US009979427B2

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

(10) **Patent No.: US 9,979,427 B2**
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(54) **PRIVACY AND SECURITY SYSTEMS AND METHODS OF USE**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days. days.

(21) Appl. No.: **14/849,502**

(22) Filed: **Sep. 9, 2015**

(65) **Prior Publication Data**

US 2016/0234356 A1 Aug. 11, 2016

Related U.S. Application Data

(60) Provisional application No. 62/048,173, filed on Sep. 9, 2014, provisional application No. 62/100,462, filed

(Continued)

(51) **Int. Cl.**

H04M 1/00 (2006.01)
H04B 1/3888 (2015.01)

(Continued)

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

CPC ***H04B 1/3888*** (2013.01); ***H04B 1/3838*** (2013.01); ***H04M 1/0202*** (2013.01);

(Continued)

(58) **Field of Classification Search**

CPC . H04B 1/3838; H04B 1/3888; H04M 1/0202; H04M 1/035

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Primary Examiner — Raj Chakraborty
(74) *Attorney, Agent, or Firm* — Ronald Fernando

(57) **ABSTRACT**

Some embodiments include a privacy/security apparatus for a portable communication device that includes a housing

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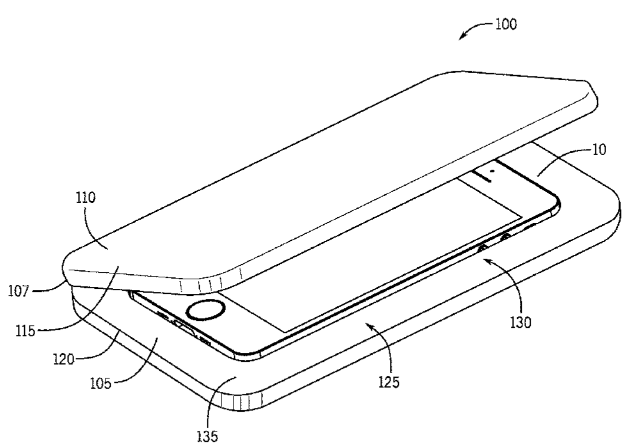

assembly configured to at least partially attenuate at least one of sound energy, acoustic energy, and electromagnetic energy including light, optical, and IR energy and RF radiation from passing through the housing assembly. The housing assembly includes a Faraday cage with two or more portions, and at least one protective shell coupled to or forming at least one aperture. The at least one aperture is configured and arranged to at least partially enclose the portable communication device so that at least a portion of the portable communication device is positioned within at least one portion of the Faraday cage, and the at least one seal coupled or integrated with the protective shell. The housing assembly can be an articulating assembly, a sliding assembly, and can include an active acoustic jamming or passive acoustic attenuation element.

33 Claims, 273 Drawing Sheets

Related U.S. Application Data

on Jan. 6, 2015, provisional application No. 62/161,759, filed on May 14, 2015, provisional application No. 62/195,903, filed on Jul. 23, 2015, provisional application No. 62/198,635, filed on Jul. 29, 2015, provisional application No. 62/209,249, filed on Aug. 24, 2015.

(51) **Int. Cl.**

H04M 1/02	(2006.01)
H04M 1/03	(2006.01)
H04B 1/3827	(2015.01)
H05K 9/00	(2006.01)
H04M 1/18	(2006.01)

(52) **U.S. Cl.**
CPC ***H04M 1/035*** (2013.01); ***H05K 9/0069*** (2013.01); *H04M 1/185* (2013.01)

(58) **Field of Classification Search**
USPC 455/575.8
See application file for complete search history.

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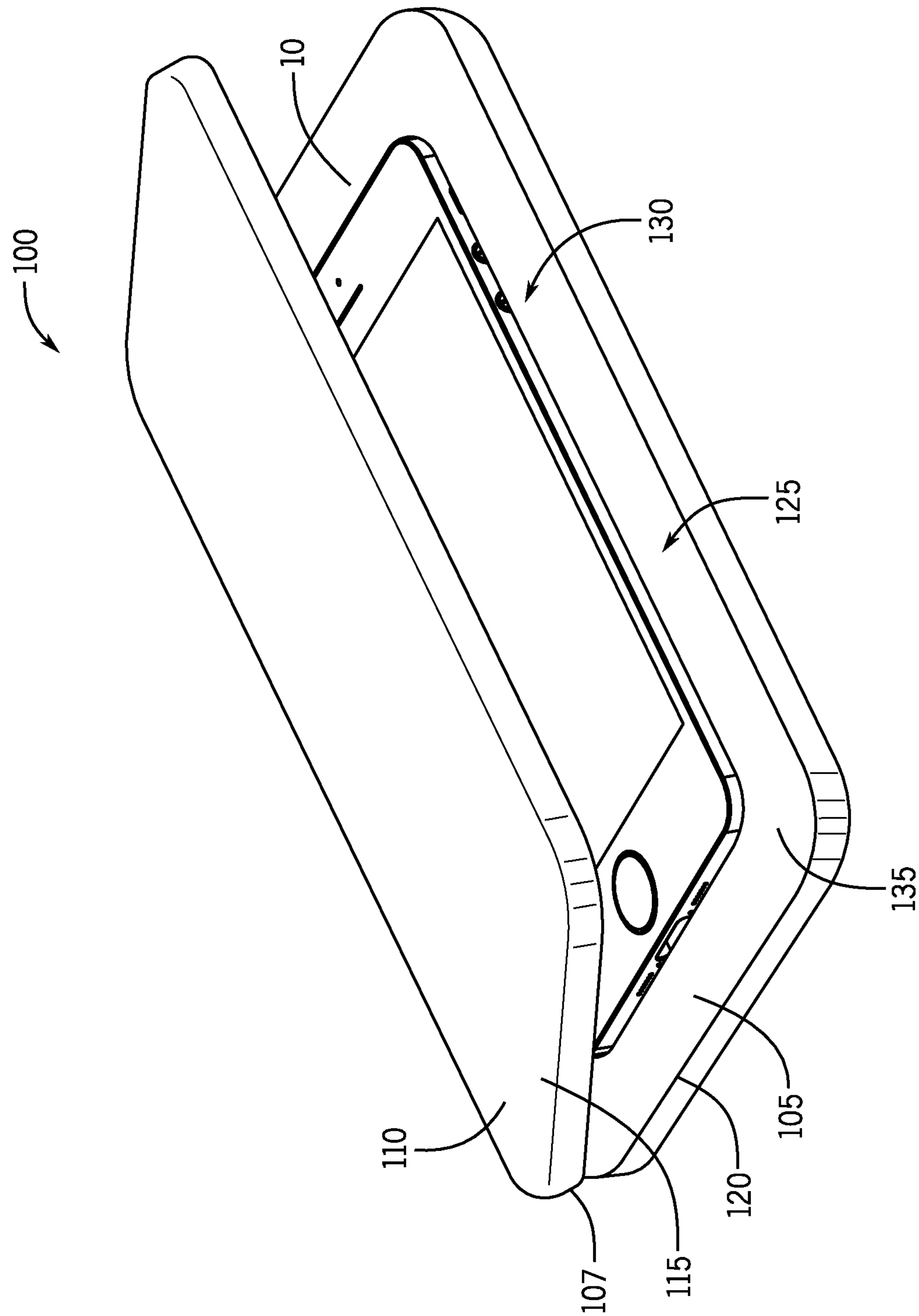

FIG. 1

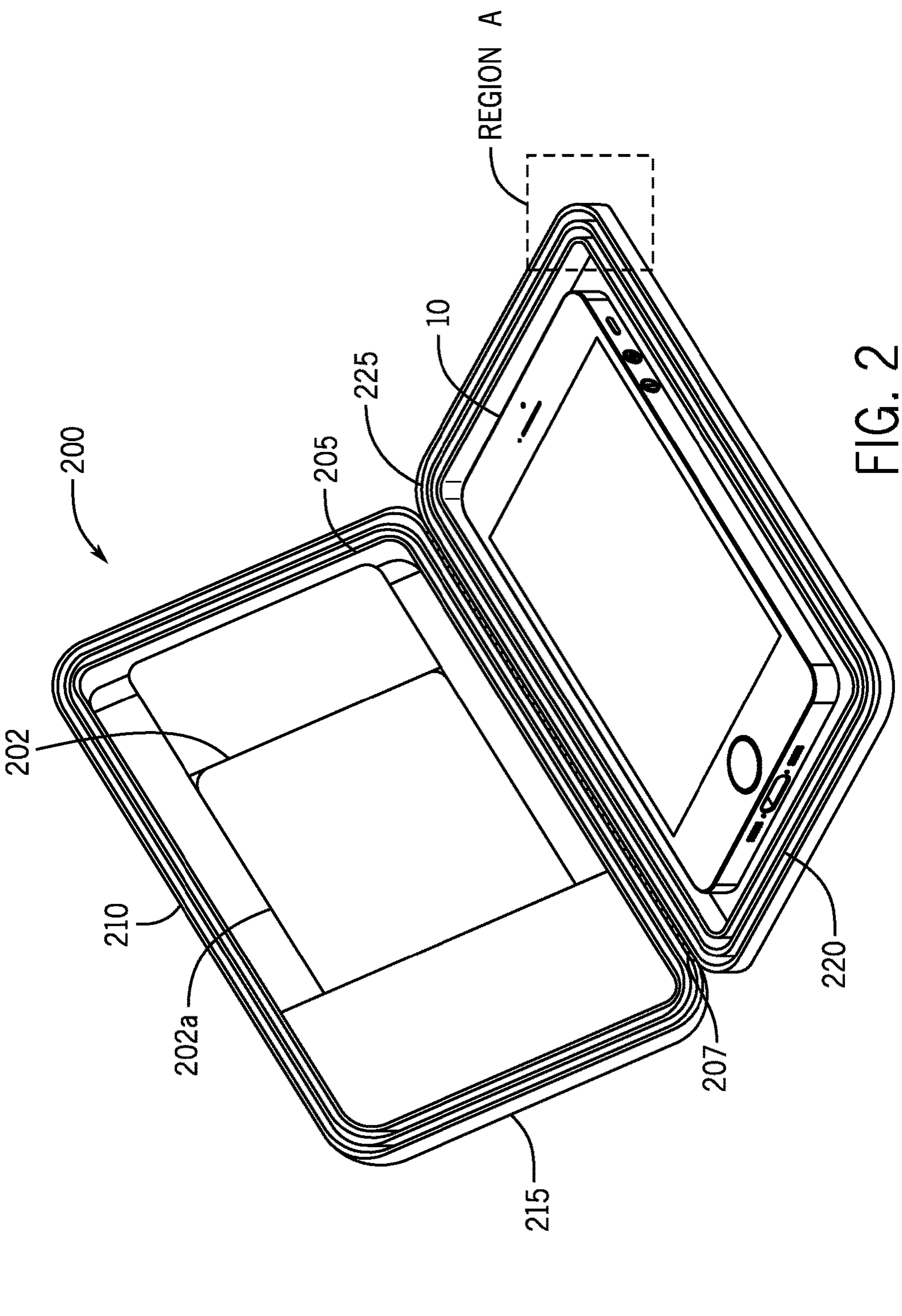

FIG. 2

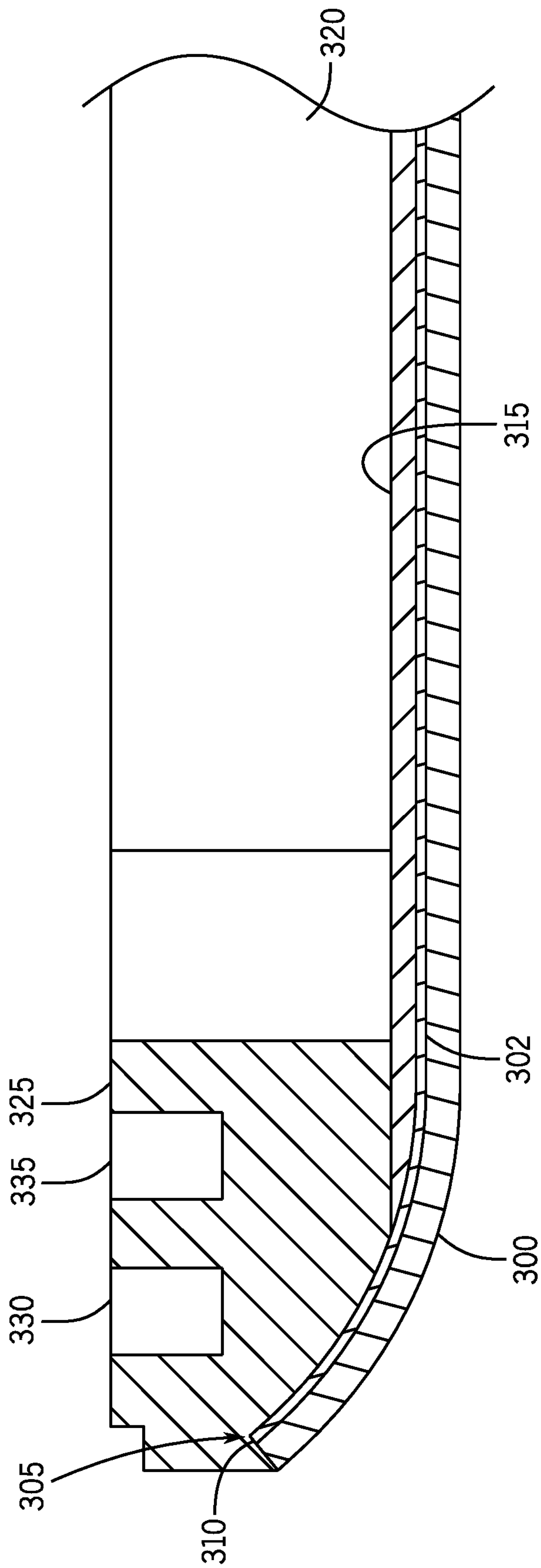

FIG. 3

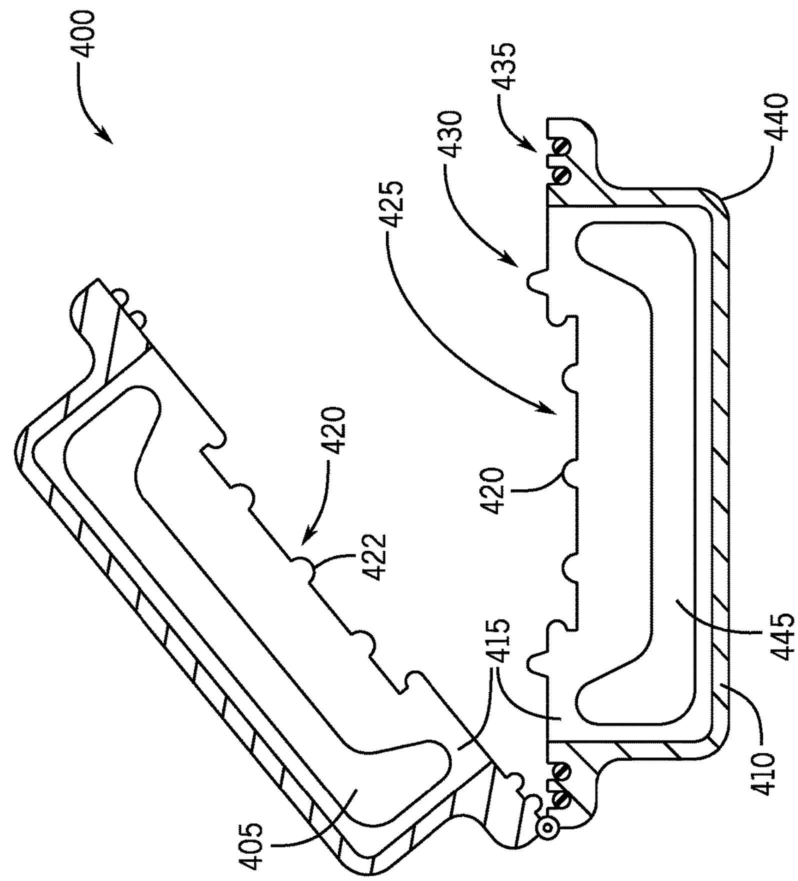

FIG. 4

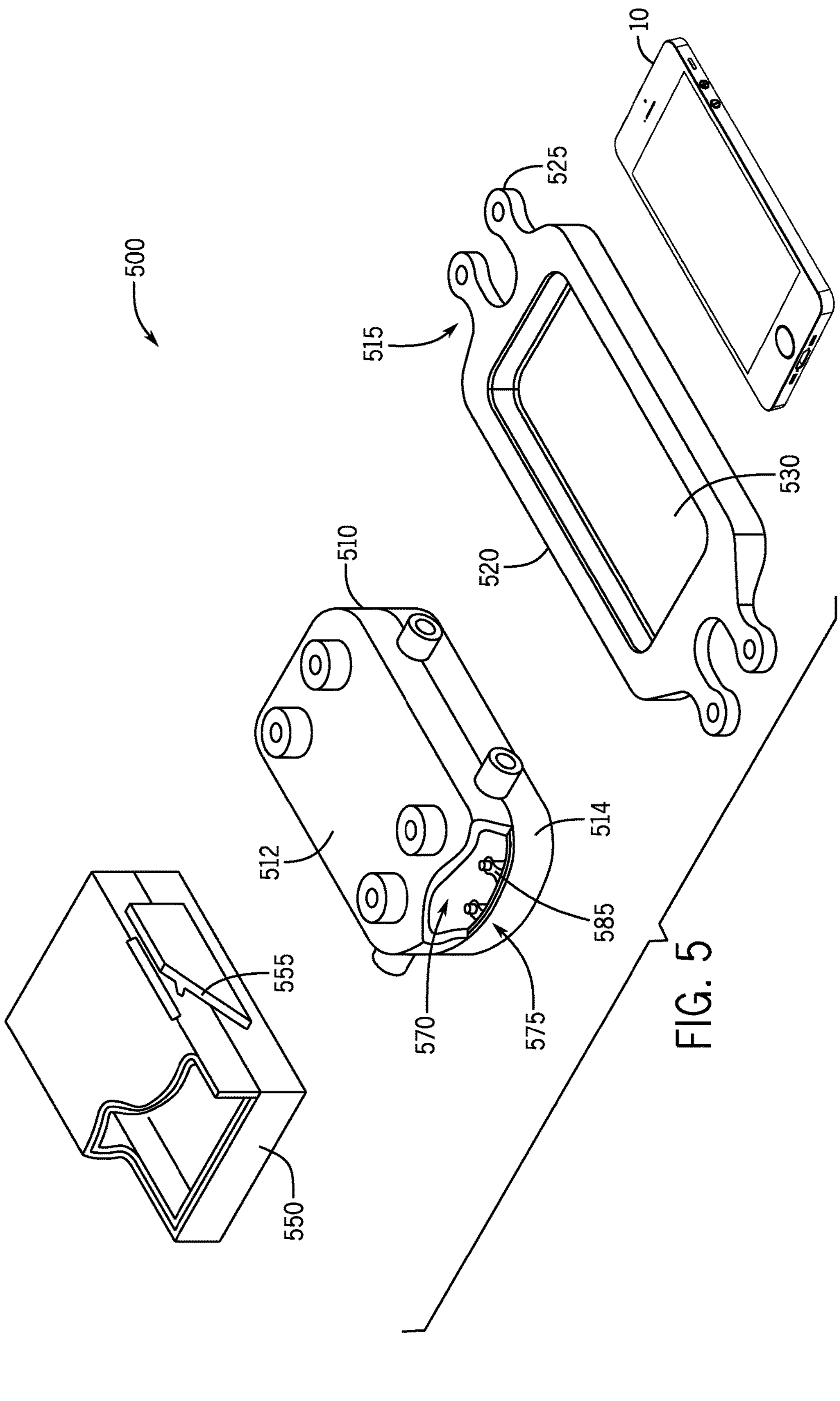

FIG. 5

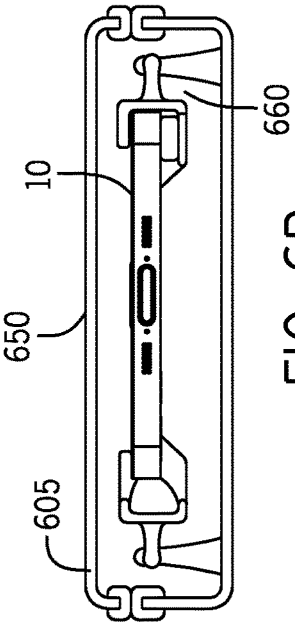

FIG. 6B

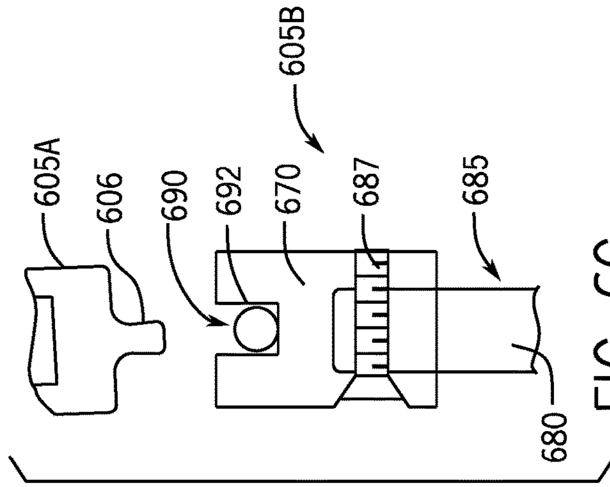

FIG. 6C

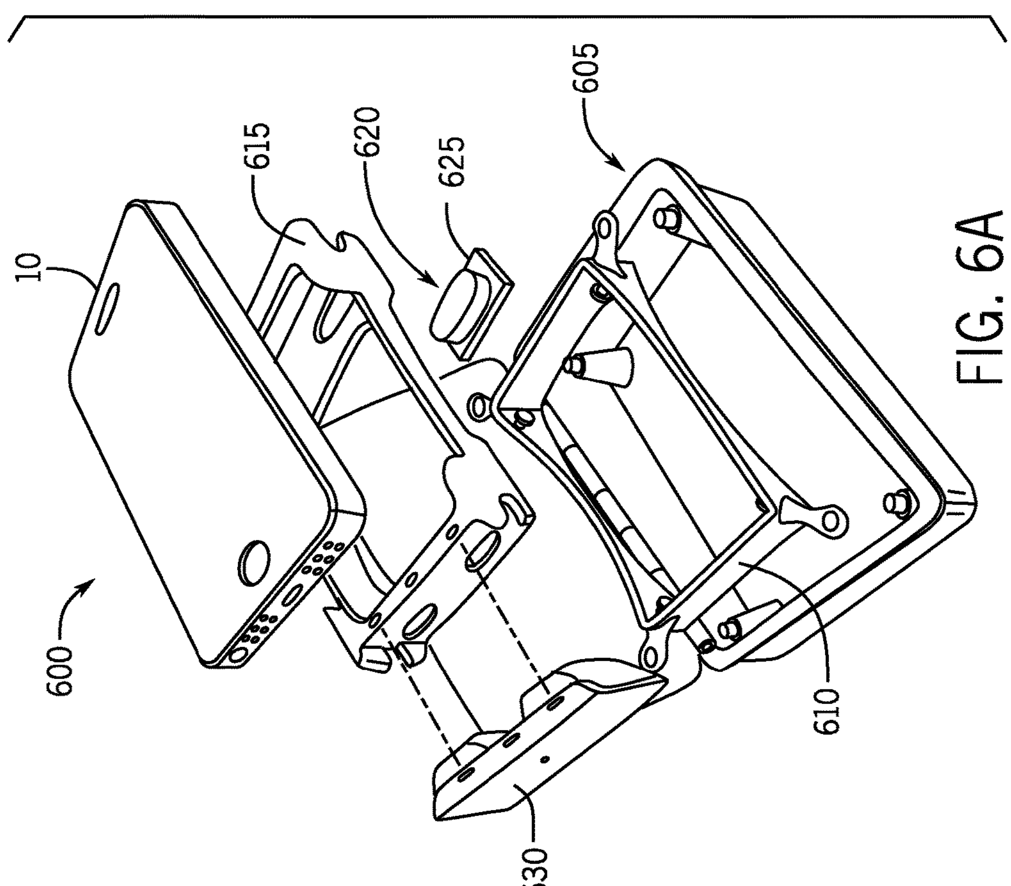

FIG. 6A

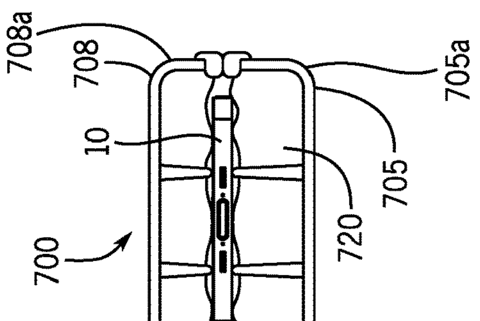

FIG. 7B

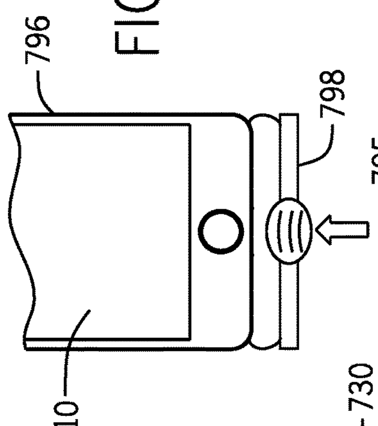

FIG. 7D

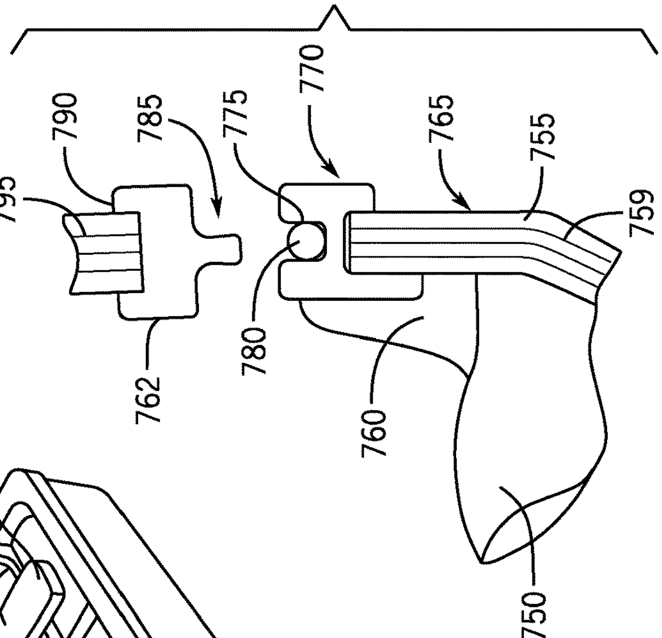

FIG. 7C

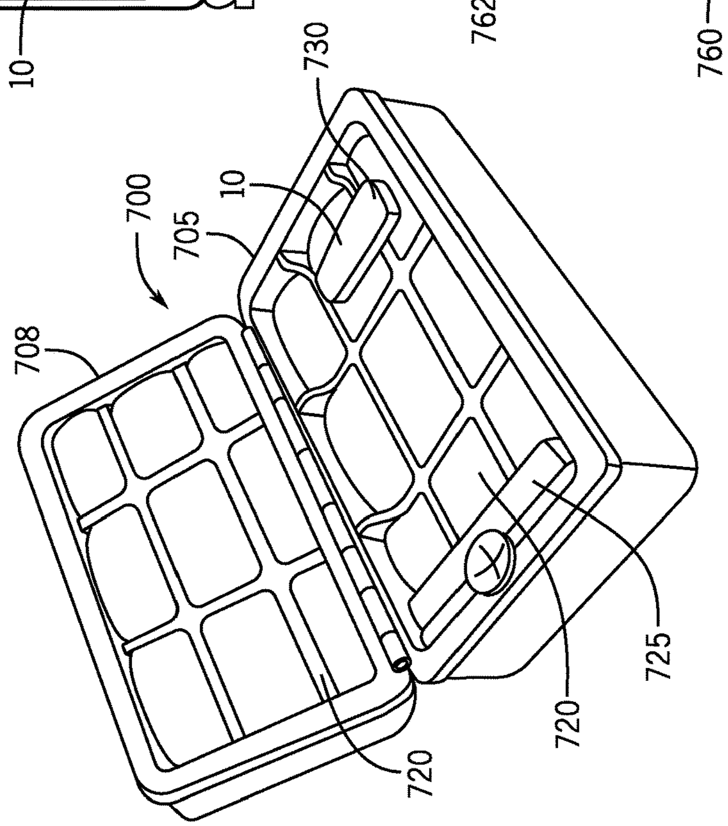

FIG. 7A

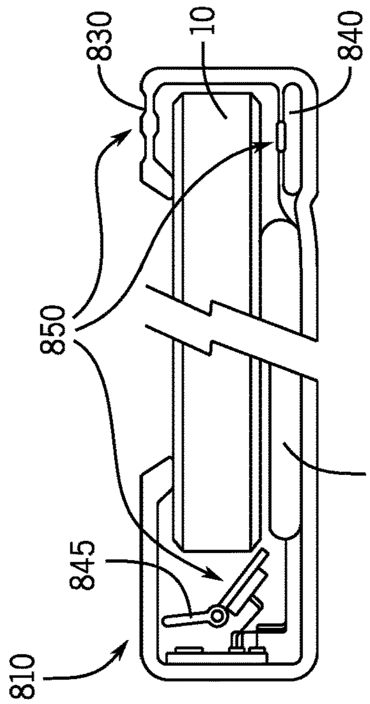

FIG. 8B

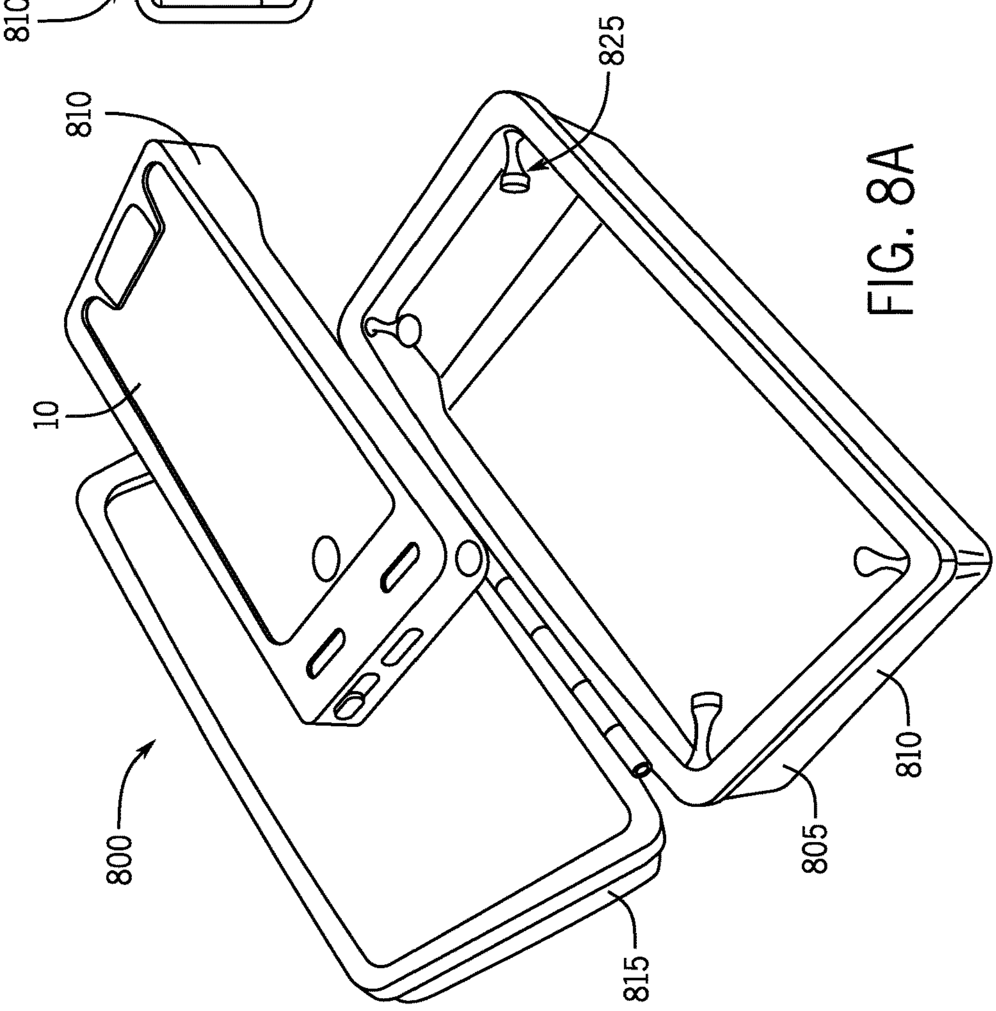

FIG. 8A

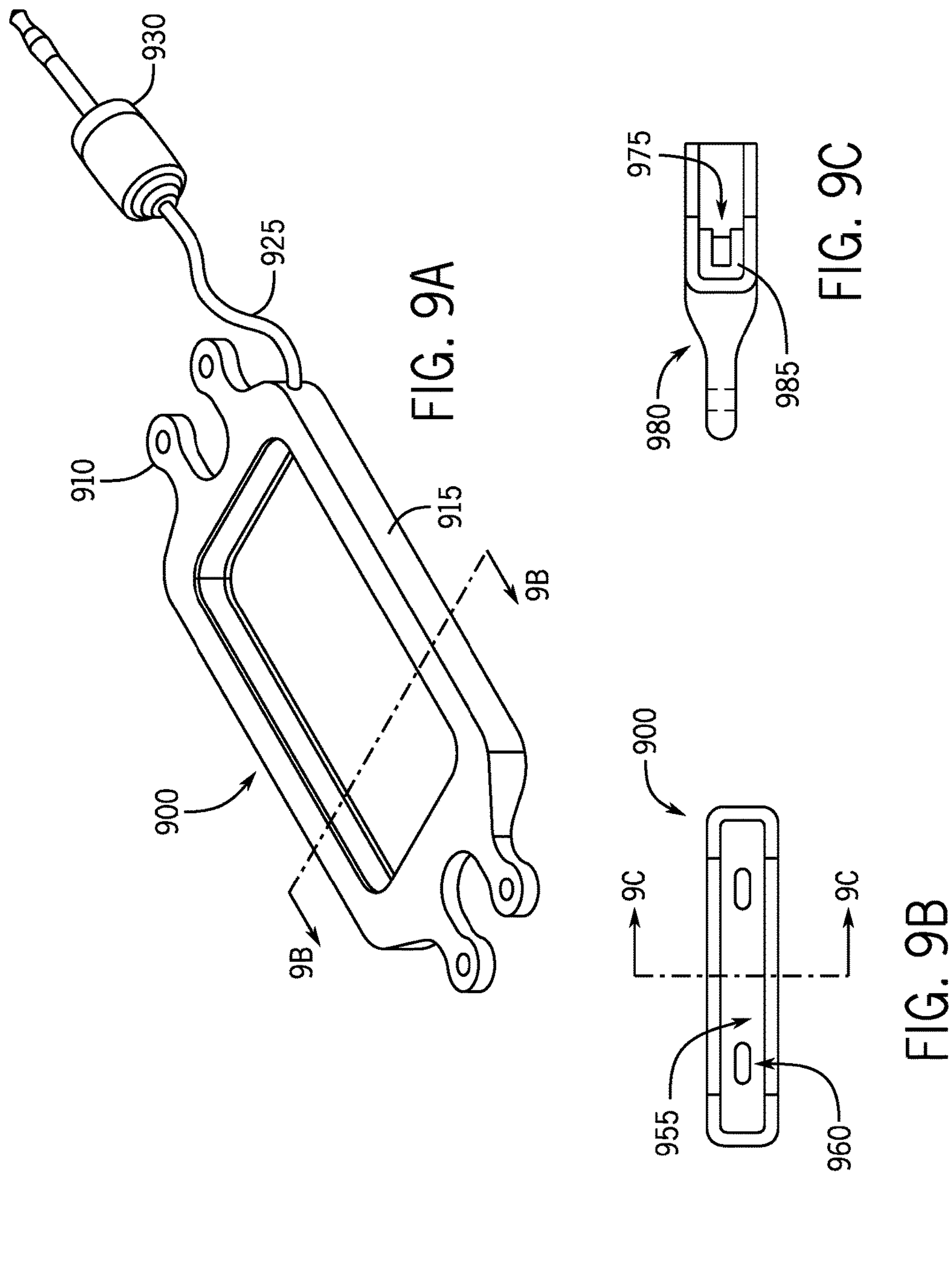
930
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FIG. 9A
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975
FIG. 9C
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FIG. 9B
955
960

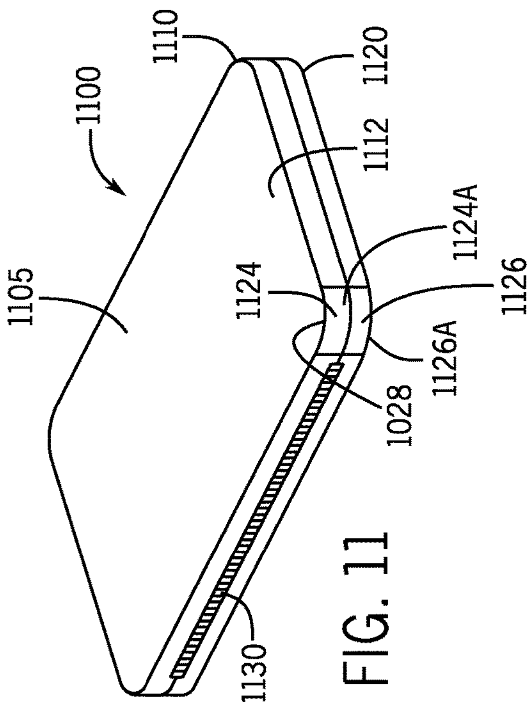


FIG. 11

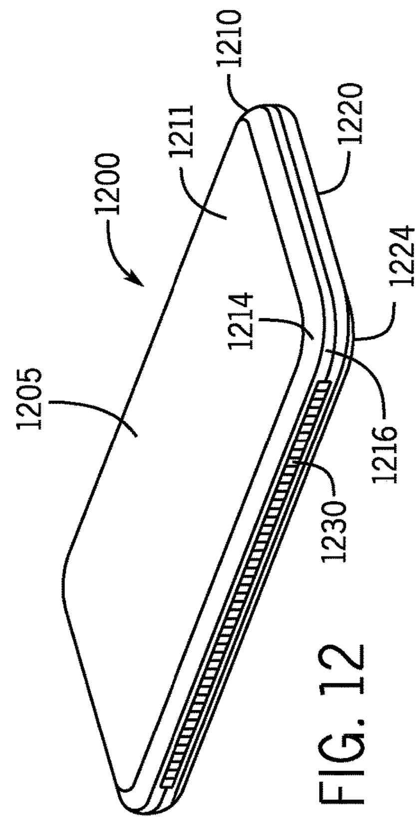


FIG. 12

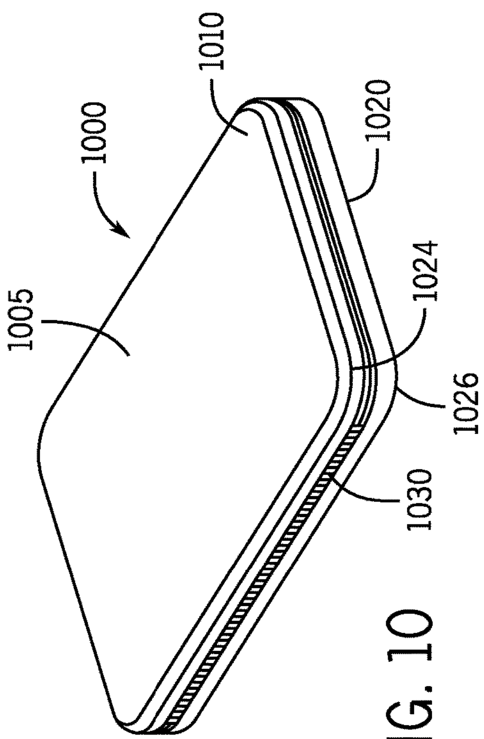


FIG. 10

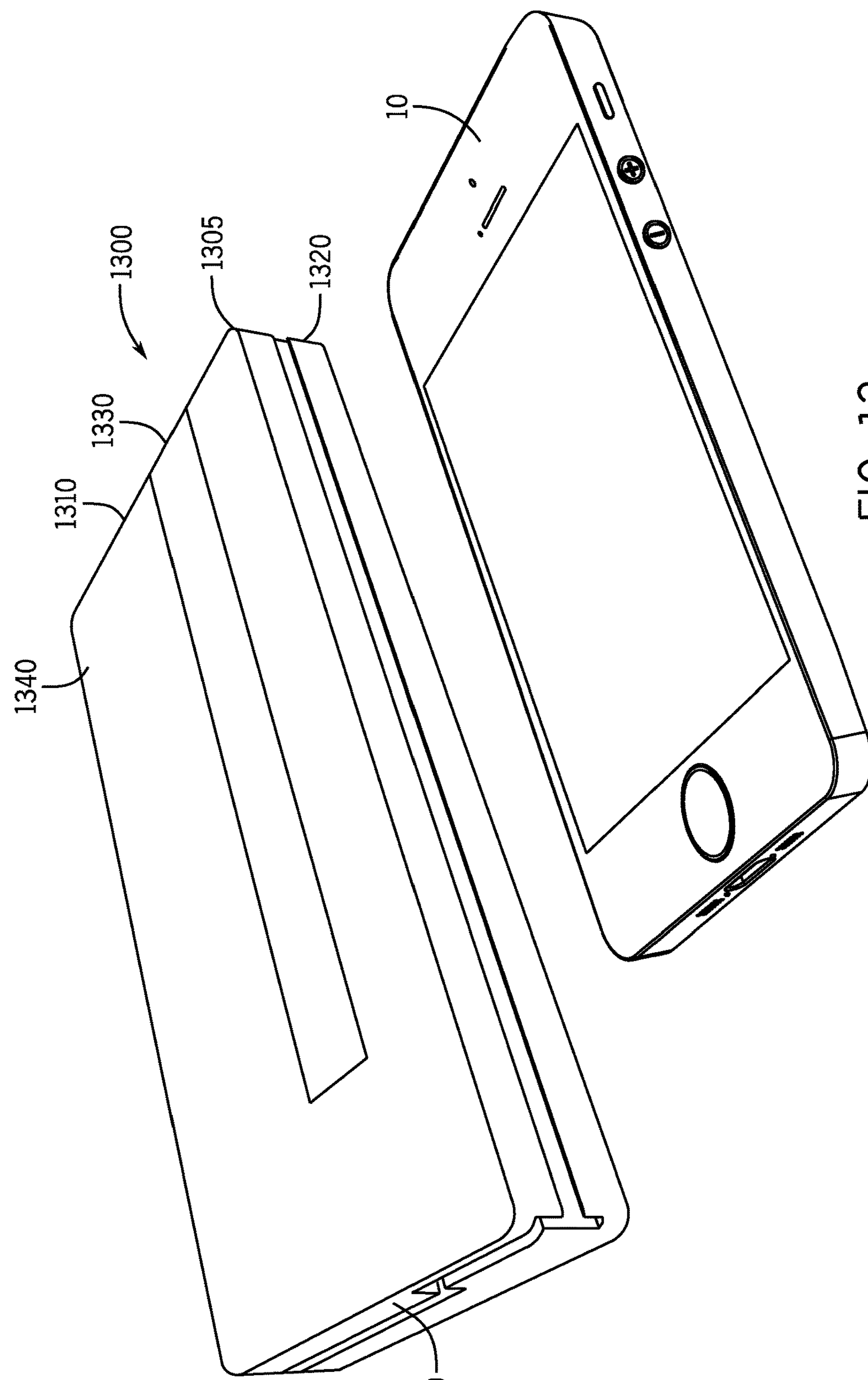


FIG. 13

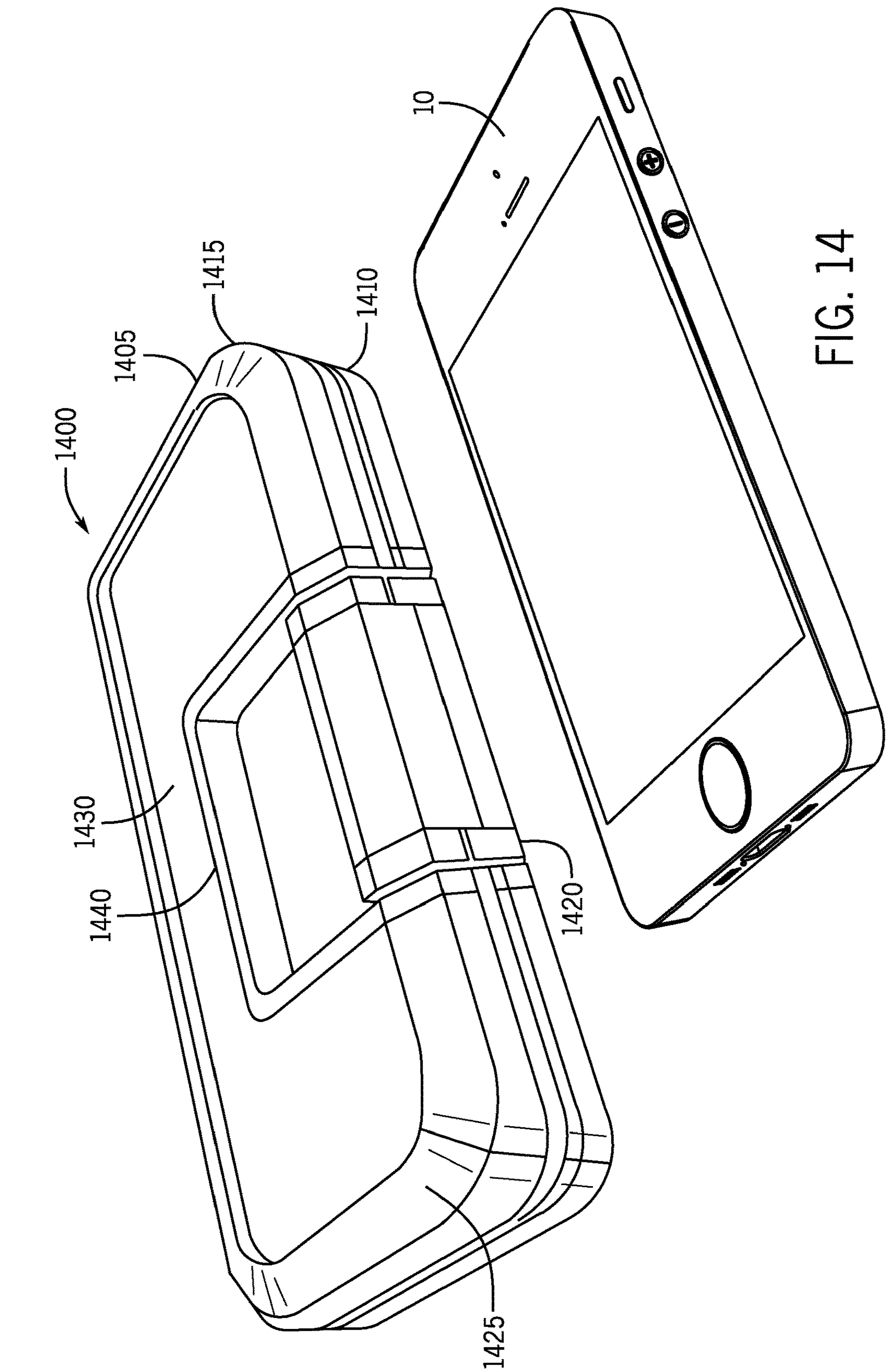


FIG. 14

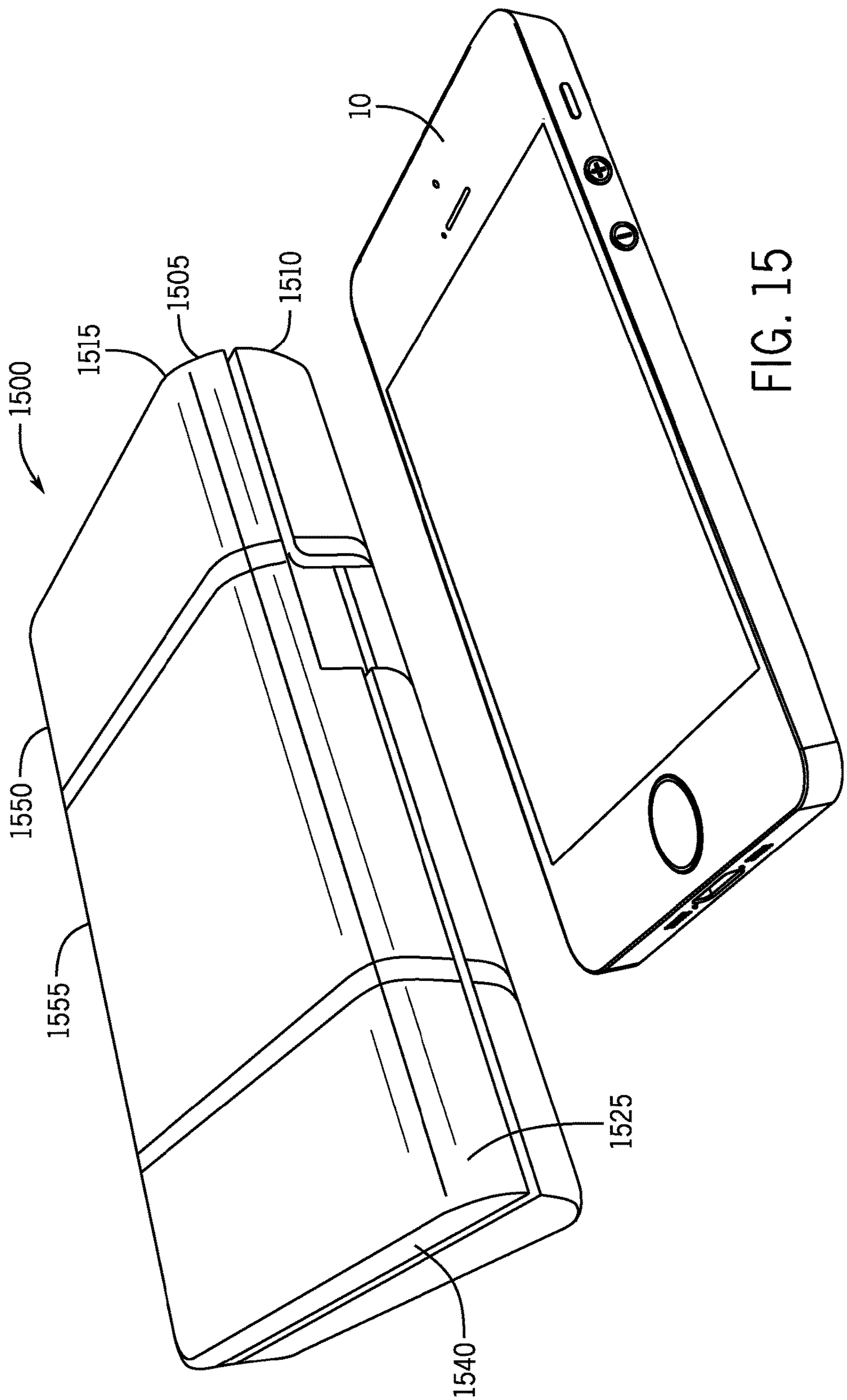


FIG. 15

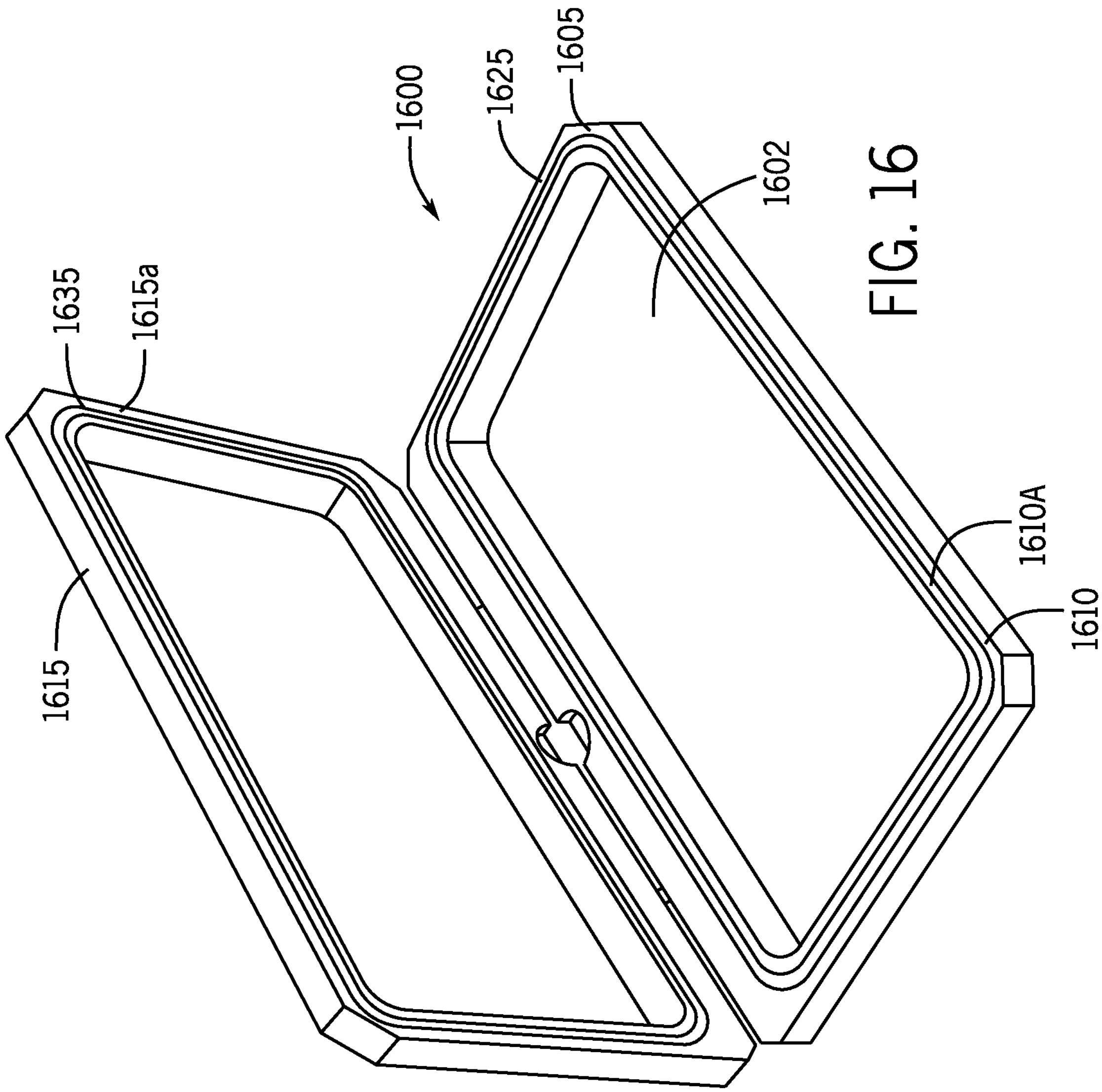


FIG. 16

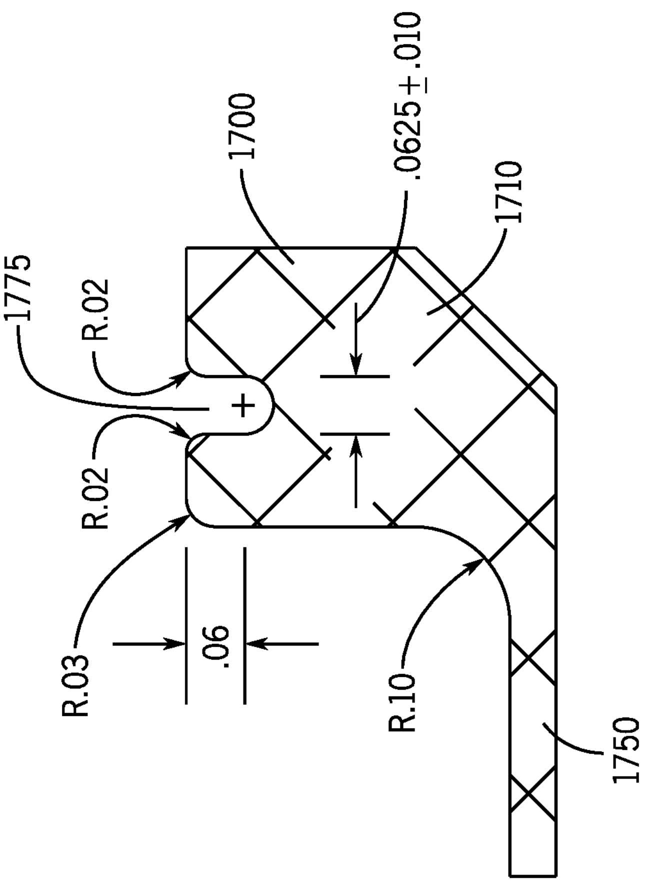


FIG. 17

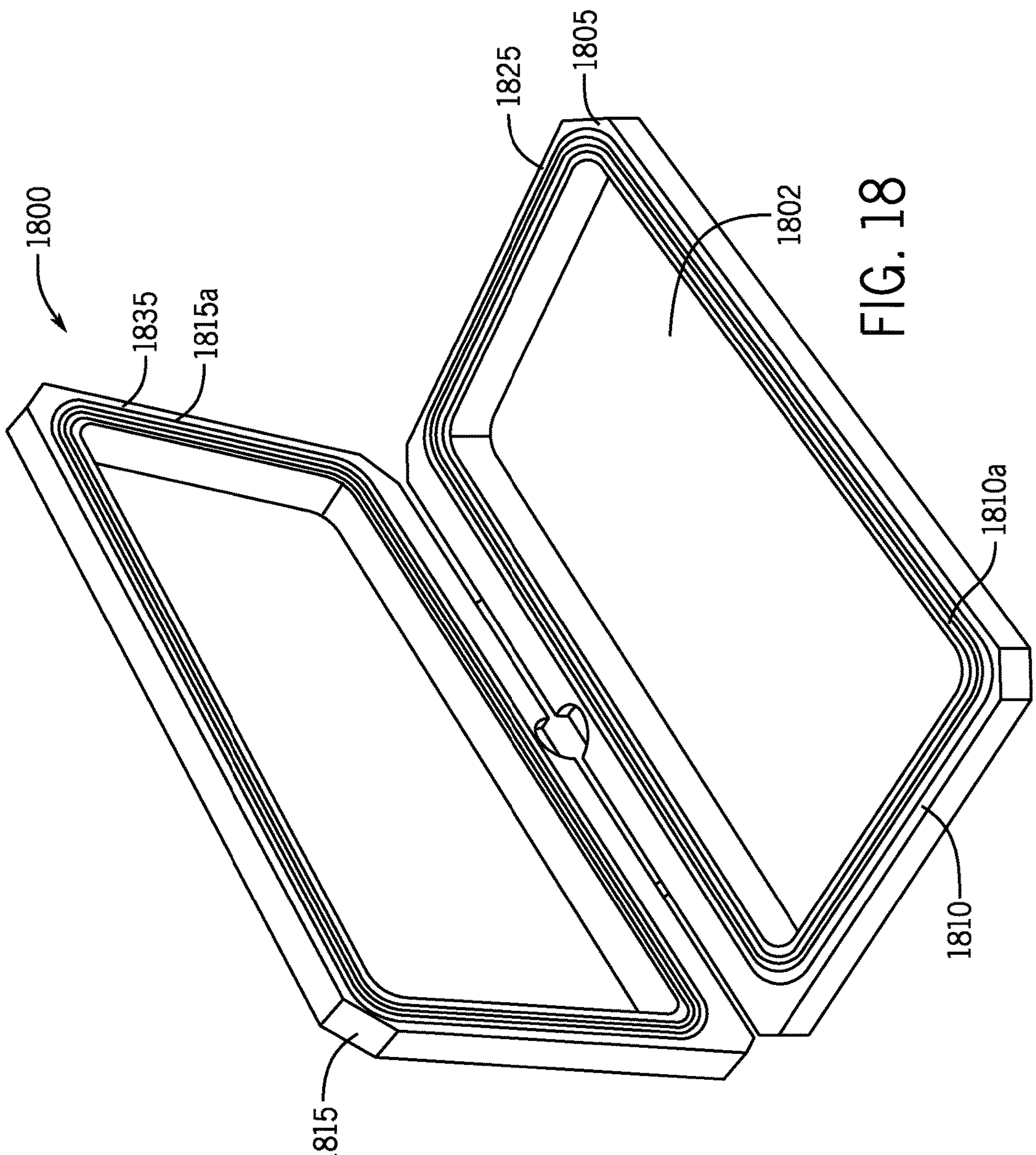


FIG. 18

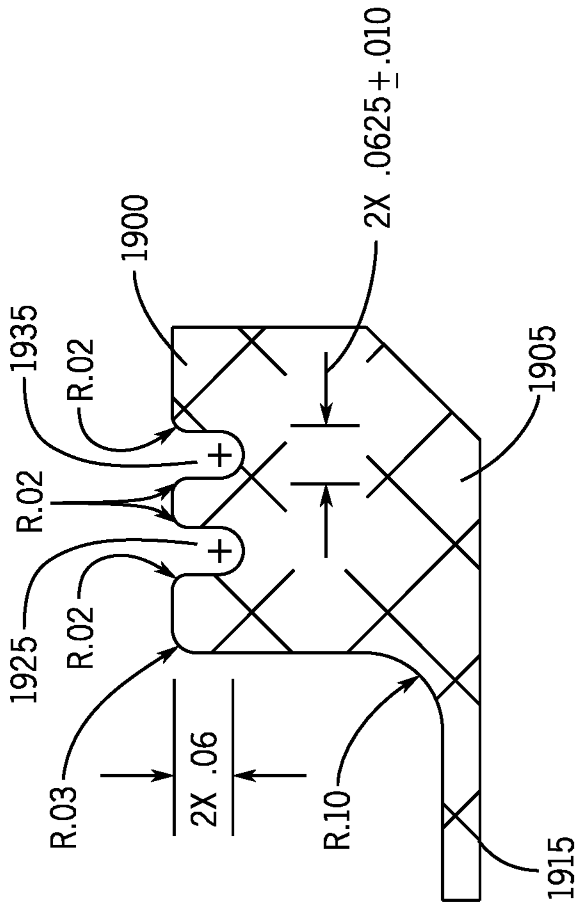


FIG. 19

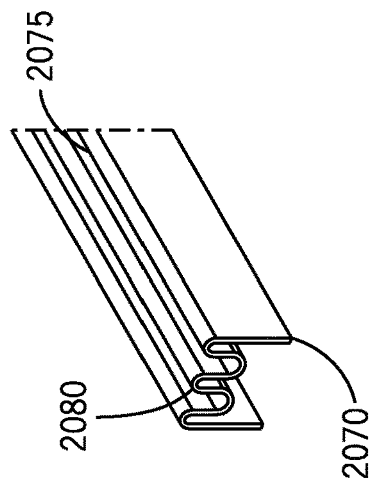


FIG. 20B

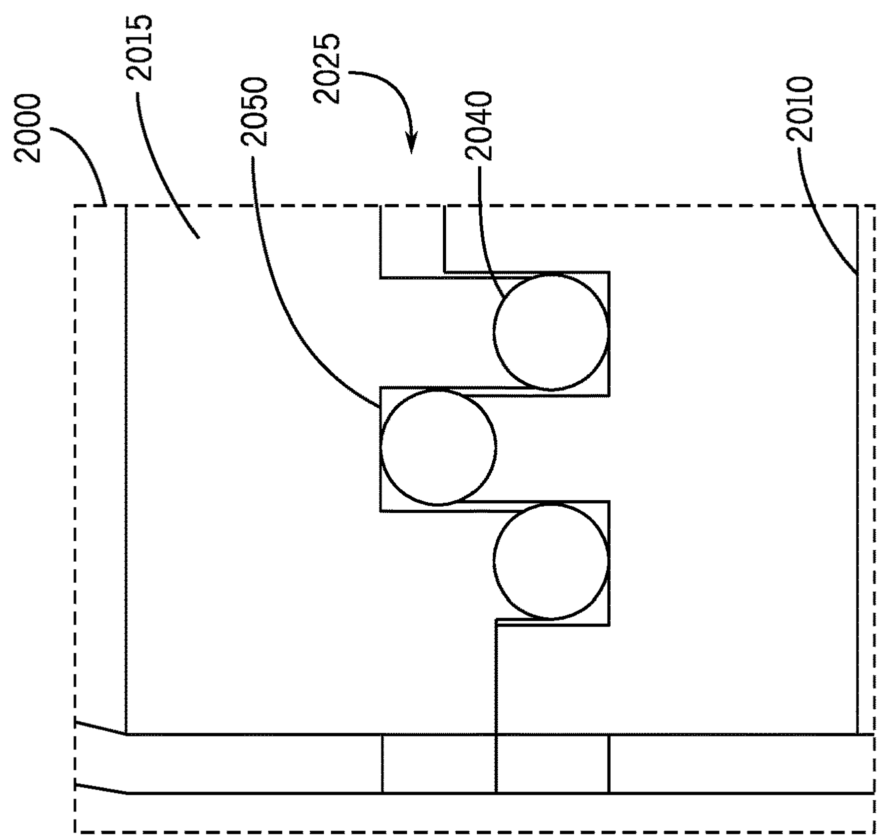


FIG. 20A

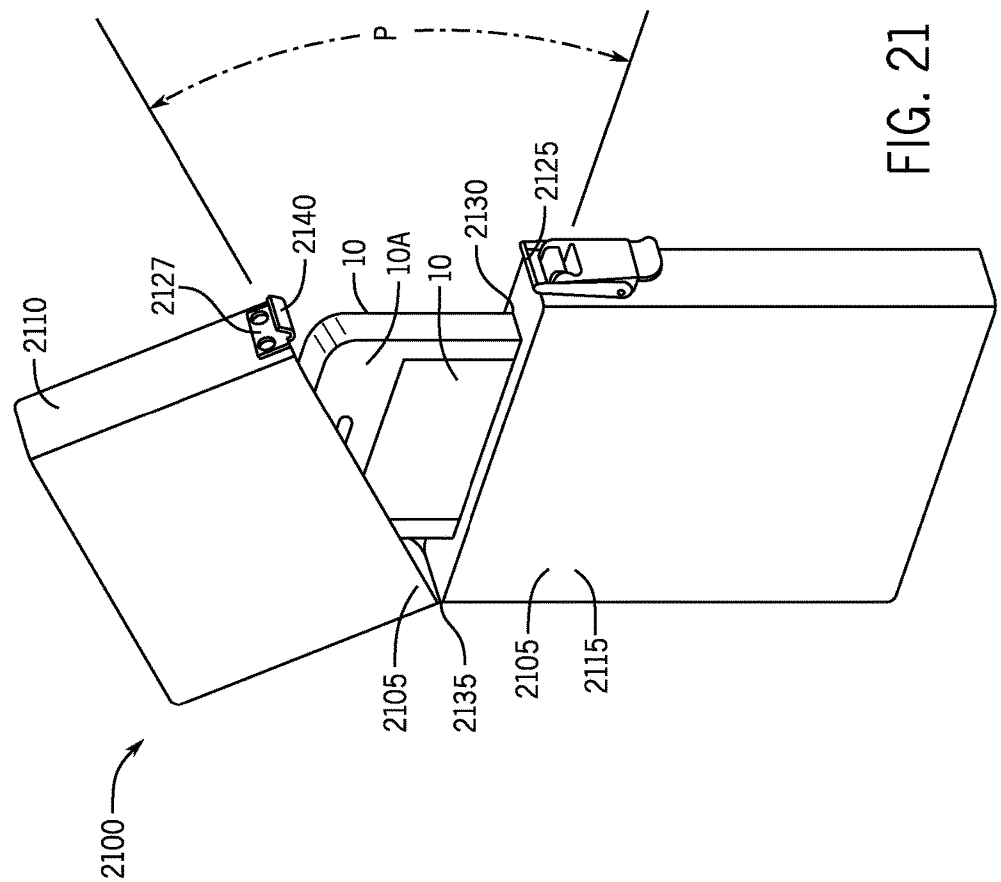


FIG. 21

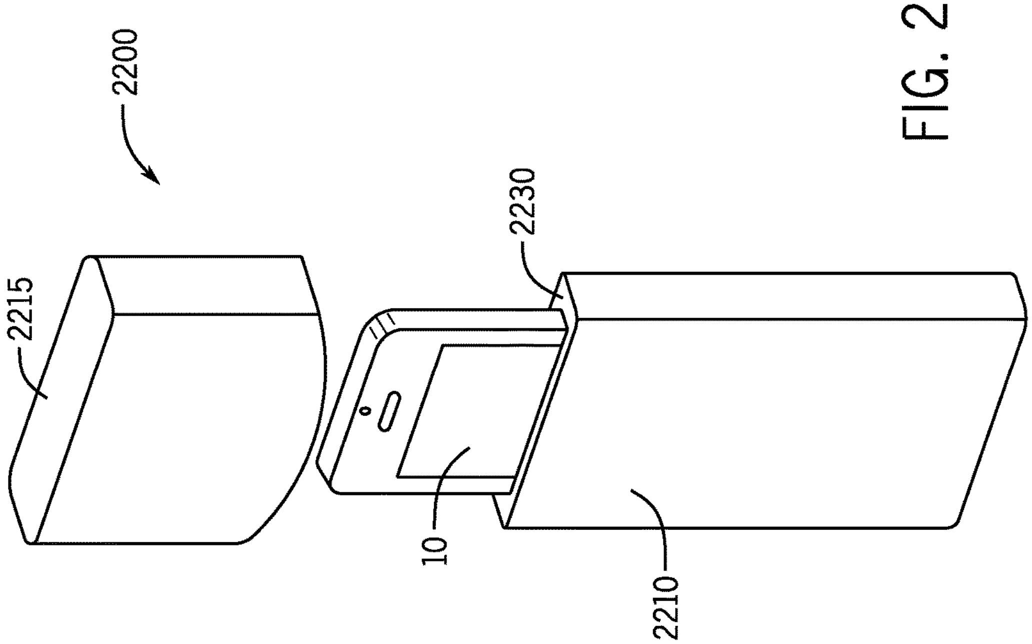


FIG. 22

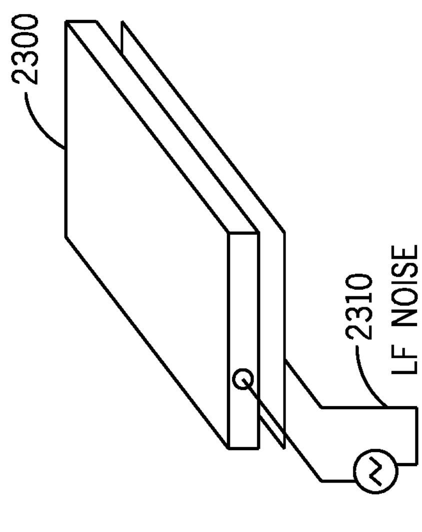


FIG. 23A

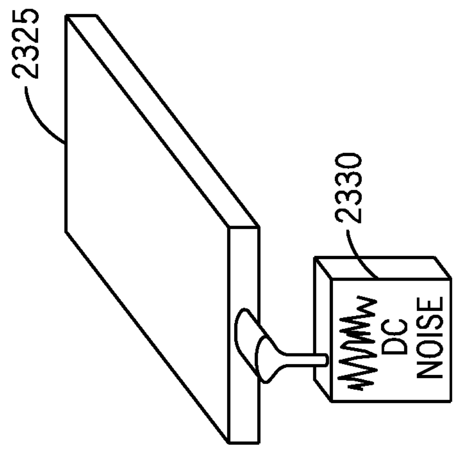


FIG. 23B

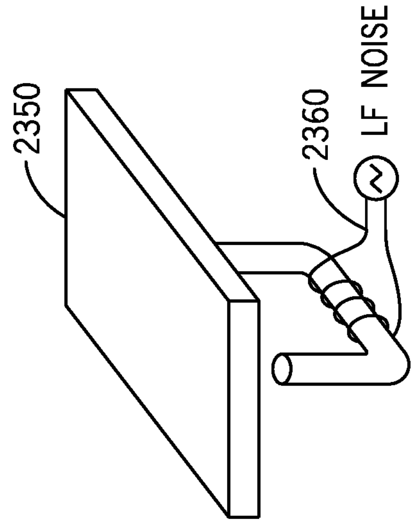


FIG. 23C

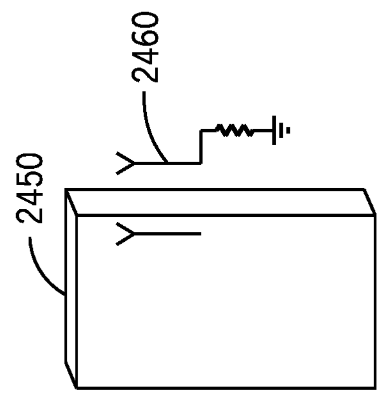


FIG. 24B

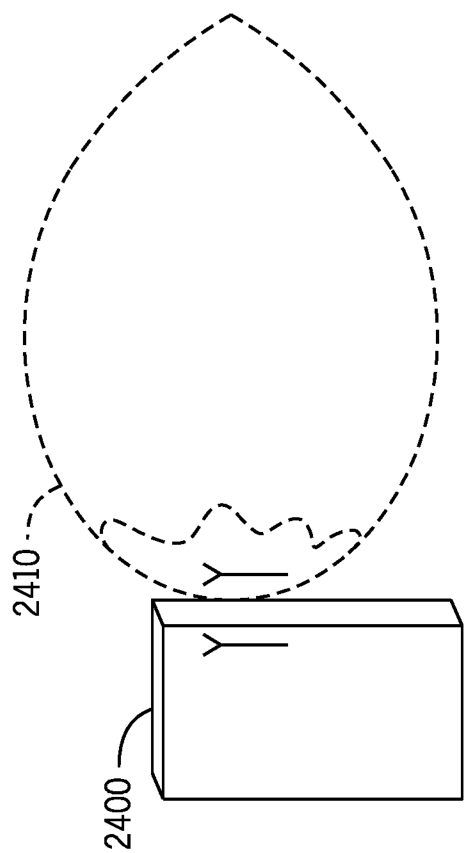


FIG. 24A

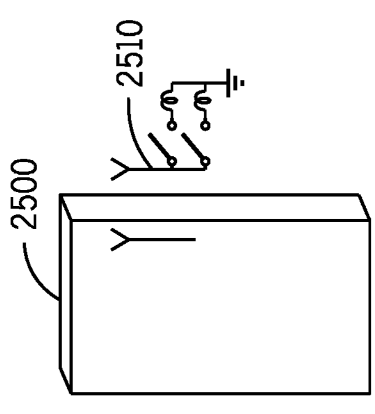


FIG. 25A

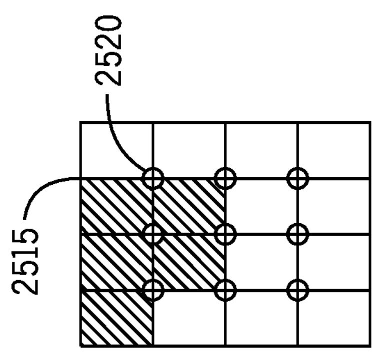


FIG. 25B

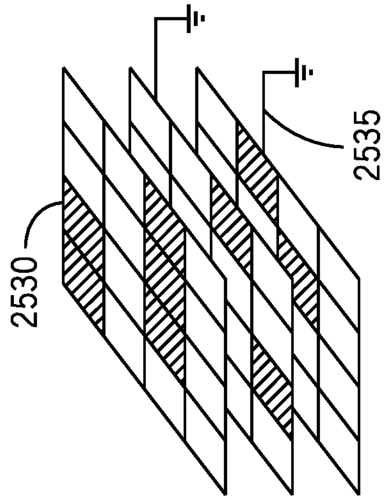


FIG. 25C

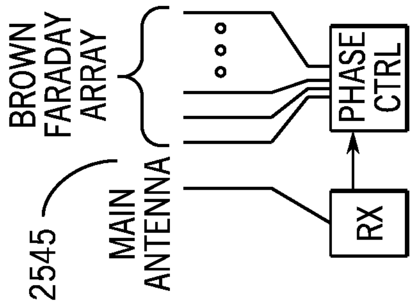


FIG. 25D

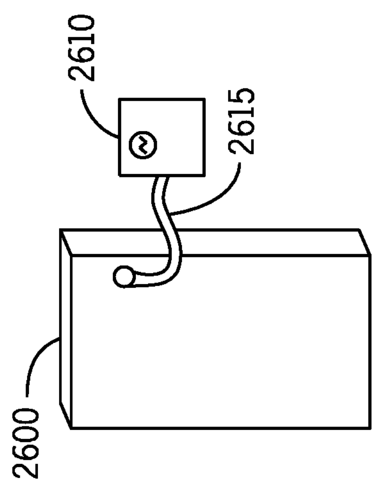


FIG. 26A

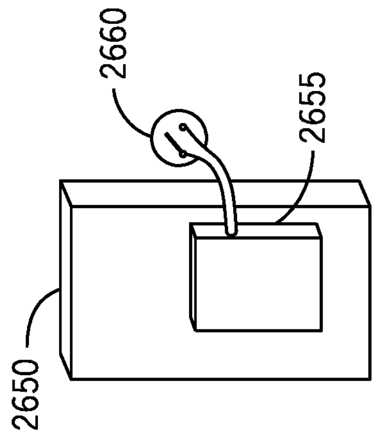


FIG. 26B

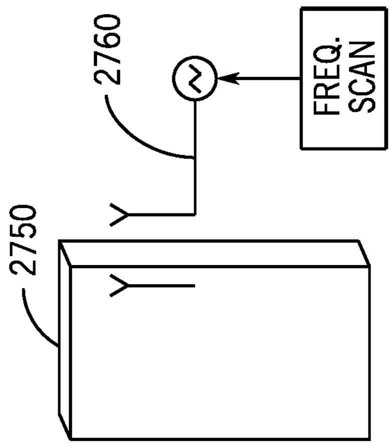


FIG. 27B

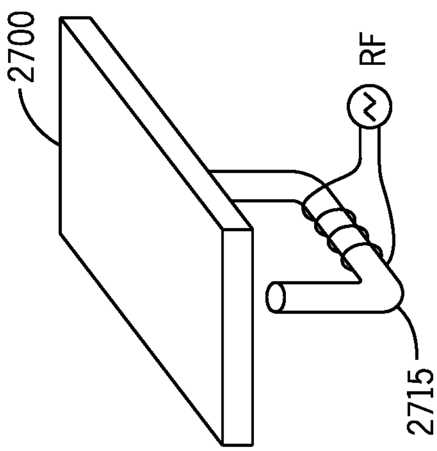


FIG. 27A

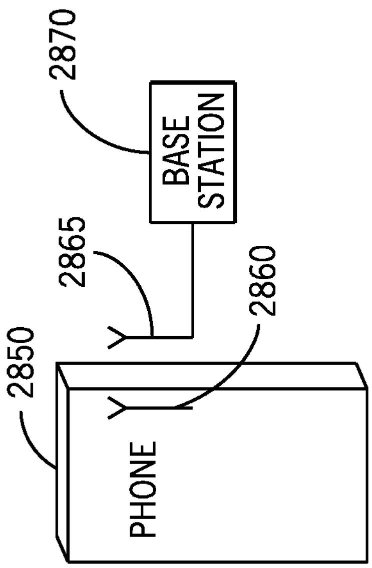


FIG. 28B

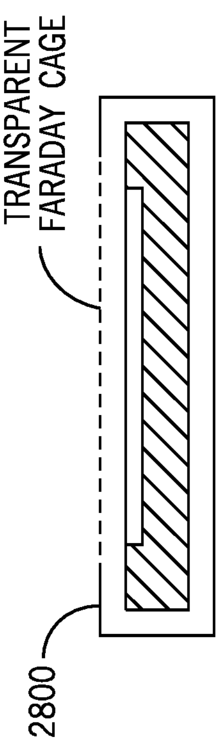


FIG. 28A

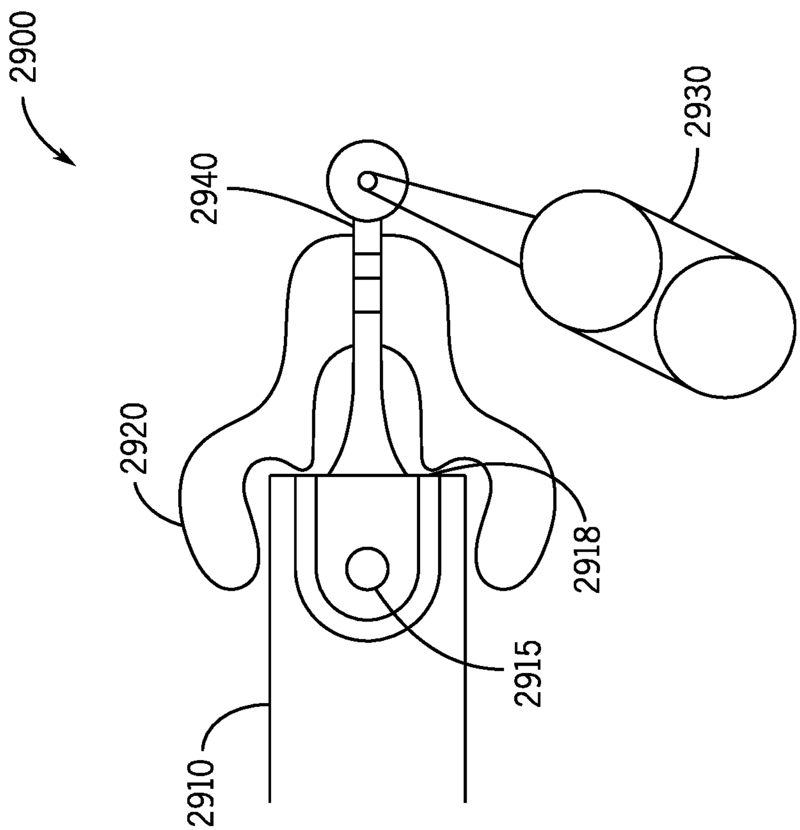


FIG. 29

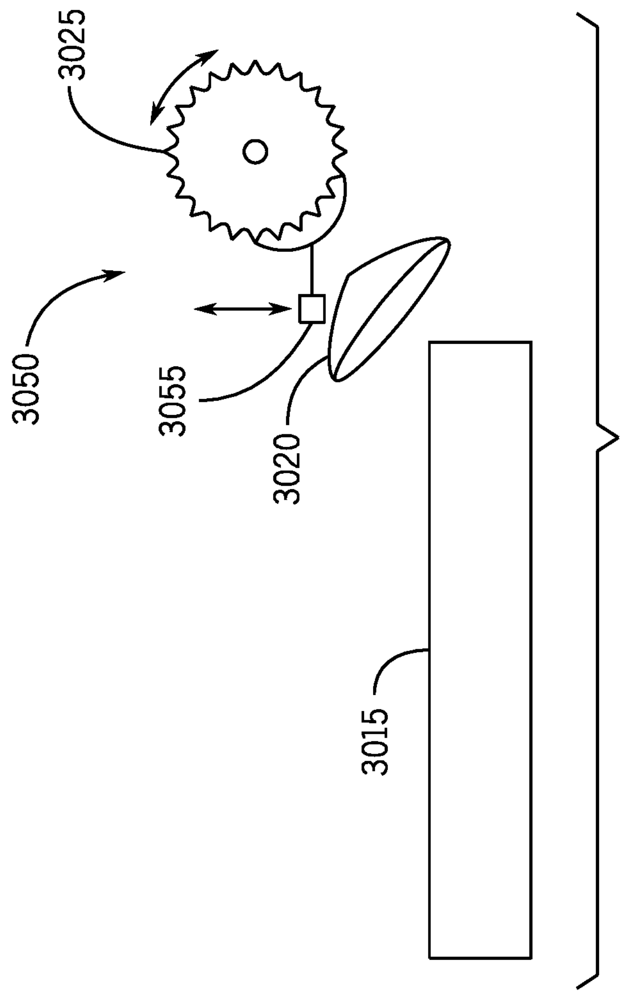


FIG. 30B

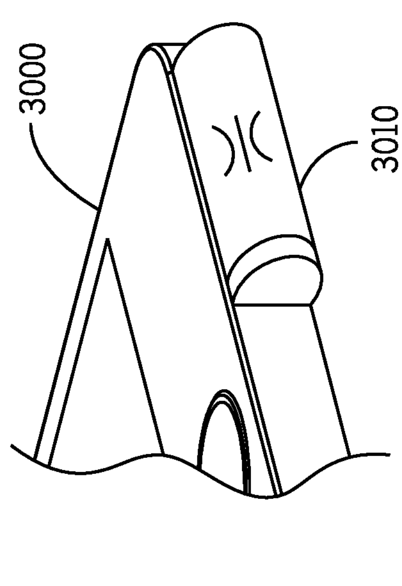


FIG. 30A

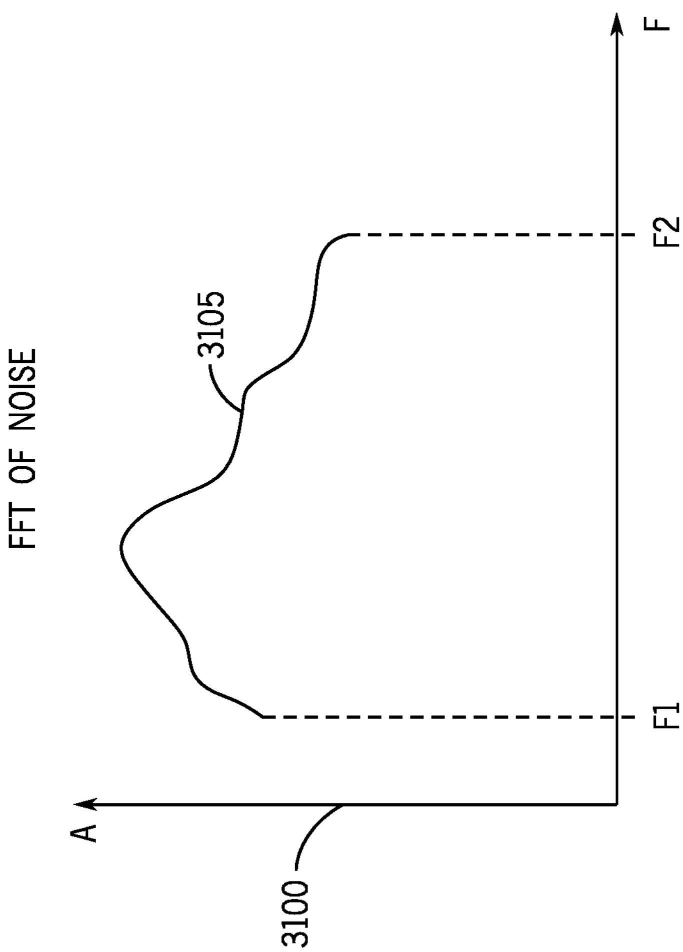


FIG. 31

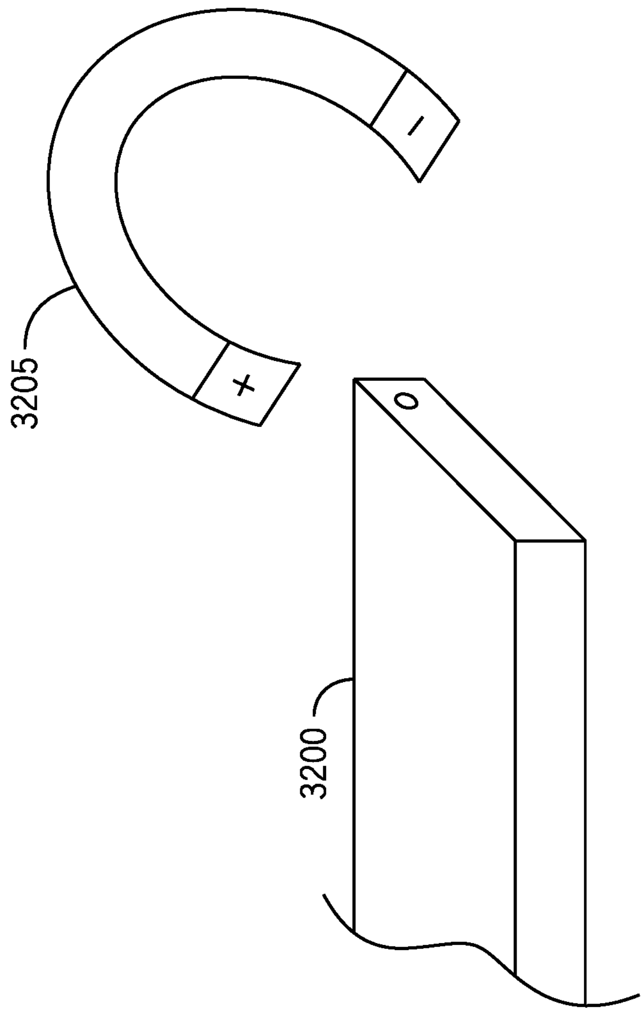


FIG. 32

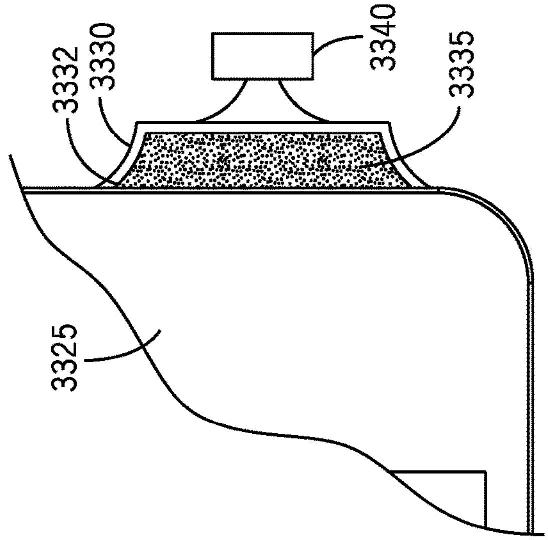


FIG. 33B

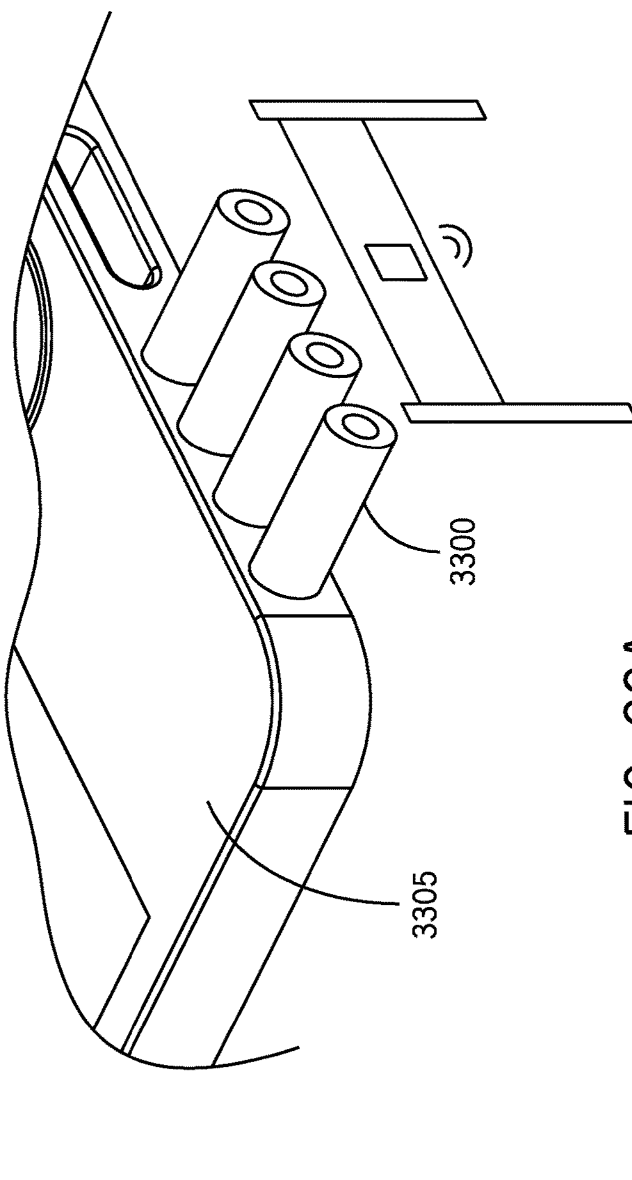


FIG. 33A

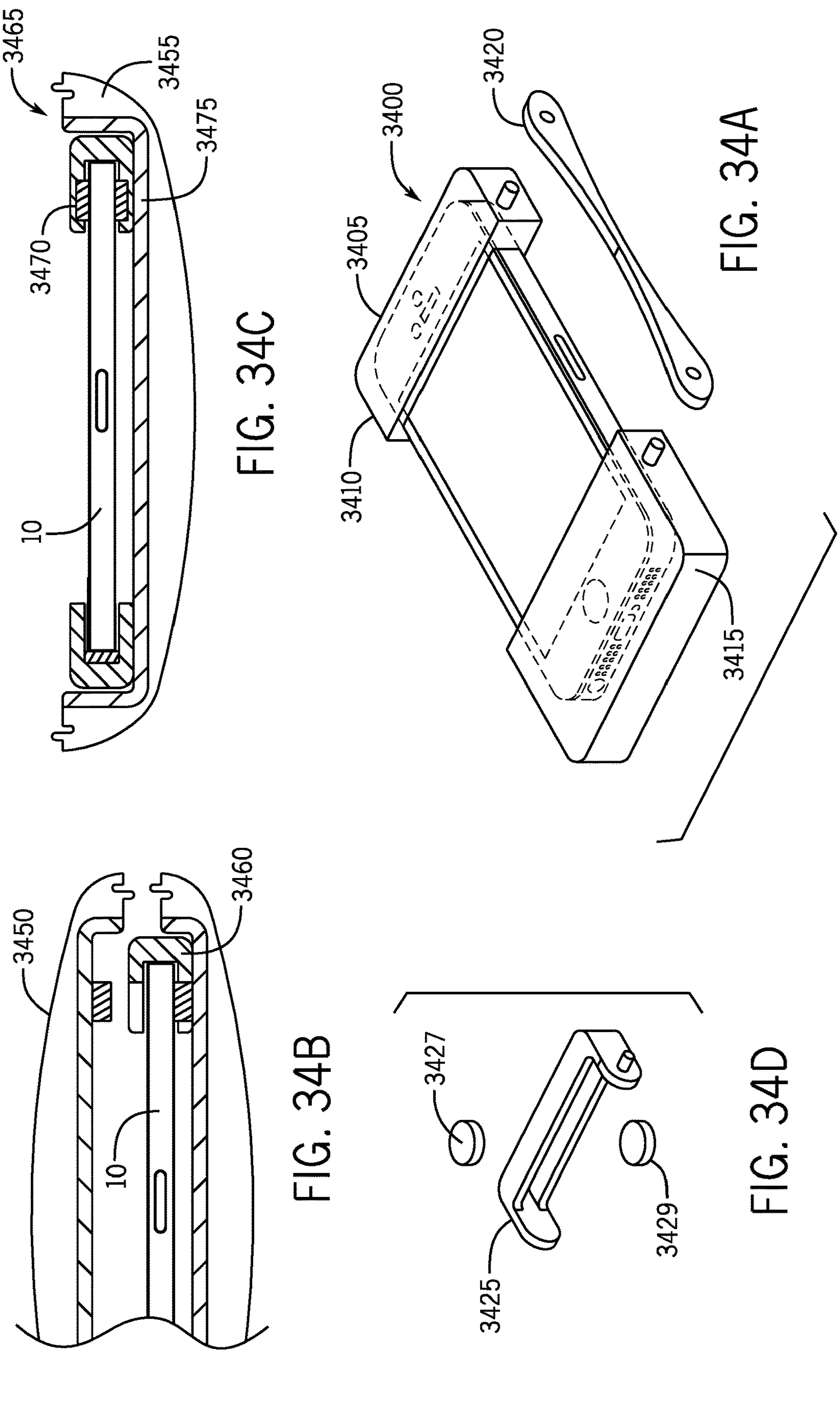


FIG. 34C

FIG. 34A

FIG. 34B

FIG. 34D

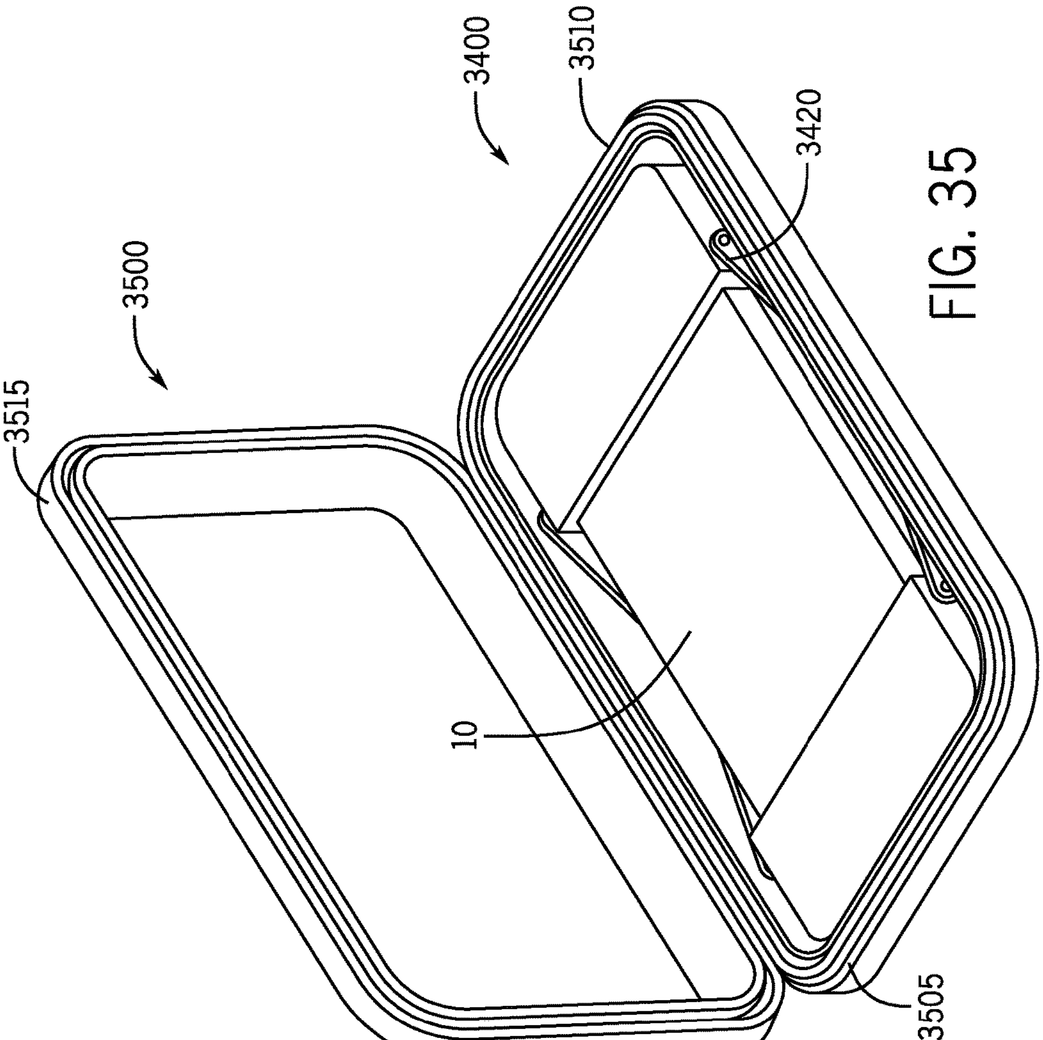


FIG. 35

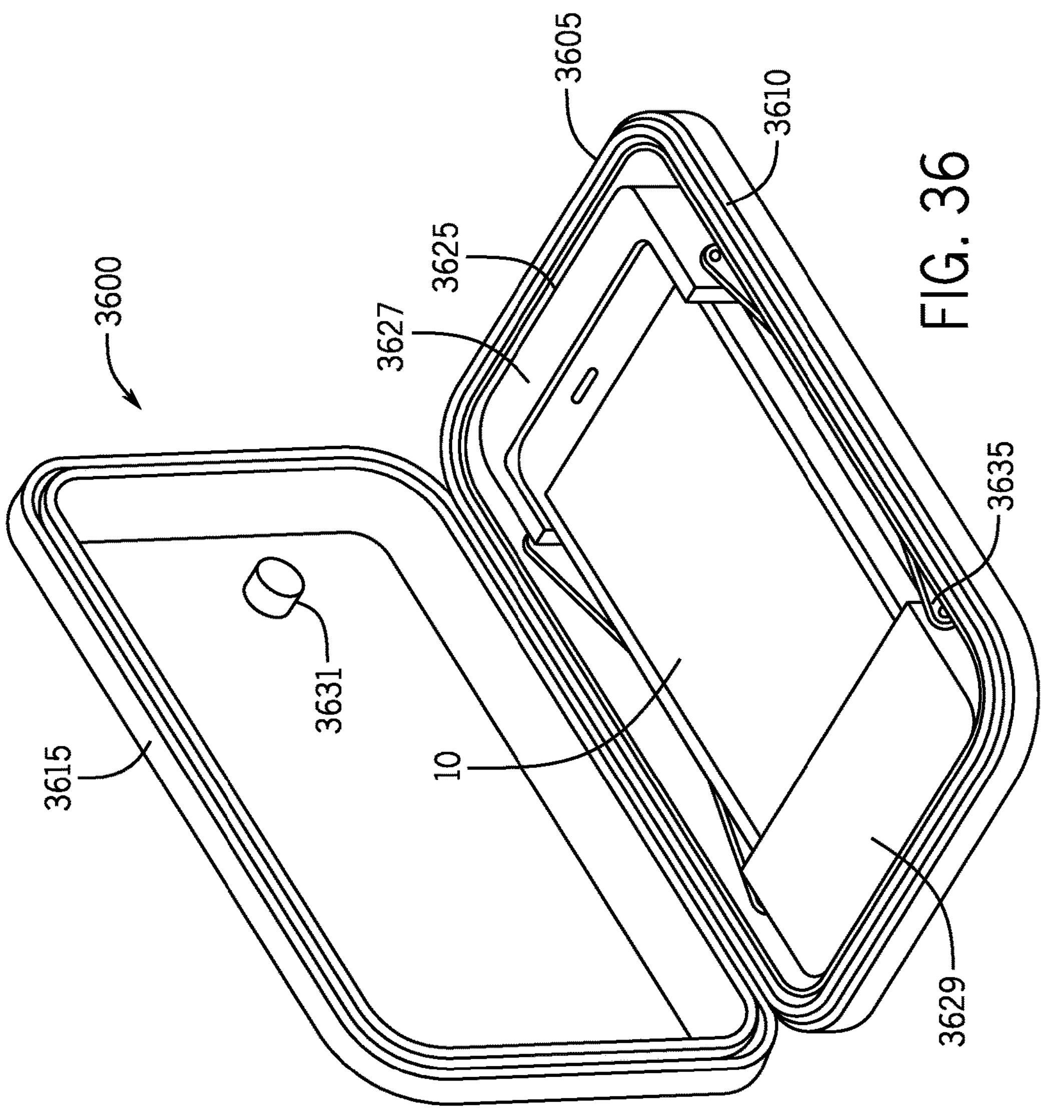


FIG. 36

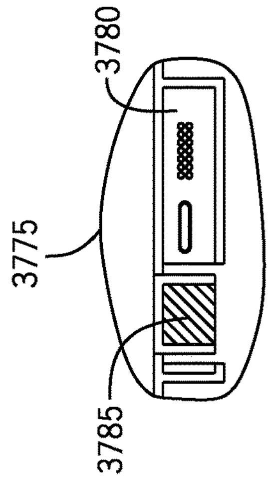


FIG. 37C

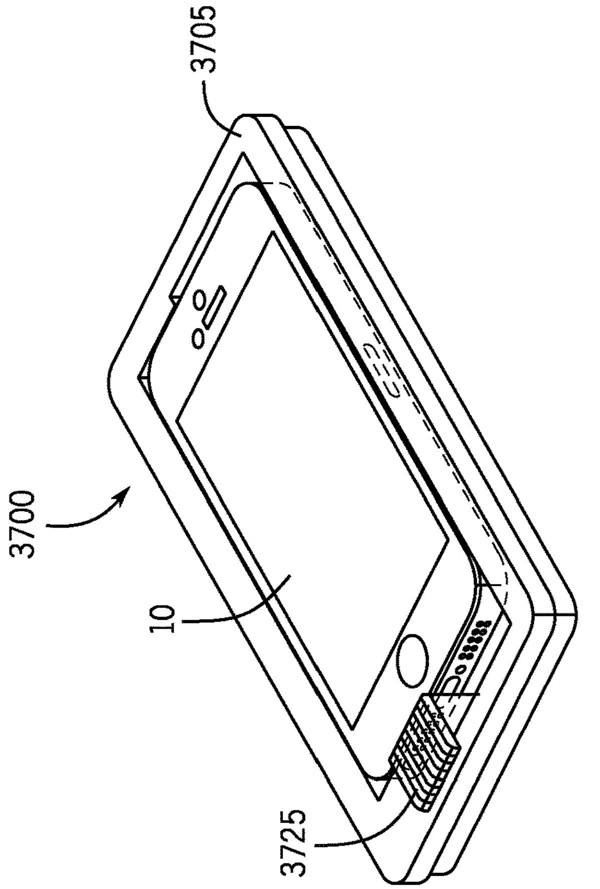


FIG. 37B

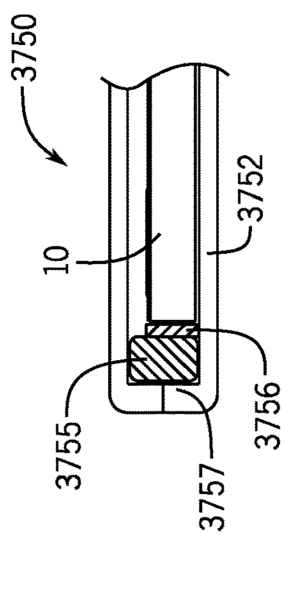


FIG. 37A

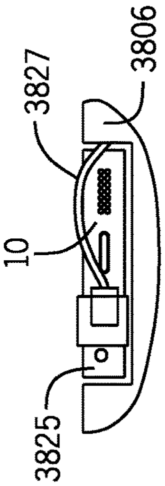


FIG. 38C

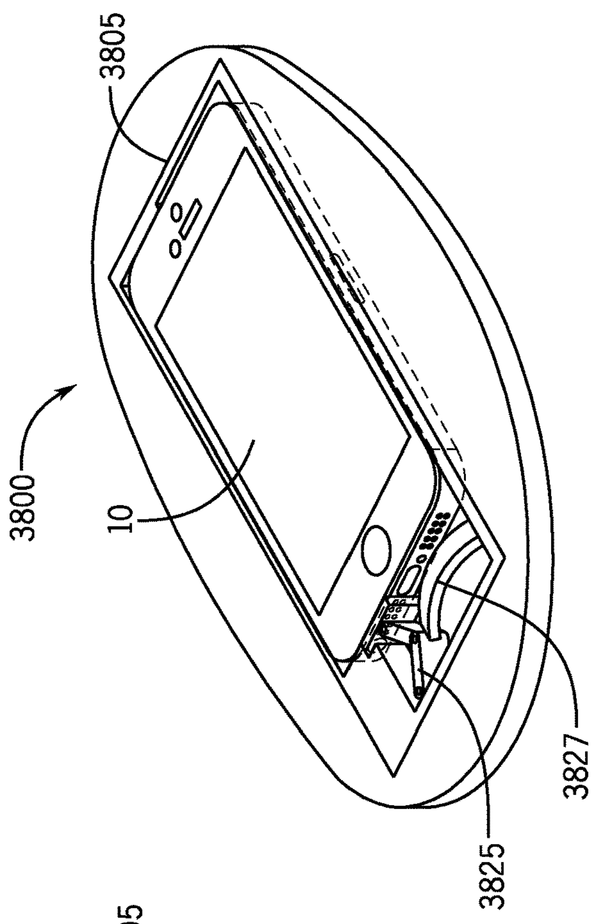


FIG. 38A

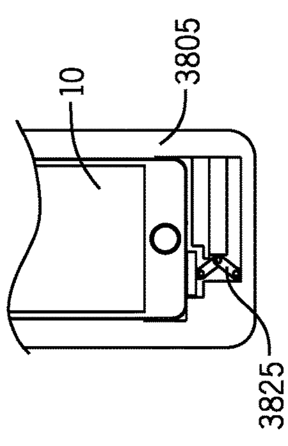


FIG. 38B

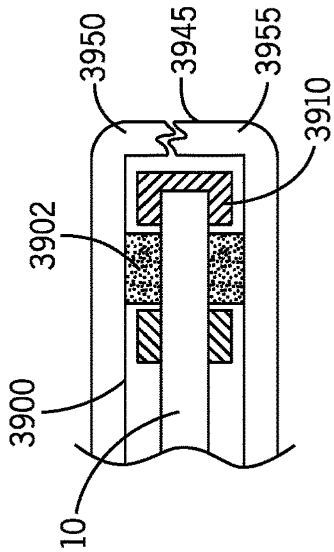


FIG. 39C

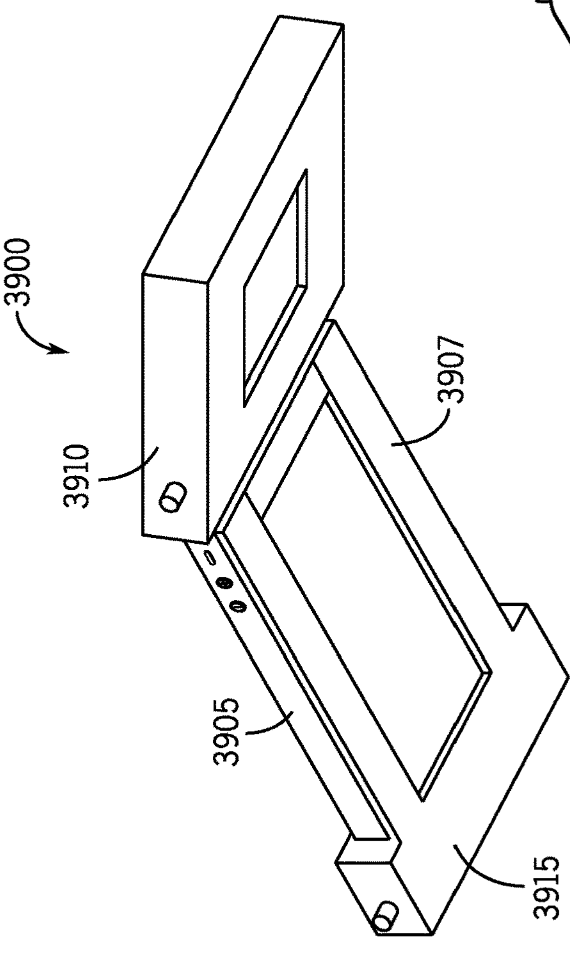


FIG. 39B

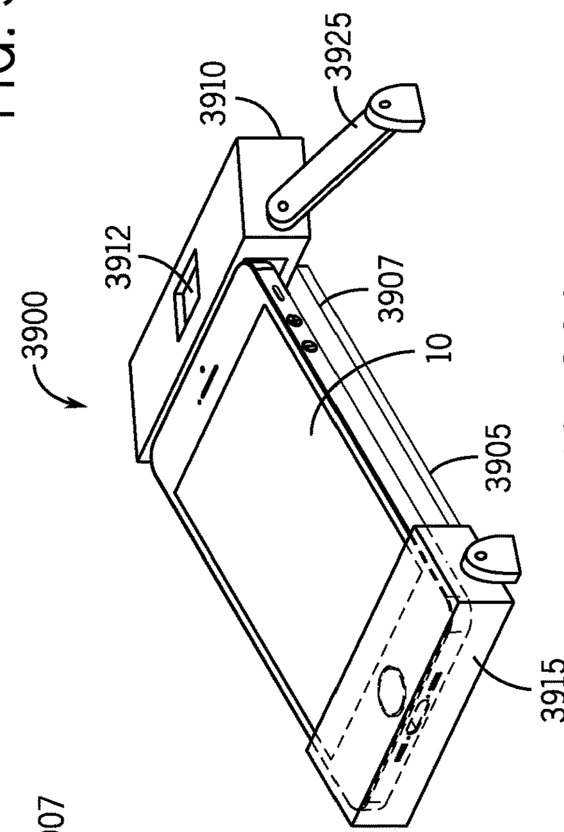


FIG. 39A

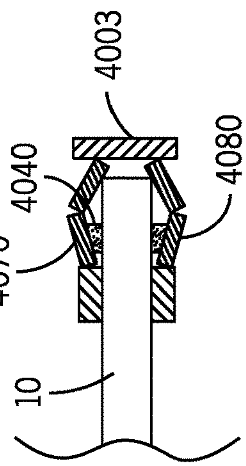


FIG. 40C

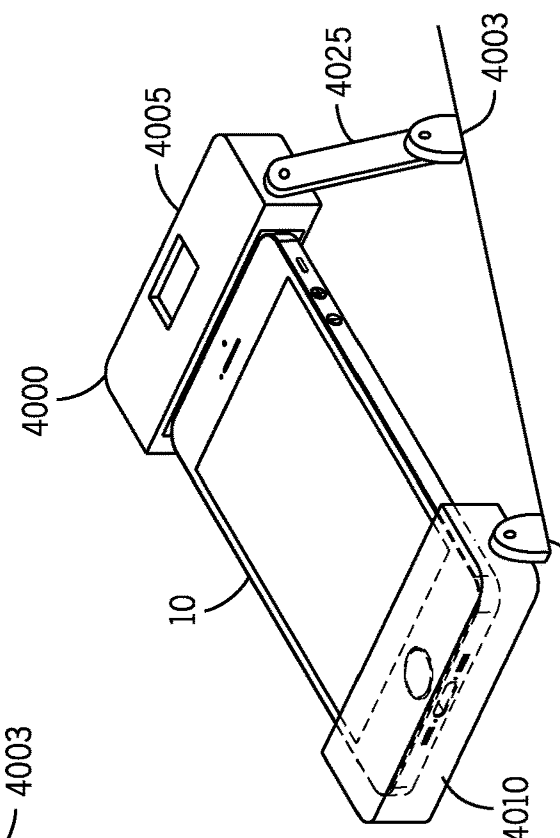


FIG. 40A

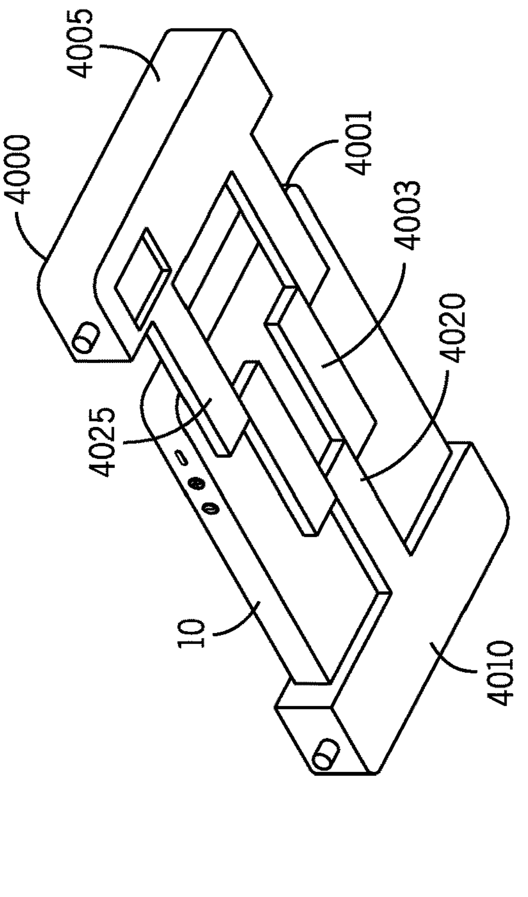


FIG. 40B

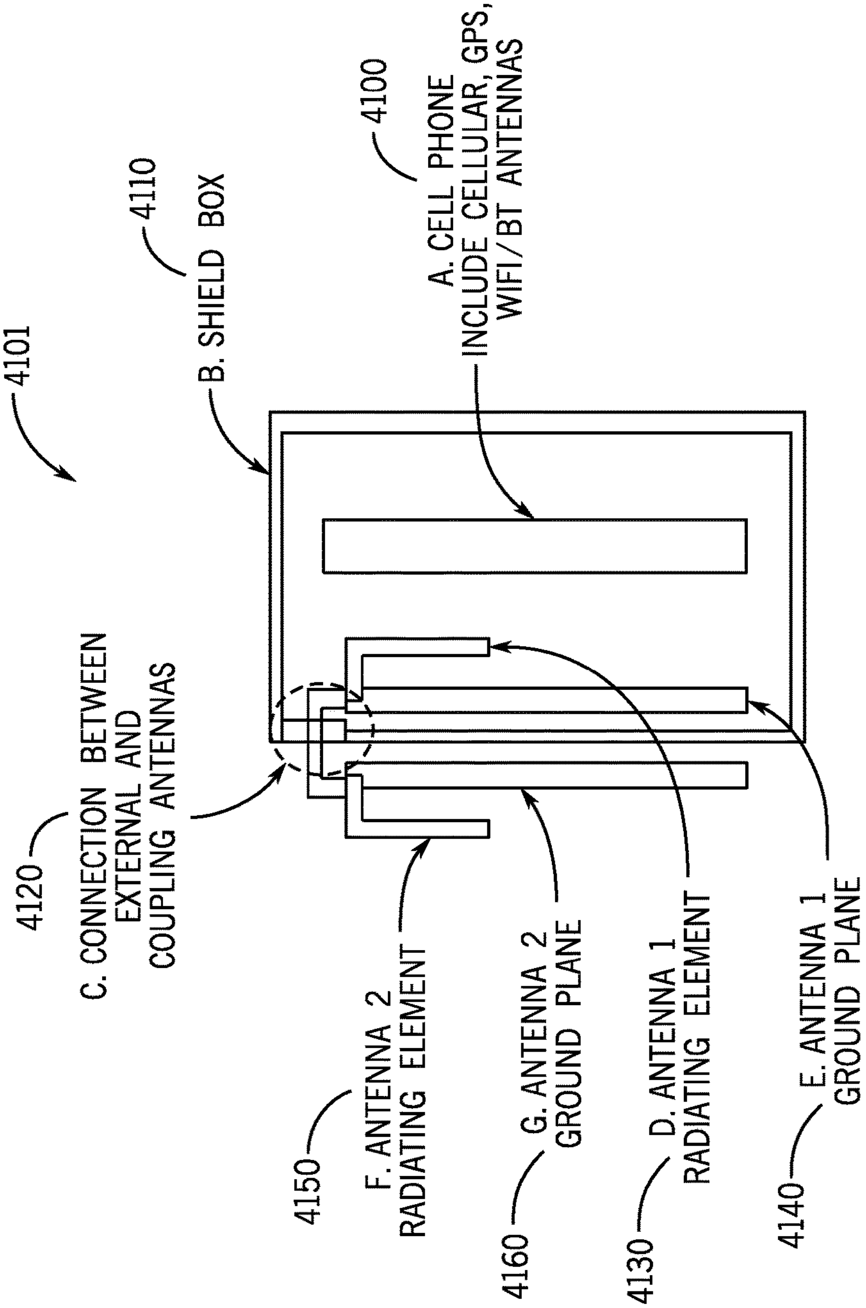

4101
4110
B. SHIELD BOX
4100
A. CELL PHONE
INCLUDE CELLULAR, GPS,
WIFI/BT ANTENNAS
4120
C. CONNECTION BETWEEN
EXTERNAL AND
COUPLING ANTENNAS
4150
F. ANTENNA 2
RADIATING ELEMENT
4160
G. ANTENNA 2
GROUND PLANE
4130
D. ANTENNA 1
RADIATING ELEMENT
4140
E. ANTENNA 1
GROUND PLANE

FIG. 41

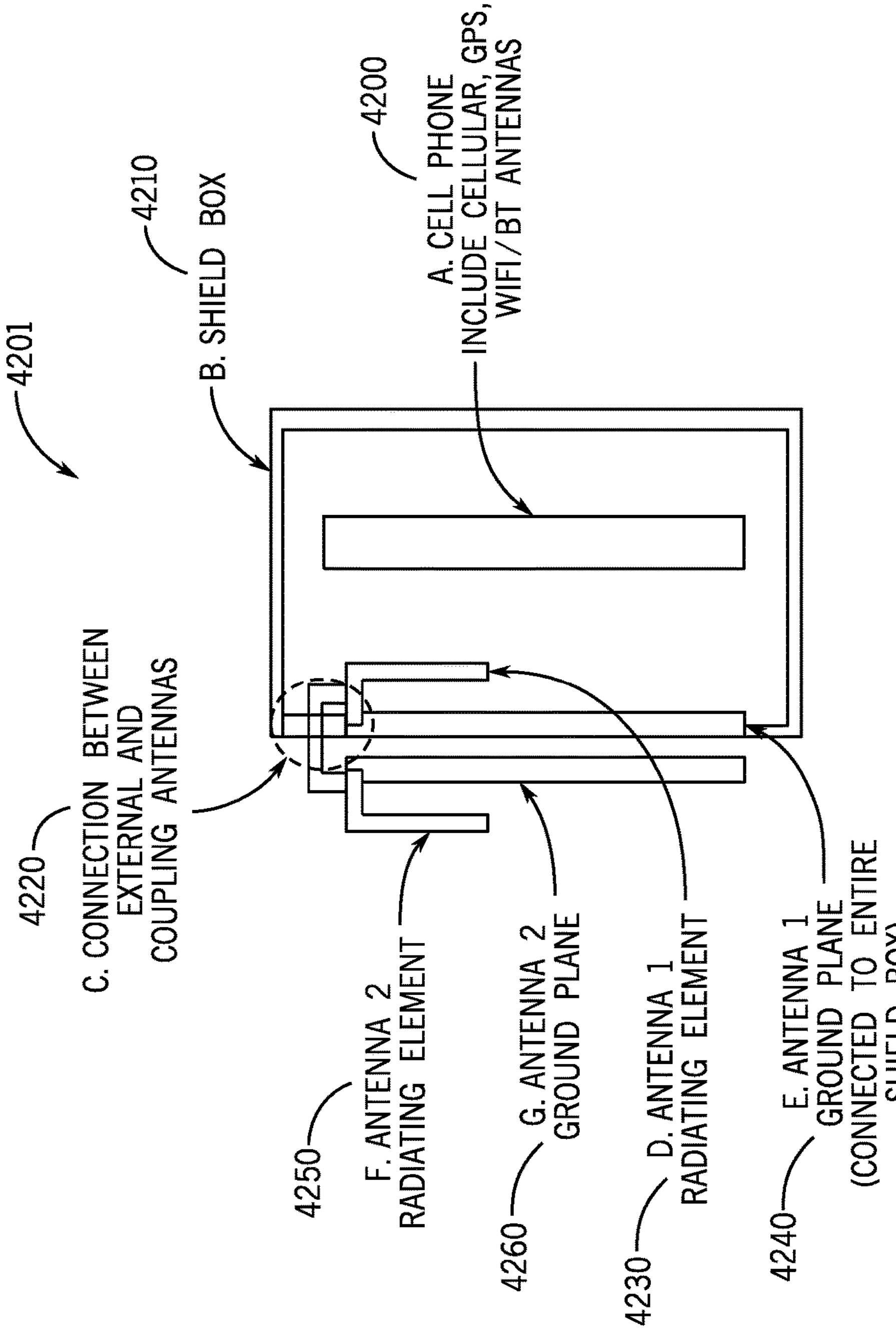

4201
4210
B. SHIELD BOX
4200
A. CELL PHONE
INCLUDE CELLULAR, GPS,
WIFI/BT ANTENNAS
4220
C. CONNECTION BETWEEN
EXTERNAL AND
COUPLING ANTENNAS
4250
F. ANTENNA 2
RADIATING ELEMENT
4260
G. ANTENNA 2
GROUND PLANE
4230
D. ANTENNA 1
RADIATING ELEMENT
4240
E. ANTENNA 1
GROUND PLANE
(CONNECTED TO ENTIRE
SHIELD BOX)

FIG. 42

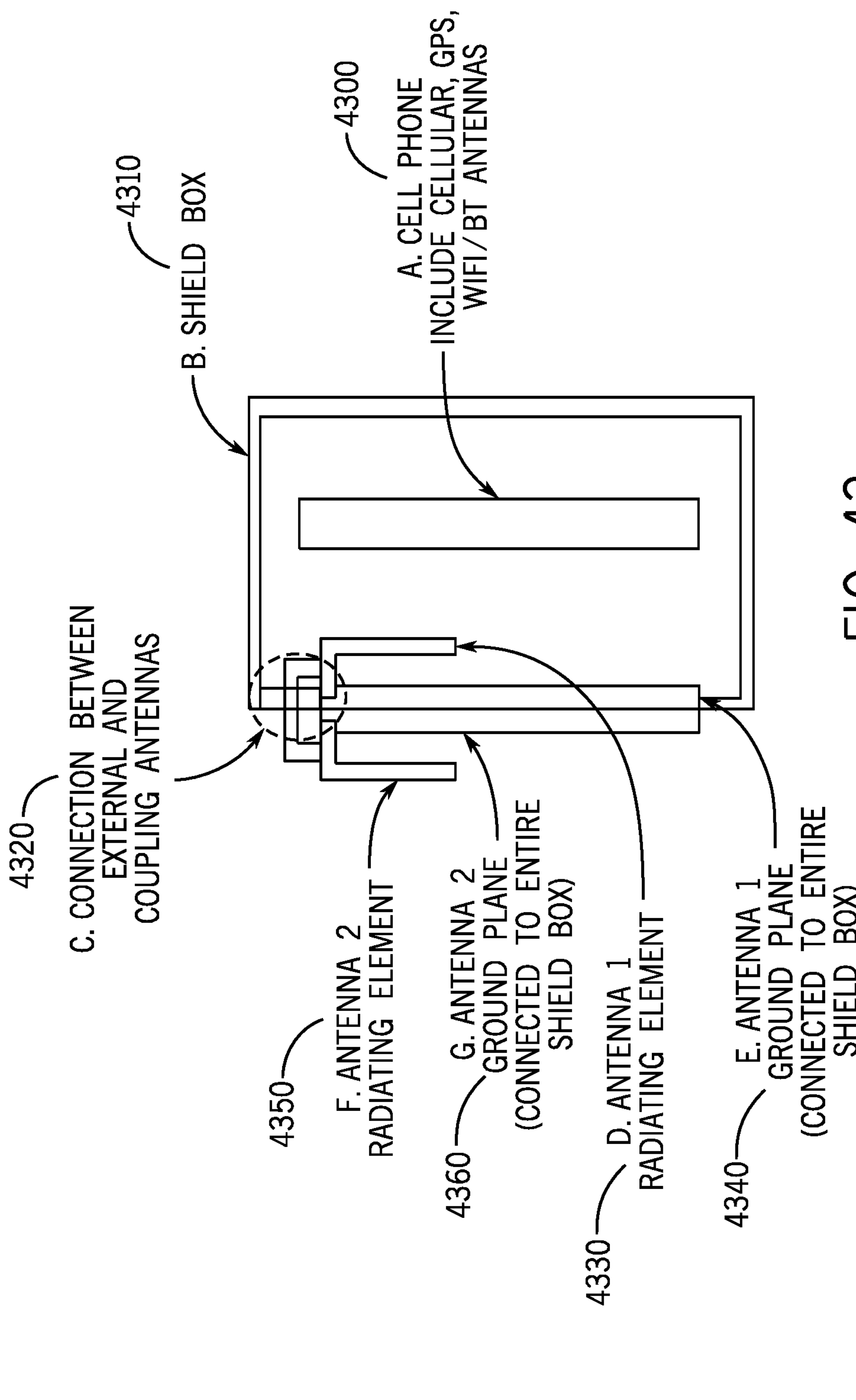

4310
B. SHIELD BOX
4300
A. CELL PHONE
INCLUDE CELLULAR, GPS,
WIFI/BT ANTENNAS
4320
C. CONNECTION BETWEEN
EXTERNAL AND
COUPLING ANTENNAS
4350
F. ANTENNA 2
RADIATING ELEMENT
4360
G. ANTENNA 2
GROUND PLANE
(CONNECTED TO ENTIRE
SHIELD BOX)
4330
D. ANTENNA 1
RADIATING ELEMENT
4340
E. ANTENNA 1
GROUND PLANE
(CONNECTED TO ENTIRE
SHIELD BOX)

FIG. 43

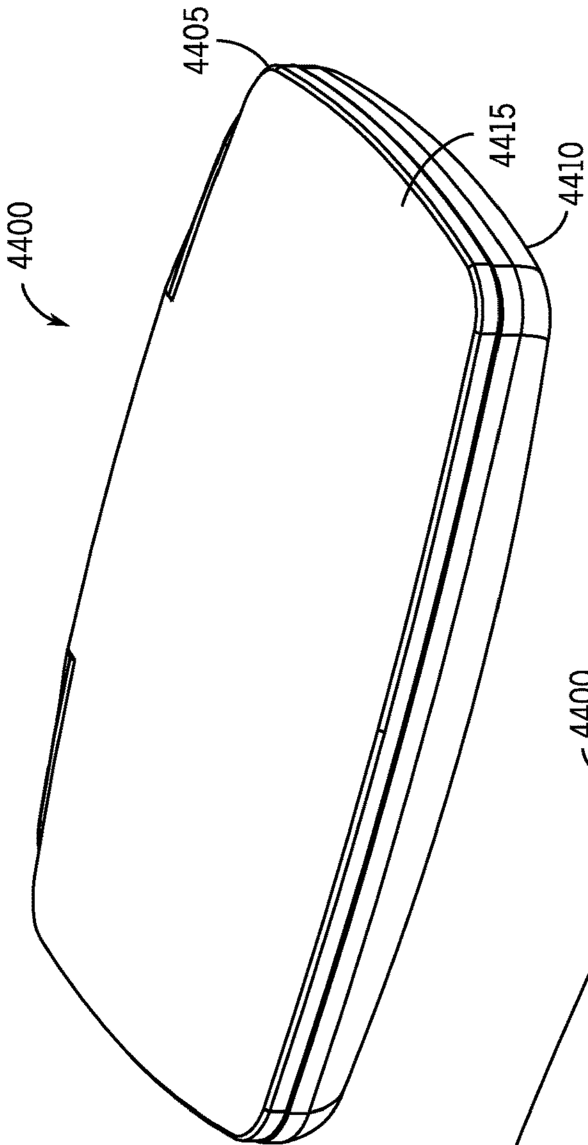


FIG. 44

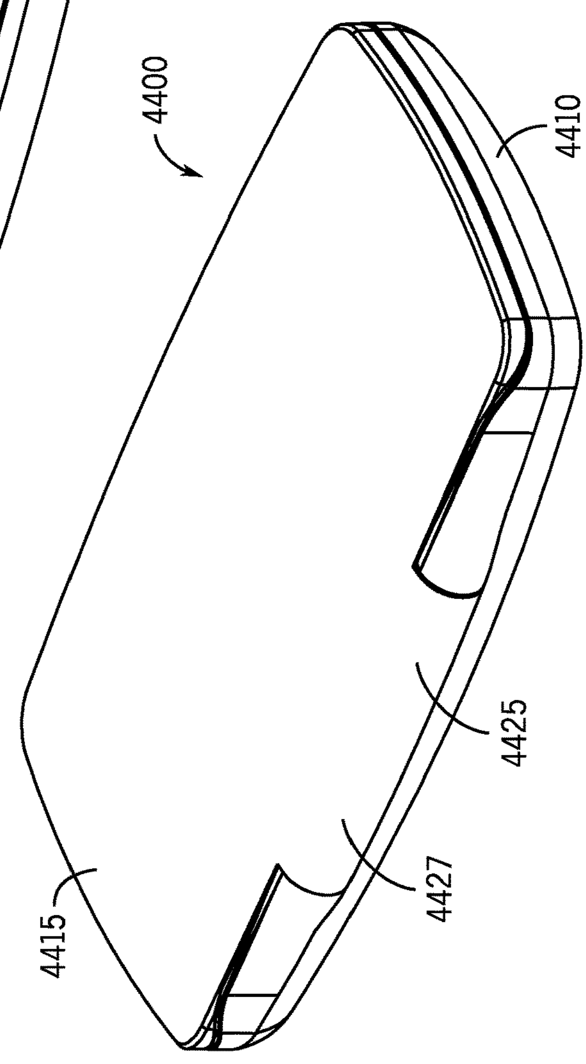


FIG. 45

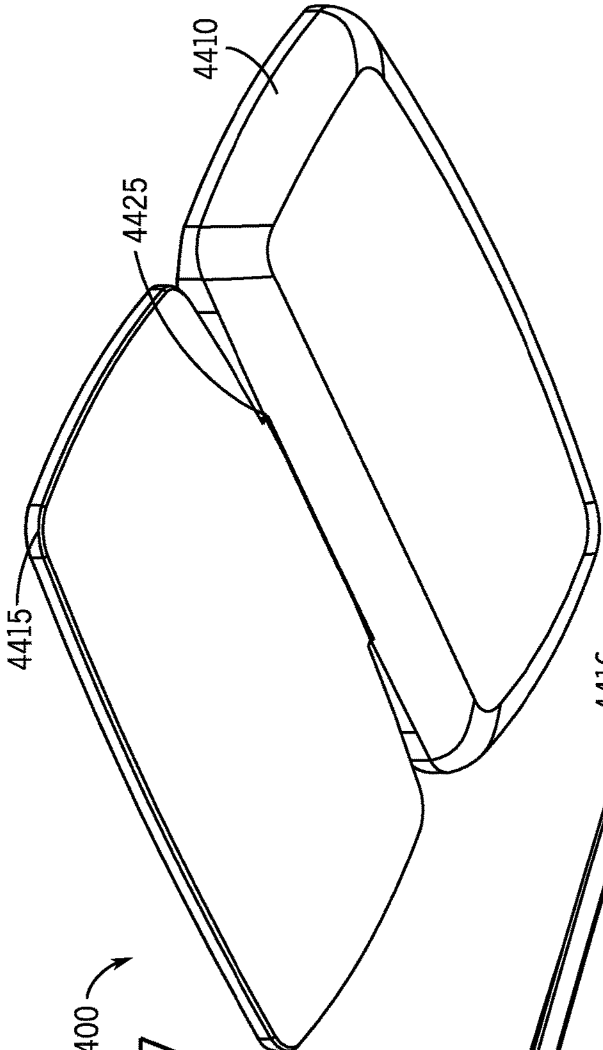


FIG. 47

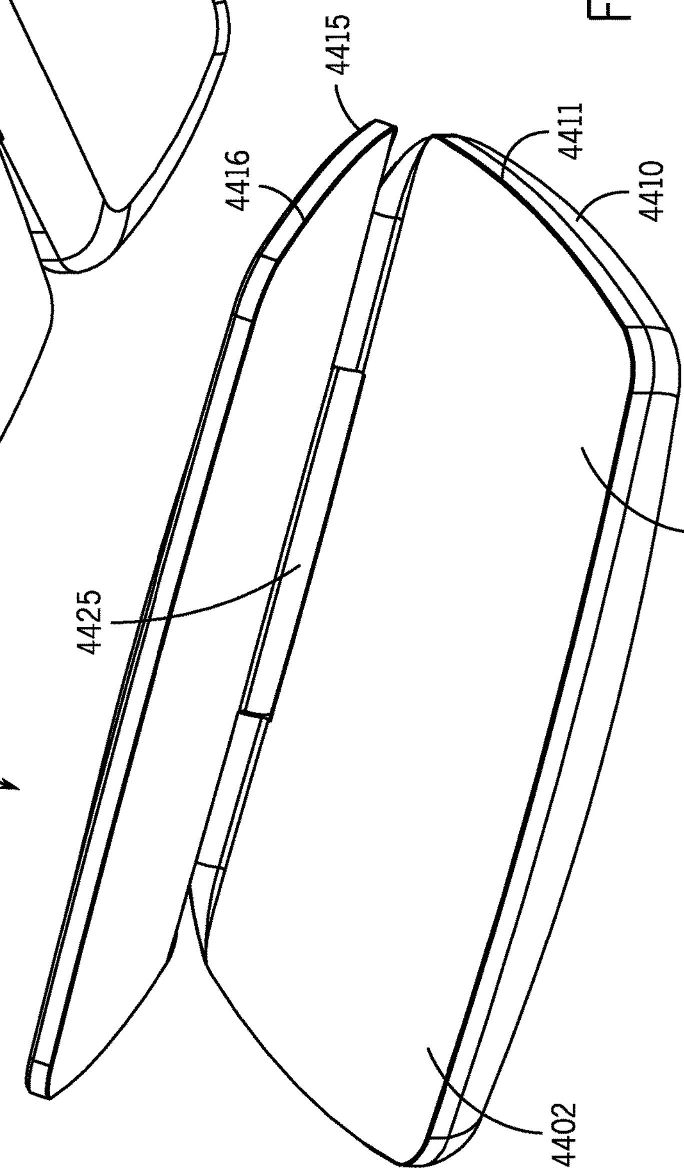


FIG. 46

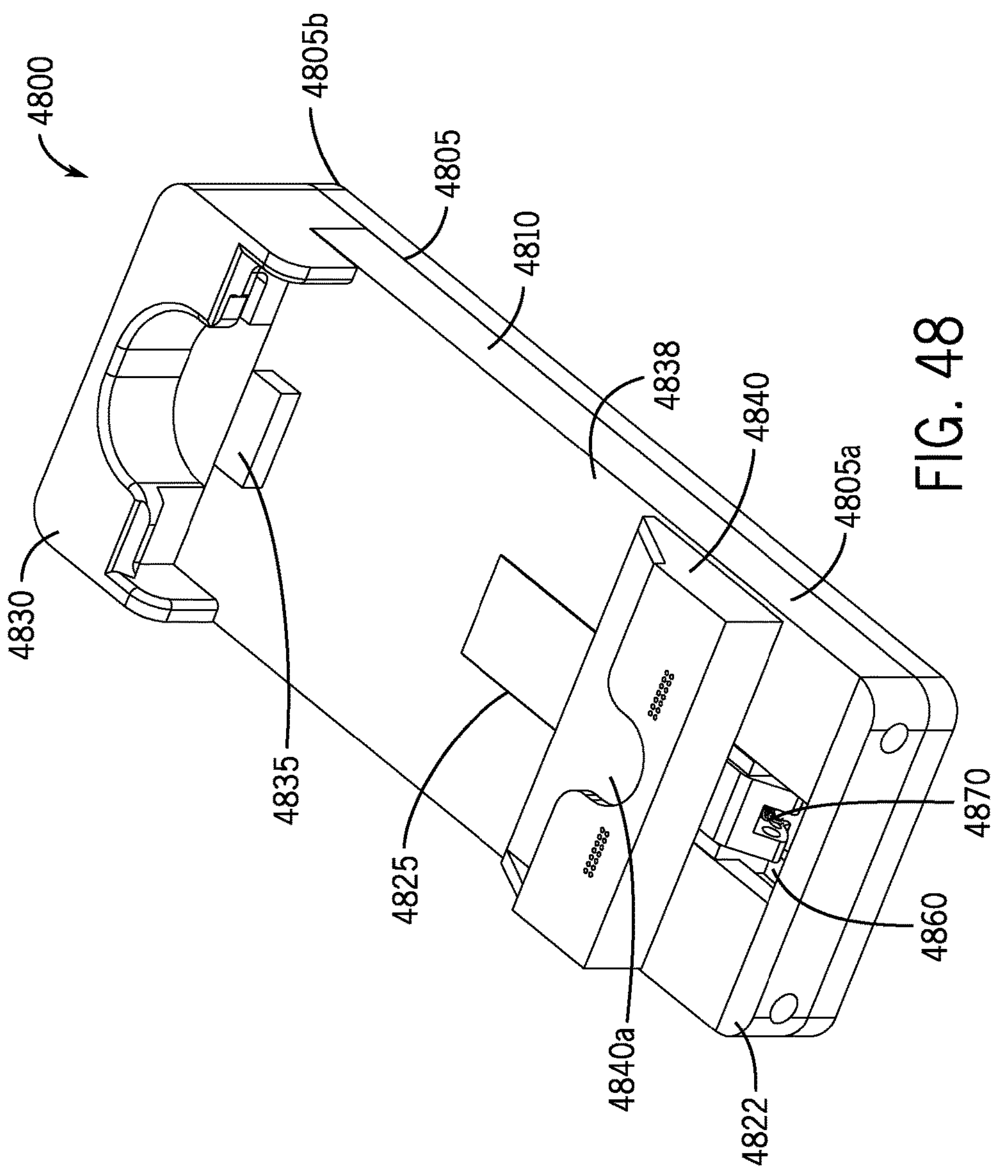

4800
4805b
4805
4810
4838
4840
4805a
4830
4835
4825
4840a
4822
4860
4870

FIG. 48

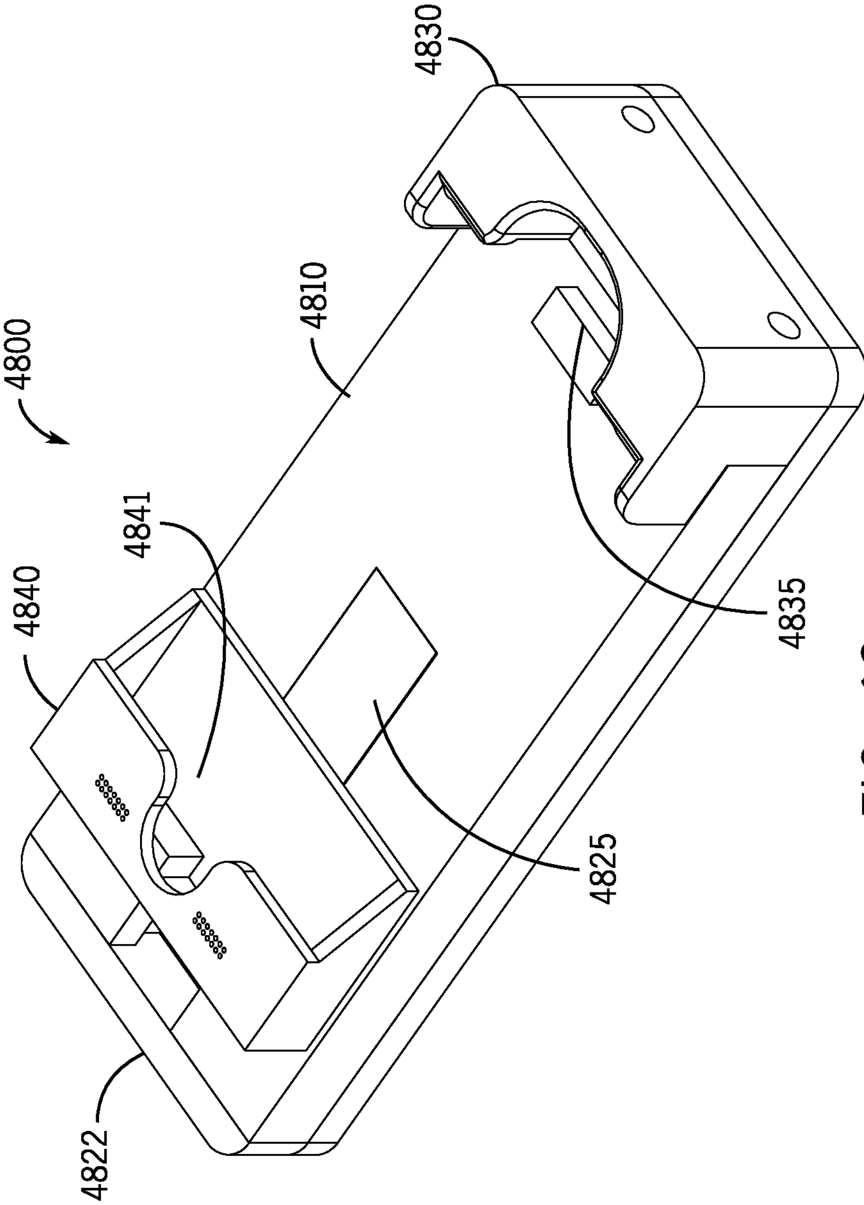


FIG. 49

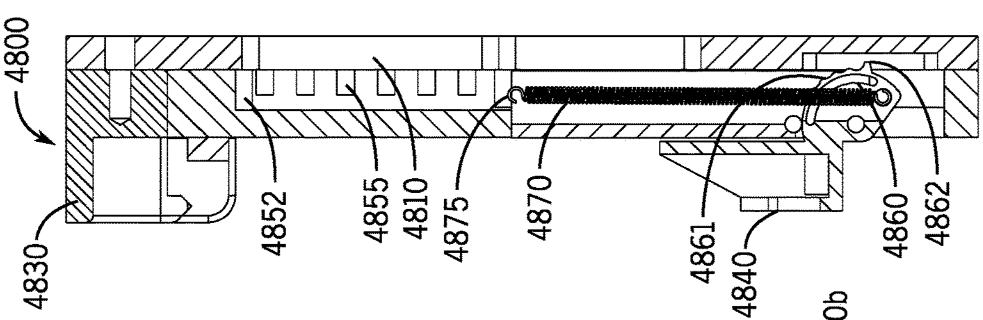


FIG. 52

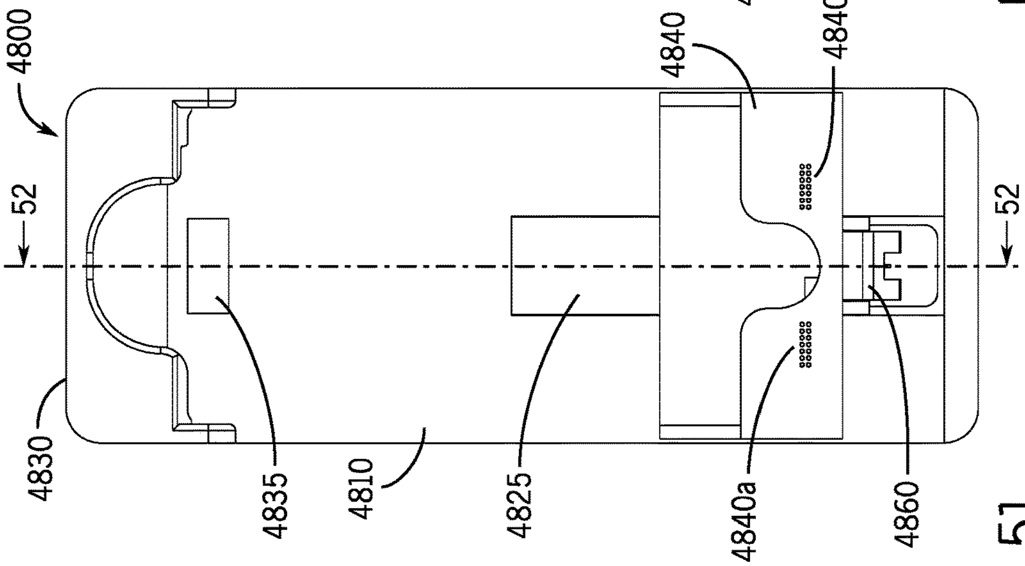


FIG. 51

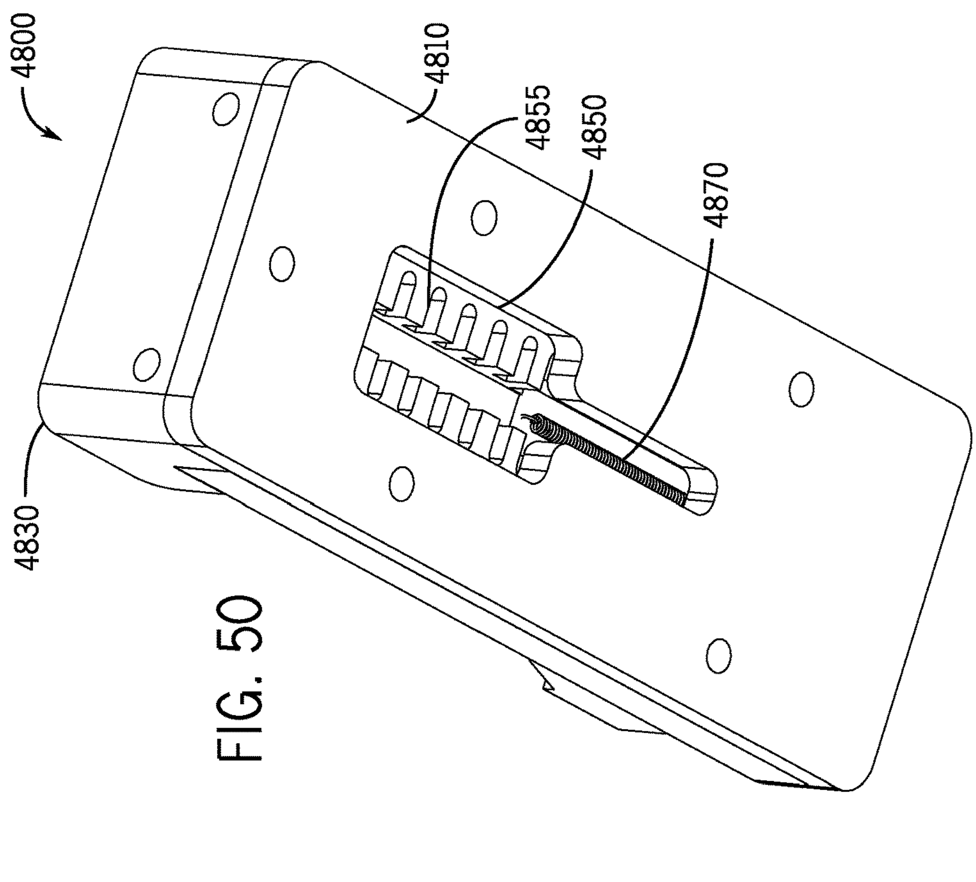


FIG. 50

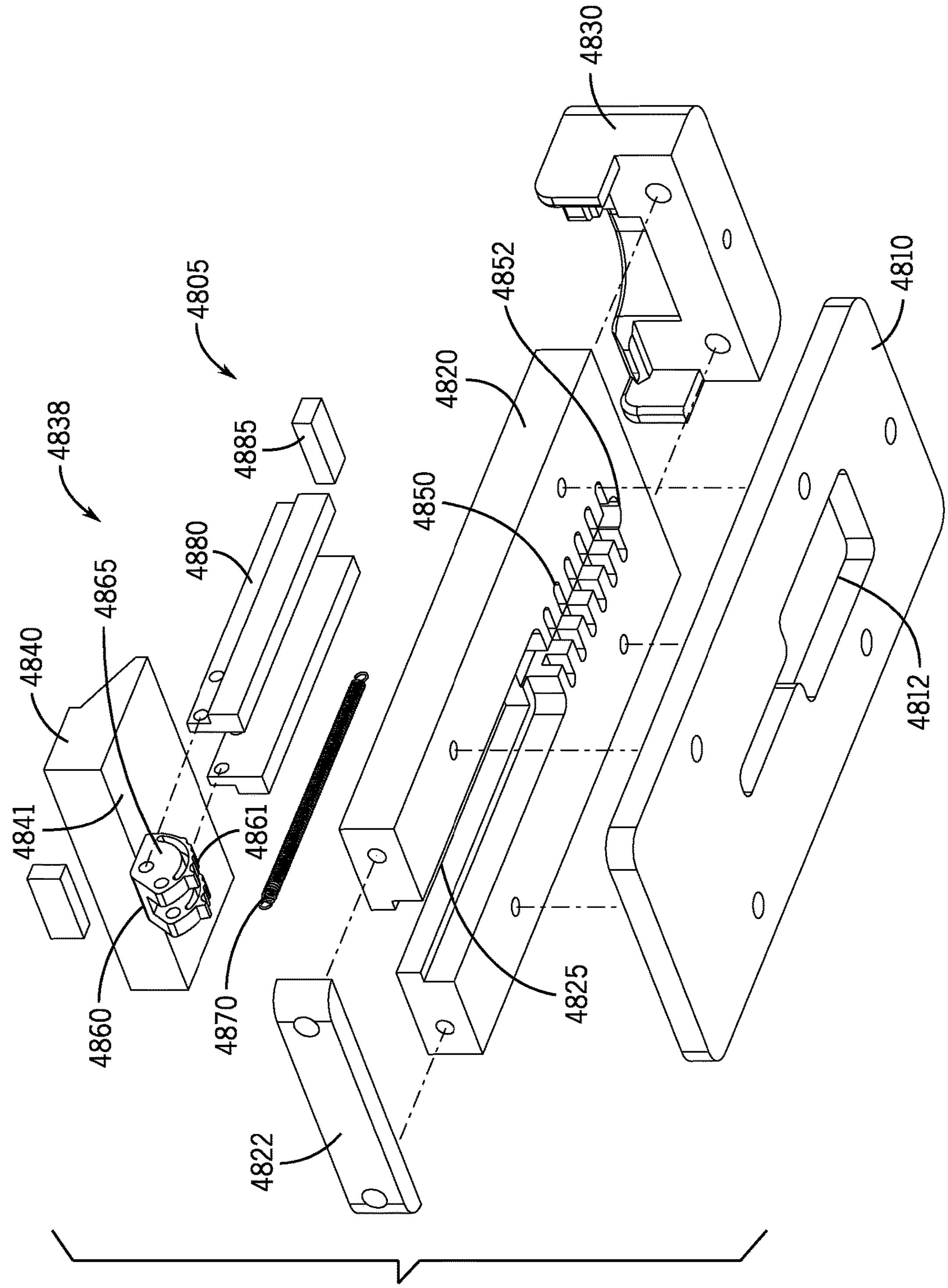

4830
4805
4852
4810
4820
4838
4885
4850
4880
4865
4840
4812
4841
4861
4860
4870
4825
4822

