

US00D899412S

(12) **United States Design Patent** (10) **Patent No.:** **US D899,412 S**  
**Lee** (45) **Date of Patent:** **\*\* \*Oct. 20, 2020**

(54) **CASE FOR ELECTRONIC COMMUNICATIONS DEVICE**

(71) Applicant: **SPIGEN KOREA CO., LTD.**, Seoul (KR)

(72) Inventor: **Jong Hwa Lee**, Seoul (KR)

(73) Assignee: **SPIGEN KOREA CO., LTD.**, Seoul (KR)

(\*) Notice: This patent is subject to a terminal disclaimer.

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

(21) Appl. No.: **29/684,066**

(22) Filed: **Mar. 18, 2019**

(51) **LOC (12) Cl.** ..... **14-03**

(52) **U.S. Cl.**  
USPC ..... **D14/250**

(58) **Field of Classification Search**

USPC ..... D3/201, 218, 226, 227, 247, 249, 250, D3/269, 303; D13/103, 107, 108, 119; D14/137, 138 R, 138 AA, 138 C, 138 G, D14/172, 192, 203.3–203.7, 217, 238.1, D14/247, 248, 250–253, 434, 440, 447, D14/496  
CPC ..... H04B 1/3888; H04M 1/0283; H04M 1/0202; A45C 1/06; A45C 2011/002; A45C 11/00; A45F 2005/028; A45F 2200/0525

See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

6,758,335 B2 7/2004 Kajiya  
D517,545 S 3/2006 Buckel et al.  
D524,806 S 7/2006 Eguchi  
D551,846 S 10/2007 Ko et al.  
D559,843 S 1/2008 Takamori et al.

(Continued)

**OTHER PUBLICATIONS**

This is what folding phone cases will look like, publication date Mar. 1, 2019, [online][site visited Jun. 12, 2019] URL: <https://www.theverge.com/2019/3/1/18246183/samsung-galaxy-fold-foldable-phone-case-screen-protector-spigen-zagg> (Year: 2019).\*

(Continued)

*Primary Examiner* — Susan E Krakower  
*Assistant Examiner* — L. A. Grabenstetter

(74) *Attorney, Agent, or Firm* — Heedong Chae; Lucem, PC

(57) **CLAIM**

The ornamental design for a case for electronic communications device, as shown and described.

**DESCRIPTION**

FIG. 1 is a front perspective view of a case for electronic communications device in an open position showing my new design;

FIG. 2 is a rear 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 a front perspective view thereof in a closed position, shown in an environment of use;

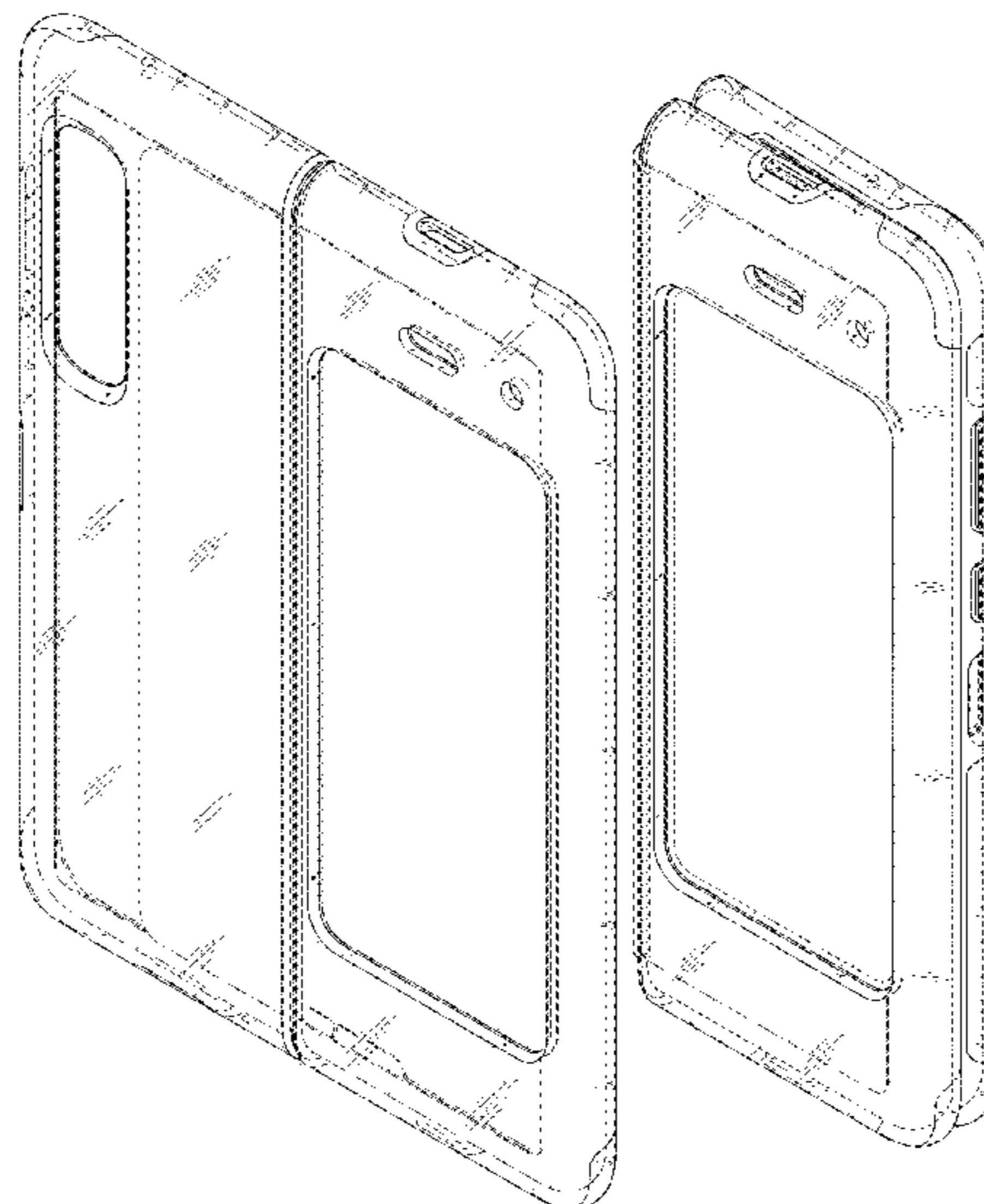
FIG. 10 is a rear perspective view thereof in a closed position, shown in an environment of use;

FIG. 11 is a front perspective view thereof in an open position, shown in an environment of use; and,

FIG. 12 is a rear perspective view thereof in an open position, shown in an environment of use.

The broken lines depict an environmental foldable electronic communications device that forms no part of the claimed design.

