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

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(54) **ELECTRONIC CAMERA**

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348/231.5, E5.045, E5.055, 333.11;  
396/299, 291, 311; 710/35, 36, 38

See application file for complete search history.

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(56) **References Cited**

U.S. PATENT DOCUMENTS

D3,430 S \* 3/1869 Wilhelm ..... D20/26  
D270,271 S \* 8/1983 Steele ..... D18/27

(Continued)

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FOREIGN PATENT DOCUMENTS

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**Related U.S. Application Data**

*Primary Examiner* — Susan Moon Lee

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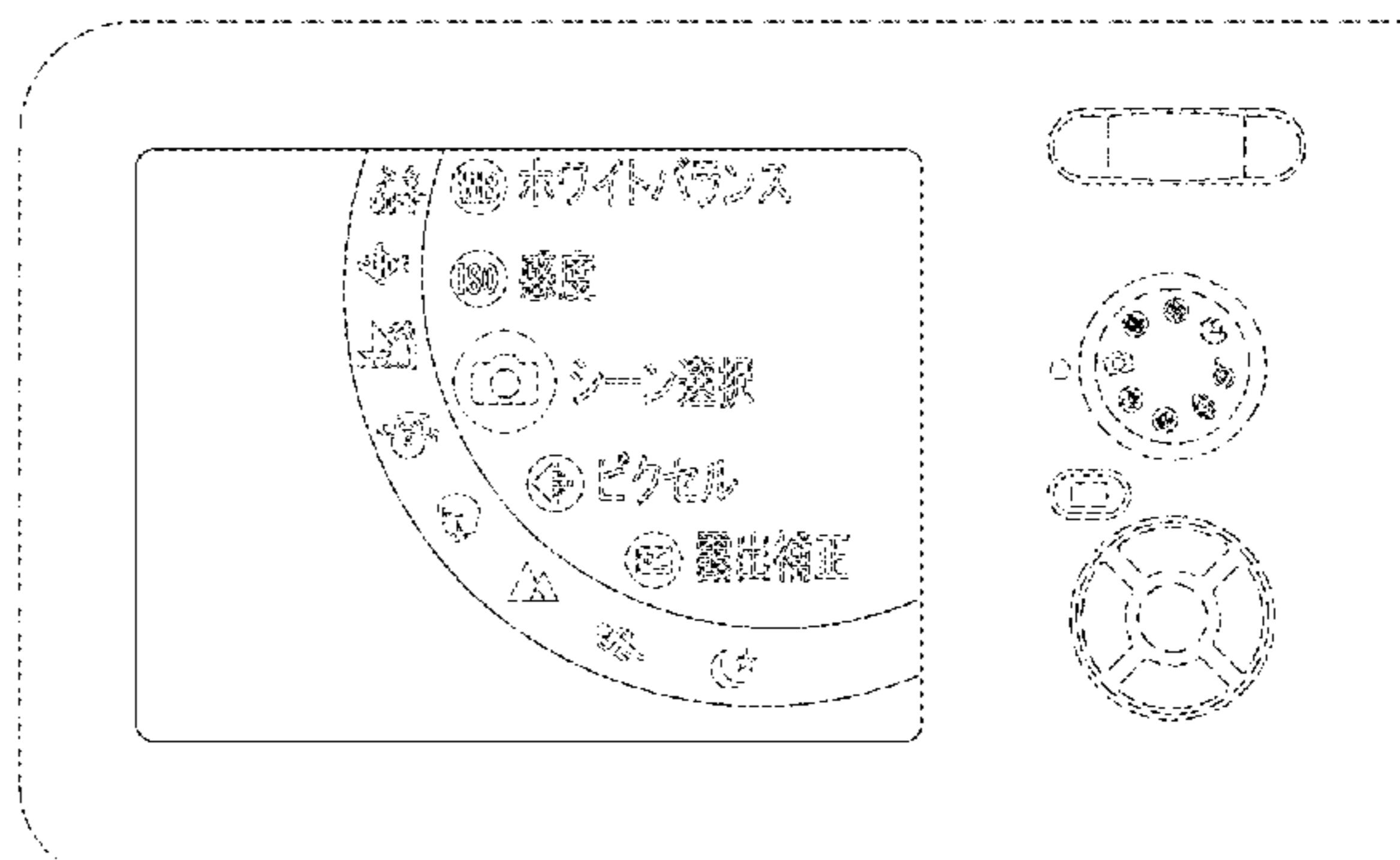
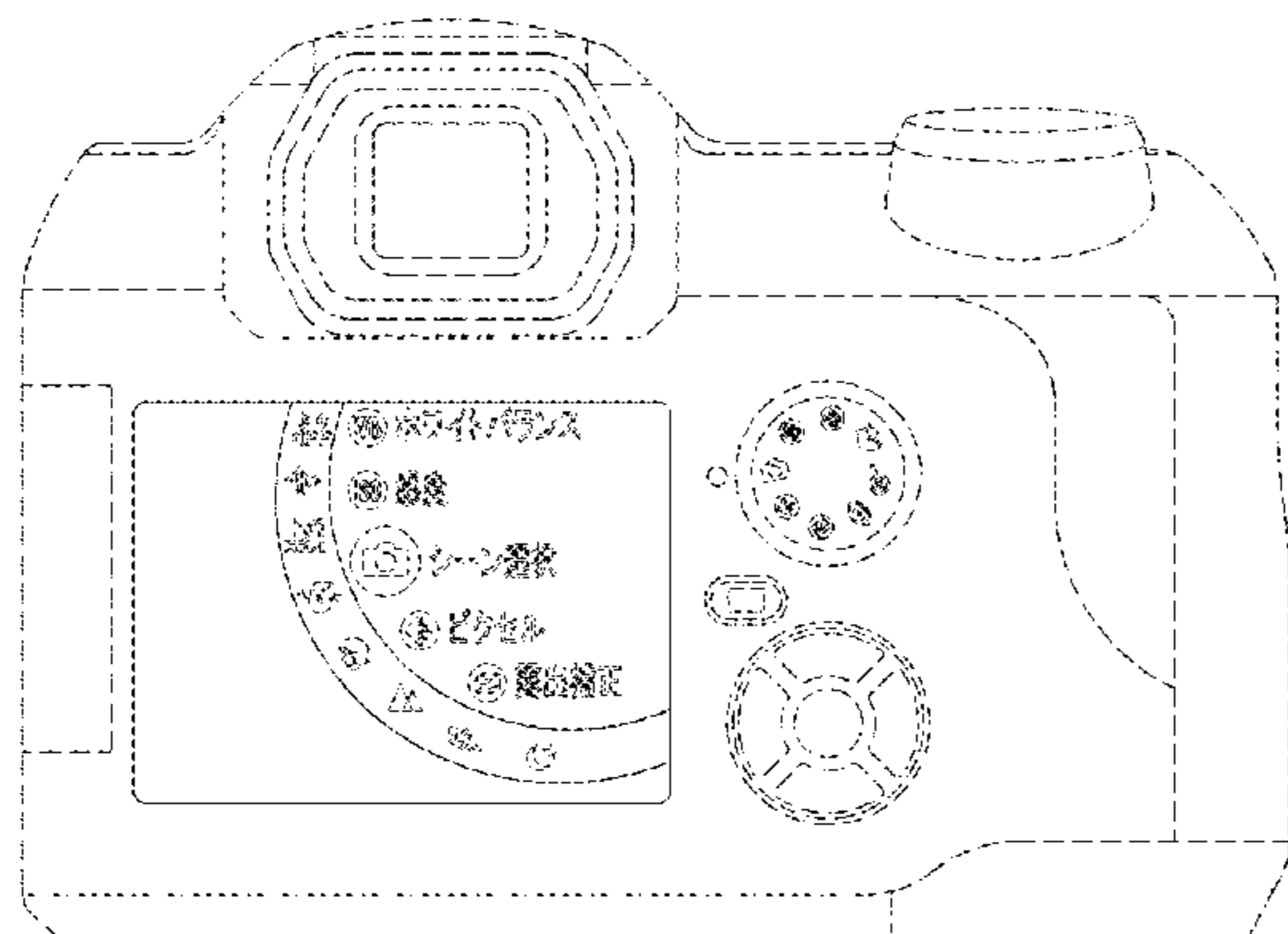
(57) **CLAIM**

We claim the ornamental design for an electronic camera, as shown and described.

**DESCRIPTION**

FIG. 1 is a front view of an electronic camera according to a first embodiment of the present design;  
FIG. 2 is a rear view thereof;  
FIG. 3 is a top view thereof;  
FIG. 4 is a bottom view thereof;  
FIG. 5 is a right side view thereof; and  
FIG. 6 is a left side view thereof.  
FIG. 7 is a front view of the electronic camera according to a second embodiment of the present design;  
FIG. 8 is a rear view thereof;  
FIG. 9 is a top view thereof;  
FIG. 10 is a bottom view thereof;  
FIG. 11 is a right side view thereof; and,  
FIG. 12 is a left side view thereof.  
Broken lines and unshaded portions contained within broken line are not claimed.