FIG. 53

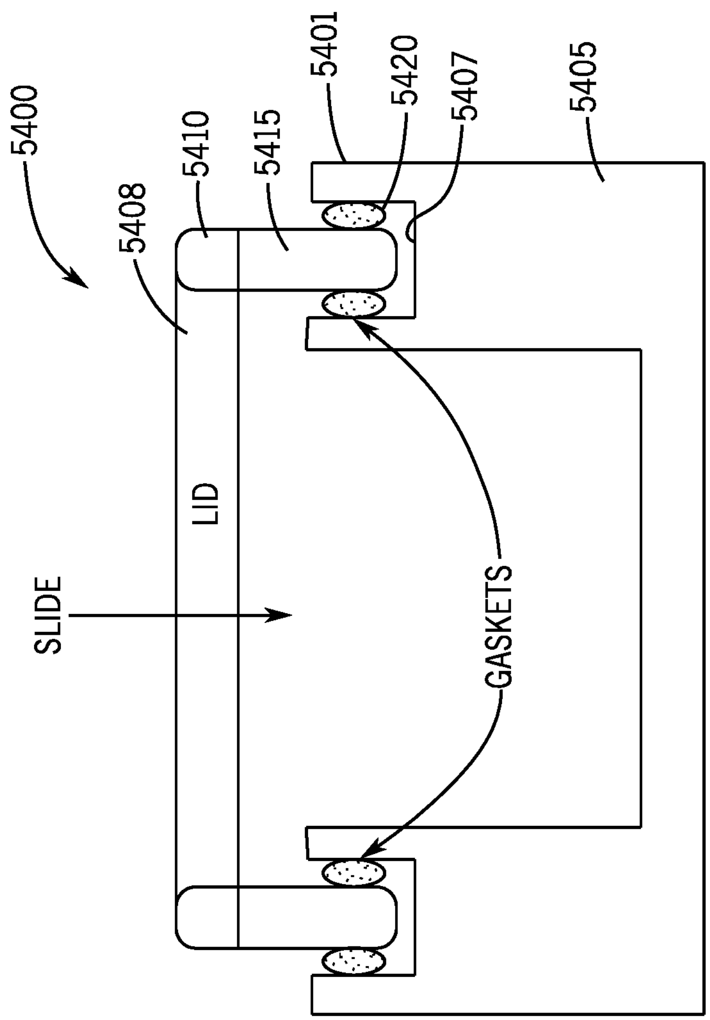


FIG. 54

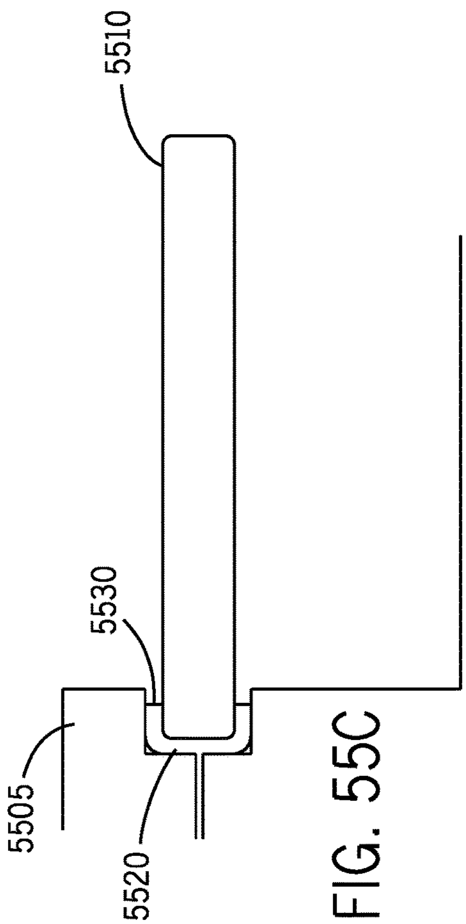


FIG. 55C

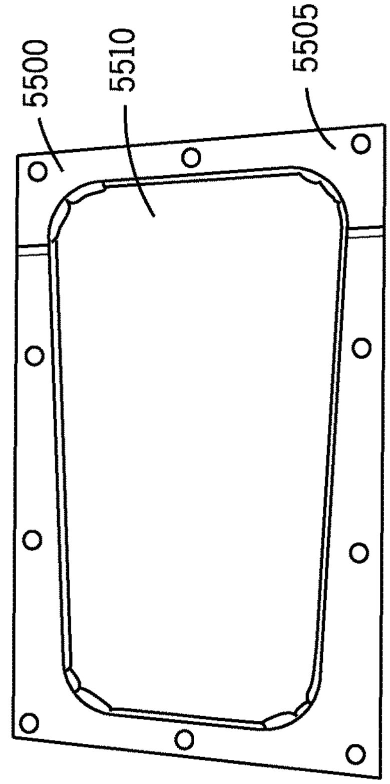


FIG. 55A

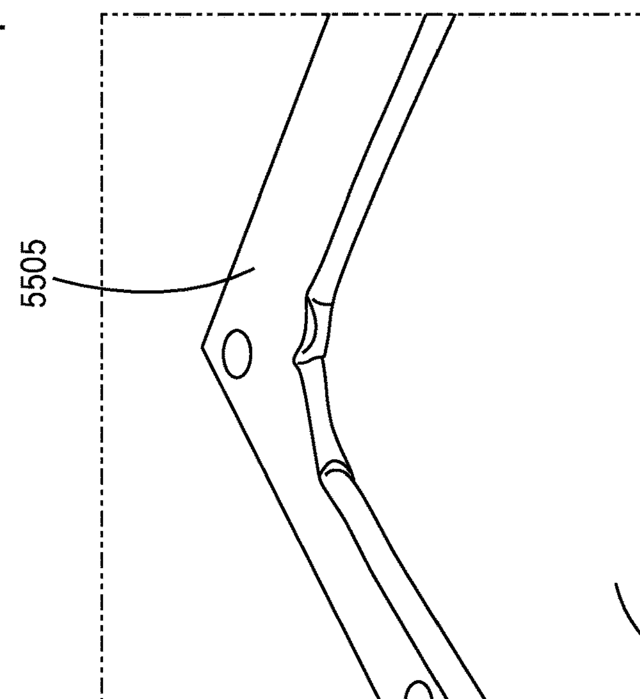


FIG. 55B

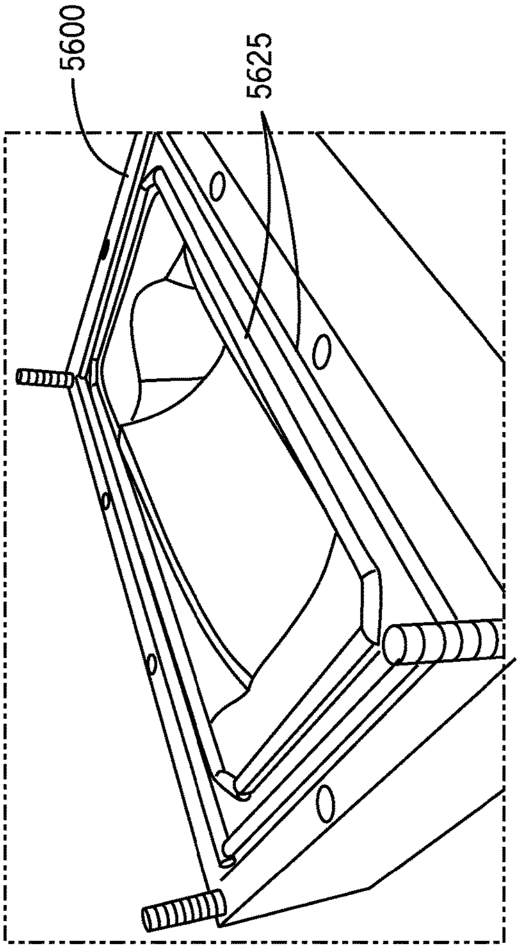


FIG. 56

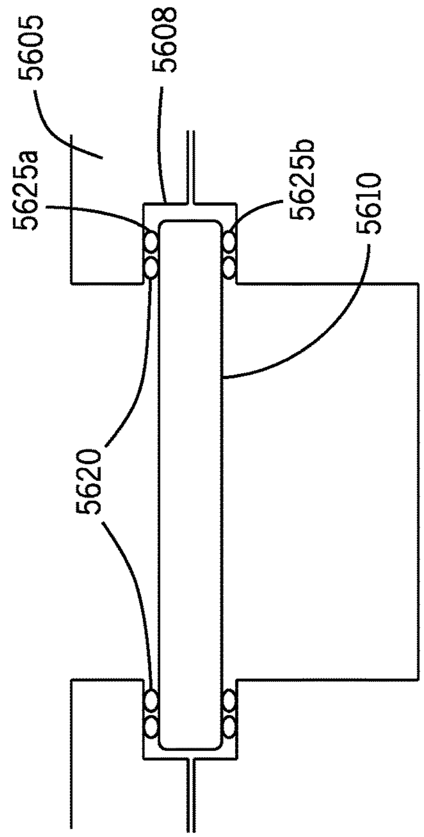


FIG. 57B

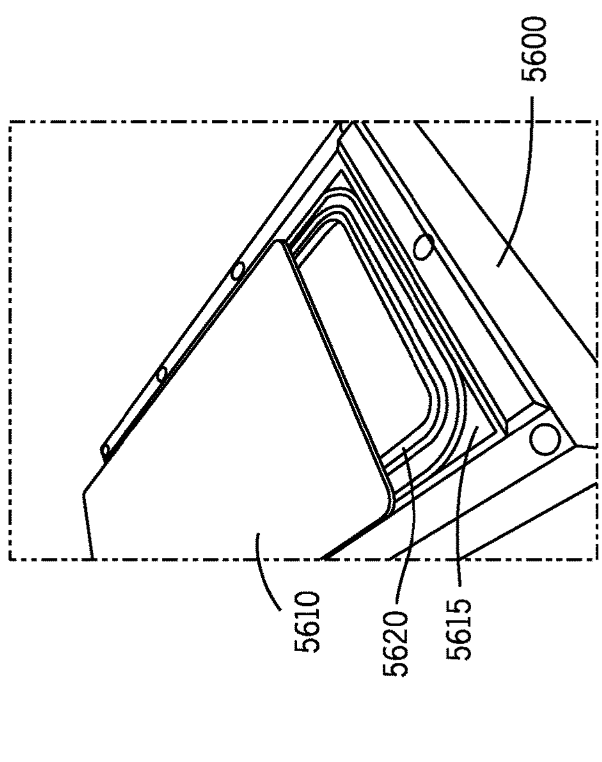


FIG. 57A

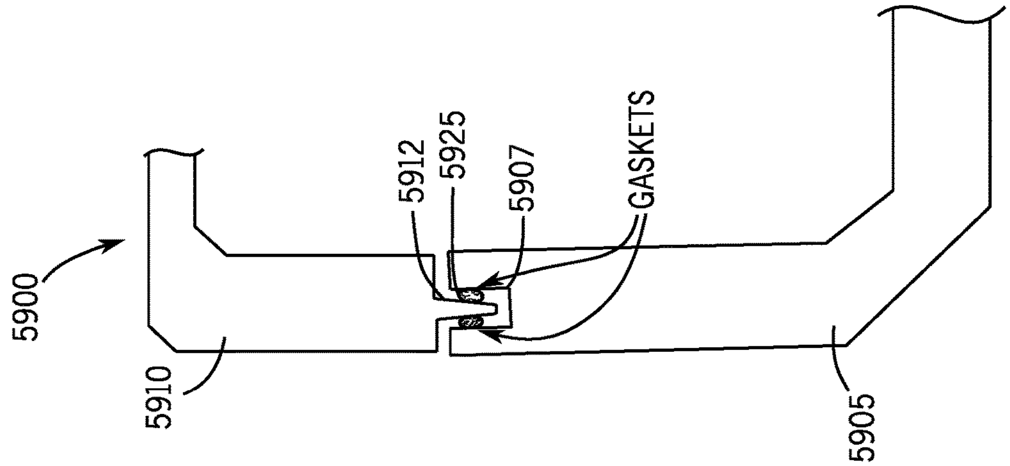

5900
5910
5912
5925
5907
GASKETS
5905

FIG. 59

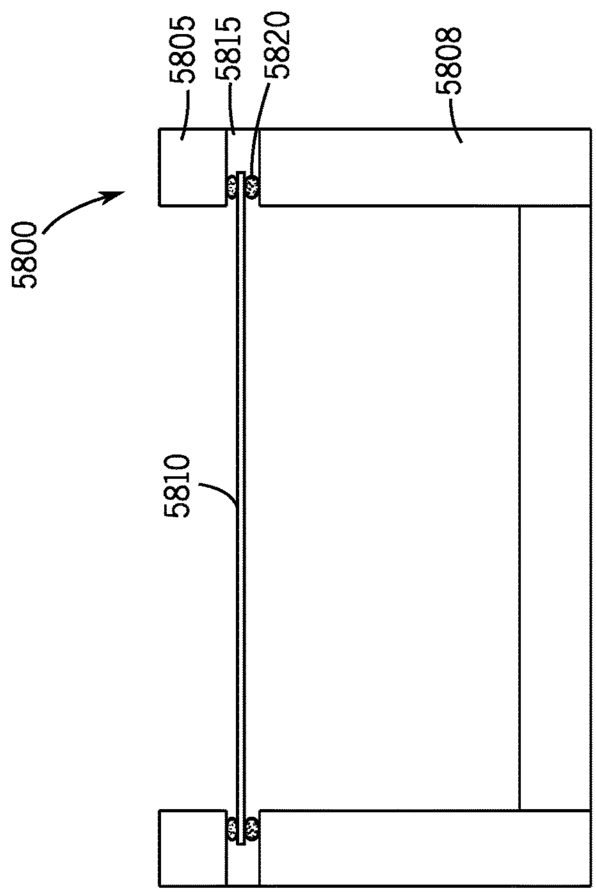

5800
5805
5815
5820
5808
5810

FIG. 58

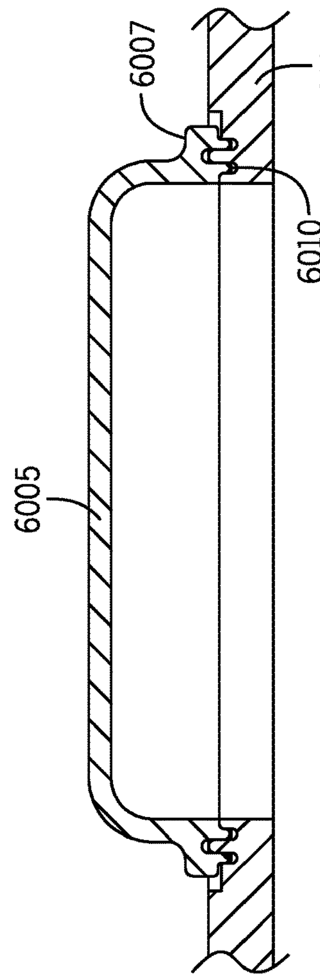


FIG. 60B

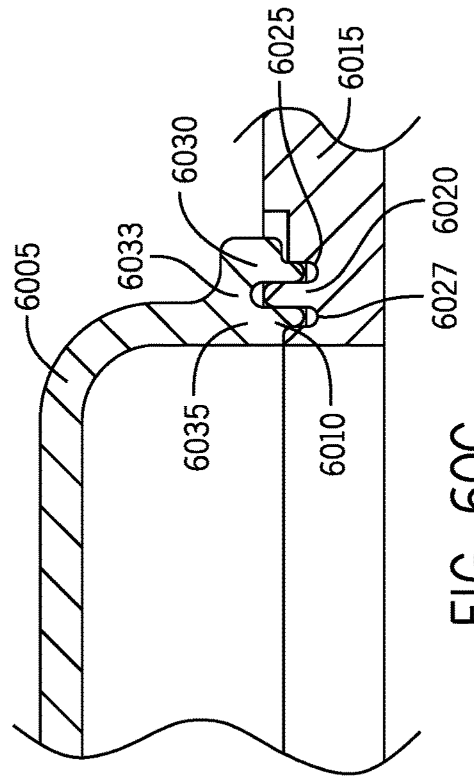


FIG. 60C

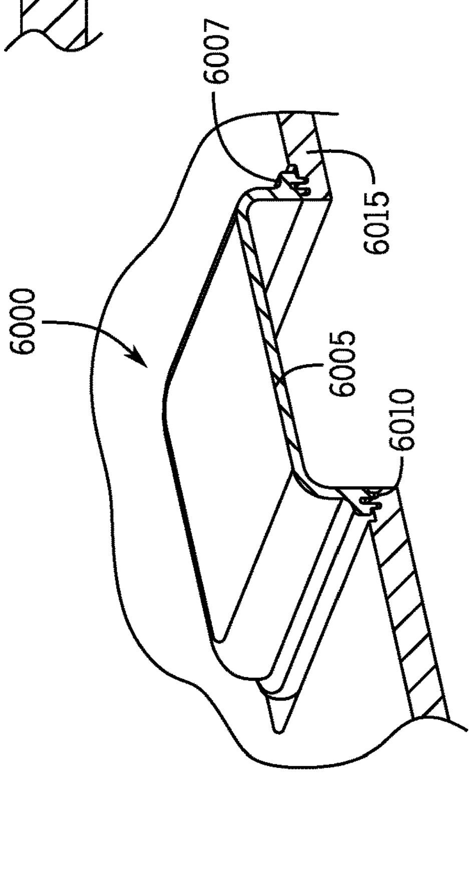


FIG. 60A

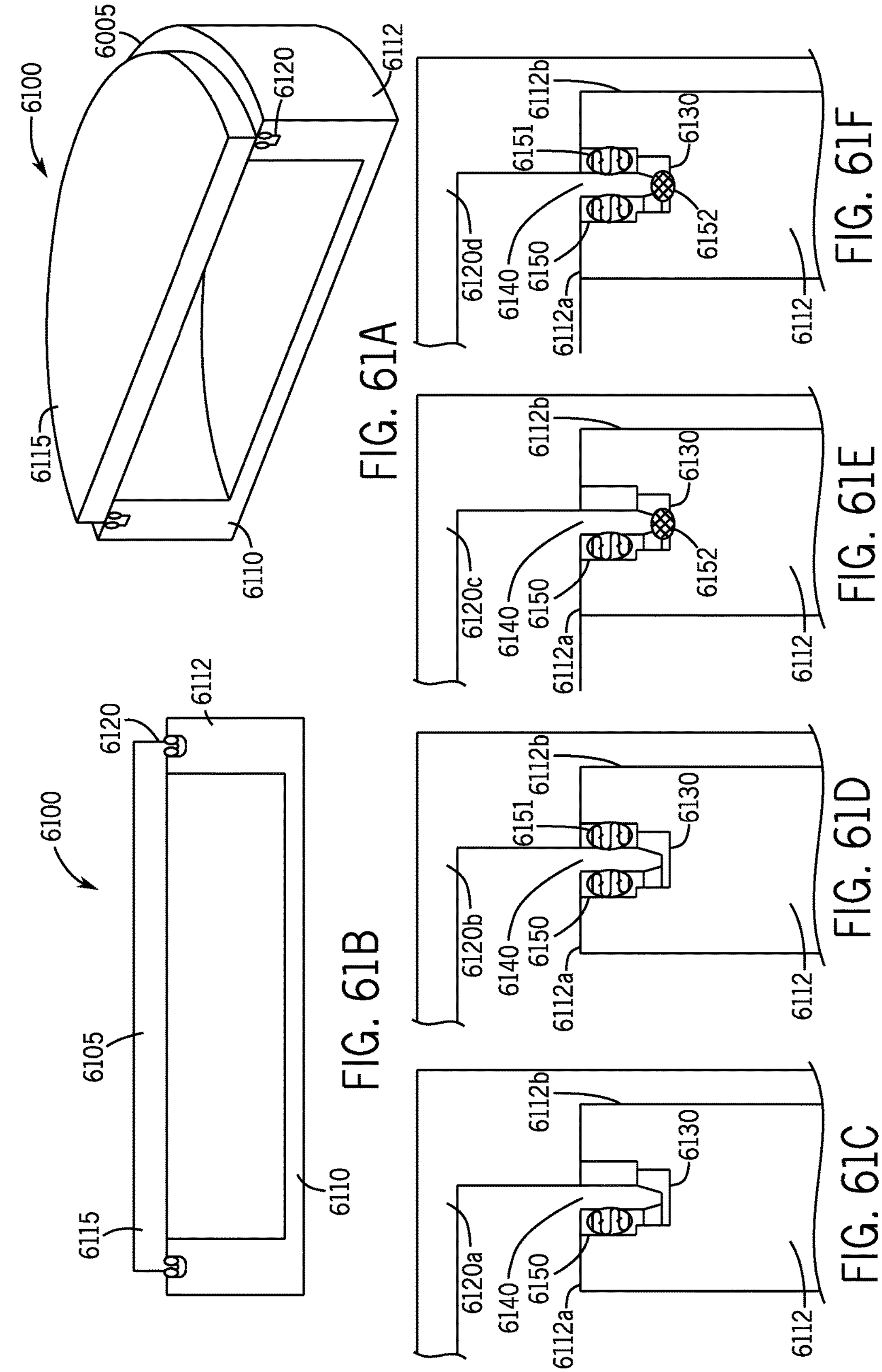


FIG. 61A

FIG. 61B

FIG. 61C

FIG. 61D

FIG. 61E

FIG. 61F

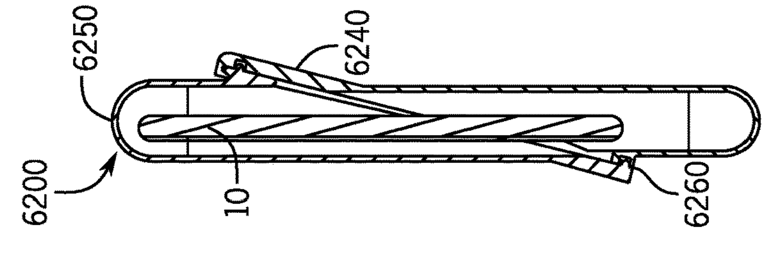


FIG. 62A

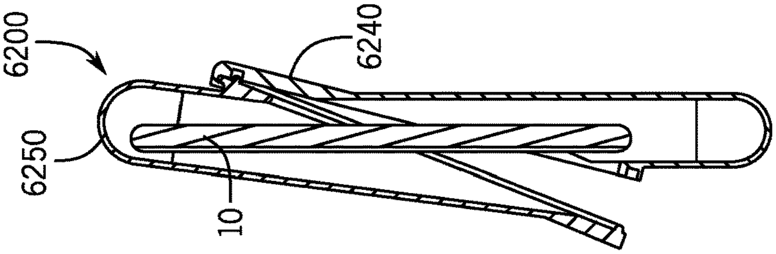


FIG. 62B

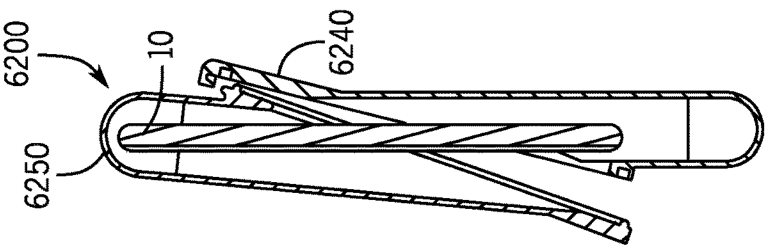


FIG. 62C

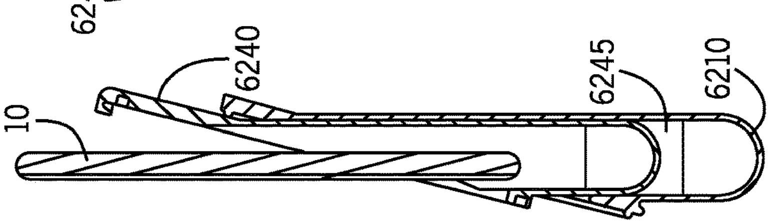


FIG. 62D

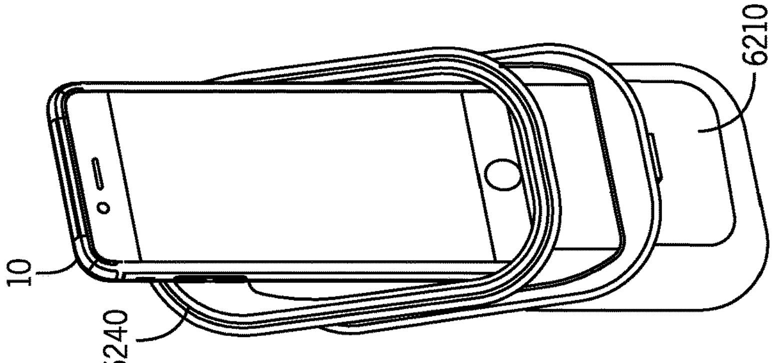


FIG. 62E

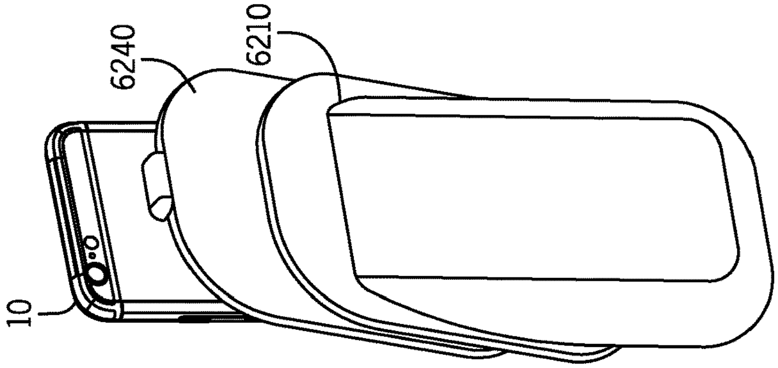


FIG. 62F

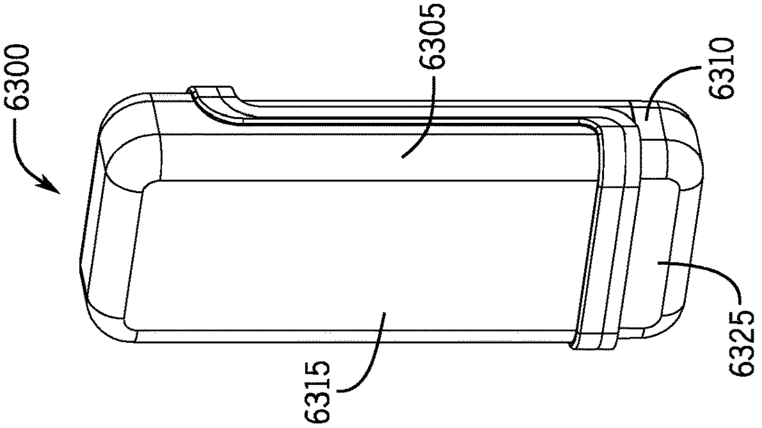


FIG. 63A

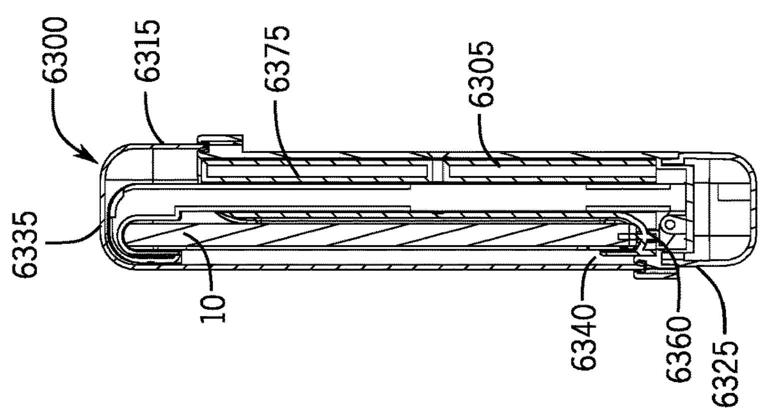


FIG. 63B

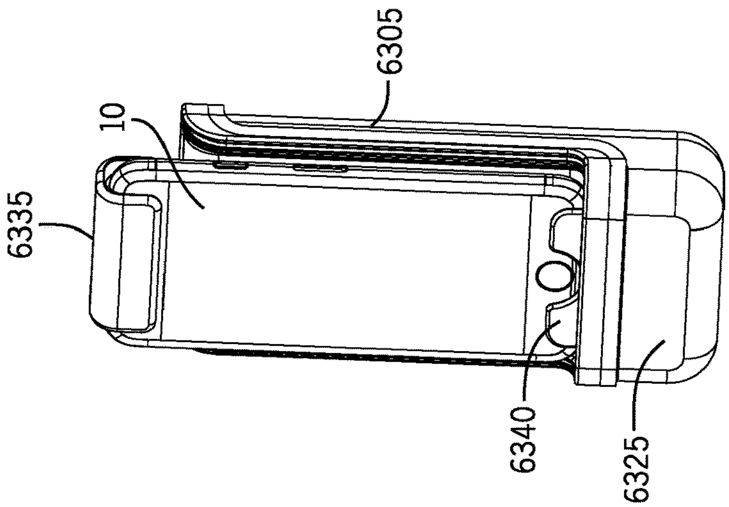


FIG. 63C

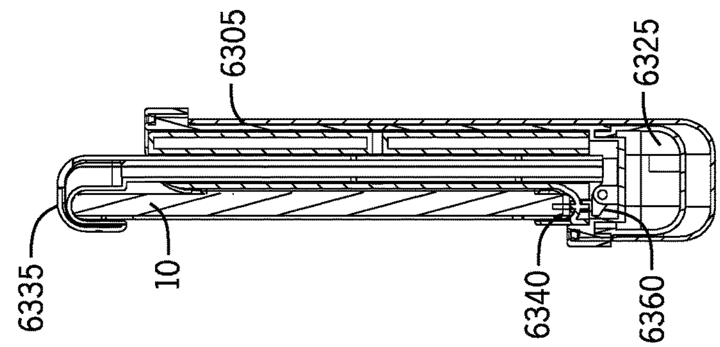


FIG. 63D

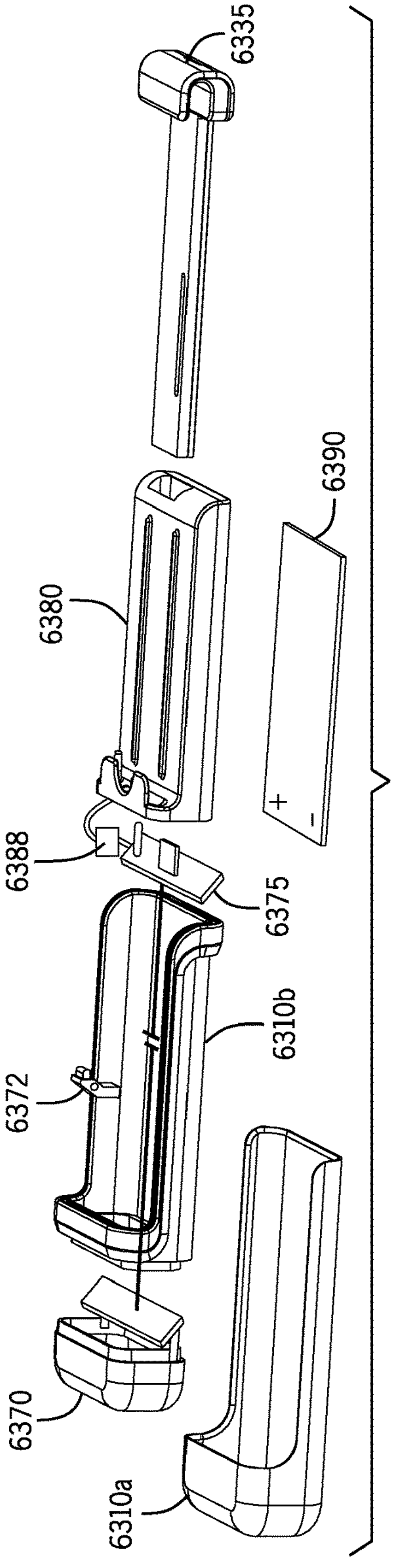


FIG. 64A

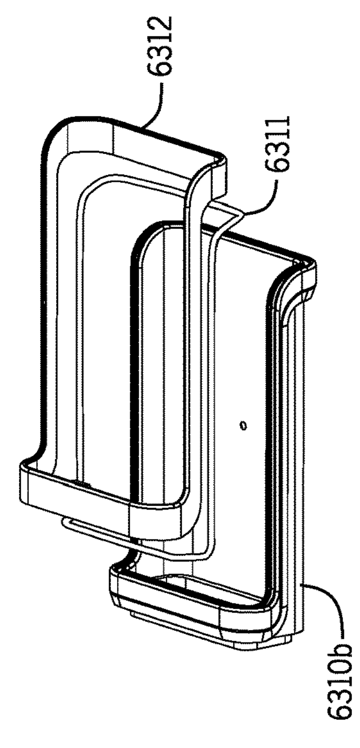


FIG. 64B

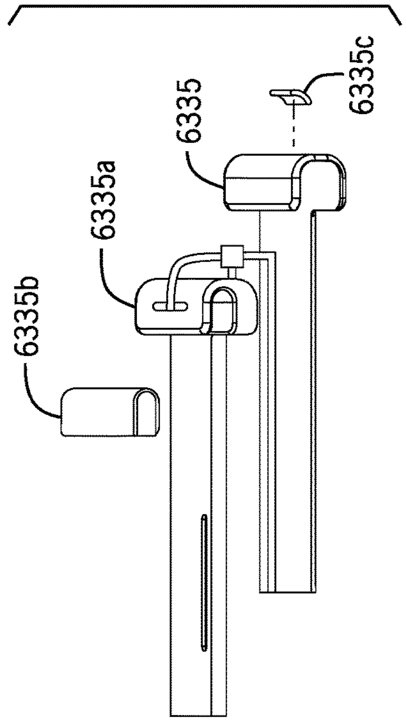


FIG. 64C

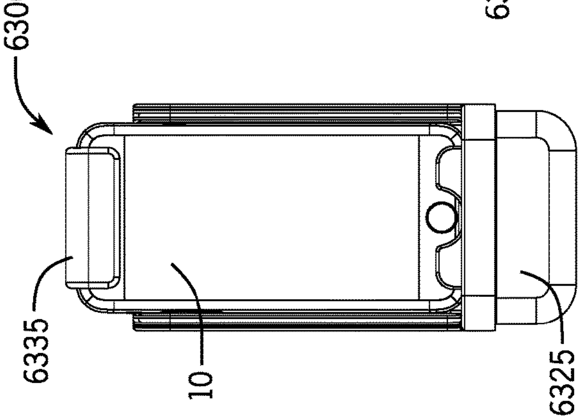


FIG. 65A

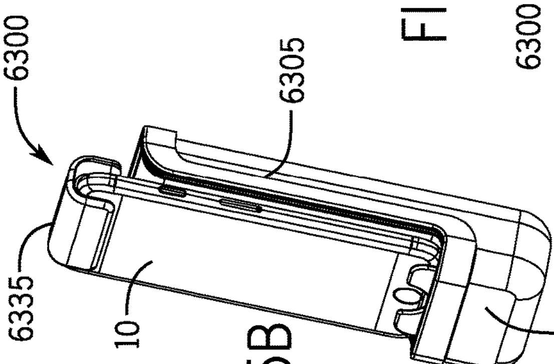


FIG. 65B

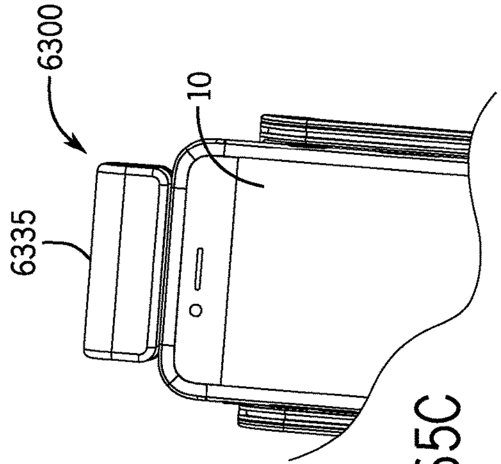


FIG. 65C

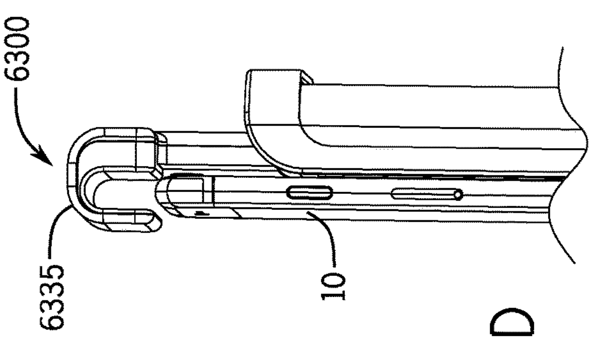


FIG. 65D

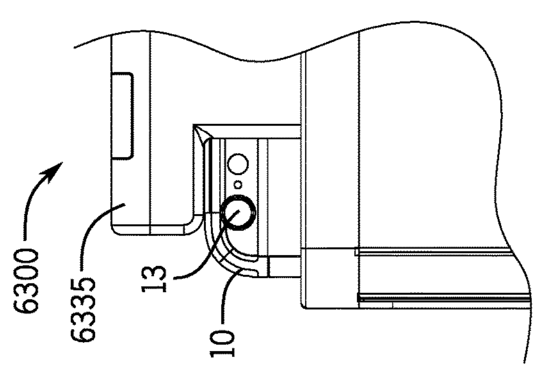


FIG. 65E

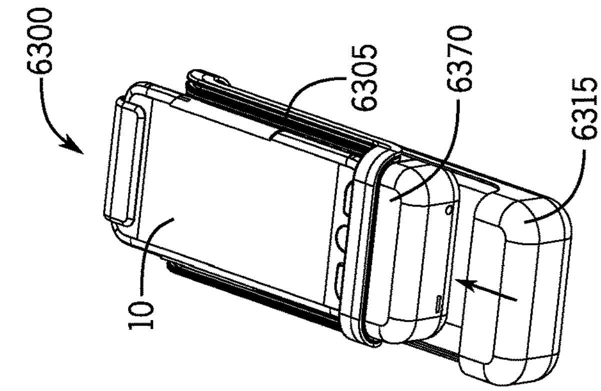


FIG. 66C

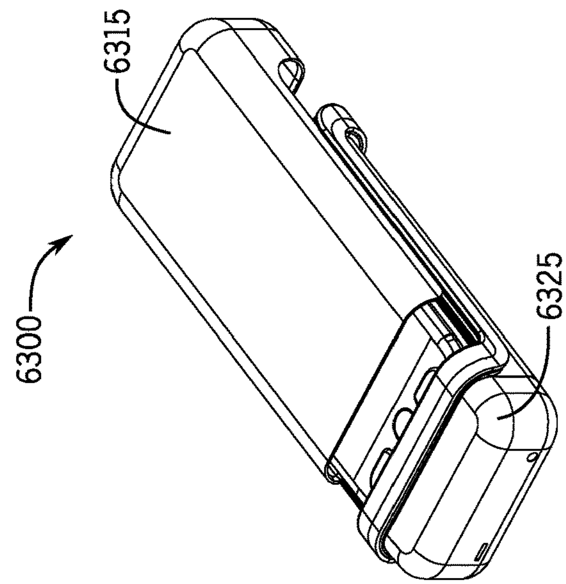


FIG. 66B

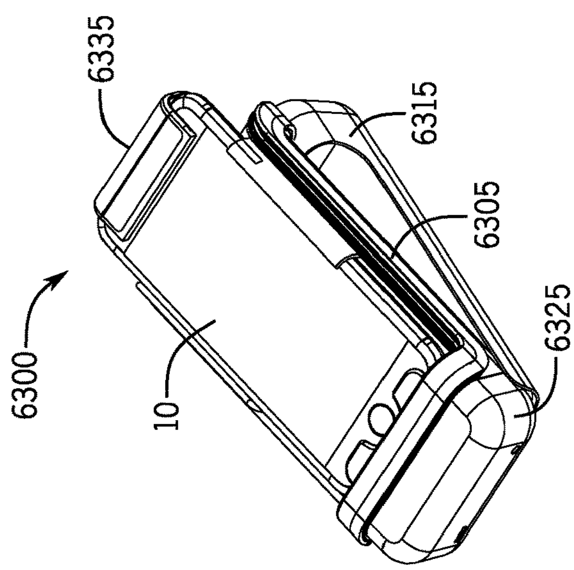


FIG. 66A

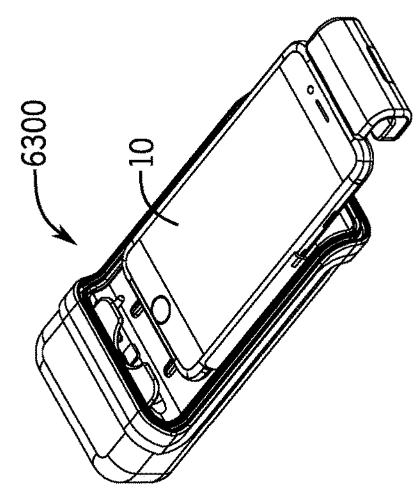


FIG. 67A

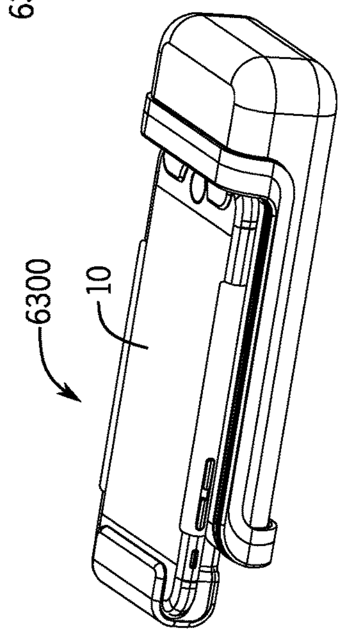


FIG. 67B

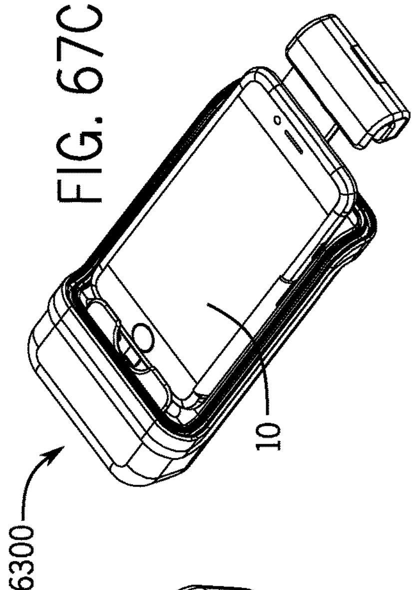


FIG. 67C

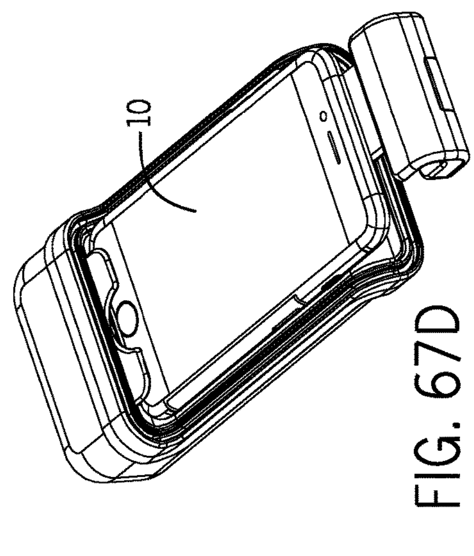


FIG. 67D

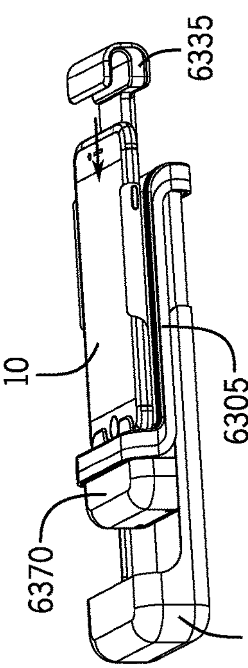


FIG. 67E

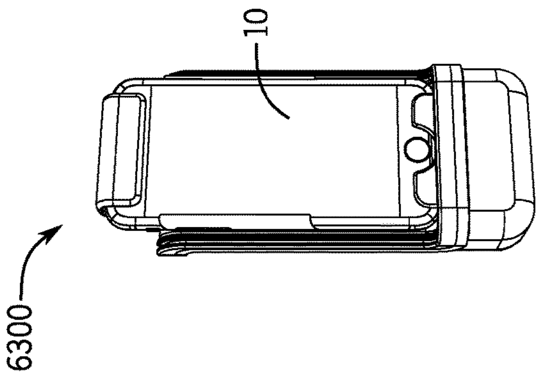


FIG. 67F

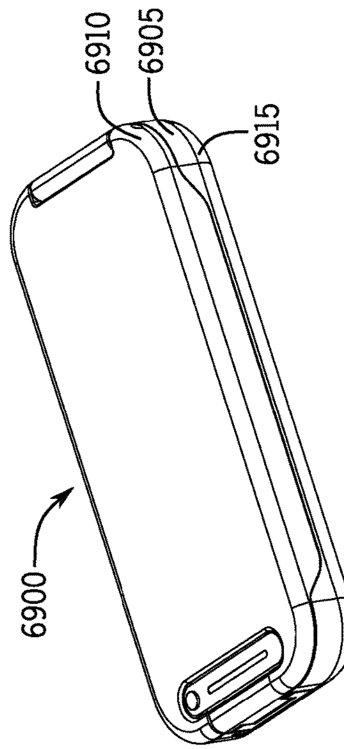


FIG. 69

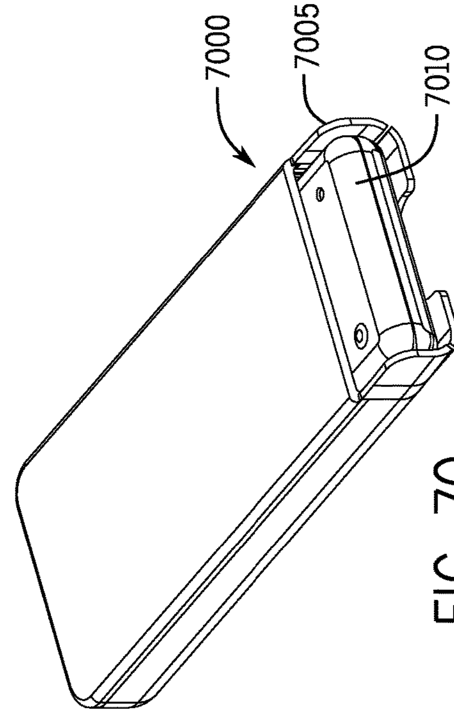


FIG. 70

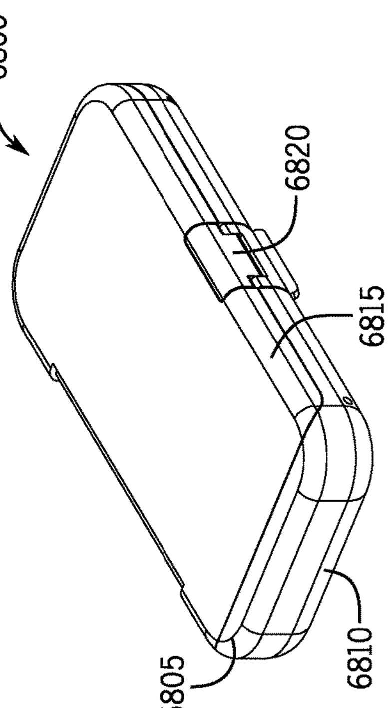


FIG. 68

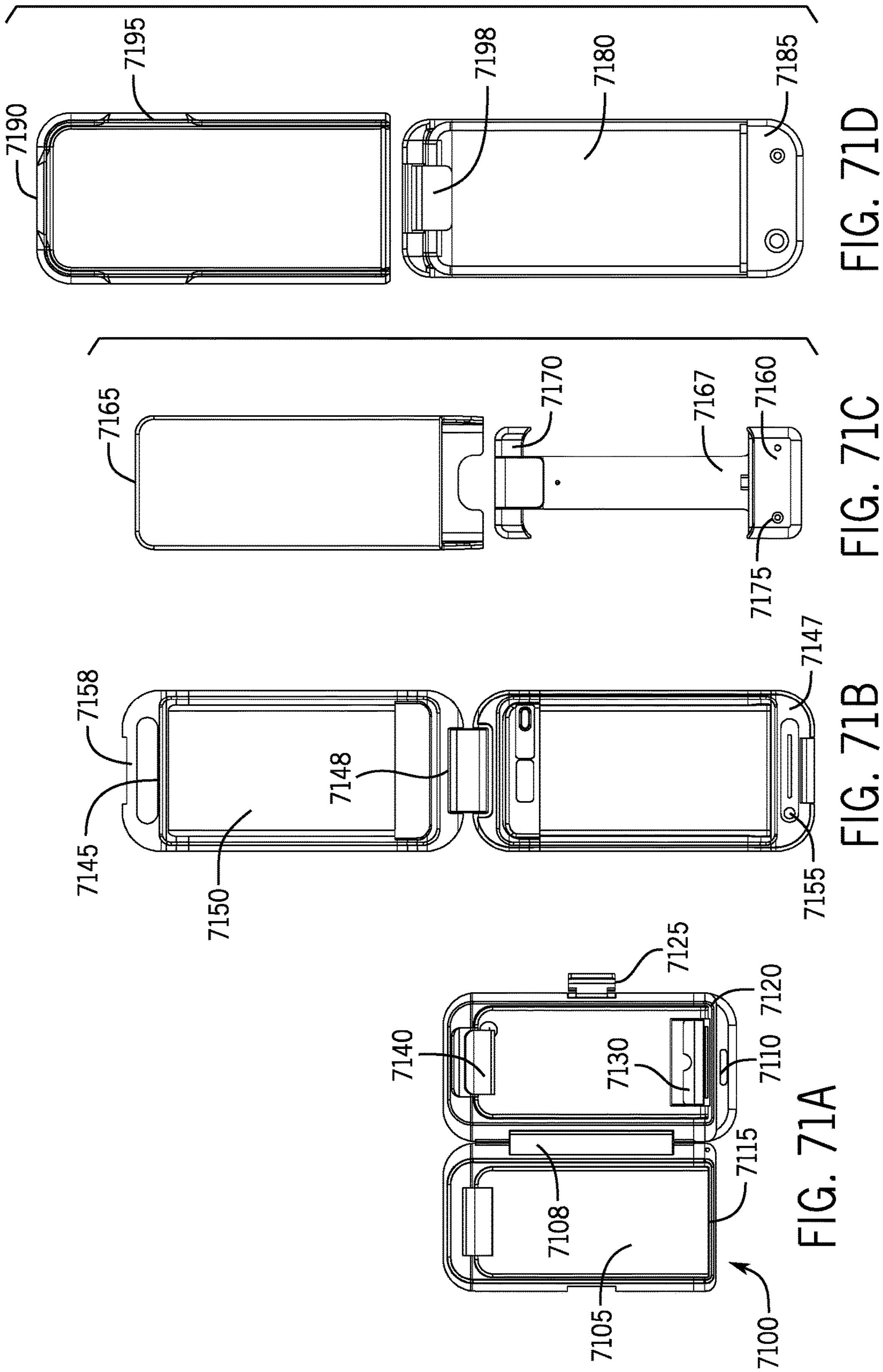


FIG. 71D

FIG. 71C

FIG. 71B

FIG. 71A

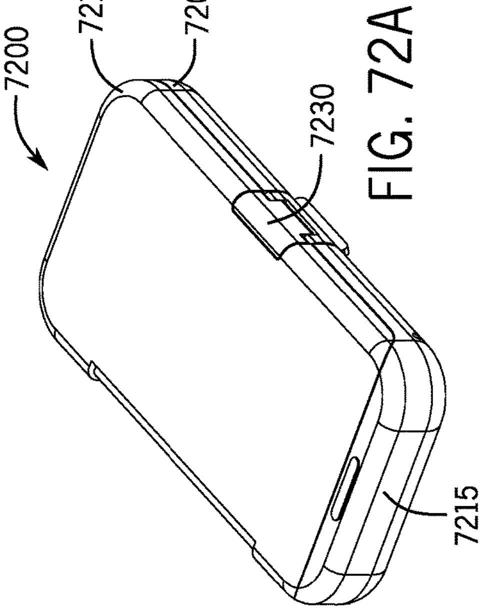


FIG. 72A

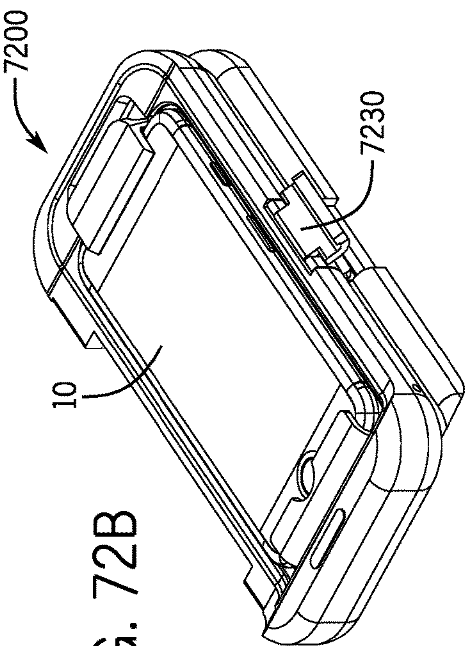


FIG. 72B

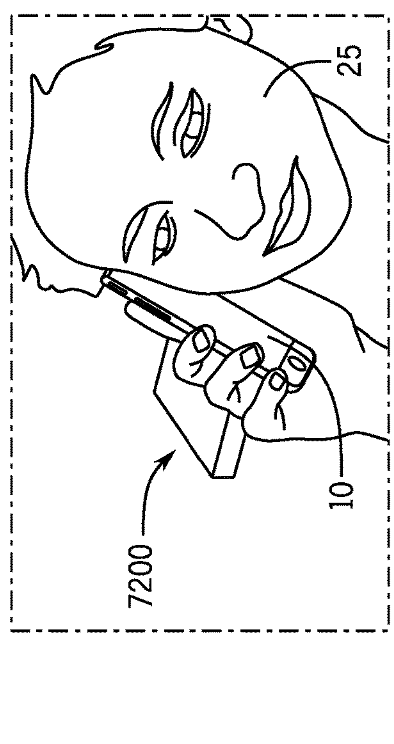


FIG. 72C

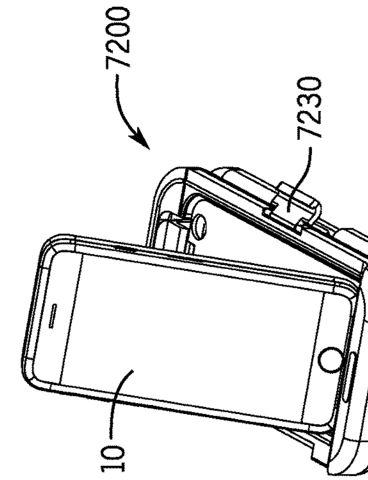


FIG. 72D

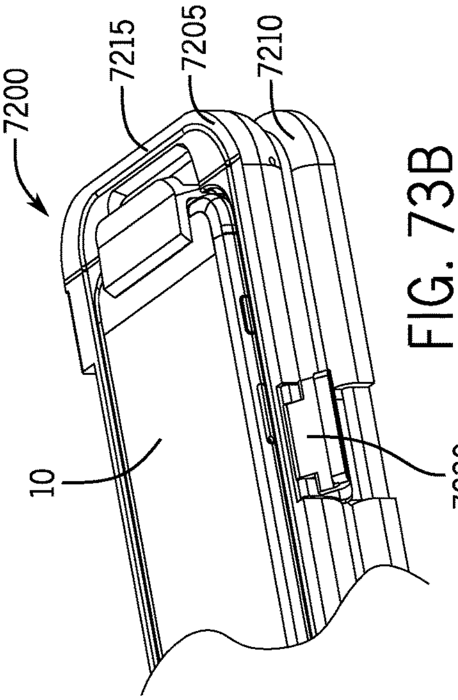


FIG. 73B

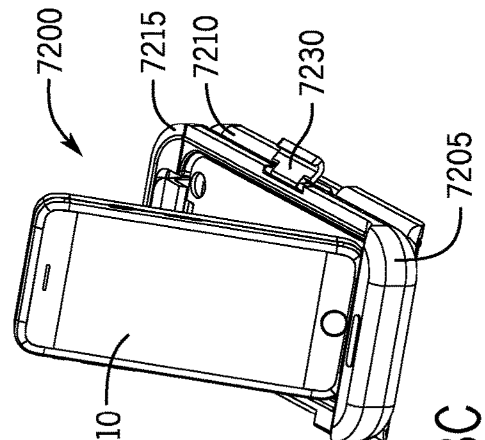


FIG. 73C

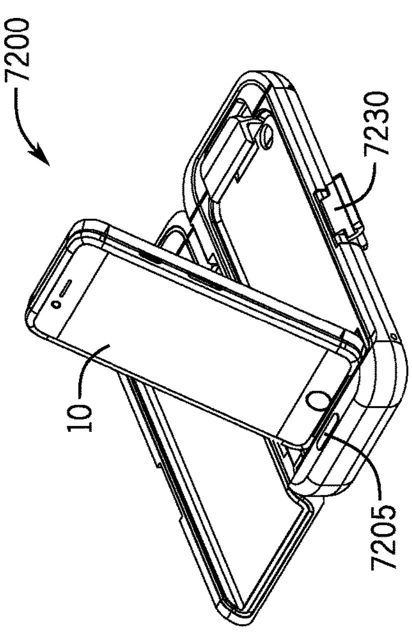


FIG. 73A

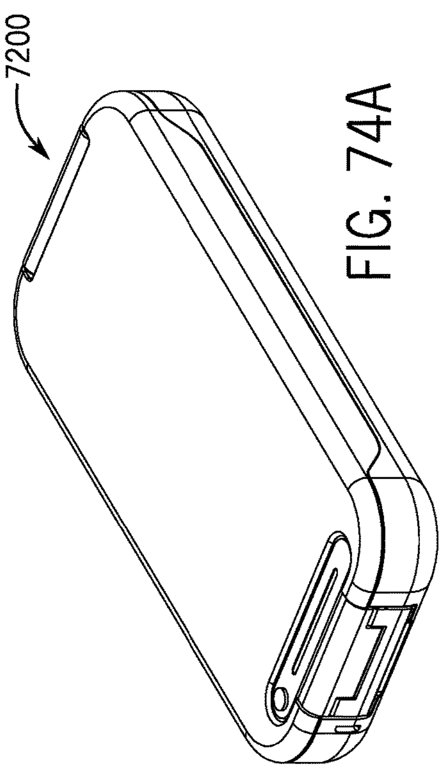


FIG. 74A

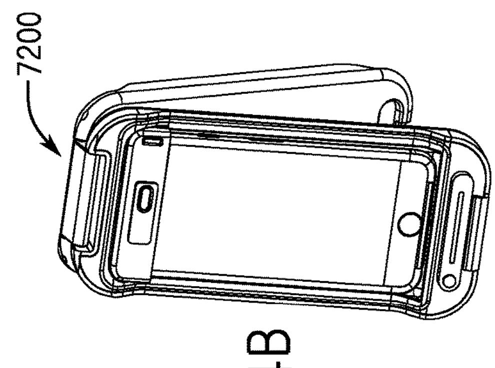


FIG. 74B

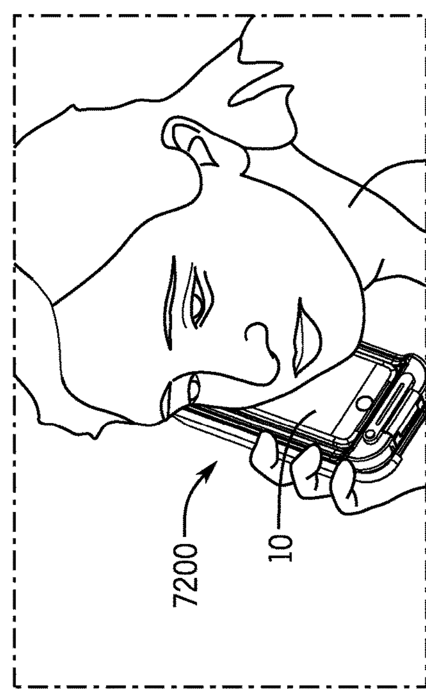


FIG. 74C

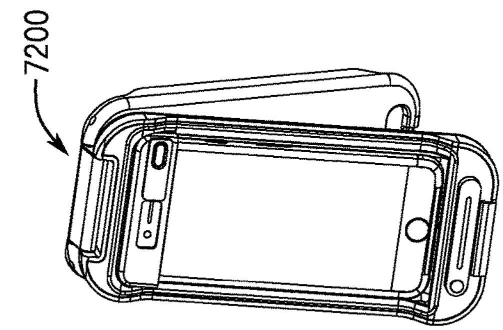


FIG. 74D

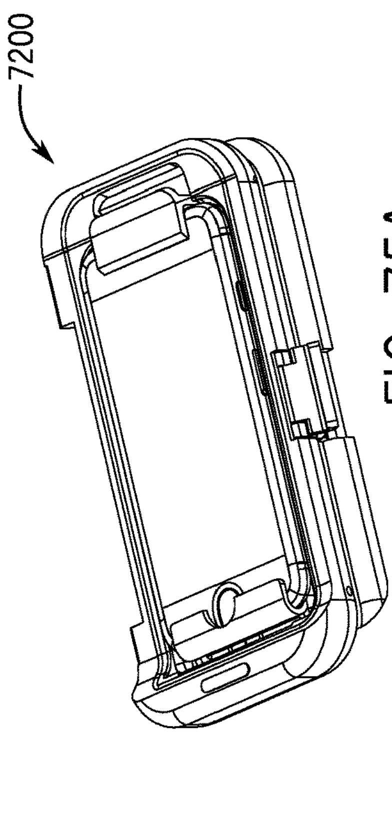


FIG. 75A

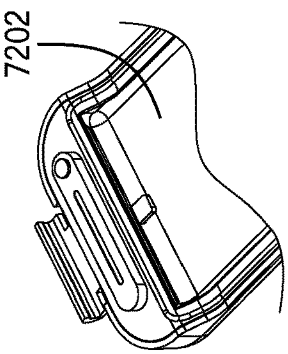


FIG. 75B

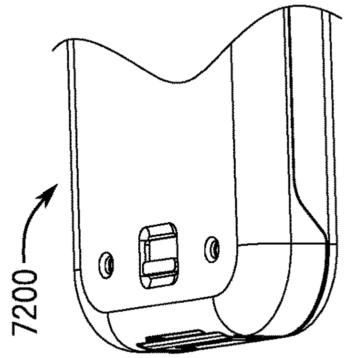


FIG. 75C

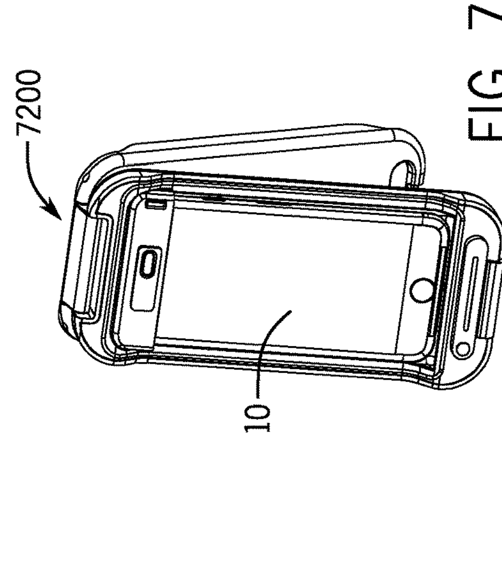


FIG. 75D

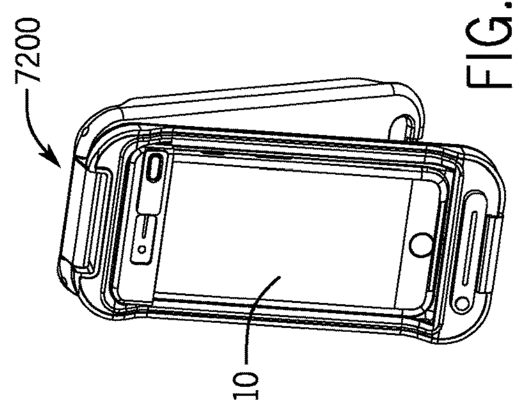


FIG. 75E

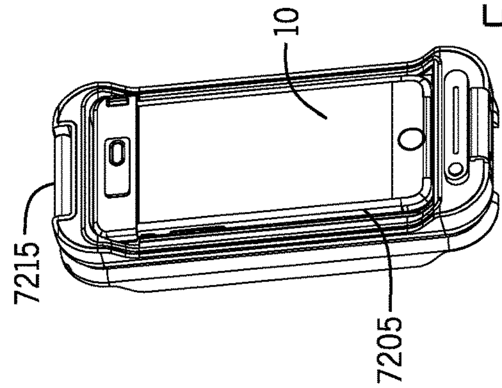


FIG. 75F

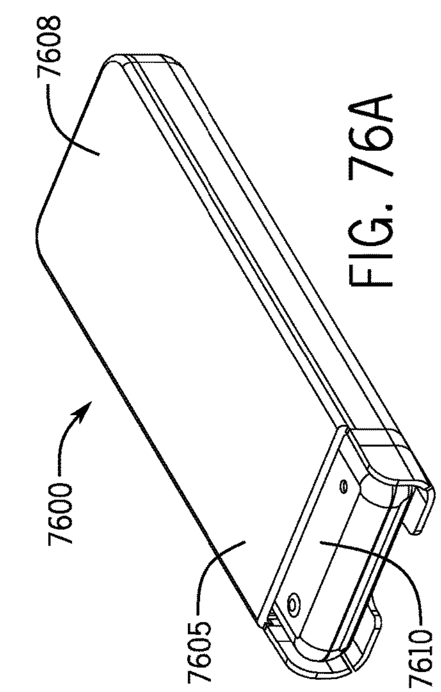


FIG. 76A

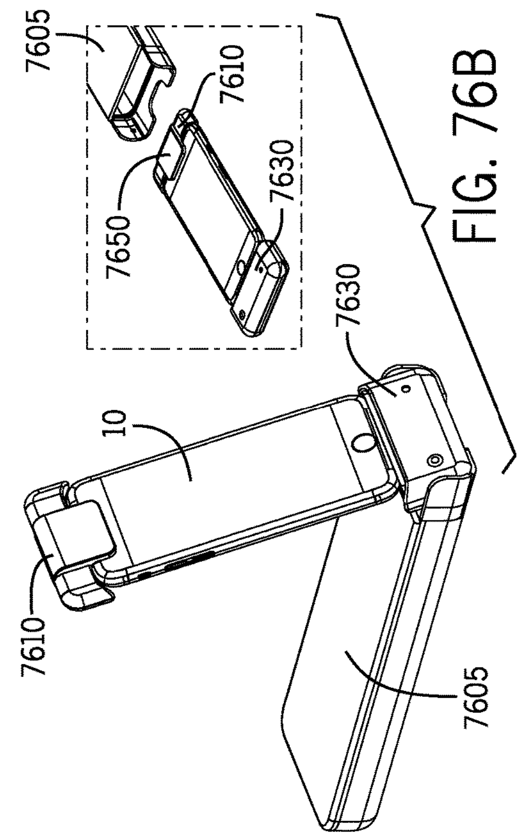


FIG. 76B

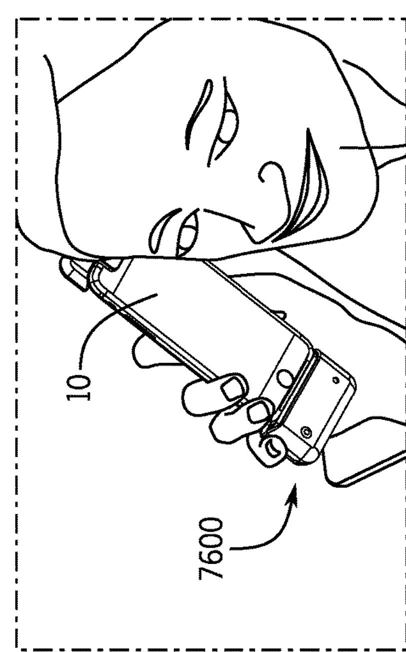


FIG. 76C

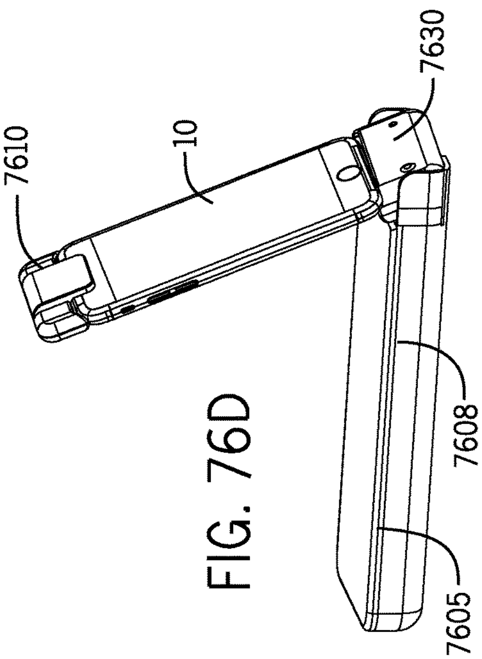


FIG. 76D

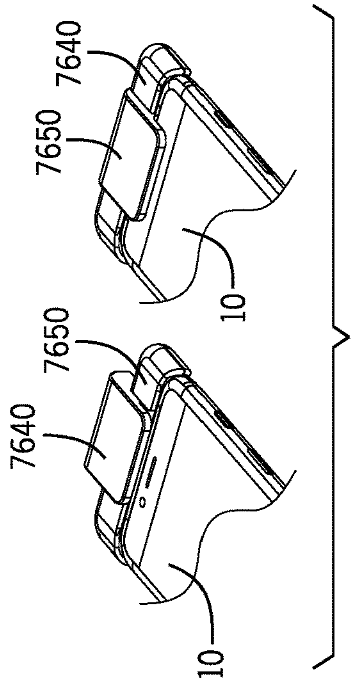


FIG. 77B

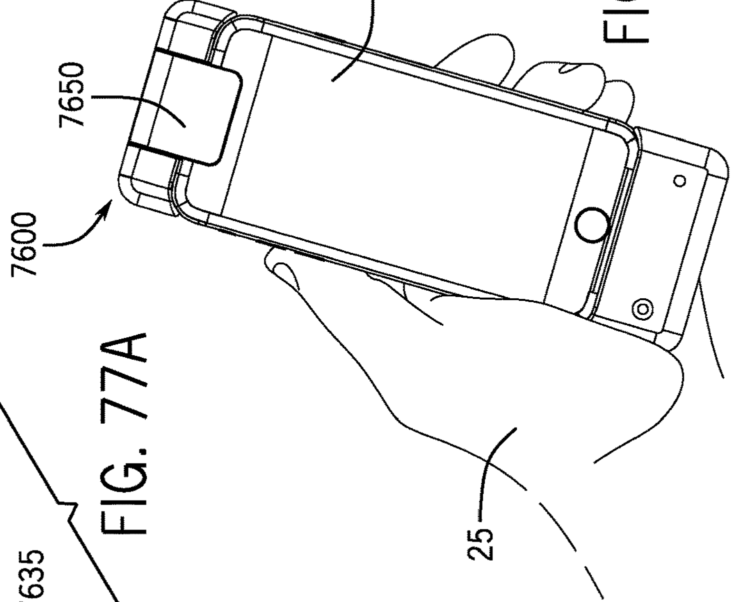


FIG. 77C

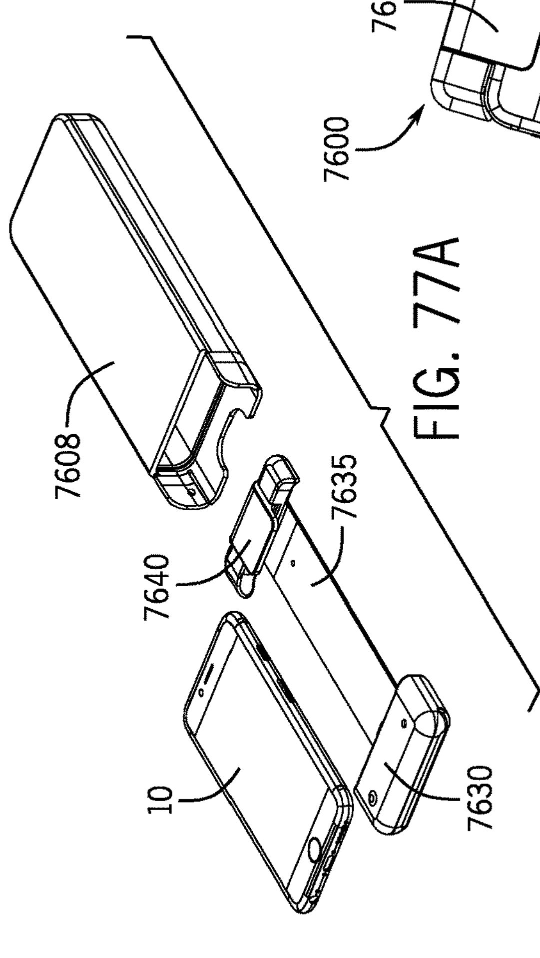


FIG. 77A

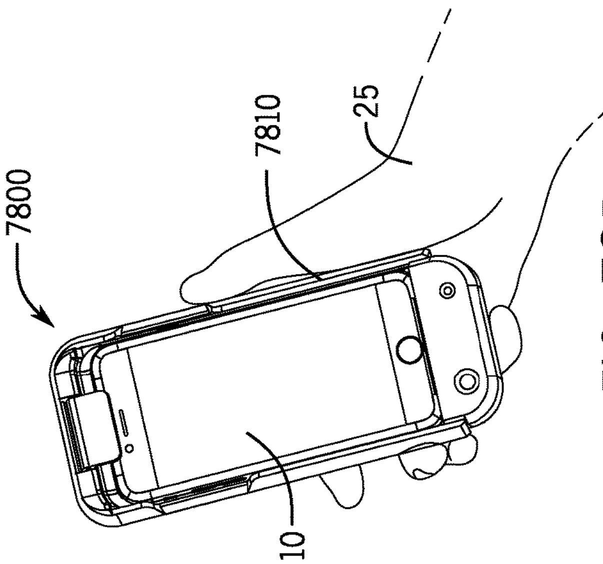


FIG. 78B

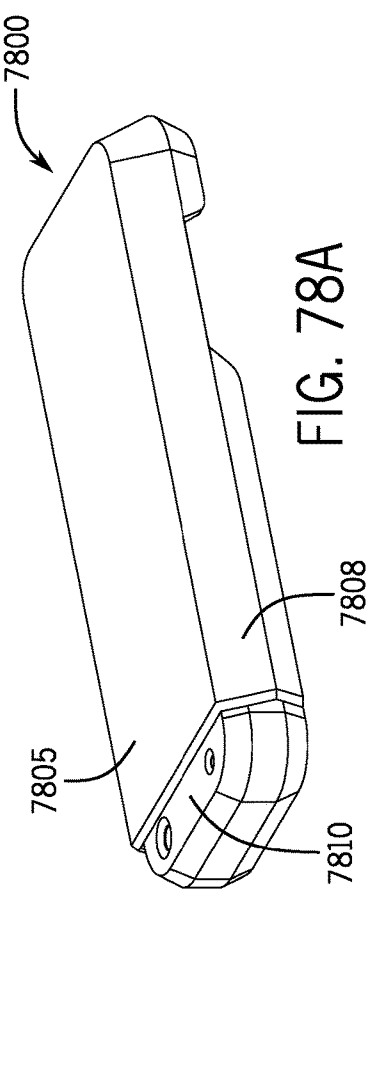


FIG. 78A

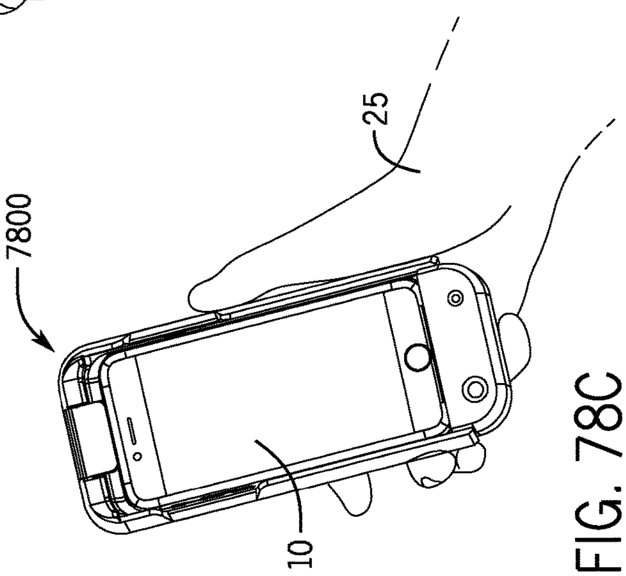


FIG. 78C

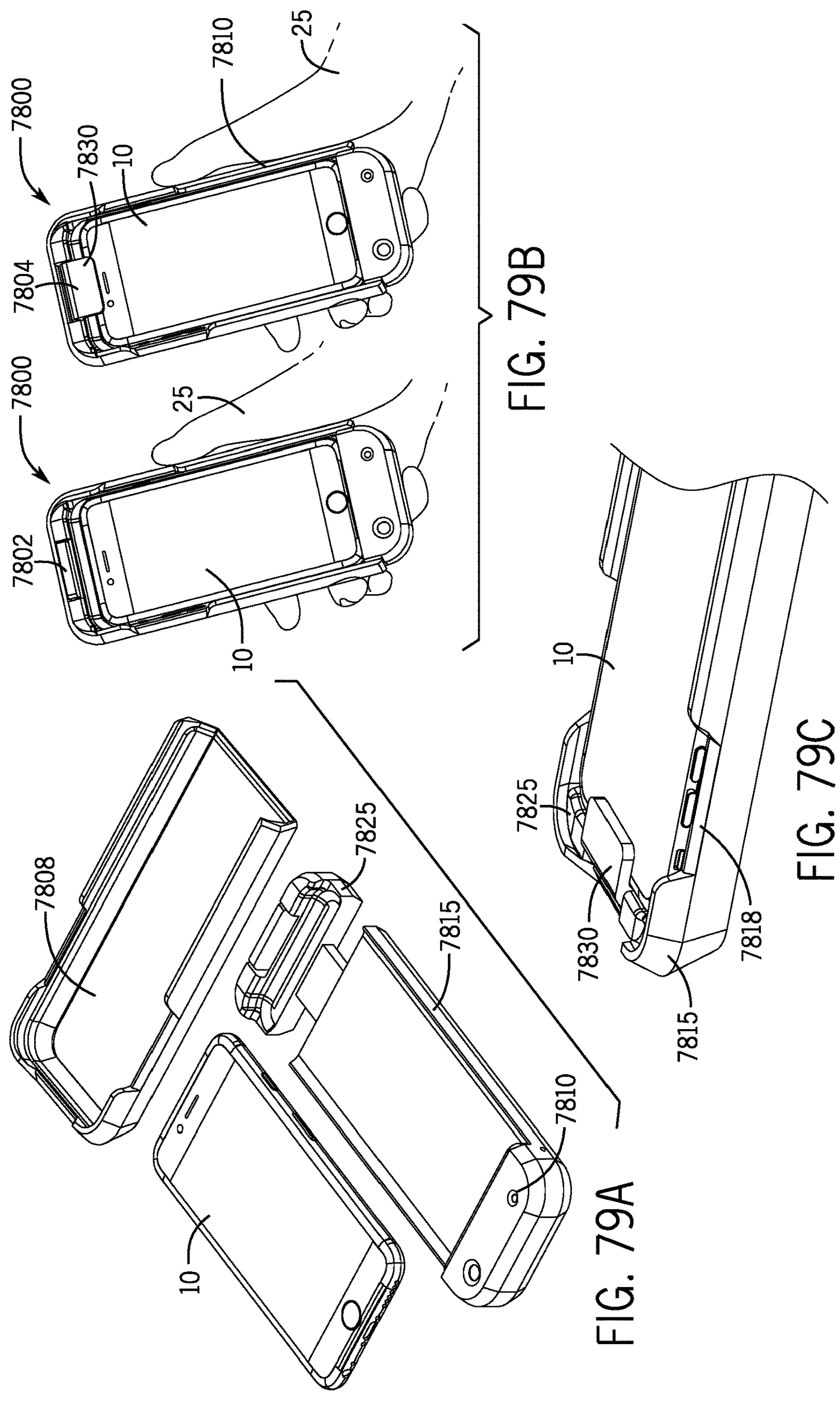


FIG. 79A

FIG. 79B

FIG. 79C

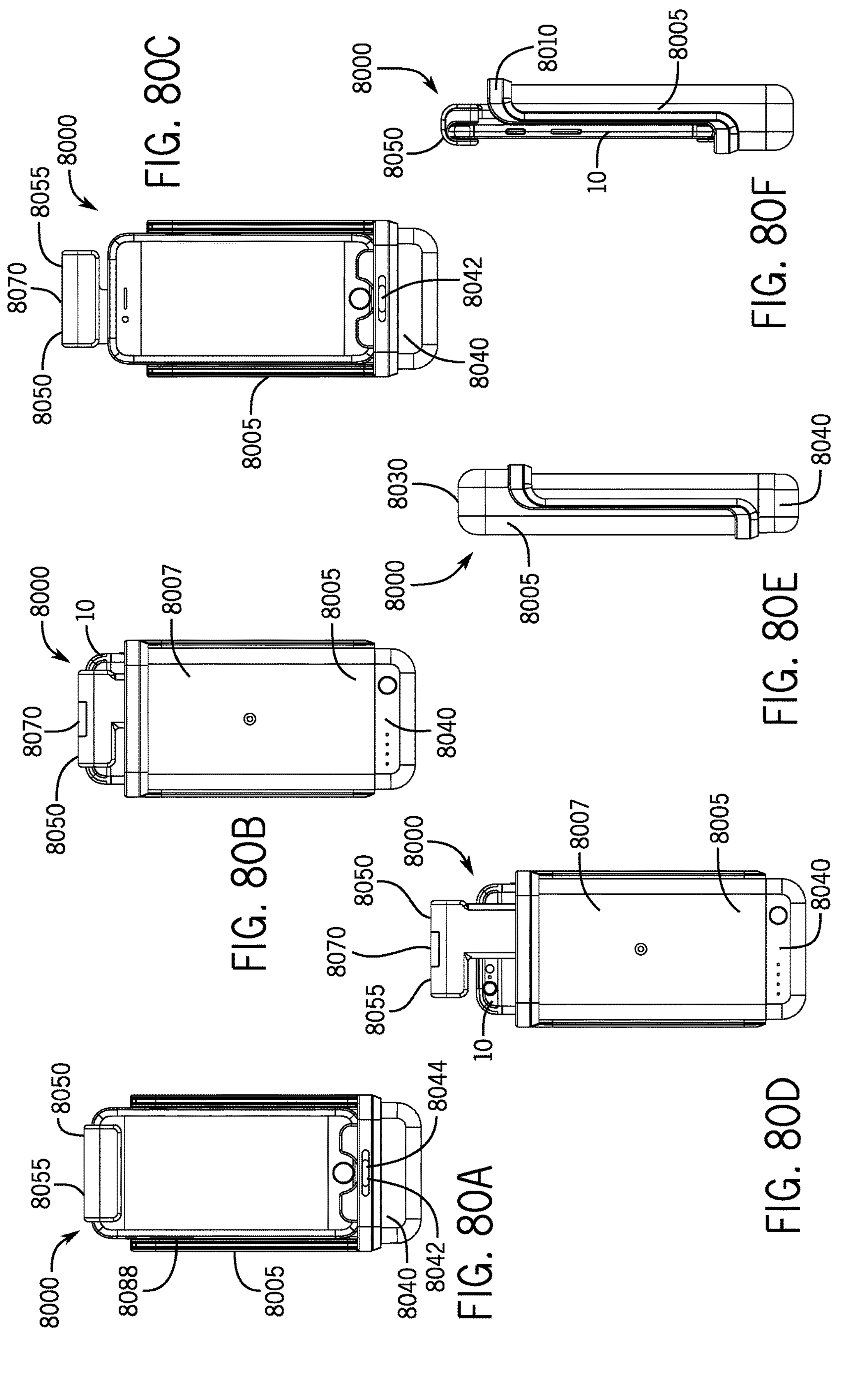


FIG. 80A

FIG. 80B

FIG. 80C

FIG. 80D

FIG. 80E

FIG. 80F

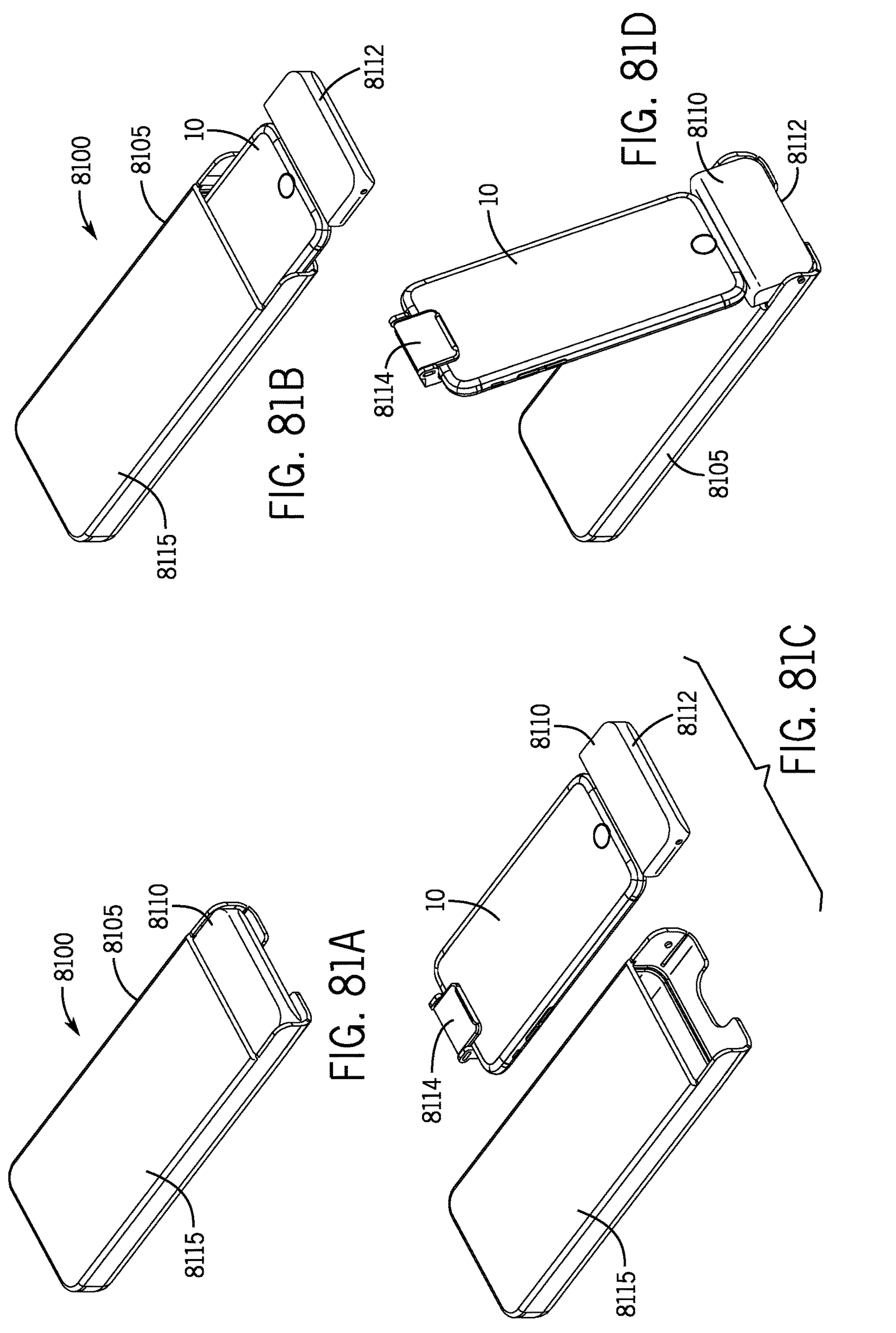


FIG. 81B

FIG. 81D

FIG. 81A

FIG. 81C

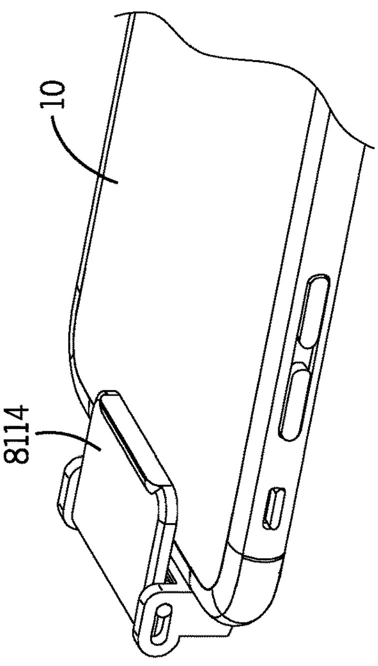


FIG. 82A

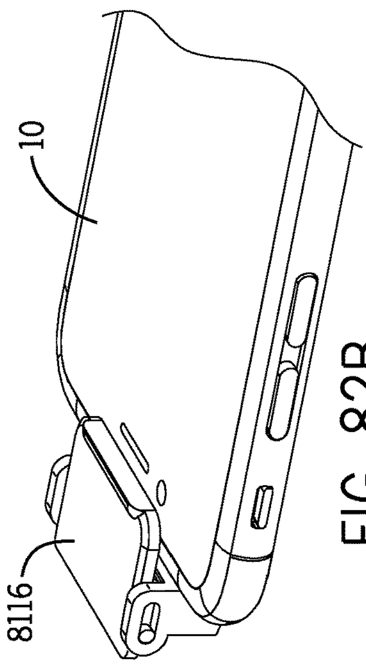


FIG. 82B

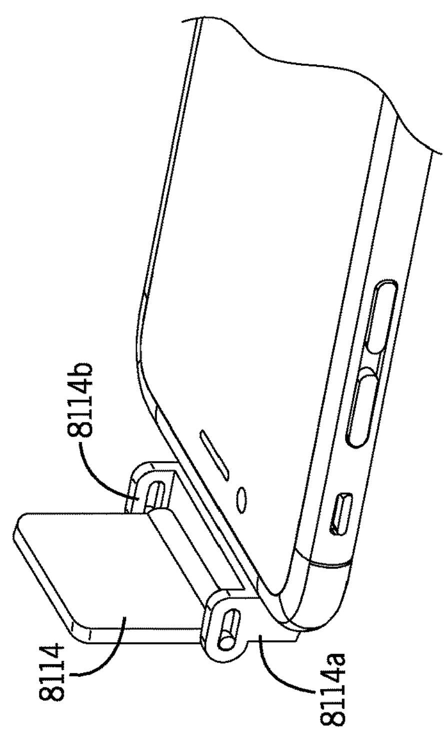


FIG. 82C

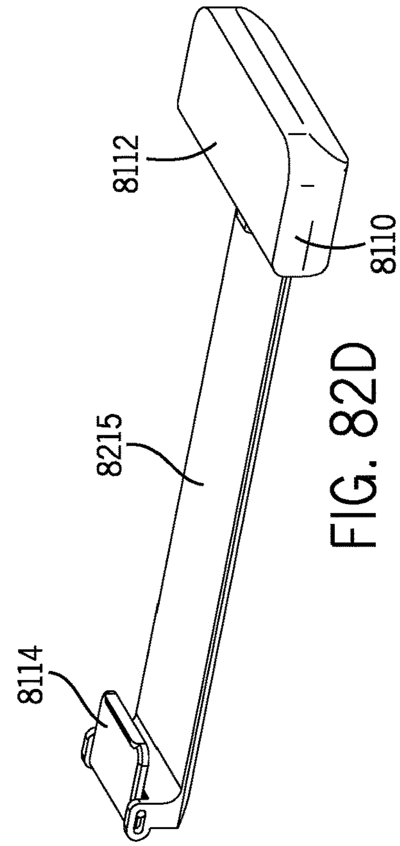


FIG. 82D

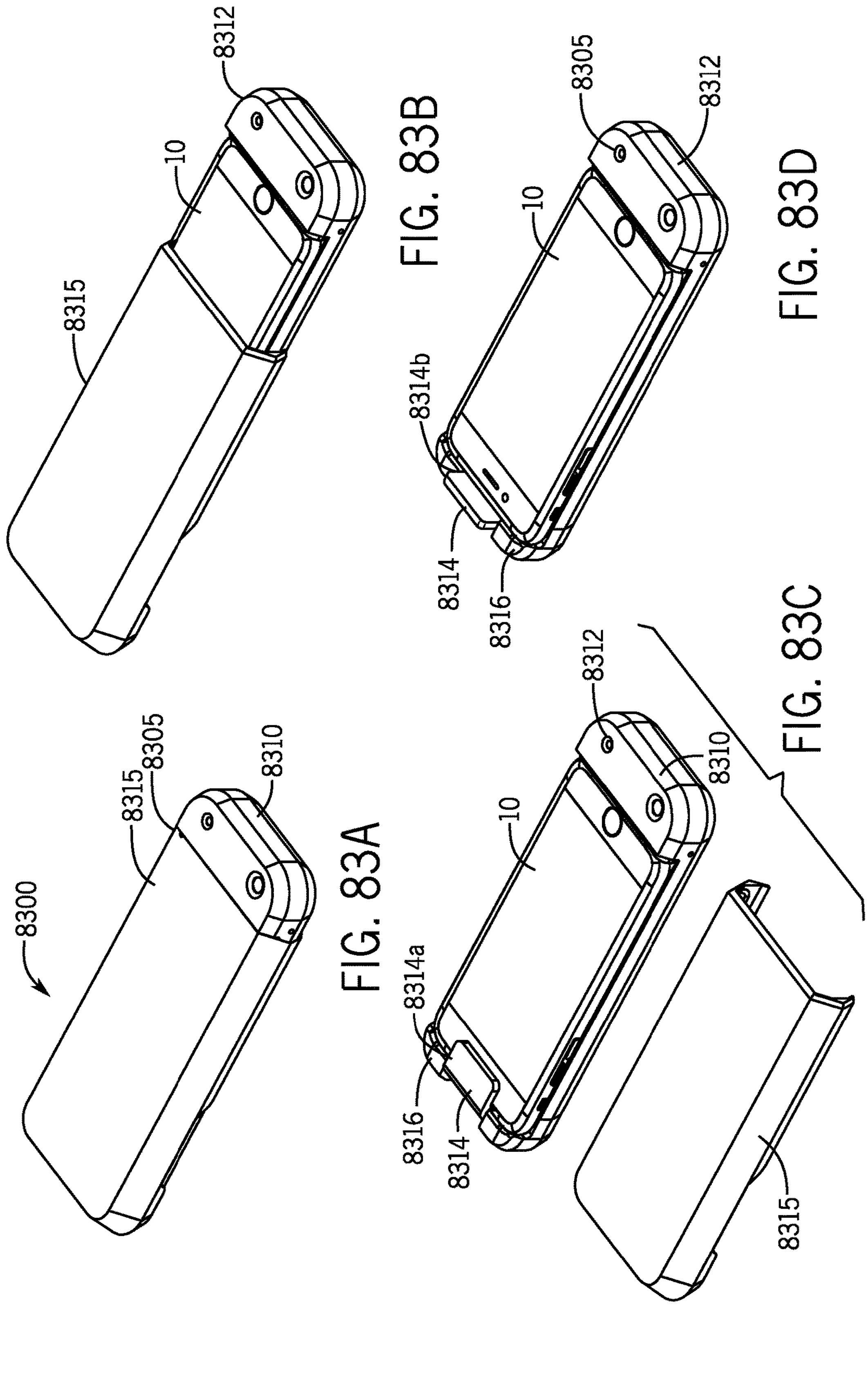


FIG. 83A

FIG. 83B

FIG. 83C

FIG. 83D

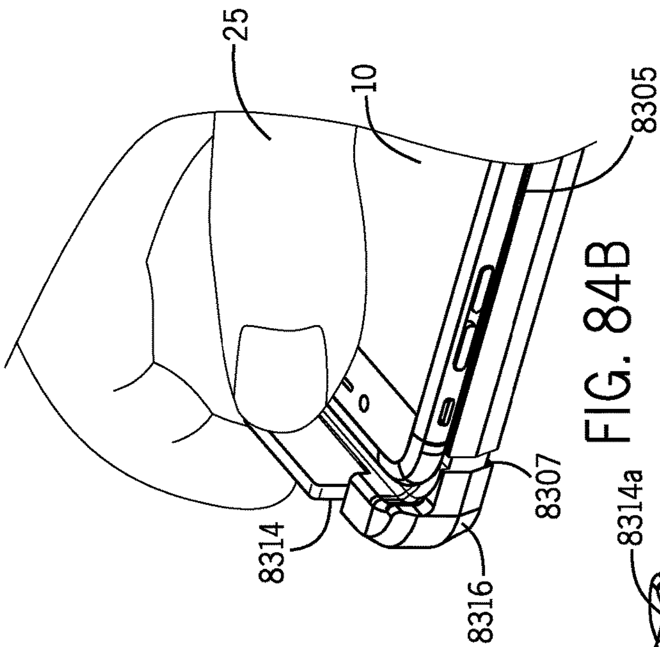


FIG. 84B

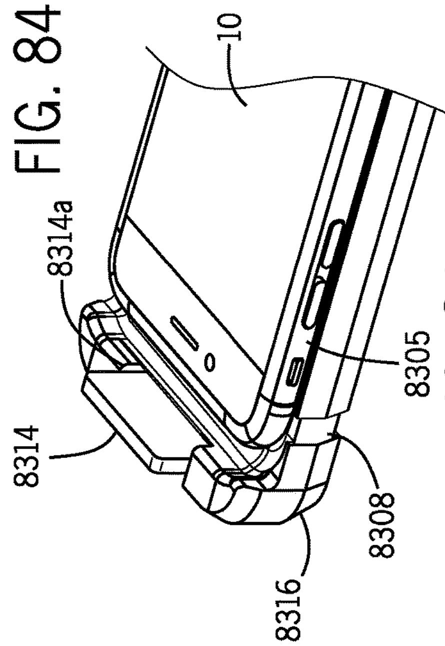


FIG. 84D

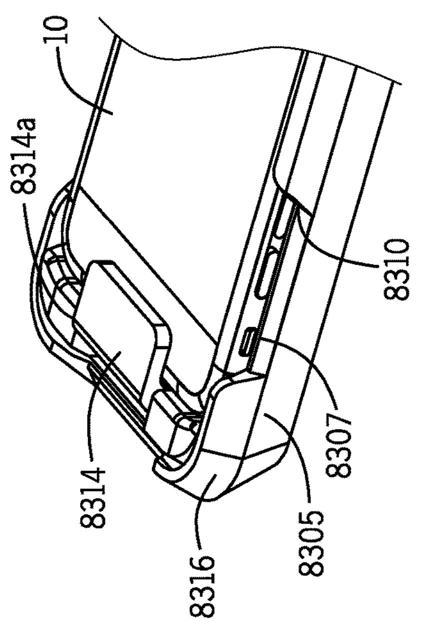


FIG. 84A

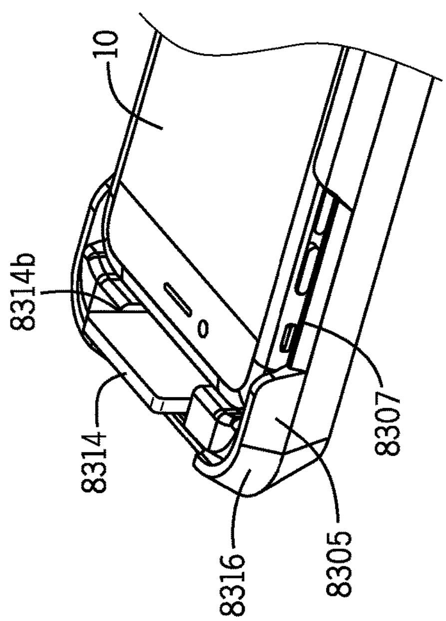


FIG. 84C

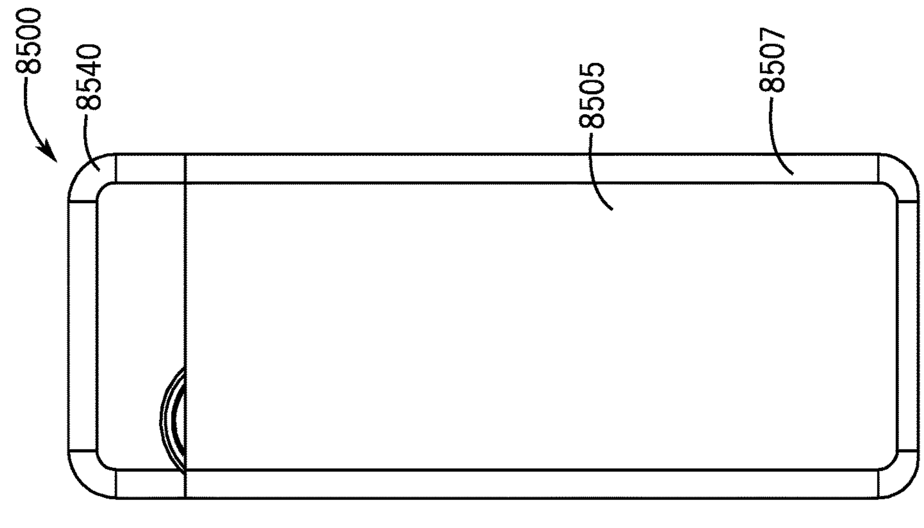


FIG. 85C

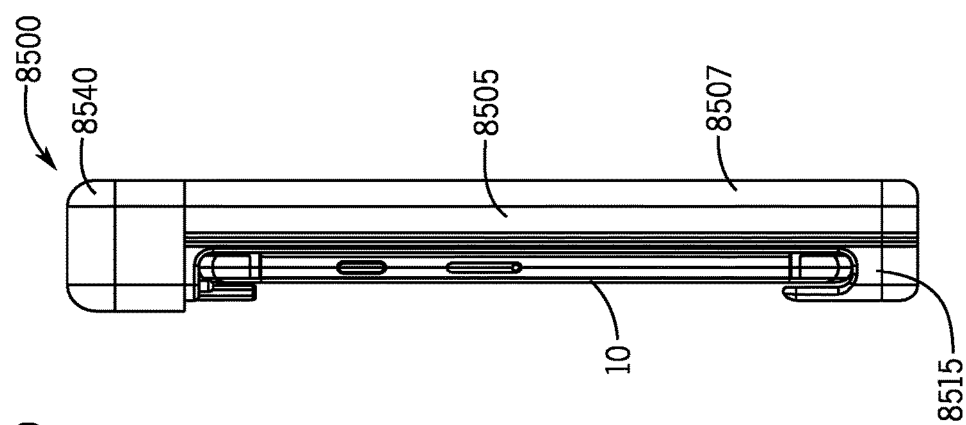


FIG. 85B

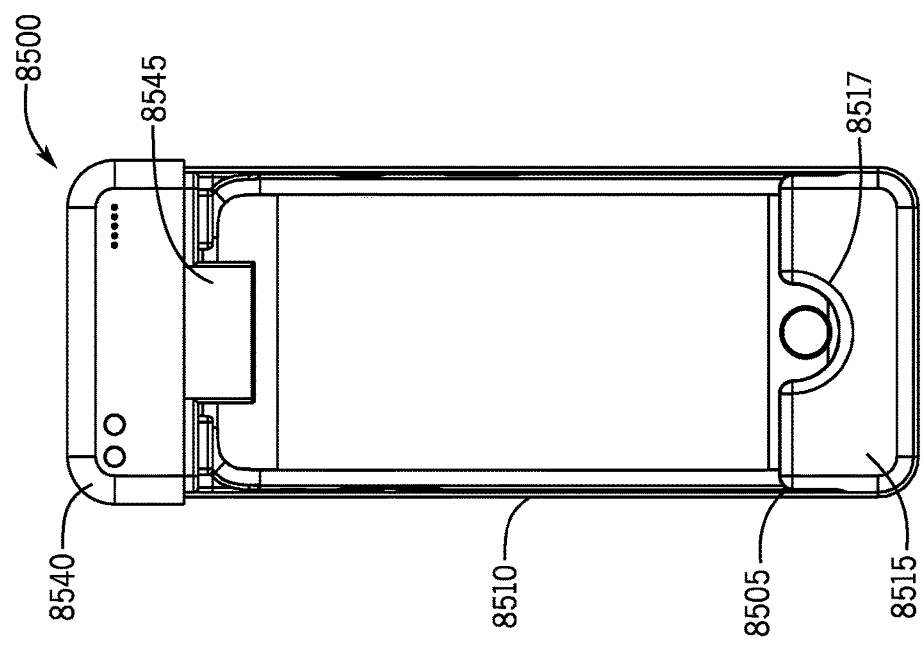


FIG. 85A

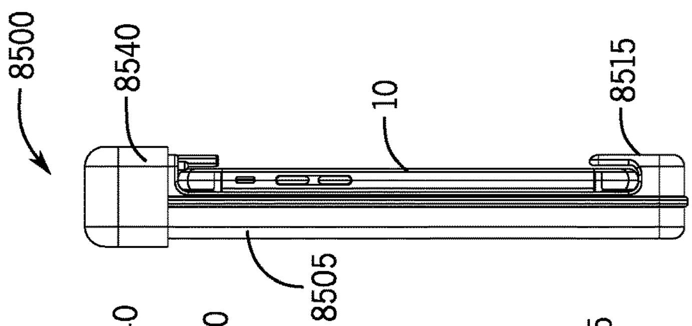


FIG. 86D

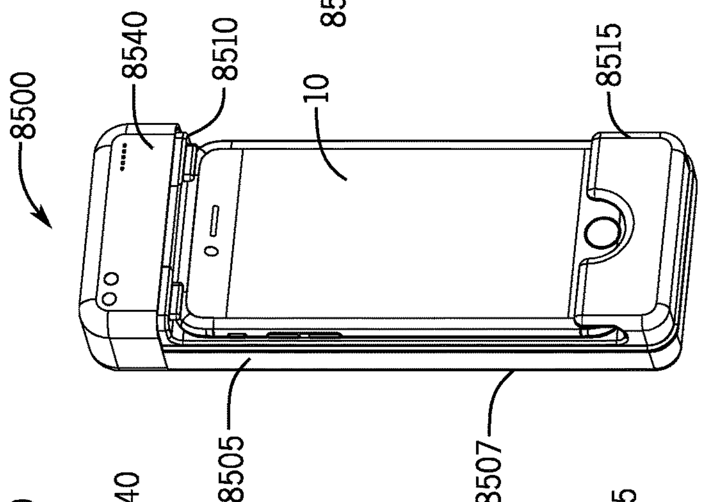


FIG. 86C

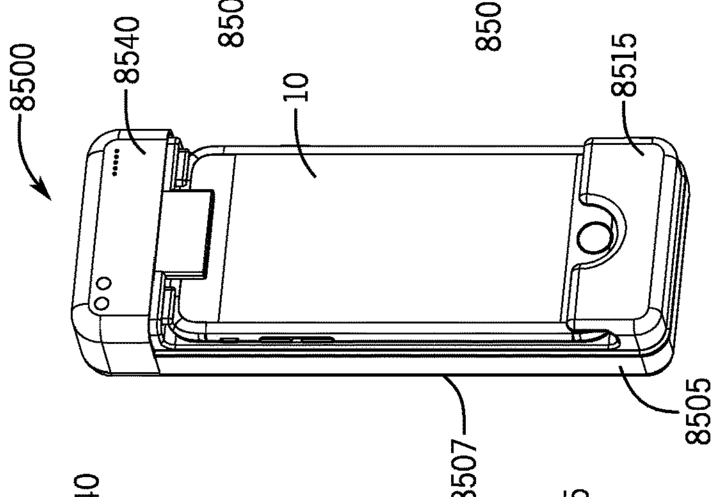


FIG. 86B

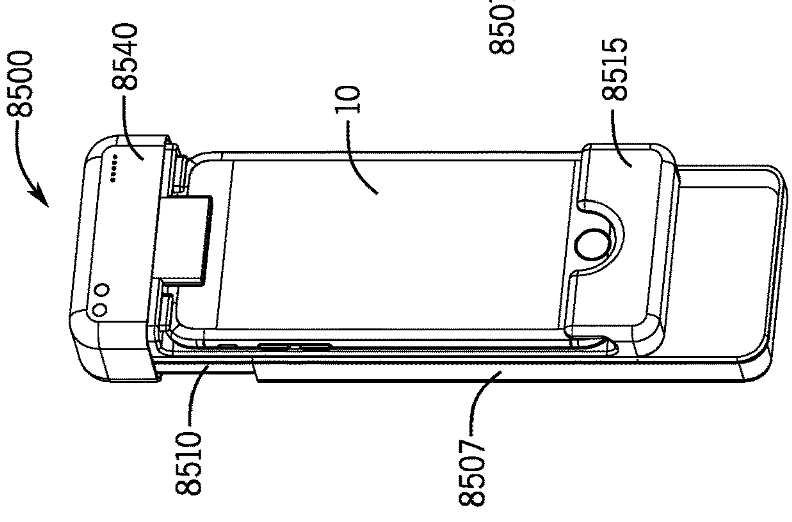


FIG. 86A

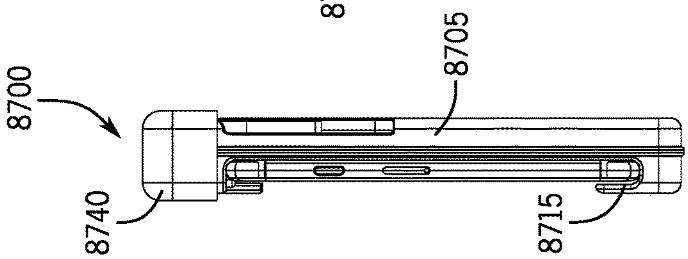


FIG. 87A

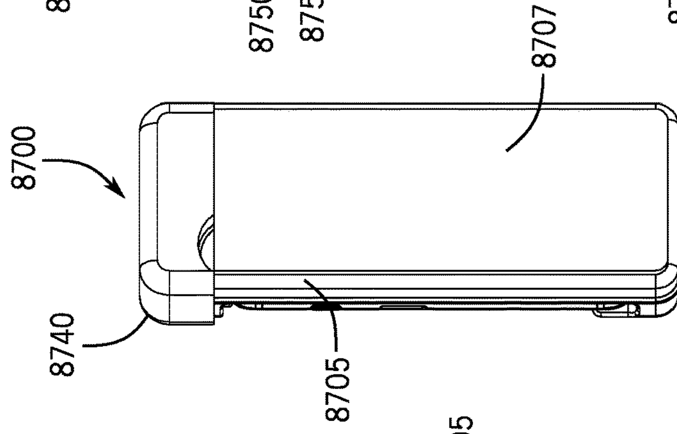


FIG. 87B

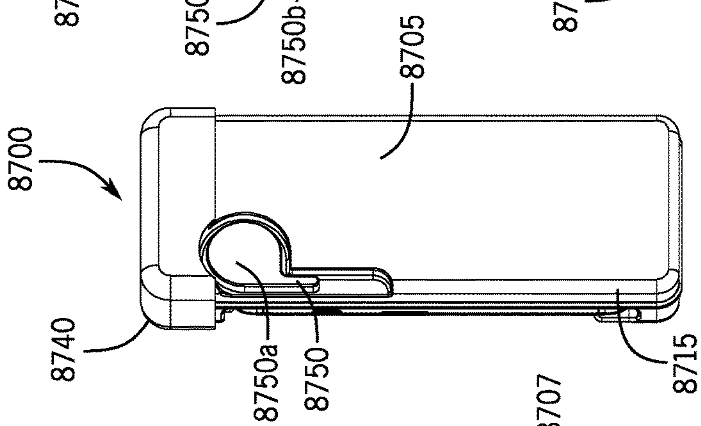


FIG. 87C

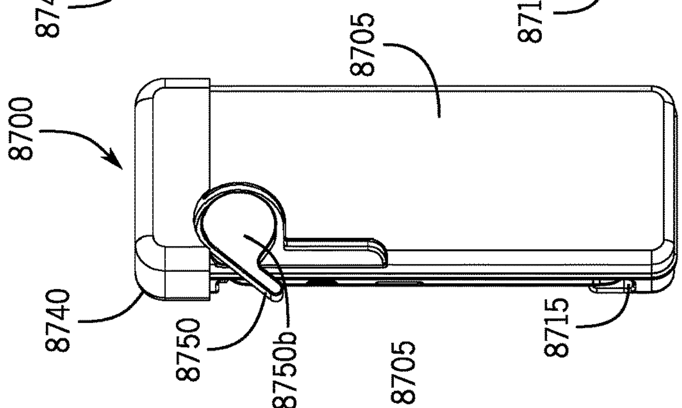


FIG. 87D

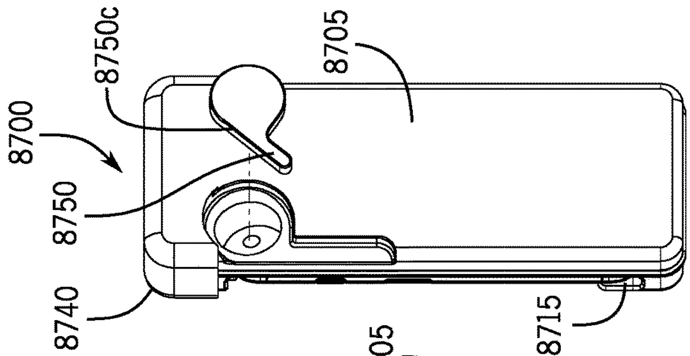


FIG. 87E

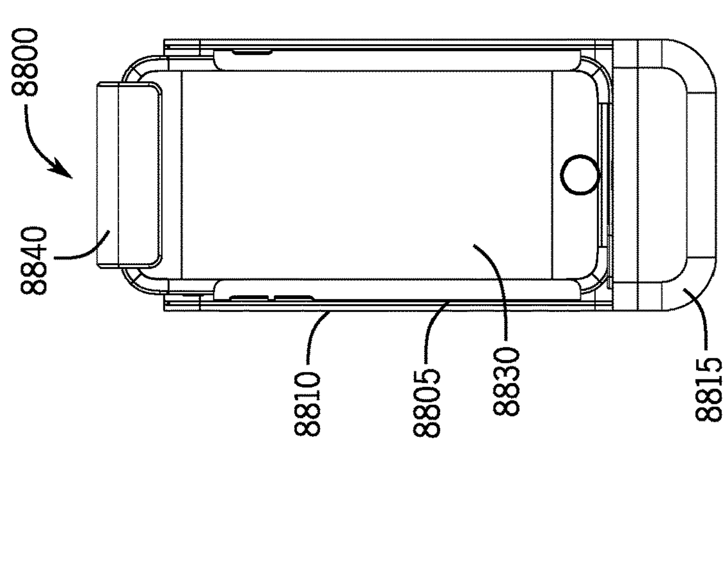


FIG. 88A

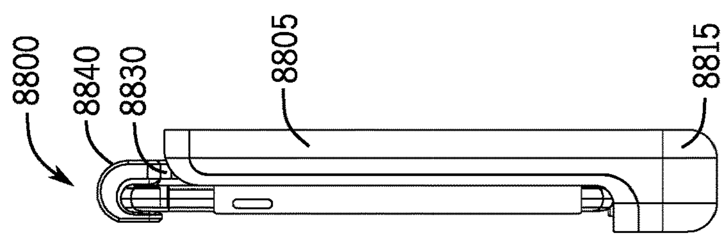


FIG. 88B

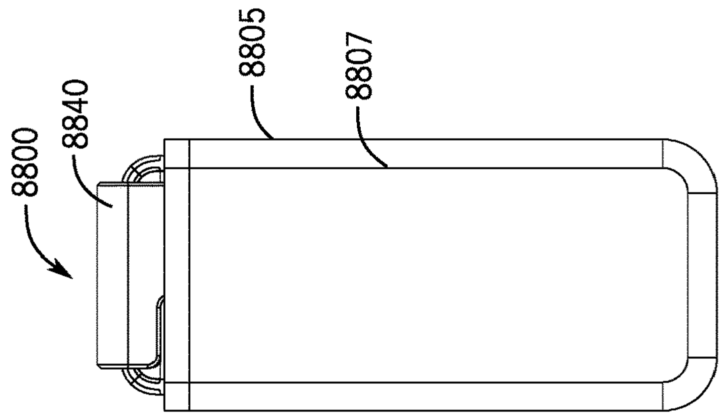


FIG. 88C

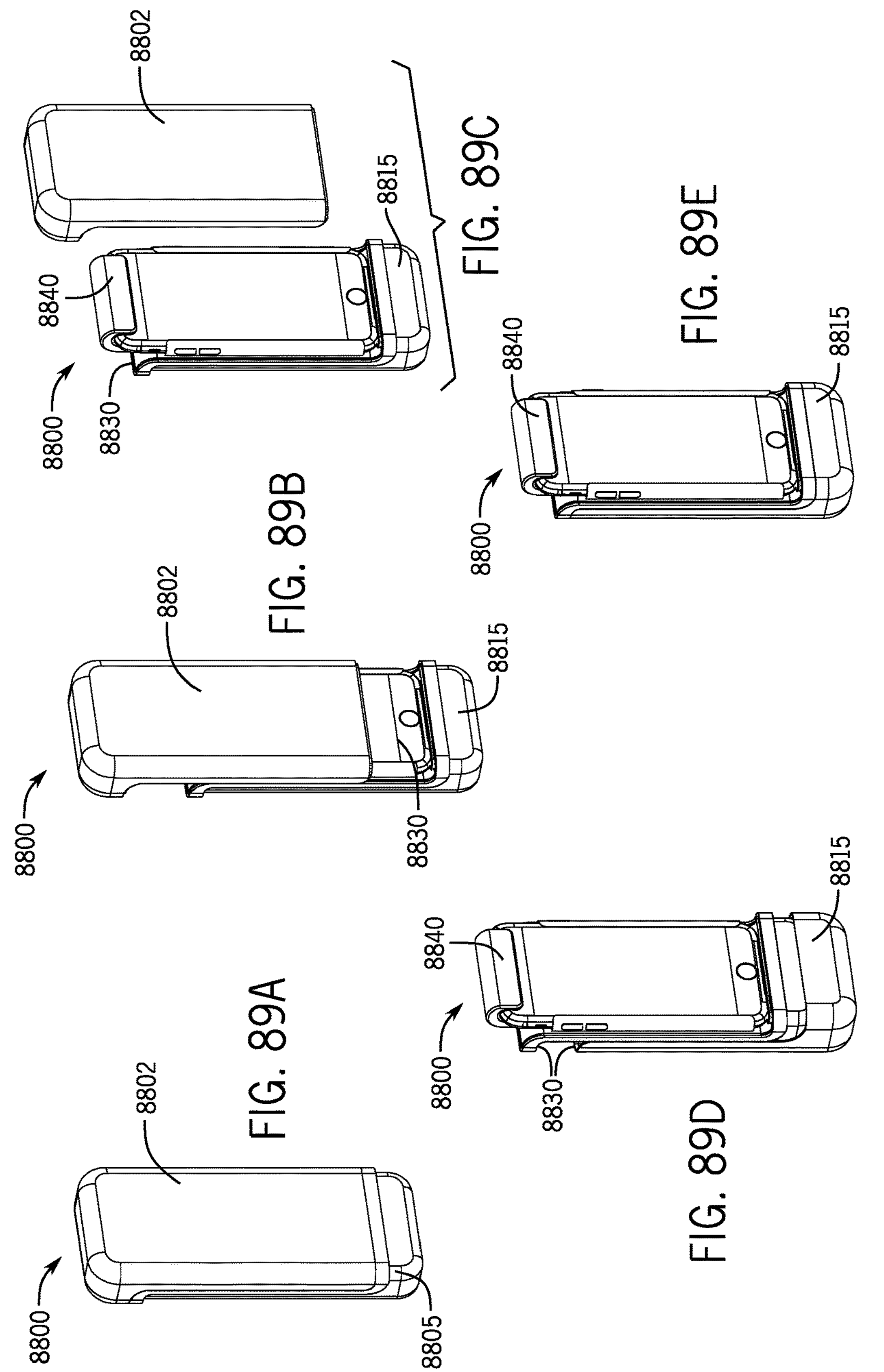


FIG. 89A

FIG. 89B

FIG. 89C

FIG. 89D

FIG. 89E

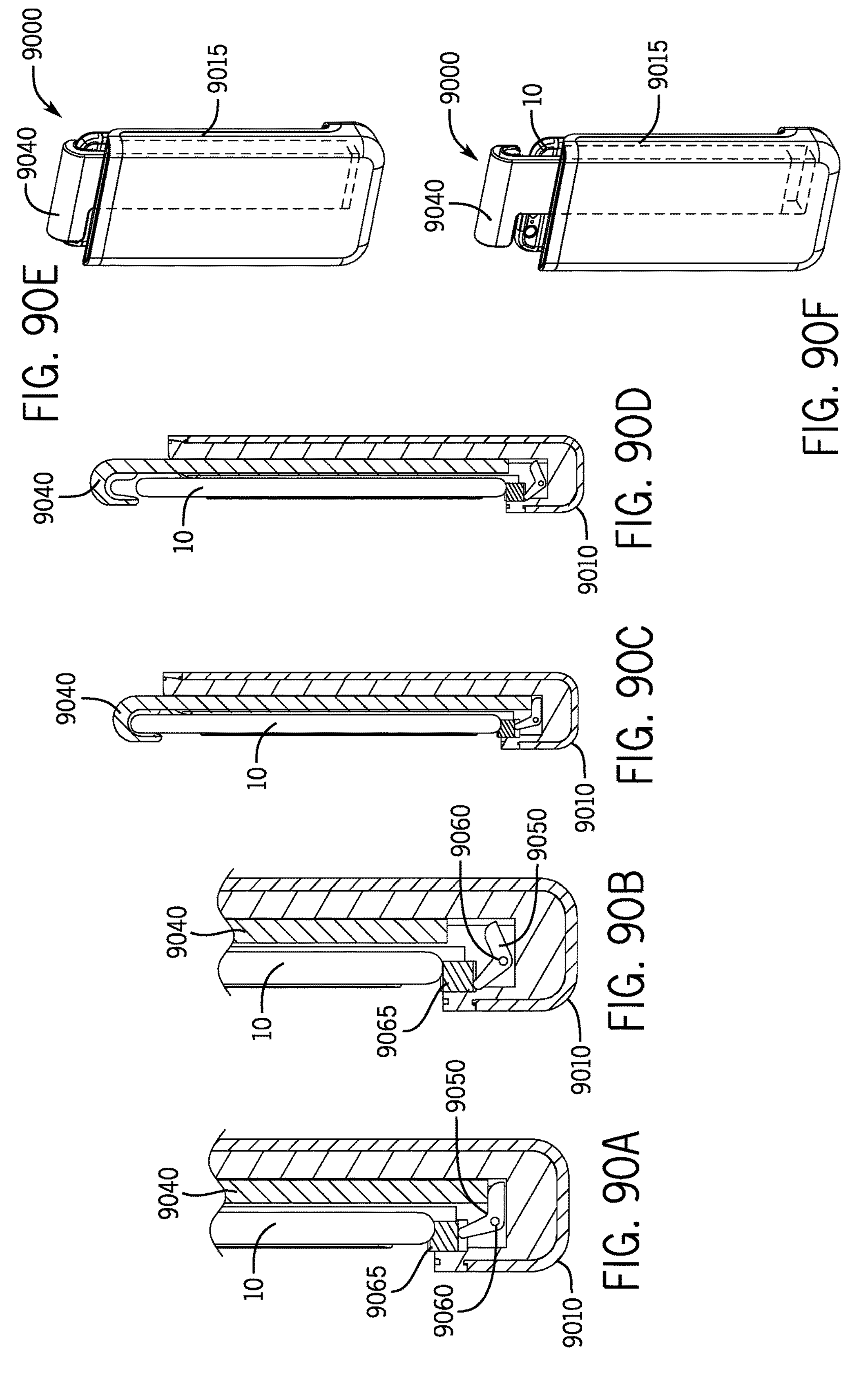


FIG. 90A

FIG. 90B

FIG. 90C

FIG. 90D

FIG. 90E

FIG. 90F

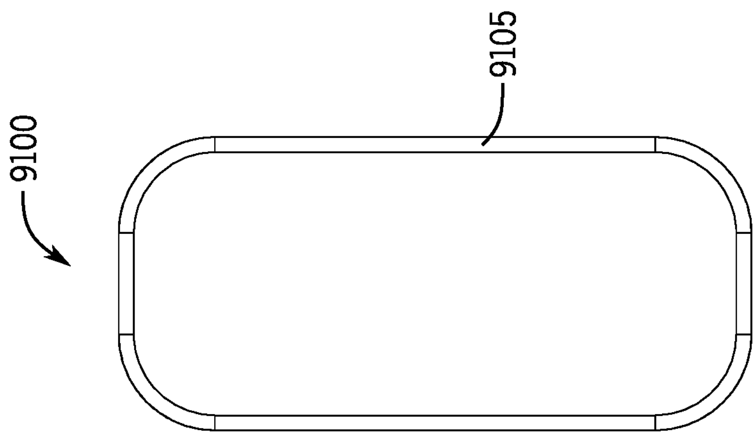


FIG. 91C

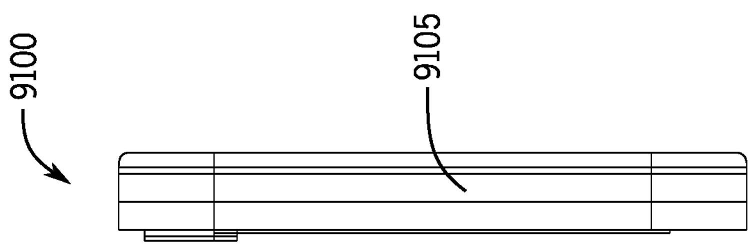


FIG. 91B

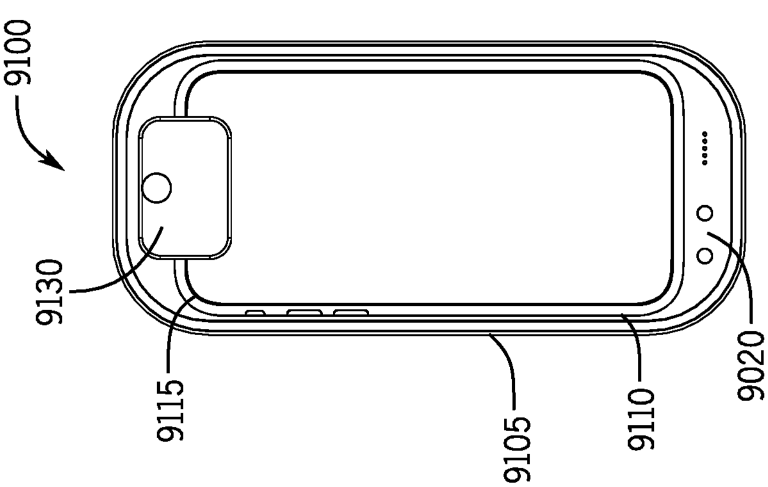


FIG. 91A

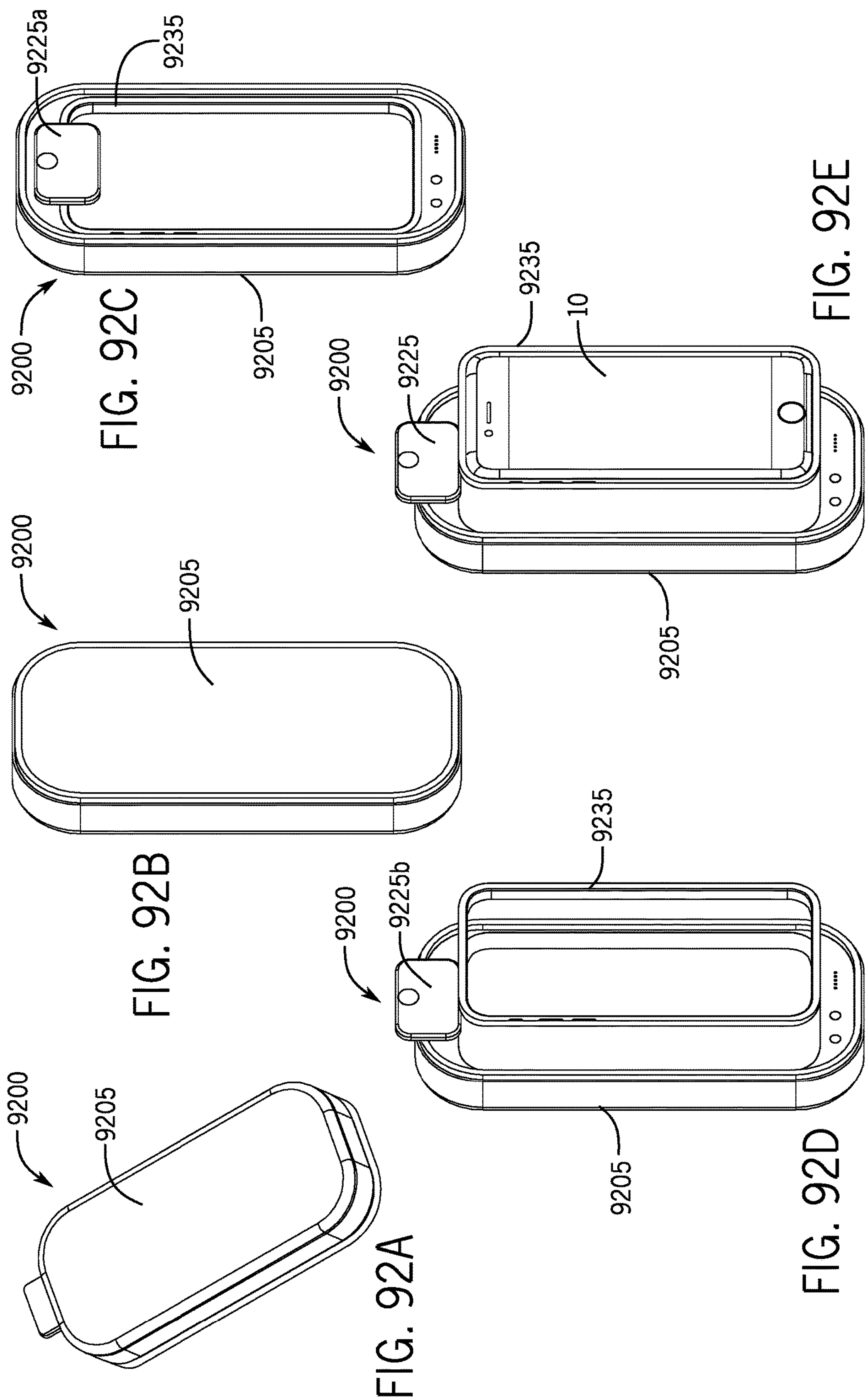


FIG. 92A

FIG. 92B

FIG. 92C

FIG. 92D

FIG. 92E

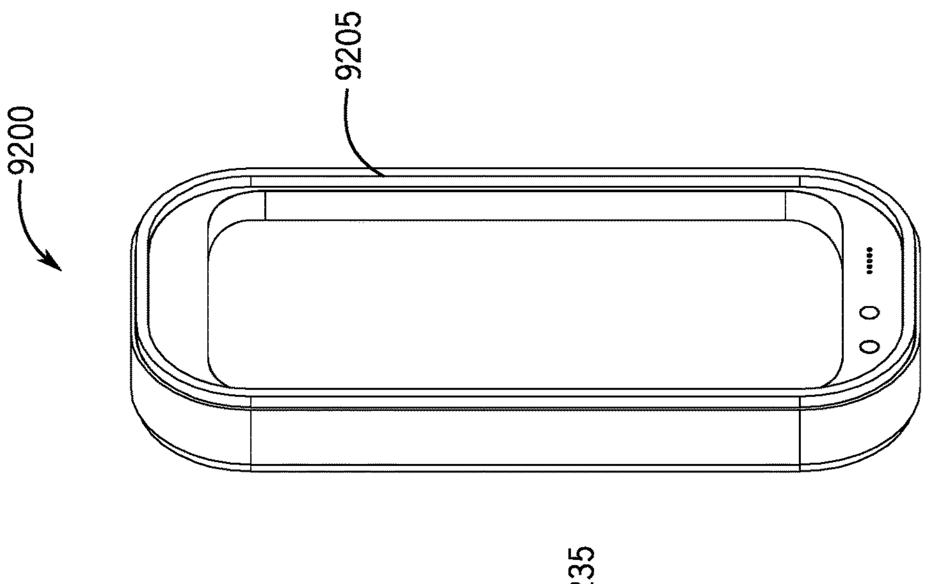


FIG. 93C

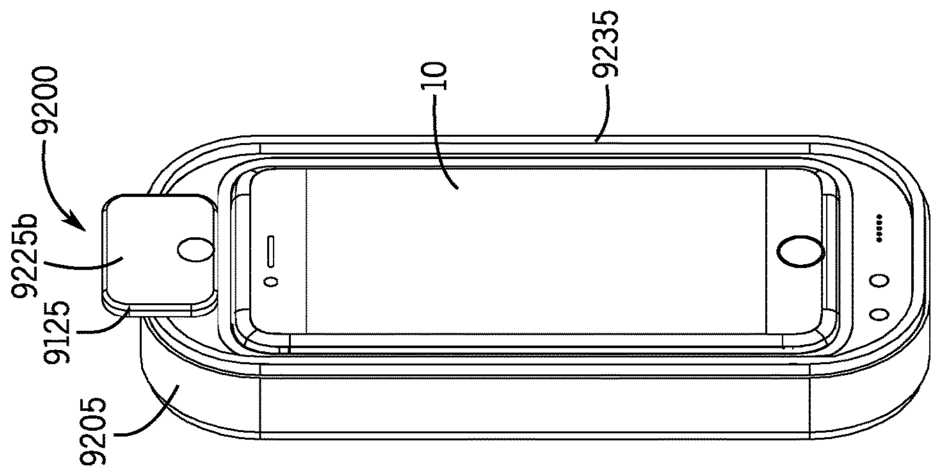


FIG. 93B

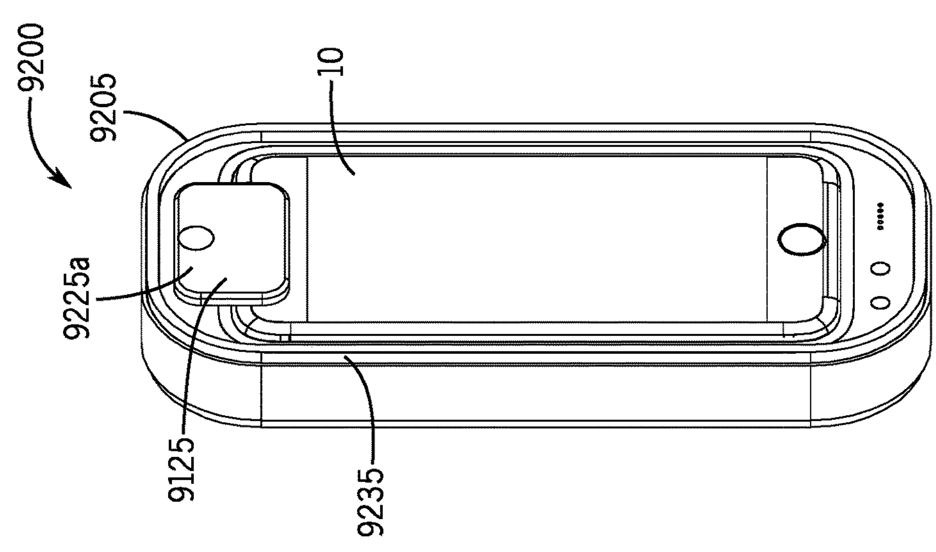


FIG. 93A

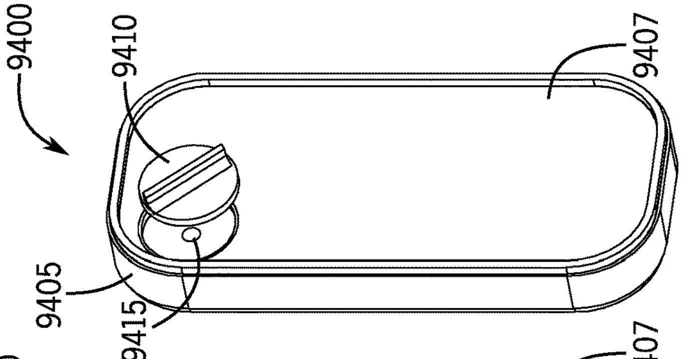


FIG. 94D

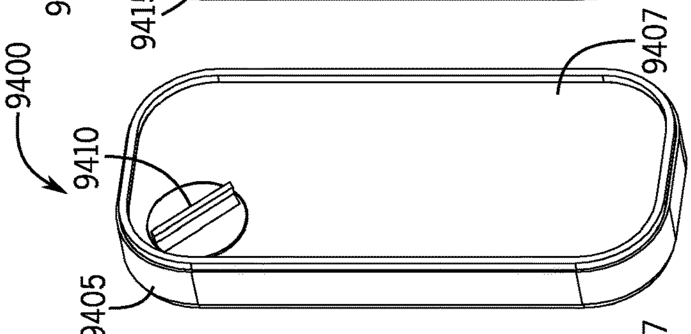


FIG. 94C

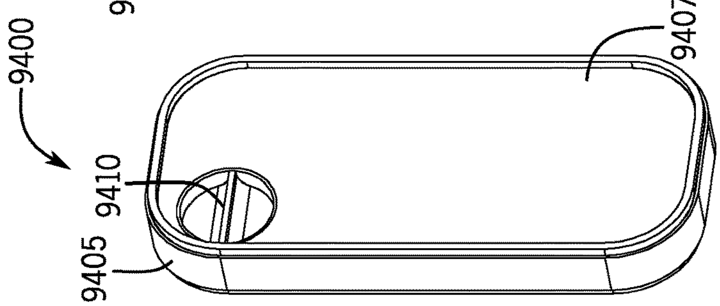


FIG. 94B

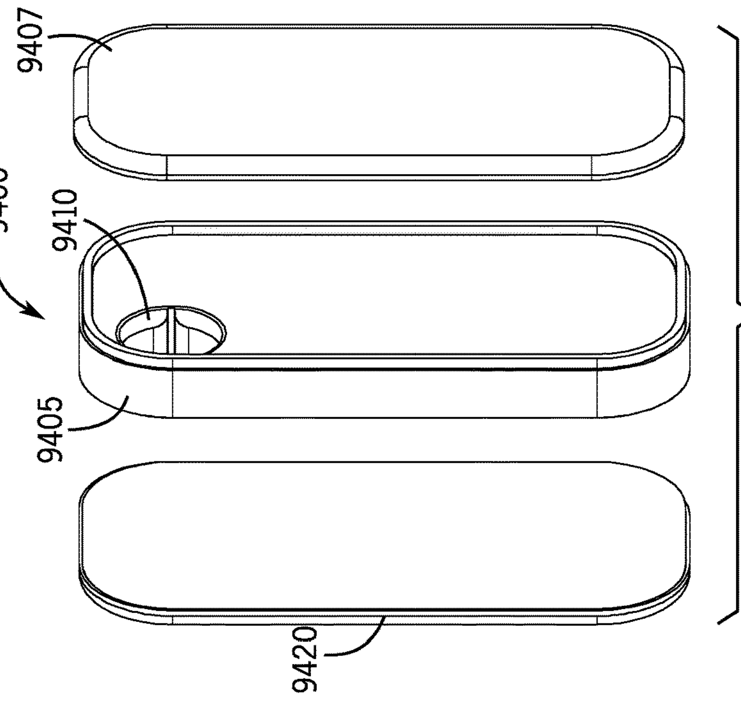


FIG. 94A

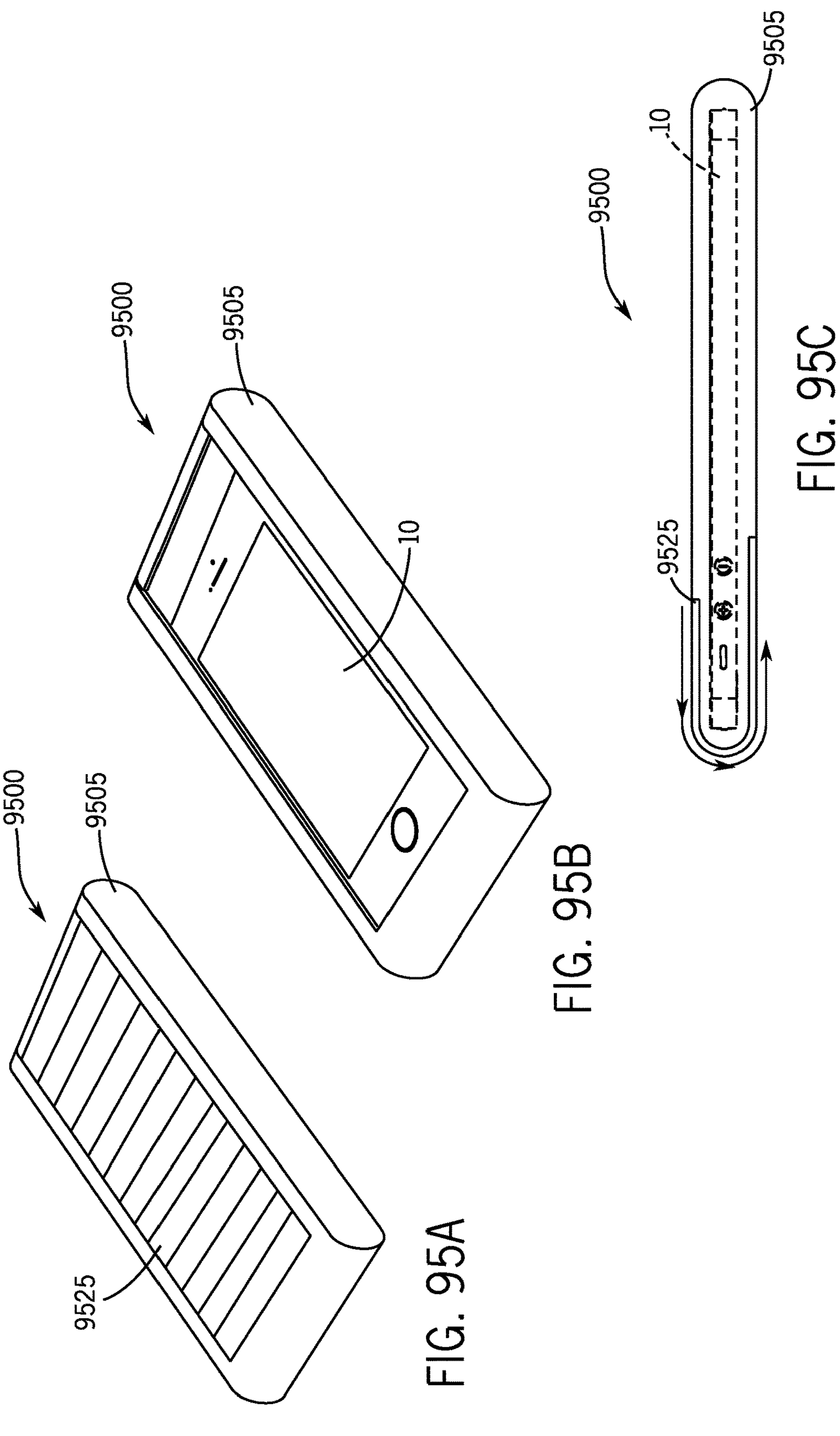
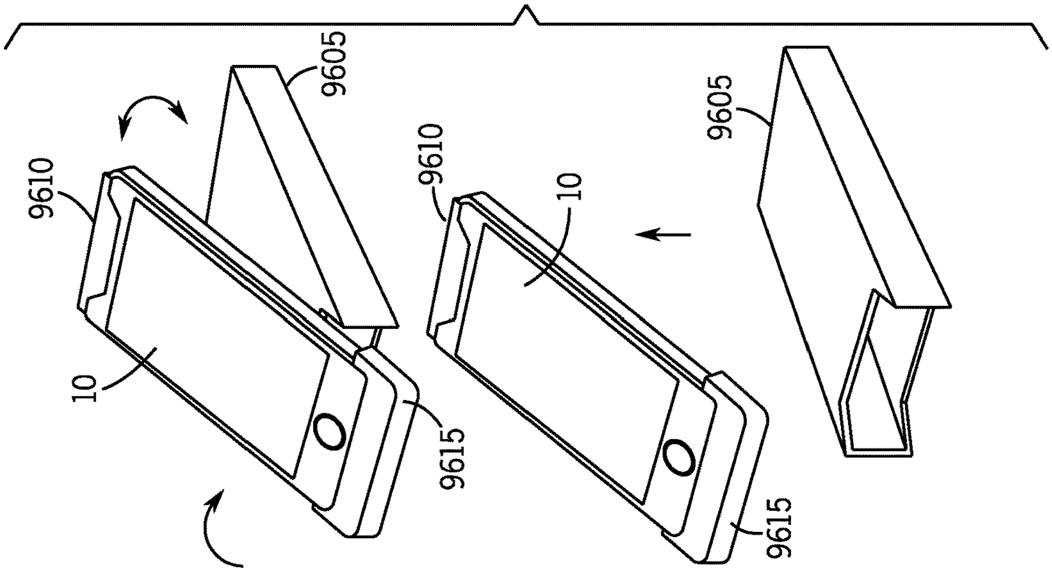


