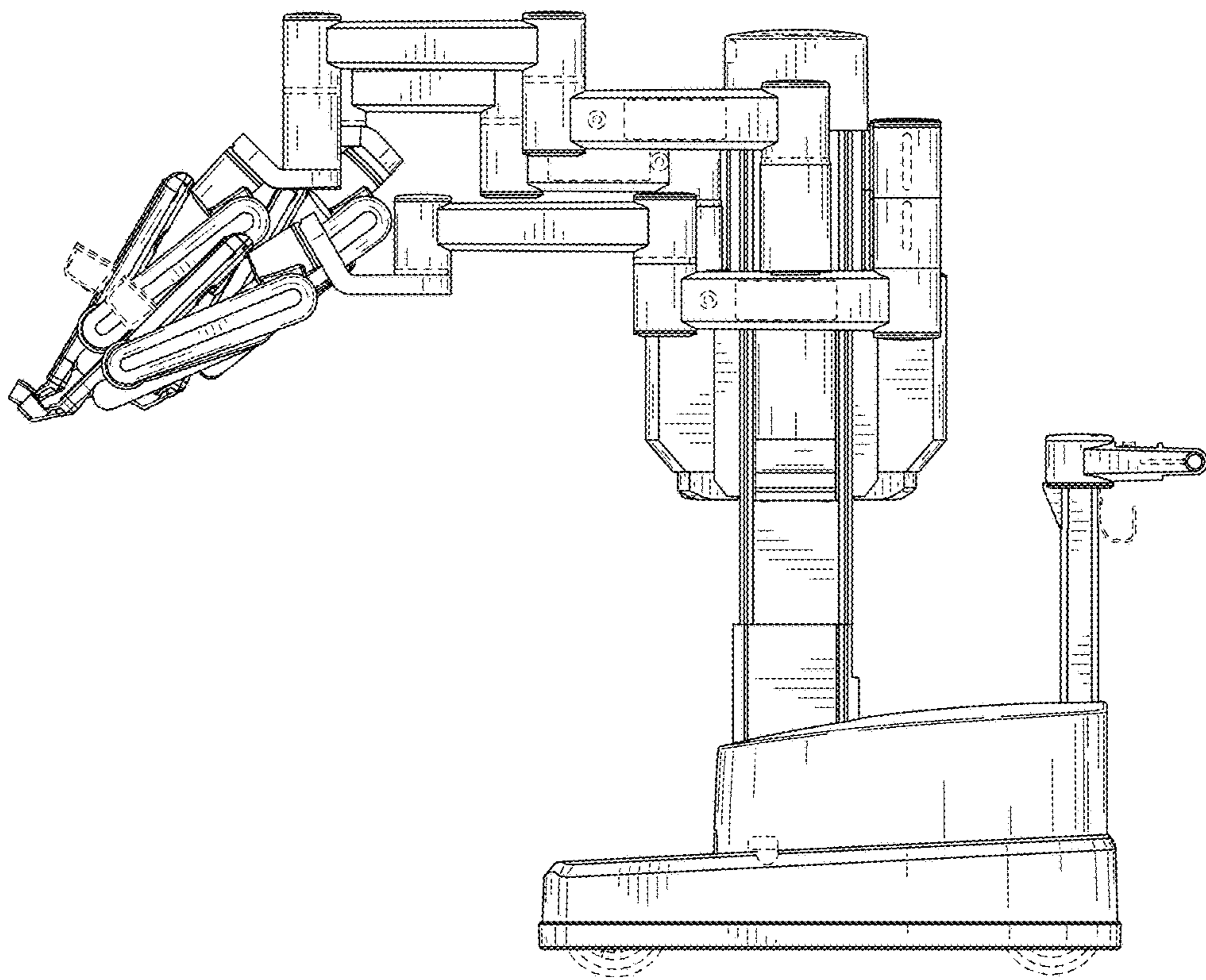


FIG. 5

