US00D824439S

(12) United States Design Patent

Ide et al.

(10) Patent No.: US D824,439 S
(45) Date of Patent: ** Jul. 31, 2018

(54) **WIRE FEEDING APPARATUS FOR WELDING**

(71) Applicant: **DAIHEN CORPORATION**, Osaka-shi, Osaka (JP)

(72) Inventors: **Daichi Ide**, Osaka (JP); **Ryuji Tanaka**, Osaka (JP); **Junichi Wakita**, Osaka (JP); **Yukiya Morita**, Osaka (JP); **Hisao Miyahara**, Osaka (JP); **Gen Tsujii**, Osaka (JP)

(73) Assignee: **DAIHEN CORPORATION**, Osaka (JP)

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

(21) Appl. No.: **29/559,138**

(22) Filed: **Mar. 24, 2016**

(30) **Foreign Application Priority Data**

Sep. 30, 2015 (JP) 2015-021509

(51) **LOC (11) Cl.** **15-09**

(52) **U.S. Cl.**
USPC **D15/144**

(58) **Field of Classification Search**
USPC D15/144, 144.1, 144.2; D8/30, 36, 62, D8/65, 66

(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,880,305 A 3/1959 Baird
3,242,310 A * 3/1966 Bosteels B23K 9/1336 219/137.2

(Continued)

FOREIGN PATENT DOCUMENTS

JP 1206811 S 5/2004
JP 1402705 S 12/2010

(Continued)

OTHER PUBLICATIONS

"Wire Feeder Designed for GMAW." Found online Mar. 9, 2018 at www.thefabricator.com. Page dated Jun. 10, 2014. Retrieved from URL: https://www.thefabricator.com/product/consumables/wire-feeder-designed-for-gmaw (Year: 2014).*

(Continued)

Primary Examiner — Garth Rademaker
Assistant Examiner — Katelin G Kloberg
(74) *Attorney, Agent, or Firm* — Kilpatrick Townsend & Stockton

(57) **CLAIM**

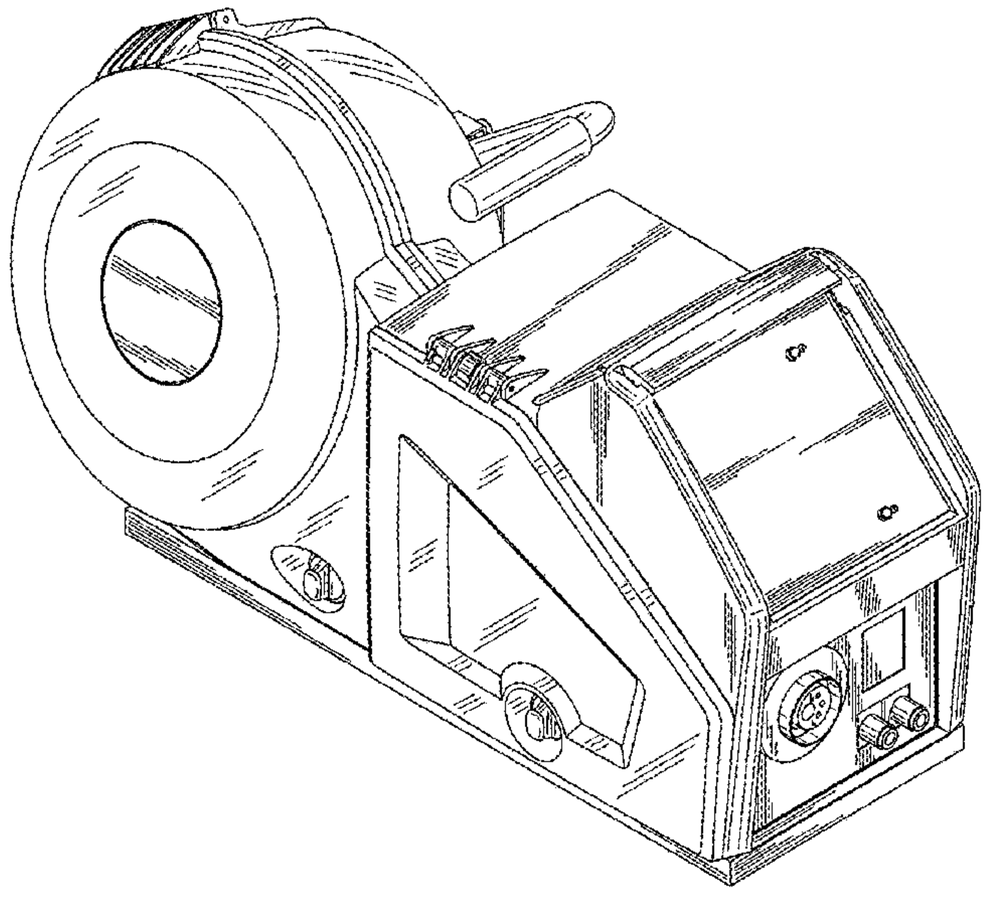
The ornamental design for a wire feeding apparatus for welding, as shown and described.