FIG. 95A

FIG. 95B

FIG. 95C

FIG. 96B



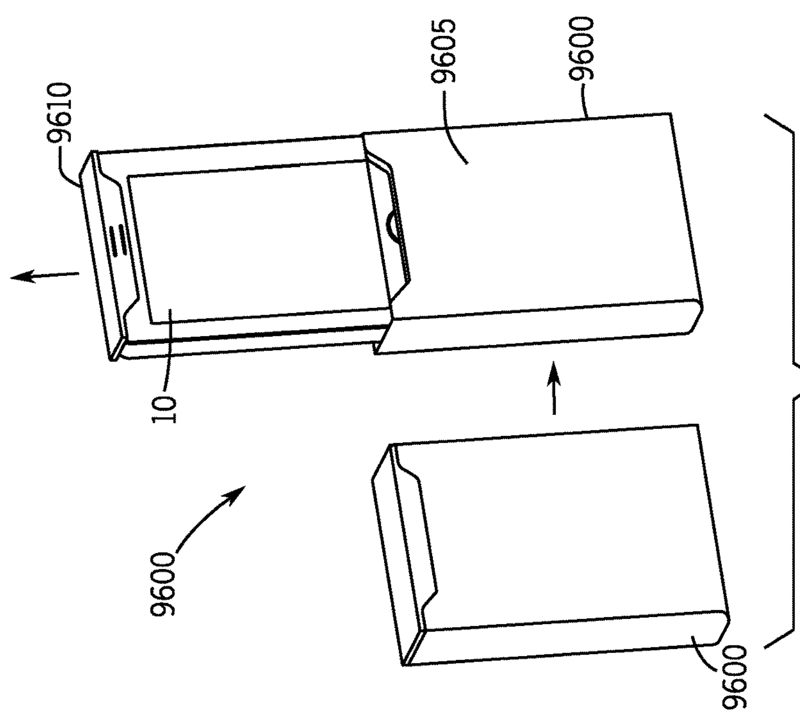


FIG. 96A

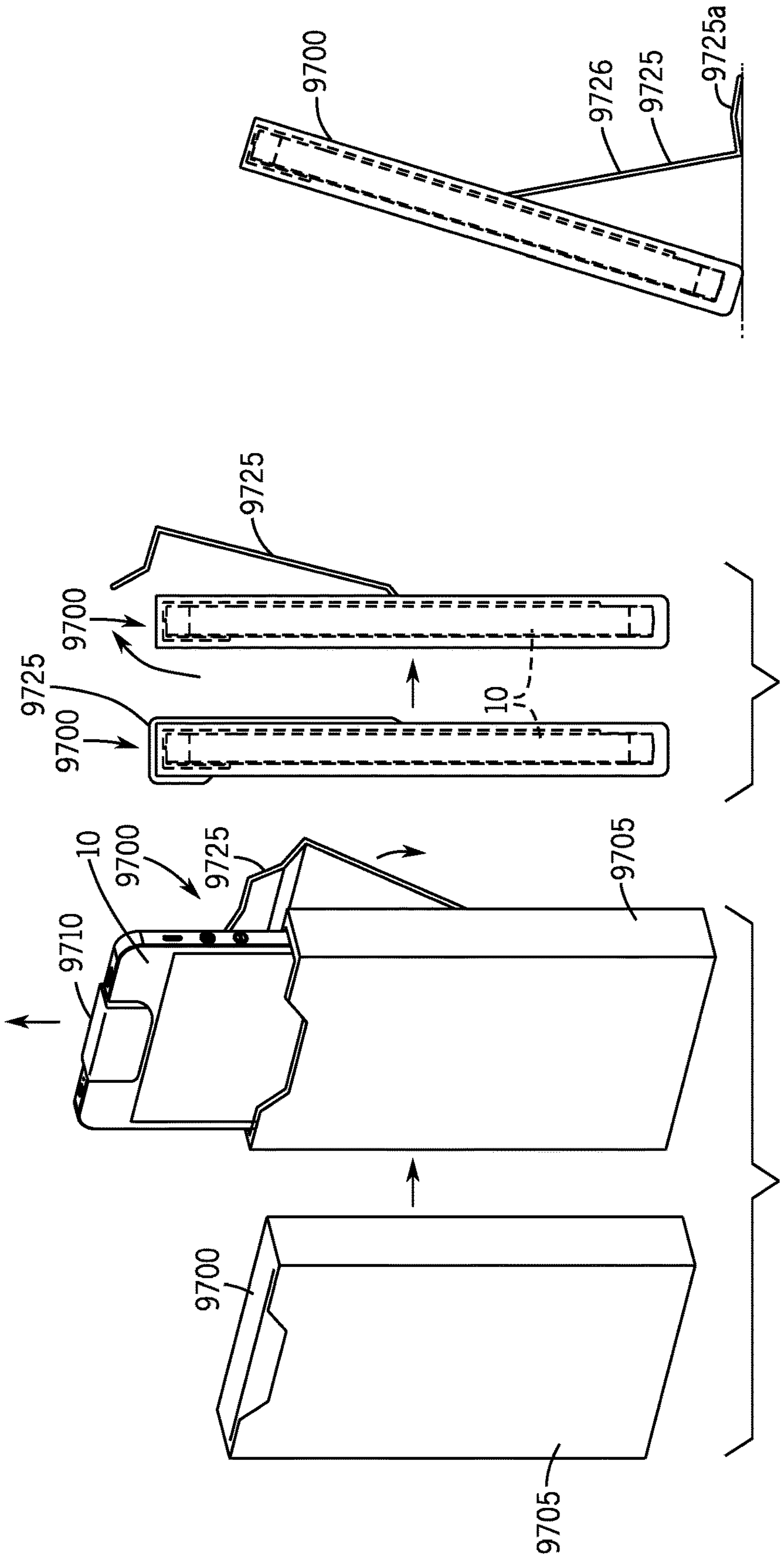


FIG. 97A

FIG. 97B

FIG. 97C

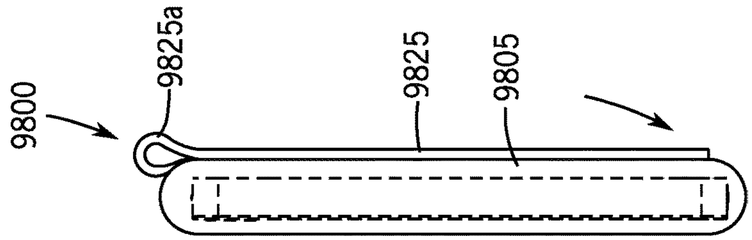


FIG. 98C

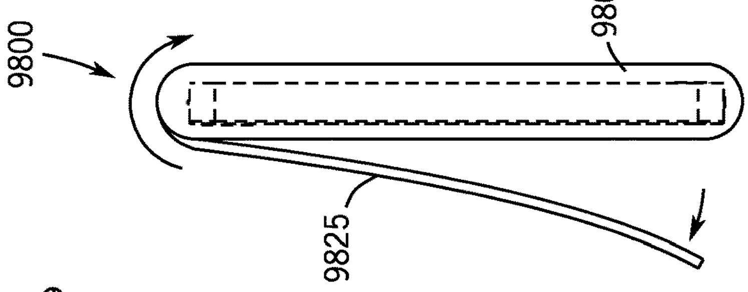


FIG. 98B

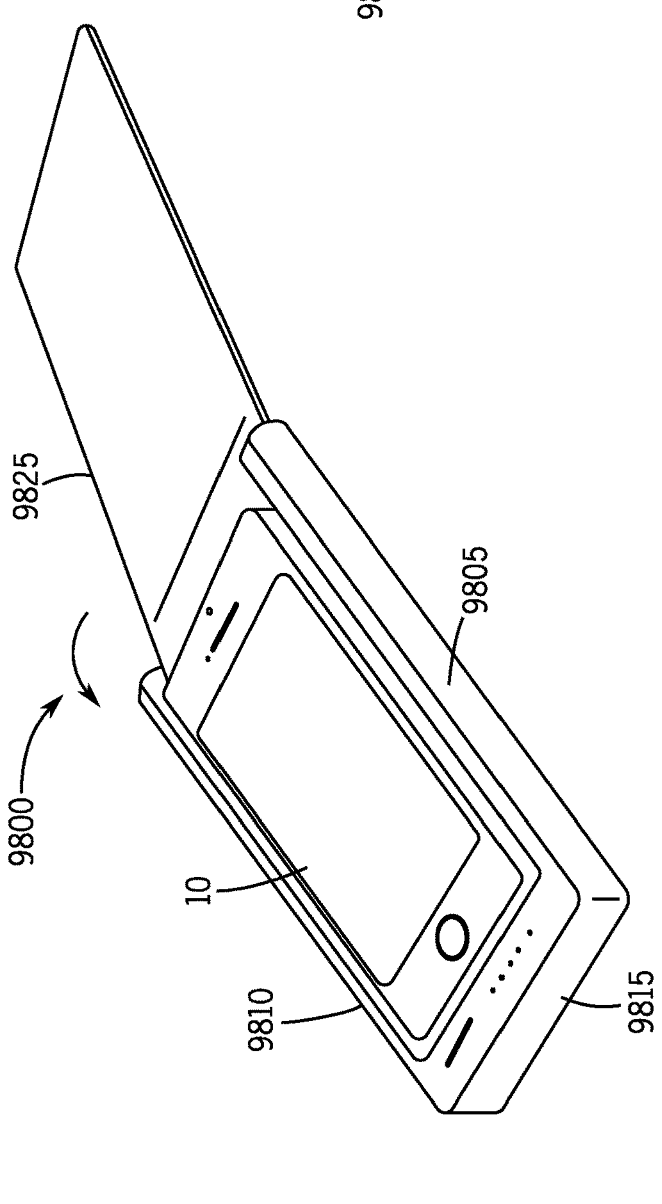


FIG. 98A

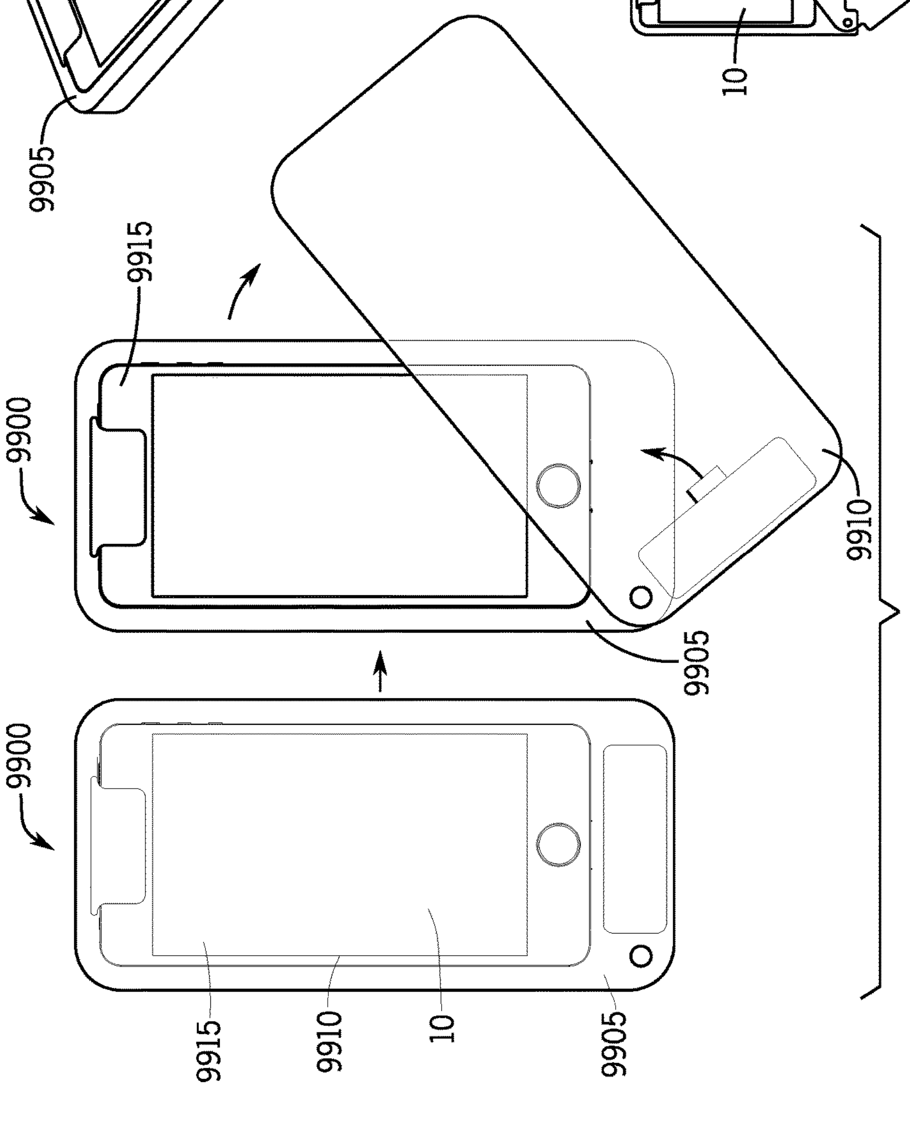


FIG. 99A

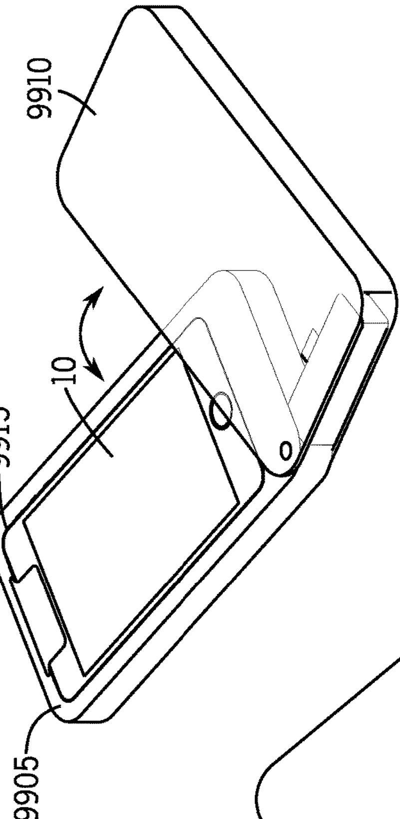


FIG. 99B

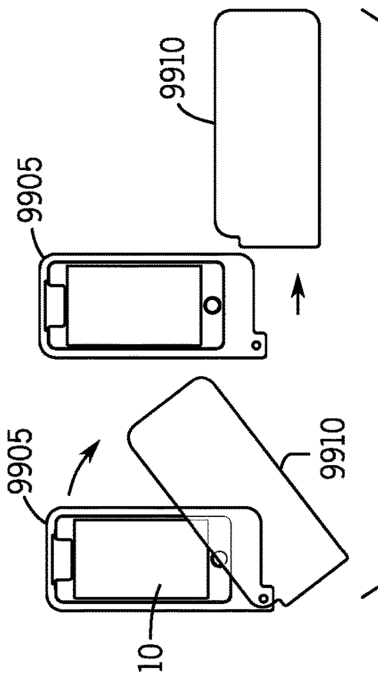


FIG. 99C

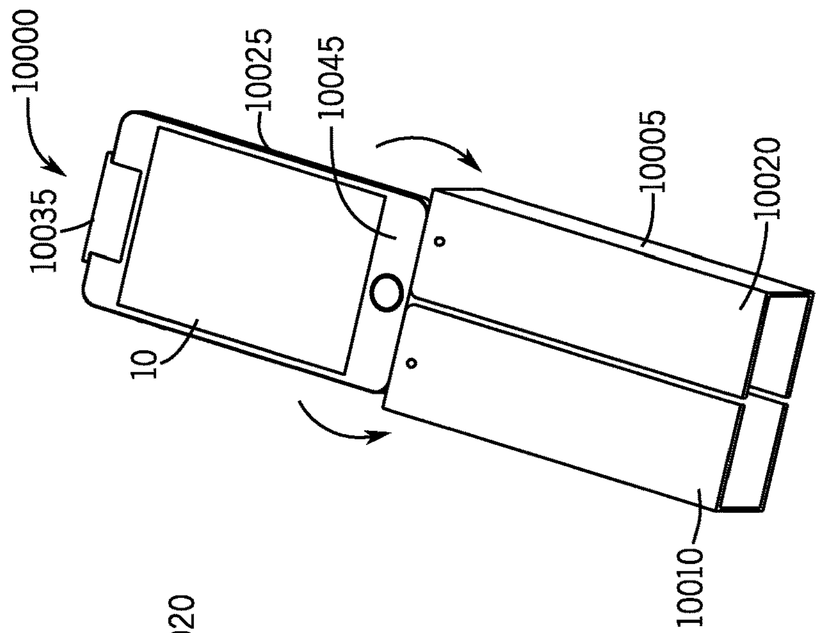


FIG. 100C

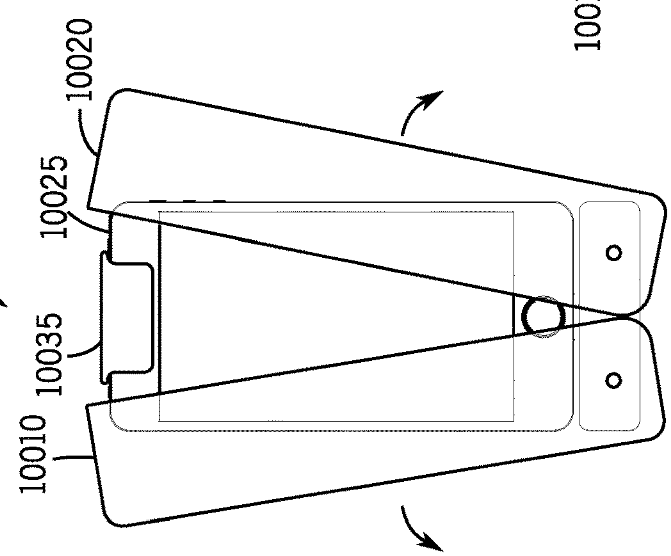


FIG. 100B

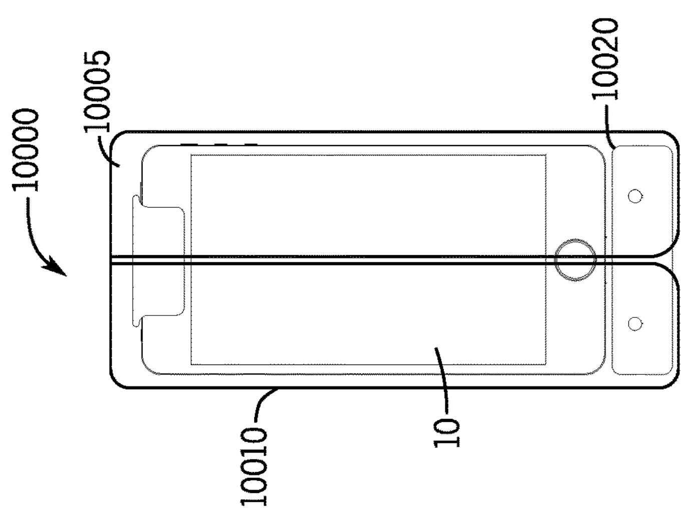


FIG. 100A

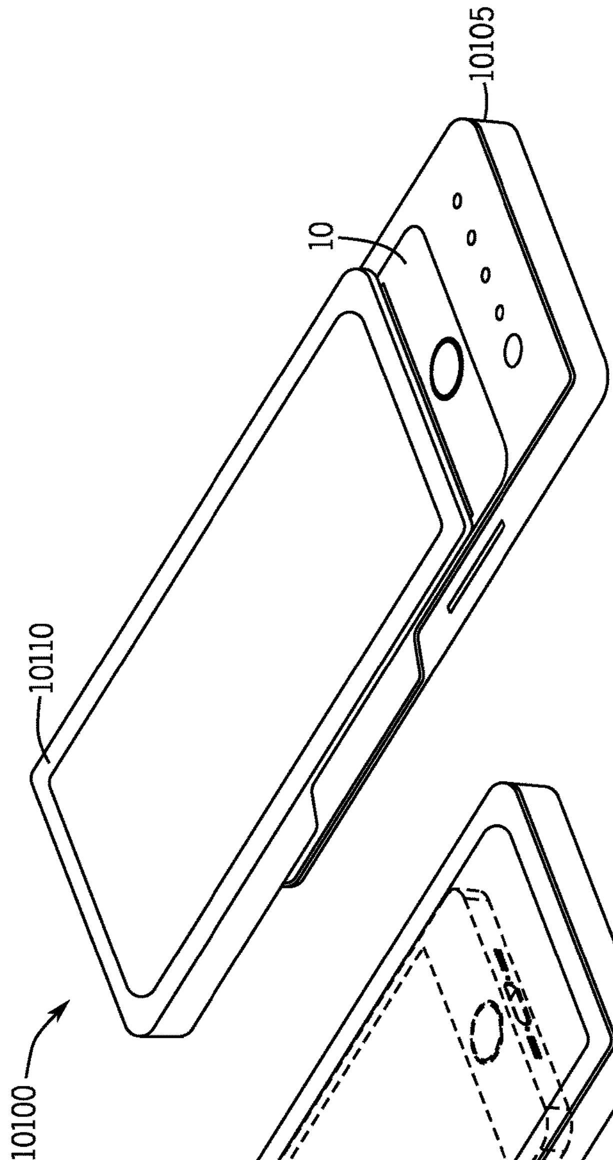


FIG. 101B

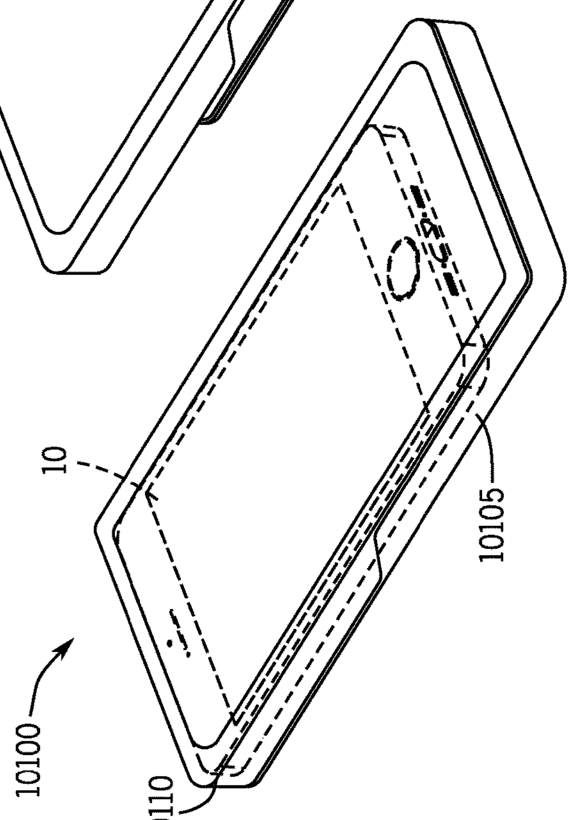


FIG. 101A

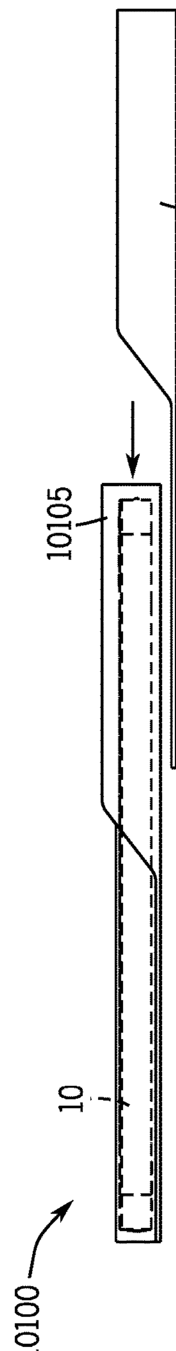


FIG. 101C

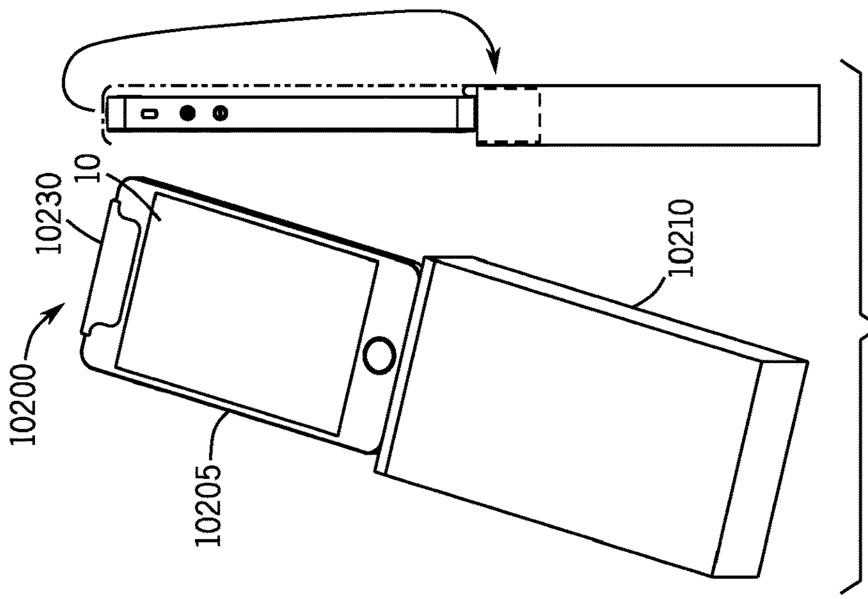


FIG. 102C

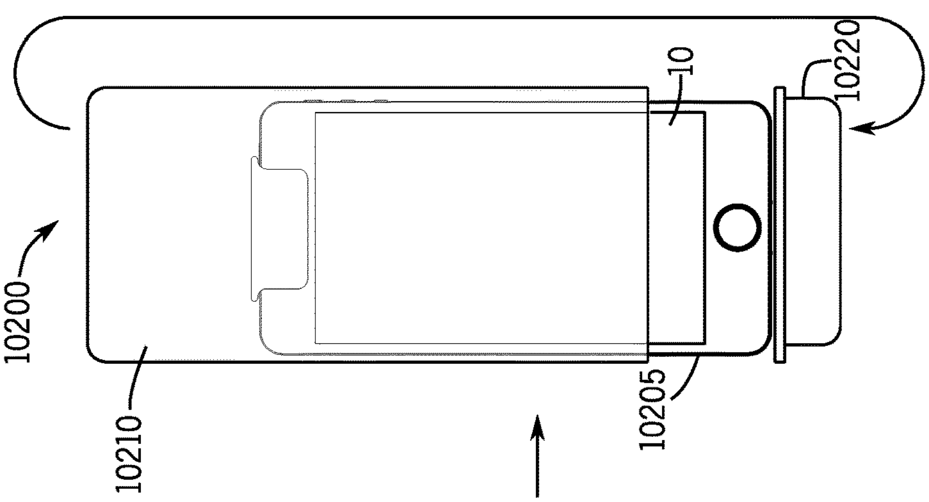


FIG. 102B

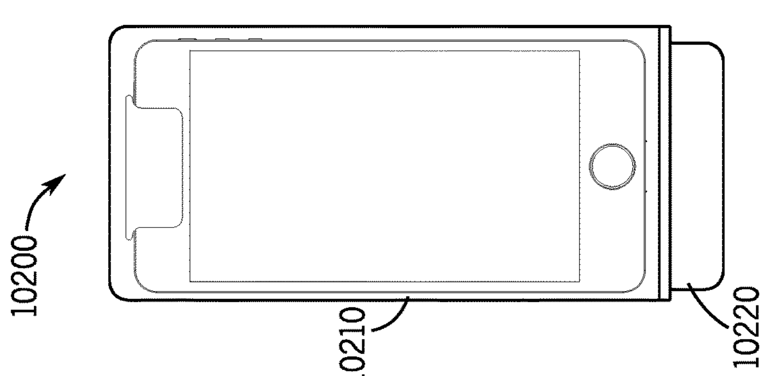


FIG. 102A

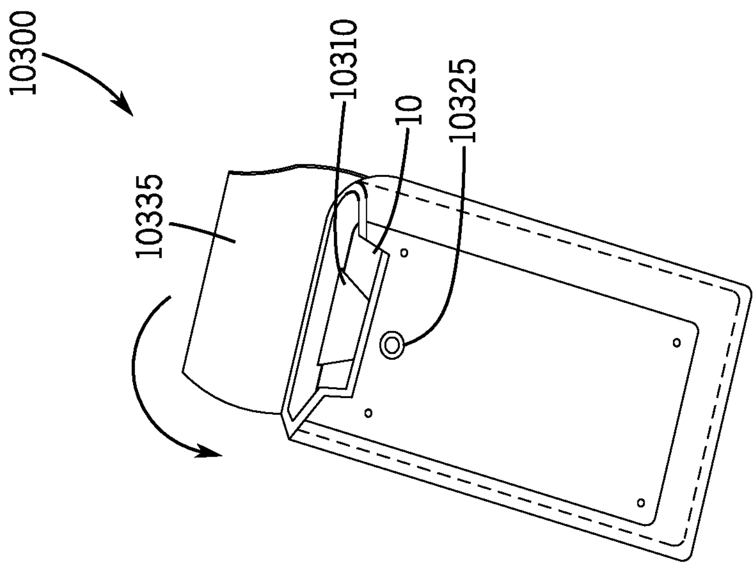


FIG. 103B

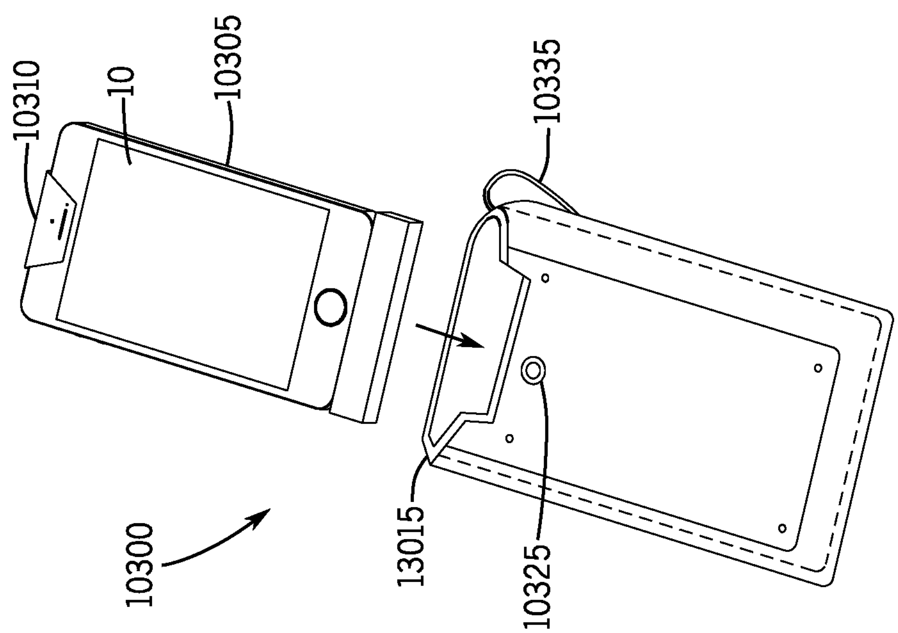


FIG. 103A

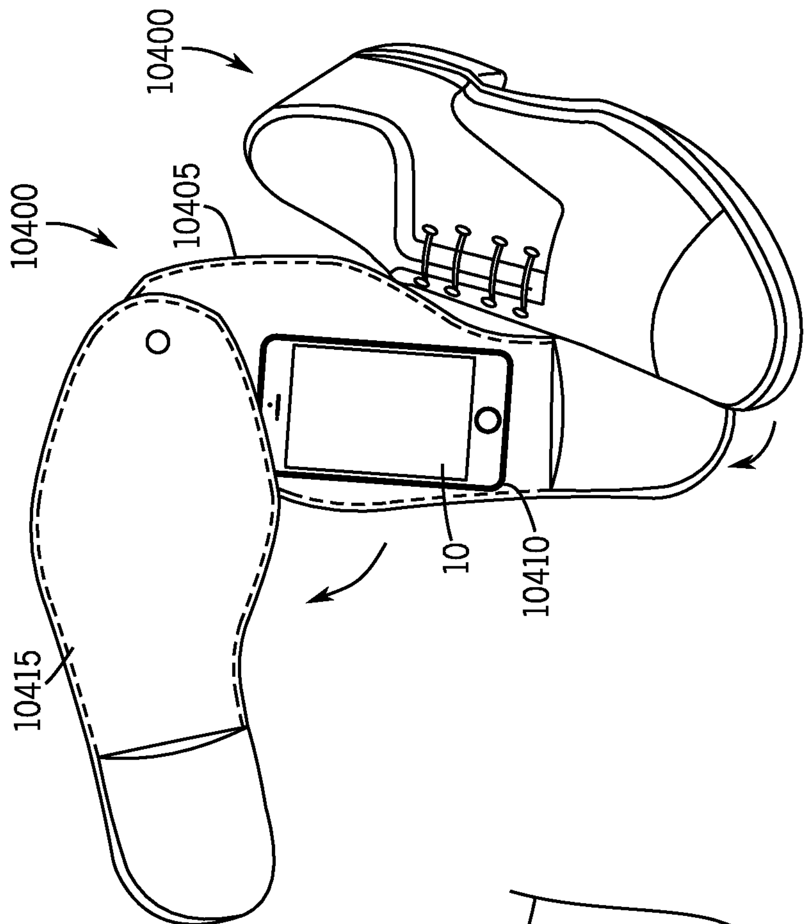


FIG. 104A

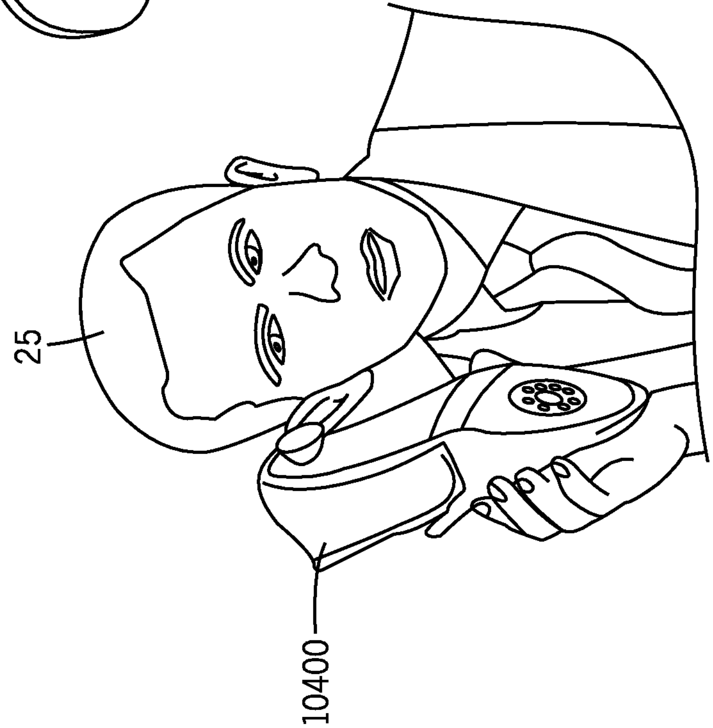
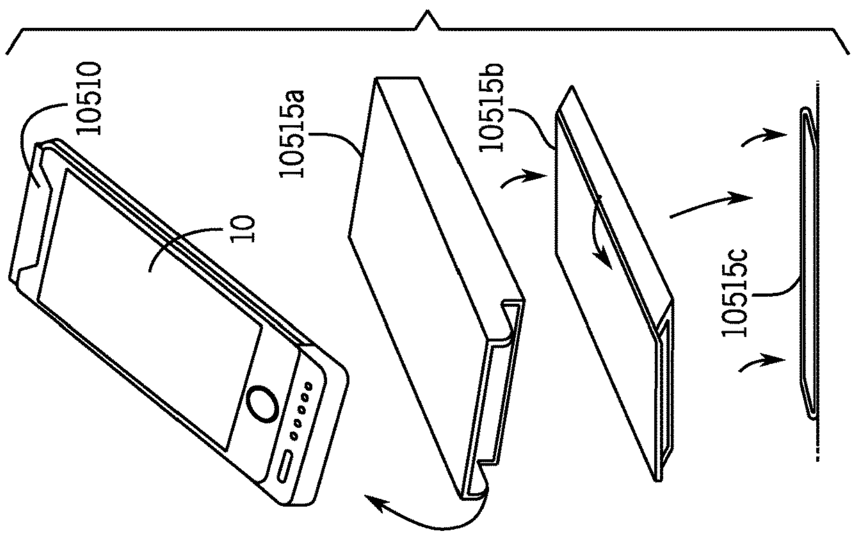


FIG. 104B

FIG. 105C



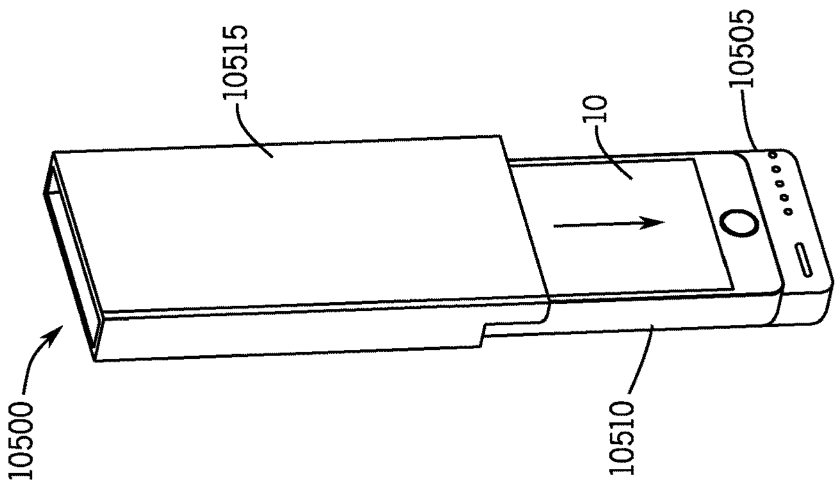


FIG. 105B

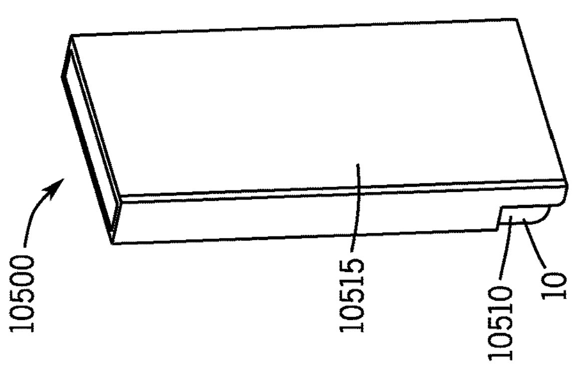


FIG. 105A

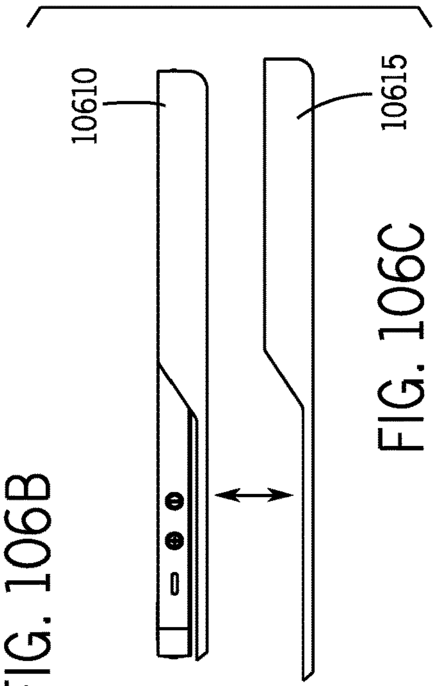


FIG. 106C

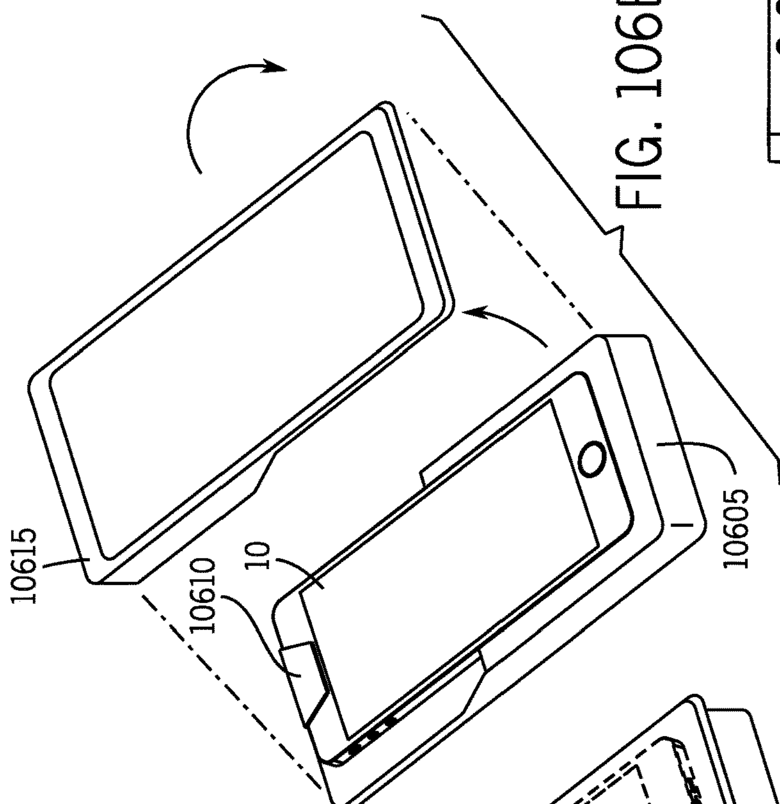


FIG. 106B

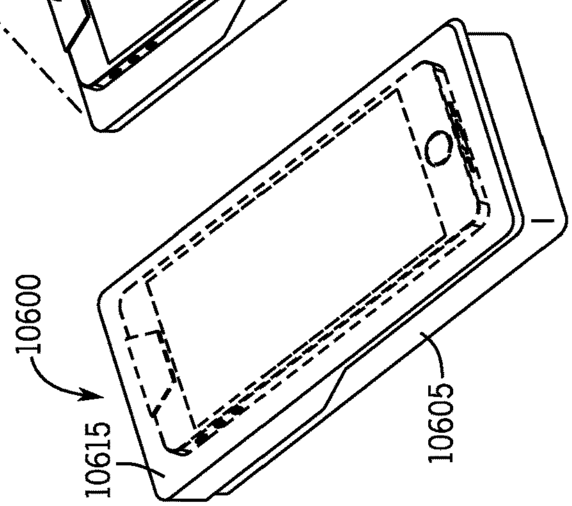


FIG. 106A

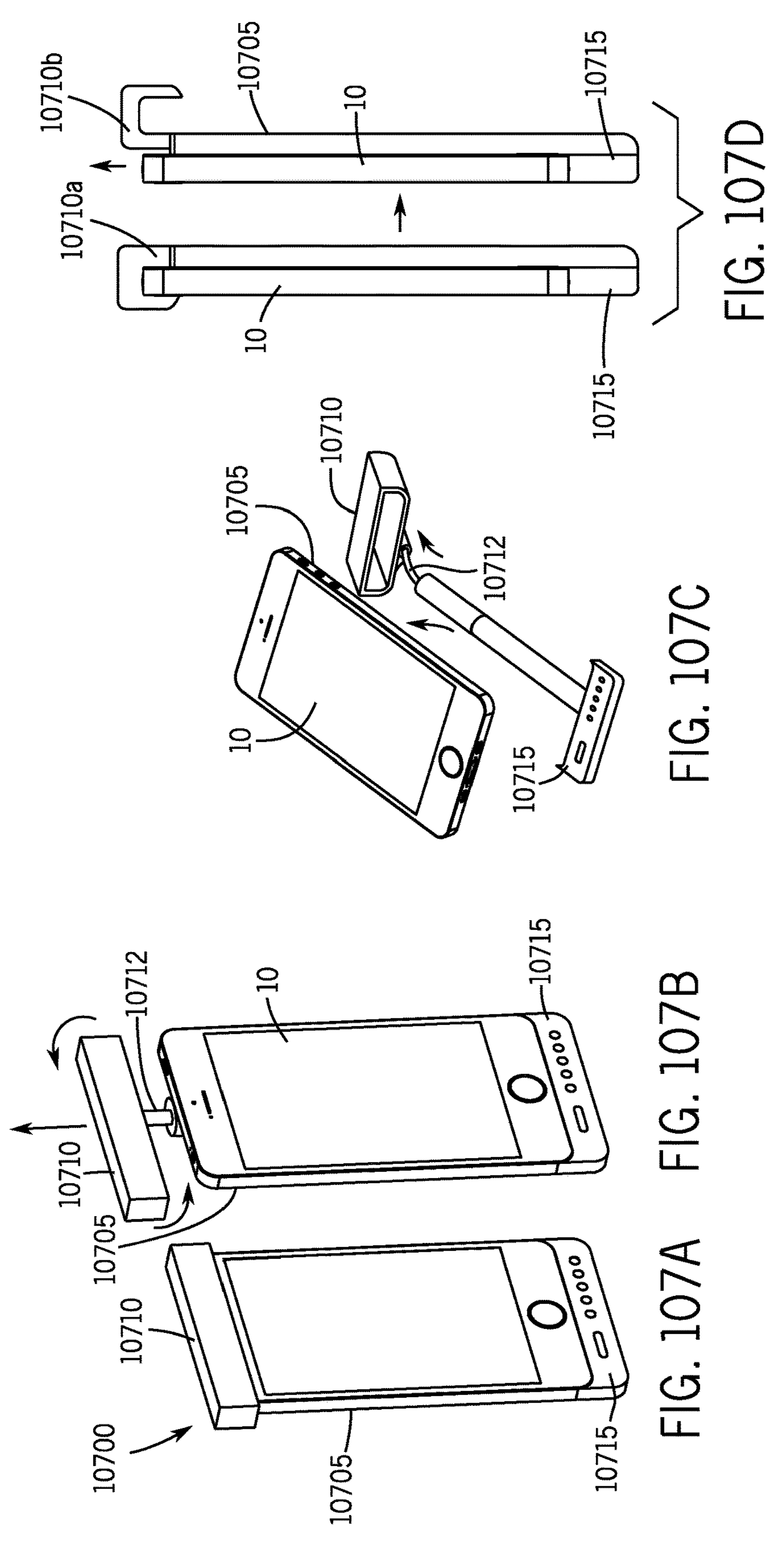


FIG. 107D

FIG. 107C

FIG. 107B

FIG. 107A

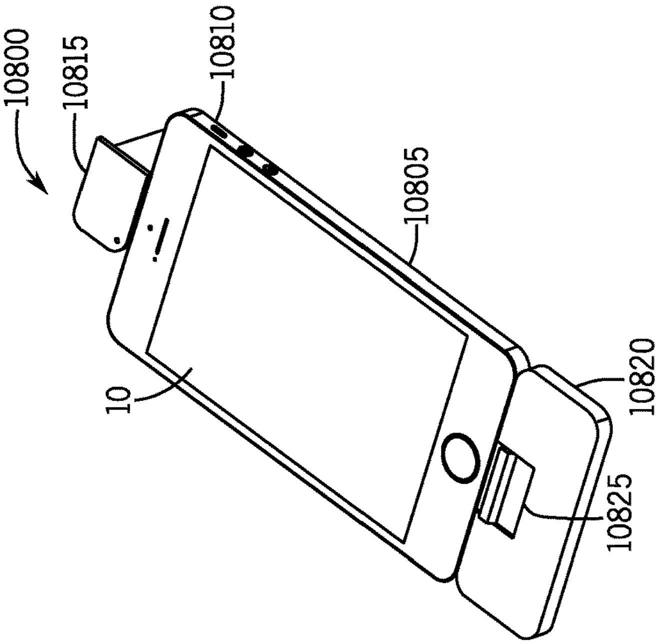


FIG. 108C

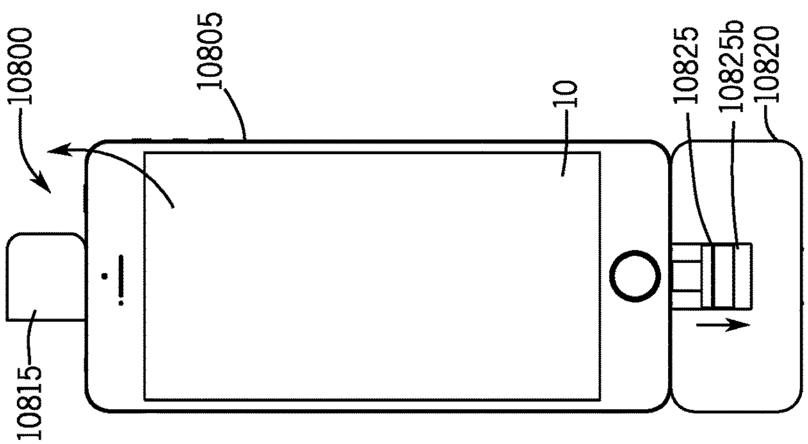


FIG. 108B

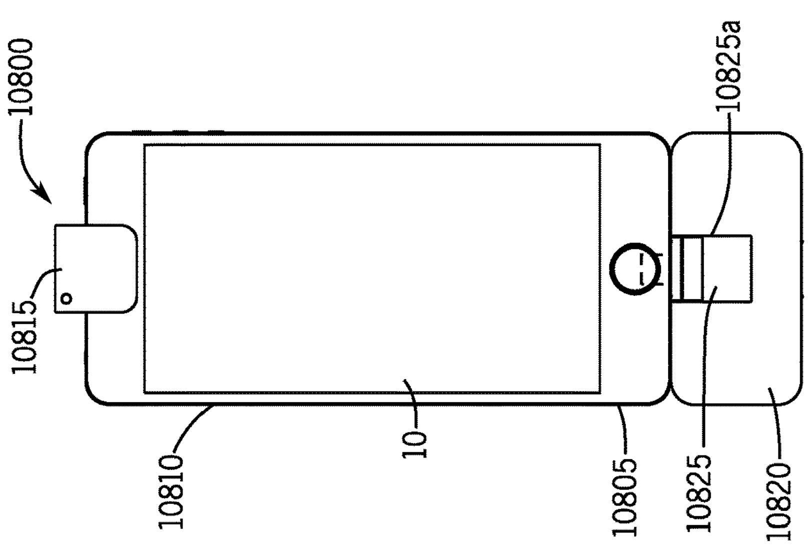


FIG. 108A

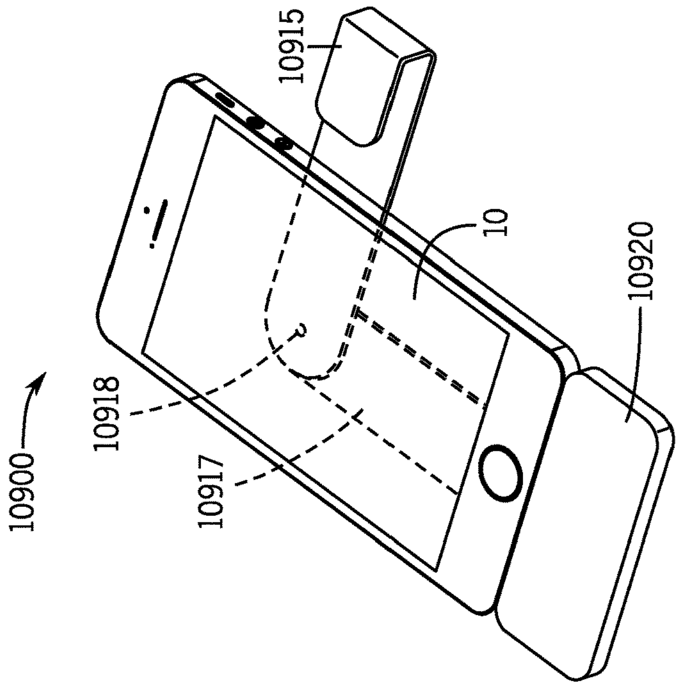


FIG. 109C

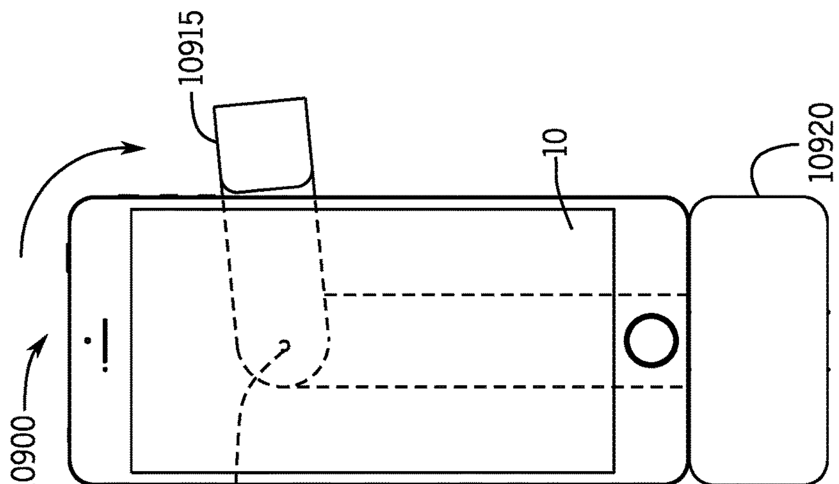


FIG. 109B

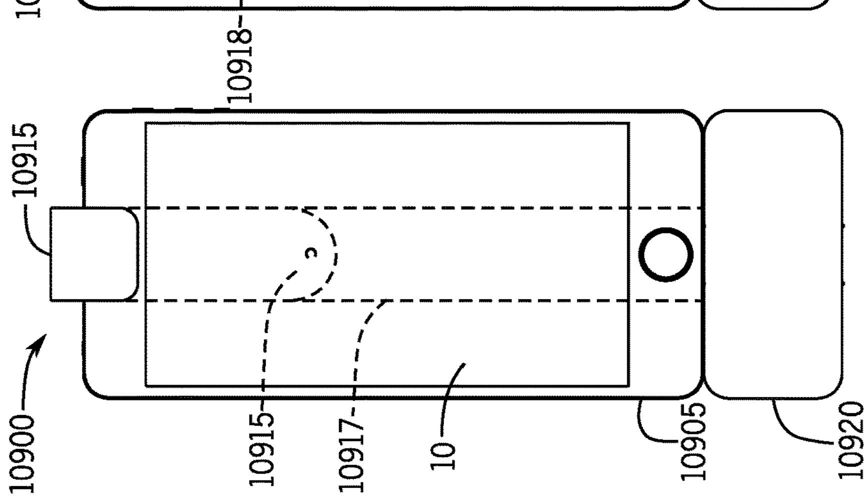


FIG. 109A

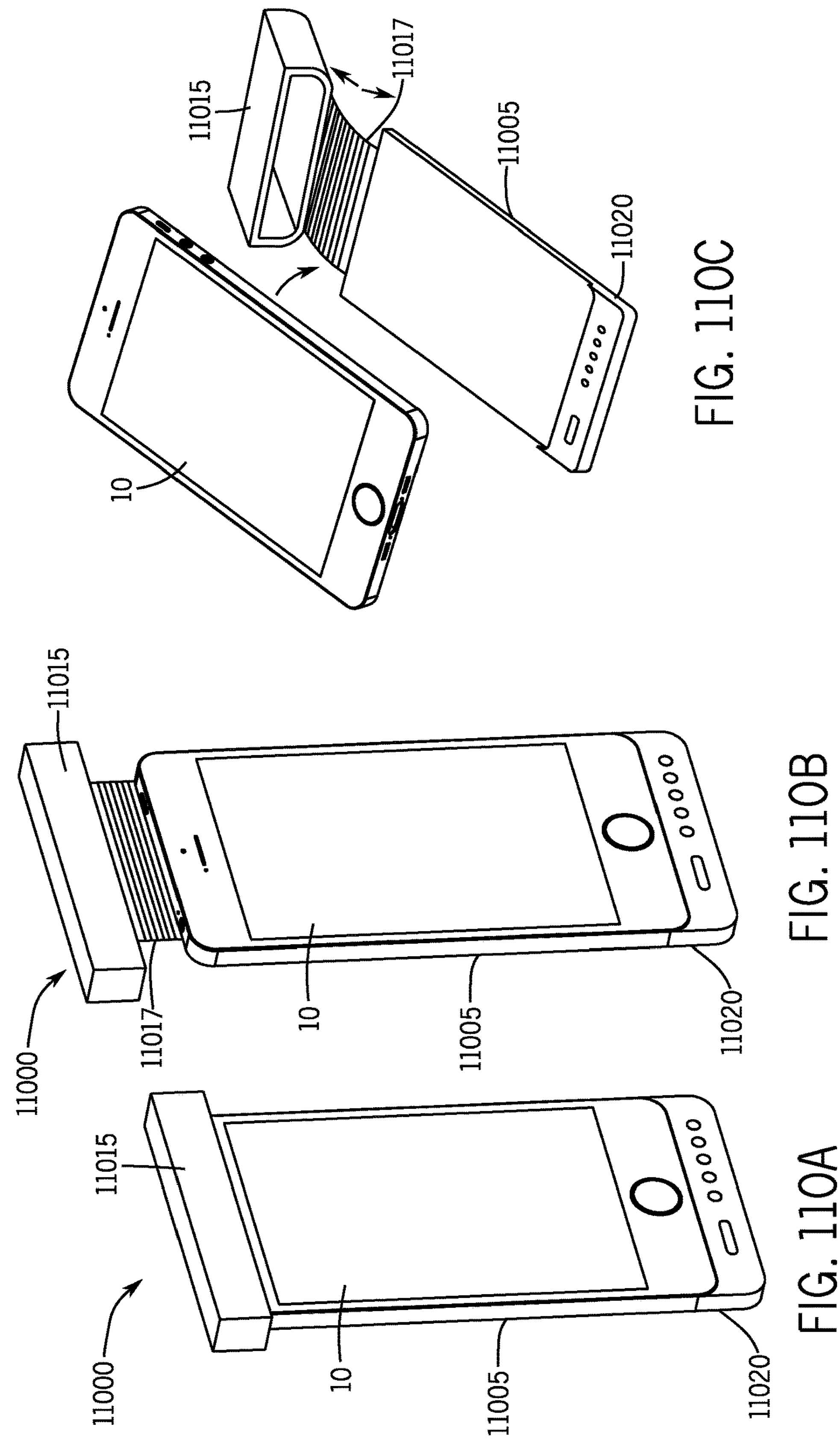


FIG. 110C

FIG. 110B

FIG. 110A

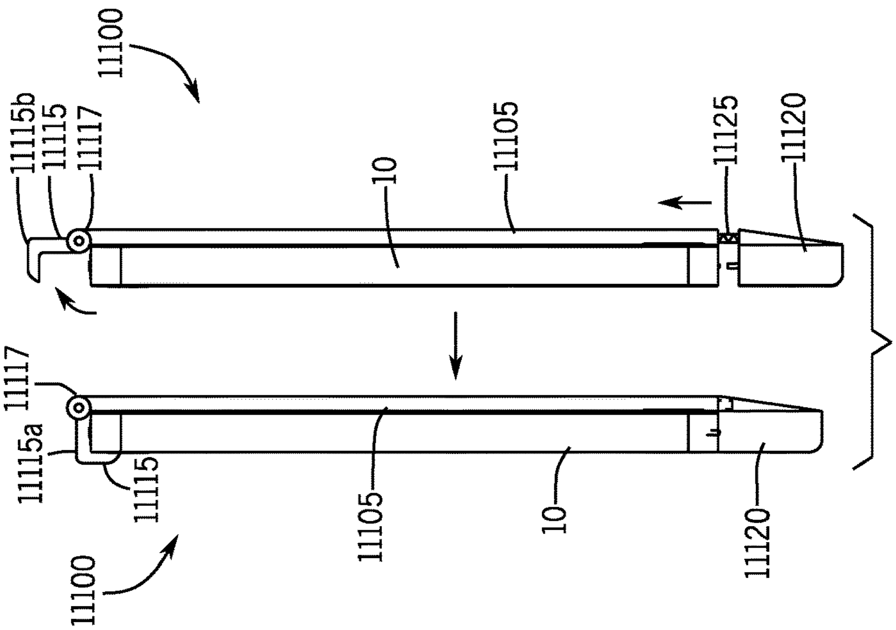


FIG. 111B

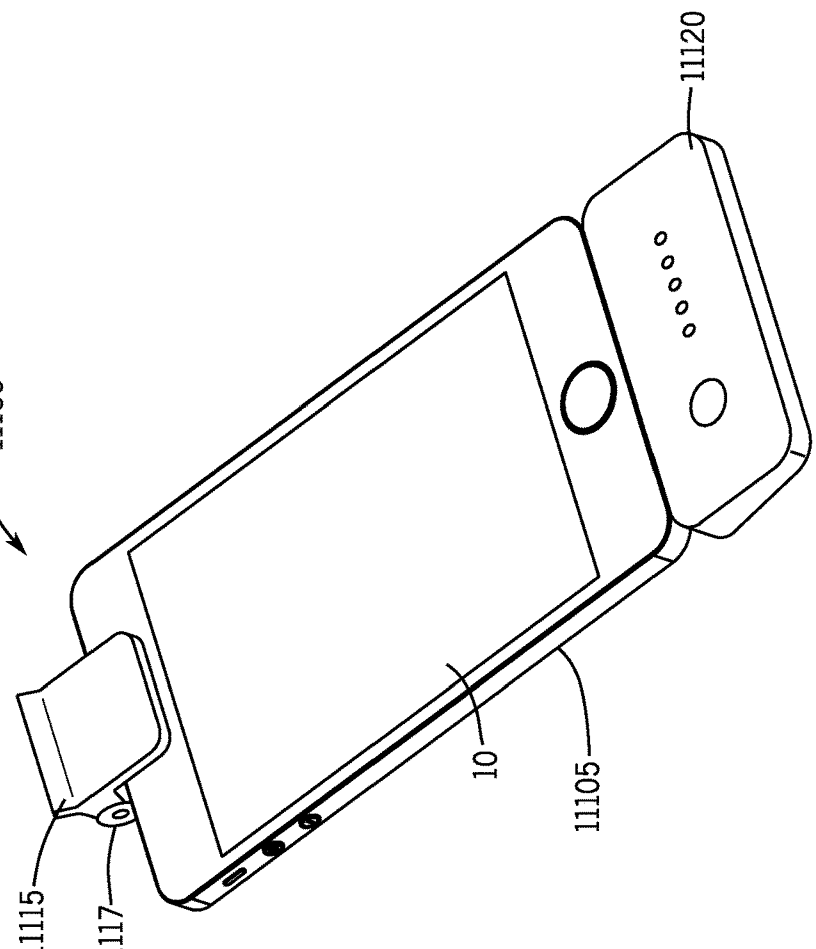


FIG. 111A

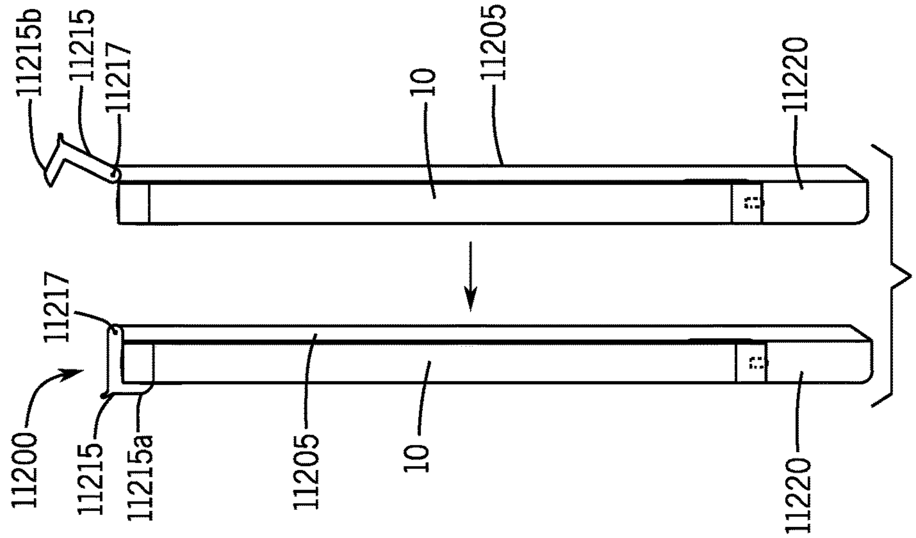


FIG. 112B

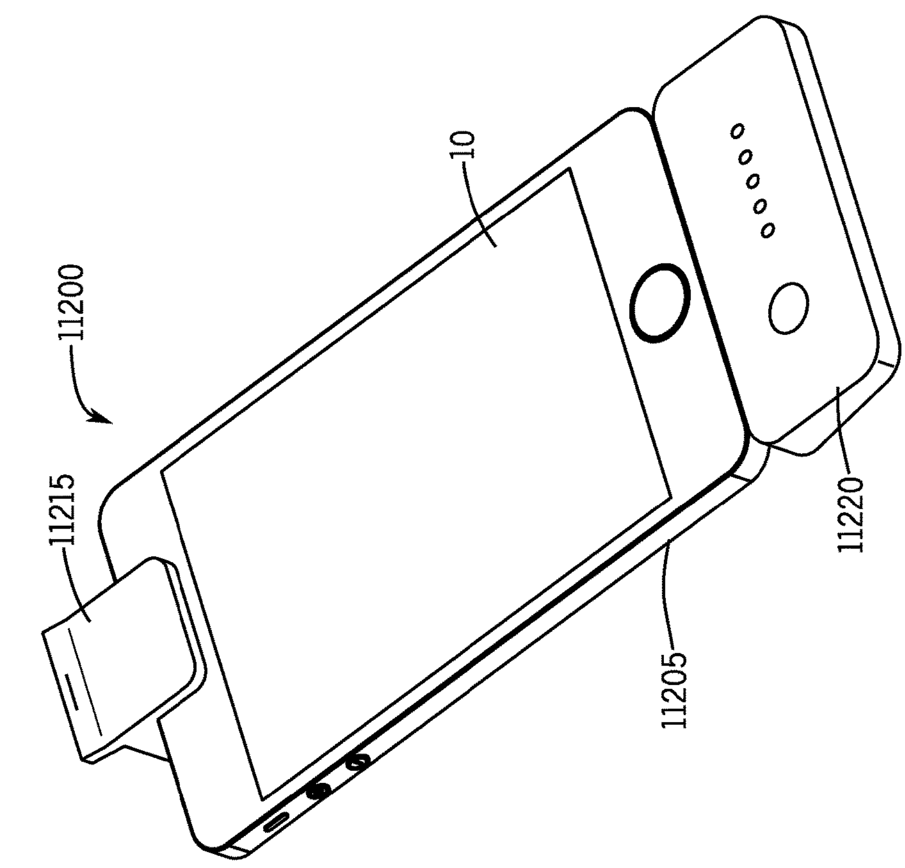


FIG. 112A

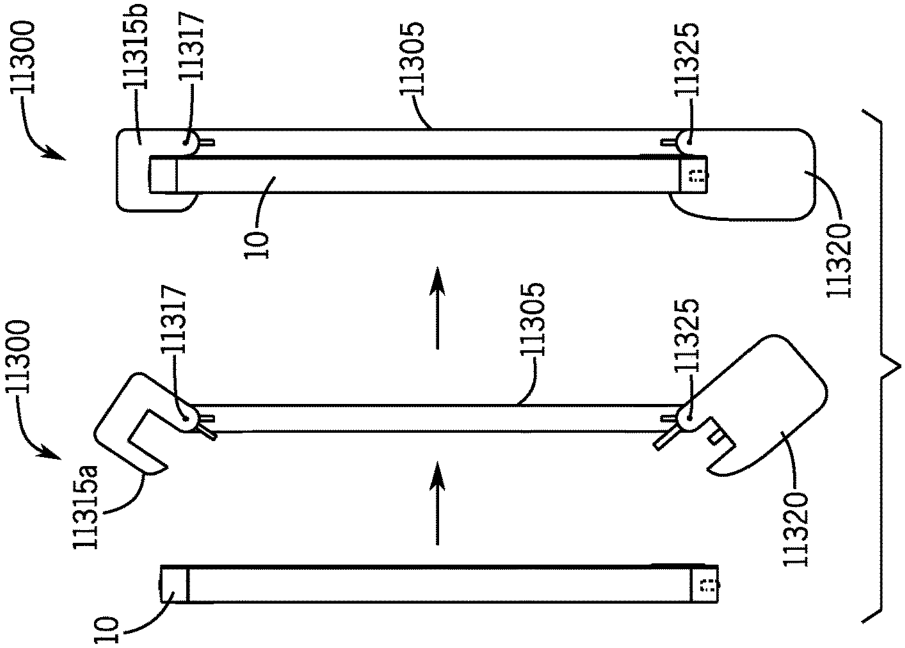


FIG. 113B

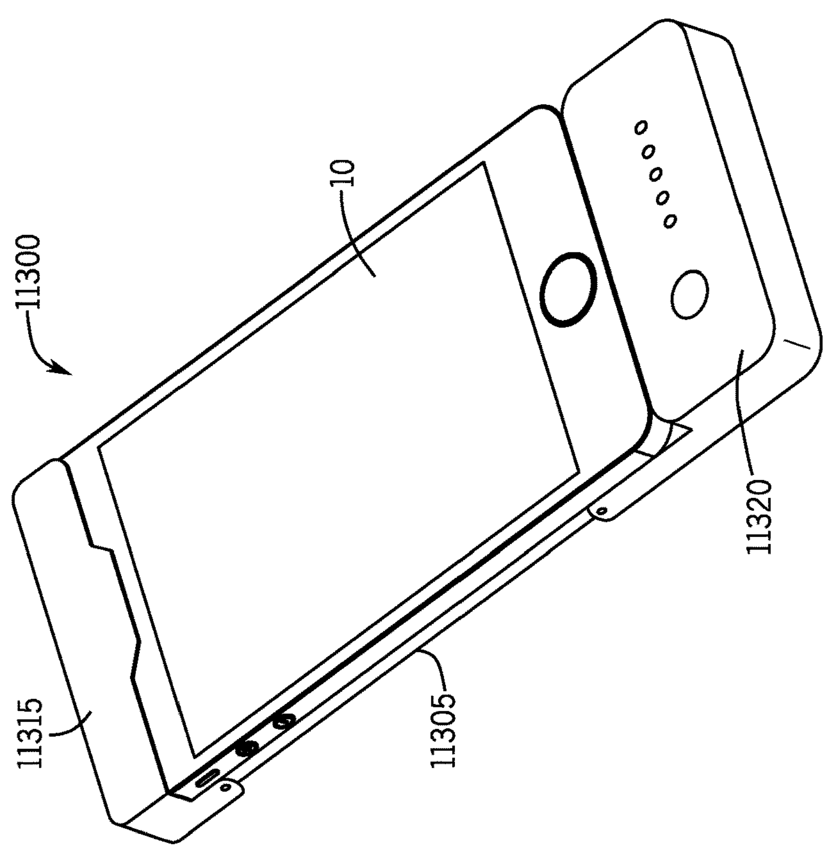


FIG. 113A

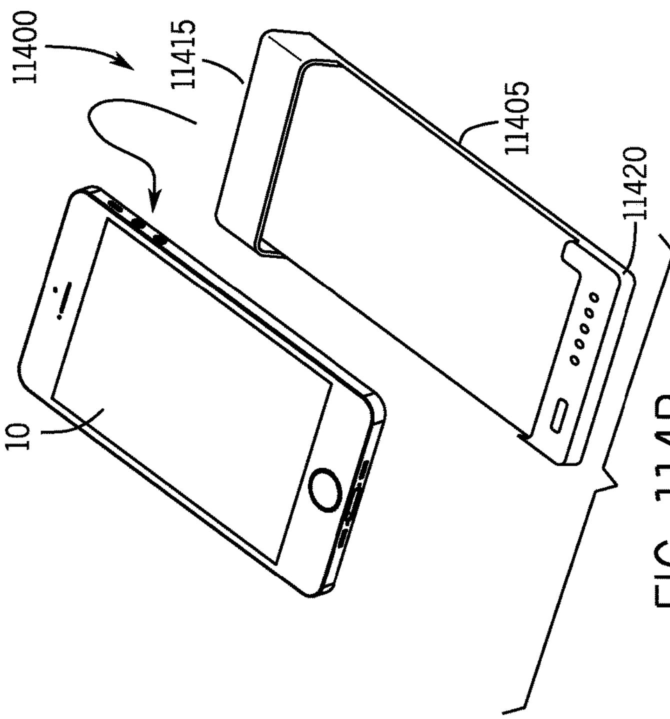


FIG. 114B

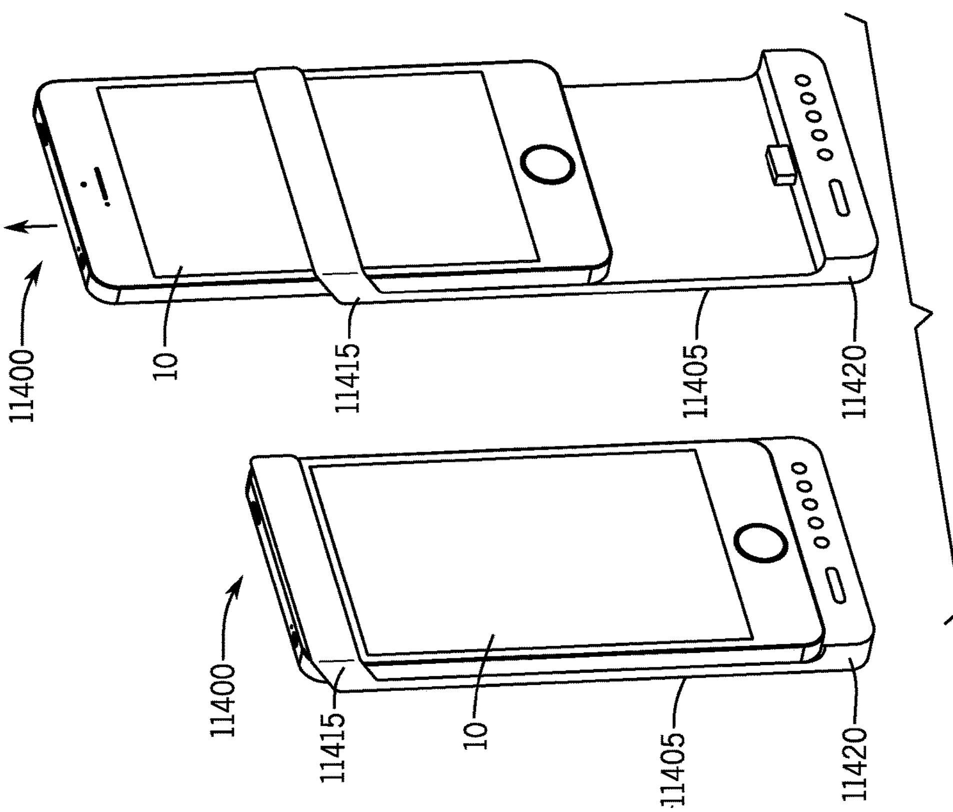


FIG. 114A

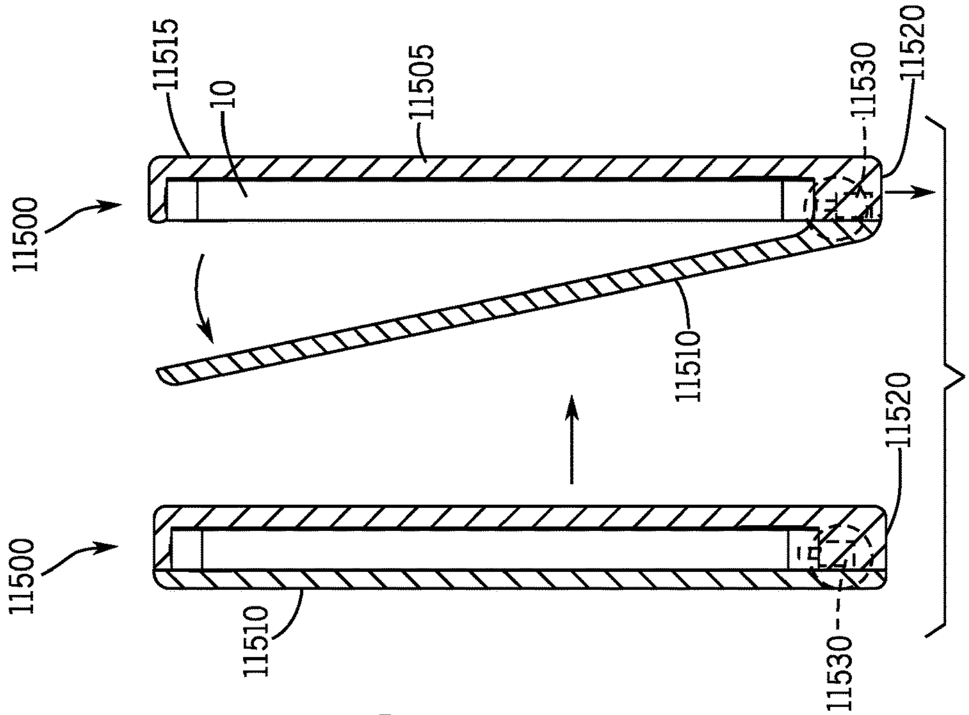


FIG. 115B

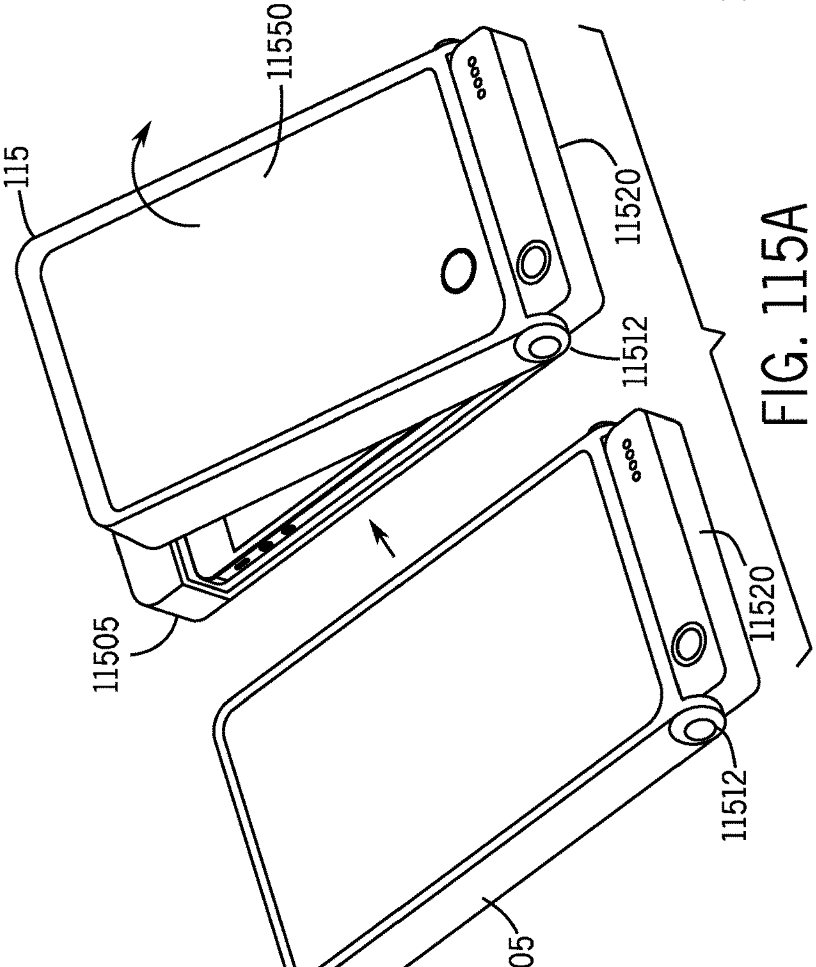


FIG. 115A

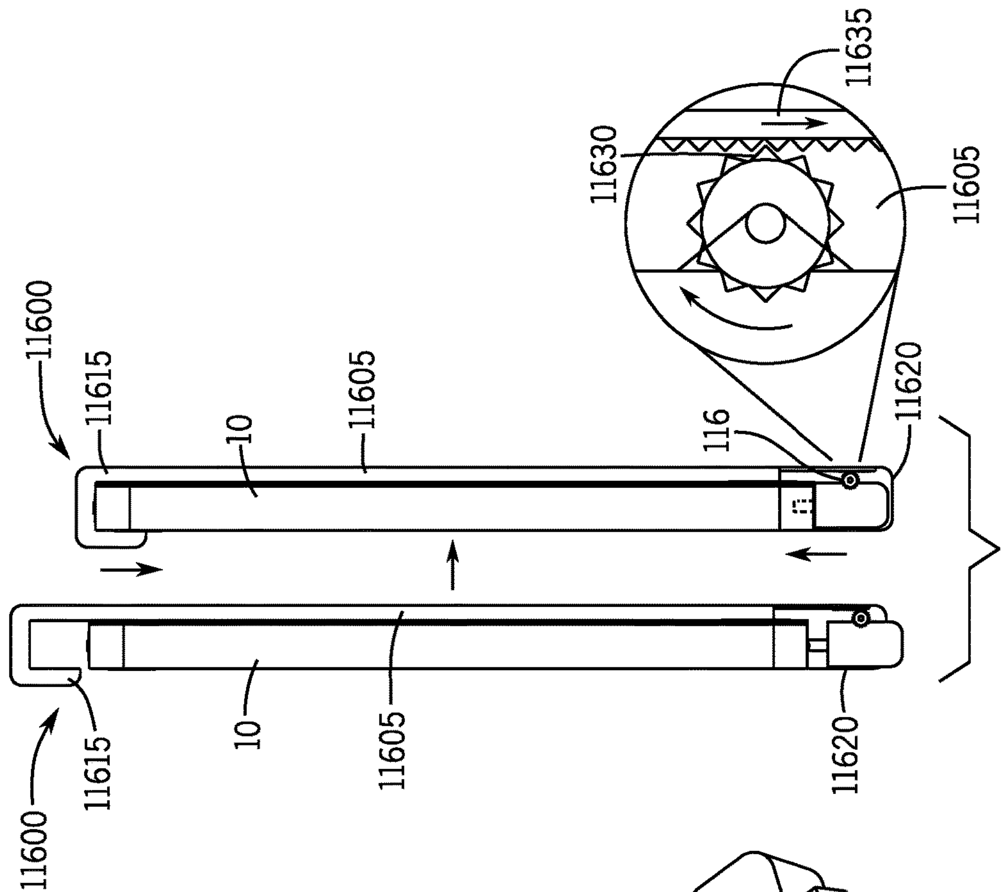


FIG. 116B

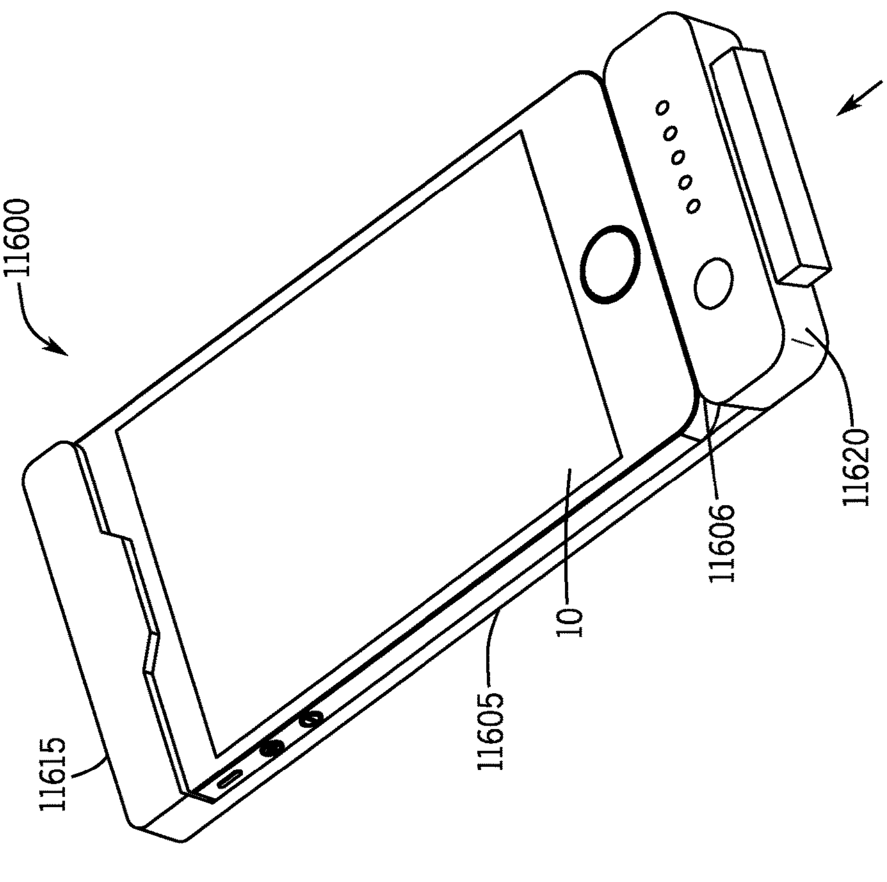


FIG. 116A

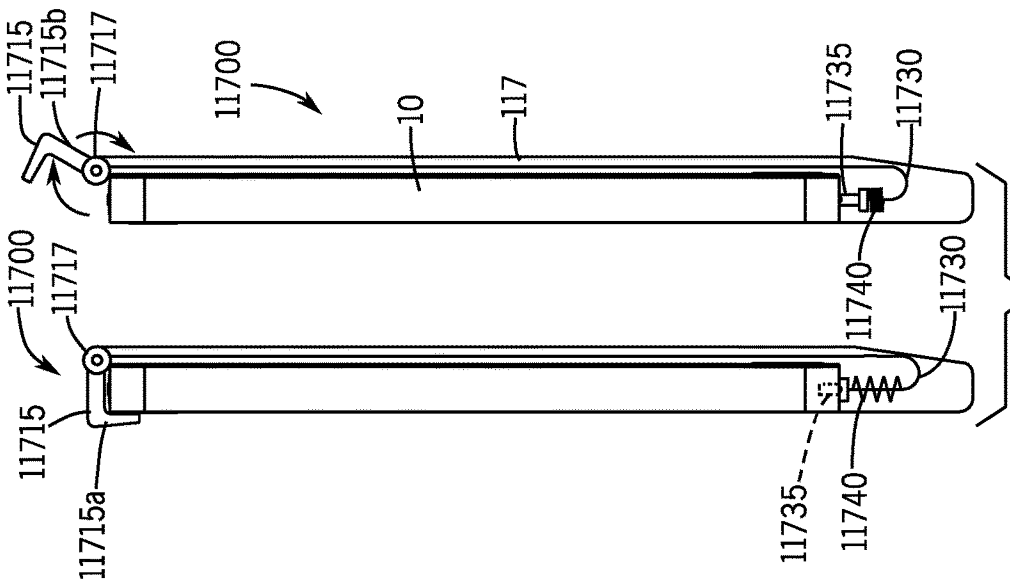


FIG. 117B

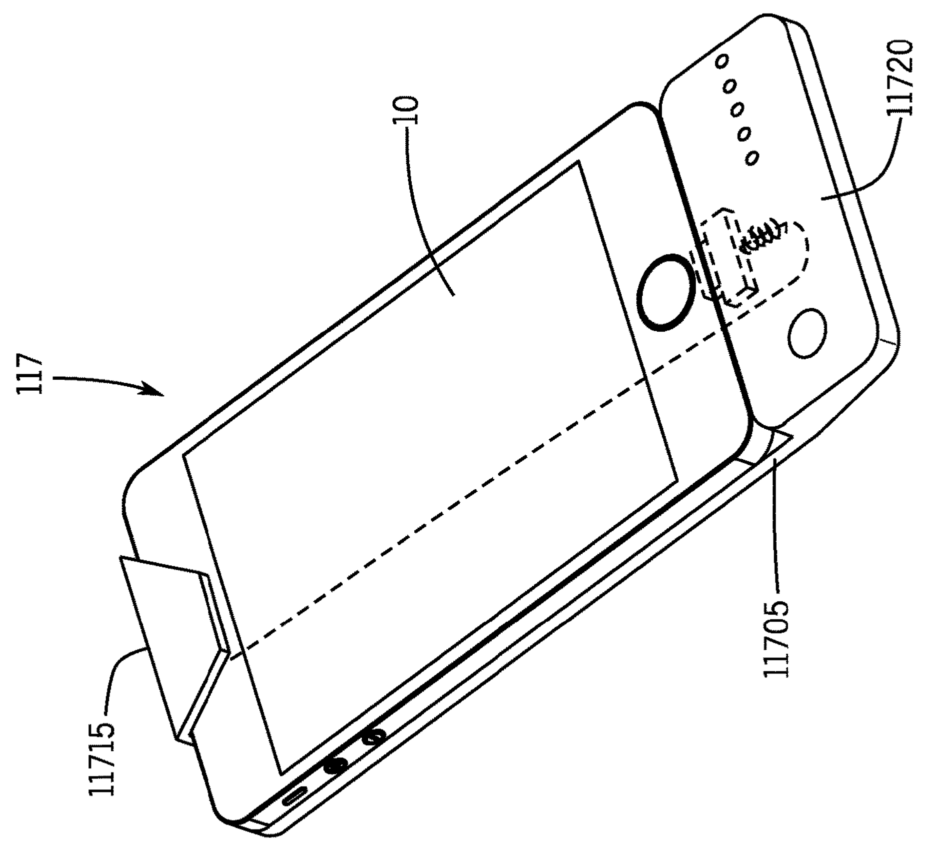


FIG. 117A

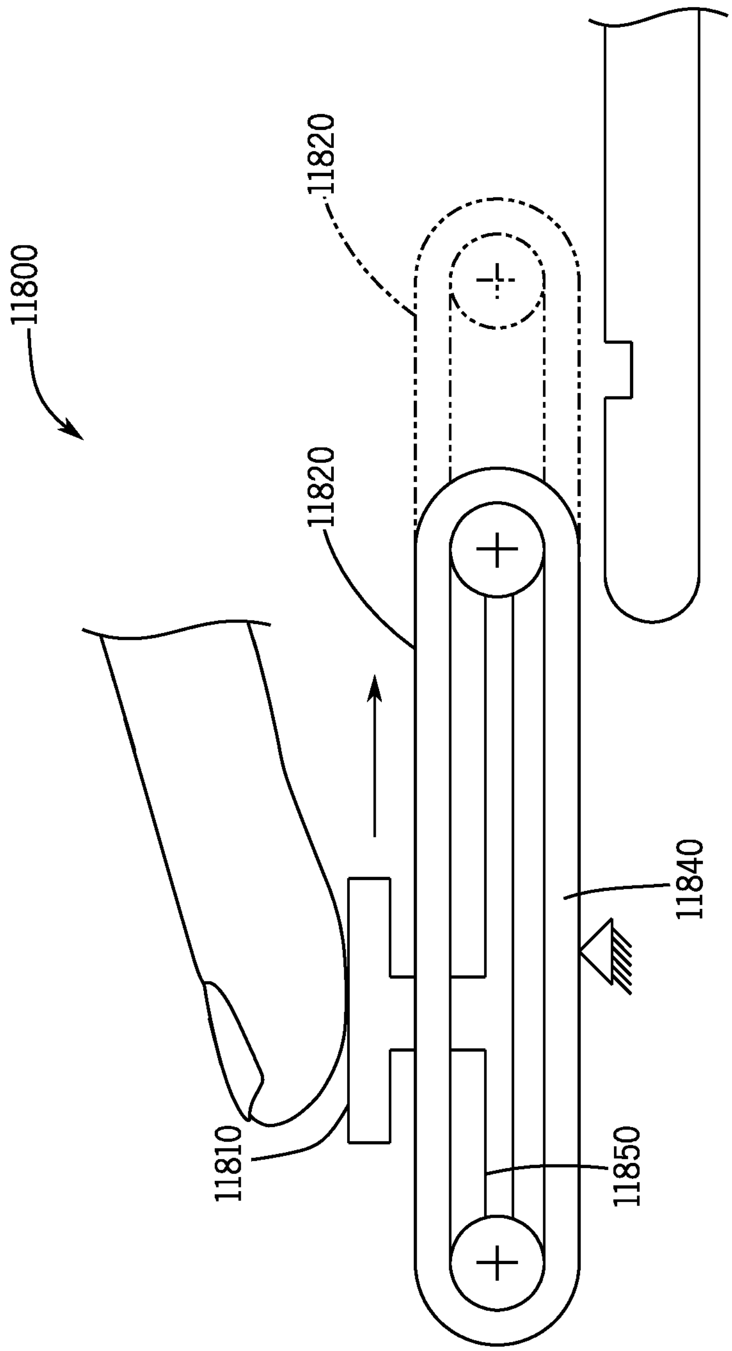


FIG. 118

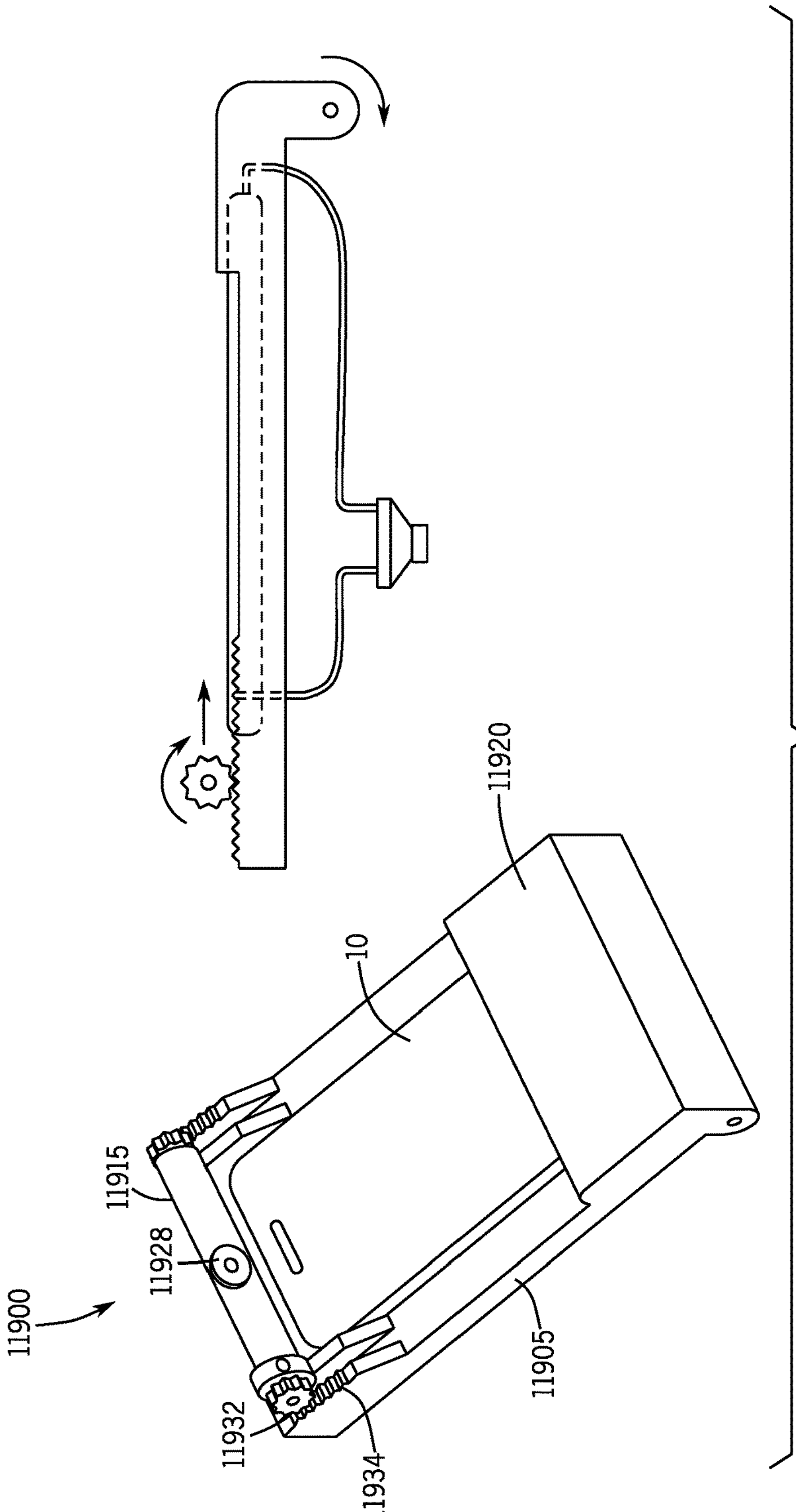


FIG. 119

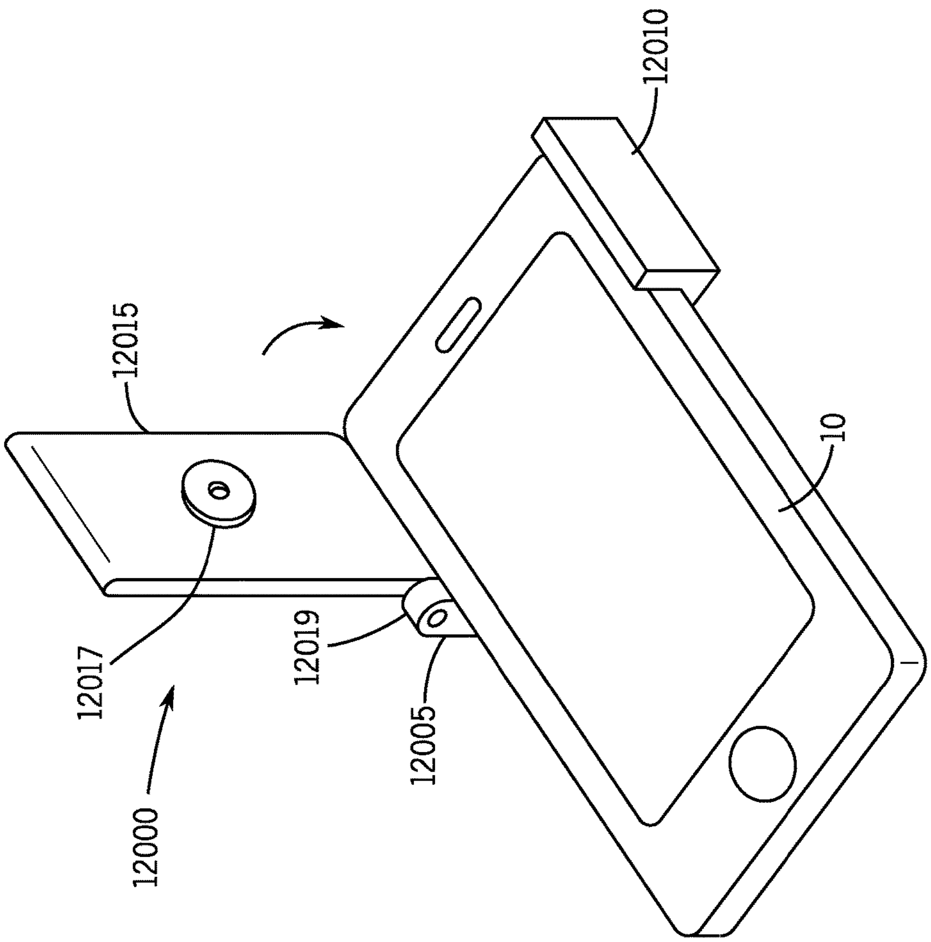


FIG. 120

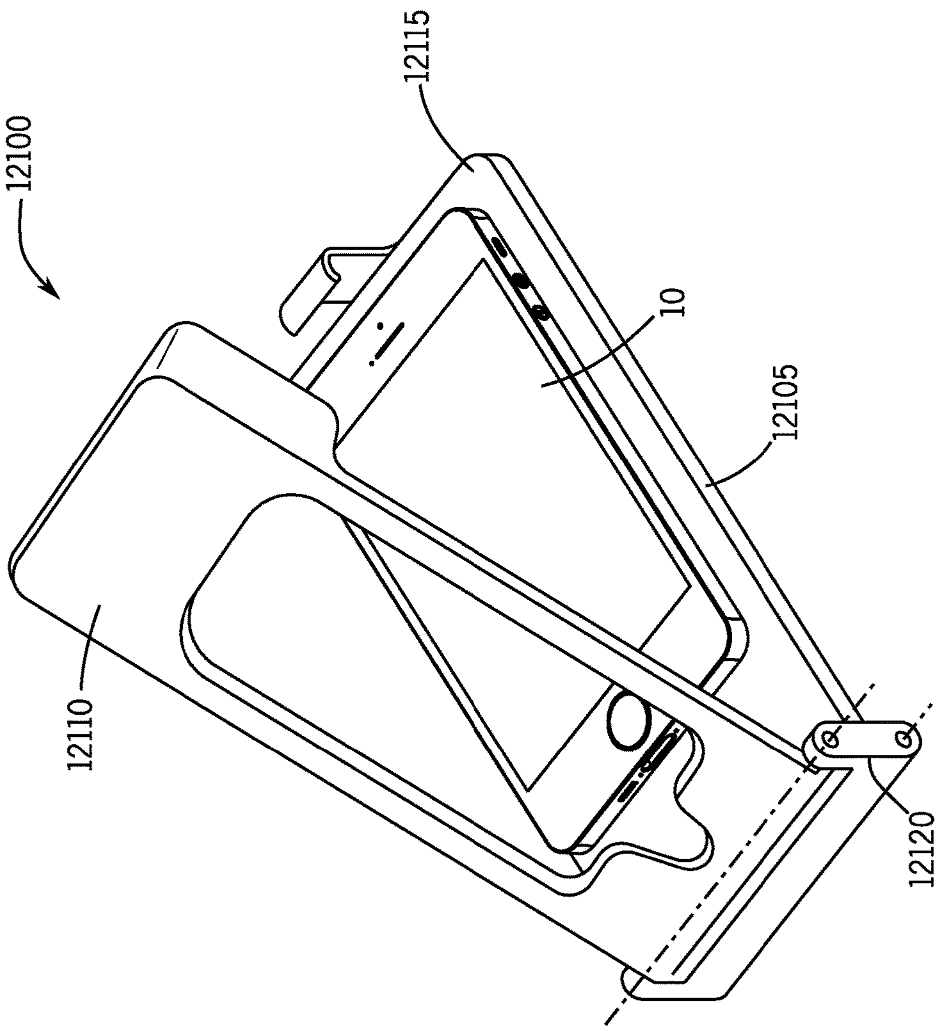


FIG. 121

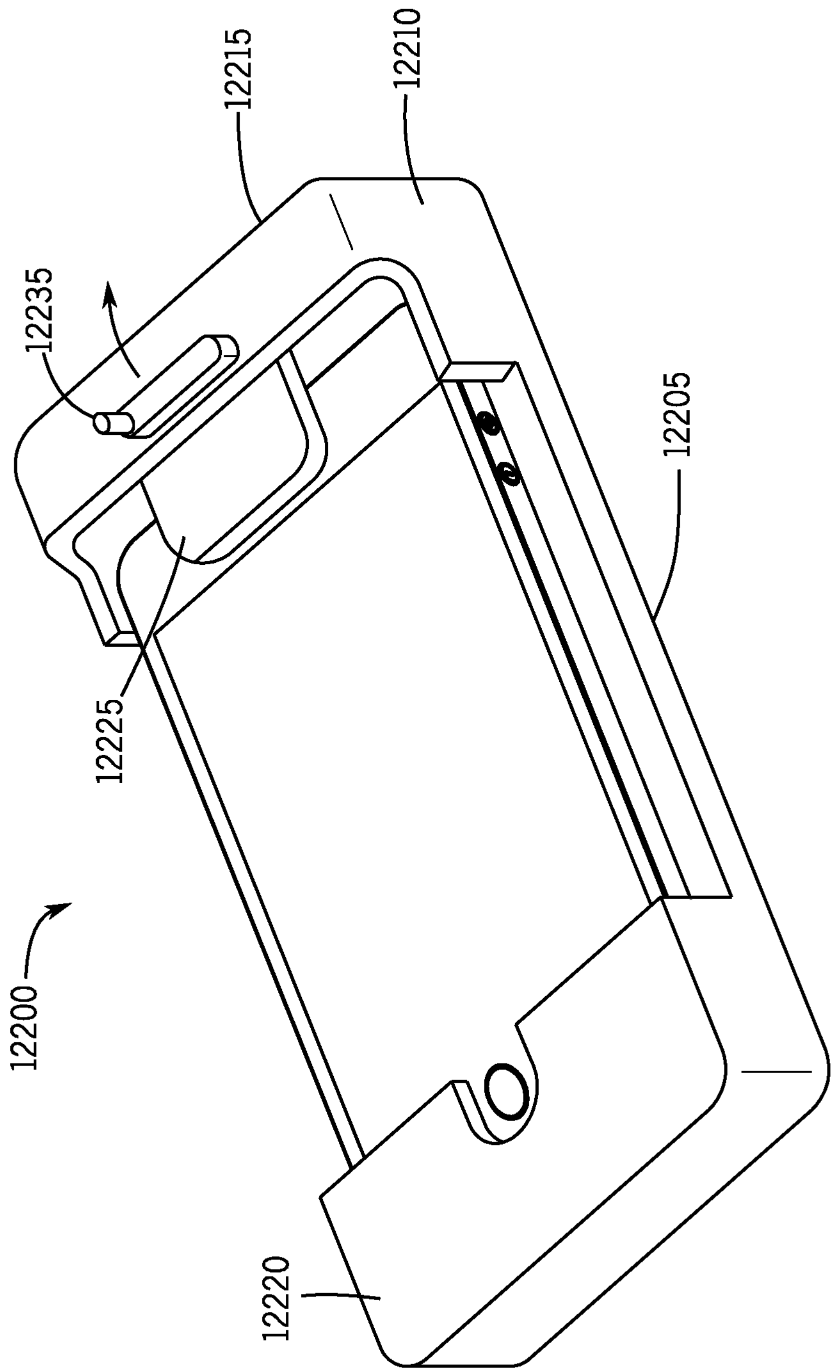


FIG. 122

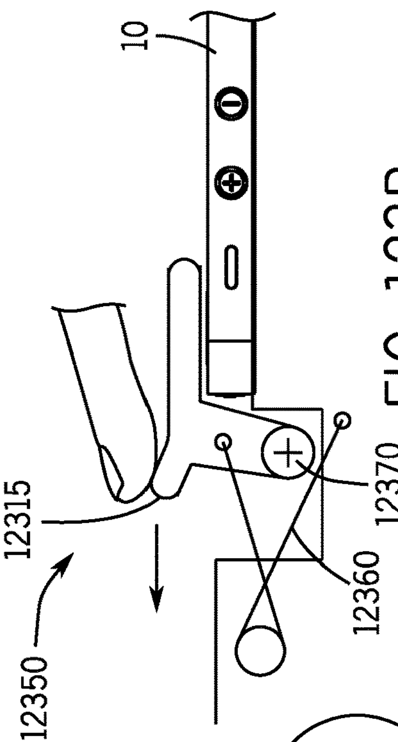


FIG. 123B

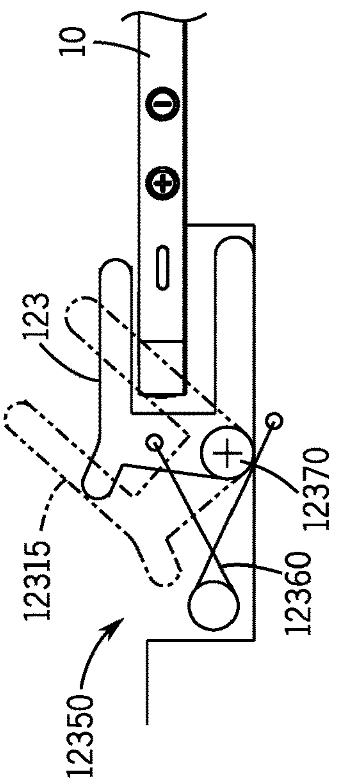


FIG. 123C

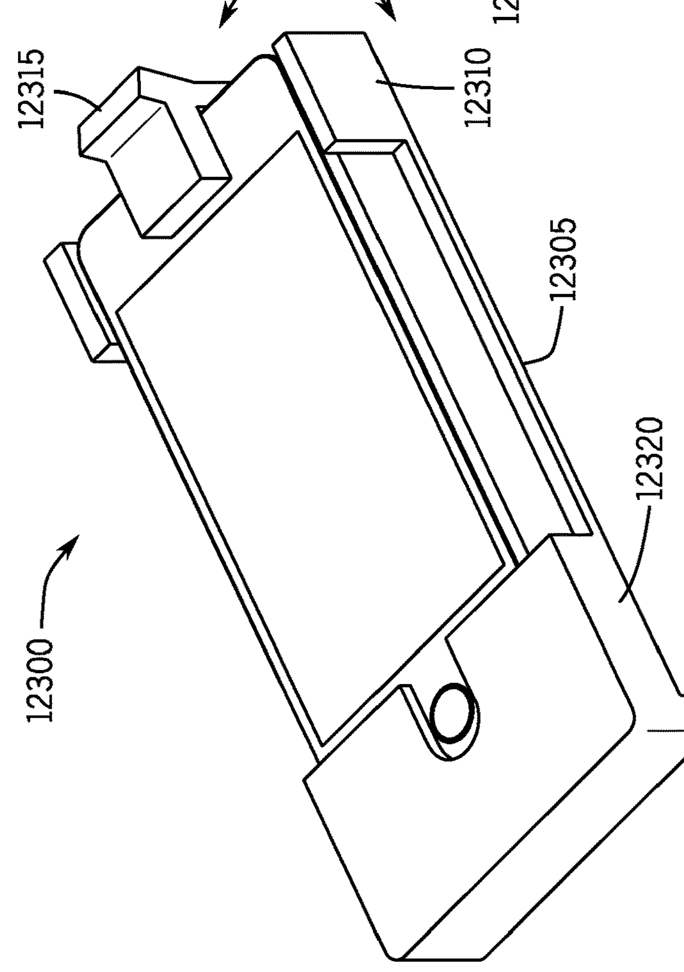


FIG. 123A

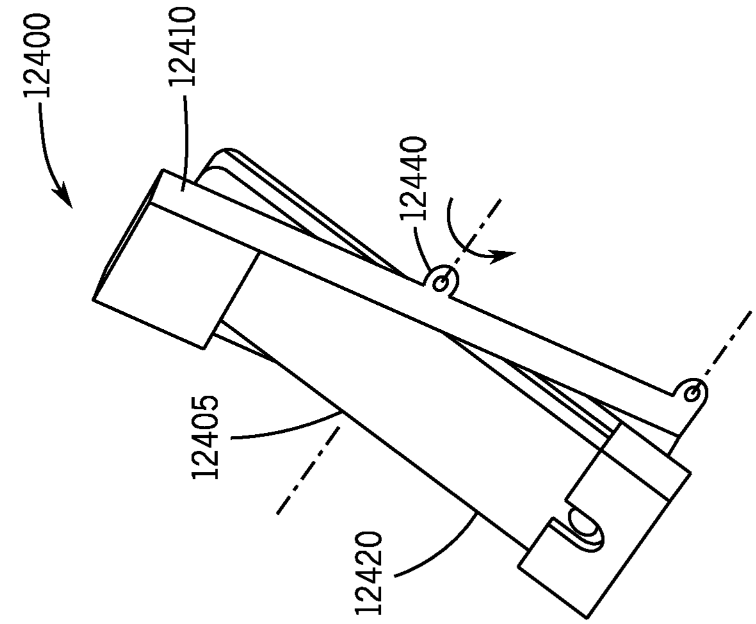


FIG. 124B

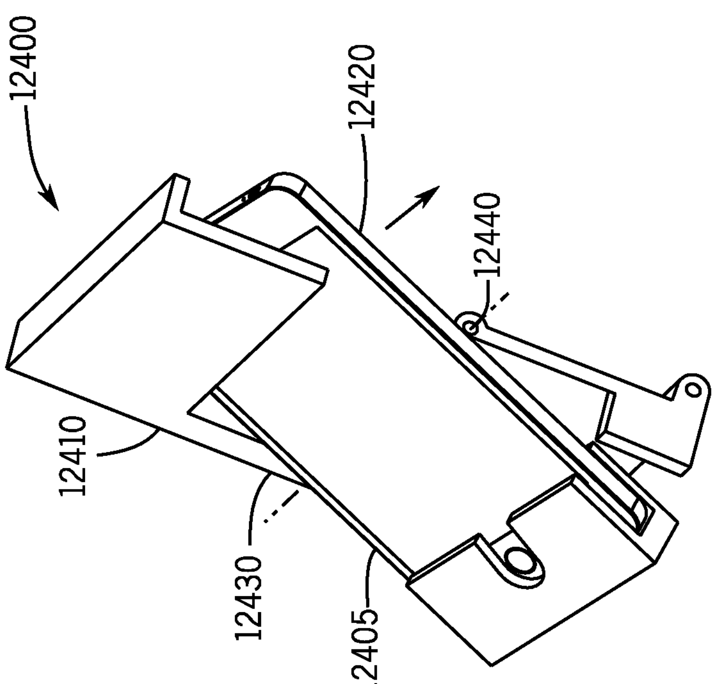


FIG. 124A

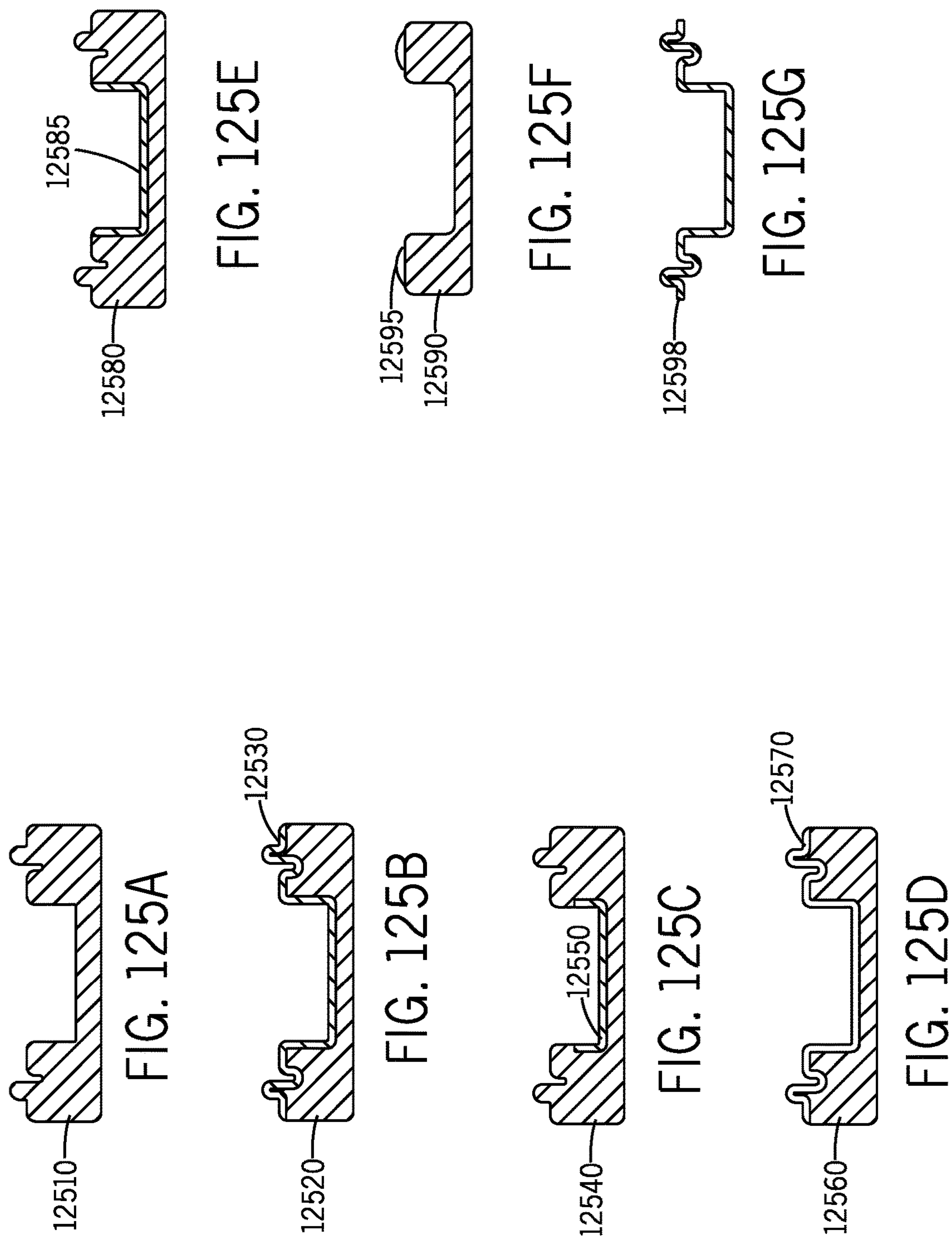


FIG. 125A

FIG. 125B

FIG. 125C

FIG. 125D

FIG. 125E

FIG. 125F

FIG. 125G

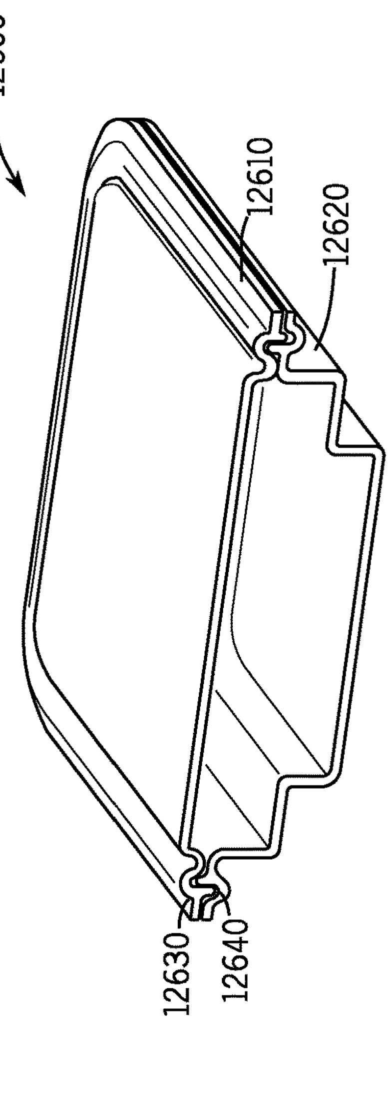


FIG. 126A

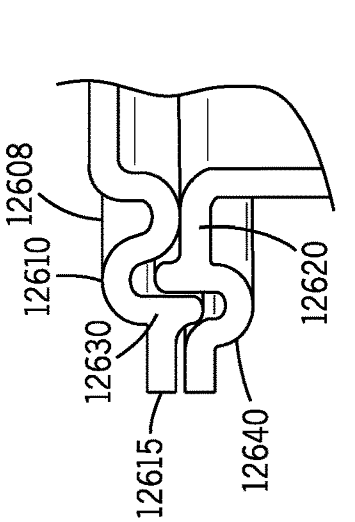


FIG. 126B

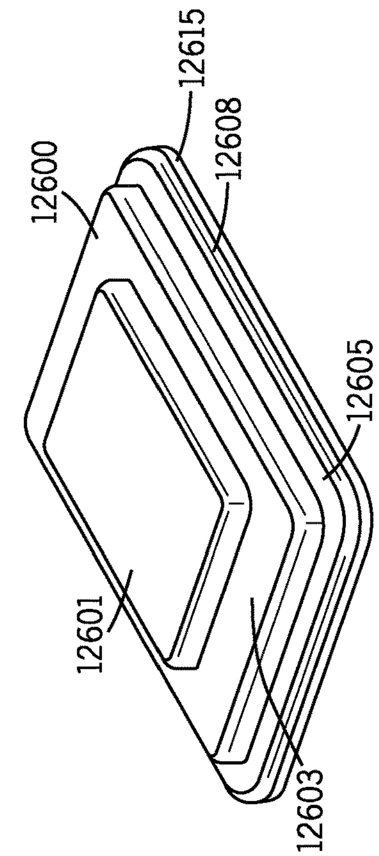


FIG. 126C

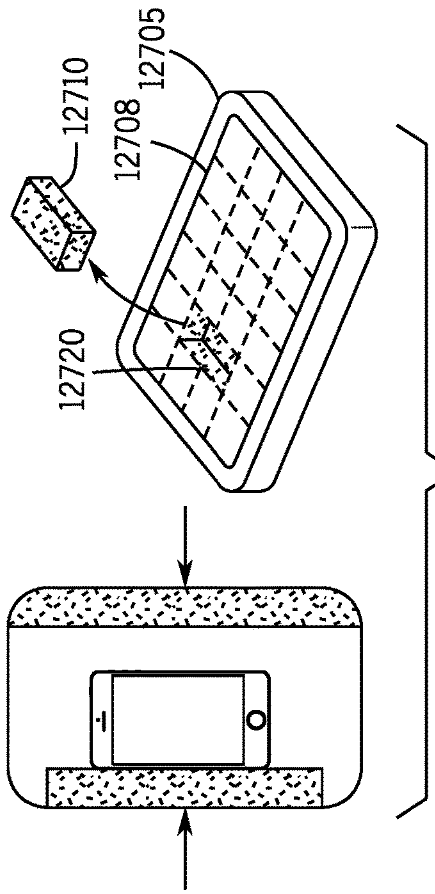


FIG. 127A

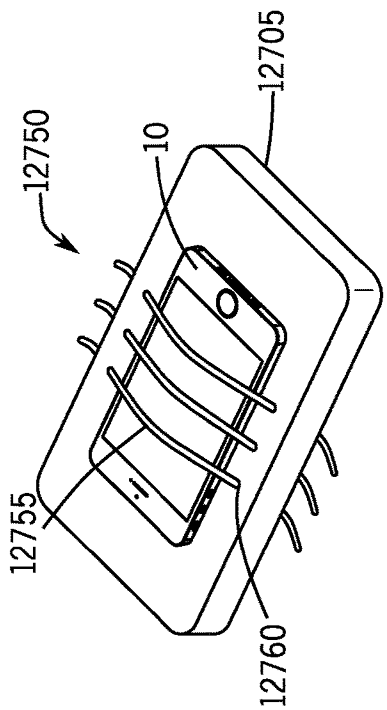


FIG. 127B

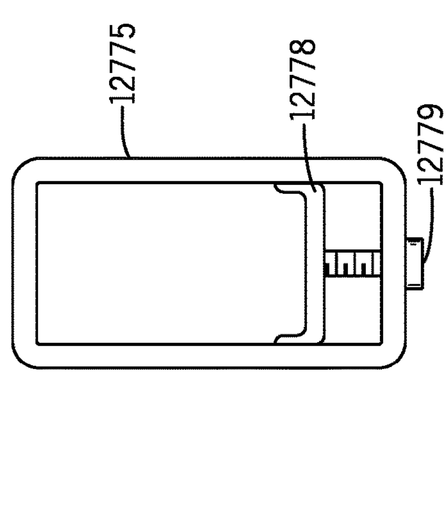


FIG. 127C

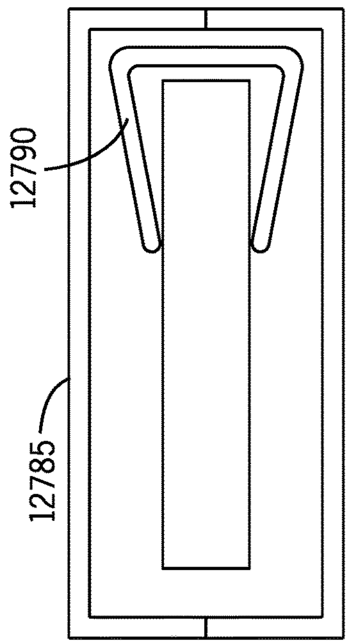


FIG. 127D

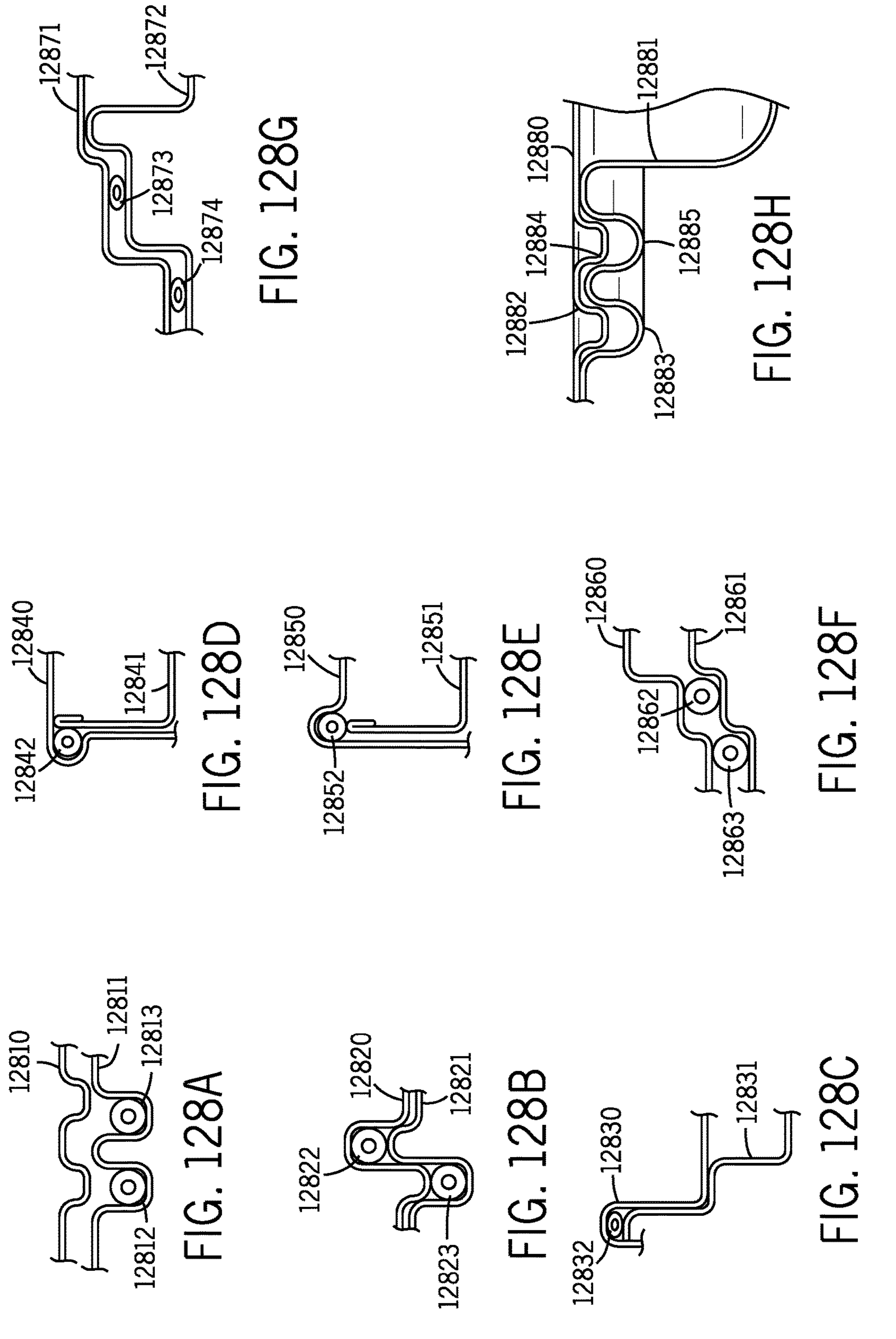


FIG. 128G

FIG. 128H

FIG. 128D

FIG. 128E

FIG. 128F

FIG. 128A

FIG. 128B

FIG. 128C

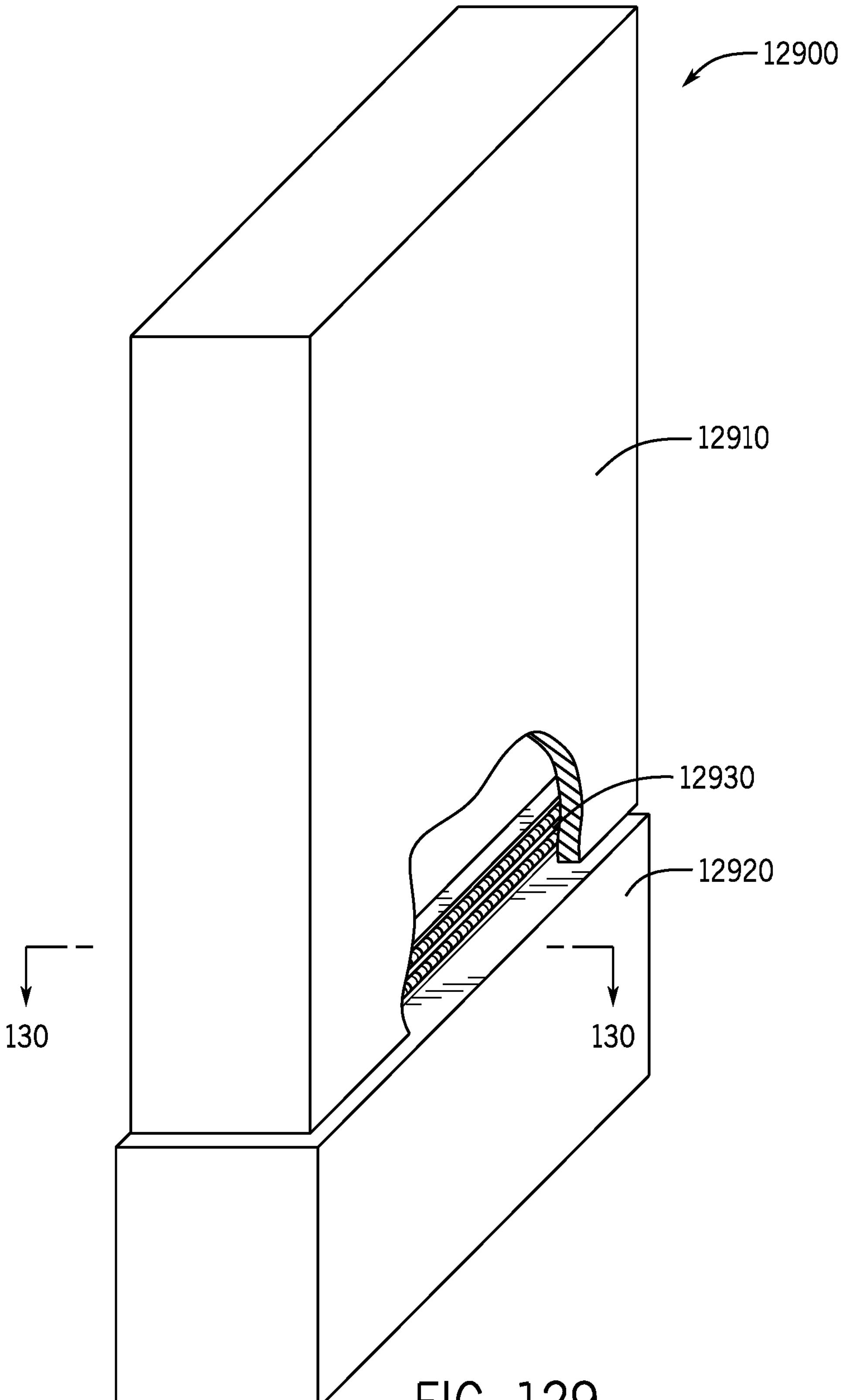


FIG. 129

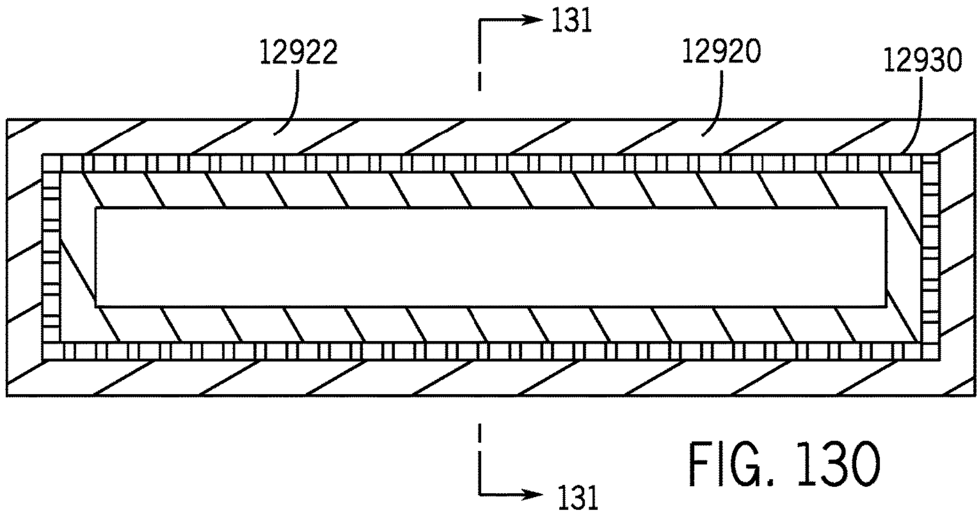


FIG. 130

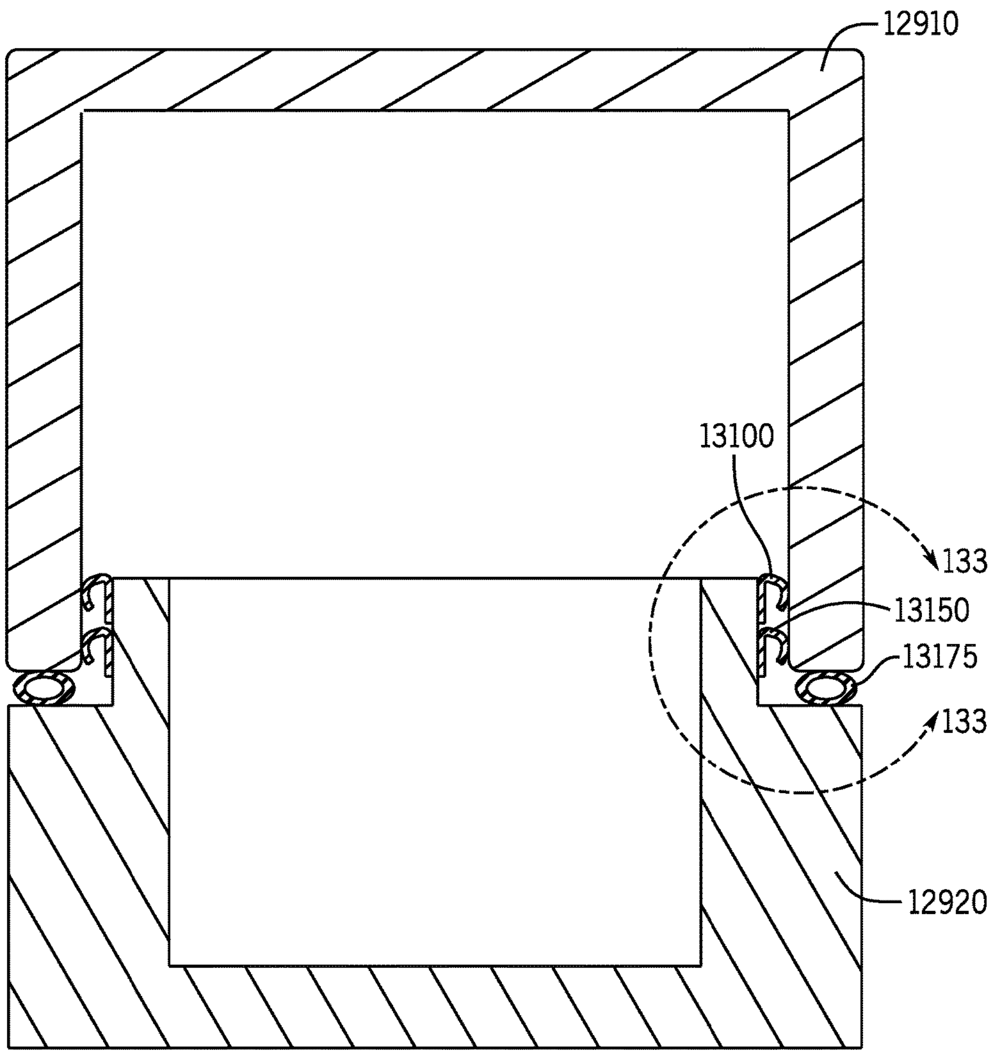


FIG. 131

FIG. 133

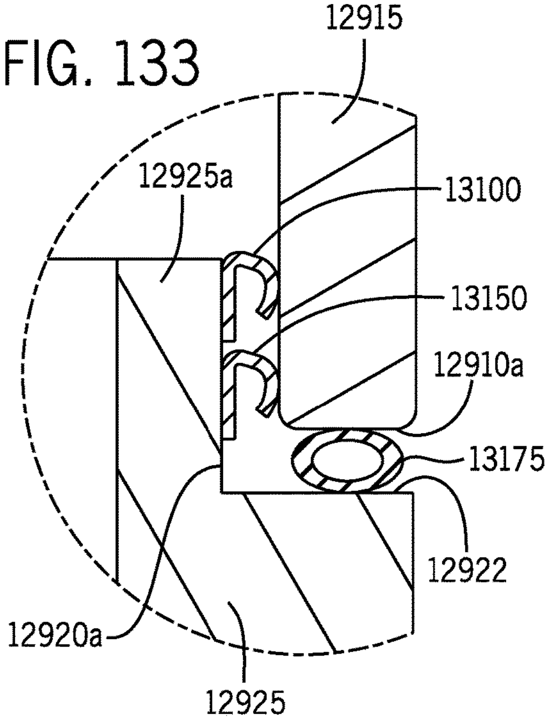
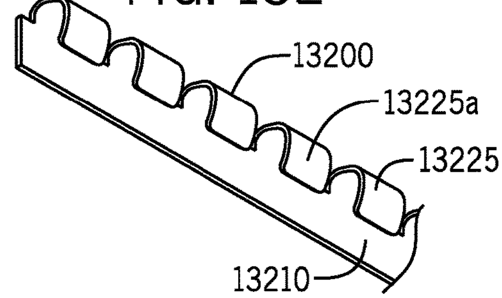


