STANLEY M. GIBSON (Bar No. 162329)
sgibson@jmbm.com
GREGORY S. CORDREY (Bar No. 190144)
gcordrey@jmbm.com
JEFFER MANGELS BUTLER & MITCHELL LLP
1900 Avenue of the Stars, 7th Floor
Los Angeles, California 90067-4308
Telephone: (310) 203-8080
Facsimile: (310) 203-0567

Attorneys for Plaintiff 1LSS Inc.

UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA

1LSS INC.,

Plaintiff,

v.

APPLE INC.,

Defendant.

Case No.: 2:24-cv-08769

FIRST AMENDED COMPLAINT FOR INFRINGEMENT OF U.S. PATENT NO. 11,864,641

DEMAND FOR JURY TRIAL

JMBM | Jeffer Mangels Butler & Mitchell LLP

Patent Owner 1LSS
EX2025 - Page 1

Plaintiff 1LSS Inc. ("1LSS") brings this action against Defendant Apple Inc. ("Apple" or "Defendant").

THE PARTIES

1. 1LSS is, and at all times relevant hereto was, a corporation duly organized and existing under the laws of the state of California, with its principal place of business at 719 S. Los Angeles Street, Suite 714 Los Angeles, CA 90014.

2. Defendant Apple Inc. is, and at all times relevant hereto was, a corporation organized under the laws of the State of California, with a principal place of business at One Apple Park Way, Cupertino, California, 95014 and a place of business in this judicial district at 10250 Santa Monica Blvd, Los Angeles, CA 90067.

3. Defendant conducts business within this judicial district at the Apple Store located at 10250 Santa Monica Blvd, Los Angeles, CA 90067, including making, using, selling, offering for sale, or importing into the United States the infringing products at or from this facility.

JURISDICTION AND VENUE

4. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. § 271.

5. This Court has subject matter jurisdiction over this action under 28 U.S.C. §§ 1331 and 1338(a)-(b) because it involves substantial claims arising under the patent laws.

6. Defendant conducts business at 10250 Santa Monica Blvd, Los Angeles, CA 90067, including making, using, selling, offering for sale, shipping, or importing the infringing products at or from this facility, which is located in this judicial district. Thus, this Court has personal jurisdiction over Defendant and venue is proper in this court pursuant to 28 U.S.C. § 1400(b) because, among other things, Defendant has a regular and established place of business in this judicial district and Defendant has committed acts of infringement, including the infringing acts complained of herein.

JMBM | Jeffer Mangels Butler & Mitchell LLP

JMBM | Jeffer Mangels Butler & Mitchell LLP

GENERAL ALLEGATIONS

7. On January 9, 2024, the United States Patent and Trademark Office issued United States Patent Number 11,864,641, entitled "Magnetically Coupled Wallet Accessory for Mobile Device" (hereinafter "the '641 Patent"). A true and correct copy of the '641 Patent is attached hereto as **Exhibit A.**

8. 1LSS is the assignee of the '641 Patent and the owner of the entire right, title, and interest in and to the '641 Patent.

9. The '641 Patent pertains to a wallet for attachment to a mobile device.

10. For over a decade 1LSS has provided, and continues to provide, innovative solutions for mobile electronic display device accessories and mounts, including wallet attachments for a mobile device such as those manufactured by Apple. *See* https://magbak.com/.

11. As part of this innovation, as shown below, 1LSS has developed a mobile device accessory (*e.g.*, wallet) including an accessory device having an arrangement of magnets of alternating polarity are included within the accessory device or attached to the surface.

12. The arrangement of magnets are magnetically coupleable to a device-side attachment including a plurality of magnets. The device-side attachment may be

attached to a mobile device or part of a protective case for the mobile device. 1LSS has obtained patent protection over this inventive technology, including the '641 Patent, which was granted by the U.S. Patent and Trademark Office on January 9, 2024. This patent represents a significant investment of time and resources in developing inventive technology that filled a significant need in the industry.

13. Apple began competing with 1LSS in providing wallet attachments for a mobile devices by manufacturing and selling MagSafe line of wallets for attachment to mobile devices as claimed in the '641 Patent (hereinafter the "Infringing Product"), as shown below.[1]

14. Apple has been actively advertising the Infringing Product, touting the product throughout a variety of markets and to numerous audiences. Defendant sells its Infringing Product in the same marketing channels, including advertising on Google, and all other social media platforms.

15. 1LSS became aware that Apple was making and selling a competing

72639671v3

[1] https://www.apple.com/shop/product/MA6X4ZM/A/iphone-finewoven-wallet-with-magsafe-deep-blue?fnode=9a426d5dab22d37f6cd4867e991ac3be7f2a0c8a18454997ba1876e5df9b1484ebad36d764f921ca2a432d994bcea2121d2cb419480cbd8538d421b10cd783356311e167ec6457815e69a7b43a7928c0b8220e1f0ba03bc516214547ce44fc7f91da43931e10e7f7205733344bbb410c&fs=f%3Dwallet%26fh%3D12b2bf%252B4667 (accessed October 7, 2024).

JMBM | Jeffer Mangels Butler & Mitchell LLP

magnetic wallet in competition with 1LSS' MagBak line of magnetic wallets. 1LSS subsequently disassembled and determined that Apple's MagSafe magnetic wallets included 1LSS's patented technology, including its proprietary arrangement and configuration of magnets and magnetic regions have a specific polarity to couple the magnetic wallet to an electronic device in a specific orientation as claimed in the '641 patent. Among other things, as shown below, 1LSS removed the outer layer of material in Apple's wallet to reveal the underlying magnets and magnetic regions. The magnetic regions and their polarity also are visible using magnetic field viewing film (below, right).

16. In addition, using a magnetic pole indicator or polarity checker 1LSS determined the polarity of a magnetic field of each magnet, *i.e.*, whether a magnetic pole is a magnetic North (N) or South (S) pole. By doing so, 1LSS confirmed that the arrangement of magnets, magnetic regions and magnetic polarity in Apple's MagSafe wallets infringed 1LSS's '641 patent as set forth below and in the infringement claim chart attached hereto as Exhibit B.

17. On February 9, 2024, 1LSS notified Apple by letter that Apple's MagSafe brand of magnetic wallets may be utilizing the technology claimed in the '641 Patent. Subsequently, on February 28, 2024 1LSS provided Apple with a claim chart illustrating how 1LSS's technology as recited in claim 1 of the '641 Patent is being used in Apple's MagSafe brand of magnetic wallets.

18. Notwithstanding 1LSS's notification of its patented technology as set forth in the '641 Patent and in conscious disregard of 1LSS's intellectual property rights as set forth herein, Apple has continued to make, use, offer for sale and sell the Infringing Product in the United States and this judicial district and in direct competition with 1LSS.

FIRST CAUSE OF ACTION

Patent Infringement of the '641 Patent

(35 U.S.C. §§ 101 et seq.)

19. 1LSS realleges and incorporates by reference all paragraphs above as if fully set forth herein.

20. At all times herein mentioned the '641 Patent was and is valid and fully enforceable.

21. Apple, by the acts complained of herein, and by making, using, selling, offering for sale, and/or importing in the United States, including in the Central District of California, the Infringing Product embodying the invention, has in the past, does now, and continues to infringe the '641 Patent directly, and/or by inducement, literally and/or under the doctrine of equivalents, in violation of 35 U.S.C. § 271.

22. At least since February 9, 2024, Apple has had actual knowledge of the '641 Patent.

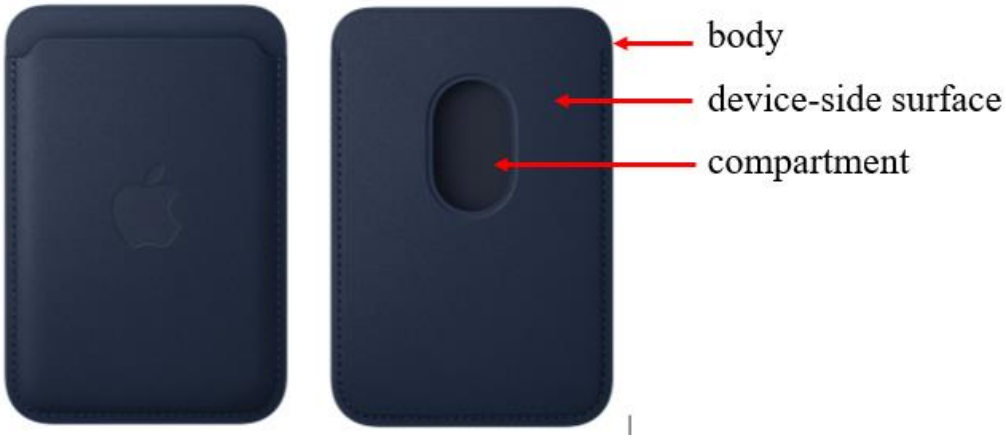
23. Apple has and continues to directly infringe the '641 Patent by making, using, offering for sale, selling and importing the Infringing Product in conjunction with MagSafe wallets competitive to 1LSS. By doing so, Apple has directly infringed at least claim 11 of the '641 Patent as illustrated in non-limiting example attached hereto as **Exhibit B.** Customers of Apple directly infringe the '641 Patent by using Infringing Product.

24. As alleged above, Apple makes and sells its MagSafe wallets (shown below) that directly infringe at least claim 11 of the '641 patent.

25. As shown below, Apple's MagSafe wallet is intended to be attached to a mobile device such as a smart phone, including Apple's iPhone. Apple advertises that "[t]he wallet features strong built-in magnets that allow it to effortlessly snap into place on the back of your iPhone."

JMBM | Jeffer Mangels Butler & Mitchell LLP

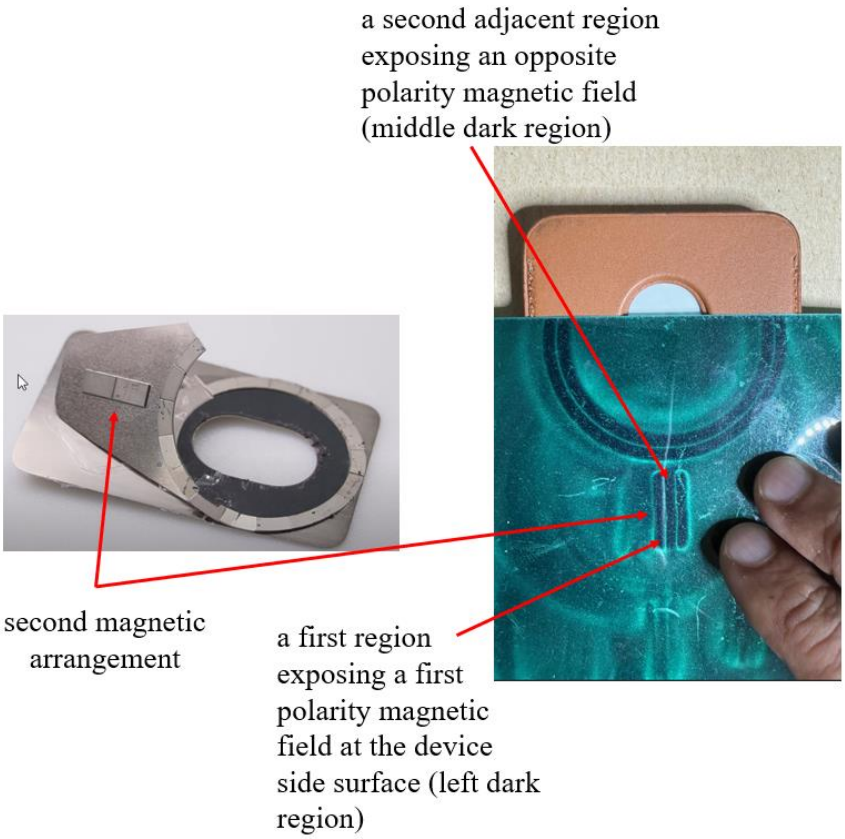
26. As shown below, Apple's MagSafe wallet has a body that defines a compartment and has a device side surface.



27. As shown below, Apple's MagSafe wallet has a first arrangement of magnetic material (circular magnetic ring regions) having a first region (outer magnetic ring region) exposing a first polarity magnetic field (north pole) at the device side surface and a second adjacent region (inner magnetic ring region) exposing an opposite polarity magnetic field (south pole) at the device side surface.

JMBM | Jeffer Mangels Butler & Mitchell LLP

28. As shown below, Apple's MagSafe wallet has a second arrangement of magnetic material (rectangular magnet regions) having a first region (left-side rectangular magnet region) exposing a first polarity magnetic field (north pole) at the device side surface and a second adjacent region (middle rectangular magnet region) exposing an opposite polarity magnetic field (south pole) at the device side surface.



29. As shown above, the first, circular magnetic arrangement in the Apple MagSafe wallet has at least one of a different orientation or a different geometric pattern than the second, rectangular magnetic arrangement.

30. Apple MagSafe wallet has first and second arrangements that, in use, concurrently magnetically couple the wallet to a mobile device and wherein the first and second arrangements cause the wallet to adopt a specific orientation on the mobile device. For example, at noted, Apple advertises that "[t]he wallet features strong built-in magnets that allow it to effortlessly snap into place on the back of your iPhone." As shown above, the Apple MagSafe wallet magnetically couples to the

iPhone such that the wallet's compartment opening is oriented to face the top of the iPhone.

31. At no time has 1LSS granted Apple or its customers authorization, license, or permission to utilize the inventions claimed in the '641 Patent.

32. 1LSS has been damaged by Apple's acts of infringement of the '641 Patent and 1LSS will continue to be damaged by such infringement unless enjoined by this Court. 1LSS is entitled to recover damages adequate to compensate for the infringement under 35 U.S.C. § 284.

33. At least since February 9, 2024, Apple has knowingly and actively induced the infringement of one or more of the '641 Patent claims under 35 U.S.C. §271(b) by, inter alia, marketing, promoting, and offering for use the Infringing Product, knowingly and intending that its use by Apple's customers and others infringes the '641 Patent. *See e.g.,* promotional video on Amazon.[2] By failing to cease making, using, selling, importing, or offering for sale the Infringing Product at least as of February 9, 2024, Apple has knowingly and intentionally induced users of the Infringing Product to directly infringe one or more claims of the '641 Patent, including, by: (1) providing instructions or information, for example on publicly available websites, to explain how to use the Infringing Product; and (2) touting these uses of the Infringing Product in advertisements, including but not limited to, those on its website. Use of the Infringing Product in the manner intended and/or instructed by Apple necessarily infringes the '641 Patent. Apple continues to engage in acts of inducing infringement of the '641 Patent by at least the direct infringement of its customers' use of the Infringing Product.

34. 1LSS is, and has been, irreparably harmed by Apple's on-going infringement including the following harm which cannot be quantified or recouped

72639671v3

[2] https://www.amazon.com/vdp/0ba69f2c28c44365874ee771751225e8?ref=dp_vse_ibvc0 (last accessed Jan. 6, 2025).

JMBM | Jeffer Mangels Butler & Mitchell LLP

through monetary damages: (1) lost market share that will be difficult, if not impossible, to recoup later as the Infringing Product becomes entrenched with retail sellers, (2) loss of first mover advantage that 1LSS enjoyed as the first company to offer its MagBak® line of magnetic wallets, (3) loss of 1LSS's investment in building up the market for MagBak® line of magnetic wallets, (4) negative effect on its reputation as innovator and pioneer, (5) the unquantifiable effect on lost sales of related products, (6) diversion of resources to defend against loss of market share caused by sales of the Infringing Product, and (7) Apple's unauthorized sales that are enticing others to offer for sale and sell competing infringing products that leads to additional irreparable harm described above.

35. Apple's acts of infringement have been, and continue to be, willful and deliberate and therefore warrant the award of attorneys' fees pursuant to 35 U.S.C. § 285 and the enhancement of damages pursuant to 35 U.S.C. § 284.

PRAYER FOR RELIEF

WHEREFORE, 1LSS prays for judgment as follows:

A. For an order finding that the '641 Patent is valid and enforceable;

B. For an order finding that Apple has infringed the '641 Patent directly, and/or by inducement, literally and/or under the doctrine of equivalents, in violation of 35 U.S.C. § 271;

C. For an order finding that Apple's infringement is willful;

D. For an order temporarily, preliminarily and permanently enjoining Apple, its officers, directors, agents, servants, affiliates, employees, subsidiaries, divisions, branches, parents, attorneys, representatives, privies, and all others acting in concert or participation with any of them, from infringing the '641 Patent directly, and/or by inducement, in violation of 35 U.S.C. § 271;

E. For an order directing Apple to file with the Court, and serve upon 1LSS's counsel, within thirty (30) days after entry of the order of injunction, a report setting forth the manner and form in which it has complied with the injunction;

JMBM Jeffer Mangels Butler & Mitchell LLP

F. For an order awarding 1LSS damages adequate to compensate 1LSS for the infringement by Apple, including disgorgement of profits or gains of any kind made by Apple from their infringing acts, lost profits and/or reasonable royalty, in amounts to be fixed by the Court in accordance with proof, including enhanced and/or exemplary damages, as appropriate under 35 U.S.C. § 284;

G. For an order awarding 1LSS pre-judgment interest and post-judgment interest at the maximum rate allowed by law;

H. For an order requiring an accounting of the damages to which 1LSS is found to be entitled;

I. For an order declaring this to be an exceptional case pursuant to 35 U.S.C. § 285 and awarding 1LSS its attorneys' fees;

J. For an order awarding 1LSS its costs of court; and

K. Granting 1LSS such other and further relief as the Court may deem just and proper.

DATED: January 10, 2025

STANLEY M. GIBSON
GREGORY S. CORDREY
JEFFER MANGELS BUTLER & MITCHELL LLP

By: _____
GREGORY S. CORDREY
Attorneys for Plaintiff 1LSS Inc.

JMBM | Jeffer Mangels Butler & Mitchell LLP

DEMAND FOR JURY TRIAL

Plaintiff demands trial by jury on all issues so triable.

DATED: January 10, 2025

STANLEY M. GIBSON
GREGORY S. CORDREY
JEFFER MANGELS BUTLER & MITCHELL LLP

By: _____
GREGORY S. CORDREY
Attorneys for Plaintiff 1LSS Inc.

JMBM | Jeffer Mangels Butler & Mitchell LLP

EXHIBIT A

US011864641B2

(12) **United States Patent**
Mora et al.

(10) **Patent No.: US 11,864,641 B2**
(45) **Date of Patent: Jan. 9, 2024**

(54) **MAGNETICALLY COUPLED WALLET ACCESSORY FOR MOBILE DEVICE**

(71) Applicant: **1Lss, Inc**, Los Angeles, CA (US)

(72) Inventors: **Fernando Mora**, Reseda, CA (US); **Alejandro Baca**, North Hollywood, CA (US); **Mydul R. Islam**, Los Angeles, CA (US)

(73) Assignee: **1LSS, INC.**, Los Angeles, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 122 days.

(21) Appl. No.: **17/331,280**

(22) Filed: **May 26, 2021**

(65) **Prior Publication Data**

US 2021/0282513 A1 Sep. 16, 2021

Related U.S. Application Data

(63) Continuation of application No. 16/583,168, filed on Sep. 25, 2019, now Pat. No. 11,058,194.
(Continued)

(51) **Int. Cl.**
A45F 5/00 (2006.01)
A45C 1/06 (2006.01)
(Continued)

(52) **U.S. Cl.**
CPC ***A45C 1/06*** (2013.01); ***A45F 5/00*** (2013.01); ***B60R 11/0241*** (2013.01);
(Continued)

(58) **Field of Classification Search**
CPC A45F 2200/0516; A45F 2005/008; A45F 5/021; A45C 13/1069; A45C 2011/002;
(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

525,097 A 8/1894 Flint
5,718,329 A * 2/1998 Ippolito A45C 11/182 150/147
(Continued)

FOREIGN PATENT DOCUMENTS

AU 2019100586 A4 7/2019
CN 202395233 U 8/2012
(Continued)

OTHER PUBLICATIONS

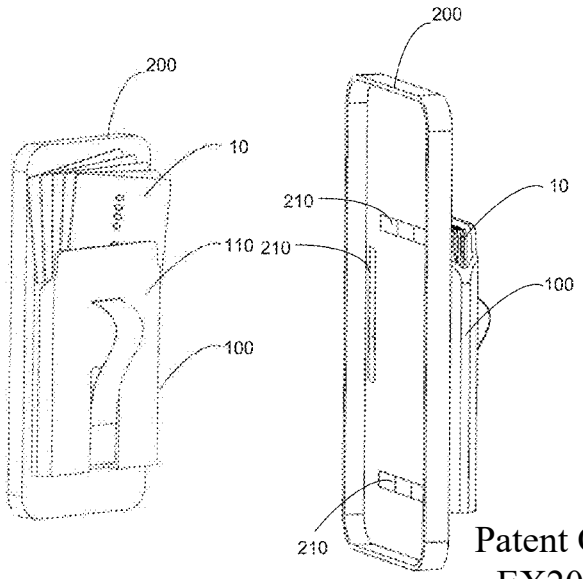
Amovo webpage offering folio wallet Oct. 16, 2016.
(Continued)

Primary Examiner — Adam J Waggenspack
(74) *Attorney, Agent, or Firm* — Thomas Coester Intellectual Property

(57) **ABSTRACT**

A wallet for attachment to a mobile device. The wallet has a body defining a compartment and a device side surface. The wallet has a first arrangement of magnetic material with a first region exposing a first polarity magnetic field at the device side surface and a second adjacent region exposing an opposite polarity magnetic field at the device side surface. The wallet also has a second arrangement of magnetic material with a first region exposing a first polarity magnetic field at the device side surface and a second adjacent region exposing an opposite polarity magnetic field at the device side surface. Collectively, the first and second arrangements, in use, magnetically couple the accessory to a mobile device and cause the accessory to adopt a specific orientation on the mobile device.

11 Claims, 61 Drawing Sheets



Related U.S. Application Data

(60) Provisional application No. 62/736,379, filed on Sep. 25, 2018.

(51) **Int. Cl.**

F16M 13/00	(2006.01)
B60R 11/02	(2006.01)
H01F 7/02	(2006.01)
H04M 1/04	(2006.01)
B60R 11/00	(2006.01)

(52) **U.S. Cl.**

CPC ***F16M 13/005*** (2013.01); ***H01F 7/0252*** (2013.01); ***H04M 1/04*** (2013.01); *A45C 2001/067* (2013.01); *A45F 2200/0516* (2013.01); *B60R 2011/007* (2013.01)

(58) **Field of Classification Search**

CPC A45C 2011/003; A45C 2200/15; F16B 2001/0035

USPC 224/217

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

7,698,789	B2 *	4/2010	Cserpes	A63B 57/60 24/303
8,817,457	B1 *	8/2014	Colby	G06F 1/1626 361/679.55
9,033,384	B2	5/2015	Potter et al.	
9,300,346	B2	3/2016	Hirsch	
9,397,719	B1	7/2016	Schmidt	
9,531,424	B1	12/2016	Tucker	
9,568,950	B2	2/2017	Christie, II	
9,574,355	B2 *	2/2017	Meyer	A47G 1/00
9,692,863	B2	6/2017	Xie et al.	
9,706,829	B2	7/2017	Tilney	
9,800,283	B2 *	10/2017	Schmidt	F16M 13/00
10,117,505	B1	11/2018	Alvarez	
10,134,517	B2 *	11/2018	Baca	H01F 7/0252
10,743,628	B2 *	8/2020	Leimer	A45C 13/1092
11,058,194	B2 *	7/2021	Mora	A45C 1/06
2012/0031937	A1 *	2/2012	Baker	A45F 5/00 224/217
2014/0043748	A1 *	2/2014	Sartee	G06F 1/1675 361/679.27
2014/0128132	A1	5/2014	Cox, III	
2014/0217135	A1 *	8/2014	Murphy	F16M 13/04 224/218
2015/0122852	A1 *	5/2015	Feng	A45F 5/00 224/191
2016/0045019	A1	2/2016	Srey	
2016/0260532	A1 *	9/2016	Baca	H01F 7/0252
2016/0286944	A1	10/2016	Snyder	
2016/0352380	A1	12/2016	Kovacs	
2017/0354229	A1 *	12/2017	Berkley	A45C 13/005
2018/0116383	A1	5/2018	McGahey	
2018/0153287	A1	6/2018	William	
2018/0234126	A1 *	8/2018	Yeo	H04B 1/3888
2019/0111855	A1	4/2019	Aloe et al.	
2019/0198212	A1 *	6/2019	Levy	H01F 7/02
2020/0127694	A1	4/2020	Lim	
2020/0329133	A1	10/2020	Surani et al.	

FOREIGN PATENT DOCUMENTS

CN	103763411	A	4/2014
CN	204498177	U	7/2015
CN	105959437	A	9/2016
CN	207010743	U	2/2018
CN	209030273	U	6/2019
CN	209119859	U	7/2019
DE	202013007919	U1	1/2014
KR	19970013879	A	3/1997
KR	200255276	Y1	11/2001
KR	20130004713	U	8/2013
KR	101516366	B1	4/2015
KR	20150146304	A	12/2015
KR	20170132511	A	12/2017
KR	20170141156	A	12/2017
KR	20180002587	U	8/2018
KR	200489984	Y1	9/2019
KR	200491657	Y1	5/2020
TW	105202088	U	7/2016

OTHER PUBLICATIONS

Burkley webpage of youtube video of magnetic folio wallet May 17, 2017.

Mos Stash webpage of youtube video of magnetic folio wallet Jul. 26, 2016.

Media Bridge webpage offering folio wallet Feb. 19, 2017.

Zover webpage offering folio wallet Nov. 26, 2017.

Mous Web archive page featuring Mous magnetic wallet Aug. 9, 2018.

* cited by examiner

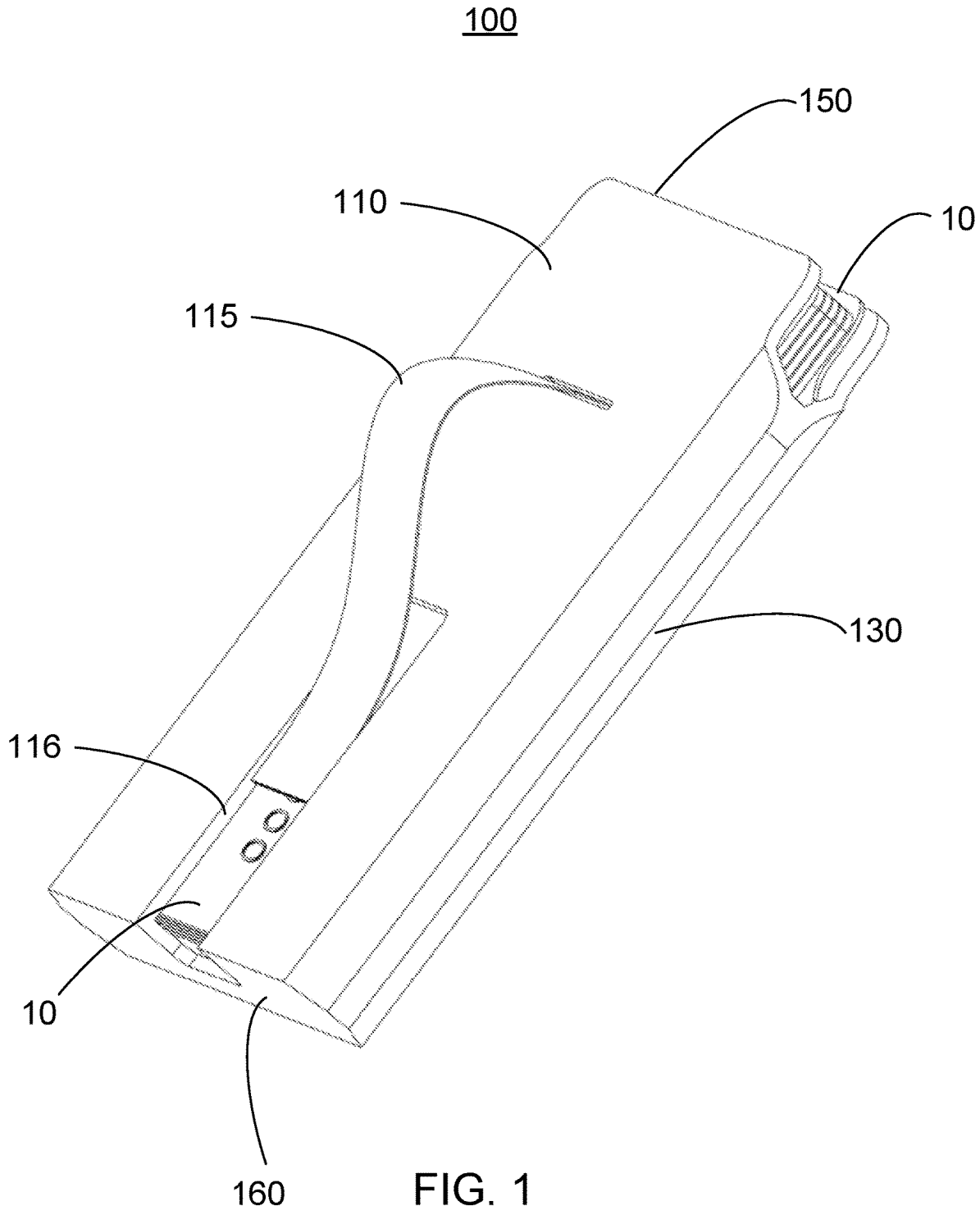


FIG. 1

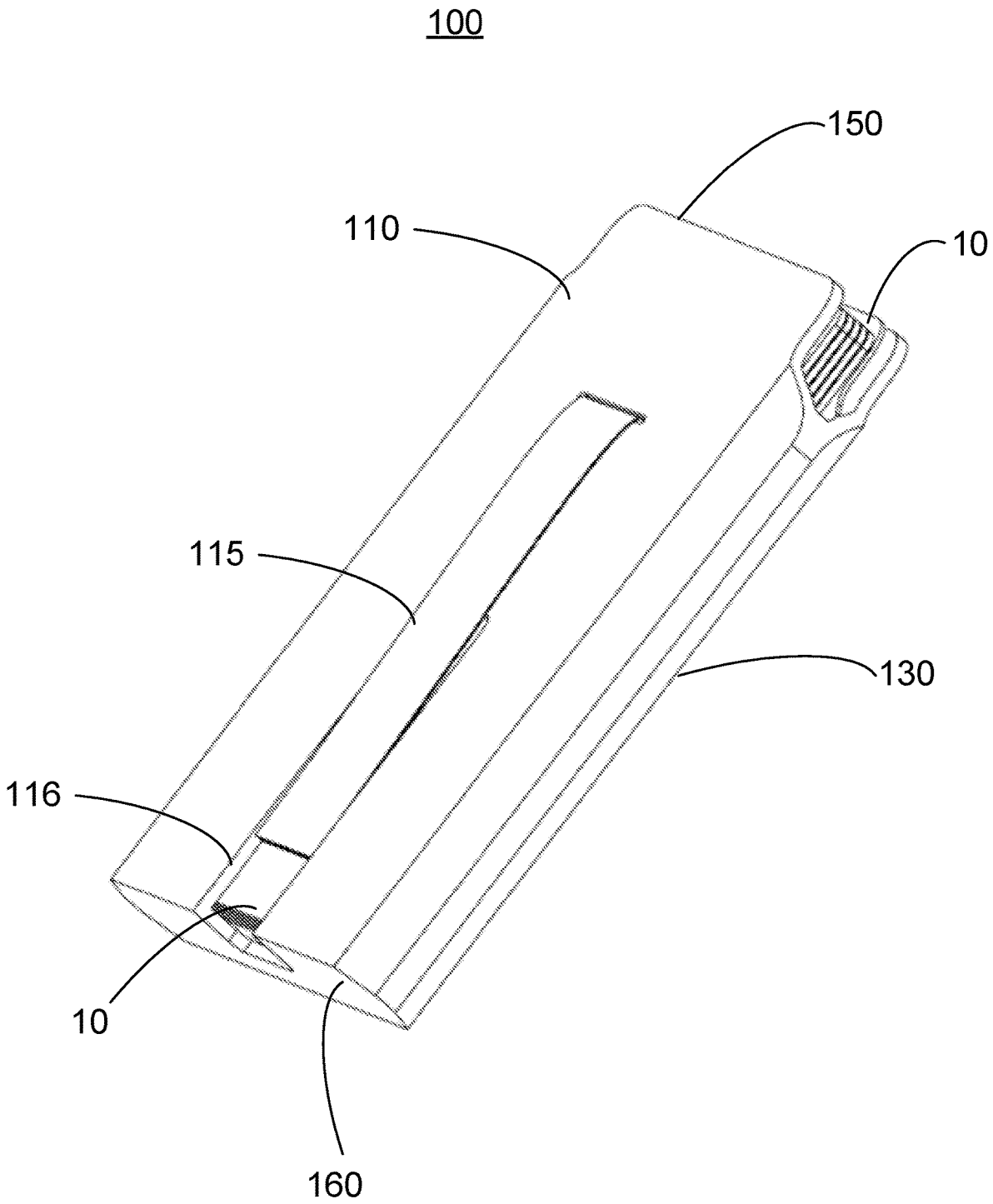


FIG. 2

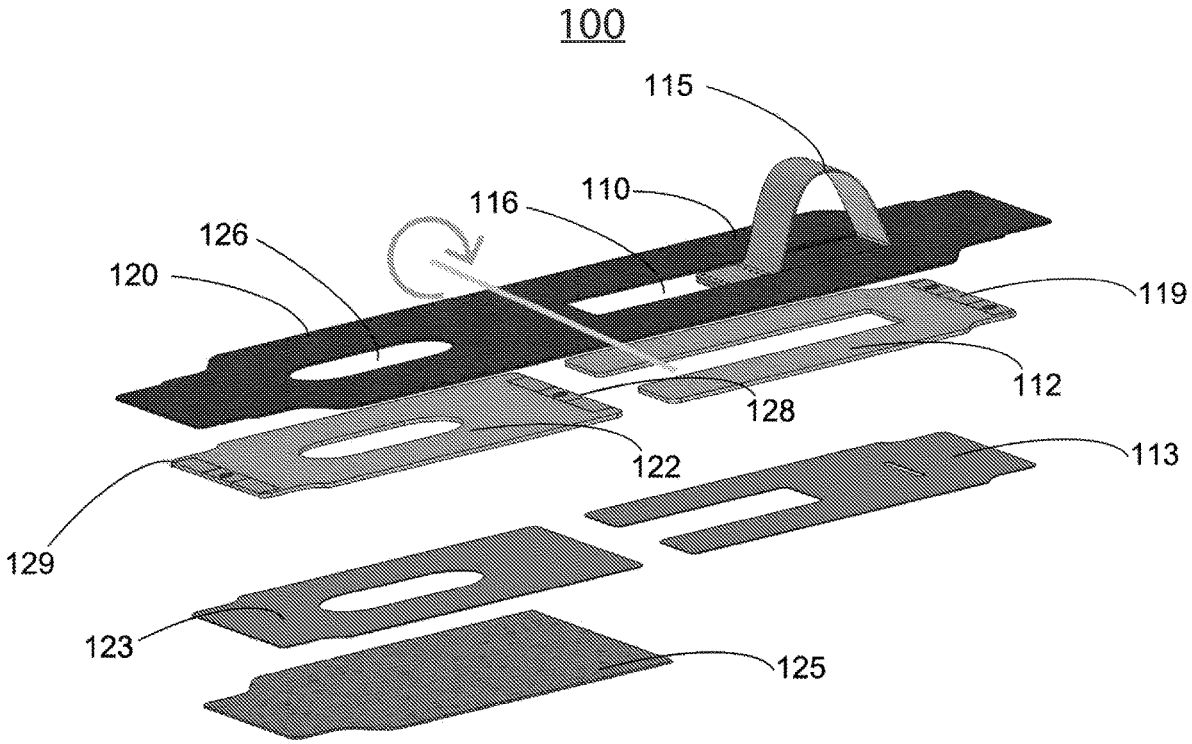


FIG 3.