**1 Claim, 12 Drawing Sheets**



(56)

References Cited

U.S. PATENT DOCUMENTS

D560,216 S	1/2008	Takamori et al.	D765,627 S	9/2016	Watt
D574,819 S	8/2008	Andre et al.	D765,633 S	9/2016	Northrup et al.
D615,077 S	5/2010	Richardson et al.	D765,643 S	9/2016	Witter
D615,536 S	5/2010	Richardson et al.	D765,645 S	9/2016	Kim
D619,361 S	7/2010	Andre	D771,027 S	11/2016	Prstojevič
D623,639 S	9/2010	Richardson et al.	D771,612 S	11/2016	Roberts et al.
D623,640 S	9/2010	Freeman	D771,613 S	11/2016	Poon et al.
D643,029 S	8/2011	Feng	D772,854 S	11/2016	Igarashi
D643,837 S	8/2011	Smith	D772,881 S	11/2016	Chang et al.
D651,202 S	12/2011	Fathoolahi	D773,445 S	12/2016	Witter et al.
D656,495 S	3/2012	Andre	D776,104 S	1/2017	Tien
D657,354 S	4/2012	Kim	D776,647 S	1/2017	Kim
D662,924 S	7/2012	Melanson	D777,157 S	1/2017	Kim
D662,929 S	7/2012	Fahrendorff et al.	D777,159 S	1/2017	Lee et al.
D663,263 S	7/2012	Gupta	D780,166 S	2/2017	Lin
D671,930 S	12/2012	Akana et al.	D780,167 S	2/2017	Tien
D673,539 S	1/2013	Magness et al.	D781,834 S	3/2017	Kim et al.
D674,789 S	1/2013	Wen	D781,835 S	3/2017	Kim et al.
D679,271 S	4/2013	Liu	D781,836 S	3/2017	Kim et al.
D679,695 S	4/2013	Fahrendorff et al.	D781,837 S	3/2017	Kim et al.
D680,521 S	4/2013	Fathollahi	D781,838 S	3/2017	Kim et al.
D681,620 S *	5/2013	Huskinson ..... D14/250	D781,839 S	3/2017	Kim et al.
D685,780 S	7/2013	Murchison	D781,840 S	3/2017	Kim et al.
D691,992 S	10/2013	Murchison	D782,453 S	3/2017	Kim et al.
D693,820 S *	11/2013	Eastwood ..... D14/432	D782,454 S	3/2017	Kim et al.
D694,224 S	11/2013	Wooseung	D784,309 S	4/2017	Lee et al.
D694,759 S	12/2013	Chang	D786,848 S	5/2017	Park et al.
D696,238 S	12/2013	Murchison et al.	D786,849 S	5/2017	Park et al.
D696,240 S	12/2013	Kim et al.	D789,925 S *	6/2017	Browning ..... D14/341
D696,256 S	12/2013	Piedra et al.	D792,394 S	7/2017	Lee et al.
D697,503 S	1/2014	Melanson	D795,237 S	8/2017	Jung et al.
D702,673 S *	4/2014	Murchison ..... D14/250	D795,826 S *	8/2017	Yoon ..... D14/138 AB
D705,534 S *	5/2014	Manjerico ..... D3/218	D797,715 S	9/2017	Kim
D706,254 S	6/2014	Chang	D797,729 S *	9/2017	Park ..... D14/248
D706,754 S	6/2014	Goradesky	D798,256 S *	9/2017	Choo ..... D14/138 AA
D709,869 S	7/2014	Witter	D798,257 S *	9/2017	Choo ..... D14/138 AB
D712,385 S	9/2014	Hu et al.	D798,853 S	10/2017	Park et al.
D712,388 S	9/2014	Jia	D800,112 S *	10/2017	Park ..... D14/345
D714,276 S	9/2014	Hu	D801,322 S	10/2017	Song et al.
D719,945 S	12/2014	Chiang	D806,378 S *	1/2018	Lerenthal ..... D3/201
D721,071 S	1/2015	Nelson et al.	D807,337 S	1/2018	Kim et al.
D721,360 S	1/2015	Laffon de Mazieres	D808,955 S	1/2018	Park et al.
D721,693 S	1/2015	Lee et al.	D810,067 S *	2/2018	Lee ..... D14/250
D721,694 S	1/2015	Lee et al.	D823,293 S	7/2018	Kim et al.
D729,812 S *	5/2015	Ahn ..... D14/440	D823,294 S	7/2018	Kim et al.
D732,543 S	6/2015	Westrup et al.	D823,296 S	7/2018	Kim et al.
D733,111 S	6/2015	Kim	D823,297 S	7/2018	Kim et al.
9,059,505 B1	6/2015	Asrani	D823,298 S	7/2018	Kim et al.
D733,714 S	7/2015	Ballou et al.	D825,542 S	8/2018	Wikstrom
9,077,436 B1 *	7/2015	Liu ..... H04B 1/3888	D830,353 S	10/2018	Kim et al.
D739,394 S	9/2015	Rayner et al.	D831,632 S	10/2018	Jung
D741,845 S	10/2015	Kim	D832,245 S	10/2018	Jeon
D744,472 S	12/2015	Lerenthal	D832,268 S	10/2018	Mecchella et al.
D744,491 S *	12/2015	Lee ..... D14/440	D832,831 S	11/2018	Zhang
D745,013 S *	12/2015	Brierley ..... D14/440	D835,089 S	12/2018	Nelson et al.
D746,805 S	1/2016	Kim	D835,090 S	12/2018	Beck et al.
D747,708 S	1/2016	Roberts	10,162,389 B2 *	12/2018	Tazbaz ..... G06F 1/1681
D749,535 S	2/2016	Joung	D838,262 S	1/2019	Witter et al.
D749,557 S	2/2016	Feng	D838,264 S	1/2019	Wright et al.
D749,594 S	2/2016	Kim et al.	D838,265 S	1/2019	Wright et al.
9,293,808 B1	3/2016	Roberts	D838,710 S	1/2019	Wang
D754,643 S *	4/2016	Shin ..... D14/250	D839,252 S	1/2019	Lim et al.
D754,652 S	4/2016	Roberts	D839,859 S	2/2019	Zhang
D755,168 S *	5/2016	Kim ..... D14/250	2014/0111954 A1 *	4/2014	Lee ..... G06F 1/1641 361/749
D755,766 S *	5/2016	Kim ..... D14/250	2015/0195938 A1	7/2015	Witter
D755,770 S *	5/2016	Kim ..... D14/250	2015/0245522 A1	8/2015	Kang
D756,341 S	5/2016	Kim et al.	2015/0180526 A1	9/2015	Hidaka
D756,342 S	5/2016	Lee et al.	2015/0370287 A1 *	12/2015	Ko ..... G06F 1/1626 361/749
D756,343 S	5/2016	Wall et al.	2016/0058143 A1	3/2016	Tien
D756,345 S	5/2016	Roberts	2016/0187935 A1 *	6/2016	Tazbaz ..... G06F 1/1681 361/679.03
D756,909 S	5/2016	Gupta et al.			
D756,910 S	5/2016	Gupta et al.			
D756,911 S	5/2016	Gupta et al.			
D763,239 S	8/2016	Chan et al.			
D763,241 S	8/2016	Kim			



(56)

**References Cited**

## U.S. PATENT DOCUMENTS

2016/0198026 A1 7/2016 Del Toro  
 2016/0349802 A1\* 12/2016 Ahn ..... G06F 1/1641

## OTHER PUBLICATIONS

Official Samsung Galaxy Fold Leather Cover pops up online, publication date Apr. 18, 2019, [online][site visited Aug. 9, 2019] URL: <https://androidcommunity.com/official-samsung-galaxy-fold-leather-cover-pops-up-online-20190418/> (Year: 2019).\*

Take a look at Spigen's Galaxy Fold prototype cases, publication date Apr. 24, 2019, [online][site visited Jun. 12, 2019] URL: <https://www.theverge.com/2019/4/24/18514234/galaxy-fold-case-spigen-samsung-prototype> (Year: 2019).\*

"Spigen Ultra Hybrid iPhone 5S / 5 Case with Air Cushion Technology and Hybrid Drop Protection for iPhone 5S / iPhone 5—Crystal Clear", <https://www.amazon.com/dp/B00G3JCFNC>, Earliest review date of Sep. 10, 2013, Downloaded on Jan. 4, 2019.