**1 Claim, 6 Drawing Sheets**



(56)

## References Cited

## U.S. PATENT DOCUMENTS

4,431,288	A *	2/1984	Iwata et al.	396/89	6,300,951	B1	10/2001	Filetto et al.	
4,574,364	A	3/1986	Tabata et al.		6,310,648	B1	10/2001	Miller et al.	
D289,532	S *	4/1987	Ivie	D21/362	D450,072	S *	11/2001	Katayama	D16/202
D294,043	S *	2/1988	Haines	D21/362	D451,115	S *	11/2001	Sumita	D16/202
4,747,093	A *	5/1988	Benne et al.	369/280	6,313,877	B1	11/2001	Anderson	
4,775,898	A	10/1988	Akabane et al.		D452,692	S *	1/2002	Fukuda	D14/489
4,860,218	A	8/1989	Sleator		6,378,234	B1 *	4/2002	Luo	341/22
4,868,765	A	9/1989	Diefendorff		D457,902	S *	5/2002	Porsche et al.	D16/202
4,939,507	A	7/1990	Beard et al.		6,411,337	B2	6/2002	Cove et al.	
5,235,380	A	8/1993	Yamada et al.		D461,822	S *	8/2002	Okuley	D14/489
5,265,202	A	11/1993	Krueger et al.		6,448,987	B1 *	9/2002	Easty et al.	715/834
5,301,301	A	4/1994	Kodosky et al.		D466,129	S *	11/2002	Bungert	D14/489
5,305,435	A	4/1994	Bronson		D468,331	S *	1/2003	Horikiri	D16/202
5,363,482	A	11/1994	Victor et al.		6,522,342	B1 *	2/2003	Gagnon et al.	715/716
5,371,847	A	12/1994	Hargrove		D473,886	S *	4/2003	Katayama	D16/202
5,390,295	A	2/1995	Bates et al.		6,542,168	B2	4/2003	Negishi	
5,392,388	A *	2/1995	Gibson	715/837	6,549,219	B2 *	4/2003	Selker	715/834
D361,079	S *	8/1995	Ono	D16/202	6,549,304	B1	4/2003	Dow et al.	
5,459,825	A	10/1995	Anderson et al.		D474,195	S *	5/2003	Kates et al.	D14/485
5,471,578	A	11/1995	Moran et al.		D474,197	S *	5/2003	Nguyen	D14/486
5,487,143	A	1/1996	Southgate		D476,488	S *	7/2003	White, Jr.	D5/63
5,497,454	A	3/1996	Bates et al.		6,597,358	B2	7/2003	Miller	
5,506,937	A	4/1996	Ford et al.		6,603,708	B2 *	8/2003	Tamagawa et al.	368/10
5,513,342	A	4/1996	Leong et al.		6,636,264	B1	10/2003	Nakao et al.	
D369,818	S *	5/1996	Ono	D16/202	D482,368	S *	11/2003	den Toonder et al.	D14/486
5,515,496	A	5/1996	Kaehler et al.		6,654,559	B2	11/2003	Aoyama	
5,526,341	A *	6/1996	Shiba et al.	369/275.1	D483,783	S *	12/2003	Yoshida	D16/202
5,528,744	A	6/1996	Vaughton		D485,279	S *	1/2004	DeCombe	D14/486
5,530,795	A	6/1996	Wan		6,680,749	B1	1/2004	Anderson et al.	
5,577,187	A	11/1996	Mariani		6,683,653	B1	1/2004	Miyake et al.	
5,610,828	A	3/1997	Kodosky et al.		D486,171	S *	2/2004	Nishiura	D16/219
5,617,114	A	4/1997	Bier et al.		6,724,370	B2 *	4/2004	Dutta et al.	345/169
5,638,523	A *	6/1997	Mullet et al.	715/855	6,744,427	B2 *	6/2004	Maglio et al.	345/184
5,644,740	A	7/1997	Kiuchi		D493,177	S *	7/2004	Retuta et al.	D14/486
5,666,186	A	9/1997	Meyerhoefer et al.		D493,471	S *	7/2004	McIntosh	D14/485
5,675,570	A *	10/1997	Ohira et al.	369/275.1	D494,186	S *	8/2004	Johnson	D14/485
5,708,786	A	1/1998	Teruuchi		D496,370	S	9/2004	Gildred	
5,727,174	A	3/1998	Aparicio et al.		D497,173	S *	10/2004	Ogura	D16/202
5,751,283	A	5/1998	Smith		6,819,344	B2 *	11/2004	Robbins	715/848
5,754,230	A	5/1998	Tsuruta		6,829,009	B2	12/2004	Sugimoto	
D395,296	S *	6/1998	Kaye et al.	D14/492	D501,211	S	1/2005	Ligameri et al.	
D395,643	S *	6/1998	Ryan	D14/488	D502,721	S *	3/2005	Horikiri	D16/202
5,760,772	A	6/1998	Austin		D502,954	S *	3/2005	Ogura	D16/202
5,768,616	A *	6/1998	Teterwak	710/5	6,870,545	B1 *	3/2005	Smith et al.	345/619
D395,877	S *	7/1998	Ryan	D14/488	6,870,567	B2	3/2005	Funston et al.	
D396,225	S *	7/1998	Ryan	D14/488	D504,441	S *	4/2005	Sapp et al.	D14/486
D396,241	S *	7/1998	Shigeri	D16/202	D504,452	S *	4/2005	Yoshida	D16/219
D396,455	S *	7/1998	Bier	D14/489	D505,135	S *	5/2005	Sapp et al.	D14/489
5,798,760	A *	8/1998	Vayda et al.	715/834	D507,002	S *	7/2005	Retuta et al.	D14/486
5,862,419	A	1/1999	Goto et al.		6,919,927	B1	7/2005	Hyodo	
D407,389	S *	3/1999	Ryan	D14/488	D511,524	S *	11/2005	Retuta et al.	D14/486
5,903,309	A	5/1999	Anderson		D512,091	S *	11/2005	Zapf	D18/27
5,920,313	A	7/1999	Diedrichsen et al.		6,981,228	B1 *	12/2005	Chen et al.	715/853
5,940,076	A *	8/1999	Sommers et al.	715/834	6,996,783	B2	2/2006	Brown et al.	
D414,505	S *	9/1999	Yatabe	D16/208	D519,519	S *	4/2006	Vong	D14/488
5,966,126	A *	10/1999	Szabo	715/762	7,034,881	B1	4/2006	Hyodo et al.	
5,986,703	A	11/1999	O'Mahony		7,036,091	B1 *	4/2006	Nguyen	715/834
6,006,038	A	12/1999	Kosako		D520,544	S *	5/2006	Senda	D16/202
6,011,542	A *	1/2000	Durrani et al.	345/156	D522,014	S *	5/2006	Gibson	D14/485
D422,291	S *	4/2000	Senda	D16/202	7,046,248	B1 *	5/2006	Perttunen	345/440
D422,611	S *	4/2000	Katayama et al.	D16/202	D522,559	S *	6/2006	Naito et al.	D16/219
D423,484	S *	4/2000	Dangelmaier et al.	D14/485	D523,441	S *	6/2006	Sapp et al.	D14/486
D425,499	S *	5/2000	Millington	D14/488	7,057,658	B1	6/2006	Shioji et al.	
6,075,531	A *	6/2000	DeStefano	715/788	7,061,535	B2	6/2006	Misawa et al.	
D430,885	S	9/2000	Coleman		D528,549	S *	9/2006	McLees et al.	D14/485
D432,150	S *	10/2000	Senda	D16/202	D529,035	S *	9/2006	McLees et al.	D14/485
6,144,378	A *	11/2000	Lee	715/767	D529,038	S *	9/2006	Sapp et al.	D14/486
6,154,210	A	11/2000	Anderson		7,110,032	B2	9/2006	Furukawa	
D435,257	S *	12/2000	Woods	D14/485	D529,506	S *	10/2006	McLees et al.	D14/485
D439,584	S *	3/2001	Wang et al.	D14/486	7,119,818	B2 *	10/2006	Takiguchi	715/764
6,232,970	B1	5/2001	Bodnar et al.		D532,030	S *	11/2006	Yoshida	D16/202
D443,623	S *	6/2001	Niijima	D14/485	D534,541	S *	1/2007	Retuta et al.	D14/486
6,243,076	B1 *	6/2001	Hatfield	345/156	D534,915	S *	1/2007	Retuta et al.	D14/486
6,249,689	B1 *	6/2001	Aizawa	455/566	D542,301	S *	5/2007	Harvey	D14/489
6,285,367	B1 *	9/2001	Abrams et al.	715/854	D542,822	S *	5/2007	Senda	D16/202
					D542,826	S *	5/2007	Ina et al.	D16/219
					D544,495	S *	6/2007	Evans et al.	D14/488
					D547,343	S *	7/2007	Sato	D16/202
					D547,782	S *	7/2007	Sato	D16/202

(56)