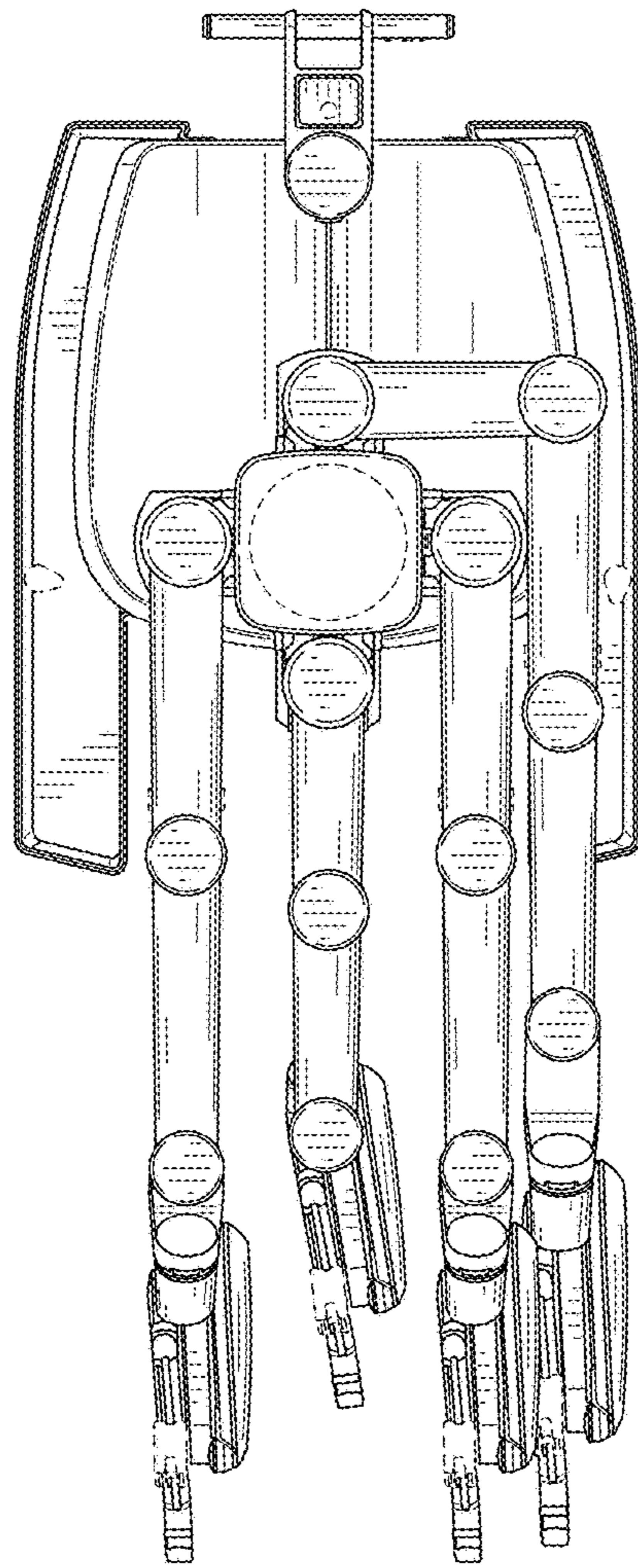


FIG. 6

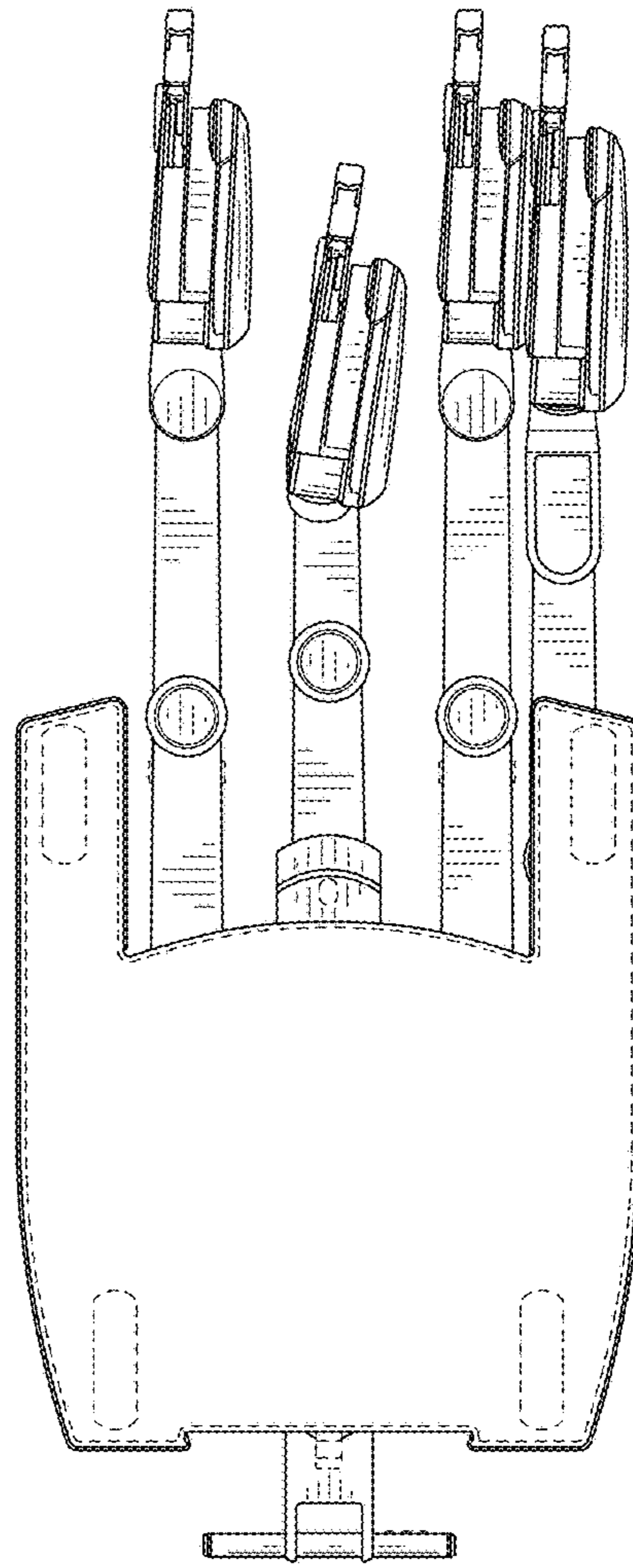