"Spigen Ultra Hybrid Nexus 5 Case with Air Cushion Technology and Hybrid Drop Protection for Nexus 5—Black", <https://www.amazon.com/dp/B00FJJ38HY>, Earliest review date of Nov. 1, 2013, Downloaded on Jan. 8, 2019.

"Spigen Ultra Hybrid iPhone 6 Case with Air Cushion Technology and Hybrid Drop Protection for iPhone 6S / iPhone 6—Crystal Clear", <https://www.amazon.com/dp/B00JH88D1O>, Earliest review date of Jul. 10, 2014, Downloaded on Dec. 28, 2018.

"Spigen Ultra Hybrid Galaxy Note 4 Case with Air Cushion Technology and Hybrid Drop Protection for Samsung Galaxy Note 4 2014—Gunmetal", <https://www.amazon.com/dp/B00MAWPXVW>, Earliest review date of Oct. 15, 2014, Downloaded on Aug. 8, 2018.

"Spigen Ultra Hybrid Galaxy Note 4 Case with Air Cushion Technology and Hybrid Drop Protection for Samsung Galaxy Note 4 2014—Crystal Clear", <https://www.amazon.com/dp/B00MAWPVXM>, Earliest review date of Oct. 17, 2014, Downloaded on Aug. 8, 2018.

"Spigen Ultra Hybrid Galaxy S6 Case with Air Cushion Technology and Hybrid Drop Protection for Galaxy S6 2015—Crystal Clear", <https://www.amazon.com/dp/B00QU4PN84>, Earliest review date of Feb. 6, 2015, Downloaded on Aug. 8, 2018.

"Spigen Ultra Hybrid Galaxy S6 Edge Case with Air Cushion Technology and Hybrid Drop Protection for Galaxy S6 Edge 2015—Metal Slate", <https://www.amazon.com/dp/B00SV63NNG>, Earliest review date of Mar. 30, 2015, Downloaded on Aug. 8, 2018.

"Spigen Ultra Hybrid Galaxy S6 Edge Plus Case with Air Cushion Technology and Hybrid Drop Protection for Galaxy S6 Edge Plus 2015—Mint", <https://www.amazon.com/dp/B010MWFRFI>, Earliest review date of Aug. 18, 2015, Downloaded on Aug. 8, 2018.

"Spigen Ultra Hybrid iPhone 6S Case with Air Cushion Technology and Hybrid Drop Protection for iPhone 6S / iPhone 6—Crystal Clear", <https://www.amazon.com/dp/B010MVJNTK>, Earliest review date of Aug. 31, 2015, Downloaded on Dec. 28, 2018.

"iPhone 6s Plus Case, Spigen [Ultra Hybrid] Air Cushion [Crystal Clear] Clear back panel + TPU bumper for iPhone 6 Plus (2014) / 6s Plus (2015)—Crystal Clear (SGP11644)", <https://www.amazon.com/dp/B010MVRC20>, Earliest review date of Sep. 15, 2015, Downloaded on Jan. 4, 2019.

"Spigen Ultra Hybrid Nexus 5X Case with Air Cushion Technology and Hybrid Drop Protection for Nexus 5X—Crystal Clear", <https://www.amazon.com/dp/B0147JXWG8>, Earliest review date of Sep. 24, 2015, Downloaded on Jan. 8, 2019.

"Spigen Ultra Hybrid Tech iPhone 6S Plus Case with Bumper Protection for iPhone 6S Plus 2015—Crystal White", <https://www.amazon.com/dp/B013TKNIOC>, Earliest review date of Oct. 26, 2015, Downloaded on Jan. 4, 2019.

"Spigen Ultra Hybrid Galaxy S7 Edge Case with Air Cushion Technology and Hybrid Drop Protection for Samsung Galaxy S7 Edge 2016—Rose Crystal", <https://www.amazon.com/dp/B01AUR0Z1G>, Earliest review date of Feb. 24, 2016, Downloaded on Aug. 8, 2018.

"Spigen Ultra Hybrid Galaxy S7 Case with Air Cushion Technology and Hybrid Drop Protection for Samsung Galaxy S7 2016—Crystal Clear", <https://www.amazon.com/dp/B01A7ID0AG>, Earliest review date of Feb. 29, 2016, Downloaded on Aug. 8, 2018.

"Spigen Ultra Hybrid iPhone SE Case with Air Cushion Technology and Hybrid Drop Protection for iPhone SE 2016—Crystal Clear", <https://www.amazon.com/dp/B01BEDO0OS>, Earliest review date of Apr. 15, 2016, Downloaded on Jan. 4, 2019.

"Spigen Ultra Hybrid Galaxy A5 Case with Air Cushion Technology and Hybrid Drop Protection for Galaxy A5—Crystal Clear", <https://www.amazon.com/dp/B018J07DOI>, Earliest review date of May 23, 2016, Downloaded on Aug. 8, 2018.

"Spigen Ultra Hybrid iPhone 7 Case with Air Cushion Technology and Hybrid Drop Protection for iPhone 7 2016—Black", <https://www.amazon.com/dp/B01GIVXBVY>, Earliest review date of Sep. 1, 2016, Downloaded on Jan. 8, 2019.

"Spigen Ultra Hybrid iPhone 7 Plus Case with Air Cushion Technology and Hybrid Drop Protection for Apple iPhone 7 Plus 2016—Crystal Clear", <https://www.amazon.com/dp/B01GIWGFMU>, Earliest review date of Sep. 6, 2016, Downloaded on Jan. 8, 2019.

"Spigen Ultra Hybrid S iPhone Seven Plus Case with Air Cushion Technology and Magnetic Metal Kickstand for Apple iPhone Seven Plus Two Thousand and Sixteen Clear Black", <https://www.amazon.com/dp/B01LRSF986>, Earliest review date of Sep. 7, 2016, Downloaded on Jan. 8, 2019.

"Spigen Ultra Hybrid S iPhone 7 Case with Air Cushion Technology and Magnetic Metal Kickstand for iPhone 7 2016—Crystal Clear", <https://www.amazon.com/dp/B01J9DVBWE>, Earliest review date of Sep. 13, 2016, Downloaded on Jan. 8, 2019.