DESCRIPTION

FIG. **1** is a front, top, and right side perspective view of a wire feeding apparatus for welding showing our new design;
FIG. **2** is a rear, top, and left side perspective view thereof;
FIG. **3** is a front view thereof;
FIG. **4** is a rear view thereof;
FIG. **5** is a top plan view thereof;
FIG. **6** is a bottom plan view thereof;
FIG. **7** is a right side view thereof; and,
FIG. **8** is a left side view thereof.

The oblique line shading shown in the drawings indicates a transparent or translucent surface. Internal structure of the transparent or translucent surface is omitted. No claim is made to any elements inside the transparent or translucent surface.

1 Claim, 8 Drawing Sheets



(58) **Field of Classification Search**
CPC B23K 9/133; B23K 9/095; B23K 9/10; B23K 9/12; B23K 9/28
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,480,221	A *	11/1969	Sekino	B23K 9/1336	242/564
D243,459	S	2/1977	Bliss		
D275,293	S	8/1984	Bouman		
D280,329	S	8/1985	Bouman		
D290,927	S *	7/1987	Pagani	D8/30	
D319,956	S *	9/1991	Barrault	D8/36	
D357,263	S	4/1995	Soderholm		
5,410,126	A *	4/1995	Miller	B23K 9/1043	219/130.1
D357,927	S	5/1995	Soderholm		
5,465,917	A	11/1995	Kosch		
6,091,048	A *	7/2000	Lanouette	B23K 9/095	219/130.21
D434,428	S *	11/2000	Krieck	B23K 9/32	D15/144.2
6,479,795	B1	11/2002	Albrecht		
D467,257	S	12/2002	Andersson		
D518,078	S	3/2006	Persson		
D520,038	S	5/2006	Ljungfeldt		
D562,368	S *	2/2008	Byerly	D15/144	
D569,883	S *	5/2008	Wang	D15/144	
D569,884	S	5/2008	Shu		
D590,852	S	4/2009	Killion		
D609,070	S *	2/2010	Tinius	D8/62	
D621,430	S	8/2010	Christen		
D623,205	S *	9/2010	Flattinger	B23K 9/095	D15/144
D626,576	S	11/2010	Gramatyka		
D642,604	S	8/2011	Rohrer		
D652,436	S	1/2012	Ostlund		
D653,271	S	1/2012	Kindig		
D654,519	S	2/2012	Wujczak		
D654,521	S	2/2012	Flubacher		
D660,120	S *	5/2012	Tajik	D8/65	
D665,434	S	8/2012	Mueller		
D665,833	S	8/2012	Raymond		
D679,738	S	4/2013	Segala		
D727,986	S	4/2015	Matiash		
D733,777	S	7/2015	Miller		
D743,226	S *	11/2015	Aoki	D8/66	
D777,231	S *	1/2017	Ide	B23K 10/00	D15/144
D778,331	S *	2/2017	Ide	D15/144	
D791,564	S *	7/2017	Balma	D15/9	
9,737,951	B2 *	8/2017	Speilman	B23K 9/1336	
2004/0182845	A1	9/2004	Crisler		
2005/0199606	A1	9/2005	Enyedy		
2006/0157461	A1	7/2006	Diekmann		
2006/0207981	A1	9/2006	Diekmann		
2007/0039934	A1	2/2007	Enyedy		
2007/0284352	A1 *	12/2007	Lynaugh	B23K 9/323	219/137.2
2008/0156783	A1	7/2008	Vanden Heuvel		
2009/0166345	A1	7/2009	Enyedy		
2009/0277882	A1	11/2009	Bornemann		
2010/0051595	A1	3/2010	Diedrick		
2010/0314373	A1	12/2010	Patterson		
2013/0228556	A1 *	9/2013	Segala	B23K 10/00	219/121.39
2013/0292366	A1 *	11/2013	Enyedy	B23K 9/124	219/137.2
2013/0334188	A1 *	12/2013	Enyedy	B23K 9/095	219/130.21
2013/0341314	A1 *	12/2013	Gibbons	B23K 9/124	219/137.7
2014/0061277	A1 *	3/2014	Matiash	B23K 9/133	226/188
2014/0238965	A1 *	8/2014	Spisic	B23K 9/1006	219/132
2015/0129700	A1 *	5/2015	Miller	B23K 9/1333	242/139
2017/0334015	A1 *	11/2017	Hillen	B23K 9/32	