## References Cited

## U.S. PATENT DOCUMENTS

D547,783	S *	7/2007	Sakai	D16/202	D606,104	S *	12/2009	Sato	D16/202
7,239,737	B2 *	7/2007	Luque et al.	382/141	D607,007	S *	12/2009	Kocmick	D14/489
D549,713	S *	8/2007	Lewin et al.	D14/485	7,639,300	B2	12/2009	Yumiki	
D549,721	S *	8/2007	Ito et al.	D14/488	7,649,563	B2	1/2010	Lee	
D549,722	S *	8/2007	Ito et al.	D14/488	D609,714	S *	2/2010	Oda et al.	D14/485
7,265,786	B2	9/2007	Venturino et al.		7,664,743	B2 *	2/2010	Okawa	707/769
7,265,851	B2	9/2007	Kinjo et al.		7,675,530	B2	3/2010	Koresawa et al.	
7,274,400	B2	9/2007	Hyodo et al.		D613,301	S *	4/2010	Lee et al.	D14/489
D552,121	S *	10/2007	Carl et al.	D14/488	D613,324	S *	4/2010	Sato	D16/202
7,281,214	B2 *	10/2007	Fadell	715/745	D614,192	S *	4/2010	Takano et al.	D14/486
7,290,223	B2 *	10/2007	Decombe	715/853	7,692,635	B2 *	4/2010	Iwamura	345/172
D554,659	S *	11/2007	Hoover et al.	D14/487	7,701,500	B2	4/2010	Aizawa et al.	
D554,660	S *	11/2007	Hoover et al.	D14/487	7,705,838	B2 *	4/2010	Kinerk et al.	345/184
D554,661	S *	11/2007	Hoover et al.	D14/487	D619,593	S *	7/2010	Fujioka et al.	D14/485
D555,164	S *	11/2007	Sergio	D14/486	D619,596	S *	7/2010	Maitlen et al.	D14/485
7,298,409	B1	11/2007	Misawa		D622,281	S *	8/2010	Maitlen et al.	D14/485
D556,806	S *	12/2007	Horikiri et al.	D16/212	D622,729	S *	8/2010	Oda et al.	D14/485
D559,292	S *	1/2008	Imai	D16/202	D625,328	S *	10/2010	Fitzmaurice et al.	D14/489
D560,225	S *	1/2008	Park et al.	D14/485	D625,733	S *	10/2010	Anzures	D14/486
D560,236	S *	1/2008	Yoshida	D16/202	D626,131	S *	10/2010	Kruzeniski et al.	D14/485
D560,237	S *	1/2008	Yoshida	D16/202	D627,360	S *	11/2010	Aarseth	D14/485
D560,238	S *	1/2008	Sato	D16/202	D629,410	S *	12/2010	Ray et al.	D14/485
7,317,479	B2	1/2008	Cazier et al.		7,860,536	B2 *	12/2010	Jobs et al.	455/566
7,317,485	B1	1/2008	Miyake et al.		D630,646	S *	1/2011	Wilson	D14/487
7,319,490	B2	1/2008	Kanamori et al.		D630,647	S *	1/2011	Wilson	D14/487
D561,221	S *	2/2008	Ogura et al.	D16/212	D631,060	S *	1/2011	Flik et al.	D14/486
D563,445	S *	3/2008	Sakai	D16/202	D633,509	S *	3/2011	Oda et al.	D14/485
D563,968	S *	3/2008	Lewin et al.	D14/485	D634,751	S *	3/2011	McLaughlin et al.	D14/488
D567,276	S *	4/2008	Sato et al.	D16/202	D634,752	S *	3/2011	McLaughlin et al.	D14/488
D567,277	S *	4/2008	Imai	D16/202	7,898,529	B2 *	3/2011	Fitzmaurice et al.	345/173
D567,836	S *	4/2008	Sato	D16/212	D635,582	S *	4/2011	Okumura et al.	D14/492
7,353,457	B2 *	4/2008	Scheu et al.	715/764	D635,988	S *	4/2011	Mays et al.	D14/487
D568,362	S *	5/2008	Horikiri et al.	D16/212	D636,786	S *	4/2011	Sepulveda	D14/492
7,398,477	B2 *	7/2008	Accot	715/786	D637,196	S *	5/2011	Ray et al.	D14/486
D574,395	S *	8/2008	Loretan et al.	D14/487	D637,197	S *	5/2011	Ray et al.	D14/486
7,418,671	B2 *	8/2008	Hama et al.	715/830	D637,200	S *	5/2011	Fletcher et al.	D14/489
D576,192	S *	9/2008	Isozaki	D16/202	D638,027	S *	5/2011	Towbin et al.	D14/488
7,430,008	B2	9/2008	Ambiru et al.		D638,433	S *	5/2011	Urdan et al.	D14/488
7,450,169	B2	11/2008	Jeon et al.		D638,436	S *	5/2011	Cavanaugh et al.	D14/488
D582,935	S *	12/2008	Lee et al.	D14/486	D639,838	S *	6/2011	Imai	D16/202
D582,954	S *	12/2008	Imai	D16/202	D640,300	S *	6/2011	Sato et al.	D16/202
7,460,122	B1 *	12/2008	Smolders et al.	345/440	D641,374	S *	7/2011	Fletcher et al.	D14/489
7,479,984	B2	1/2009	Tanaka et al.		7,975,234	B2 *	7/2011	Hamadi et al.	715/763
7,480,873	B2	1/2009	Kawahara		D642,588	S *	8/2011	Anzures	D14/486
D586,360	S *	2/2009	Kwag	D14/486	D644,242	S *	8/2011	Matas	D14/489
D588,148	S *	3/2009	Stone et al.	D14/485	D644,243	S *	8/2011	Matas	D14/489
D588,154	S *	3/2009	Bouchard et al.	D14/489	8,006,198	B2 *	8/2011	Okuma et al.	715/810
D588,178	S *	3/2009	Sakai	D16/212	D644,654	S *	9/2011	Maitlen et al.	D14/488
D589,968	S *	4/2009	Park et al.	D14/485	D644,662	S *	9/2011	Gardner et al.	D14/495
D590,838	S *	4/2009	Bisig et al.	D14/492	D645,470	S *	9/2011	Matas	D14/489
D591,305	S *	4/2009	Shimoda	D14/485	D647,102	S *	10/2011	Tokunaga et al.	D14/485
7,515,190	B2	4/2009	Kobayashi et al.		D647,914	S *	11/2011	Brouwers et al.	D14/486
7,516,416	B2 *	4/2009	Viswanathan et al.	715/781	D647,915	S *	11/2011	Urdan et al.	D14/488
7,516,419	B2 *	4/2009	Petro et al.	715/834	D649,045	S *	11/2011	Kopulos et al.	D9/434
D593,107	S *	5/2009	Shimoda et al.	D14/485	D649,159	S *	11/2011	Viggers et al.	D14/492
D593,111	S *	5/2009	Danton	D14/485	D649,997	S *	12/2011	Imai	D16/202
D593,142	S *	5/2009	Yoshida	D16/202	D650,793	S *	12/2011	Impas et al.	D14/489
7,536,653	B2 *	5/2009	Badovinac et al.	715/810	D650,799	S *	12/2011	Wantland et al.	D14/493
D593,571	S *	6/2009	Ball et al.	D14/485	8,082,499	B2 *	12/2011	Hudson et al.	715/702
D595,727	S *	7/2009	Koes et al.	D14/485	D651,611	S *	1/2012	Ouilhet et al.	D14/489
D597,101	S *	7/2009	Chaudhri et al.	D14/488	D651,613	S *	1/2012	Ouilhet	D14/491
7,561,934	B2 *	7/2009	Terada et al.	700/94	D652,053	S *	1/2012	Impas et al.	D14/489
D597,554	S *	8/2009	Danton	D14/491	D652,854	S *	1/2012	Imai	D16/219
D598,464	S *	8/2009	Hirsch et al.	D14/485	D654,925	S *	2/2012	Nishizawa et al.	D14/488
D598,466	S *	8/2009	Hirsch et al.	D14/485	D656,950	S *	4/2012	Shallcross et al.	D14/488
D598,927	S *	8/2009	Hirsch et al.	D14/485	D658,203	S *	4/2012	Hally et al.	D14/488
7,576,779	B2	8/2009	Tanaka et al.		8,151,209	B2 *	4/2012	Law et al.	715/773
D599,810	S *	9/2009	Scalisi et al.	D14/485	D659,152	S *	5/2012	Oda et al.	D14/485
D600,704	S *	9/2009	LaManna et al.	D14/492	D662,108	S *	6/2012	Okumura et al.	D14/487
D602,945	S *	10/2009	Watanabe et al.	D14/489	D662,944	S *	7/2012	Quandt	D14/492
D602,968	S *	10/2009	Sato	D16/212	8,223,127	B2 *	7/2012	Park et al.	345/169
D603,886	S *	11/2009	Sakai	D16/202	D665,412	S *	8/2012	Rai et al.	D14/488
D604,742	S *	11/2009	Nagata et al.	D14/486	D665,417	S *	8/2012	Okumura et al.	D14/490
7,616,764	B2 *	11/2009	Varghese et al.	380/255	D665,423	S *	8/2012	Impas et al.	D14/493
D606,091	S *	12/2009	O'Donnell et al.	D14/489	8,239,784	B2 *	8/2012	Hotelling et al.	715/830
					D667,429	S *	9/2012	Wujcik et al.	D14/489
					D667,432	S *	9/2012	Phelan	D14/491
					D667,444	S *	9/2012	Phelan	D14/492
					D667,455	S *	9/2012	Eby et al.	D14/492

(56)