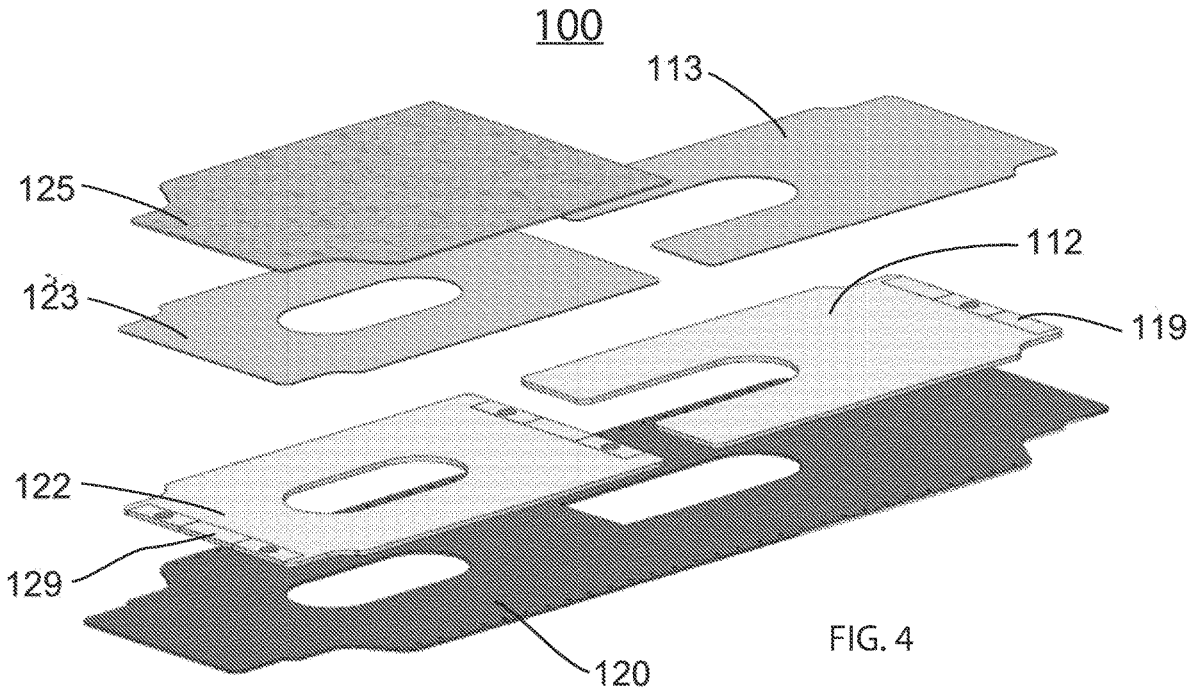


FIG. 4

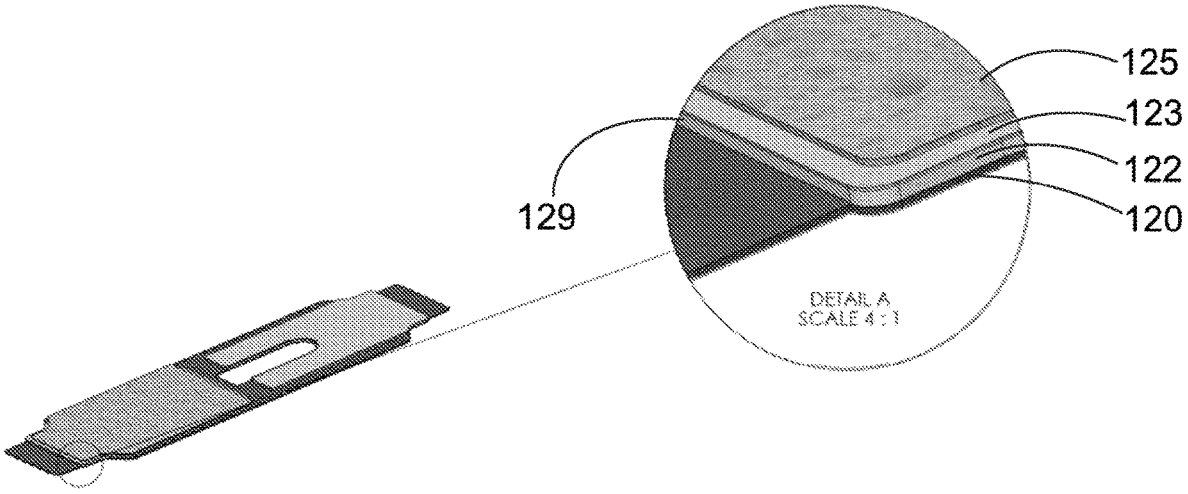


FIG. 5

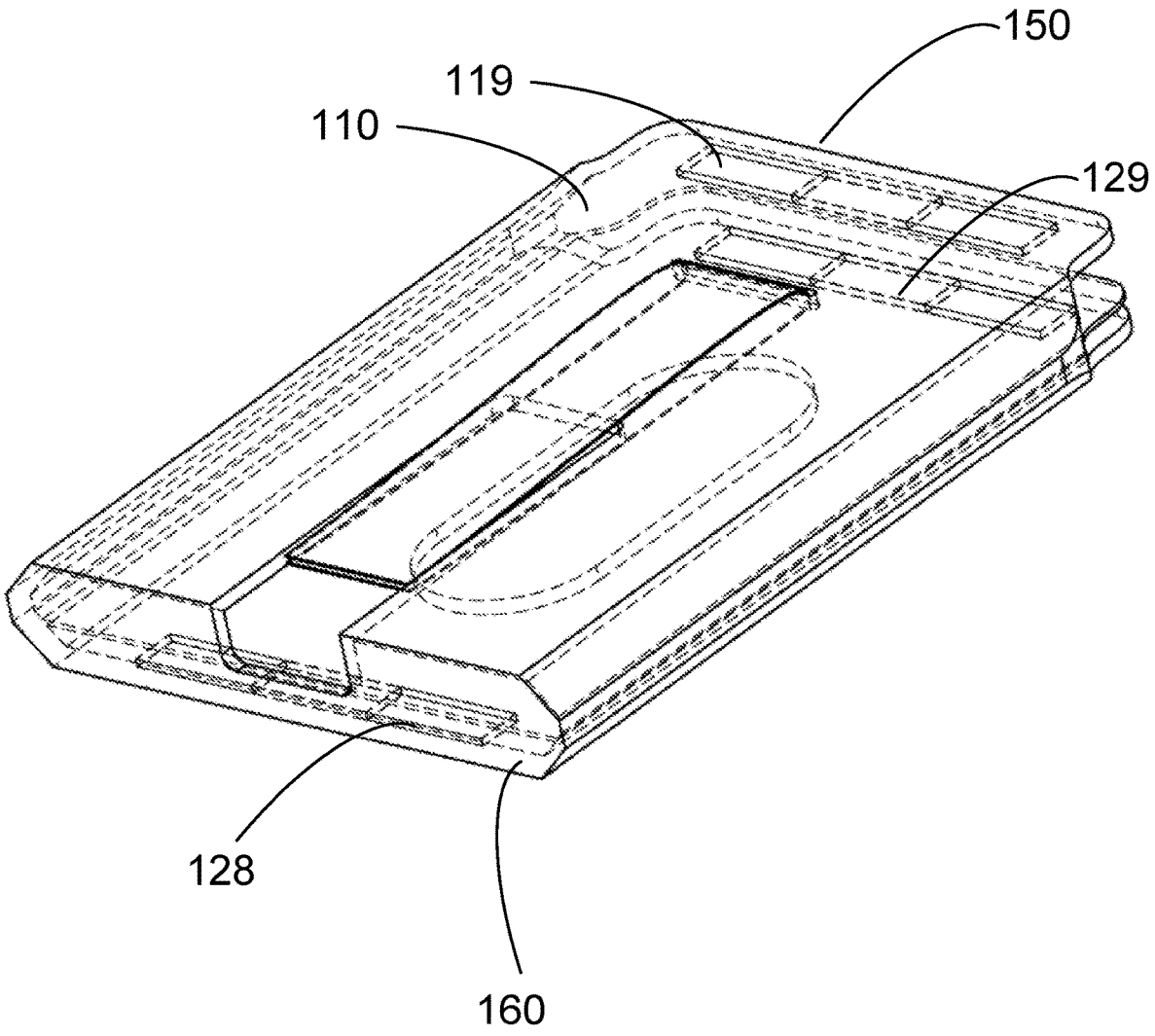


FIG. 6

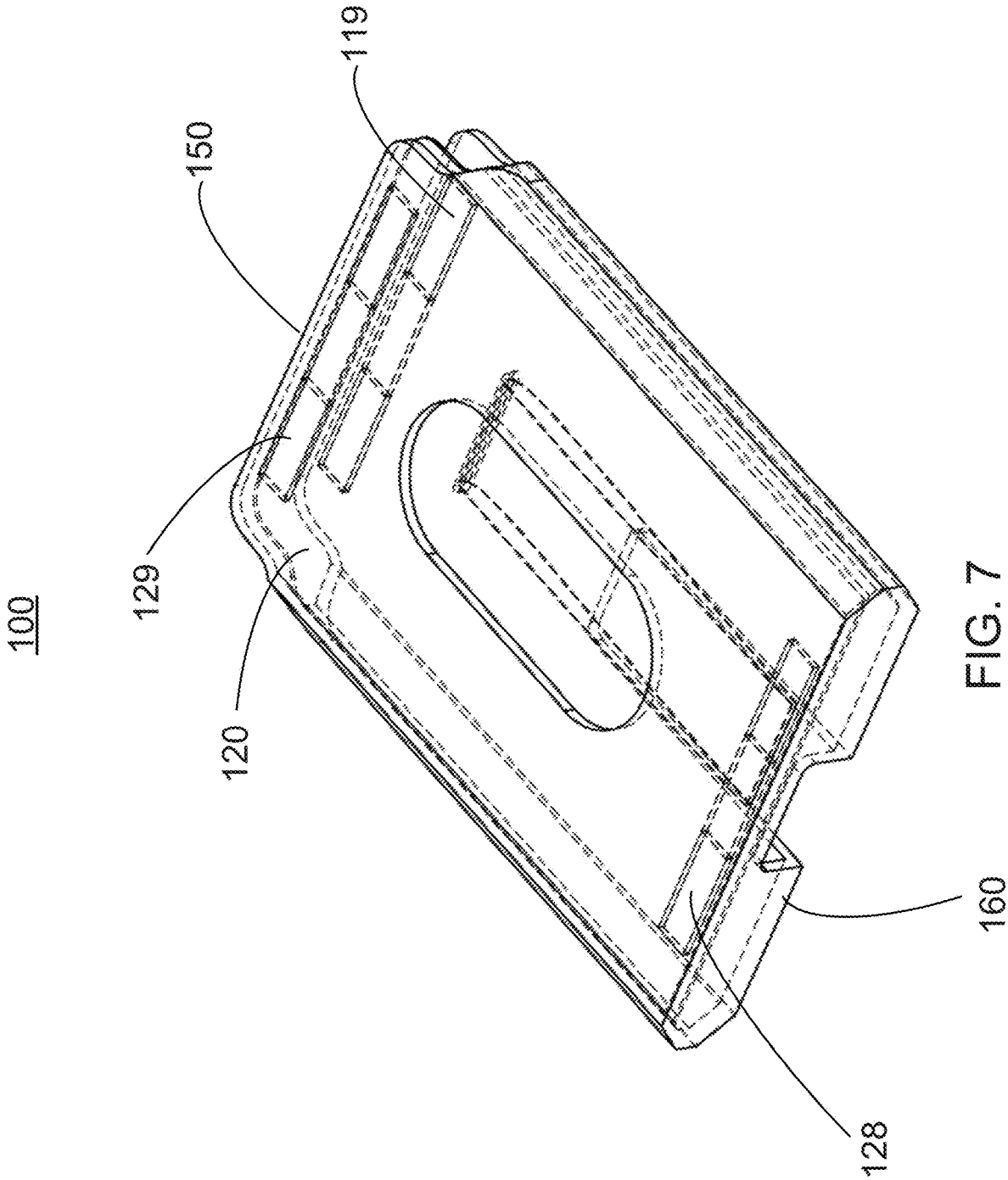


FIG. 7

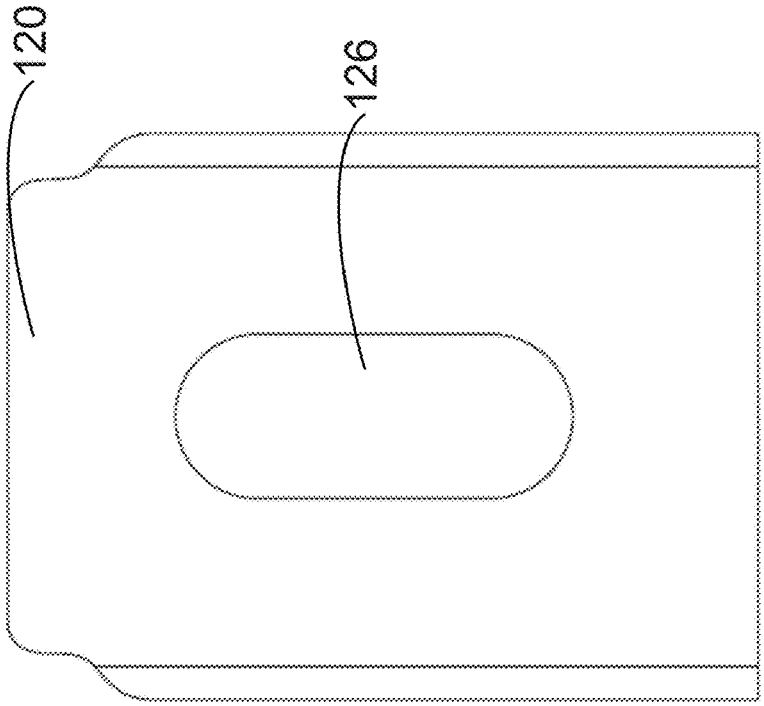


FIG. 8B

100

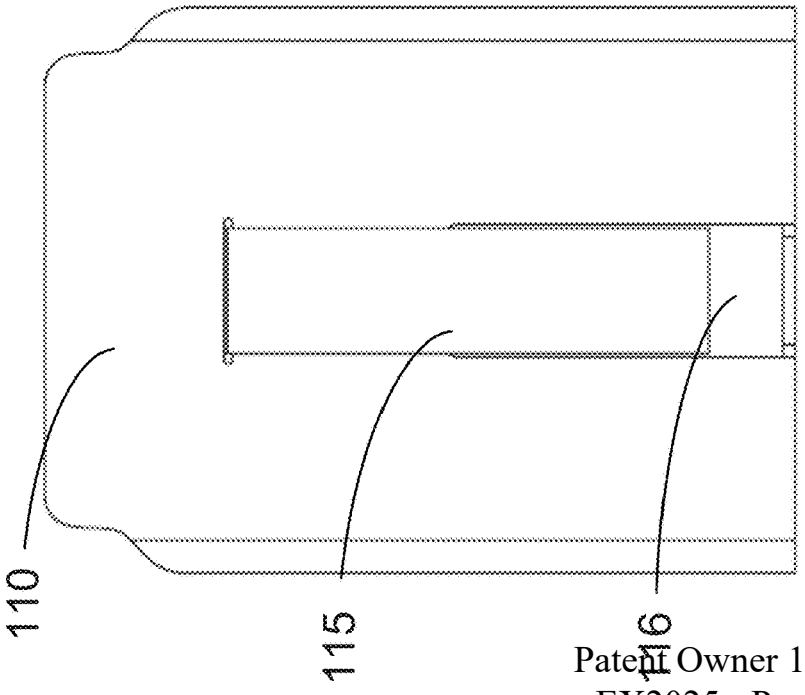


FIG. 8A

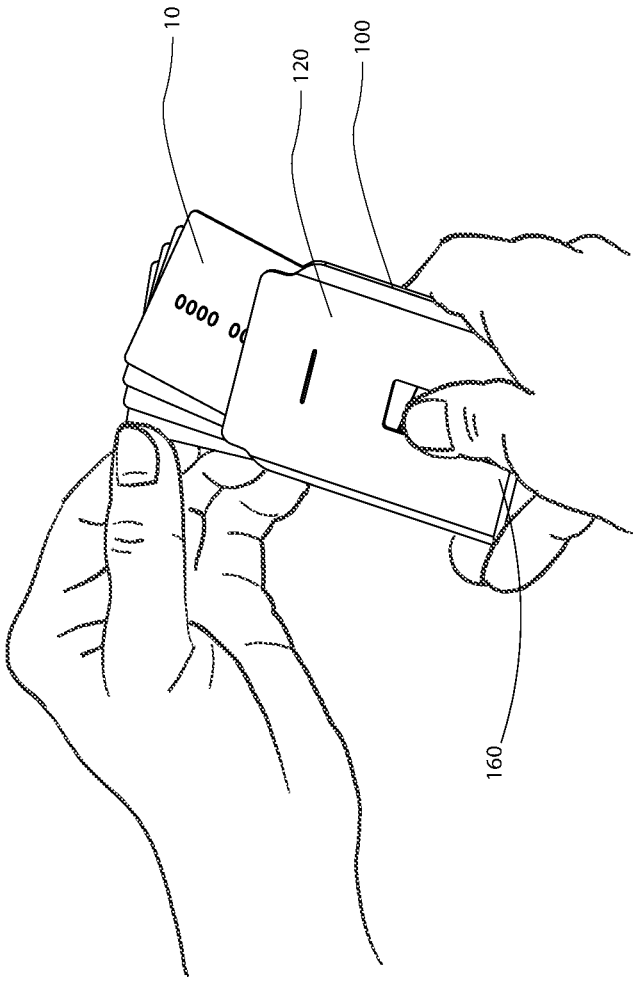


FIG. 9

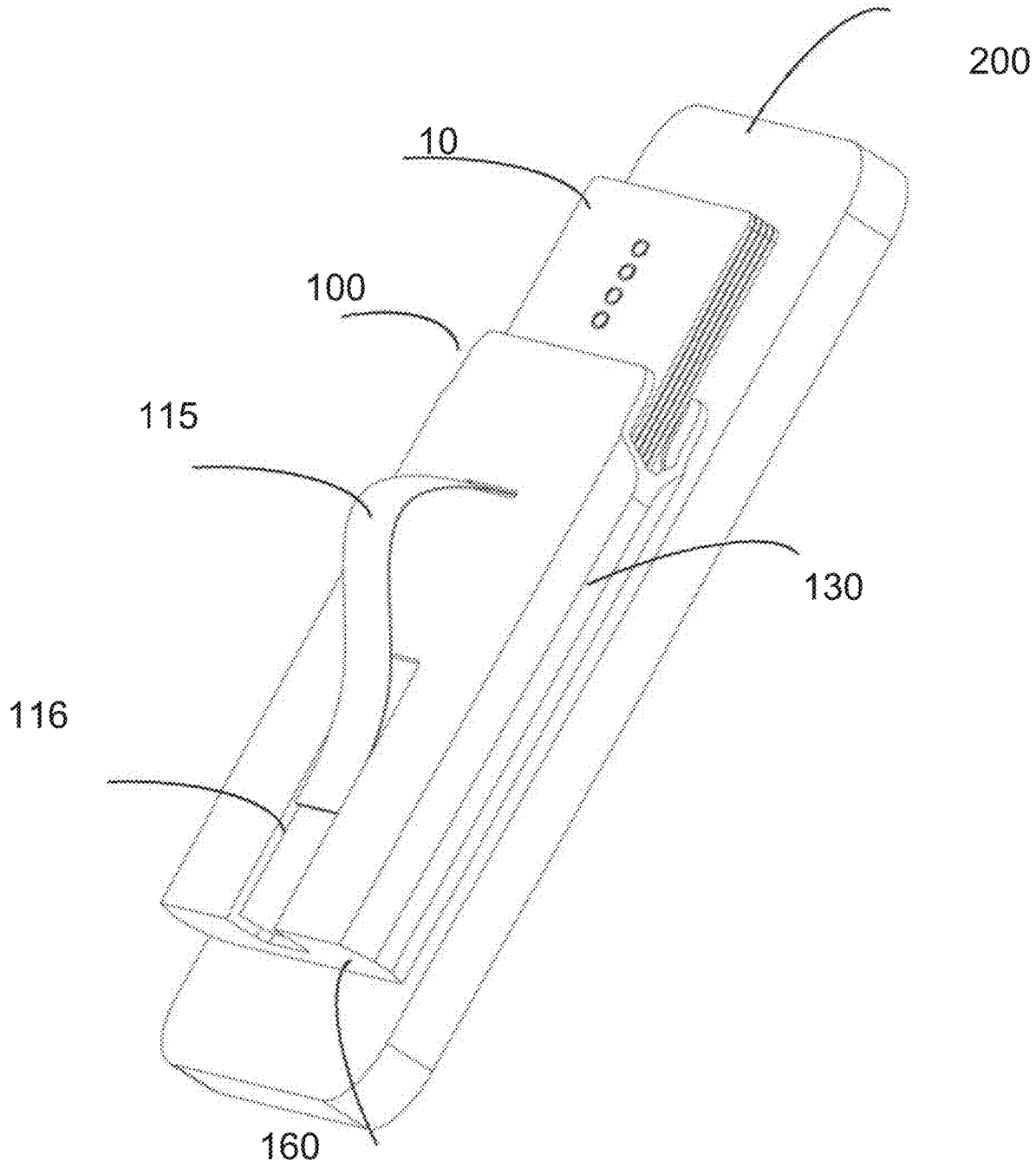


FIG. 10

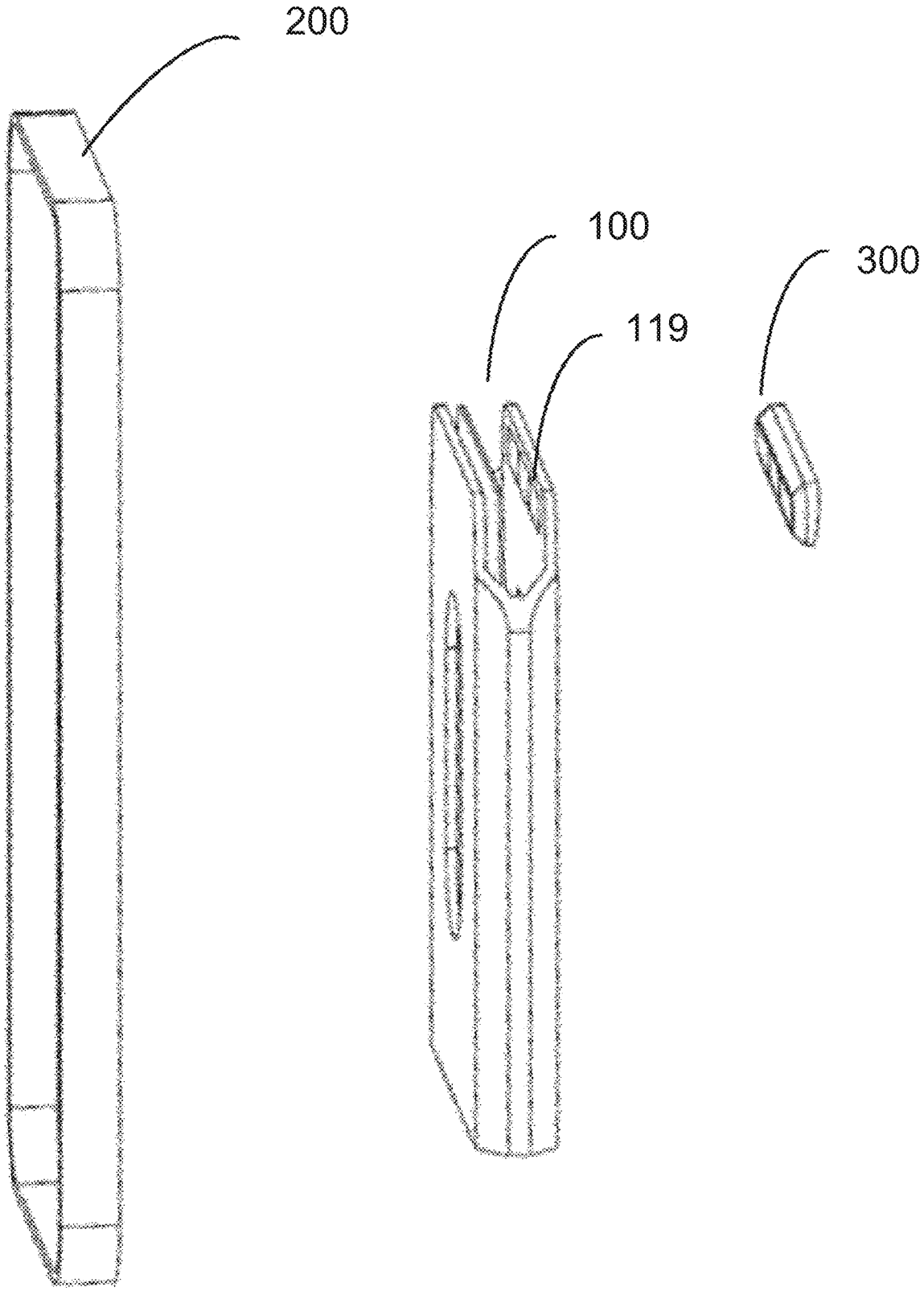


FIG. 11

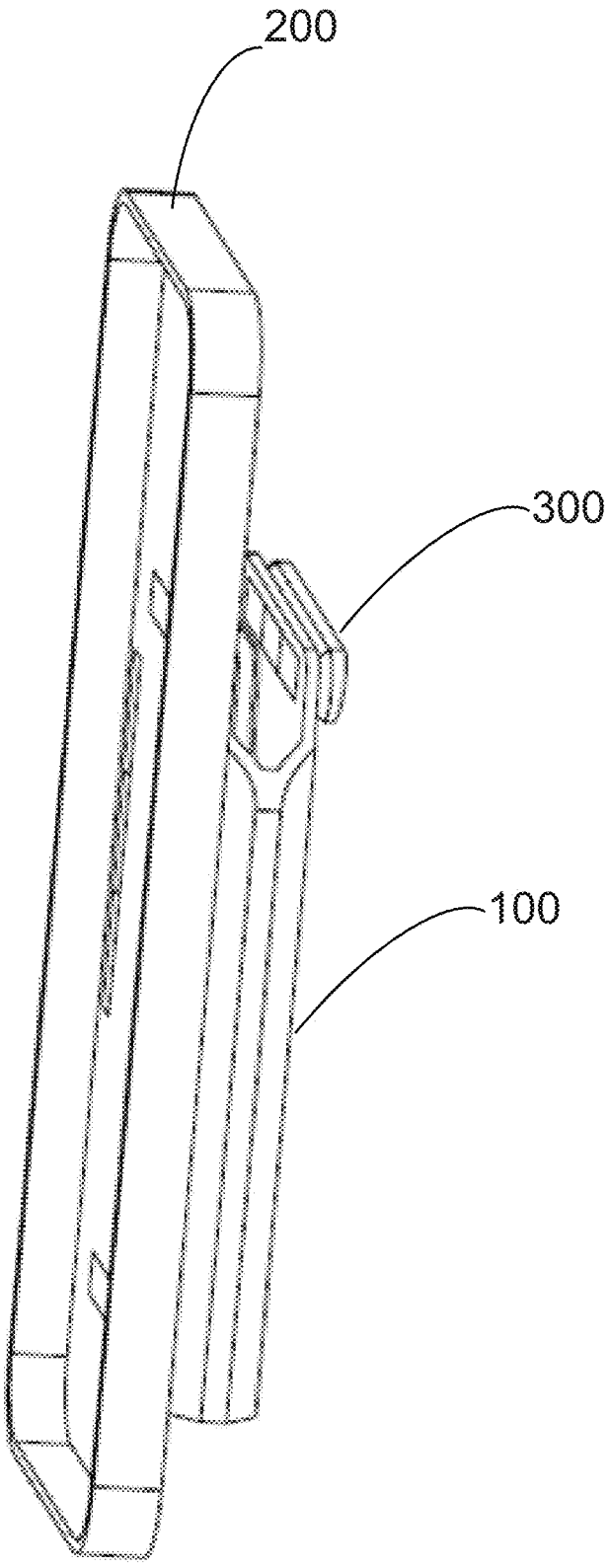


FIG. 12

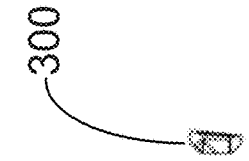


FIG. 13D

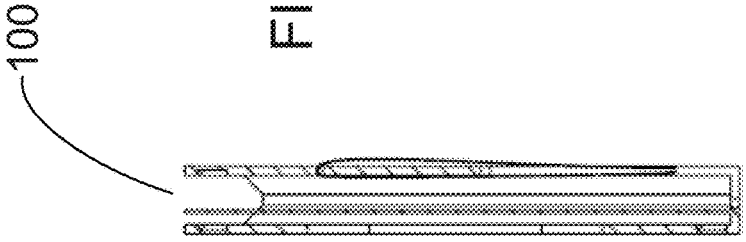


FIG. 13C

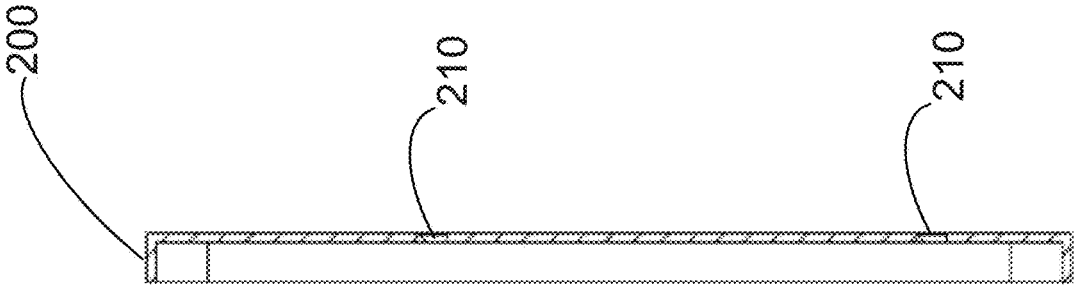


FIG. 13B

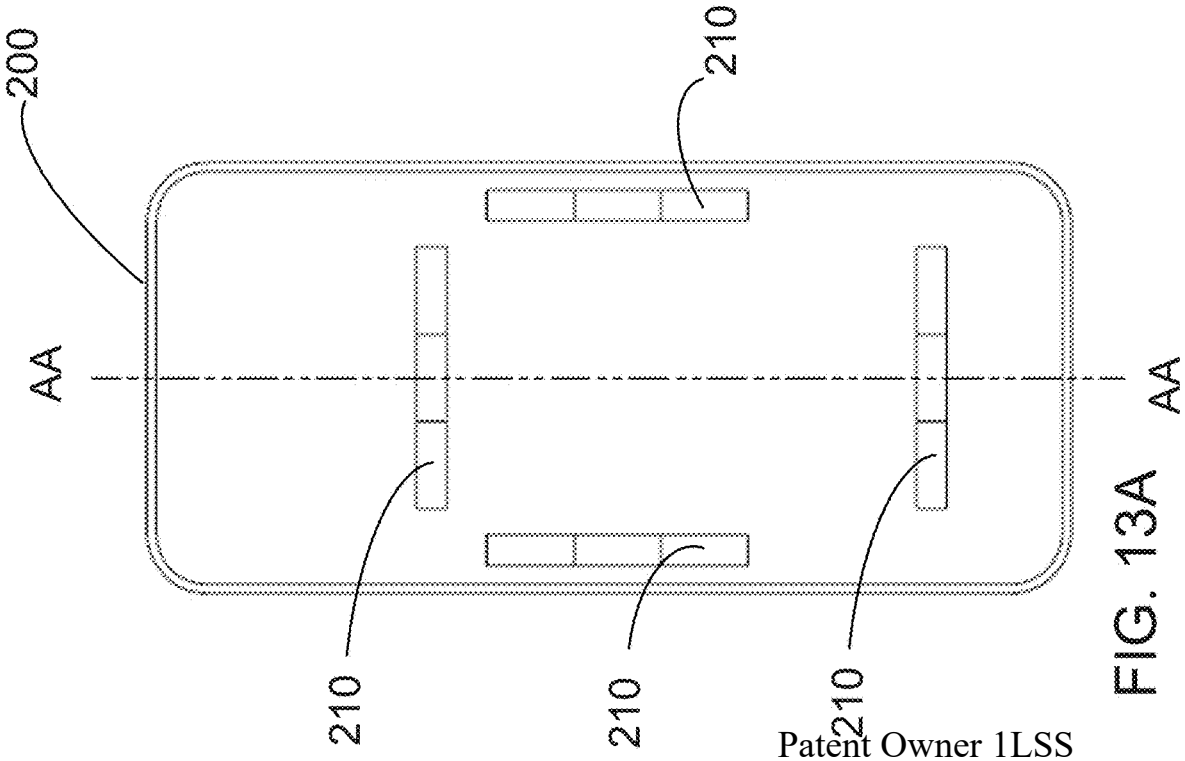


FIG. 13A

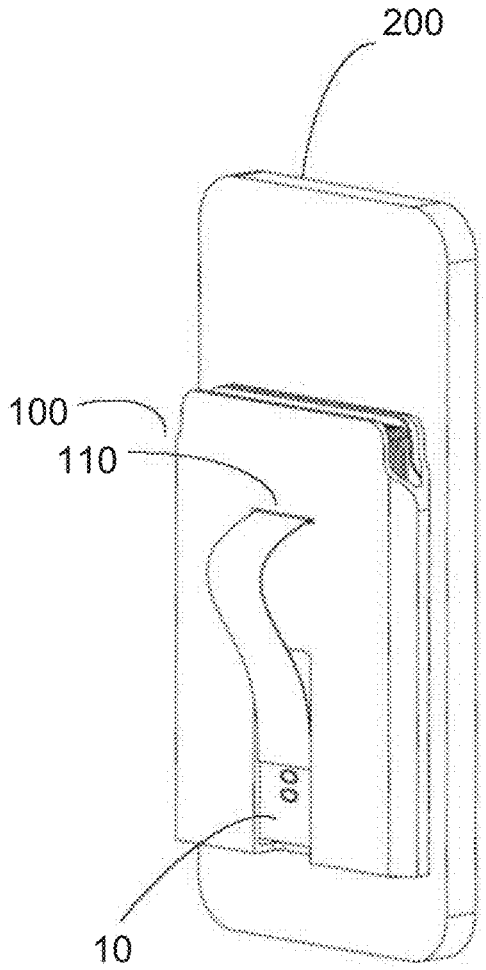


FIG. 14A

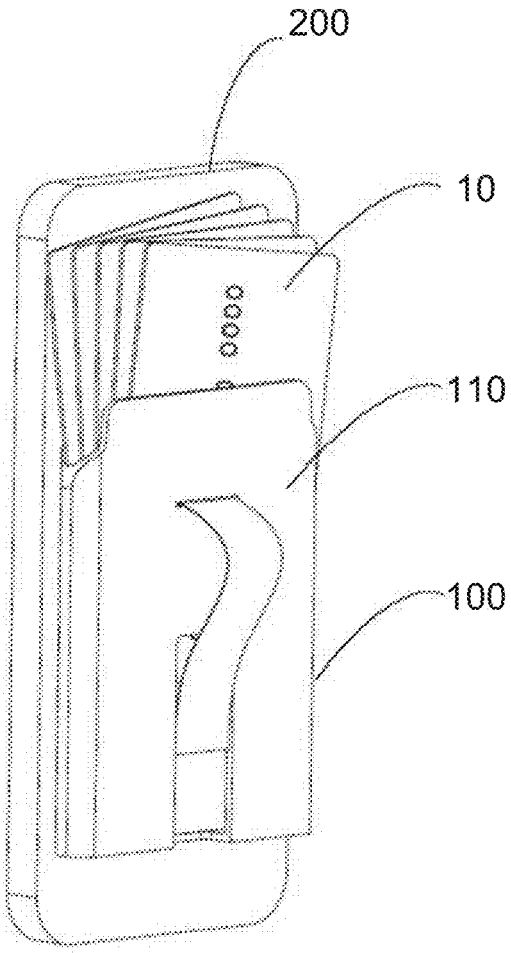


FIG. 14B

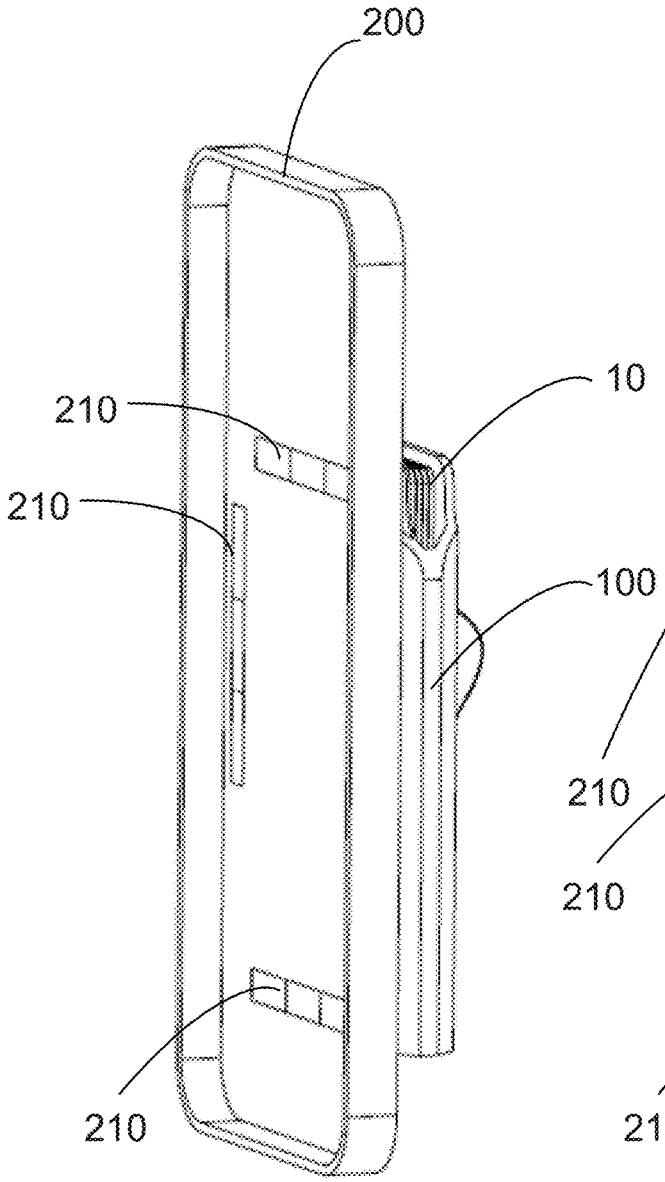


FIG. 15A

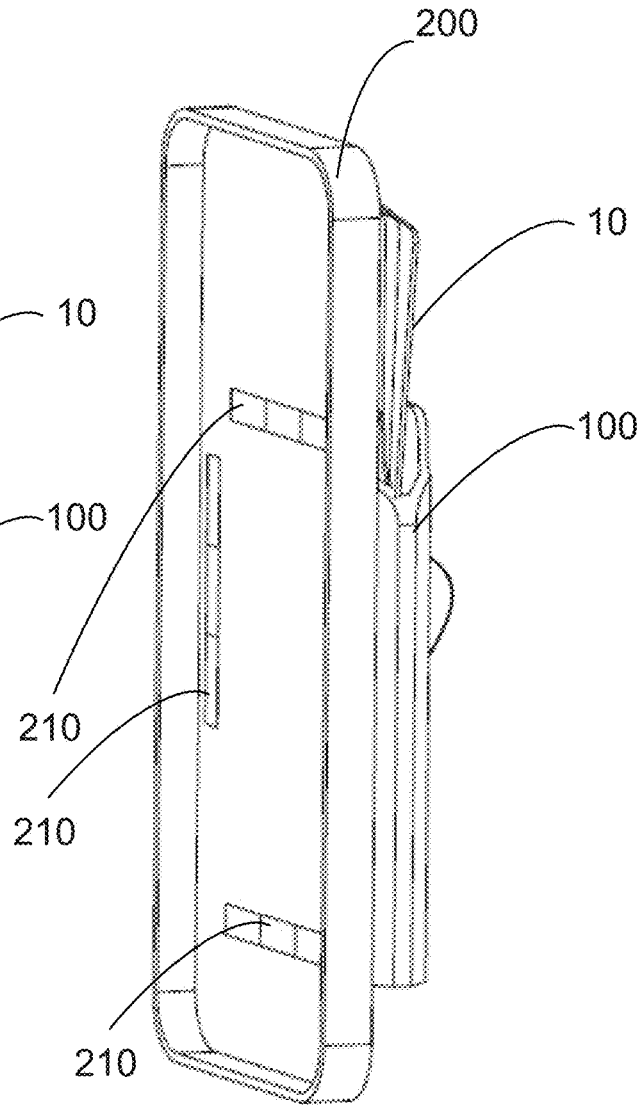


FIG. 15B

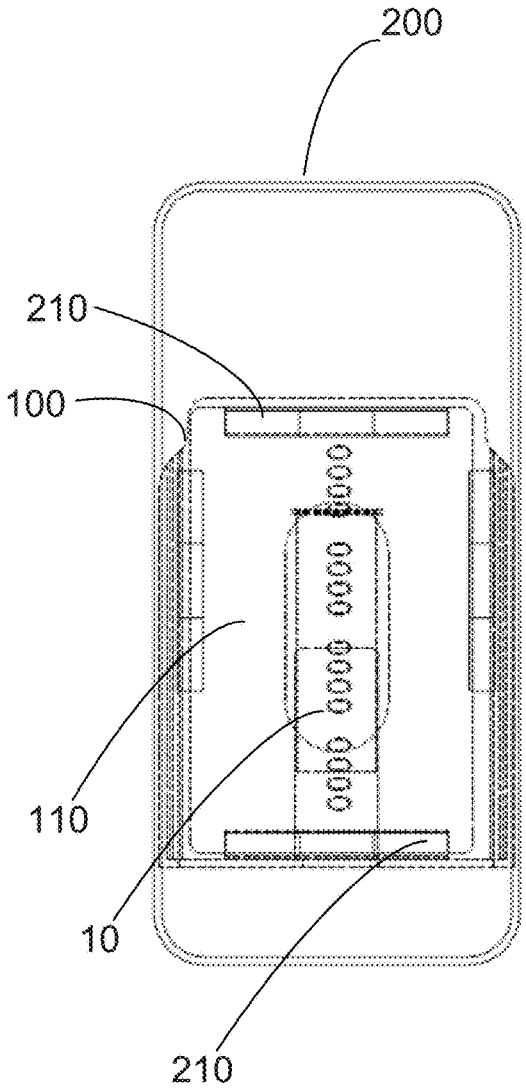