FOREIGN PATENT DOCUMENTS

JP	1512449	S	11/2014
JP	1512450	S	11/2014
JP	1512451	S	11/2014

OTHER PUBLICATIONS

"EWM Drive Basic 4." Found online Mar. 9, 2018 at www.ewm-russia.ru. Image dated May 20, 2016. Retrieved from URL: https://tineye.com/search/b5874b756a49a0acc336b443768a60a91862e8a8/?extension_ver=chrome-1.2.0 (Year: 2016).*

"OTC MIG-MAG welder." Found online Mar. 9, 2018 at www.directindustry.com. Image dated Apr. 18, 2017. Retrieved from URL: https://tineye.com/search/c20a18fc969236370edf43aec32b1edf63275317/?extension_ver=chrome-1.2.0 (Year: 2017).*

"Daihen Wire Feeders." Found online Mar. 9, 2018 at www.daihen.co.jp. No verifiable date. Retrieved from URL: http://www.daihen.co.jp/products/welder/wirefeeder/wirefeeder.html#anc01 (Year: 2018).*

Notice of Allowance and Fee Due dated Nov. 8, 2016 from corresponding U.S. Appl. No. 29/559,148.

* cited by examiner

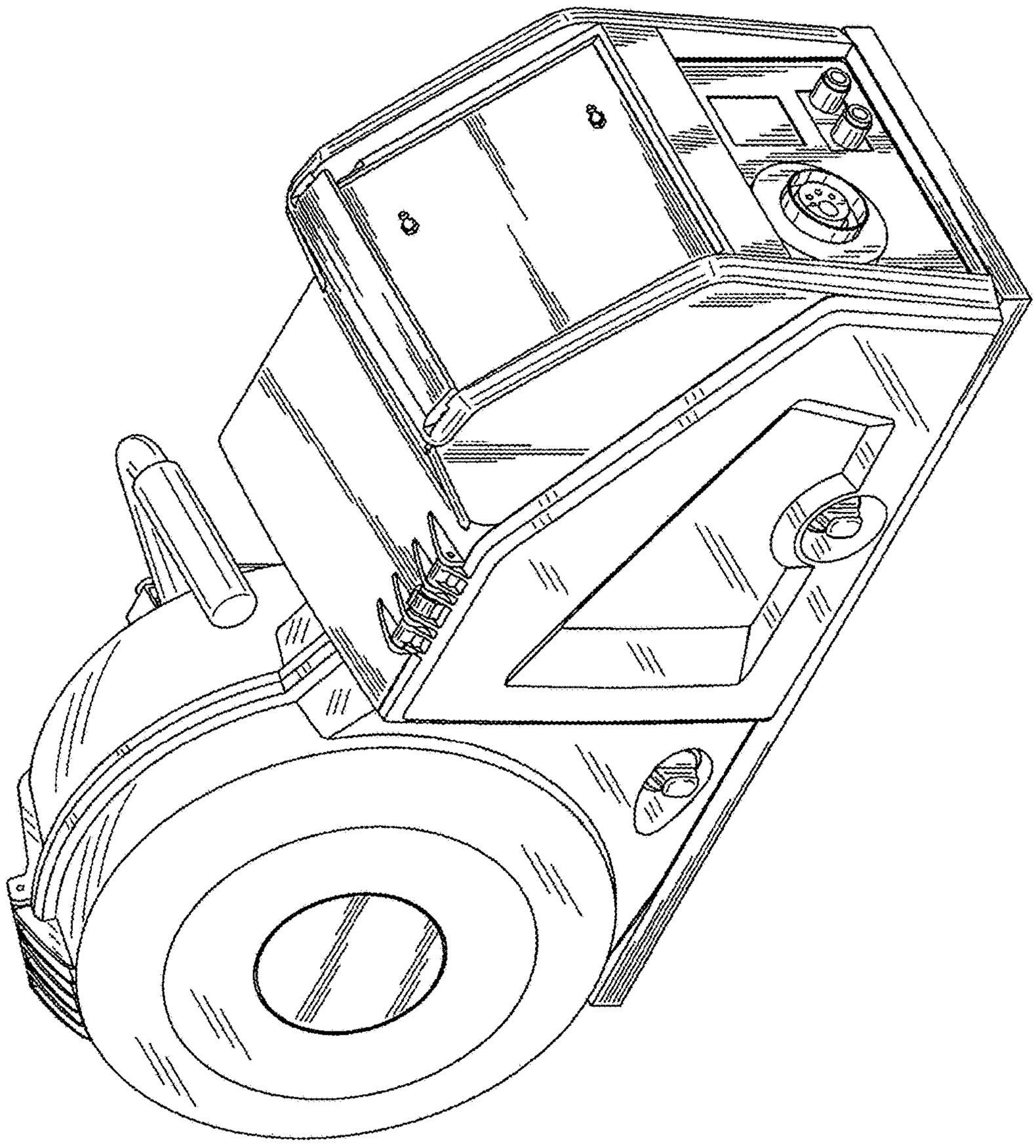
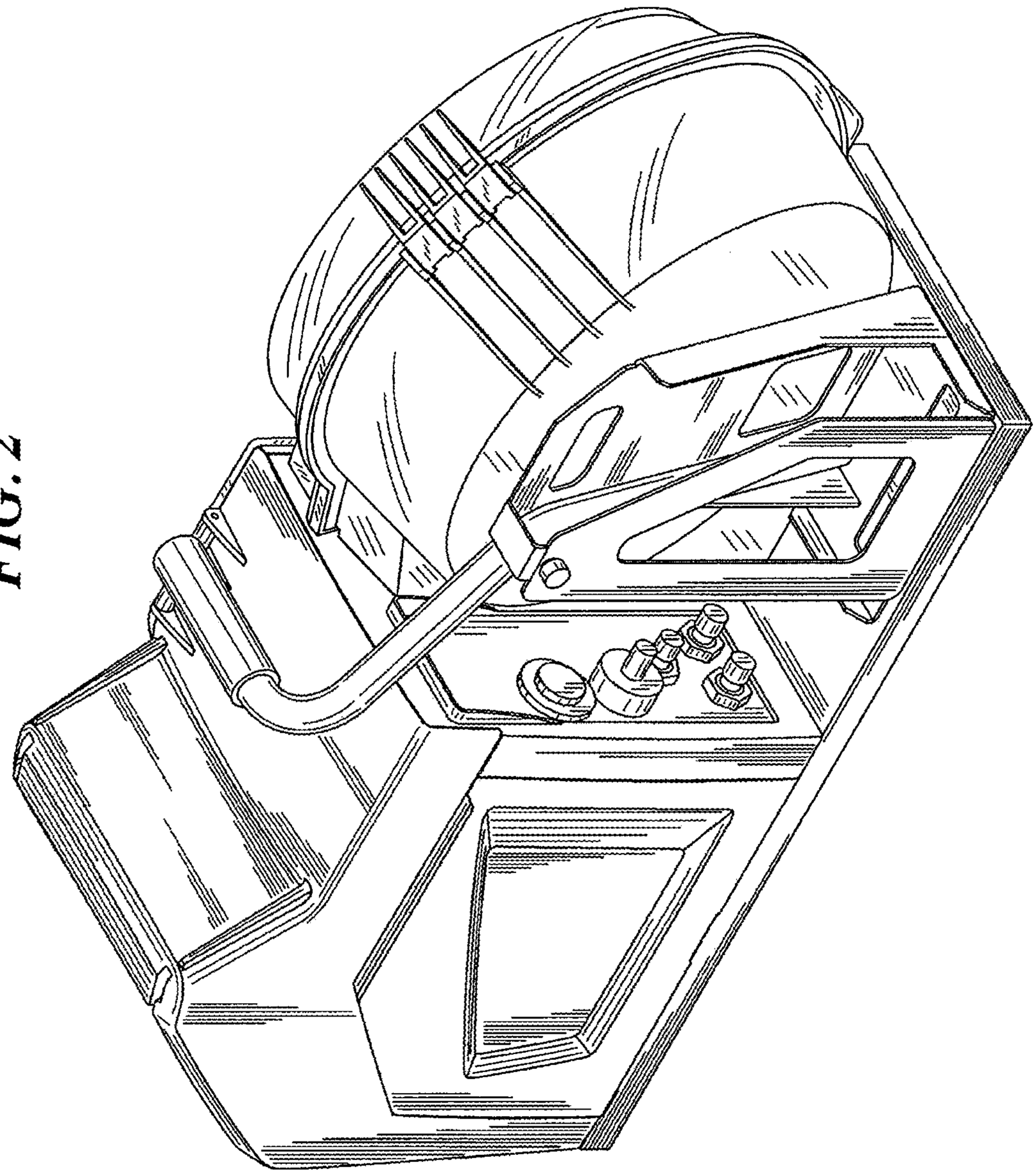