FIG. 132



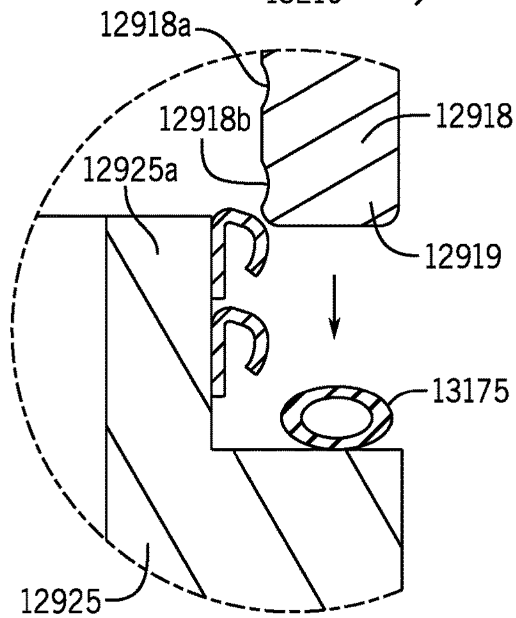


FIG. 135

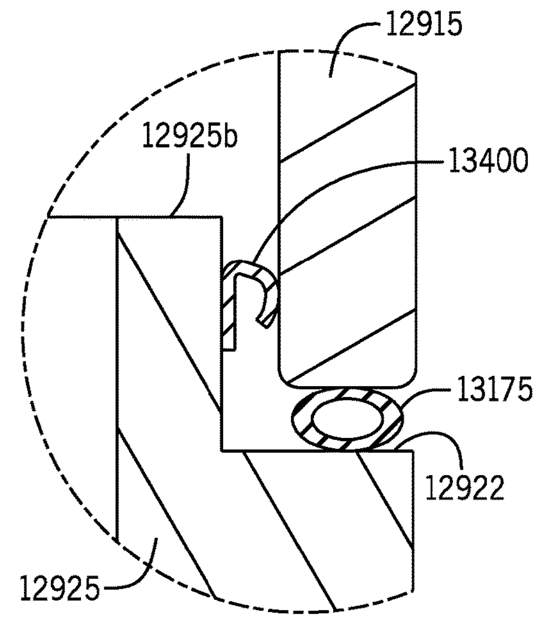


FIG. 134

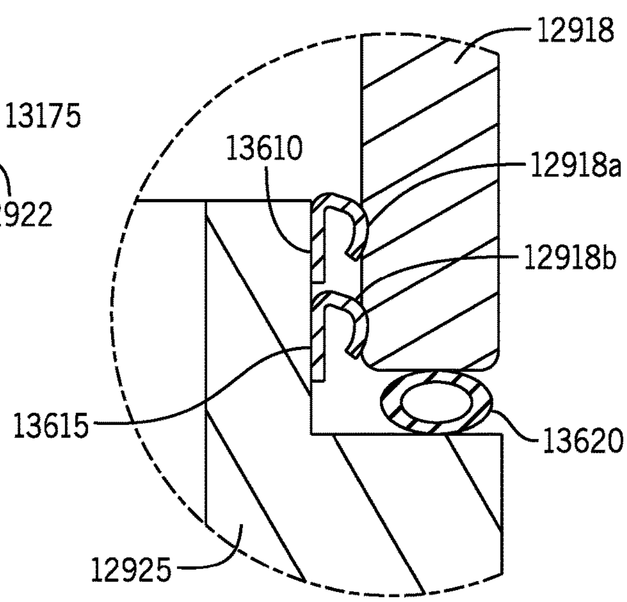


FIG. 136

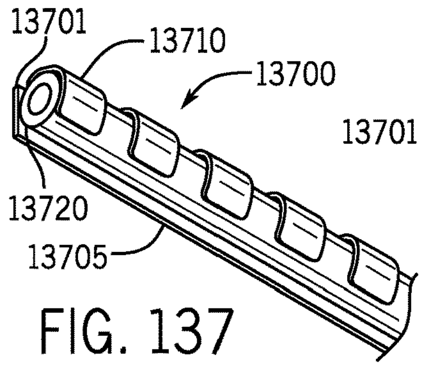


FIG. 137

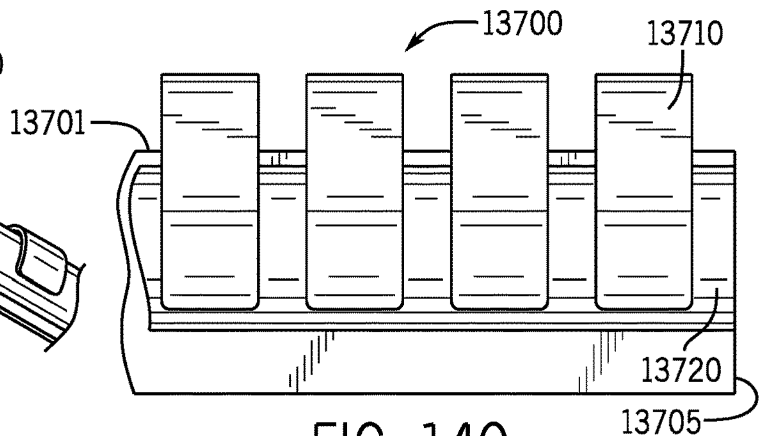
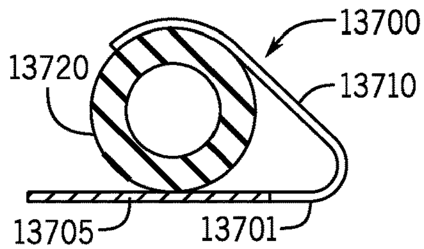


FIG. 140

FIG. 138



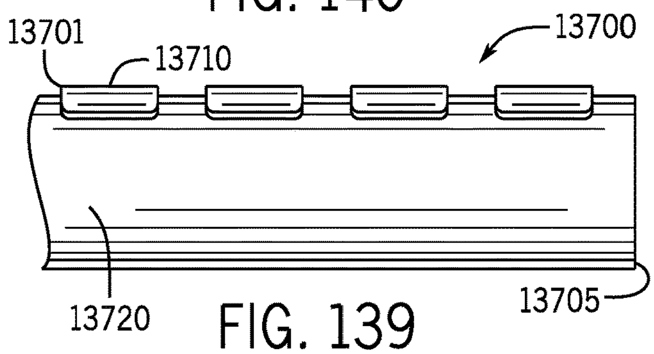


FIG. 139

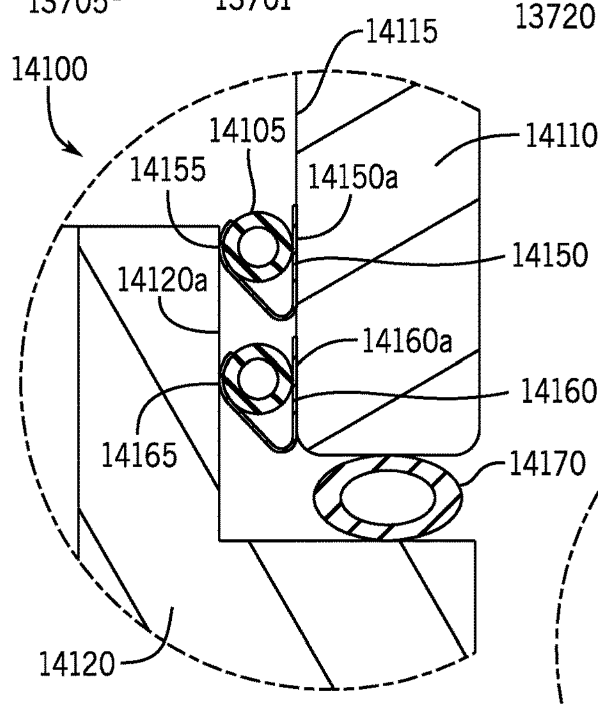


FIG. 141

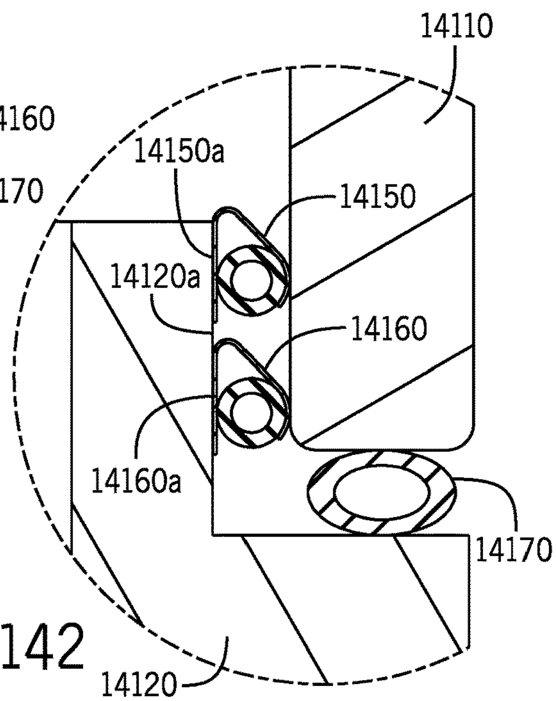


FIG. 142

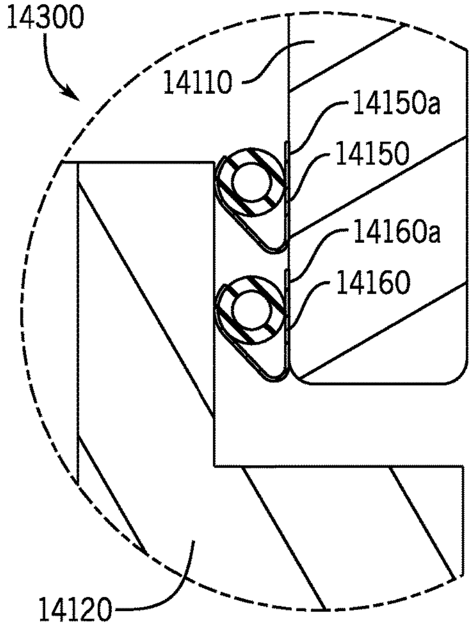
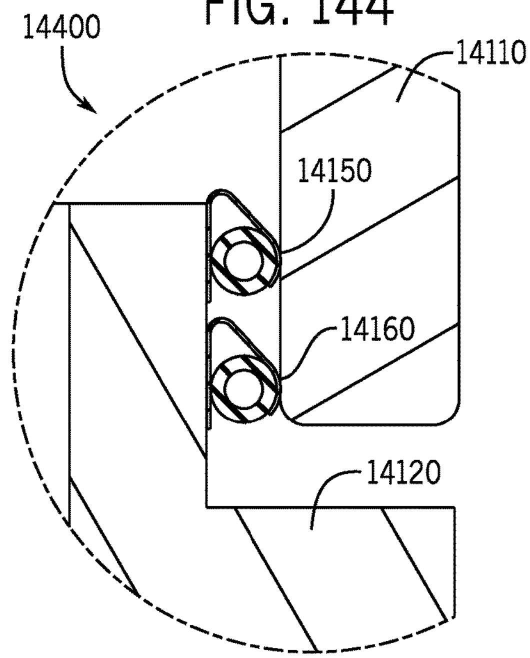


FIG. 143

FIG. 144



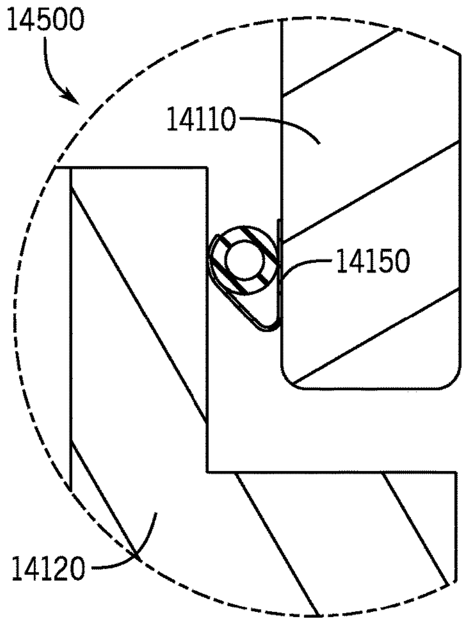


FIG. 145

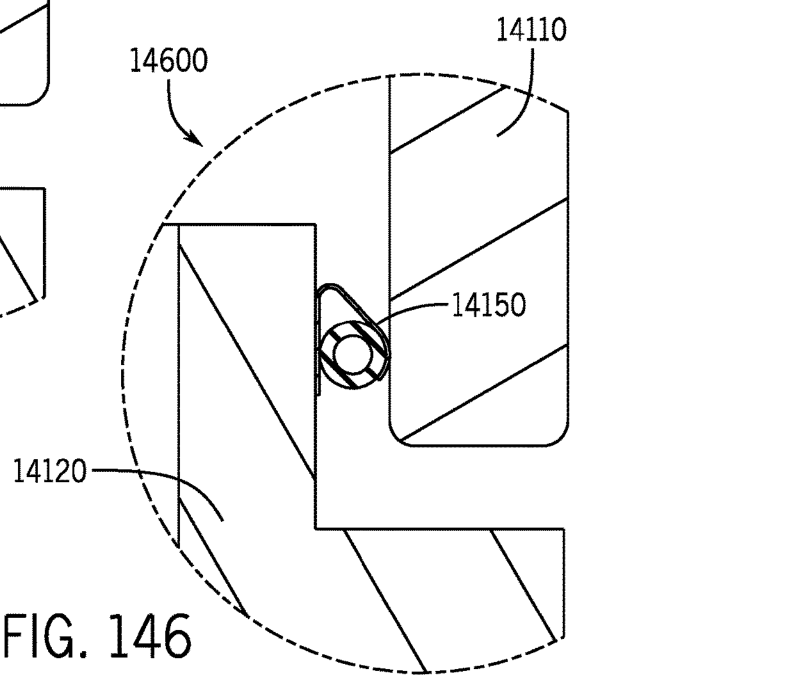


FIG. 146

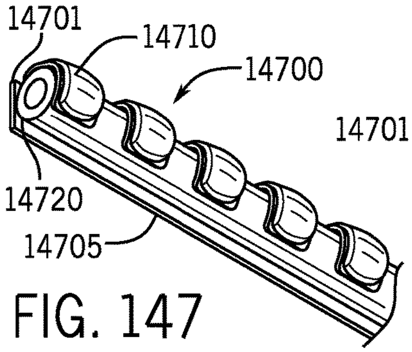


FIG. 147

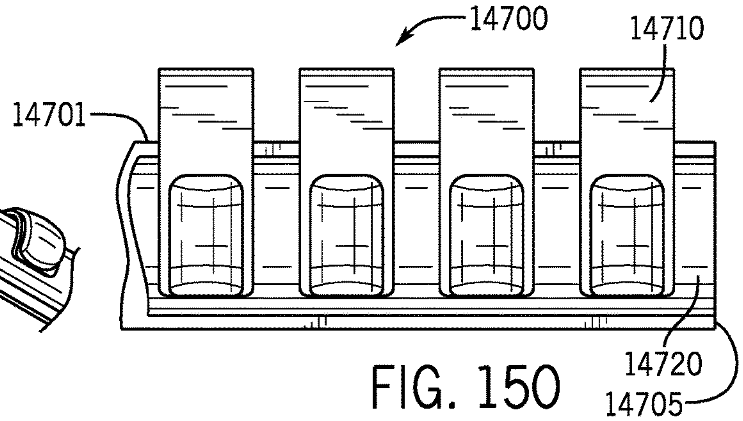
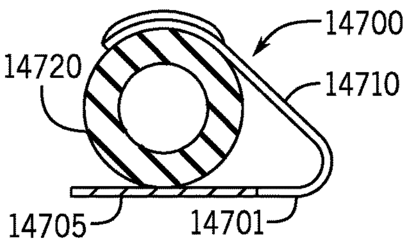


FIG. 150

FIG. 148



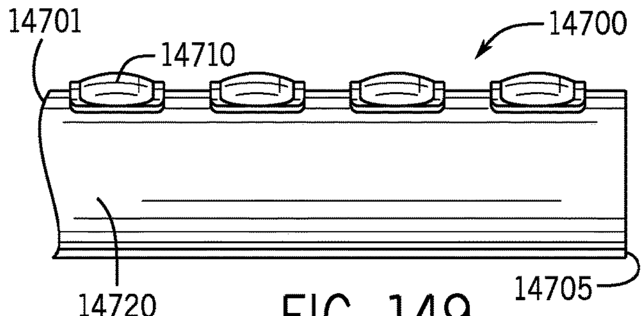


FIG. 149

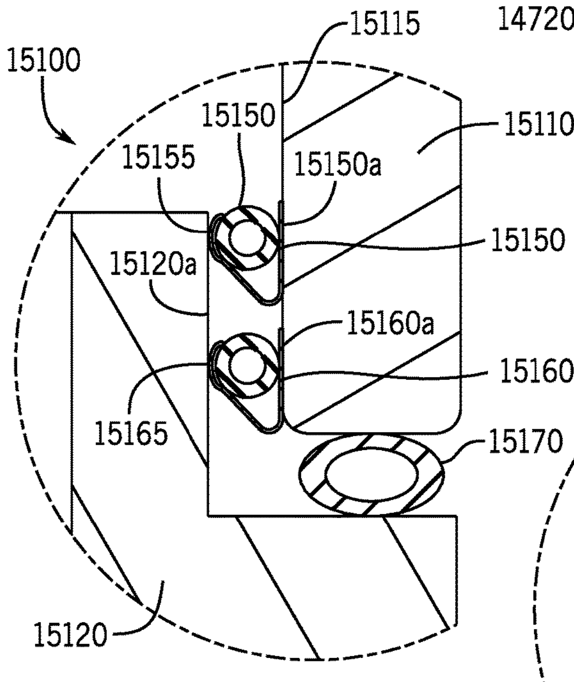


FIG. 151

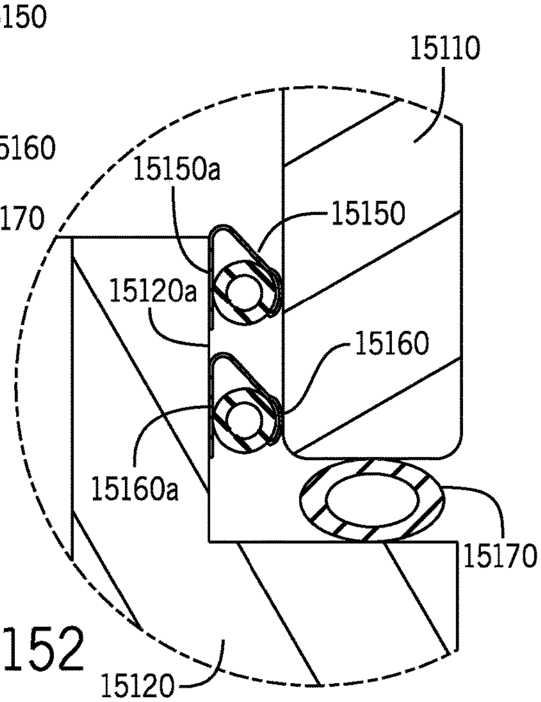


FIG. 152

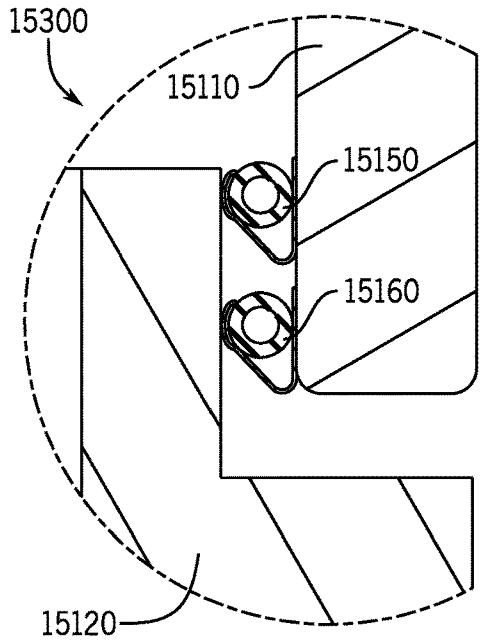


FIG. 153

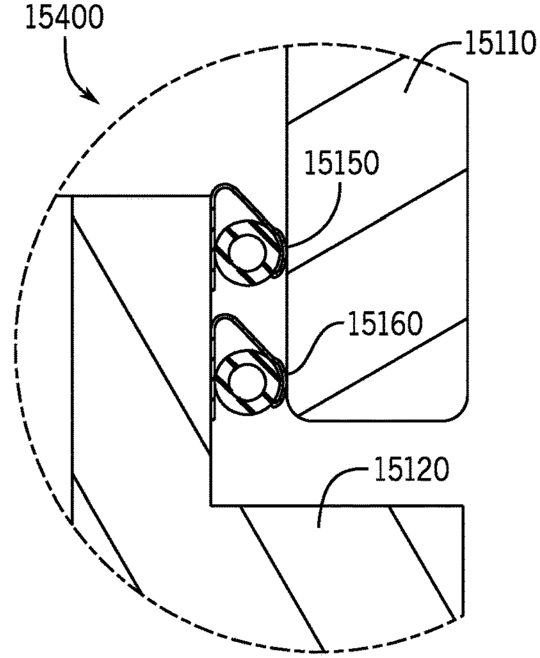


FIG. 154

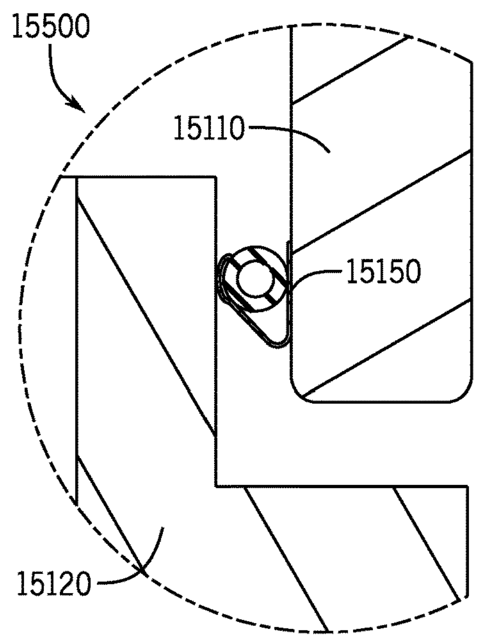


FIG. 155

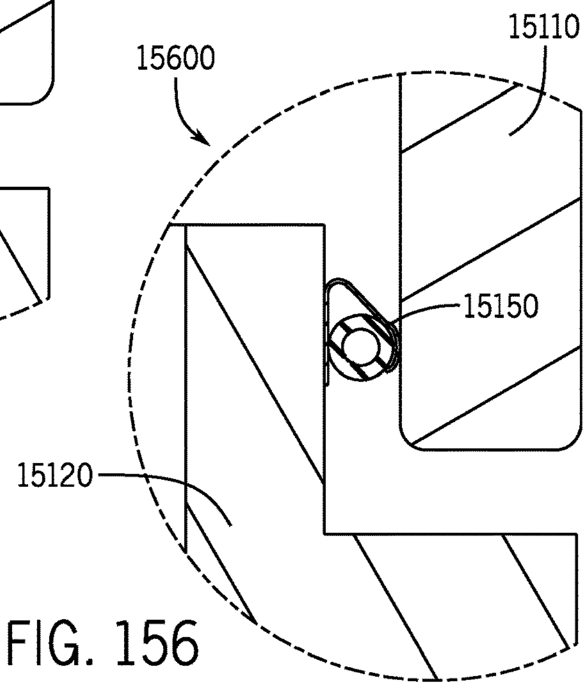


FIG. 156

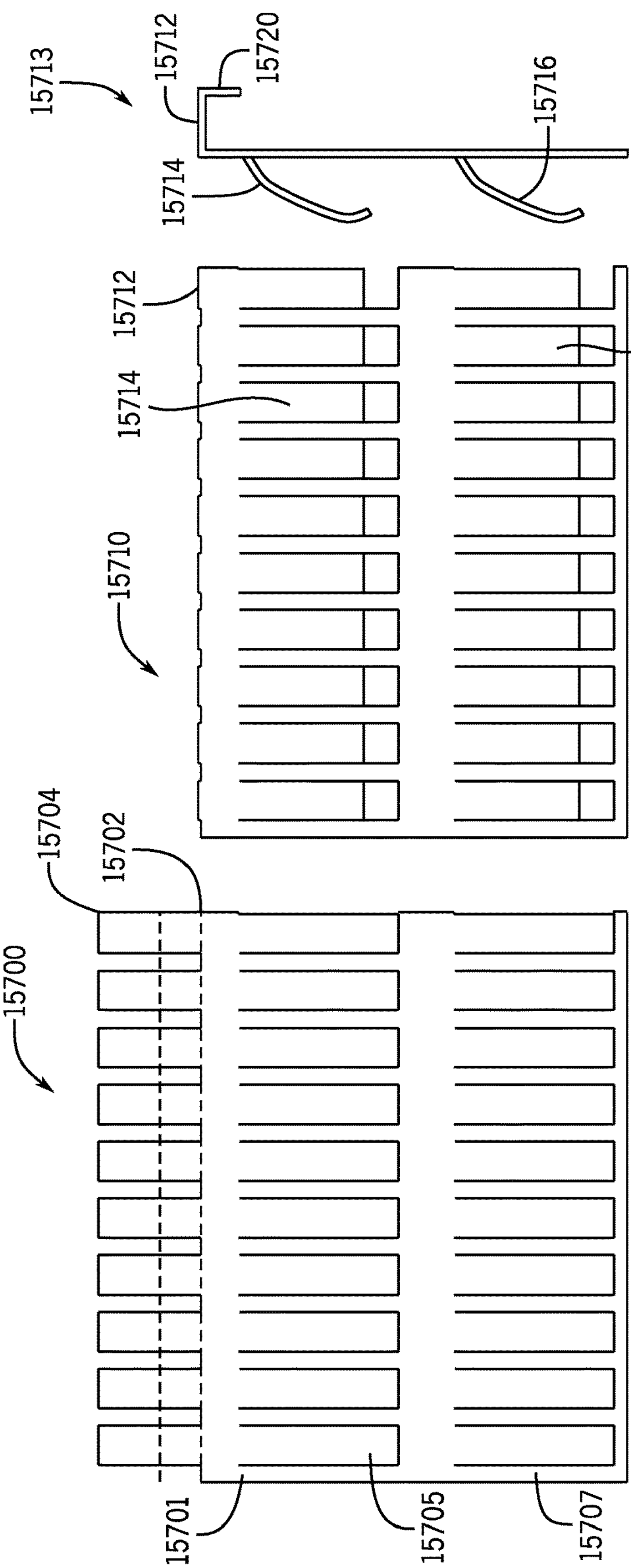


FIG. 157C

FIG. 157B

FIG. 157A

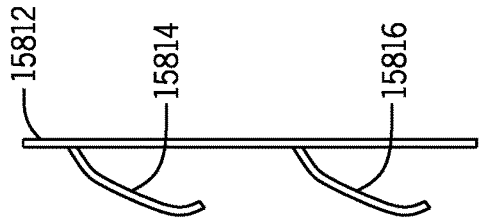


FIG. 158C

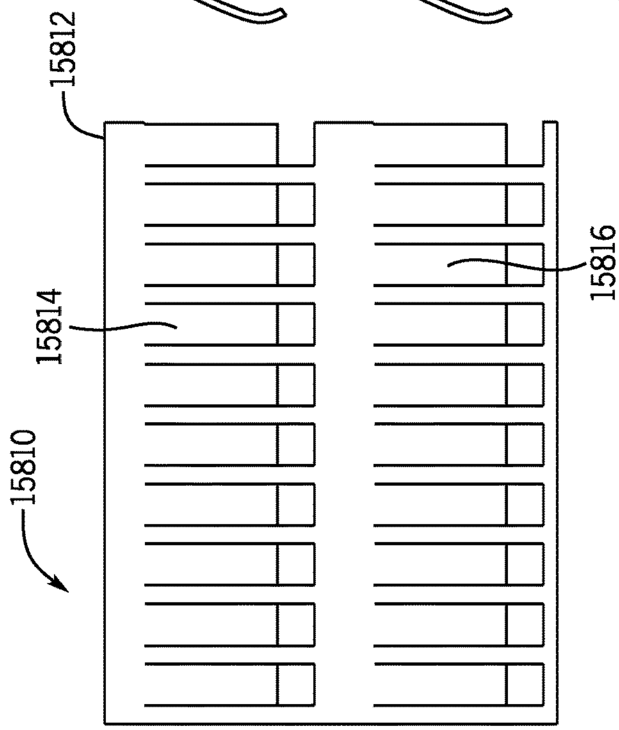


FIG. 158B

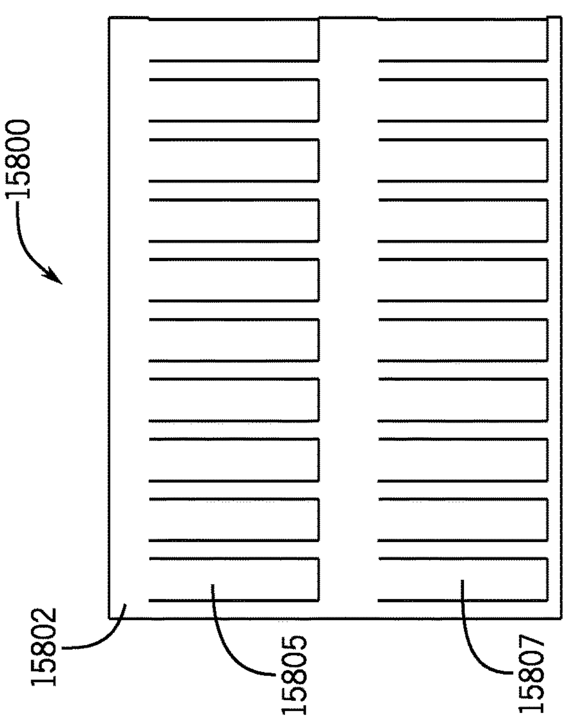


FIG. 158A

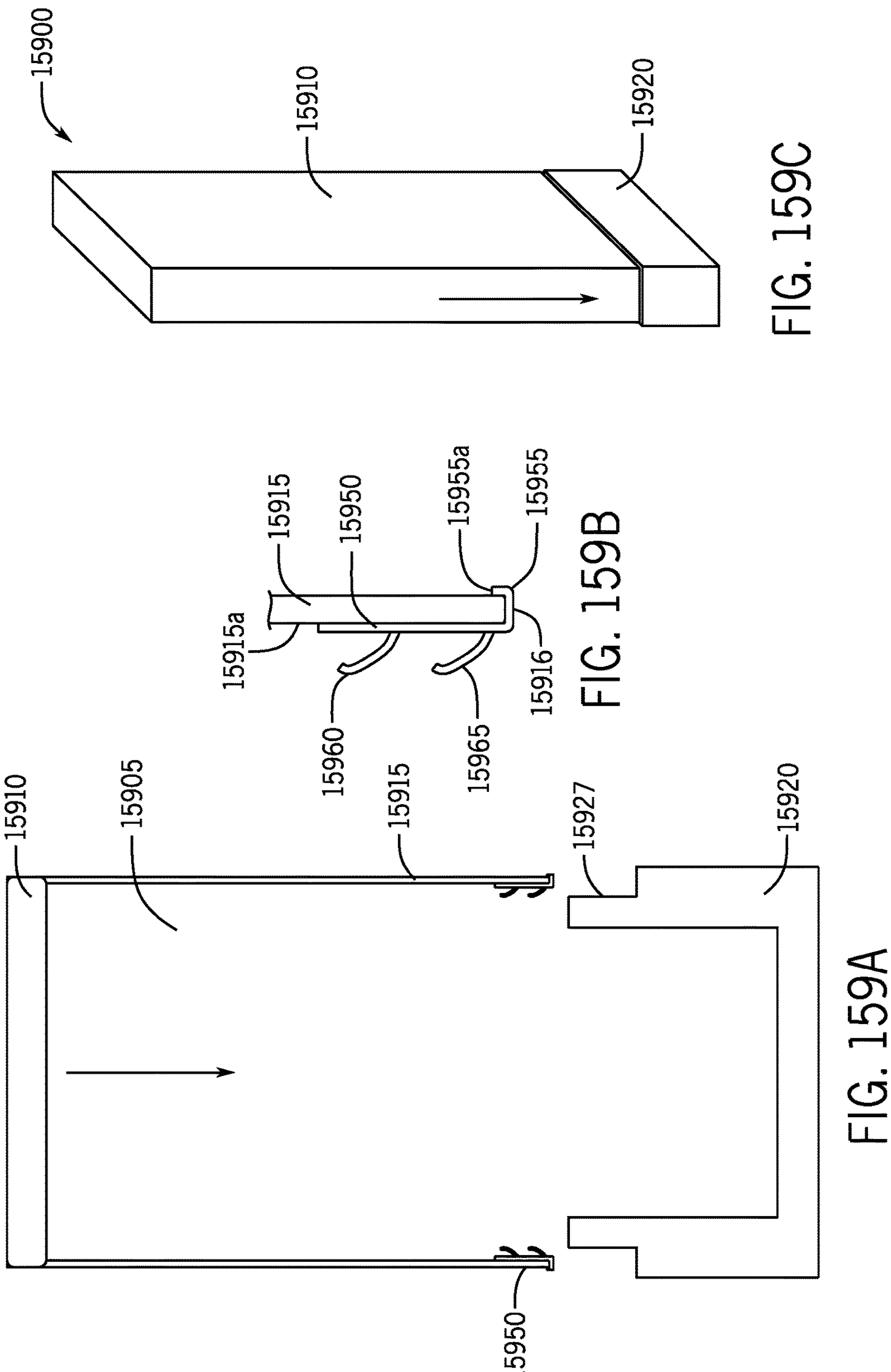


FIG. 159C

FIG. 159B

FIG. 159A

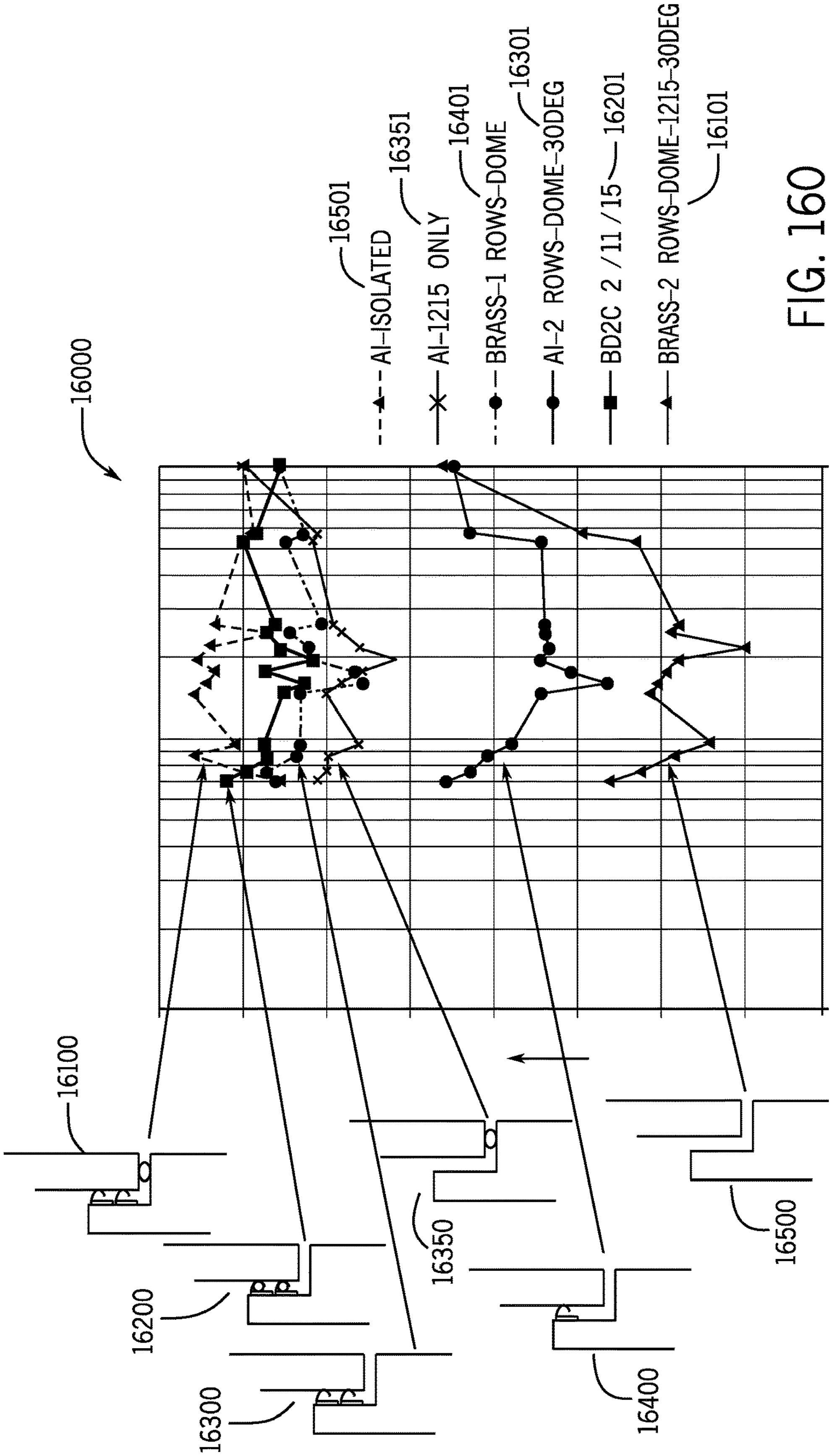

16000
16501
AI-ISOLATED
16351
AI-1215 ONLY
16401
BRASS-1 ROWS-DOME
16301
AI-2 ROWS-DOME-30DEG
16201
BD2C 2/11/15
16101
BRASS-2 ROWS-DOME-1215-30DEG
16100
16200
16300
16350
16400
16500

FIG. 160

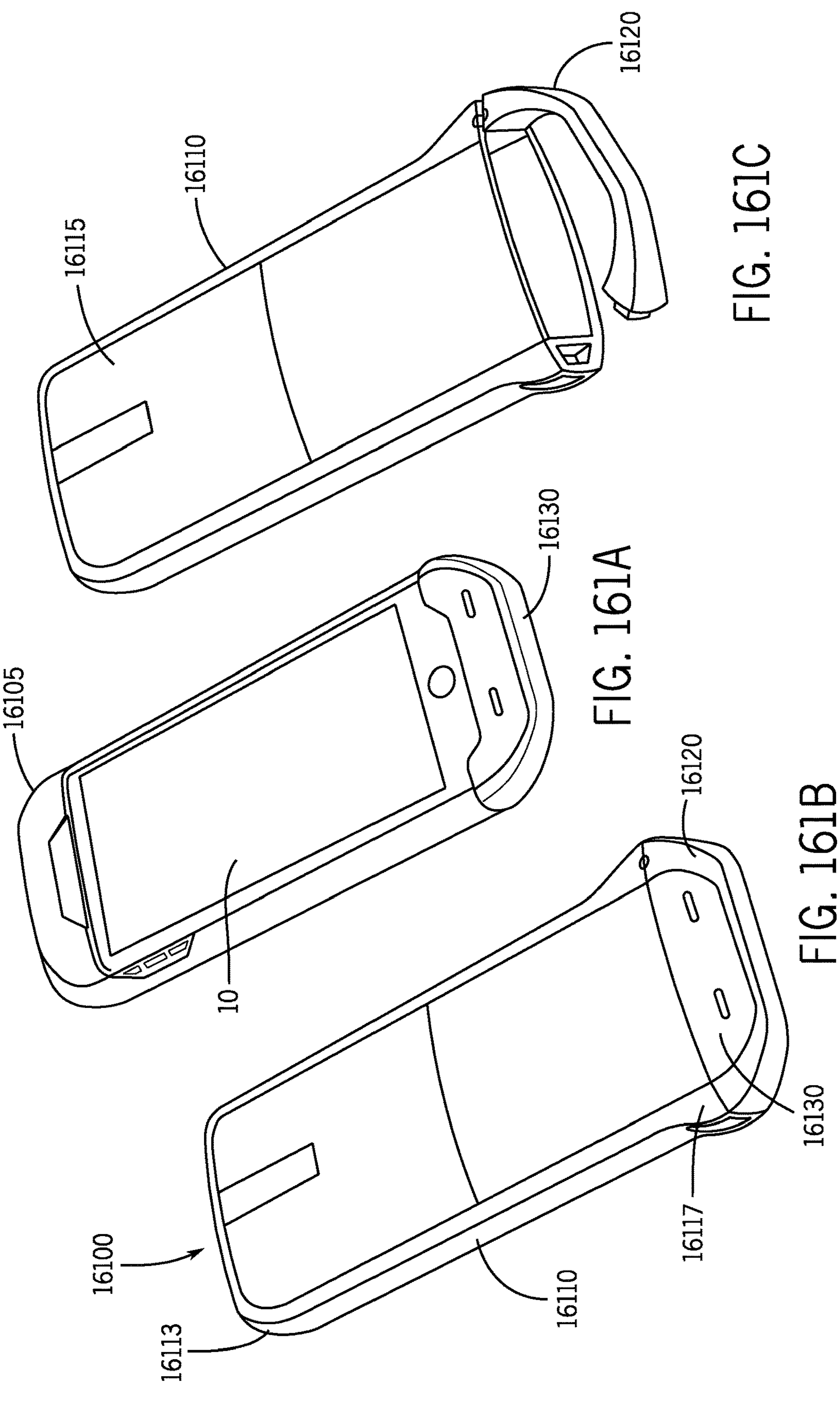


FIG. 161A

FIG. 161B

FIG. 161C

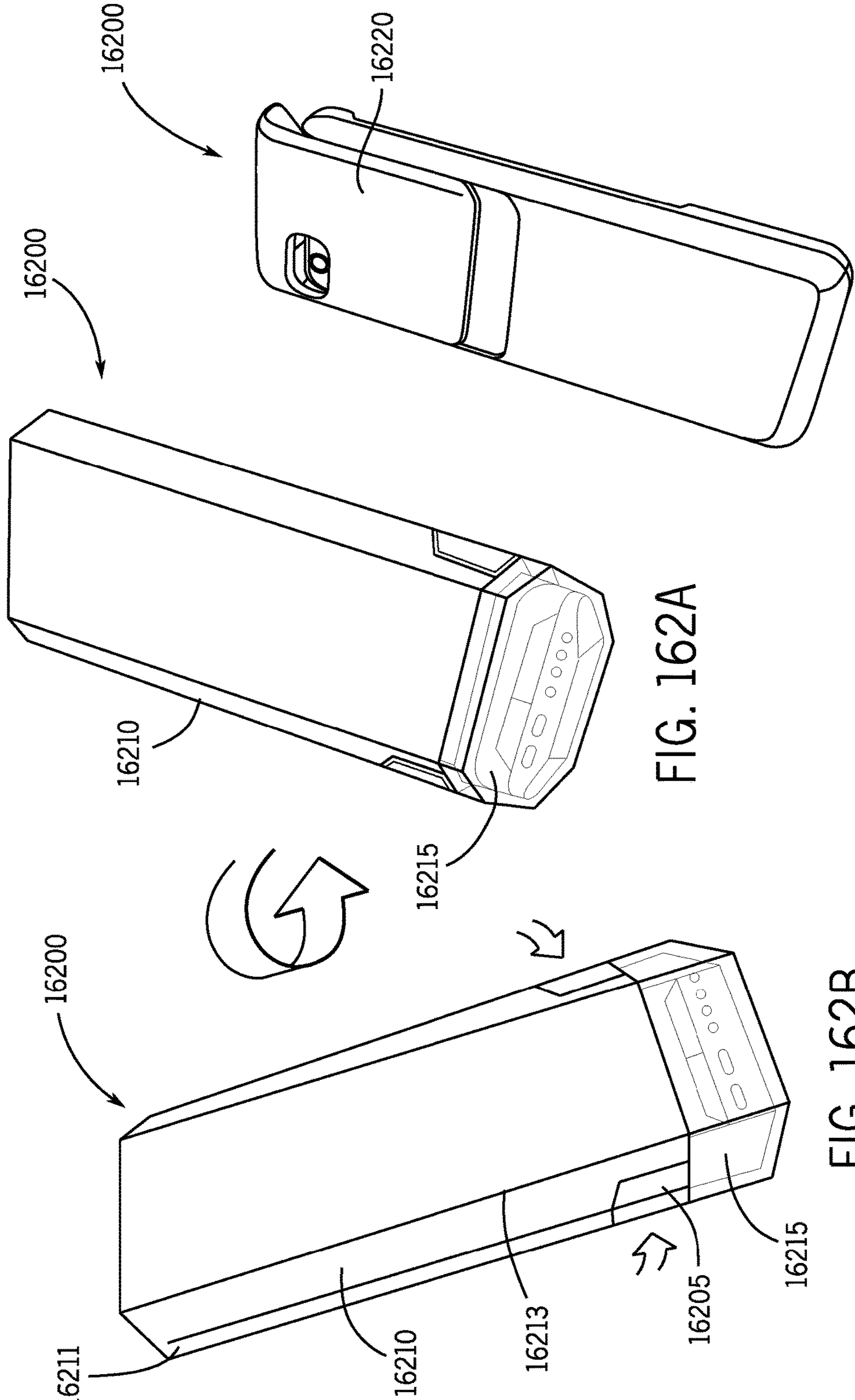


FIG. 162A

FIG. 162B

FIG. 162C

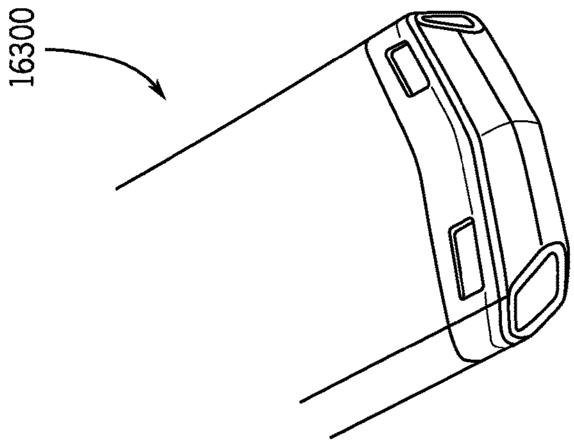


FIG. 163C

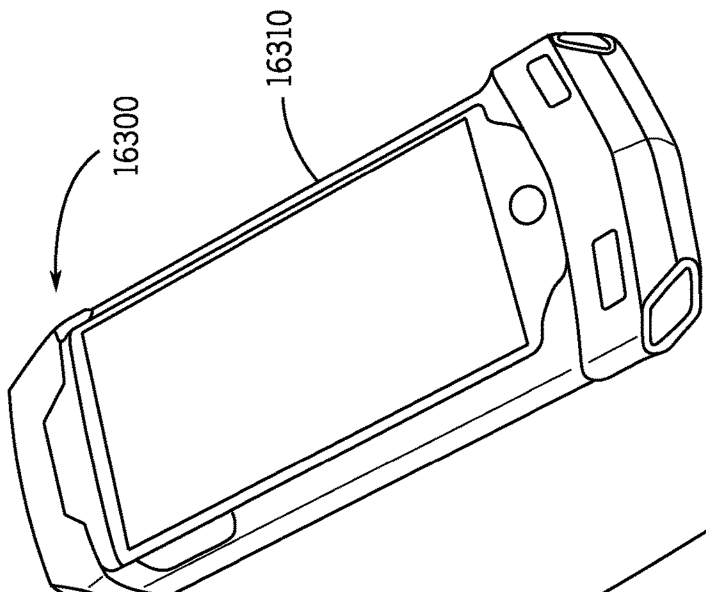


FIG. 163A

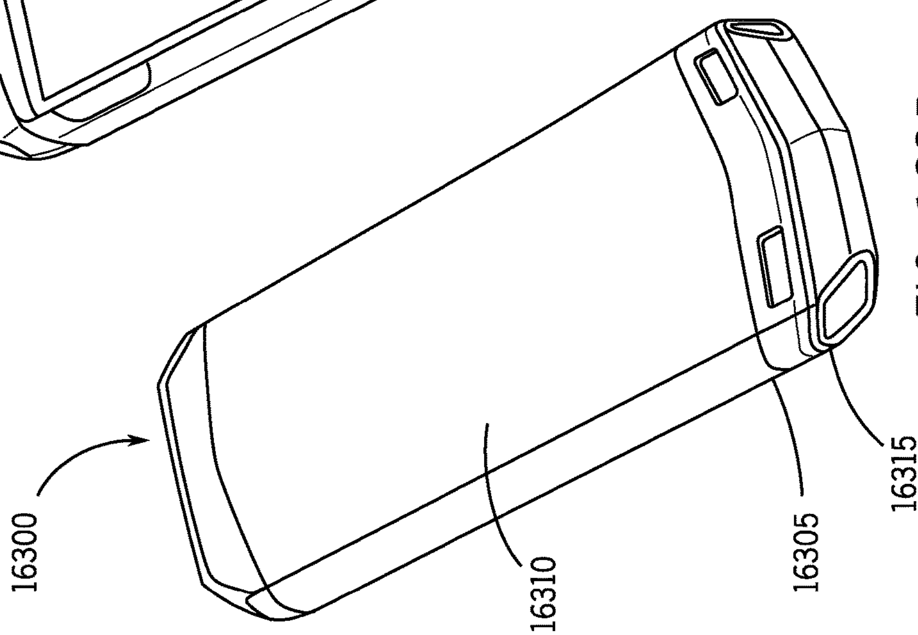


FIG. 163B

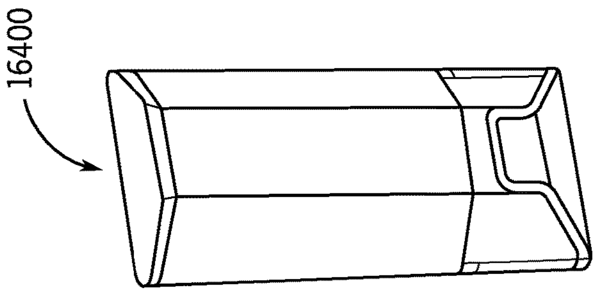


FIG. 164C

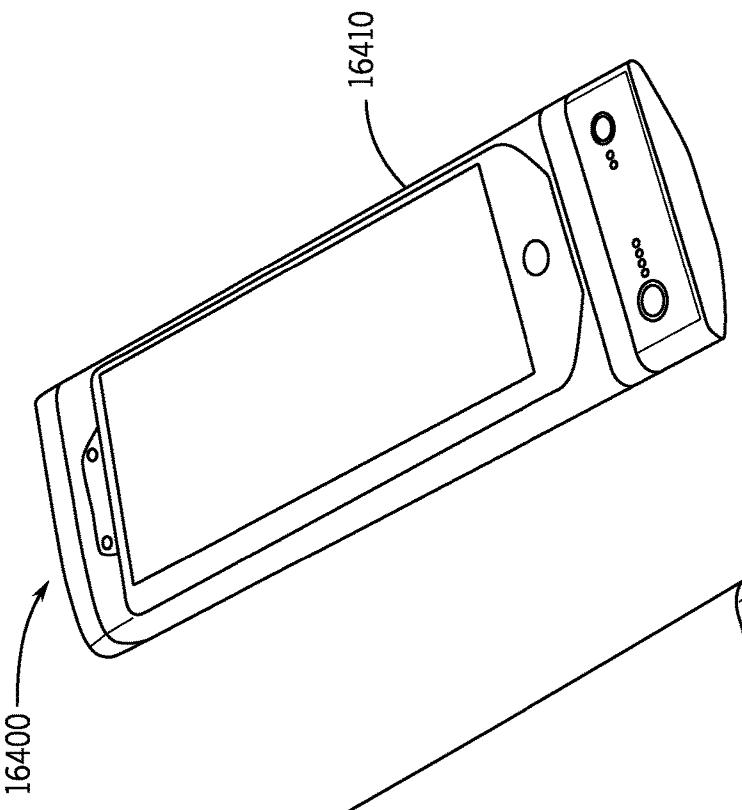


FIG. 164A

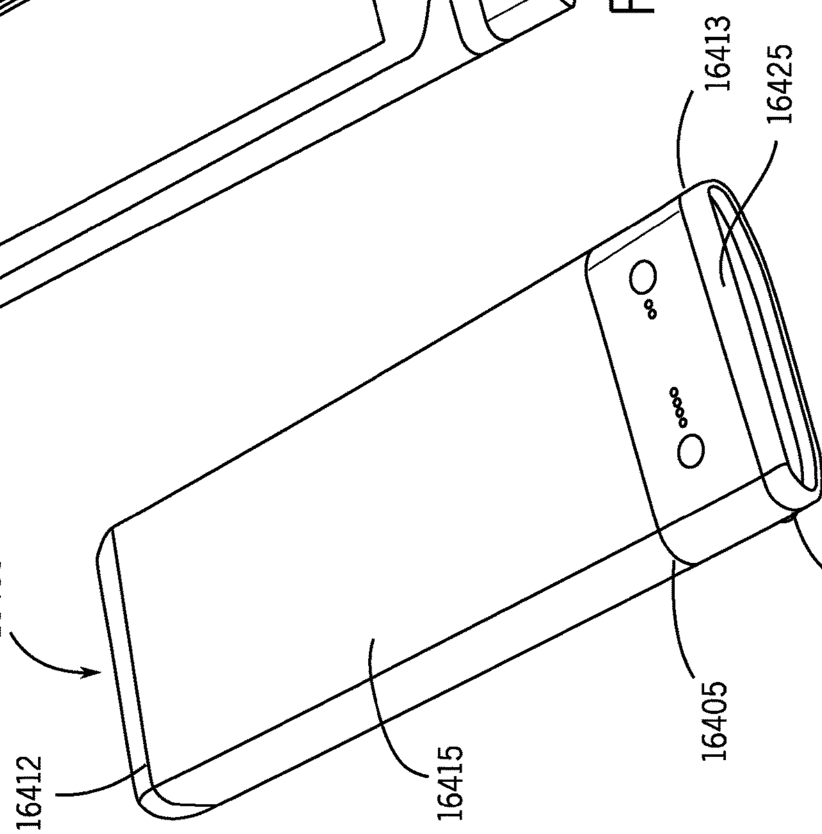


FIG. 164B

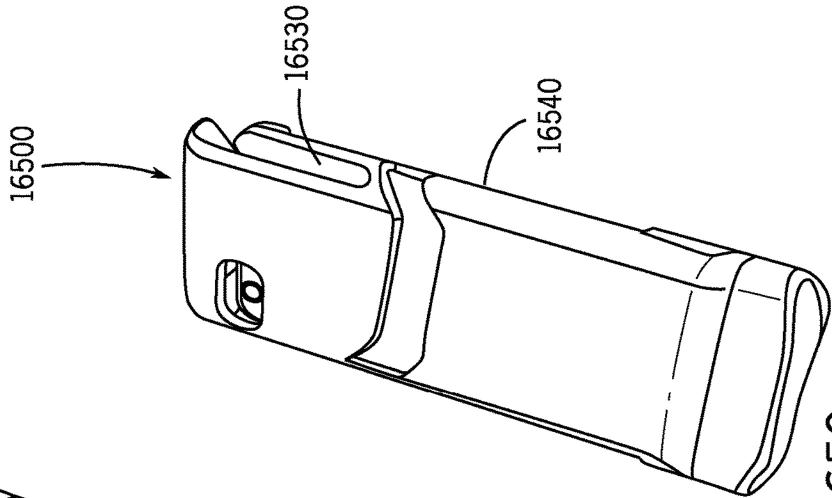


FIG. 165C

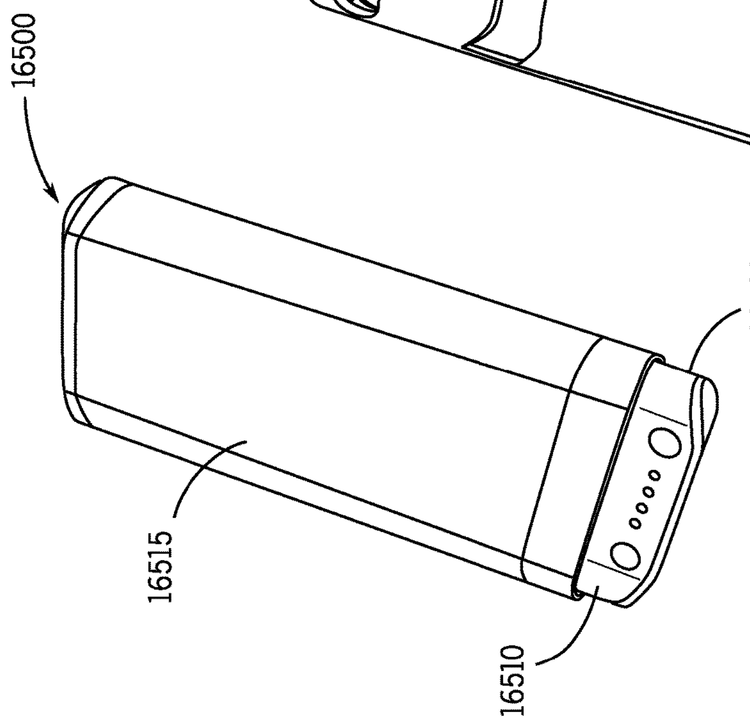


FIG. 165A

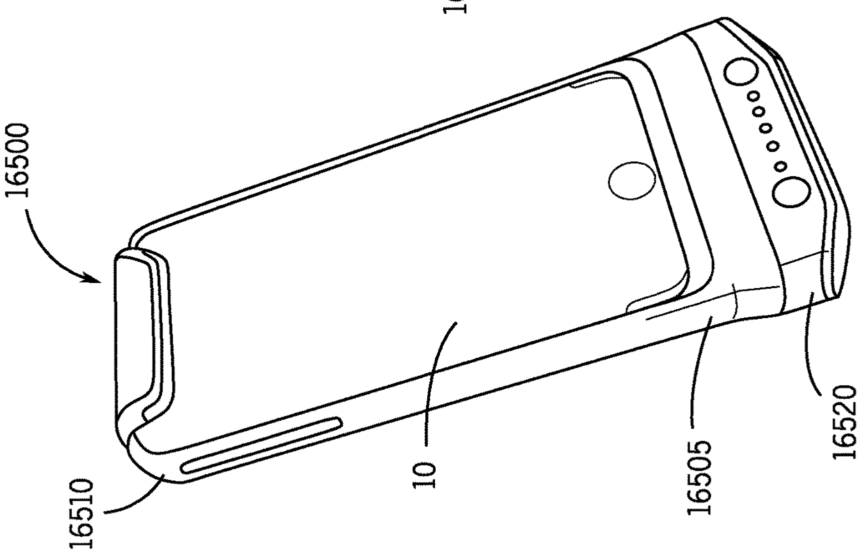


FIG. 165B

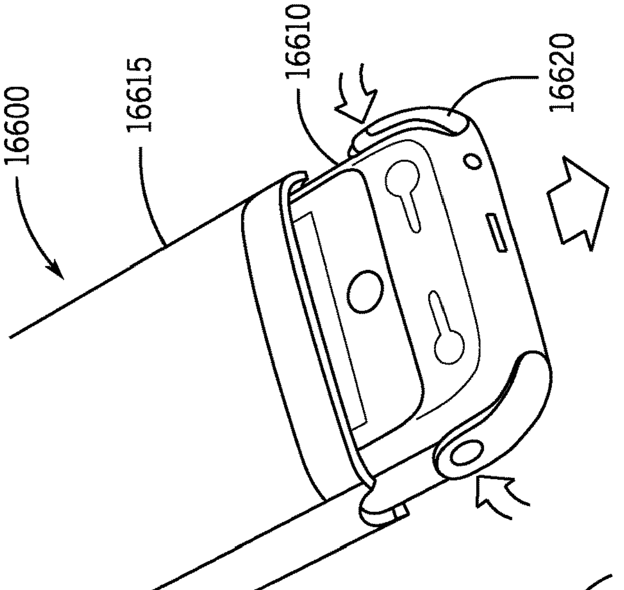


FIG. 166C

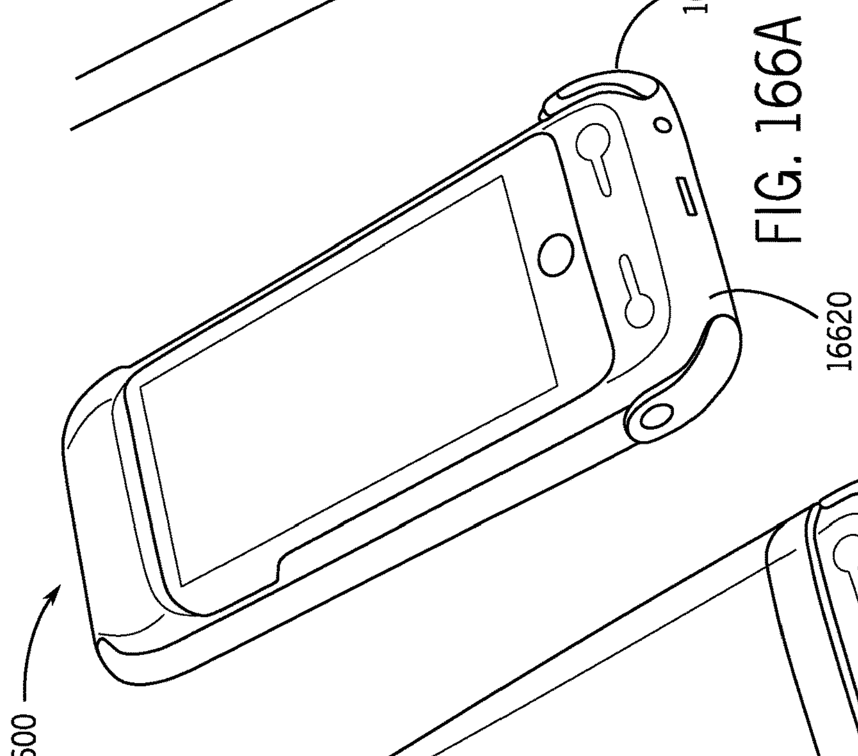


FIG. 166A

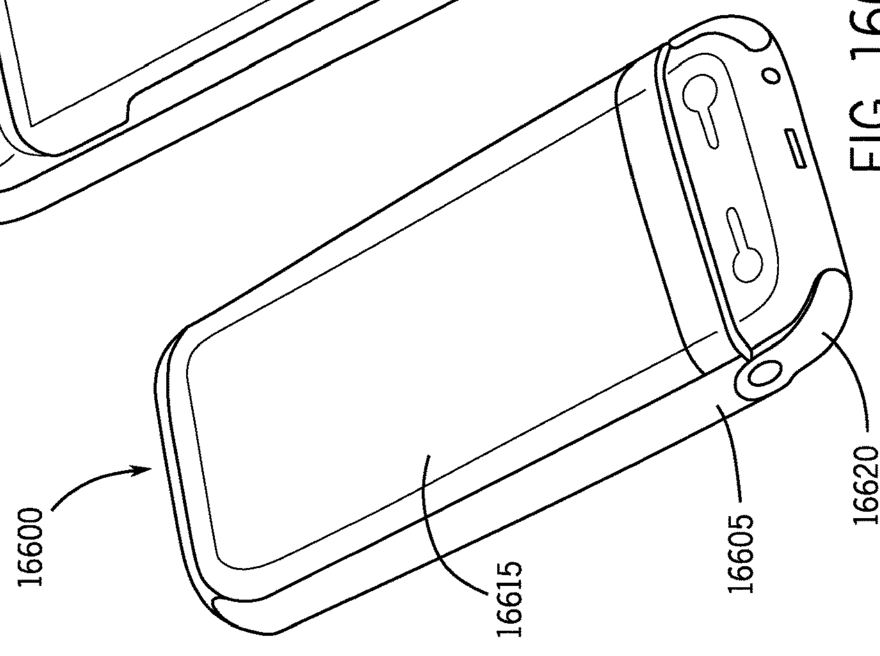


FIG. 166B

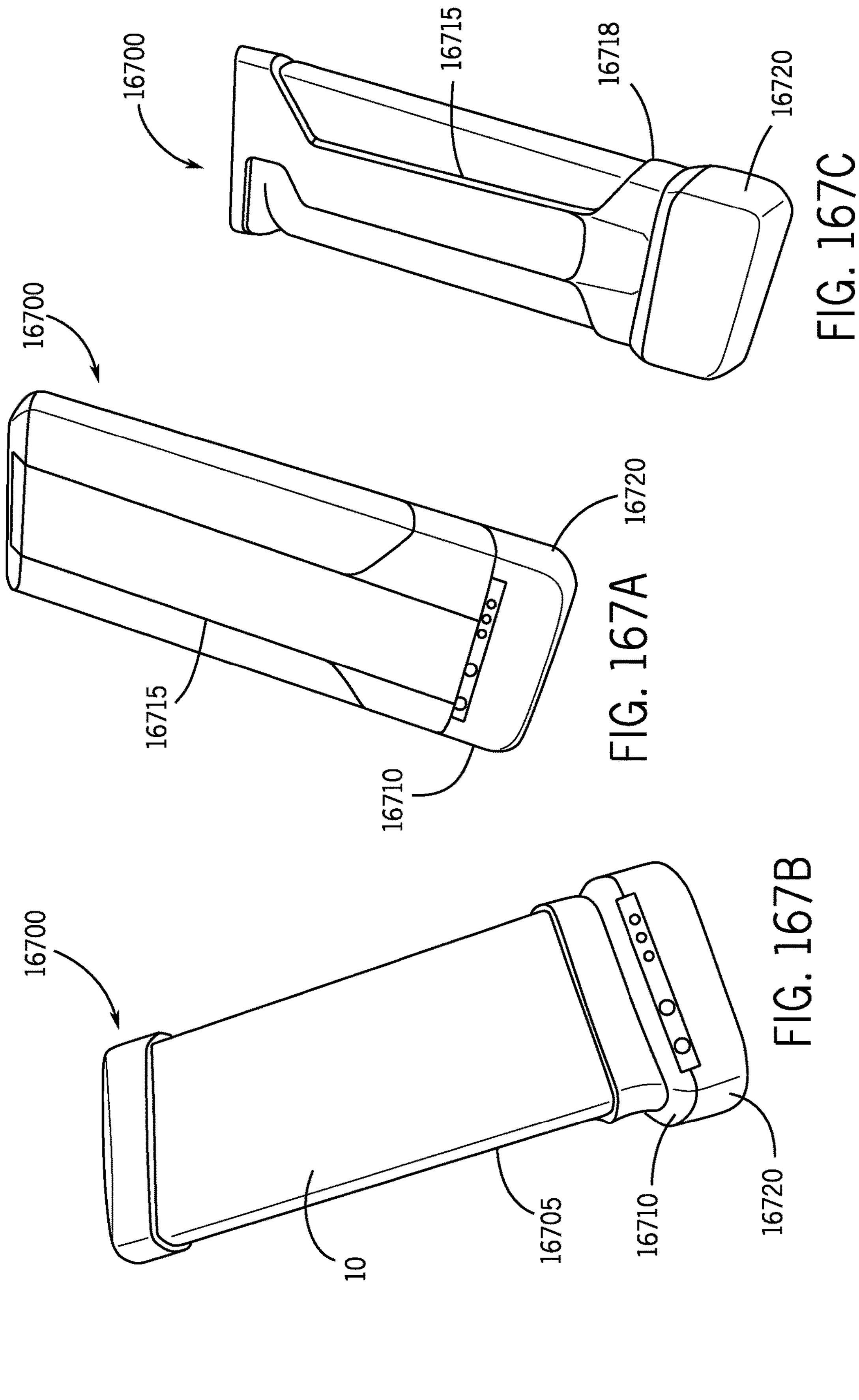


FIG. 167C

FIG. 167A

FIG. 167B

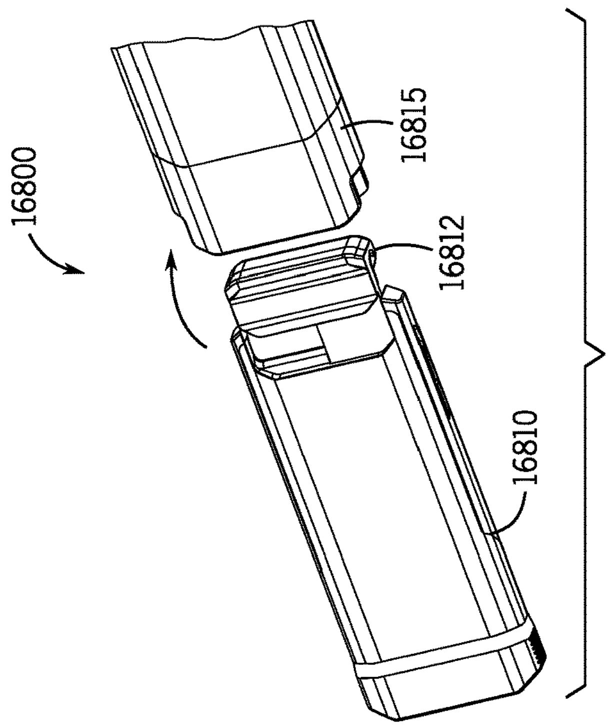


FIG. 168C

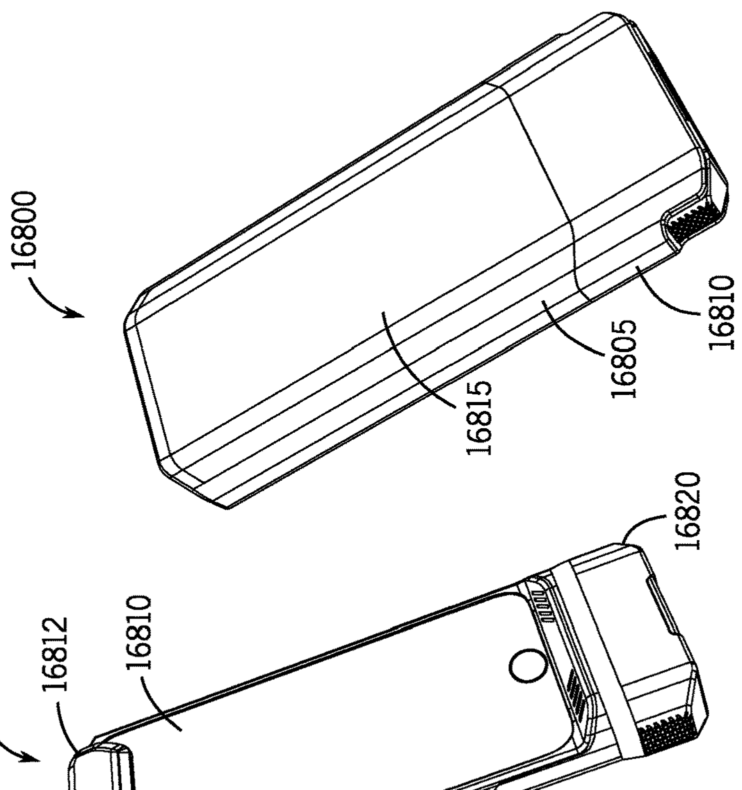


FIG. 168B

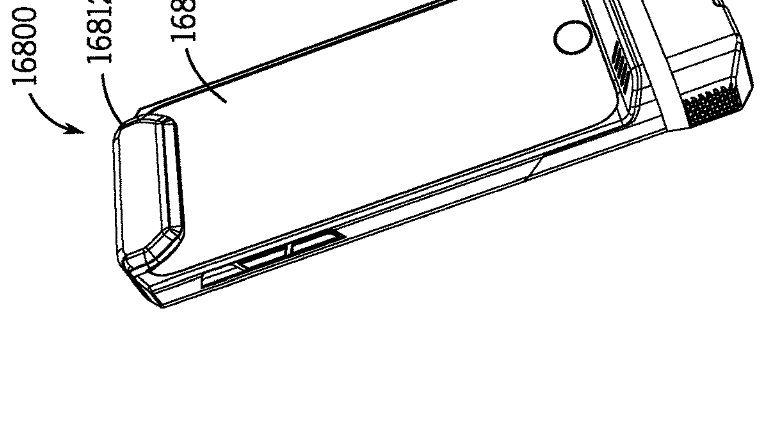


FIG. 168A

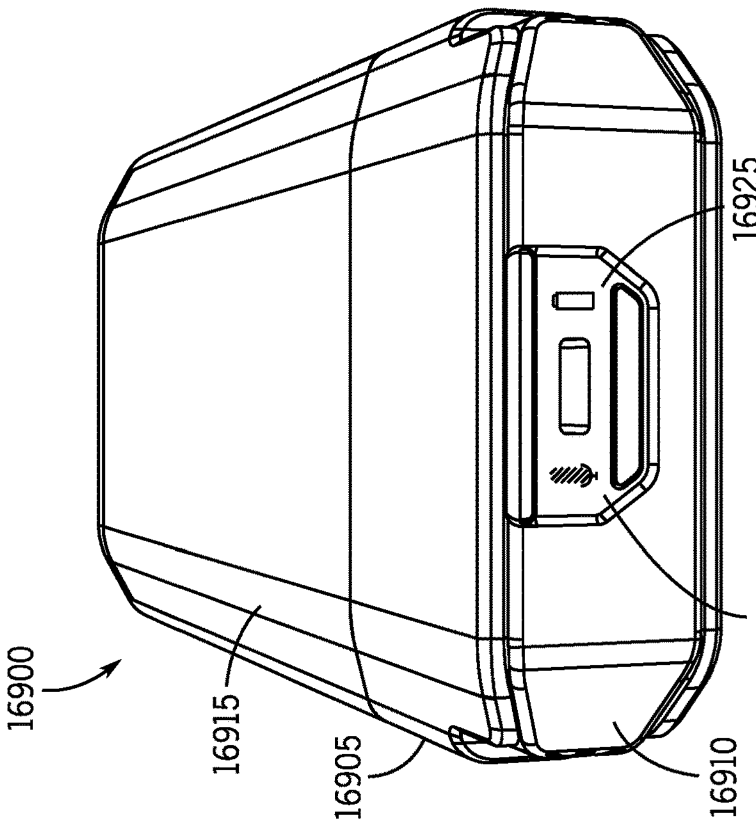


FIG. 169B

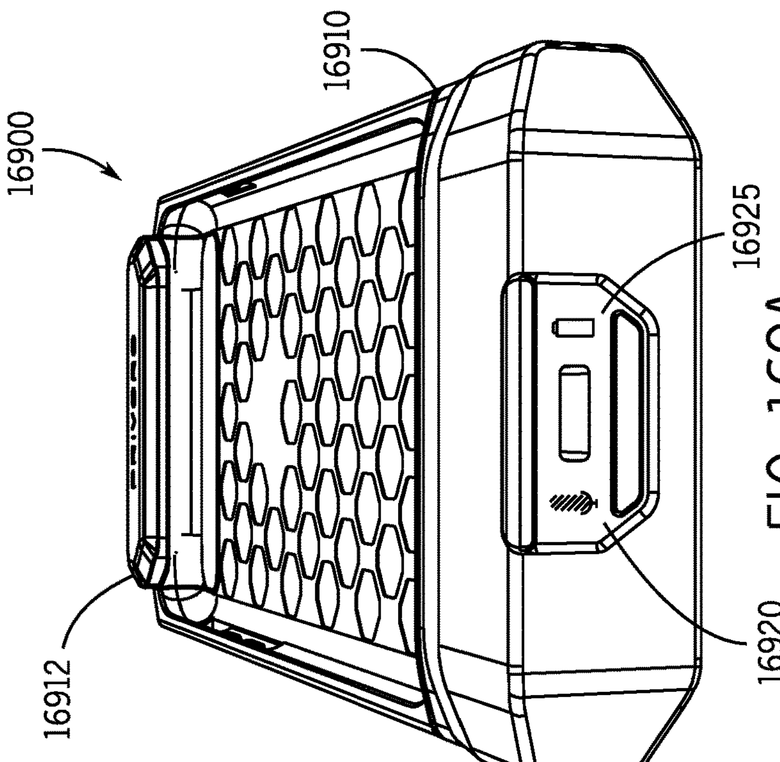


FIG. 169A

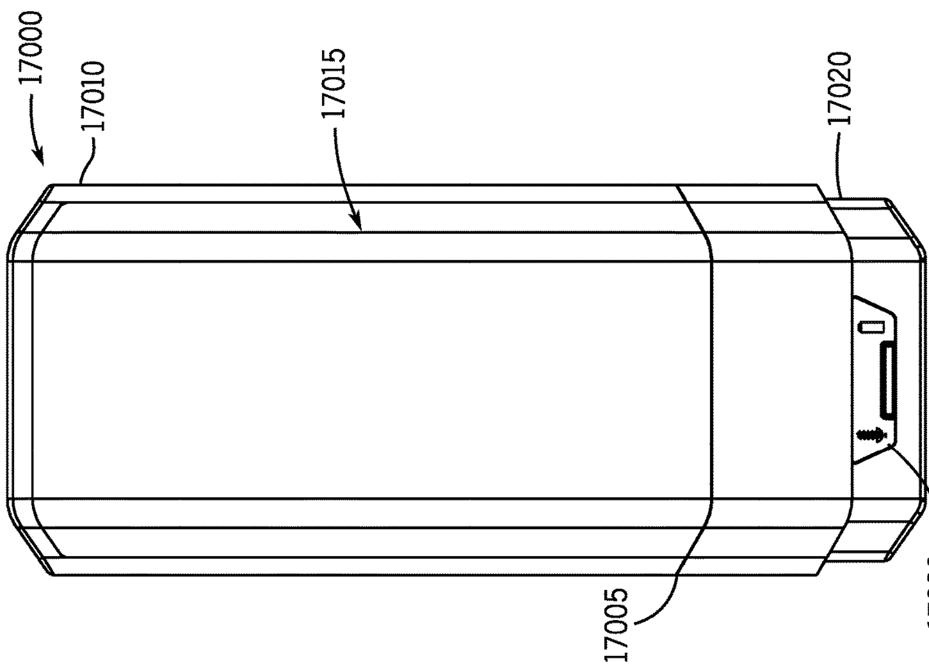


FIG. 170B

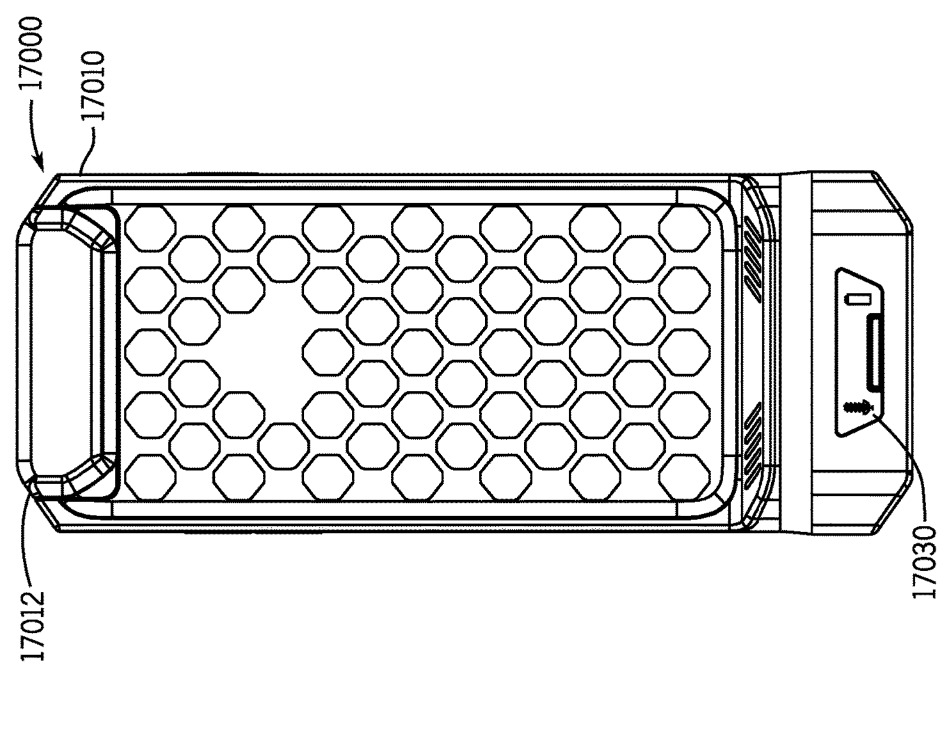


FIG. 170A

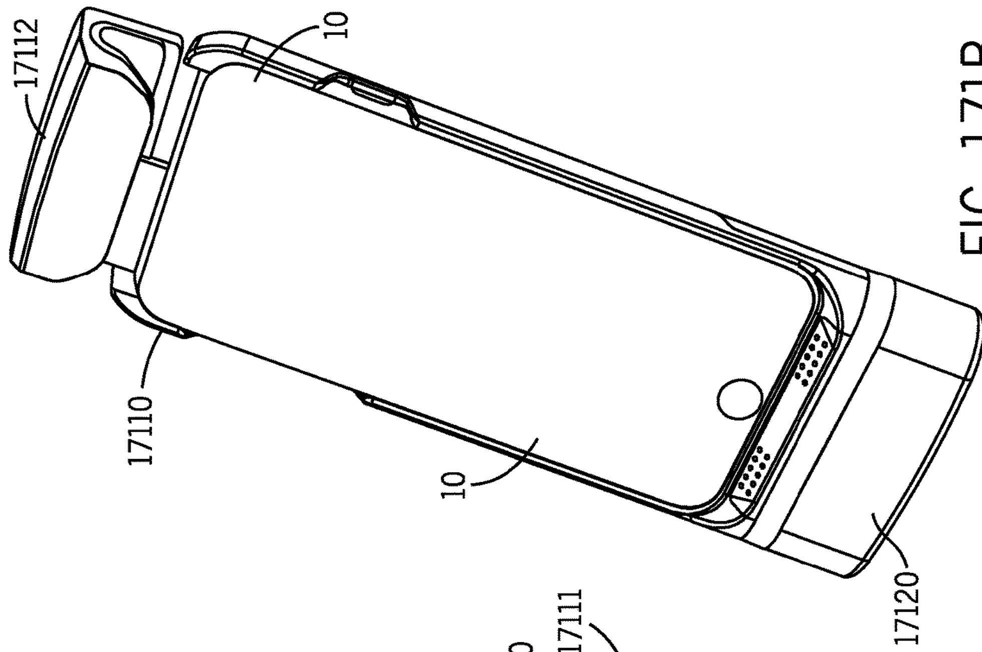


FIG. 171B

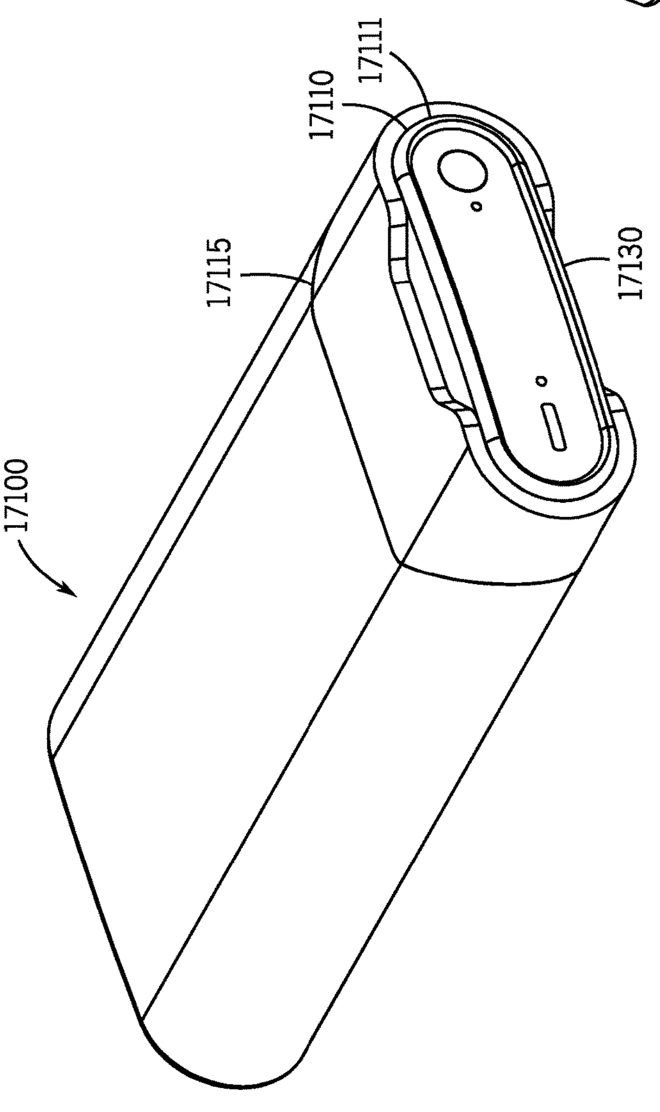


FIG. 171A

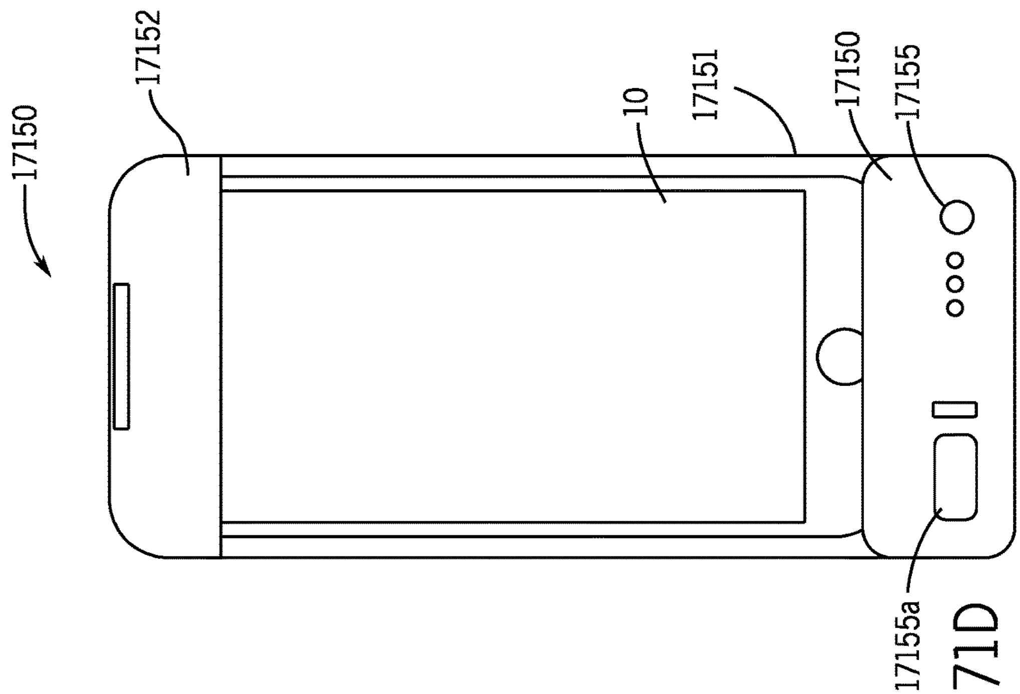


FIG. 171D

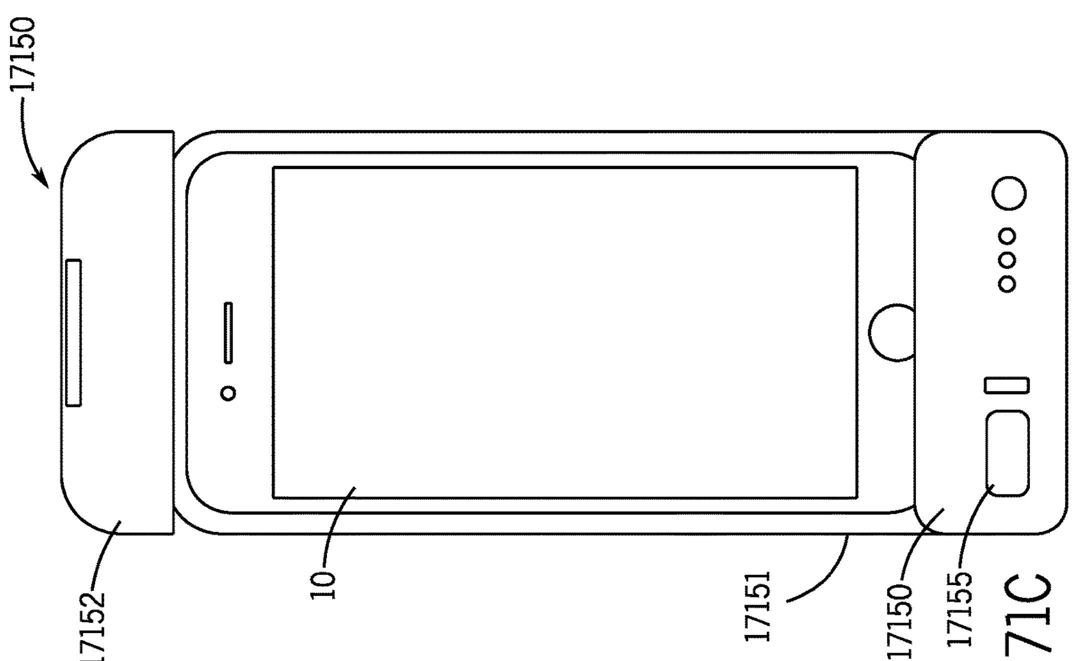


FIG. 171C

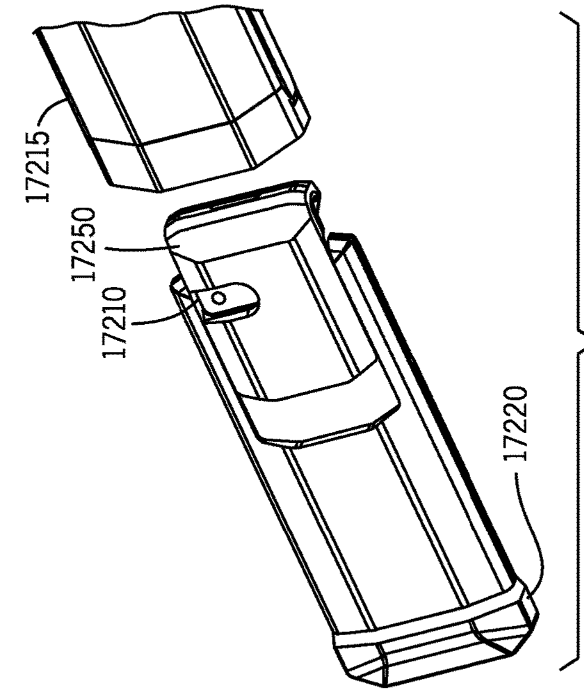


FIG. 172C

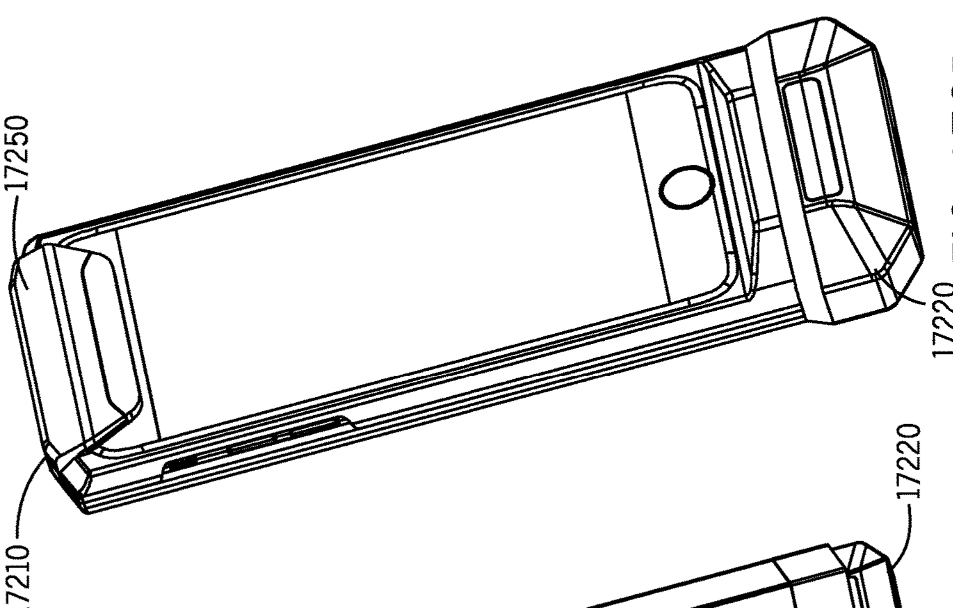


FIG. 172B

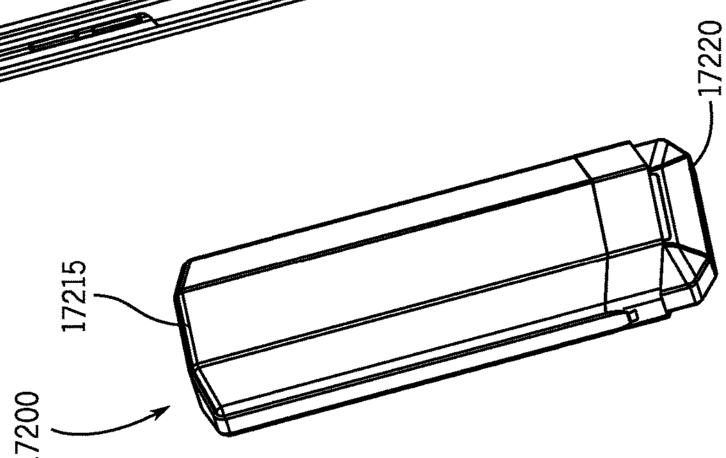


FIG. 172A

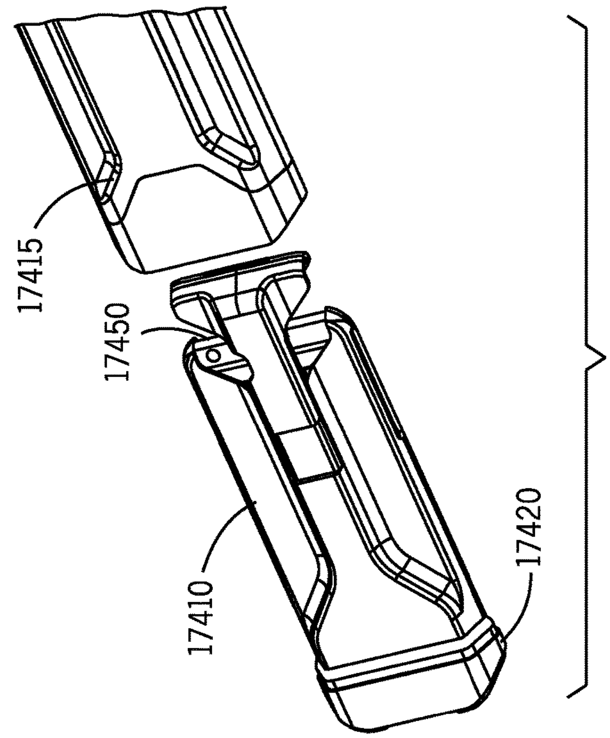


FIG. 175

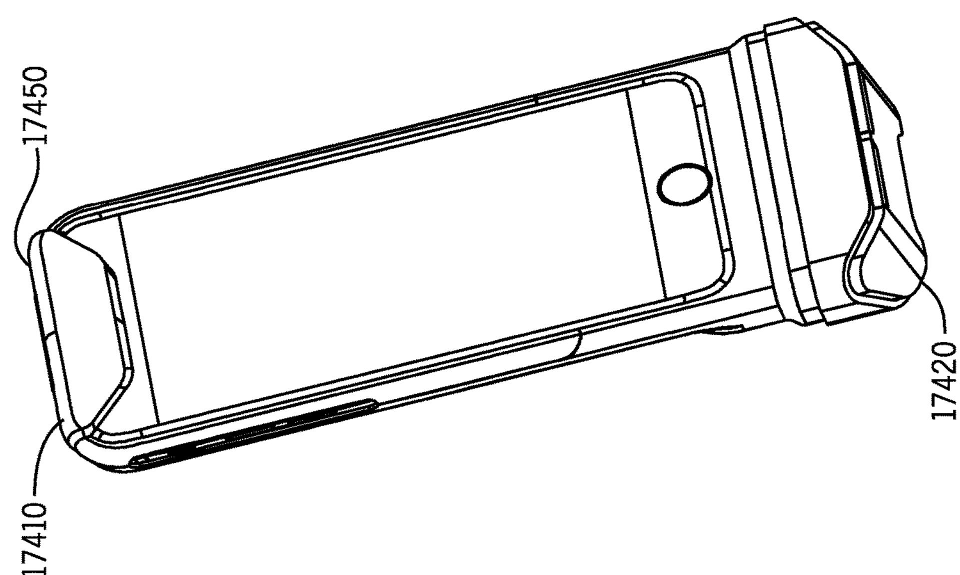


FIG. 174

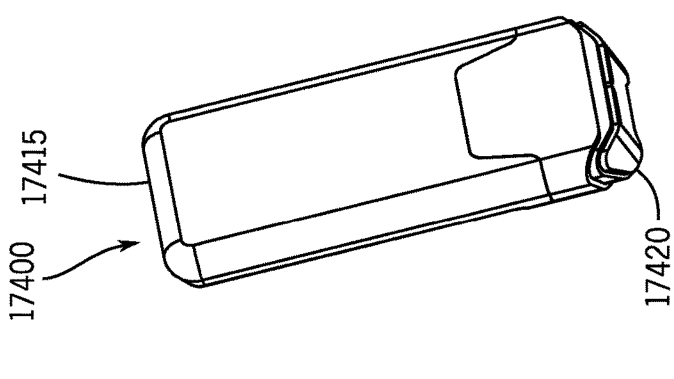


FIG. 173

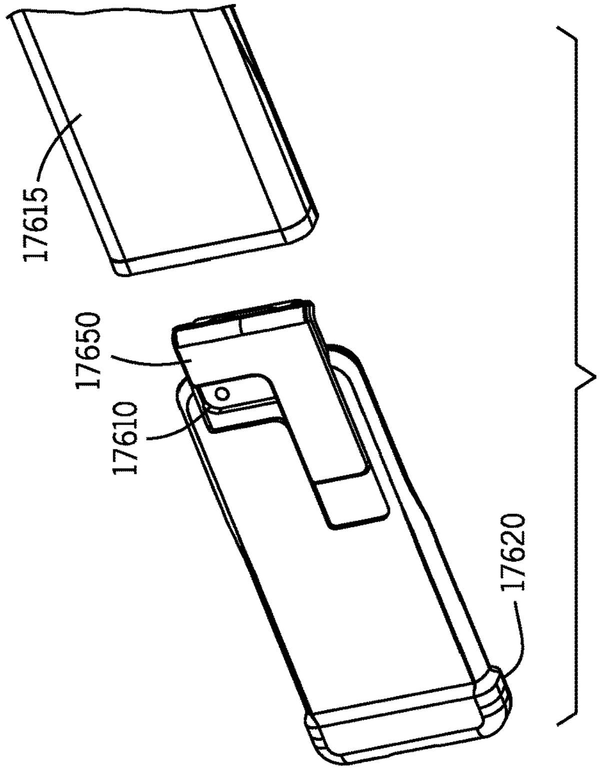


FIG. 178

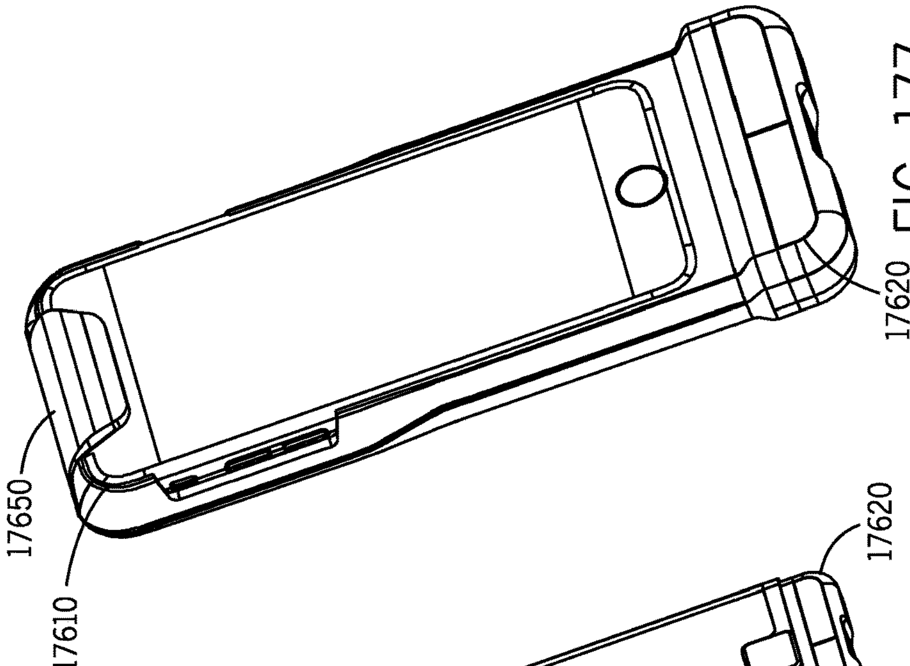


FIG. 177

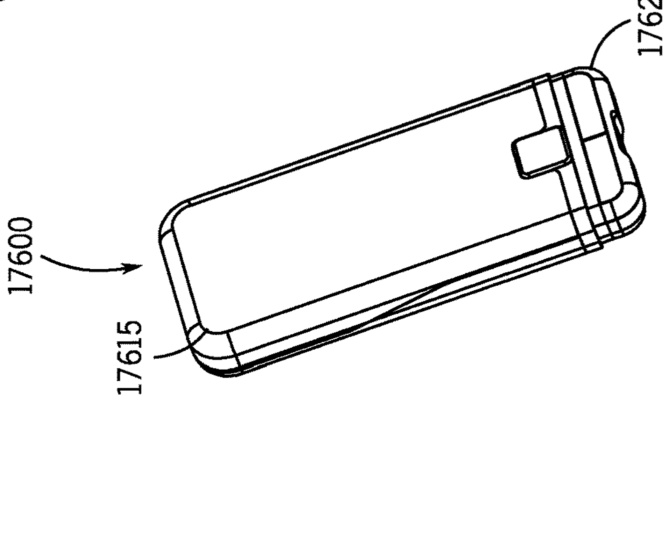


FIG. 176

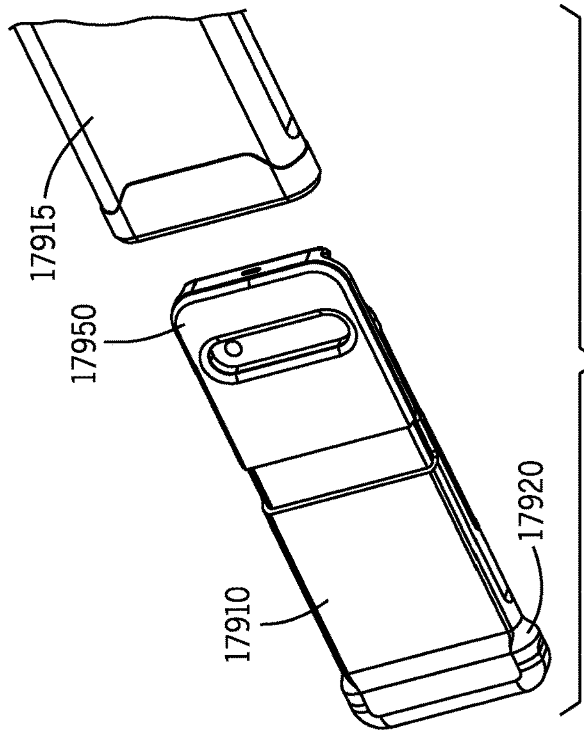


FIG. 181

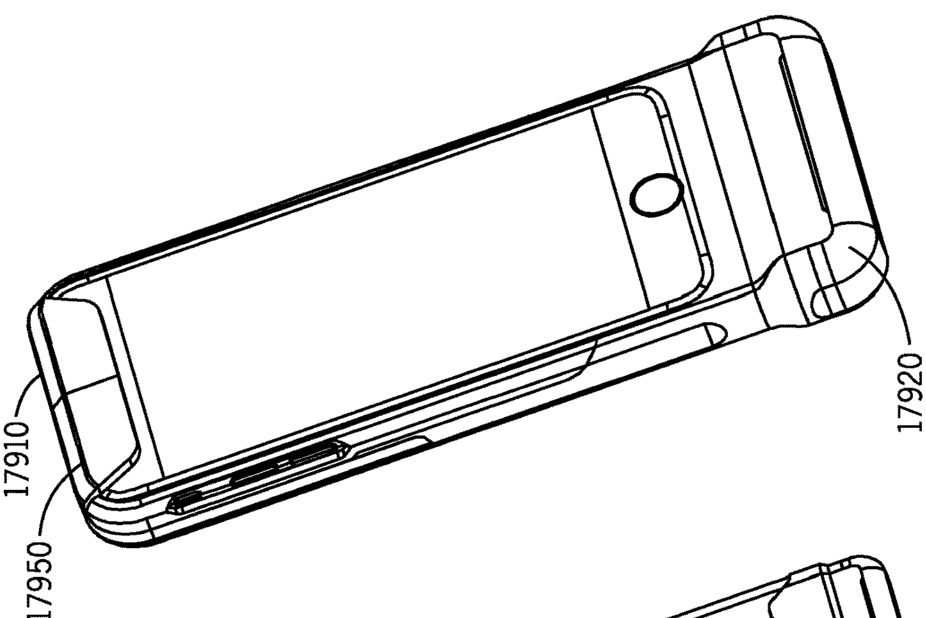


FIG. 180

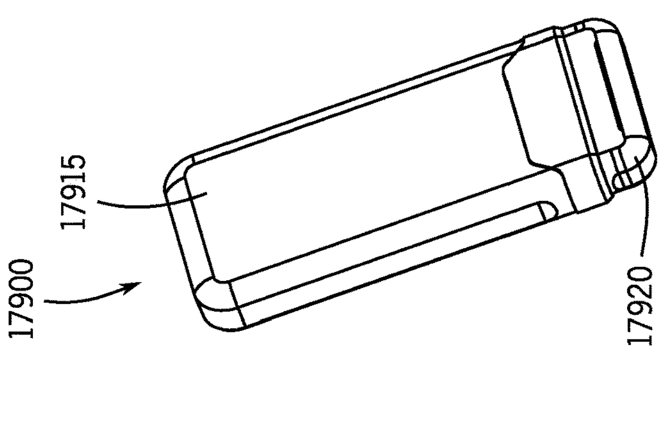


FIG. 179

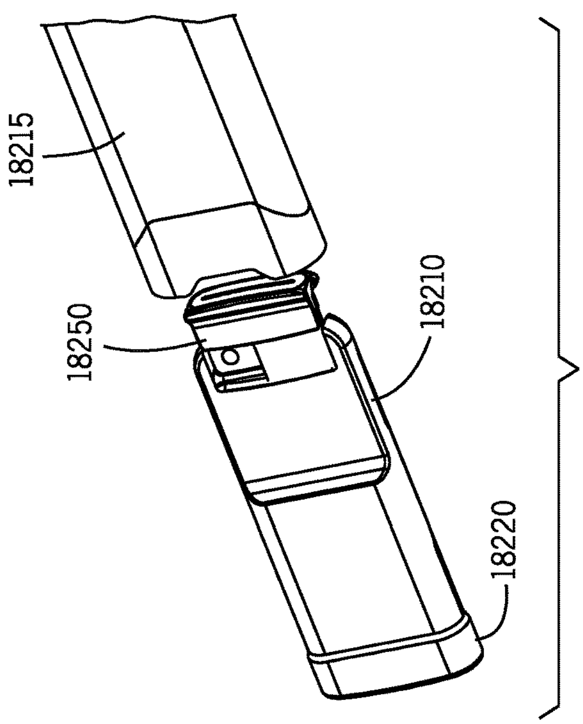


FIG. 184

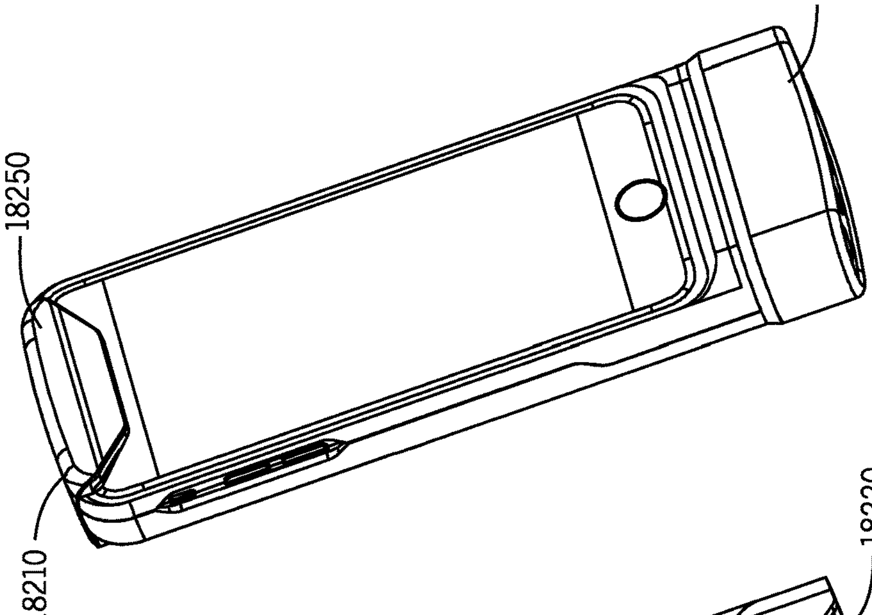


FIG. 183

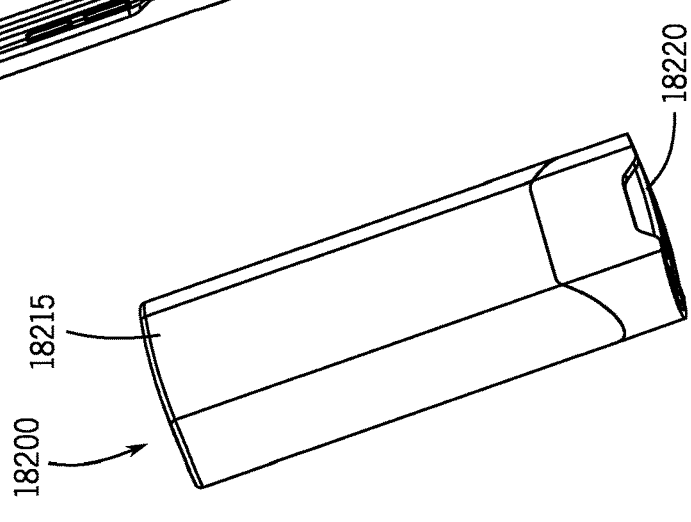


FIG. 182

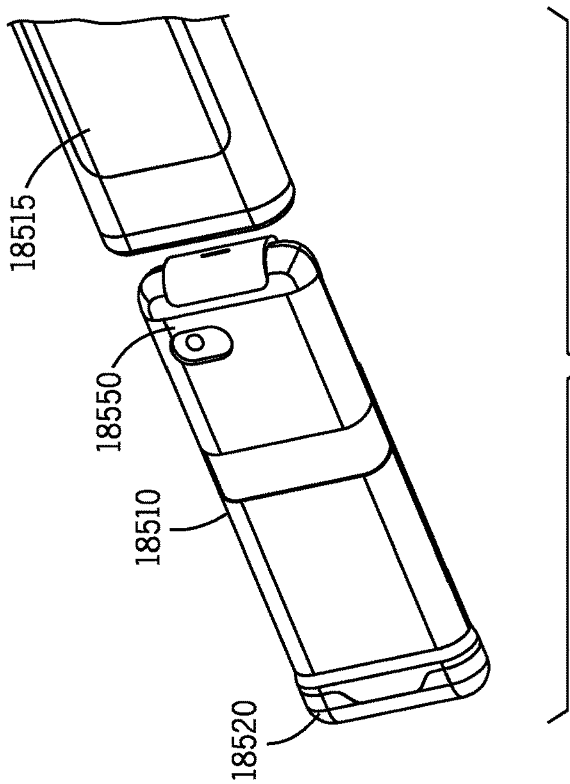


FIG. 187

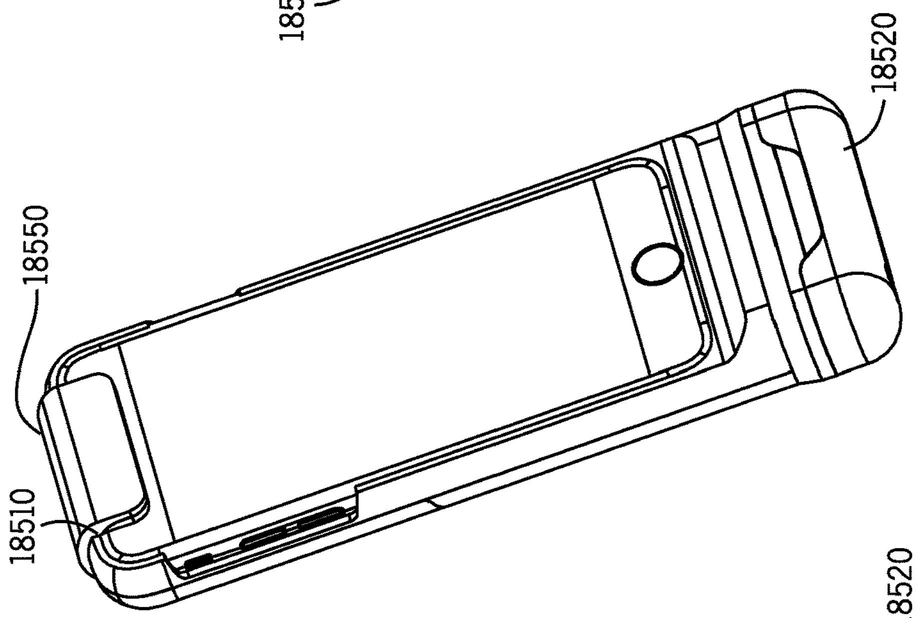


FIG. 186

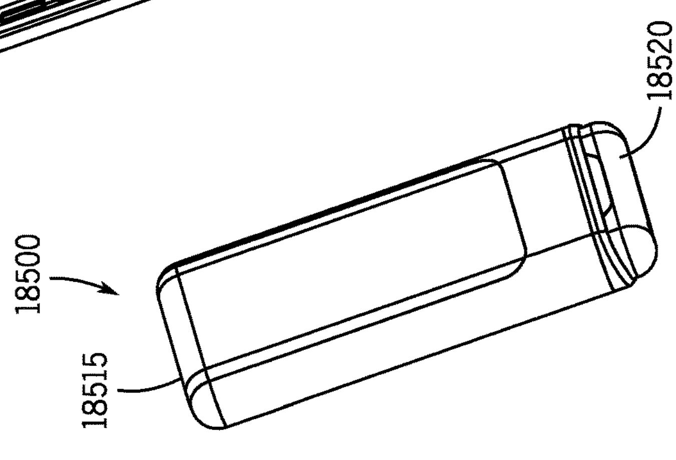


FIG. 185

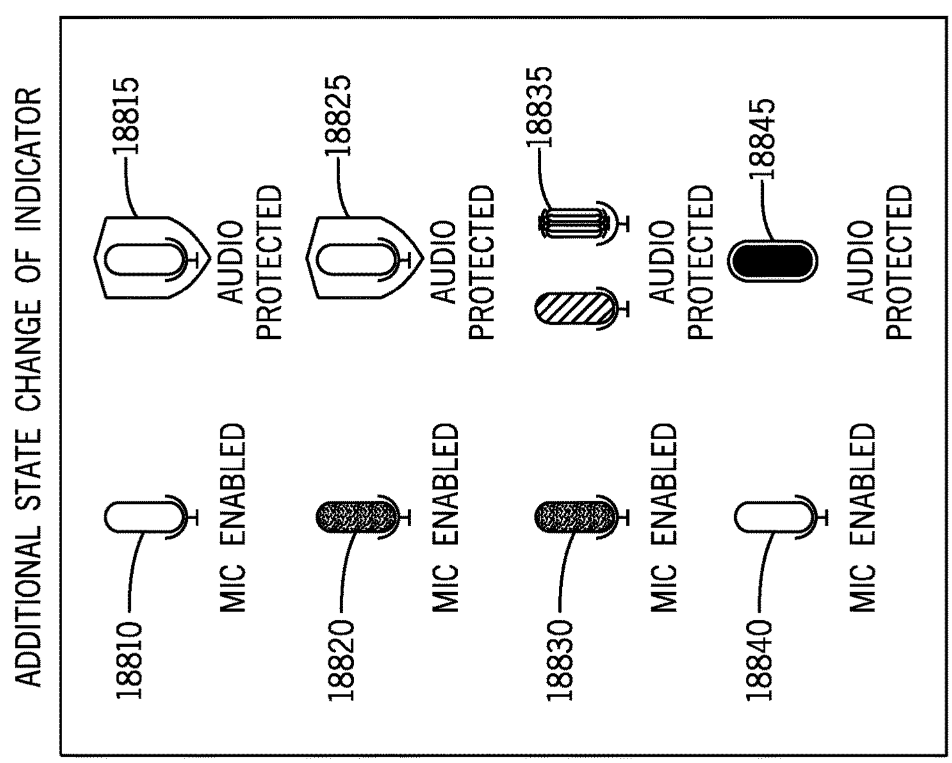


FIG. 188

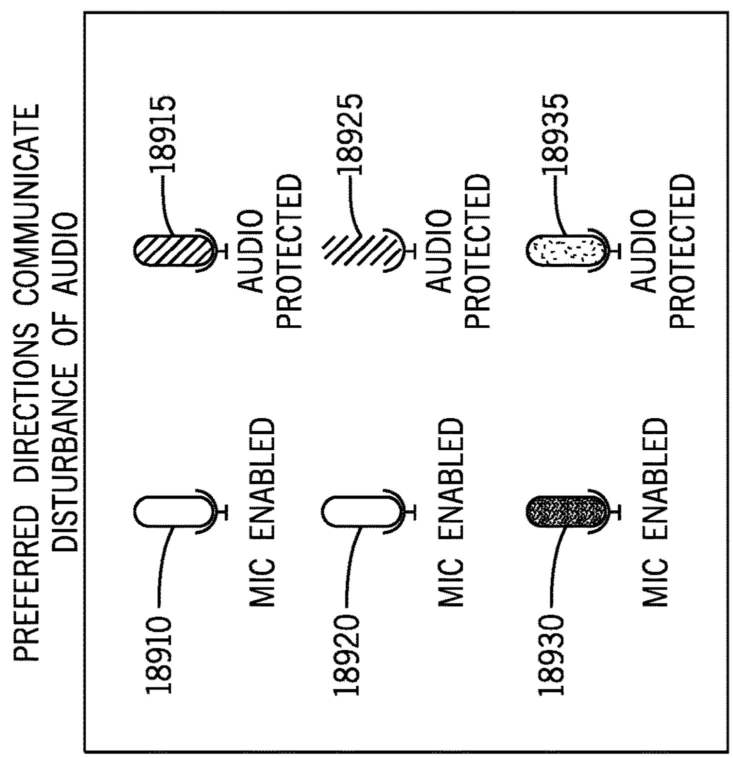


FIG. 189

COMBINE AUDIO PROTECTION WITH BATTERY INDICATOR

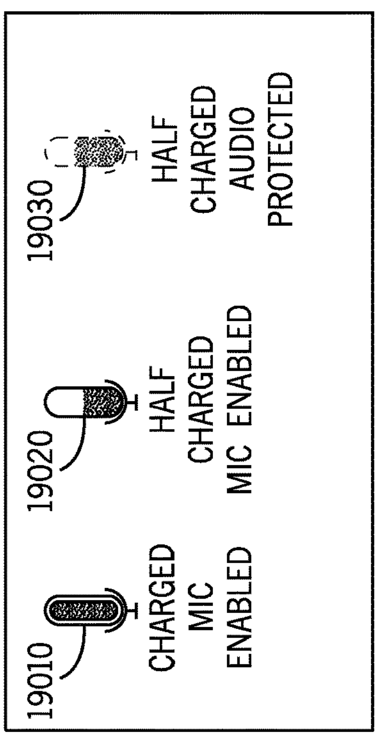


FIG. 190A

COLOR STATE CHANGE OF ICON

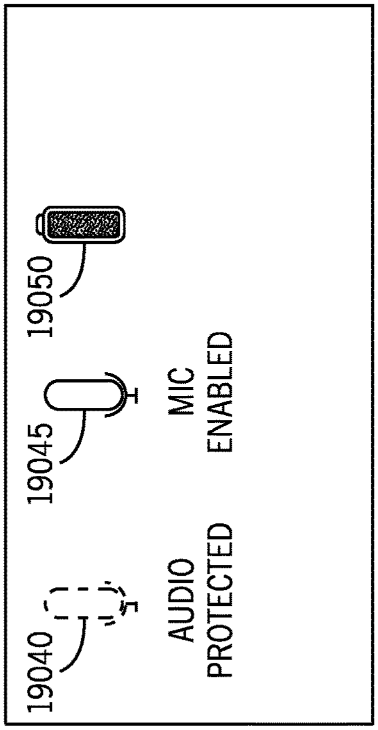


FIG. 190B

MIC ICONS TURNS INTO LOCK ICON OR SHIELD

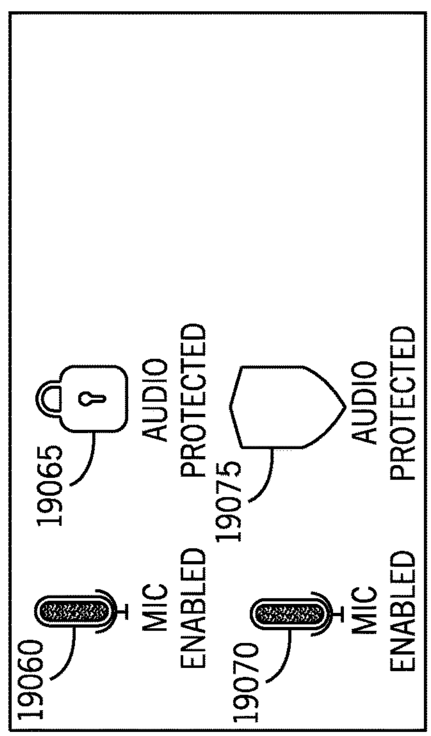


FIG. 190C

PRIVORO TEXT STATE CHANGE

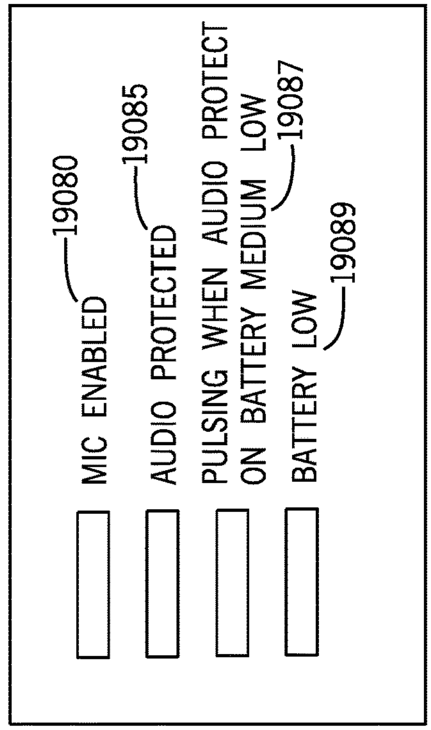


FIG. 190D

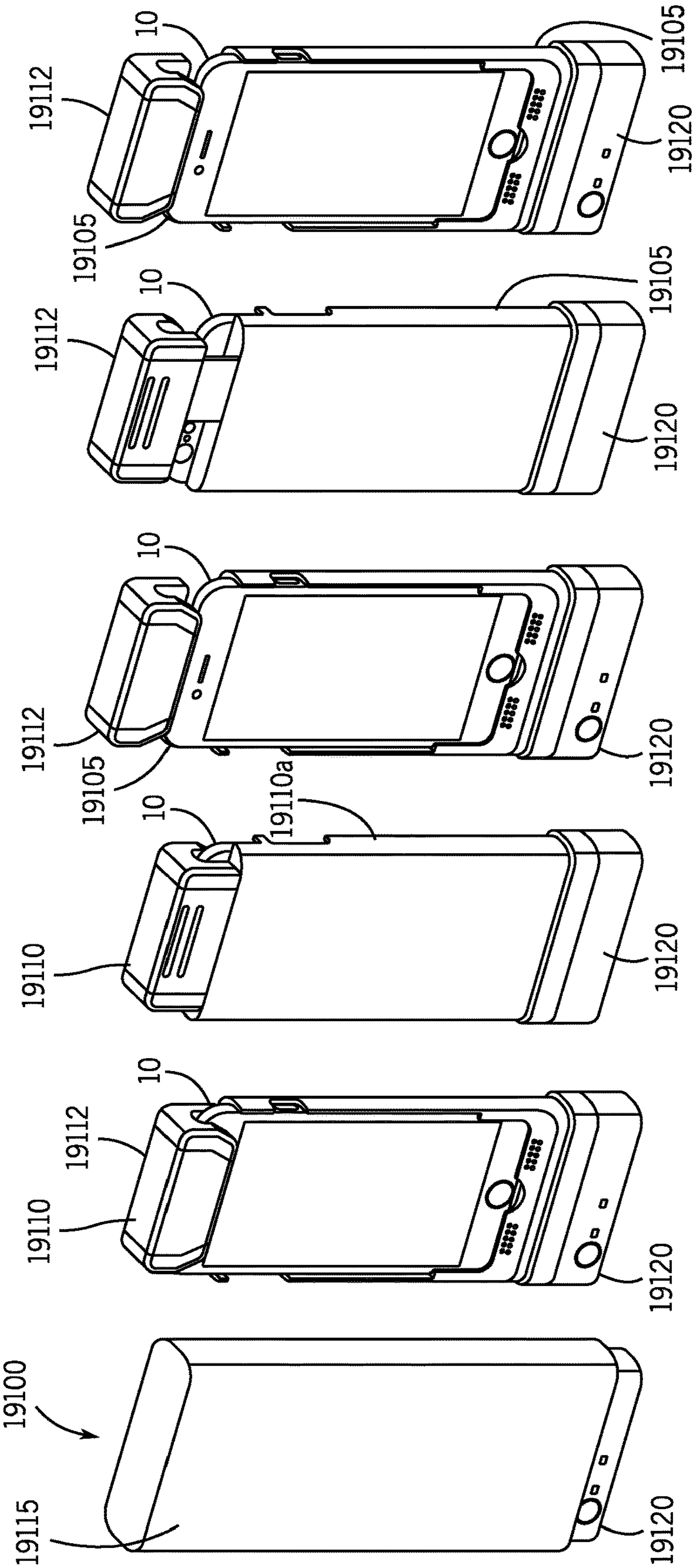


FIG. 191F

FIG. 191E

FIG. 191D

FIG. 191C

FIG. 191B

FIG. 191A

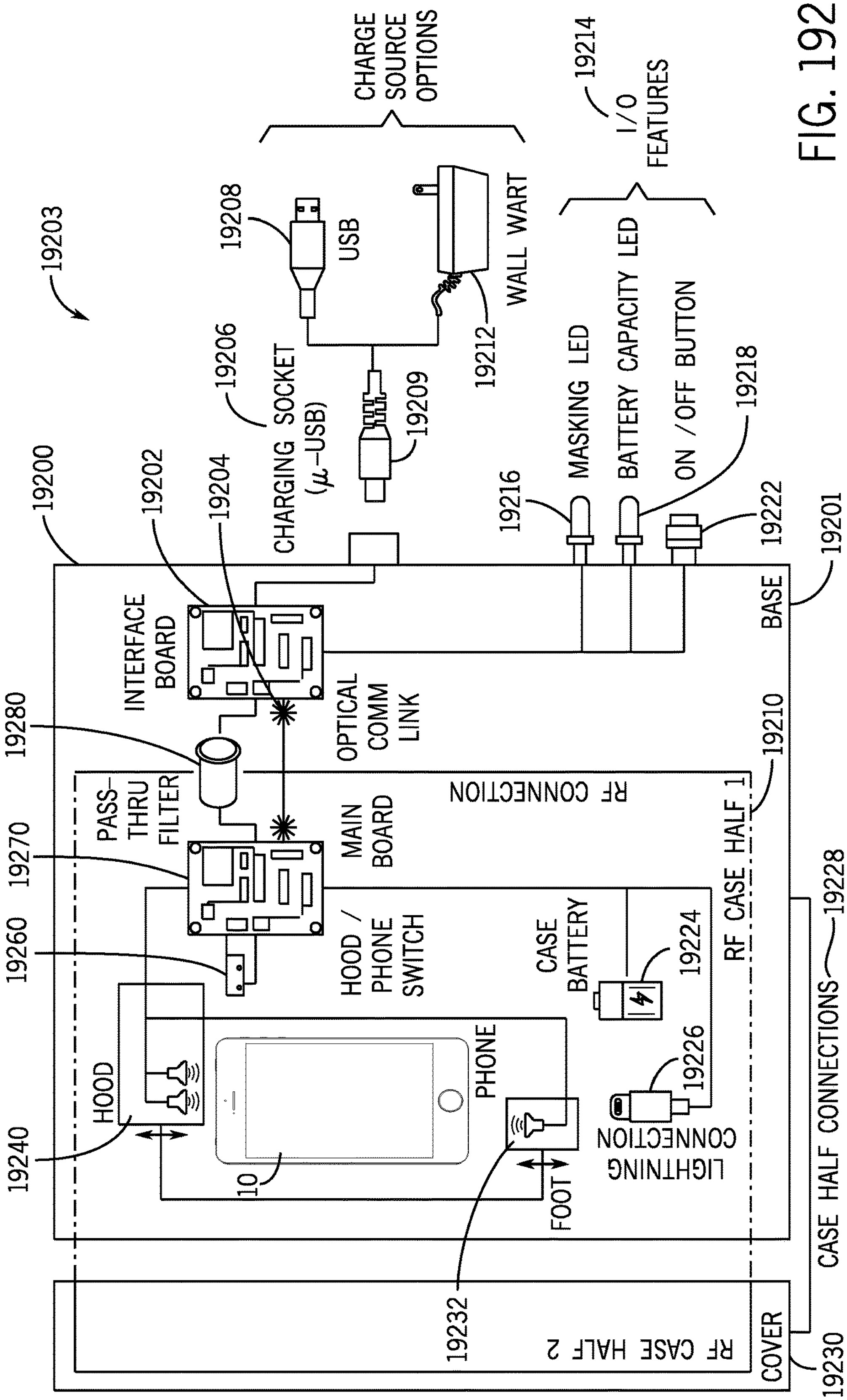
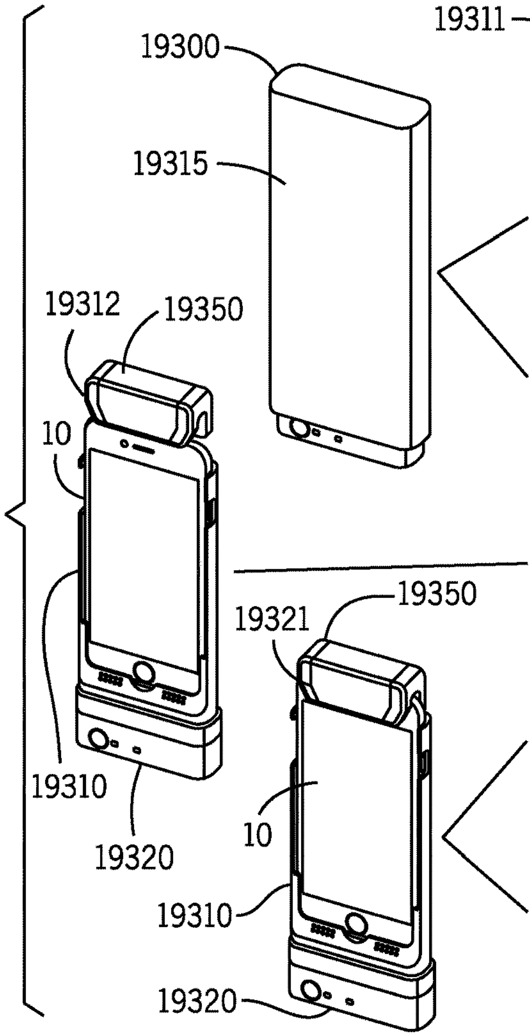

19203
CHARGE SOURCE OPTIONS
19208
USB
WALL WART
19212
19209
19206
CHARGING SOCKET (μ-USB)
19214
I/O FEATURES
MASKING LED
BATTERY CAPACITY LED
ON /OFF BUTTON
19216
19218
19222
19201
19200
19202
19204
INTERFACE BOARD
OPTICAL COMM LINK
BASE
19280
PASS-THRU FILTER
19210
RF CONNECTION
MAIN BOARD
19270
RF CASE HALF 1
19260
HOOD / PHONE SWITCH
CASE BATTERY
19224
19228
HOOD
PHONE
19226
LIGHTNING CONNECTION
19240
10
FOOT
CASE HALF CONNECTIONS
19232
RF CASE HALF 2
COVER
19230

FIG. 192



SYMBOL (19311)	STATE NAME (19312)	CASE (19314)	PHONE ACOUSTICS (19316)	MASKING (19318)	PHONE (19319)	
	CLOSED OFF	CLOSED	SEALED	OFF	PRESENT	19370
	CLOSED ON	CLOSED	SEALED	FULL ON	PRESENT	19375
	OPEN FREE	OPEN	UNSEALED	OFF	PRESENT	19380
	OPEN OFF	OPEN	SEALED	OFF	PRESENT	19385
	OPEN ON	OPEN	SEALED	FULL ON	PRESENT	19390

FIG. 193

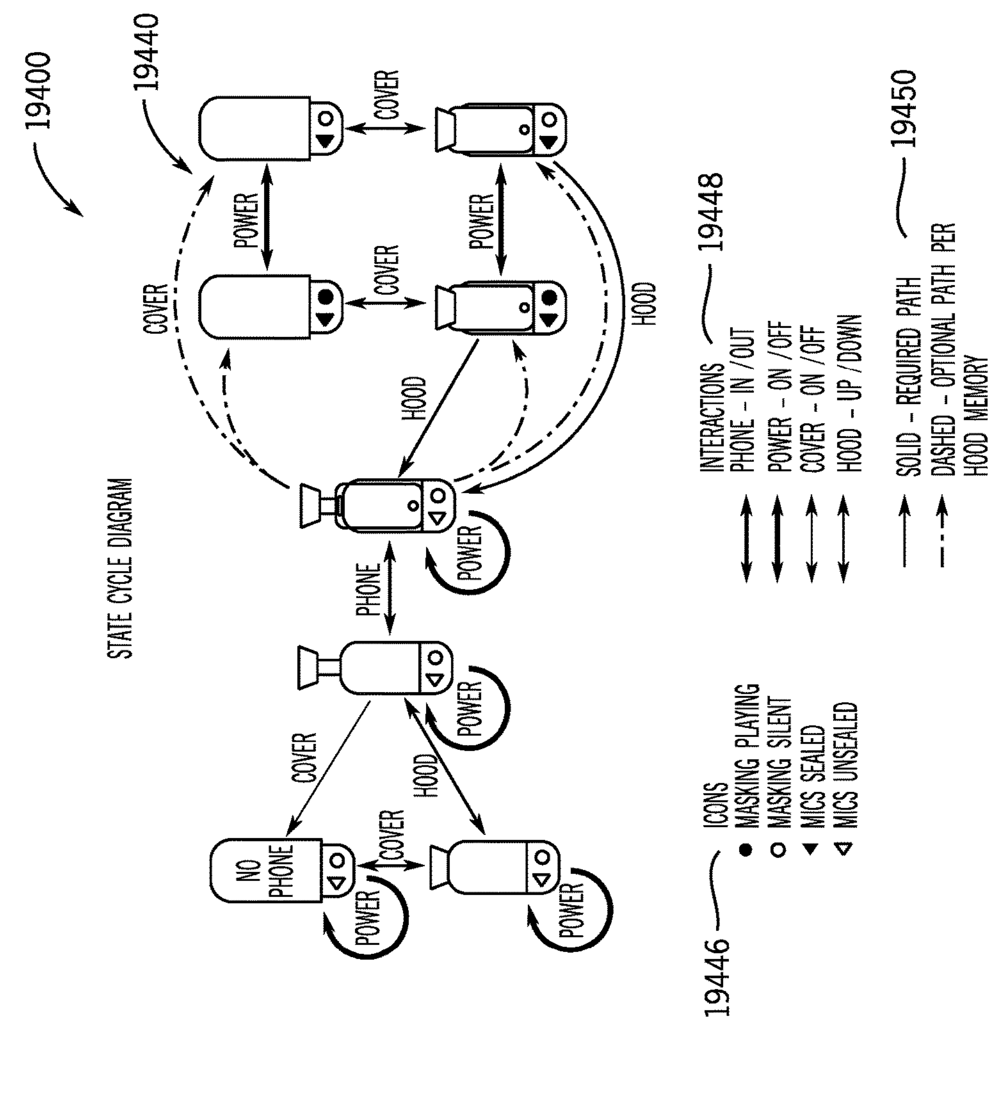

19400
19440
STATE CYCLE DIAGRAM
COVER
POWER
COVER
POWER
COVER
POWER
HOOD
HOOD
PHONE
POWER
POWER
COVER
HOOD
NO PHONE
COVER
POWER
POWER
19448
INTERACTIONS
PHONE - IN / OUT
POWER - ON / OFF
COVER - ON / OFF
HOOD - UP / DOWN
19450
SOLID - REQUIRED PATH
DASHED - OPTIONAL PATH PER HOOD MEMORY
19446
ICONS
MASKING PLAYING
MASKING SILENT
MICS SEALED
MICS UNSEALED

