



US00D902275S

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

(10) **Patent No.:** **US D902,275 S**  
(45) **Date of Patent:** **\*\* Nov. 17, 2020**

(54) **INDUSTRIAL ROBOT**  
(71) Applicant: **Daihen Corporation**, Osaka (JP)  
(72) Inventors: **Jun Iura**, Osaka (JP); **Kunio Fukuma**,  
Osaka (JP); **Daisuke Sado**, Osaka (JP)

7,837,425 B2 \* 11/2010 Saeki ..... H01L 21/68707  
414/744.5  
D639,323 S \* 6/2011 Yoshino ..... D15/199  
8,016,542 B2 \* 9/2011 Cox ..... H01L 21/67742  
414/744.5  
8,297,907 B2 \* 10/2012 Yazawa ..... B25J 15/028  
414/744.5

(73) Assignee: **Daihen Corporation**, Osaka (JP)

(Continued)

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

**FOREIGN PATENT DOCUMENTS**

(21) Appl. No.: **29/703,310**

JP D1117878 8/2001  
JP D1118299 8/2001

(22) Filed: **Aug. 26, 2019**

(Continued)

(30) **Foreign Application Priority Data**

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Mar. 27, 2019 (JP) ..... 2019-006437

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& Woessner, P.A.

(51) **LOC (12) Cl.** ..... **15-99**

(57) **CLAIM**

(52) **U.S. Cl.**  
USPC ..... **D15/199**

The ornamental design for an industrial robot, as shown and  
described.

(58) **Field of Classification Search**  
USPC ..... D15/122, 199; D21/578–583; D32/21;  
D34/34

**DESCRIPTION**

CPC .... B25J 9/046; B25J 9/042; B25J 9/06; H01L  
21/67766

FIG. 1 is a front, top, and right side perspective view of our  
design for an industrial robot;  
FIG. 2 is a front view thereof;  
FIG. 3 is a rear view thereof;  
FIG. 4 is a top plan view thereof;  
FIG. 5 is a bottom plan view thereof;  
FIG. 6 is a right side view thereof;  
FIG. 7 is a left side view thereof;  
FIG. 8 is a front, top, and right side perspective view  
showing an arm of the article being stretched out; and,  
FIG. 9 is a rear, top, and left side perspective view showing  
an arm of the article being stretched out.

See application file for complete search history.

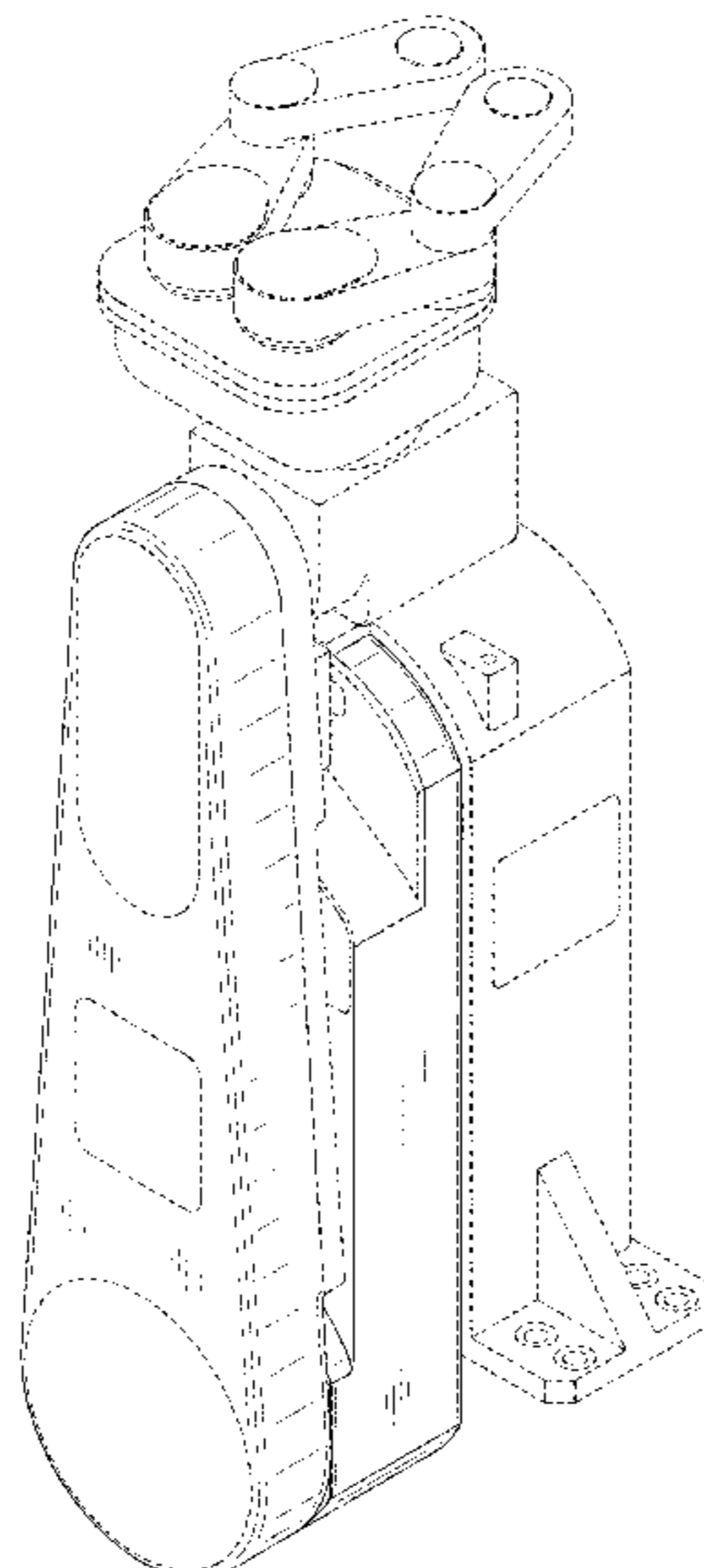
The broken lines illustrate portions of the industrial robot  
that form no part of the claimed design. The dash-dotted  
lines denote the boundary of the claim and form no part of  
the claimed design.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