## References Cited

## U.S. PATENT DOCUMENTS

D667,457	S *	9/2012	Wujcik et al.	D14/492	D700,193	S *	2/2014	Oda et al.	D14/485
D669,497	S *	10/2012	Lee et al.	D14/489	D700,197	S *	2/2014	Akcasu et al.	D14/486
D669,499	S *	10/2012	Gardner et al.	D14/495	D700,198	S *	2/2014	Akcasu et al.	D14/486
D671,583	S *	11/2012	Sakai	D16/202	D700,207	S *	2/2014	Pearson et al.	D14/488
D674,406	S *	1/2013	Frost et al.	D14/488	D700,912	S *	3/2014	Kim	D14/485
D675,225	S *	1/2013	Frost et al.	D14/488	D701,217	S *	3/2014	Kim	D14/485
D675,226	S *	1/2013	Frost et al.	D14/488	D701,226	S *	3/2014	Jung	D14/486
D675,227	S *	1/2013	Frost et al.	D14/488	D701,238	S *	3/2014	Lai et al.	D14/488
D675,228	S *	1/2013	Frost et al.	D14/488	8,677,280	B2 *	3/2014	Carmichael et al.	715/854
8,352,881	B2 *	1/2013	Champion et al.	715/834	D701,879	S *	4/2014	Foit et al.	D14/488
8,359,548	B2 *	1/2013	Vance et al.	715/834	D702,251	S *	4/2014	Kotler et al.	D14/487
D675,640	S *	2/2013	Frost et al.	D14/488	D702,257	S *	4/2014	Wantland et al.	D14/489
D675,641	S *	2/2013	Frost et al.	D14/488	D702,706	S *	4/2014	Kotler et al.	D14/487
D675,642	S *	2/2013	Frost et al.	D14/488	D702,707	S *	4/2014	Kotler et al.	D14/487
D675,643	S *	2/2013	Frost et al.	D14/488	D703,221	S *	4/2014	Park et al.	D14/486
D675,646	S *	2/2013	Frost et al.	D14/489	D703,693	S *	4/2014	Brinda et al.	D14/488
D675,647	S *	2/2013	Frost et al.	D14/489	8,707,211	B2 *	4/2014	Yasui et al.	715/834
D676,057	S *	2/2013	Lee	D14/487	D704,211	S *	5/2014	Agnew et al.	D14/486
D676,059	S *	2/2013	Frost et al.	D14/489	D704,220	S *	5/2014	Lim et al.	D14/492
D676,060	S *	2/2013	Frost et al.	D14/490	8,719,729	B2 *	5/2014	Smith et al.	715/834
D676,457	S *	2/2013	Frost et al.	D14/488	2001/0012021	A1 *	8/2001	Nishiyama et al.	345/763
D676,470	S *	2/2013	Steele et al.	D14/492	2002/0030754	A1	3/2002	Sugimoto	
8,370,769	B2 *	2/2013	Vance et al.	715/834	2002/0080185	A1	6/2002	Boeuf	
8,370,770	B2 *	2/2013	Vance et al.	715/834	2002/0118227	A1	8/2002	Salvatore	
8,381,135	B2 *	2/2013	Hotelling et al.	715/863	2002/0122031	A1 *	9/2002	Maglio et al.	345/184
D677,276	S *	3/2013	Eby et al.	D14/492	2002/0149621	A1 *	10/2002	Yamaguchi et al.	345/764
D677,277	S *	3/2013	Eby et al.	D14/492	2002/0171682	A1	11/2002	Frank et al.	
D681,652	S *	5/2013	Oda et al.	D14/485	2003/0011639	A1	1/2003	Webb	
D681,662	S *	5/2013	Fletcher et al.	D14/488	2003/0076306	A1 *	4/2003	Zadesky et al.	345/173
D681,669	S *	5/2013	Phelan	D14/489	2003/0095096	A1 *	5/2003	Robbin et al.	345/156
D682,304	S *	5/2013	Mierau et al.	D14/488	2003/0142143	A1	7/2003	Brown et al.	
D682,880	S *	5/2013	Koehn et al.	D14/491	2003/0164856	A1	9/2003	Prager et al.	
D684,583	S *	6/2013	Brinda et al.	D14/485	2003/0169298	A1	9/2003	Ording	
D685,375	S *	7/2013	Steinberger	D14/436	2003/0189597	A1	10/2003	Anderson et al.	
D685,391	S *	7/2013	Blissenbach et al.	D14/492	2003/0197732	A1	10/2003	Gupta	
D686,241	S *	7/2013	Steele et al.	D14/489	2003/0197736	A1 *	10/2003	Murphy	345/780
D687,043	S *	7/2013	Matas et al.	D14/485	2003/0226115	A1	12/2003	Wall et al.	
D687,045	S *	7/2013	Plitkins et al.	D14/485	2003/0231208	A1 *	12/2003	Hanon et al.	345/764
D687,046	S *	7/2013	Plitkins et al.	D14/485	2004/0017481	A1	1/2004	Takasumi et al.	
D687,056	S *	7/2013	Matas et al.	D14/488	2004/0017499	A1	1/2004	Ambiru	
D687,057	S *	7/2013	Plitkins	D14/488	2004/0032522	A1	2/2004	Koeda et al.	
D687,059	S *	7/2013	Bruck et al.	D14/488	2004/0046795	A1 *	3/2004	Josephson et al.	345/764
D687,066	S *	7/2013	Jang et al.	D14/492	2004/0046886	A1	3/2004	Ambiru et al.	
D687,067	S *	7/2013	Jang et al.	D14/492	2004/0046887	A1	3/2004	Ikehata et al.	
D687,859	S *	8/2013	Oda et al.	D14/492	2004/0051803	A1	3/2004	Venturino et al.	
D688,703	S *	8/2013	Phelan	D14/492	2004/0070567	A1 *	4/2004	Longe et al.	345/156
D689,091	S *	9/2013	Impas et al.	D14/489	2004/0090315	A1 *	5/2004	Mackjust et al.	340/426.13
D690,322	S *	9/2013	Matas et al.	D14/492	2004/0104896	A1 *	6/2004	Suraqui	345/168
D690,717	S *	10/2013	Thomsen et al.	D14/485	2004/0141010	A1 *	7/2004	Fitzmaurice et al.	345/810
D690,718	S *	10/2013	Thomsen et al.	D14/485	2004/0201679	A1	10/2004	Carcia	
D690,719	S *	10/2013	Thomsen et al.	D14/485	2004/0227835	A1	11/2004	Seki	
D690,720	S *	10/2013	Waldman	D14/485	2004/0239792	A1	12/2004	Shibutani et al.	
D690,728	S *	10/2013	Brinda	D14/488	2004/0255254	A1	12/2004	Weingart et al.	
D690,731	S *	10/2013	Yang et al.	D14/489	2005/0001902	A1	1/2005	Brogan et al.	
D691,171	S *	10/2013	Brinda et al.	D14/488	2005/0010955	A1 *	1/2005	Elia et al.	725/88
D691,629	S *	10/2013	Matas et al.	D14/488	2005/0024515	A1	2/2005	Ikehata et al.	
8,548,431	B2 *	10/2013	Teng et al.	455/411	2005/0081164	A1 *	4/2005	Hama et al.	715/830
8,572,509	B2 *	10/2013	Gobeil	715/834	2005/0083406	A1	4/2005	Cozier	
D693,365	S *	11/2013	Gardner et al.	D14/489	2005/0083425	A1	4/2005	Cozier et al.	
8,595,649	B2 *	11/2013	Sherrard et al.	715/834	2005/0195294	A1	9/2005	Kim et al.	
D697,071	S *	1/2014	Brinda	D14/485	2005/0212915	A1 *	9/2005	Karasaki et al.	348/207.2
D697,072	S *	1/2014	Ouilhet	D14/485	2005/0212943	A1	9/2005	Karasaki et al.	
D697,076	S *	1/2014	Oda et al.	D14/486	2005/0219386	A1	10/2005	Stavely et al.	
D697,518	S *	1/2014	Thomsen et al.	D14/485	2005/0225658	A1	10/2005	Ikehata	
D697,519	S *	1/2014	Thomsen et al.	D14/485	2005/0231625	A1	10/2005	Parulski et al.	
D697,523	S *	1/2014	Oda et al.	D14/486	2005/0237411	A1	10/2005	Watanabe	
D697,935	S *	1/2014	Lee et al.	D14/486	2005/0240879	A1 *	10/2005	Law et al.	715/773
8,627,236	B2 *	1/2014	Jung et al.	715/863	2006/0001757	A1	1/2006	Sawachi et al.	
8,631,070	B2 *	1/2014	Vance et al.	709/204	2006/0028454	A1 *	2/2006	Branton et al.	345/173
8,640,052	B2 *	1/2014	Dasgupta et al.	715/848	2006/0053389	A1 *	3/2006	Michelman	715/775
D699,248	S *	2/2014	Pearson et al.	D14/485	2006/0087578	A1	4/2006	Hong et al.	
D699,730	S *	2/2014	Brinda et al.	D14/485	2006/0098112	A1	5/2006	Kelly	
D699,737	S *	2/2014	Pearson et al.	D14/486	2006/0101350	A1	5/2006	Scott	
D699,747	S *	2/2014	Pearson et al.	D14/488	2006/0103751	A1	5/2006	Lee	
D699,750	S *	2/2014	Pearson et al.	D14/488	2006/0107232	A1 *	5/2006	Salt et al.	715/810
					2006/0112354	A1	5/2006	Park et al.	
					2006/0146166	A1	7/2006	Abe et al.	
					2006/0187331	A1	8/2006	Watanabe et al.	
					2006/0200776	A1 *	9/2006	Godfrey et al.	715/769

(56)

References Cited

U.S. PATENT DOCUMENTS

2006/0221223	A1	10/2006	Terada	2008/1175579		7/2008	Kawakami	
2007/0024736	A1	2/2007	Matsuda et al.	2008/0225154	A1	9/2008	Pan et al.	
2007/0052832	A1	3/2007	Bae et al.	2008/0231610	A1*	9/2008	Hotelling et al. ....	345/173
2007/0058064	A1	3/2007	Hara et al.	2008/0239083	A1	10/2008	Kusaka et al.	
2007/0070203	A1	3/2007	Yang et al.	2008/0279425	A1	11/2008	Tang	
2007/0086648	A1	4/2007	Hayashi	2008/0297607	A1	12/2008	Minatogawa	
2007/0126877	A1	6/2007	Yang	2008/0304816	A1	12/2008	Ebato	
2007/0136679	A1*	6/2007	Yang ..... 715/772	2009/0096875	A1	4/2009	Yoshimaru	
2007/0159533	A1	7/2007	Ayaki	2009/0147123	A1	6/2009	Fujii	
2007/0200945	A1	8/2007	Inukai	2009/0207254	A1	8/2009	Tomat et al.	
2007/0211157	A1	9/2007	Humpoletz et al.	2009/0251587	A1	10/2009	Kim	
2007/0263092	A1	11/2007	Fedorovskaya et al.	2009/0256947	A1	10/2009	Ciurea et al.	
2007/0268371	A1	11/2007	Misawa et al.	2009/0268038	A1	10/2009	Matsumoto	
2008/0022228	A1*	1/2008	Kwon et al. .... 715/838	2009/0278973	A1	11/2009	Sogoh et al.	
2008/0055454	A1	3/2008	Yumiki	2009/0303373	A1	12/2009	Yamada	
2008/0062297	A1	3/2008	Sako et al.	2009/0303375	A1	12/2009	Ohyama	
2008/0068484	A1	3/2008	Nam	2010/0002084	A1	1/2010	Hattori et al.	
2008/0068486	A1	3/2008	Kusaka	2010/0020181	A1	1/2010	Kuroda	
2008/0074499	A1	3/2008	Nimura	2010/0020220	A1	1/2010	Sugita et al.	
2008/0117312	A1	5/2008	Kokubun	2010/0026815	A1	2/2010	Yamamoto	
2008/0126992	A1*	5/2008	Scheu et al. .... 715/835	2010/0060743	A1	3/2010	Sato	
2008/0168386	A1*	7/2008	Brinda et al. .... 715/786	2010/0066889	A1	3/2010	Ueda et al.	
2008/0170150	A1	7/2008	Kojima et al.	2010/0073487	A1	3/2010	Sogoh et al.	
2008/0175579	A1	7/2008	Kawakami	2010/0088594	A1*	4/2010	Kim et al. .... 715/274	
				2010/0175022	A1*	7/2010	Diehl et al. .... 715/784	
				2012/0096383	A1*	4/2012	Sakamoto et al. .... 715/772	
				2012/0124520	A1*	5/2012	Samp et al. .... 715/834	