FIG. 7

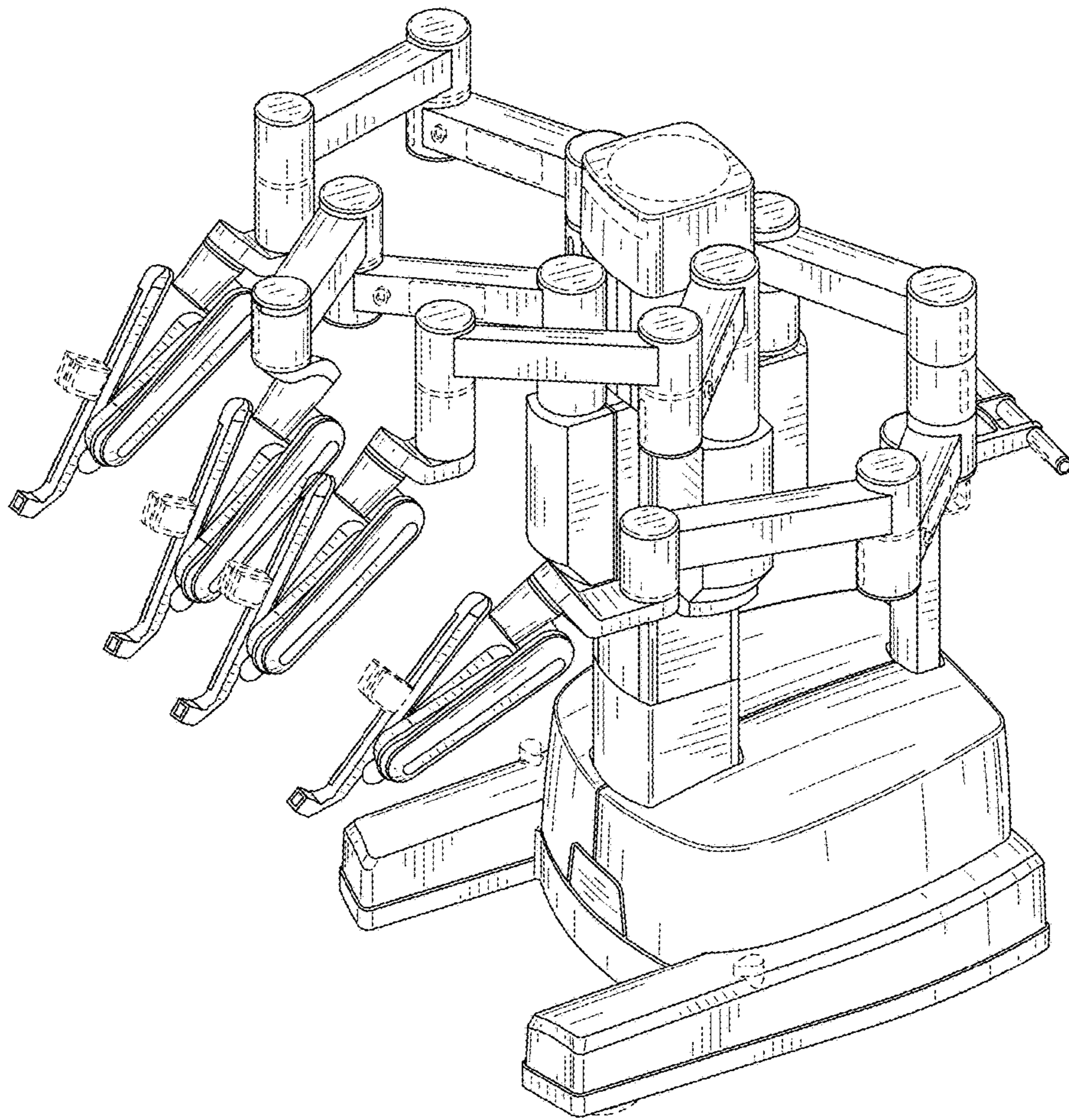