5,151,007 A \* 9/1992 Maruo ..... B25J 9/042  
414/744.2  
D409,636 S \* 5/1999 Genov ..... D15/199  
5,950,495 A \* 9/1999 Ogawa ..... B25J 9/06  
414/744.5  
D433,042 S \* 10/2000 Kawahara ..... D15/199  
6,190,114 B1 \* 2/2001 Ogawa ..... B25J 9/042  
414/744.5  
6,655,901 B2 \* 12/2003 Tsubota ..... B25J 9/042  
414/744.3  
D552,138 S \* 10/2007 Kondo ..... D15/199  
D625,748 S \* 10/2010 Yoshino ..... D15/199

**1 Claim, 9 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

RE43,781 E \* 11/2012 Yoshino ..... D15/199  
 8,376,685 B2 \* 2/2013 Pietrantonio ..... H01L 21/68707  
 414/744.5  
 RE44,567 E \* 11/2013 Yoshino ..... D15/199  
 8,668,428 B2 \* 3/2014 Hino ..... H01L 21/67742  
 414/744.5  
 8,784,033 B2 \* 7/2014 Kremerman ..... H01L 21/67742  
 414/744.5  
 D711,447 S \* 8/2014 Kasahara ..... D15/199  
 D712,448 S \* 9/2014 Kasahara ..... D15/199  
 D749,159 S \* 2/2016 Liu ..... D15/199  
 9,254,566 B2 \* 2/2016 Hashimoto ..... B25J 11/0095  
 D764,557 S \* 8/2016 Yamada ..... D15/199  
 D818,019 S \* 5/2018 Huang ..... D15/199  
 2005/0079043 A1 \* 4/2005 Ogawa ..... B25J 18/04  
 414/744.2  
 2008/0118338 A1 \* 5/2008 Huang ..... B25J 9/1692  
 414/744.3  
 2008/0304942 A1 \* 12/2008 Yazawa ..... H01L 21/68707  
 414/217  
 2012/0189419 A1 \* 7/2012 Yazawa ..... B25J 9/042  
 414/744.2