"Spigen Ultra Hybrid Google Pixel XL Case with Air Cushion Technology and Hybrid Drop Protection for Google Pixel XL 2016—Crystal Clear", <https://www.amazon.com/dp/B01M12Z4VQ>, Earliest review date of Oct. 21, 2016, Downloaded on Jan. 8, 2019.

"Spigen Ultra Hybrid [2nd Generation] iPhone 8 Plus Case/iPhone 7 Plus Case with Clear Protection and Air Cushion Technology for iPhone 8 Plus (2017) / iPhone 7 Plus (2016)—Crystal Clear", <https://www.amazon.com/dp/B01MXKNPQ5>, Earliest review date of Jan. 9, 2017, Downloaded on Jan. 8, 2019.

"Spigen Ultra Hybrid [2nd Generation] iPhone 7 Case/iPhone 8 Case with Air Cushion Technology for Apple iPhone 7 (2016) / iPhone 8 (2017)—Crystal Clear", <https://www.amazon.com/dp/B01M0USRWG>, Earliest review date of Jan. 17, 2017, Downloaded on Jan. 8, 2019.

"Spigen Ultra Hybrid Galaxy A5 2017 Case with Air Cushion Technology and Hybrid Drop Protection for Samsung Galaxy A5 (2017)—Crystal Clear", <https://www.amazon.com/dp/B01NCJOZ1C>, Earliest review date of Mar. 2, 2017, Downloaded on Jan. 8, 2019.

"Spigen Ultra Hybrid Galaxy S8 Plus Case with Air Cushion Technology and Hybrid Drop Protection for Galaxy S8 Plus (2017)—Crystal Clear", <https://www.amazon.com/dp/B06XP7S564>, Earliest review date of Apr. 4, 2017, Downloaded on Aug. 8, 2018.

"Spigen Ultra Hybrid Galaxy S8 Case with Air Cushion Technology and Hybrid Drop Protection for Samsung Galaxy S8 (2017)—Crystal Clear", <https://www.amazon.com/dp/B06XP5YQNN>, Earliest review date of Apr. 7, 2017, Downloaded on Jul. 30, 2018.

"Spigen Ultra Hybrid S Galaxy S8 Plus Case with Air Cushion Technology and Magnetic Metal Kickstand for Galaxy S8 Plus (2017)—Crystal Clear", <https://www.amazon.com/dp/B06XNSZJ31>, Earliest review date of Apr. 9, 2017, Downloaded on Aug. 8, 2018.

"Spigen Ultra Hybrid Galaxy A7 2017 Case with Air Cushion Technology and Hybrid Drop Protection for Samsung Galaxy A7 (2017)—Crystal Clear", <https://www.amazon.com/dp/B01N9JD0MH>, Earliest review date of May 6, 2017, Downloaded on Aug. 8, 2018.

"Spigen Ultra Hybrid Sony Xperia XZ Premium Case with Air Cushion Technology and Hybrid Drop Protection for Sony Xperia XZ Premium (2017)—Crystal Clear", <https://www.amazon.com/dp/B071VZ1176>, Earliest review date of Jul. 15, 2017, Downloaded on Jan. 8, 2019.

"Spigen Ultra Hybrid OnePlus 5 Case with Air Cushion Technology and Hybrid Drop Protection for OnePlus 5 (2017)—Crystal Clear", <https://www.amazon.com/dp/B06XFSQFMW>, Earliest review date of Aug. 20, 2017, Downloaded on Jan. 8, 2019.



(56)

**References Cited**

## OTHER PUBLICATIONS

“Spigen Ultra Hybrid Galaxy Note 8 Case with Air Cushion Technology and Hybrid Drop Protection for Galaxy Note 8 (2017)—Midnight Black”, <https://www.amazon.com/dp/B073RWN5QP>, Earliest review date of Sep. 3, 2017, Downloaded on Aug. 8, 2018.

“Spigen Ultra Hybrid S Galaxy Note 8 Case with Air Cushion Technology and Magnetic Metal Kickstand for Galaxy Note 8 (2017)—Crystal Clear”, <https://www.amazon.com/dp/B073RWFZQH>, Earliest review date of Sep. 8, 2017, , Downloaded on Jul. 30, 2018.

“Spigen Ultra Hybrid Designed for Apple iPhone XS Case (2018) / Designed for Apple iPhone X Case (2017)—Crystal Clear”, <https://www.amazon.com/dp/B074CMMCZM>, Earliest review date of Sep. 13, 2017, Downloaded on Jan. 8, 2019.

“Spigen Ultra Hybrid S [2nd Generation] iPhone 8 Case/iPhone 7 Case with Air Cushion Technology and Magnetic Metal Kickstand for Apple iPhone 8 (2017) / iPhone 7 (2016)—Crystal Clear”, <https://www.amazon.com/dp/B07482GSK2>, Earliest review date of Sep. 13, 2017, Downloaded on Jan. 8, 2019.

“Spigen Ultra Hybrid S [2nd Generation] iPhone 8 Plus Case/iPhone 7 Plus Case with Air Cushion Technology and Kickstand for Apple iPhone 8 Plus (2017) / iPhone 7 Plus (2016)—Crystal Clear”, <https://www.amazon.com/dp/B074833H3M>, Earliest review date of Sep. 30, 2017, Downloaded on Jan. 8, 2019.

“Spigen Ultra Hybrid S Designed for Apple iPhone Xs Case (2018) / Designed for Apple iPhone X Case (2017)—Crystal Clear”,

<https://www.amazon.com/dp/B074CMHVKY>, Earliest review date of Oct. 19, 2017, Downloaded on Jan. 8, 2019.

“Spigen Ultra Hybrid Sony Xperia XZ1 Case with Air Cushion Technology and Hybrid Drop Protection for Sony Xperia XZ1 (2017)—Crystal Clear”, <https://www.amazon.com/dp/B075DWY35G>, Earliest review date of Dec. 11, 2017, Downloaded on Jan. 8, 2019.

“Spigen Ultra Hybrid Galaxy S9 Plus Case with Air Cushion Technology and Clear Hybrid Drop Protection for Samsung Galaxy S9 Plus (2018)—Matte Black”, <https://www.amazon.com/dp/B078B8PM95>, Earliest review date of Mar. 4, 2018, Downloaded on Jan. 8, 2019.

“Spigen Ultra Hybrid Galaxy S9 Case with Air Cushion Technology and Clear Hybrid Drop Protection for Samsung Galaxy S9 (2018)—Coral Blue”, <https://www.amazon.com/dp/B078FGB7TT>, Earliest review date of Mar. 9, 2018, Downloaded on Jan. 8, 2019.

“Spigen Ultra Hybrid S Galaxy S9 Plus Case with Slim Clear Protection Air Cushion Technology and Magnetic Metal Kickstand for Samsung Galaxy S9 Plus (2018)—Crystal Clear”, <https://www.amazon.com/dp/B078B1HB7Z>, Earliest review date of Mar. 1, 2018, Downloaded on Jan. 8, 2019.

“Spigen Ultra Hybrid S Galaxy S9 Case with Slim Clear Protection Air Cushion Technology and Magnetic Metal Kickstand for Samsung Galaxy S9 (2018)—Midnight Black”, <https://www.amazon.com/dp/B078KPFMCC>, Earliest review date of Mar. 16, 2018, Downloaded on Jan. 8, 2019.