FIG. 8

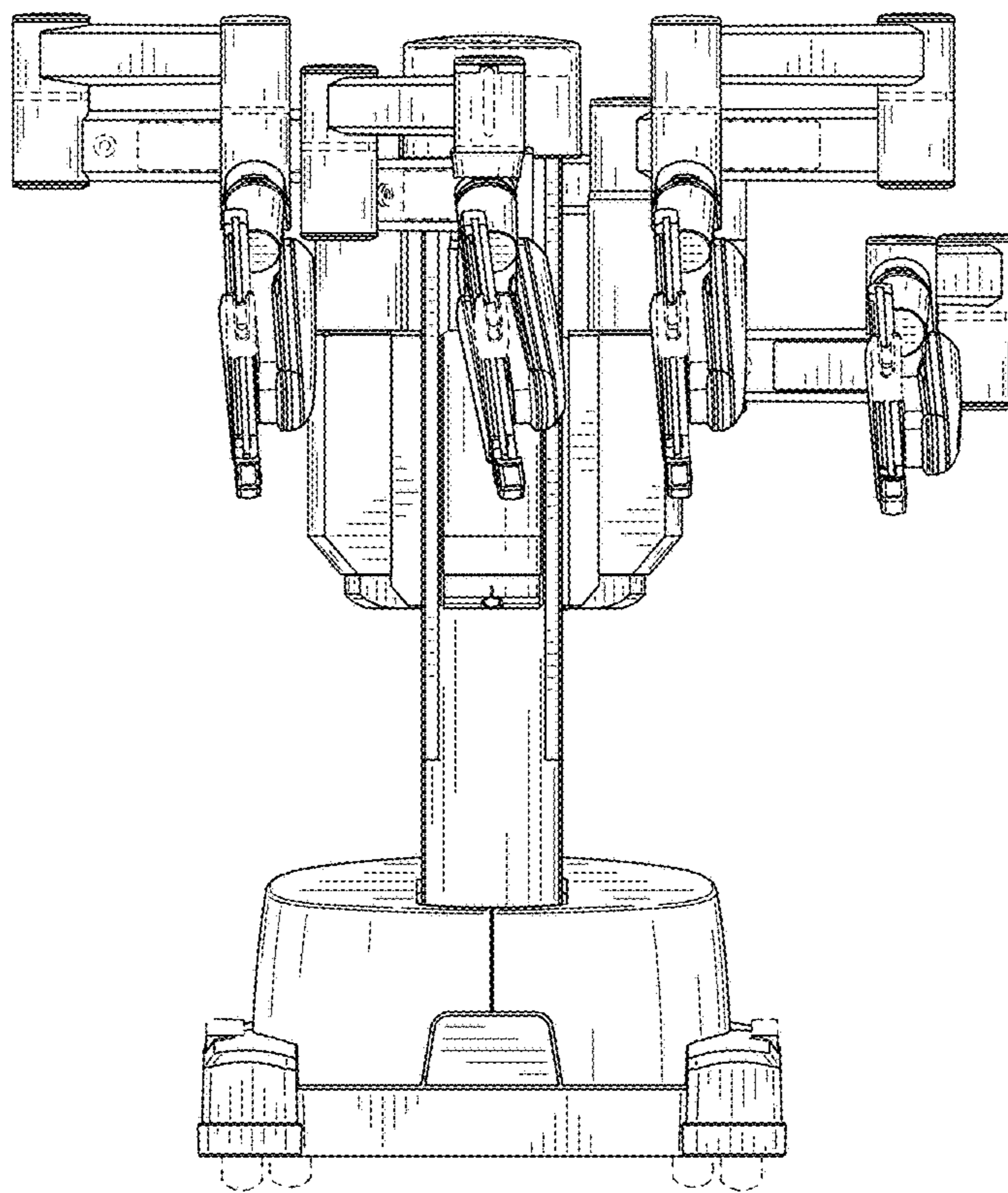


FIG. 9