FOREIGN PATENT DOCUMENTS

JP D1118300 8/2001  
 JP D1118301 8/2001  
 JP D1118302 8/2001  
 JP D1507858 9/2014  
 JP D1507859 9/2014

\* cited by examiner

FIG. 1

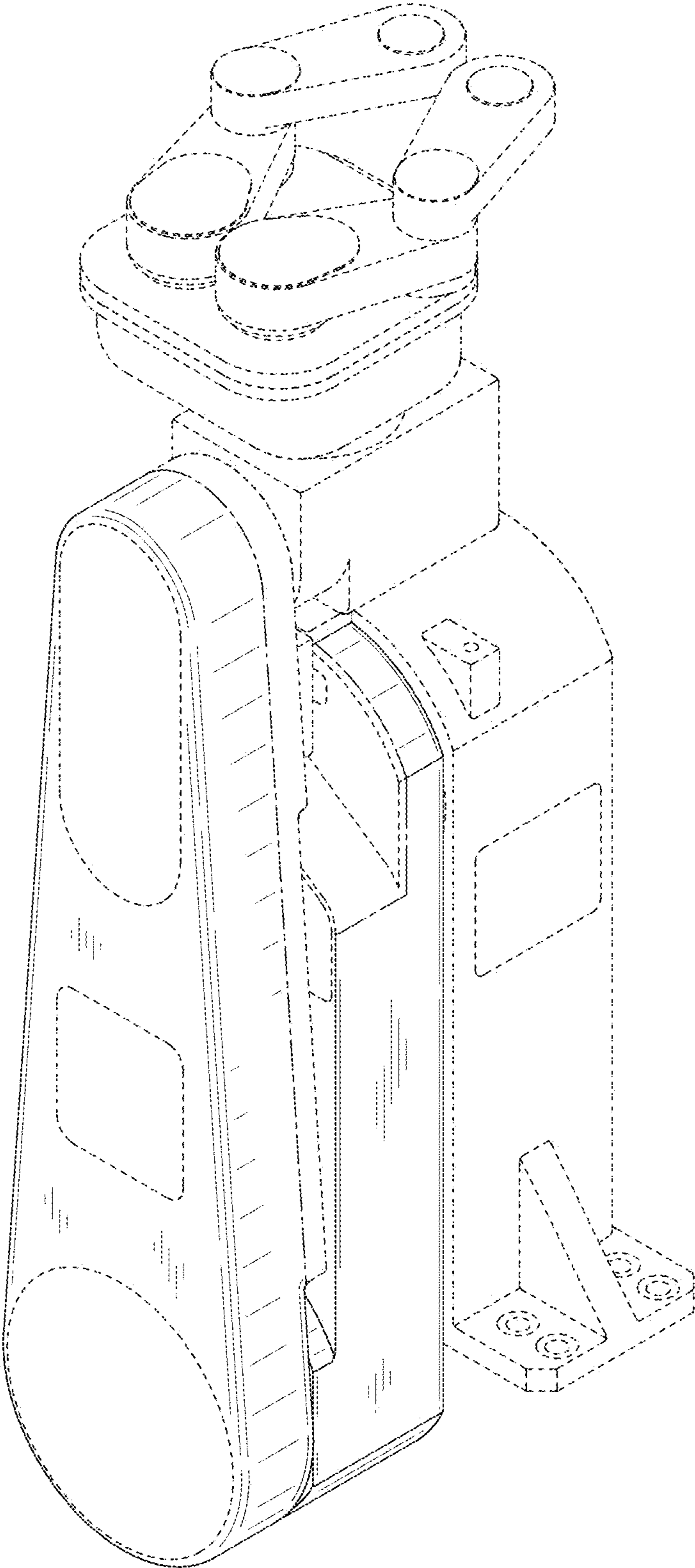