FIG. 16A

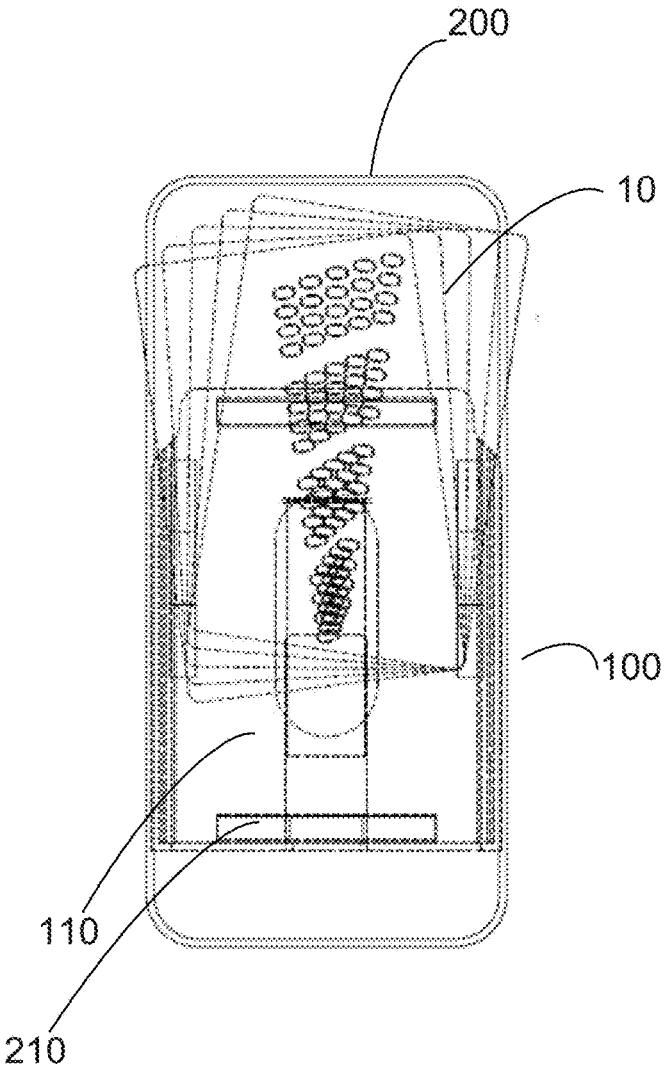


FIG. 16B

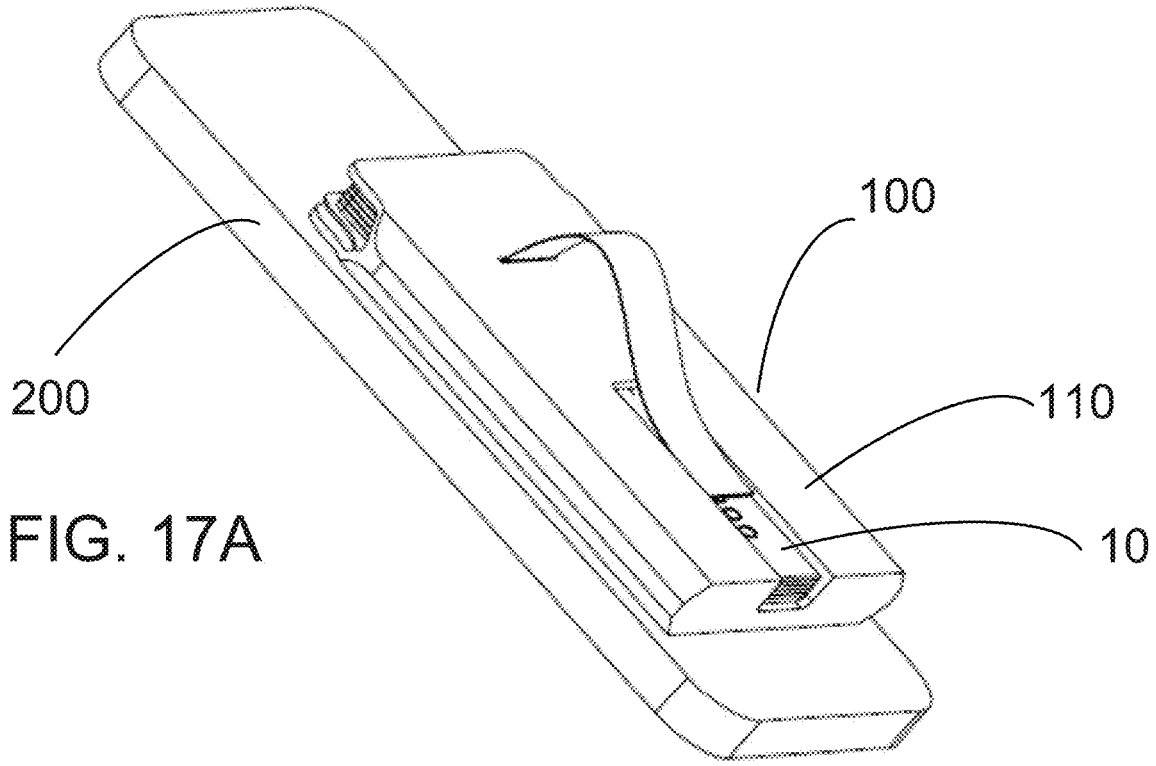


FIG. 17A

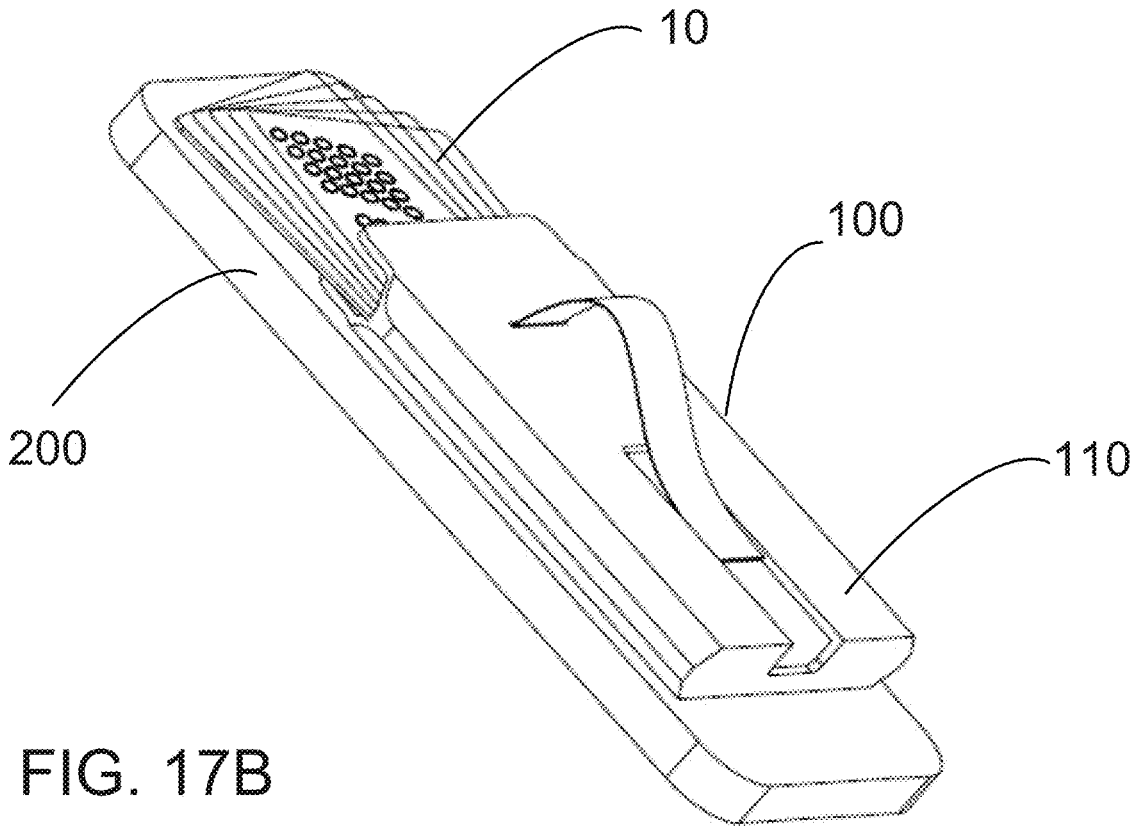


FIG. 17B

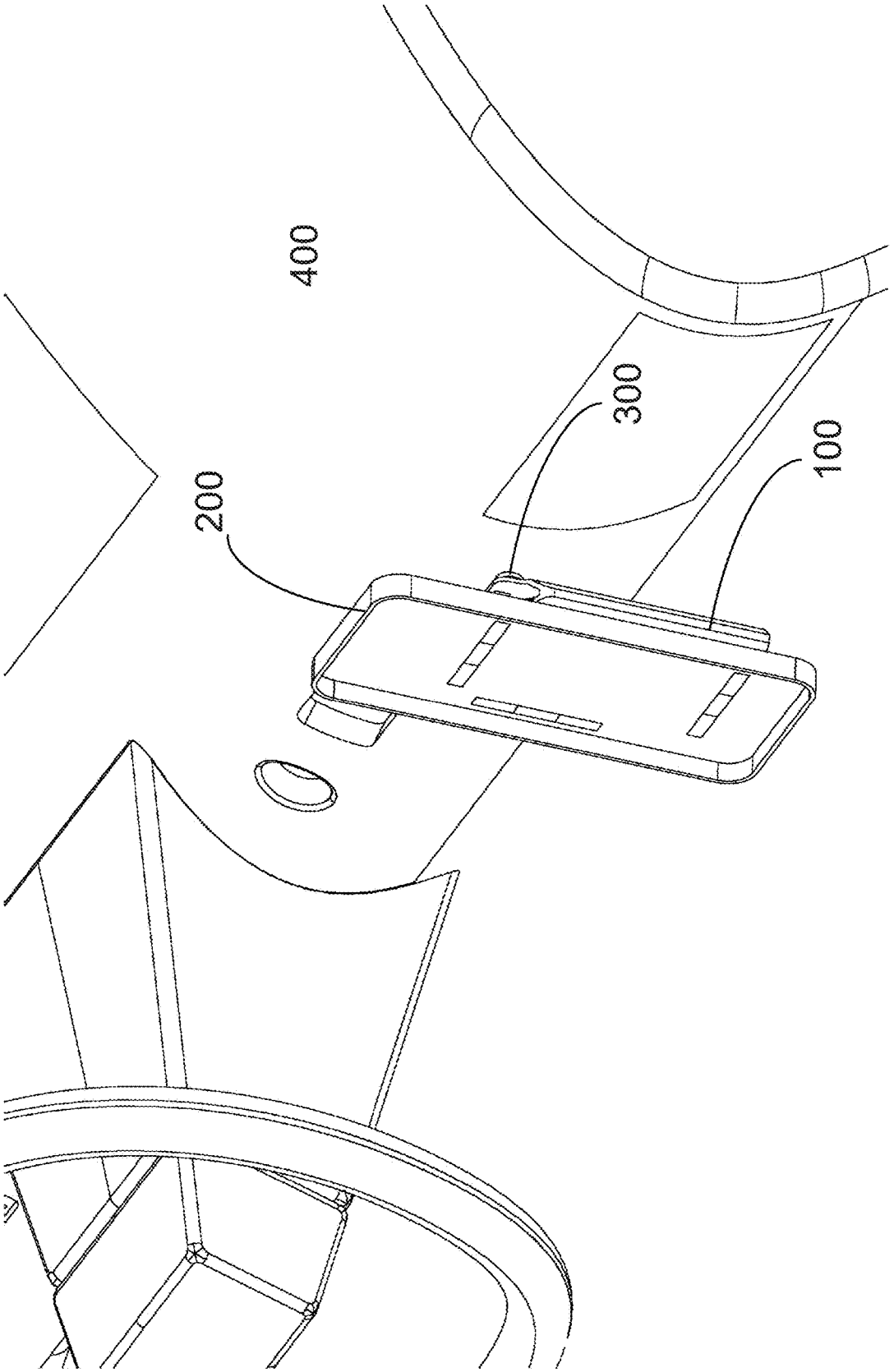


FIG. 18

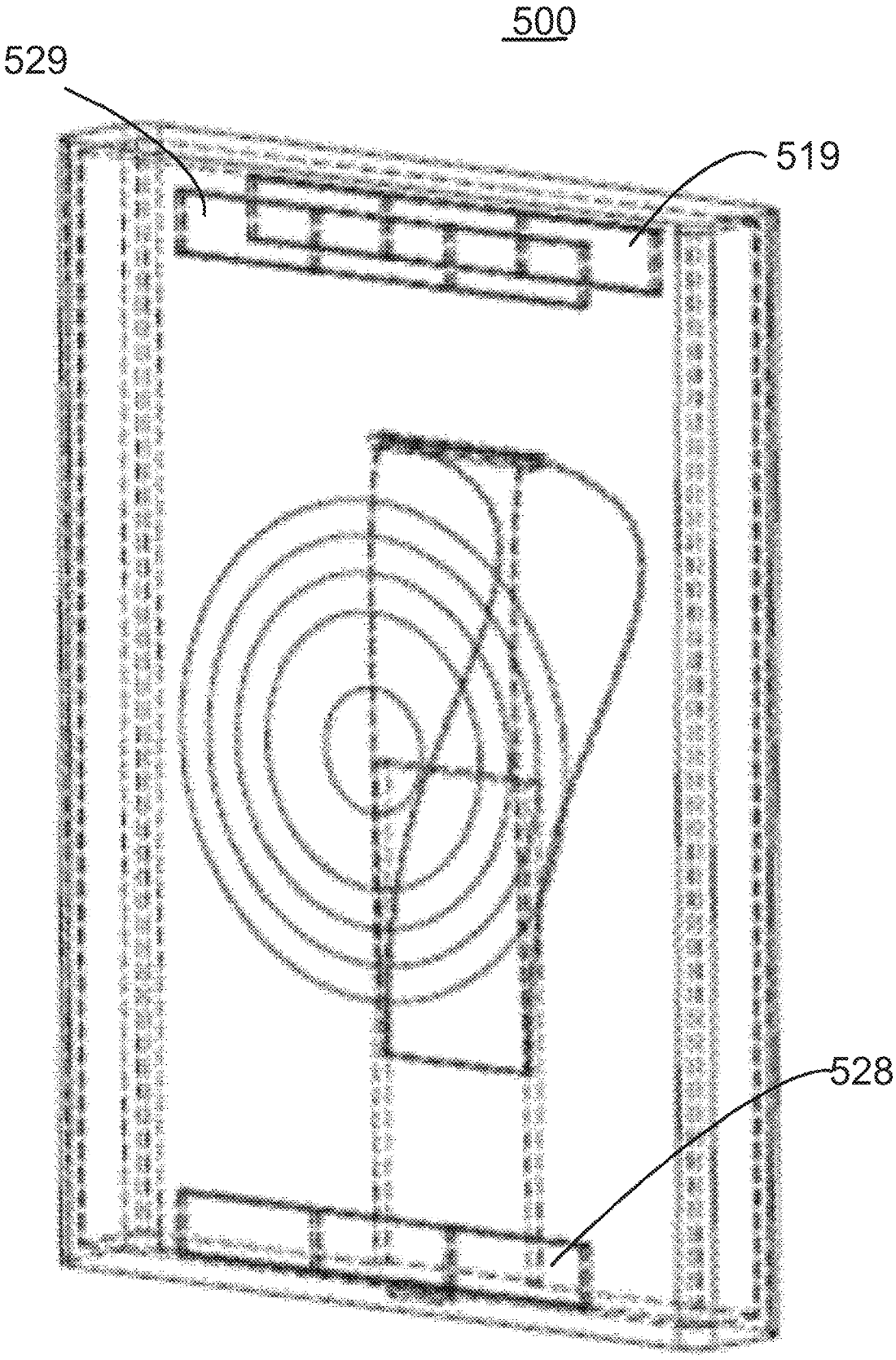


FIG. 19

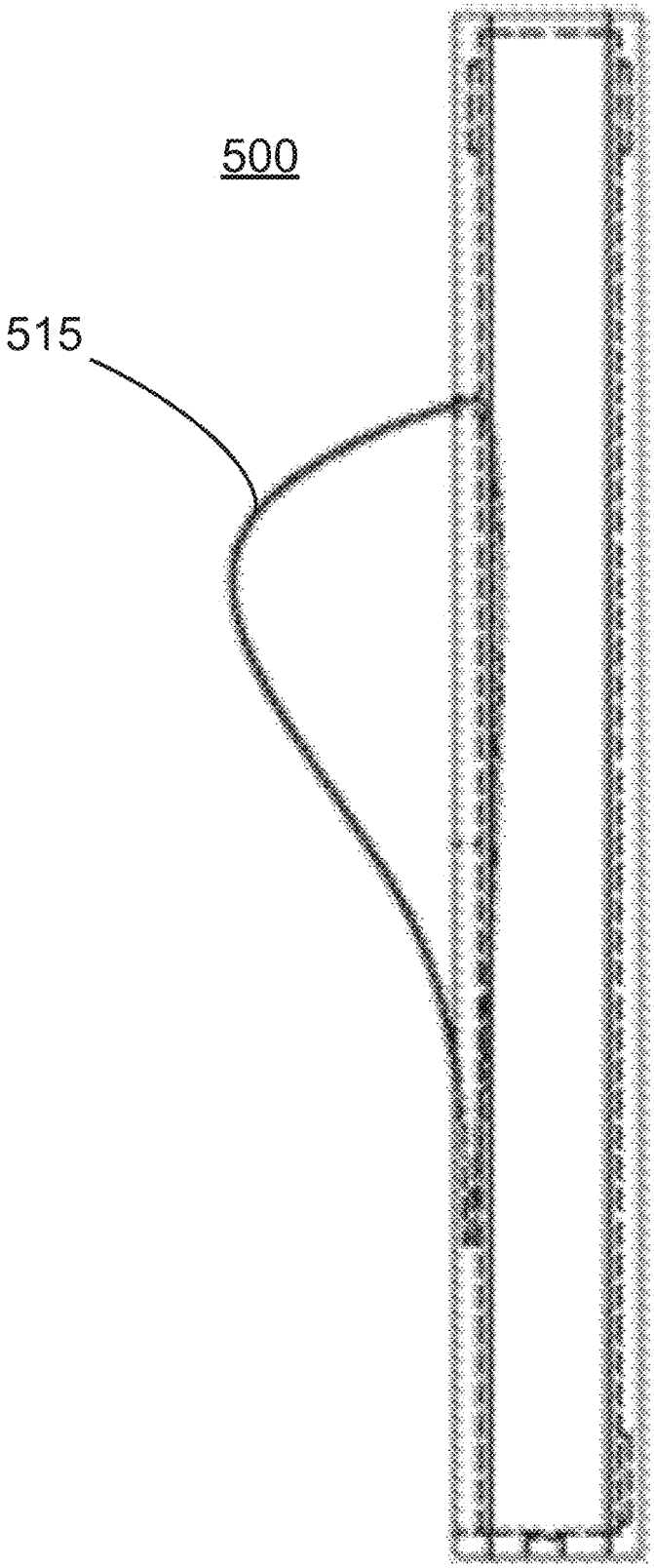


FIG. 20

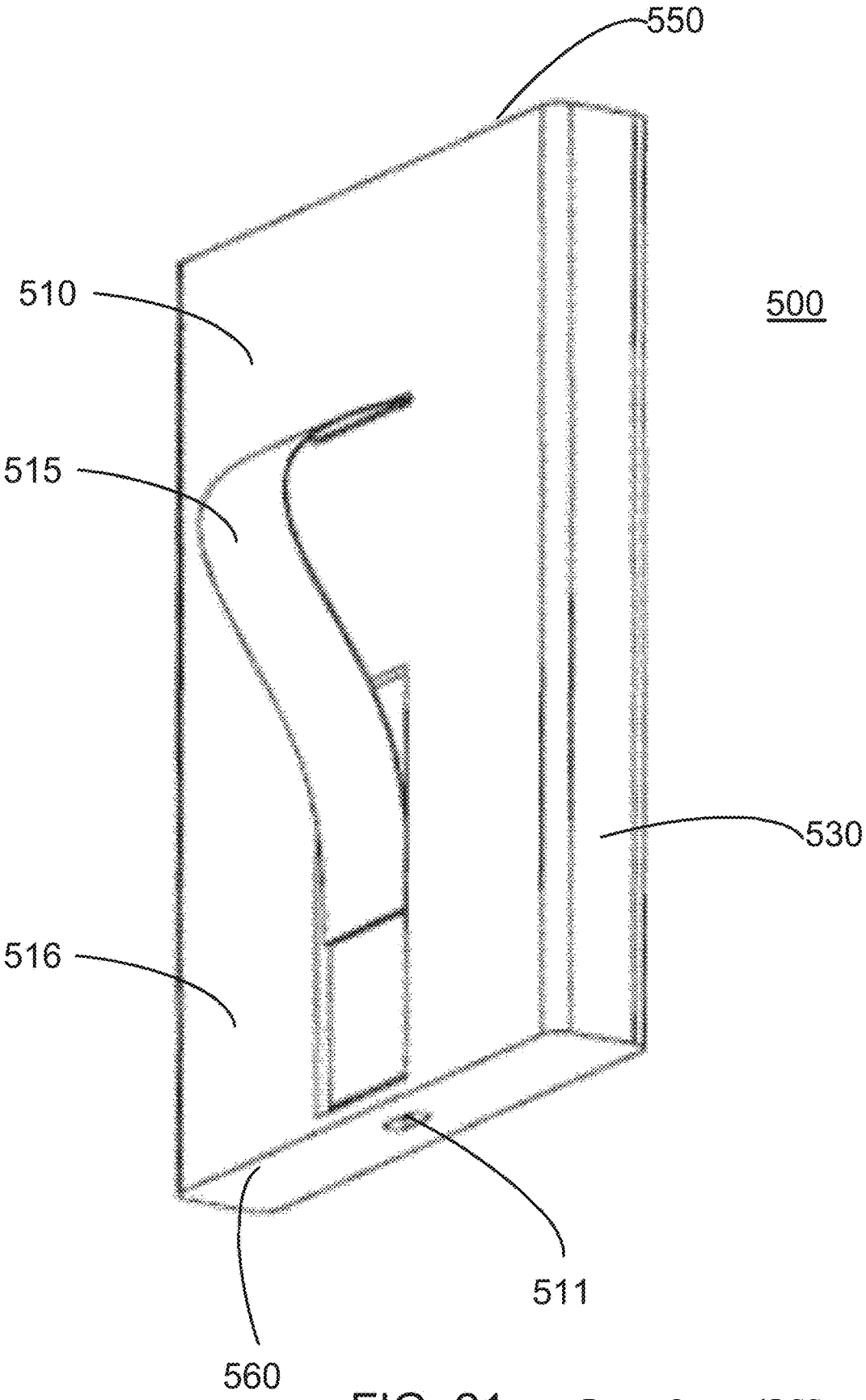


FIG. 21

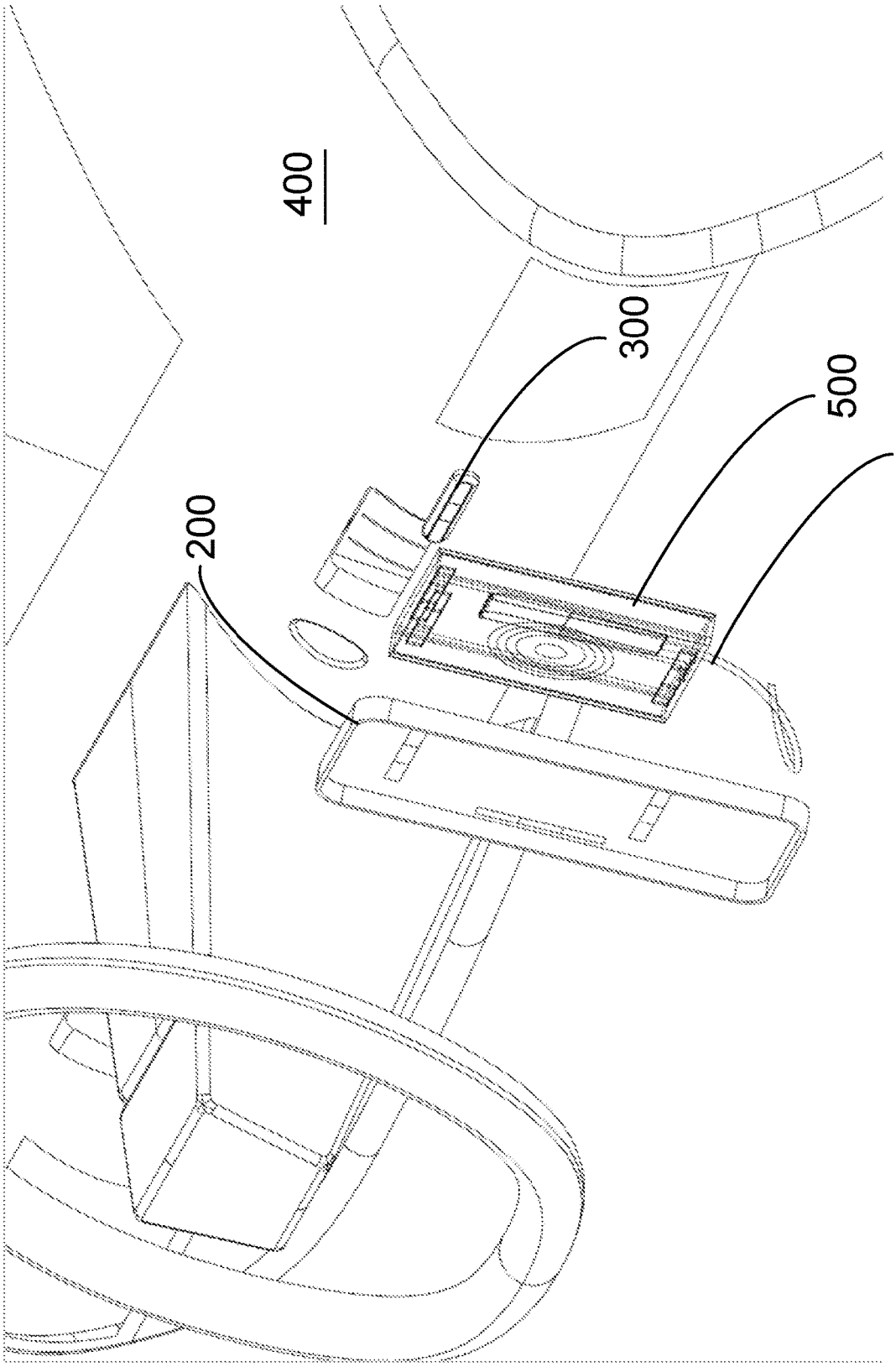


FIG. 22

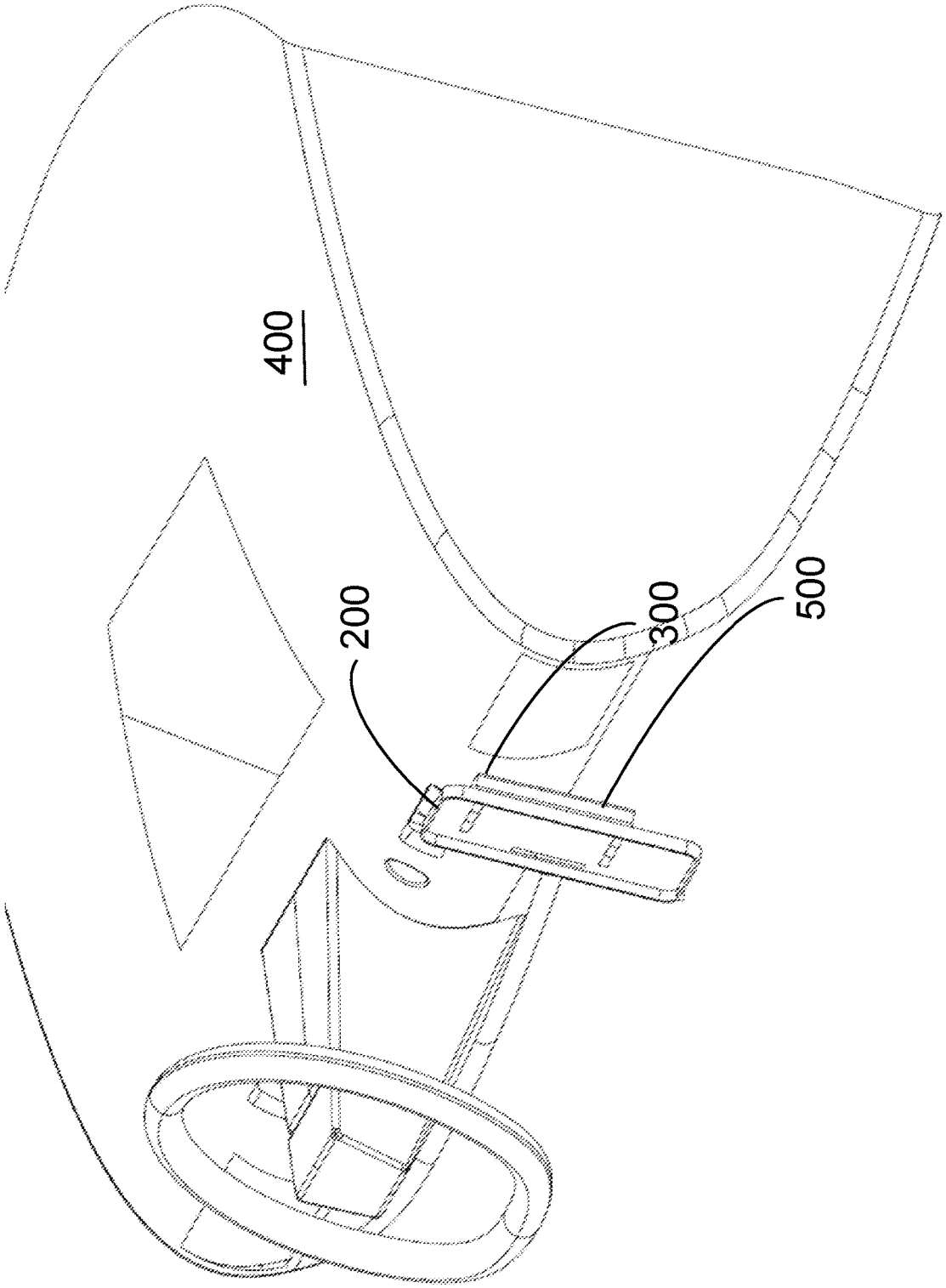


FIG. 23

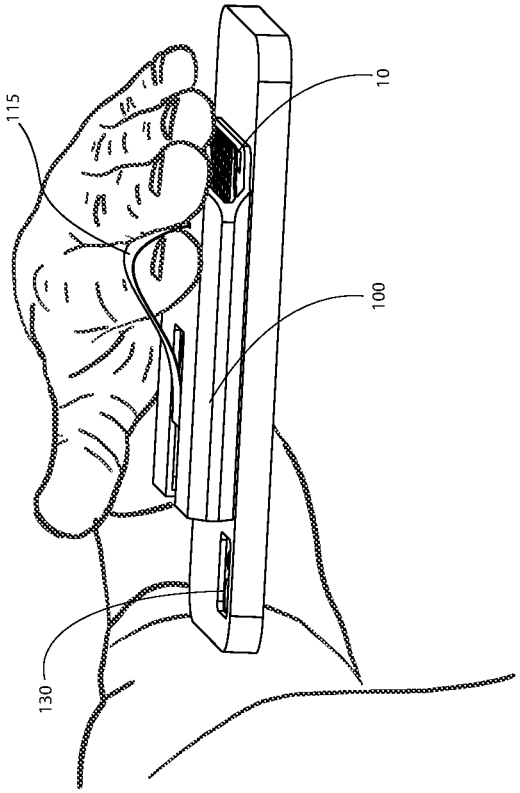


FIG. 24

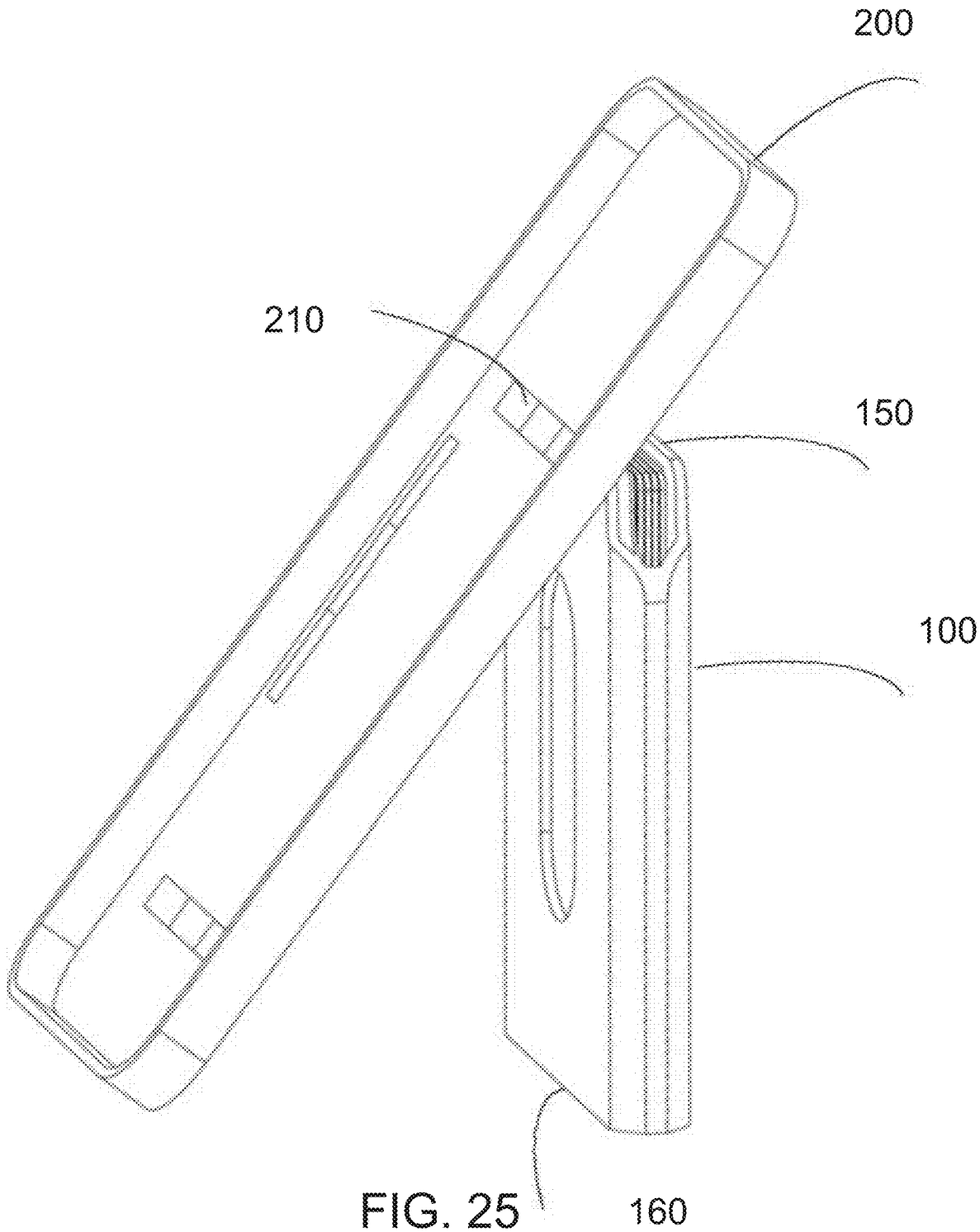


FIG. 25

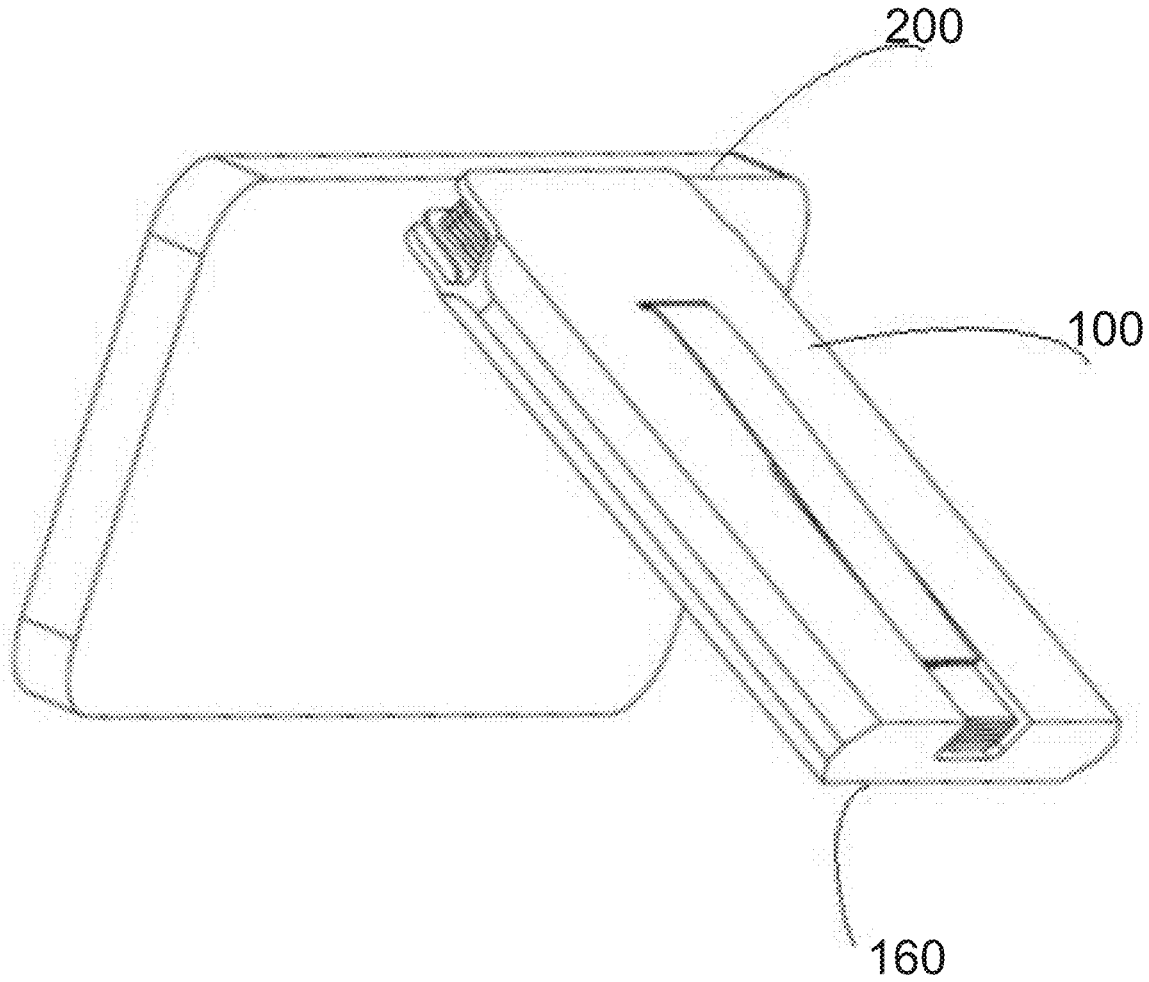


FIG. 26

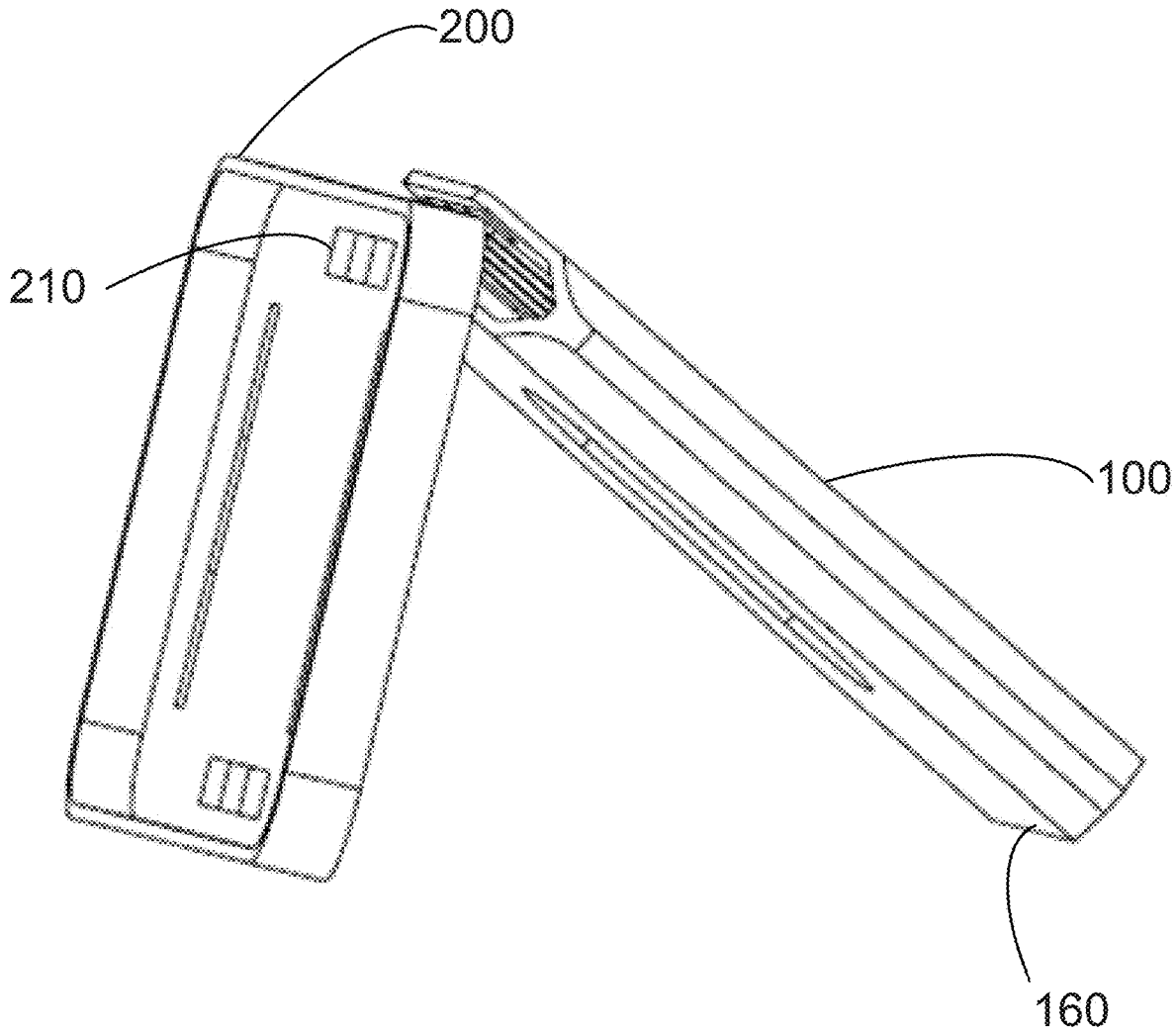


FIG. 27

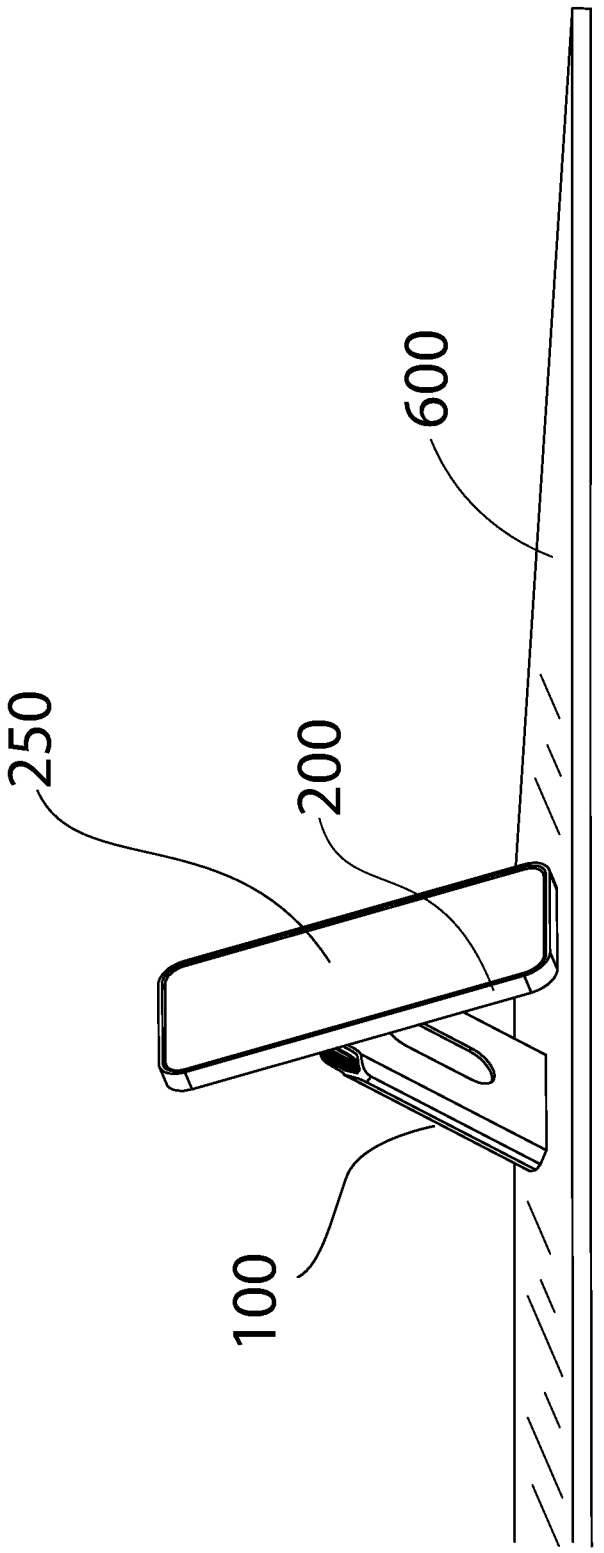


FIG. 28

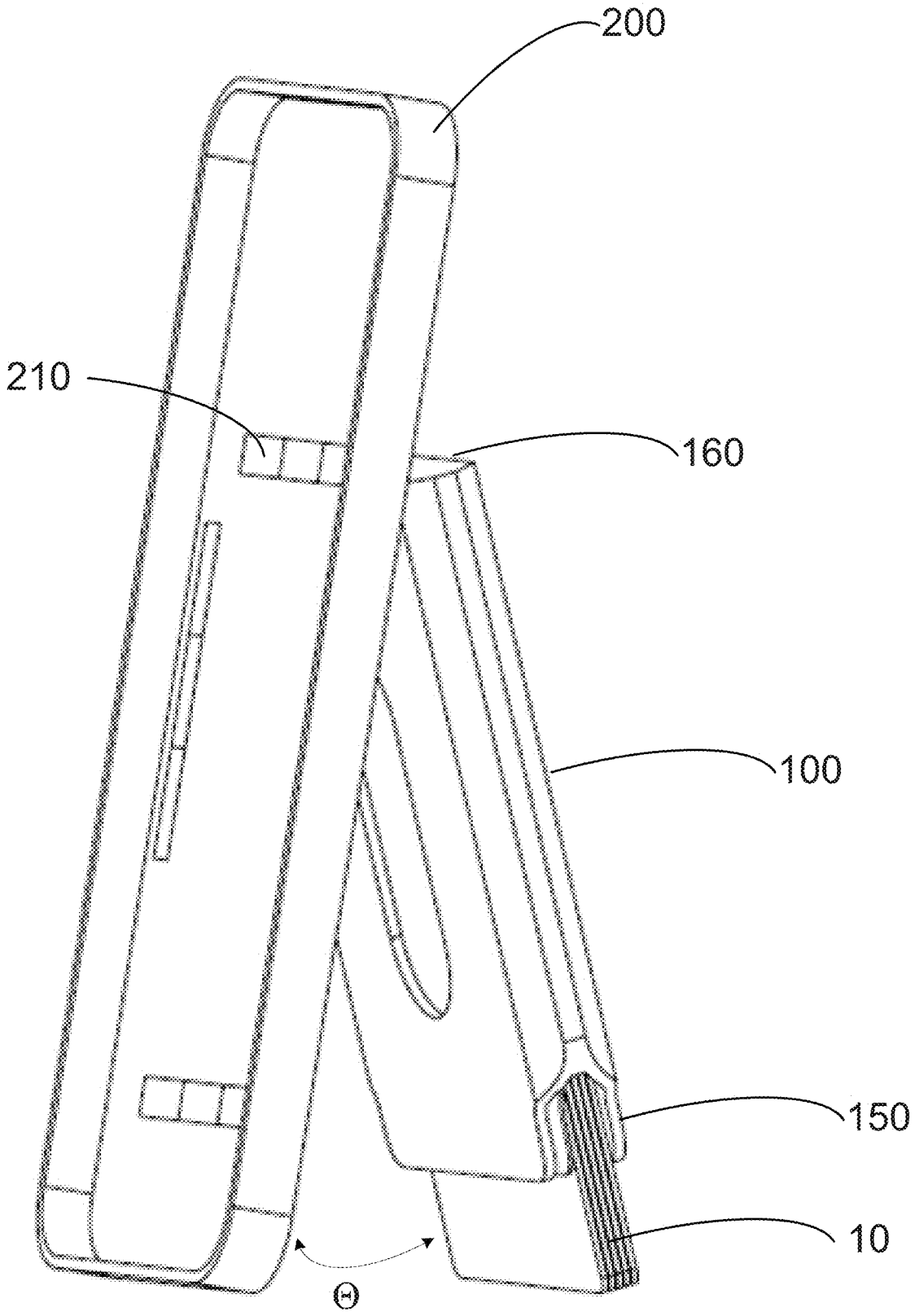


FIG. 29

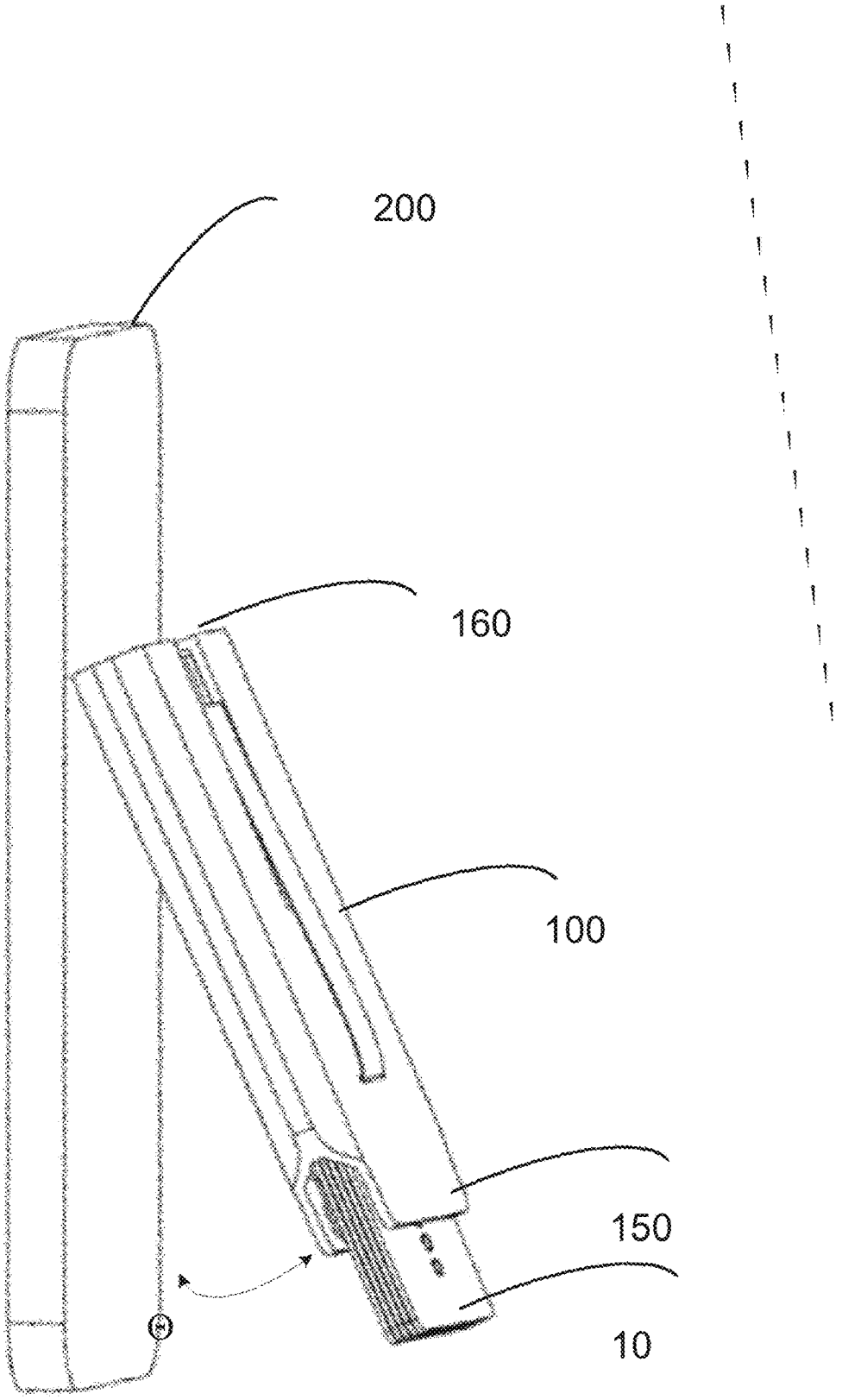


FIG. 30

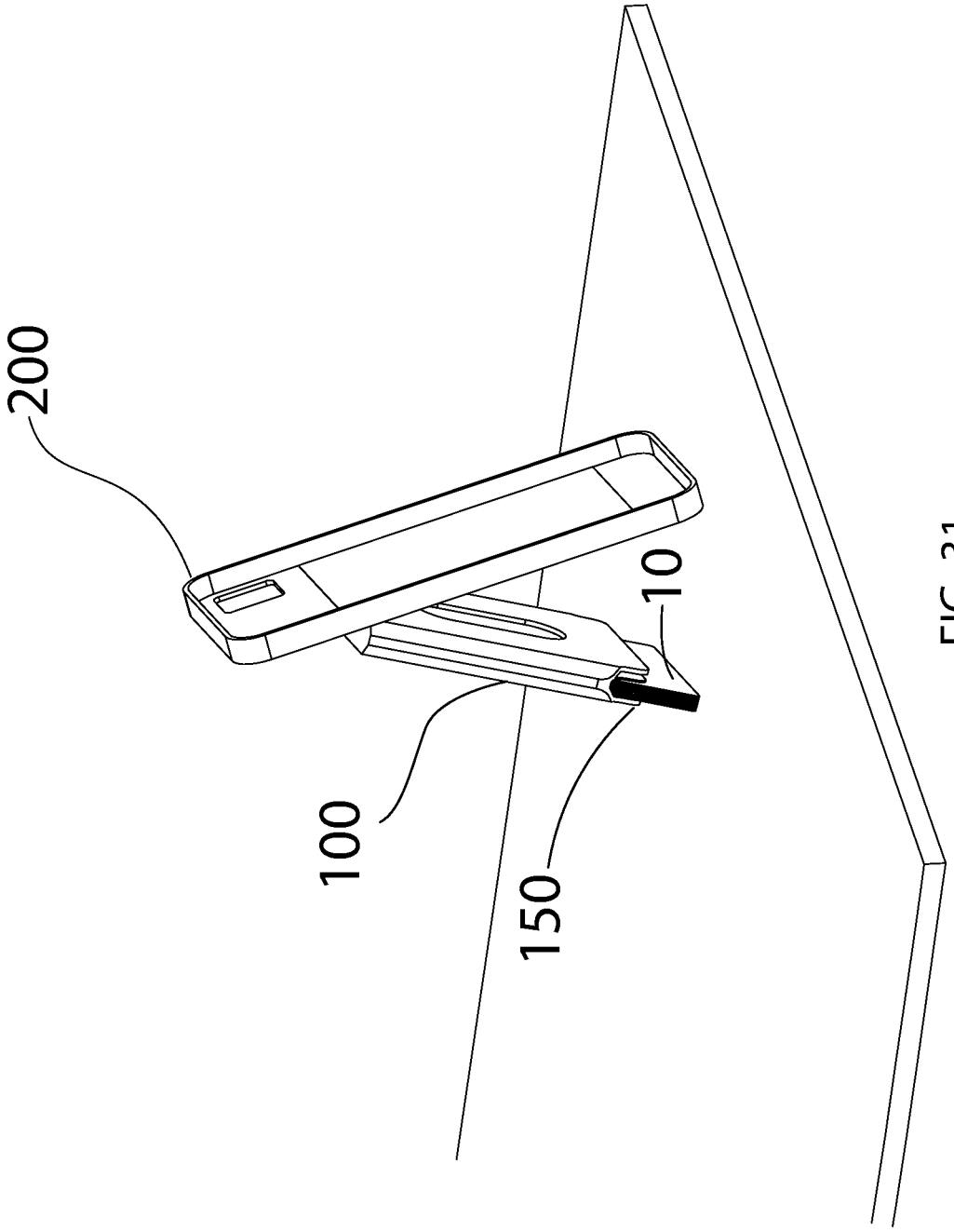


FIG. 31

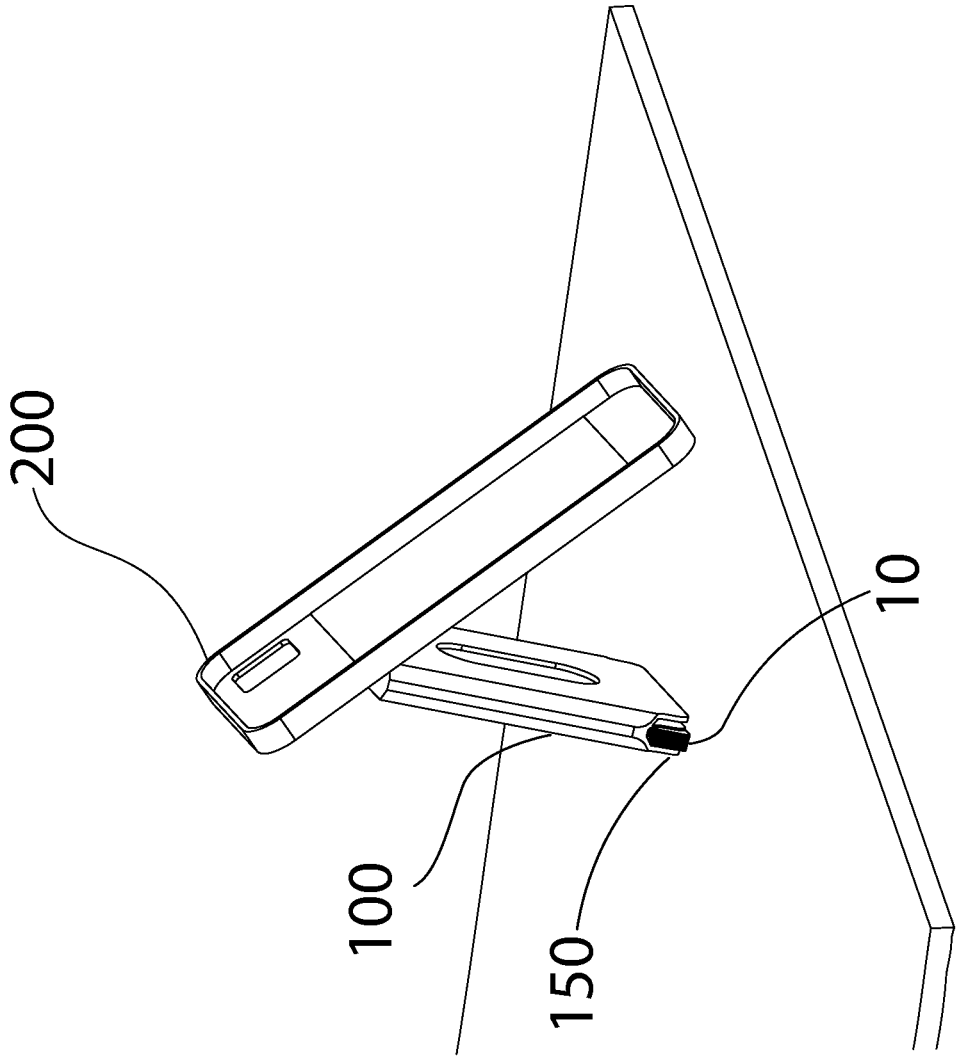


FIG. 32