\* cited by examiner

FIG. 1

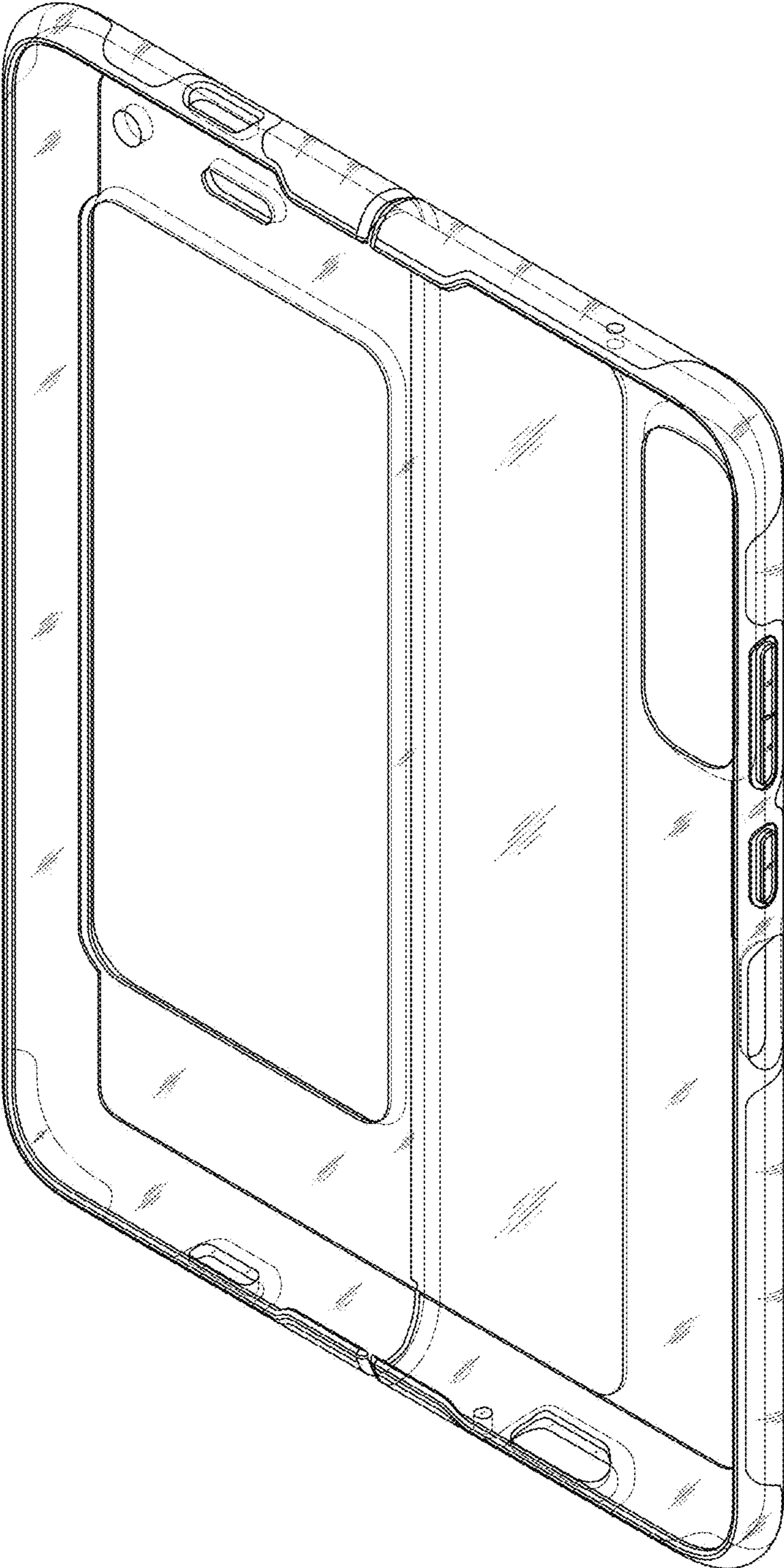


FIG. 2

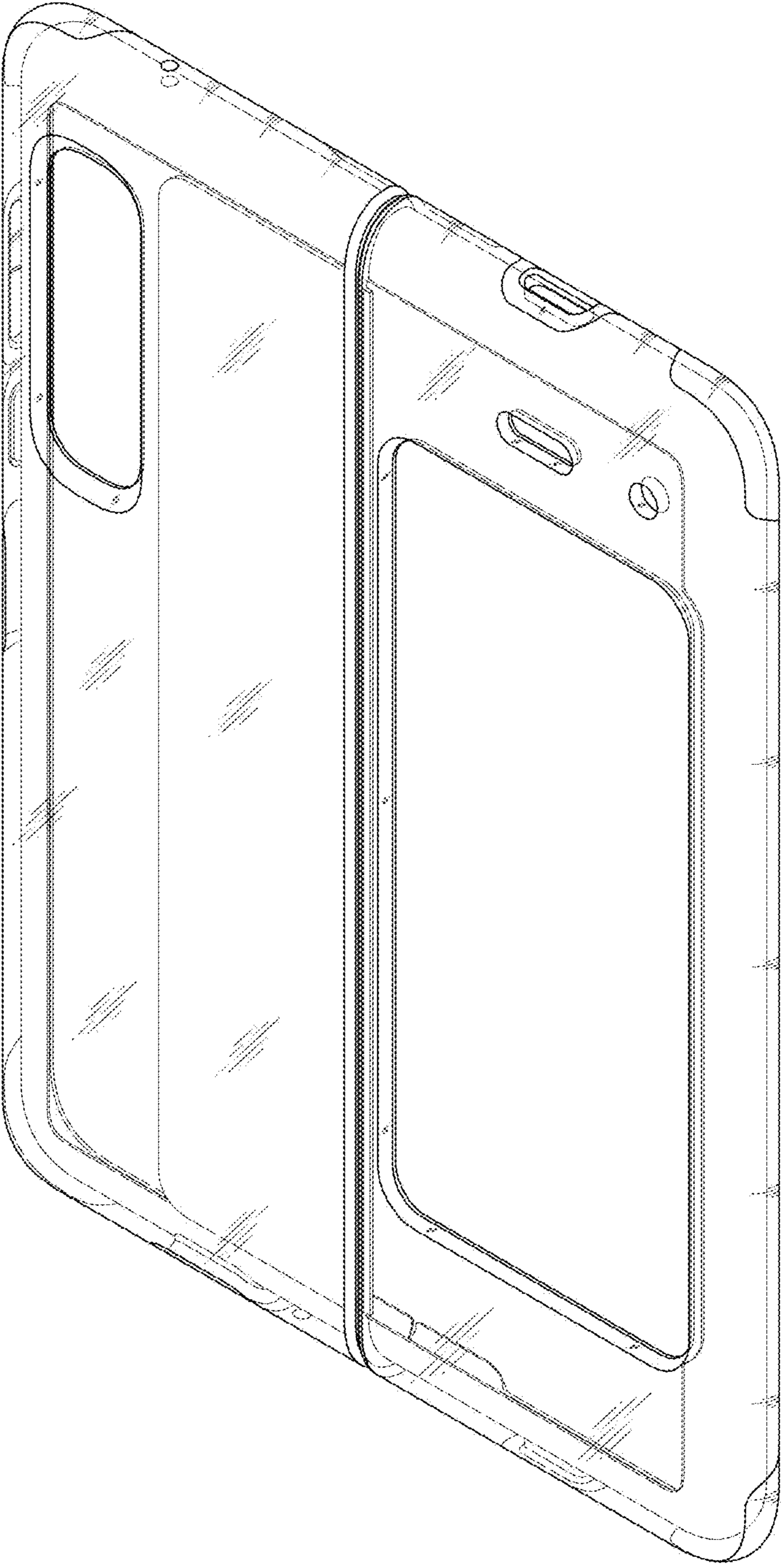




FIG. 3