FIG.2

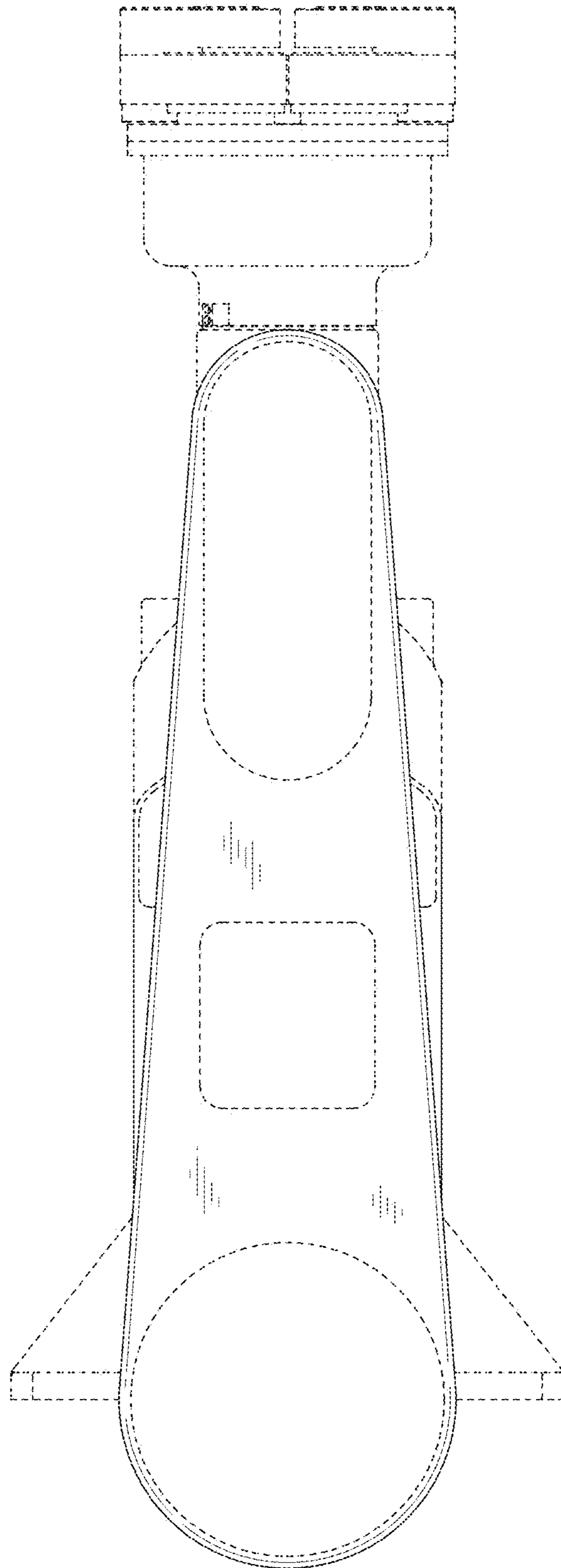


FIG.3