FIG. 1

FIG. 2



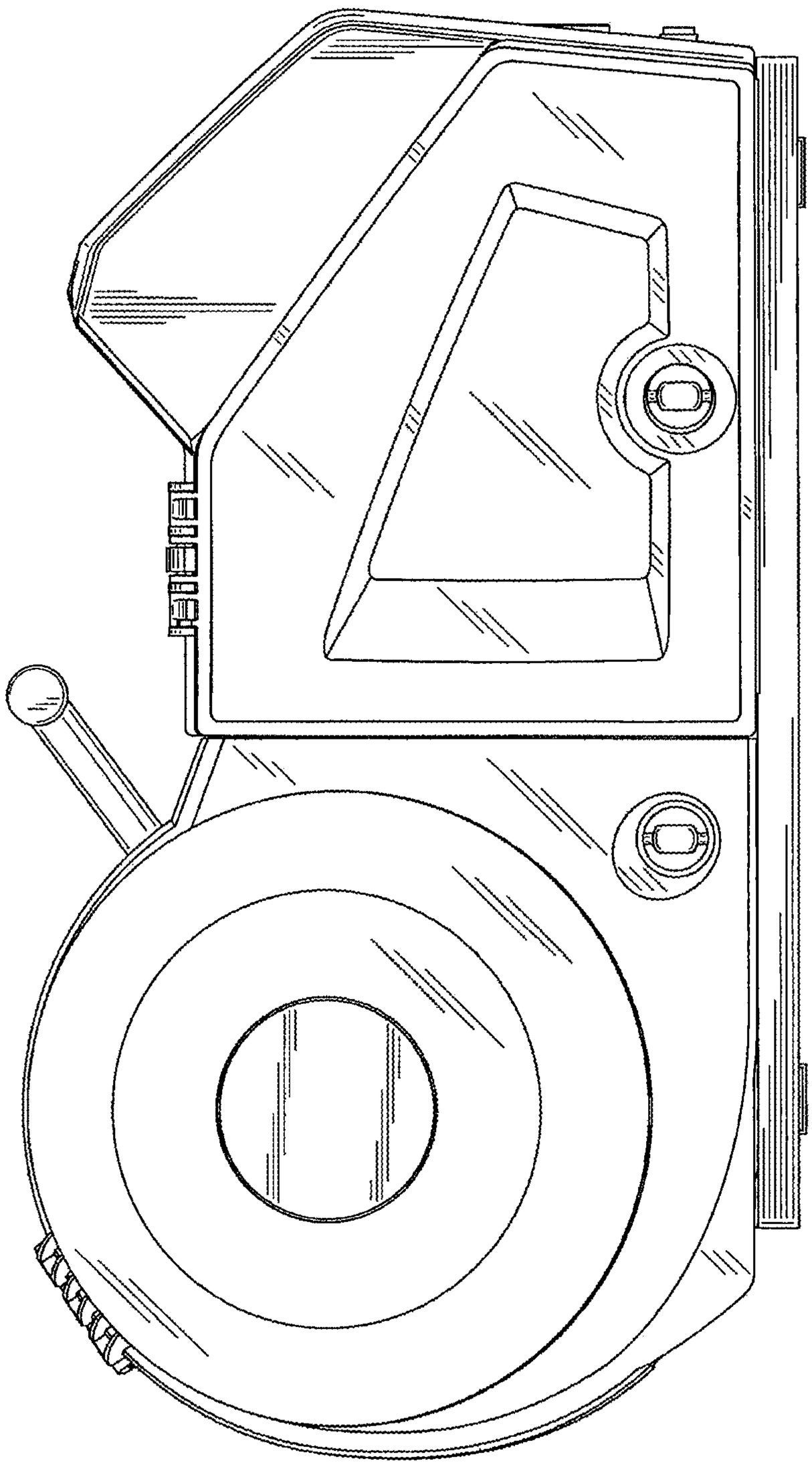


FIG. 3