\* cited by examiner

FIG. 1

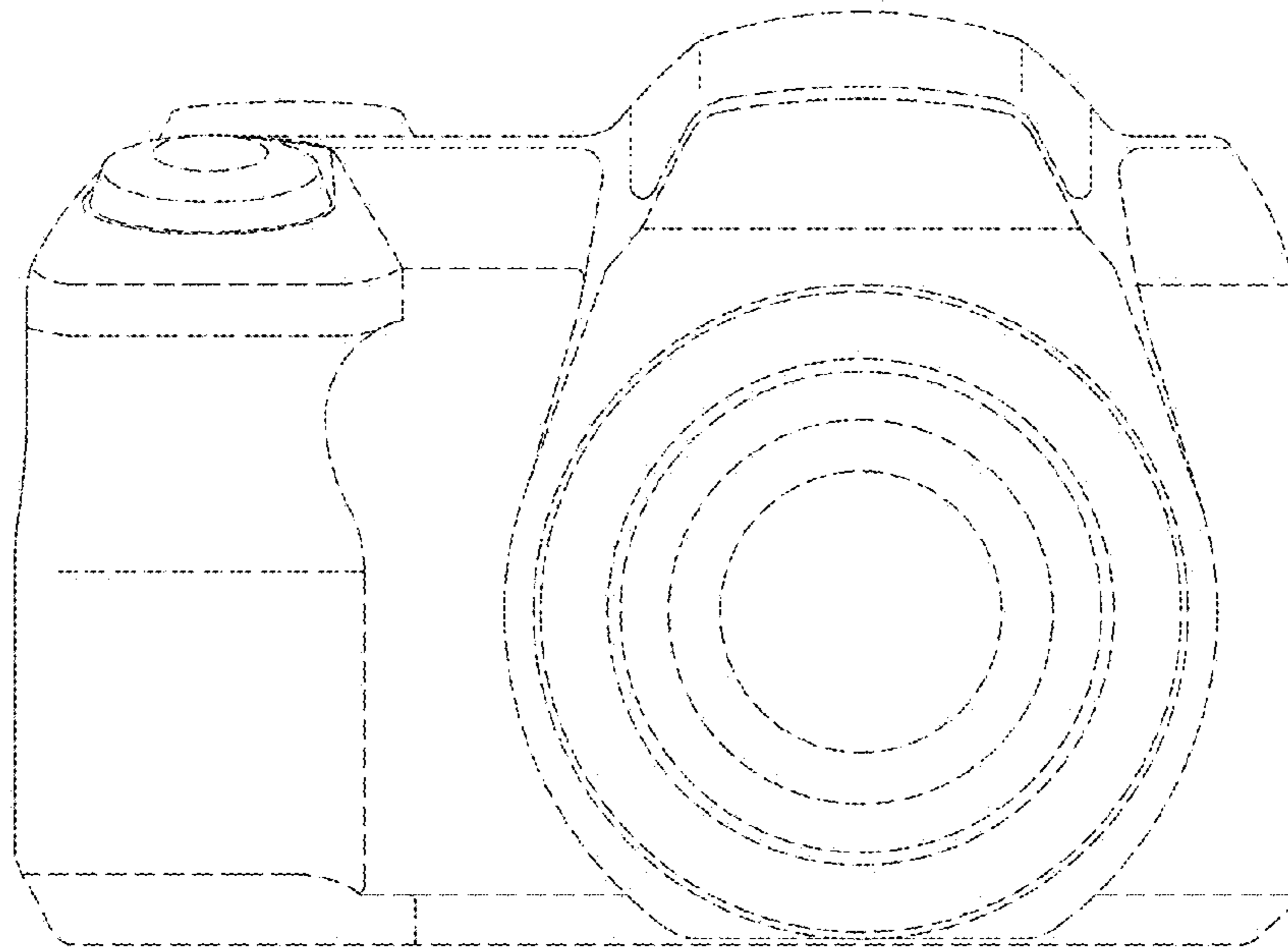


FIG. 2

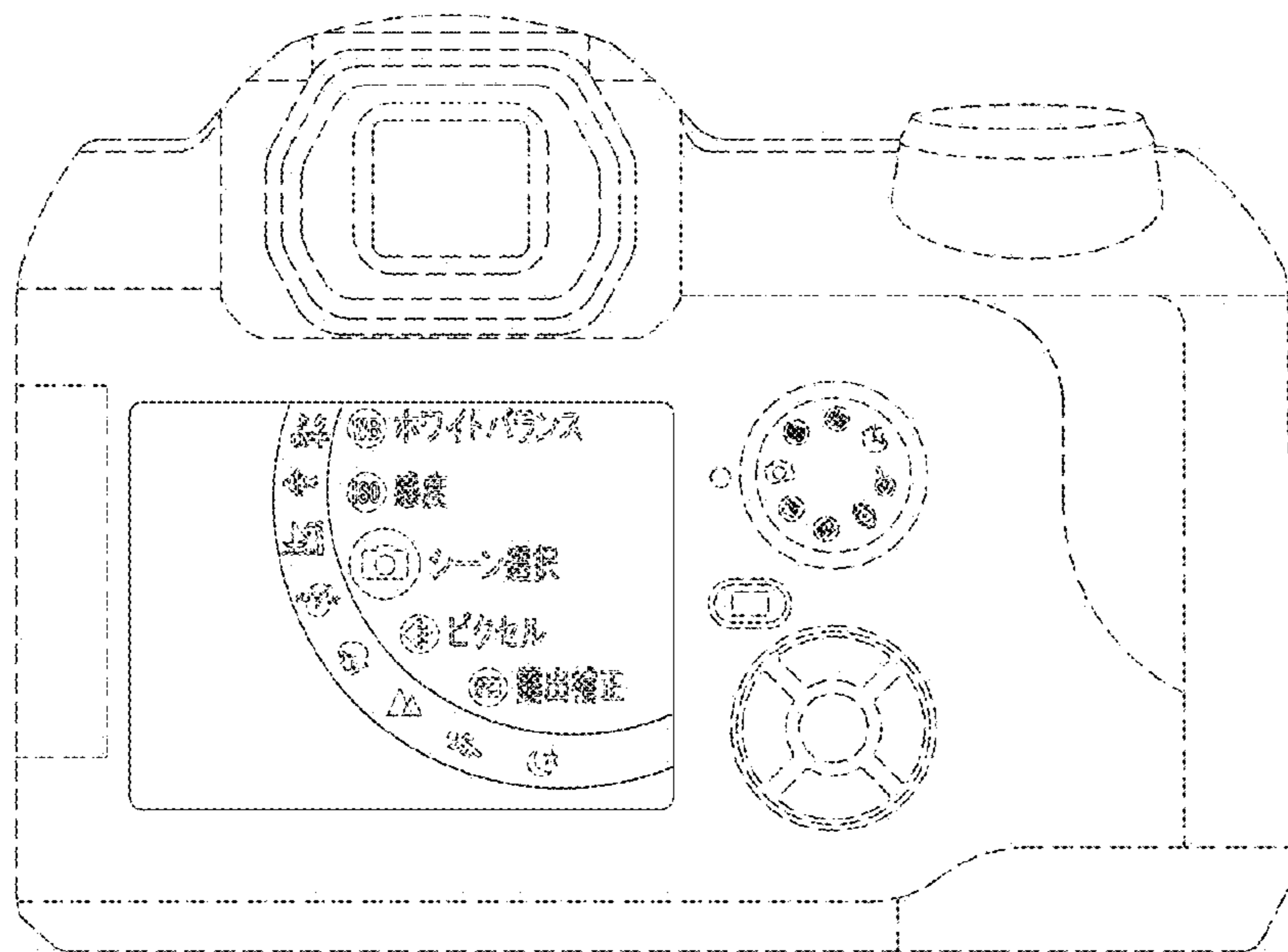


FIG. 3