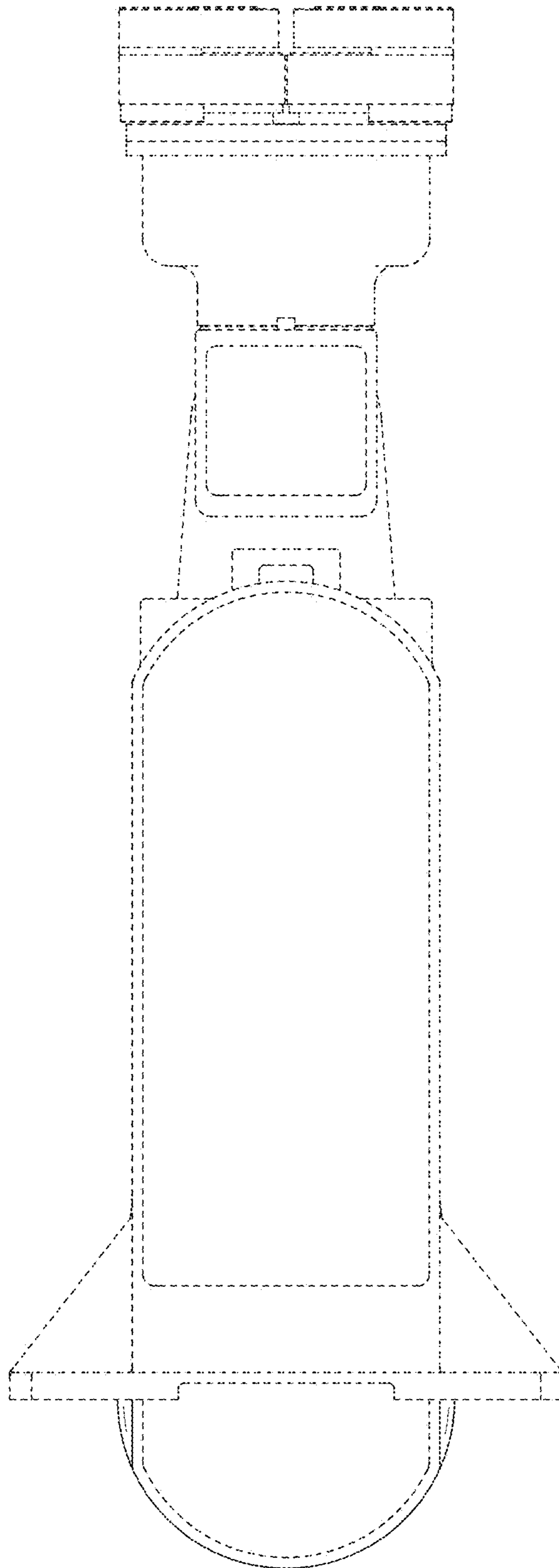


FIG.4

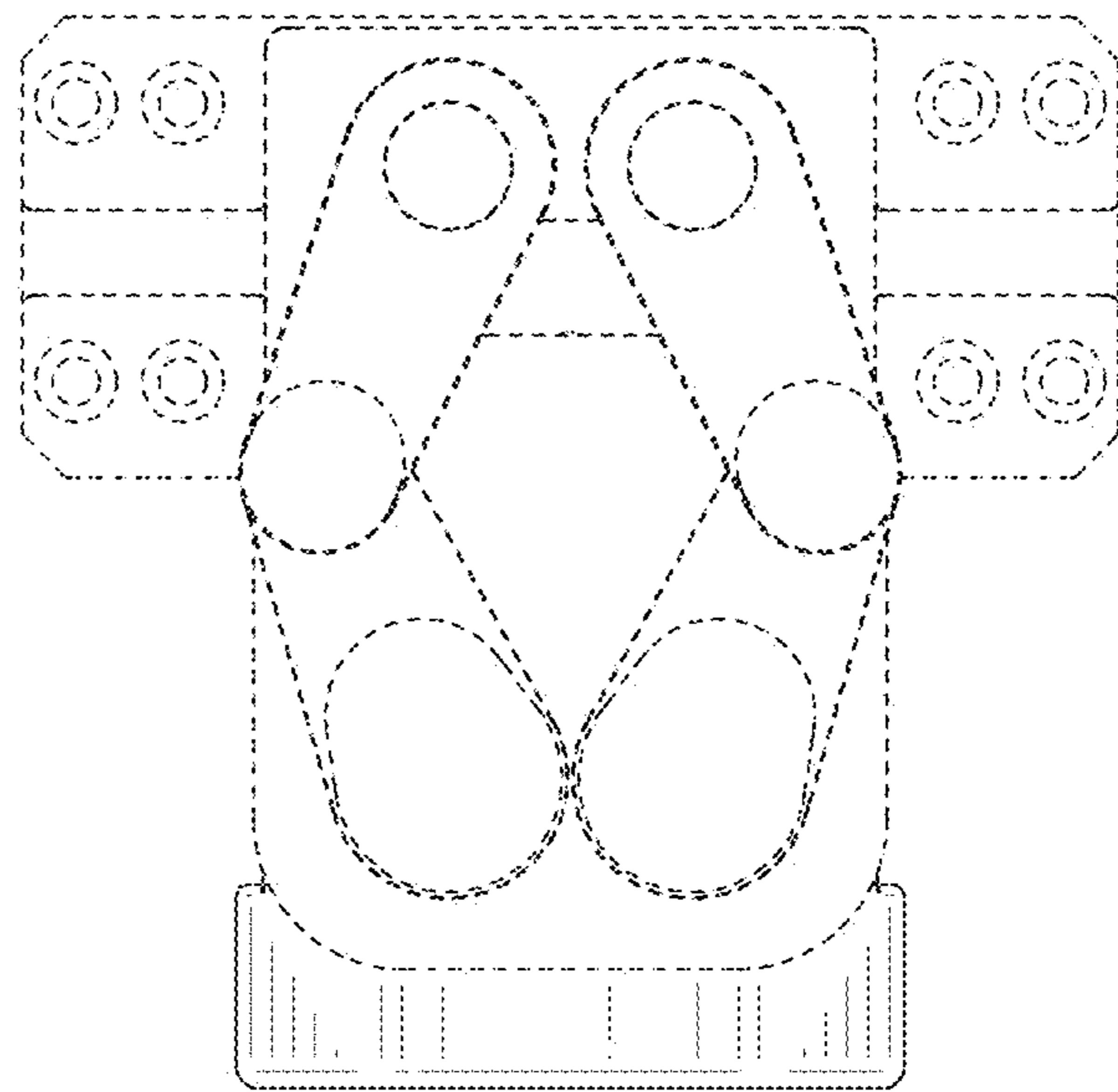


FIG.5