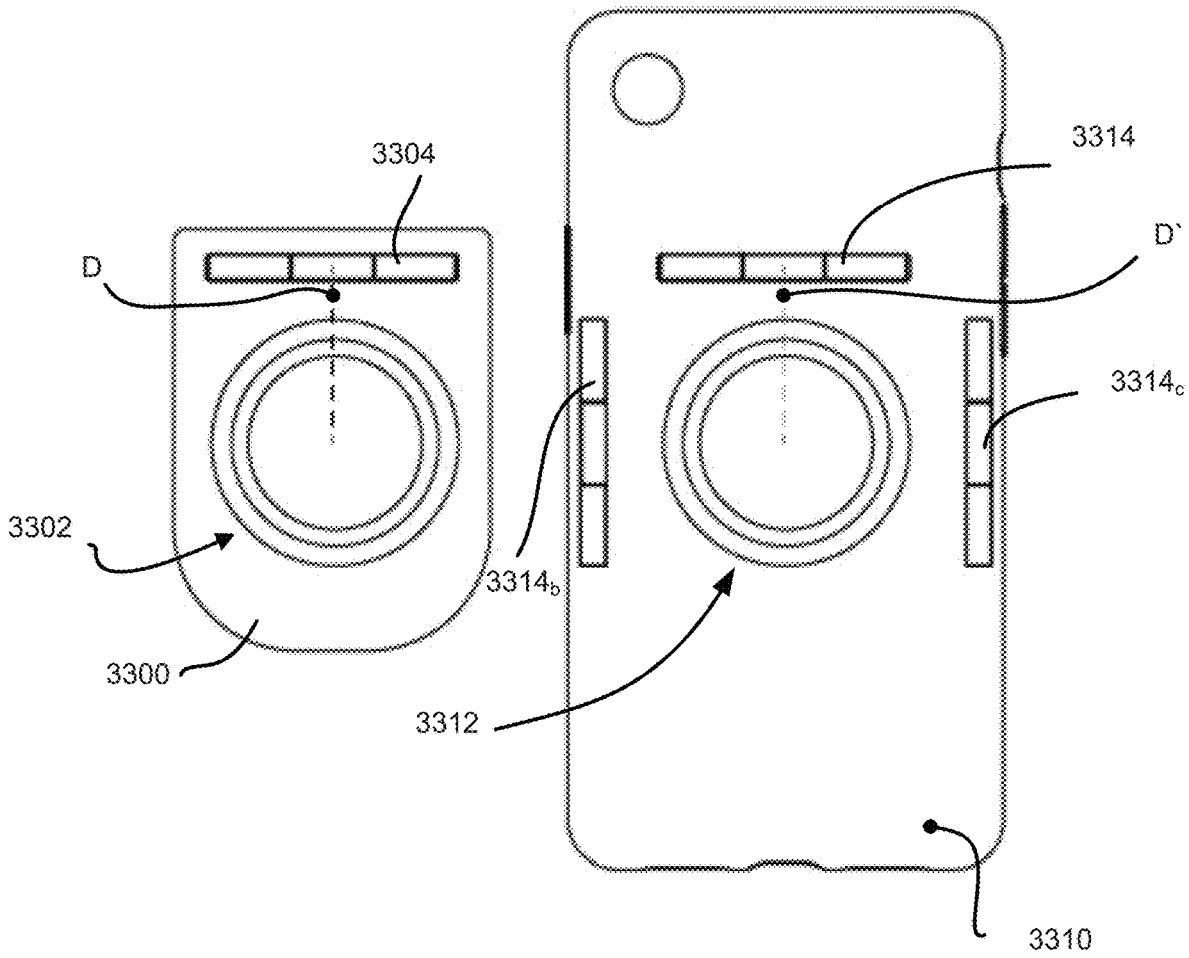


FIG. 33

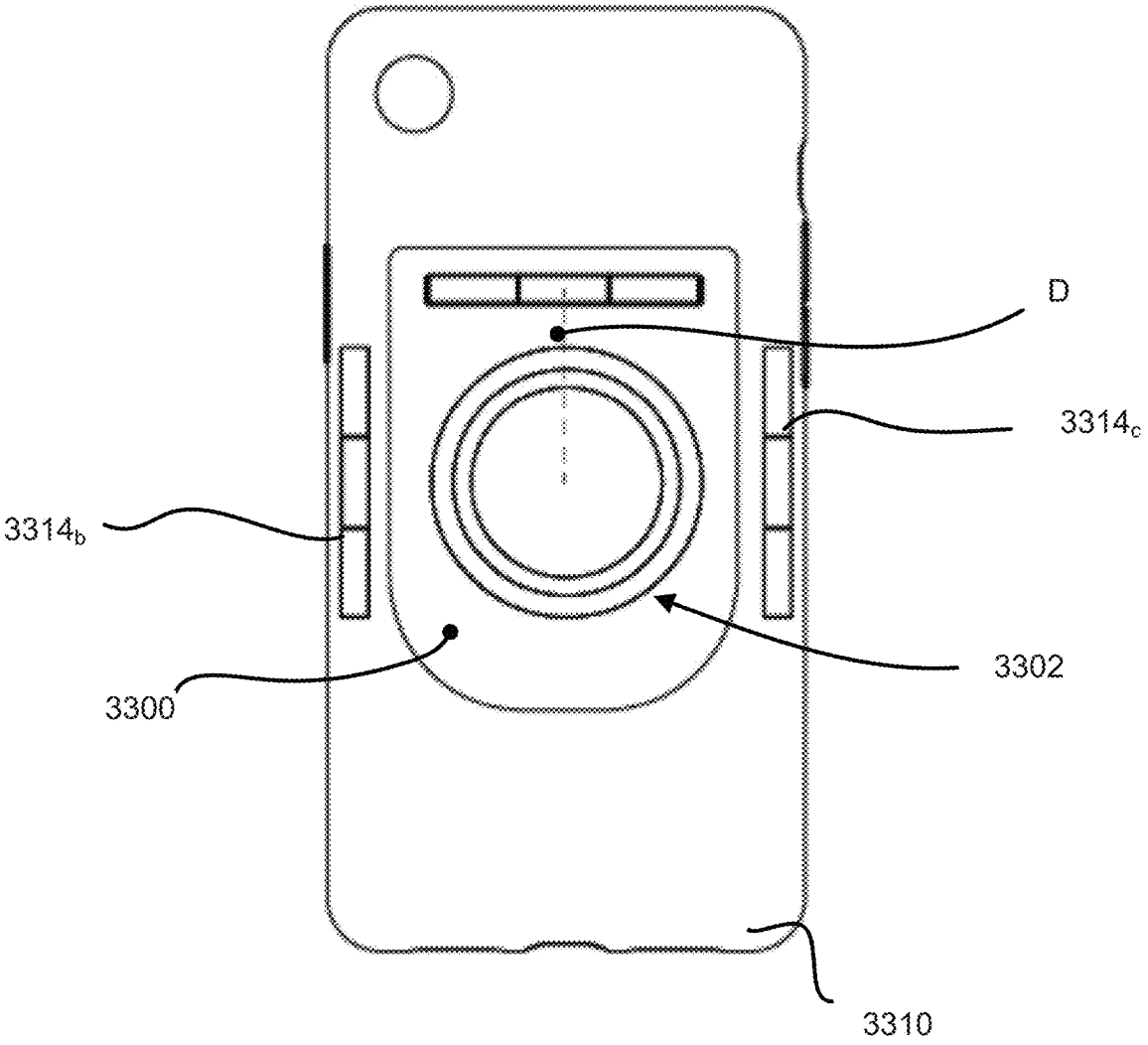


FIG. 34

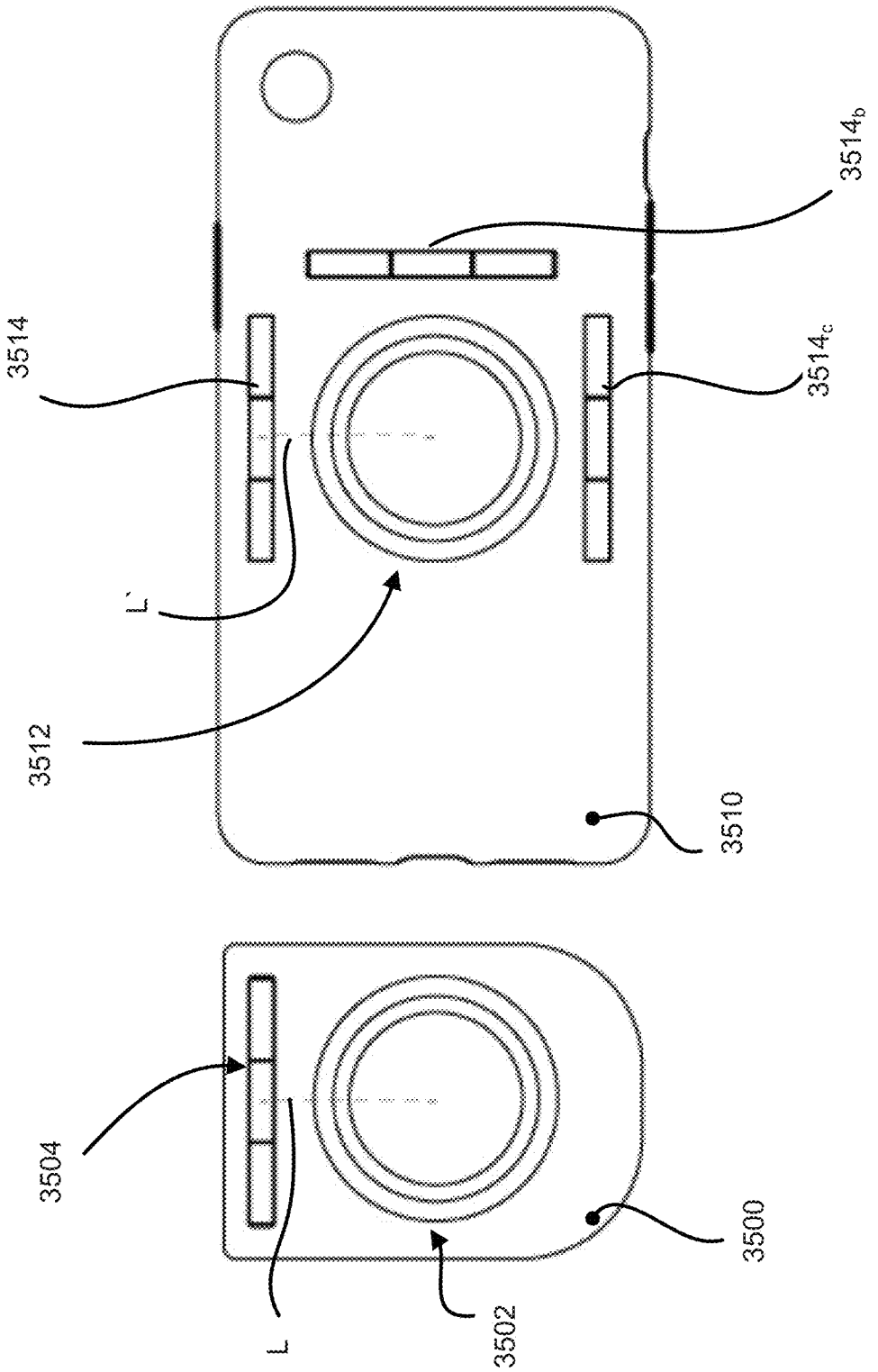


FIG. 35

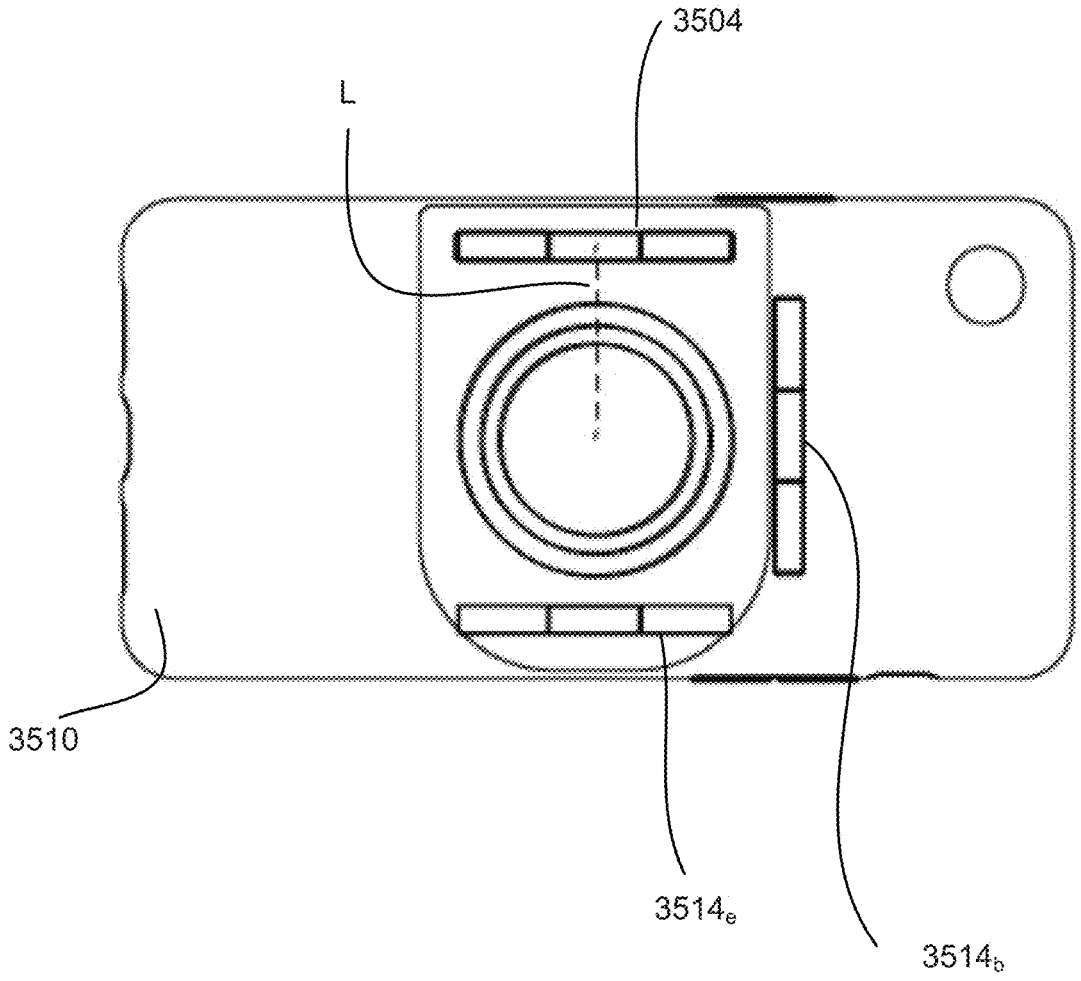


FIG. 36

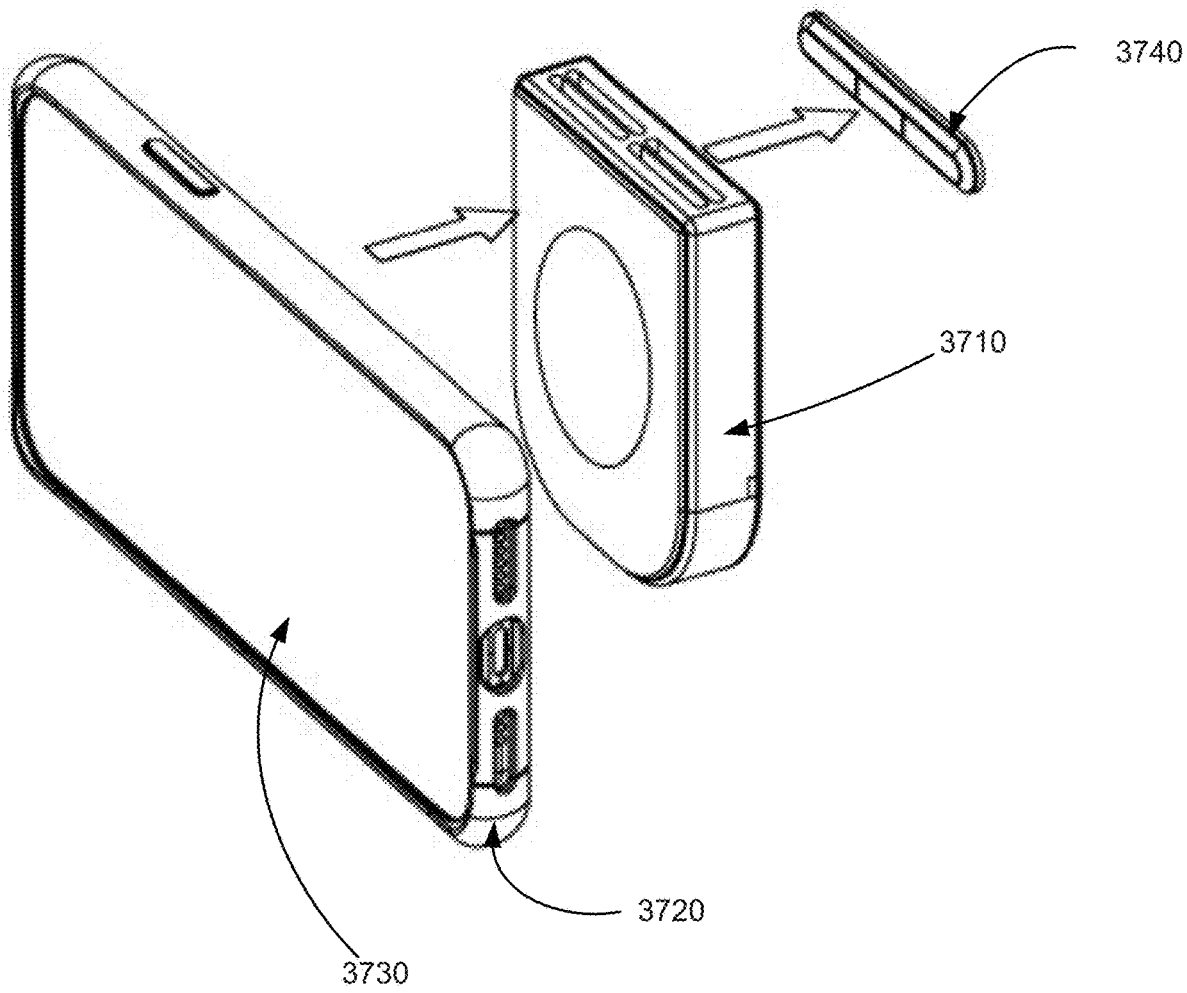


FIG. 37

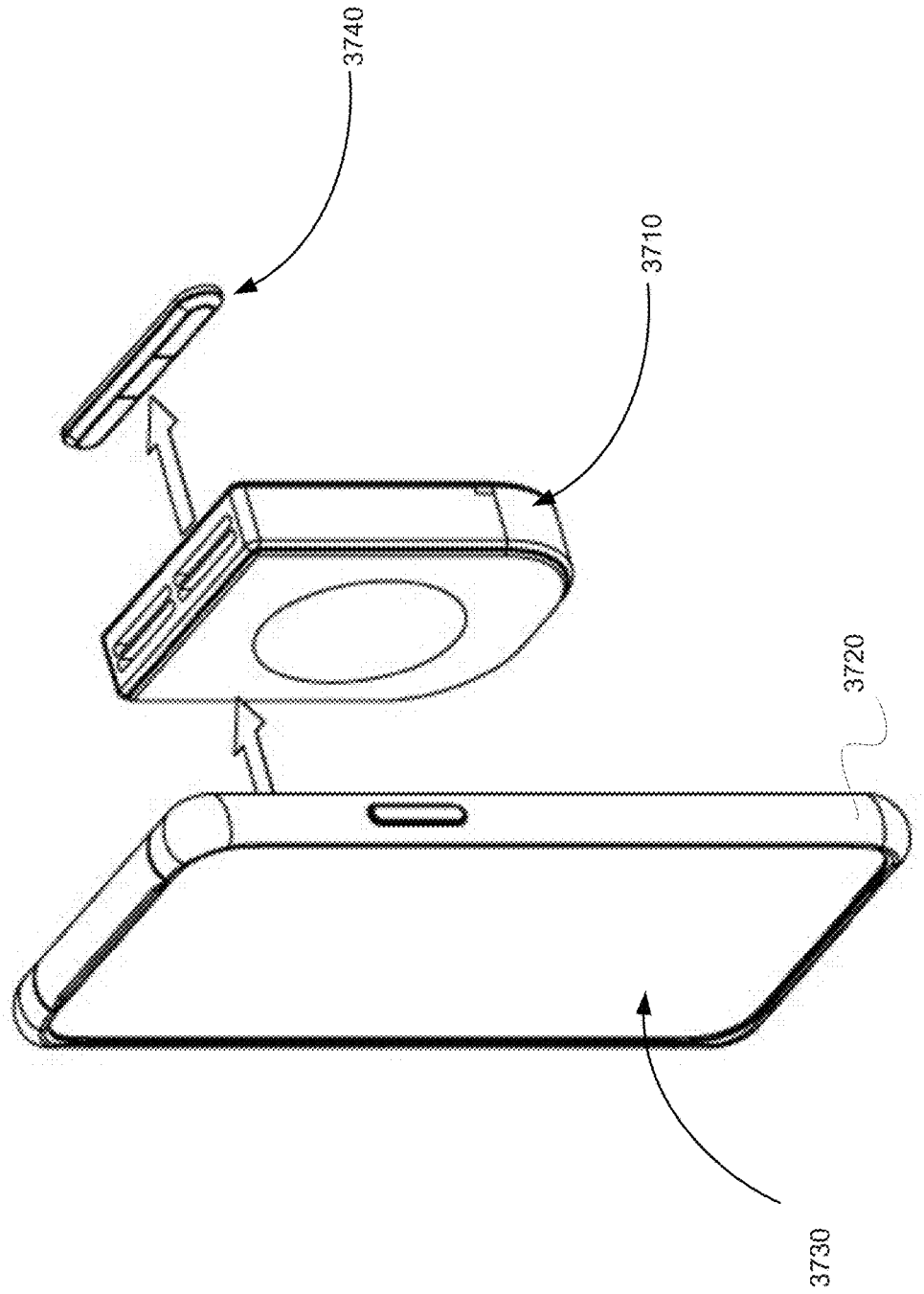


FIG. 38

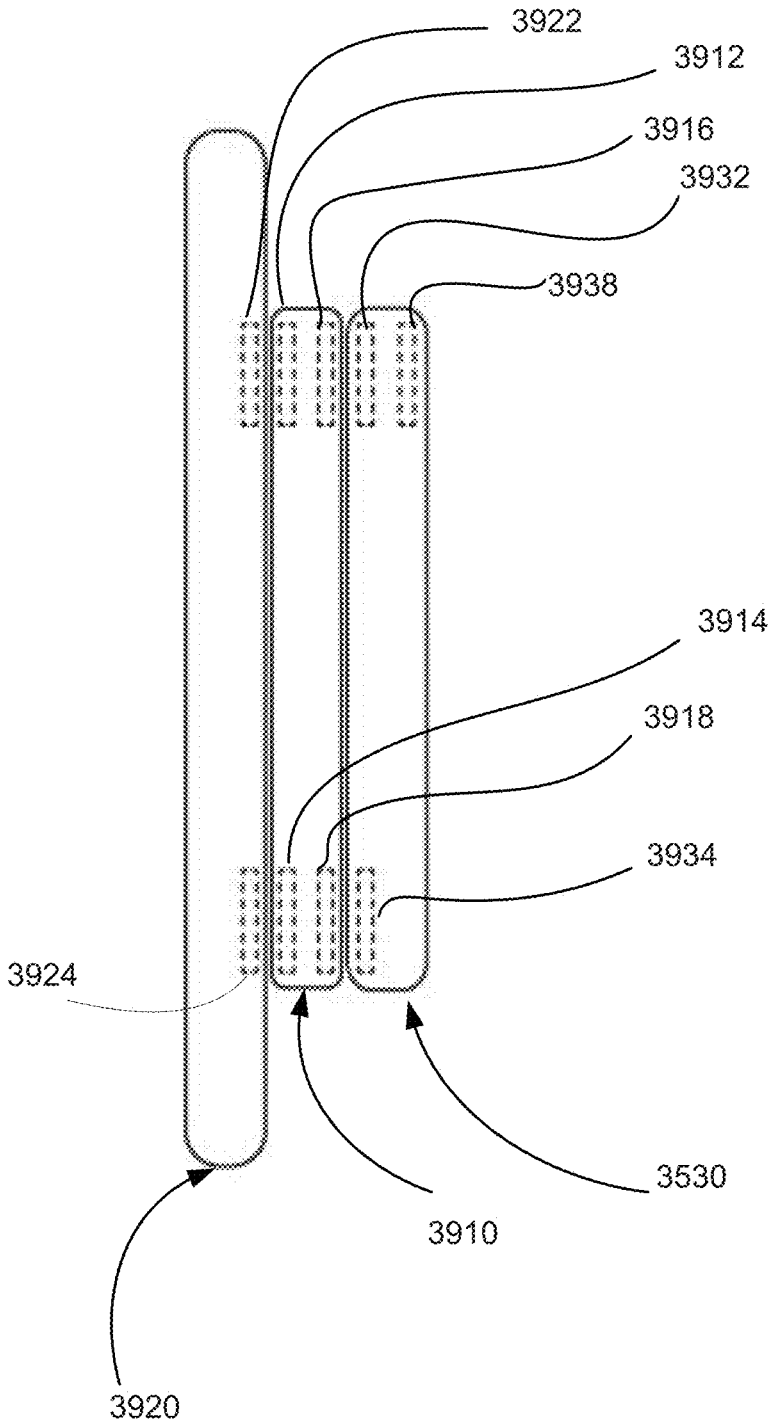


FIG. 39

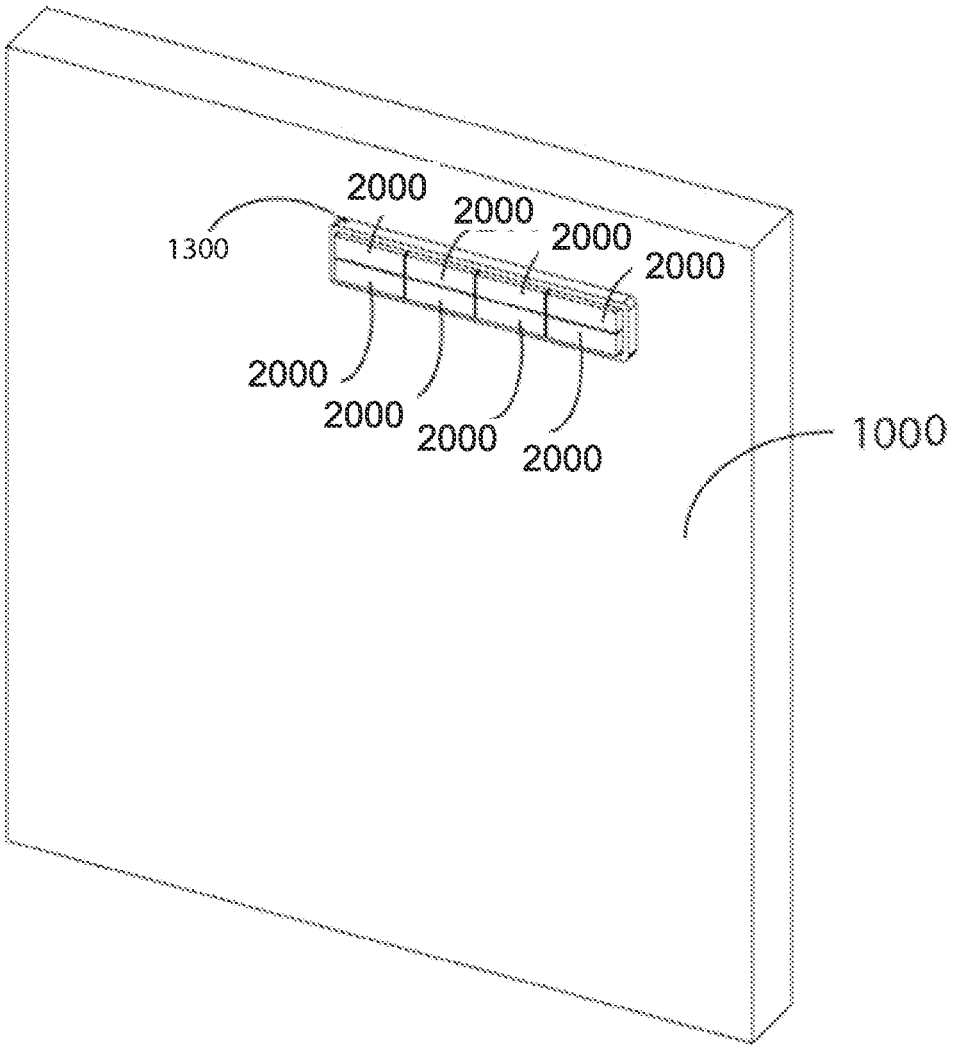


FIG. 40A

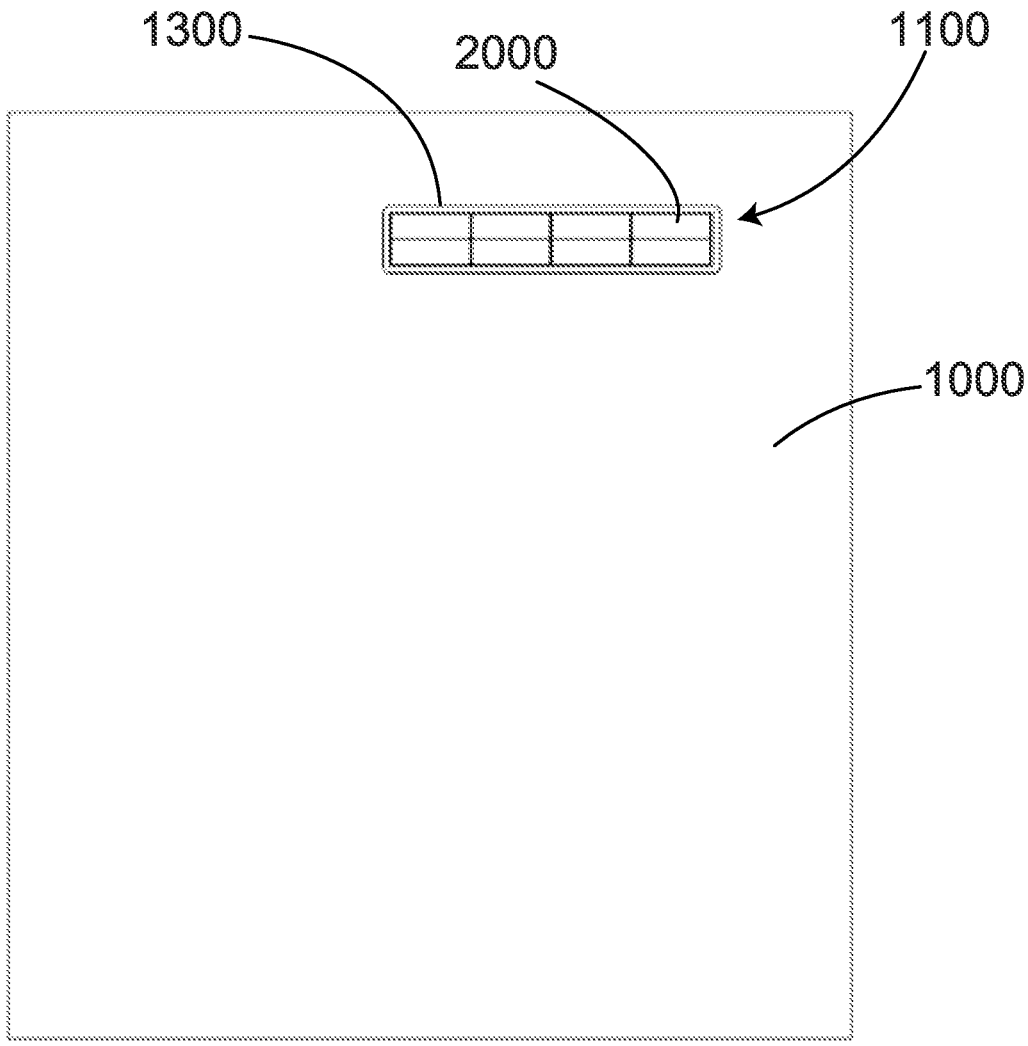


FIG. 40B

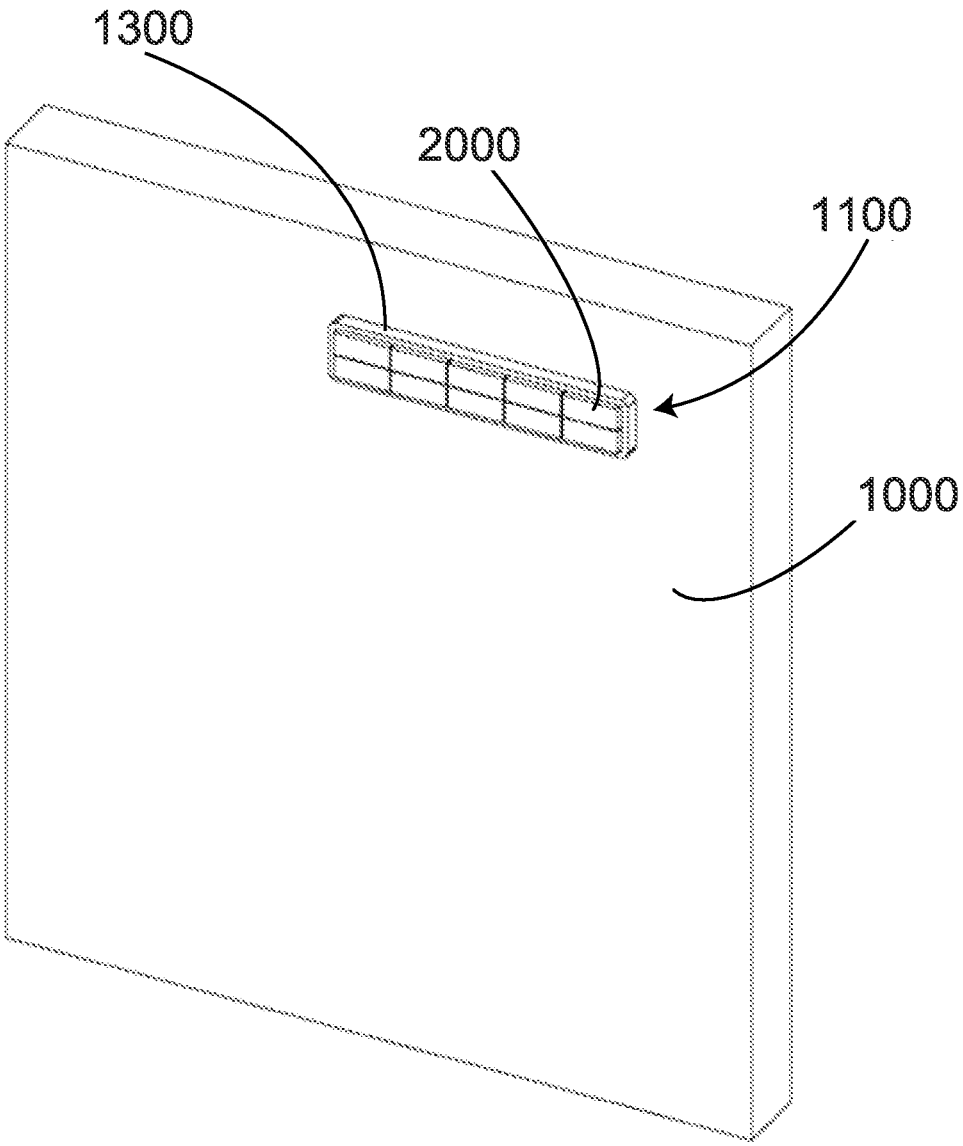


FIG. 40C

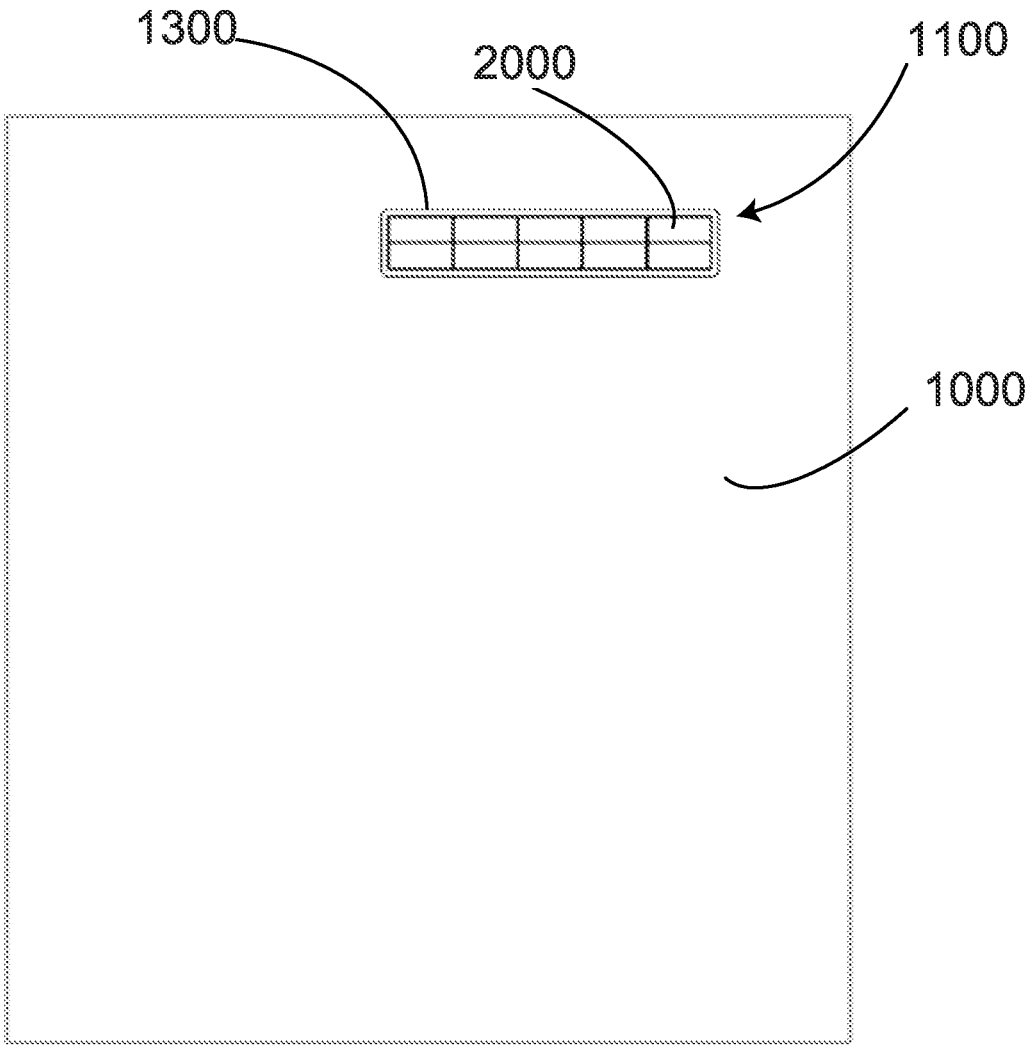


FIG. 40D

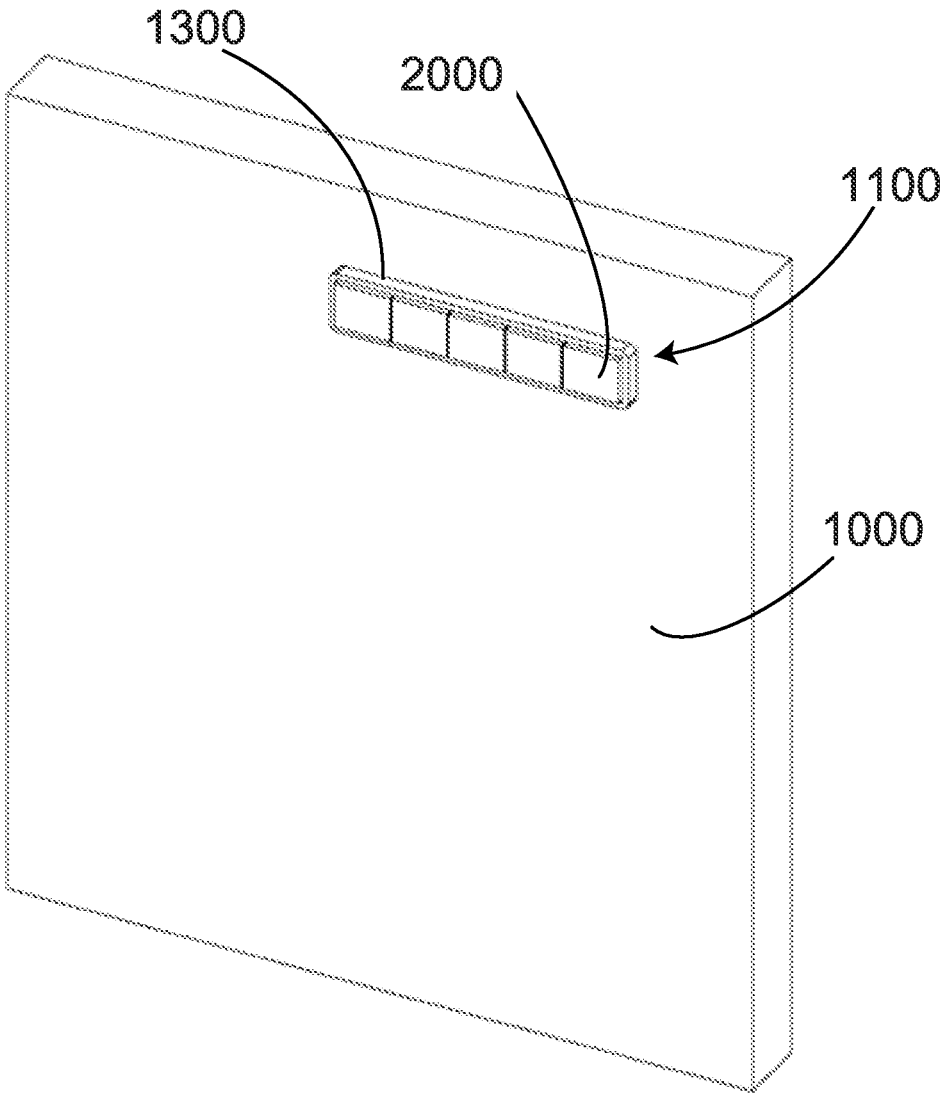


FIG. 40E

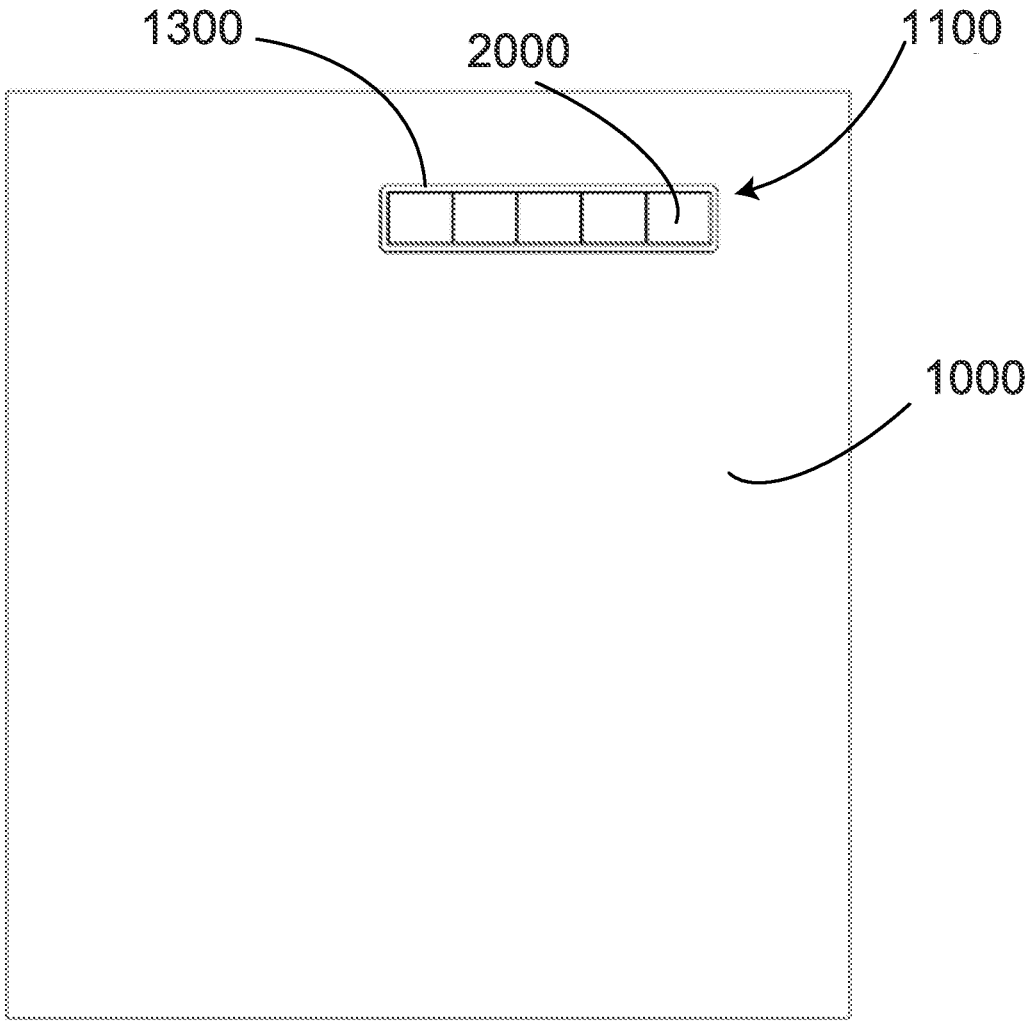


FIG. 40F

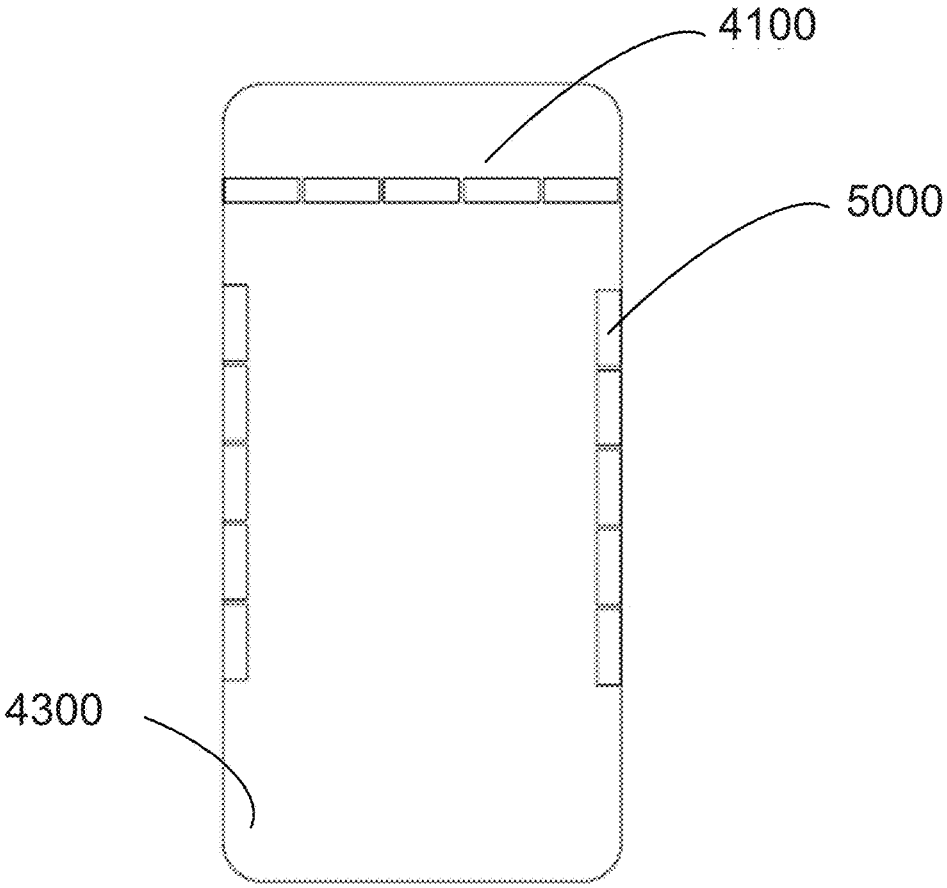


FIG. 41A

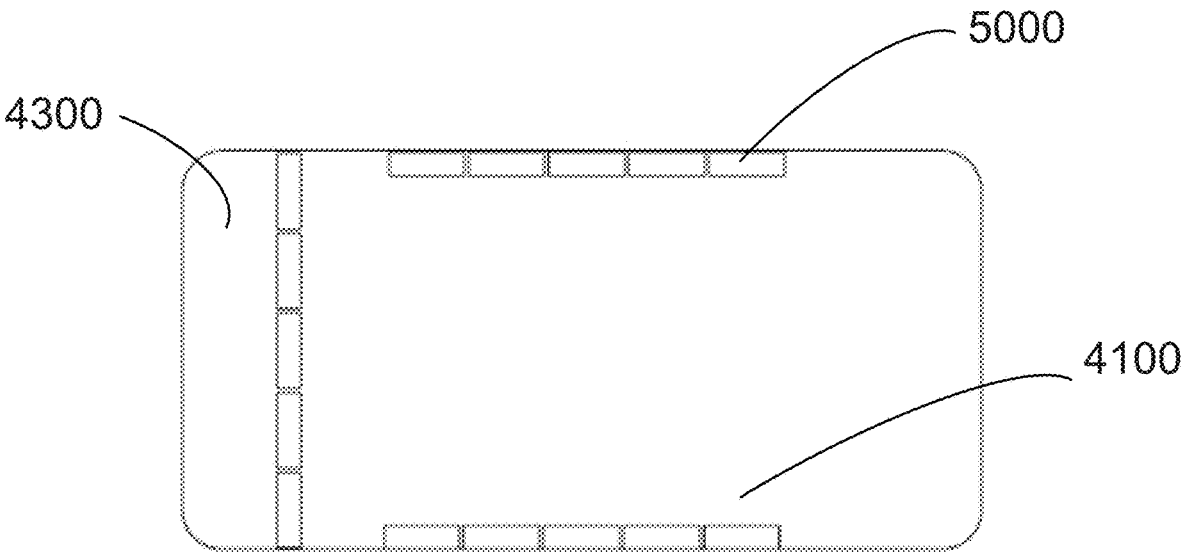


FIG. 41B

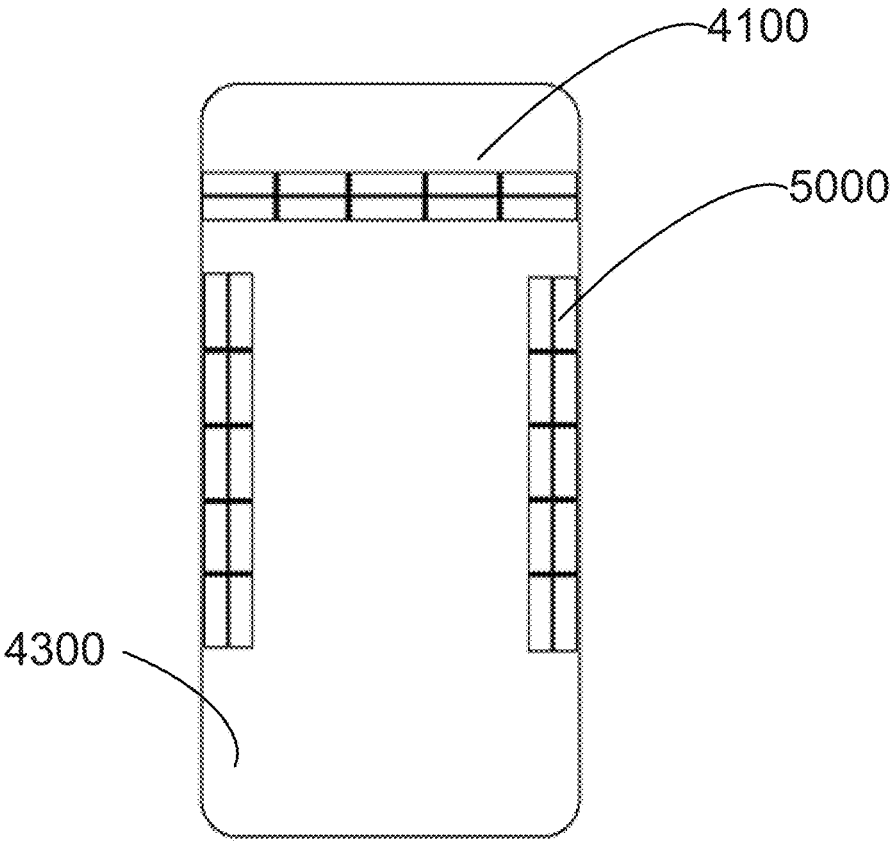


FIG. 41C

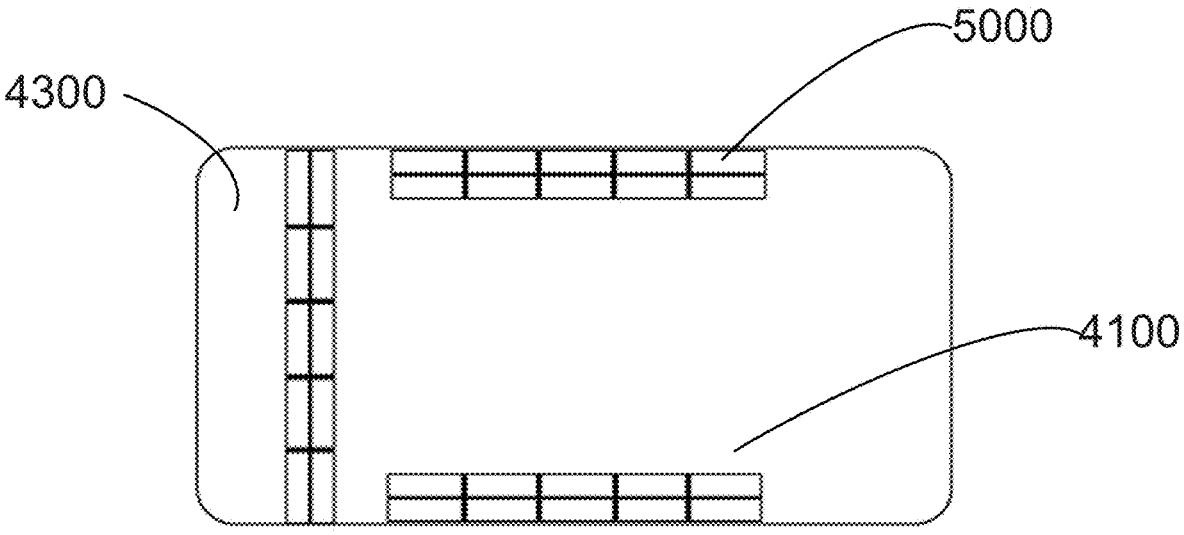


FIG. 41D

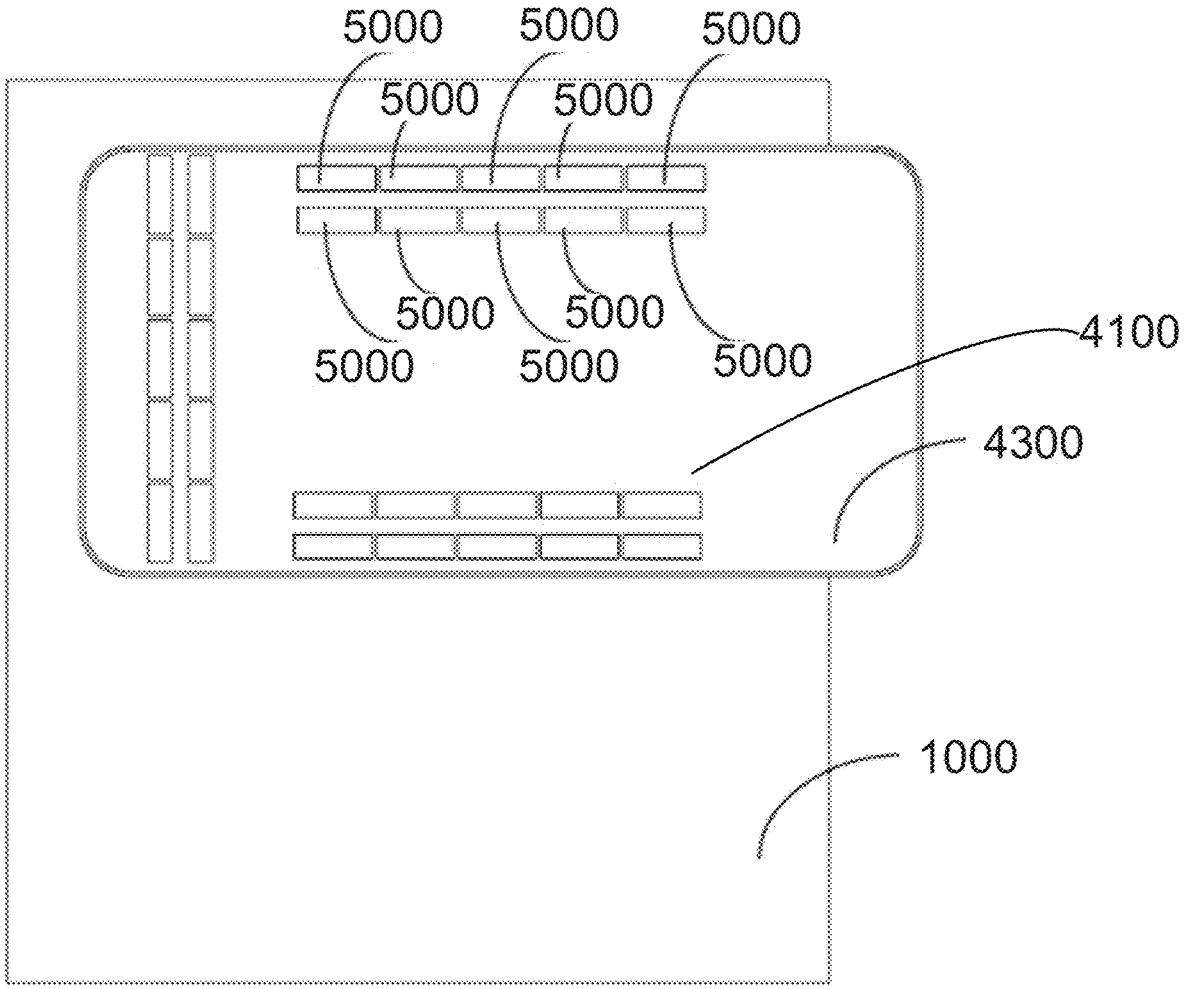

5000
5000
5000
5000
5000
5000
5000
5000