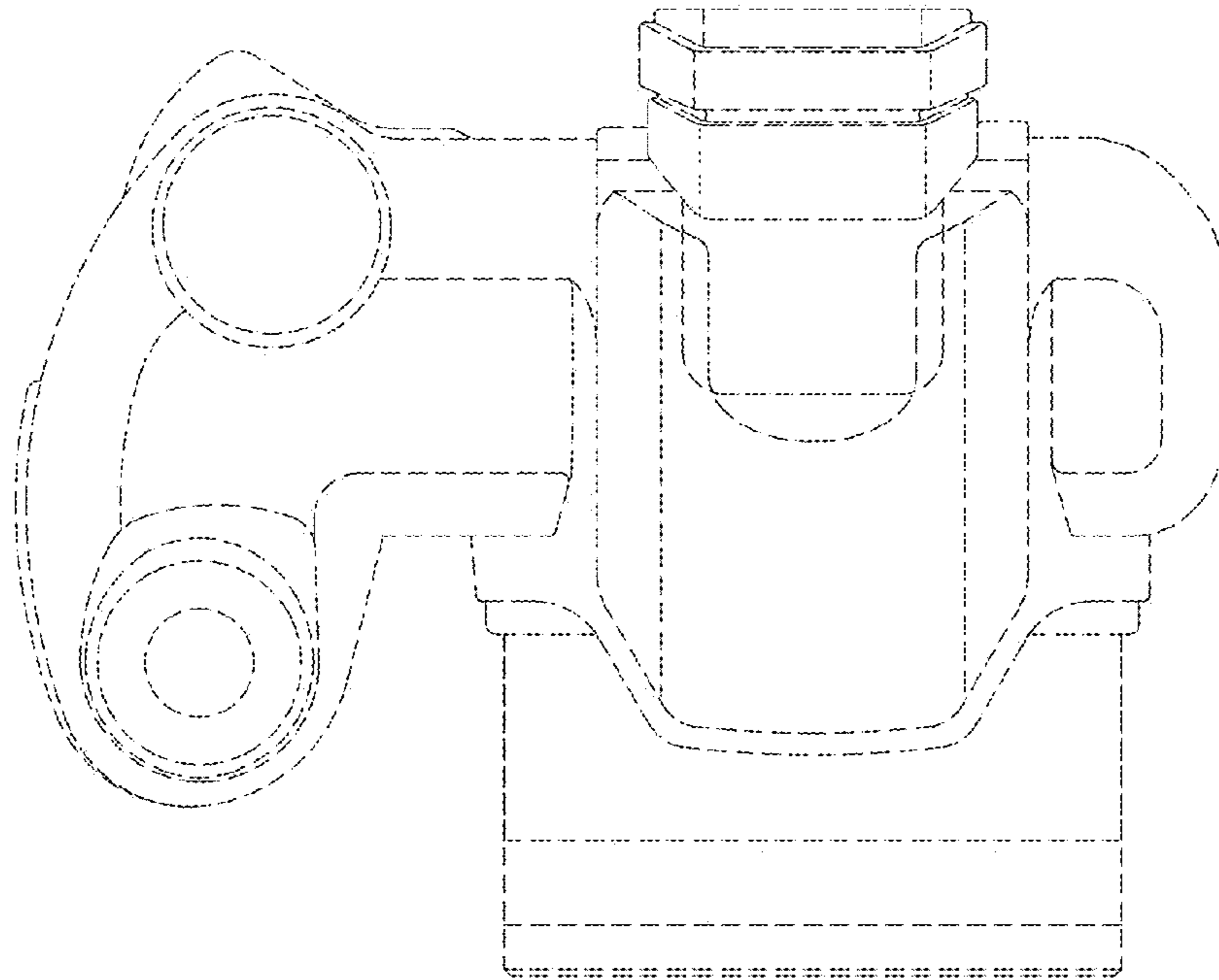


FIG. 4

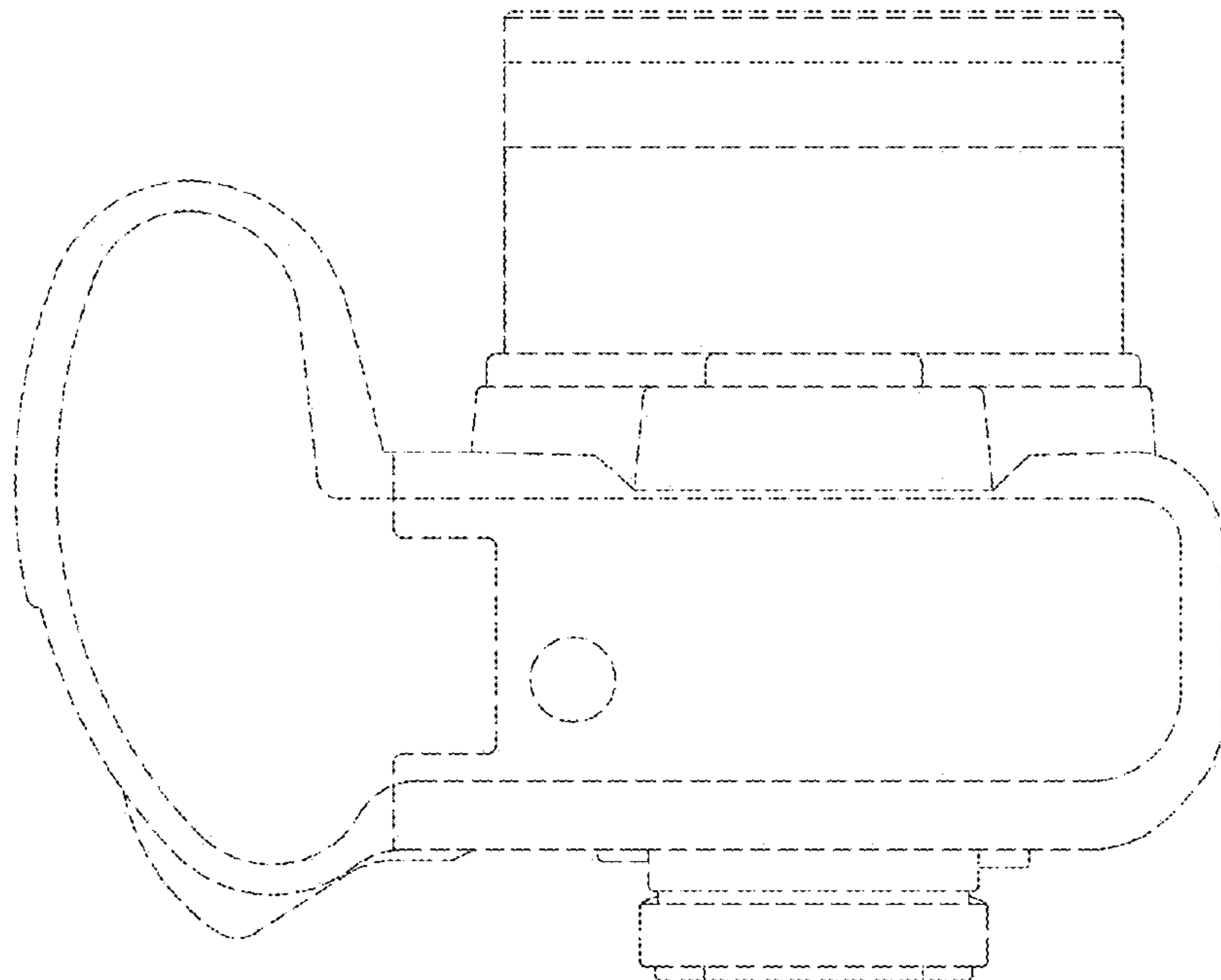


FIG. 5

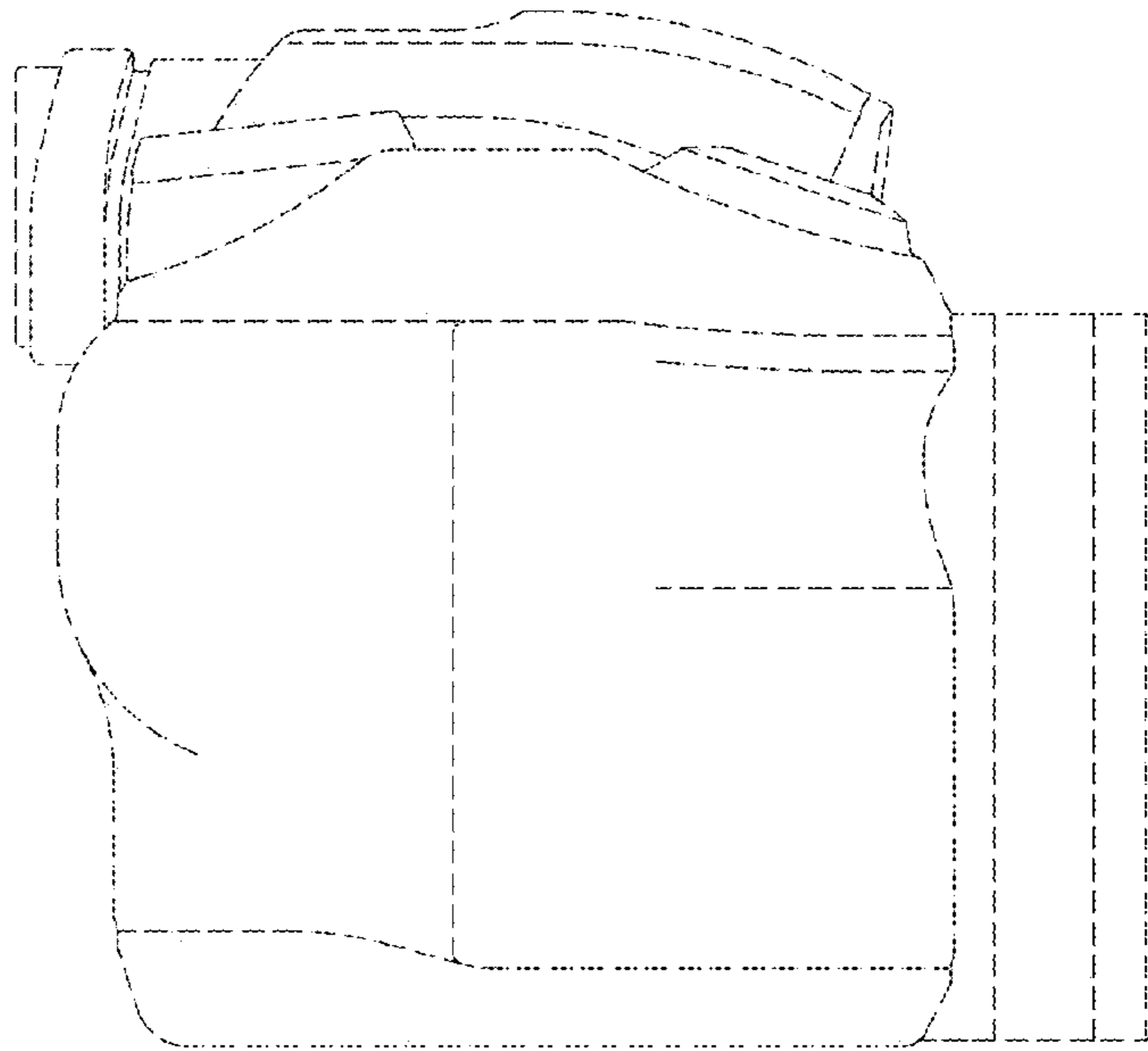


FIG. 6