FIG. 194

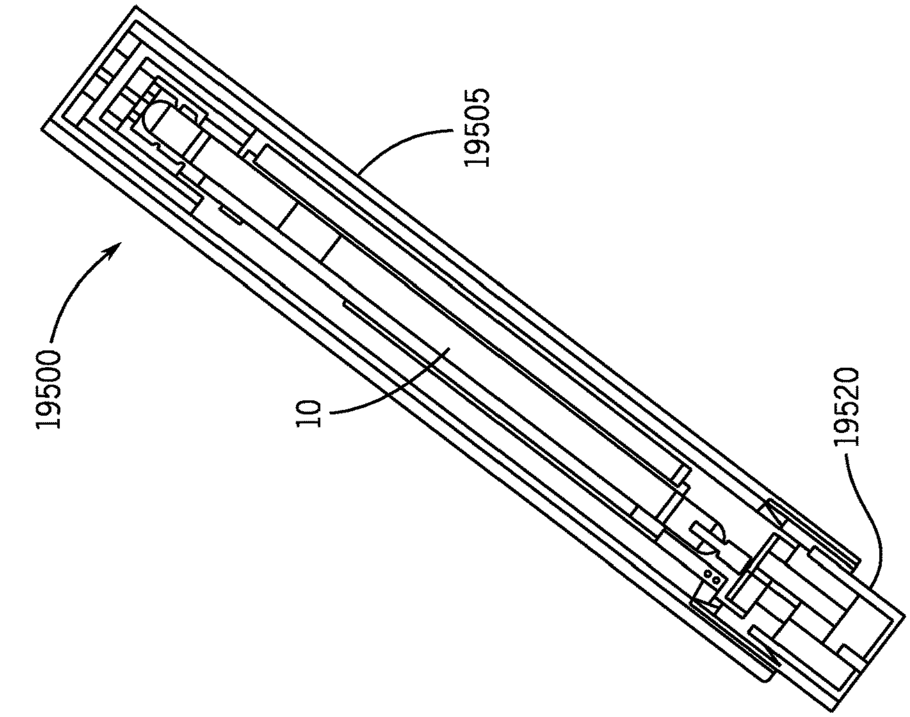


FIG. 195B

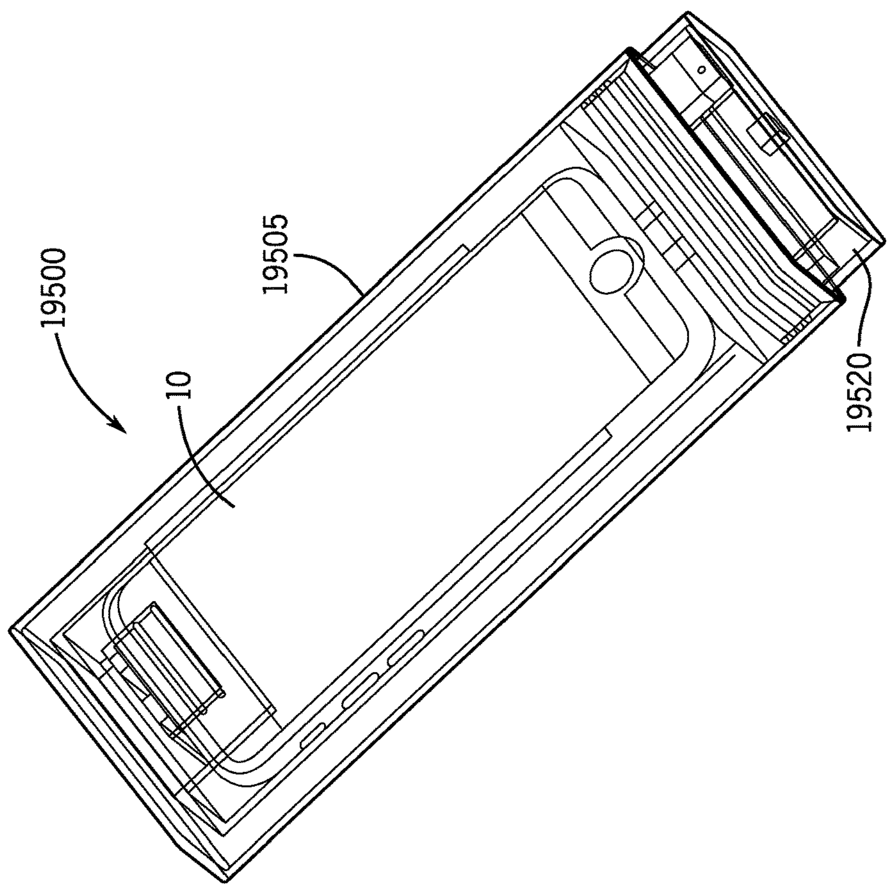


FIG. 195A

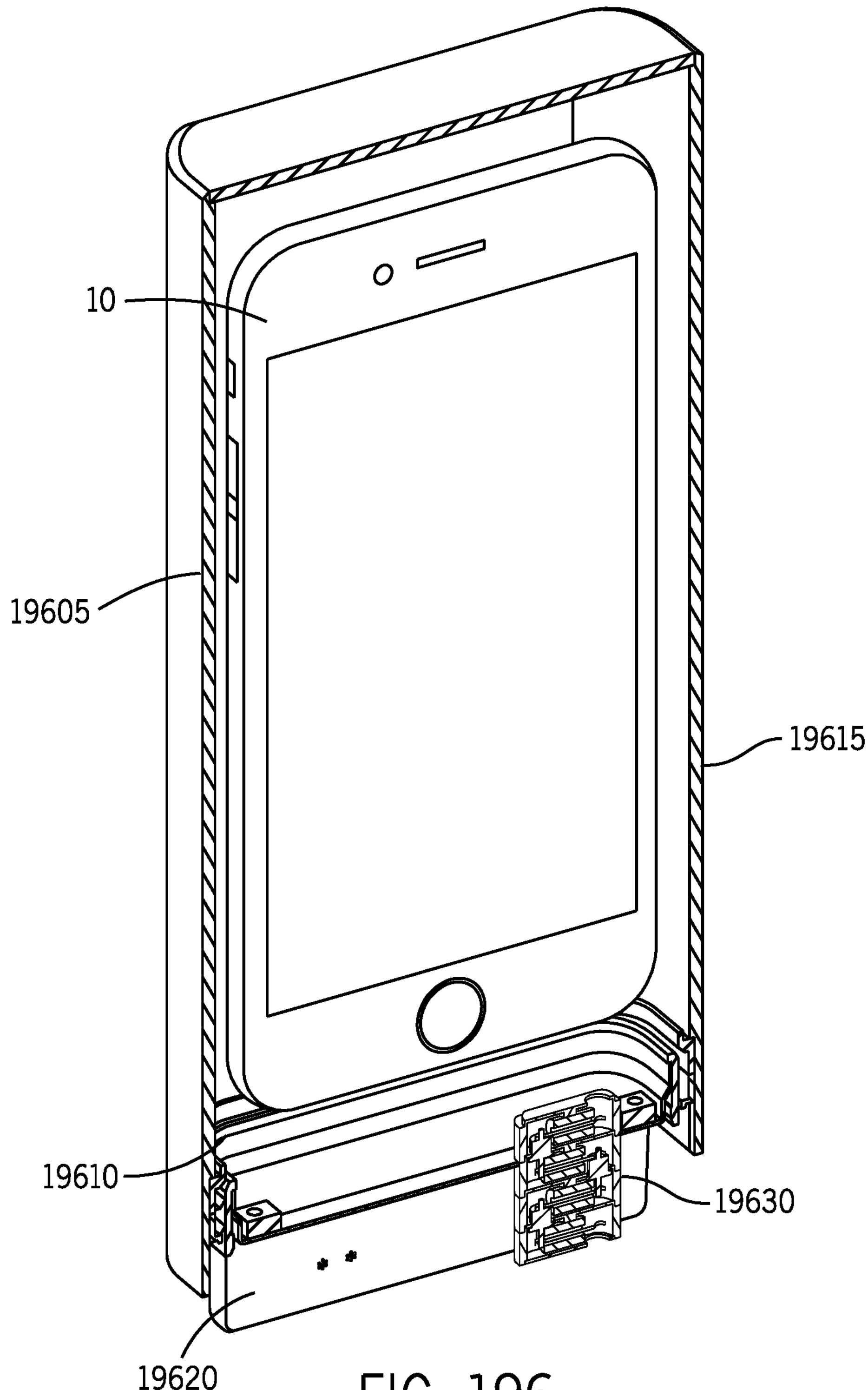


FIG. 196

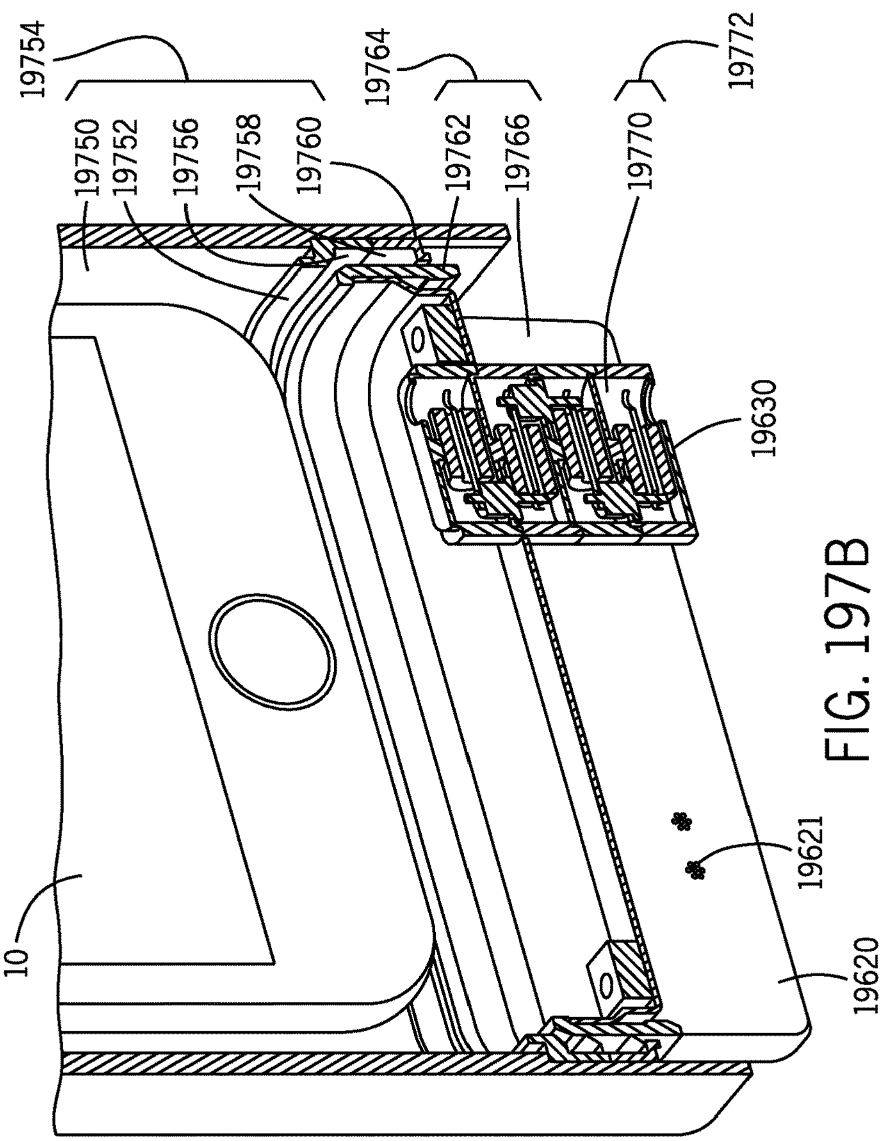


FIG. 197B

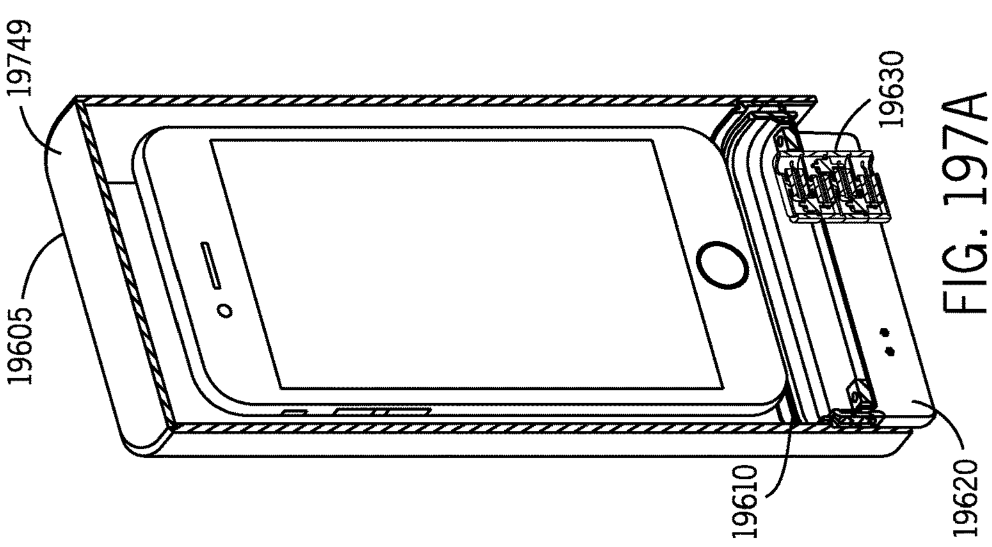


FIG. 197A

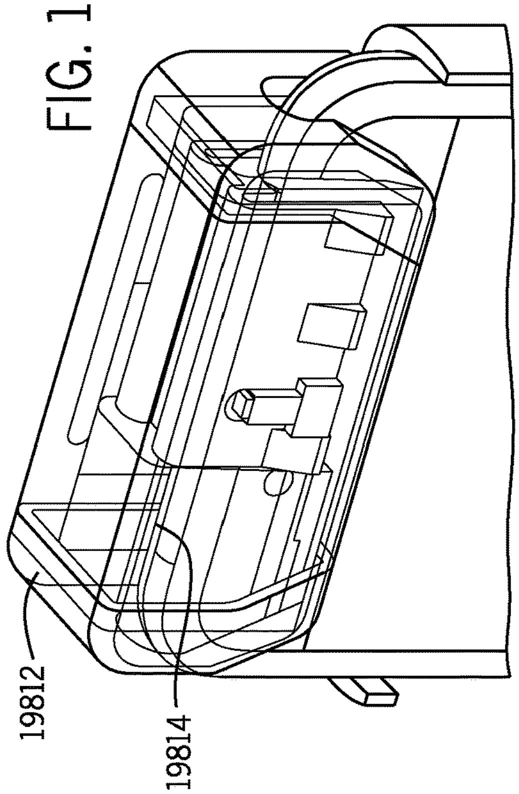


FIG. 198C

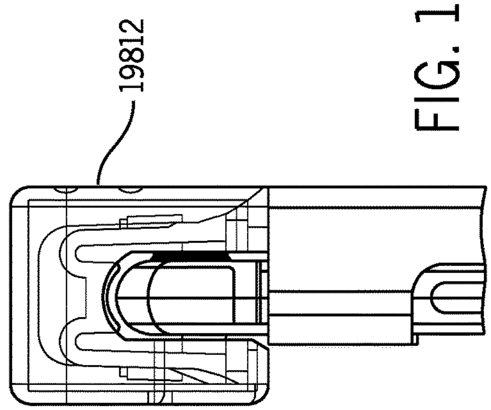


FIG. 198D

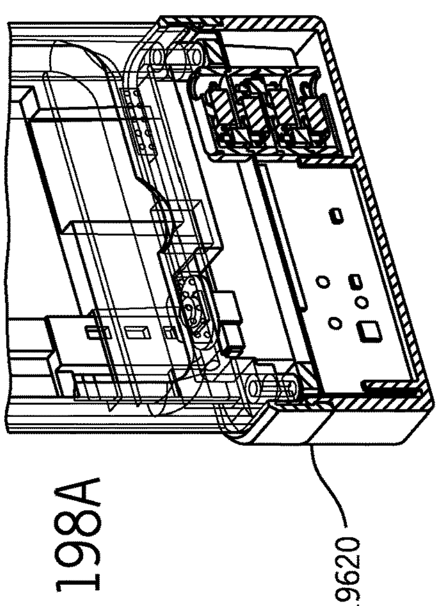


FIG. 198A

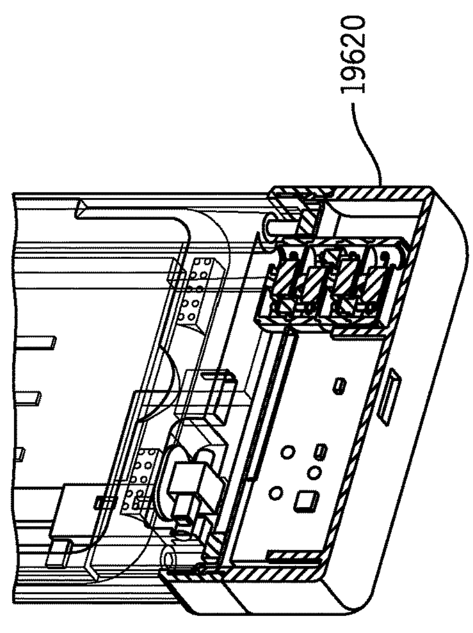


FIG. 198B

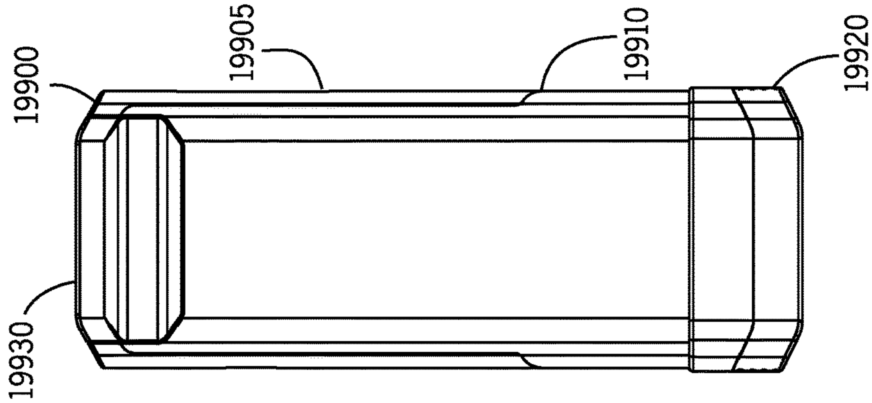


FIG. 199E

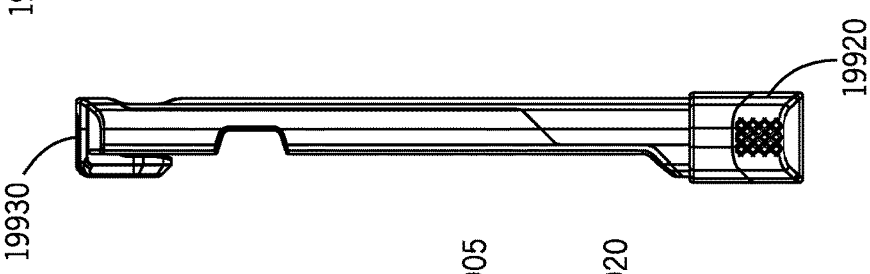


FIG. 199D

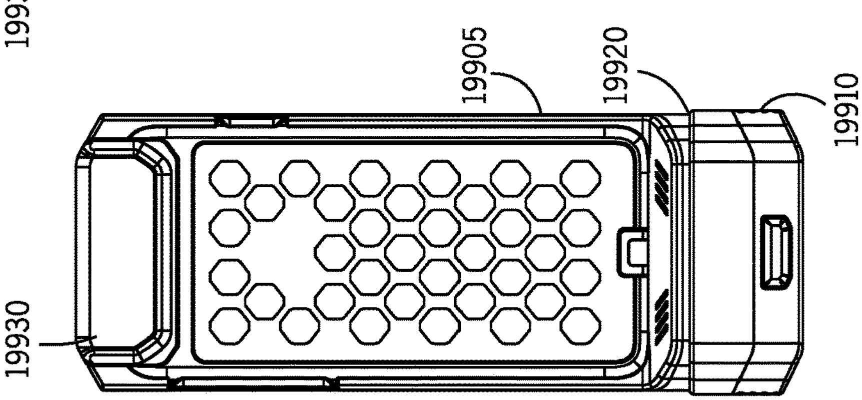


FIG. 199C

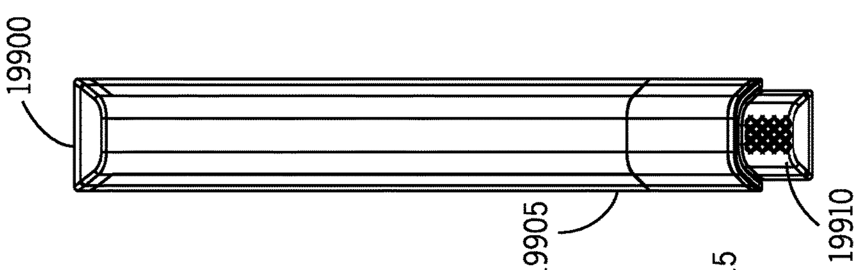


FIG. 199B

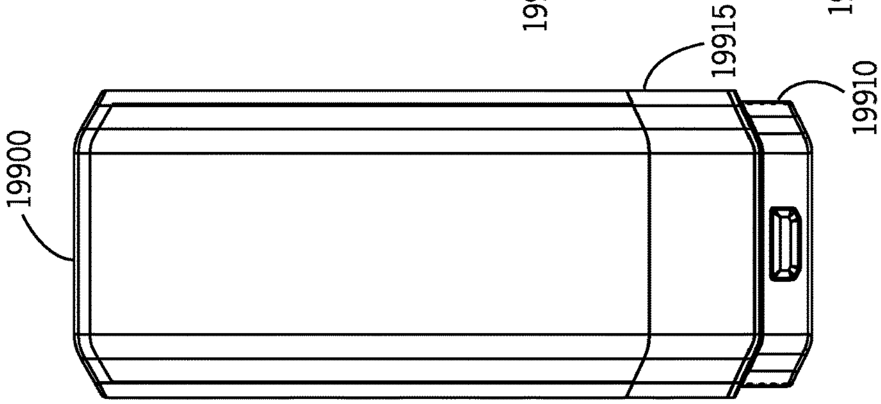


FIG. 199A

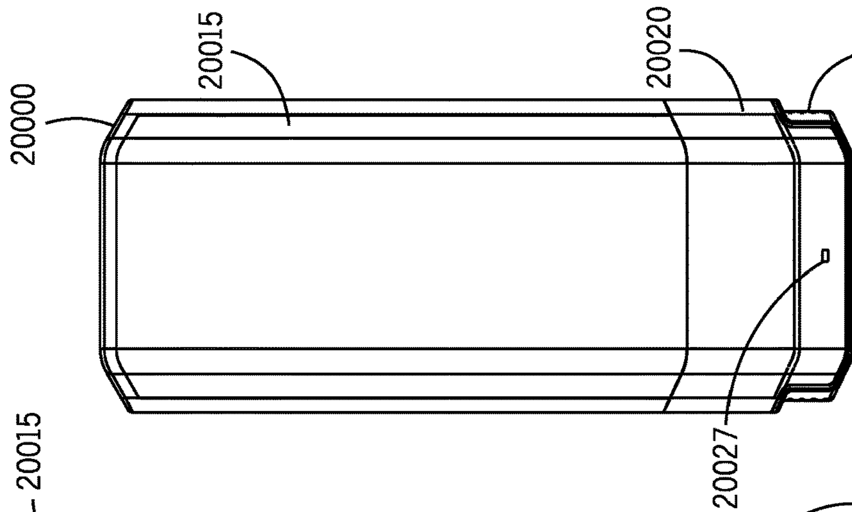


FIG. 200D

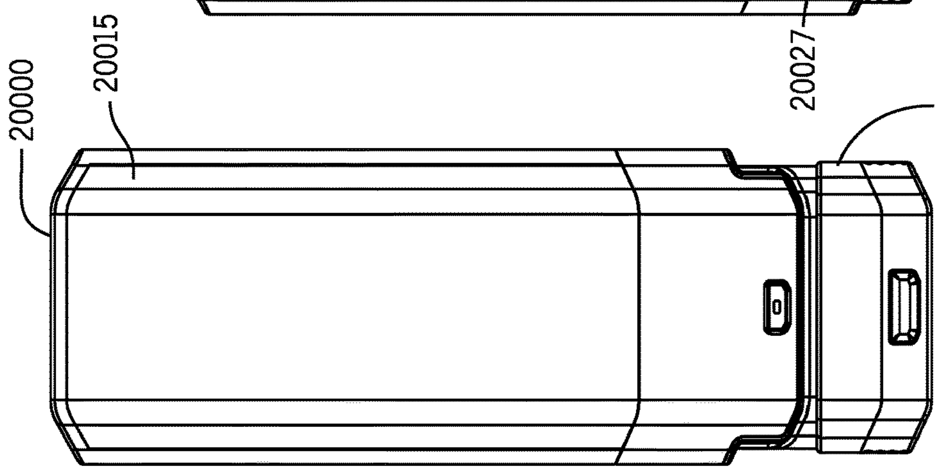


FIG. 200C

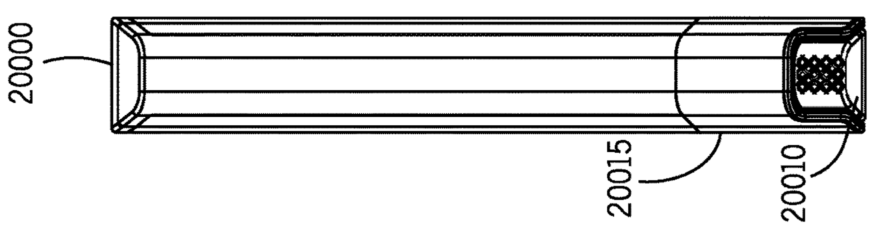


FIG. 200B

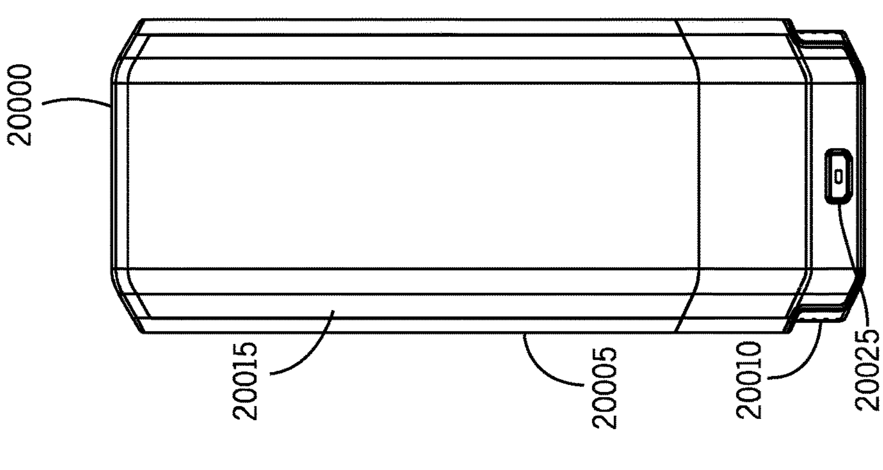


FIG. 200A

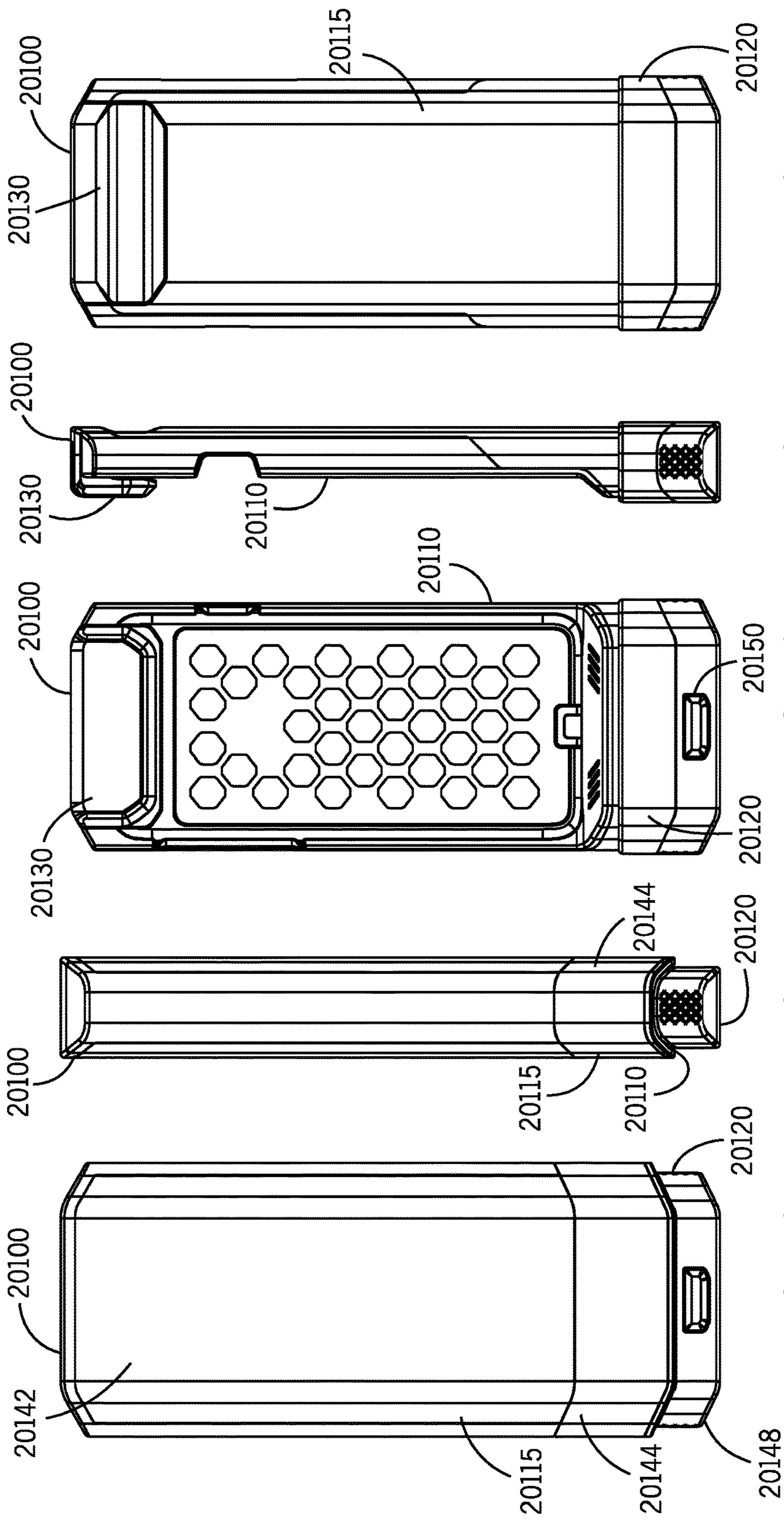


FIG. 201E

FIG. 201D

FIG. 201C

FIG. 201B

FIG. 201A

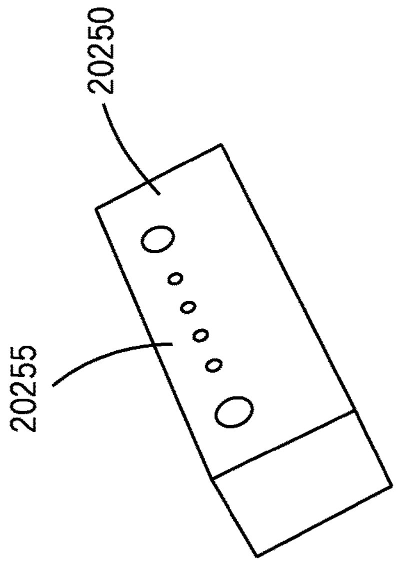


FIG. 202B

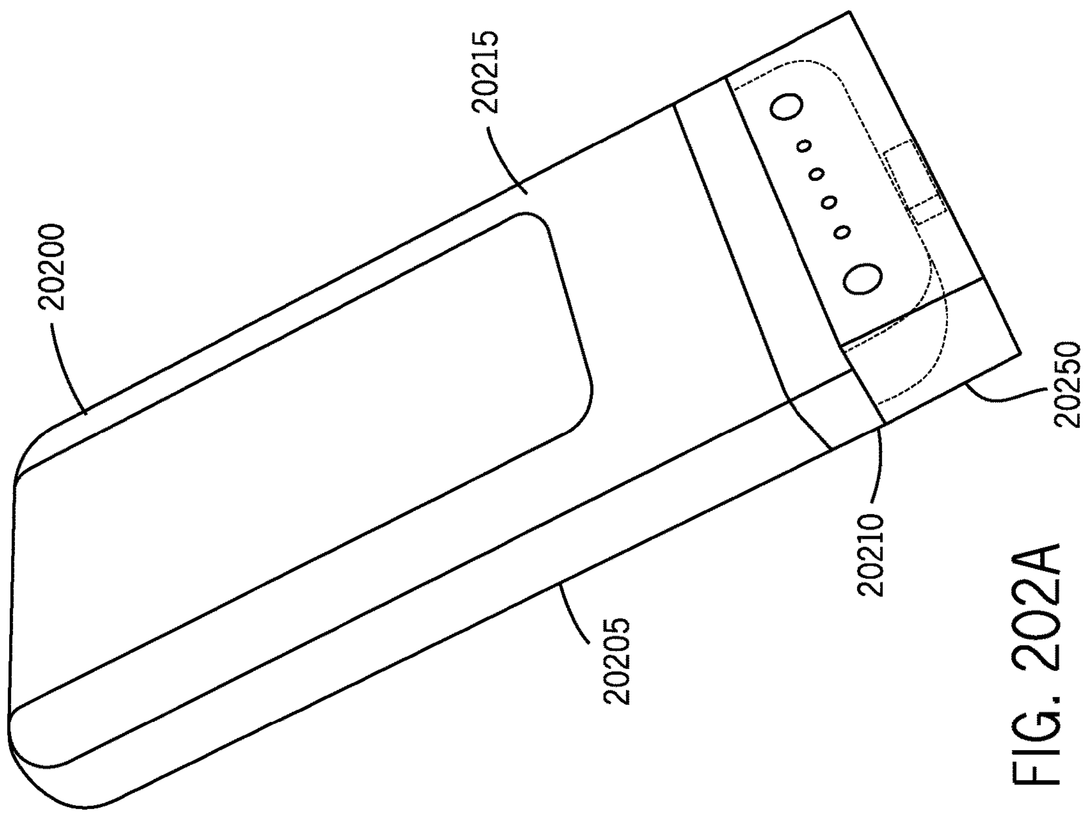


FIG. 202A

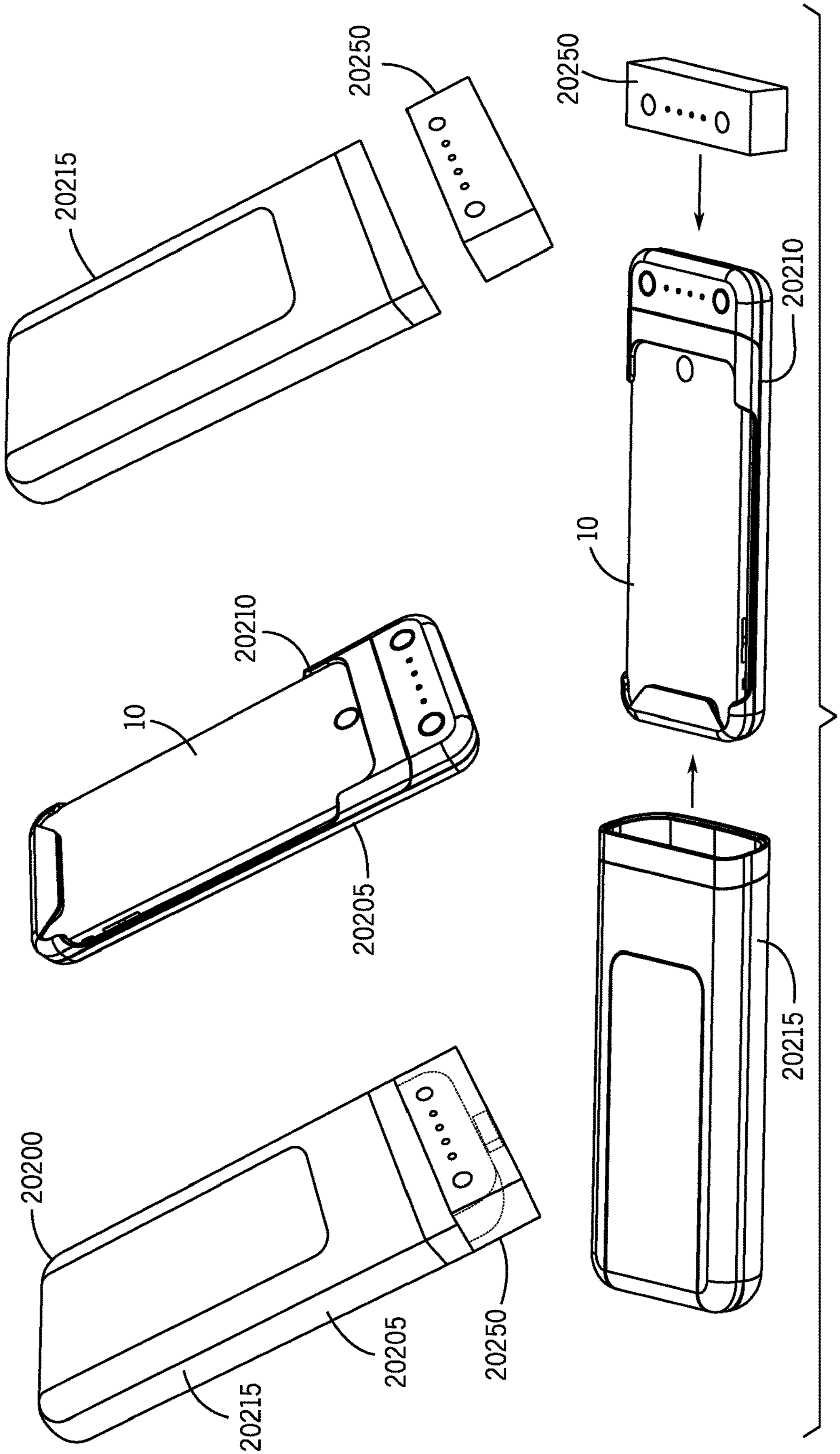

20250
20215
20250
20210
10
20210
10
20205
20200
20215
20205
20250
20215

FIG. 203

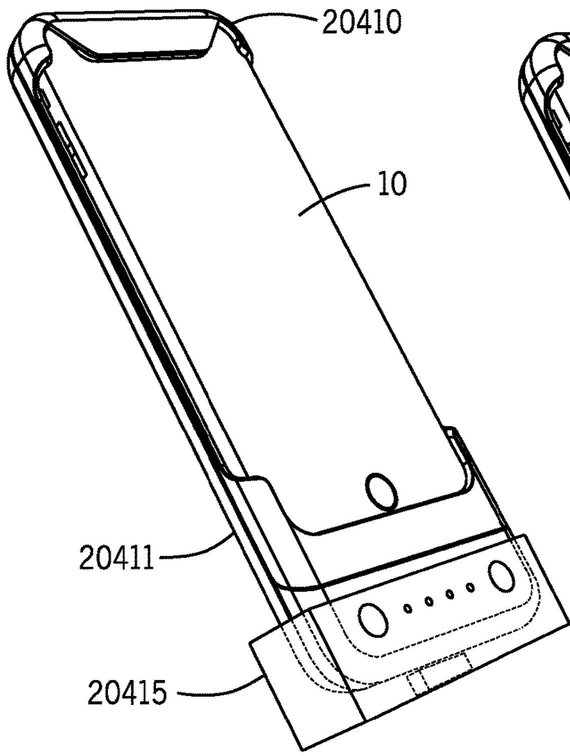


FIG. 204A

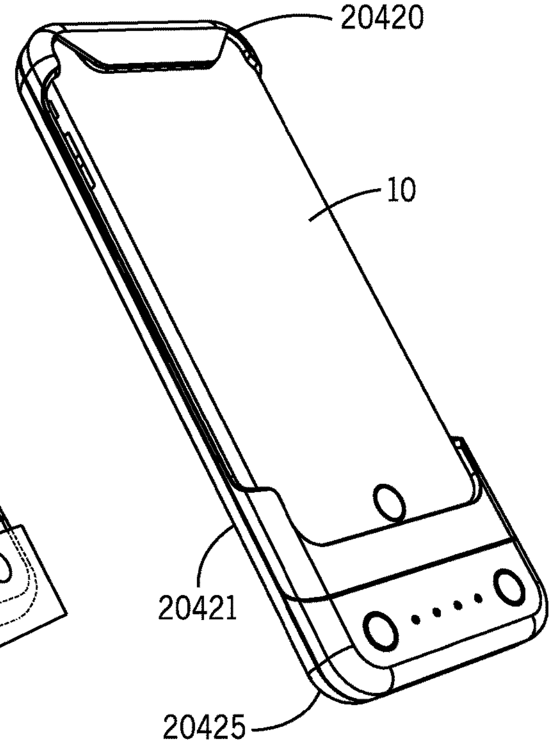


FIG. 204B

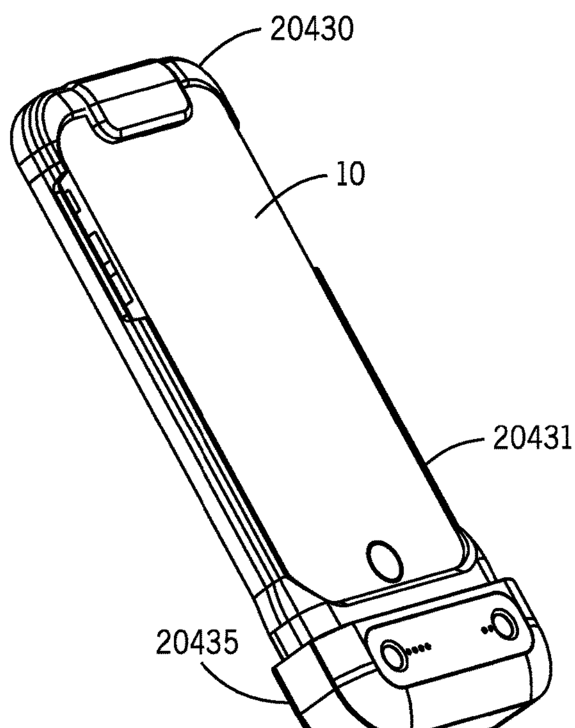


FIG. 204C

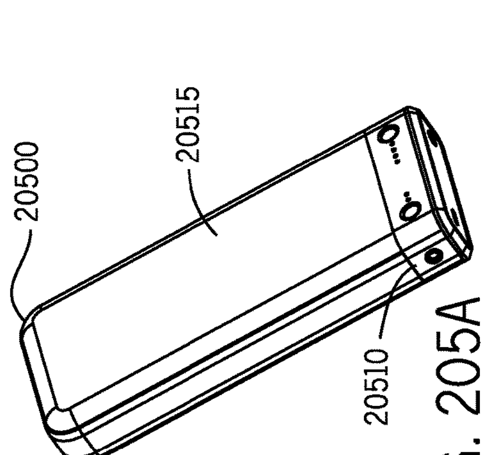


FIG. 205A

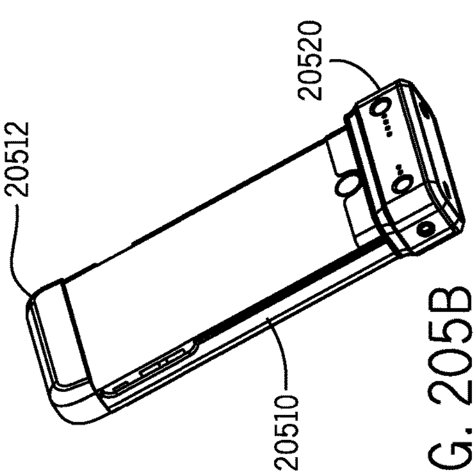


FIG. 205B

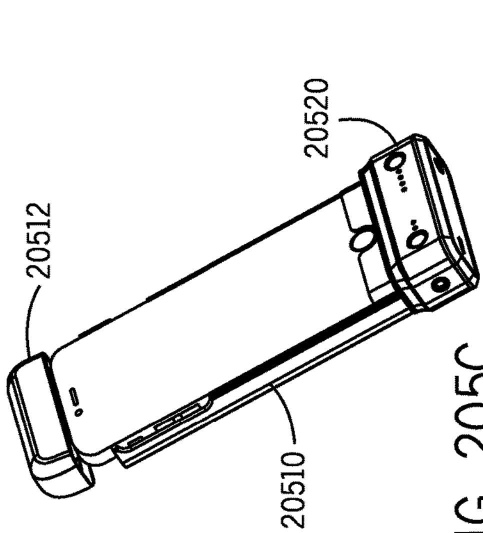


FIG. 205C

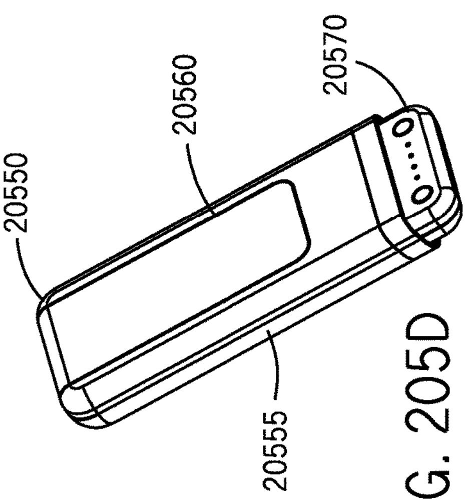


FIG. 205D

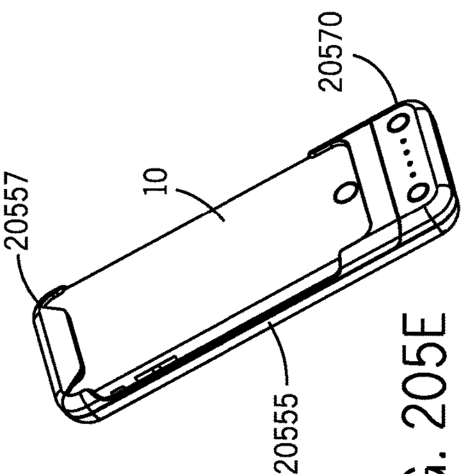


FIG. 205E

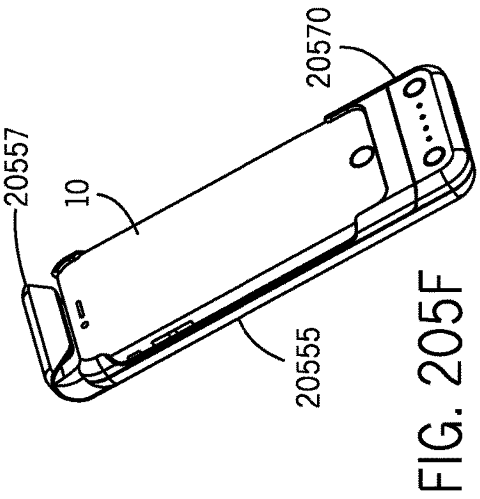


FIG. 205F

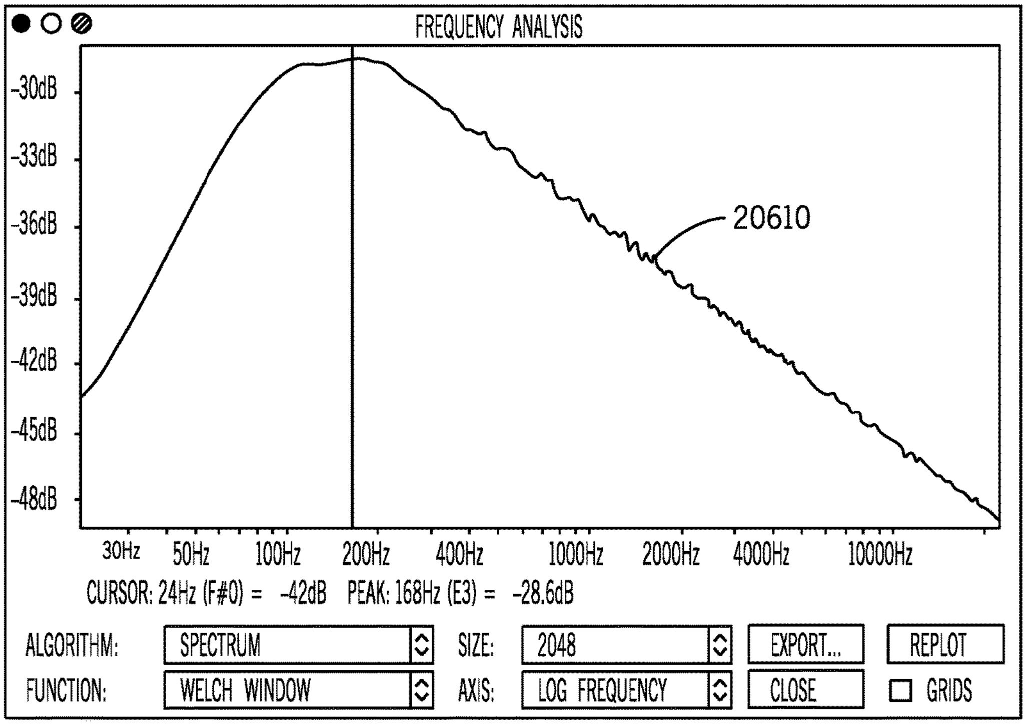


FIG. 206

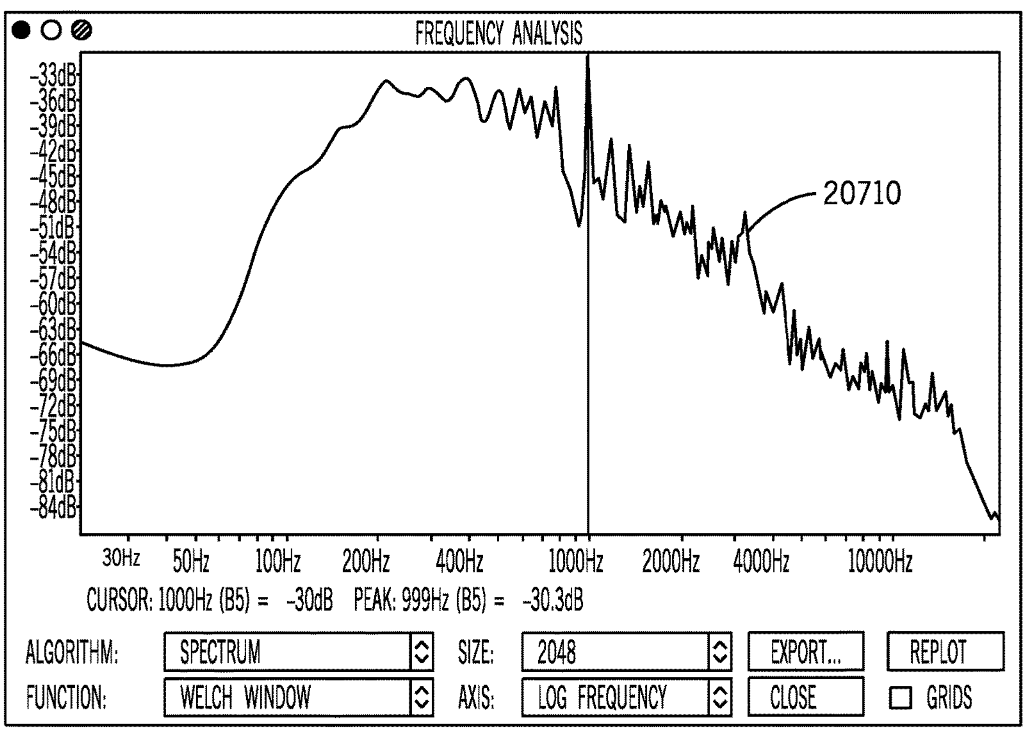


FIG. 207

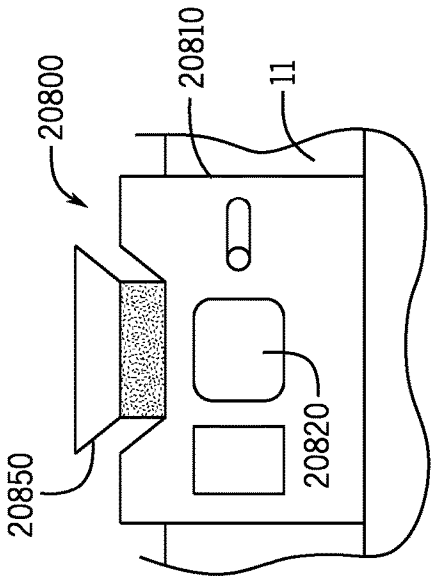


FIG. 209

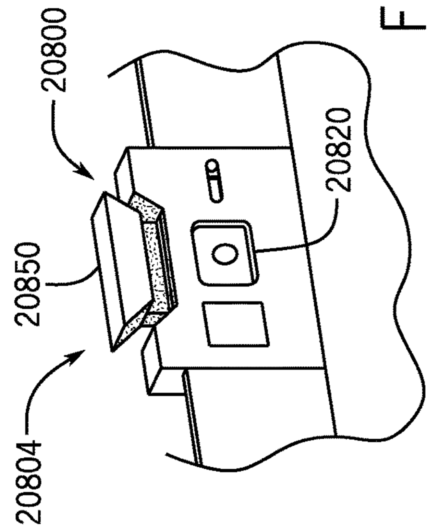


FIG. 211

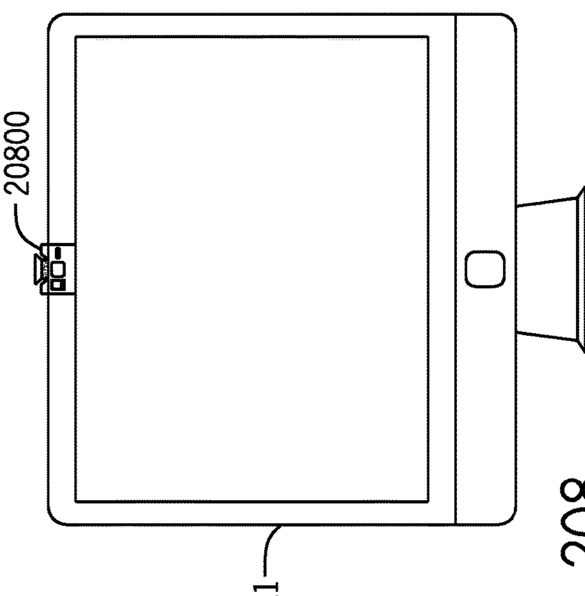


FIG. 208

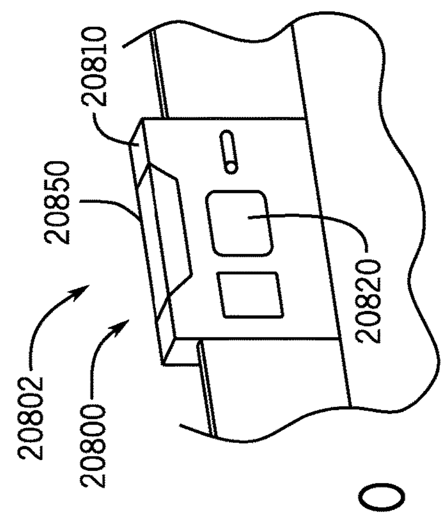


FIG. 210

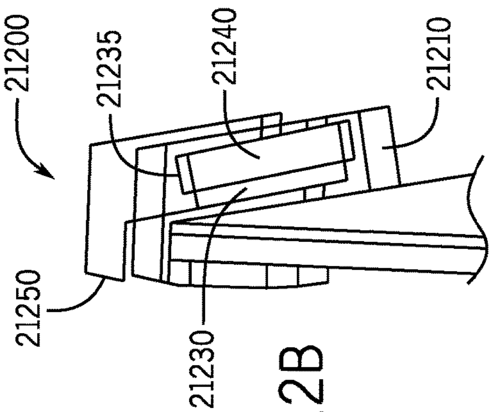


FIG. 212B

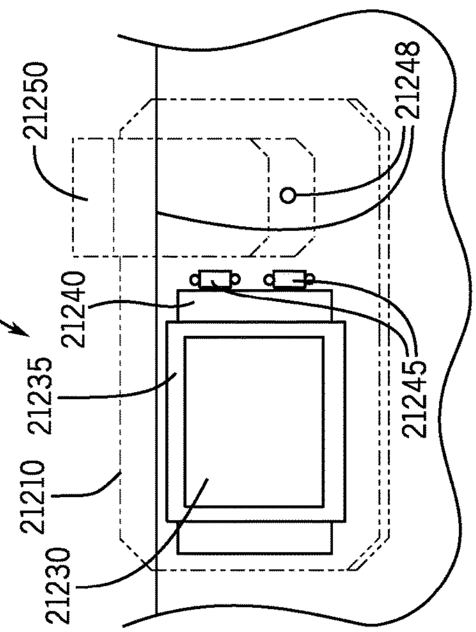


FIG. 212C

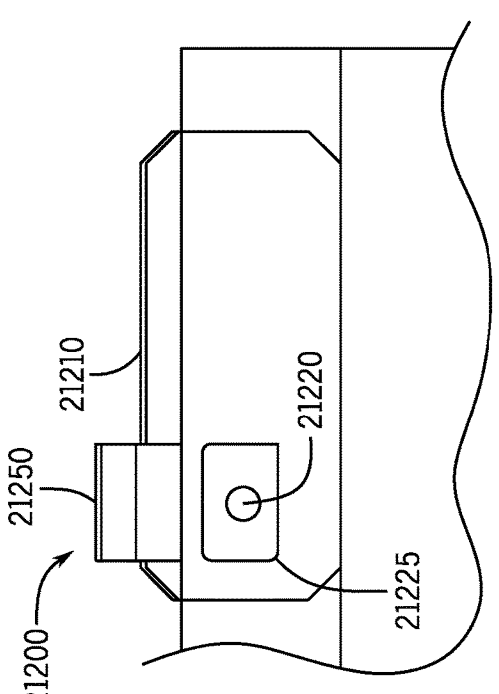


FIG. 212A

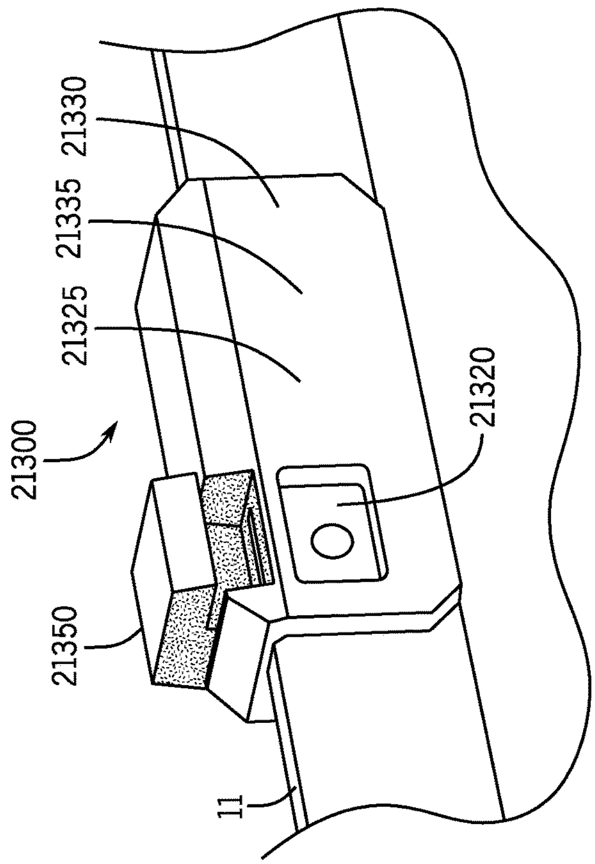


FIG. 213A

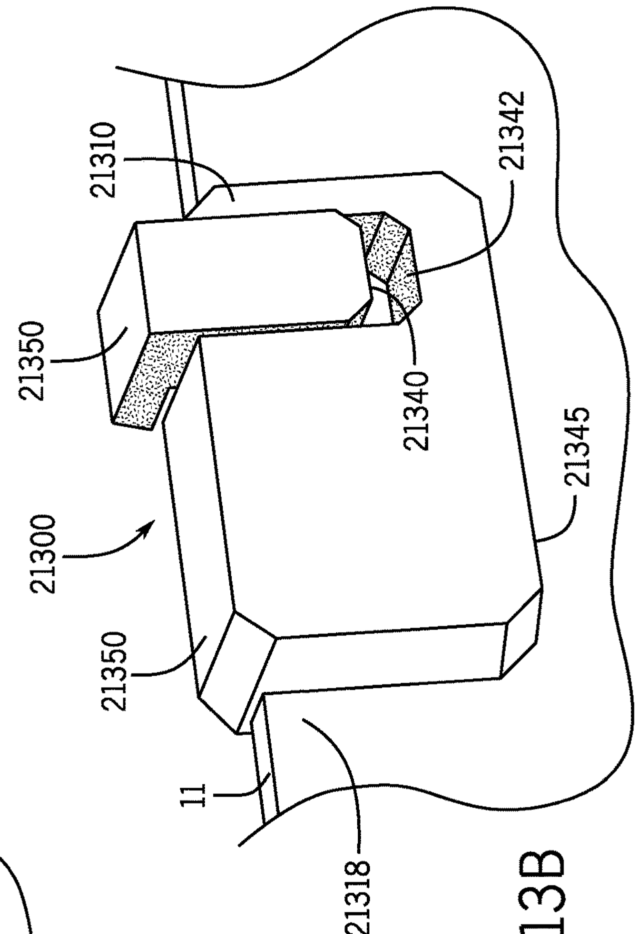


FIG. 213B

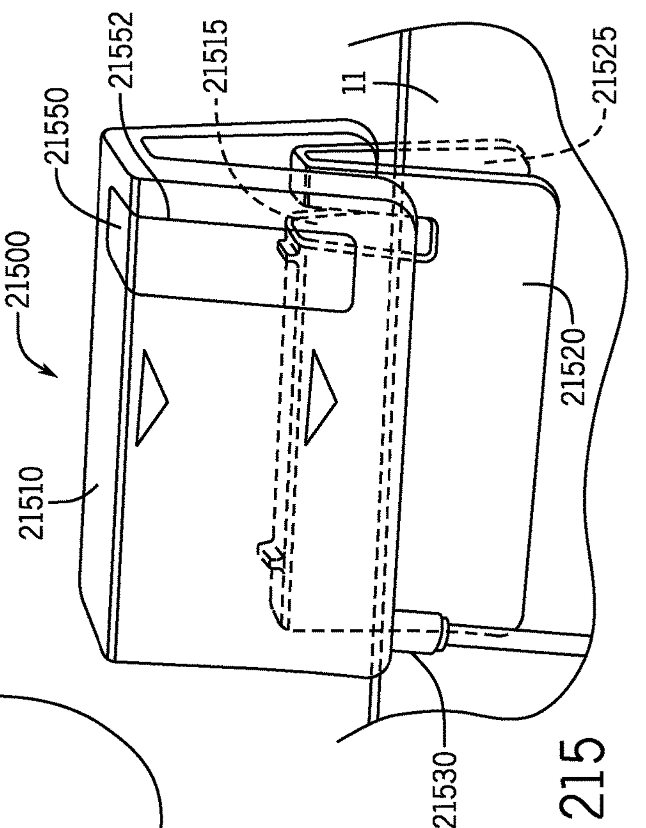


FIG. 215

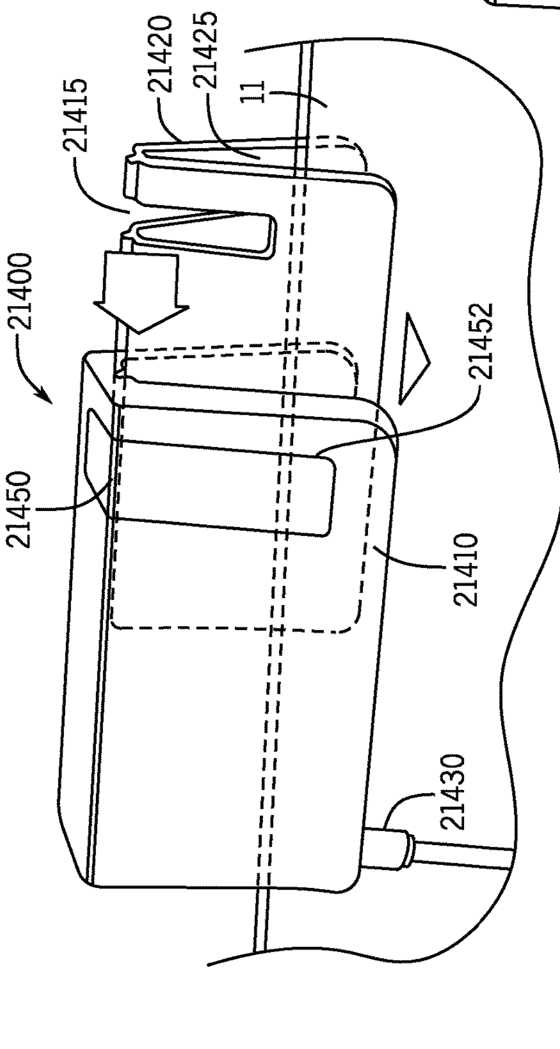


FIG. 214

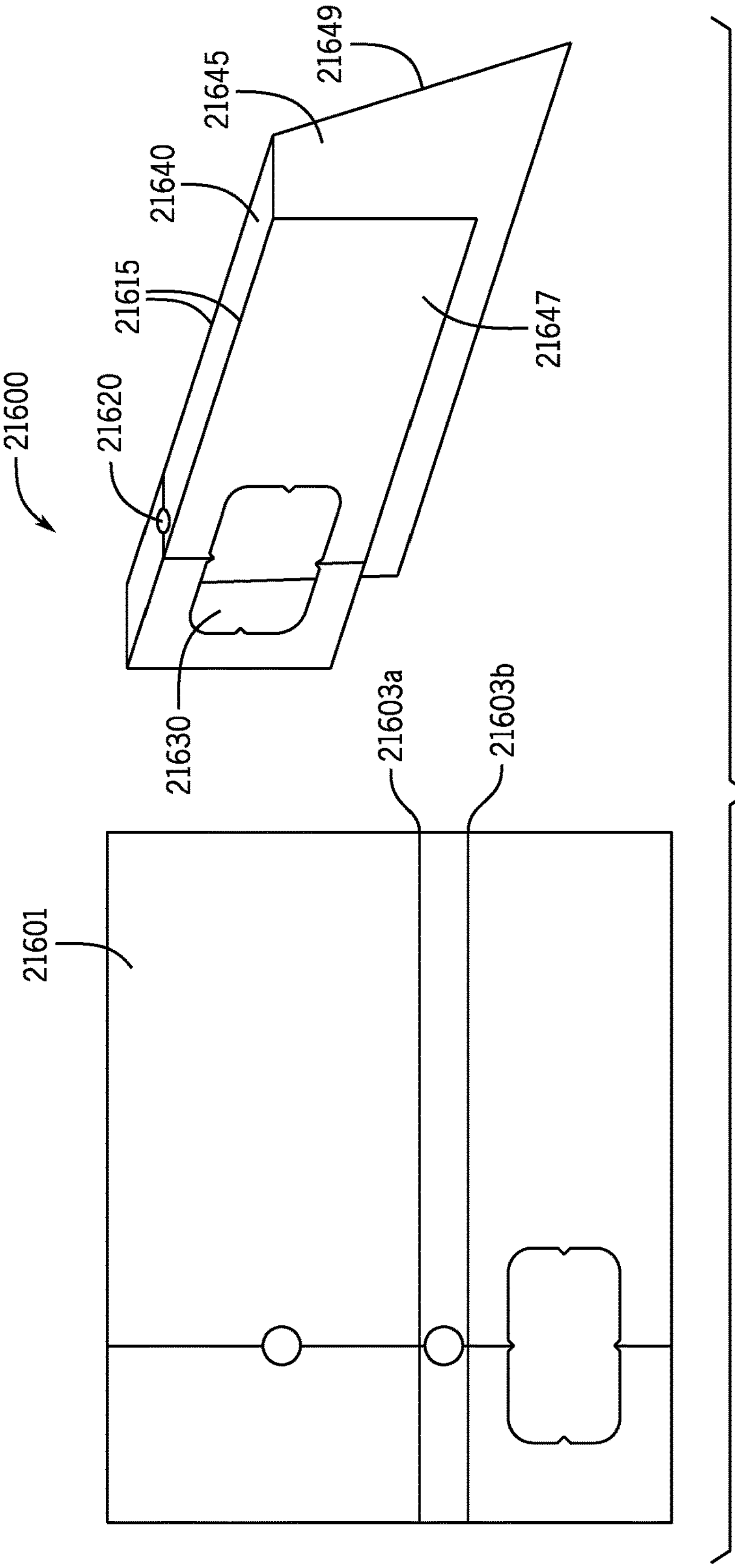

21649
21645
21640
21615
21647
21600
21620
21630
21603a
21603b
21601

FIG. 216

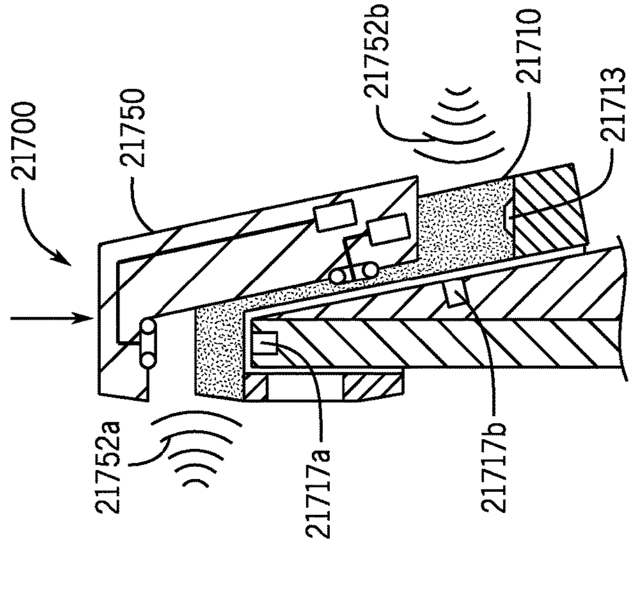


FIG. 217C

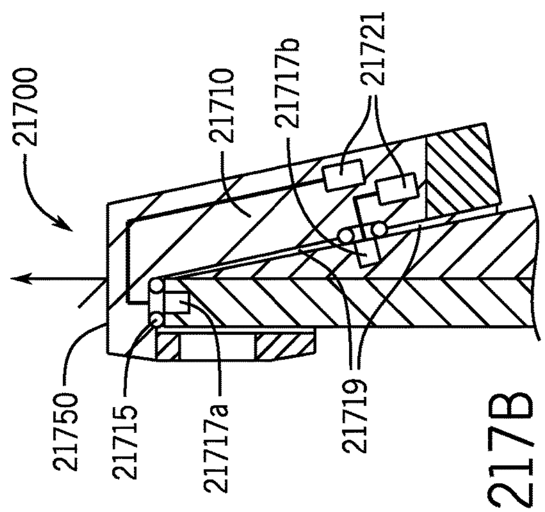


FIG. 217B

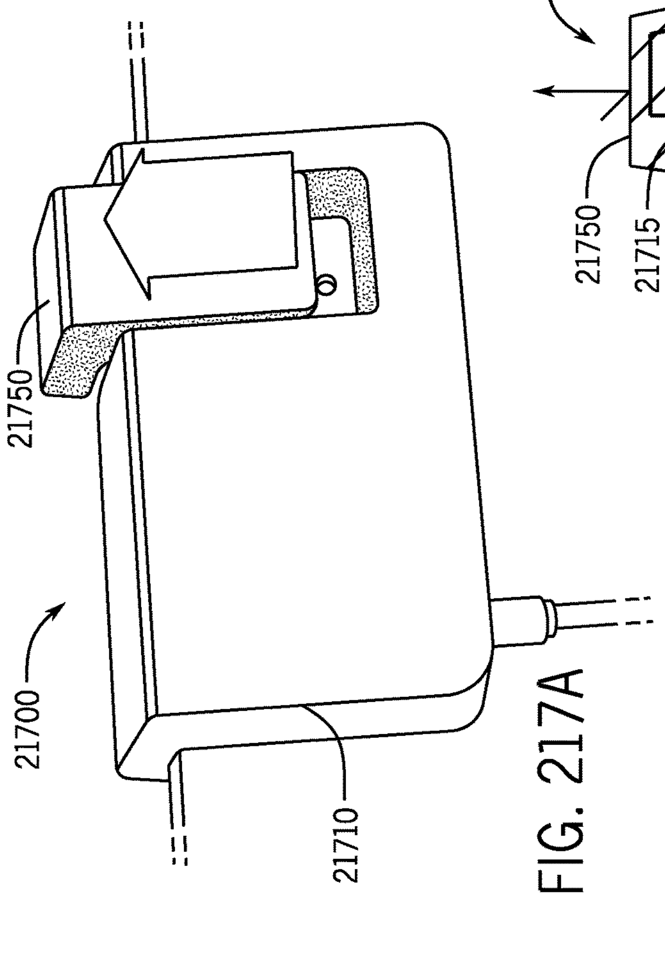


FIG. 217A

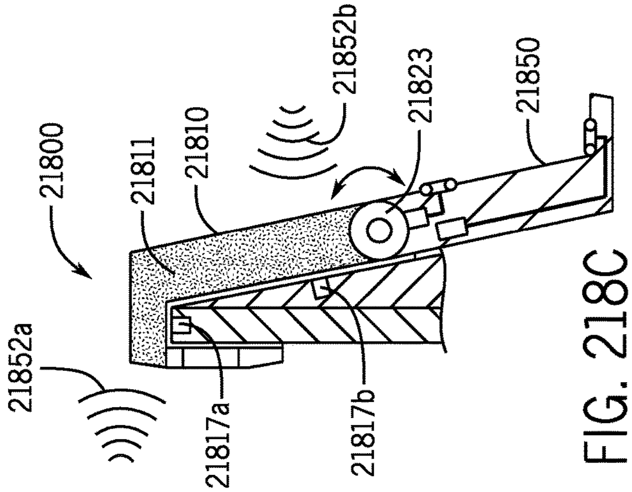


FIG. 218C

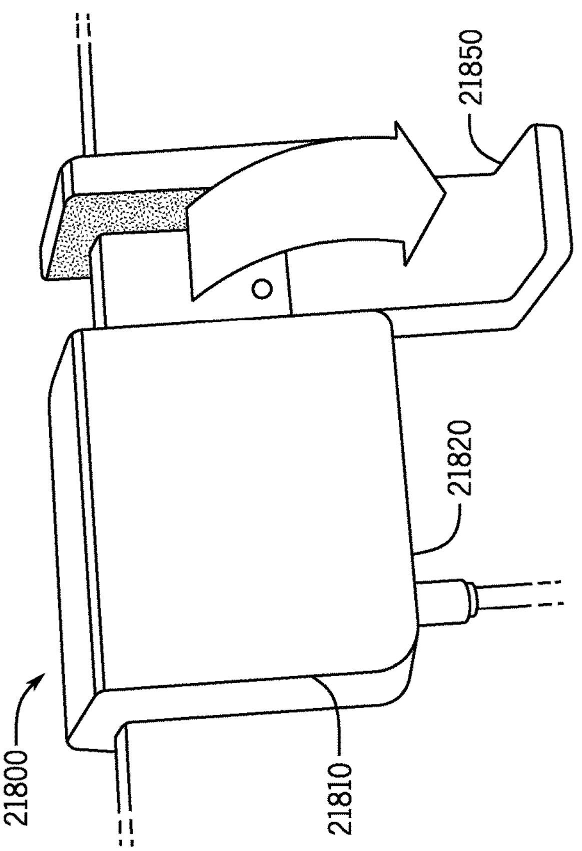


FIG. 218A

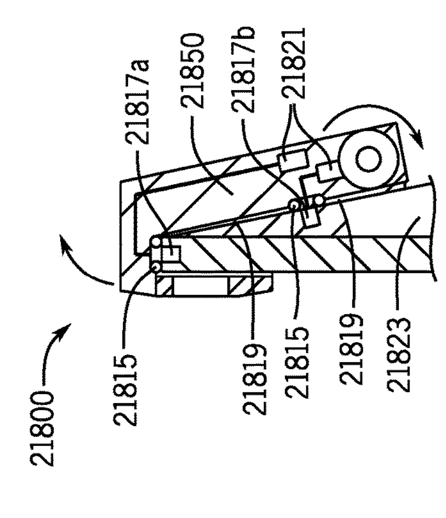


FIG. 218B

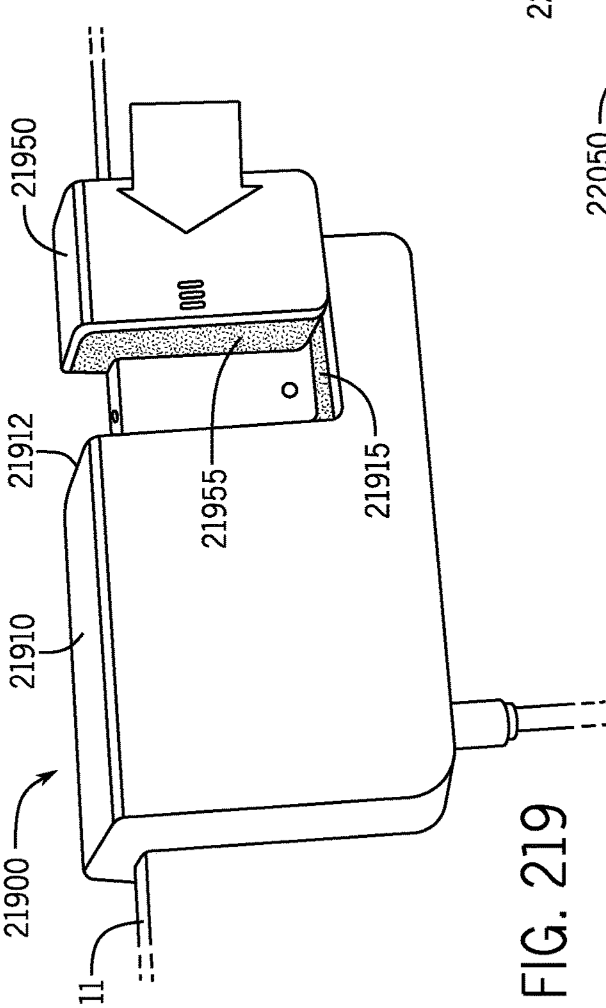


FIG. 219

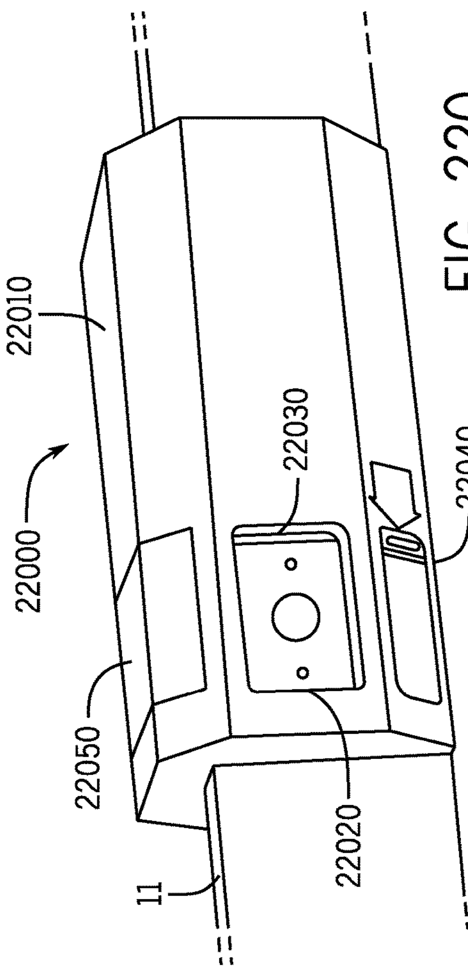


FIG. 220

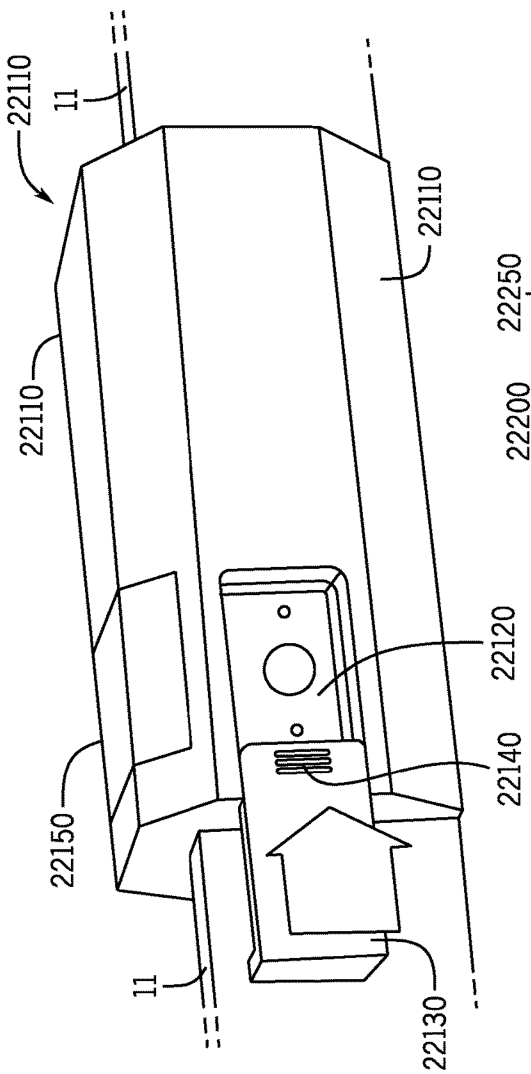


FIG. 221

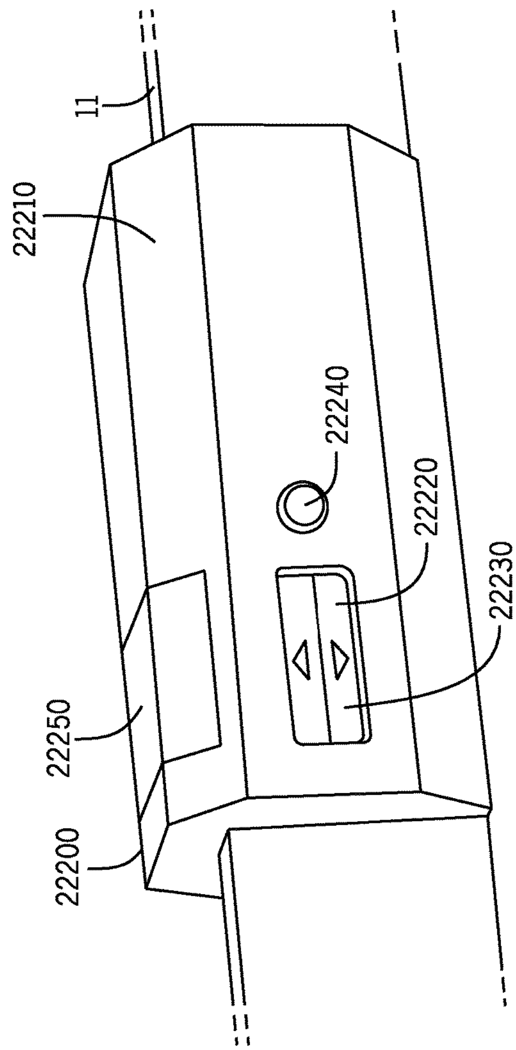


FIG. 222

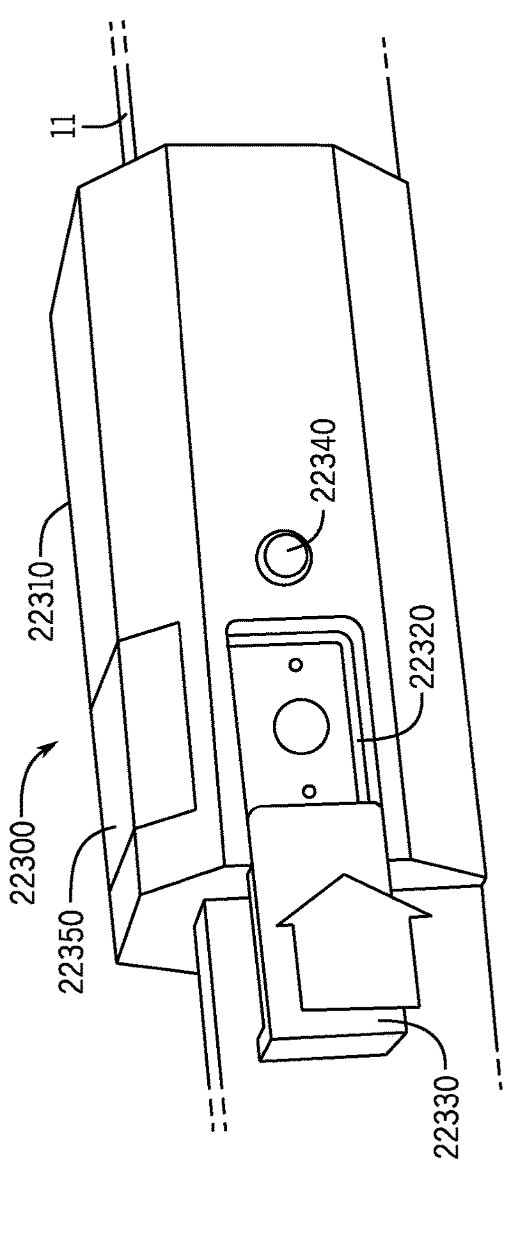


FIG. 223

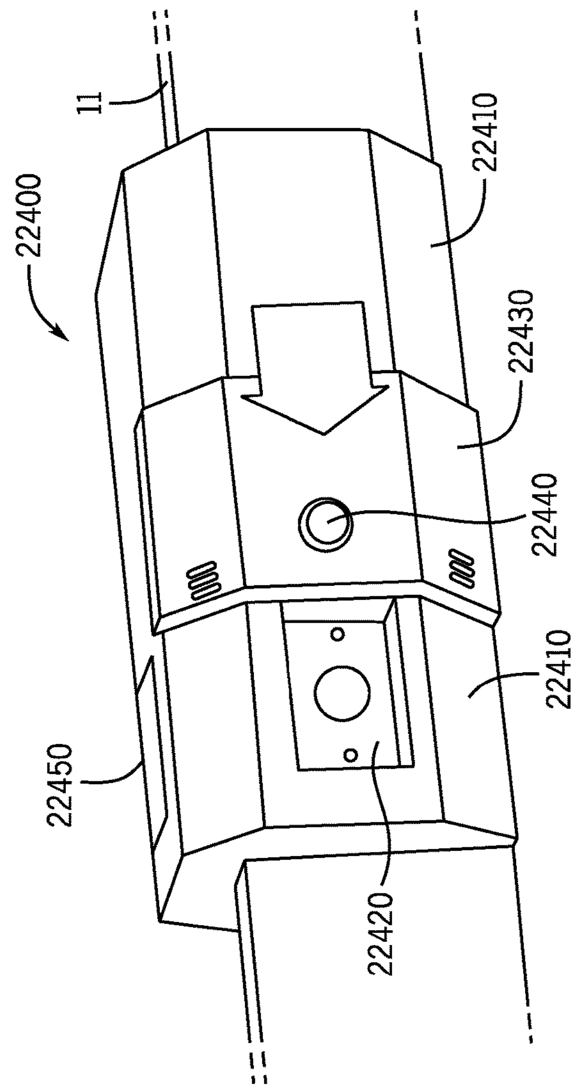
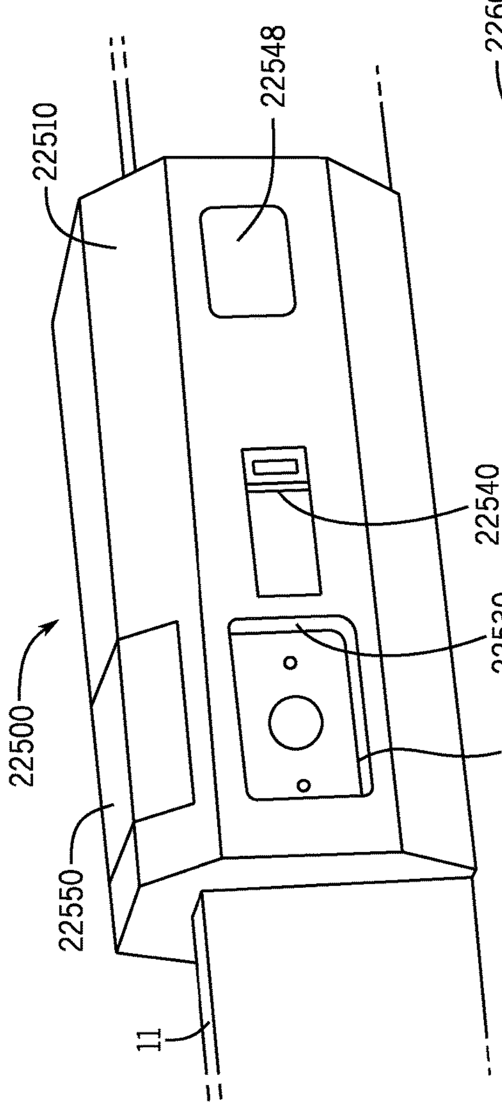


FIG. 224

FIG. 225



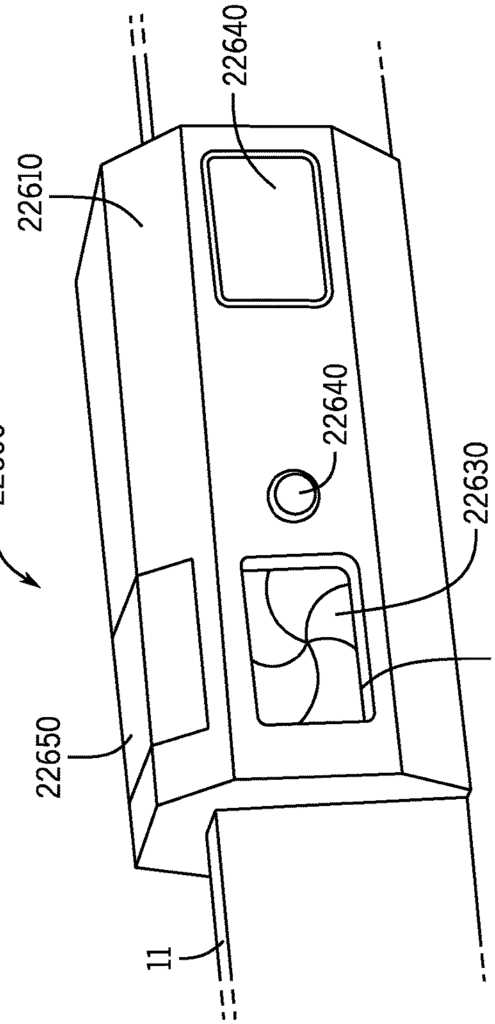


FIG. 226

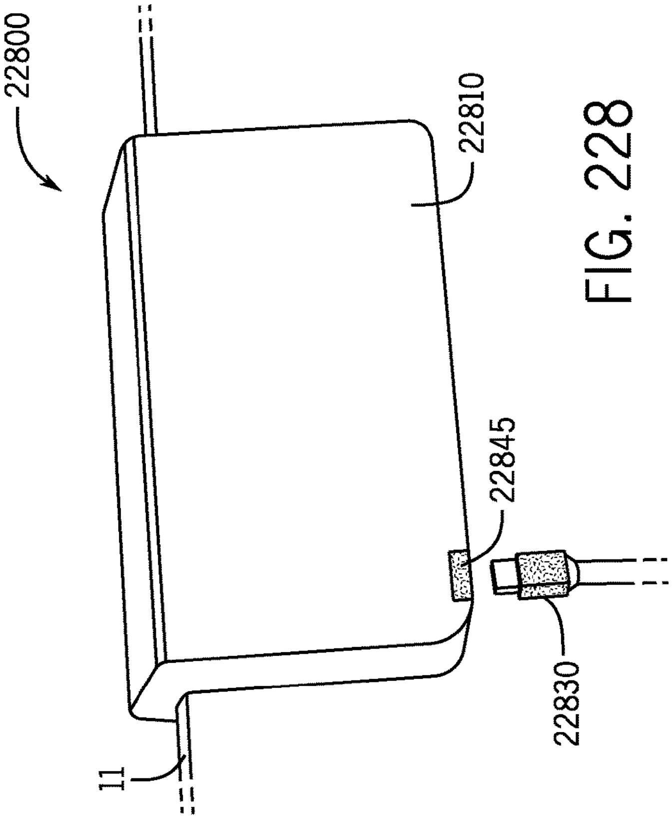


FIG. 228

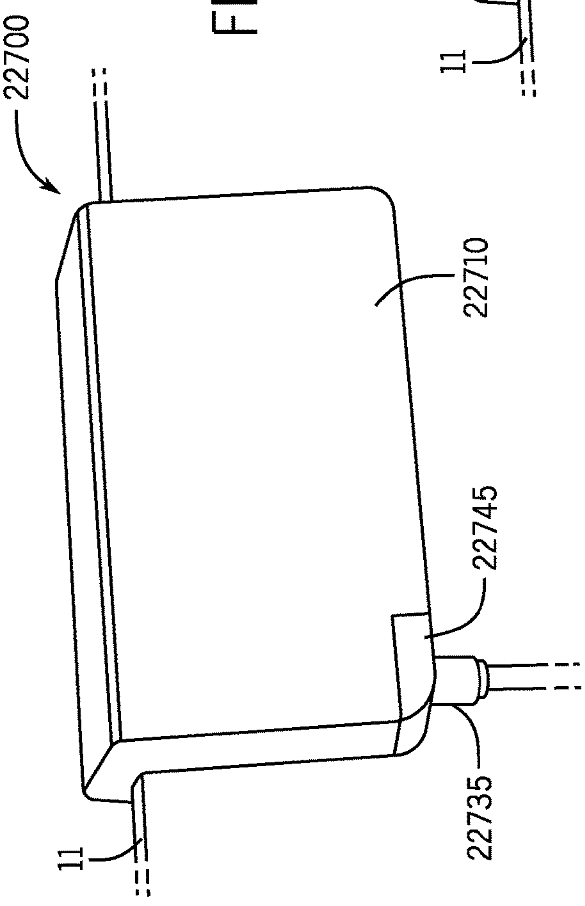


FIG. 227

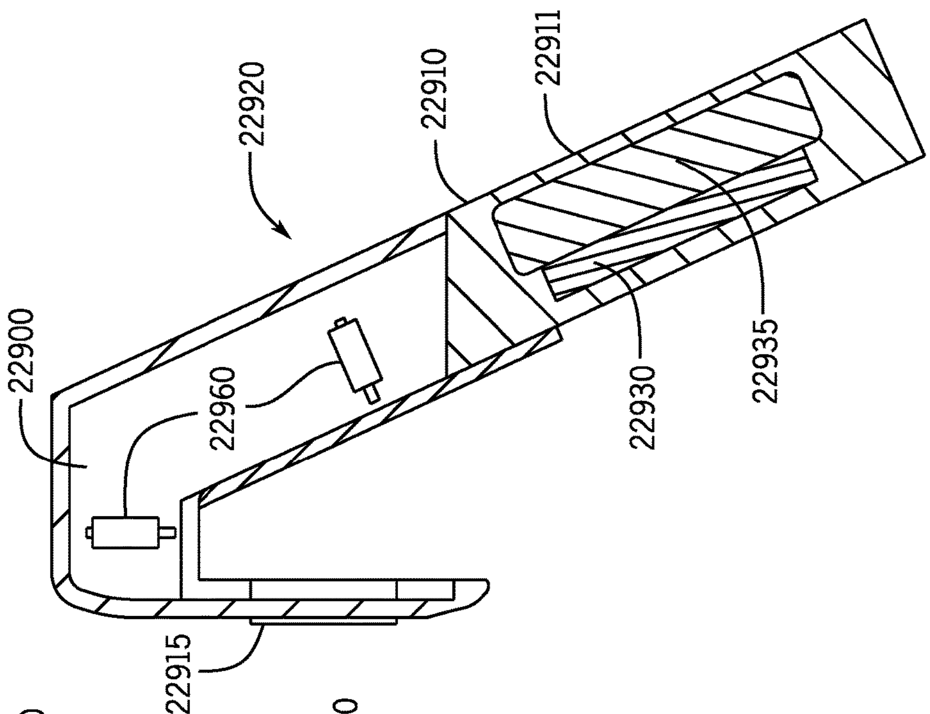


FIG. 230

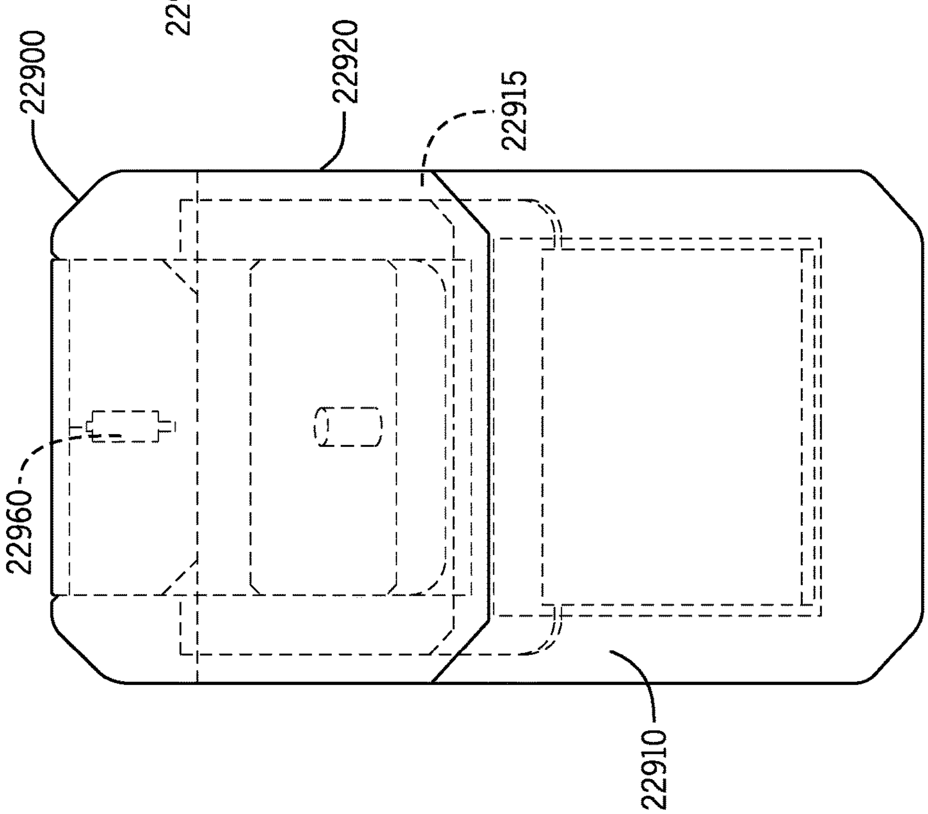


FIG. 229

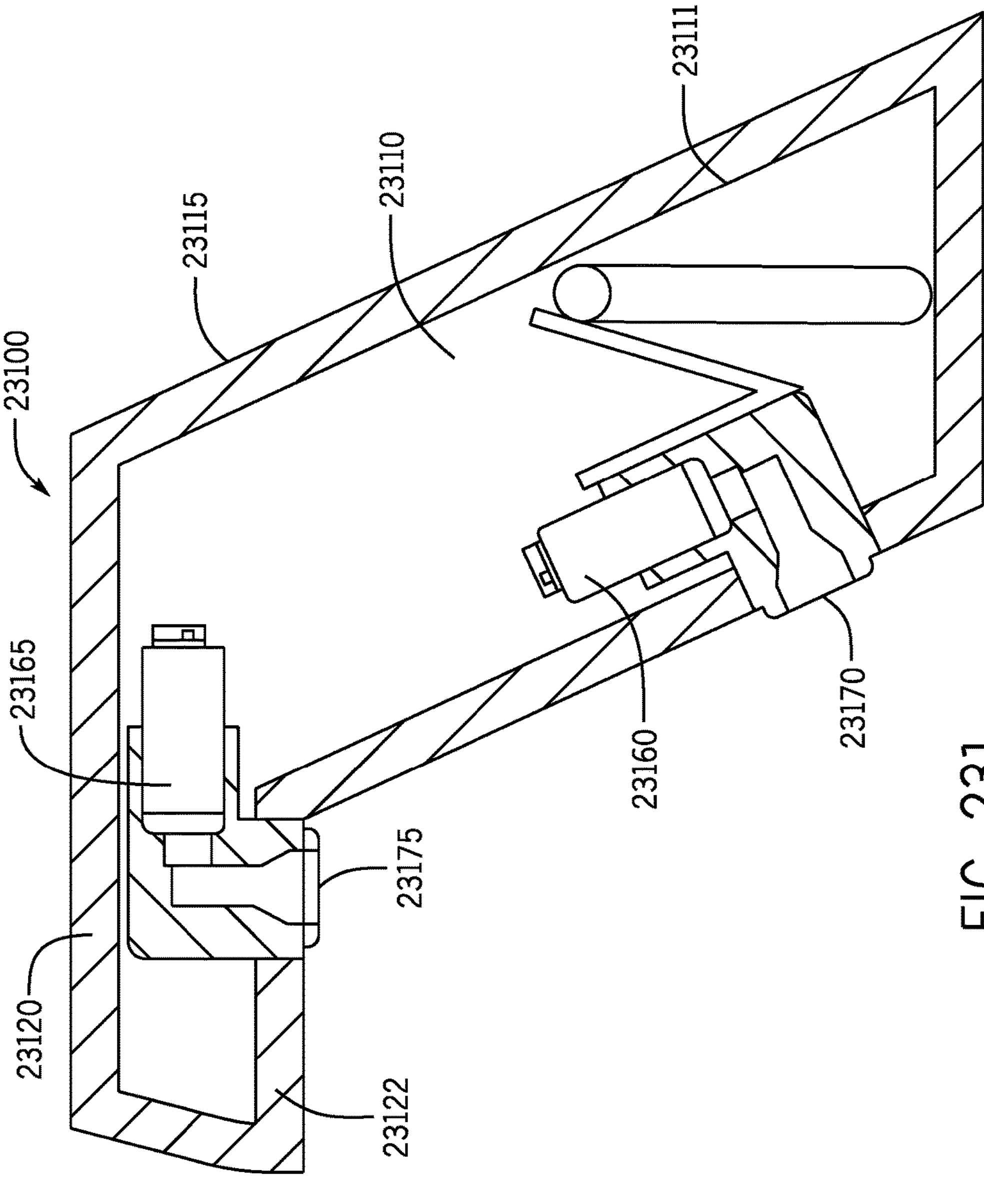

23100
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FIG. 231

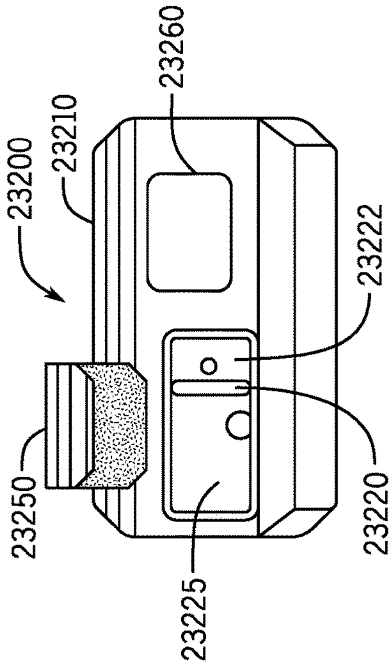

FIG. 232C

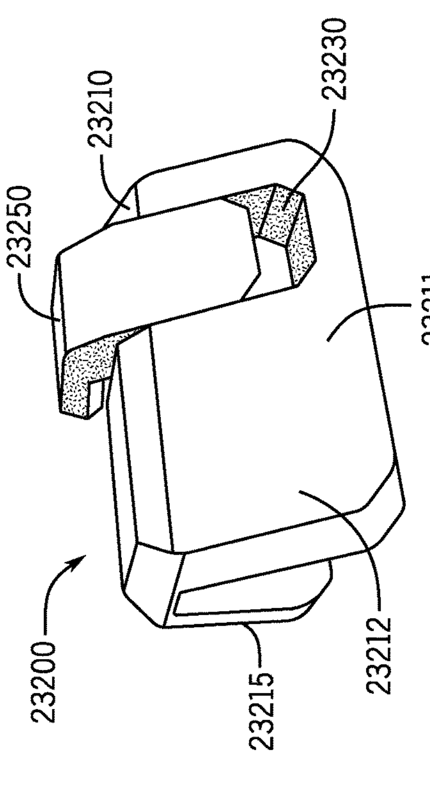

FIG. 232B

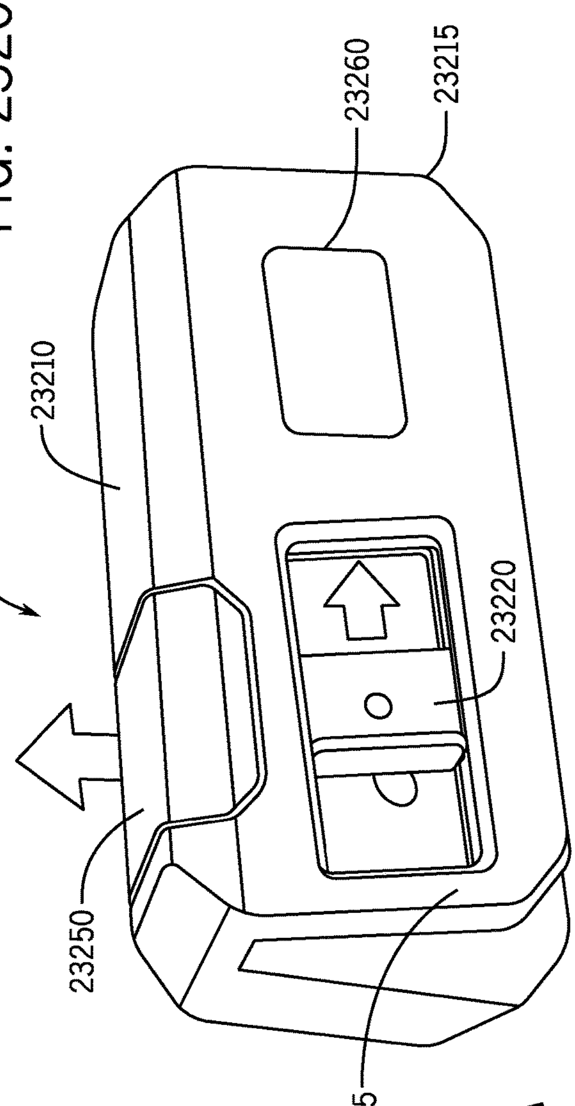

FIG. 232A

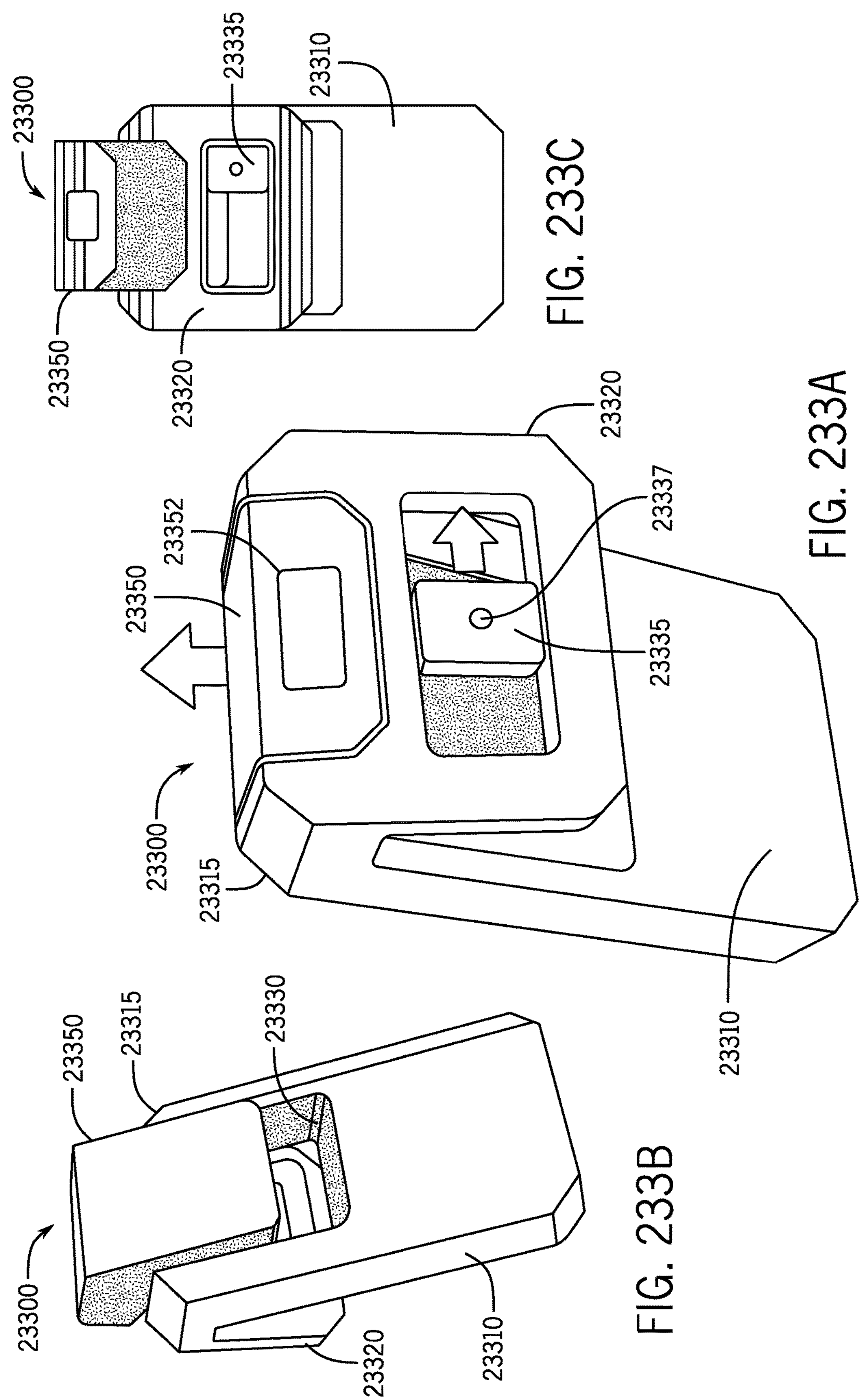

FIG. 233C

FIG. 233A

FIG. 233B

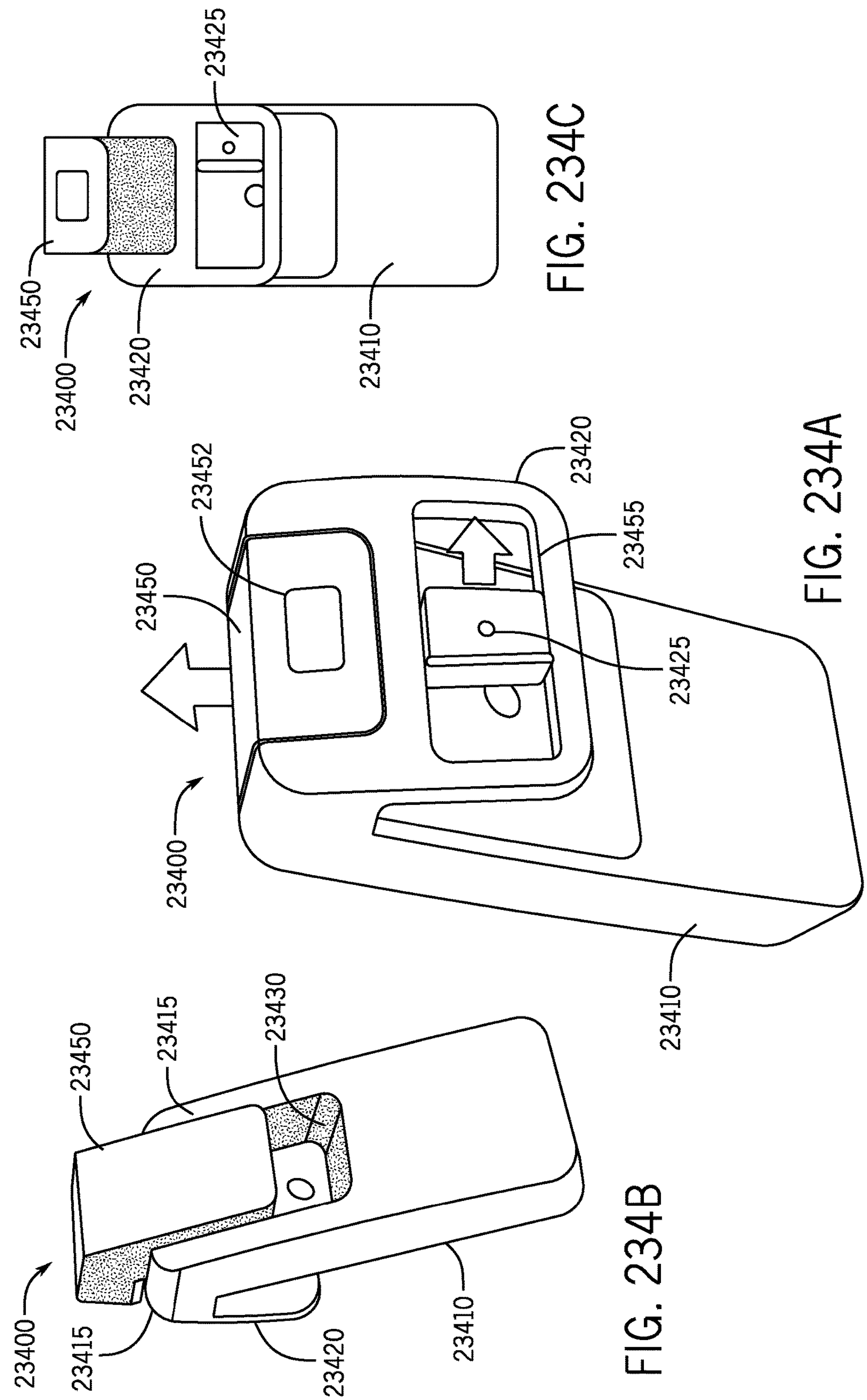

FIG. 234C

FIG. 234A

FIG. 234B

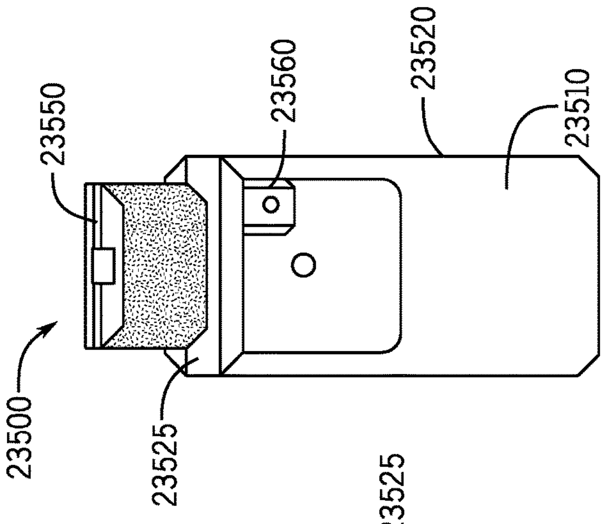

FIG. 235C

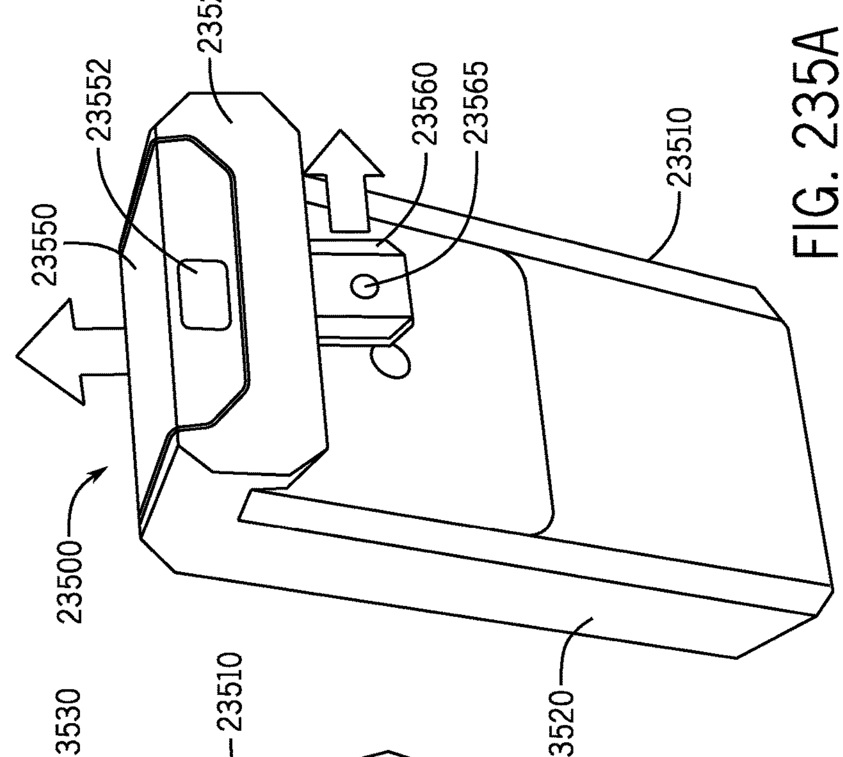

FIG. 235A

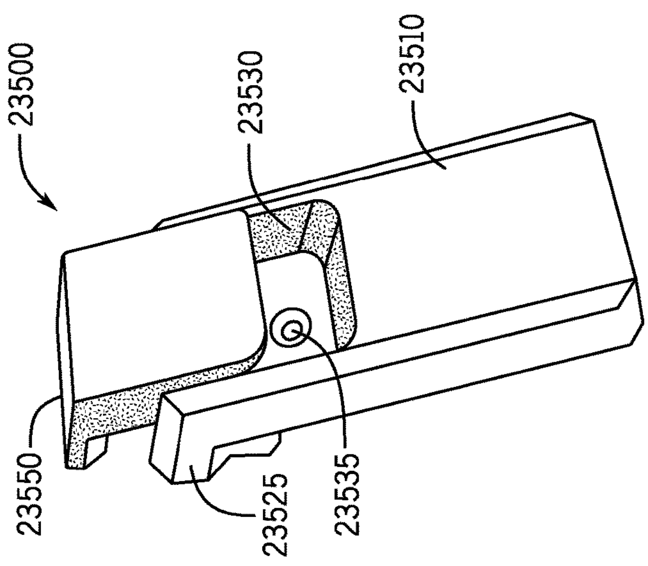

FIG. 235B

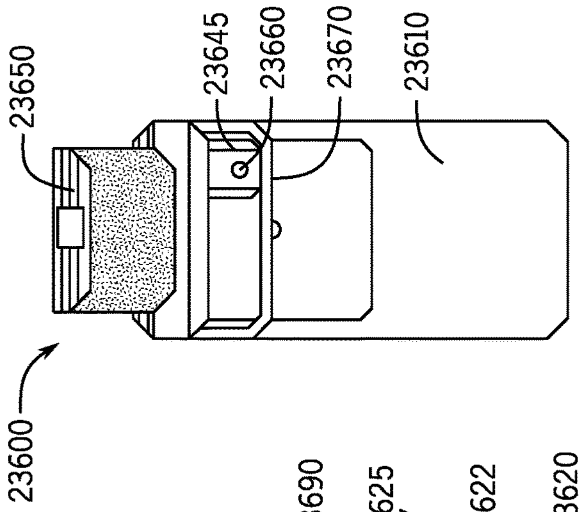

FIG. 236C

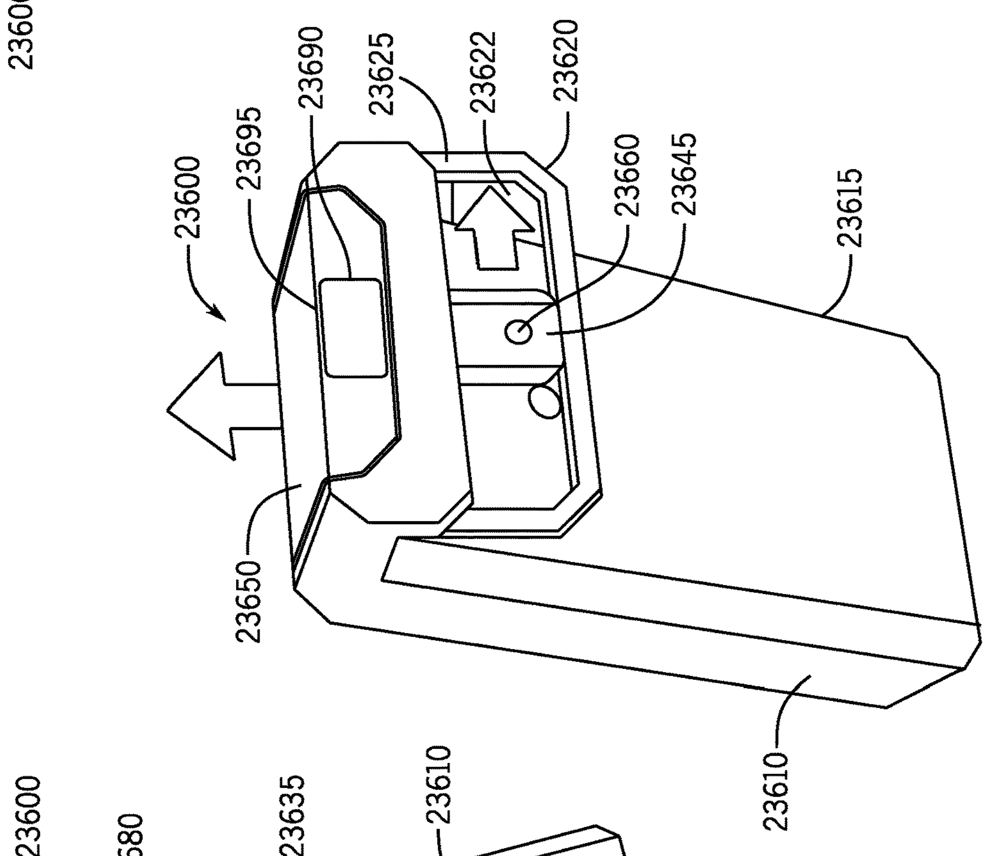

FIG. 236A

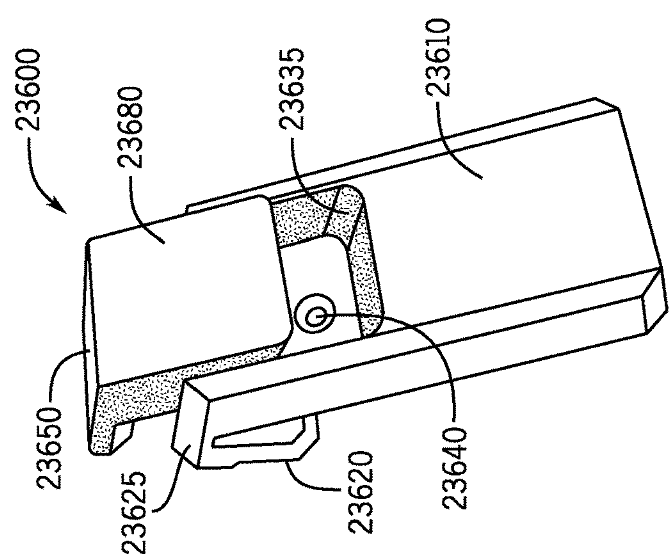

FIG. 236B

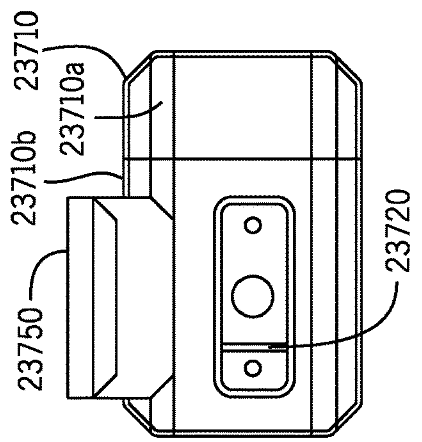

FIG. 237C

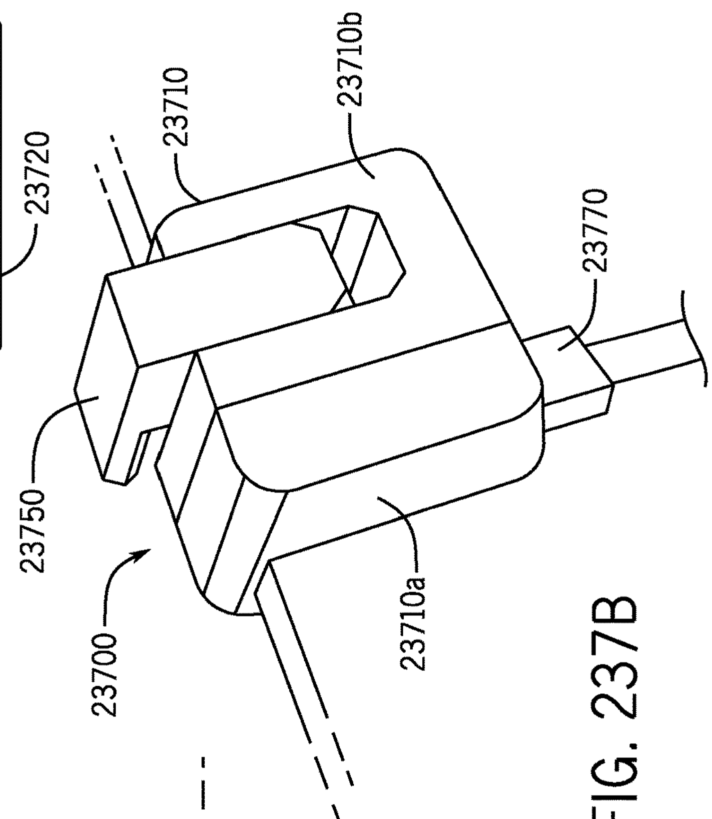

FIG. 237B

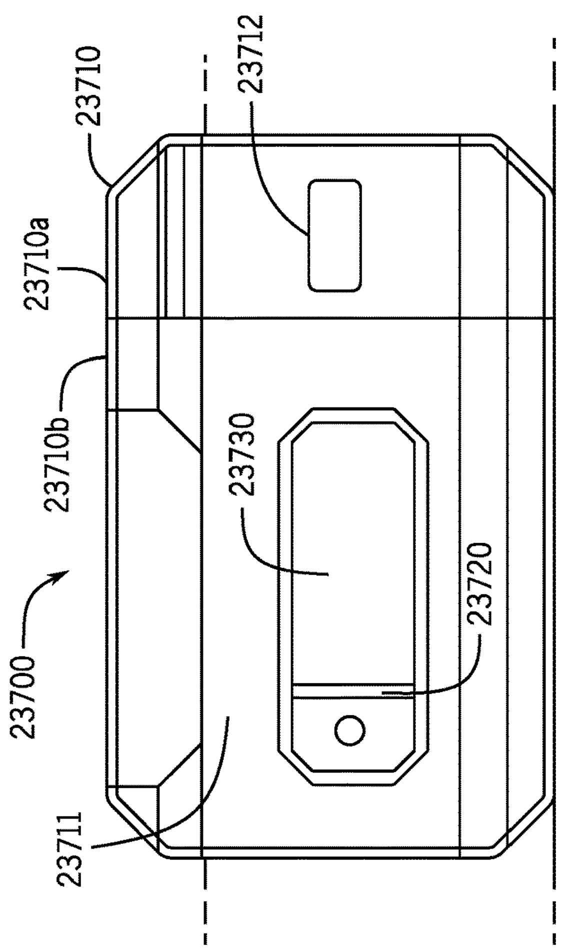

FIG. 237A

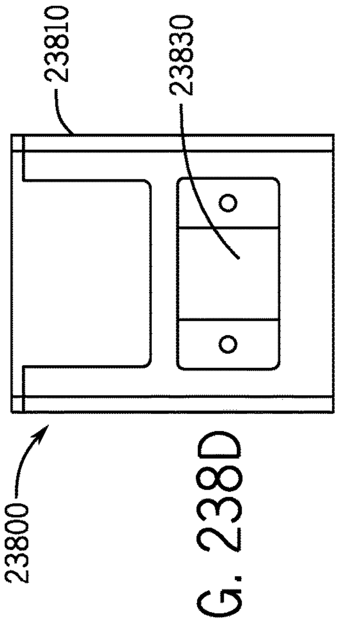

FIG. 238D

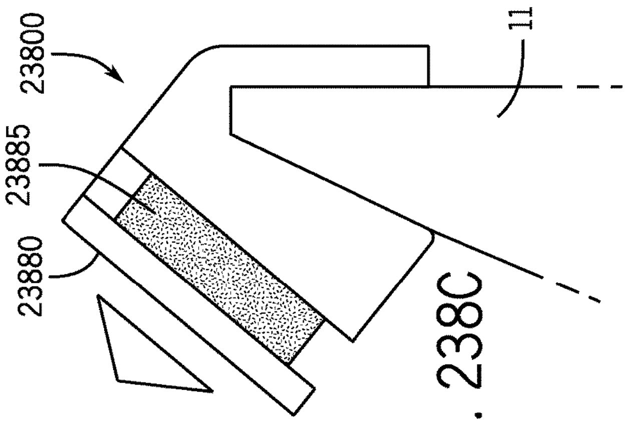

FIG. 238C

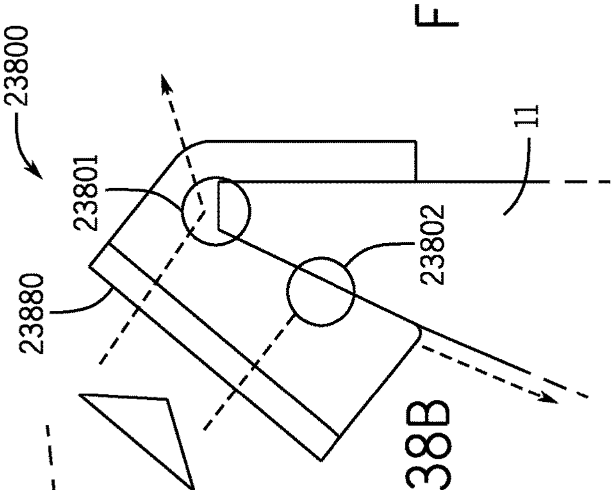

FIG. 238B

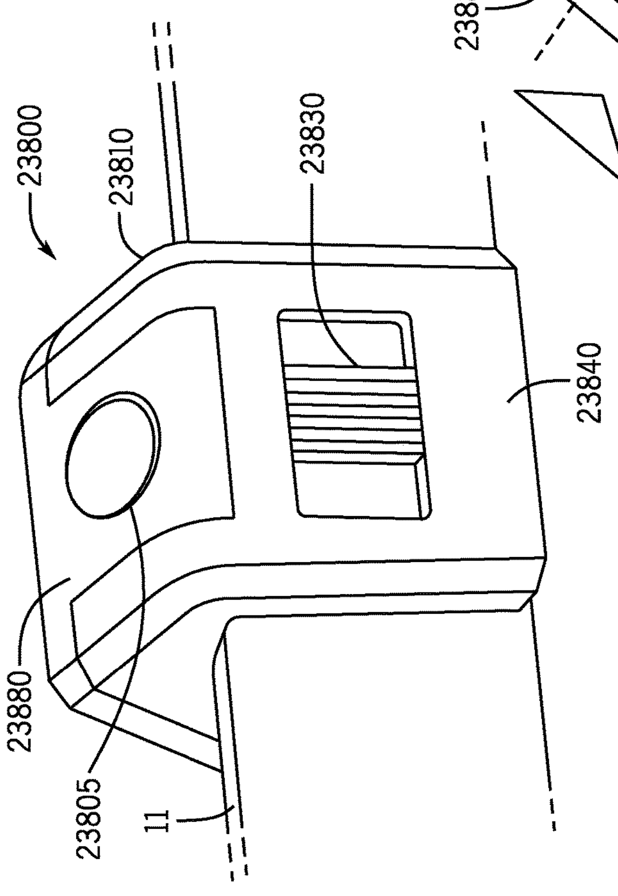

FIG. 238A

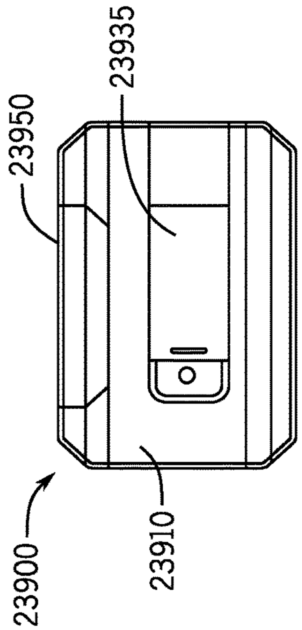

FIG. 239C

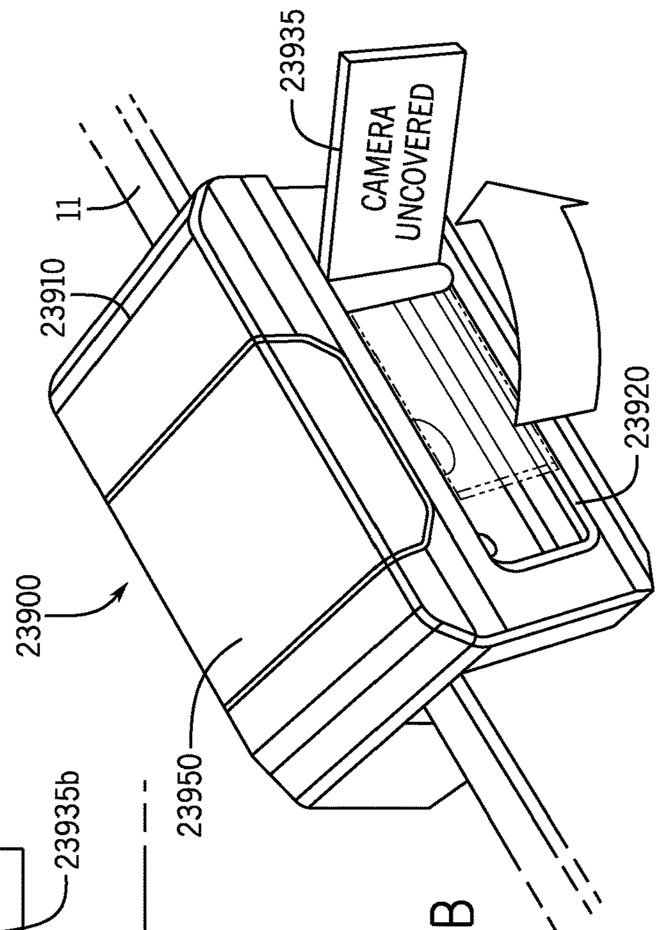

FIG. 239B

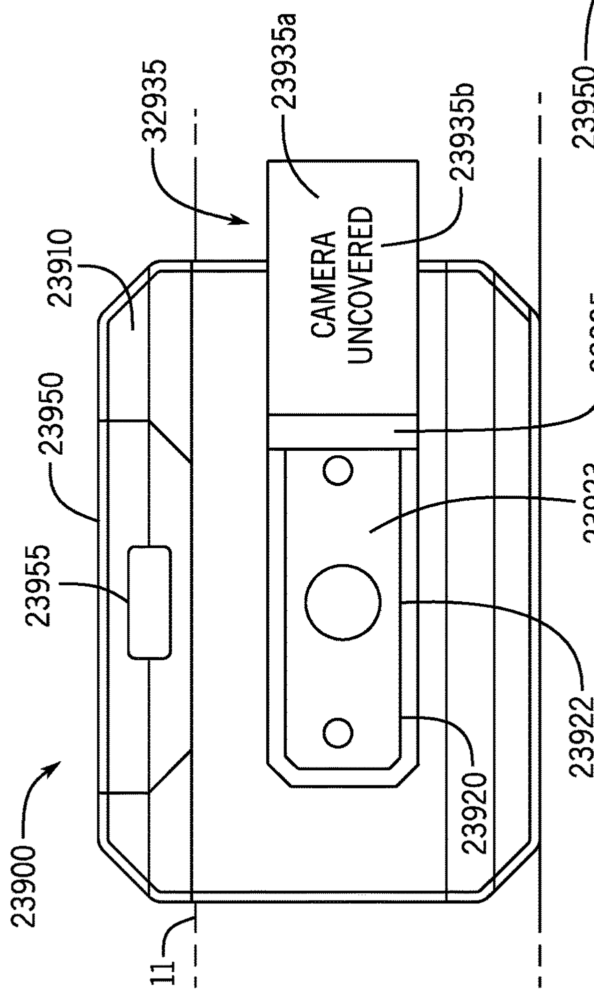

FIG. 239A

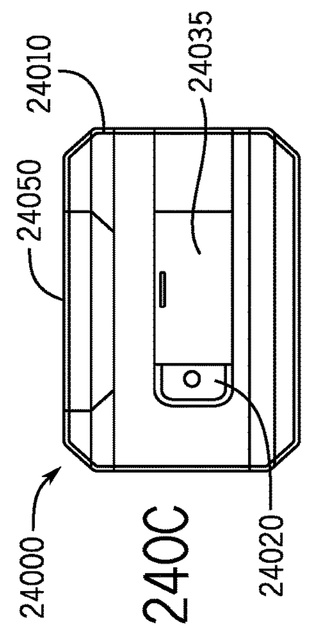

FIG. 240C

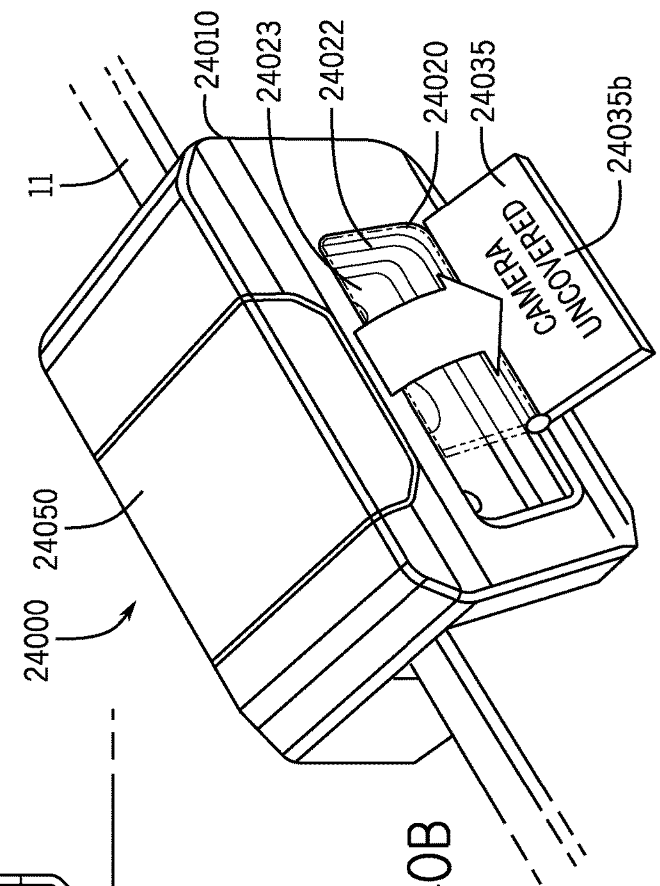

FIG. 240B

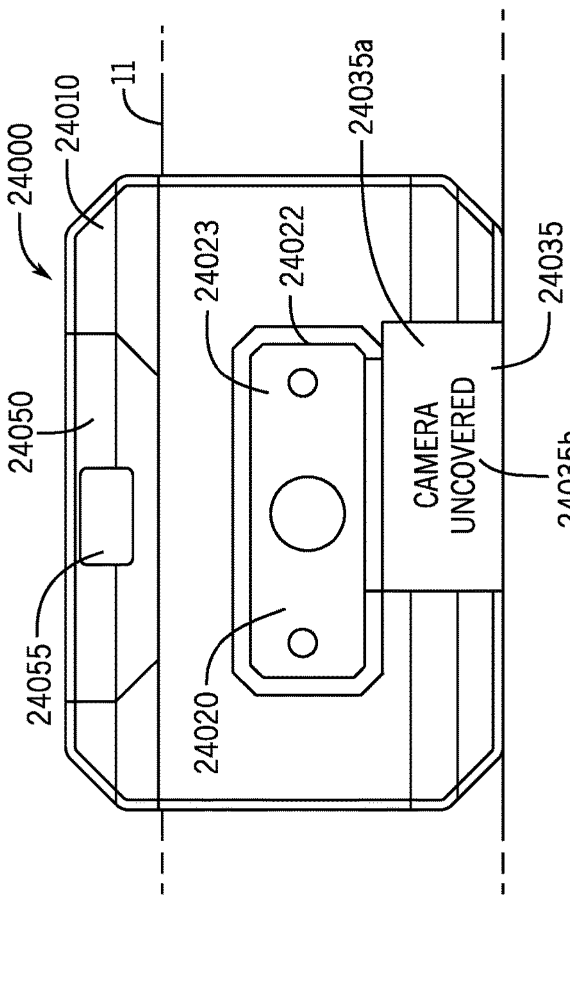

FIG. 240A

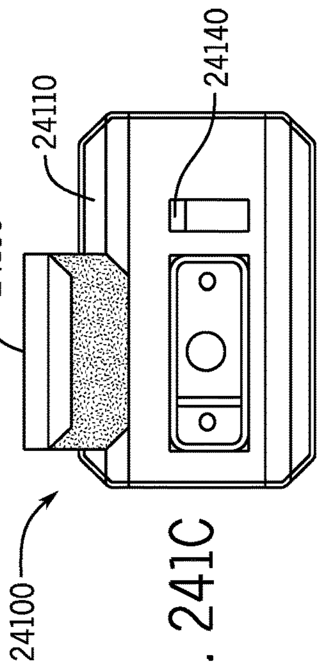

FIG. 241C

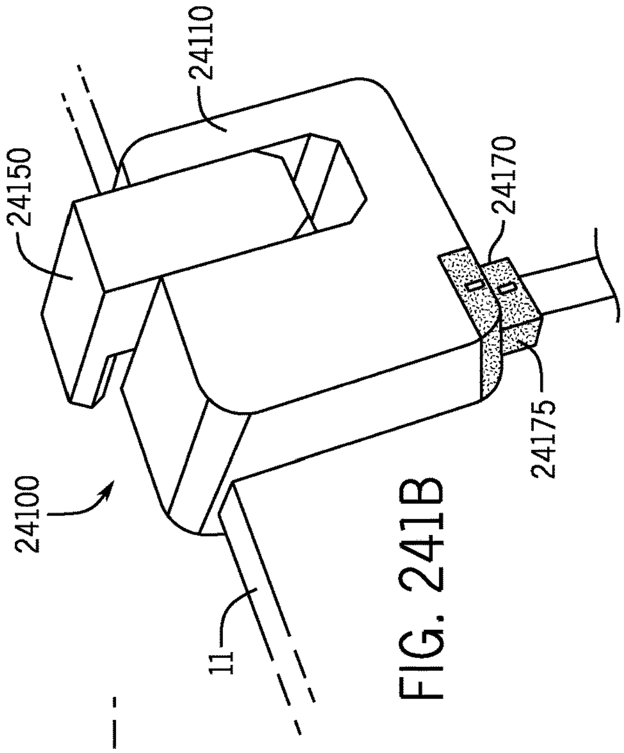

FIG. 241B

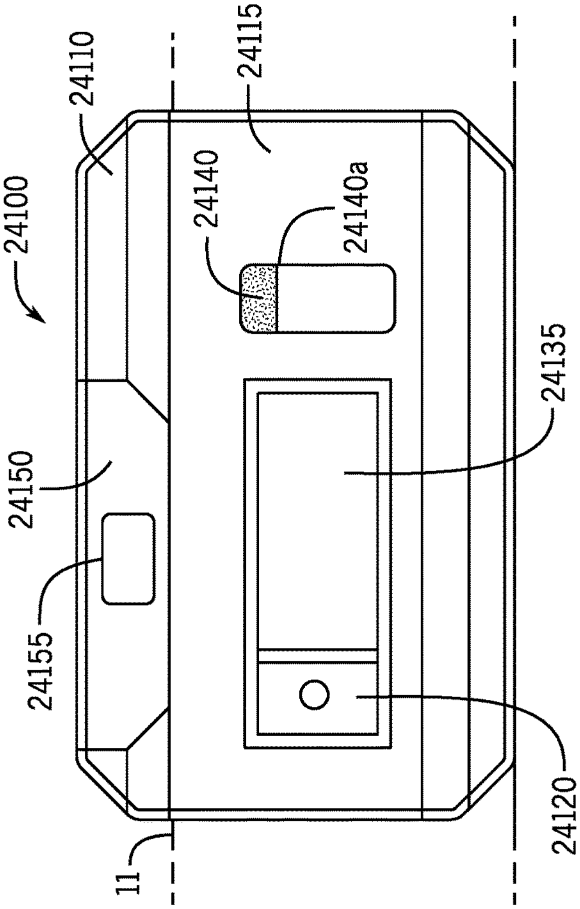

FIG. 241A

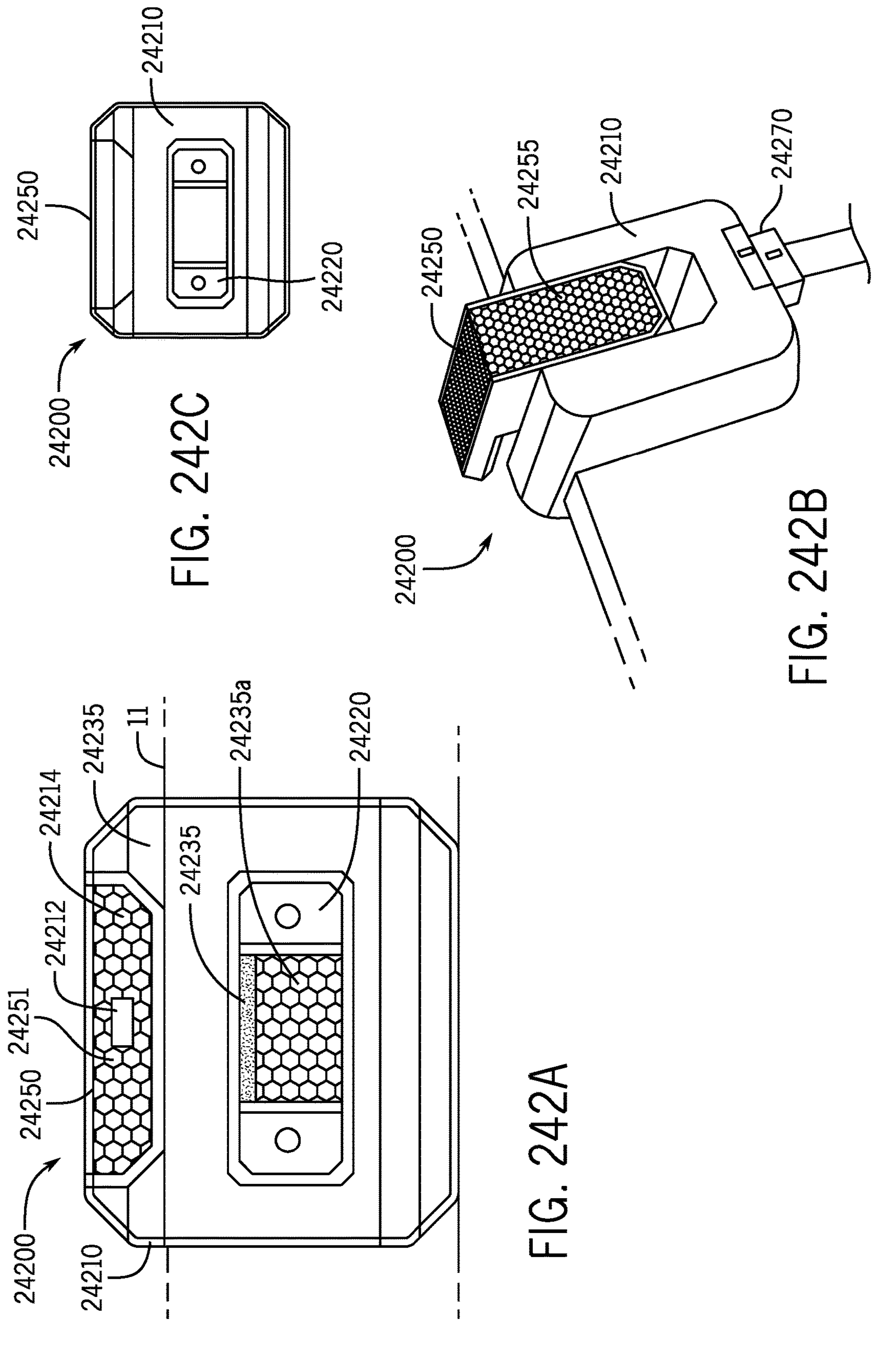

FIG. 242A

FIG. 242B

FIG. 242C

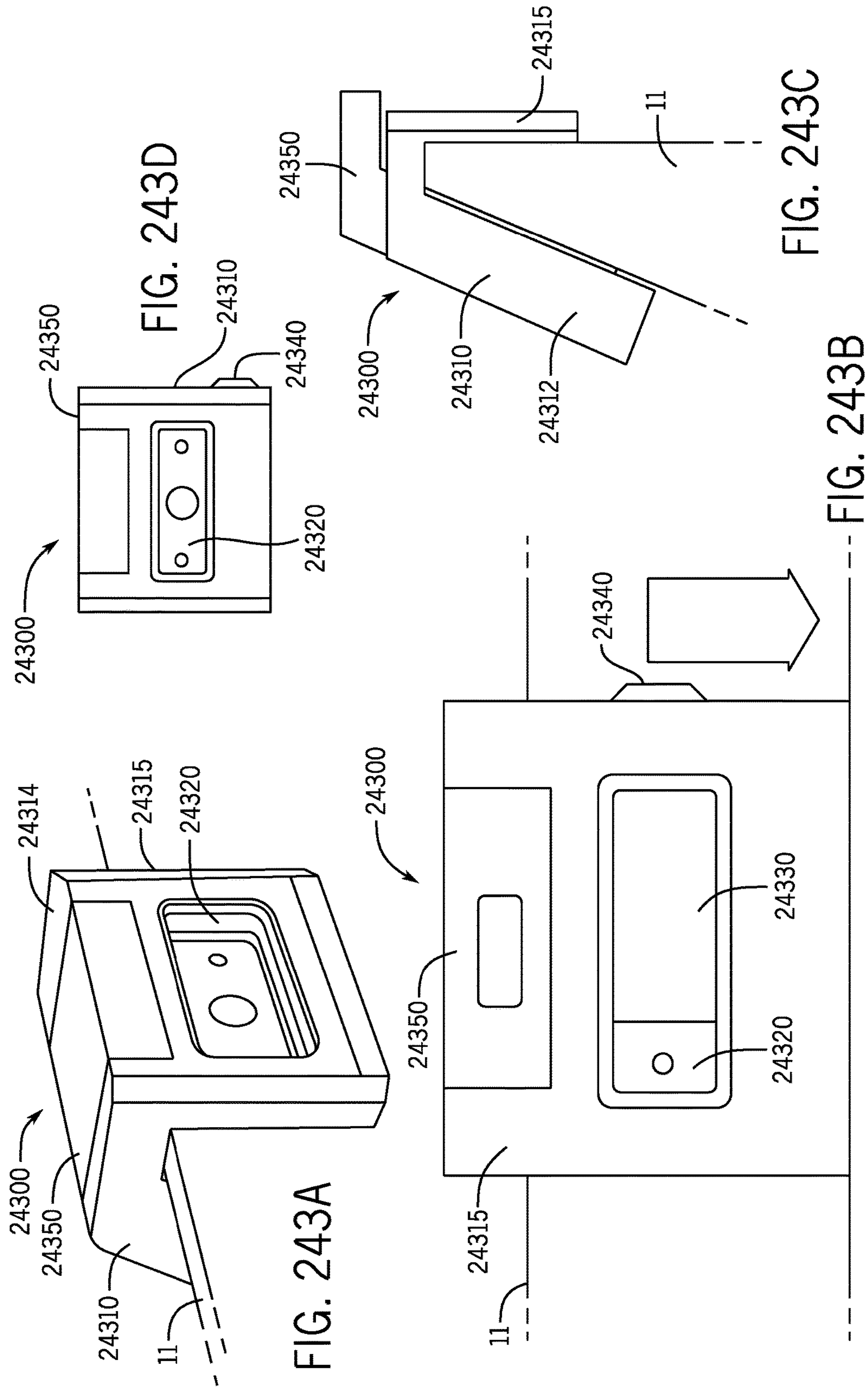

FIG. 243D

FIG. 243C

FIG. 243B

FIG. 243A

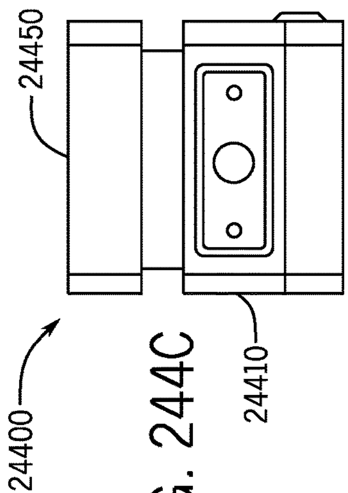

FIG. 244C

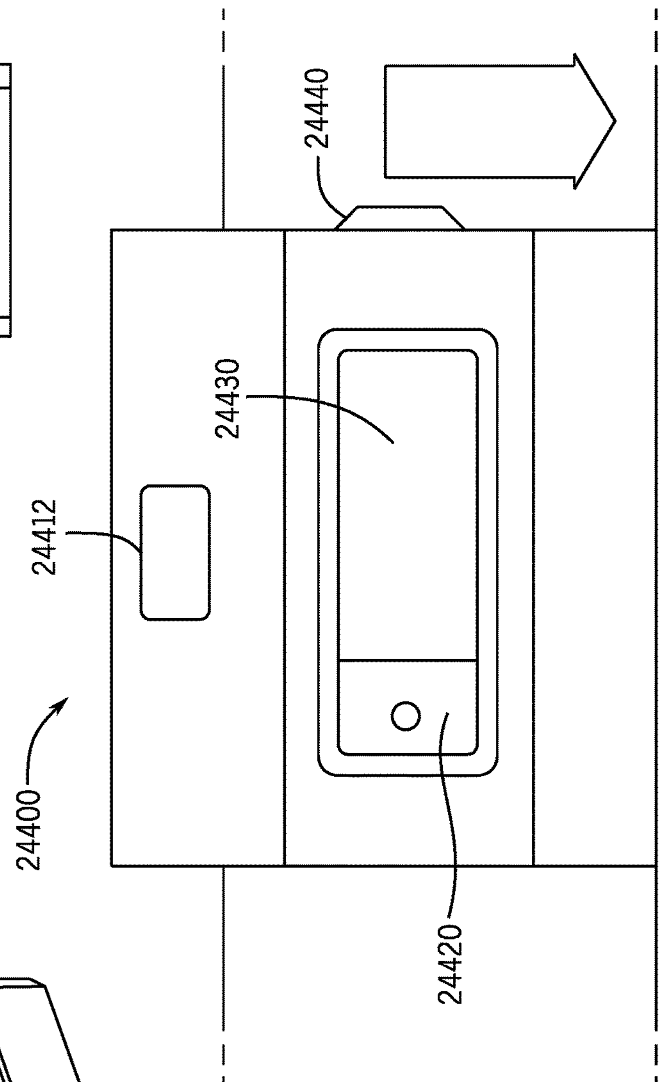

FIG. 244B

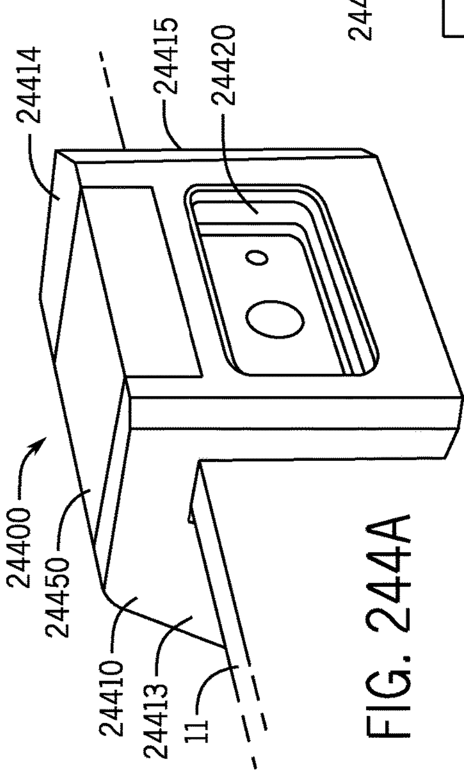

FIG. 244A

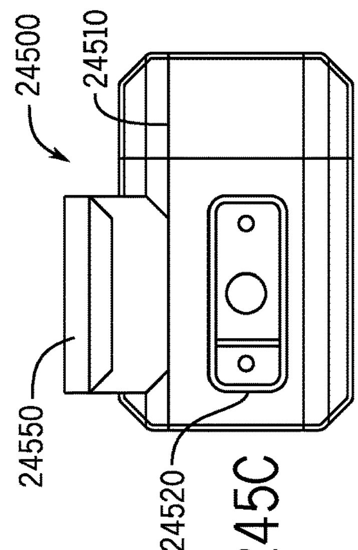

FIG. 245C

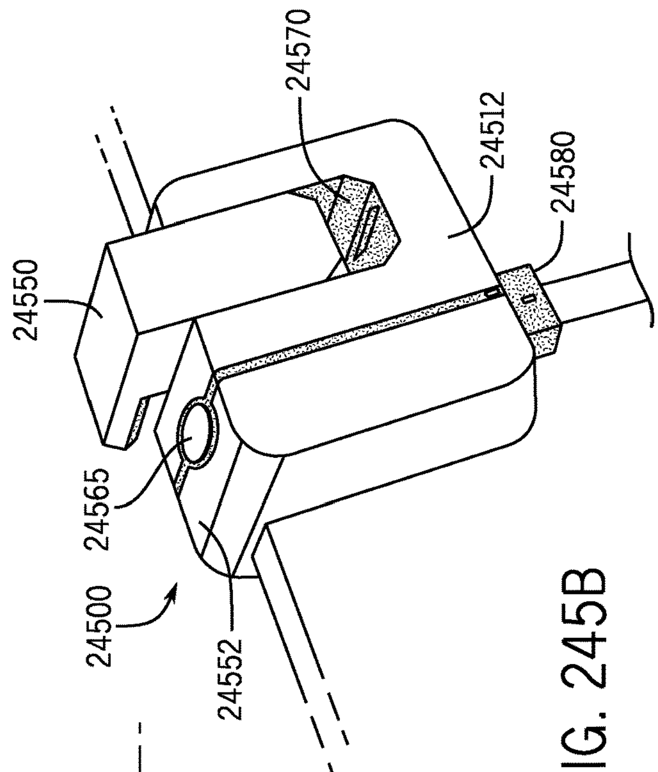

FIG. 245B

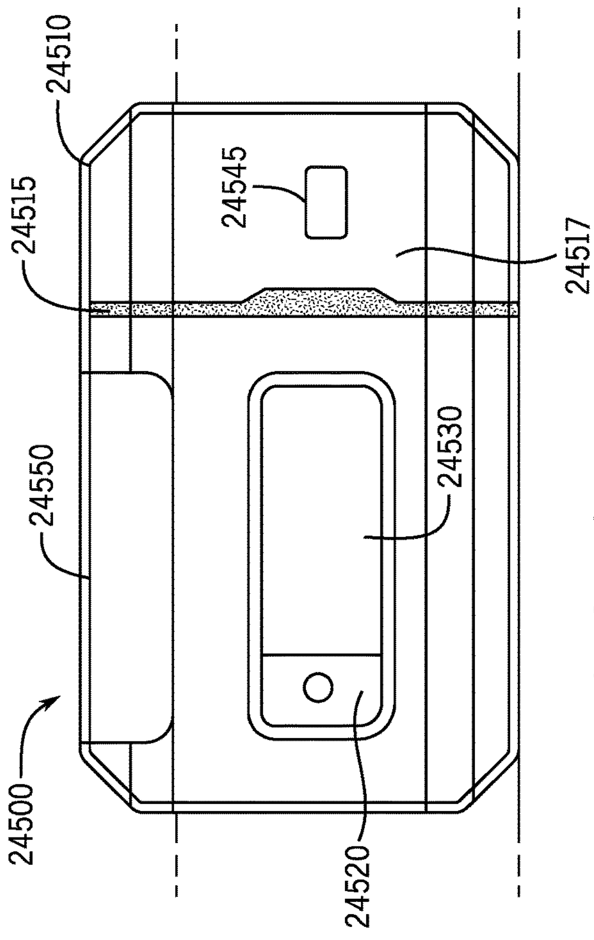

FIG. 245A

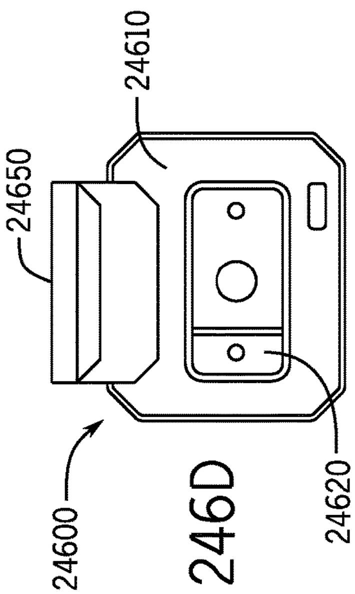

FIG. 246D

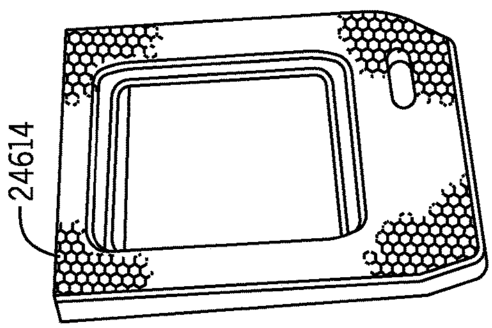

FIG. 246C

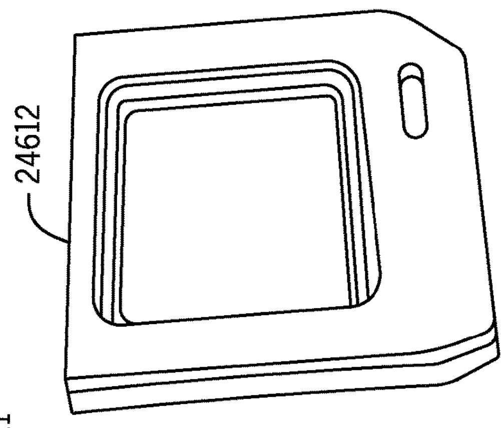

FIG. 246B

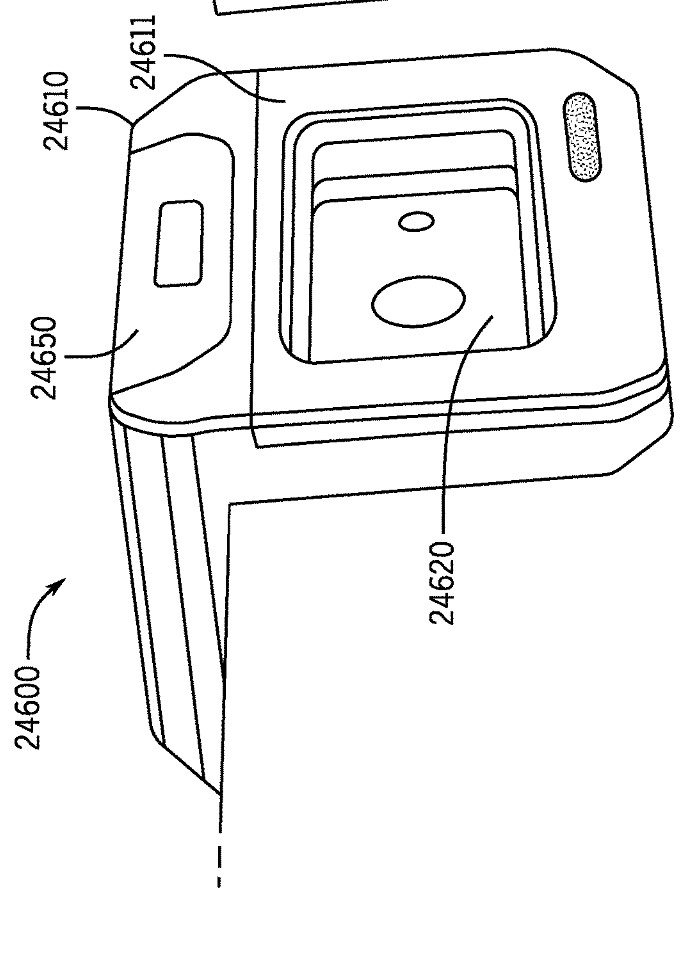

FIG. 246A

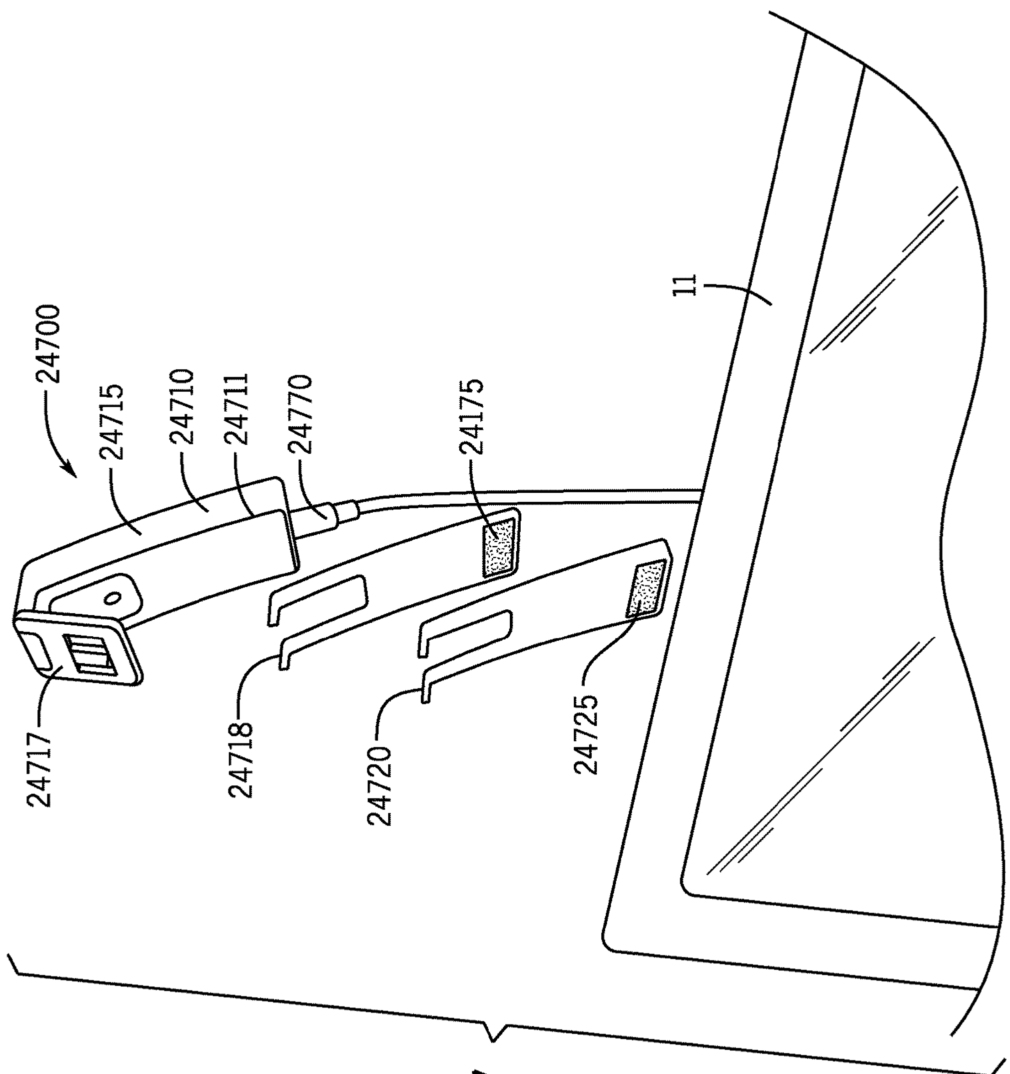
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FIG. 247