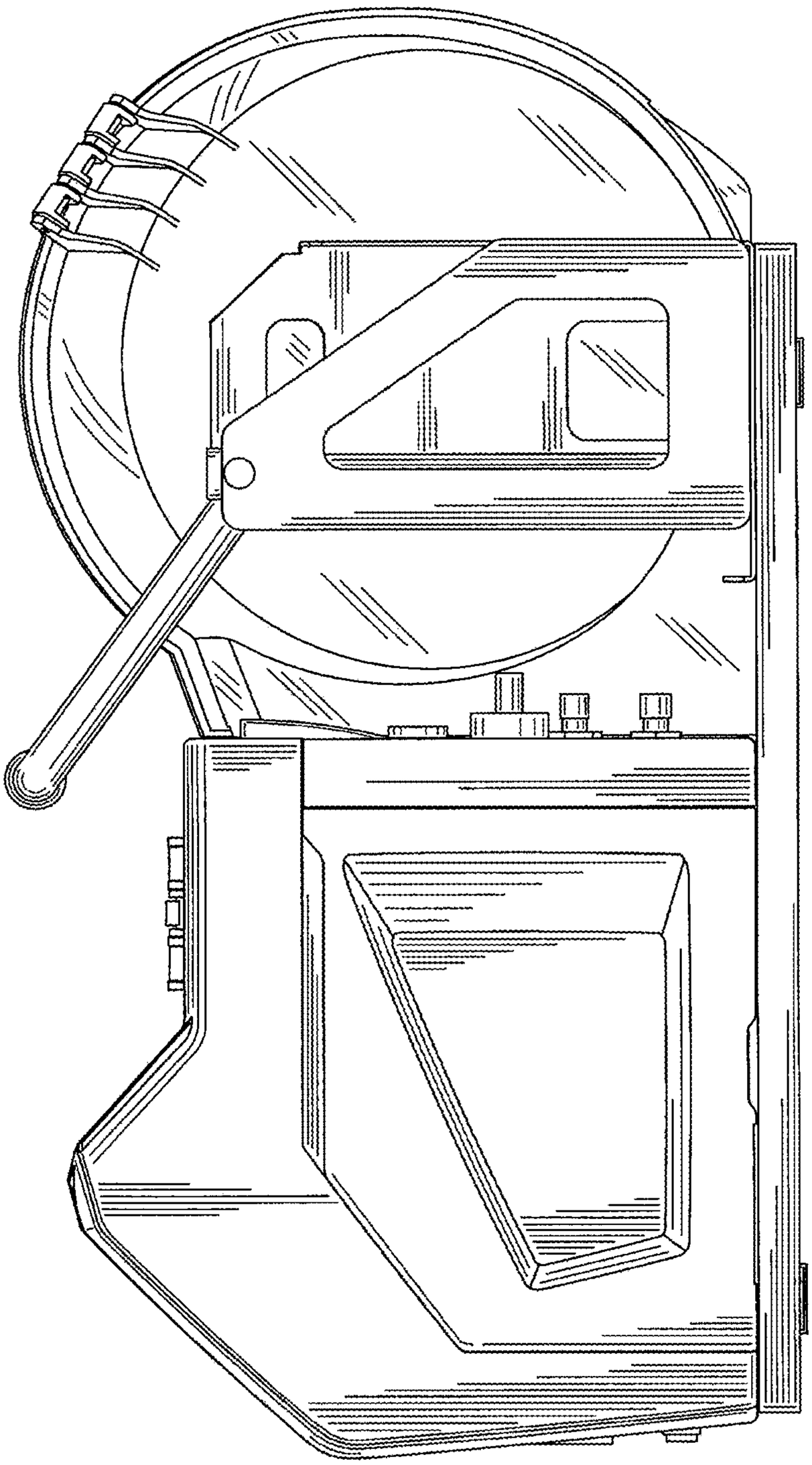


FIG. 4