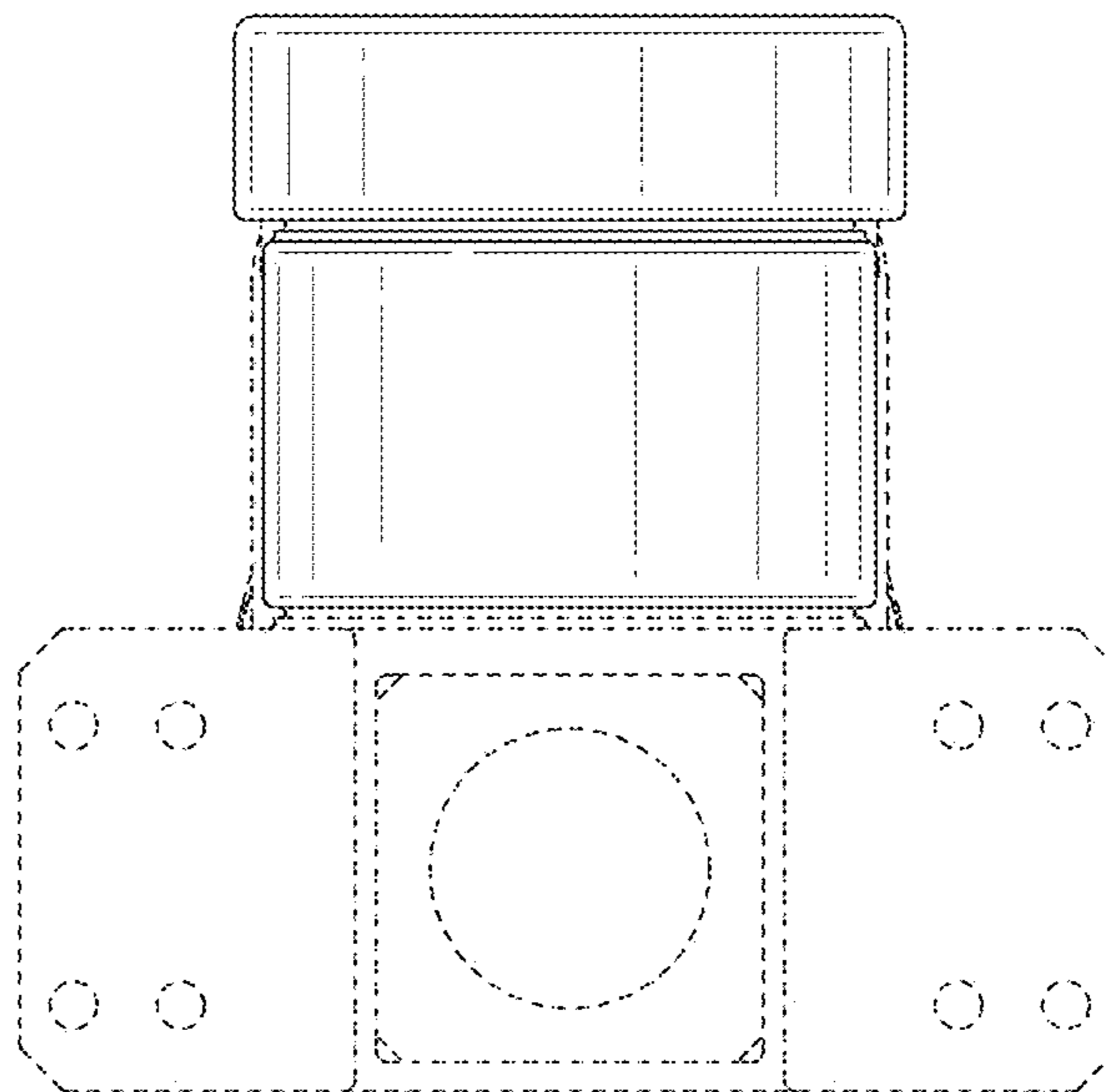


FIG.6

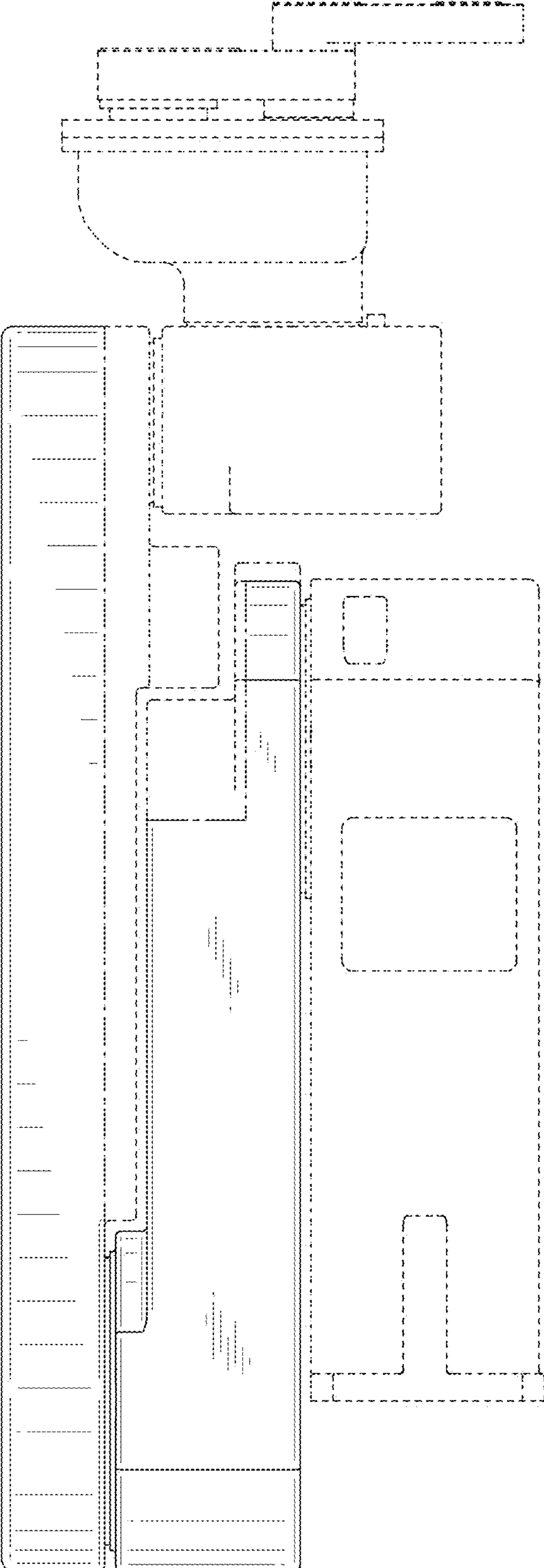




FIG.7