5000
5000
4100
4300
1000

FIG. 42A

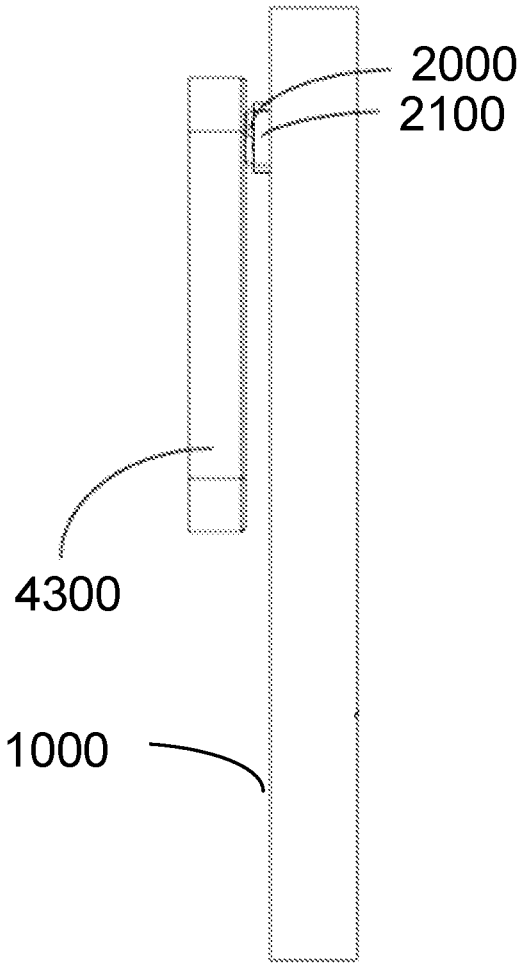


FIG. 42B

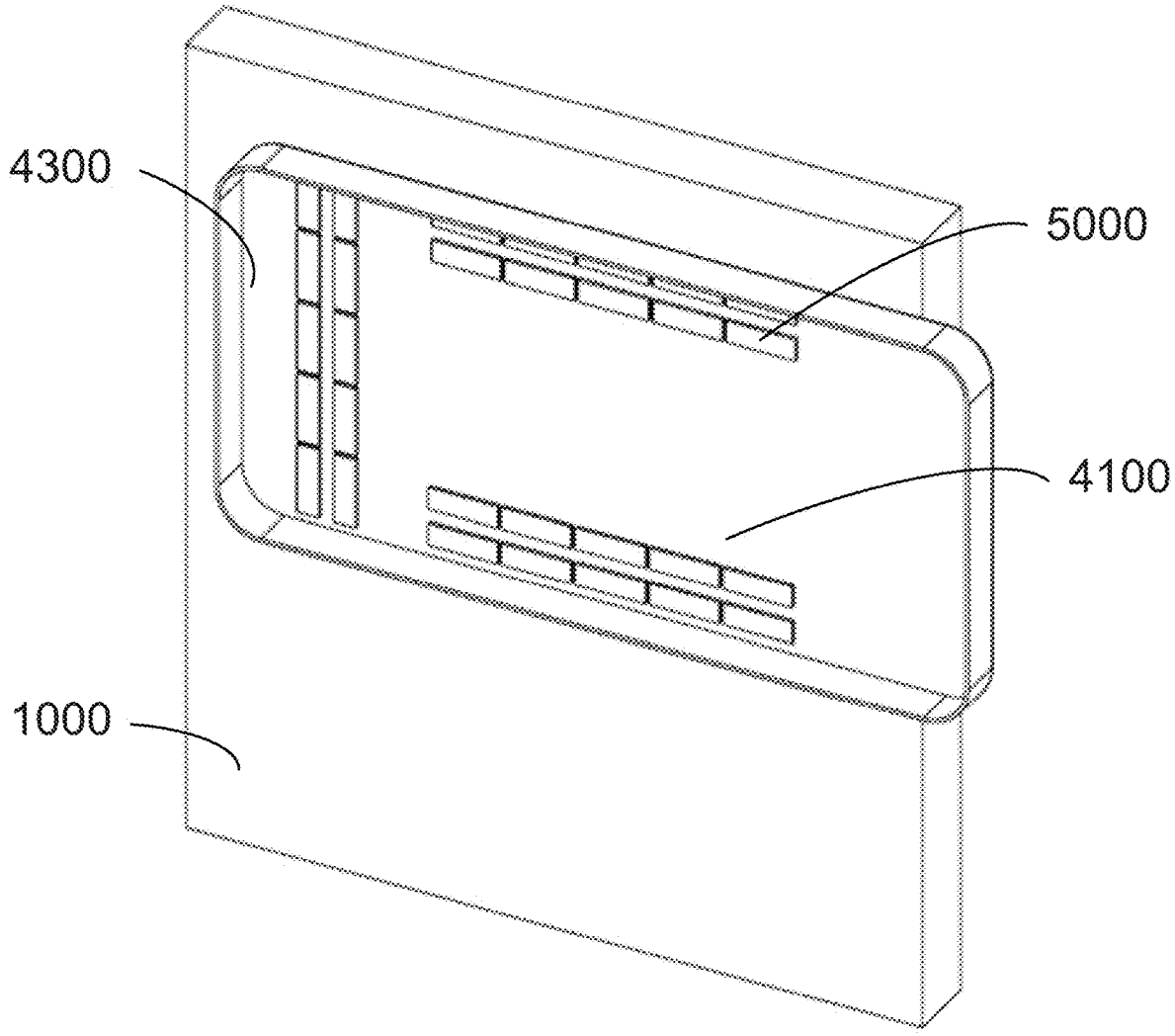


FIG. 42C

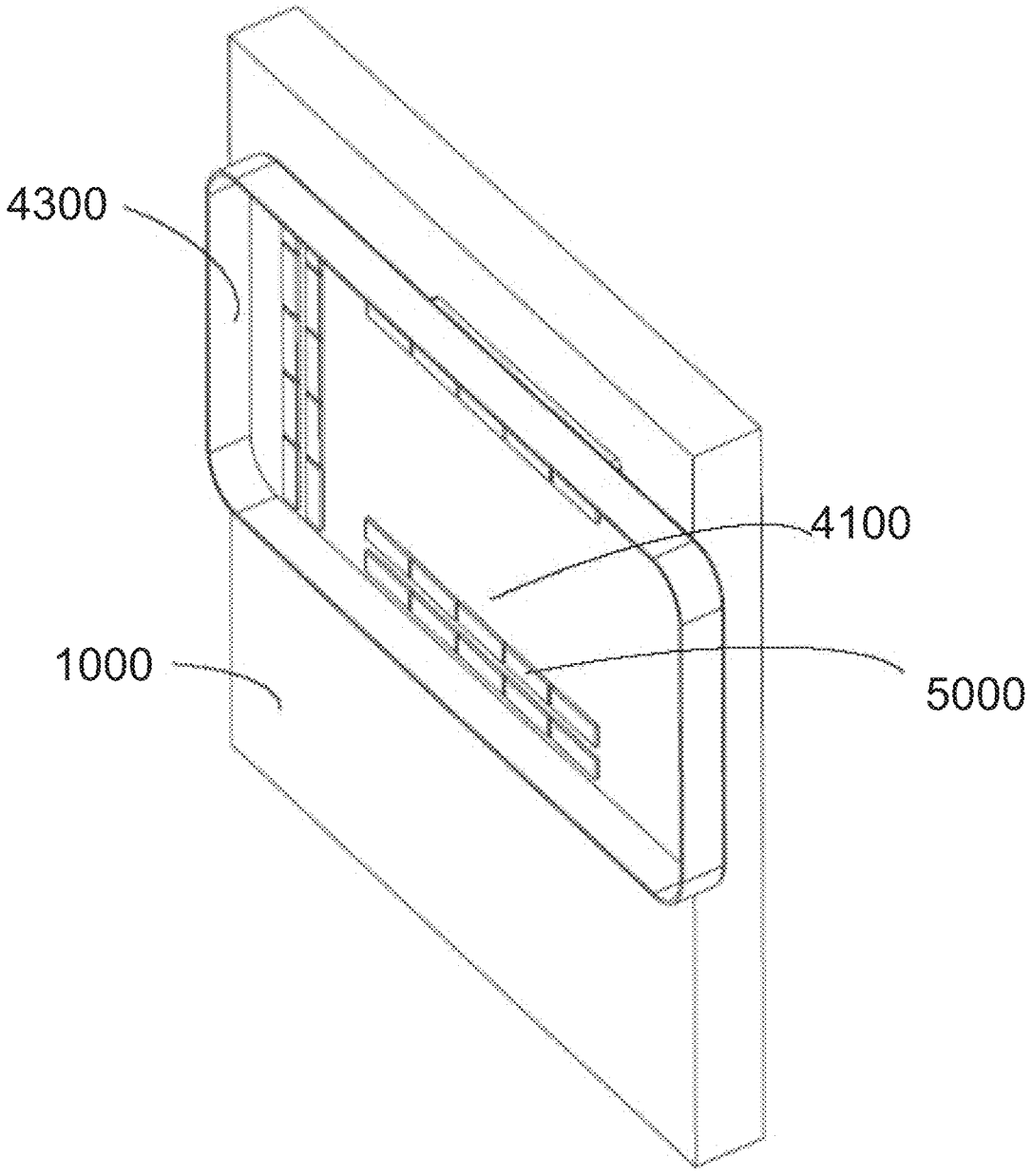


FIG. 42D

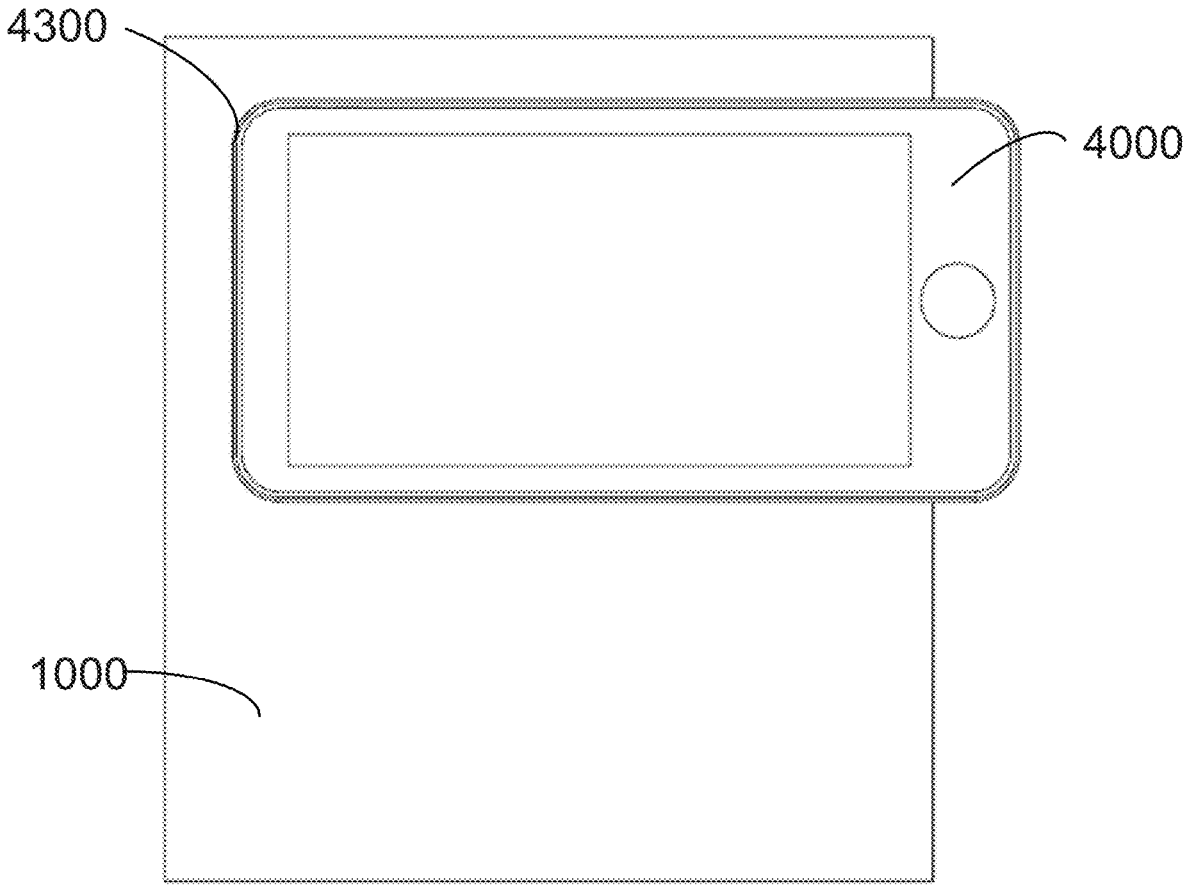


FIG. 42E

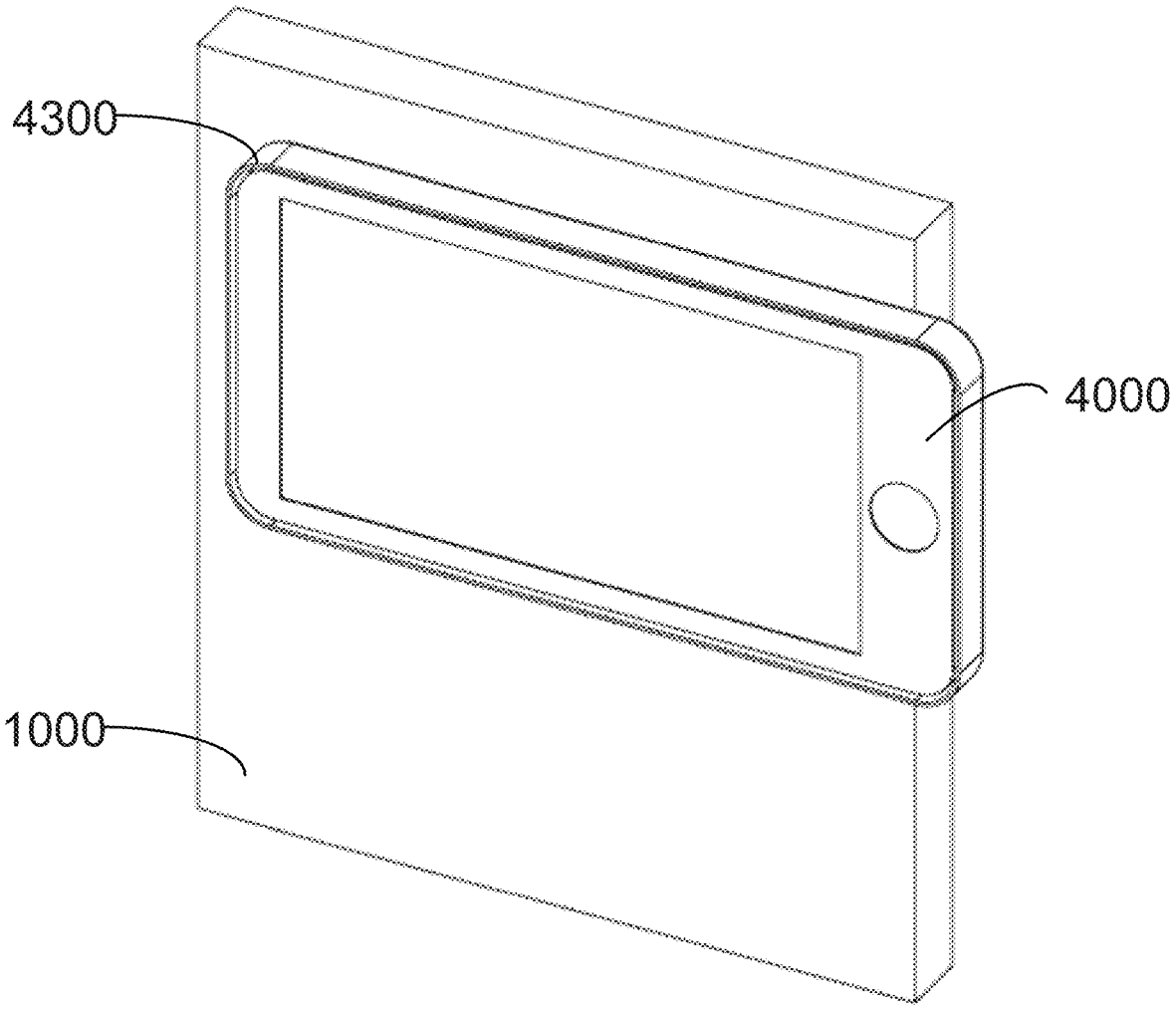


FIG. 42F

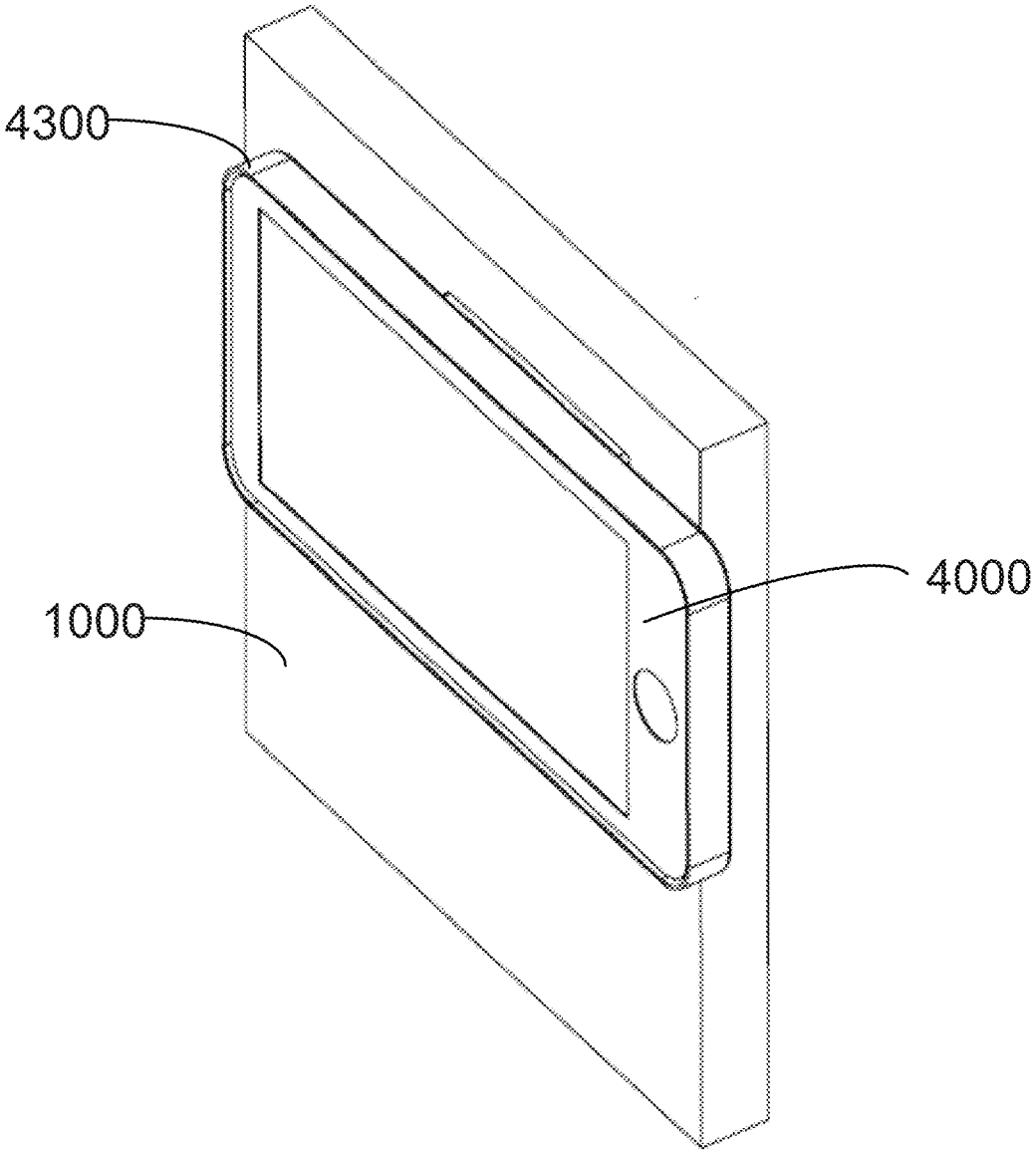


FIG. 42G

FIG 43A

N	S	N	S	N
N	S	N	S	N

FIG 43B

N	S	N	S	N
S	N	S	N	S

FIG 43C

N	N	S	N	N
S	S	N	S	S

FIG 43D

S	N	S	N	S
S	S	N	S	S

FIG 43E

S	N	S	N

FIG 43F

S	N	N	S

FIG 43G

S	N	S	N

FIG 43H

S	N	S

FIG 43I

S	N

FIG 43J

FIG 43K

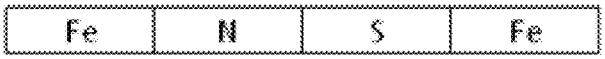


FIG 43L

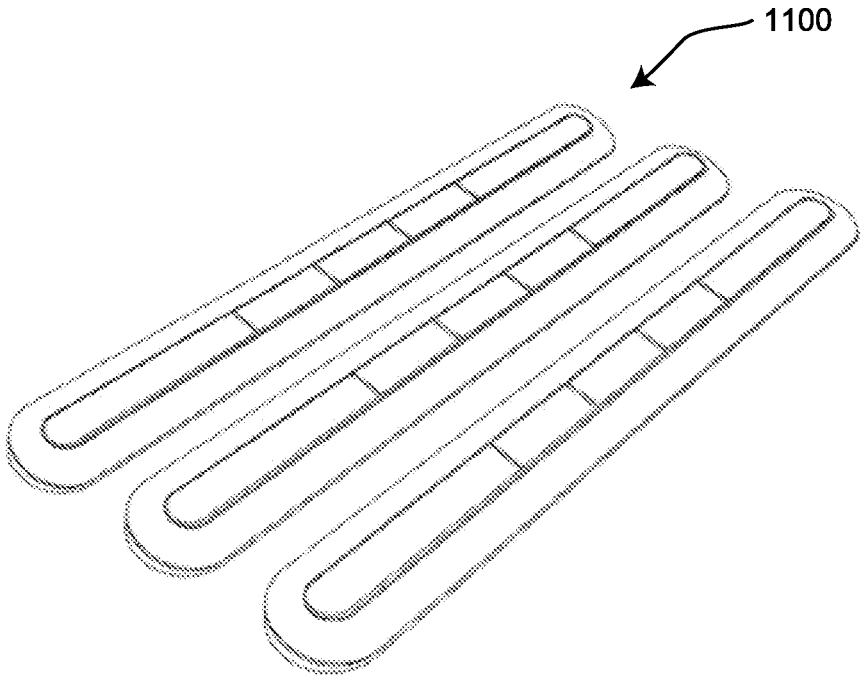


FIG 44A

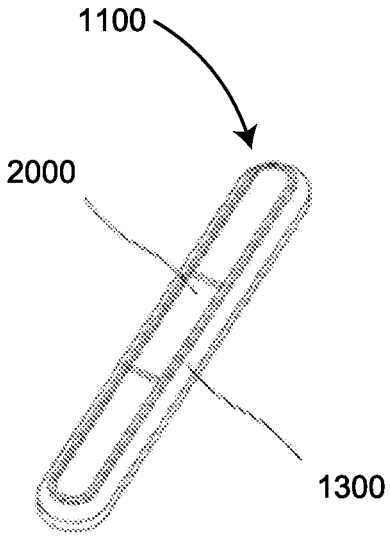


FIG 44B

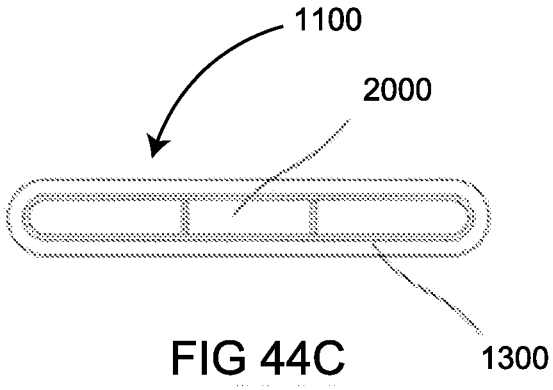


FIG 44C

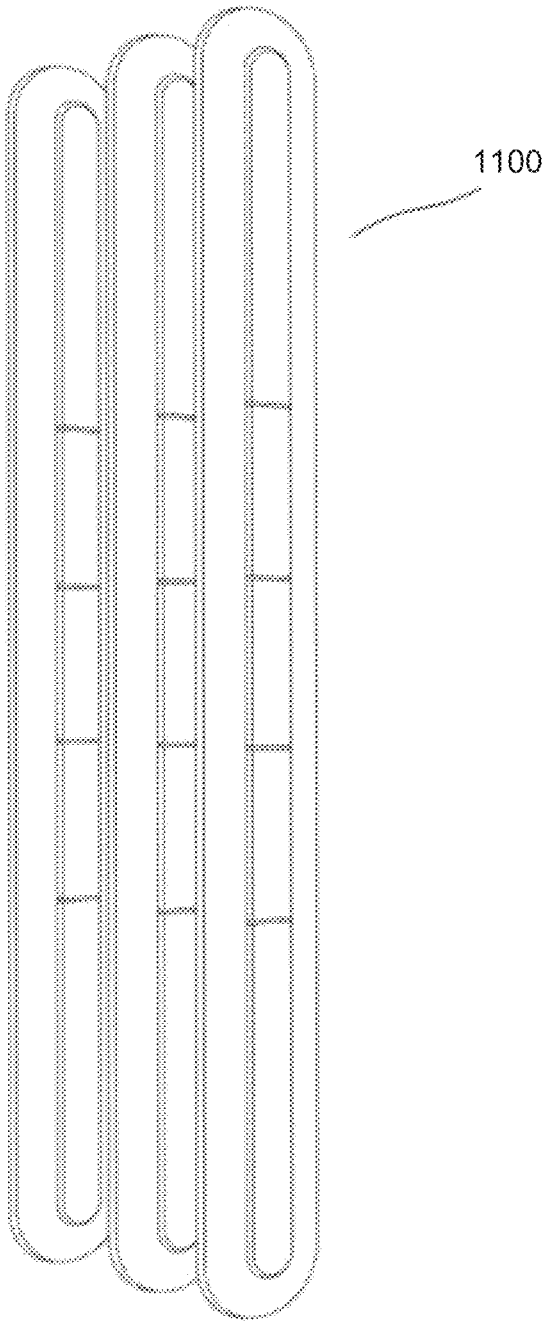


FIG. 45

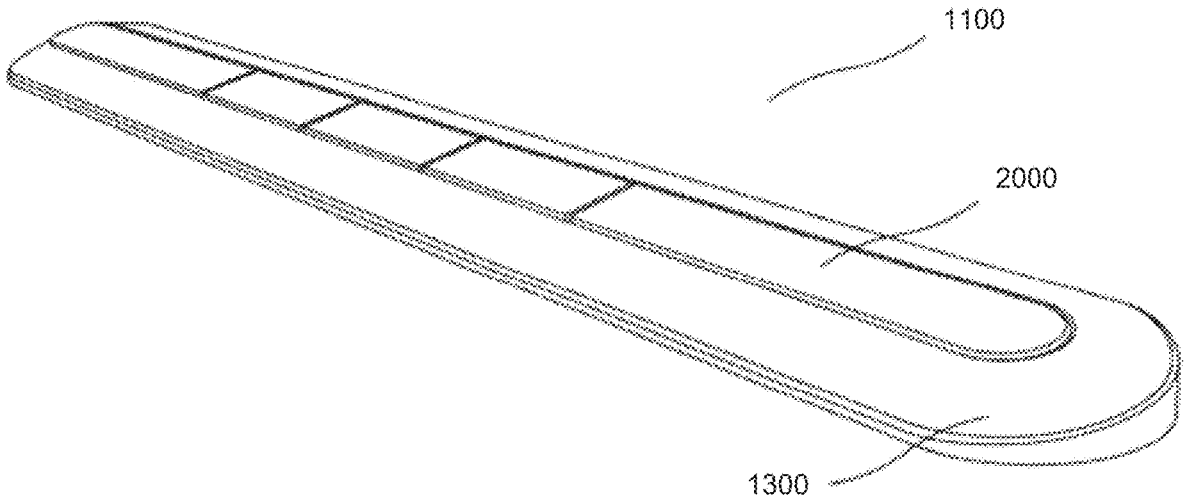


FIG 46

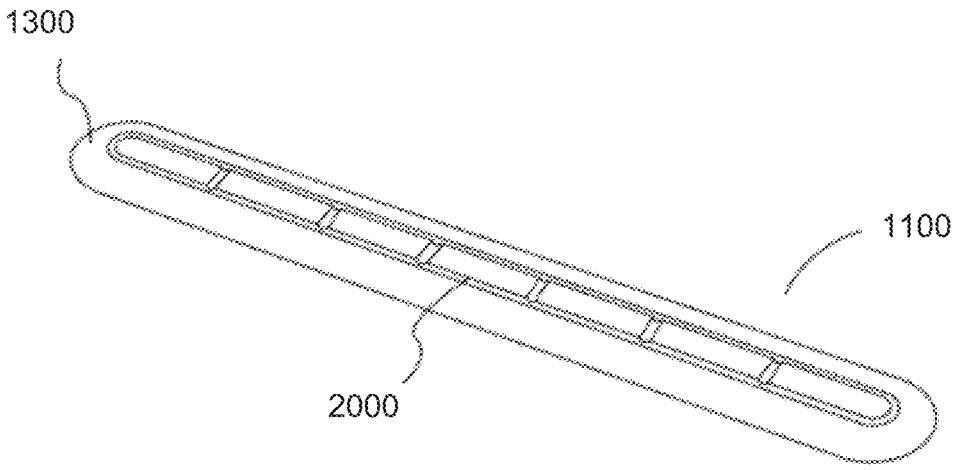


FIG 47

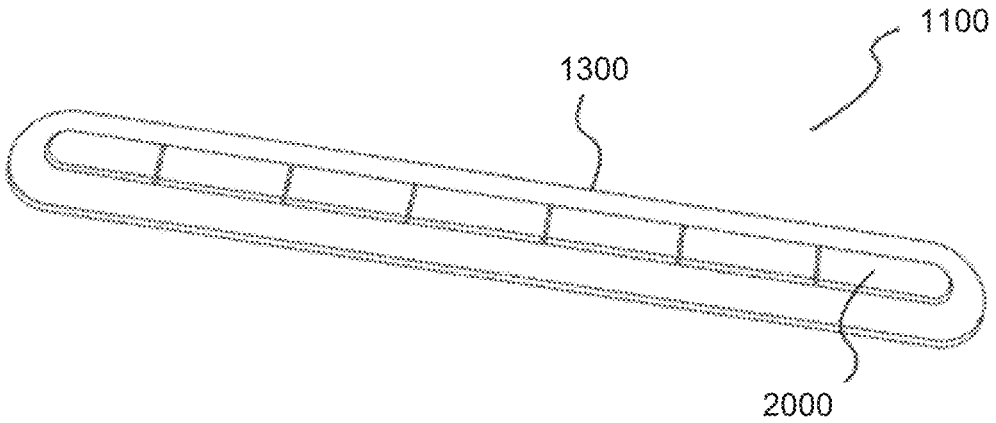


FIG 48

MAGNETICALLY COUPLED WALLET ACCESSORY FOR MOBILE DEVICE

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is a continuation of U.S. application Ser. No. 16/583,168 filed Sep. 25, 2019 entitled INTERPOSABLE MAGNETICALLY COUPLED DEVICES, which claims the benefit of priority under 35 U.S.C. § 119(e) of U.S. Provisional Patent Application No. 62/736,379, entitled INTERPOSABLE MAGNETICALLY COUPLED DEVICES, filed on Sep. 25, 2018, the content of which is incorporated herein by reference in its entirety for all purposes. This application is related to U.S. patent application Ser. No. 14/288,243, entitled "LOW PROFILE MAGNETIC MOUNT FOR ELECTRONIC DISPLAY DEVICES," filed May 27, 2014, and to U.S. patent application Ser. No. 15/059,163, entitled "SELF-ALIGNING, MULTI-SURFACE MAGNETIC MOUNT FOR ELECTRONIC DISPLAY DEVICES," filed Mar. 2, 2016 the disclosures of each which are incorporated herein by reference in its entirety for all purposes.