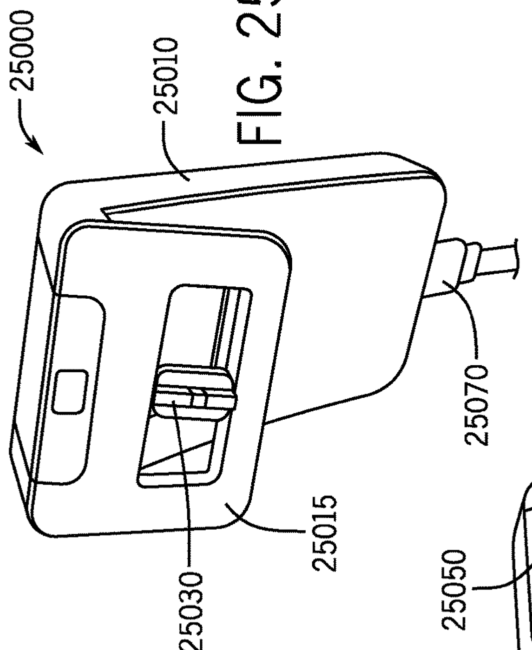


FIG. 250

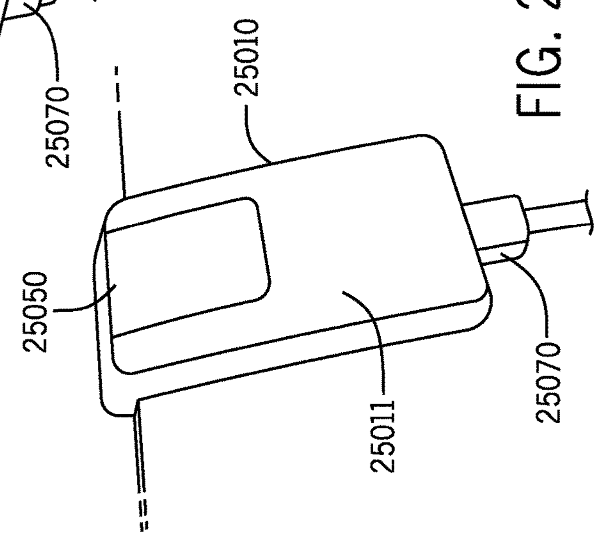


FIG. 251

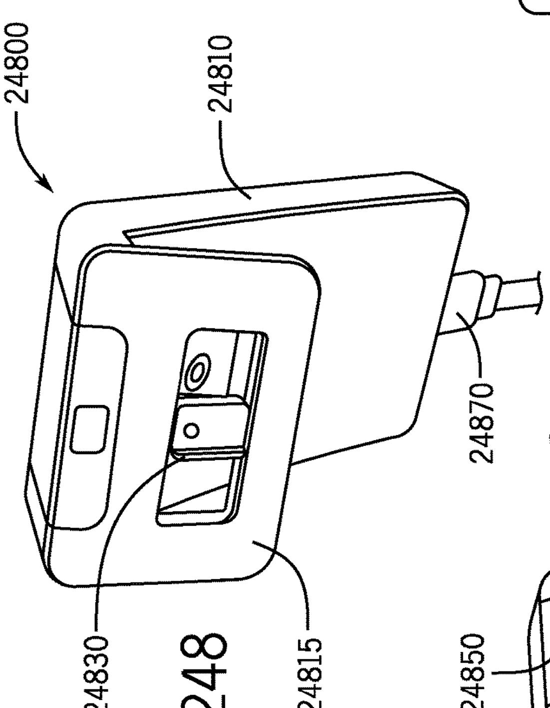


FIG. 248

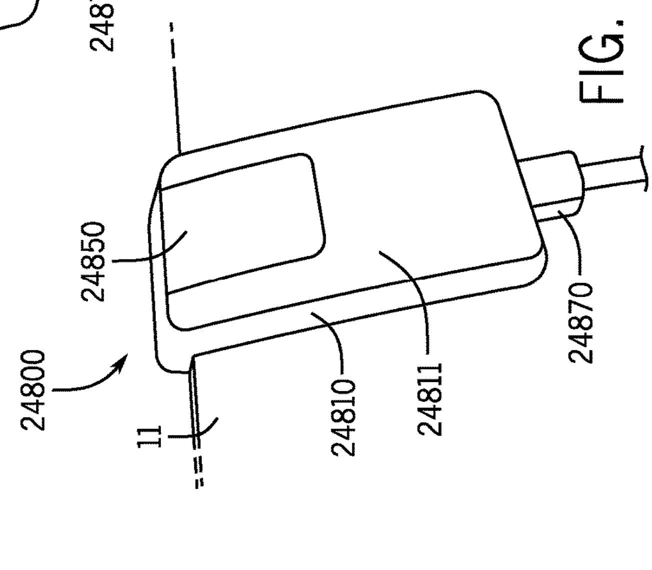


FIG. 249

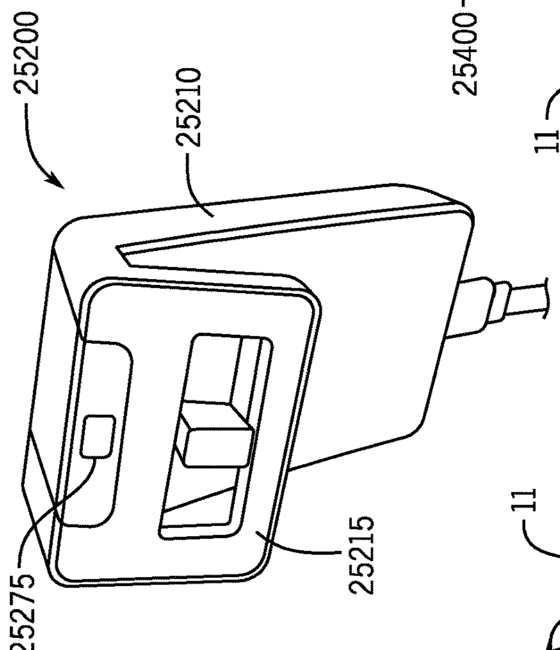


FIG. 252

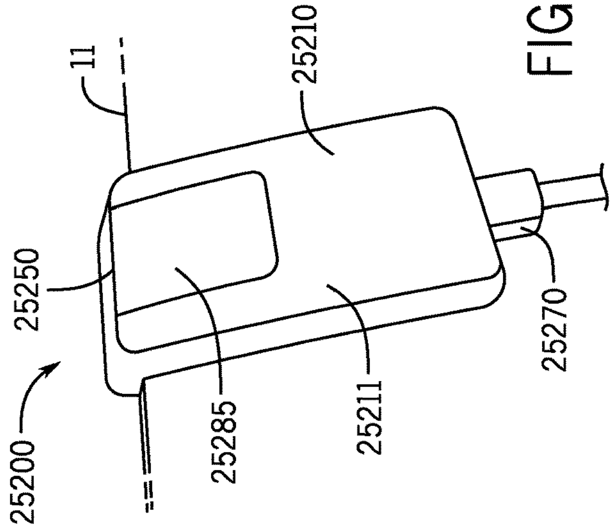


FIG. 253

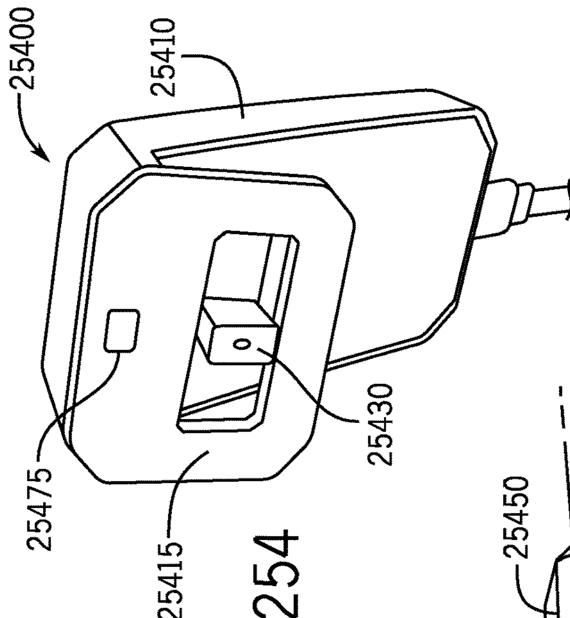


FIG. 254

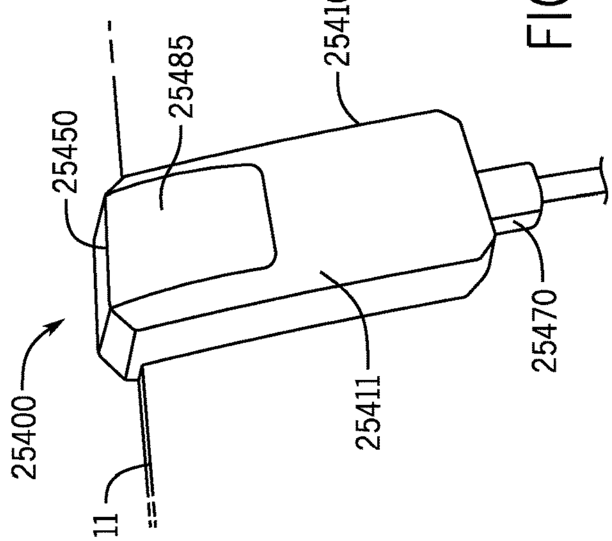


FIG. 255

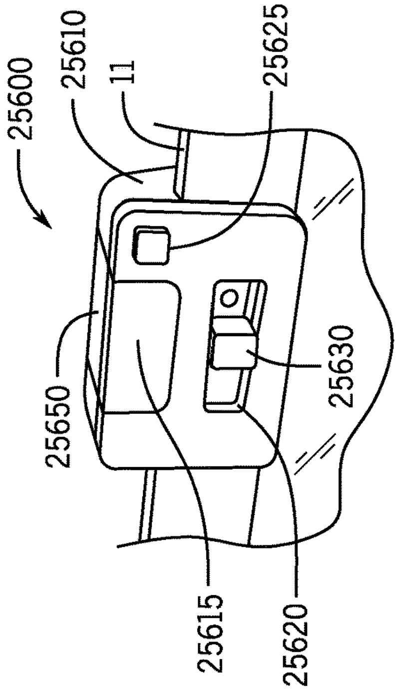


FIG. 256

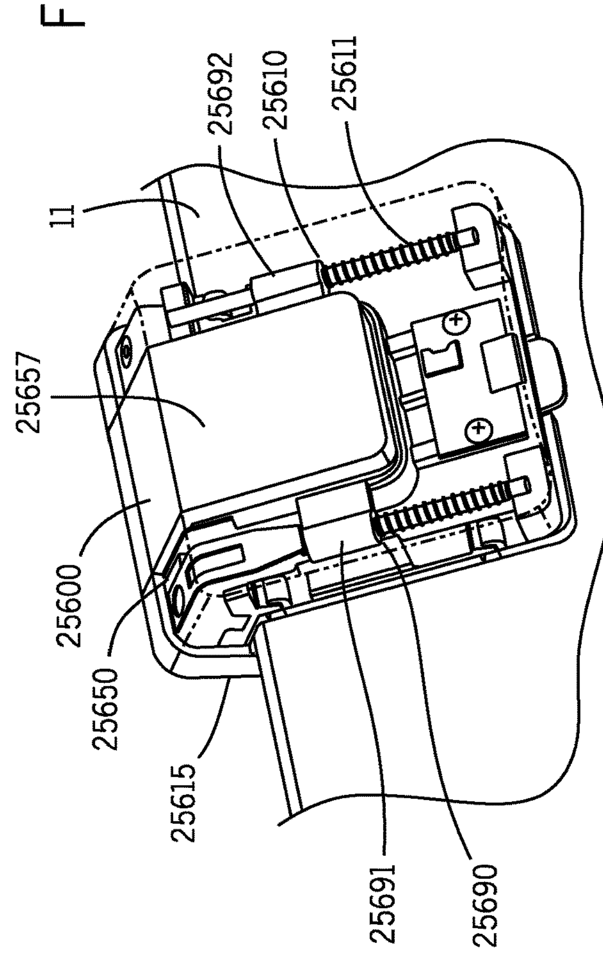


FIG. 257

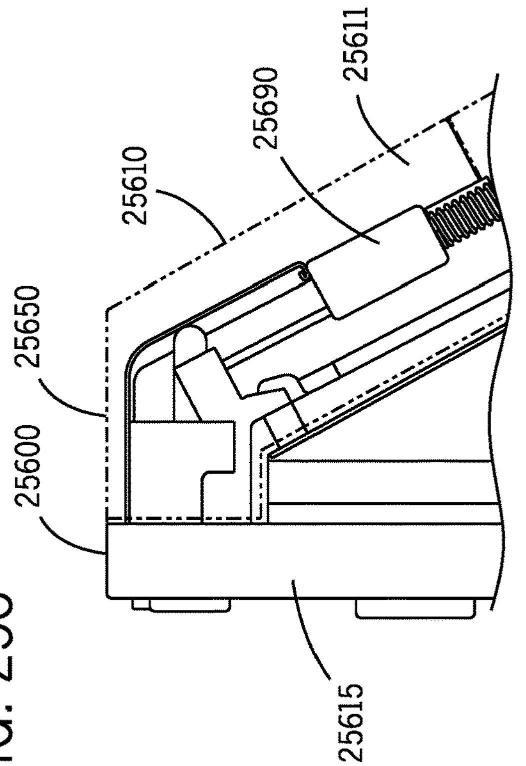


FIG. 258

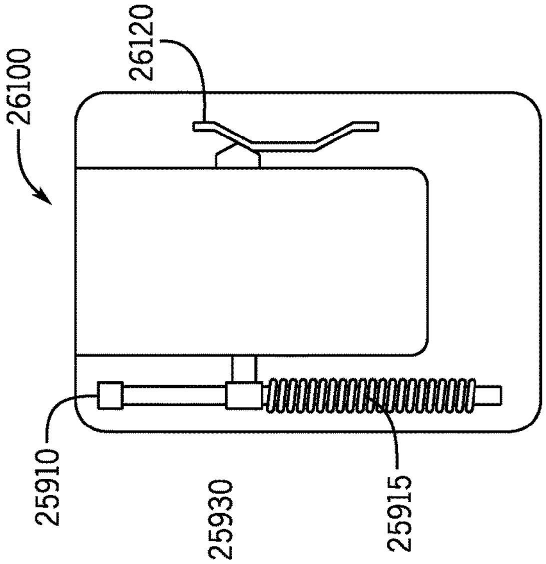


FIG. 261

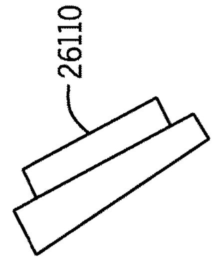


FIG. 261A

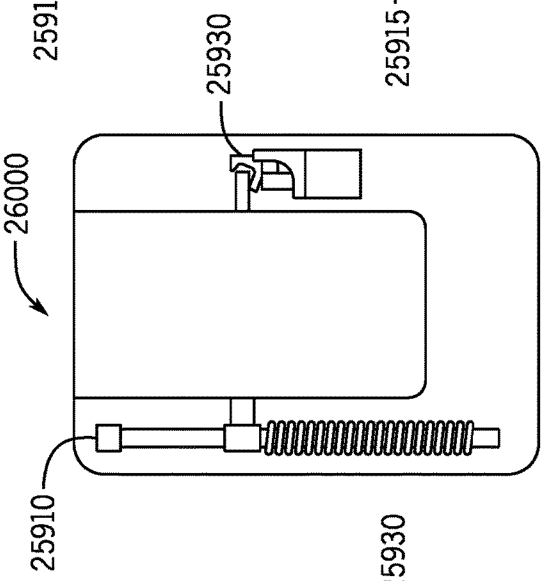


FIG. 260

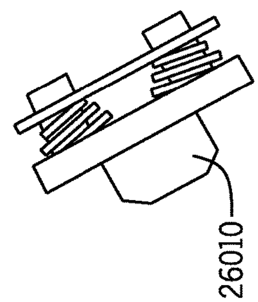


FIG. 260A

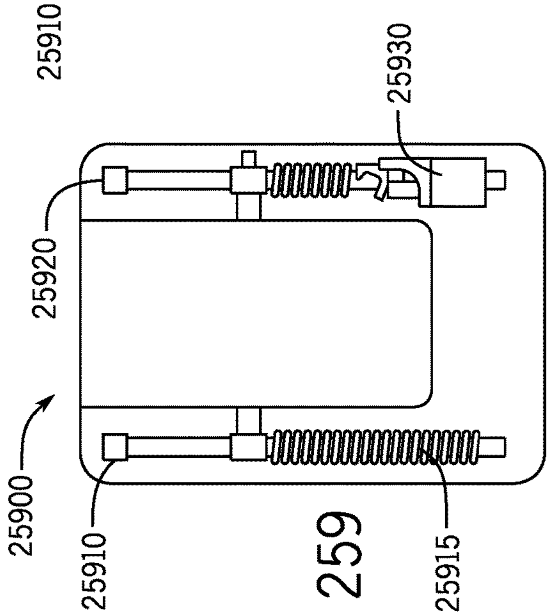


FIG. 259

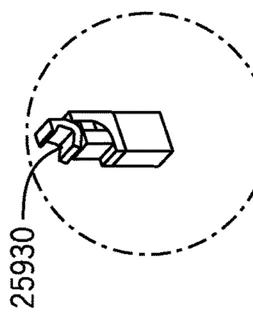


FIG. 259B

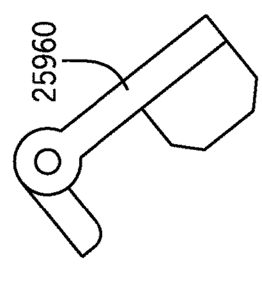


FIG. 259A

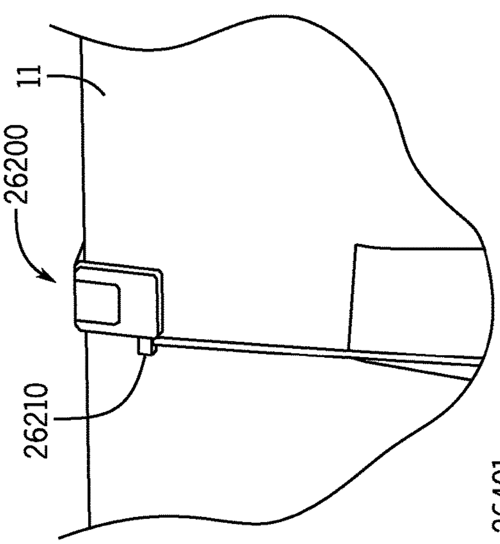


FIG. 262

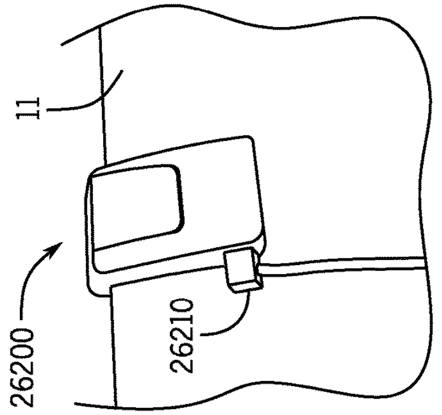


FIG. 263

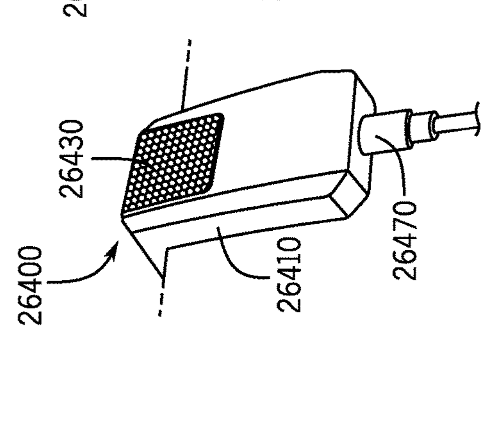


FIG. 264A

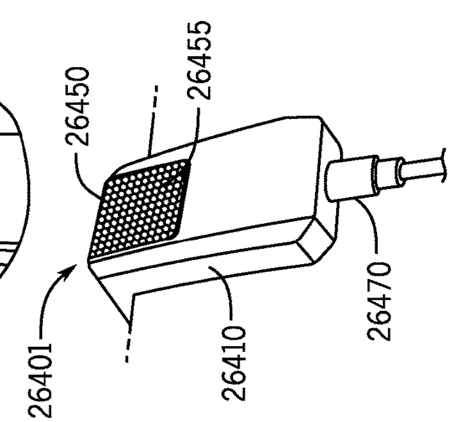


FIG. 264B

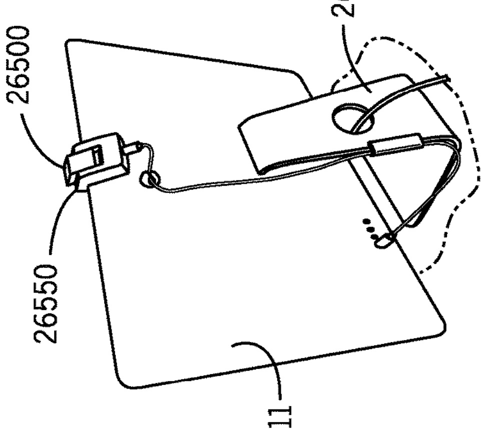


FIG. 265A

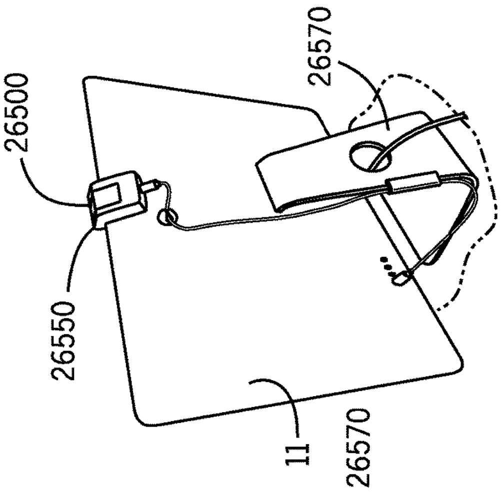


FIG. 265B

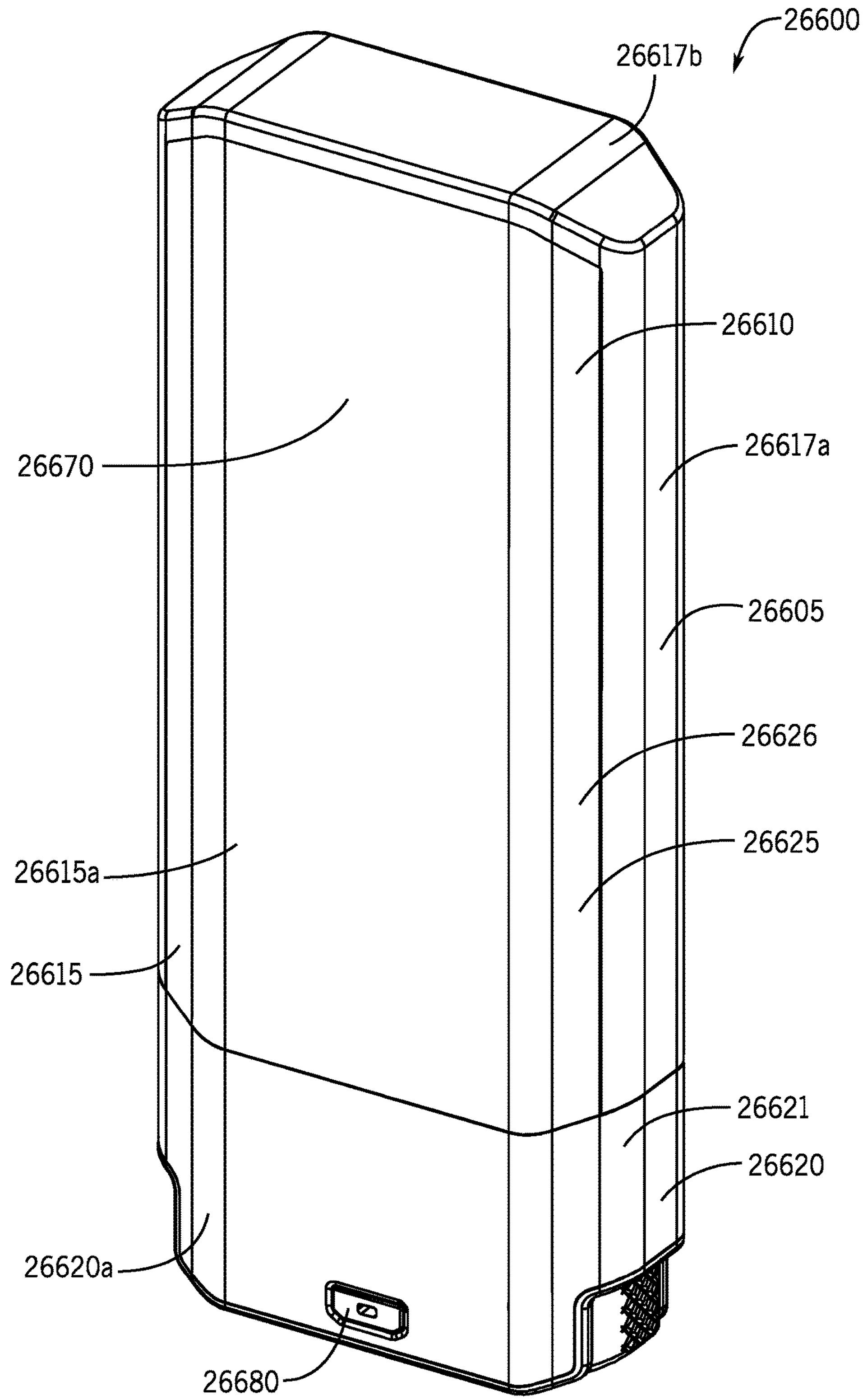

26600
26617b
26610
26670
26617a
26605
26626
26625
26615a
26615
26621
26620
26620a
26680

FIG. 266

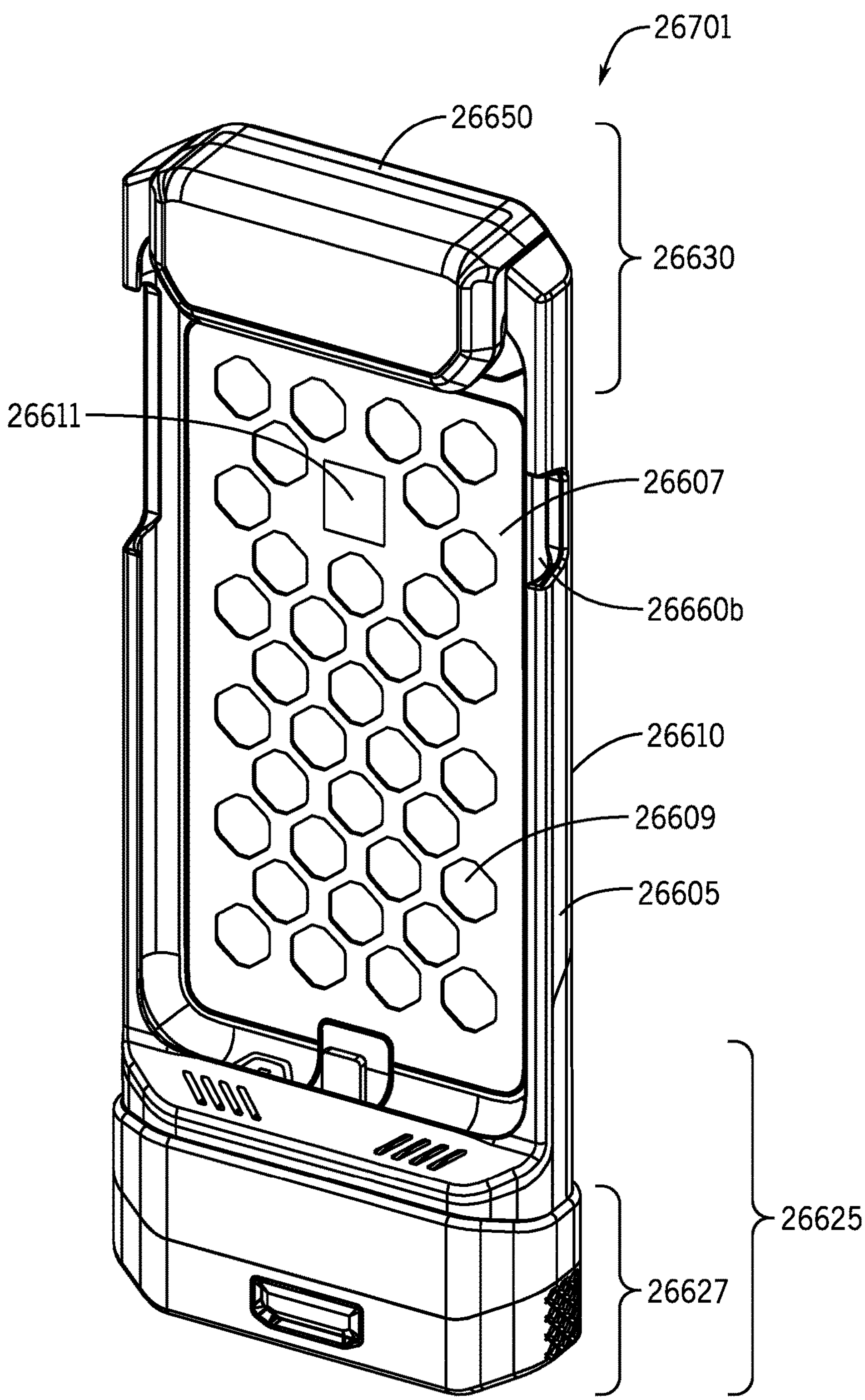

26701
26650
26630
26611
26607
26660b
26610
26609
26605
26625
26627

FIG. 267

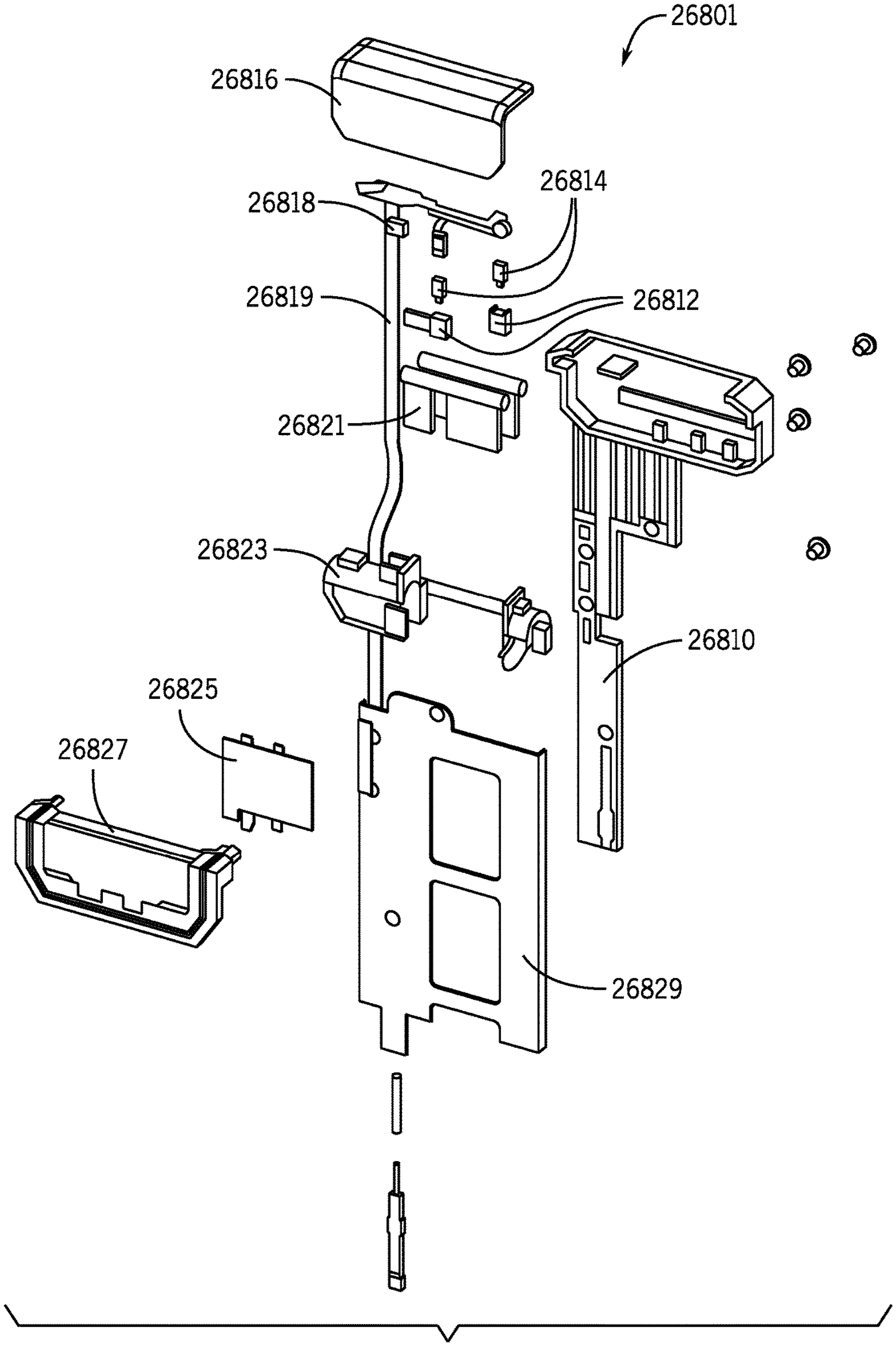

26801
26816
26814
26818
26819
26812
26821
26823
26810
26825
26827
26829

FIG. 268

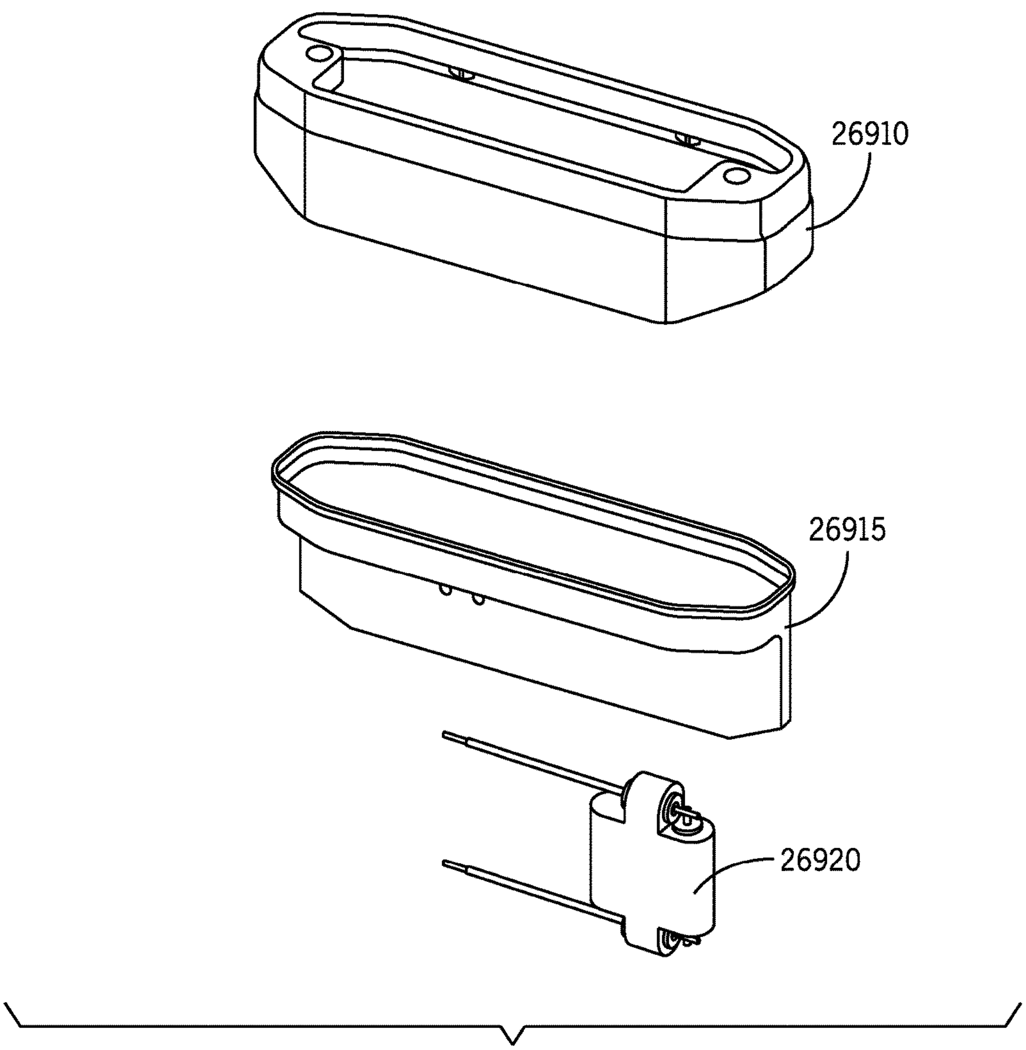


FIG. 269

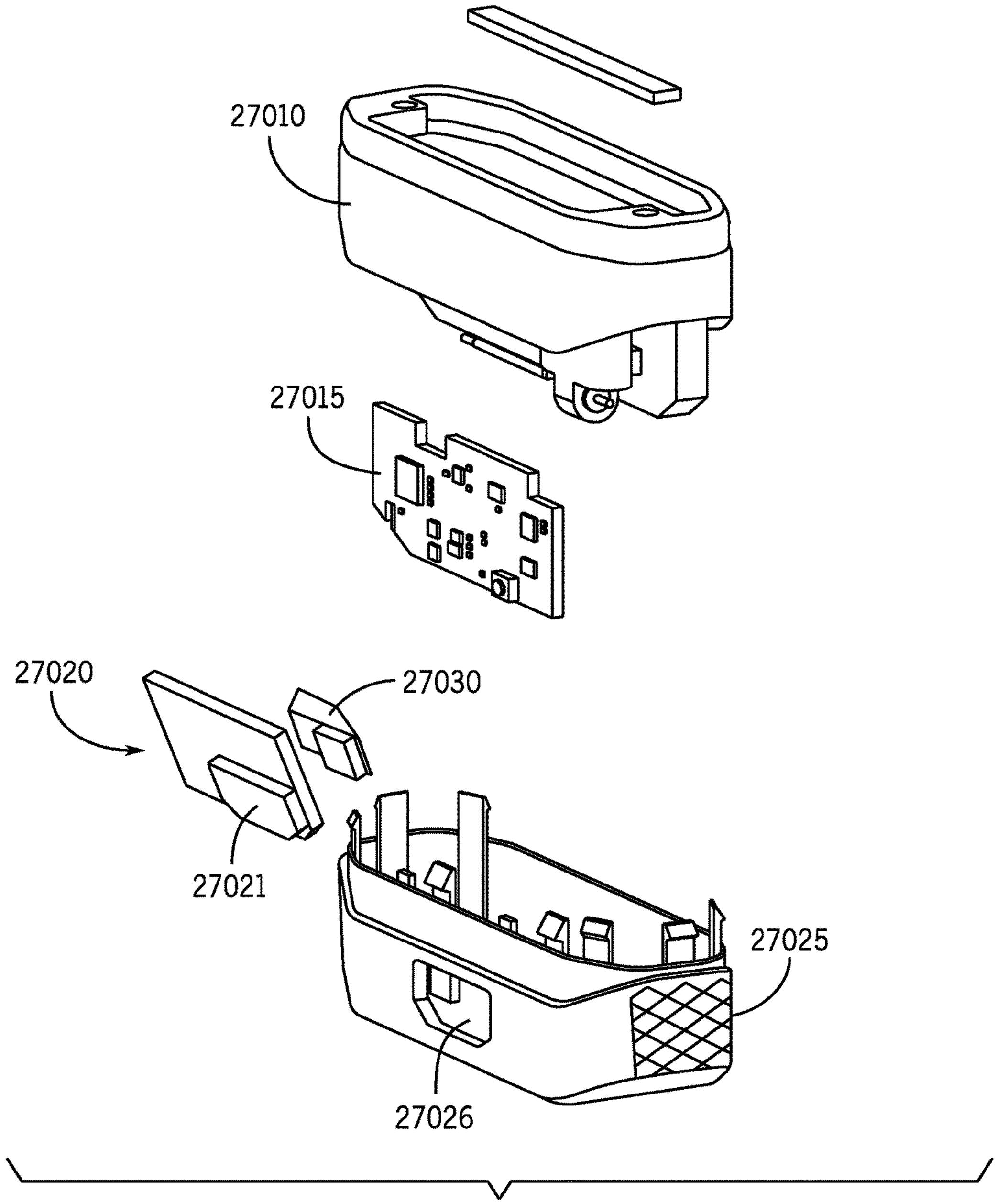


FIG. 270

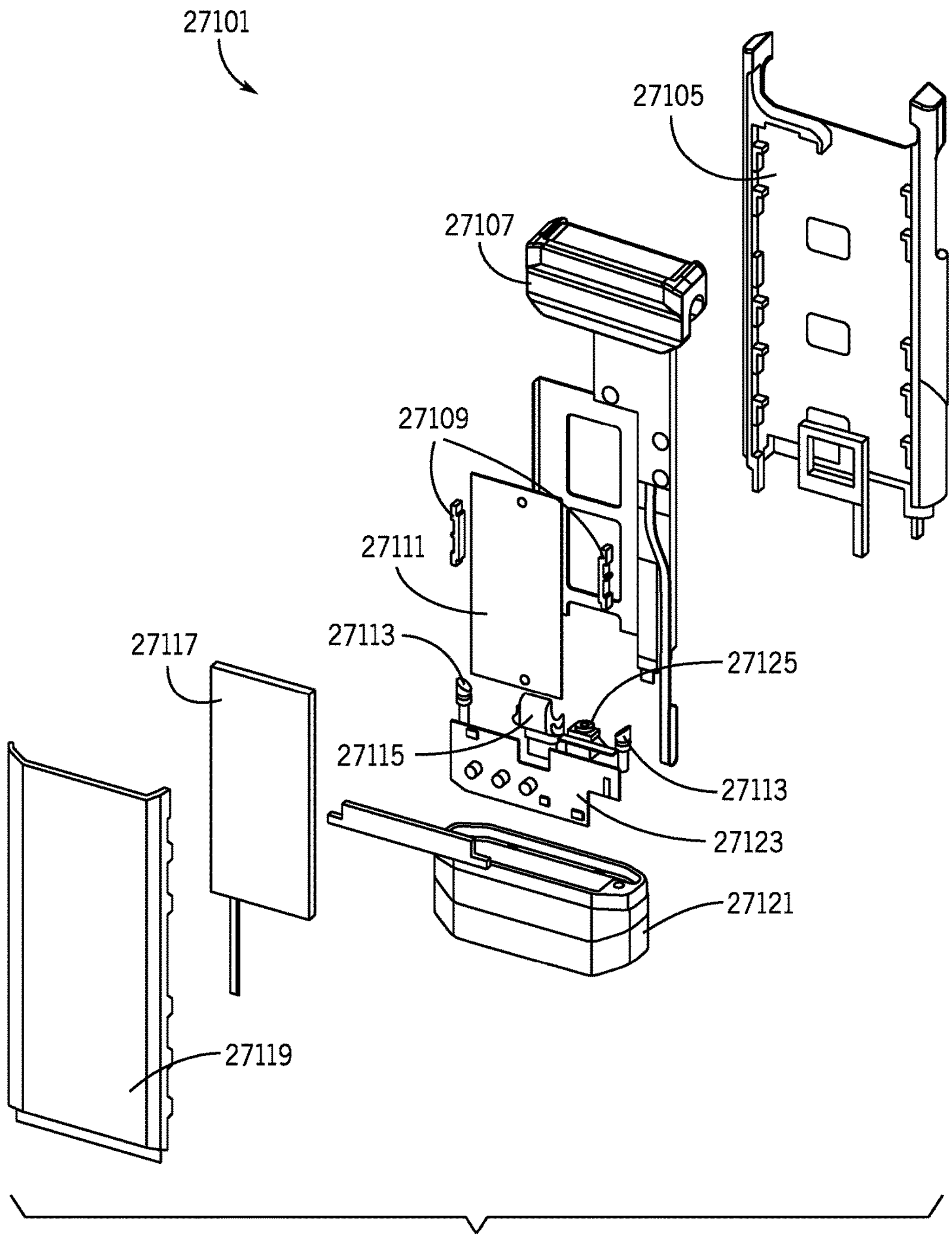

27101
27105
27107
27109
27111
27113
27117
27125
27115
27113
27123
27121
27119

FIG. 271

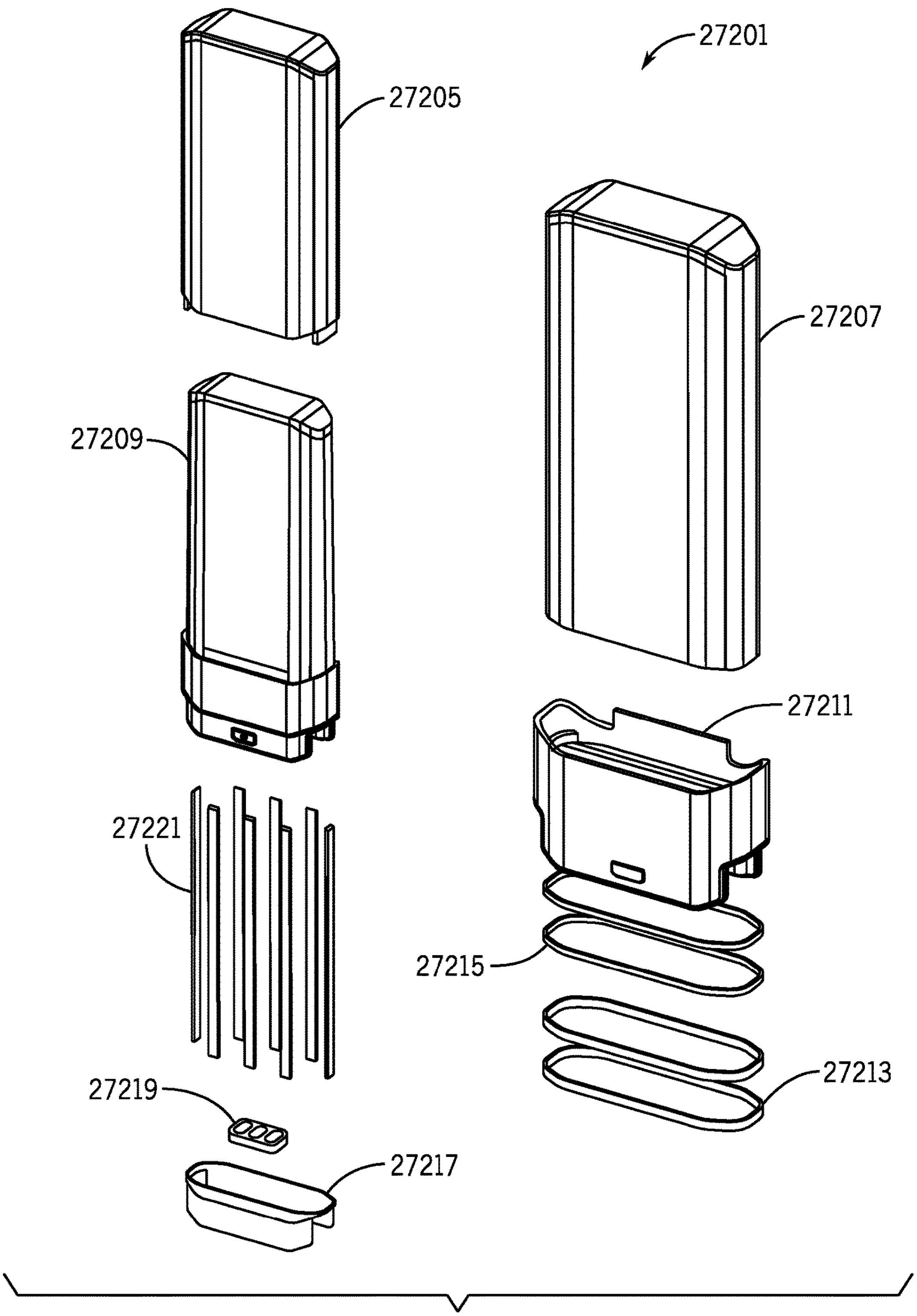

27201
27205
27207
27209
27211
27221
27215
27213
27219
27217

FIG. 272

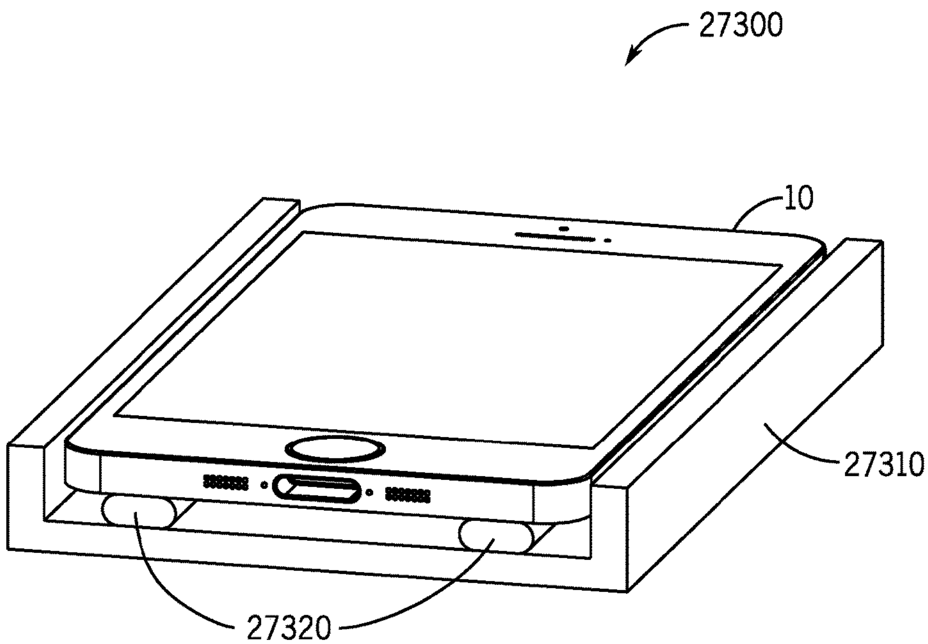


FIG. 273

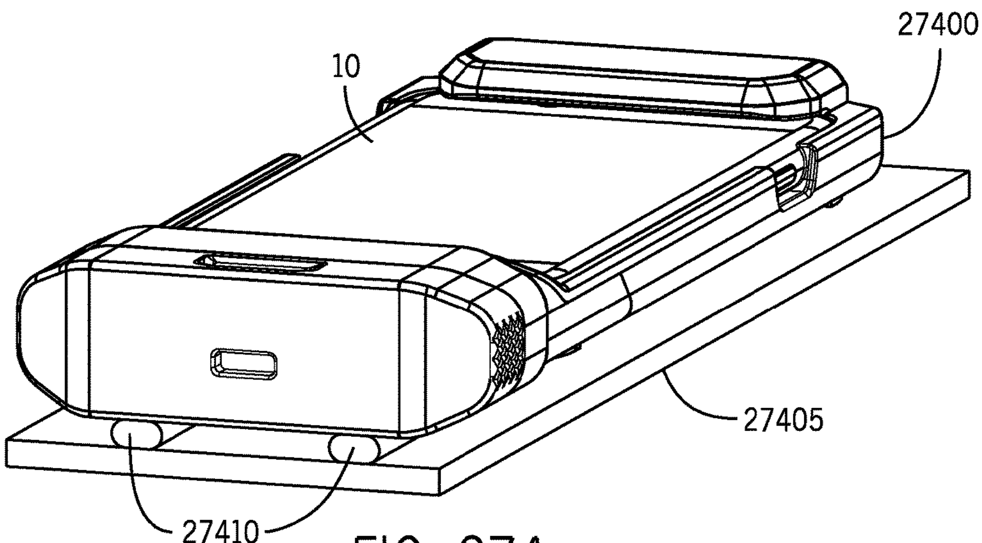


FIG. 274

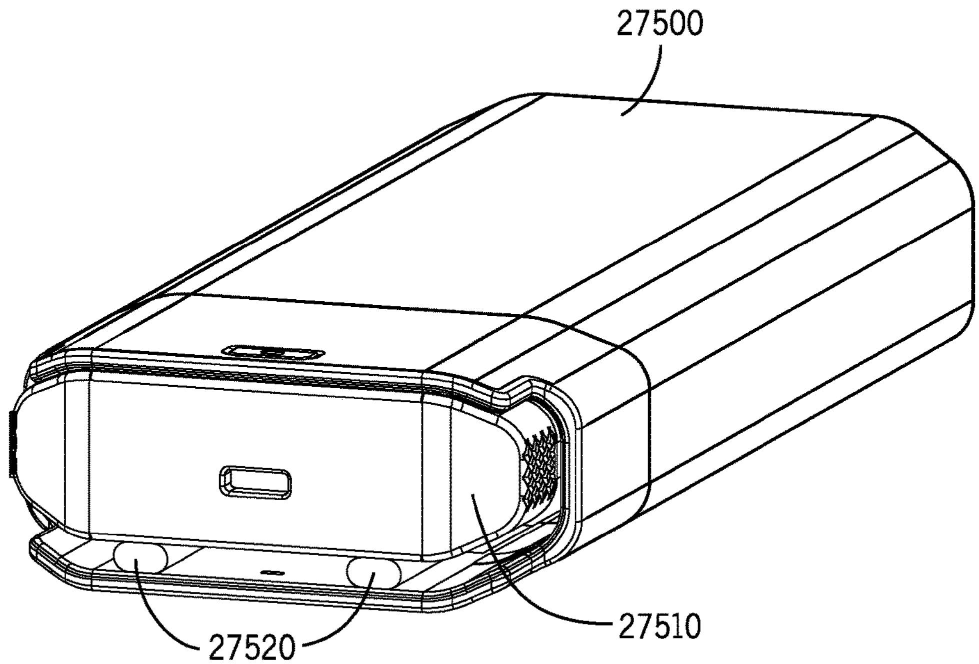


FIG. 275

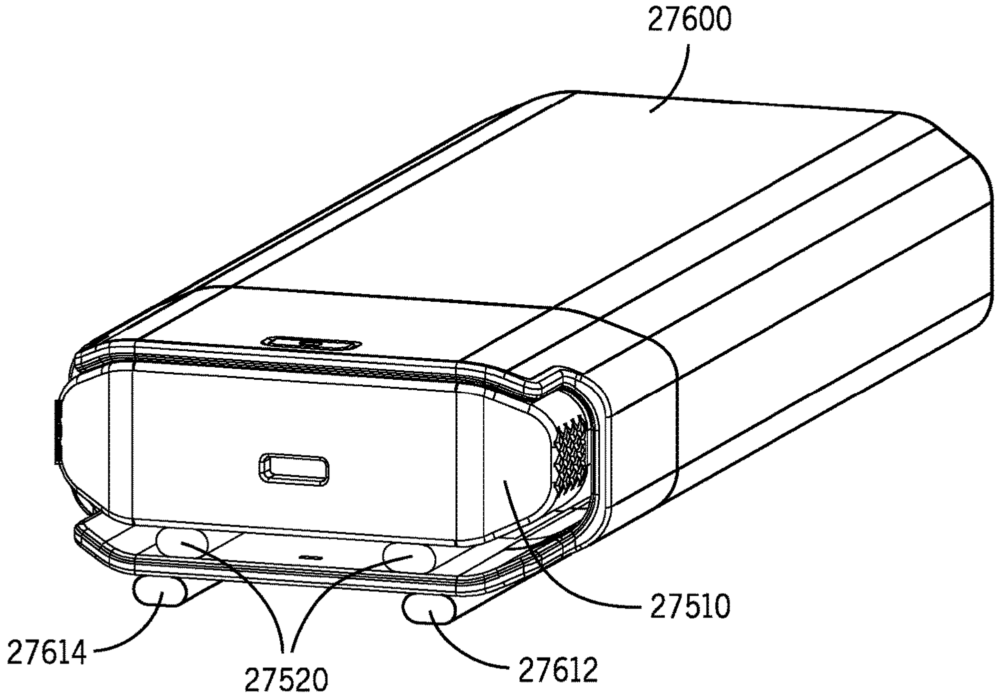


FIG. 276

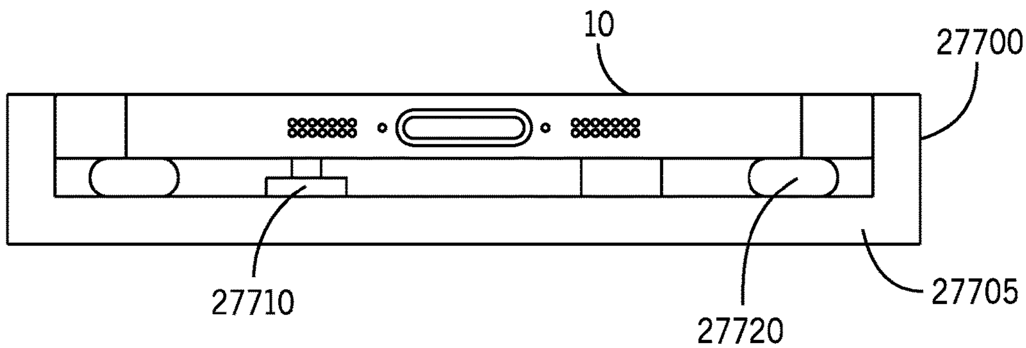


FIG. 277

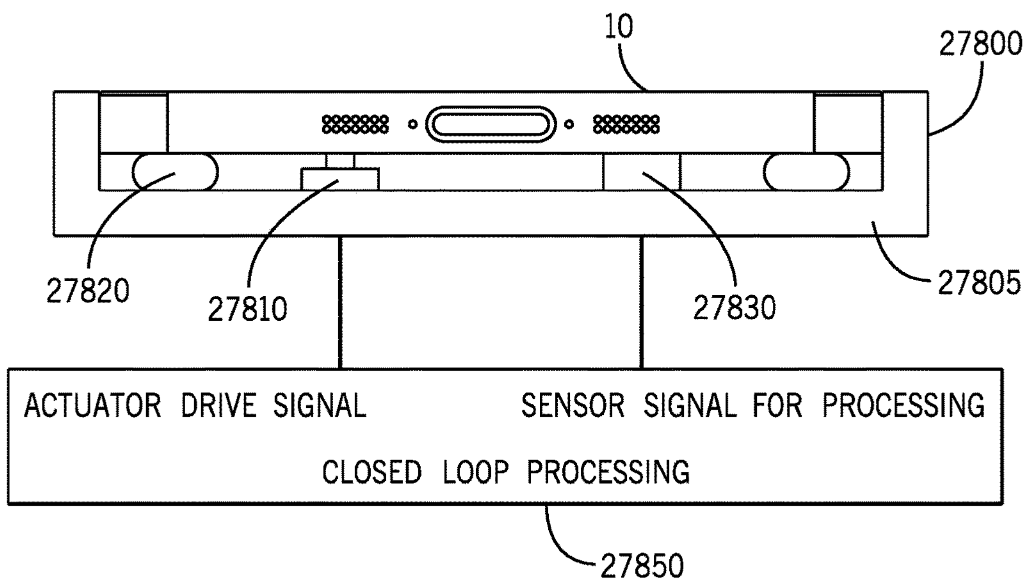

10
27800
27820
27810
27830
27805
ACTUATOR DRIVE SIGNAL
SENSOR SIGNAL FOR PROCESSING
CLOSED LOOP PROCESSING
27850

FIG. 278

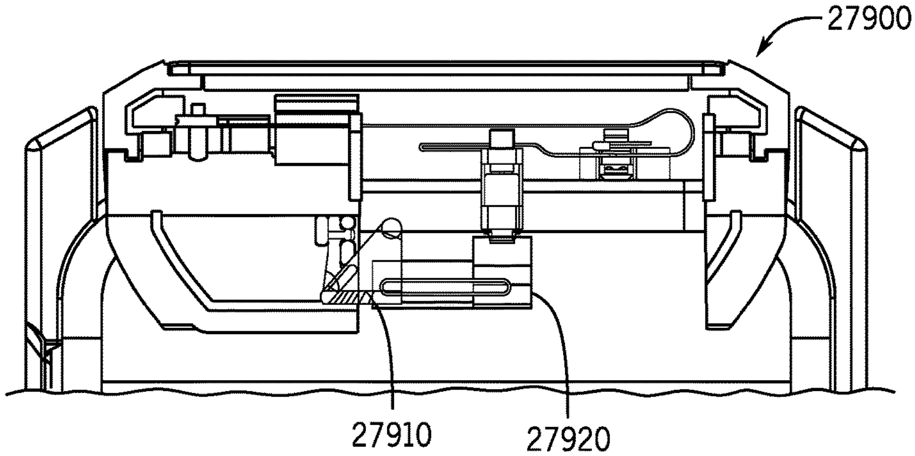


FIG. 279

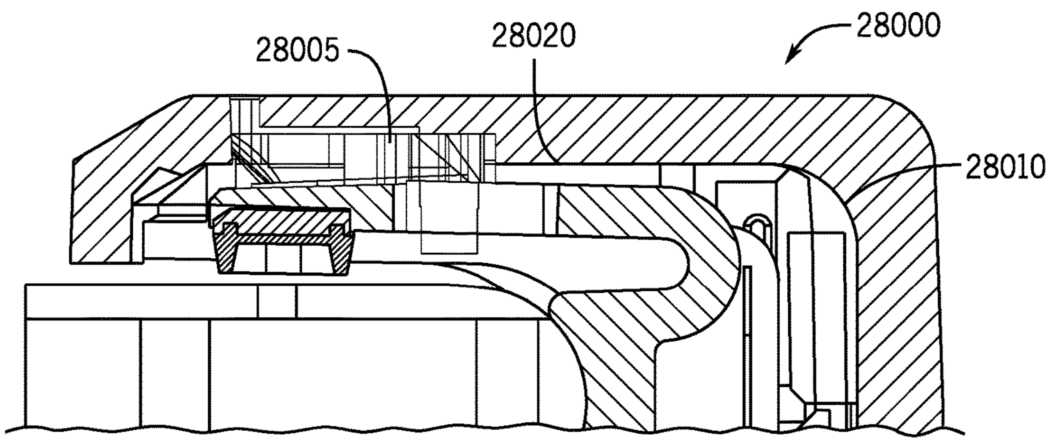


FIG. 280

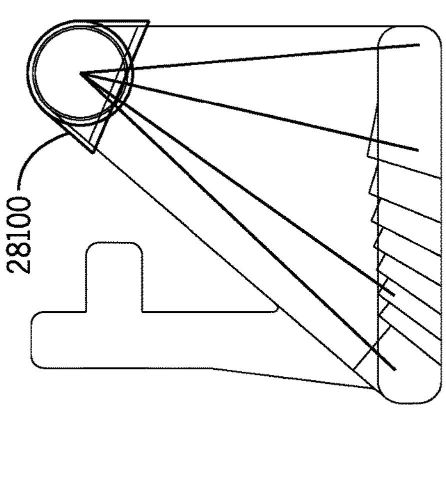


FIG. 281

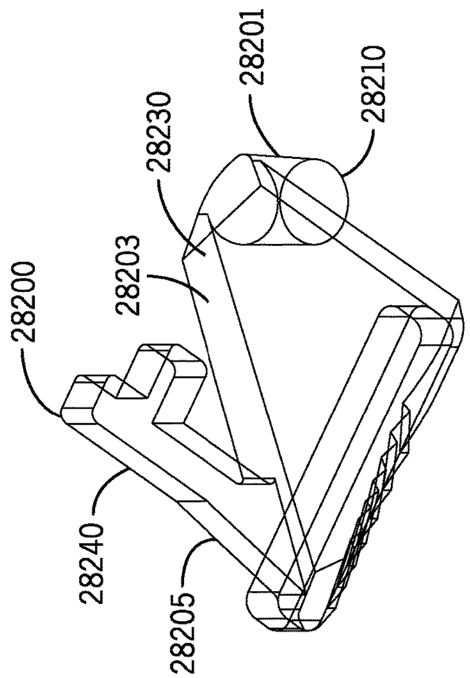


FIG. 282

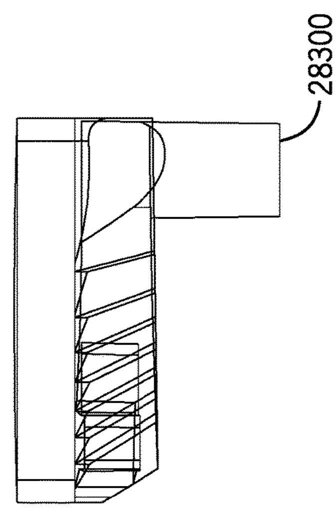


FIG. 283

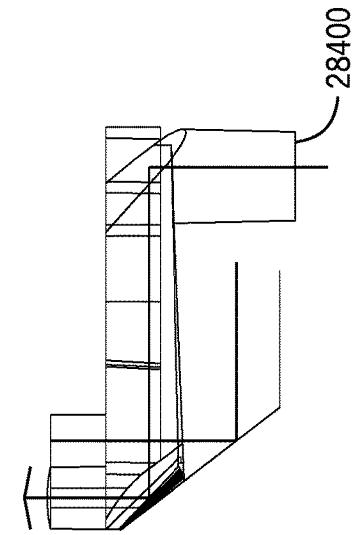


FIG. 284

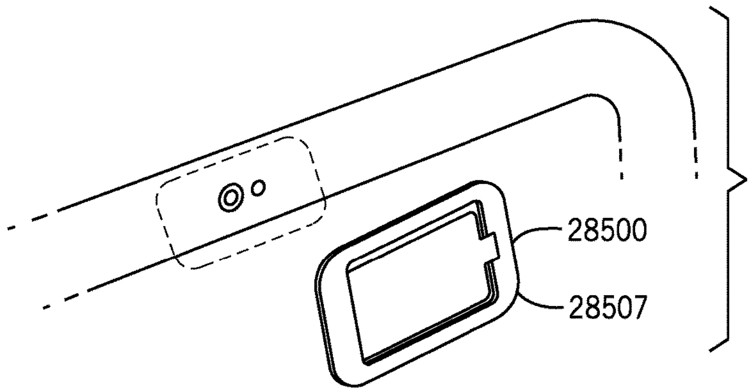


FIG. 285A

FIG. 285B

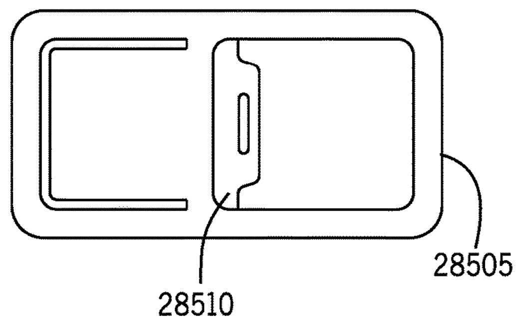
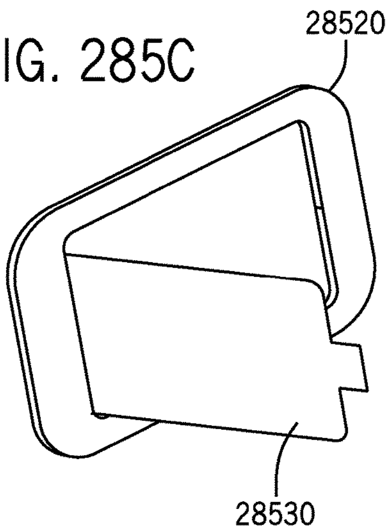


FIG. 285C



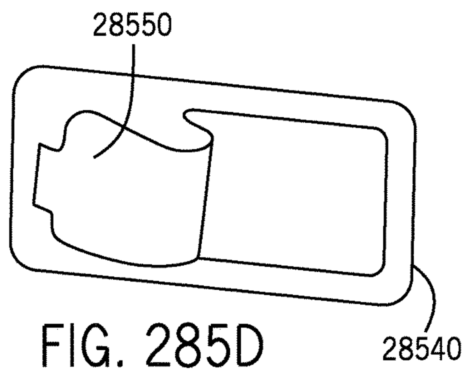


FIG. 285D

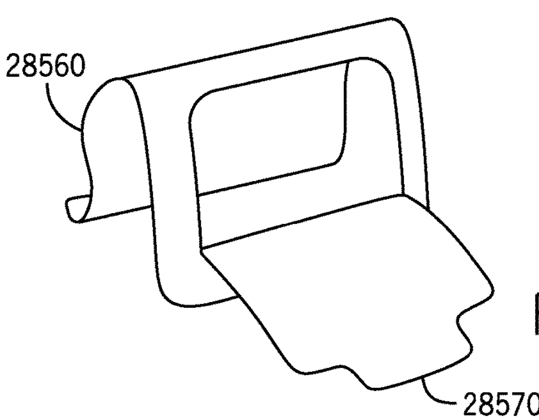


FIG. 285E

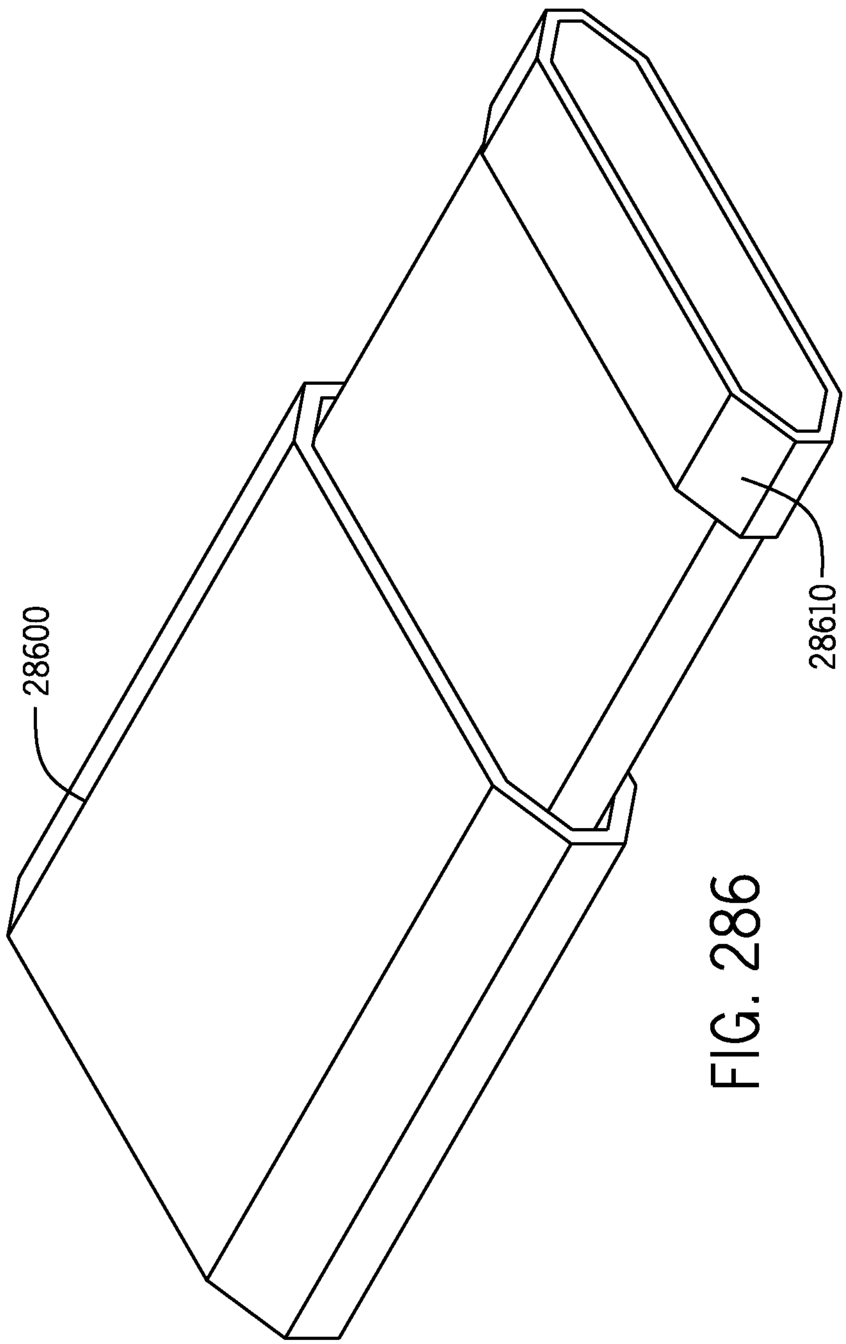


FIG. 286

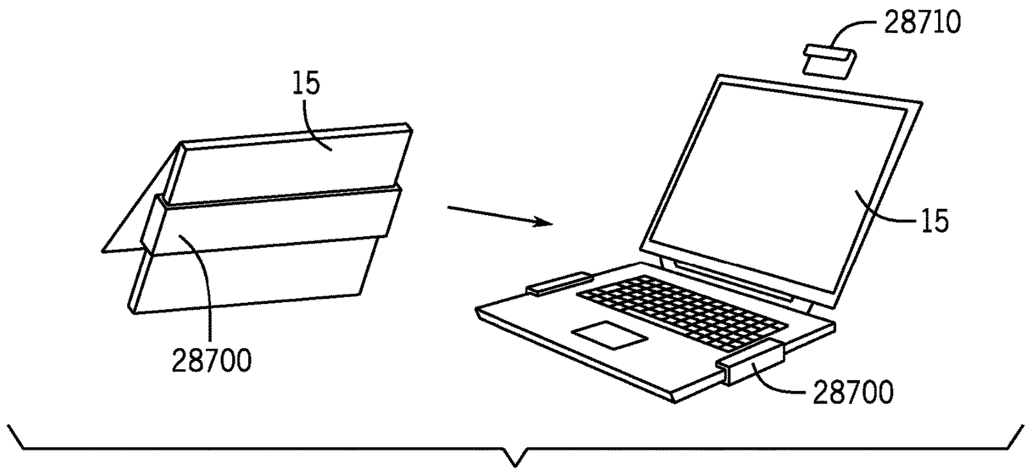


FIG. 287A

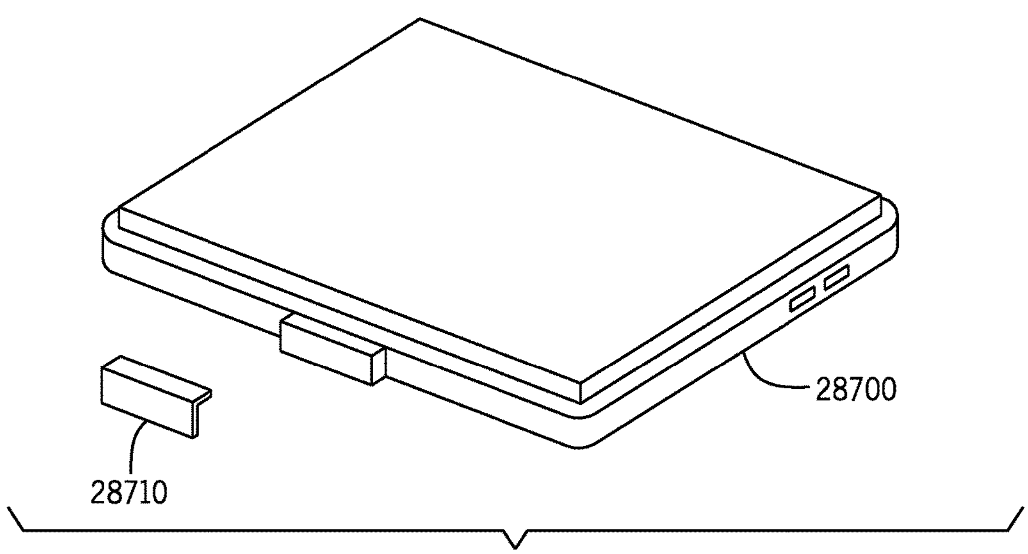
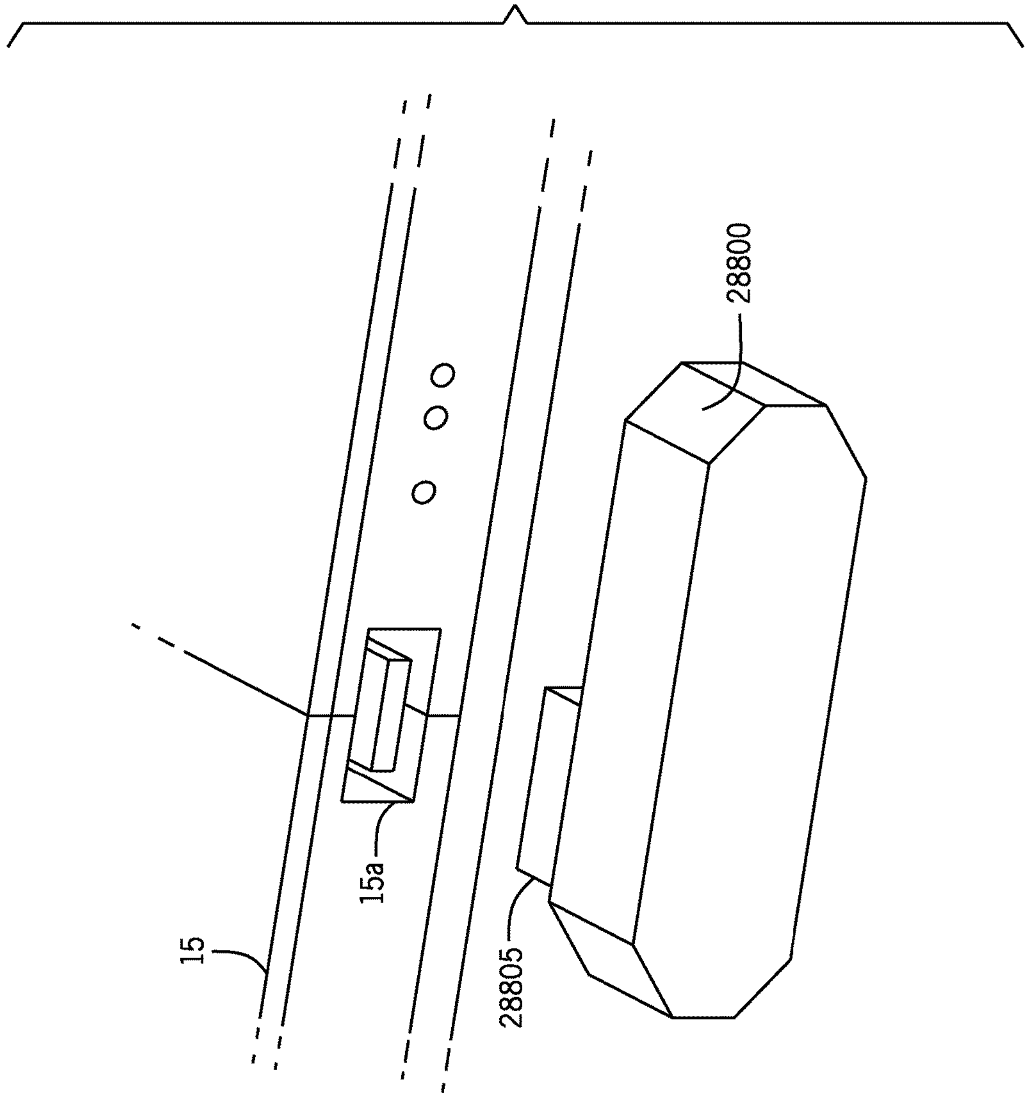


FIG. 287B

FIG. 288



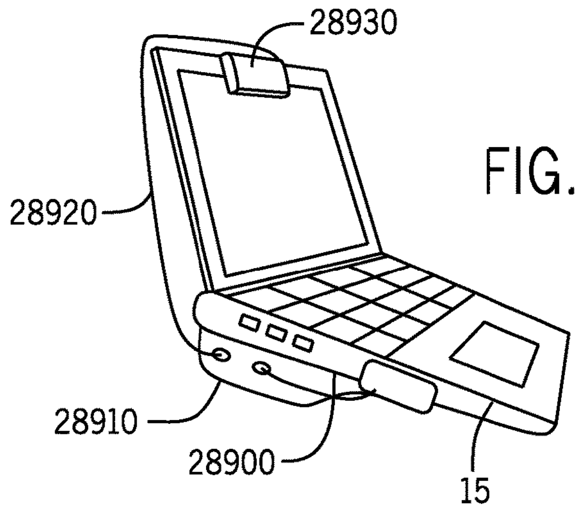


FIG. 289A

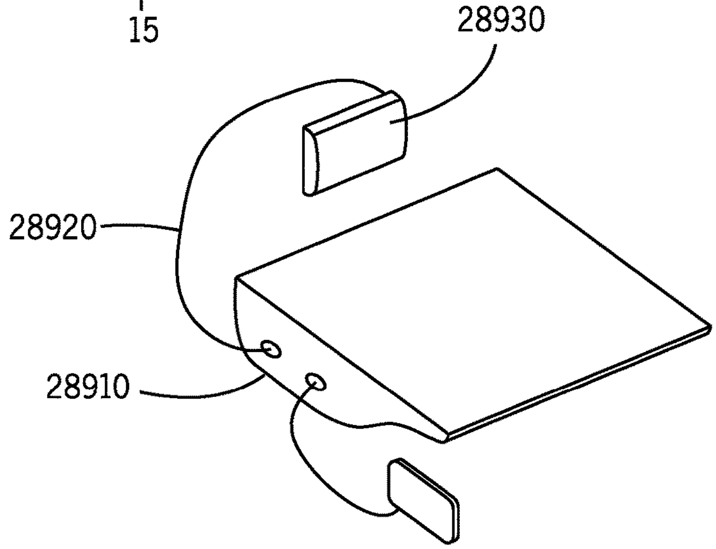


FIG. 289B

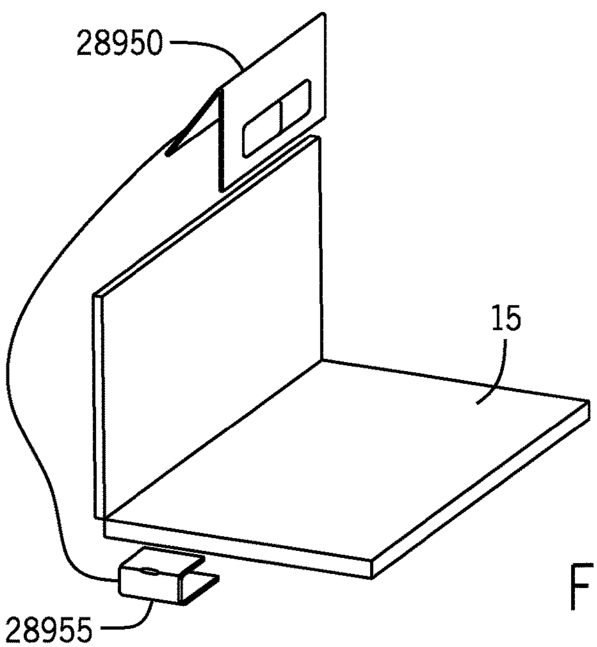
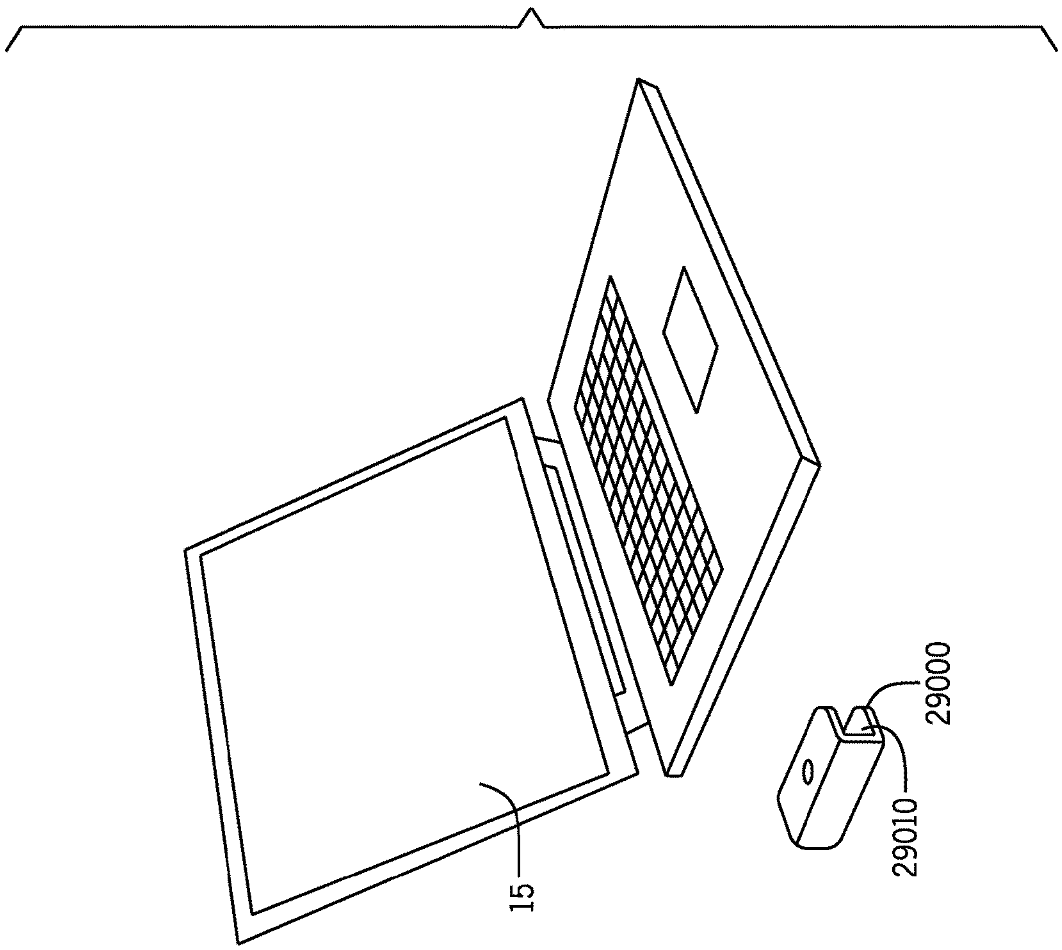


FIG. 289C

FIG. 290



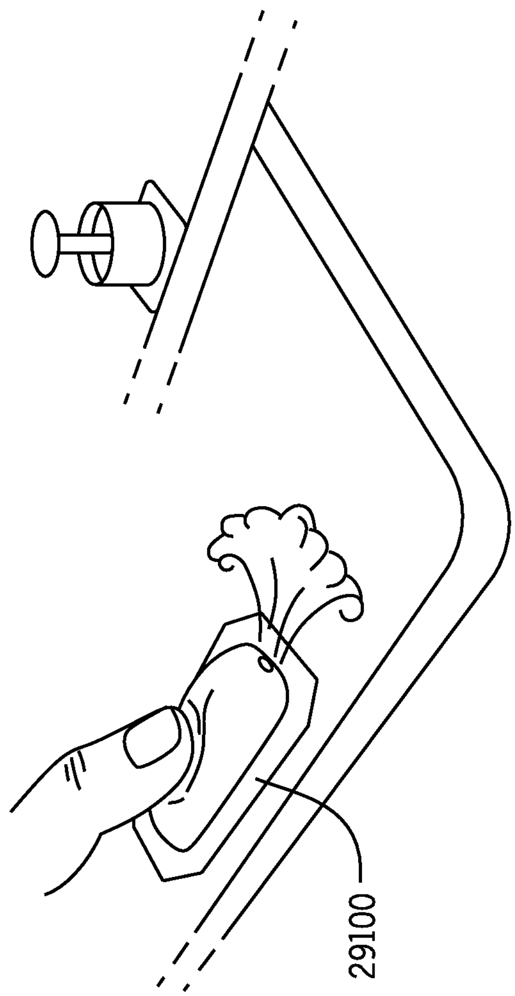


FIG. 291

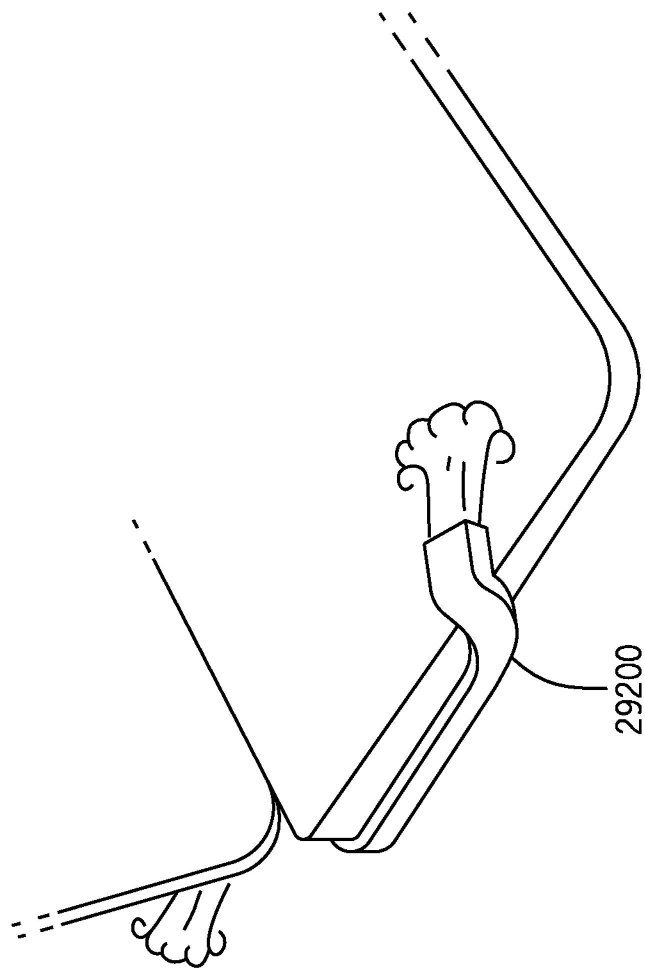


FIG. 292

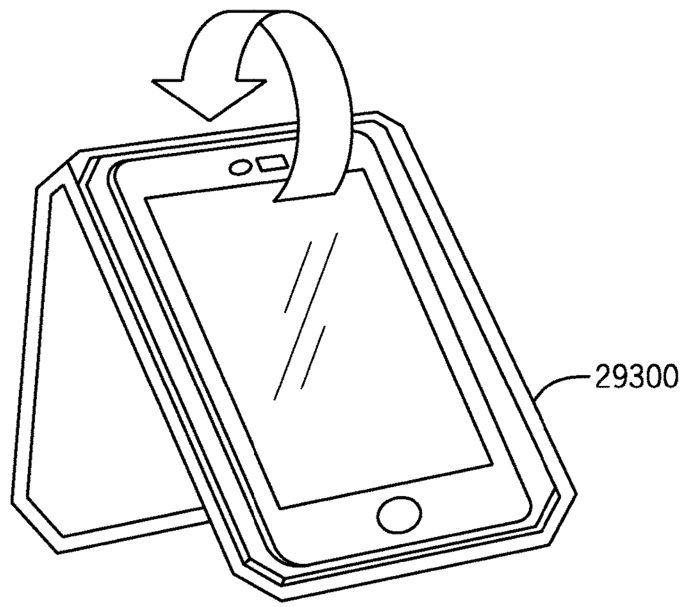


FIG. 293A

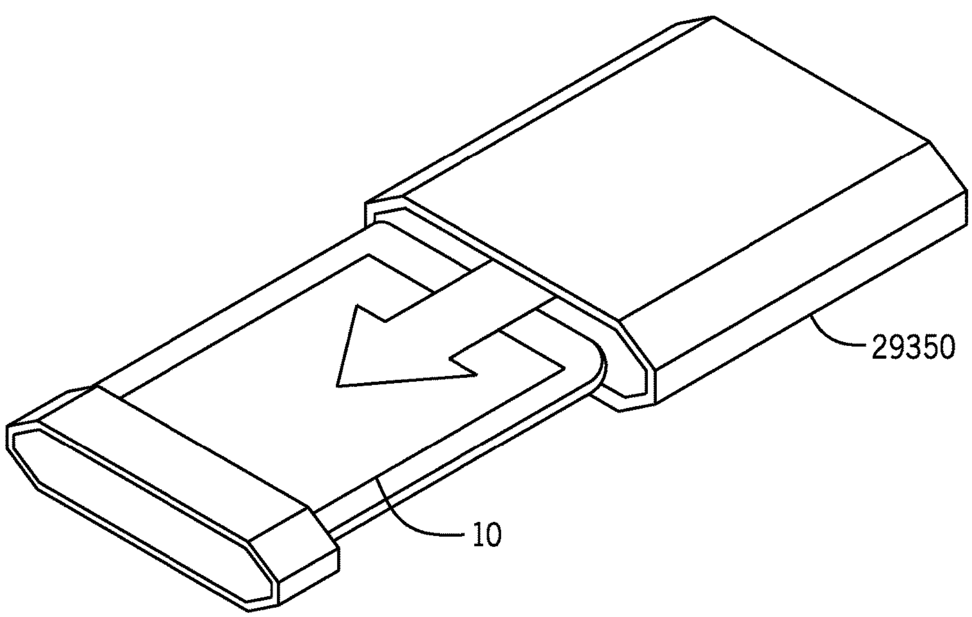


FIG. 293B

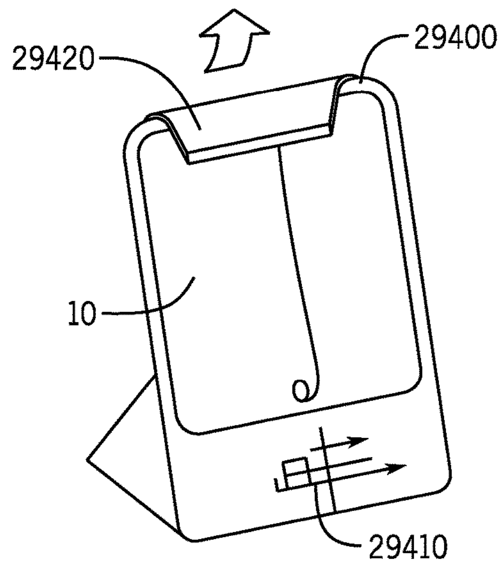


FIG. 294A

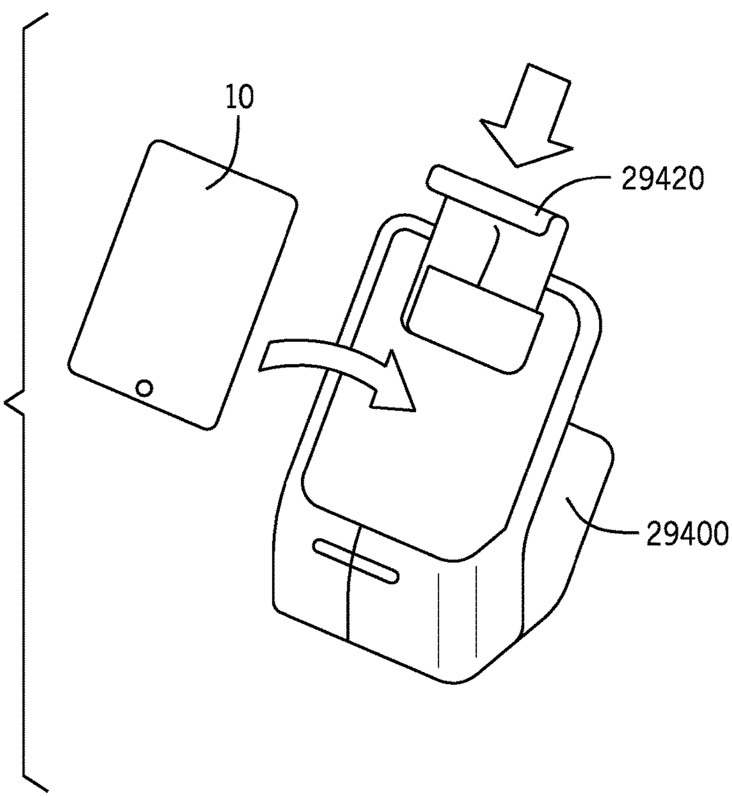


FIG. 294B

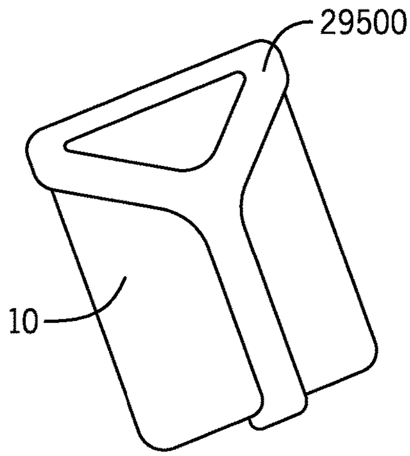


FIG. 295B

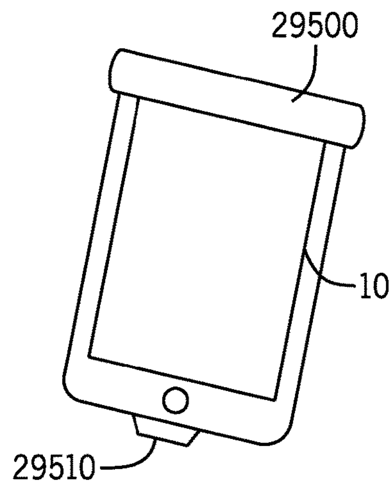


FIG. 295A

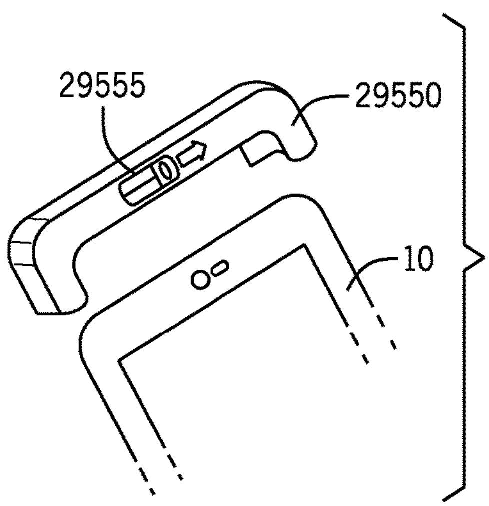


FIG. 295C

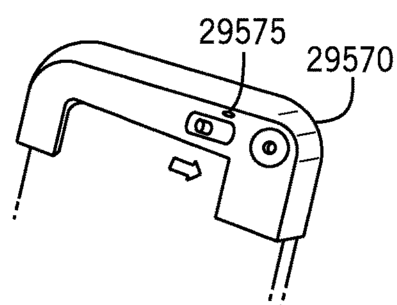


FIG. 295D

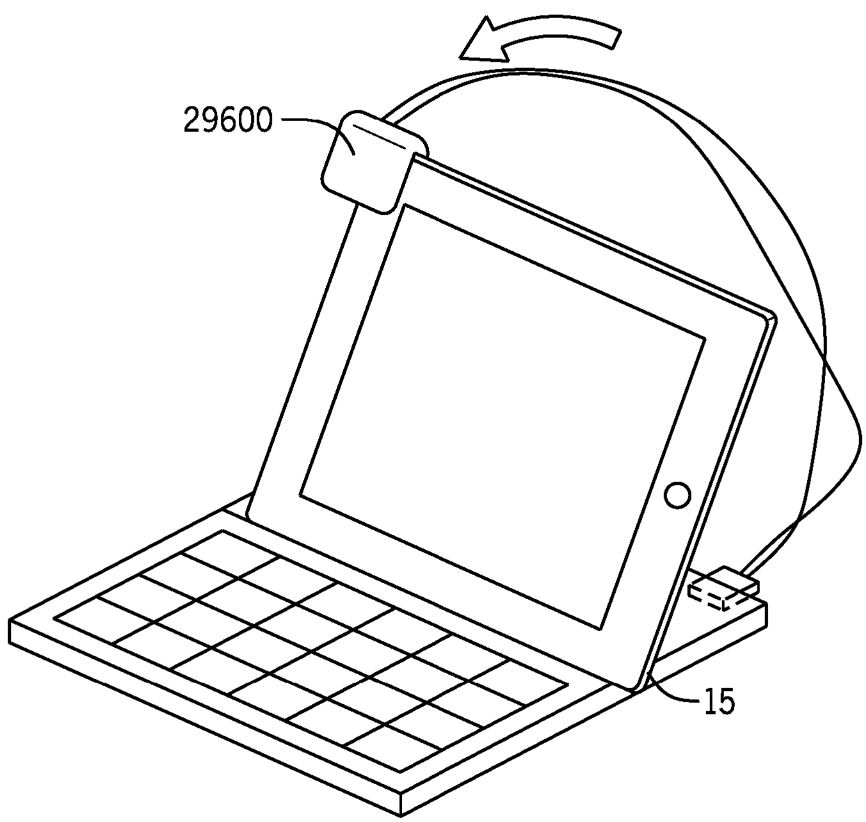
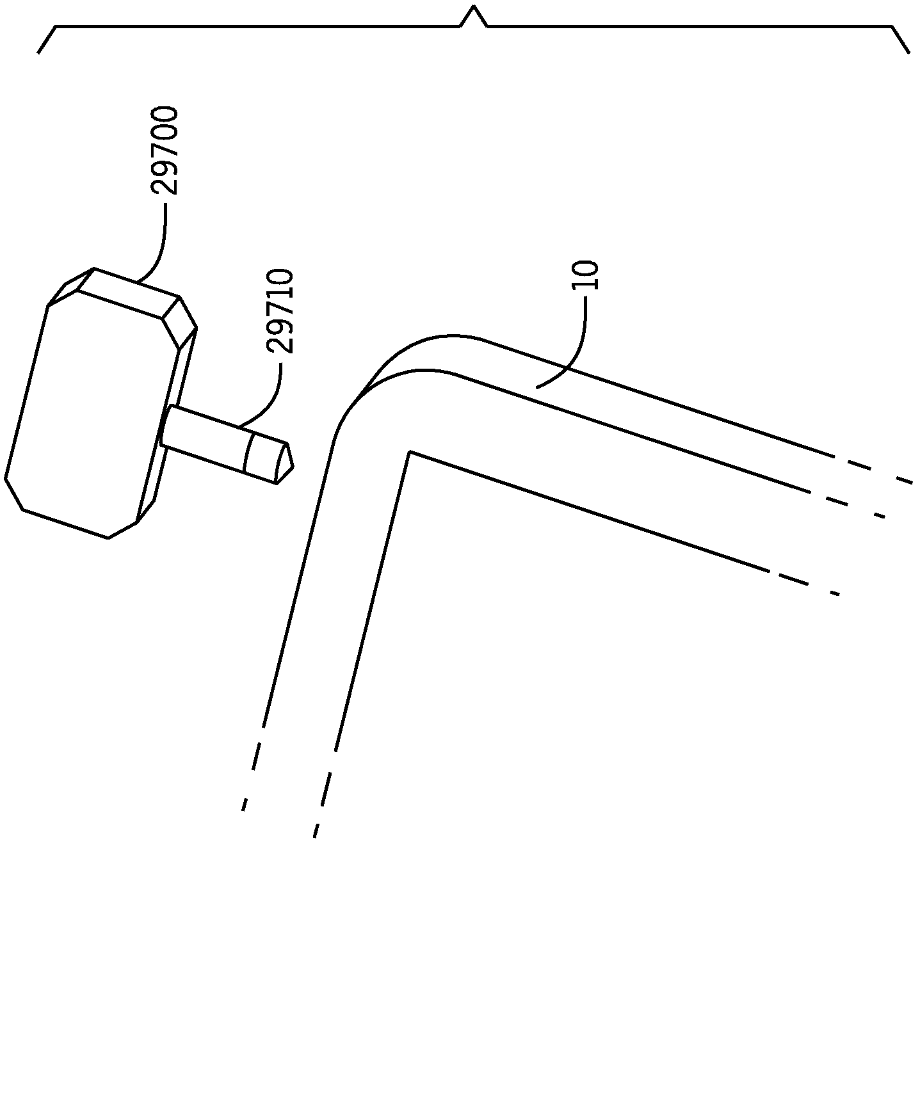


FIG. 296

FIG. 297



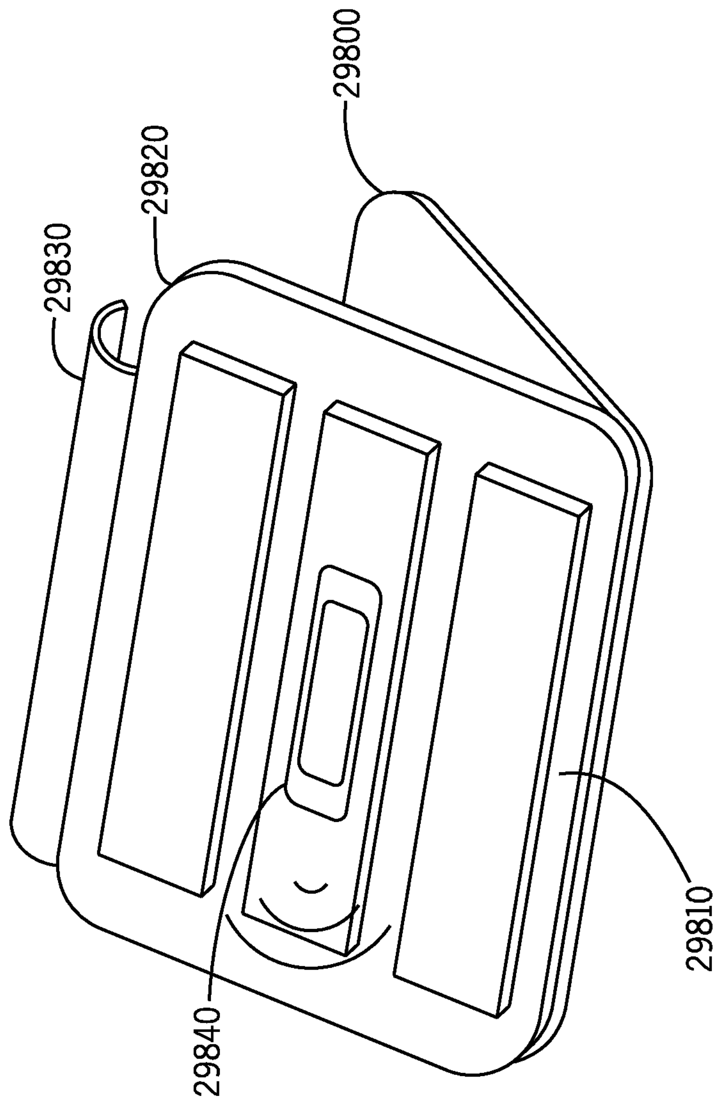


FIG. 298

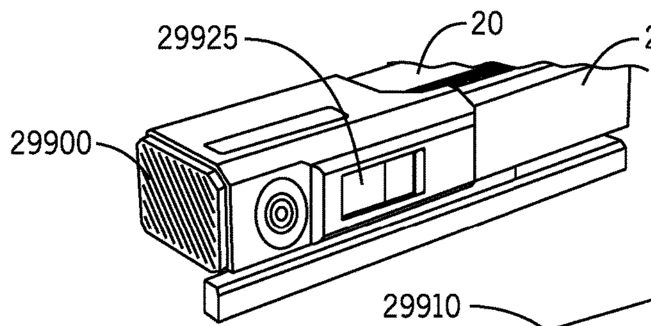


FIG. 299D

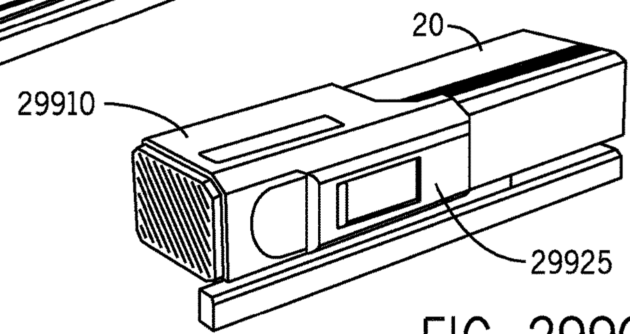


FIG. 299C

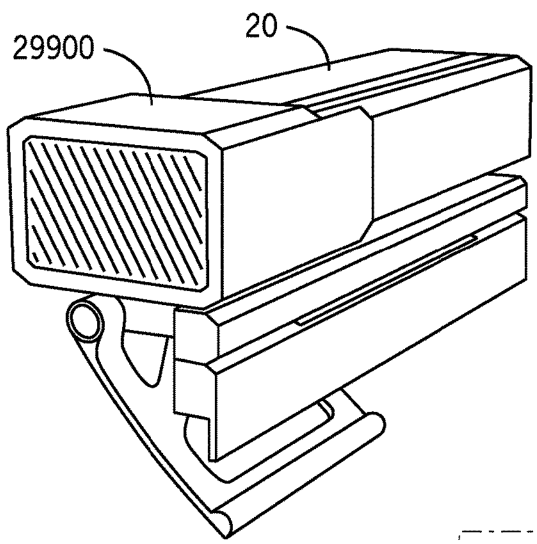


FIG. 299B

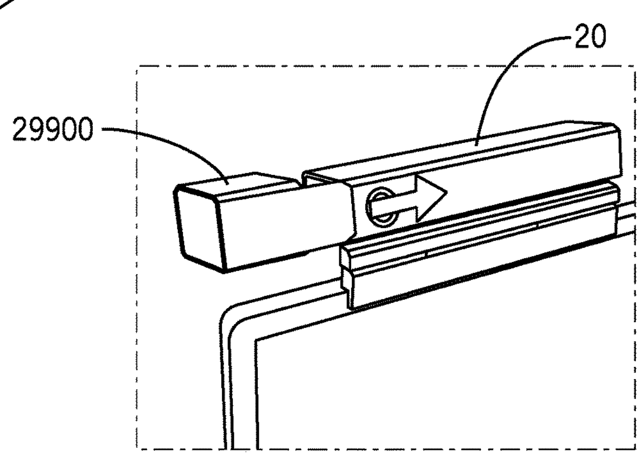


FIG. 299A

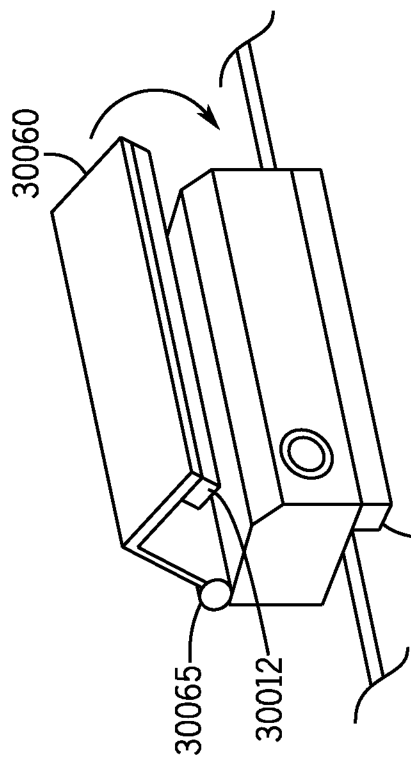


FIG. 300B

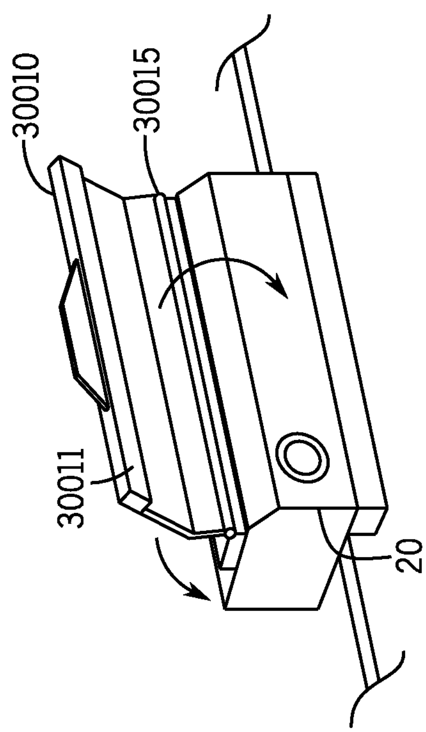


FIG. 300A

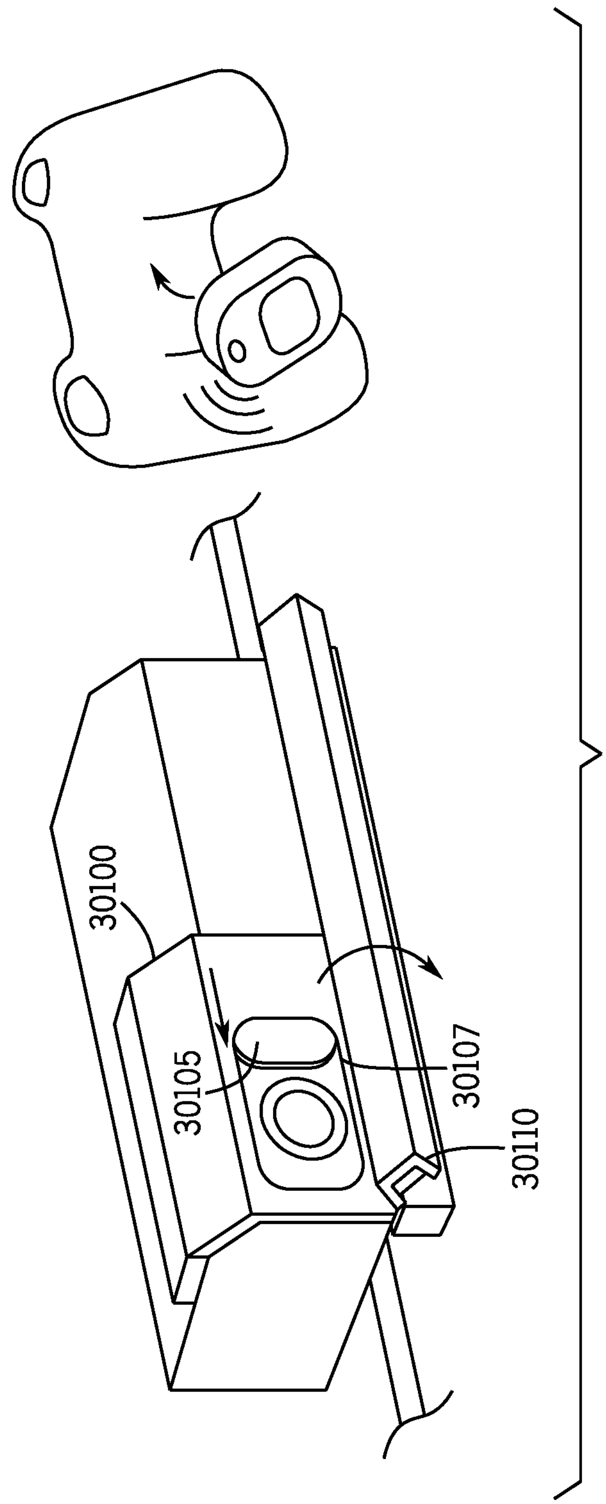


FIG. 301

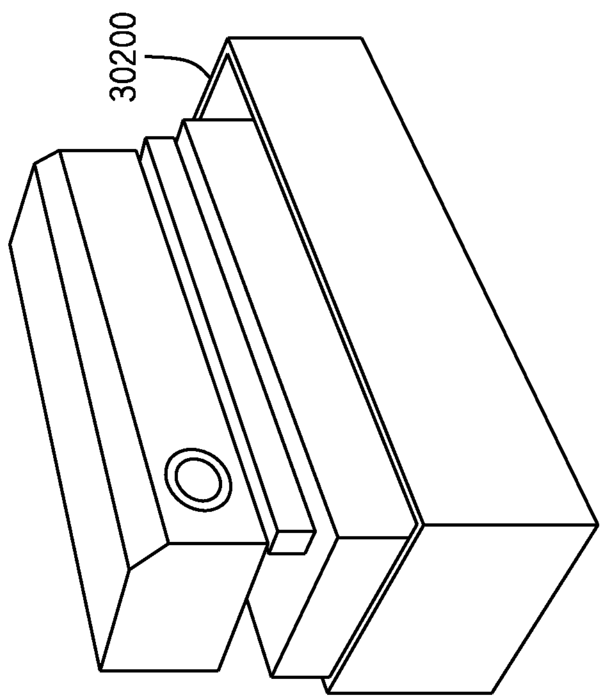


FIG. 302A

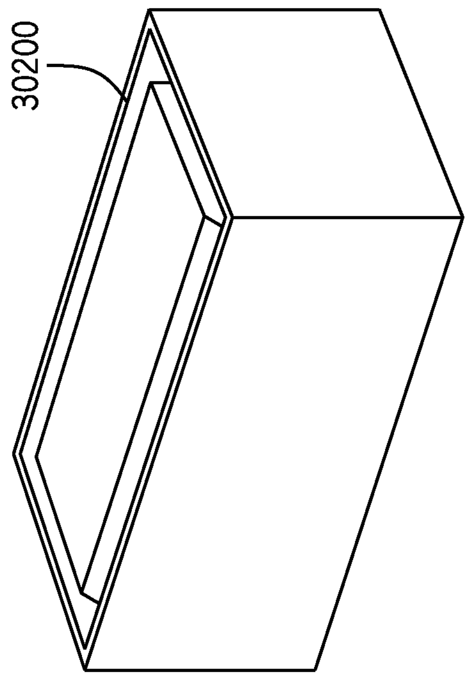


FIG. 302B

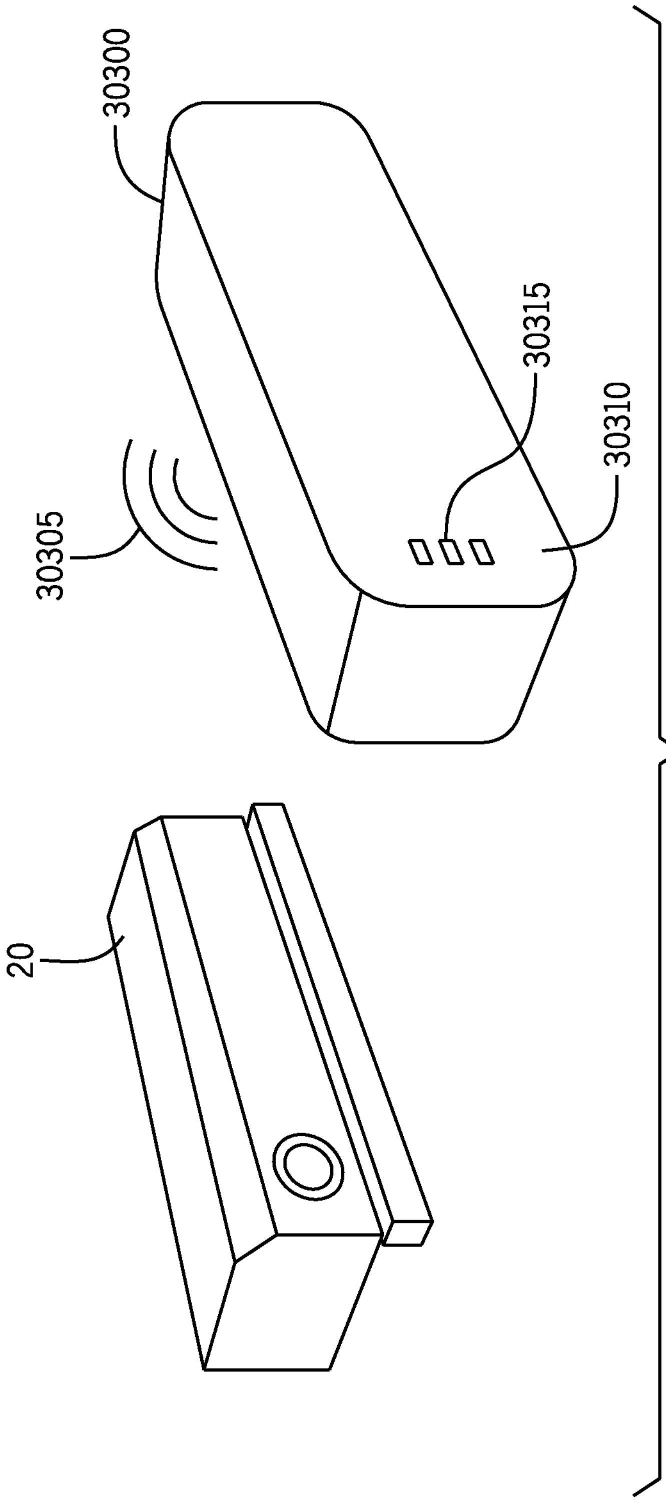


FIG. 303

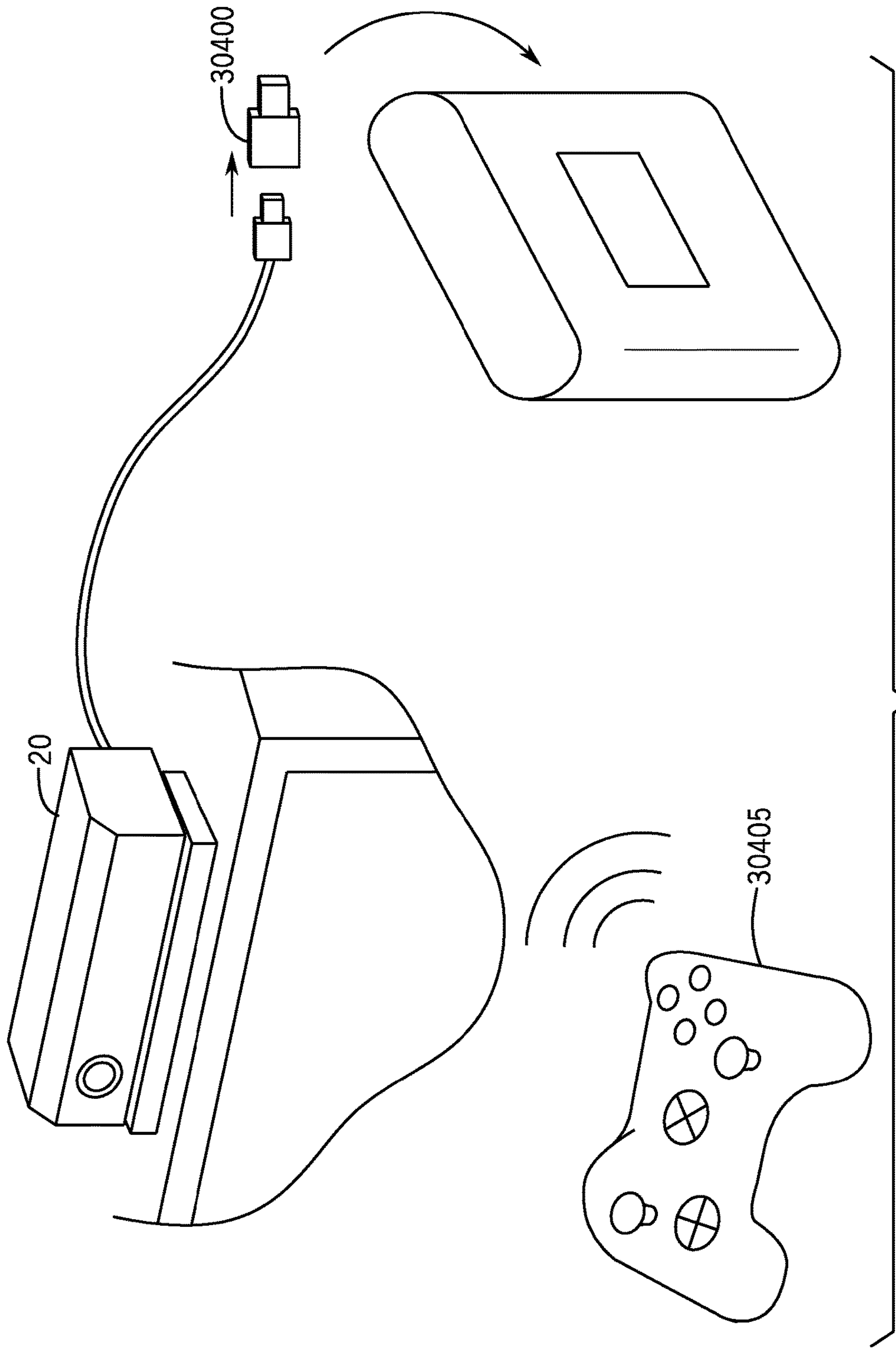


FIG. 304

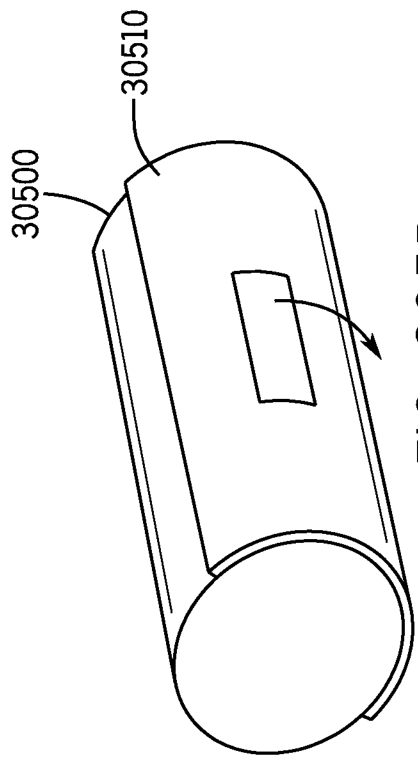


FIG. 305B

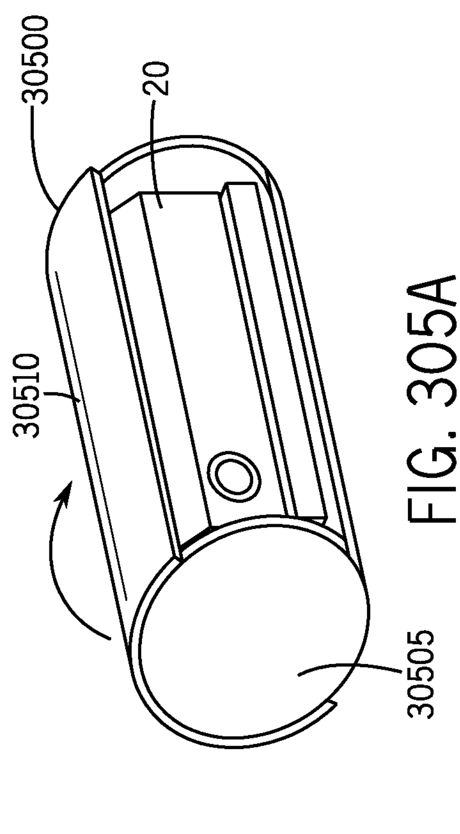


FIG. 305A

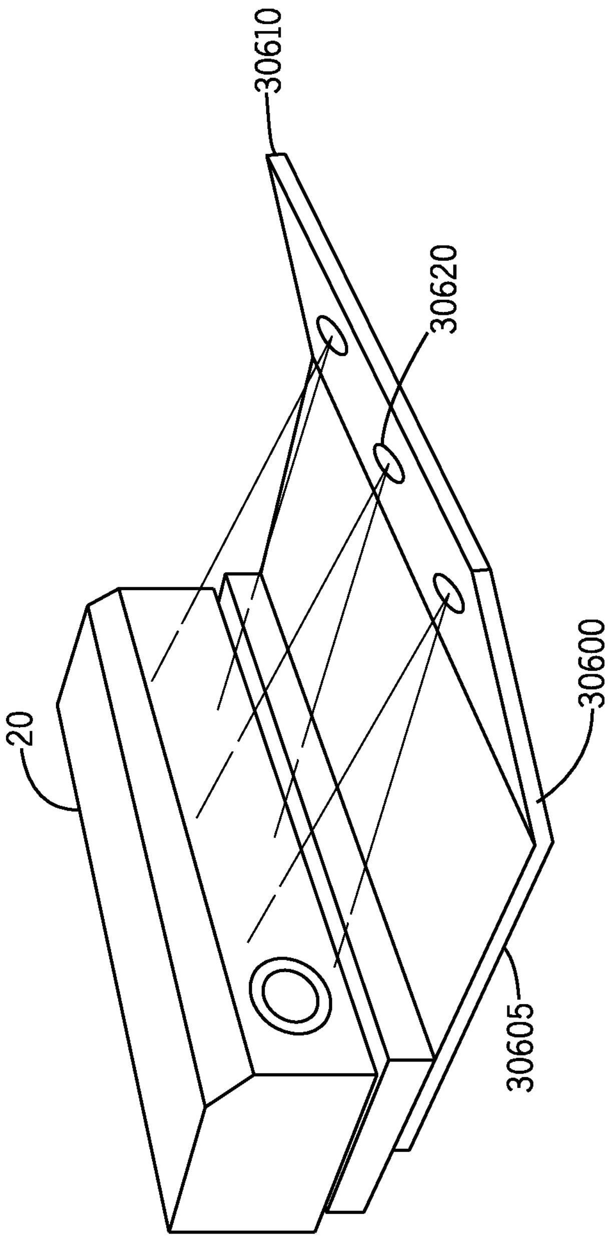
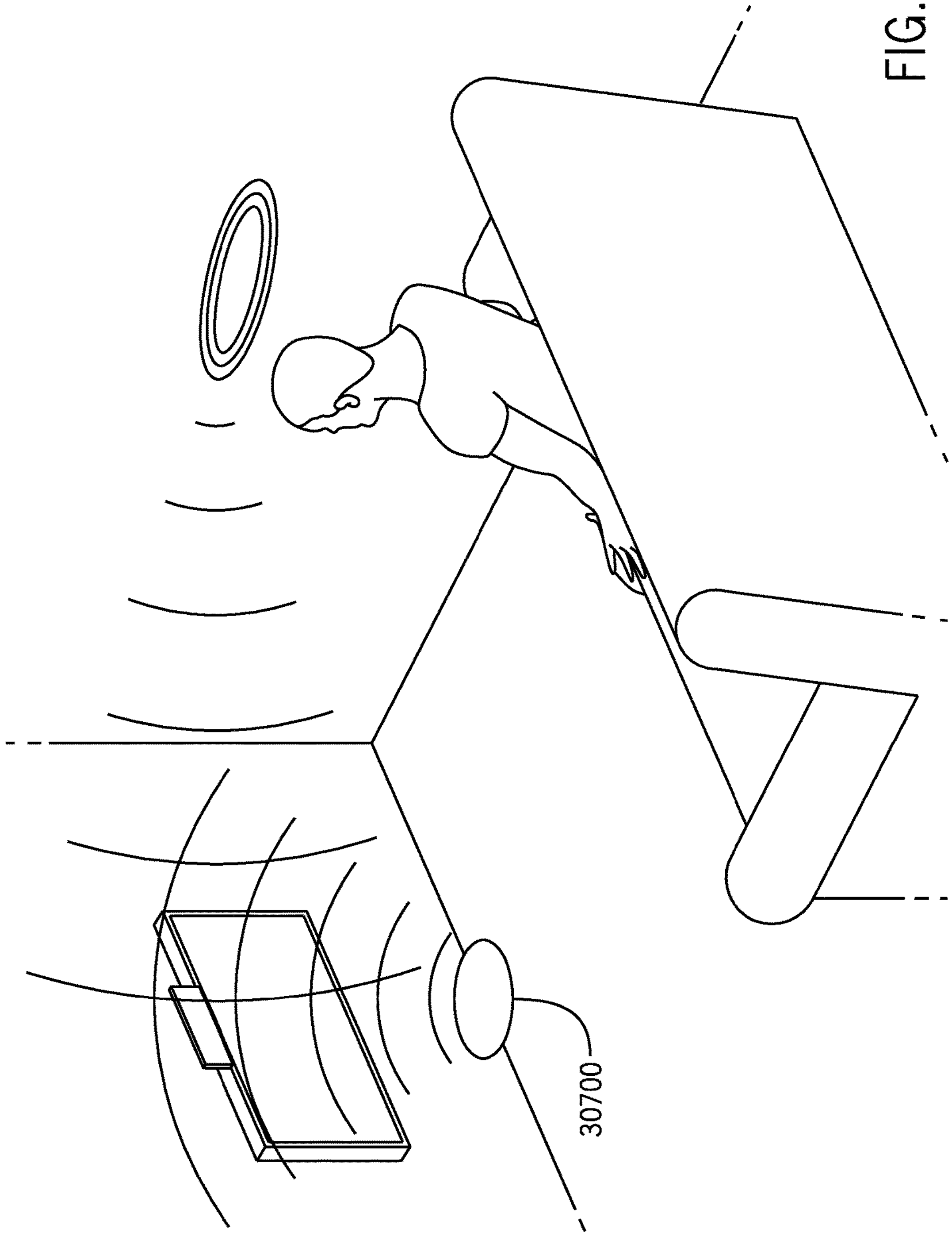