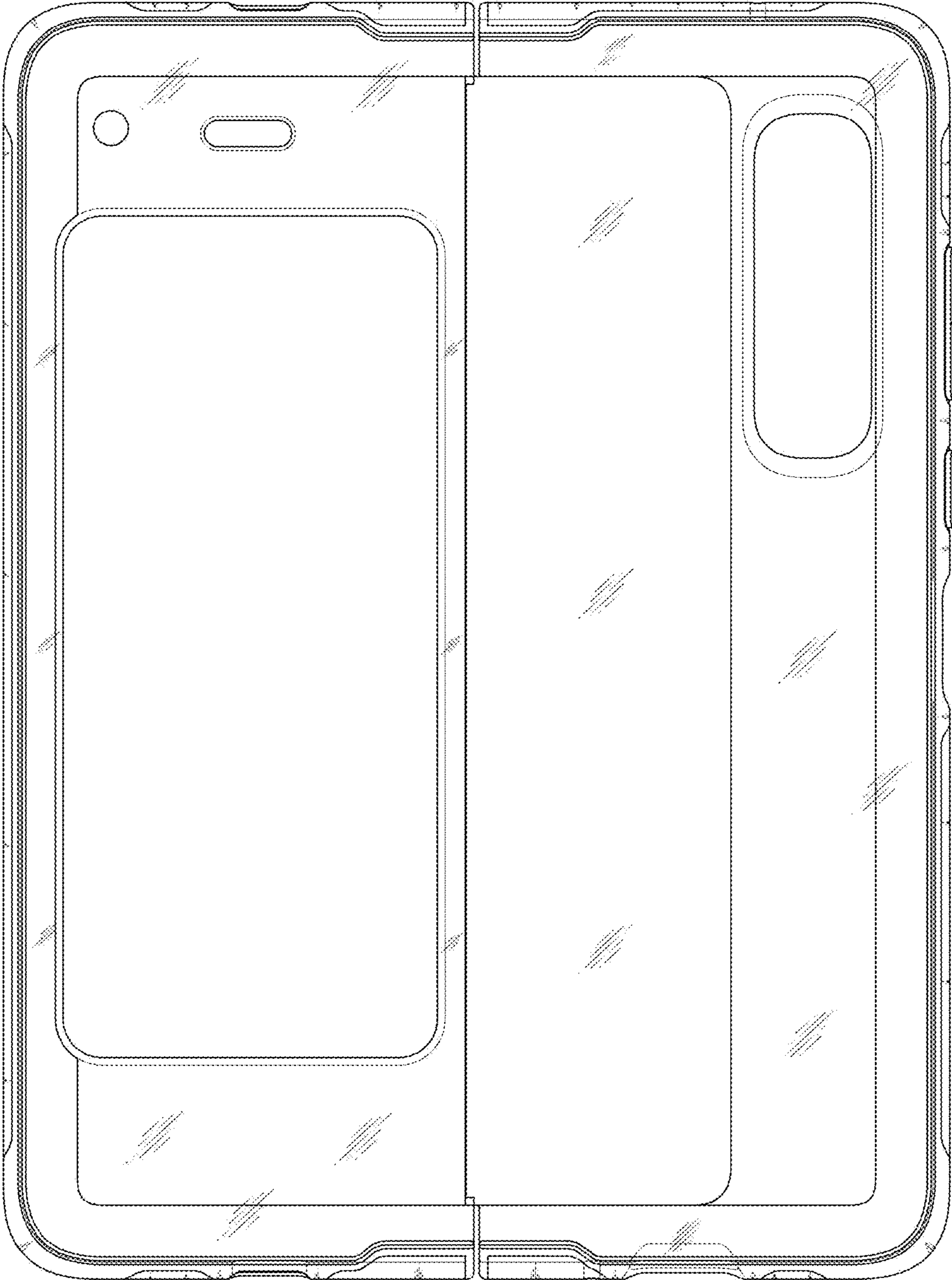


FIG. 4

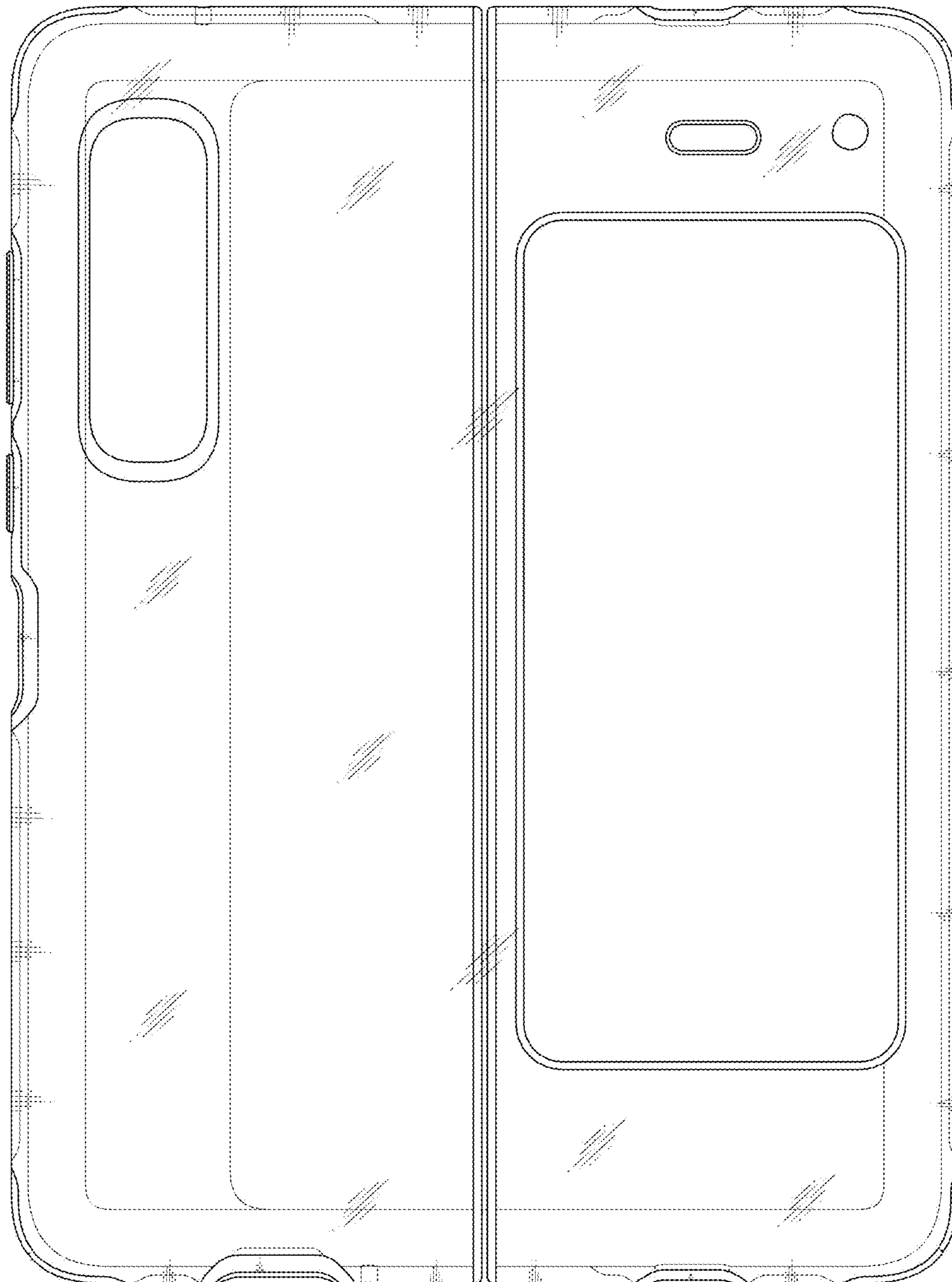




FIG. 5

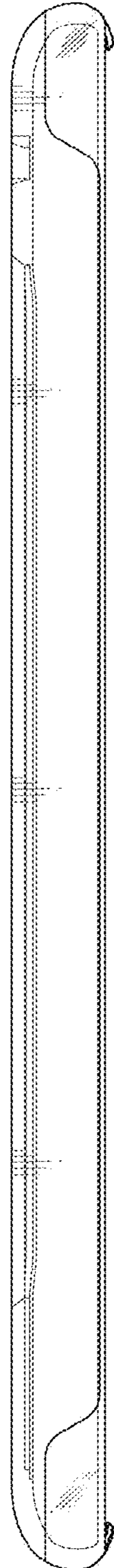


FIG. 6