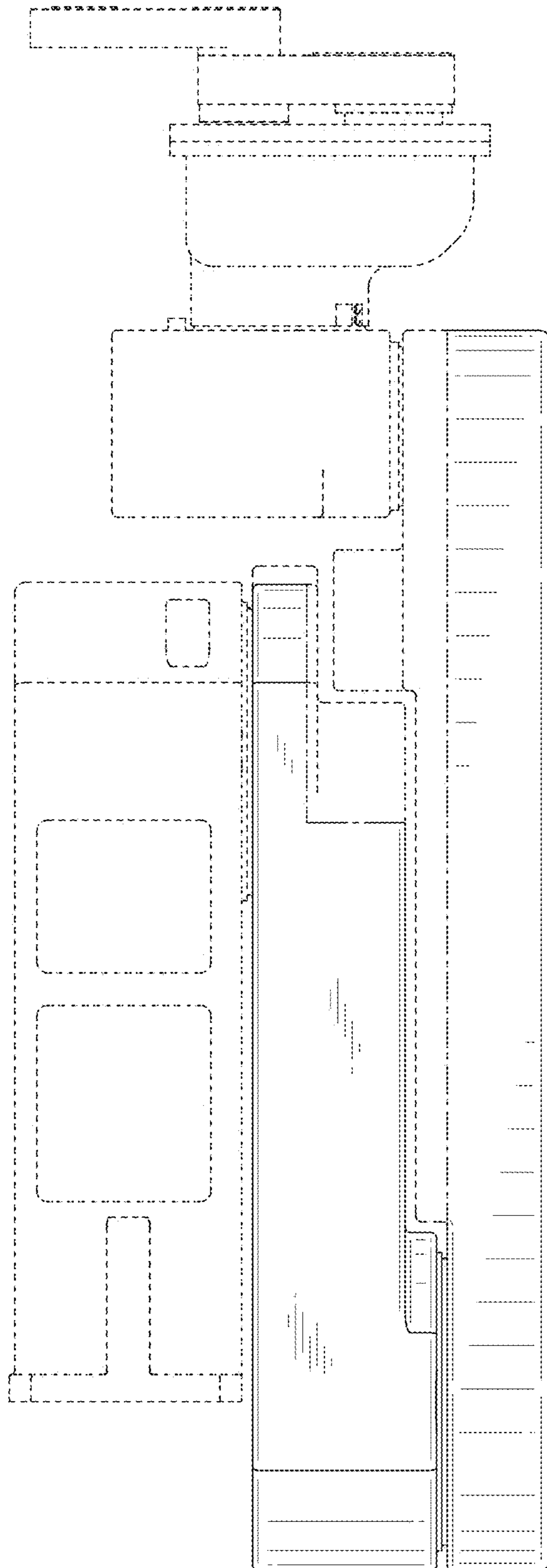


FIG.8

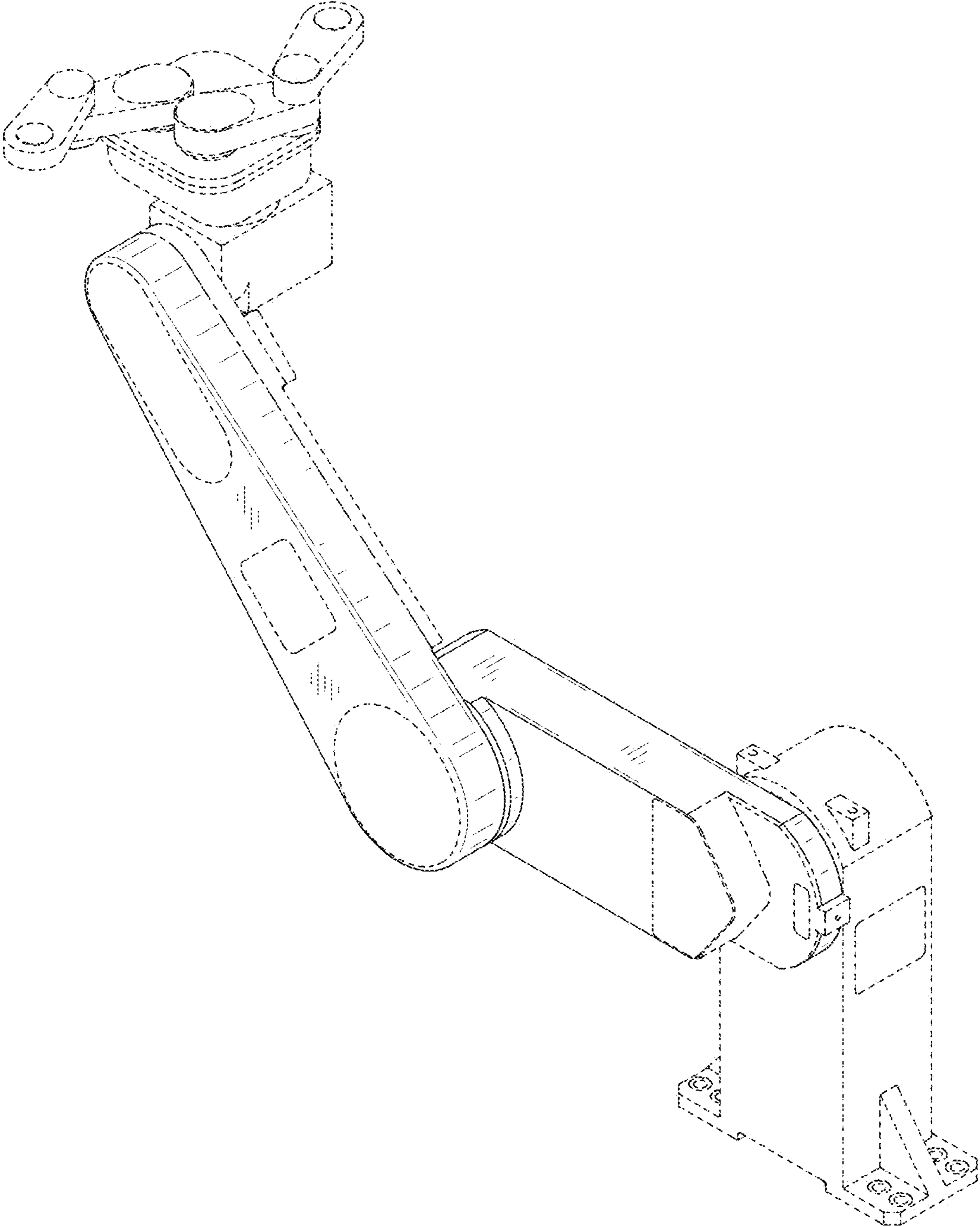


FIG.9