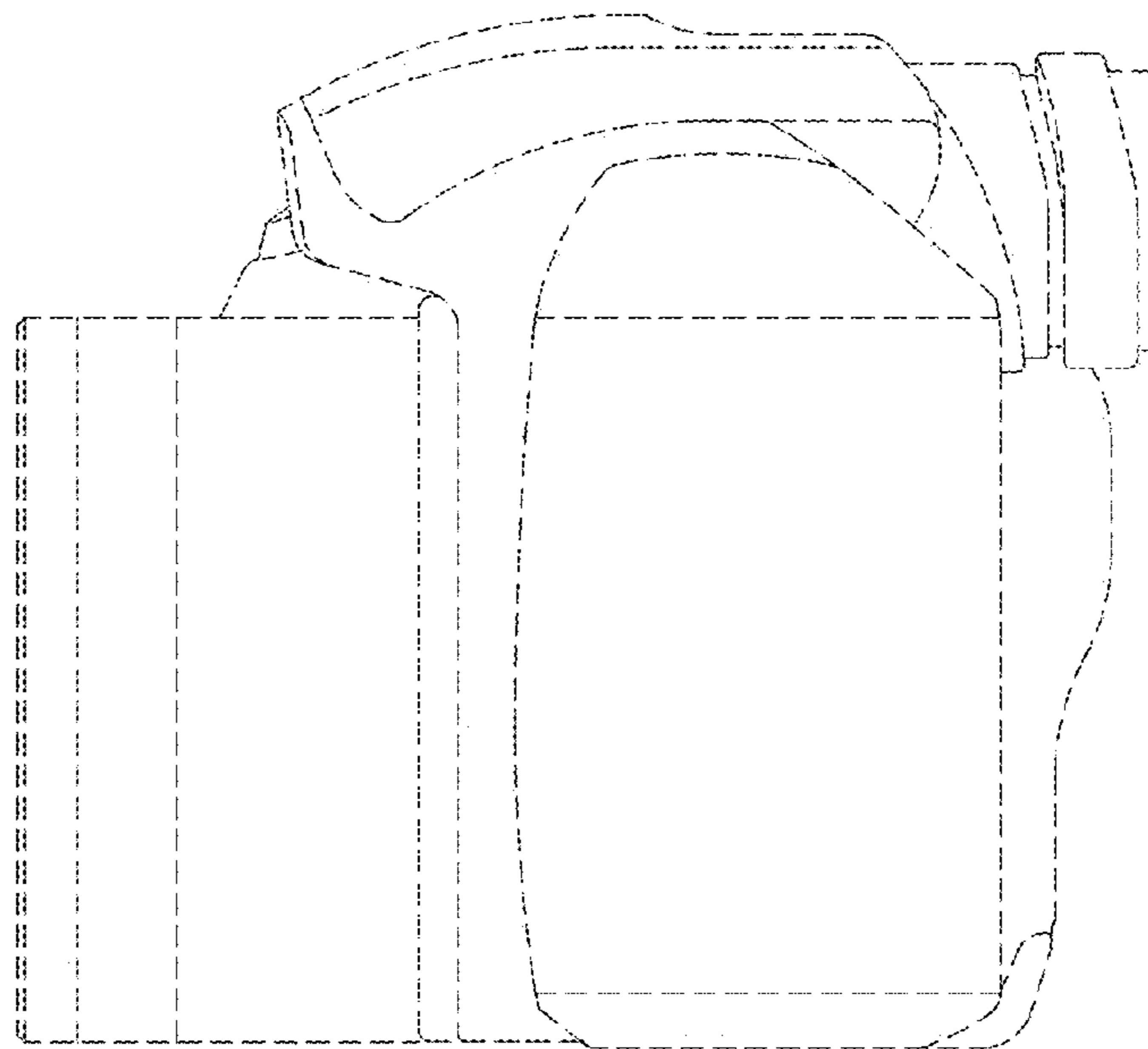




FIG. 7

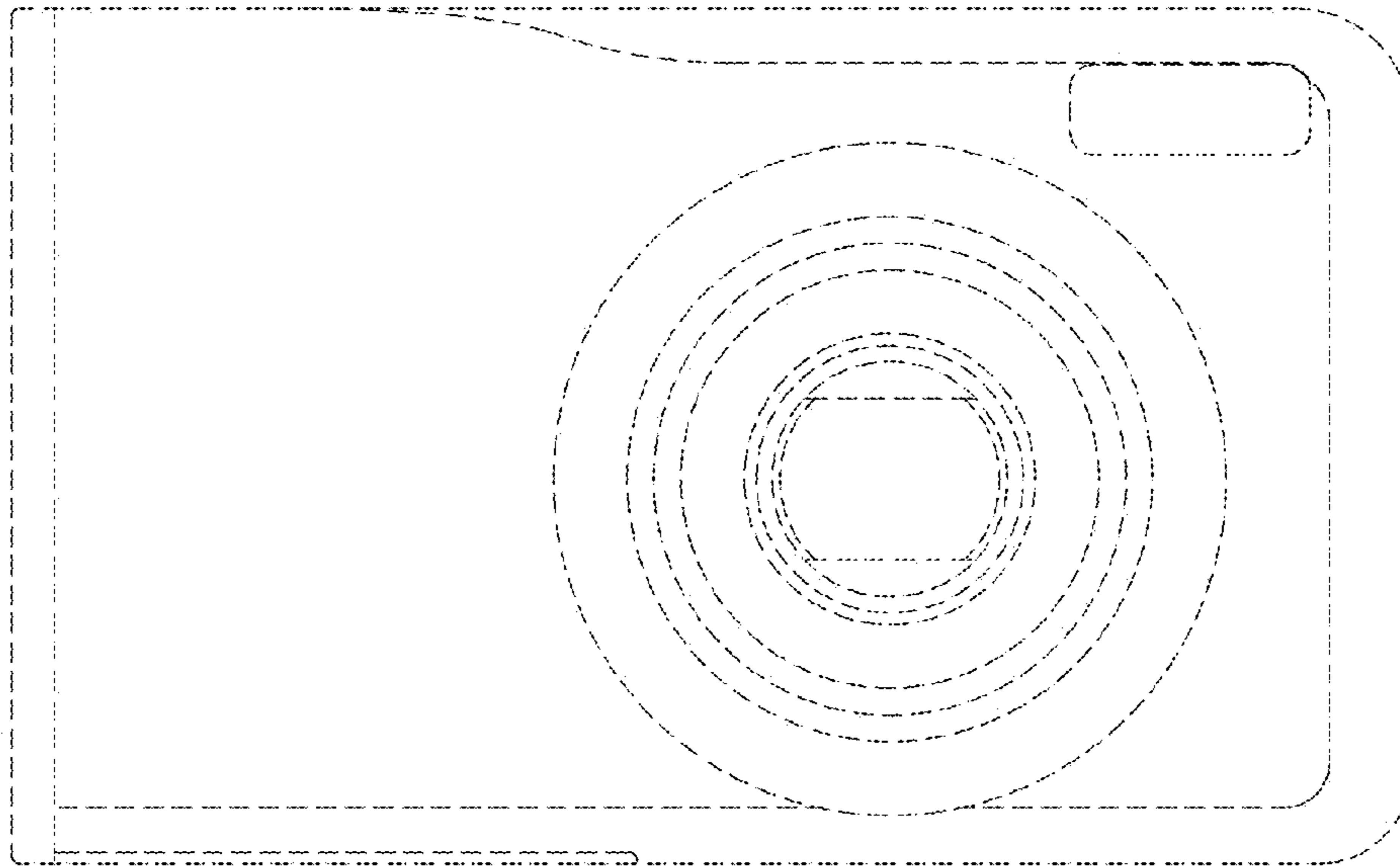


FIG. 8

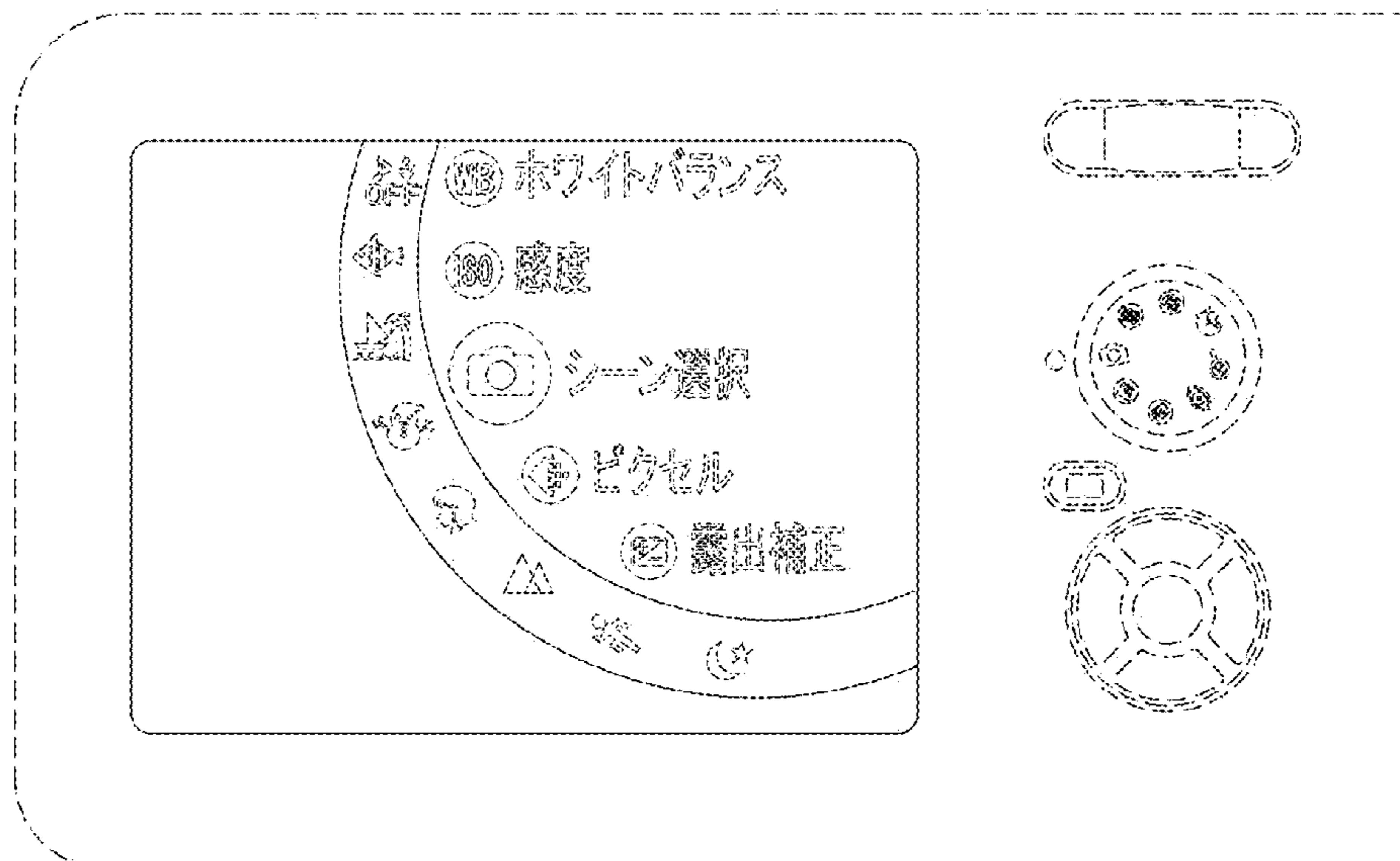


FIG. 9