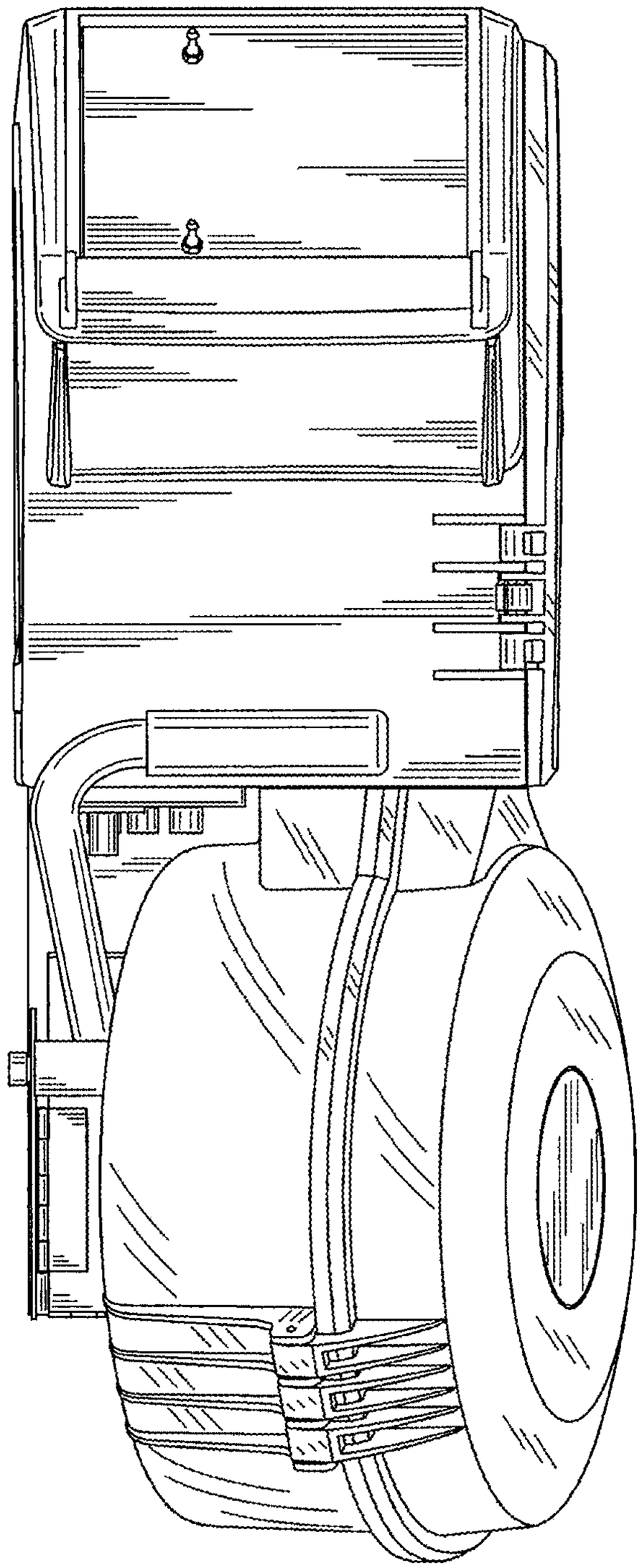


FIG. 5

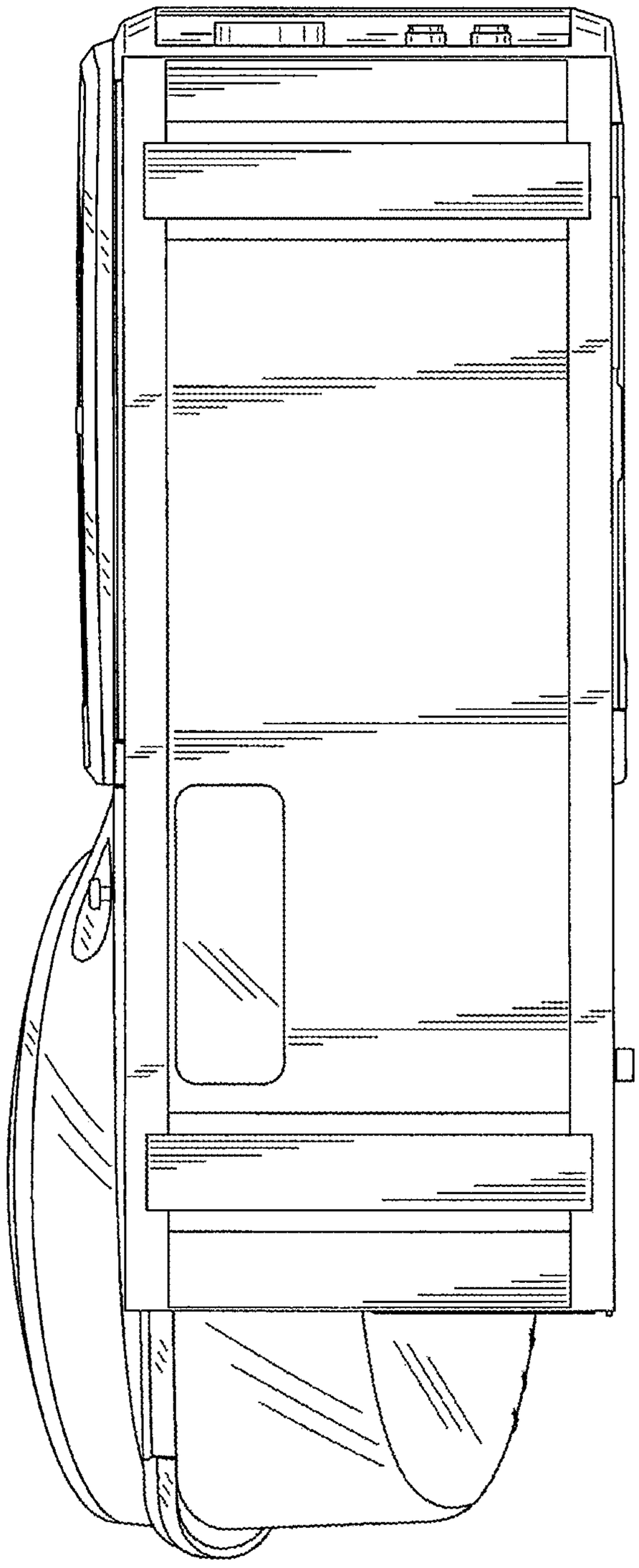