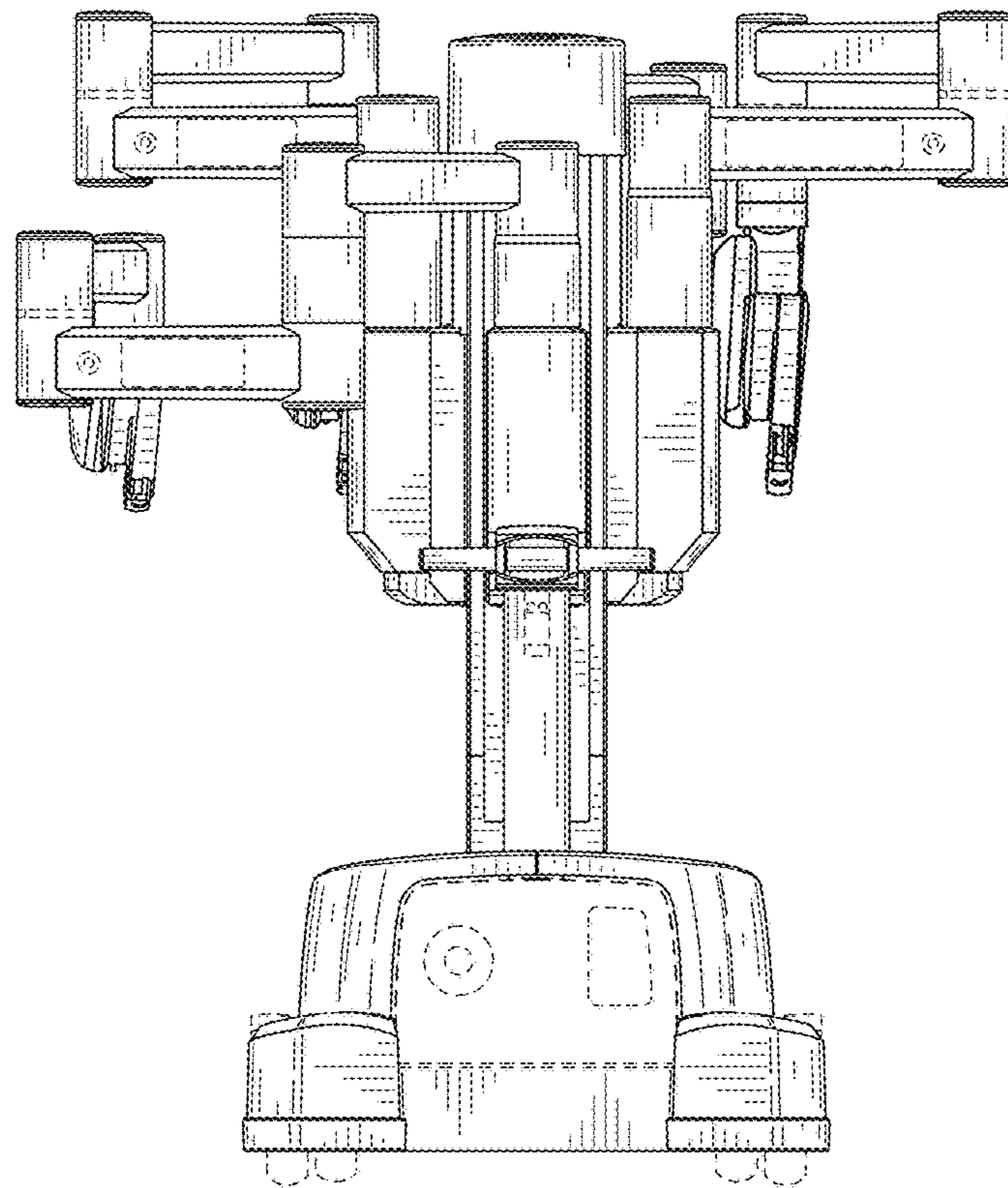


FIG. 10