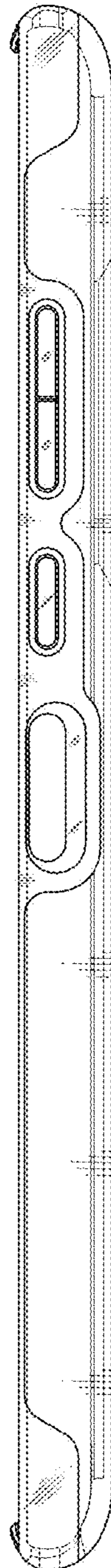




FIG. 7

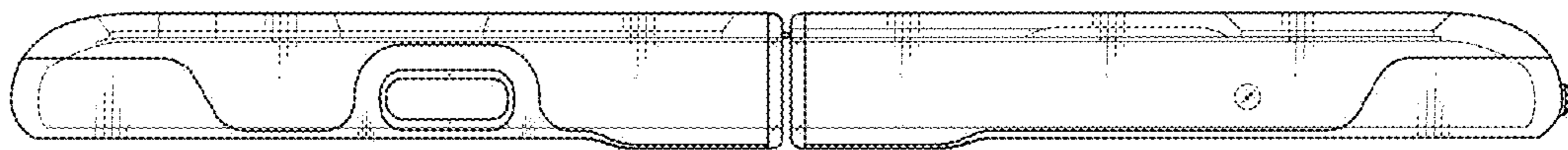


FIG. 8

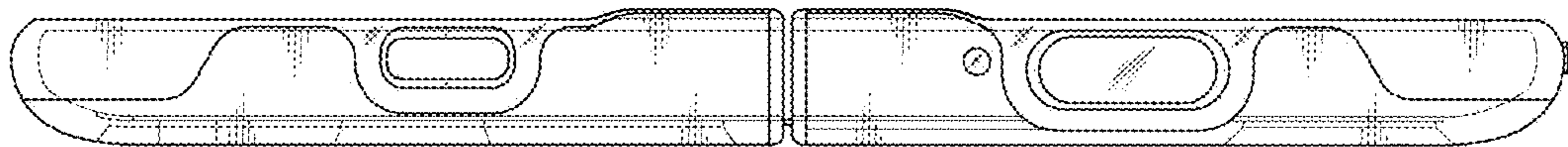




FIG. 9