FIG. 6

FIG. 7

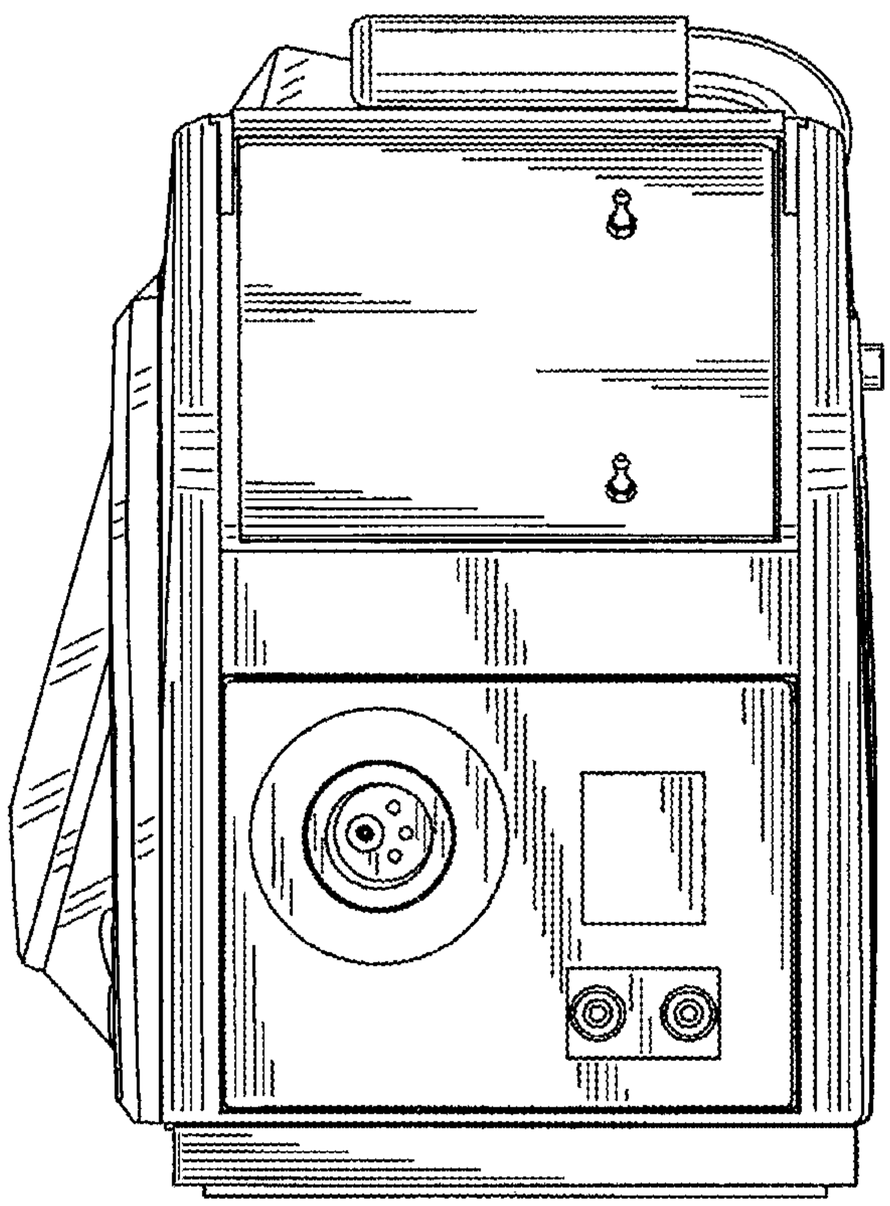


FIG. 8