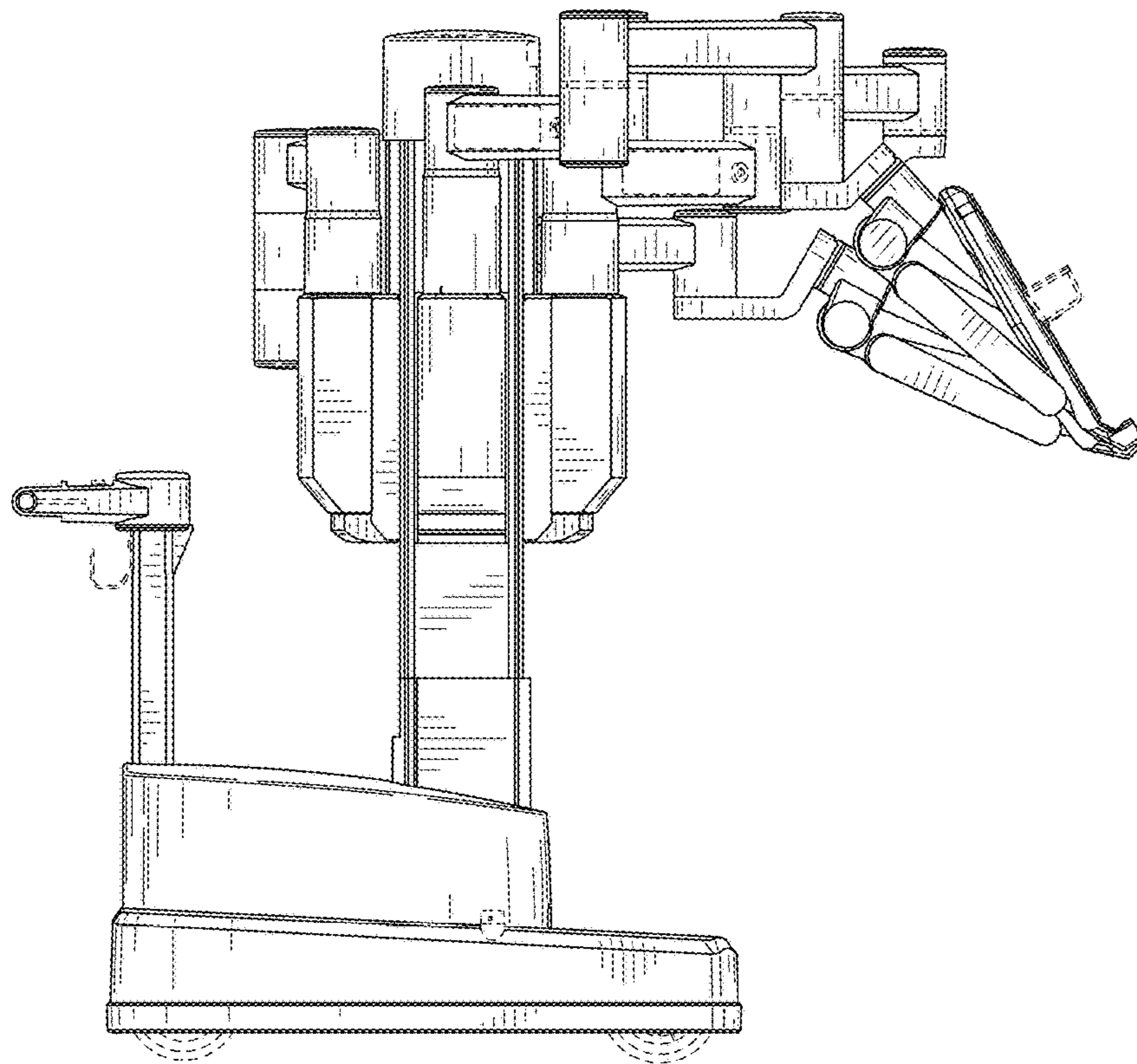


FIG. 11

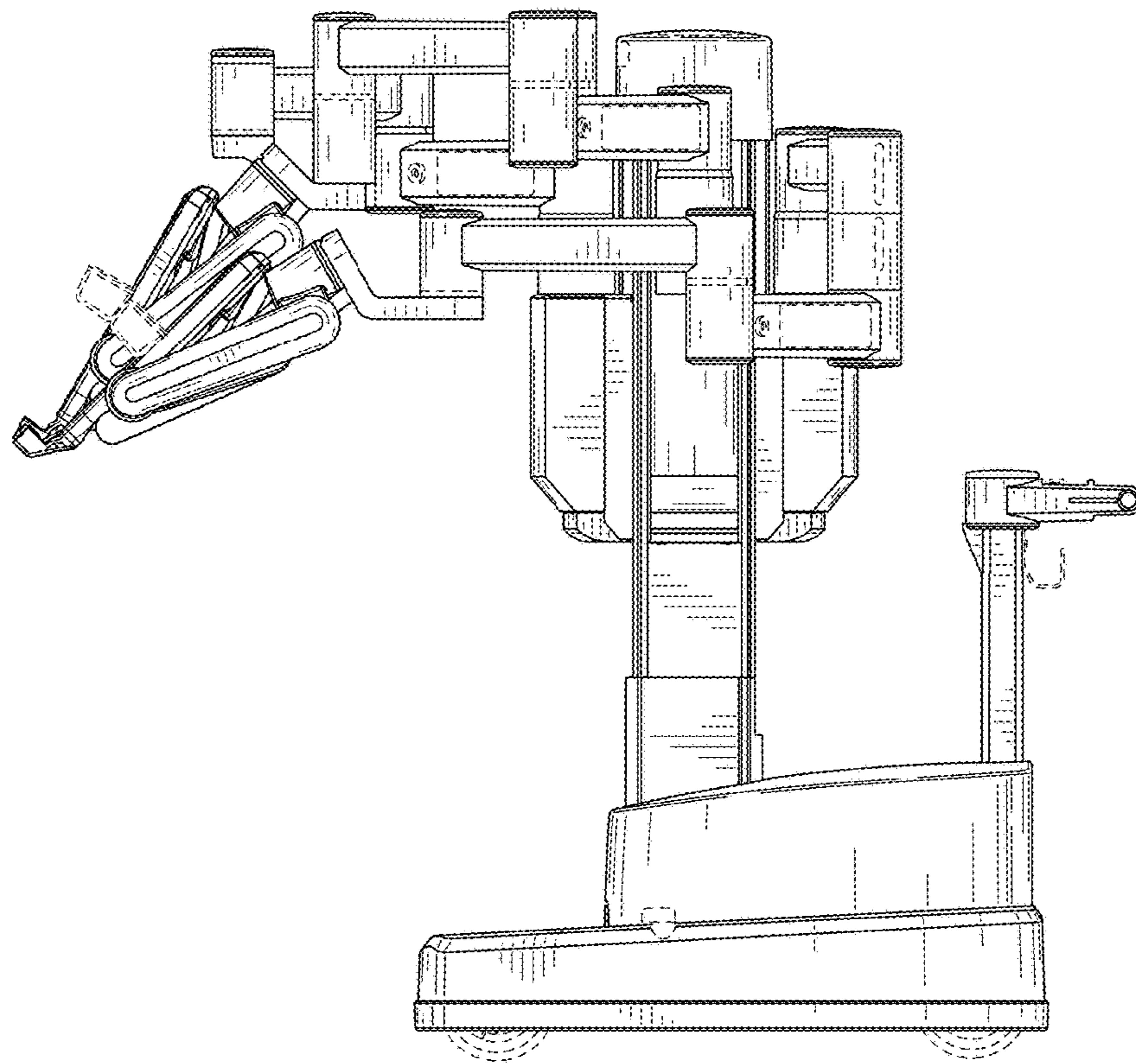