FIG. 306

FIG. 307



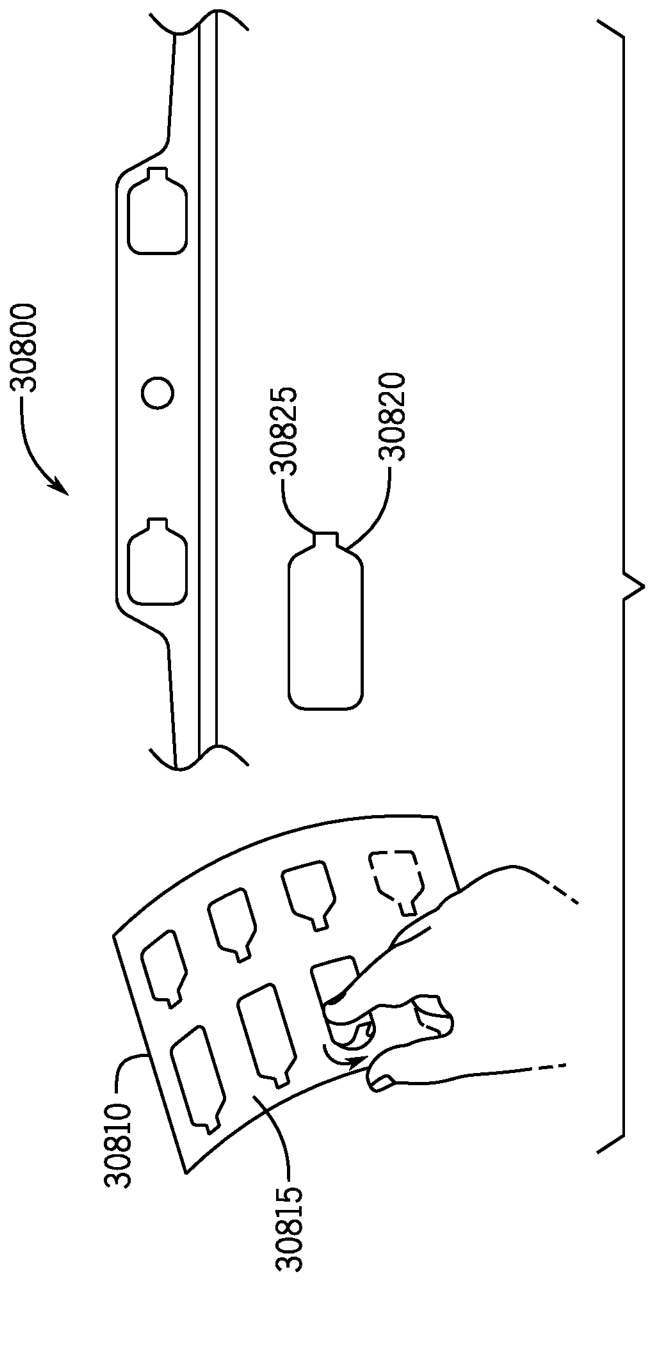


FIG. 308

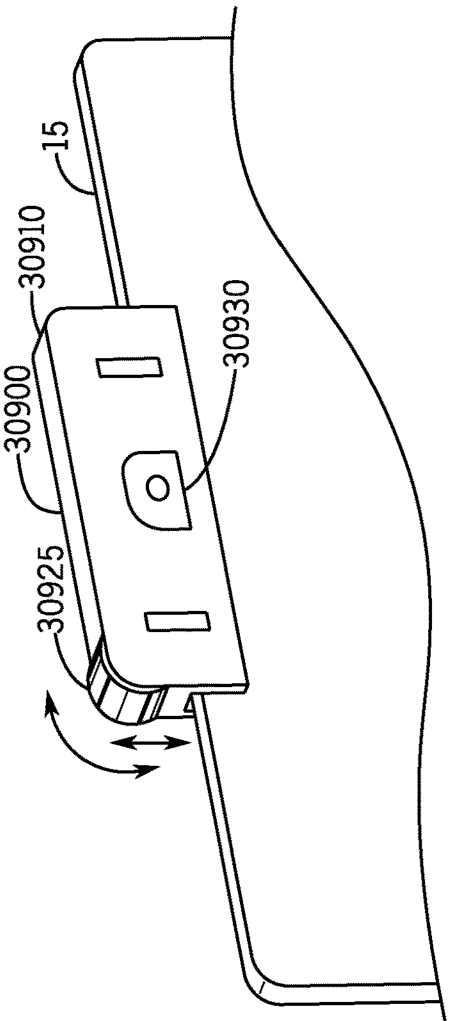


FIG. 309B

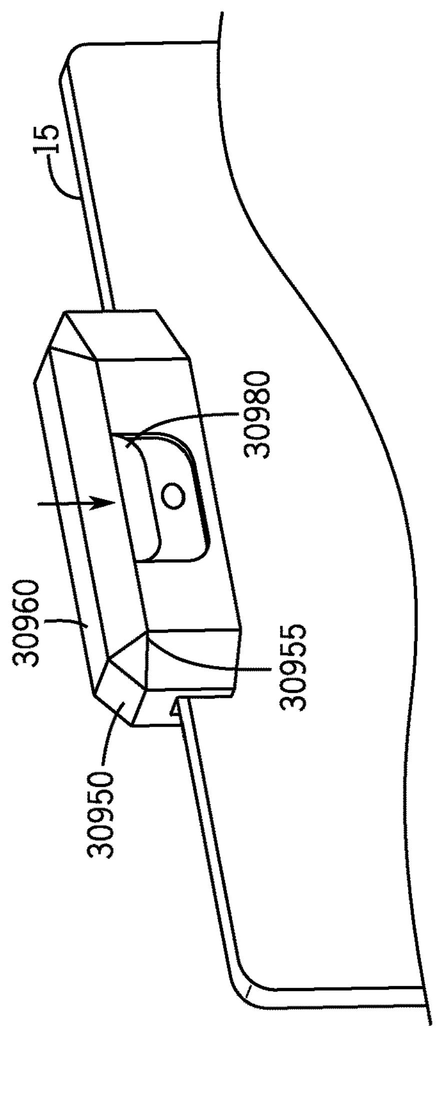


FIG. 309A

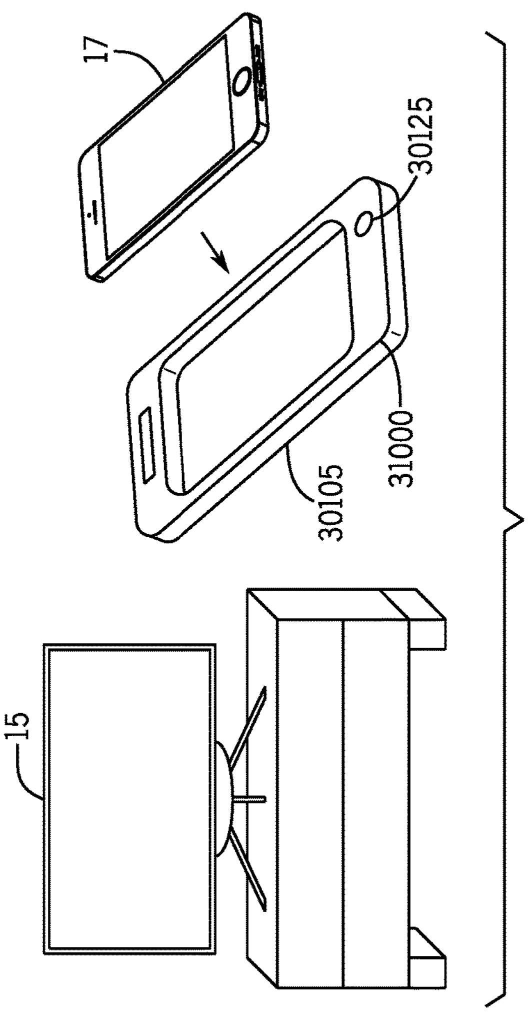


FIG. 310A

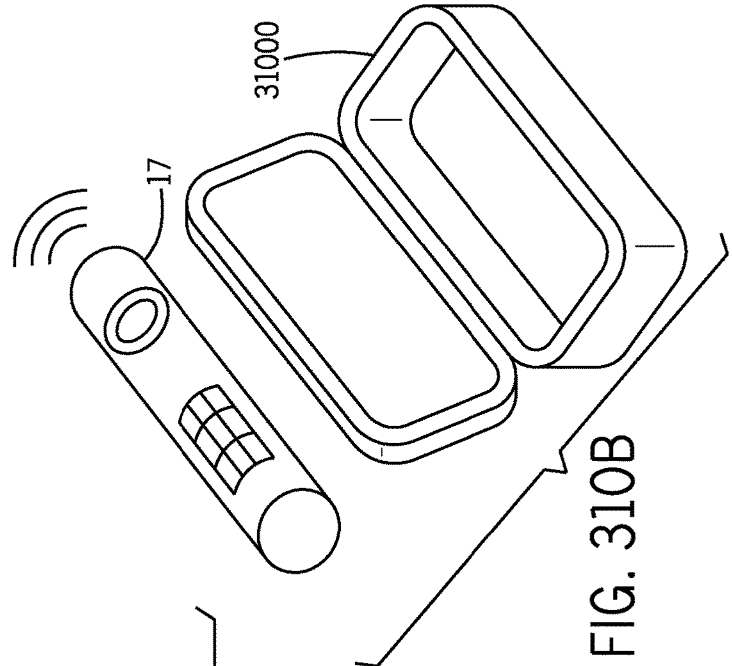


FIG. 310B

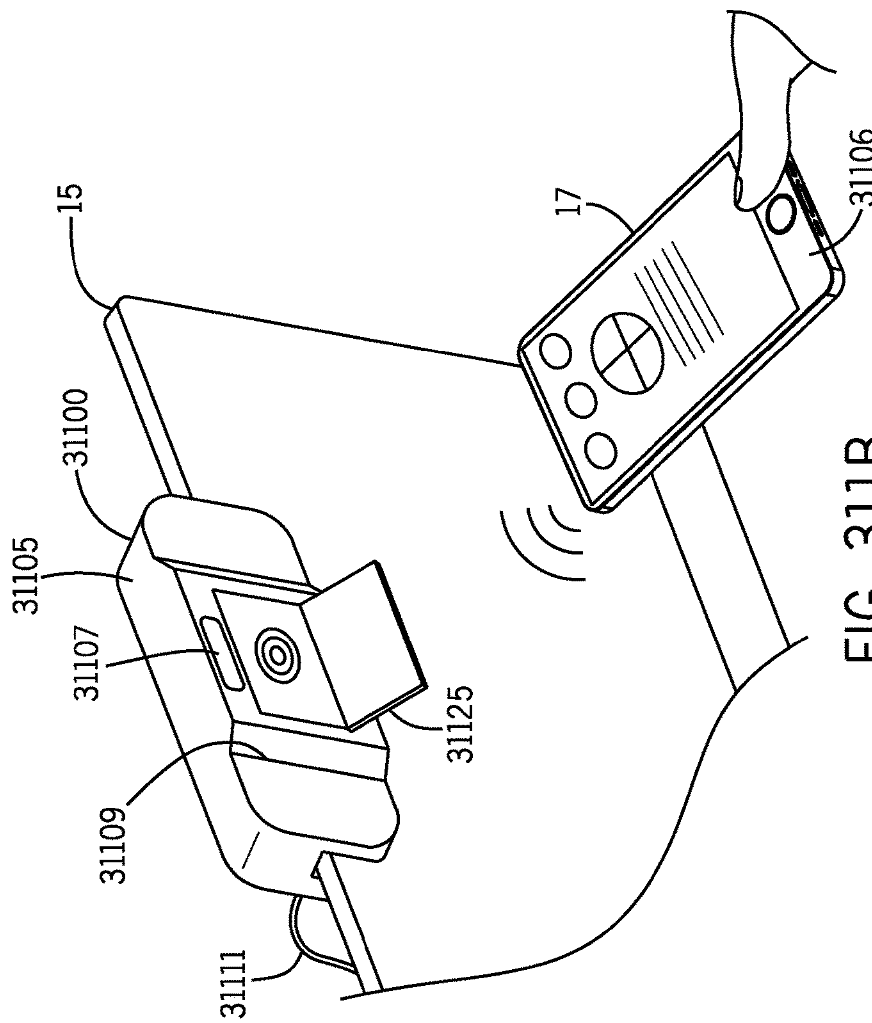


FIG. 311B

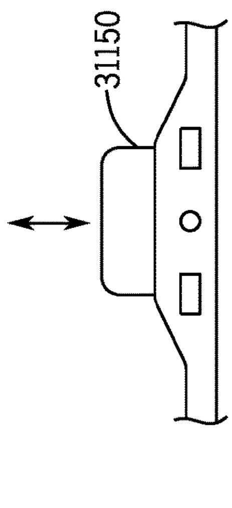


FIG. 311A

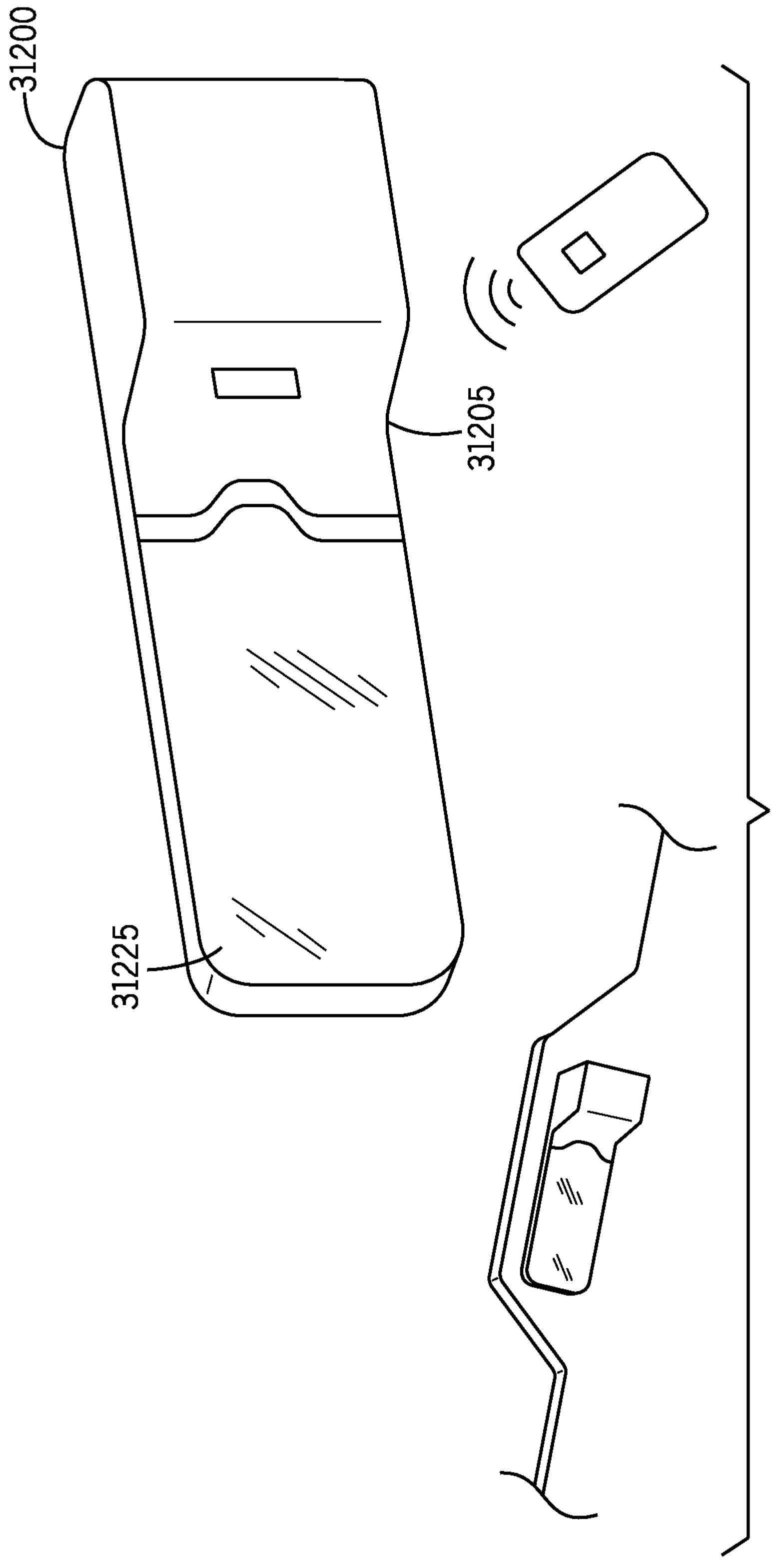


FIG. 312

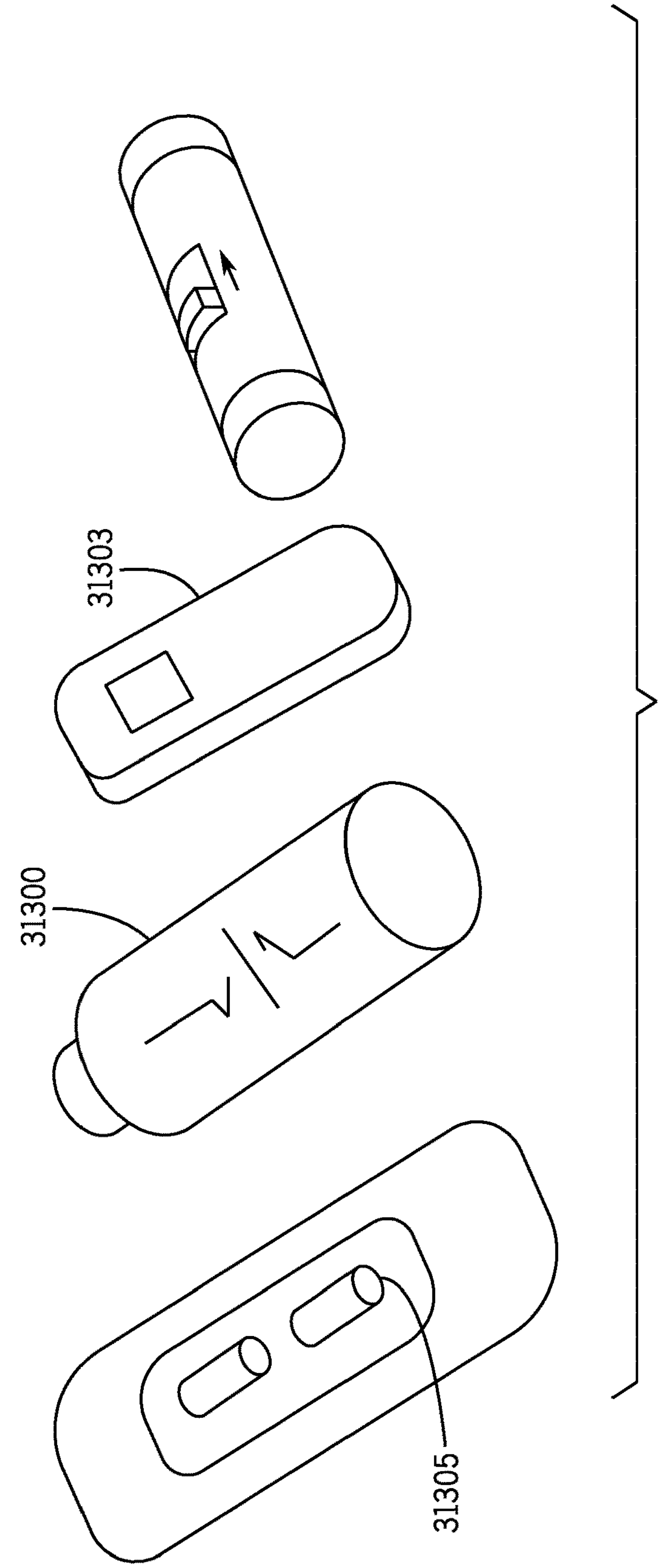


FIG. 313

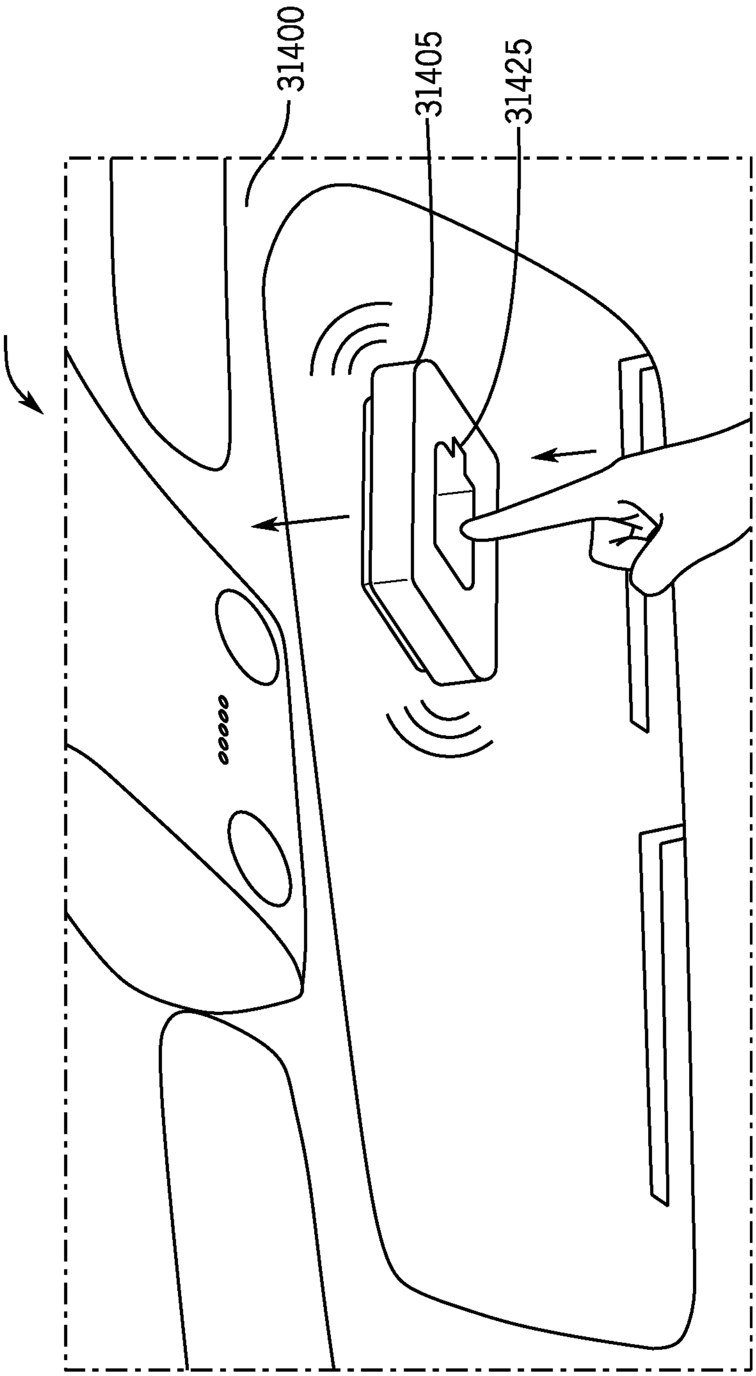


FIG. 314

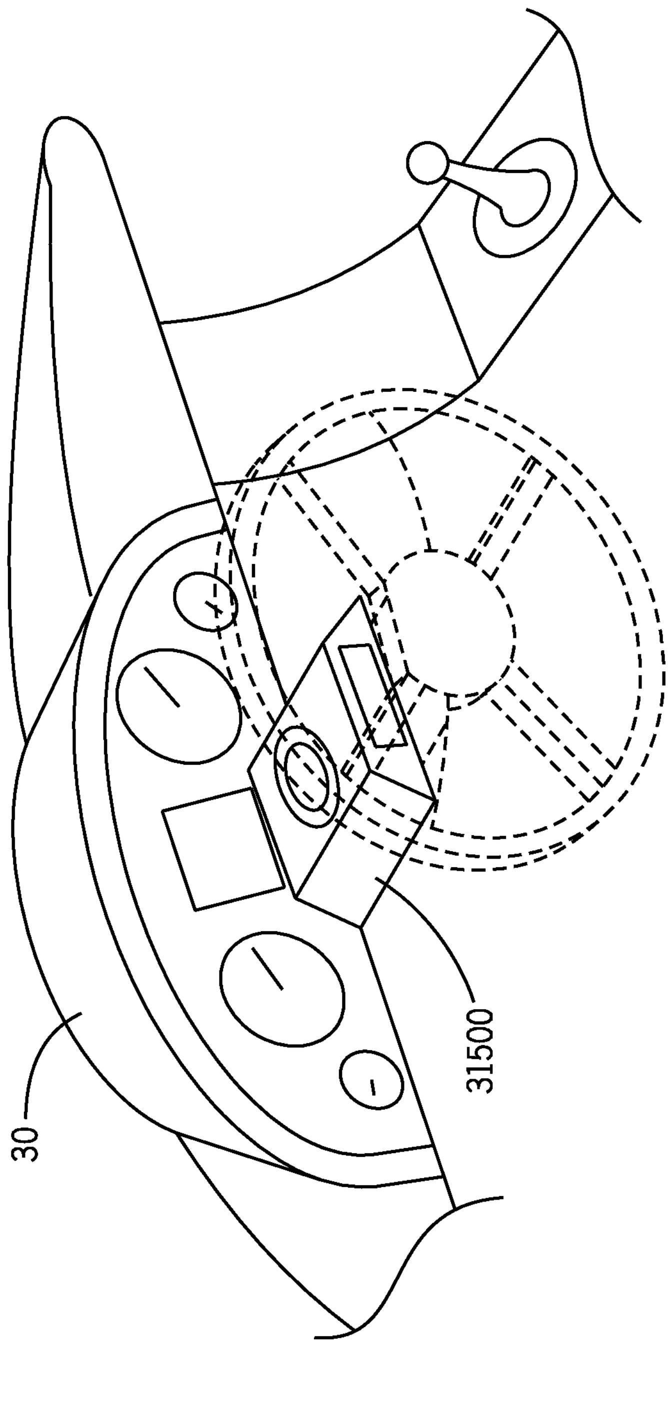


FIG. 315

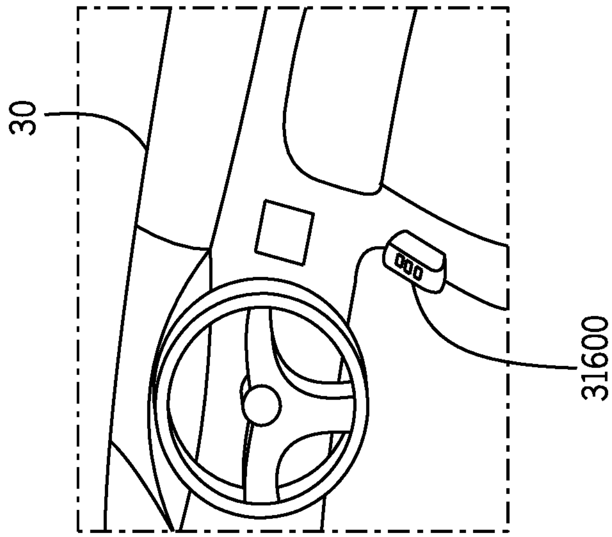


FIG. 316B

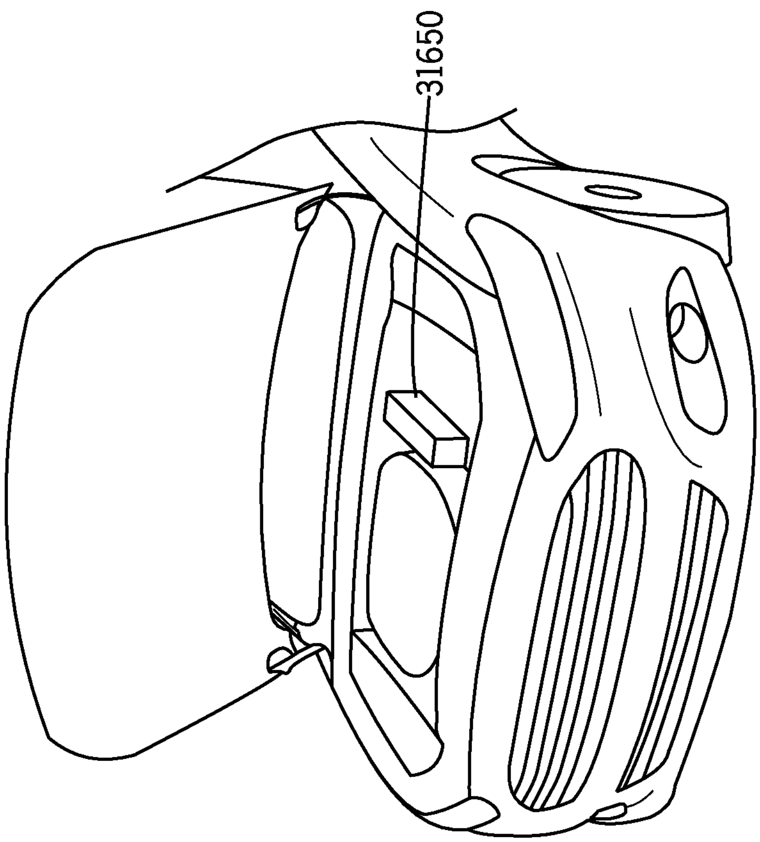


FIG. 316A

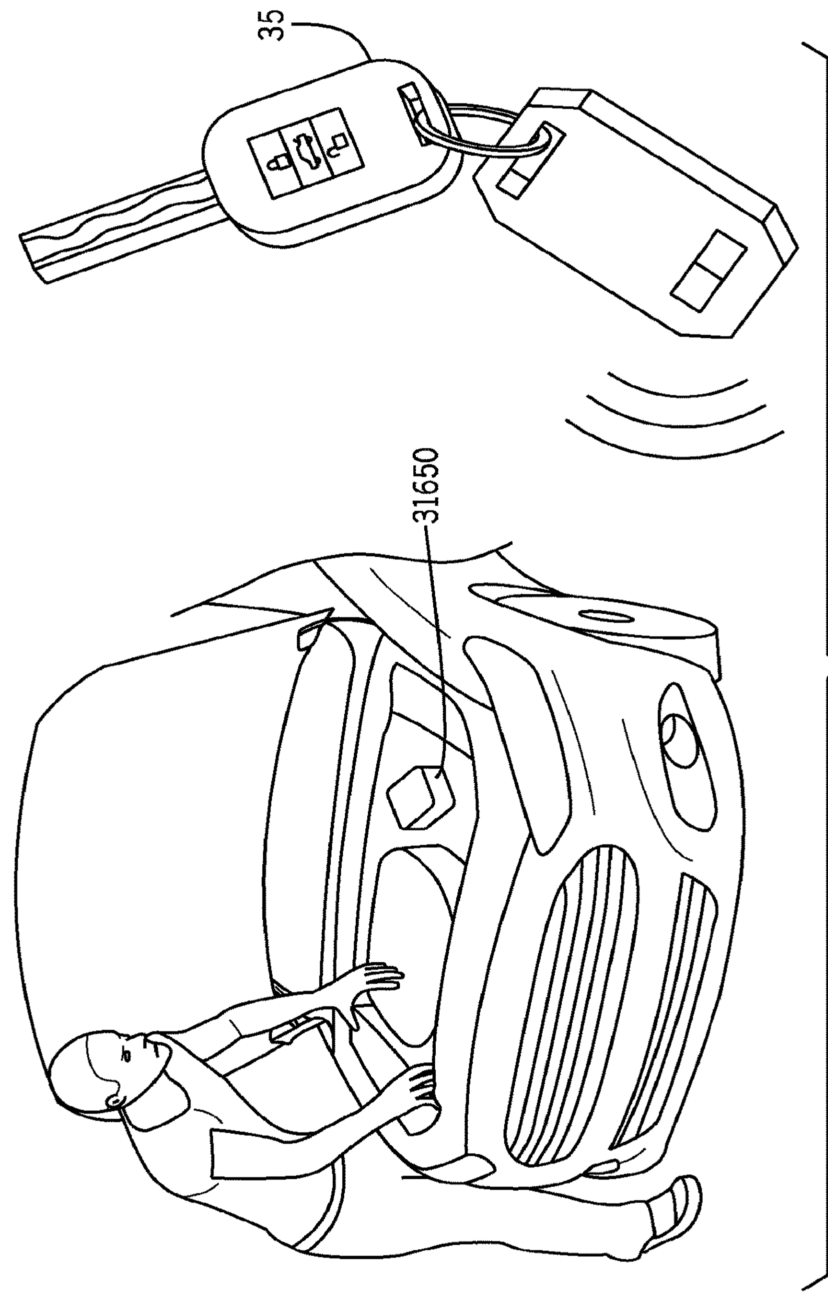


FIG. 317A

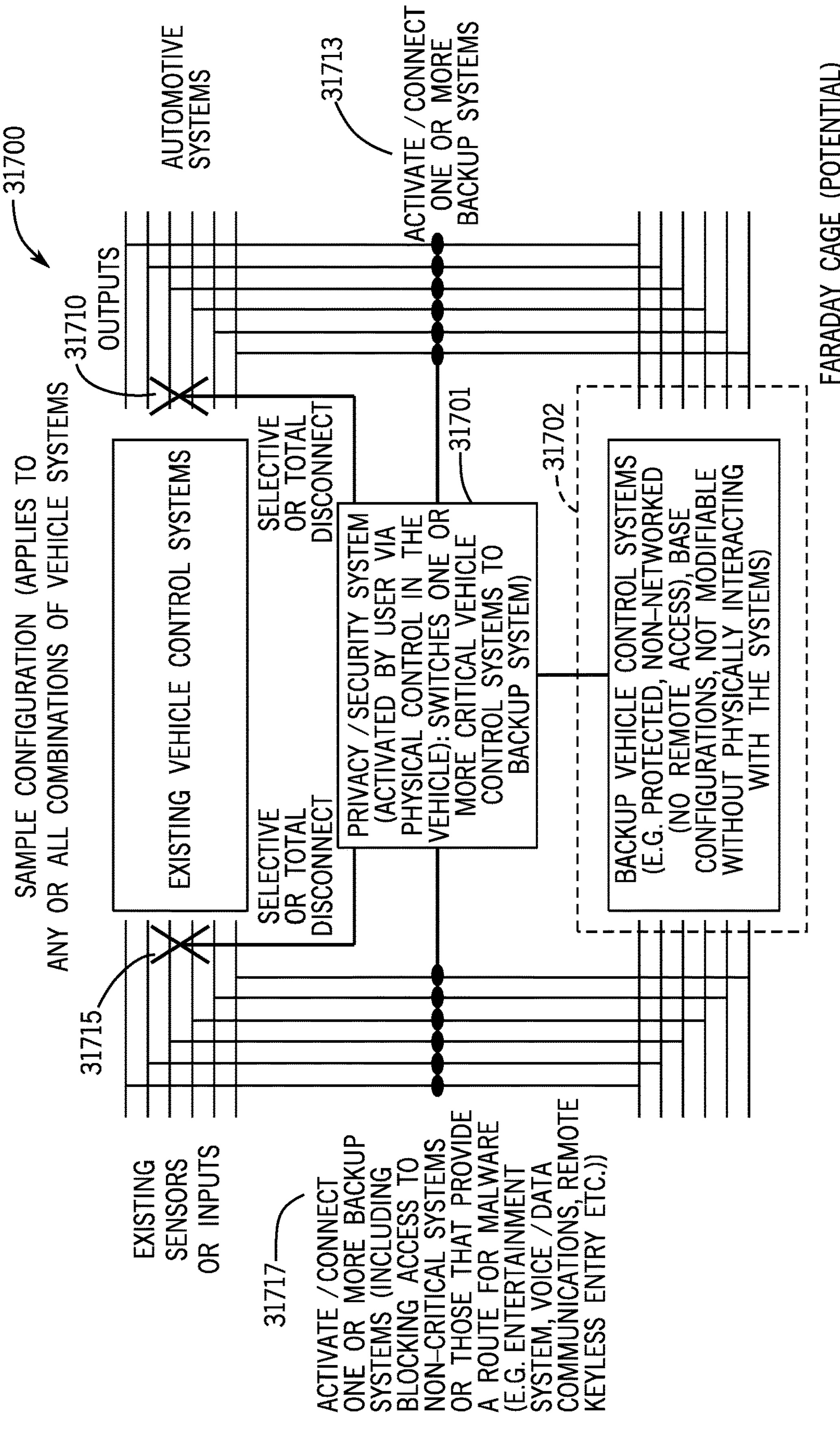

31700
SAMPLE CONFIGURATION (APPLIES TO ANY OR ALL COMBINATIONS OF VEHICLE SYSTEMS
EXISTING VEHICLE CONTROL SYSTEMS
31710
OUTPUTS
AUTOMOTIVE SYSTEMS
31713
ACTIVATE / CONNECT ONE OR MORE BACKUP SYSTEMS
SELECTIVE OR TOTAL DISCONNECT
SELECTIVE OR TOTAL DISCONNECT
31701
PRIVACY / SECURITY SYSTEM (ACTIVATED BY USER VIA PHYSICAL CONTROL IN THE VEHICLE): SWITCHES ONE OR MORE CRITICAL VEHICLE CONTROL SYSTEMS TO BACKUP SYSTEM)
31702
BACKUP VEHICLE CONTROL SYSTEMS (E.G. PROTECTED, NON-NETWORKED (NO REMOTE ACCESS), BASE CONFIGURATIONS, NOT MODIFIABLE WITHOUT PHYSICALLY INTERACTING WITH THE SYSTEMS)
FARADAY CAGE (POTENTIAL)
31715
EXISTING SENSORS OR INPUTS
31717
ACTIVATE / CONNECT ONE OR MORE BACKUP SYSTEMS (INCLUDING BLOCKING ACCESS TO NON-CRITICAL SYSTEMS OR THOSE THAT PROVIDE A ROUTE FOR MALWARE (E.G. ENTERTAINMENT SYSTEM, VOICE / DATA COMMUNICATIONS, REMOTE KEYLESS ENTRY ETC.))

FIG. 317B

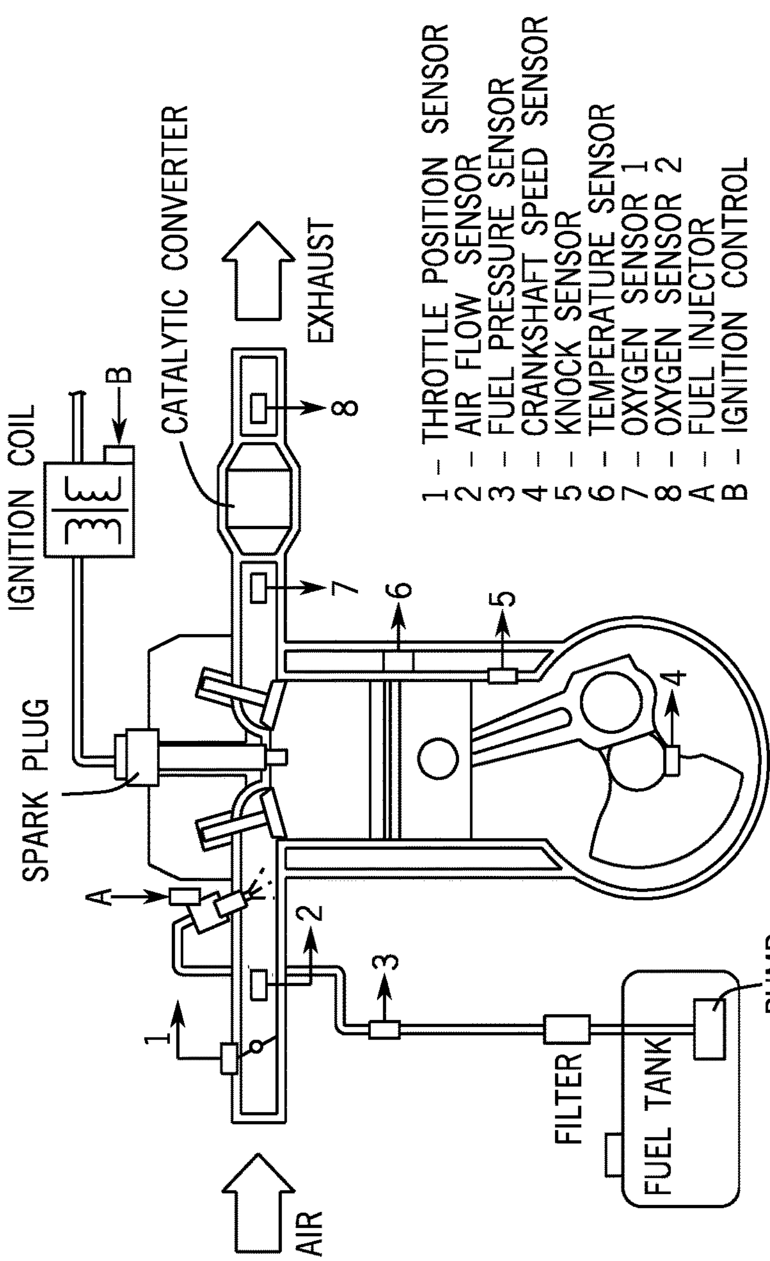

IGNITION COIL
B
CATALYTIC CONVERTER
EXHAUST
SPARK PLUG
A
AIR
1
2
3
4
5
6
7
8
FILTER
FUEL TANK
PUMP
1 – THROTTLE POSITION SENSOR
2 – AIR FLOW SENSOR
3 – FUEL PRESSURE SENSOR
4 – CRANKSHAFT SPEED SENSOR
5 – KNOCK SENSOR
6 – TEMPERATURE SENSOR
7 – OXYGEN SENSOR 1
8 – OXYGEN SENSOR 2
A – FUEL INJECTOR
B – IGNITION CONTROL

FIG. 317C

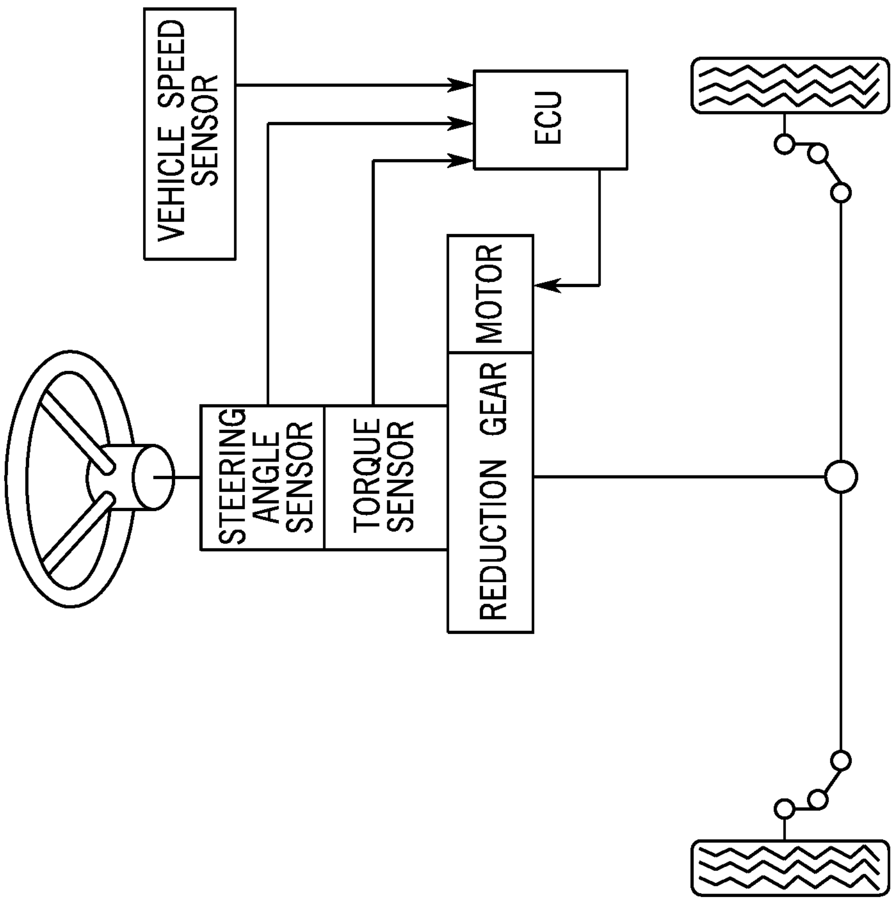

VEHICLE SPEED SENSOR
ECU
STEERING ANGLE SENSOR
TORQUE SENSOR
REDUCTION GEAR
MOTOR

FIG. 317D

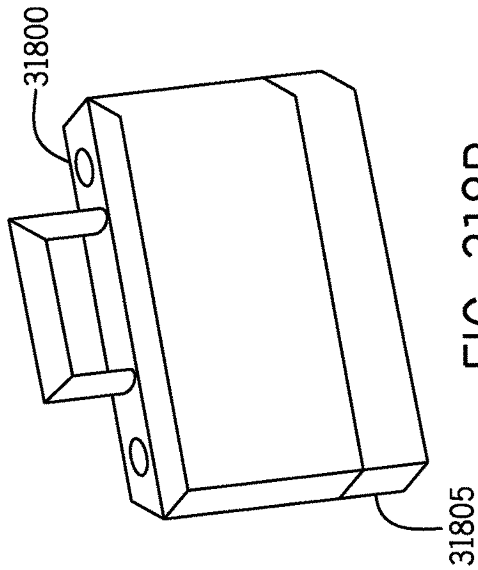


FIG. 318B

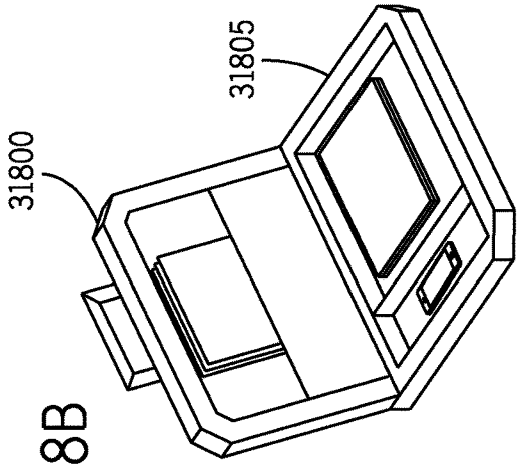


FIG. 318C

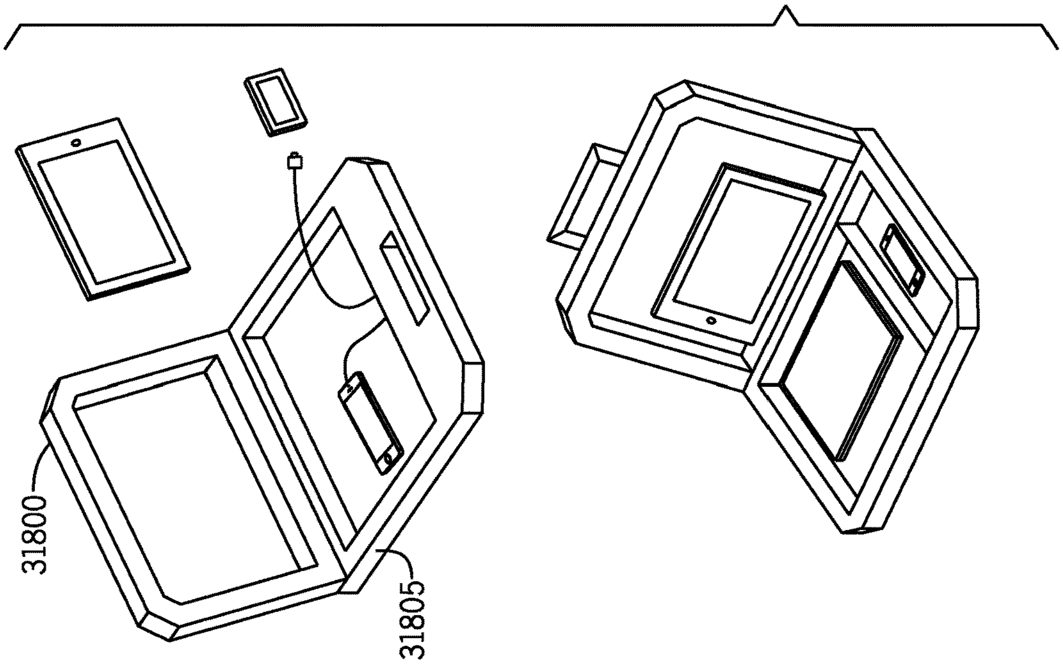


FIG. 318A

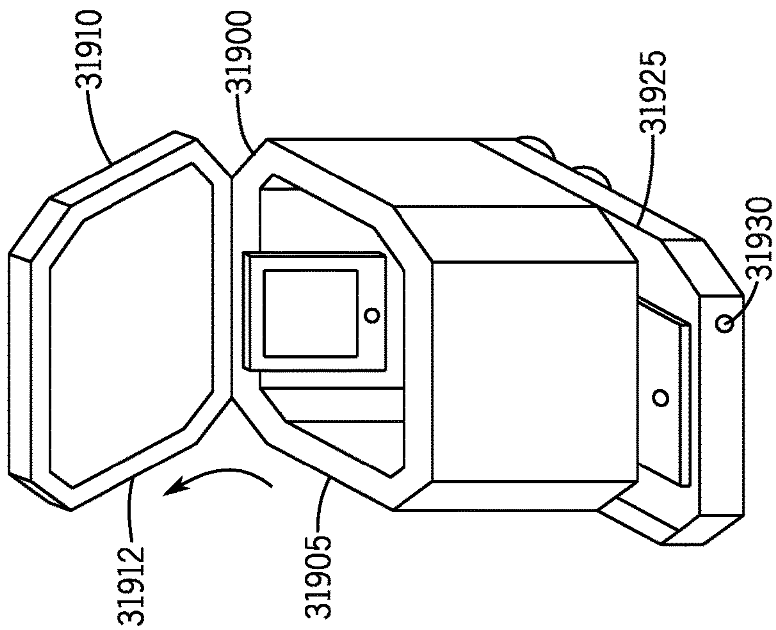


FIG. 319B

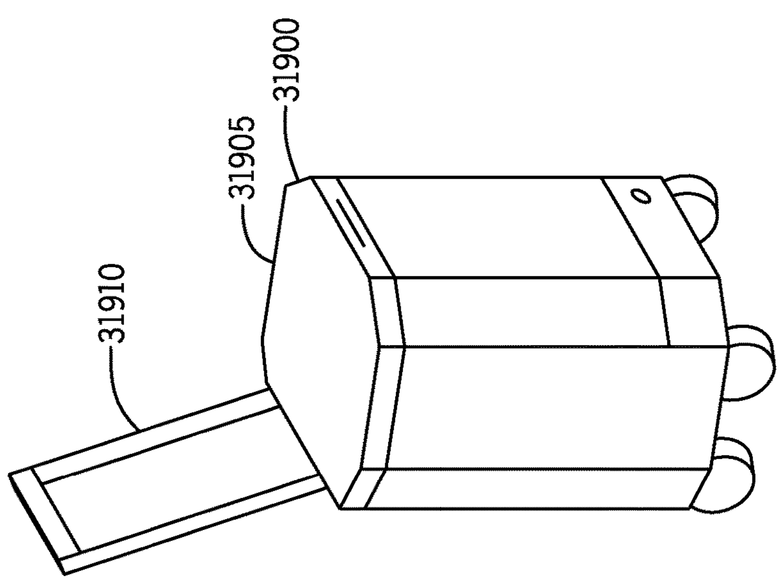


FIG. 319A

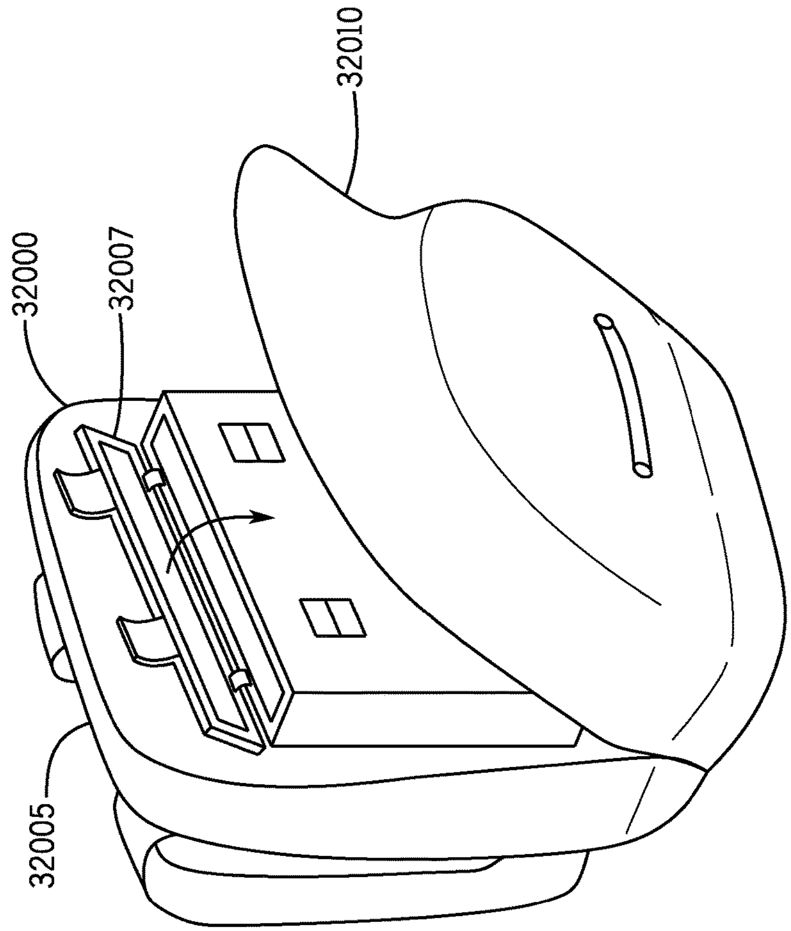


FIG. 320

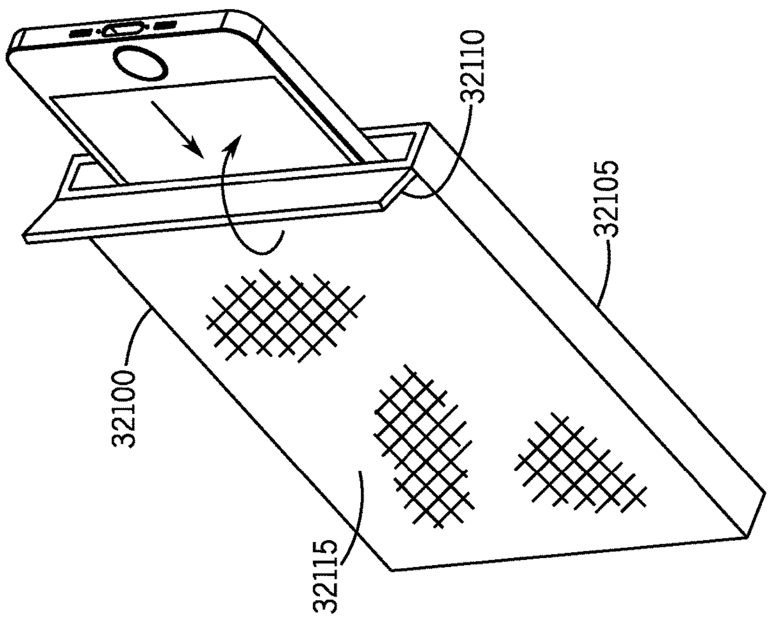


FIG. 321

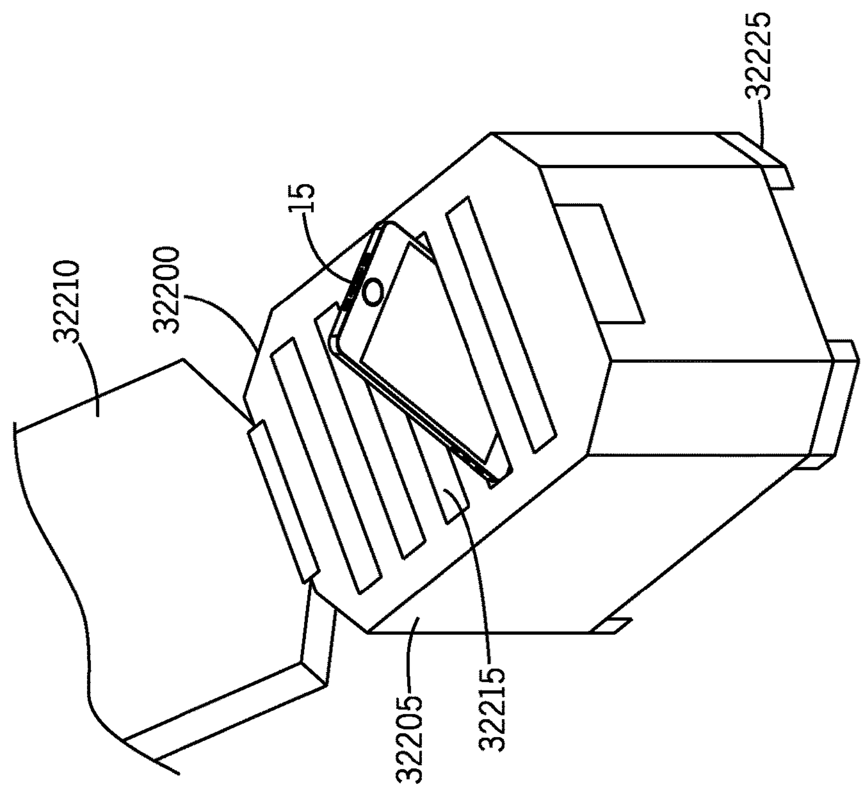
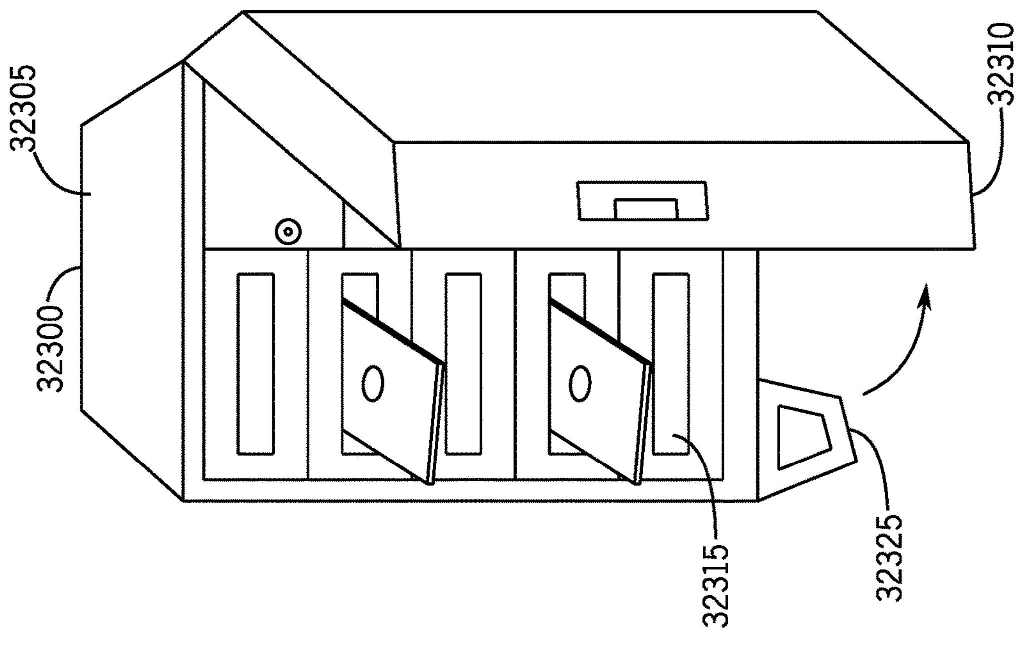


FIG. 322

FIG. 323



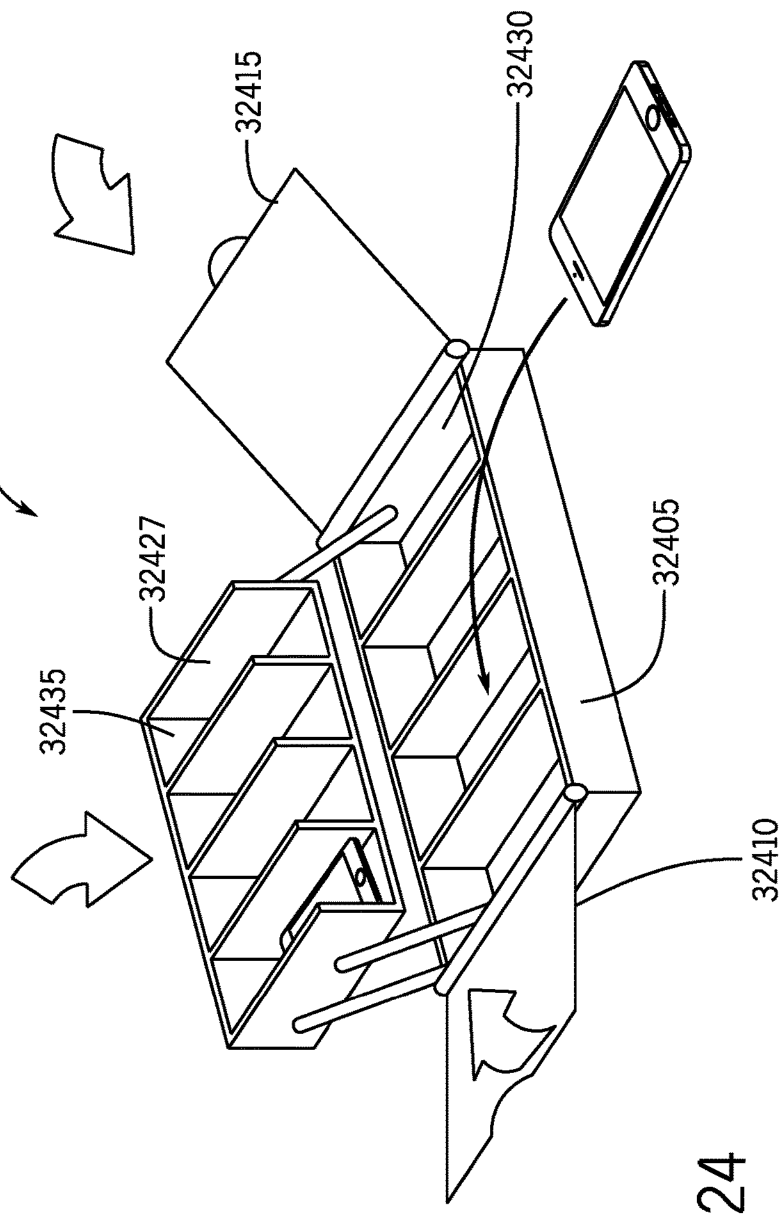


FIG. 324

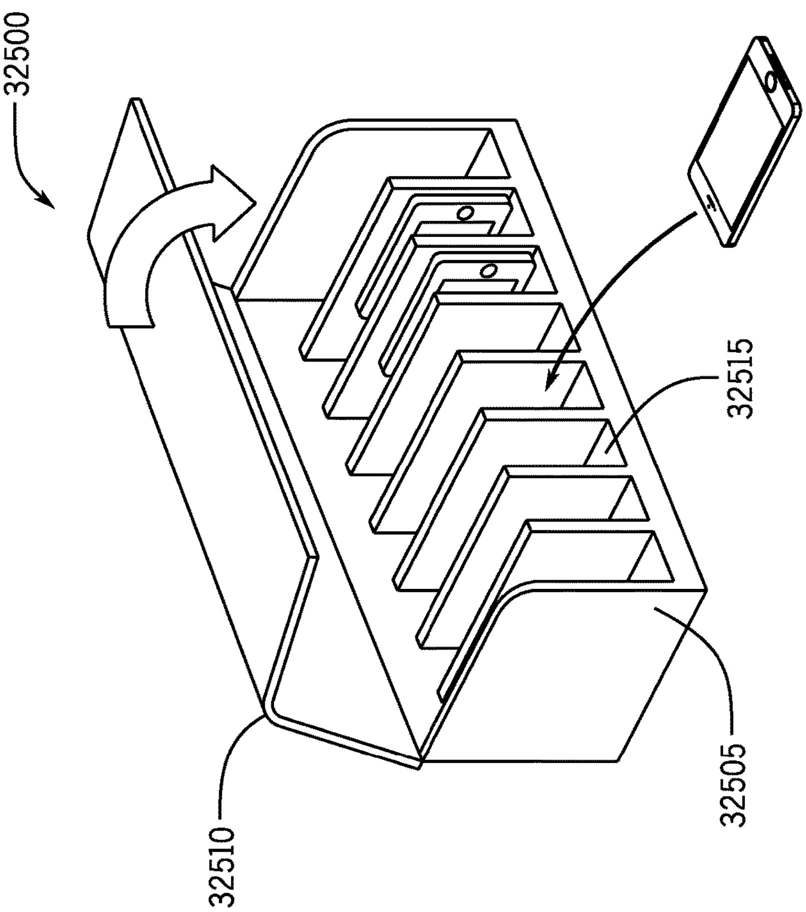


FIG. 325

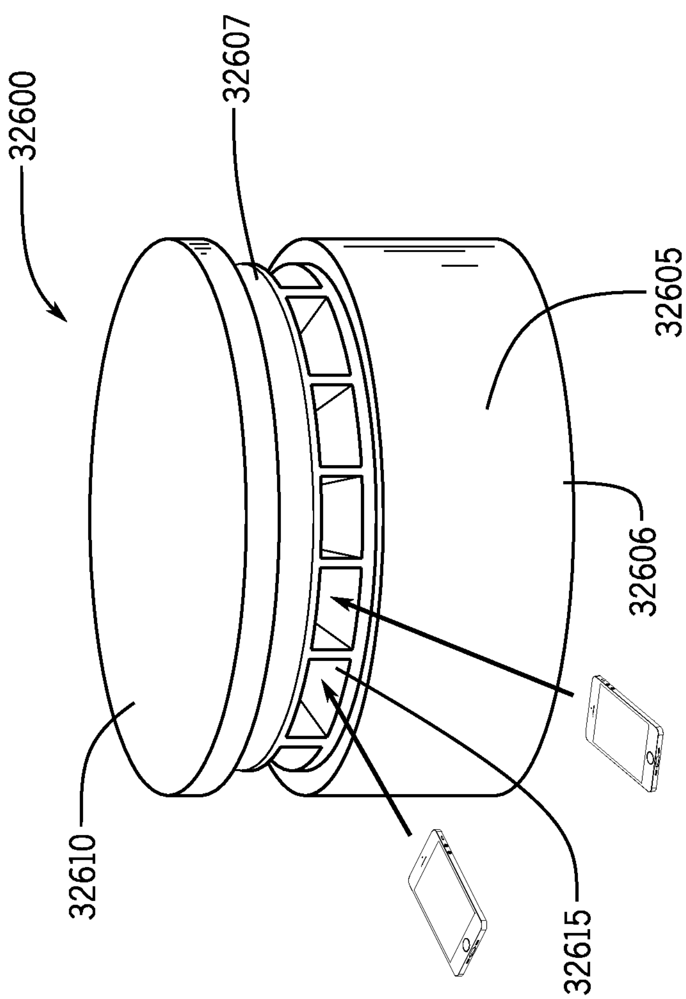


FIG. 326

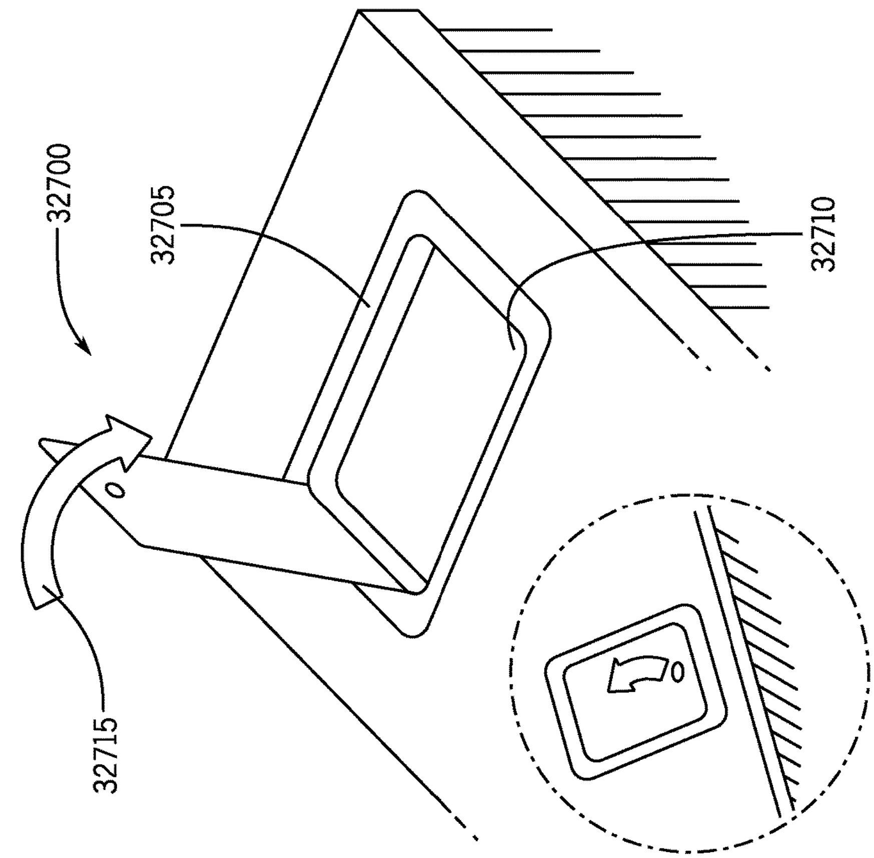


FIG. 327

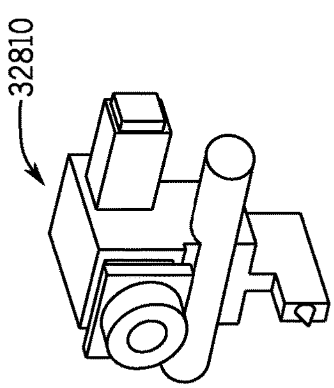


FIG. 328A

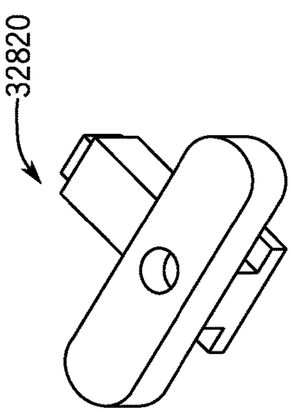


FIG. 328B

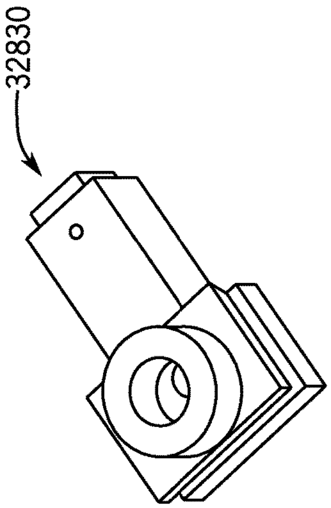


FIG. 328C

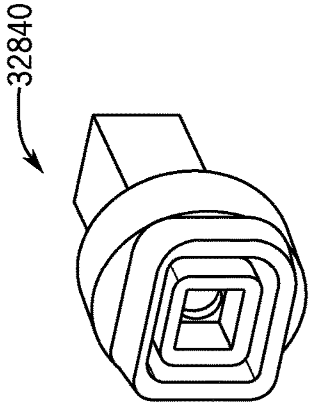


FIG. 328D

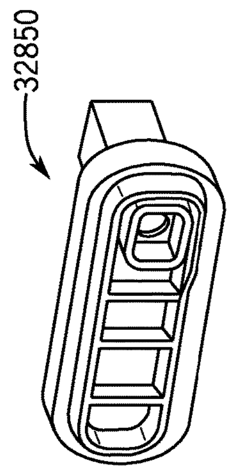


FIG. 328E

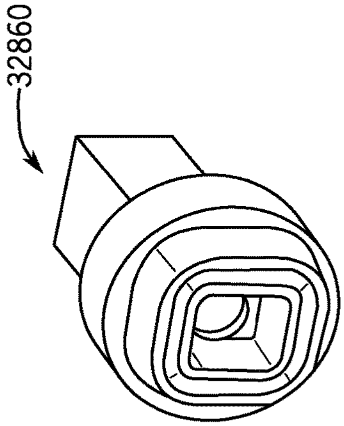


FIG. 328F

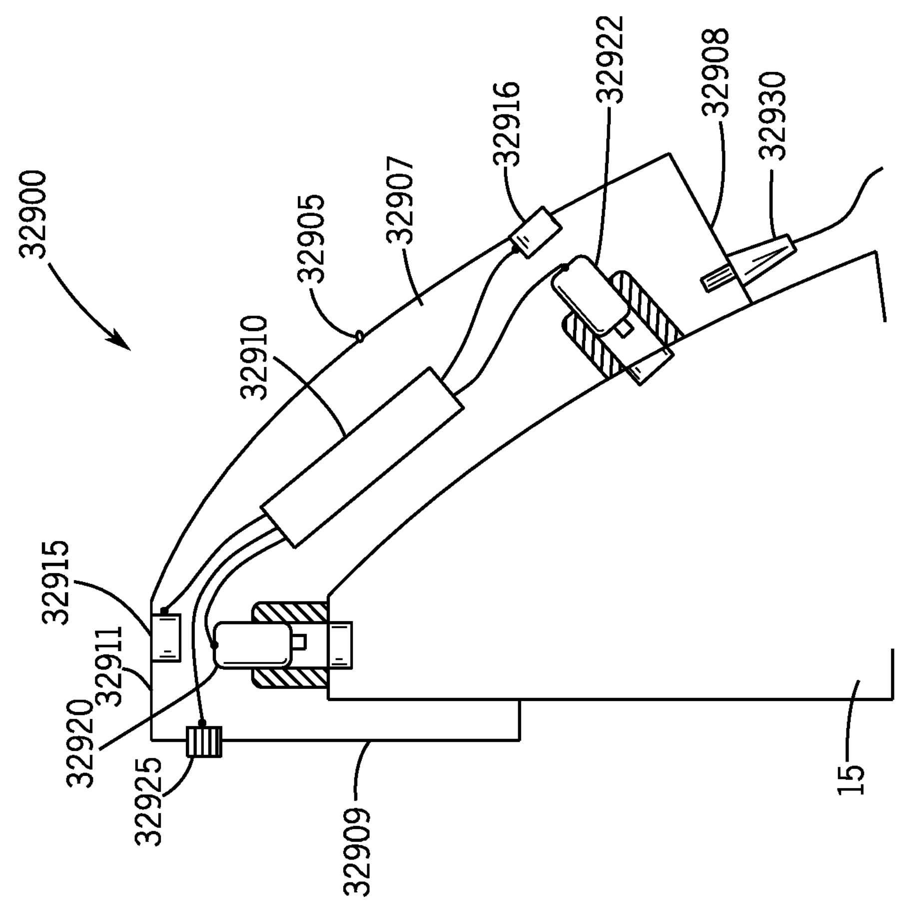

32900
32905
32907
32916
32922
32908
32930
32910
32915
32911
32920
32925
32909
15

FIG. 329

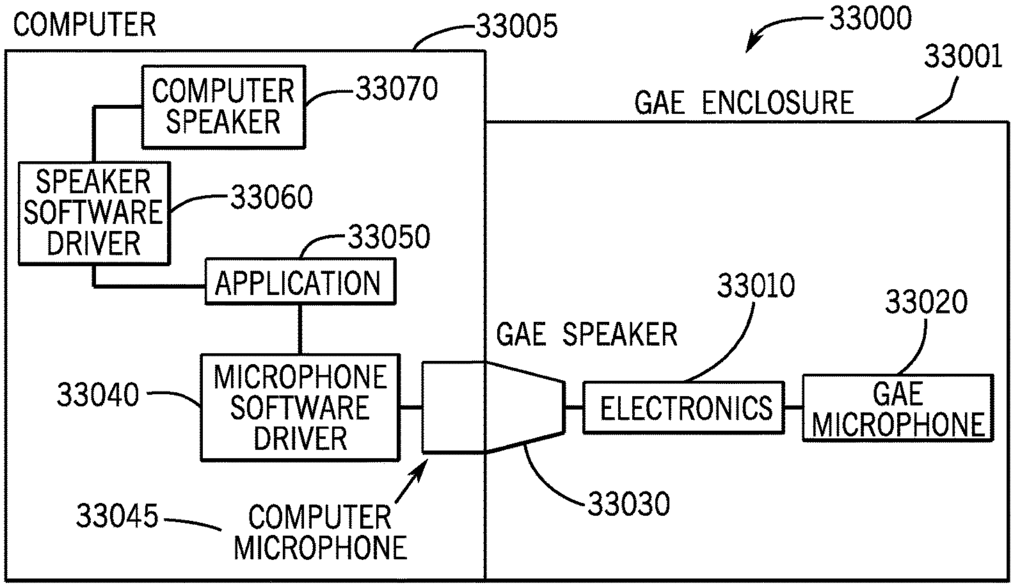


FIG. 330

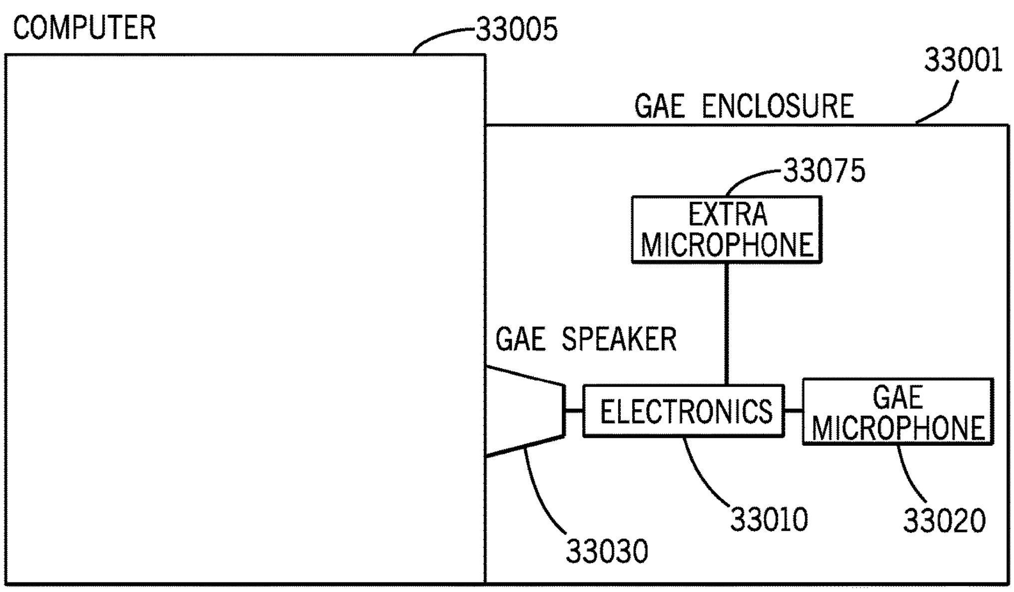


FIG. 331

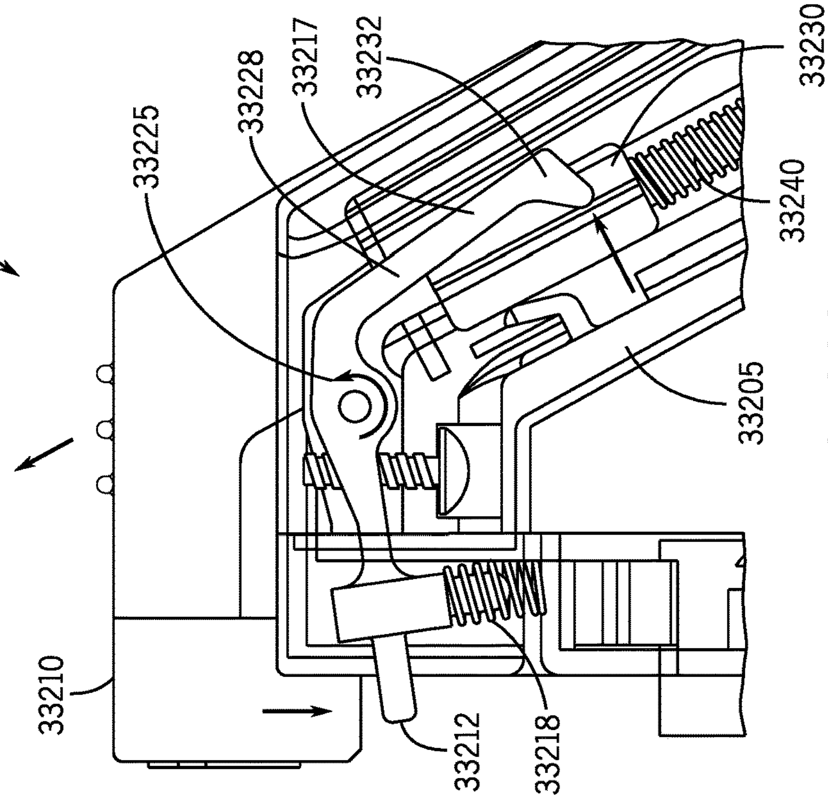


FIG. 333

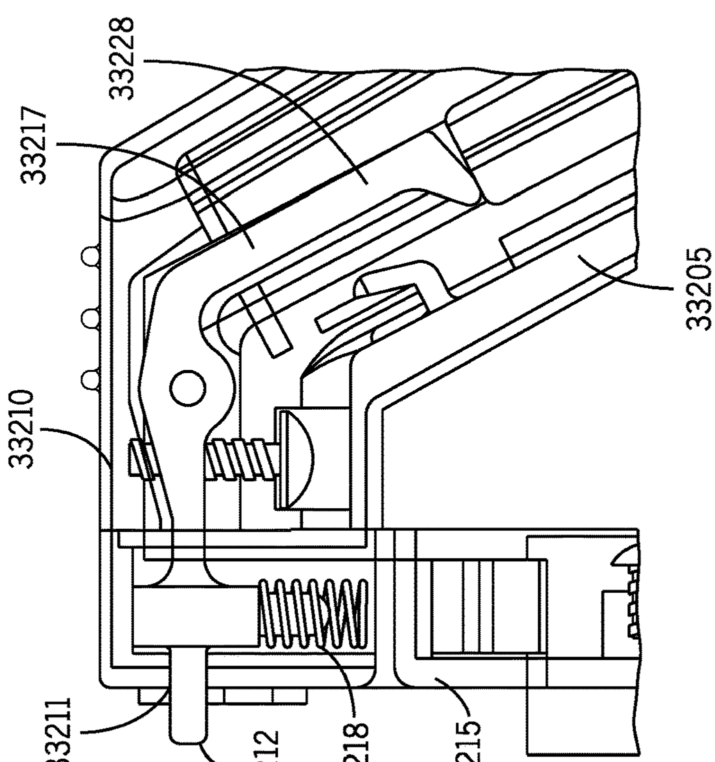


FIG. 332

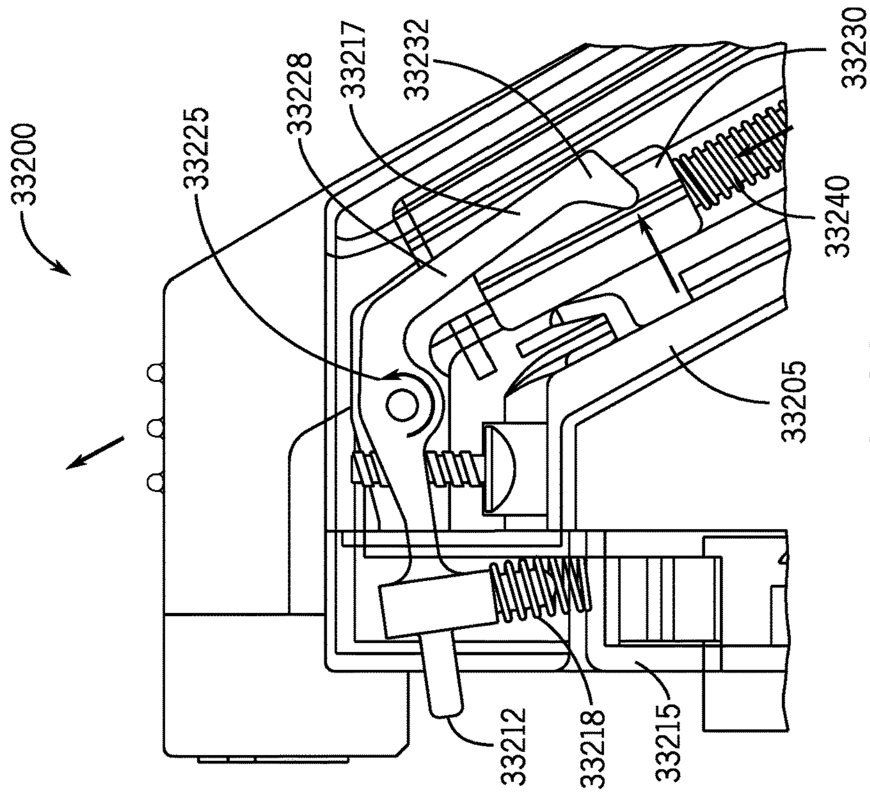


FIG. 335

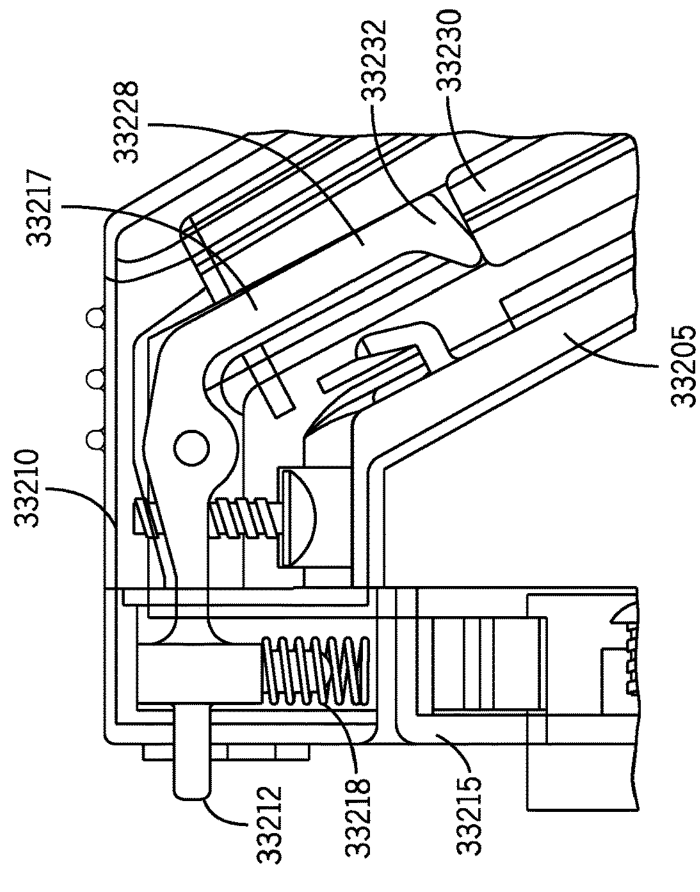


FIG. 334

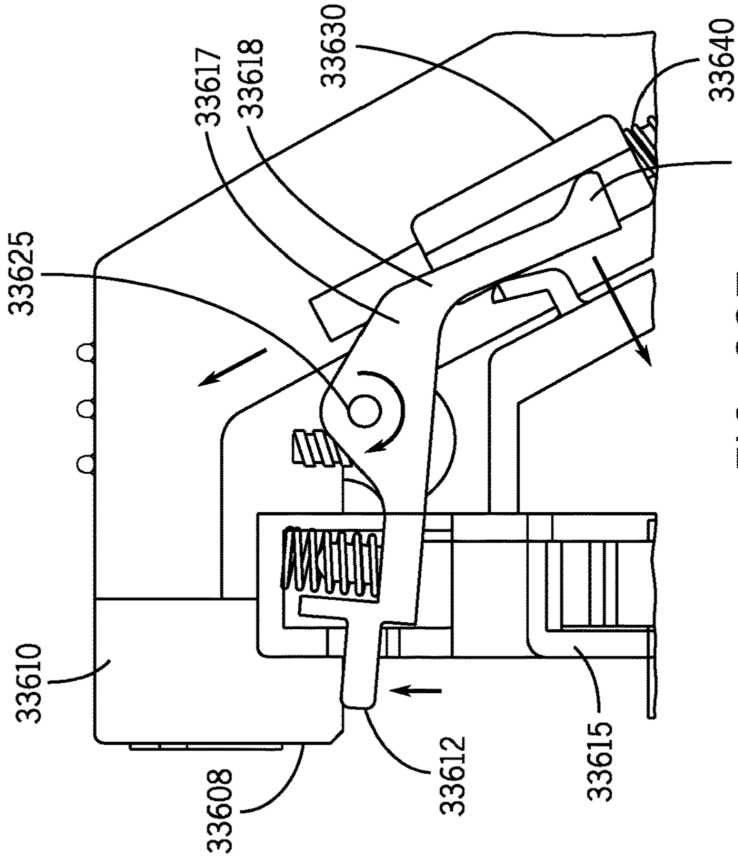


FIG. 337

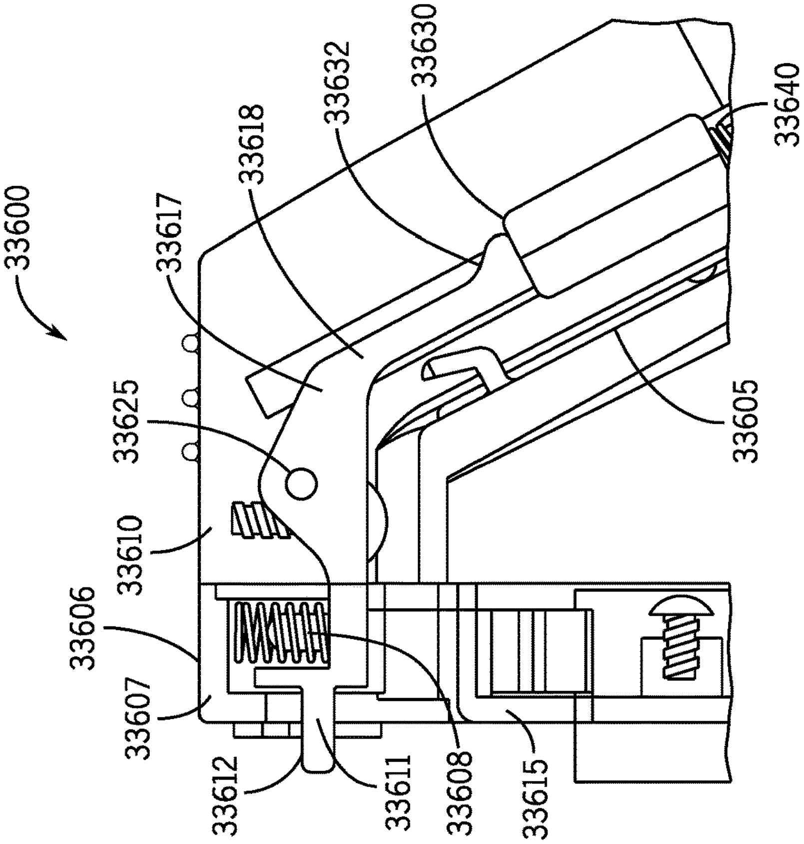
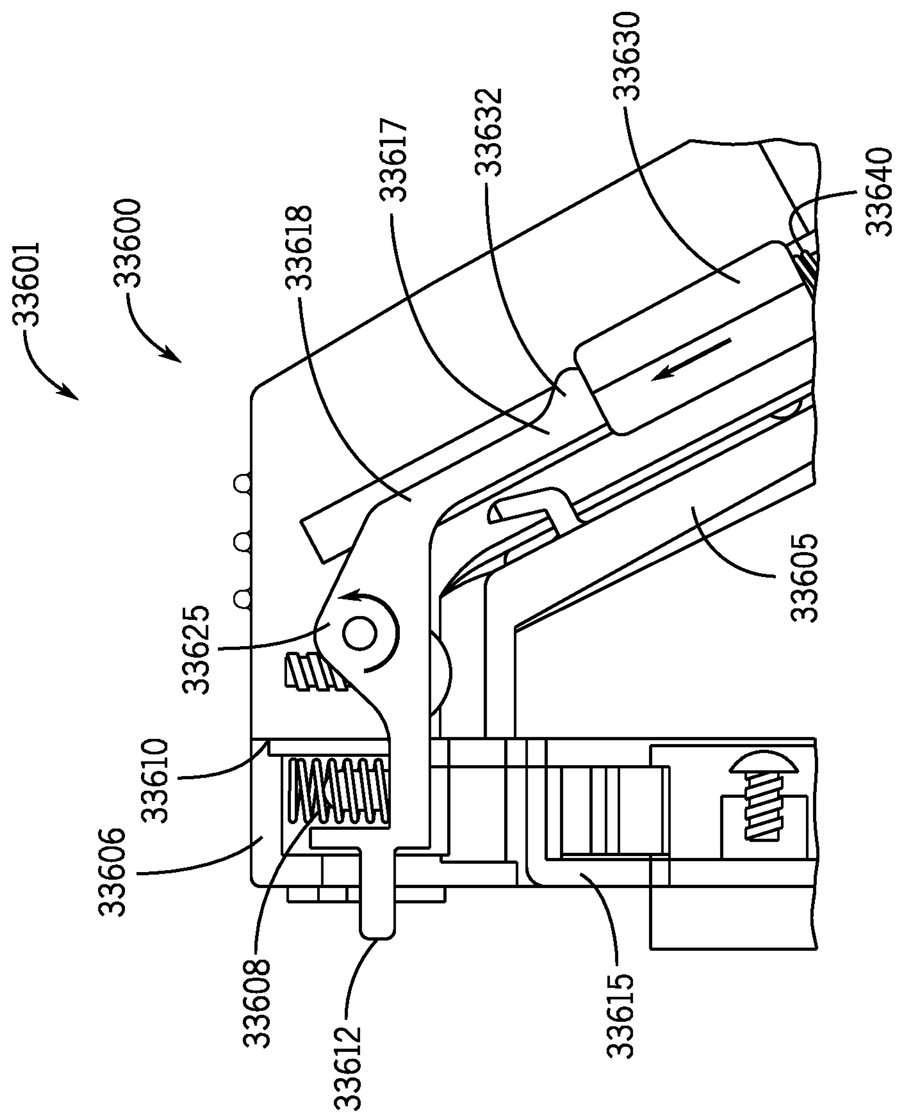


FIG. 336


33601
33600
33618
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33612
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FIG. 338

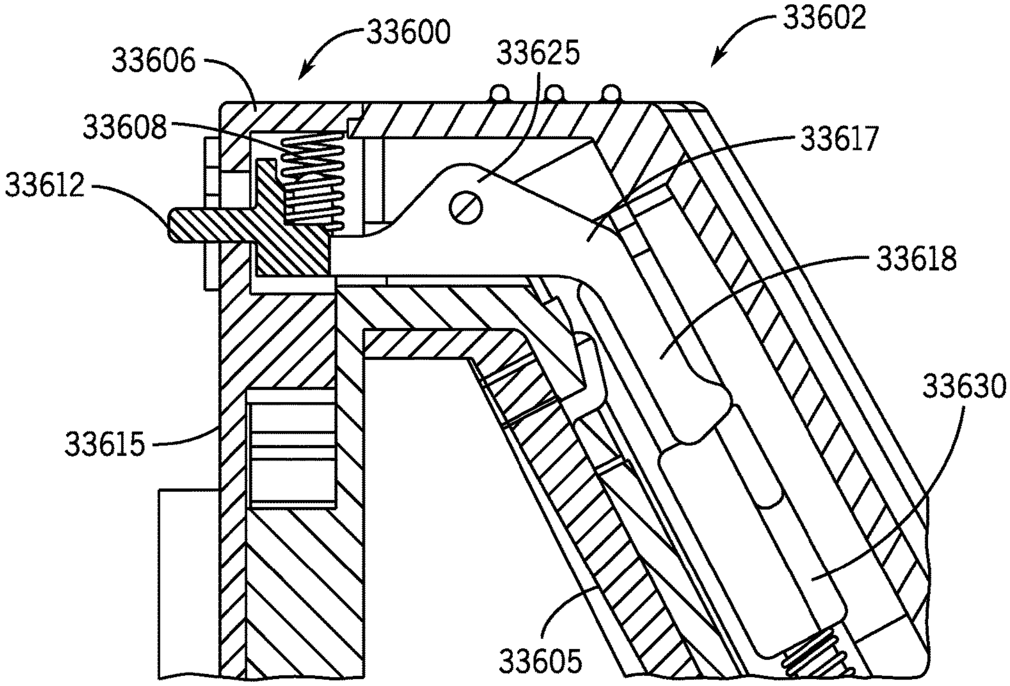

FIG. 339

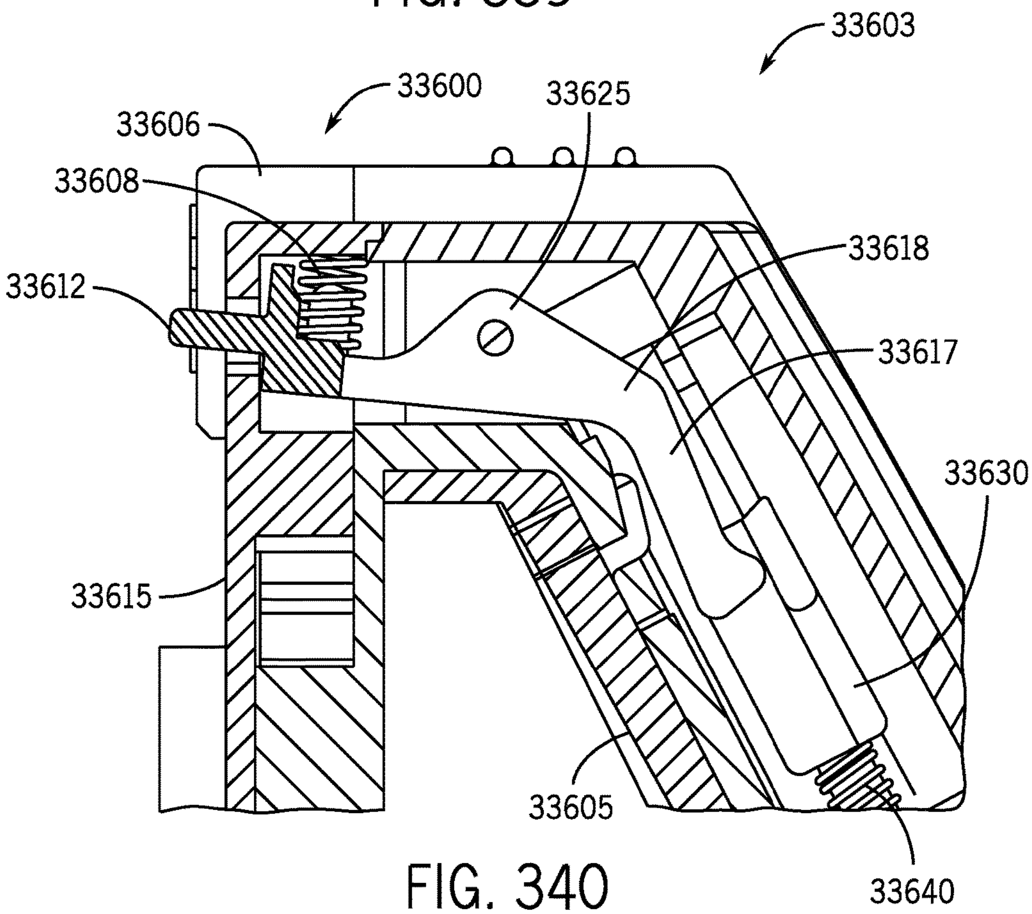

FIG. 340

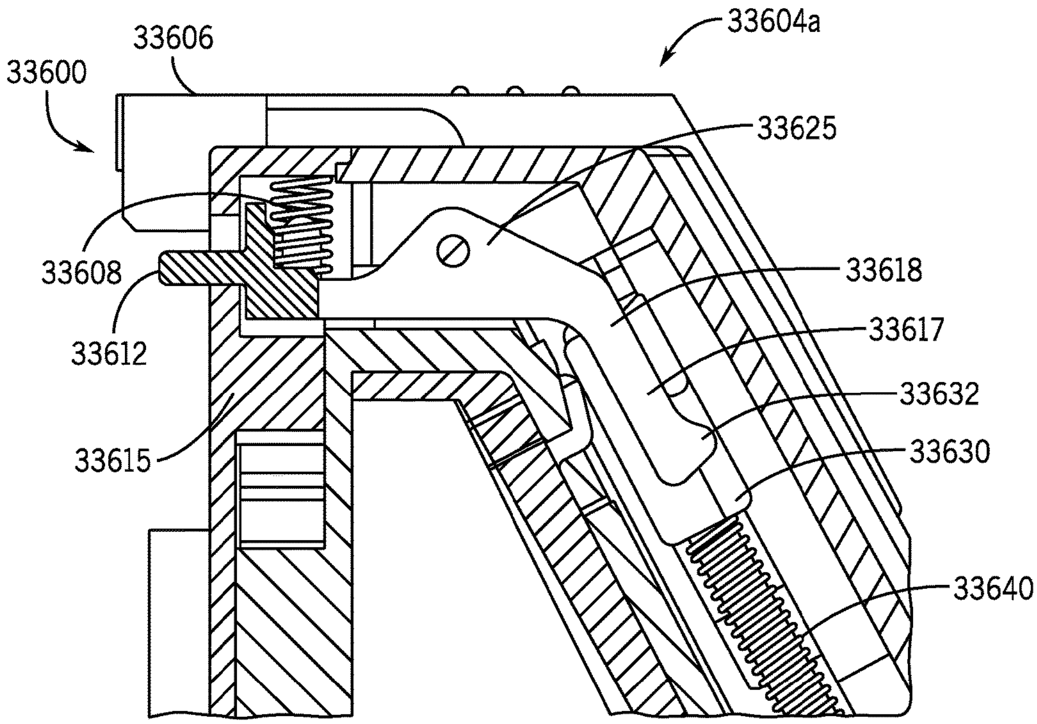

FIG. 341

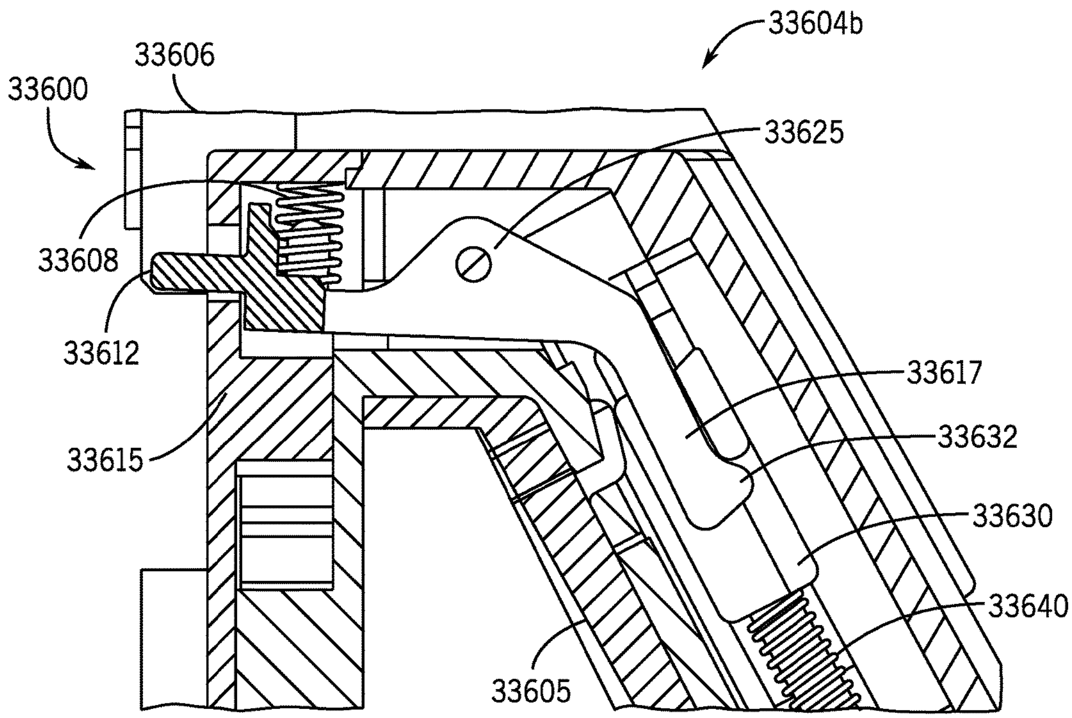

FIG. 342

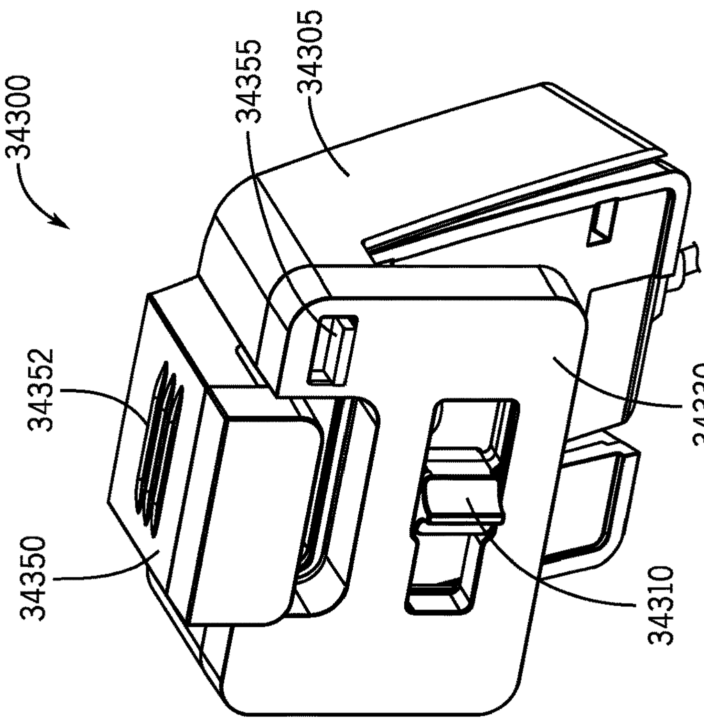

FIG. 344

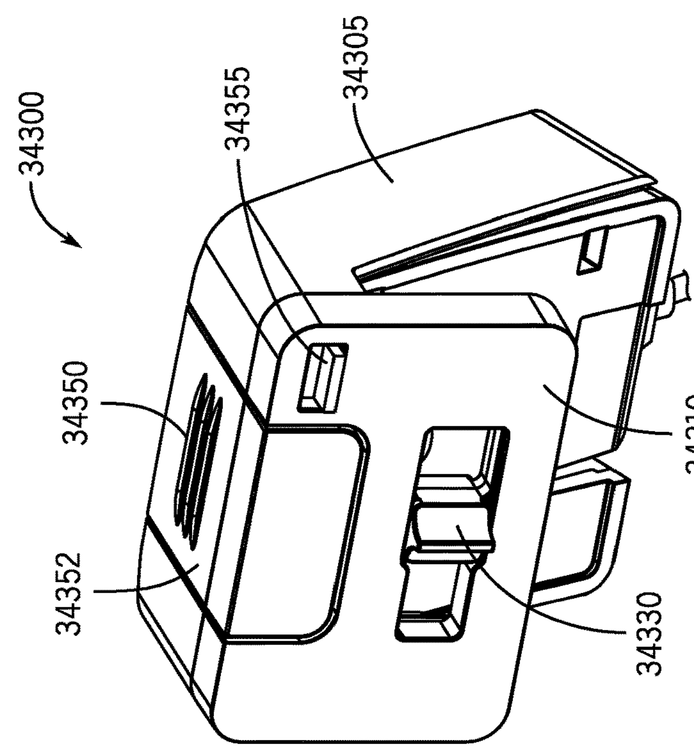

FIG. 343

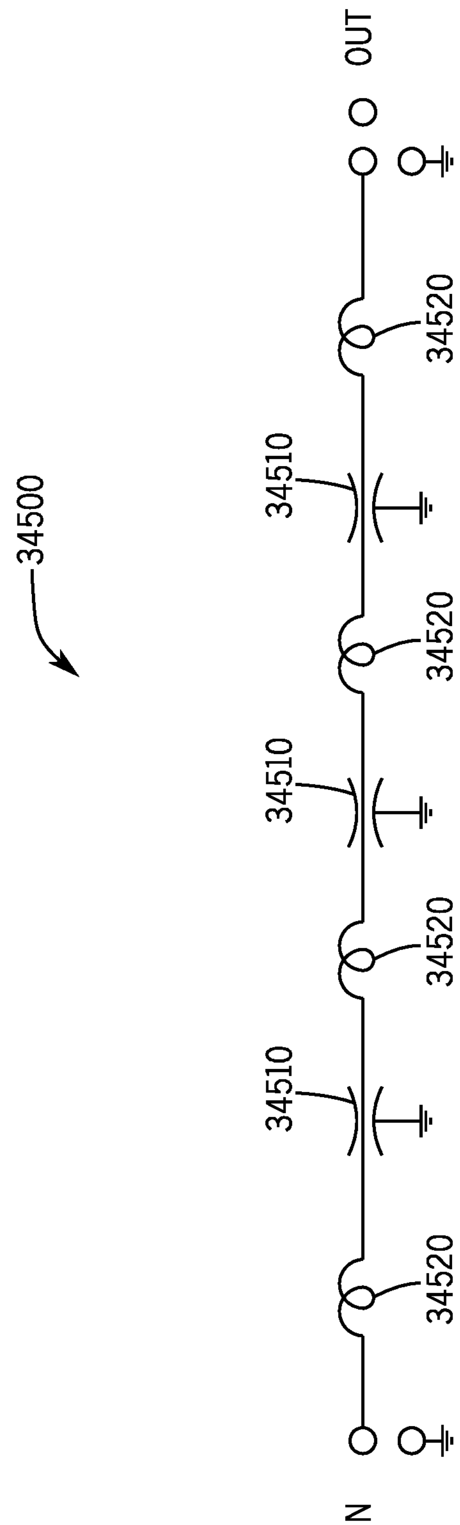

FIG. 345

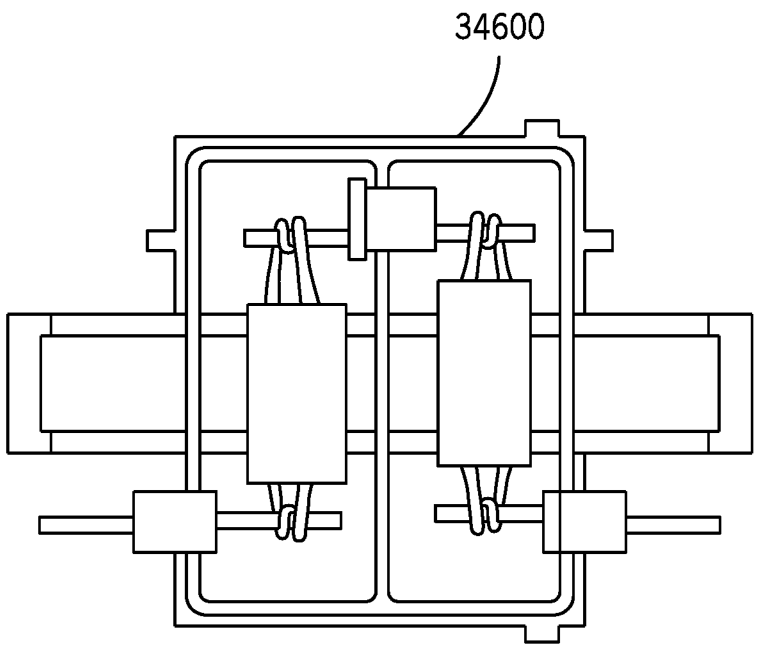

FIG. 346

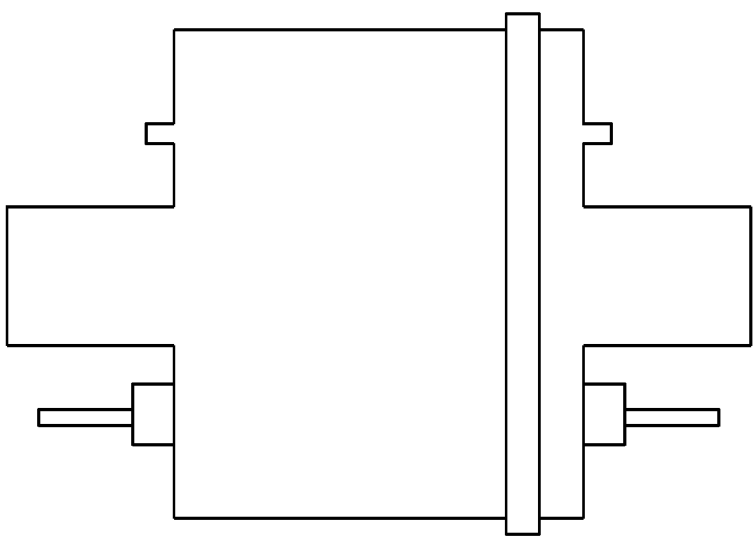

FIG. 347

PRIVACY AND SECURITY SYSTEMS AND METHODS OF USE

RELATED APPLICATIONS

This application claims priority from Provisional Application No. 62/048,173, filed on Sep. 9, 2014, Provisional Application No. 62/100,462, filed on Jan. 6, 2015, Provisional Application No. 62/161,759, filed on May 14, 2015, Provisional Application No. 62/195,903, filed on Jul. 23, 2015, Provisional Application No. 62/198,635, filed on Jul. 29, 2015, and Provisional Application No. 62/209,249, filed on Aug. 24, 2015, the entire contents of which are incorporated herein by reference.

BACKGROUND

Mobile communication and computing devices such as cellular phones, smart phones, computer laptops and tablets etc., are becoming essential personal accessories, oftentimes rarely out of sight of the user. Desktop computers, gaming consoles, wearable devices such as "Smart" watches and Google Glass® already have or eventually will have audio and video recording capabilities, as well as a wide variety of RF transmit/receive capabilities for communication. The advent of the "Internet of Things" (or the "Internet of Everything"), in which most every day devices, from thermostats and appliances to food packages, clothing, medical devices and automobiles (to name a few) have or will have audio, video and RF capabilities is also upon us. Moreover, all of the previously mentioned devices have or someday will potentially include other sensors such as gyroscopes, accelerometers, and proximity, temperature, light, pressure, and other sensors. Ongoing improvements in RF transceiver technology and advancements in the miniaturization of audio-visual capabilities and other devices such as microphones, video cameras and displays provide the user with unparalleled ability to receive, process, and transmit large volumes of data. Devices can record audio and visual information from their environment, process the data either locally or remotely (e.g., "cloud" storage and/or processing) for audio and video transfer directly to a user, or to virtually anywhere in the world capable of receiving a wireless and/or internet service.

Increasing publicity regarding surveillance and the steady rise in the capability of mobile communication and other devices has precipitated an increased awareness of privacy/security concerns associated with such device use. Currently, mobile communication and computing devices do not incorporate so-called "intelligent awareness" to automatically alter their audio-video and transceiver behavior based on a user's environment or requirements, let alone alter behavior to their wishes (such as a user's desire to turn off any of their device's specific capabilities). For example, cellular phones do not know when a user is in a movie theater to automatically turn-off or convert to a quiet-alert mode, and are not easily switched to a secure mode to prevent unwanted reception of RF signals or acquisition of audio visual information from their immediate environment. Furthermore, improvements in wireless network infrastructure enabling location through triangulation, proximity, and ubiquitous use of GPS technology within mobile devices have allowed accurate device location detection, potentially allowing the dissemination of confidential user information.

In general, device manufacturers and network providers (cellular, internet, private or public networks WiFi and other such networks) rarely, if ever, allow users to totally control

reception and transmission of RF or a device's audio-video capabilities. Even with the control that is possible, hackers, malware and other malicious people or code can hijack these functions. Conventional cases or peripheral devices which add features or capabilities or provide protection, aesthetic or other value or do not provide users with full control of their devices' capabilities

SUMMARY

Some embodiments include a privacy/security apparatus for a portable communication device comprising a housing assembly configured to at least partially attenuate at least one of sound energy, acoustic energy, and electromagnetic energy including light, optical, and IR energy and RF radiation from passing through the housing assembly. The housing assembly comprises a Faraday cage comprising two or more portions, and at least one protective shell coupled to or forming at least one aperture. The at least one aperture is configured and arranged to at least partially enclose the portable communication device so that at least a portion of the portable communication device is positioned within at least one portion of the Faraday cage, and the at least one seal coupled or integrated with the protective shell.

Some embodiments include a privacy/security apparatus where the housing assembly includes an articulating assembly configured and arranged to articulate a portion of the housing assembly to one or more positions to enable a user to insert or enclose and remove the portable communication device. In some other embodiments, the housing assembly includes a sliding assembly configured and arranged to slide a portion of the housing assembly to one or more positions to enable a user to insert, enclose or remove the portable communication device. In some embodiments, the housing assembly includes at least one active acoustic jamming or passive acoustic attenuation element.

In some embodiments of the invention, housing assembly is configured and arranged to be movable between an open and a closed position to enable a user to insert or enclose and remove the portable communication device. In some embodiments, the housing assembly comprises a sheath. In other embodiments, the housing assembly comprises a hood assembly and a base assembly. Further, the base assembly includes a Faraday base assembly forming at least one of the portions of the Faraday cage.

In some embodiments, the at least one seal comprises an environmental seal. In some further embodiments, the at least one seal comprises an RF seal. In some embodiments, the at least one seal comprises at least one of a magnetic seal, an electromagnetic seal, an acoustic seal, and an optical seal. In some embodiments, the at least one seal comprises a fingerstock element. In some further embodiments, the seal includes at least one elastomeric element positioned adjacent to the fingerstock. In some embodiments of the invention, the at least one elastomeric element is positioned within at least a portion of the fingerstock.

Some embodiments of the invention include a housing assembly that includes at least one port configured to couple with the portable communication device. In some embodiments, the at least one port comprises at least one of a sound transfer port, an RF transfer port, a data transfer port, a power transfer port, and an optical port. In some embodiments, the at least one protective shell includes a decorative layer or region. In some embodiments of the invention, the decorative layer or region comprises at least one of a patterned surface, a window, a display, an emblem, and a logo.

Some embodiments of the invention include a privacy/security apparatus where the housing assembly includes at least one controller configured and arranged to modulate at least one privacy/security setting. In some embodiments, the at least one privacy/security setting includes a setting that alters the magnitude of energy reaching the portable communication device through the housing assembly. In some further embodiments, the energy comprises at least one of sound energy, RF energy, electrical energy, electromagnetic energy, and optical and/or IR energy.

In some embodiments of the invention, the housing assembly includes at least one microphone. In some embodiments, the housing assembly includes at least one speaker or sound generator. In some embodiments, the housing assembly includes at least one compression seal configured and arranged to couple with at least one of a microphone, a speaker, a camera, a display, a sensor, and an RF antenna of the portable communication device.

Some embodiments of the invention include a housing assembly that includes active acoustic protection. In some embodiments, the active acoustic protection comprises a random noise generator generating a signal which is acoustically delivered to at least one microphone of the portable communication device.

In some embodiments, the housing assembly includes at least one DC pass-through configured and arranged to pass direct current through the Faraday cage. In some further embodiments, the housing assembly includes an onboard power supply.

Some embodiments of the invention include a privacy/security apparatus where the movement of the hood assembly results in the covering of all of the portable communications device's microphones and cameras in a closed position, and the uncovering of all of the portable communications device's microphones and cameras in an open position.

DESCRIPTION OF THE DRAWINGS

FIG. **1** is a perspective view of a partially open privacy/security enclosure according to one embodiment of the invention.

FIG. **2** is a perspective view of an open privacy/security enclosure according to one embodiment of the invention.

FIG. **3** is a partial cross-sectional view of a privacy/security enclosure according to one embodiment of the invention.

FIG. **4** shows a cross-sectional view of passive acoustical attenuation technology according to at least one embodiment of the invention.

FIG. **5** shows an assembly view of passive acoustical attenuation technology according to at least one embodiment of the invention.

FIGS. **6**A and **6**C shows an assembly view of passive acoustical attenuation technology according to at least one embodiment of the invention.

FIGS. **6**B, **7**A, **7**B, **7**C, and **7**D show perspective views of passive acoustical attenuation technology according to at least one embodiment of the invention.

FIGS. **8**A, **8**B, **9**A, **9**B, and **9**C show perspective views of active acoustical attenuation technology according to at least one embodiment of the invention.

FIG. **10** illustrates a perspective view of a privacy/security enclosure according to one embodiment of the invention.

FIG. **11** illustrates a perspective view of a privacy/security enclosure according to another embodiment of the invention.

FIG. **12** illustrates a perspective view of a privacy/security enclosure according to a further embodiment of the invention.

FIG. **13** illustrates a perspective view of a privacy/security enclosure adjacent to smart phone according to one embodiment of the invention.

FIG. **14** illustrates a perspective view of a privacy/security enclosure adjacent to smart phone according to one embodiment of the invention.

FIG. **15** illustrates a perspective view of a privacy/security enclosure adjacent to smart phone according to one embodiment of the invention.

FIG. **16** is a perspective view of an open privacy/security enclosure according to one embodiment of the invention.

FIG. **17** is a cross-sectional view of a privacy/security enclosure lid portion of FIG. **16** according to one embodiment of the invention.

FIG. **18** is a perspective view of an open privacy/security enclosure according to another embodiment of the invention.

FIG. **19** is a cross-sectional view of a privacy/security enclosure lid portion of FIG. **18** according to one embodiment of the invention

FIG. **20**A is a cross-section view through region A of the privacy/security enclosure of FIG. **2** according to one embodiment of the invention.

FIG. **20**B is a perspective view of ring seal for use in a privacy/security enclosure according to one embodiment of the invention.

FIG. **21** is a perspective view of a privacy/security enclosure according to another embodiment of the invention.

FIG. **22** is a perspective view of a privacy/security enclosure according to another embodiment of the invention.

FIGS. **23**A, **23**B, **23**C, **24**A, **24**B, **25**A, **25**B, **25**C, **25**D, **26**A, **26**B, **27**A, **27**B, **28**A, and **28**B illustrate active RF attenuating privacy/security enclosure devices in accordance with some embodiments of the invention.

FIGS. **29**, **30**A-**30**B, **31**-**32**, and **33**A-**33**B illustrate active acoustical attenuating privacy/security enclosure devices in accordance with some embodiments of the invention.

FIGS. **34**A-**34**D depict assembly and perspective views of a sock assembly and components for a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **35** depicts the sock assembly of FIGS. **34**A-**34**C within a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **36** depicts another embodiment of a sock assembly within a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **37**A-**37**C depicts a gel-piston assembly for acoustical control within a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **38**A-**38**C depict a cover actuated acoustical control assembly in accordance with some embodiments of the invention.

FIGS. **39**A-C show different views of a mechanized foldable sock assembly for a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **40**A-**40**C depict a mechanized foldable sock assembly for a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **41** illustrates an internal/external antenna design for a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **42** illustrates an internal/external antenna design for a privacy/security enclosure including an internal antenna ground plane connected to the shield box in accordance with some embodiments of the invention.

FIG. **43** illustrates an internal/external antenna design for a privacy/security enclosure including an internal and external antenna ground plane connected to the shield box in accordance with some embodiments of the invention.

FIG. **44** illustrates a front perspective view of a privacy/security enclosure in a closed position in accordance with some embodiments of the invention.

FIG. **45** illustrates a rear perspective view of a privacy/security enclosure in a closed position in accordance with some embodiments of the invention.

FIG. **46** illustrates a front perspective view of a privacy/security enclosure in a partially open position in accordance with some embodiments of the invention.

FIG. **47** illustrates a rear perspective view of a privacy/security enclosure in an open position in accordance with some embodiments of the invention.

FIG. **48** illustrates a perspective view of a sock assembly for a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **49** illustrates a perspective view of a sock assembly for a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **50** illustrates a rear perspective view of a sock assembly for a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **51** illustrates a top view of a sock assembly for a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **52** illustrates a cross-sectional view of a sock assembly for a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **53** illustrates an exploded assembly view of a sock assembly for a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **54** illustrates a cross-sectional view of a privacy/security enclosure showing gasket seals according to one embodiment of the invention.

FIGS. **55**A-**55**C illustrate views of a privacy/security enclosure lid with a U-channel gasket according to another embodiment of the invention.

FIG. **56** illustrates a perspective view of a privacy/security enclosure with mesh fabric gaskets according to a further embodiment of the invention.

FIGS. **57**A-**57**B illustrate a perspective view of a privacy/security enclosure with mesh fabric gaskets according to a further embodiment of the invention.

FIG. **58** illustrates a cross-sectional view of a privacy/security enclosure according to one embodiment of the invention.

FIG. **59** illustrates a cross-sectional view of an edge of a privacy/security enclosure according to one embodiment of the invention.

FIG. **60**A shows a perspective view of a portion of a privacy/security enclosure according to one embodiment of the invention.

FIG. **60**B shows a cross-sectional view of a privacy/security enclosure according to one embodiment of the invention.

FIG. **60**C shows a cross-sectional view of an edge of the privacy/security enclosure shown in FIGS. **60**A-**60**B according to one embodiment of the invention.

FIG. **61**A illustrates a cross-sectional view of a privacy/security enclosure according to one embodiment of the invention.

FIG. **61**B illustrates a cross-sectional perspective view of a privacy/security enclosure according to one embodiment of the invention.

FIGS. **61**C-**61**F illustrate various alternative embodiments of gasket seals for a privacy/security enclosure according to one embodiment of the invention.

FIGS. **62**A-**62**F illustrate various views of a privacy/security enclosure in progressive stages of opening and device insertion or removal according to one embodiment of the invention.

FIG. **63**A illustrates a perspective view of a closed privacy/security enclosure according to one embodiment of the invention.

FIG. **63**B illustrates a cross-sectional view of the privacy/security enclosure of FIG. **63**A according to one embodiment of the invention.

FIG. **63**C illustrates the privacy/security enclosure of FIG. **63**A in an open configuration according to one embodiment of the invention.

FIG. **63**D illustrates a cross-sectional view of the privacy/security enclosure of FIG. **63**C according to one embodiment of the invention.

FIG. **64**A illustrates an assembly view of a privacy/security enclosure according to one embodiment of the invention.

FIG. **64**B illustrates a base shell assembly view of a privacy/security enclosure according to one embodiment of the invention.

FIG. **64**C illustrates a hood sub-assembly view of a privacy/security enclosure according to one embodiment of the invention.

FIGS. **65**A-**65**E depict various views of a privacy/security enclosure in use according to one embodiment of the invention.

FIGS. **66**A-**66**C depict various views of a privacy/security enclosure in use according to one embodiment of the invention.

FIGS. **67**A-**67**F depict various views of a privacy/security enclosure in use according to one embodiment of the invention.

FIG. **68** shows a privacy/security enclosure according to another embodiment of the invention.

FIG. **69** shows a privacy/security enclosure according to another embodiment of the invention.

FIG. **70** shows a privacy/security enclosure according to another embodiment of the invention.

FIGS. **71**A-**71**D show privacy/security enclosures according to various embodiments of the invention.

FIGS. **72**A-**72**D depict a privacy/security enclosure in use in accordance with some embodiments of the invention.

FIGS. **73**A-**73**C depict a privacy/security enclosure in use in accordance with some embodiments of the invention.

FIGS. **74**A-**74**D depict a privacy/security enclosure in use in accordance with some embodiments of the invention.

FIGS. **75**A-**75**F depict a privacy/security enclosure in use in accordance with some embodiments of the invention.

FIGS. **76**A-**76**D depict a privacy/security enclosure in use in accordance with some embodiments of the invention.

FIGS. **77**A-**77**C depict a privacy/security enclosure in use in accordance with some embodiments of the invention.

FIGS. **78**A-**78**C depict a privacy/security enclosure in use in accordance with some embodiments of the invention.

FIGS. **79**A-**79**C depict a privacy/security enclosure in use in accordance with some embodiments of the invention.

FIGS. **80**A-**80**F illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **81**A-**81**D illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **82**A-**82**D illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **83**A-**83**D illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **84**A-**84**D illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **85**A-**85**C illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **86**A-**86**D illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **87**A-**87**E illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **88**A-**88**C illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **89**A-**89**E illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **90**A-**90**F illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **91**A-**91**C illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **92**A-**92**E illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **93**A-**93**C illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **94**A-**94**D illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **95**A-**95**C illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **96**A-**96**B illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **97**A-**97**C illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **98**A-**98**C illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **99**A-**99**C illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **100**A-**100**C illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **101**A-**101**C illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **102**A-**102**C illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **103**A-**103**B illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **104**A-**104**B illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **105**A-**105**C illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **106**A-**106**C illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **107**A-**107**D illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **108**A-**108**C illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **109**A-**109**C illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **110**A-**110**C illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **111**A-**111**B illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **112**A-**112**B illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **113**A-**113**B illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **114**A-**114**B illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **115**A-**115**B illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **116**A-**116**B illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIGS. **117**A-**117**B illustrate various views of a privacy/security enclosure according to at least one embodiment of the invention.

FIG. **118** depicts a microphone blocking assembly according to one embodiment of the invention.

FIG. **119** depicts a microphone blocking assembly according to one embodiment of the invention.

FIG. **120** depicts a microphone blocking assembly according to one embodiment of the invention.

FIG. **121** depicts a microphone blocking assembly according to one embodiment of the invention.

FIG. **122** depicts a microphone blocking assembly according to one embodiment of the invention.

FIGS. **123**A-**123**C depict views of a microphone blocking assembly according to one embodiment of the invention.

FIGS. **124**A-**124**B depict views of a microphone blocking assembly according to one embodiment of the invention.

FIGS. **125**A-**125**G depict privacy/security enclosure housing cross-sections according to one embodiment of the invention.

FIGS. **126**A-**126**C depict various views of a privacy/security enclosure housing according to one embodiment of the invention.

FIGS. **127**A-**127**D illustrate user device insertion and positioning into a privacy/security enclosure according to one embodiment of the invention.

FIGS. **128**A-**128**H illustrate cross-sectional detail views of privacy/security enclosure housing gasket seals according to one embodiment of the invention.

FIG. **129** illustrates a perspective view of a privacy/security enclosure including a partial cutaway interior view showing RF gaskets according to some embodiments of the invention.

FIG. **130** illustrates an interior view from line **2** of FIG. **129** according to some embodiments of the invention.

FIG. **131** illustrates a cross-sectional view of the privacy/security enclosure of FIG. **129** through cut line **3** of FIG. **130** according to some embodiments of the invention.

FIG. **132** illustrates a fingerstock according to some embodiments of the invention.

FIG. **133** illustrates a close up cross-sectional view of the privacy/security enclosure of FIG. **129** through cut line **5** of FIG. **131** showing a dual fingerstock and base gasket according to some embodiments of the invention.

FIG. **134** illustrates an example of the view of FIG. **133** including a single fingerstock and base gasket according to some embodiments of the invention.

FIG. **135** illustrates an assembly view of FIG. **133** depicting insertion of a lid insertion onto the base of a privacy/security enclosure with the lid comprising fingerstock grooves according to some embodiments of the invention.

FIG. **136** illustrates the assembled view of FIG. **135** according to some embodiments of the invention.

FIG. **137** illustrates a compound gasket assembly according to some embodiments of the invention.

FIG. **138** illustrates a cross sectional view of a compound gasket assembly according to some embodiments of the invention.

FIG. **139** illustrates a rear view of a compound gasket assembly according to one embodiment of the invention.

FIG. **140** illustrates a front view of a compound gasket assembly according to one embodiment of the invention.

FIG. **141** illustrates an example of the view of FIG. **133** including a dual fingerstocks (of FIG. **138**) and base gasket according to some embodiments of the invention.

FIG. **142** illustrates an example of the view of FIG. **133** including a dual fingerstocks and base gasket according to some embodiments of the invention.

FIG. **143** illustrates an example of the view of FIG. **133** including dual fingerstocks of FIG. **138** according to some embodiments of the invention.

FIG. **144** illustrates an example of the view of FIG. **133** including dual fingerstocks of FIG. **138** according to some embodiments of the invention.

FIG. **145** illustrates an example of the view of FIG. **133** including a single fingerstock of FIG. **138** according to some embodiments of the invention.

FIG. **146** illustrates an example of the view of FIG. **133** including a single fingerstock of FIG. **138** according to some embodiments of the invention.

FIG. **147** illustrates a compound gasket assembly according to some further embodiments of the invention.

FIG. **148** illustrates a cross sectional view of a compound gasket assembly according to some further embodiments of the invention.

FIG. **149** illustrates a rear view of a compound gasket assembly according to further embodiments of the invention.

FIG. **150** illustrates a front view of a compound gasket assembly according to further embodiments of the invention.

FIG. **151** illustrates an example of the view of FIG. **133** including a dual fingerstocks and base gasket according to some embodiments of the invention.

FIG. **152** illustrates an example of the view of FIG. **133** including a dual fingerstocks and base gasket according to some embodiments of the invention.

FIG. **153** illustrates an example of the view of FIG. **133** including a dual fingerstocks and base gasket according to some embodiments of the invention.

FIG. **154** illustrates an example of the view of FIG. **133** including a dual fingerstocks and base gasket according to some embodiments of the invention.

FIG. **155** illustrates an example of the view of FIG. **133** including a single fingerstock according to some embodiments of the invention.

FIG. **156** illustrates an example of the view of FIG. **133** including a single fingerstock according to some embodiments of the invention.

FIGS. **157**A-**157**C illustrate custom fingerstocks according to some embodiments of the invention.

FIGS. **158**A-**158**C illustrate custom fingerstocks according to some embodiments of the invention.

FIGS. **159**A-**159**C illustrates custom fingerstocks integrated with a privacy/security enclosure according to some embodiments of the invention.

FIG. **160** illustrates RF attenuation behavior of various embodiments of the invention.

FIGS. **161**A-**161**C illustrate perspective views of various embodiments of a privacy/security enclosure.

FIGS. **162**A-**162**C illustrate perspective views of various embodiments of a privacy/security enclosure.

FIGS. **163**A-**163**C illustrate perspective views of various embodiments of a privacy/security enclosure.

FIGS. **164**A-**164**C illustrate perspective views of various embodiments of a privacy/security enclosure.

FIGS. **165**A-**165**C illustrate perspective views of various embodiments of a privacy/security enclosure.

FIGS. **166**A-**166**C illustrate perspective views of various embodiments of a privacy/security enclosure.

FIGS. **167**A-**167**C illustrate perspective views of various embodiments of a privacy/security enclosure.

FIGS. **168**A-**168**C illustrate perspective views of various embodiments of a privacy/security enclosure.

FIGS. **169**A-**169**B illustrate perspective views of various embodiments of a privacy/security enclosure.

FIGS. **170**A-**170**B illustrate perspective views of various embodiments of a privacy/security enclosure.

FIGS. **171**A-**171**B illustrate perspective views of various embodiments of a privacy/security enclosure.

FIGS. **171**C-**171**D illustrate user interfaces and uses of user interfaces of a privacy/security enclosure according to some embodiments of the invention.

FIGS. **172**A-**172**C, and **173**-**187** illustrate detailed perspective views of various embodiments of a privacy/security enclosure according to some embodiments of the invention.

FIGS. **188**-**189**, and **190**A-**190**D illustrates icon displays of a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **191**A-**191**F illustrates an overview of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **192** illustrates a circuit system layout of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **193** illustrates an operational state diagram of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **194** illustrates a state cycle diagram of a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **195**A-**195**B illustrates partial interior perspective views of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **196** illustrates a partial cut-away view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **197**A-**197**B illustrates a close-up view of the partial cut-away view in FIG. **196** in accordance with some embodiments of the invention.