BACKGROUND

Cell phones are an essential part of many people's lives and frequently carried by people throughout the day. Cell phones can provide navigation, entertainment, and function as a camera in addition to their primary purpose as a telecommunications device. Like cell phones, wallets are an integral part of daily life. Wallets come in a variety of sizes and configurations for organizing and securing credit cards, cash, checks, identification, photos, and other possessions.

A cell phone and wallet are the two important items that people carry with them throughout their day. These items can get buried in one's purse, fall between the seats of a vehicle, and otherwise become displaced. When driving, it is important to have a cell phone at the ready in case navigation is required without having to search for it. Also it is sometimes necessary to have one's wallet close by to pay tolls or swipe a badge to enter a parking garage. In addition, a battery pack or wireless charger may be needed for recharging of the cell phone and plug-in charging is unavailable. Thus, a need exists to better arrange one's cell phone, wallet and other related accessories.

SUMMARY

The embodiments described herein relate generally to mobile electronic display device accessories and mounts and, more specifically, to a mounting system that can be used to easily mount and unmount mobile electronic display devices and related accessories to each other and to various surfaces in various stacked and other configurations and in various orientations (e.g., landscape and portrait). Such accessories may include, for example, wallets, battery packs, wireless chargers, kickstands, finger loops and combinations thereof. In particular, the embodiments described herein utilize magnetic coupling to facilitate rapid mounting and unmounting of such accessories to and from mobile electronic display devices.

In one aspect the disclosure relates to a mobile device accessory including an accessory device having a surface. An arrangement of magnets of alternating polarity are included within the accessory device or attached to the surface. The arrangement of magnets are magnetically

coupleable to a device-side attachment including a plurality of magnets. The device-side attachment may be attached to a mobile device or part of a protective case for the mobile device. The plurality of magnets may include a first plurality of magnets arranged in a first direction and a second plurality of magnets arranged in a second direction, thereby enabling the accessory device to be disposed in different orientations when magnetically coupled to the device-side attachment. When the device-side attachment is part of a protective case for a mobile device, the different orientations may include a portrait orientation and a landscape orientation relative to the mobile device.

The disclosure is also directed to a mobile device accessory system including a first accessory device having a first front side and a first back side. The first accessory device includes a first plurality of alternating polarity magnets on the first front side and a second plurality of alternating polarity magnets on the first back side. A second accessory device has a second front side and a second back side, the second accessory device having a third plurality of alternating polarity magnets on the second front side and a fourth plurality of alternating polarity magnets on the second back side. The first accessory device is magnetically coupled to a device-side attachment associated with a mobile device and is interposed between the device-side attachment and the second accessory device. The second plurality of alternating polarity magnets may be aligned with and magnetically coupled to the third plurality of alternating polarity magnets.

In addition, the second accessory device may be interposed between the first accessory device and a surface-side attachment including a fifth plurality of alternating polarity magnets. In this case the fourth plurality of alternating polarity magnets are magnetically coupled to the fifth plurality of alternating polarity magnets.

In another aspect the disclosure pertains to a system including a first plurality of alternating polarity magnets attached to a protective case for a mobile device. A first accessory device has a first front side and a first back side, the first accessory device having a second plurality of alternating polarity magnets on the first front side and a third plurality of alternating polarity magnets on the first back side. The second plurality of alternating polarity magnets are magnetically coupled to the first plurality of alternating polarity magnets. A second accessory device has a second front side and a second back side, the second accessory device having a fourth plurality of alternating polarity magnets on the second front side and a fifth plurality of alternating polarity magnets on the second back side. The fourth plurality of alternating polarity magnets are magnetically coupled to the third plurality of alternating polarity magnets.

The system may further include a third accessory device having a third front side and a third back side. The third accessory device includes a sixth plurality of alternating polarity magnets on the third front side and a seventh plurality of alternating polarity magnets on the third back side. The sixth plurality of alternating polarity magnets are magnetically coupled to the fifth plurality of alternating polarity magnets. In one implementation the first accessory device, the second accessory device and the third accessary device are configured in a stack. In addition, the first accessory device, the second accessory device and the third accessary device are configured to be able to be moved to different positions in the stack.

In another aspect the disclosure relates to an accessory wallet for use with a mobile electronic device. The wallet includes a layered front section including a plurality of front

layers. The wallet further includes a layered back section including a plurality of back layers wherein the layered front side and the layered back side are arranged to form a compartment. A plurality of magnets are disposed on at least one of the plurality of front layers and one of the plurality of back layers. This arrangement of magnets renders the wallet magnetically coupleable to at least one of an external object and an external surface.

The plurality of front layers of the wallet may include a front portion and a front support and the plurality of back layers may include a back portion and a back support. The plurality of front layers may further include a metallic front shield and the plurality of back layers may further include a metallic back shield. In this case the metallic front shield and the metallic back shield form opposing surfaces of the compartment.

The disclosure is further directed to a mounting system including a device-side attachment having a first plurality of magnets disposed in a protective cover for an electronic device. The mounting system further includes a wallet including a second plurality of magnets and a third plurality of magnets wherein at least one of the first plurality of magnets is arranged to attractively couple with at least one of the second plurality of magnets. A surface-side attachment includes a fourth plurality of magnets arranged to attractively couple to the third plurality of magnets.

The wallet may be configured with a layered front section and a layered back section arranged to form a compartment. The second plurality of magnets may be disposed within the layered front section and the third plurality of magnets may be disposed within the layered back section.

The disclosure further pertains to a system including a device-side attachment having a first plurality of magnets disposed in a protective cover for an electronic device. The system also includes a wallet having a layered front section, a layered back section and a second plurality of magnets where the layered front section and the layered back section form a compartment. The first plurality of magnets are arranged to attractively couple with the second plurality of magnets.

The mounting systems disclosed herein may include a surface-side attachment affixed to a surface including a nonmagnetic surface and device-side attachment coupled to the electronic display device as described in the above-referenced U.S. patent application Ser. No. 15/059,163. While it is recognized that the surface-side attachment can be affixed to a ferromagnetic surface, the present mounting system is especially suitable for nonmagnetic surfaces. In one implementation, a plurality of magnets is embedded within the surface-side attachment. Alternatively, a plurality of magnets may be directly attached to the nonmagnetic surface that is covered by a protective housing. In another implementation, the surface-side attachment is integrated into the nonmagnetic surface during its manufacture.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a perspective view of a wallet with extended loop, according to an embodiment.

FIG. **2** is a perspective view of a wallet with retracted loop, according to an embodiment.

FIG. **3** is a perspective, exploded view of a wallet, according to an embodiment.

FIG. **4** is an exploded, perspective view of a wallet including exemplary materials of construction, according to an embodiment.

FIG. **5** is a perspective view of a partially assembled wallet including a detail of exemplary materials of construction, according to an embodiment.

FIGS. **6** and **7** are perspective, hidden views of a wallet including placement of magnets therein, according to embodiments.

FIGS. **8**A and **8**B are views of a back portion and front portion of wallet, according to an embodiments.

FIG. **9** is a view of a user holding a wallet, according to an embodiment.

FIG. **10** is a perspective view of a wallet attached to an electronic display device case, according to an embodiment.

FIG. **11** is an exploded view of an electronic display device case, a wallet, and a magnetic surface-side attachment, according to an embodiment.

FIG. **12** is a view of a wallet interposed between an electronic display device case and a magnetic surface-side attachment, according to an embodiment.

FIG. **13**A is a front view of an electronic display device case.

FIGS. **13**B-**13**D are cross-sectional views of the electronic display device case of FIG. **13**A, a wallet, and a magnetic surface-side attachment, respectively.

FIGS. **14**A and **14**B are views of a back portion of wallet attached to an electronic display device case, according to an embodiments.

FIGS. **15**A and **15**B are views of a front portion an electronic display device case including electronic display device case magnets, according to an embodiments.

FIGS. **16**A and **16**B are hidden views of a back portion of wallet attached to an electronic display device case showing exemplary positions of electronic display device case magnets, according to an embodiments.

FIGS. **17**A and **17**B are views of a back portion of wallet attached to an electronic display device case, according to an embodiments.

FIG. **18** is a perspective view of a wallet interposed between an electronic display device case and a magnetic surface-side attachment, according to an embodiment.

FIG. **19** is a perspective view of a charging device, according to an embodiment.

FIG. **20** is a side view of a charging device with extended loop, according to an embodiment.

FIG. **21** is a perspective view of a charging device including power port, according to an embodiment.

FIG. **22** is an exploded, perspective view of an electronic display device case, a charging device, and a magnetic surface-side attachment attached to a vehicle dash, according to an embodiment.

FIG. **23** is a perspective view of an electronic display device case, a charging device, and a magnetic surface-side attachment attached to a vehicle dash, according to an embodiment.

FIG. **24** is a view of a user holding a wallet using the loop, according to an embodiment.

FIGS. **25-28** are perspective views of a wallet functioning as a kickstand, according to embodiments.

FIGS. **29-32** are perspective views of a wallet functioning as an adjustable kickstand, according to embodiments.

FIGS. **33** and **34** are partially transparent rear views of a battery pack with wireless charging and a protective cover for an electronic device.

FIGS. **35** and **36** are partially transparent rear views of a battery pack with wireless charging and a protective cover for an electronic device.

FIGS. **37** and **38** are perspective views of a charging device interposed between a protective case for a mobile device and a surface-side attachment, according to an embodiment.

FIG. **39** is a side view of a stacked arrangement of magnetically-coupled accessories for a mobile device, according to an embodiment.

FIGS. **40**A, **40**C, and **40**E are perspective views of a surface with a surface-side attachment, according to an embodiment.

FIGS. **40**B, **40**D, and **40**F show front views of a surface-side attachment.

FIGS. **41**A to **41**D are front views of multiple device-side attachments embedded in the interior of a protective case for an electronic display device, according to an embodiment.

FIGS. **42**A to **42**D show multiple views of an embodiment of a protective case mounted in a landscape orientation.

FIGS. **42**E to **42**F show multiple views of an embodiment of an electronic display device mounted in a landscape orientation.

FIG. **42**G is another prospective view of electronic display device within a protective case that is mounted to a surface.

FIGS. **43**A to **43**I depict examples of self-aligning arrangements of outwardly-facing magnet poles for use in device-side attachments and in surface-side attachments.

FIGS. **43**J to **43**L depict examples of self-aligning arrangements of magnets for device-side attachments and for surface-side attachments including ferrous inserts "Fe"

FIG. **44**A is a prospective view of three surface-side attachments.

FIG. **44**B is a prospective view of a surface-side attachment including three magnets within a surface-side attachment housing.

FIG. **44**C is a front view of a surface-side attachment including three magnets within a surface-side attachment housing.

FIG. **45** is a prospective view of three surface-side attachments.

FIG. **46** is a prospective view of a surface-side attachment including five magnets and a surface-side attachment housing further including an angled face.

FIG. **47** is a prospective view of a surface-side attachment including seven magnets within a surface-side attachment housing.

FIG. **48** is a prospective view of a surface-side attachment including seven magnets within a surface-side attachment housing.

DETAILED DESCRIPTION

All definitions, as defined and used herein, should be understood to control over dictionary definitions, definitions in documents incorporated by reference, and/or ordinary meanings of the defined terms.

The indefinite articles "a" and "an," as used herein in the specification and in the claims, unless clearly indicated to the contrary, should be understood to mean "at least one."

The phrase "and/or," as used herein in the specification and in the claims, should be understood to mean "either or both" of the elements so conjoined, i.e., elements that are conjunctively present in some cases and disjunctively present in other cases. Multiple elements listed with "and/or" should be construed in the same fashion, i.e., "one or more" of the elements so conjoined. Other elements may optionally be present other than the elements specifically identified by the "and/or" clause, whether related or unrelated to those elements specifically identified. Thus, as a non-limiting example, a reference to "A and/or B", when used in conjunction with open-ended language such as "comprising" can refer, in one embodiment, to A only (optionally including elements other than B); in another embodiment, to B only (optionally including elements other than A); in yet another embodiment, to both A and B (optionally including other elements); etc.

As used herein in the specification and in the claims, "or" should be understood to have the same meaning as "and/or" as defined above. For example, when separating items in a list, "or" or "and/or" shall be interpreted as being inclusive, i.e., the inclusion of at least one, but also including more than one, of a number or list of elements, and, optionally, additional unlisted items. Only terms clearly indicated to the contrary, such as "only one of" or "exactly one of," or, when used in the claims, "consisting of," will refer to the inclusion of exactly one element of a number or list of elements. In general, the term "or" as used herein shall only be interpreted as indicating exclusive alternatives (i.e. "one or the other but not both") when preceded by terms of exclusivity, such as "either," "one of," "only one of," or "exactly one of" "Consisting essentially of," when used in the claims, shall have its ordinary meaning as used in the field of patent law.

As used herein in the specification and in the claims, the phrase "at least one," in reference to a list of one or more elements, should be understood to mean at least one element selected from any one or more of the elements in the list of elements, but not necessarily including at least one of each and every element specifically listed within the list of elements and not excluding any combinations of elements in the list of elements. This definition also allows that elements may optionally be present other than the elements specifically identified within the list of elements to which the phrase "at least one" refers, whether related or unrelated to those elements specifically identified. Thus, as a non-limiting example, "at least one of A and B" (or, equivalently, "at least one of A or B," or, equivalently "at least one of A and/or B") can refer, in one embodiment, to at least one, optionally including more than one, A, with no B present (and optionally including elements other than B); in another embodiment, to at least one, optionally including more than one, B, with no A present (and optionally including elements other than A); in yet another embodiment, to at least one, optionally including more than one, A, and at least one, optionally including more than one, B (and optionally including other elements); etc.

In the claims, as well as in the specification above, all transitional phrases such as "comprising," "including," "carrying," "having," "containing," "involving," "holding," "composed of," and the like are to be understood to be open-ended, i.e., to mean including but not limited to. Only the transitional phrases "consisting of" and "consisting essentially of" shall be closed or semi-closed transitional phrases, respectively, as set forth in the United States Patent Office Manual of Patent Examining Procedures, Section 2111.03.

As used herein in the specification and in the claims, an "electronic display device" should be understood to mean any electronic device or any display device including cell phones, computer tablets, phablets, electronic organizers, personal digital assistant, navigation devices (GPS), radar detectors, garage door openers, remote controls, wireless microphones and/or speakers, cameras, video recorders, music players, controllers and microcomputers. While the mounting system described herein is intended for electronic display devices, it should be understood that the mounting

system is suitable for any object of similar size and dimensions as an electronic display device.

As used herein in the specification and in the claims, a "wallet" should be understood to mean any apparatus for holding at least one of a credit card, cash, identification, a check, a badge, a picture, a key, a piece of paper, a coupon, business cards, and combinations thereof. While the wallet described herein is intended for containing the aforementioned items, it should be understood that a wallet is also suitable for containing any objects of similar size and dimensions as these items. While the wallet's contents are generally described as credit cards, it should be understood that a wallet can carry any number of the items identified above.

As used herein in the specification and in the claims, "outward" or "outwardly," should be understood to mean facing away from of an object or surface, rather than facing toward an object or surface to which it is affixed. The outward faces of the attachments are designed to couple to each other and can have complementary physical features which interact with each other. When the device-side attachment is mounted to the surface-side attachment, the outward face of the surface-side attachment is coupled to the outward face of device-side attachment.

As used herein in the specification and in the claims, "front" and "back," should be understood to mean facing away toward or away from a user during interaction with the object. For example, the wallet may be held in a person's hand with a finger extended through the loop or finger strap, which is on the back side of the wallet, and the front side of the wallet faces the user.

Each embodiment in this specification is to be applied mutatis mutandis to every other embodiment unless expressly stated otherwise.

In some embodiments, a wallet is magnetically coupleable to a case configured to contain an electronic display device is described herein. In some embodiments, a wallet is magnetically coupleable to a magnetic mount configured to attach to a surface is described herein. In some embodiments, a wallet is interposable between electronic display device and a magnetic surface mount is described herein.

FIG. **1** is a perspective view of a wallet **100** with loop (finger strap) **115** in an extended position, according to an embodiment. Wallet **100** includes a back portion **110**, left portion **130**, top portion **150**, and a bottom portion **160**. Loop **115**, also referred to as a finger strap, is shown in an extended position with a portion of a plurality of credit cards **10** visible through loop slot **116**. Loop **115** provides a user with a secure grip on wallet **100**.

In some embodiments, a Wallet **100** holds a plurality of credit cards **10** in an amount from 1 to 8 credit cards, in an amount of at least 2 credit cards, in an amount of at least 5 credit cards, in an amount from 3 to 10 credit cards, in an amount from 2 to 8 credit cards, in an amount from 3 to 8 credit cards, in an amount from 4 to 8 credit cards, and/or in an amount from 3 to 8 credit cards.

In some embodiments, a Wallet **100** has overall dimensions of 70 mm wide×90 mm tall, and 4 mm to 10 mm thick depending on credit cards **10** contained therein.

FIG. **2** is a perspective view of a wallet **100** with loop **115** in a retracted position, according to an embodiment. Loop **115** flattens to fit within loop slot **116**. In some embodiments, loop slot **116** allows the loop **115** to flatten within loop slot **116** such that loop **115** is substantially flush with back portion **110** forming a substantially planer configuration. In some embodiments, loop slot **116** allows only a first portion of loop **115** to flatten within loop slot **116** such that a second portion of loop **115** protrudes from a plane defined by the back portion **110**.

FIG. **3** is an perspective, exploded view of a wallet **100**, according to an embodiment. Wallet **100** includes a back support **112** and a front support **122**. Back support **112** and front support **122** can provide stiffness and rigidity to wallet **100**. Back support **112** and front support **122** can also provide a substrate for attaching back-side magnets **119**, and front-side bottom magnets **128** and front-side top magnets **129**. Back shield **113** and front shield **123** protect magnetically sensitive credit cards from exposure to the magnetic fields created by back-side magnets **119**, front-side bottom magnets **128**, and front-side top magnets **129**. Exemplary configurations of back-side magnets **119**, front-side bottom magnets **128**, and front-side top magnets **129** are disclosed in U.S. Publication No. 2016-0260532, and in particular the disclosure of the device-side attachments that provide self-alignment with surface-side attachments. To assemble wallet **100**, back portion **110** and front portion **120** are folded about an axis to form a compartment for storing credit cards **10**. An optional divider **125** separates a one compartment into two compartments. In some embodiments, wallet **100** includes one or more dividers. A divider is a useful means to separate the credit cards from the cash bills and other contents of the wallet **100**.

FIG. **4** is an exploded, perspective view of a wallet **100** including exemplary materials of construction, according to an embodiment. Divider **125** can be made from materials such as plastic, cardboard, paper, metal, composites, laminations, and combinations thereof. Back shield **113** and front shield **123** can be made from magnetic field blocking materials including metal, foil coated plastic, foil coated cardboard, carbon filled composites, and combinations thereof. Back support **112** and front support **122** can be made from materials such as plastic, cardboard, paper, metal, composites, laminations, and combinations thereof. Back portion **110** and front portion **120** can be made from a single substrate and folded together, or in other embodiments, back portion **110** and front portion **120** can be made from two or more pieces and joined together. Back portion **110** and front portion **120** can be made from materials such as plastic, leather, composites, laminations, fabric, synthetic material, and combinations thereof.

FIG. **5** is a perspective view of a partially assembled wallet **100** including a detail of exemplary materials of construction, according to an embodiment. Components can be bonded together with adhesive.

FIGS. **6** and **7** are perspective, hidden views of a wallet **100** including placement of magnets therein, according to embodiments. In FIG. **6**, the back portion **110** is facing upwards, while in FIG. **7**, the front portion **120** is facing upwards. In these embodiments, only the front side includes magnets. In other embodiments, both the front side and the back side include magnets.

FIGS. **8**A and **8**B are views of a back portion and front portion of wallet-, according to an embodiments. Wallet **100** includes a content removal slot **126** that facilitates the removal of credit cards **10**. A user can place their finger through the content removal slot **126** and slide credit cards **10** through the top portion **150** of wallet **100**. Content removal slot **126** also provides a window into the compartment of wallet **100** for visually inspecting its contents. Additionally, in one embodiment, front portion **120** and back portion **110** taper near the top portion of the compartment. This tapering allows the edges of credit cards within the com-

partment to be exposed near the opening further facilitating removal of the individual cards.

FIG. **9** is a view of a user holding a wallet **100**, according to an embodiment. Wallet **100** can hold a plurality of credit cards **10** in a compartment formed between front portion **120**, back portion **110**, bottom portion **160**, top portion **150**, left portion **130** and right portion **140**.

FIG. **10** is a perspective view of the wallet **100** as attached to an electronic display device case **200**, according to an embodiment. The front portion **120** of wallet **100** is temporarily affixed to the back side of electronic display device case **200** by magnetic attraction between the magnets embedded in the wallet **100** and magnets embedded in the electronic display device case **200**. Loop **115** allows a user to securely grip the wallet **100**, which in turn also provides a secure grip on the electronic display device case **200**. In this manner, loop **115** is removable from the back side of the electronic display device case **200** when wallet **100** is detached from the electronic display device case **200**. Wallet **100** provides the added functionality of a convenient, removable grip that allows a user to easily use electronic display device **250**. Loop **115** (along with wallet **100**), are quickly and easily removed for wirelessly charging electronic display device **250**. After wirelessly charging, Loop **115** (along with wallet **100**), are quickly and easily attached to the electronic display device case **200**.

In these embodiments, wallet **100** is configured and designed so that it can be used while attached to the electronic display device case **200**.

FIG. **11** is an exploded view of an electronic display device case **200**, a wallet **100**, and a magnetic surface-side attachment **300**, according to an embodiment. The back side magnets **119** are configured to magnetically align and attach to surface-side attachment **300**. The front-side top magnets **129** and front-side bottom magnets **128**, in turn, are configured to magnetically align and attach to electronic display device case **200**.

FIG. **12** is a view of a wallet **100** interposed between an electronic display device case **200** and a magnetic surface-side attachment **300**, according to an embodiment. In this manner, a single surface-side attachment **300** is able to securely hold both a wallet and an electronic display device case **200** (with electronic display device therein) at the same time.

FIG. **13**A is a front view of an electronic display device case **200**. FIGS. **13**B-**13**D are cross-sectional views of the electronic display device case **200**, a wallet **100**, and a magnetic surface-side attachment **300**, respectively. In FIG. **13**A, electronic display device case **200** is bisected by line AA, and the relative positions of electronic display device case magnets (device-side attachments) **210** that are embedded within the electronic display device case **200** can be seen in the cross-sectional view of FIG. **13**B. The cross-sectional view of wallet **100** also shows back-side magnets **119**, front-side bottom magnets **128**, and front-side top magnets **129** embedded within the back portion **110** and front portion **120**, respectively.

FIGS. **14**A and **14**B are views of a back portion **110** of wallet **100** attached to an electronic display device case **200**, according to an embodiments.

FIGS. **15**A and **15**B are views of a front portion **120** an electronic display device case **200** including electronic display device case magnets (device-side attachments) **210**, according to an embodiments.

FIGS. **16**A and **16**B are hidden views of a back portion **110** of wallet **100** attached to an electronic display device case **200** showing exemplary positions of electronic display device case magnets (device-side attachments) **210**, according to an embodiments.

FIGS. **17**A and **17**B are views of a back portion **110** of wallet **100** attached to an electronic display device case **200**, according to an embodiments.

FIG. **18** is a perspective view of a wallet **100** interposed between an electronic display device case **200** and a magnetic surface-side attachment **300**, according to an embodiment. In this embodiment, the surface-side attachment **300** is affixed to a vehicle dash or dashboard **400**. In this manner, an electronic display device **250** and wallet **100** are at an arm's reach for a driver of the vehicle. Another advantage is that a single surface-side attachment **300** can be used to mount two items (i.e. a cell phone and wallet). In some embodiments, the electronic display device **250** mounted to wallet **100** is in a portrait orientation. In some embodiments, the electronic display device **250** mounted to wallet **100** is in a landscape orientation.

FIG. **19** is a perspective view of a charging device **500**, according to an embodiment. Charging device **500** can have a configuration similar to wallet **100** meaning that it can have similar physical dimensions as well as the placement of the front-side bottom magnets **528**, front-side top magnets **529**, and back-side magnets **519**. Charging device **500** can be a wireless charging device that transmits energy through an electronic display device case **200** and into electronic display device **250** to recharge its battery. Charging device **500** can be a battery pack that wirelessly transmits energy through an electronic display device case **200** and into electronic display device **250** to recharge its battery. In some embodiments, charging device **500** is a battery pack only. In some embodiments, charging device **500** is wireless charging device only. In some embodiments, charging device **500** is both a battery pack and a wireless charging device together.

FIG. **20** is a side view of a charging device **500** with loop **515** shown in an extended position, according to an embodiment.

FIG. **21** is a perspective view of a charging device **500** including power port **511**, according to an embodiment. Charging device **500** can be externally powered through power port **511**. For example, power port **511** can be a USB connector that receive a cable that electrically couples charging device **500** to a power supply such as a vehicle battery or power outlet.

In other embodiments, charging device **500** can be a battery pack that transfers an electrical charge to an electronic display device **250** through a cable connected to power port **511**. In this manner, the charging device **500** has a wired connection to electrically charge the electronic display device **250**.

FIG. **22** is an exploded, perspective view of an electronic display device case **200**, a charging device **500**, and a magnetic surface-side attachment **300** attached to a vehicle dashboard **400**, according to an embodiment. Charging device **500** is magnetically coupled to the back side of electronic display device case **200** and wirelessly charges electronic display device **250**. Power cable **512** is attached to power port **511**. In embodiments, power cable **512** electrically couples charging device **500** to a power source. In embodiments, power cable **512** electrically couples charging device **500** to an electronic display device **250**. The concentric circles shown on charging device **500** represents a wireless charging pad, according to some embodiments.

FIG. **23** is a perspective view of a charging device **500** interposed between an electronic display device case **200**

and a magnetic surface-side attachment **300** that is affixed to a vehicle dashboard **400**, according to an embodiment. It should be noted and appreciated that one or more charging devices **500** and/or wallets can be interposed between an electronic display device case **200** and a magnetic surface-side attachment **300**. In this manner, multiple devices can be stacked one on top of each other.

FIG. **24** is a view of a user holding a wallet **100** using the loop **115**, according to an embodiment. Wallet **100** contains a plurality of credit cards **10** and is magnetically attracted to one or more device-side attachments directly adhered to an electronic display device **250**. In this embodiment, no electronic display case is used.

FIGS. **25-28** are perspective views of a wallet **100** functioning as a kickstand to prop up electronic display device case **200**, according to embodiments. The front-side top magnets **129** are attracted and coupled to electronic display device case magnets **210**, however, front-side bottom magnets **128** are positioned a distance apart from the electronic display device case **200**. In this manner, the wallet **100** form an upside down "V" shape with the electronic display device case **200** and functions as a kickstand. The friction between the bottom of electronic display device case **200** and a horizontal surface, and the bottom portion **160** of wallet **100** and a horizontal surface help retain the kickstand configuration. Charging device **500** has similar functionality to wallet **100** and can function as a kickstand. In some embodiments, charging device **500** is a battery pack and functions as a kickstand.

In FIG. **25**, an electronic display device case **200** is in a portrait configuration. In FIGS. **26** and **27**, an electronic display device case **200** is in a landscape configuration. FIG. **28** is a picture of an electronic display device case **200** is in a portrait configuration on a horizontal surface **600**.

FIGS. **29-32** are perspective views of a wallet **100** functioning as an adjustable kickstand to prop up electronic display device case **200**, according to embodiments, according to embodiments. In these embodiments, the wallet **100** is inverted such that a bottom portion **160** of wallet **100** is attracted and coupled to electronic display device case magnets (device-side attachments) **210**. A plurality of credit cards **10** can be extended through a top portion **150** of wallet **100** to adjust an angle Θ to position electronic display device case **200** in closer to a vertical orientation. The top portion **150** of wallet **100** has sufficient friction to grip a plurality of credit cards **10** and hold them in a partially extended position.

An electronic display device **250** can include a plurality of electric display case magnets (device-side attachments) **210** coupled to the electronic display device case **200** or directly to the electronic display device without using a protective case. The electronic display device **250** can be, for example, cellphone, a tablet computer, a smartphone, a television, or an LCD display. In some embodiments, the electronic display device **400** can be an Apple iPad or iPhone, an Android smartphone, or eBook reader.

Magnets for the surface-side attachment **300**, wallet **100**, charging device **500**, electronic display device case magnets (device-side attachments) **210**, and any other accessory configured to attach to these devices are preferably made out of rare earth metals including alloys of neodymium or samarium-cobalt. Rare earth magnets are selected based on their strongly magnetic properties that include a higher maximum energy product (related to magnetic flux per unit volume) than other types of magnets including ferrite and alnico magnets. Neodymium magnets of grade N48 and higher are preferred, and neodymium magnets of grade N52 and higher are more preferred.

Magnets can generally be uniform or different in shape, size, magnetic and/or other properties within surface-side attachment **300**, wallet **100**, charging device **500**, electronic display device case magnets (device-side attachments) **210**, and any other accessory configured to attach to these devices. While these magnets can be somewhat different in shape, size, magnetic and/or other properties, it is preferred that when mounted, each magnet is uniform in shape, size, magnetic and/or other properties to its complementary magnet.

The magnets for the surface-side attachment **300**, wallet **100**, charging device **500**, electronic display device case magnets (device-side attachments) **210**, and any other accessory configured to attach to these device are arranged to be self-aligning during mounting. The magnets are arranged so that when the attachments are coupled together during mounting, at least one magnet with an outwardly-facing north pole is attracted to a corresponding magnet with an outwardly-facing south pole, and vice versa.

Attention is now directed to FIGS. **33** and **34**, which are partially transparent rear views of a battery pack with wireless charging **3300** and a protective cover **3310** for an electronic device. In FIG. **33**, the battery pack with wireless charging **3300** is separated from the protective cover **3310**. In FIG. **34**, the battery pack with wireless charging **3300** is magnetically-coupled to the protective cover **3310** in a portrait mode configuration. For purposes of clarity, only coils **3312** of an electronic device disposed within the protective cover **3310** are illustrated in FIG. **33**. The battery pack with wireless charging **3300** can have a configuration similar to wallet **100** meaning that it can have similar physical dimensions as well as similar placement of magnets.

As may be appreciated from FIG. **33**, the coils **3302** and magnets **3304** of the battery pack with wireless charging **3300** are preferably configured to mirror the arrangement of the coils **3312** of the electronic device and the magnets **3314** of the protective cover **3310**. Specifically, note that a distance D between the coils **3302** and the magnets **3304** of the battery pack with wireless charging **3300** is substantially identical to a distance D' between the coils **3312** of the electronic device and the magnets **3314***a* of the protective cover **3310** (when the electronic device is disposed within the protective cover **3310**). As a consequence, when the battery pack with wireless charging **3300** becomes connected to the protective cover **3310** (FIG. **34**), its coils **3302** align with the coils **3312** of the electronic device so that energy may be transmitted through the protective cover **3310** and into the electronic device to recharge its battery.

Attention is now directed to FIGS. **35** and **36**, which are partially transparent rear views of a battery pack with wireless charging **3500** and a protective cover **3510** for an electronic device. In FIG. **35**, the battery pack with wireless charging **3500** is separated from the protective cover **3510**. In FIG. **36**, the battery pack with wireless charging **3500** is magnetically-coupled to the protective cover **3510** in a landscape mode configuration. For purposes of clarity, only coils **3512** of an electronic device disposed within the protective cover **3510** are illustrated in FIG. **35**.

As may be appreciated from FIG. **35**, the coils **3502** and magnets **3504** of the battery pack with wireless charging **3500** are preferably configured to mirror the arrangement of the coils **3512** of the electronic device and the magnets **3514** of the protective cover **3510**. Specifically, note that a distance L between the coils **3502** and the magnets **3504** of the

battery pack with wireless charging **3500** is substantially identical to a distance L' between the coils **3512** of the electronic device and the magnets **3514***a* of the protective cover **3510** (when the electronic device is disposed within the protective cover **3510**). As a consequence, when the battery pack with wireless charging **3500** becomes connected to the protective cover **3510** (FIG. **36**), its coils **3502** align with the coils **3512** of the electronic device so that energy may be transmitted through the protective cover **3510** and into the electronic device to recharge its battery.

In one embodiment the battery pack with wireless charging **3500** is implemented as a unitary device. In other embodiments a battery pack may be substituted for the battery pack with wireless charging **3500**. In this case the battery pack would be connected by a cable or the like to the electronic device. In still other embodiments the battery pack with wireless charging **3500** may be implemented as a battery pack mechanically or magnetically coupled to a wireless charger.

FIGS. **37** and **38** are perspective views of a charging device **3710** interposed between a protective case **3720** for a mobile device **3730** and a surface-side attachment **3740**, according to an embodiment. In the embodiment of FIGS. **37** and **38**, the charging device is coupled magnetically to the protective case **3720** and to the surface-side attachment **3740** using arrangements of alternating polarity magnets of the type disclosed herein. As shown, in the embodiment of FIG. **37** the charging device **3710** is arranged in a landscape orientation relative to a direction of the surface-side attachment **3740**. In the embodiment of FIG. **38**, the charging device **3710** is arranged in a portrait orientation relative to a direction of the surface-side attachment **3740**.

FIG. **39** is a side view of a stacked arrangement of magnetically-coupled accessories for a mobile device, according to an embodiment. In the embodiment of FIG. **39** a first accessory device **3910** includes first set of magnets of alternating polarity **3912** positioned proximate the top of a front surface of the device **3910** and a second set of magnets of alternating polarity **3914** positioned proximate the bottom of the front surface of the device **3910**. The first accessory device **3910** also includes third set of magnets of alternating polarity **3916** positioned proximate the top of a back surface of the device **3910** and a fourth set of magnets of alternating polarity **3918** positioned proximate the bottom of the back surface of the device **3910**. The first set of magnets of alternating polarity **3912** are magnetically coupled to a fifth set of magnets of alternating polarity **3922** positioned on or within a protective case **3920** for a mobile device. The second set of magnets of alternating polarity **3914** are magnetically coupled to a sixth set of magnets of alternating polarity **3924** positioned on or within the protective case **3920**. In other embodiments the fifth set of magnets of alternating polarity **3922** and the sixth set of magnets of alternating polarity **3924** are embedded within or attached to a mobile device. The first accessory device **3910** may comprise, for example, a battery pack with a wireless charger.

The third set of magnets of alternating polarity **3916** are magnetically coupled to a seventh set of magnets of alternating polarity **3932** positioned on or within a top front portion of a second accessory device **3930**. The fourth set of magnets of alternating polarity **3918** are magnetically coupled to an eighth set of magnets of alternating polarity **3934** positioned on or within a bottom front portion of the second accessory device **3930**. In one embodiment the second accessory device **3930** may further include a ninth set of magnets of alternating polarity **3938**, which may be coupled to, for example, an additional accessory device or a surface-side attachment including an additional plurality of magnets of alternating polarity. In one embodiment the second accessory device **3930** may comprise, for example, a magnetically-coupleable wallet defining a compartment of the type described herein.

By utilizing arrangements of pluralities of magnets of alternating polarity as described herein, the protective cover **3920**, first accessory device **3910** and second accessory device **3930** may be automatically aligned upon being magnetically coupled to each other. In addition, the stack comprises of the protective cover **3920**, first accessory device **3910** and second accessory device **3930** may be secured to ferrous metal surfaces or to other surfaces via use of a surface-side attachment including an additional set of magnets.

It should be understood that in other embodiments the first accessory device **3910** and the second accessory device **3930** may comprise various different magnetically-coupleable accessories for a mobile device. These accessories include, for example, magnetically-coupleable wallets, wireless chargers, battery packs, wireless chargers in combination with battery packs, kickstands, finger loops, and combinations of any of these. In general, these accessories may be configured in a stacked arrangement such as is shown in FIG. **39**. However, in certain embodiments (e.g., in embodiments including a magnetically-coupleable kickstand) not all of the accessories will be arranged in a stack.