FIG. 12

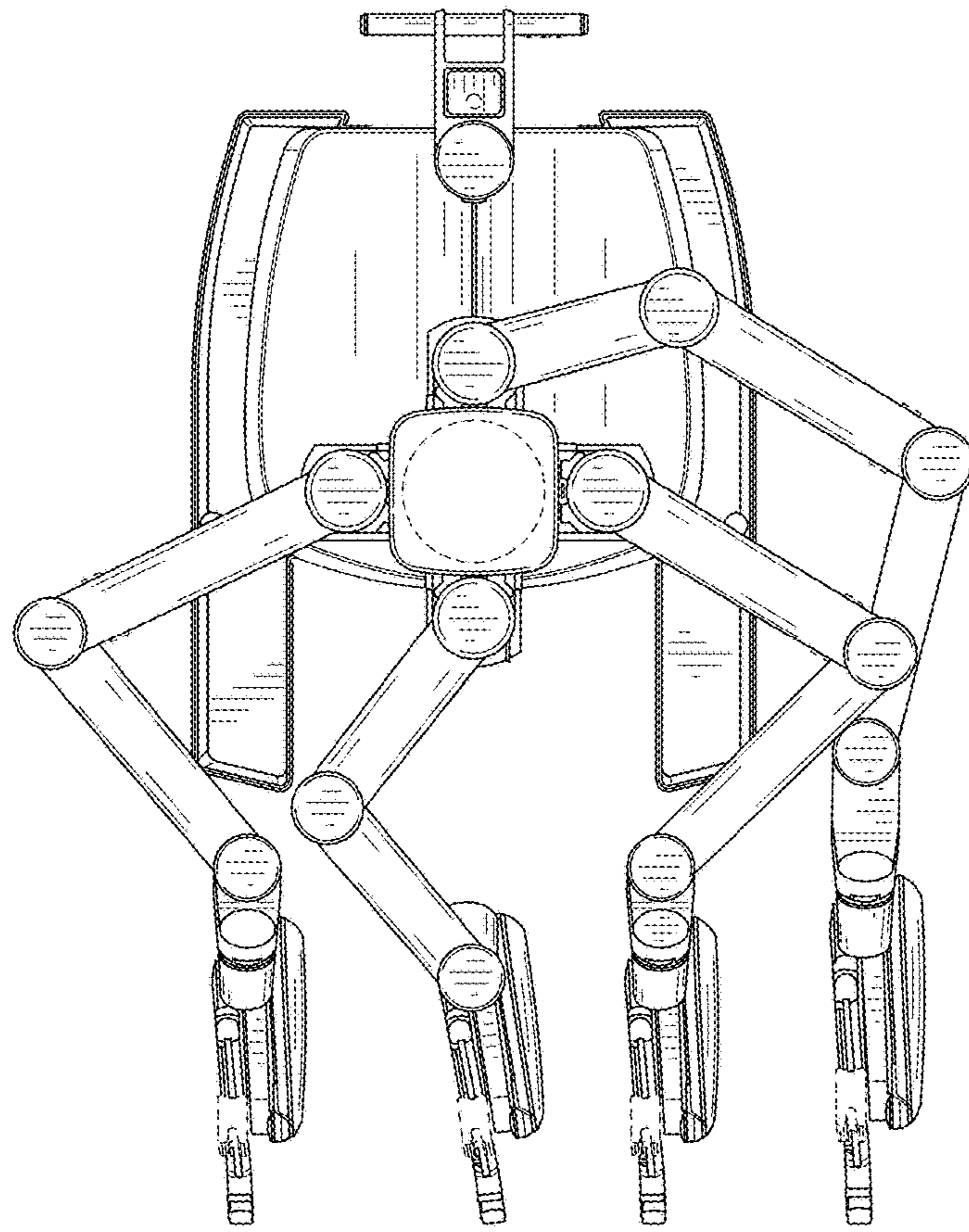