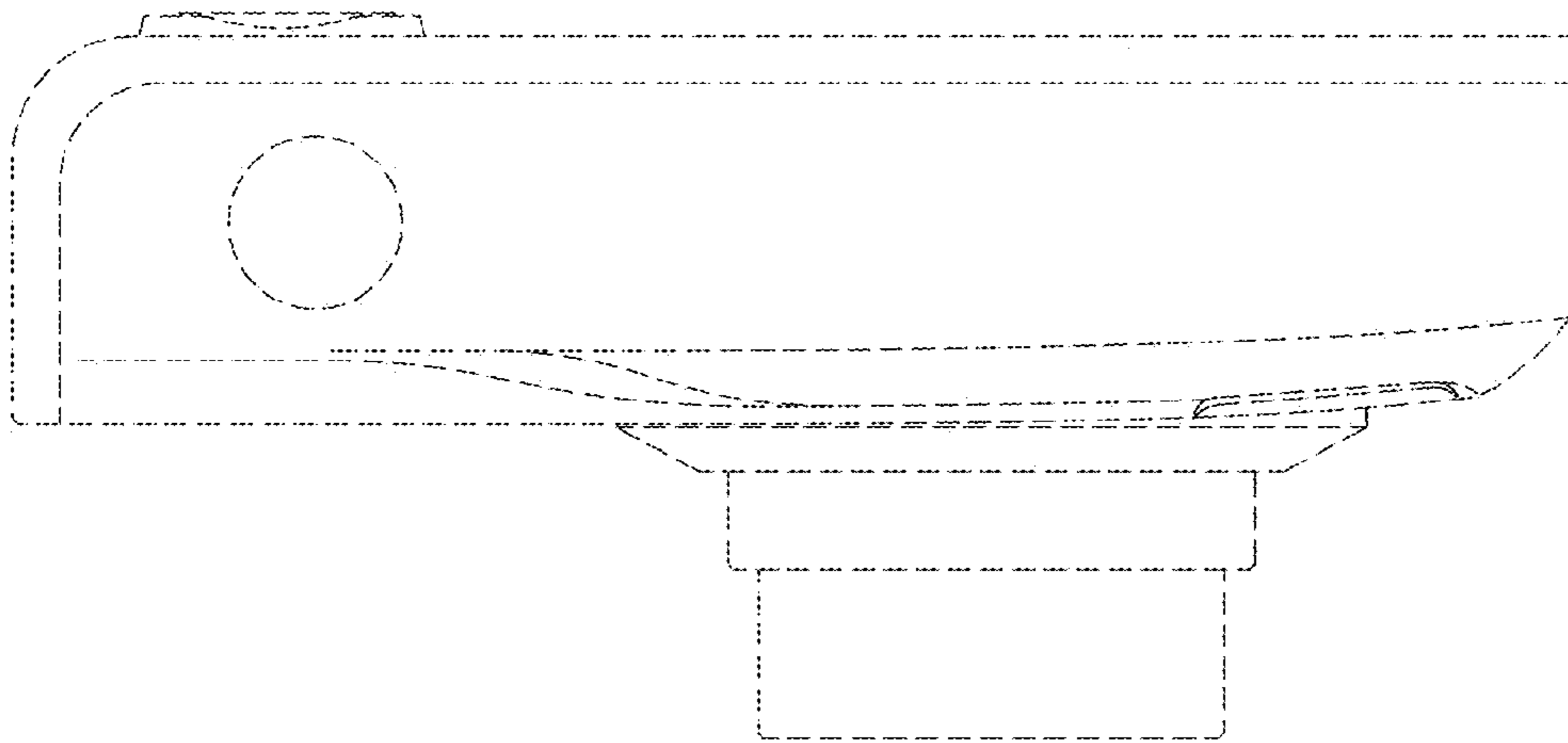


FIG. 10

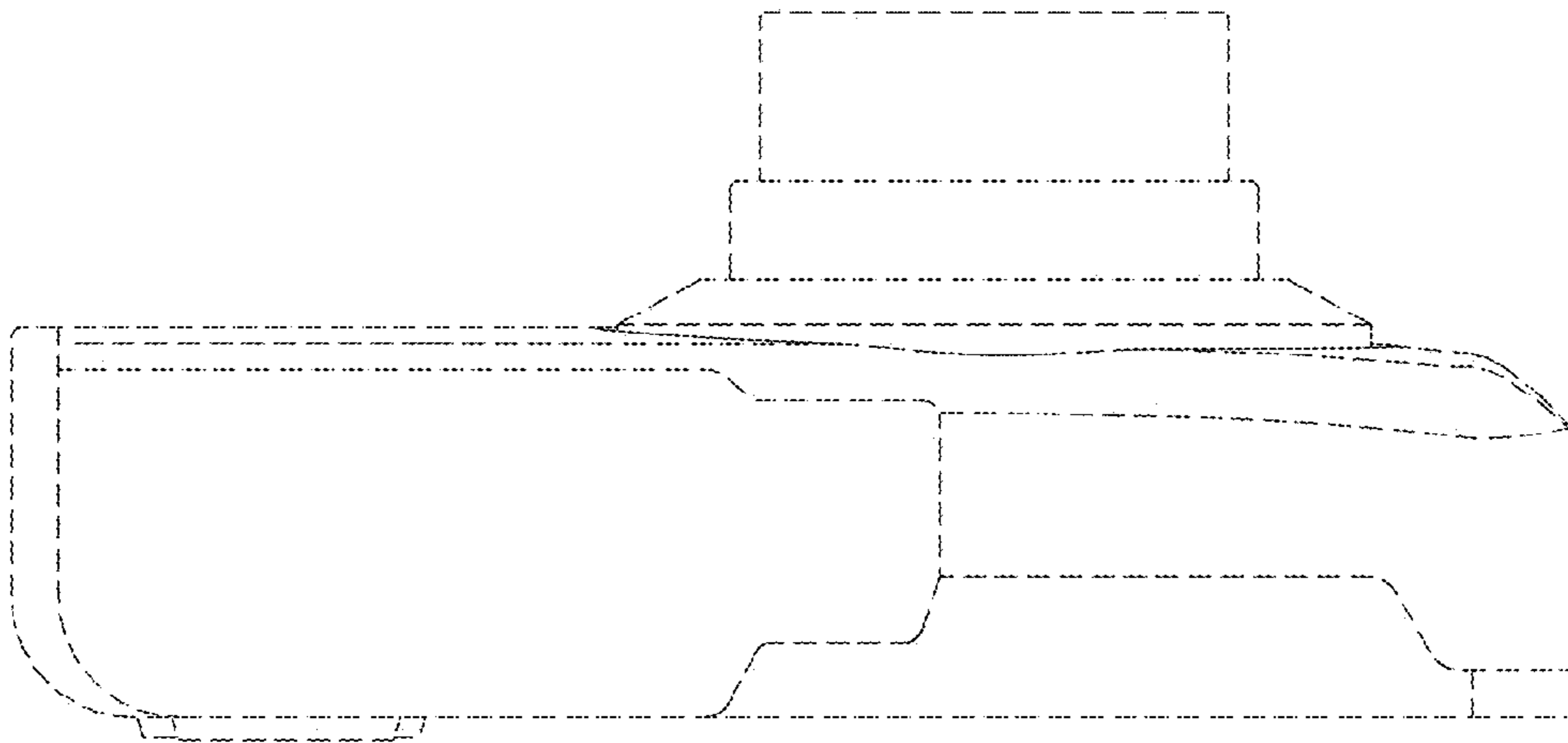


FIG. 11

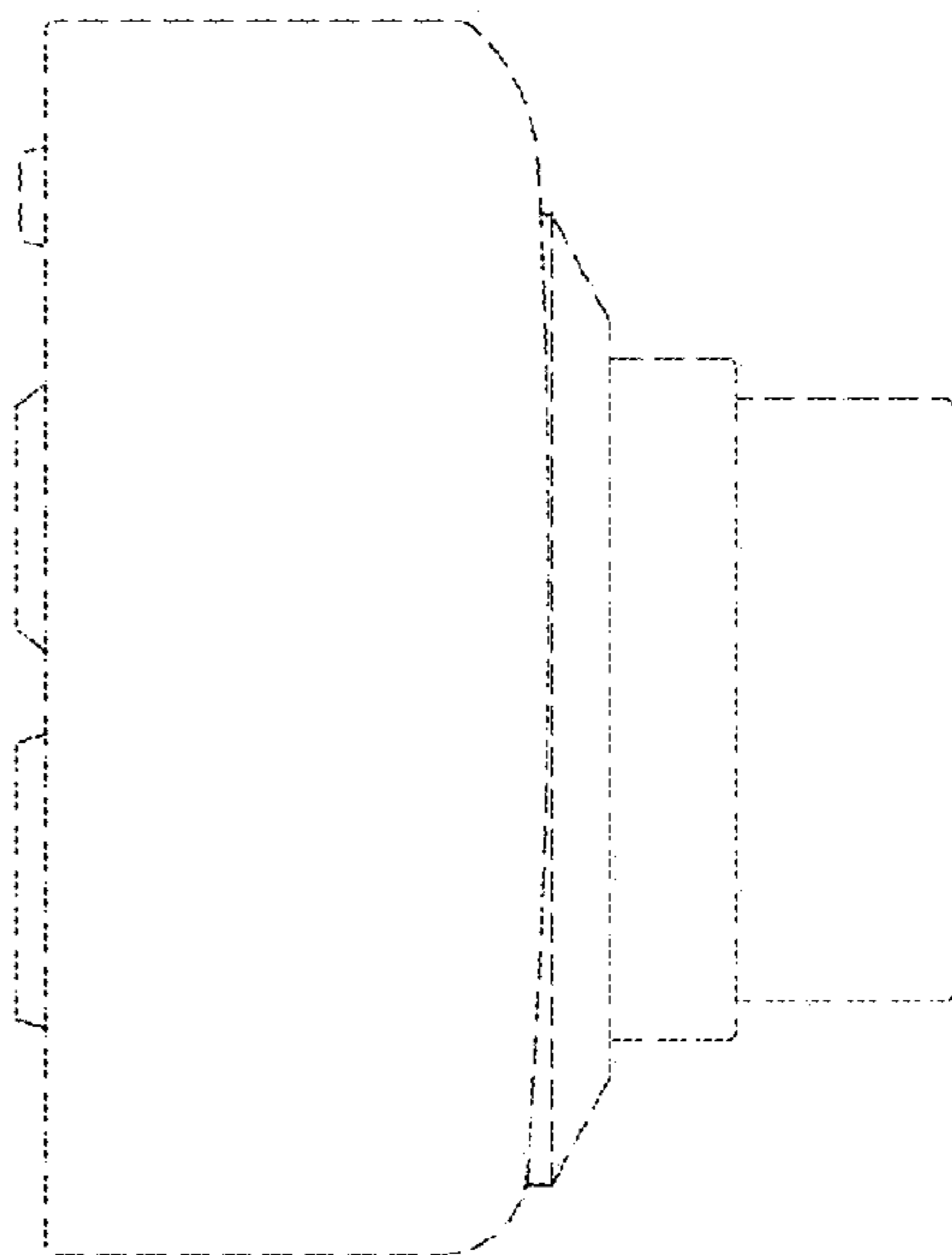


FIG. 12