The following discussion with reference to FIGS. **40-48**, describes various magnet arrangements which may be utilized within the systems for facilitating the attachment of add-on devices to mobile devices described with reference to FIGS. **1-39**. See also U.S. Pat. No. 10,134,517, the content of which is incorporated by reference herein.

FIGS. **40**A, **40**C, and **40**E are perspective views of a surface **1000** with a surface-side attachment **1100** according to an embodiment, and FIGS. **40**B, **40**D, and **40**F show front views of the surface-side attachment **110**. Surface-side attachment **1100** can include a surface-side attachment housing **1300** containing a plurality of magnets **2000**. As shown in FIGS. **40**A and **40**B, the surface-side attachment **1100** can include two linear rows, with each linear row containing four individual magnets **2000**. As shown in FIGS. **40**C and **40**D, the surface-side attachment **1100** can include two linear rows, with each linear row containing five individual magnets **2000**. As shown in FIGS. **40**E and **40**F, the surface-side attachment **1100** can include a single linear row containing five individual magnets **2000**. It should be recognized that any number of magnets greater than two can be used in surface-side attachment **110**, and that FIGS. **40**A to **40**F are merely exemplary embodiments.

Surface-side attachment housing **1300** is preferably made out of a metal such as aluminum, or alternately, it can be made out of polymer or a combination of metal and polymer. Magnets **2000** can be permanently bonded to the surface-side attachment housing **1300** using adhesive or mechanical fasteners. In one embodiment, the edges of surface-side attachment housing **1300** are crimped to retain magnets **2000**.

The surface-side attachment **1100** refers to a plurality of magnets **2000** coupleable to a surface. Surface-side attachment **1100** can be affixed to surface **1000** with adhesive or by using a mechanical fastener. For example, double-sided adhesive tape can be used to permanently or temporarily affix surface-side attachment **1100** to surface **1000**. Alternatively, adhesive gel can be selected based on the surface **1000** characteristics and desired bond characteristics to affix

surface-side attachment **1100** to surface **1000**. In one example, the surface-side attachment **1100** is affixed to the dash of an automobile using double-sided adhesive tape. In another example, the surface-side attachment **1100** is affixed to the bezel of a computer monitor using double-sided adhesive tape.

Surface **1000** can be any solid surface including nonmagnetic surfaces and nonferrous surfaces. For example, surface **1000** can be polymer, wood, glass, metal and combinations thereof. Generally, nonporous surfaces provide for greater adhesion of the surface-side attachment **1100**, though surface-side attachment **1100** can be bonded to porous surfaces by using a suitable adhesive or mechanical fastener.

FIGS. **41**A to **41**D are front views of multiple device-side attachments **4100** embedded in the interior of a protective case **4300** for an electronic display device, according to an embodiment. The device-side attachments **4100** are embedded in the perimeter of the protective case **4300** to allow the electronic display device to be hung in either a portrait orientation, as shown in FIG. **41**A, or a landscape orientation, as shown in FIG. **41**B. As shown in FIGS. **41**A and **41**B, the device-side attachments **4100** can include a single linear row containing five individual magnets **5000**. As shown in FIGS. **41**C and **41**D, the device-side attachment **4100** can include two linear rows, with each linear row containing five individual magnets **500**. It should be recognized that any number of magnets greater than two can be used in device-side attachment **4100**, and that FIGS. **41**A to **41**D are merely exemplary embodiments. The device-side attachment **4100** refers to a plurality of magnets **5000** coupleable to an electronic display device.

Protective case **4300** is preferably made out of a polymer, or alternately, it can be made out of metal, cellulosic material, and combinations thereof. Device-side attachment **4100** can be permanently embedded within protective case **4300** or bonded to the protective case **4300** using an adhesive. Mechanical fasteners can also be used to secure device-side attachment **4100** to the protective case **4300**, are especially suitable for applications with require a high strength connection.

FIGS. **42**A to **42**D show multiple views of an embodiment of a protective case **4300** mounted in a landscape orientation. FIG. **42**A is a front view of multiple device-side attachments **4100** attached to the interior of a protective case **4300** for an electronic display device that is mounted to a surface **1000**. FIG. **42**B is a profile view of multiple device-side attachments **4100** affixed to the interior of a protective case **4300** for an electronic display device that is mounted to a surface **100**. FIG. **42**C is a perspective view of multiple device-side attachments **4100** affixed to the interior of a protective case **4300** for an electronic display device that is mounted to a surface **100**. FIG. **42**D is another perspective view of multiple device-side attachments **4100** affixed to the interior of a protective case **4300** for an electronic display device that is mounted to a surface **1000**.

FIGS. **42**E to **42**F show multiple views of an embodiment of an electronic display device **4000** mounted in a landscape orientation. FIG. **42**E is a front view of electronic display device **4000** within a protective case **4300** that is mounted to a surface **1000**. FIG. **42**F is a prospective view of electronic display device **4000** within a protective case **4300** that is mounted to a surface **1000**. FIG. **42**G is another prospective view of electronic display device **4000** within a protective case **4300** that is mounted to a surface **1000**. The mounting system described herein can provide a temporary method of attaching an electronic display device to a surface while providing a low profile. In other words, when mounted to the surface, the mounting system does not add significant thickness to the electronic display device. The device-side attachment **4100** can be coupled in such a way that it does not add significant thickness to the electronic display device **4000** (see, e.g., FIGS. **42**B and **42**G). The surface-side attachment **1100** can be affixed in such a way that it is integrated with the styling and design of surface **1000**. Surface-side attachment **1100** can be colored to match the surface **1000** and/or mimic the features already present on surface **1000**. For example, surface-side attachment **1100** can have a brushed aluminum finish and include magnets **2000** that resemble buttons on the dash of a vehicle.

An electronic display device **4000** can include a device-side attachment **4100** coupled to a back side of the electronic display device **4000** without using a protective case **4300** (not shown). In some embodiments, the magnets **5000** can be coupled to the electronic display device **4000** with, for example, a double-sided adhesive tape. Other attachment methods such as glues, mechanical latches, hinges, or elastic grip can alternatively be used. The device-side attachment **4100** can be used to mount the electronic display device **4000** to a surface **1000** by coupling with a surface-side attachment **1100**. The electronic display device **4000** can be, for example, a tablet computer, a smartphone, a television, or an LCD display. In some embodiments, the electronic display device **4000** can be an Apple iPad or iPhone, an Android smartphone, or eBook reader.

In some embodiments, the device-side attachment has a thickness from about 0.5 to about 6.5 mm, from about 0.5 to about 4 mm, from about 0.5 to about 2 mm, from about 0.5 to about 1.5 mm, or from about 1 to about 2 mm, and including all subranges therebetween each of the ranges. In some embodiments, the device-side attachment has a thickness of about 0.5 mm, about 1.0 mm, about 1.5 mm, about 2.0 mm, about 2.5 mm, about 3.0 mm, about 3.5 mm, about 4.0 mm, about 4.5 mm, about 5.0 mm, about 5.5 mm, about 6.0 mm, or about 6.5 mm. In some embodiments, the device-side attachment has a thickness of less than 0.5 mm, less than 1.0 mm, less than 1.5 mm, less than 2.0 mm, less than 2.5 mm, less than 3.0 mm, less than 3.5 mm, less than 4.0 mm, less than 4.5 mm, less than 5.0 mm, less than 5.5 mm, less than 6.0 mm, or less than 6.5 mm.

In some embodiments, the device-side attachment including the protective cover has a thickness from about 0.5 to about 6.5 mm, from about 0.5 to about 4 mm, from about 0.5 to about 2 mm, from about 0.5 to about 1.5 mm, or from about 1 to about 2 mm, and including all subranges therebetween each of the ranges. In some embodiments, the device-side attachment including the protective cover has a thickness of about 0.5 mm, about 1.0 mm, about 1.5 mm, about 2.0 mm, about 2.5 mm, about 3.0 mm, about 3.5 mm, about 4.0 mm, about 4.5 mm, about 5.0 mm, about 5.5 mm, about 6.0 mm, or about 6.5 mm. In some embodiments, the device-side attachment including the protective cover has a thickness of less than 0.5 mm, less than 1.0 mm, less than 1.5 mm, less than 2.0 mm, less than 2.5 mm, less than 3.0 mm, less than 3.5 mm, less than 4.0 mm, less than 4.5 mm, less than 5.0 mm, less than 5.5 mm, less than 6.0 mm, or less than 6.5 mm.

The magnets **5000** of the device-side attachment **4100** are attracted to the magnets **2000** of the surface-side attachment **1100**. When the device-side attachment **4100** is placed in close proximity to the surface-side attachment **1100**, the magnetic attractive forces draw the attachments together to mount electronic display device **400**. The magnetic attractive forces between magnets **5000** and magnets **2000** are great enough to overcome the force of gravity on the

electronic display device **4000** within the protective case **4300** when mounted to the surface-side attachment **1100**. This force of friction between magnets **5000** and magnets **2000** can be proportional to the normal force and friction coefficient of the materials. The normal force is the magnetic attractive pull force between the magnets **5000** and magnets **2000**. This normal force, in addition to the friction coefficient between the faces of the magnets, produce an overall force of friction high enough to hold the electronic display device **4000** in place when mounted to the surface **1000**.

Magnets **2000** and magnets **5000** are preferably made out of rare earth metals including alloys of neodymium or samarium-cobalt. Rare earth magnets are selected based on their strongly magnetic properties that include a higher maximum energy product (related to magnetic flux per unit volume) than other types of magnets including ferrite and alnico magnets. Neodymium magnets of grade N48 and higher are preferred, and neodymium magnets of grade N52 and higher are more preferred.

The magnets **2000** and the magnets **5000** are permanent magnets that retain their magnetic properties once magnetized. Every magnet has a south pole and a north pole axially situated across opposite faces of the magnet. The north pole of a first magnet is attracted to the south pole of a second magnet, and vice versa. The north pole of a first magnet is repulsed by the north pole of a second magnet, and vice versa. The device-side attachment **4100** and the surface-side attachment **1100** each include at least one magnet with an outwardly-facing north pole, and at least one magnet with an outwardly-facing south pole.

Magnets can generally be uniform or different in shape, size, magnetic and/or other properties within the device-side attachment **4100** or within the surface-side attachment **110**. While the device-side attachment **4100** and the surface-side attachment **1100** can be somewhat different in shape, size, magnetic and/or other properties, it is preferred that when mounted, each magnet **5000** in device-side attachment **4100** is uniform in shape, size, magnetic and/or other properties to its complementary magnet **2000** in surface-side attachment **110**. However, the magnets **5000** of the device-side attachment **4100** can be smaller than the magnets **2000** of the surface-side attachment **1100**. It is also preferred that the relative positions (centerlines) of each magnet **5000** within a device-side attachment **4100** are the same as the relative positions of each complementary magnet **2000** within the surface-side attachment **1100** when the attachments are coupled during mounting.

The magnets **5000** and the magnets **2000** within the device-side attachment **4100** and the surface-side attachment **1100** are arranged to be self-aligning during mounting. The magnets **5000** and the magnets **2000** are arranged so that when the attachments are coupled together during mounting, at least one magnet with an outwardly-facing north pole of the device-side attachment **4100** is attracted to a corresponding magnet with an outwardly-facing south pole of the surface-side attachment **1100**, and vice versa. If during mounting the magnet with an outwardly-facing north pole of the device-side attachment **4100** lines up with a magnet with an outwardly-facing north pole of the surface-side attachment **1100**, the like poles repulse each other. If during mounting the magnet with an outwardly-facing north pole of the device-side attachment **4100** lines up with a magnet with an outwardly-facing south pole of the surface-side attachment **1100**, the opposite poles attract each other. The magnetic forces of attraction and repulsion, along with the predetermined arrangement of the outwardly-facing poles of the magnets within each attachment, provide for self-alignment of the coupled attachments.

FIGS. **43**A to **43**I depict examples of self-aligning arrangements of outwardly-facing magnet poles for use in device-side attachments **4100** and in surface-side attachments **1100**. For each magnet having an outwardly-facing north pole "N" on a given attachment, the complementary attachment will have a magnet with outwardly-facing south pole "S" positioned to align when the attachments are coupled. FIGS. **43**A, **43**F, and **43**H are examples of symmetrical self-aligning magnet pole arrangements whereby the electronic display device can be mounted in either of two positions that are 180 degrees of each other. FIGS. **43**B to **43**E, **43**G and **43**I are examples of asymmetrical self-aligning magnet pole arrangements whereby the electronic display device can be mounted in only one position.

FIGS. **43**J to **43**L depict examples of self-aligning arrangements of magnets for device-side attachments **4100** and for surface-side attachments **1100** including ferrous inserts "Fe". Ferrous inserts can be used in device-side attachments **4100** in situations when the positioning of a magnet **5000** would interfere with the operation of the electronic display device **4000**. For example, positioning a magnet over the location of an internal antenna of an electronic display device may interfere with the reception. By placing a ferrous insert within the device-side attachment **4100**, problems associated with reception can be avoided while allowing the magnets **2000** of the surface-side attachment **1100** a ferrous surface to attractively couple to.

Ferrous inserts can also be used in surface-side attachments **1100** to reduce product costs. Rare earth magnets **2000** tend to be expensive. A surface-side attachment **1100** that includes at least one magnet with an outwardly-facing north pole and at least one magnet with an outwardly-facing south pole can still provide for self-alignment, while other magnets **2000** in the surface-side attachment **1100** can be replaced with ferrous inserts that allow the magnets **5000** in the device-side attachment **4100** a ferrous surface to attractively couple to. The device-side attachment **4100** within the mounting system still retains all of the magnets **5000** and the ability to attractively couple to any ferrous surface. By incorporating the ferrous inserts into the surface-side attachment **1100**, the overall cost of the mounting system can be reduced while affording the same level of functionality.

FIG. **44**A is a prospective view of three surface-side attachments **1100**. In this example, the plurality of magnets is permanently affixed to an aluminum housing.

FIG. **44**B is a prospective view of a surface-side attachment **1100** including three magnets **2000** within a surface-side attachment housing **1300**. In this example, the plurality of magnets is permanently affixed to an aluminum housing.

FIG. **44**C is a front view of a surface-side attachment **1100** including three magnets **2000** within a surface-side attachment housing **1300**. In this example, the plurality of magnets is permanently affixed to an aluminum housing.

FIG. **45** is a prospective view of three surface-side attachments **1100**.

In some embodiments, the surface-side attachment has a thickness from about 0.5 to about 6.5 mm, from about 0.5 to about 4 mm, from about 0.5 to about 2 mm, from about 0.5 to about 1.5 mm, or from about 1 to about 2 mm, and including all subranges therebetween each of the ranges. In some embodiments, the surface-side attachment has a thickness of about 0.5 mm, about 1.0 mm, about 1.5 mm, about 2.0 mm, about 2.5 mm, about 3.0 mm, about 3.5 mm, about 4.0 mm, about 4.5 mm, about 5.0 mm, about 5.5 mm, about 6.0 mm, or about 6.5 mm. In some embodiments, the

surface-side attachment has a thickness of less than 0.5 mm, less than 1.0 mm, less than 1.5 mm, less than 2.0 mm, less than 2.5 mm, less than 3.0 mm, less than 3.5 mm, less than 4.0 mm, less than 4.5 mm, less than 5.0 mm, less than 5.5 mm, less than 6.0 mm, or less than 6.5 mm.

FIG. **46** is a prospective view of a surface-side attachment **1100** including five magnets **2000** and a surface-side attachment housing **1300** further including an angled face. The angled face of surface-side attachment **1100** can provide increased coupling strength by the angled face supporting a portion of the weight of the electronic display device **400**. The angled face can also improve the coupling strength of the mounting system by positioning the lower end of the electronic display device **4000** against the surface **1000** which reduces the tendency of the electronic display device **4000** to rotate about the bottom edge of surface-side attachment **1100** and separate from the top edge of surface-side attachment **1100**.

FIG. **47** is a prospective view of a surface-side attachment **1100** including seven magnets **2000** within a surface-side attachment housing **1300**.

FIG. **48** is a prospective view of a surface-side attachment **1100** including seven magnets **2000** within a surface-side attachment housing **1300**.

As may be appreciated from FIGS. **40-48**, a self-aligning mounting system for mounting an electronic display device to a surface or attached the electronic display device to an object (e.g., a magnetically-coupleable wallet) may include a device-side attachment containing a first plurality of magnets disposed in a protective cover for the electronic display device. The first plurality of magnets includes at least one magnet with an outwardly-facing north pole of a magnet and at least one magnet with an outwardly-facing south pole. The protective cover can include a high friction surface covering the first plurality of magnets. The mounting system also includes a surface-side attachment that includes a second plurality of magnets disposed in a housing and configured to attach to the surface; alternatively, the second plurality of magnets are disposed within or upon an object to which the electronic display device is to be attached. The second plurality of magnets includes at least one magnet with an outwardly-facing north pole and at least one magnet with an outwardly-facing south pole. The at least one outwardly-facing north pole of the first plurality of magnets is arranged to attractively couple with the at least one outwardly-facing south pole of the second plurality of magnets. The at least one outwardly-facing south pole of the first plurality of magnets is arranged to couple with the at least one outwardly-facing north pole of the second plurality of magnets. The high friction surface covering the first plurality of magnets is configured to be disposed between the first plurality of magnets when coupled to the second plurality of magnets.

In one implementation, a mounting system for mounting an electronic display device to a surface or attaching the electronic display to an object includes a protective case defining an interior surface conforming to an exterior surface of an electronic display device. A first plurality of magnets contacts the protective case and configured to couple to the electronic display device. The first plurality of magnets including at least one magnet with an outwardly-facing north pole and at least one magnet with an outwardly-facing south pole. The at least one magnet with an outwardly-facing north pole of the first plurality of magnets is arranged to couple with at least one magnet with an outwardly-facing south pole of a second plurality of magnets included within a surface-side attachment attached to the surface or included within or upon the object. The at least one magnet with an outwardly-facing south pole of the first plurality of magnets is arranged to couple with at least one magnet with an outwardly-facing north pole of the second plurality of magnets.

The first plurality of magnets and the second plurality magnets may be made from rare earth metals. The rare earth metals may include alloys of neodymium or samarium-cobalt. The first plurality of magnets and the second plurality magnets can be grade N48 or higher. The first plurality of magnets and the second plurality magnets may each comprise two linear rows of magnets.

The first plurality of magnets may be affixed to the interior of the protective cover. The first plurality of magnets may be embedded in the protective cover or the protective case. The first plurality of magnets is affixed to an exterior surface of the protective cover or the protective case. The protective cover may include a high friction surface covering the first plurality of magnets.

The shear force between the surface-side attachment and the device-side attachment may be in a direction substantially parallel to the first outward face and parallel to the second outward face. The shear force may be a direction perpendicular to an attractive force between the first plurality of magnets and the second plurality of magnets.

While various embodiments have been described above, it should be understood that they have been presented by way of example only, and not limitation. For example, wallet **100** and charging device **500** could be any accessory including a combination of a wallet and a battery pack. Also, for example, the surface-side attachment **300** can be attached to any surface such as a wall, computer monitor, inside a backpack, vehicle headrest, refrigerator, etc., not just a vehicle dashboard **400**. Where methods described above indicate certain events occurring in certain order, the ordering of certain events may be modified. Additionally, certain of the events may be performed concurrently in a parallel process when possible, as well as performed sequentially as described above.

Where schematics and/or embodiments described above indicate certain components arranged in certain orientations or positions, the arrangement of components may be modified. While the embodiments have been particularly shown and described, it will be understood that various changes in form and details may be made. Any portion of the apparatus and/or methods described herein may be combined in any combination, except mutually exclusive combinations. The embodiments described herein can include various combinations and/or sub-combinations of the functions, components, and/or features of the different embodiments described.

What is claimed is:

1. A wallet for attachment to a mobile device comprising:

a body defining a compartment and having a device side surface;

a first arrangement of magnetic material having a first region exposing a first polarity magnetic field at the device side surface and a second adjacent region exposing an opposite polarity magnetic field at the device side surface;

a second arrangement of magnetic material having a first region exposing a first polarity magnetic field at the device side surface and a second adjacent region exposing an opposite polarity magnetic field at the device side surface; and

a ferromagnetic shield between the first and second arrangements and the compartment;

wherein the first arrangement and the second arrangement are physically separated on the wallet by a region of nonmagnetic material, the region of nonmagnetic material having a maximum cross dimension greater than a distance between any two immediately adjacent first polarity and opposite polarity regions in the first or second arrangement; and

wherein the first and second arrangements, in use, concurrently magnetically couple the wallet to a mobile device and wherein the first and second arrangements cause the wallet to adopt a specific orientation on the mobile device.

2. The wallet of claim **1** wherein the body defines at least one content removal slot.

3. The wallet of claim **1** wherein an attractive force between the first arrangement, the second arrangement and complementary arrangement of magnets associated with the mobile device are sufficient to support a weight of the mobile device.

4. The wallet of claim **1** wherein a spacing between the first region and the second region in the first arrangement is less than 2 mm.

5. A wallet for attachment to a mobile device comprising:

a body defining a compartment and having a device side surface;

a first arrangement of magnetic material having a first region exposing a first polarity magnetic field at the device side surface and a second adjacent region exposing an opposite polarity magnetic field at the device side surface;

a second arrangement of magnetic material having a first region exposing a first polarity magnetic field at the device side surface and a second adjacent region exposing an opposite polarity magnetic field at the device side surface; and

a metallic plate between the first arrangement and the compartment;

wherein the first arrangement and the second arrangement are physically separated on the wallet by a region of nonmagnetic material, the region of nonmagnetic material having a maximum cross dimension greater than a distance between any two immediately adjacent first polarity and opposite polarity regions in the first or second arrangement; and

wherein the first and second arrangements, in use, concurrently magnetically couple the wallet to a mobile device and wherein the first and second arrangements cause the wallet to adopt a specific orientation on the mobile device.

6. The wallet of claim **1** wherein the device side surface is substantially planar and an attachment surface of the mobile device is also substantially planar.

7. The wallet of claim **1** wherein the first and second arrangement permit coupling to the mobile device in exactly one orientation.

8. The wallet of claim **1** wherein the first and second arrangement permit coupling to the mobile device in exactly two orientations.

9. The wallet of claim **1** further comprising:

a finger loop on a surface opposite the device side surface.

10. The wallet of claim **1** wherein the body defines an opening into the compartment and

wherein a material defining the opening tapers towards a long axis of the body at the opening to expose a content of the compartment at the opening.

11. A wallet for attachment to a mobile device comprising:

a body defining a compartment and having a device side surface;

a first arrangement of magnetic material having a first region exposing a first polarity magnetic field at the device side surface and a second adjacent region exposing an opposite polarity magnetic field at the device side surface;

a second arrangement of magnetic material having a first region exposing a first polarity magnetic field at the device side surface and a second adjacent region exposing an opposite polarity magnetic field at the device side surface; and

wherein the first magnetic arrangement has at least one of a different orientation or a different geometric pattern than the second arrangement; and

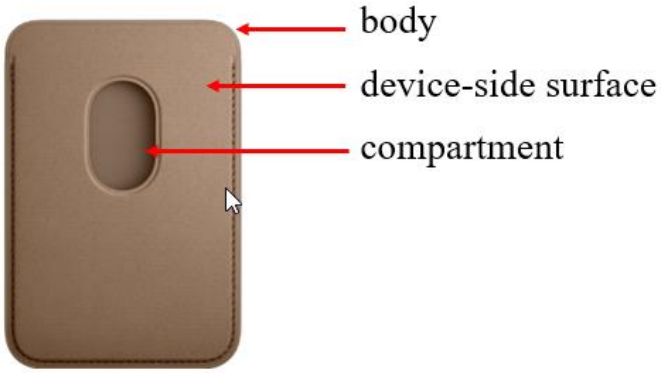
wherein the first and second arrangements, in use, concurrently magnetically couple the wallet to a mobile device and wherein the first and second arrangements cause the wallet to adopt a specific orientation on the mobile device.

* * * * *

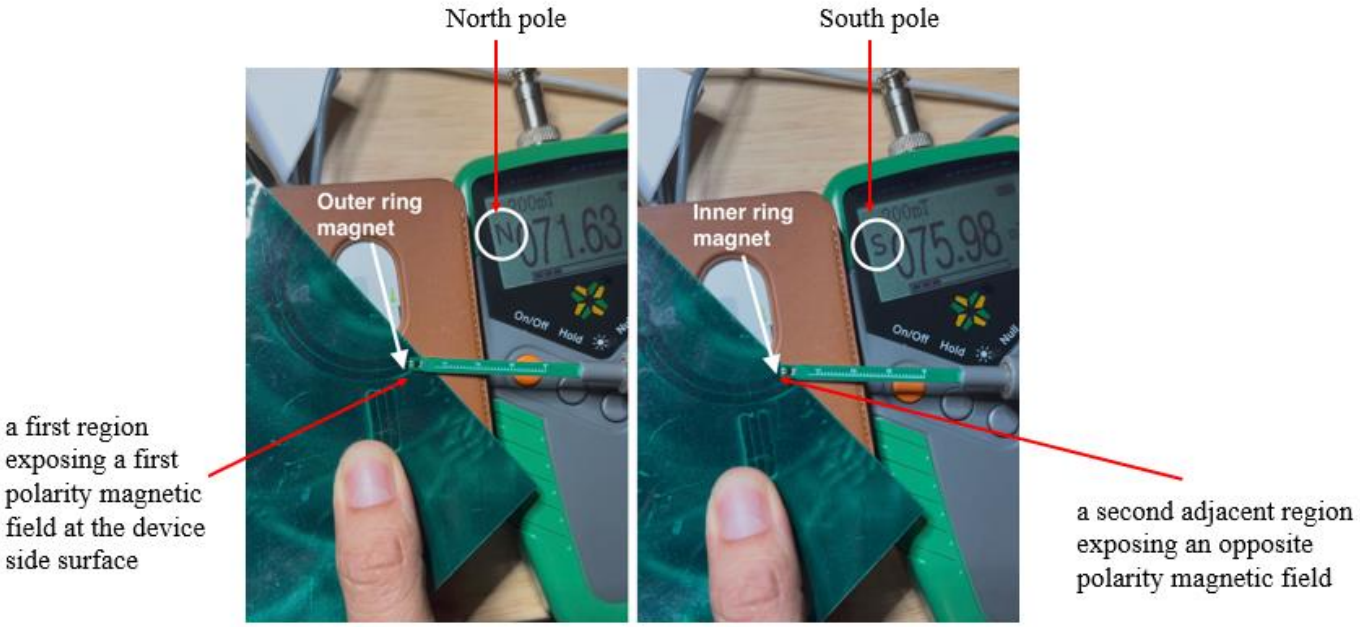
EXHIBIT B

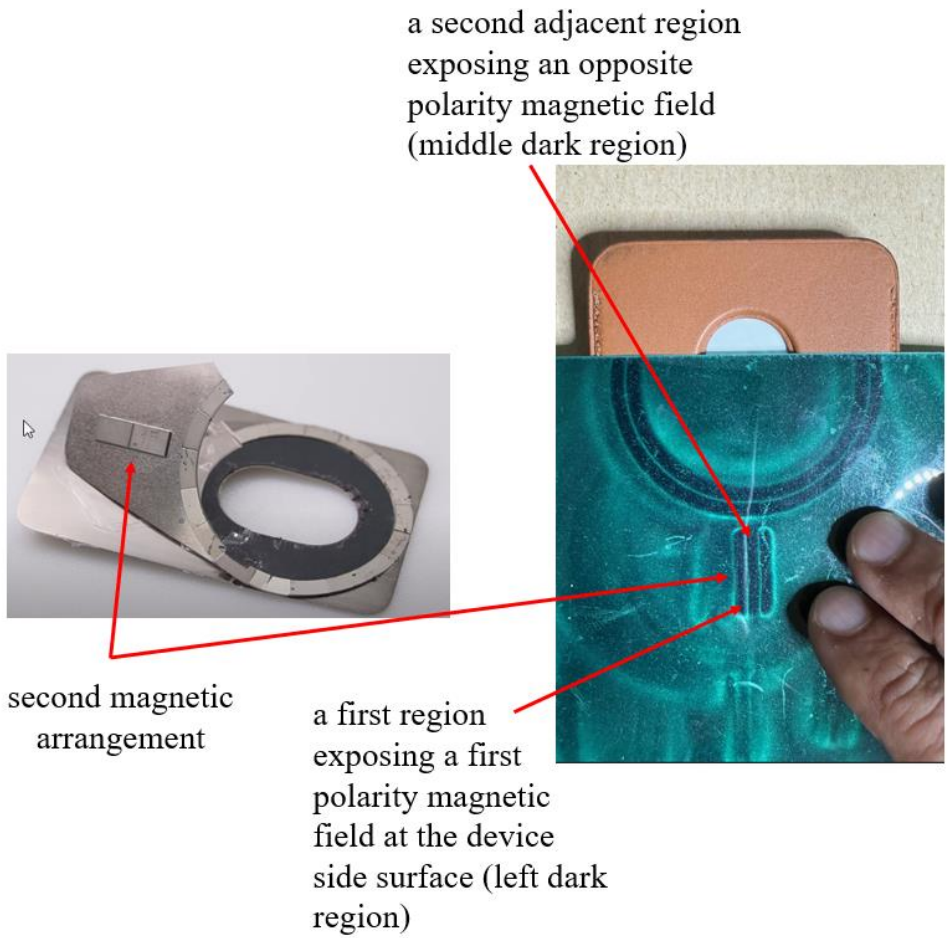
U.S. Patent No. 11,864,641 Claim 11	Apple MagSafe Wallet[1]
11. A wallet for attachment to a mobile device comprising:	As shown below, Apple's MagSafe wallet ("the Infringing Product") is a wallet designed to be attached to a mobile phone, which is a mobile device.
[A] a body defining a compartment and having a device side surface;	As shown below, the Infringing Product has a body that defines a compartment and has a device side surface.

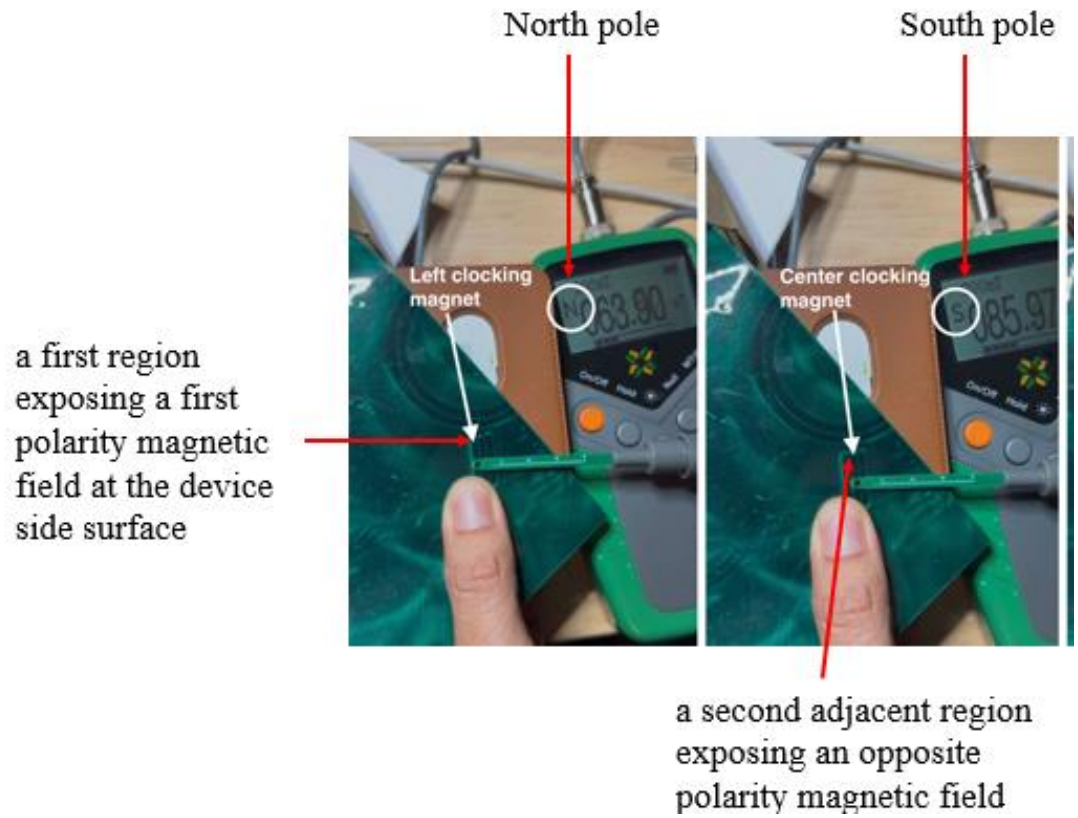
[1] All examples of infringement are without limitation and should not be considering as limiting the scope of the claimed invention. Unless otherwise indicated, annotations were added.

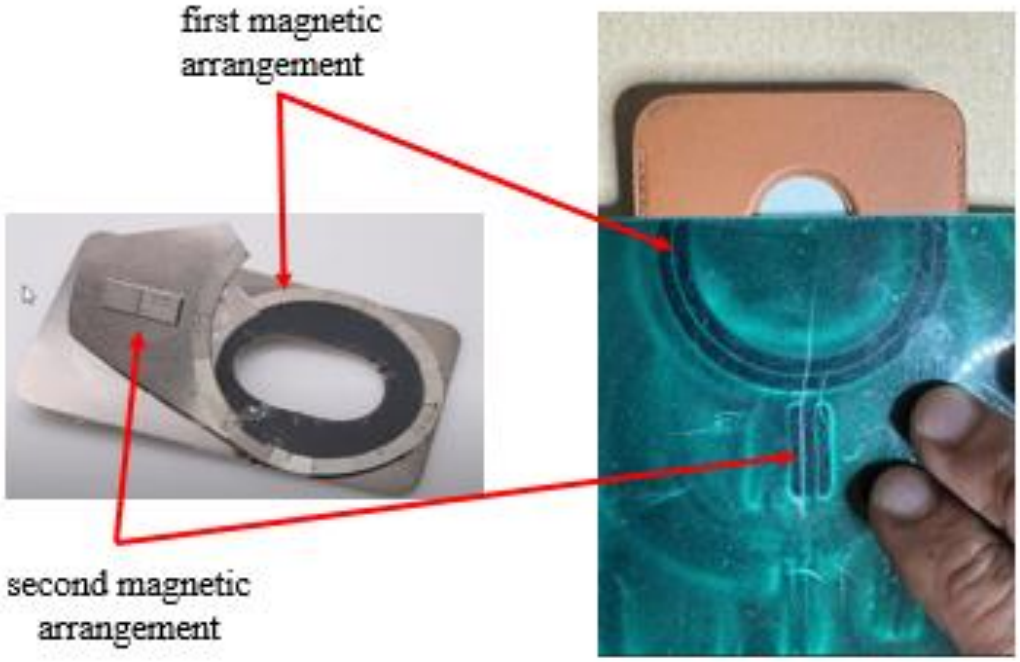
U.S. Patent No. 11,864,641 Claim 11	Apple MagSafe Wallet[1]
	
[B] a first arrangement of magnetic material having a first region exposing a first polarity magnetic field at the device side surface and a second adjacent region exposing an opposite polarity magnetic field at the device side surface;	The Infringing Product has a first arrangement of magnetic material having a first region exposing a first polarity magnetic field at the device side surface and a second adjacent region exposing an opposite polarity magnetic field at the device side surface. As shown below, the first arrangement of magnetic material, *i.e.*, the circular or ring magnetic material, have a first region exposing a first polarity magnetic field (dark outer ring region has a North pole) at the device side surface and a second adjacent region exposing an opposite polarity magnetic field (dark inner ring region has a South pole) at the device side surface.

U.S. Patent No. 11,864,641 Claim 11	Apple MagSafe Wallet[1]

U.S. Patent No. 11,864,641 Claim 11	Apple MagSafe Wallet[1]
	
[C] a second arrangement of magnetic material having a first region exposing a first polarity magnetic field at the device side surface and a	The Infringing Product has a second arrangement of magnetic material having a first region exposing a first polarity magnetic field at the device side surface and a second adjacent region exposing an opposite polarity magnetic field at the device side surface. As shown below, the second arrangement of magnetic material, *i.e.,* rectangular magnetic material, have a first region exposing a first polarity magnetic field (left magnetic region has a North pole) at the device side surface and a second adjacent region exposing an opposite polarity magnetic field (middle magnetic region has a South pole) at the device side surface.

U.S. Patent No. 11,864,641 Claim 11	Apple MagSafe Wallet[1]
second adjacent region exposing an opposite polarity magnetic field at the device side surface; and	

U.S. Patent No. 11,864,641 Claim 11	Apple MagSafe Wallet[1]
	

U.S. Patent No. 11,864,641 Claim 11	Apple MagSafe Wallet[1]
[D] wherein the first magnetic arrangement has at least one of a different orientation or a different geometric pattern than the second arrangement; and;	As shown below, the first magnetic arrangement has at least one of a different orientation or a different geometric pattern (circular) than the second arrangement (rectangular). 

U.S. Patent No. 11,864,641 Claim 11	Apple MagSafe Wallet[1]
[E] wherein the first and second arrangements, in use, concurrently magnetically couple the wallet to a mobile device and wherein the first and second arrangements cause the wallet to adopt a specific orientation on the mobile device.	As shown below, the Infringing Product's the first and second arrangements, in use, concurrently magnetically couple the wallet to a mobile device and wherein the first and second arrangements cause the wallet to adopt a specific orientation on the mobile device. "The wallet features strong built-in magnets that allow it to effortlessly snap into place on the back of your iPhone."[2]

[2] https://www.apple.com/shop/product/MA6X4ZM/A/iphone-finewoven-wallet-with-magsafe-deep-blue?fnode=9a426d5dab22d37f6cd4867e991ac3be7f2a0c8a18454997ba1876e5df9b1484ebad36d764f921ca2a432d994bcea2121d2cb419480cbd8538d421b10cd783356311e167ec6457815e69a7b43a7928c0b8220e1f0ba03bc516214547ce44fc7f91da43931e10e7f7205733344bbb410c&fs=f%3Dwallet%26fh%3D12b2bf%252B4667