FIG. 13

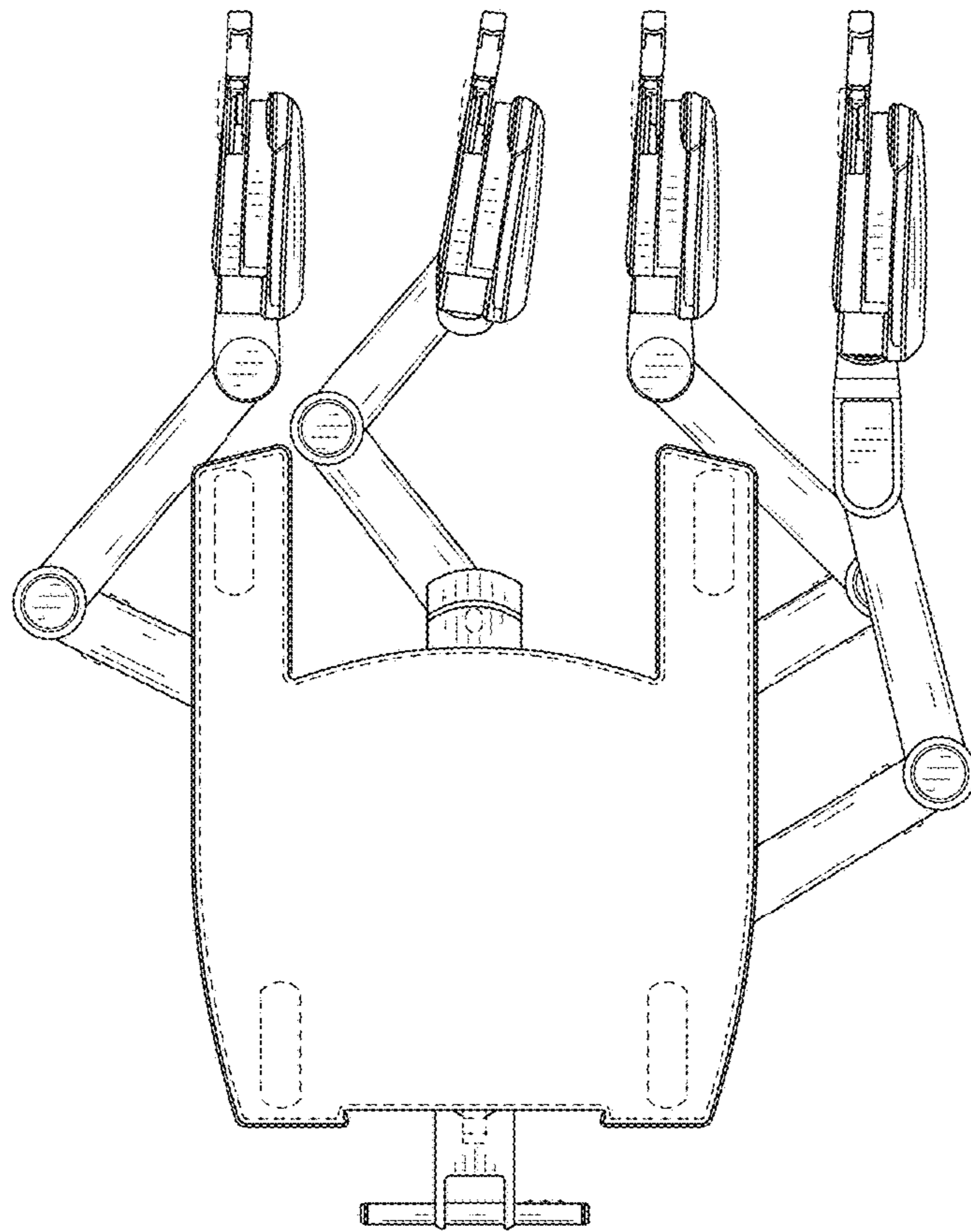


FIG. 14