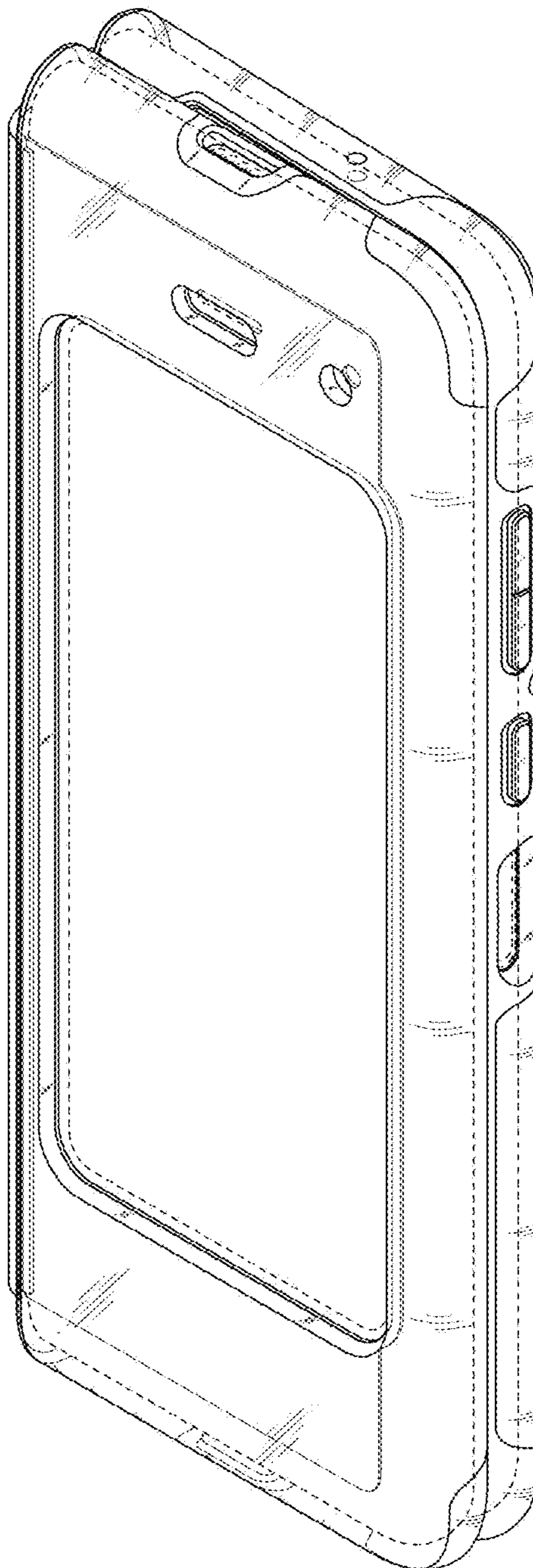


FIG. 10

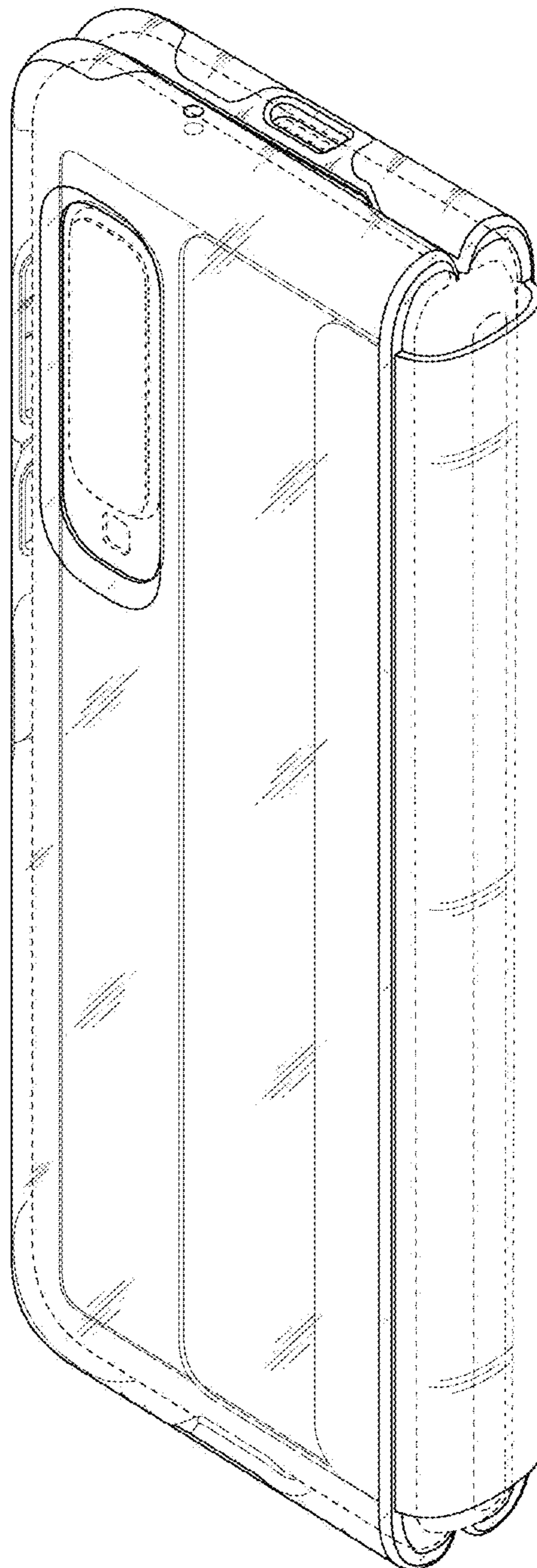




FIG. 11

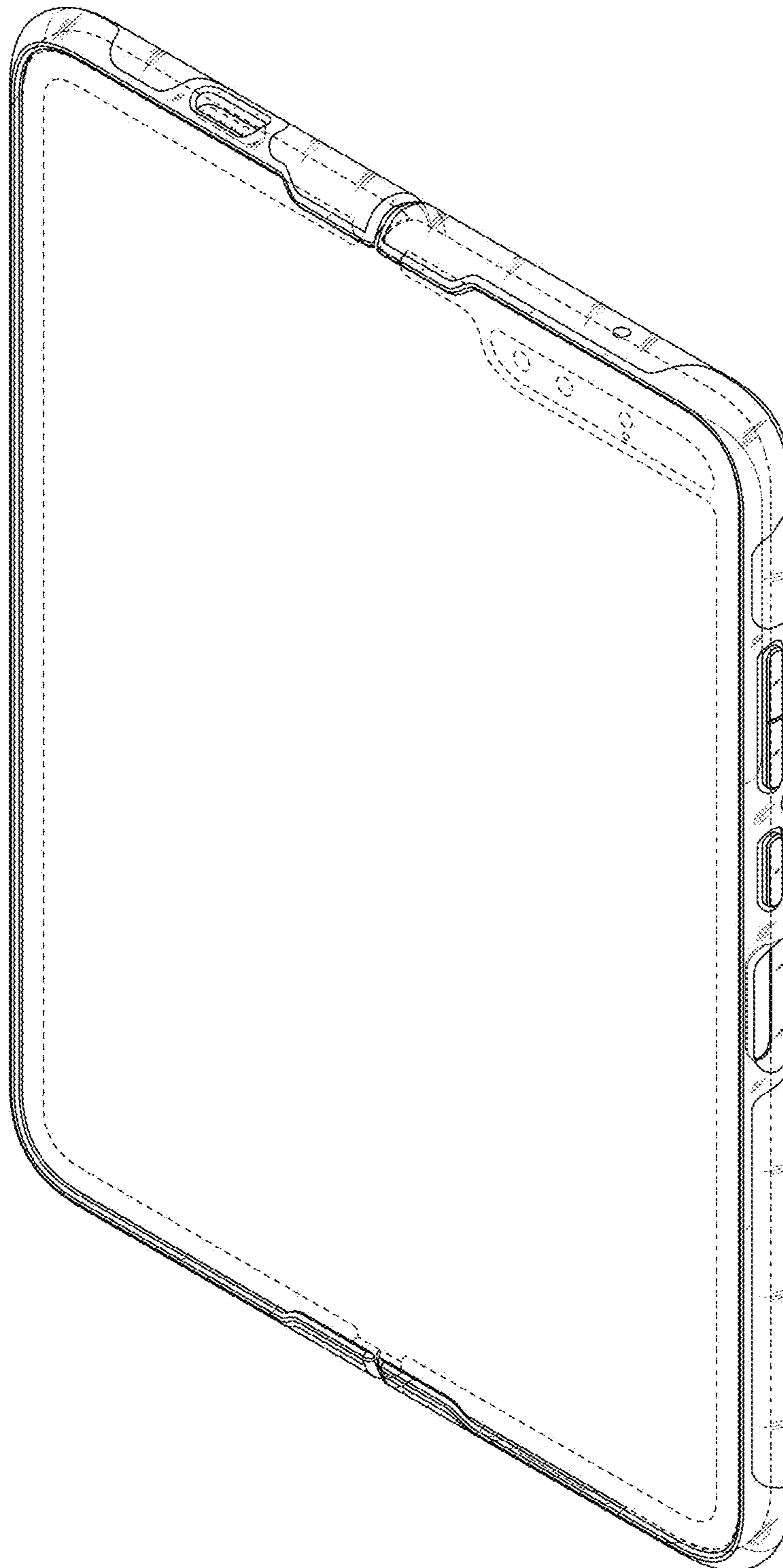


FIG. 12