FIGS. **198**A-**198**D illustrates partial interior views of portions of a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **199**A-**199**E illustrates exterior views of a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **200**A-**200**D illustrates exterior views of a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **201**A-**201**E illustrates exterior views of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **202**A illustrates a privacy/security enclosure including removable Faraday enclosure in accordance with some embodiments of the invention

FIG. **202**B depicts a removable Faraday enclosure in accordance with some embodiments of the invention

FIG. **203** depicts an assembly view of a privacy/security enclosure including removable Faraday enclosure in accordance with some embodiments of the invention

FIGS. **204**A-**204**C, and **205**A-**205**F illustrate privacy/security enclosures including removable Faraday enclosures and privacy/security enclosures that can be used with removable Faraday enclosures in accordance with some embodiments of the invention.

FIG. **206** illustrates a frequency profile of pink noise in accordance with some embodiments of the invention.

FIG. **207** illustrates a frequency profile of human voice in accordance with some embodiments of the invention.

FIG. **208** illustrates front view of a computer or display monitor including a mounted privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **209** illustrates a close up view of the privacy/security enclosure of FIG. **208** in accordance with some embodiments of the invention.

FIG. **210** illustrates a close up front perspective view of a privacy/security enclosure in a covered and protected configuration in accordance with some embodiments of the invention.

FIG. **211** illustrates a close up front perspective view of a privacy/security enclosure in an uncovered and unprotected configuration in accordance with some embodiments of the invention.

FIGS. **212**A-**212**C illustrate an internal architecture view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **213**A-**213**B illustrates a front and rear perspective view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **214** depicts a reconfiguration of a mounted privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **215** depicts a reconfiguration of a mounted privacy/security enclosure in accordance with another embodiment of the invention.

FIG. **216** illustrates architecture views of a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **217**A-**217**C illustrates views of a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **218**A-**218**C illustrates views of a privacy/security enclosure in accordance with some further embodiments of the invention.

FIG. **219** illustrates an operational view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **220** illustrates an operational view of a privacy/security enclosure in accordance with some further embodiments of the invention.

FIG. **221** illustrates an operational view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **222** illustrates an operational view of a privacy/security enclosure in accordance with some further embodiments of the invention.

FIG. **223** illustrates an operational view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **224** illustrates an operational view of a privacy/security enclosure in accordance with some further embodiments of the invention.

FIG. **225** illustrates an operational view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **226** illustrates an operational view of a privacy/security enclosure in accordance with some further embodiments of the invention.

FIG. **227** illustrates a rear view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **228** illustrates a rear view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **229** illustrates a front view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **230** illustrates a side view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **231** illustrates a side internal view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **232**A-**232**C illustrate perspective views of a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **233**A-**233**C illustrate perspective views of a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **234**A-**234**C illustrate perspective views of a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **235**A-**235**C illustrate perspective views of a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **236**A-**236**C illustrate perspective views of a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **237**A-**237**C illustrate perspective views of a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **238**A-**238**D illustrate perspective views of a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **239**A-**239**C illustrate perspective views of a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **240**A-**240**C illustrates perspective views of a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **241**A-**241**C illustrates perspective views of a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **242**A-**242**C illustrates perspective views of a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **243**A-**243**D illustrates perspective views of a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **244**A-**244**C illustrates perspective views of a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **245**A-**245**C illustrates perspective views of a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **246**A-**246**D illustrate perspective views of a privacy/security enclosure in accordance with some embodiments of the invention in accordance with some embodiments of the invention

FIG. **247** illustrates a privacy/security enclosure mounting assembly view in accordance with some embodiments of the invention.

FIG. **248** illustrates a front perspective view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **249** illustrates a rear perspective view of the privacy/security enclosure of FIG. **248** mounted to a display device in accordance with some embodiments of the invention.

FIG. **250** illustrates a front perspective view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **251** illustrates a rear perspective view of the privacy/security enclosure of FIG. **250** mounted to a computer or display device in accordance with some embodiments of the invention.

FIG. **252** illustrates a front perspective view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **253** illustrates a rear perspective view of the privacy/security enclosure of FIG. **248** mounted to a computer or display device in accordance with some embodiments of the invention.

FIG. **254** illustrates a front perspective view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **255** illustrates a rear perspective view of the privacy/security enclosure of FIG. **250** mounted to a computer or display device in accordance with some embodiments of the invention.

FIG. **256** illustrates a perspective view of a computer or display mounted privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **257** illustrates a perspective view of a computer or display mounted privacy/security enclosure including a partial internal component view in accordance with some embodiments of the invention.

FIG. **258** illustrates a side view of a computer or display mounted privacy/security enclosure including a partial internal component view in accordance with some embodiments of the invention.

FIGS. **259**, **259**A, **259**B, **260**, **260**A, **261**, **261**A illustrates internal release mechanisms in accordance with some embodiments of the invention.

FIGS. **262**-**263** illustrate rear perspective views of computer or display mounted privacy/security enclosures in accordance with some embodiments of the invention.

FIGS. **264**A-**264**B illustrates rear perspective views of privacy/security enclosures including textures in accordance with some embodiments of the invention.

FIGS. **265**A-**265**B illustrate rear perspective views of computer or display mounted privacy/security enclosure with cable management in accordance with some embodiments of the invention.

FIG. **266** illustrates a front perspective view of a privacy/security enclosure according to some embodiments of the invention.

FIG. **267** illustrates a front perspective view of a privacy/security enclosure with a hood or cover portion removed according to some embodiments of the invention.

FIG. **268** illustrates an exploded assembly view of portions of the privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **269** illustrates components of the Faraday base assembly of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **270** illustrates an exploded assembly view of portions of the Faraday base assembly in accordance with some embodiments of the invention.

FIG. **271** illustrates an exploded assembly view of portions of the privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **272** illustrates an exploded assembly view of portions of the privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **273**-**276** illustrate perspective views of privacy/security enclosures including mechanical isolation in accordance with some embodiments of the invention.

FIG. **277** illustrates an end view of a privacy/security enclosure including broadband vibration in accordance with some embodiments of the invention.

FIG. **278** illustrates an end view of a privacy/security enclosure including active vibration cancellation in accordance with some embodiments of the invention.

FIGS. **279** and **280** illustrate internal cross-sectional views of a privacy/security enclosure with in accordance with some embodiments of the invention.

FIGS. **281**-**282**, and **283**-**284** illustrate light transmission within a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **285**A-**285**E illustrate privacy/security enclosures for device cameras in accordance with some embodiments of the invention.

FIG. **286** illustrates a privacy/security enclosure including a Faraday sleeve in accordance with some embodiments of the invention.

FIGS. **287**A-**287**B illustrate privacy/security enclosures for use with device cases in accordance with some embodiments of the invention.

FIG. **288** illustrates a USB-powered active portion of a privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **289**A-**289**C illustrate tethered privacy/security enclosures in accordance with some embodiments of the invention.

FIG. **290** illustrates an ultrasonic clip-on privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **291** illustrates a vacuum seal over microphone in accordance with some embodiments of the invention.

FIG. **292** illustrates internal air flow acoustic muffling in accordance with some embodiments of the invention.

FIGS. **293**A-**293**B illustrate perspective views of a privacy/security enclosure and method of use in accordance with some embodiments of the invention.

FIGS. **294**A-**294**B illustrate privacy/security enclosures for docked devices in accordance with some embodiments of the invention.

FIGS. **295**A-**295**D illustrate privacy/security enclosures for partial cases in accordance with some embodiments of the invention.

FIG. **296** illustrates a tethered privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **297** illustrates a noise emitter in accordance with some embodiments of the invention.

FIG. **298** illustrates a cover add-on privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **299**A-**299**D illustrate privacy/security enclosures for a Microsoft Kinect™ system in accordance with some embodiments of the invention.

FIGS. **300**A-**300**B illustrate a fold-down cover privacy/security enclosure for a Microsoft Kinect™ system in accordance with some embodiments of the invention.

FIG. **301** illustrates a remote cover privacy/security enclosure for a Microsoft Kinect™ system in accordance with some embodiments of the invention.

FIGS. **302**A-**302**B illustrate an elevator recess cover privacy/security enclosure for a Microsoft Kinect™ system in accordance with some embodiments of the invention.

FIG. **303** illustrates an attachable cover privacy/security enclosure for a Microsoft Kinect™ system in accordance with some embodiments of the invention.

FIG. **304** illustrates a power interruption privacy/security device in accordance with some embodiments of the invention.

FIGS. **305**A-**305**B illustrate a Faraday cylinder privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **306** illustrates a privacy/security enclosure including optical blinding in accordance with some embodiments of the invention.

FIG. **307** illustrates a Microsoft Kinect™ system audio interference system in accordance with some embodiments of the invention.

FIG. **308** illustrates an IR sticker privacy/security system in accordance with some embodiments of the invention.

FIGS. **309**A-**309**B illustrate manually operated privacy/security enclosures in accordance with some embodiments of the invention.

FIGS. **310**A-**310**B illustrate privacy/security protection of a remote control in accordance with some embodiments of the invention.

FIGS. **311**A-**311**B illustrate a remote controlled cove privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **312** illustrates a smart glass privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **313** illustrates an on-off remote battery circuit breaker in accordance with some embodiments of the invention.

FIGS. **314**-**315**, **316**A-**316**B, and **317**A illustrate an automobile privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **317**B illustrates a privacy/security system in accordance with some embodiments of the invention.

FIGS. **317**C and **317**D illustrate mechanical, electrical, and electromechanical systems of a vehicle that can be controlled by the privacy/security system of FIG. **317**B in accordance with some embodiments of the invention.

FIGS. **318**A-**318**C illustrates a travel case privacy/security system in accordance with some embodiments of the invention.

FIGS. **319**A-**319**B illustrate a protective suitcase privacy/security system in accordance with some embodiments of the invention.

FIG. **320** illustrates a Faraday cage in bag privacy/security system in accordance with some embodiments of the invention.

FIG. **321** illustrates a Faraday sleeve privacy/security system in accordance with some embodiments of the invention.

FIG. **322** illustrates a lockbox privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **323** illustrates a safe-type privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **324** illustrates a tackle box privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **325** illustrates a letter box privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **326** illustrates a roundabout cage-type privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **327** illustrates a built-in type privacy/security enclosure in accordance with some embodiments of the invention.

FIGS. **328**A-**328**F illustrate seals and seal structures in accordance with some embodiments of the invention.

FIG. **329** illustrates privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **330** illustrates a schematic of a privacy/security system in accordance with some embodiments of the invention.

FIG. **331** illustrates a system schematic of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **332** illustrates a cross-sectional view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **333** illustrates a cross-sectional view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **334** illustrates a cross-sectional view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **335** illustrates a cross-sectional view of a privacy/security system in accordance with some embodiments of the invention.

FIG. **336** illustrates a cross-sectional view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **337** illustrates a cross-sectional view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **338** illustrates a cross-sectional view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **339** illustrates a cross-sectional view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **340** illustrates a cross-sectional view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **341** illustrates a cross-sectional view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **342** illustrates a cross-sectional view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **343** illustrates a perspective view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **344** illustrates a perspective view of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **345** illustrates a circuit diagram for a DC pass-through in accordance with some embodiments of the invention.

FIG. **346** illustrates a front view of a DC pass-through assembly implementing the circuit of FIG. **345** in accordance with some embodiments of the invention.

FIG. **347** illustrates a rear view of the DC pass-through assembly of FIG. **346** in accordance with some embodiments of the invention.

DETAILED DESCRIPTION

Before any embodiments of the invention are explained in detail, it is to be understood that the invention is not limited in its application to the details of construction and the arrangement of components set forth in the following description or illustrated in the following drawings. The invention is capable of other embodiments and of being practiced or of being carried out in various ways. Also, it is to be understood that the phraseology and terminology used herein is for the purpose of description and should not be regarded as limiting. The use of "including," "comprising," or "having" and variations thereof herein is meant to encompass the items listed thereafter and equivalents thereof as well as additional items. Unless specified or limited otherwise, the terms "mounted," "connected," "supported," and "coupled" and variations thereof are used broadly and encompass both direct and indirect mountings, connections, supports, and couplings. Further, "connected" and "coupled" are not restricted to physical or mechanical connections or couplings. Unless specified or limited otherwise, the terms "seal," "seals," and "sealed" and variations thereof are used to broadly encompass a range of levels of sealing, from at least some or partial sealing, to substantially complete or full sealing with substantially no leakage through the seal. Unless specified or limited otherwise, the term "phone(s)," "smartphone(s)," "tablet(s)," "computer(s)," and figures depicting such devices are intended to be used generically and interchangeably with each other and for any other such device(s) with one or more microphones and/or camera(s) and/or RF transceiver(s) and/or optical transceivers and/or infrared transceivers and/or wired networking capability and/or other sensor(s). Unless specified or limited otherwise, the terms "USB," and "micro-USB" refer to all standard charging interfaces for consumer electronic devices, including proprietary connectors such as Apple's Lightning™ connector.

The following discussion is presented to enable a person skilled in the art to make and use embodiments of the invention. Various modifications to the illustrated embodiments will be readily apparent to those skilled in the art, and the generic principles herein can be applied to other embodiments and applications without departing from embodiments of the invention. Thus, embodiments of the invention are not intended to be limited to embodiments shown, but are to be accorded the widest scope consistent with the principles and features disclosed herein. The following detailed description is to be read with reference to the figures, in which like elements in different figures have like reference numerals. The figures, which are not necessarily to scale, depict selected embodiments and are not intended to limit the scope of embodiments of the invention. Skilled artisans will recognize the examples provided herein have many useful alternatives and fall within the scope of embodiments of the invention.

Embodiments of the invention described herein include privacy/security devices, privacy/security systems and methods of use of these devices and systems for providing or facilitating a user's privacy/security. Unless specified or limited otherwise, the term "privacy/security enclosure" can be used throughout to describe embodiments of a structure forming at least a partial enclosure, chamber, cover, case, sleeve, channel, conduit, window, and variations thereof to broadly encompass rendering a range of levels of privacy/security to a user, from at least some or partial privacy/security, to substantially complete or complete privacy/security with substantially no private information leakage through the privacy/security enclosure. Further, the term "privacy/security enclosure" can be used throughout to describe embodiments of a system providing privacy/security control to a user.

FIG. **1** is a perspective view of a partially open privacy/security enclosure **100** according to at least one embodiment of the invention. The privacy/security enclosure **100** includes structure and functions as described below that can apply to at least one other privacy/security enclosure described herein, including some or all of the privacy/security enclosures disclosed and described and shown the related figures. In some embodiments, the privacy/security enclosure can comprise a structure that can least partially envelop at least one device comprising an RF transceiver and/or an audio device, and/or a video device, and/or an audio/video/RF protection device(s), and/or a near-field communication (hereinafter "NFC") device, and/or a device comprising a radio-frequency identification (hereinafter "RFID") device. In some embodiments, the privacy/security enclosure can include a structure that can least partially envelop, wrap, or cover at least a portion of a user device. In some embodiments, the privacy/security enclosure can be used to temporarily, semi-permanently, or permanently block or at least partially attenuate audio or video transmission when positioned adjacent to, proximate to, or coupled to at least a portion of a user device. In some embodiments, the devices protected by the privacy/security enclosure can comprise a mobile or stationary communication device, including, but not limited to, a cellular phone, a smart phone, a car microphone, a paging device, a wearable device such as a smartwatch and/or a wearable phone, a computing device such as a computer, tablet or laptop, a portable or stationary gaming device, a portable or stationary video or audio device, and/or a combination of two or more of the devices described.

In some embodiments, the privacy/security enclosure can comprise a device including a housing assembly that can comprise a rigid or semi-rigid, structurally self-supporting privacy/security enclosure that can be at least partially opened or closed by a user, and/or can include a portion that can be moved, adjusted, opened or closed by a user to adjust a level of privacy/security. In some embodiments, at least a portion of the housing assembly can be moved with respect to another portion of the housing assembly. In some embodiments, the privacy/security enclosure can include a structure that can least partially envelop at least one user device comprising an RF transceiver and/or an audio device, and/or a video device, and/or an audio/video/RF protection device(s), and/or a near-field communication (hereinafter "NFC") device, and/or a radio-frequency identification (hereinafter "RFID") device. For example, in some embodiments, the privacy/security enclosure can be used to cradle, and temporarily or permanently store at least one user device such as a smart phone, or other communication device. In some embodiments, the privacy/security enclosure can include at least one gasket or O-ring (hereinafter referred to as an "RF gasket") that is capable of at least partially attenuating or blocking at least one transmission or signal comprising radio frequency radiation (hereinafter referred to as "RF"). Further, in some embodiments, the privacy/security enclosure can be formed of a material capable of at least partially attenuating RF radiation emitted to or from any RF antennas or transceivers positioned inside the privacy/security enclosure (e.g., such as those forming part of the user's smart phone).

In some embodiments, the privacy/security enclosure can comprise a protective enclosure (or shield in other embodiments) that can selectively at least partially block one or more monitoring, sensing and/or surveillance capabilities of the various devices. For example, in some embodiments of the invention, the privacy/security enclosure only covers the audio portion of a desktop computer (or other device with a microphone such as an Xbox Kinect®). In some embodiments, the privacy/security enclosure does not provide RF protection, but reduces or limits the microphone's ability to capture audio content. In some embodiments, a microphone security portion of the shield can be activated using a button. In some further embodiments, the activation of another button can direct an opaque shield to cover the front of a device's camera (such as a camera on the Xbox Kinect®). In some embodiments, the invention minimizes or prevents scanning, information insertion, manipulation or retrieval, code insertion, manipulation or retrieval or hacking of protected devices via RF technologies.

In some further embodiments of the invention, the privacy/security enclosure can suppress the ability of various other sensors when enclosed within the privacy/security enclosure. For example, in some embodiments, the privacy/security enclosure can substantially block and/or damp the signals reaching other sensors such as accelerometers, gyroscopes, magnetometers to name a few. In some embodiments, the enclosure can include materials, structures and/or approaches (for example, foams, fabrics, springs, specific shapes and/or materials, suspension and/or isolation systems, vibration dampening techniques etc.), configured to at least partially mask, block, attenuate, distort, confuse and/or otherwise reduce and/or eliminate the ability of any sensor to perform its primary and/or any other function of which it is capable (for example a gyroscope or accelerometer used to record and/or detect/decipher audio communication). In some embodiments, the enclosure can include active/powered components to at least partially mask, block, attenuate, distort, confuse and/or otherwise reduce and/or eliminate the ability of any sensor to perform its primary and/or any other function of which it is capable (for example, a gyroscope or accelerometer could otherwise be used to record and/or detect/decipher audio communication).

In some embodiments, the privacy/security enclosure can include RF gaskets extending around at least a portion of an interface or housing of the privacy/security enclosure. In some embodiments, the privacy/security enclosure can include RF gaskets extending completely around a region of an upper and/or lower portion of the privacy/security enclosure. In some embodiments, the privacy/security enclosure can comprise a Faraday cage configured to attenuate, or at least partially block, reception or transmission of RF radiation. In some embodiments, the Faraday cage includes and/or is formed by the one or more RF gaskets. In some embodiments of the invention, when used in combination with one or more RF shield layers (coated, embedded, or attached to any portion of the privacy/security enclosure) the combination of the privacy/security seal formed by the one or more of the aforementioned RF gaskets and one or more RF shield layers can form a Faraday cage. In some embodiments, the Faraday cage can substantially attenuate or at least partially block RF transmission into and/or out of the privacy/security enclosure. As used herein, the term RF shield is intended to mean a barrier that is able to partially or substantially attenuate, at least partially prevent transmission through, or at least partially block transmission of RF. For example, in some embodiments, the privacy/security enclosure can include at least one RF gasket positioned within, coupled to, or integrated with the base portion and/or the lid portion of the privacy/security enclosure. In some embodiments, the privacy/security enclosure can include an RF gasket that can attenuate or at least partially block some or all RF transmission including, but not limited to, zero generation wireless signals, first generation wireless signals, second generation wireless signals, third generation wireless signals, fourth generation wireless signals, fifth generation wireless signals, any global positioning satellite signal (such as "GPS" or "GLONASS"), Bluetooth® wireless signals, RFID electromagnetic radiation, WiFi wireless signals, two-way radio RF signals, UHF or VHF signals (such as a citizen's band radio signal or other radio signal emitted from a 'walkie-talkie' type device), high-speed and millimeter wave signals, and/or near-field wireless signals. Bluetooth® is a registered trademark of Bluetooth SIG, Inc.

In some embodiments, the privacy/security enclosure can at least partially attenuate or blocking at least one transmission or signal comprising an optical signal, infrared signal, ultraviolet signal, image or video, and/or acoustic signal. In some embodiments, the privacy/security enclosure can include at least one seal or gasket extending around at least a portion of an interface between the privacy/security enclosure and the user's device that can at least partially block or attenuate an optical signal, image or video, and/or acoustic signal, and/or an RF signal.

In some embodiments of the invention a combination of one or more grooves within a portion of the privacy/security enclosure can be used with one or more o-rings or gaskets to provide various levels of sealing of the privacy/security enclosure. For example, a dual groove structure or a single groove can be implemented with a tongue structure that can be used with or without an o-ring. In some embodiments, any of the o-rings or gaskets can comprise an RF shield (i.e., can function as an RF attenuating gasket) and therefore can enable a ring seal for use in a privacy/security enclosure. In some embodiments, any o-ring or gasket can comprise a polymer-based matrix material including metal filaments dispersed in a matrix to form a polymer composite material. In some embodiments, the polymer matrix can comprise a homopolymer and/or copolymer, and can comprise an elastomeric polymer such as rubber. In some other embodiments, the o-ring or gasket can comprise a carbon fiber-filled matrix material including metal filaments dispersed in a matrix to form a carbon fiber composite material.

In some embodiments, any o-ring or gasket can be capable of forming a compliant privacy seal between portions of the privacy/security enclosure (e.g., between an upper and a lower portion and/or between two halves of the privacy/security enclosure). Further, in some embodiments, the formed seal can be capable of functioning as an environmental barrier in addition to functioning as an RF shield. For example, in some embodiments, the formed seal can be capable of providing a water and/or moisture barrier in addition to functioning as an RF shield. Further in some embodiments, when used in combination with one or more RF shield layers (coated, embedded, or attached to any portion of the privacy/security enclosure) the combination of the privacy seal and the one or more RF shield layers can form a Faraday cage to substantially attenuate or at least partially block substantially all RF transmission into the privacy/security enclosure and/or substantially attenuate or at least partially block substantially all RF transmission out from the privacy/security enclosure.

In some embodiments, more than one type of o-ring or gasket can be used. In some embodiments, each o-ring or gasket type can be optimized for a specific function (either to at least partially block or attenuate RF, sound, light, moisture, etc.). However, any one o-ring or gasket can function to attenuate or at least partially block a combination of RF, sound, light, etc. For example, in some embodiments, one or more o-rings or gaskets can function to attenuate RF, and one or more o-rings or gaskets can function to attenuate sound, and one or more o-rings or gaskets can function as an environmental barrier. Moreover, in some embodiments, one or more of the o-rings or gaskets can be larger or smaller than one or more other o-rings or gaskets. For example, in some embodiments, one or more of the grooves can be larger or smaller than one or more other groove so as to be capable of cradling a complementarily-sized o-ring.

In some embodiments of the invention, RF protection can be accomplished using a labyrinth and one or more gaskets. In some embodiments, rather than using a double labyrinth, a variety of other options can be deployed to improve manufacturability, space consumption etc., without reducing our performance. Some factors impacting gasket and labyrinth design in some embodiments include the use of gaskets that can be compressed by at least 20% to about 50% of their height in order to provide suitable attenuation.

In some embodiments, depending on the physical architecture of the privacy/security enclosure (e.g., size and/or geometry matched to one or more devices), a double labyrinth around the entire diameter of the privacy/security enclosure may be required. In this instance, some embodiments may require significant force to compress the gaskets. Further, some embodiments may require latches with mechanical advantage that can help the user close the case and hold the lid in position, as well as hinges that can support the force constantly being created by the compressed gaskets. Some further embodiments can deploy architectures that enable the labyrinth and gasket to be shorted. Other embodiments can deploy gaskets that are positioned at the bottom of the labyrinth.

In some embodiments, any of the aforementioned RF gaskets can be configured to form a compliant privacy/security seal between any number of portions of the privacy/security enclosure (e.g., between an upper and a lower portion and/or between two halves of the privacy/security enclosure). Further, in some embodiments, the formed seal can be capable of functioning as an environmental barrier in addition to functioning as an RF shield. For example, in some embodiments of the invention, one or more RF gaskets can provide the secondary benefit of minimizing the transmission of air, water, dust and other such substances from passing into the interior of the privacy/security enclosure when it is closed. In some embodiments, other or additional environmental or sealing gaskets can be included that are more specifically designed for this purpose. Furthermore, the environmental or sealing gaskets can be used with one or more RF gaskets as required. In some embodiments of the invention, a combination of one or more grooves within a portion of the privacy/security enclosure can be used with one or more RF gaskets to provide various levels of coupling, seating, and sealing of the privacy/security enclosure. In some embodiments, at least some portion of the upper and/or lower portions of the privacy/security enclosure can comprise at least one form, cavity, or depression (i.e. forming a groove) for coupling to at least one RF gasket.

In some embodiments, at least some portion of the privacy/security enclosure can comprise a metal or metal alloy. In some embodiments, the privacy/security enclosure can comprise a metal core structure. Some embodiments include a metal or metal alloy that can comprise stainless steel, magnesium, aluminum, titanium, or a titanium-magnesium alloy. In some embodiments, one or more components of the enclosed chamber can comprise a metal or metal alloy that is milled from a solid block. In some further embodiments, one or more components of the enclosed chamber can be stamped from raw sheet stock. For example, in some embodiments, components of the enclosed chamber such as a privacy/security enclosure base and/or a privacy/security enclosure lid can comprise stamped aluminum or magnesium alloy. In some other embodiments, the lid can be formed by other conventional manufacturing processes such as molding (e.g. injection molding or thermoforming), die-cutting, laser cutting, or printed using a three dimensional printer, etc.

In some other embodiments, the lid can be formed by other conventional manufacturing processes such as molding (e.g. injection molding or thermoforming), die-cutting, machining, laser cutting, printed using a three dimensional printer, thixo-forming, impact extruded or deep drawn, etc. In some further embodiments, the Faraday enclosure can be formed from conductive fabric or plastic infused with conductive elements or plastic coated or plated with conductive elements. In some embodiments, the Faraday enclosure and/or any portion of the privacy/security enclosure can be anodized and/or can comprise a polymer.

In some embodiments, at least a portion of any of the components, or sub-assemblies, housings and/or interconnects of the privacy/security enclosures herein can comprise a metal or a metal alloy substrate or coating. In some embodiments, the substrate or coating can comprise a base metal (e.g., such as nickel) with varying thicknesses of plated metals, including, but not limited to gold, palladium nickel, and titanium blend plating options. In some embodiments, the substrate or coating can comprise a metal or metal alloy (e.g., such as beryllium copper) that can electrically couple the cover to the base, and when closing the case. In some further embodiments, at least a portion of the substrate or coating can comprise copper or a copper alloy. In some other embodiments, at least a portion of the substrate or coating can comprise nickel or a nickel alloy (e.g., a nickel-copper alloy), or an alloy of copper and tin. In some embodiments, a nickel layer can be used as a diffusion barrier for a contact outer layer or surface that comprises gold. In some embodiments, at least a portion of the substrate or coating can comprise iron or steel. In some embodiments, at least a portion of the substrate or coating can comprise aluminum, magnesium, or mixtures or alloys thereof. Other useful coatings or layers can include silver, tin, or palladium.

In some embodiments, any of the aforementioned metals or metal alloy can be selected and used to form one or more electrical contacts of the privacy/security enclosure depending on the required function and/or performance. Examples of such contacts can include electrical contacts for RF shielding such as a rim or other electrical contact of the Faraday cage of the privacy/security enclosure. In some embodiments, one or more contacts can comprise a gold or gold alloy material. In some further embodiments, the contacts can comprise titanium nitride. In some other embodiments, the contacts can comprise palladium, palladium nickel, or some other pure or blended form of noble metal, which at least partially resists corrosion and oxidation. In some embodiments of the invention, various mated surfaces can use the same or different metals or metal alloy combinations for their contact surfaces, to improve or manage characteristics including, but not limited to, RF shielding performance, durability, longevity, mating sound and/or tactile feel/impression, frictional polymerization, contact resistance, conductivity, appearance, strength, fretting, hardness, and/or cost. For contacts including coatings, or modified surfaces of base metals, formation or deposition can proceed by any conventional technique including plating, cladding, electrolytic deposition, electro-less deposition, or vapor deposition among others.

In some embodiments, the privacy/security enclosure can comprise a metal core structure. Some embodiments include a metal or metal alloy that comprises stainless steel, magnesium, aluminum, titanium, or a titanium-magnesium alloy, or combinations thereof. In some embodiments, one or more components of the chamber can comprise a metal or metal alloy that is milled from a solid block. In some further embodiments, one or more components of the cover can be stamped from raw sheet stock. For example, in some embodiments, portions of the privacy/security enclosure can comprise stamped aluminum or magnesium alloy. In some other embodiments, the cover can be formed by other conventional manufacturing processes such as molding (e.g. injection molding or thermoforming), die-cutting, machining, laser cutting, printed using a three dimensional printer, etc.

In some other embodiments, at least a portion of one or more of the privacy/security enclosures described herein can comprise a material such as a polymer, or polymer composite. For example, in some embodiments, at least a portion of one or more of the privacy/security enclosures described herein can comprise an injection molded, extruded, or thermo-form polymer. In some embodiments, the polymer can comprise polyethylene, polypropylene, or polyethylene-polypropylene copolymers. In some further embodiments, the privacy/security enclosure can comprise at least one polymer comprising aramids (aromatic polyamides), poly (m-xylylene adipamide), poly(p-xylylene sebacamide), poly (2,2,2-trimethyl-hexamethylene terephthalamide), poly(piperazine sebacamide), poly(metaphenylene isophthalamide) (Nomex) and poly(p-phenylene terephthalamide), aliphatic and cycloaliphatic polyamides, including the copolyamide of 30% hexamethylene diammonium isophthalate and 70% hexamethylene diammonium adipate, the copolyamide of up to 30% bis-(-amidocyclohexyl) methylene, terephthalic acid and caprolactam, polyhexamethylene adipamide, poly(butyrolactam), poly(9-aminonanoic acid), poly(enantholactam), poly(caprillactam), polycaprolactam, poly(p-phenylene terephthalamide), polyhexamethylene sebacamide, polyaminoundecanamide, polydodecanolacatam, polyhexamethylene isophthalamide, polyhexamethylene terephthal amide, polycaproamide, poly(nonamethylene azelamide), poly(decamethylene azelamide), poly(decamethylenesebacamide), poly [bis-4-aminocyclohexyl)methane1,10-decanedi-carboxamide](Qiana)(trans), and aliphatic, cycloaliphatic and aromatic polyesters including poly(1,4-cyclohexylidene dimethyl eneterephthalate) cis and trans, poly(ethylene-2,6-naphthalate), poly(1,4-cyclohexane dimethylene terephthalate) (trans), poly(decamethylene terephthalate, poly(ethylene terephthalate), poly(ethylene isophthalate), poly(ethylene oxybenzoate), poly(para-hydroxy benzoate), poly(beta,beta dimethylpropiolactone), poly(decamethylene adipate), or poly(ethylene succinate), or mixtures thereof.

In some further embodiments, at least a portion of any of the privacy/security enclosures described herein can comprise at least one polymer formed of extended chain polymers by the reaction of beta-unsaturated monomers of the formula R1R2-C═CH2, where R1 and R2 are either identical or different, and are hydrogen, hydroxyl, halogen, alkylcarbonyl, carboxy, alkoyxycarbonyl, heterocycle or alkyl or aryl, where the alkyl or aryl can be substituted with one or more substituents including alkoxy, cyano, hydroxyl, akyl or aryl, and extended chain polymers including polystyrene, polyethylene, polypropylene, poly(1-octadecene), polyisobutylene, poly(1-pentene), poly(2-methyl styrene), poly(4-methyl styrene), poly(1-hexene), poly(1-pentene), poly(4-methoxy styrene), poly(5-methyl-1-hexene), poly(4-methylpentene), poly(1-butene), poly(3-methyl-1-butene), poly(3-phenyl-1-propene), polyvinyl chloride, polybutylene, polyacrylonitrile, poly(methyl pentene-1), poly(vinyl alcohol), poly(vinyl-acetate), poly(vinyl butyral), poly(vinyl chloride), poly(vinylidene chloride), vinyl chloride-vinyl acetate chloride copolymer, poly(vinylidene fluoride), poly (methyl acrylate, poly(methylmethacrylate), poly(methacrylonitrile), poly(acrylamide), poly(vinyl fluoride), poly(vinyl formal), poly(3-methyl-1-butene), poly(1-pentene), poly(4-methyl-1-butene), poly(1-pentene), poly(4-methyl-1-pentene), poly(1-hexane), poly(5-methyl-1-hexene),poly(1-octadecene), poly(vinyl cyclopentane), poly (vinylcyclohexane), poly(a-vinylnaphthalene),poly(vinyl methyl ether),poly(vinylethylether), poly(vinyl propylether), poly(vinyl carbazole), poly(vinyl pyrrolidone), poly (2-chlorostyrene), poly(4-chlorostyrene), poly(vinyl formate), poly(vinyl butyl ether), poly(vinyl octyl ether), poly (vinyl methyl ketone), poly(methylisopropenyl ketone), or poly(4-phenylstyrene), or mixtures thereof.

In some further embodiments of the invention, at least a portion of the privacy/security enclosure can comprise a polymer thermoset material. For example, in some embodiments of the invention, the thermosetting polymer can comprise an epoxide-based technology. In some embodiments, epoxies based on saturated or unsaturated aliphatic, cycloaliphatic, aromatic and heterocyclic epoxides can be used to form at least a portion of the privacy/security enclosure. In some further embodiments, useful epoxides can comprise glycidyl ethers derived from epichlorohydrin adducts and polyols, particularly polyhydric phenols. Another useful epoxide is the diglycidyl ether of hisphenol A. Additional examples of useful polyepoxides are resorcinol diglycidyl ether, 3,4-epoxy-6-methylcyclohexylmethyl-9,10-epoxystearate, 1,2,-bis(2,3-epoxy-2-methylpropoxy) ethane, diglycidyl ether of 2,2-(p-hydroxyphenyl) propane, butadiene dioxide, dicyclopentadiene dioxide, pentaerythritol tetrakis(3,4-epoxycyclohexanecarboxylate), vinylcyclohexene dioxide, divinylbenzene dioxide, 1,5-pentadiol bis (3,4-epoxycyclohexane carboxylate), ethylene glycol bis(3,4-epoxycyclohexane carboxylate), 2,2-diethyl-1,3-propanediol bis(3,4-epoxycyclohexanecarboxylate), 1,6-hexanediol bis(3,4-epoxycyclohexanecarboxylate),2-butene-1,4-diol-bis(3,4-epoxy-6-methylcyclohexane carboxylate), 1,1,1-trimethylolpropane-tris-(3,4-epoxycyclohexane carboxylate), 1,2,3-propanetriol tris(3,4-epoxycyclohexane carboxylate), dipropylene glycol bis(2-ethylexyl-4,5-epoxycyclohexane-1,2-dicarboxylate), diethyleneglycol-bis(3,4-epoxy-6-methylcyclohexane carboxylate), triethylene glycol bis(3,4-epoxycyclohexanecarboxylate),3,4-epoxycyclohexylmethyl-3,4-epoxycyclohexanecarboxylate,3,4-epoxy-1-methylcyclohexyl methyl-3,4-epoxy-1-methylcyclohexane-carboxylate,bis(3,4-epoxycyclohexylmethyl) pimelate, bis(3,4-epoxy-6-methylenecyclohexylmethyl)maleate, bis(3,4-epoxy-6-methylcyclohexylmethyl) succinate, bis(3,4-epoxycyclohexylmethyl) oxalate, bis(3,4-epoxy-6-methylcyclohexylmethyl) sebacate, bis(3,4-epoxy-6-methylcyclohexylmethyl)adipate, bis(3,4-epoxycyclohexylmethyl) terephtalate, 2,2'-sulfonyldiethanol bis(3,4-epoxycyclohexanecarboxylate), N,N'-ethylene bis(4,5-epoxycyclohexane-1,2-dicarboximide), di(3,4-epoxycyclohexylmethyl)-1,3-tolylenedicarbamate,-3,4-epoxy-6-methylcyclohexane carboxaldehyde acetal, 3,9-bis (3,4-epoxycyclohexyl) spirobi-(methadioxane), and the like.

In some other embodiments of the invention, thermosetting resins based on aromatic vinyl esters can be used to form at least a portion of the privacy/security enclosure. These can include a condensation product of epoxide resins and unsaturated acids usually diluted in a compound having double bond unsaturation such as vinyl aromatic monomer (e.g., styrene and vinyl toluene, and diallyl phthalate). Illustrative of useful vinyl esters are diglycidyl adipate, diglycidyl isophthalate, di(2,3-epoxybutyl) adipate, di(2,3-epoxybutyl) oxalate, di(2,3-epoxyhexy 1) succinate, d(3,4-epoxybutyl) maleate, d(2,3-epoxyoctyl) pimelate, di(2,3-epoxybutyl) phthalate, di(2,3-epoxyocty 1) tetrahydrophthalate, di(4, 5-epoxy-dodecyl) maleate, di(2,3-epoxybutyl) terephthalate, di(2,3-epoxypentyl) thiodipropionate, di(5,6-epoxy-tetradecyl) diphenyldicarboxylate, di(3,4-epoxyheptyl) sulphonyldibutyrate, tri(2,3-epoxybutyl) 1,2,4 butanetricarboxylate, di(5,6-epoxypentadecyl) maleate, di(2,3-epoxybutyl) azelate, di(3,4-epoxybutyl) citrate, di(5,6-epoxyoctyl) cyclohexane-1,3-dicarboxylate, di(4,5-epoxy octadecyl) malonate, bisphenol-A-fumaric acid polyester and the like.

In some embodiments, at least a portion of the privacy/security enclosure can include a filler material. For example, some embodiments can include a thermoplastic or thermosetting resin that includes at least some filler material dispersed through at least a portion of the privacy/security enclosure. In some embodiments, the filler material can be dispersed substantially homogenously through at least a portion of at least one layer of the privacy/security enclosure. In some other embodiments, the filler material can be substantially unevenly distributed through at least a portion of the privacy/security enclosure. For example, in some embodiments, the filler material can be dispersed substantially unevenly through at least a portion of at least one layer of the privacy/security enclosure. In some embodiments, the filler material can be amorphous or crystalline, organic or inorganic material. In some other embodiments, the particle size of the filler material can be between 1-10 microns. In some other embodiments, at least some portion of the filler material can be sub-micron. In some other embodiments, at least a portion of the filler can comprise a nano-sized particle filler material. In some embodiments, the filler can comprise a fibrous material. In some embodiments, at least a portion of the filler can be oriented in a preferred direction.

In some further embodiments of the invention, at least a portion of one or more of the privacy/security enclosures described herein can comprise an animal-based material such as leather or suede, and/or a plant derived material cellulosic material such as wood, cork, and/or a wood-based composite material.

Some embodiments of the invention can include one or multiple rows of fingerstock bonded into a cover assembly or any interface between at least two portions of the privacy/security device. In some embodiments, in some or each row of fingerstocks, a hollow or solid conductive elastomer can be used. In some embodiments of the invention, in some or each row of fingerstocks, conductive elastomer can comprise a generally circular cross-section. In some further embodiments of the invention, in some or each row of fingerstocks, conductive elastomer can comprise a generally oval cross-section. In some other embodiments of the invention, in some or each row of fingerstocks, conductive elastomer can comprise a generally square or rectangular cross-section. In some embodiments, the bearing surface on the base can be nickel-plated for conductivity and surface hardness.

In some embodiments, at least some portion of the structurally self-supporting enclosed chamber can comprise a metal or a metal alloy. Some embodiments include a metal or metal alloy that can comprise stainless steel, magnesium, aluminum, titanium, or a titanium-magnesium alloy. In some embodiments, one or more components of the enclosed chamber can comprise a metal or metal alloy that is milled from a solid block. In some further embodiments, one or more components of the enclosed chamber can be stamped from raw sheet stock. For example, in some embodiments, components of the enclosed chamber such as a privacy/security enclosure base and/or a privacy/security enclosure lid can comprise stamped aluminum or magnesium alloy. In some other embodiments, the lid can be formed by other conventional manufacturing processes such as molding (e.g., injection molding or thermoforming), die-cutting, laser cutting, or printed using a three dimensional printer, etc.

In some embodiments, at least some portion of the privacy/security enclosure including the structurally self-supporting enclosed chamber can comprise a polymer or polymer composite. In some other embodiments, at least some portion of the structurally self-supporting enclosed chamber can comprise a composite. In some further embodiments, at least some portion of the structurally self-supporting enclosed chamber can comprise a polymer or polymer composite that includes a metal (such as a metal flake, metal powder, or a metal alloy coating, or other metal dispersion). Some embodiments include a metal or metal alloy that can comprise stainless steel, aluminum, or magnesium. In some embodiments, numerous other materials can be incorporated into various embodiments of the privacy/security enclosure.

For example, some embodiments can use injection molded plastic portions, and a wide variety of other conventional product materials such as wood, composite and/or ceramic. Moreover, in some embodiments, the privacy case can comprise a finished surface such as a polished surface. In some embodiments, the privacy/security enclosure can comprise a box for corporate boardrooms that would encompass multiple devices (similar to any commercial cigar box). In some embodiments, metallic meshes/fabrics and/or conductive metallic paints and finishes can be applied to one or more portions of the privacy/security enclosure (internally or externally) to create the RF shield and/or Faraday cage.

Some embodiments of the invention include a privacy/security enclosure with an inner shell coupled to an outer shell. In some embodiments, the inner shell and outer shell can comprise the same material (e.g., the inner and outer shells can each comprise a metal, or a polymer or a composite, and so on). In some other embodiments, the inner shell and outer shell can comprise different materials. For example, in some embodiments, components of the enclosed chamber such as a privacy/security enclosure base inner shell and/or a privacy/security enclosure lid inner shell can comprise a stamped metal or metal alloy (e.g., such as an aluminum and/or magnesium alloy), and a privacy/security enclosure base outer shell and/or a privacy/security enclosure lid outer shell can comprise a non-metal material such as an injection molded polymer or polymer composite material. In this instance, the inner and outer shells of the base and lid can be coupled by a variety of conventional coupling methods including but not limited to a snap-fit, a latch, a hinge, or combinations thereof.

In some other embodiments, at least some portion of the structurally self-supporting chamber can comprise a flexible and/or compliant material. In some embodiments, the material can include at least one of a cloth or fabric, a polymer or polymer composite film or sheet, or other flexible material. In this instance, the privacy/security enclosure can be structurally supported by one or more enclosed user devices, such as a mobile or stationary communication device. For example, in some embodiments, the privacy/security enclosure can comprise a flexible bag that can lay flat or be folded when empty, but can be configured to expand to accommodate at least one RF transceiver such as a mobile or stationary communication device.

Referring now to FIG. **1**, in some embodiments, the privacy/security enclosure **100** can comprise a rigid, structurally self-supporting enclosed chamber. For example, in some embodiments, the privacy/security enclosure **100** can comprise a clam-shell type enclosure including an inner region **105** formed by coupling a lower portion, and an upper portion of a main housing **110**. Some embodiments include at least one user device (such as the RF transceiver comprising a smart phone as depicted, and shown as device **10**) positioned in the inner region **105**. The privacy/security enclosure **100** can cradle the user device, and the upper portion can at least partially enclose one or more devices by at least partially moving and closing a base portion **120** and a lid portion **115**.

In some embodiments, the privacy/security enclosure **100** can include a base portion **120** and a lid portion **115** coupled by at least one pivot. For example, in some embodiments, the privacy/security enclosure **100** can include a base portion **120** and a lid portion **115** coupled by at least one conventional hinge mechanism **107**. In some embodiments, the base portion or the lid portion can be shaped to accommodate at least a portion of a hinge mechanism **107**. In some embodiments, one or more edges of the base portion **120** can include at least one notch capable of providing clearance for a pivot mechanism. In some embodiments, the base portion **120** or lid portion **115** or both can include a plurality of notches for providing clearance or for attachment of various portions of a pivot mechanism. Further, in some embodiments, the base portion **120** or lid portion **115** or both can include a plurality of apertures for providing attachment of various portions of a pivot mechanism. For example, in some other embodiments, one or more surfaces of the base portion **120** and/or one or more surfaces of the lid portion **115** can include at least one aperture capable of securing one or more components of the privacy/security enclosure **100**. In some embodiments, any one of the above-mentioned apertures can include an attachment member (e.g., a screw, rivet or other coupling structure).

Some embodiments include a liner **130** positioned in the base portion **120** and/or the lid portion (not shown). As shown in FIG. **1**, in some embodiments, the privacy/security enclosure **100** can include a liner **130** that can be shaped to fit substantially seamlessly from the outer periphery of the base, and can include at least one inner storage cavity. For example, in some embodiments, the liner **130** can include a storage cavity **135** shaped to cradle an RF transceiver (device **10**). The example embodiments shown in FIG. **1** includes a storage cavity **130** positioned substantially centrally within the base portion **120**, and shaped to cradle and at least partially surround the device **10**. In some embodiments, the liner **130** can comprise RF and/or acoustic shielding material forming a sealing interface **125**.

In some embodiments, the base portion **120** and lid portion **115** can be coupled and pivoted with respect to each other to enable at least partial access to an inner region **105** of the privacy/security enclosure **100** by opening to an angle of between about 0° to about 90°. Referring to FIG. **2**, some embodiments include a privacy/security enclosure **200** that opens to an angle of between about 90° and about 180°.

The privacy/security enclosure **200** comprises a main housing **210** including a base portion **220**, and a lid portion **215** coupled by a hinge mechanism **207** shown coupled along a one edge of the base portion **220** and the lid portion **215**. The base portion **220** and lid portion **215** can be coupled and pivoted with respect to each other to enable at least partial access to an inner region **205** of the privacy/security enclosure **200** by opening to an angle of between about 90° and about 180°. In some other embodiments, the base portion **220** and lid portion **215** can be pivoted with respect to each other and angled at an angle of greater than about 180° (not shown). For example, in some embodiments, the base portion **220** and lid portion **215** can be pivoted with respect to each other and angled at an angle of about 190°. In some embodiments, this can allow the privacy/security enclosure **200** to lay substantially fully open on a surface (e.g., such as a desk) and accommodate a base portion **220** that is thicker than the lid portion **215**. In some embodiments, the privacy/security enclosures **100**, **200** can be closed, providing no access to the inner regions **105**, **205** and effectively shielding the contents of the privacy/security enclosures **100**, **200** from RF signals, and/or preventing sounds outside the enclosure from being monitored. For example, as shown in FIGS. **10-15**, showing various views of numerous embodiments of a closed privacy/security enclosures **1000**, **1100**, **1200**, **1300**, **1400**, **1500**, the privacy/security enclosures can include a base and lid portions where the base portion is substantially parallel to the lid portion, and the base portion and lid portion are substantially matingly coupled and/or engaged.

In some embodiments, the hinge mechanisms **107**, **207** can comprise a conventional friction hinge (such as a conventional friction hinge found in a conventional laptop computer). In some other embodiments, the hinge mechanism can comprise an open hinge mechanism, such as the hinges distributed by Taili Glasses Parts Co., ltd. (http://www.tailiglassesparts.com/eyeglasses_hinges.html). In some other embodiments, the hinge mechanisms **107**, **207** can comprise a closed hinge mechanism, and can be sourced through Alibaba.com (http://www.alibaba.com). ALIBABA" and "ALIBABA.COM" and related icons and logos are registered trademarks or trademarks or service marks of Alibaba Group Holding Limited. In other embodiments, the hinge mechanisms **107**, **207** can comprise other types of coupling members capable of allowing the pivoting portions of the privacy/security enclosures **100**, **200** to pivot and/or rotate with respect to each other. For example, in some embodiments, the hinge mechanisms **107**, **207** can comprise a conventional spring-clip.

In some further embodiments, the base and lid portions of the privacy/security enclosures **100**, **200** can be decoupled. For example, in some embodiments, the privacy/security enclosures **100**, **200** can be configured to enable a user to separate the base and lid portions. For example, in some embodiments, the privacy/security enclosures **100**, **200** can include separate base and lid portions that can be matingly coupled and/or engaged by the user. Consequently, in some embodiments, a user can then choose to open the privacy/security enclosures **100**, **200** by decoupling the base and lid portions.

In some embodiments, at least some portion of the privacy/security enclosure can include a radio-frequency shield (hereinafter referred to as an "RF shield"). As used herein, the term "RF shield" is intended to mean a barrier that is able to substantially attenuate, at least partially prevent transmission through, or at least partially block transmission of RF radiation (hereinafter referred to "RF"). For example, in some embodiments of the invention, the RF shield can attenuate (i.e. reduce in signal strength) an RF signal by about 100 dB. In some other embodiments, the RF shield can provide greater than about 100 dB signal attenuation. In some embodiments, the RF shield can attenuate an RF signal by less than about 100 dB while still disrupting effective communication.

In some embodiments, any privacy/security enclosure described herein can include an RF shield that can be capable of attenuating or at least partially blocking RF radiation from entering or exiting the privacy/security enclosure. In some embodiments, this can allow for bandwidth selectable pass-through capabilities. In some embodiments, the privacy/security enclosure can form a Faraday cage capable of substantially attenuating RF signals (whether emitted from one or more mobile or stationary communication devices, or whether emitted from another source). For example, in some embodiments, at least a portion of the privacy/security enclosure is formed of a material substantially attenuating to RF radiation emitted from one or more mobile or stationary communication devices. In some other embodiments, the privacy/security enclosure can be formed of a material including at least a portion that is capable of substantially attenuating radio-frequency radiation emitted from outside of the privacy/security enclosure. For example, in some embodiments, at least a portion of the RF shield and/or Faraday cage can comprise aluminum. magnesium, copper, steel, or other conductive metal, metallic paints or coatings, wire mesh fabrics in one or more layers or orientations etc., or plastics infused with conductive elements, conductive compounds, and/or conductive mixtures. In some embodiments, at least a portion of the Faraday cage can be optically translucent or transparent. Some embodiments can include a screen emulator. For example, in instances where the privacy/security enclosure includes substantial portions that are not optically transparent, a screen emulator can be used to replicate the enclosed device's screen on a screen that is outside of the privacy/security enclosure.

In some embodiments, one or more slots, windows, or openings can be formed in any portion of the privacy/security enclosure Faraday cage. In some embodiments, this can allow for features such as connecting internal and external antennas, each or all of which can provide varying levels of attenuation or gain at various frequencies. Further, in some embodiments, this can allow cables or wires to pass into the privacy/security enclosure for various purposes including charging the battery of internal devices, or the battery of the privacy/security enclosure, or to access any other internal component from the outside of the enclosure. Further, in some embodiments, the one or more slots, windows, or openings can be used to allow certain RF transmissions through based on the size and location of the slot/opening (e.g. such as in the case of the use of a slot antenna). Some embodiments of the invention can pass certain frequency ranges (with or without attenuation or gain) while attenuating other frequencies. In some embodiments, this can be achieved using one or more slots, windows, or openings that are configured in an open or partially open position. In some embodiments, when the one or more slots, windows, or openings that are configured in a closed configuration, some or all RF frequencies can be attenuated (thereby minimizing leakage).

Further, some embodiments can comprise mechanical or electro-mechanical switches and cut-offs, band pass filters, and other technologies, alone or in combination with each other and/or with antennas, repeaters, amplifiers and other such technologies.

In some embodiments, at least a portion of the privacy/security enclosure is formed of a material substantially attenuating RF radiation emitted to or from any RF antennas or transceivers when they are positioned inside the privacy/security enclosure. In some embodiments, the privacy/security enclosure can comprise a Faraday cage to substantially attenuate, or at least partially block reception of RF radiation. Some embodiments of the invention can comprise an RF shield layer positioned within or on at least a portion of a base portion, or a lid portion, or both. For example, FIG. **3** shows a partial cross-sectional view of a privacy/security enclosure **300** according to one embodiment of the invention that includes an RF shield layer **305**.

The privacy/security enclosure **300** shown includes an enclosure shell or housing **310** that encloses an inner region **320**. Attached to the housing **310** is an RF shield layer **305**. At least some portion of the RF shield layer **305** can be placed between the enclosure shell **310** (i.e., where the enclosure shell **310** as shown could be at least some portion of the base and/or at least some portion of the lid) and an enclosure liner **315**. In other embodiments, the RF shield layer **305** can be placed in other regions of the privacy/security enclosure **300**. For example, the RF shield layer **305** could be placed on the outside of the enclosure shell **310** (e.g., as a cover material) or embedded in the enclosure shell **310**. In some embodiments, the enclosure shell layer **305** can include layers of metal, alloy, wire, a wire mesh, a pure metallic casing, or some other electrically conductive material. In other embodiments, the enclosure liner **315** can comprise the RF shield (i.e., the enclosure liner **315** performs a function of providing a physical lining of the enclosure and also functions as an RF shield). As shown in FIG. **3**, in some embodiments, the RF shield layer **305** can extend across an entire inner surface of the enclosure shell **310** of the privacy/security enclosure **300**. The view as shown includes a partial cross-sectional view of a privacy/security enclosure according to some embodiments of the invention. The view is not meant to limit the scope of the invention, and one of ordinary skill in the art would recognize that the view would also be representative of an opposite side of the privacy/security enclosure (i.e., a base portion or a lid portion or both). In this instance, the enclosure shell **310** as shown can be either a base portion or a lid portion (e.g., such as base portion **220** or a lid portion **215** of privacy/security enclosure **200**), and the RF shield layer **305** can extend across an entire inner surface of the privacy/security enclosure **300** (wherein the portion **302** as shown could function as a base portion or a lid portion). In some embodiments, the RF shield layer **305** can be substantially continuous. In other embodiments, the RF shield layer **305** can be discontinuous (i.e., it can be patterned and/or can contain gaps or apertures of various sizes).

In some embodiments, materials useful for fabricating an RF shield for at least one embodiment of the invention described herein can include materials comprising of metal, metal alloys, or any other conductive material including ultra-conductive film or coating. For example, some embodiments can include a polymer and/or carbon-fiber based layer (e.g., a film, coating or cover) that can include at least one conductive layer. Some embodiments can utilize LORD® "UltraConductive Film and Coatings for Lightning Strike Protection" products with 121 dB attenuation (found at the following web address: http://www.lord.com). In some embodiments, tests have shown that a carbon composite coated with the LORD® "UltraConductive Film" achieved 121 dB of EMI shielding, equivalent to that of a solid 1-mm thick aluminum layer.

Other materials useful for fabricating an RF shield for at least one embodiment of the invention can include materials comprising Lessemf.com, Y-Shield paint with 30 to 40 dB attenuation @ 1 to 18 GHz, http://www.lessemf.com/paint-.html, an EMP Faraday Bag with 40 db @ 1 to 10 GHz, http://www.lessemf.com/cellphon.html, and shielding fabric with 50 to 80 dB @ 10 MHz to 3 GHz, http://www.lessmf.com/fabric.html

Still other materials useful for fabricating an RF shield for at least one embodiment of the invention can include materials comprising Ibagroup.com RF paint with 30 to 40 dB attenuation, see http://www.lbagroup.com/products/shielding-paints, and fabric with 80 to 100 db attenuation @ 200 MHz to 10 GHz, see http://www.lbagroup.com/products/rf-shielding-fabrics.

Other materials useful for fabricating an RF shield for at least one embodiment of the invention can include materials comprising an Aaronia RFI shield fabric with 80 to 100 db attenuation @ 1 GHz to 10 GHz, such as those available from Kaltman Creations, llc, see http://www.kaltmancreationsllc.com/rf-test-equipment-html/rf-sensitive-html/.

Other materials useful for fabricating an RF shield for at least one embodiment of the invention include 3M™ Dri-Shield (metalized polyester and polyethylene with 45 dB attenuation) available from 3M Company.

Still other materials useful for fabricating an RF shield for at least one embodiment of the invention include nickel coated graphite mats, nickel coated steel foils and copper mesh with 70 to 93 dB @ 10 MHz to 17 GHZ, available from Fiberforge (http://www.fiberforge.com).

In some further embodiments of the invention, materials useful to form an RF shield in one or more embodiments of the invention include a layer of material comprising a polymer-based matrix material including metal filaments dispersed in a matrix to form a polymer composite material. In some embodiments, the polymer matrix can comprise a homopolymer and/or copolymer, and can include at least one ceramic, and/or at least one polymer-ceramic mixture. For example, in some embodiments, the RF shield can comprise a layer of material comprising nickel filaments dispersed in polyethersulfone ("PES") as disclosed in "Nickel Filament Polymer-Matrix Composites With Low Surface Impedance and High Electromagnetic Interference Shielding Effectiveness", Xiaoping Shui and D. D. L. Chung, Journal of Electronic Materials, Vol. 26, No. 8, 1997.

In some other embodiments, materials useful in one or more embodiments of the invention include a layer of material comprising a carbon fiber-based matrix material including metal filaments dispersed in a matrix to form a carbon fiber composite material. In some embodiments, the carbon fiber matrix can comprise a homopolymer and/or copolymer, and can include at least one ceramic, and/or at least one polymer-ceramic mixture. In some embodiments, the metal filaments can comprise nickel filaments. In some further embodiments, the metal filaments can include copper filaments and/or stainless steel filaments.

Some embodiments of the invention can include using fabrics with copper or metallic wire/wire mesh woven into base fabric, with layering and/or crossed fabric layers. In some embodiments, an RF shield can be placed between layers of cloth fabric. For example, in some embodiments, an RF shield layer as described earlier can be formed into or embedded in a cloth fabric. In this example embodiment, the cloth layer can then be used to line at least some portion of the inner region (e.g., the inner region of the base portion, or lid portion or both, and/or at least some portion of the outside of the privacy/security enclosure).

As described earlier, FIGS. **10-15** show perspective views of privacy/security enclosures in which the base portion and lid portion are substantially matingly coupled and/or engaged to form a closed privacy/security enclosure. The mobile communication device (device **10**) shown in FIGS. **1-2** or FIGS. **13-15** would be shielded from view by the enclosures shown in FIGS. **10-15**. Further, in some embodiments, the shell of the privacy/security enclosure can be non-transparent (i.e., substantially attenuating to visible light) and capable of shielding the inner region of the privacy/security enclosure from view. For example, the privacy/security enclosures **1000**, **1100**, **1200**, **1300**, **1400**, **1500** shown in FIGS. **10-15** and described herein can completely prevent direct viewing of any enclosed communication device, and can prevent video cameras or other visible light sensors from imaging the enclosed communication device.

In some embodiments, the privacy/security enclosure can include a cover that is capable of at least partially covering at least one video camera within at least one user device. In some embodiments, the cover can be the base or lid portion, and/or can comprise a further structural component integrated within, coupled with, or included within the privacy/security enclosure. For example, in some embodiments, at least some portion of the privacy/security enclosure can comprise a material that is at least partially or substantially fully attenuating to visible light radiation. For example, in some embodiments, the lid portion can comprise a translucent region or "window", capable of allowing some light to enter and exit the privacy/security enclosure. In this instance, a user can be able to view the presence or absence of any mobile or stationary communication device within a closed privacy/security enclosure (i.e., the user can understand the presence of the device without opening the privacy/security enclosure). However, in this instance, the translucent region would not enable a user or another individual or imaging device to read and comprehend a visual display of the communication device, or read and comprehend any information printed or inscribed on the communication device. In some other embodiments, other portions of the privacy/security enclosure can include at least one region capable of at least partially attenuating visible light radiation. For example, some embodiments include a base portion and/or a lid with one or more translucent regions. In some embodiments, one or more cameras (i.e., still or moving picture recording apparatus sensitive to the visible light, infra-red light and/or UV light) will be attenuated to an extent that renders video recording devices enclosed within the privacy/security enclosure incapable of recording images outside of the enclosure. In some other embodiments of the invention, other sensors of enclosed devices such as light, proximity, heat/thermal, biometric and other such sensors will be partially or substantially fully blocked by the privacy/security enclosure.

In some further embodiments of the invention, the privacy/security enclosure can suppress sound to substantially eliminate eavesdropping. In some embodiments, the privacy/security enclosure can substantially block and/or damp the signals reaching audio sensors and microphones. For example, in some embodiments, the privacy/security enclosure can include audio blocking so that typical conversation-level audio outside the privacy/security enclosure will not be intelligible or discernible by the enclosed device's microphone. In some embodiments, the enclosure can include sound dampening layers/materials. For example, in some embodiments, at least a portion of the privacy/security enclosure is formed of a material substantially attenuating sound emitted from one or more mobile or stationary communication devices. In some other embodiments, at least a portion of the privacy/security enclosure is formed of a material substantially attenuating sound emitted from outside of the privacy/security enclosure.

In some further embodiments of the invention, the privacy/security enclosure can suppress the ability of various other sensors when enclosed within the privacy/security enclosure. For example, in some embodiments, the privacy/security enclosure can substantially block and/or damp the signals reaching other sensors such as accelerometers, gyroscopes, magnetometers. In some embodiments, the enclosure can include materials configured to at least partially block or attenuate a signal that would normally be sensed by any accelerometers, gyroscopes, or magnetometers that may be coupled to one or more enclosed devices.

In some embodiments, the privacy/security enclosure can comprise a structure that includes at least one sound attenuation layer. For example, in some embodiments, the privacy/security enclosure can include a sound attenuation layer coupled with the enclosure liner **315** shown in FIG. **3**. Further, in some embodiments, the enclosure liner **315** can comprise a sound attenuation layer. In some embodiments, the privacy/security enclosure can include a sound attenuation layer positioned within the privacy/security enclosure so that it is immediately adjacent to a microphone and/or a loudspeaker of a device **10**.

In some embodiments, sound attenuation can be accomplished by increasing the thickness of one or more regions of the privacy/security enclosure. For example, in some embodiments, the privacy/security enclosure can comprise a base portion and/or a lid portion with increased thickness to provide a level of sound attenuation that is greater than that provided for base portion and/or a lid portions that are thinner. In some embodiments, when the base portion and/or lid portion comprises an inner and outer shell, either the inner shell or outer shell or both can be made thicker in order to provide increased sound attenuation. Increasing the thickness of any portion of the privacy/security enclosure can increase the mass of the privacy/security enclosure in some embodiments.

By definition, every frequency has a corresponding wavelength (impacted by phase velocity). In some embodiments, for any privacy/security enclosure, there can be a frequency that resonates based at least in part on its dimensions, material of construction, and mass. If the resonant frequency falls within the audible frequency spectrum, it is more likely that the sound pressure wave will pass to the interior of the privacy/security enclosure. However, in some embodiments, the stiffness or shape of the privacy/security enclosure can push these resonant frequencies away and/or out of the audible voice range. In some embodiments, the material used, its mass, formed shape, and any reinforcing structures such as internal ribbing can increase the stiffness for a particular dimension and modify sound resonance within the privacy/security enclosure.

In some embodiments, sound attenuation can be accomplished using at least one low pressure or vacuum region or pocket within the privacy/security enclosure. For example, one or more vacuum pockets can be integrated in a base portion and/or a lid portion of a privacy/security enclosure to provide a sound attenuation function. In some embodiments, the vacuum pocket can be integrated into a wall of the base portion or the lid portion, integrated within an inner shell coupled to an outer shell of the base or lid portions, or formed by coupling an inner shell to an outer shell to form a vacuum pocket between the inner and outer shells. In some embodiments, a vacuum pump can create at least a partial vacuum in at least a portion of the interior of the privacy/security enclosure. In some embodiments, the vacuum pump can be a separate unit or integrated into the privacy/security enclosure in some embodiments, and can be actuated in various known ways including a motor or a manual actuator.

Some embodiments include other sound attenuation that can be used alone, or with those described previously. Some embodiments of the invention can include at least one vibration dampener. For example, in some embodiments, the privacy/security enclosure can include at least one material and/or at least one component capable of attenuating a vibration. In some embodiments, the privacy/security enclosure can include a vibration dampening coating. The coating can be applied to at least some region of a base portion and/or a lid portion (including for example be applied to one or more metal regions or components). In some further embodiments, the vibration dampening coating can comprise a lead-impregnated vinyl. In some other embodiments, the vibration dampening can be achieved using an aerogel material in the form of a coating, sheet, or one or more layers. In other embodiments, the vibration dampening coating can include at least one conventional acoustical dampening material.

In some embodiments, sound attenuation can be enabled using at least one vibration damping structural feature capable of coupling with any surface of any enclosed device.

For example, in some embodiments, sound attenuation can be enabled using at least one structural feature capable of coupling with one or more microphones of an enclosed device. In some embodiments, the privacy/security enclosure can include at least one structural sound attenuator (e.g., such as a cap or header or footer) positioned inside the privacy/security enclosure that is capable of pressing against one or more microphones of any enclosed device in order to reduce, muffle, and/or substantially block sound from being picked-up by the one or more microphones.

Some embodiments include a vibration damping structural feature comprising an isolation cage. For example, in some embodiments, one or more regions of the privacy/security enclosure can include a suspended vibration isolation cage. In some embodiments, at least one user device can be placed within the vibration isolation cage, and suspended within the privacy/security enclosure in order to attenuate vibrations reaching or being emitted from one or more enclosed devices. Some embodiments include a suspended vibration isolation cage coupled to an inner surface of the privacy/security enclosure using a conventional suspension mount. For example, in some embodiments, the vibration isolation cage can be coupled to an inner surface of the privacy/security enclosure using a coupler comprising an elastomeric material. In other embodiments, the coupler can comprised a fluid-filled chamber in which the fluid is selected for its attenuation of certain vibration frequency ranges.

FIGS. **4**, **5**, **6**A-**6**C, and **7**A-**7**D show perspective views of passive acoustical attenuation technology according to at least one embodiment of the invention. For example, FIG. **4** shows one example of a privacy/security enclosure **400** that is filled with vibration damping foam **415** that can exclude (i.e., displace) sound carrier air, while also providing damping of enclosure vibration caused by exterior sound. As shown, in some embodiments, each portion **405**, **410** of the privacy/security enclosure **400** can be at least partially filled with vibration damping foam **415** with at least one deformation seal **430** and at least one o-ring seal **435**. Further, in some embodiments, the phone side surface of each half of the damping foam can be shaped or otherwise contoured with one or more features **420**. For example, in some embodiments, the phone side surface can include a trough and/or depression **425** to accommodate and/or cradle at least a portion of a phone. Some embodiments can include one or more ridges **422** to support and/or suspend a phone. In some embodiments, at least a portion of the phone side surface of the foam **415** can comprise a high deformation material. In some further embodiments, at least some of one or more foam portions **415** can comprise a gel-like material **445** comprising sound absorbing materials.

Some embodiments can include passive acoustical protection using multiple air-to-enclosure boundaries. In this instance, each successive boundary can provide additional attenuation. For example, as depicted in the assembly view of FIG. **5**, in some embodiments, at least one enclosure boundary can include an acoustical reflective outer layer with a “dead” inner layer (shows as **550**) including latch **555**. Some embodiments include an enclosure **500** comprising an adsorptive shell half **510** and shell half **514** with gasket labyrinth interface **575**, fuzzy interior **570**, and suspension hooks **585**. Some embodiments include a suspended frame **515** including an elastomeric enclosure forming an aperture **530** and extension inserts **525** for coupling with the suspension hooks **585**. In some embodiments, the device **10** can be inserted into the frame **515** and supported within the enclosure **500**.

In some embodiments, while the assembly shown in FIG. **5** provides a substantially airtight seal (which also provides protection against water and dust etc.), the primary reason for the gasket labyrinth interface **575** is for RF attenuation. In some embodiments, the gasket labyrinth interface **575** can comprise a conductive gasket that can form at least a portion of a Faraday cage capable of providing RF protection. For example, some embodiments can include a gasket portion comprising a soft elastomer that can be shaped to extend at least a partial distance around the interface between two portions of the privacy/security enclosure. In some embodiments, the gasket portion can include inserts that comprise sound dampening foam and/or the aforementioned gel comprising sound dampening foam. In some embodiments, at least some portion of the privacy/security enclosure **500** (e.g., such as at least one enclosure boundary) can include suspension hooks **585**, and in some embodiments, at least part of the gasket portion **515** can couple with one or more of the hooks **585**. In some further embodiments, the one or more of the inner enclosures (forming a boundary between an outer enclosure) can comprise a sound absorbing shell. In some embodiments, the outer surface of one or more inner enclosures can comprise at least one suspension damper capable of attenuating and isolating one internal enclosure from another (internal or outer) enclosure. In some embodiments, the target microphone can be excited by vibrations caused by sound pressure waves. In some embodiments, an internal suspension system for one or more communication devices (such as a phone) can reduce the amount of vibration that reaches the microphone. Other benefits can include drop and shock protection.

Some embodiments of the invention can enable a user to upgrade and/or customize and/or maintain the acoustical dampening of the privacy/security enclosure. For example, as shown in FIG. **6**B, some embodiments of the invention can include a privacy/security enclosure **650** comprising one or more assemblies including an installable microphone sealing material (with assembly **600** shown in FIG. **6**A and an embodiments of a seal of the privacy/security enclosure **650** shown in FIG. **6**C). In some embodiments, a tight seal applied directly to any microphone within the privacy/security enclosure **650** can further reduce the sound pressure waves that reach the microphone(s). As shown in FIG. **6**B, some embodiments include a privacy/security enclosure **650** including an elastomeric trampoline-type suspension assembly **660**. In some embodiments, the suspension assembly **660** can be coupled to one portions of the privacy/security enclosure **650**, and can be configured to be coupled to a grip an enclosure portion. For example, referring to the assembly view **600** of FIG. **6**A, some embodiments include a case **605**, trampoline suspension **610**, and grip case **615**. Further, auxiliary microphone plug **625**, foam **620**, and main microphone plug **630** can be assembled into the case **605** for sealing one or more microphones of a user's device. In some embodiments, a main microphone plug **630** can be coupled to the grip enclosure portion (grip case **615**), and in some further embodiments, the auxiliary microphone plug **625** can be coupled to the grip case **615**. In some embodiments, the main microphone plug **630** and/or the auxiliary mic plug **625** can attenuate sound to prevent it being sensed by one or more microphones in the device **10** (shown in FIG. **6**B).

In some embodiments, two portions of the privacy/security enclosure **650** can include at least one o-ring capable of sealing at least a portion of the privacy/security enclosure **650**. Further, in some embodiments, the at least one sealing o-ring can comprise a substantially airtight or near airtight seal formed substantially around the seam of the privacy/

security enclosure **650**. In this instance, when the privacy/security enclosure **650** is closed, the airtight seal reduces the sound waves reaching the target microphone. Other benefits include air, water and dust protection. Further, in some embodiments, at least a portion of one or more portions of the privacy/security enclosure can include a copper plated lining and/or layer. For example, FIG. **6**B shows a cross-sectional view of the privacy/security enclosure **650** showing a device **10** held within the suspension assembly **660** formed by the assembly **600** shown in FIG. **6**A. FIG. **6**C shows a partial assembly view of a section of the case **605**. For example, the wall section **670** coupled to wall section **680** (forming a case half **605***b*) can be coupled to the case half **605***a* as shown. The case half **605***b* can comprise the sections **670**, **680** coupled using a screw **687**. The wall section **680** can include a copper plate **685** in some embodiments. Further, the wall section **670** can include a groove **692** containing a sealing o-ring **690** into which a tongue portion **606** of the case half **605***a* is inserted to form the privacy/security enclosure **650**.

Some embodiments of the invention can include a combination of sound attenuation technologies. For example, as shown in FIGS. **7**A-**7**D, some embodiments can utilize elastomeric webs to suspend the phone and vibration damping inserts. In some embodiments, the privacy/security enclosure **700** can include sound dampening foam distributed between one or more elastomeric ribs. For example, FIG. **7**A shows the privacy/security enclosure **700** including a case shell form by a base half **705** and a lid half **708**. In some embodiments, a foam web **720** can be positioned in one or more of the halves **705**, **708**. Soft foam **725**, **730** can also be integrated as shown. FIG. **7**C shows a partial assembly view of a section of the case **705**. For example, the wall section **762** (forming a portion of the case half **708***b*) can be coupled to a wall section **759** (forming a portion of a case half **705***a*). The wall section **759** is shown including an outer wall **755**, which in some embodiments includes a multi-layer steel wall **765**. Further, in some embodiments, foam section **750** and rib section **760** can be coupled to the wall section **759**. At least one Faraday gasket **770** with air and water tight seal **775** can be coupled to a tongue **785** of the wall section **762** by coupled with the seal formed from gasket or o-ring **780**. The wall section **762** can comprise a gasket **790** coupled to an outer wall **795**. FIG. **7**D shows a close-up view of a device **10** coupled with a portion of the foam frame **796**, **798** when positioned in the privacy/security enclosure **700** as described. In some embodiments, the foam **725**, **730**, **750** can comprise a soft, open cell memory foam that utilizes elastomeric webs (ribs **760**) to suspend the phone and vibration damping inserts between the webs that also act as shock absorbers in the case of severe impact. In some embodiments, the case shell (e.g., formed by outer walls **755**, **795** shown in FIG. **7**C) can also be a composite structure designed for sound blocking, damping, and RF shielding characteristics (as well as video and other shielding characteristics). Further, in some embodiments, foam-faced plungers can be positioned to compress against the microphone ports of a communication device when the enclosure is closed.

Some embodiments of the invention include active acoustical control. For example, some embodiments include active masking of audio listening devices using at least one audio masking device. In some embodiments, active acoustical control can comprise at least one sound generator (such as a speaker) transmitting audio masking signals such that any enclosed microphone and/or microphone recording of one or more targeted devices is not able to distinguish the masking signals from other audio content that may or may not have been present at the time of the broadcast of the masking signal. In some embodiments, the audio content can comprise babble, chirps, pink noise, or white noise. Thus, in some embodiments sound is recorded but audibly buried with the signals that are broadcast so that the sounds are substantially indistinguishable from the masking signal. A variety of masking sounds can be used for this purpose including, but not limited to high or low frequency sounds (including those outside of unassisted human perception). In some instances, the audio masker can be a standalone feature or device, and can include a powered speaker option. For example, FIGS. **8**A-**8**B show one embodiment of the invention including a privacy/security enclosure **800** comprising an elastomeric suspension portion (**810** coupled with **825**), and at least one speaker that can emit sound in the general area of one or more communication devices (e.g., such as a phone). In some embodiments, the privacy/security enclosure **800** comprising a housing including a base portion **810** and a lid portion **815**. Further, the privacy/security enclosure **800** can include an active sound system **850** positioned within the housing **805** that can utilize one or more piezoelectric transducers **830**, **840**, **845**. In some embodiments, a battery **870** is provided for powering the active sound system **850**, and optionally for use as an auxiliary power supply for a phone via conventional electromechanical or inductive coupling technologies.

In some further embodiments, the privacy/security enclosure can include an acoustical attenuation comprising an elastomeric suspension that is removable from the privacy/security enclosure to allow easy fitting of the phone. As illustrated in FIGS. **9**A-**9**C, in some embodiments, the elastomeric suspension **900** can include a vibration isolating portion **955** comprising sound dampening foam that can be located at the microphone ports. Further, some embodiments can also include active/powered acoustical transmission via a speaker **930** coupled through a port **925**. For example, in some embodiments, a portion of the foam **960** directly adjacent to the microphone port can include at least one embedded speaker **975** within the foam **985** coupled to a silicone frame portion **980** of the elastomeric suspension **900** (shown in FIG. **9**C) capable of introducing noise within the vicinity of the microphone port of a communication device. In some embodiments, embedded speakers **975** can be included based on the geometry of one or more enclosed devices in order to offer the flexibility to be used with different communication devices that can vary in size, quantity, and shape. Moreover, in some embodiments, embedded speakers **975** can be included based on the quantity and/or sizes of microphones. In some embodiments, the broadcast of noise can create a signal that can limit or prevent a microphone in the privacy/security enclosure from detecting the presence and/or intelligibility of voices. In some embodiments, the noise can be deterministic, partly-deterministic, or a random sound envelope. In some embodiments, the noise signal could be chirping (a single tone starting from some frequency and shifting to another frequency that can go over an audible frequency range and repeat). In some embodiments, the noise can comprise a random chirping (e.g., a sequence of random chirps played serially). Further, in some embodiments, each chirp can cover some portion of the audible range. Some further embodiments include a crowd noise and/or babble (e.g., multiple, substantially simultaneous speaking voices). Some other embodiments can include random and/or colored noise (e.g., random noise with a specific shape in the frequency domain including white noise, pink noise, brown noise, blue noise, gray noise, or other). Some embodiments of the invention can include a speaker driver to produce any one of the above mentioned noise sound envelopes within the privacy/security enclosure **900** or some portion of the privacy/security enclosure **900** (e.g. a sock or other mechanism holding one or more devices). In some embodiments, the sound driver (e.g., a speaker) can be configured for low power consumption, accuracy in reproducing the desired random noise source, and one or more front and back driver volume controls.

Some embodiments include selective activation of acoustical masking. For example, in order to conserve power or to minimize obtrusive noise, some embodiments include a microphone capable of detecting the presence of speech. In some embodiments, when speech is detected, noise is broadcast to at least partially mask the speech (through a process of listening and responding). In some further embodiments, a broadcast tail (e.g. some time period, which may vary based on goal) can be used when speech is no longer detected (to accommodate pauses in conversation). Further, some embodiments include varying the power level of the noise signal being broadcasted based on the volume of speech detected. Further, some embodiments of the invention include broadcasting a low volume of sound substantially all of the time. Some embodiments of the invention can also include various controls (e.g., buttons or some other such interface) that can allow users to either activate or bypass the listen and response and/or other features. In some embodiments, a user can use the controls to selectively broadcast noise continuously at varying power levels, or to turn the device off entirely to allow for calls, or for some other such purpose, including those in which no audio masking is desired.

Some embodiments of the invention include access ports. For example, in some embodiments, the privacy/security enclosure can include at least one slot or aperture configured to allow access to a device port. In some embodiments, at least some portion of the base and/or the lid of the privacy/security enclosure can include one or more apertures or slots that can enable access to an enclosed device. In some embodiments, one or more access ports can enable power, audio, video, or other signals to be transmitted into and out of the privacy/security enclosure. Further, in some embodiments, a power supply, an audio signal, and/or a video signal can be transferred into or from any device within the privacy/security enclosure while substantially attenuating or substantially blocking receipt and transmission of RF signals to and from the privacy/security enclosure.

In some embodiments, the privacy/security enclosure can include at least one accessory pouch. For example, as shown in FIG. **2**, in some embodiments, the privacy/security enclosure **200** can include at least one accessory pouch **202** such as an internal sleeve or pocket capable of securing documents, credit or debit cards, driver's license, etc. In some embodiments as shown, the lid portion **215** can include the accessory pouch **202** including a plurality of pockets or compartments **202***a*. In some other embodiments, the privacy/security enclosure **200** can include at least one accessory pouch capable of securing an accessory selected from a group consisting of a pen, a pencil, coin currency, paper or plastic currency notes, USB memory sticks, and keys (e.g., house or automobile keys and key fobs). In some embodiments, the pouch **202**, **202***a* can comprise a metal mesh wallet.

In some embodiments, at least some portion of the privacy/security enclosure can include a colored covering. For example, in some embodiments, at least some portion of the base portion or lid portion of the privacy/security enclosure can be colored (e.g., the base or lid can be red in color). In some embodiments, at least some portion of the privacy/security enclosure can include a multiple colored covering. For example, in some embodiments, at least some portion of the base or the lid of the privacy/security enclosure can comprise multiple colors.

Some embodiments include a privacy/security enclosure that can include a patterned surface. For example, in some embodiments, at least some portion of the base or the lid of the privacy/security enclosure can include a patterned surface. In some embodiments, at least some portion of the base or the lid of the privacy/security enclosure can include printed text. In some embodiments, at least some portion of the base or the lid of the privacy/security enclosure can be textured.

In some embodiments, the privacy/security enclosure can include a covering layer. For example, in some embodiments, the privacy/security enclosure can comprise a substantially structurally supporting member including for example a base and lid portion, and at least some portion of the base or the lid of the privacy/security enclosure can be covered by at least one covering layer. In some embodiments, the covering layer can comprise carbon fiber. In other embodiments, the covering layer can comprise a polymer film or a fabric-based material. In some embodiments, the shape of the outer surface of the privacy/security enclosure can dictate the material used for the covering layer and the process used to couple the covering layer to the outer surface of the privacy/security enclosure shell (e.g., by coupling to either the base portion or the lid portion).

In some further embodiments, colors, patterns, textures, prints, or inserted materials can be applied to inside of the privacy/security enclosure (e.g., to liners, accessories, socks, and/or blocking foams etc.,) as well as to hinges and/or latches on the outside of the privacy/security enclosure.

FIG. **10** illustrates a perspective view of a privacy/security enclosure **1000** according to one embodiment of the invention including filleted corners. The privacy/security enclosure **1000** can comprise a housing **1005** including a base portion **1020** and lid portion **1010** coupled by a hinge **1030**. As shown, in some embodiments, the corners of the base portion and the lid portion base portion **1020** (shown as **1026**) and lid portion **1010** (shown as **1024**) can be filleted so that the corners are curved, and the outer edge of the base portion and the lid portion can comprise a curved surface.

FIG. **11** illustrates a perspective view of a privacy/security enclosure **1100** according to another embodiment of the invention. The privacy/security enclosure **1100** can comprise a housing **1105** including a base portion **1120** and lid portion **1110** coupled by a hinge **1130**. As shown, in some embodiments, the corners (**1126**) of the base portion **1120** and the corners (**1124**) of the lid portion **1110** can be curved. Further, the edge interfaces of the corners of the base portion and the lid portion can be substantially flat as they meet with the top surfaces of the portions **1110**, **1120**. For example, the edge interface **1128** formed with the top surface **1112** can be substantially flat proximate the corner **1124**). Further, the transition from the top surface of the base portion and to the wall surface **1126***a* of the base portion **1120**, and the transition from the top surface **1112** to the wall surface **1124***a* of the lid portion **1110** can include a sharp or abrupt edge. Moreover, in some embodiments, the edge can be at least partially curved.

FIG. **12** illustrates a perspective view of a privacy/security enclosure according to a further embodiment of the invention. As shown, in some embodiments, the corners of the base portion **1220** (shown as **1224**) and the corners of the lid portion **1210** (shown as **1214**) can be curved. Further, the base portion **1220** and the lid portion **1210** can include a curved transition region from their respective top surface (top surface **1211** of the lid portion **1210** being visible in the view of FIG. **12**) to the wall surface **1216**. In some embodiments as shown, the corners **1224**, **1214**) can include a reduction in the radius of curvature of the corners **1224**, **1214** (as compared with the embodiments of FIGS. **10** and **11**). In some embodiments, the reduced radius in the corners **1224**, **1214** can reduce distortion and wear of the surfaces of the privacy/security enclosure **1200**.

Some further embodiments of the invention include a privacy/security enclosure design comprising at least one outside cover feature. For example, FIGS. **13-15** show perspective views of various embodiments of a privacy/security enclosure. FIG. **13** illustrates a perspective view of a privacy/security enclosure **1300** adjacent to user device **10** in which the outer cover **1340** comprises a longitudinal feature **1330**. The housing **1305** can comprise a base portion **1320** and lid portion **1310** including an outer cover **1340**. The outer cover **1340** can include the feature **1340** that can extend at least a partial length of the housing **1305**. In some embodiments, the feature **1340** can comprise any color or texture as described earlier. Further, in some embodiments, the feature **1340** can comprise a window, layer, logo, emblem, display, or other functional or aesthetic feature.

FIG. **14** illustrates a perspective view of a privacy/security enclosure adjacent to smart phone according to one embodiment of the invention in which the outer cover comprises a central feature, and FIG. **15** illustrates a perspective view of a privacy/security enclosure adjacent to smart phone according to one embodiment of the invention that includes a central feature extending across the width of the privacy/security enclosure. For example, referring to FIG. **14**, the housing **1405** can comprise a base portion **1410** and lid portion **1415** including an outer cover **1430**. The portions **1410**, **1415** are shown coupled by a pivot or hinge assembly **1420**. The outer cover **1430** can include the centrally located feature **1440** that can extend at least a partial length of the housing **1405**. In some embodiments, the feature **1440** can comprise any color or texture as described earlier. Further, in some embodiments, the feature **1440** can comprise a window, layer, logo, emblem, display, or other functional or aesthetic feature. Further, referring to FIG. **15**, the housing **1505** can comprise a base portion **1510** and lid portion **1515** including an outer cover **1550**. The outer cover **1550** can include the centrally located feature **1555** that can extend at least a partial length of the housing **1505**. In some embodiments, the feature **1555** can comprise any color or texture as described earlier. Further, in some embodiments, the feature **1555** can comprise a window, layer, logo, emblem, display, or other functional or aesthetic feature. Further, in some embodiments, a side **1540** of the privacy/security enclosure **1500** can comprise any color or texture as described earlier. The embodiments shown in FIGS. **13-15** depict a user device **10** (e.g., a smart phone) positioned adjacent to the closed privacy/security enclosures, and in each enclosure represent one embodiment of a user device that can be enclosed by the adjacent privacy/security enclosure.

As described earlier, in some embodiments, the privacy/security enclosure can be closed. In some instances, closure and sealing of a base and lid portion of a privacy/security enclosure can be facilitated by the use of at least one tongue and groove. As discussed earlier, FIG. **3** shows a cross-sectional view of at least a portion of an outer rim of a shell enclosure of a privacy/security enclosure that can include a tongue and groove ring (shown as **325**). In other embodiments, the privacy/security enclosure can include single tongue and groove architecture. Some embodiments can include a groove positioned on a base portion and a single tongue positioned on a lid portion, configured and arranged to matingly engage when the privacy/security enclosure is closed. In some embodiments, either one or both of a base portion and a lid portion can include an inner surface comprising a tongue and groove structure. Moreover, in some embodiments, the use of a plurality of tongue and grooves, with each tongue and groove including a conductive gasket, can add incremental RF shielding based at least in part on the number of tongues, grooves, and conductive gaskets. For example, FIG. **16** is a perspective view of an open privacy/security enclosure **1600** according to one embodiment of the invention. The privacy/security enclosure **1600** can comprise a main housing **1605** including a base portion **1610** and a lid portion **1615** enclosing an inner region **1602**. In some embodiments, a groove **1625** can extend at least partially around the edge **1610***a* of the base portion **1610**, and a groove **1635** can extend at least partially around the edge **1615***a* of the lid portion **1615**.

FIG. **17** is a cross-sectional view of a privacy/security enclosure lid portion **1615** or base portion **1620** of the privacy/security enclosure **1600** of FIG. **16** according to one embodiment of the invention. The wall section **1700** can be coupled to wall section **1710**, and surface **1750**. The groove **1775** (representing either of the grooves **1625** or **1635** of FIG. **16**) is shown at least partially extending into the wall section **1700**.

In some embodiments, any privacy/security enclosure described herein can include two closely spaced tongue and groove structures (e.g., as represented by the cross-sectional view of FIG. **3**). For example, FIG. **18** is a perspective view of an open privacy/security enclosure **1800** according to another embodiment of the invention. The privacy/security enclosure **1800** can comprise a main housing **1805** including a base portion **1810** and a lid portion **1815** enclosing an inner region **1802**. In some embodiments, a groove **1825** can extend at least partially around the edge **1810***a* of the base portion **1810**, and a groove **1835** can extend at least partially around the edge **1815***a* of the lid portion **1815**.

FIG. **19** is a cross-sectional view of a privacy/security enclosure lid portion **1815** or base portion **1820** of the privacy/security enclosure **1800** of FIG. **18** according to one embodiment of the invention. The wall section **1900** can be coupled to wall section **1905**, and surface **1915**. The grooves **1925**, **1935** (representing either of the grooves **1825** or **1835** of FIG. **18**) are shown at least partially extending into the wall section **1900**.

In some embodiments, the one or more grooves can extend around an outer perimeter of the inner region (e.g., as shown in the example embodiment of FIG. **16**), and can be positioned immediately adjacent to the inner region. In some other embodiments, the one or more grooves can extend around an outer perimeter of the inner region (e.g., as shown in FIG. **16**), and can be located immediately adjacent to the outer surface of the base or lid portion. In some further embodiments, the one or more grooves can extend around an outer perimeter of the inner region (e.g., as shown in FIG. **16**), and can be substantially centrally positioned between the inner region surface and the outer surface.

In some embodiments, any privacy/security enclosure disclosed herein can include an upper ring and a lower ring, in which the upper ring is capable of engaging the lower ring to form a seal. The upper ring can include at least two members capable of engaging a plurality of slots or grooves within the lower ring, and the lower ring can include a plurality of members capable of engaging a plurality of slots or grooves within the upper ring. In some further embodiments, the lower ring can include at least two members capable of engaging a plurality of slots or grooves within the upper ring, and the upper ring can include a plurality of members capable of engaging a plurality of slots or grooves within the lower ring. In some other embodiments, the upper ring can include at least one member capable of engaging a plurality of slots or grooves within the lower ring, and the lower ring can include one or more members capable of engaging one or more slots or grooves within the upper ring. In some further embodiments, the lower ring can include at least one member capable of engaging one or more slots or grooves within the upper ring, and the upper ring can include a plurality of members capable of engaging one or more slots or grooves within the lower ring.

FIG. **20**A is a cross-section view through region A of the privacy/security enclosure of FIG. **2** according to one embodiment of the invention. The section **2000** can comprise a lower ring **2010** and an upper ring **2015**. The groove assembly **2050** (shown comprising ring seal **2070** in FIG. **20**B) can comprise a seal **2025** position in the upper ring **2015**, and at least one seal **2040** positioned in the lower ring **2010**. The seals **2025**, **2040** can comprise an RF or EMI o-ring seal in some embodiments. FIG. **20**B is a perspective view of ring seal **2070** for use in a privacy/security enclosure according to one embodiment of the invention. The ring seal **2070** can comprise a corrugated frame comprising at least one groove **2080** bounded by at least one extension **2075**. In some embodiments, the at least one groove **2080** can be used to house a gasket or o-ring.

Various numbers of grooves can be used in some embodiments. For example, one embodiment of a dual groove structure can be seen in FIG. **19**, and a single groove example is illustrated in FIG. **17**. In some embodiments, any of these groove structures can be implemented with a tongue structure such as the tongue architecture illustrated in FIG. **20**A, and can be used with or without an o-ring. For example, in some embodiments, one or more o-rings can be placed between any of the upper members of the upper ring and the slots of the lower ring, and/or between any of the members of the lower ring and the slots of the upper ring. In some embodiments, any one of the plurality of o-rings (e.g., any one of the o-rings seals **2040**, **2050** shown in FIG. **20**A) can comprise an RF shield (i.e., can function as an RF attenuating gasket) and therefore, can enable a ring seal for use in a privacy/security enclosure. In some embodiments, any one of the plurality of o-rings can comprise a polymer-based matrix material including metal filaments dispersed in a matrix to form a polymer composite material. In some embodiments, the polymer matrix can comprise a homopolymer and/or copolymer, and can comprise an elastomeric polymer such as rubber. In some other embodiments, any one of the plurality of o-ring can comprise a carbon fiber-filled matrix material including metal filaments dispersed in a matrix to form a carbon fiber composite material. In some embodiments, any one of the plurality of o-rings seals **2050**, **2050** shown in FIG. **20**A can be capable of forming a compliant privacy seal between an upper ring and lower ring of a privacy/security enclosure.

In some embodiments, the formed seal can be capable of functioning as an environmental barrier in addition to functioning as an RF shield. For example, in some embodiments, the formed seal can be capable of providing a water and/or moisture barrier in addition to function as an RF shield. In some embodiments, the plurality of o-rings seals **2040**, **2050** shown in FIG. **20**A can be capable of forming a substantially water-resistant or substantially water-proof privacy seal between an upper ring and lower ring of a privacy/security enclosure. Further in some embodiments, when used in combination with the RF shield layer described earlier and shown in FIG. **3**, the combination of the privacy seal form by the structure of FIG. **20**A and the RF shield layer **305** of FIG. **3** can form a Faraday cage to substantially attenuate or at least partially block substantially all RF transmission into the privacy/security enclosure, and/or substantially attenuate or at least partially block substantially all RF transmission out from the privacy/security enclosure. In this instance, at least a portion of the o-ring seals **2040**, **2050** can be electrically conductive.

In some embodiments, more than one type of o-ring can be used with any of the upper members of the upper ring and the slots of the lower ring, and/or between any of the members of the lower ring and the slots of the upper ring structures described above. In some embodiments, each o-ring type can be optimized for a specific function (either to at least partially block or attenuate RF, sound, light, moisture, etc.). However, any one o-ring can function to attenuate or at least partially block a combination of RF, sound, light, etc. For example, in some embodiments, one or more of the o-rings can function to attenuate RF, and one or more o-rings can function to attenuate sound, and one or more o-rings can function as an environmental barrier. Moreover, in some embodiments, one or more of the o-rings can be large or smaller than one or more other o-rings. For example, in some embodiments, one or more of the grooves can be larger or smaller than one or more other groove so as to be capable of cradling a complementarily-sized o-ring.

Some embodiments include alternative arrangements and geometries for providing a configurable privacy/security enclosure. For example, FIG. **21** is a perspective view of a privacy/security enclosure **2110** according to another embodiment of the invention. In some embodiments, the privacy/security enclosure **2110** can include a housing **2105** comprising a bottom enclosure portion **2115** including an inner region **2130**, and a lid portion **2110** coupled by at least one hinge mechanism **2105**. The lid portion **2110** can also include an inner region **2135** to accommodate an upper portion **10**_a_ of a device **10**. As depicted in FIG. **21**, in some embodiments, the bottom enclosure portion **2115** and the lid portion **2110** can be pivoted with respect to each other by the at least one hinge mechanism **2105**. Moreover, as shown, in some embodiments, the privacy/security enclosure **2100** can include a bottom enclosure portion **2115**, and a lid portion **2110** coupled along one edge proximate the at least one hinge mechanism **2105**. The bottom enclosure portion **2115** and the lid portion **2110** can be pivoted can be positioned and pivoted with respect to each other to enable at least partial access to the inner regions **2130**, **2135** of the privacy/security enclosure **2100**. Moreover, in some embodiments, the bottom enclosure portion **2115** and the lid portion **2110** can be coupled along one longitudinal side, and angled at an angle of between about 0° and about 90° (shown as pivot angle P). In some further embodiments, the bottom enclosure portion **2115** and the lid portion **2110** can be coupled along one longitudinal side, and angled at an angle greater than about 90°.

In some embodiments, the bottom enclosure portion **2115** and the lid portion **2110** can at least partially enclose and/or cradle one or more mobile or stationary communication devices within their respective inner regions **2130**, **2135**. Moreover, in some embodiments, at least some portion of at least one mobile or stationary communication device can be enclosed by the bottom enclosure portion **2115**, and at least some portion (e.g., an upper portion **10***a*) of the mobile or stationary communication device can extend outwardly from the inner region **2130** defined by the bottom enclosure portion **2115**.

In some embodiments, the lid portion **2110** can include a latching mechanism **2127**, and the bottom enclosure portion **2115** can include a latch **2125** coupled to the at least one side of the bottom enclosure portion **2115** of the privacy/security enclosure **2100**. Further, the lid portion **2110** can include a latch coupling **2140** coupled to at least one side of the lid portion **2110** of the privacy/security enclosure **2100**. In some embodiments, the coupling **2140** can be coupled with the latch **2125**. For example, in some embodiments, when the bottom enclosure portion **2115** and the lid portion **2110** are pivoted so as to be coupled together (i.e., the pivot angle P between the bottom enclosure portion **2115** and the lid portion **2110** is about zero), the privacy/security enclosure **2100** is closed and at least some portion of the latch **2125** can couple with the latch coupling **2140** to secure the bottom enclosure portion **2115** to the lid portion **2110**. In some other embodiments, the latch **2125** can include other structures suitable for engaging and securing the bottom enclosure portion **2115** to the lid portion **2110**, including conventional clips, magnetic latches, Velcro latches, etc.

Some embodiments include an alternative arrangement and geometry for providing a configurable privacy/security enclosure. For example, FIG. **22** is a perspective view of a privacy/security enclosure **2200** according to another embodiment of the invention. In some embodiments, the privacy/security enclosure **2200** can include a bottom enclosure portion **2210** including an inner region **2230**, and a lid portion **2215** capable of being coupled to the bottom enclosure portion **2210**. As depicted in FIG. **22**, in some embodiments, the bottom enclosure portion **2210** and the lid portion **2215** can be separated with respect to each other. Moreover, as shown, in some embodiments, the privacy/security enclosure **2200** can include the bottom enclosure portion **2210** and a separate lid portion **2215** capable of being positioned and aligned to allow a user to close the privacy/security enclosure **2200** (to substantially enclosing a mobile or stationary communication device such as the device **10** shown) by sliding the lid portion **2215** onto the bottom portion **2210** (e.g., similar to the operation of a conventional memory stick enclosure). In some embodiments, a user can grasp the lid portion **2215** to slide off and remove the lid portion **2215** from the bottom enclosure portion **2210** so as to enable at least partial access to the inner region **2230** of the privacy/security enclosure **2200**. As illustrated in FIG. **22**, in some embodiments, the bottom enclosure portion **2210** can at least partially enclose and cradle a mobile or stationary communication device or devices (with upper portion **10** extending out of the inner region **2230**). Moreover, in some embodiments, at least some portion of the mobile or stationary communication device can be enclosed by the bottom enclosure portion **2210** and at least some portion (an upper portion **10***a*) of the mobile or stationary communication device can extend outwardly and away from the bottom enclosure portion **2210** and into the lid portion **2110** when the lid portion **2110** is position coupled to the bottom enclosure portion **2210**.

In some other embodiments, the bottom enclosure portions **2115**, **2210** can be longer or shorter than shown. For example, in some embodiments, the bottom enclosure portions **2115**, **2210** can be longer to enable a greater proportion of a mobile or stationary communication device to be enclosed and cradled, and to allow a lesser proportion of a mobile or stationary communication device to extend outwardly and away from the bottom portion. In some embodiments, this can provide a user or casual observer reduced access to one or more displays or one or more controls of one or more mobile or stationary communication devices. Conventional optical filters can also be used to limit casual observer observation in some embodiments.

In some other embodiments, at least a portion of the bottom portion or the lid portion of any of the privacy/security enclosures shown in FIGS. **1**, **2**, and **8**A, and **10-12**, can include an access window. In some embodiments, the access window can enable direct viewing access to the inner region of the privacy/security enclosure. In some other embodiments, the access window can comprise RF signal opacity. In some embodiments, one or more mobile or stationary communication devices can be positioned in the privacy/security enclosure so that any conventional antenna can be immediately adjacent to the access window. In some other embodiments, the access window can enable a user to access one or more controls of any mobile or stationary communication device within the privacy/security enclosure.

Some embodiments include an alternative arrangement and geometry for providing a configurable privacy/security enclosure. For example, in some embodiments, the privacy/security enclosure can include an inner region, capable of extending or retracting one or more mobile or stationary communication devices. In some embodiments, a device cradled within the inner region of the privacy/security enclosure can be extended out of the inner region and/or retracted into the inner region.

Some embodiments include other arrangements and geometry for providing a configurable privacy/security enclosure. In some embodiments, the lid portion can be a telescoping and retracting lid. For example, in some embodiments, the lid portions **115**, **215** as shown in FIGS. **1** and **2** can comprise a telescoping and/or retractable lid. In this instance, at least a portion of the telescoping and/or retractable lid can be extended or retracted to at least partially cover or uncover the mobile or stationary communication device.

Some embodiments of the invention include an onboard power source. For example, in some embodiments, the privacy/security enclosure can include at least one power source capable of providing power to the privacy/security enclosure and/or one or more devices within the privacy/security enclosure. Some embodiments of the invention include a rechargeable and/or replaceable battery capable of powering enclosure components such as microcontrollers and processors, speakers, and sound drivers, one or more light sources (such as LED's), switches, power amplifiers, signal generators, and any of numerous other electronic components. Some embodiments of the invention include a rechargeable and/or replaceable battery or another rechargeable and/or replaceable power source such as a power storage capacitor. For example, in some embodiments, any one of the privacy/security enclosures described herein can comprise or include a rechargeable and/or replaceable battery or other rechargeable and/or replaceable power source capable of charging a user device while positioned in the privacy/security enclosure. In this example embodiment, power can be delivered by plugging into an external power socket such as a wall socket or a car adapter socket. Further, some embodiments include an onboard power source such as a rechargeable and/or replaceable battery or other power source (such as a power storage capacitor) as a sole power source that can be capable of charging a user device while positioned in the privacy/security enclosure. In this instance, the onboard power source can be capable of charging the user device and/or can be capable of powering the user device.

Any of the embodiments depicted in the figures and description above can include passive attenuation or at least partial blocking of at least one of RF, sound, and/or light as described earlier and/or signals detectable by sensors within targeted devices (e.g. gyroscopes, accelerometers, magnetometers, light sensors, proximity sensors, cameras, thermal sensors etc.) Some further embodiments can include an active/powered attenuating, at least partially blocking, interfering and/or masking of at least one of RF, sound, light and/or signals detectable by sensors within contained devices, some of which are illustrated in FIGS. **23**A, **23**B, **23**C, **24**A, **24**B, **25**A, **25**B, **25**C, **25**D, **26**A, **26**B, **27**A, **27**B, **28**A, and **28**B, and FIGS. **29-33**.

In some embodiments, the privacy/security enclosure includes at least one system capable of active/powered attenuation. In some embodiments, since regulatory requirements may not allow transmission of interfering RF signals at the desired level, positioning one or more RF transmitters along or inside of an RF shield may reduce transmissions to acceptable levels outside of the privacy/security enclosure. In some embodiments, while not a regulatory constraint, the same concept applies to active audio masking, with a benefit of any active audio transmission being less obtrusive because it is attenuated by the passive audio attenuation characteristics of the privacy/security enclosure.

In some further embodiments, the privacy/security enclosure can include at least one system capable of actively attenuating and/or substantially masking or blocking sound and/or vibration. Other embodiments include at least one system capable of passively or actively attenuating or substantially blocking video and/or video or imaging (e.g., by passively or actively blocking a video camera). Other embodiments include at least one system capable of passively or actively attenuating, confusing, altering or substantially blocking data gathered by other sensors contained on a device targeted/within the privacy/security enclosure including, but not limited to, sensors such as thermometers, motion sensors, compass, proximity sensors, magnetic sensors, gyroscopes, gravitational sensors, thermal imaging sensors, humidity sensors, barometric sensors, UV sensors, step counters, orientation sensors, gaming sensors, rotational sensors, molecular sensors, olfactory sensors, accelerometers and others.

In some embodiments, the privacy/security enclosure can actively substantially block or interfere with an electronic communication. For example, the electronic communication can comprise an RF signal (such as a cellular, WiFi, a GPS signal, and a Bluetooth® signal), and/or an RFID or other RF tracking device. In some other embodiments, the privacy/security enclosure can include a conventional RF jammer. In some embodiments of the invention, the privacy/security enclosure can include or comprise a rechargeable and/or replaceable battery enclosure capable of providing power to an RF jammer. In some embodiments, the privacy/security enclosure can passively and/or actively attenuate and/or interfere with or at least partially block substantially all RF transmission including, but not limited to, a zero generation wireless signal, a first generation wireless signal, a second generation wireless signal, a third generation wireless signal, a fourth generation wireless signal, a fifth generation wireless signal, a global positioning satellite signal, (such as "GPS" or "GLONASS"), a Bluetooth wireless signal, RFID electromagnetic radiation, a WIFI wireless signal, a two-way radio RF signal, a UHF or VHF signal (such as a citizen's band radio signal or other radio signal emitted from a 'walkie talkie' type device), high-speed and millimeter wave signals, and a near-field wireless signal. In some embodiments of the invention, the privacy/security enclosure can include at least one transmitter capable of emitting a blocking or interfering signal. In some embodiments, the blocking or interfering signal can be capable of attenuation, interfering with and/or at least partially blocking a signal from passing through the privacy/security enclosure, and can at least partially block, interfere and/or attenuate a signal confined to an area proximity of device, including inside and outside of the privacy/security enclosure. Further, in some embodiments, the privacy/security enclosure can at least partially block and/or attenuate a signal when the privacy/security enclosure is closed (i.e., when the enclosure is enclosing one or more user devices, or when the privacy/security enclosure is open). In some embodiments, the privacy/security enclosure can emit a blocking or interfering signal when the enclosure is open or when the enclosure is closed.

In some embodiments, noise and/or a ripple is added to the DC power supply or ground inside the communication device. Some embodiments can include capacitive, inductive coupling, antenna coupling, or direct connection introduction of noise. In some embodiments, single tone swept signal sources, band filtered white noise, multiple tones with modulation, or some combination of these techniques across some or all frequency bands can be used. In some embodiments, various tone types or noise sources (or combination thereof) can be generated in non-regulated frequency bands (or within the transmission limits of regulated frequency bands) such that the sources interweave to create interfering signals in restricted regulatory bands. In some embodiments, induced noise and/or a ripple can affect RF subsystems of some communication devices (e.g., such as the frequency synthesizers). In some embodiments, noise and/or a ripple is added that can defeat multiple DC regulators within the communication device.

FIGS. **23**A-**23**C illustrate an active RF attenuation privacy/security enclosure according to another embodiment of the invention. For example, some embodiments can include an interfering signal that can be coupled capacitively to the phone's circuits (e.g., FIG. **23**A, showing privacy/security enclosure **2300** with active noise circuit **2310**). In this instance, no wired electrical connection is needed in some embodiments. In some other embodiments, a ground connection can be made through the headphone jack or charging port (FIG. **23**B, showing privacy/security enclosure **2325** with active noise circuit **2330**). Some further embodiments can include an inductive interference of one or more circuits within the communication device (FIG. **23**C with privacy/security enclosure **2350** and active noise circuit **2360**). For example, in some embodiments, an interfering signal can be coupled inductively to the phone's circuits. In this instance, no electrical connection is needed, and various selected areas of the communication device can be targeted. In some other embodiments, a direct connection can relay an interfering signal via the charging port, test ports or multiple ports (headphone and charging port, battery contacts) of a communication device.

In some embodiments, passive components designed to alter a phone's antenna behavior are placed in strategic locations near the phone's antennas. For example, FIGS. **24**A-**24**B illustrates an active RF attenuation using a device positioned adjacent to the phone. In this instance, the phone's antenna efficiency can be reduced so that reception and transmission of signals is disrupted. In some other embodiments, the active components can be positioned near the phone's antenna. For example, as illustrated in FIGS. **24**A-**24**B, including user devices **2400** and **2450**, in some embodiments, a parasitic antenna (**2410** in FIG. **24**A and **2460** in FIG. **24**B) can be placed near the phone's antenna (s). In this instance, the parasitic antenna can couple with the phone's antenna. In some embodiments, the parasitic antenna can at least partially change the resonant frequencies and circuit matching of the phone's antenna, and the parasitic antenna can intercept RF power and channel it into a resistor. Some embodiments include a movable/switchable antenna. For example, in some embodiments, in order to disable or enable individual phone functions at will, an external antenna system can be either electrically controllable, or physically moveable so that its functionality can be turned on or substantially turned off.

Some embodiments include the addition of electronic switches or phase shifters that allow more complex antenna structures to be configurable electronically. As depicted in FIGS. **25**A-**25**D, showing systems **200**, **2515**, **2530**, and **2545**, in some embodiments, the resonant frequency, spatial layout, and directionality of the phone's antenna can be controlled automatically. In this instance, individual phone systems can be affected, and can provide the ability optimize and/or enhance the antenna's attenuation in a given direction. In some embodiments, a parasitic antenna can be switchable (e.g., electronically), and a parasitic antenna can be tuned for various frequency bands (device **2500** including switchable antenna **2510**, shown as antenna **2515** with switch **2520** in FIG. **25**B). In some further embodiments, an array of antenna elements (shown as **2545** using the array **2530** shown in FIG. **25**C with one or more antennas **2535**) can be electrically reconfigured or tuned in order to vary its effect on the phone.

In some embodiments, one or more features of one or more communication devices can be modified. For example, FIGS. **26**A-**26**B illustrate an active RF attenuation privacy/security enclosures **2600**, **2650** according to another embodiment of the invention. In some embodiments, an internal RF test port can be used to directly introduce RF signals into one or more receivers of the device (shown as **2610** coupled through port **2615**). In some further embodiments, it can be possible to attenuate a received signal by shorting the internal antenna lead at a test port. In some embodiments, it can be possible to connect to RF test points inside the device. For example, in some embodiments, an external RF interference generator can be directly connected to a phone's RF subsystem via a cable that, in some embodiments, can reduce the amount of radiated interference (shown as **2655** with switch **2660**). Some further embodiments include modification of the battery of the device to ensure that the device is powered off when desired.

Some embodiments include inductive coupling interference directly into critical circuits inside the communication device. For example, FIGS. **27**A-**27**B illustrate an active RF attenuation privacy/security enclosures **2700**, **2750** according to another embodiment of the invention. Using the circuit **2715**, it can be possible transmit RF interference through the phone's antenna. In some embodiments, this can be achieved by adding an electromagnetic structure outside the phone. This structure can induce concentrated and targeted RF interference into vulnerable circuits in the phone. In some further embodiments, an antenna coupling can be utilized to disrupt one or more functions of a communication device. For example, in some embodiments, RF interference can be injected into the phone via an external antenna (shown as **2760** in FIG. **27**B) that is designed to optimize coupling to the phone's internal antenna. In some embodiments, inductive coupling is likely to cause less electromagnetic interference than antenna coupling.

Some further embodiments can include the use of a transparent Faraday cage (e.g., as depicted in FIG. **28**A showing privacy/security enclosure **2800** including transparent Faraday cage **2810**). Referring to FIG. **28**B, in some further embodiments, the privacy/security enclosure **2850** can include a very low power base station **2870** coupled to external antenna **2865**, and transmitting to/from antenna **2860**, which in some embodiments can prevent the communication device from logging or connecting to actual base stations.

Some embodiments include an option to enhance communication when the privacy/security enclosure and/or any enclosed user device is not in a blocking mode. In some embodiments, the privacy/security enclosure and/or the user's device(s) can be controlled to enable or disable communication of RF, sound, and/or light or other signals detectable by sensors within the targeted device. In some embodiments, these features can be activated directly by a control on or within the privacy/security enclosure and/or within the user's device(s), or by a remote device.

Further, in some embodiments, the privacy/security enclosure can include an option to selectively at least partially block or unblock one or more communication frequencies. In this instance, the communication frequency can be an RF frequency, an audio frequency, or a light frequency. In some embodiments, the privacy/security enclosure and/or the user's device(s) can be controlled to partially or substantially fully enable or disable communication of one or more frequencies of RF, sound, light and/or other signals detectable by sensors within the targeted device(s). In some embodiments, these features can be activated directly by a control within the privacy/security enclosure, and/or on or within the user's device, or by a remote device. In some embodiments, attenuation and/or masking and interference of all RF, sound, and/or light frequencies can be turned off or turned on. Further, in some embodiments, frequency selection can be used to control the passage and emission of RF, sound or light frequencies to and from the enclosed user device(s) without affecting other internal functions of the user device (e.g., no disruption of internal function of devices such as smart phones, tablets, or laptops are affected, and calendars, MP3 players, readers, apps, games etc. that do not require the interfered with, masked or blocked signal to function), while positioned within an inner region of the privacy/security enclosure.

Some embodiments of the invention include one or more systems to measure ambient field levels. For example, in some embodiments, ambient field levels of RF, sound, and/or light can be measured for purposes of actively interfering with, masking or blocking RF, sound or light. In some embodiments, measurements can be made by at least one component of the privacy/security enclosure and/or by one or more user devices coupled to the privacy/security enclosure. In some embodiments, ambient field levels can be provided as a function of strength of various frequencies.

In some embodiments, the privacy/security enclosure can include at least one active interfering, masking and/or blocking control of RF, sound and/or light or other signal whose output is impacted by one or more variables provided by one or more systems to measure ambient field levels. For example, in some embodiments, ambient field levels of RF, sound, and/or light can be measured for purposes of actively interfering, masking and/or at least partially blocking RF, sound or light at an interfering, masking and/or blocking power level required for a specific effect.

In some further embodiments of the invention, a privacy/security enclosure can comprise at least one component or device for active blocking of video devices. For example, in some embodiments, the privacy/security enclosure can include at least one device capable of blinding a camera to prevent unauthorized view. In some embodiments, the privacy/security enclosure can include at least one light source capable of overdriving a camera and/or imaging chip. For example, in some embodiments, at least one light emitting diode can be configured to overdrive an imaging device of a user's device(s) with the privacy/security enclosure. In other embodiments, other light or optical sources can be used to blind and/or overdrive an imaging device.

Some embodiments can include active attenuating, interfering, masking and/or substantially blocking of sound. Further, in some embodiments, active attenuation can be configured to modify how sound is received, processed, and transmitted by the communication device. For example, FIGS. **29**, **30**A-**30**B, and **31**-**33** illustrate active acoustical attenuating privacy/security enclosure devices in accordance with some embodiments of the invention. For example, some embodiments can de-correlate the pressure the microphones see from the sound pressure created by the speech that has to be masked. For example, as shown in FIG. **29** depicting the system **2900**, in some embodiments, a sealing gasket **2920** can be installed around each microphone **2915** that creates a sealed chamber **2918** around each microphone **2915**. In some embodiments, a gasket or enclosures/shield attached to the gasket can be equipped with at least one speaker in order to generate a masking sound. In some further embodiments, a pneumatic piston **2940** coupled to a motor **2930** can be used. For example, in some embodiments, a gasket **2920** is installed around each microphone **2915** that can create a sealed chamber around each microphone **2915**. In some embodiments, each chamber created in part by the gasket **2920** can be coupled to or equipped with a pump that can pressurize and/or depressurize the microphone chamber, thereby degrading microphone capability/performance.

Some embodiments of the invention can utilize parasitic noise. For example, FIG. **30**A illustrates an active acoustical attenuation privacy/security enclosure **3000** according to another embodiment of the invention. In this instance, mechanical motion can be used to create a noise that will be superimposed to the speech that has to be masked. If the level of this parasitic noise is high enough compared to the speech level, the resulting sound will not be understandable. The parasitic noise can be induced using a variety of methods. For example, in some embodiments, a vibrator **3010** can be leaned against the phone (e.g., close to each microphone) and a parasitic sound can be produced by vibration of the vibrator through impacts against a surface coupled to the microphone. Referring to FIG. **30**B, in some further embodiments, a cymbal or a bell assembly **3050** can be used adjacent to the microphones. In this instance, sound can be directed to the microphone (within privacy/security enclosure **3015**) from the cymbal or a bell **3020** and/or from sound produced by impact of the cymbal or a bell with an adjacent structure **3055**. In some further embodiments, the vibrator can be an electromechanical component (piezoelectric actuator) or a clock-style wind up mechanism (shown as **3025**). In some other embodiments, the vibrator can be a brush with multiple hairs that are pushed and rotated against a hard surface to create multiple friction sounds.

Some embodiments of the invention can deploy electrically produced noise. Some embodiments can use electrically produced noise (via a speaker for example) to mask the sound picked up by the microphone. For example, some embodiments include a chirp or warble noise that can be a single tone with a frequency that evolves with time (see for example FIG. **31** showing a plot **3100** including noise profile **3105**). Some other embodiments can include an envelope of noise, where the noise's frequency content is shaped to the typical human speech frequency content in order to efficiently mask it. Some embodiments include a self-babble. In this instance, speech is recorded with the enclosure, then processed (played backwards, mixed, filtered, etc.). Some further embodiments include a speech shaped noise. In this instance, the noise's frequency content is real-time amplitude shaped to the speech to match in order to efficiently mask it. Some other embodiments include saturating noise. In this instance, a single frequency tune is played at the most sensitive frequency of the microphones in order to saturate the signal.

Some embodiments include an electromagnetic source to produce a parasitic signal close to the phone (source **3205** directed to privacy/security enclosure **3200** depicted in FIG. **32**). This signal will induce an electrical signal in the system which will be superposed to the electrical signal given by the microphones (depending on the susceptibility of the system).

In some further embodiments, a physical barrier can be used to attenuate sound. For example, FIG. **33**A-B illustrates active acoustical attenuation privacy/security enclosures **3300**, **3325** according to another embodiment of the invention. Referring to FIG. **33**A, in this example, a physical shield **3300** can be positioned very close the microphones in order to attenuate the sound and pressure at the microphones. In some embodiments, the physical barrier can comprise a switchable shield. In this example, a shield can be mounted on rails, and can be placed in front of the microphones whenever sound masking is required. Some embodiments can include a horn, or trumpet, or pipe shaped shield. In this example, a shield is shaped to attenuate external speech signal and to amplify a generated parasitic signal. Some other embodiments can include an audio conductive material. Referring to FIG. **33**B, showing a cross-section of a privacy/security enclosure **3325**, in some embodiments, a conduit **3330** can be installed between an additional speaker and the microphones. The conduit **3330** can be filled with a sound conductor, and one of its extremities can be mechanically coupled to the speaker **3340**. The other extremity can be placed as closed as possible to the microphones of a user's device within the privacy/security enclosure **3325** in order to deliver a parasitic sound as efficiently as possible. The shell **3332** of the conduit **3330** can act as a physical shield, while the sound conductor material **3335** can act as an amplifier for the parasitic sound. In this instance, the sound conductor **3335** can be aluminum, brass, glass, or other material that can conduct sound to a greater degree than air.

In some embodiments, an assembly of acoustical attenuation covers can form an envelope covering a portion of one or more communication devices (such as a smart phone). For example, some embodiments can comprise a sock-like enclosure that can cover all or a partial portion of one or more communication devices. In some embodiments, the sock-like enclosure can include or be coupled to one or more acoustical attenuation materials or structures capable of muffling one or more microphones within the communication device. For example, FIGS. **34**A-**34**D illustrates assembly and perspective views of a sock assembly **3400** and components for a privacy/security enclosure in accordance with some embodiments of the invention, and FIG. **35** depicts the sock assembly **3400** of FIGS. **34**A-**34**C within a privacy/security enclosure **3500** in accordance with some embodiments of the invention. For example, FIG. **34**A depicts a sock assembly **3400** including an enclosure **3405** comprising a base cap **3415**, hood cap **3410**, and a strap **3420** for coupling the caps **3415**, **3410**. FIG. **34**B shows a cross-section of a privacy/security enclosure **3450** that includes a sock assembly portion **3460** supporting a user device **10**, and FIG. **34**C shows a cross-section of a privacy/security enclosure **3465** including an enclosure **3455** that includes a sock assembly portion **3475** including blocking foam pads **3470** supporting a user device **10**. In some embodiments, the end cap assembly **3425** including upper and lower blocking foam pads **3427**, **3429** shown in FIG. **34**D can be used for sock assembly portion **3460** shown in FIG. **34**B and/or sock assembly portion **3475** shown in FIG. **34**C. Referring to FIG. **35**, the privacy/security enclosure **3500** is shown comprising **3505** including a base portion **3510** and lid portion **3515**. The sock assembly **3400** is shown position in the base portion **3510** of the privacy/security enclosure **3500** enclosing user device **10**.

Some embodiments of the invention can comprise a double sock design that uses two end covers that are connected with an elastic band. Further, in some embodiments, the upper and/or lower sock covering can apply blocking material (such as a foam material) against microphone ports covered by or adjacent to the respective sock. In this instance, an axial force applied by the elastic band and the upper sock can force the blocking material against the lower microphone port to increase sound attenuation. In other embodiments, the axial force applying the blocking material to microphones covered by or adjacent to a respective sock can be generated by springs, friction springs, ratchets, or any of a variety of other mechanisms. In some further embodiments, the upper sock or interior linings or other portions of the interior of the enclosure (or blockers attached to or part of the base or lid of the enclosure) can apply the blocking material to one or more microphone ports located on the top and bottom of the enclosed device(s). In this instance, the sock assembly enclosing one or more communication devices can float inside the enclosure or can include clearance holes. In this instance, blocking material pads located on the top and bottom covers can squeeze the phone between the privacy/security enclosure halves only when the privacy/security enclosure is closed, nearly closed or when the sock is in a down position (regardless of the open/close status of the enclosure itself). Moreover, in this configuration, the upper and lower sock can provide vibration isolation to one or more enclosed communication devices.

In some embodiments, the sock-like enclosure can comprise a single piece, and in other embodiments, the sock-like enclosure can comprise a plurality of coupled pieces. Some embodiments can include one or more gaps or apertures in the sock. In some embodiments, the sock-like enclosure can include portions that are disposable or re-useable. In some embodiments, various portions of the sock-like enclosure can be approximately equal in size. In other embodiments, portions of the sock-like enclosure can be smaller or larger than other portions. For example, FIG. **36** depicts another embodiment of a sock assembly **3625** within a privacy/security enclosure **3600** in which the upper sock portion (shown as **3627**) has a reduced size over the example provided in FIGS. **34**A-**34**D and **35**. This example embodiments shows the privacy/security enclosure **3600** comprising a main housing **3605** including a base portion **3610** coupled to a lid portion **3615**. The sock assembly **3625** is shown enclosing a user device **10** and positioned in the base portion **3610**. In this instance, the smaller upper sock portion **3627** can apply clamping force to the lower microphone blocking foam (not shown), and in some embodiments, can be positioned in the privacy/security enclosure so that the blocking foam pads in the two enclosure portions (i.e., halves) can be positioned against the front and rear microphone ports on the communication device (i.e., such as on an Apple iPhone (ID). In this example, the upper blocking foam pad **3631** is shown coupled to the lid portion **3615**, and can be positioned to couple or cover a microphone of the user device **10** when the lid portion **3610** is closed. iPhone® is a trademark of Apple Inc., registered in the U.S. and other countries.

Some embodiments of the privacy/security enclosure can include other vibration and/or acoustical attenuation materials such as gels and gel-like materials. For example, FIGS. **37**A-**37**C depict a gel-piston assembly for acoustical control within a privacy/security enclosure **3700** in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure **3700** (shown as including main housing **3705** enclosing user device **10**) can include a gel-like material **3725** constrained on at least five sides which, when deformed by the top enclosure half during closure, can press blocking foam against the bottom microphone port. In some embodiments, the gel-like material **3725** can be gel like in that it is incompressible, cohesive, viscous, and mechanically robust, capable of repeated opening and closing operations of the privacy/security enclosure. This can allow the gel-like material **3725** to perform its own foam retraction function when the privacy/security enclosure is opened. For example, in some embodiments, the user can set the phone in a pocket with clearance, and the gel-like material **3725** can then remove that clearance and compress the blocking foam when the enclosure is closed. FIG. **37**B shows a cross-sectional view of a privacy/security enclosure **3750** including the gel-like material portion **3755** coupled at an interface **3756** with an end of the user device **10** and an interface **3757** at the end of the main housing **3752**.

Some embodiments include other mechanical assemblies to assist in one or more sealing operations within the privacy/security enclosure. For example, FIGS. **38**A-**38**C depict a cover actuated acoustical control assembly **3800** in accordance with some embodiments of the invention. FIG. **38***a* shows a perspective view of the cover actuated acoustical control assembly **3800** with a main housing **3805** enclosing a user device **10**. In this example embodiment, a privacy/security enclosure **3800** cover mechanism **3825** can comprise a leaf spring or two-link assembly **3827** which can be displaced in a downward direction by the closing upper portion of the privacy/security enclosure (not shown). FIG. **38**B shows a partial front view of the privacy/security enclosure **3800** cover mechanism **3825**, and FIG. **38**C shows a partial cross-sectional view of the privacy/security enclosure **3800** cover mechanism **3825**. In some embodiments, the structure can act on another leaf or linkage pair to translate the lateral force to a longitudinal force thus removing clearance between the communication device and blocker, and can apply sealing force against the bottom microphone port. In some embodiments, the privacy/security enclosure cover mechanism **3825** can comprise a leaf spring or two-link assembly **3827** which can include a controllable stroke. In some further embodiments, the privacy/security enclosure cover mechanism **3825** can comprise a leaf spring or two link assembly **3827** which can include force cover actuation or a user button actuation.

In some embodiments, the privacy/security enclosure can include at least one sock-like enclosure that is at least partially mechanized. For example, FIGS. **39**A-C show different views of a mechanized foldable sock assembly **3900** for a privacy/security enclosure in accordance with some embodiments of the invention. In some embodiments, one or more communication devices (user device **10**) can be placed in the mechanized foldable sock assembly **3900** that includes one or more articulating members **3925** that can be configured to move a portion **3910** of a sock-like enclosure **3905** to at least partially enclose at least one communication device (such as a user device **10**). In some embodiments, the user can press down on the upper portion **3910** of the mechanized foldable sock assembly **3900** to induce the collapsing of the cradle **3907** in a longitudinal direction as well as a folding of the cradle **3907** down into the lower enclosure half (**3915**). In some embodiments, the mechanized foldable sock assembly **3900** can latch in this state with the privacy/security enclosure closed. Further, in some embodiments, the upper portion **3910** can include clearance holes **3912** for blocking foam to be attached to the top and bottom portions of the privacy/security enclosure. Moreover, the mechanized foldable sock assembly **3900** can enable a controlled force to be applied to the blocking foam. FIG. **39**C shows a partial cross-section of the mechanized foldable sock assembly **3900** enclosed within a case or shell **3945** including case halves **3950**, **3955**. The cross-sectional view of the upper portion **3910** shows blocking foam **3902** in position. In some embodiments, the mechanized foldable sock assembly **3900** can enable a user to control the position of one or more sock-like enclosures, and control any portion of the communication device that can extend from and/or be visible from any vantage point.

FIGS. **40**A-**40**C illustrates further embodiments of the invention including a mechanized foldable sock assembly **4000** for a privacy/security enclosure in accordance with some embodiments of the invention. FIG. **40**B shows the cradle assembly **4001** with upper and lower enclosure portions **4005**, **4010** and articulating assembly **4003** including upper and lower rocker arms **4025**, **4020**. FIG. **40**A shows a partial view of the mechanized foldable sock assembly **4000** in an upright configuration. As shown, in some embodiments, as the communication device (user device **10**) reaches its final location within the cradle assembly **4001**, two rockers **4070**, **4080** can actuate which in turn press blocking foam **4040** against microphone ports (shown in FIG. **40**C). In some embodiments, the block foam mechanism can include a vibration isolation feature because the communication device lacks direct contact with either of the privacy/security enclosure portions. Further, by using an articulating cradle and/or integrated rockers, the blocking foam application force can be relatively high with little effort from the user due to the trigonometric advantage of the linkage arrangement.

FIGS. **48**-**52** illustrate various views of a sock assembly **4800** including a device cradle assembly **4805** and various device positioning assemblies for raising and lowering the position of at least one device within the cradle assembly **4805**. FIG. **53** depicts an assembly view of the sock assembly **4800** of FIGS. **48**-**52**. For example, FIGS. **48** and **49** illustrate perspective views of a sock assembly **4800** for a privacy/security enclosure in accordance with some embodiments of the invention. In some embodiments, the sock assembly **4800** can comprise a cradle assembly **4838** comprising a moveable cradle **4840** and a fixed cradle **4830** coupled to a base portion **4810**. In some embodiments, the base portion **4810** can include one or more elements **4835** for interfacing with a cradled device (such as a user device **10**). In some embodiments, the element **4835** can comprise a foam, or other suspension component. Some embodiments of the invention include a cradle assembly **4805** structured to guide and facilitate capture and fixation of a cradle device. In some embodiments, the moveable cradle **4840** can be slidably positioned in the sock assembly **4800** from a first end **4805***a* towards a second end **4805***b* of the sock assembly **4800**. In some embodiments, the moveable cradle **4840** can include a cavity **4841** for positioning at least one device (such as a user device **10**) within the sock assembly **4800**. Further, in some embodiments, when positioned in the cavity **4841** of the moveable cradle **4840**, any cradled device can be moveably positioned within the sock assembly **4800** by slidably moving the moveable cradle **4840** in the sock assembly **4800** from the first end towards **4805***a* the second end **4805***b* of the sock assembly **4800**. Movement of the cradle **4840** can be facilitated using a guide cavity **4825** positioned in the guide base **4820** that is coupled to the fixed cradle **4830** and the base **4810** (see FIG. **53**).

In some embodiments, the moveable cradle **4840** can include one or more apertures or slotted portions to facilitate access to one or more functions of a cradled device. For example, as shown in at least FIGS. **48** and **49**, in some embodiments, an upper side of the moveable cradle **4840** can include a slot portion **4840***a*. In some embodiments, a user can reach into the sock assembly **4800** to access one or more functions of a cradled device by accessing the device through the slot portion **4840***a*. Moreover, in some embodiments, the slot portion **4840***a* can facilitate a user creating grip and/or leverage to position the cradle **4840** and any cradled devices in a fixed position.

In further embodiments, the moveable cradle **4840** can comprise one or more holes **4840***b* (and clustered into groups in some embodiments) in specific areas of the upper and/or lower sock assembly **4800**. In some embodiments, this can allow sound to pass to or from the interior of the sock assembly **4800** (i.e. to allow use of the speakerphone microphone and speaker while the phone or other device is in the sock assembly **4800**). In some embodiments, a device positioned in the cradle and sock assembly **4800** while it is in a fixed position may have audio blocking material applied to a microphone(s) enclosed by or adjacent to a sock. In some embodiments, when the device is released from the fixed position, mechanisms to push the device away from such audio blocking material can be included in the sock assembly **4800**. For example, in some embodiments, the mechanisms can be one or more springs or material that reverts to an expanded volume when not under some level of pressure or any other such typical mechanism. In some embodiments, a construct attached to a portion of the interior, interior lining or privacy/security enclosure base or lid can be used to ensure that sock assemblies **4800** are pushed to a downward position (regardless of whether or not they are enclosing a transmission device), when the enclosure is being closed. In some embodiments, this configuration can prevent damage occurring to interior mechanisms, assemblies, and other such contents by the closing and/or latching of the enclosure. In some embodiments of the invention, the privacy/security enclosure can include one or more mating plugs for headphone, power, and other such ports can be included in various sock mechanisms to assist users with the proper orientation of their device in the sock. In some further embodiments, privacy/security enclosure sock assemblies can provide pass through holes for charging cables or other features, enabling charging or other functions while the communication device is in the sock and the enclosure is open or closed. Other embodiments of the invention can comprise a privacy/security enclosure that can provide for charging devices (or other such functions) while one or more devices are in the sock (regardless of whether open or closed). In some embodiments, this can be achieved via mating connectors (i.e. male connectors on the interior of the sock assembly **4800** plugged into the device itself while in the sock). In some embodiments, the male connectors can then be connected through the sock assembly **4800** to female connectors on the exterior of the sock assembly **4800**. In some embodiments, native power and other such cables (e.g. for headsets etc.) can be plugged, mimicking the functionality of being plugged directly into the device itself), and enabling power cables (or other functions) to connect to the sock (and thus through to the enclosed device) at angles and in positions no longer constrained by the device's position within the sock or privacy/security enclosure.

In some embodiments of the invention, the privacy/security enclosure including a sock assembly **4800** can have the ability to handle multiple makes, models, and types of devices, while still providing levels of audio, video, RF and other forms of protections. For example, in some embodiments, the sock assembly **4800** can be sized to house the largest of the supported devices and have mechanisms that guide and/or secure or grip a varying number of smaller devices via clamping, springing, elastic or other such mechanisms.

In some embodiments of the enclosure, the positioning of blocking foams, tuning of speaker volumes, and placement of active audio protection speakers and/or microphones can be tuned to be able to handle multiple supported devices within the same enclosure. In some embodiments of the invention, the privacy/security enclosure can include active audio components broadcasting masking sounds into a sock assembly **4800**, regardless of whether the enclosure is open or closed, and adjustable seals can be used at the entry of the sock assembly **4800** in order to reduce masking audio sounds leaving the interior of the sock.

In some embodiments, the cradle assembly **4805** can be slidably moved in the sock assembly **4800**. FIG. **53** illustrates an exploded assembly view of a sock assembly **4800** for a privacy/security enclosure in accordance with some embodiments of the invention. In some embodiments, the sock assembly **4800** can comprise at least one rail **4880** and at least one rail slot **4825**. In some embodiments, the cradle assembly **4805** can be coupled to the at least one rail **4880**. In some embodiments, the at least one rail **4880** can couple to the at least one rail slot **4825**. Further, in some embodiments, the cradle assembly **4805** can be slidably moved in the sock assembly **4800** by sliding the cradle assembly **4805** coupled to the at least one rail **4880** that is slideaby coupled to the at least one rail slot **4825** by a pivot **4860**.

In some embodiments, the cradle assembly **4805** can be slidably moved between defined positions defined a position ladder **4850** within the guide base **4820** of the sock assembly **4800**. For example, FIG. **50** illustrates a rear perspective view of a sock assembly **4800** for a privacy/security enclosure showing a plurality of position notches **4855** within the position ladder **4850**, and FIG. **52** illustrates a cross-sectional view of a sock assembly **4800** for a privacy/security enclosure taken through the cross-section line shown in FIG. **52** showing the position notches **4855** in accordance with some embodiments of the invention. In some embodiments, the position notches **4855** can be formed within a portion of the guide base **4820**. For example, in some embodiments, the position notches **4855** can be formed in a lower side of the sock assembly **4800** as part of the position ladder **4850**. In some embodiments, the base portion **4810** can comprise a notch aperture **4812**. In some embodiments, the notch aperture **4812** can be positioned adjacent one or more of the position notches **4855** so that the notches **4855** are visible through the rear of the sock assembly **4800**. In some embodiments, a spring **4870** can be coupled to the pivot **4860** at one end and to a fixed point **4875** of the guide base **4820**. To enable movement of the cradle **4840**, a stop **4885** coupled to the at least one rail **4880** can incrementally move between one or more of the notches **4855** under tension of the spring **4870**. The movement of the cradle **4840** is bounded by the end **4822** coupled to the guide base **4820** at the first end **4805***a* of the sock assembly **4800**, and towards a second end **4805***b* of the sock assembly **4800** by coupling of the stop **4885** to the end **4852** of the position ladder **4850**.

Some embodiments of the previously mentioned sock assembly **4800** can include one or more defined positions, which in some embodiments can enable an enclosed device to be positioned up to an angle of about 90° with a level surface. In some embodiments, the device can be moved from an elevated position in the sock assembly **4800** to a substantially flat position (i.e., substantially parallel with the surface that is supporting the privacy/security enclosure). Some embodiments can use a tensioner such as a spring **4870**, multiple springs, a dampened spring, a spring-loaded or biased peg, or other conventional biasing element to apply a force to the device in one or more elevated or angled positions and when moving the device from one defined position to another defined position.

For example, in some embodiments, the cradle **4840** can be pivotally positioned in the sock assembly **4800**. In some embodiments, the cradle **4840** can include a pivot mechanism (pivot **4860**) for pivotally positioning at least one device within the sock assembly **4800**. Further, in some embodiments, when pivotally positioned in the cavity of the sock assembly **4800**, a cradled device can be pivotally positioned toward or away and/or at least partially out of the sock assembly **4800** by pivotally moving the cradle **4840** in the sock assembly **4800** using the pivot mechanism **4860**. For example, FIG. **51** illustrates a top view of a sock assembly **4800** for a privacy/security enclosure in accordance with some embodiments of the invention, and shows a pivot mechanism **4860** positioned at the base **4841** of the cradle **4840** within the sock assembly **4800**. Further, the cross-sectional view and exploded assembly view shown in FIGS. **52** and **53** illustrate the pivot mechanism **4860** coupled the cradle **4840** in accordance with some embodiments of the invention. As shown, in some embodiments, the pivot mechanism **4860** can comprise a plurality of position ridges **4861** positioned on a pivot gear **4865** and configured to couple with a position stop **4862**. Furthermore, in some embodiments, the pivot mechanism **4860** can be coupled to at least one tensioner, such as a spring **4870**, multiple springs, a dampened spring, a spring-loaded or biased peg, or other conventional biasing element to apply a force to the cradle assembly and any object nestled within the cradle assembly.

In some embodiments, the cradle **4840** can be pivotally rotated using the pivot mechanism **4860** by rotating the pivot gear **4865** to engage at least one of the plurality of position ridges **4861** with the position stop **4862**. In some embodiments, as the cradle **4840** is pivoted out away from the sock assembly **4800**, the tensioner (spring **4870**) can extend and store potential energy. Moreover, in some embodiments, any stored potential energy within the tensioner can be used to at least partially move the cradle **4840**. For example, in some embodiments, an extended tensioner can be used to reversibly pivot the cradle **4840** and move the cradle **4840** towards the sock assembly **4800** housing and/or return the cradle **4840** to a prior position adjacent or within the sock assembly **4800** housing. Further, in some embodiments, at least a portion of the tensioner can be viewed and/or accessed through the rear of the sock assembly **4800**.

In some embodiments, any device positioned within the cradle assembly can be rotated away from the sock assembly **4800** and/or rotated towards the sock assembly **4800**. For example, in some embodiments, a device (such as a phone) can be positioned into the cradle **4840** and pivoted towards and away from the sock assembly **4800** using the pivot mechanism **4860** as described above. In some embodiments, a user can rotate the cradle **4840** to facilitate positioning or using a device within the cradle **4840**. For example, in some embodiments, the cradle **4840** can be pivoted away from the sock assembly **4800** housing using the pivot mechanism, and a device (such as a phone) can be positioned into the cradle **4840**. In some embodiments, a user can use the pivot gear **4865** to engage at least one of the plurality of position ridges/position stops (or infinite positions with pivot mechanisms using a tensioned spring or other such mechanism) such that a device can be more easily loaded into the cradle **4840** or used/operated while within the cradle **4840**. In some embodiments, the position (flat or elevated to any degree) of the device (such as a phone) can modify the security level applied by the privacy/security enclosure. For example, in some embodiments, when the device is lying flat in the privacy/security enclosure, a basic level of audio security can include the device operating normally except for using one or more of the microphones enclosed by or adjacent to any of the sock assemblies (e.g. via the application of attenuating technologies such as blocking foam or speakers transmitting a masking signal) or being compressed against blocking foam on the bottom side of the enclosure or enclosure liner or interior. In other embodiments of the invention, the privacy/security enclosure can be configured so that one or more microphones covered by any portion of the sock mechanism can include an audio masking signal applied within or near to the sock, and interfering with the microphone's ability to record and recover non-masking audio content, regardless of sock position/elevation.

In some embodiments, one or more antennas can be positioned on the outside of the Faraday cage of a privacy/security enclosure, and tuned to one or more frequencies (e.g., wideband frequencies). In some embodiments, the one or more antennas can be coupled to one or more antennas internal to the Faraday cage. In some embodiments, the antennas can be permanent or switchable (e.g., switchable using a mechanical or electro-mechanical switch). The antenna gain, directionality, radiation pattern, and coupling characteristics to other antennas can be changed and modified to meet any specific performance standard.

In some embodiments, the performance characteristics can be modified by a variety of parameters including the distance to the Faraday cage (which can detune antennas), the type of dielectric material used in the antenna, and the choice of electromagnetic band gap structures or other such materials or devices to optimize antenna performance. In some embodiments, the combination of these capabilities are used to allow all or a specific subset of frequencies into the privacy/security enclosure, and through to the housed device. In some embodiments, examples of selective frequency antenna use can include for example, allowing Bluetooth® through to play music in the car on the car's speakers, allowing cellular signals through to receive calls, allowing NFC/RFID through for mobile payments/checkout while at least partially blocking all other frequencies etc., and not attenuating WiFi, GPS or Bluetooth® such that retail stores or other entities, devices, or people cannot or have more difficulty tracking movement and/or location.

Some embodiments of the invention include a privacy/security enclosure including one or more external antennas that can comprise of one more antennas with a wide bandwidth to cover cellular, GPS, WIFI/BT (700M-2.7 GHz+margin) and/or one or more antennas to operate within narrow, more specific frequency bands (e.g. Bluetooth). In some embodiments, the external antenna(s) can include a high antenna gain (to compensate for coupling and connection loss). In some further embodiments, the external antenna(s) can preserve the cellular antenna pattern, and in some embodiments, the antenna(s) can be omni-directional. In some embodiments, the external antenna(s) can be configured to function near a metal surface (e.g., such as a shield box).

Some embodiments of the invention include a privacy/security enclosure including one or more internal/coupling antenna. In some embodiments, the one or more internal/coupling antenna can be capable of operating at a wide bandwidth to cover cellular, GPS, WIFI/BT (700M-2.7 GHz+margin) and/or be tuned to best operate within narrow, more specific frequency bands (e.g. Bluetooth® etc.). In some embodiments, the internal/coupling antenna can include a high coupling efficiency, and be capable of functioning near a metal surface (e.g., such as a shield box). In some embodiments, the internal/coupling antenna can be compatible with multiple cell phones. In some embodiments, the internal/coupling antenna can enable selectivity options for cellular and connectivity (GPS, WIFI/BT) (i.e. through filtering technologies, antenna tuning, etc.)

Some embodiments of the invention can include a privacy/security enclosure comprising an internal/coupling antenna(s) and an external antenna(s). For example, FIG. **41** illustrates an internal/external antenna design for a privacy/security enclosure in accordance with some embodiments of the invention. Further, FIG. **42** illustrates an internal/external antenna design for a privacy/security enclosure including an internal antenna ground plane connected to the shield box, and FIG. **43** illustrates an internal/external antenna design for a privacy/security enclosure including an internal and external antenna ground plane connected to the shield box in accordance with some embodiments of the invention. As illustrated in FIG. **41**, in some embodiments, the privacy/security enclosure **4101** can enclosed a cell phone comprising cellular, GPS, and/or WIFI/BT antennas (shown as **4100**). The privacy/security enclosure **4101** can comprise a shield box **4110** enclosing the device, and two coupled antennas. Further, in some embodiments, the privacy/security enclosure **4101** can comprise a ground plane externally coupled to the external antenna, and a ground plane enclosed within the shield box, coupled to the internal antenna. For example, FIG. **41** shows the privacy/security enclosure **4101** with an internal and an external antenna radiating element (shown as antenna radiating element **4150** with antenna ground plane **4160**, and antenna radiating element **4130** with antenna ground plane **4140**) including a coupling **4120** between the antennas.

As illustrated in FIG. **42**, in some embodiments, the privacy/security enclosure **4201** can enclosed a cell phone comprising cellular, GPS, and/or WIFI/BT antennas (shown as **4200**). The privacy/security enclosure **4201** can comprise a shield box **4210** enclosing the device, and two coupled antennas. In some embodiments, the internal ground plane of the internal antenna can be coupled to the shield box. The privacy/security enclosure **4201** includes an internal and an external antenna radiating element (shown as antenna radiating element **4250** with antenna ground plane **4260**, and antenna radiating element **4230** with antenna ground plane **4240**), with a coupling **4220** between the antennas.

Further, as shown in FIG. **43**, in some embodiments, both the external ground plane and the internal ground plane can be coupled to the shield box. As illustrated in FIG. **43**, in some embodiments, the privacy/security enclosure **4301** can enclosed a cell phone comprising cellular, GPS, and/or WIFI/BT antennas (shown as **4300**). The privacy/security enclosure **4301** can comprise a shield box **4310** enclosing the device, and two coupled antennas each coupled to the shield box **4310**. In some embodiments, the internal ground plane of the internal antenna and the external antenna can be coupled to the shield box. For example, the privacy/security enclosure **4301** includes an internal and an external antenna radiating element (shown as antenna radiating element **4350** with antenna ground plane **4360**, and antenna radiating element **4330** with antenna ground plane **4340**), with a coupling **4320** between the antennas.

In some embodiments, any number of the features described earlier can be implemented in the privacy/security enclosure **4400** illustrated in FIGS. **44-47**. Further, in some embodiments, any number of the features described earlier can function based at least in part on the relative position of the base portion **4410** with respect to the lid portion **4415** of the main housing **4405**. In some embodiments, the base portion **4410** and/or lid portion **4415** or both can include at least one extended portion for at least partially housing and providing attachment for various portions of a pivot mechanism. For example, FIG. **44** illustrates a front perspective view of a privacy/security enclosure **4400** in a closed position (i.e., the base portion **4410** and lid portion **4415** are coupled, and positioned substantially parallel with respect to each other. As can be seen in FIG. **45**, illustrating a rear perspective view of the privacy/security enclosure **4400** of FIG. **44**, in some embodiments, the privacy/security enclosure **4400** can include a contoured region **4427** comprising an outward extension of the lid portion **4415** coupling to an outward extension of the base portion **4410**. In some embodiments, at least a portion of the outwardly extending portions of the base and lid portion **4415** can at least partially house a pivot mechanism **4425**. In some embodiments of the invention, the privacy/security enclosure **4400** can comprise an extended portion formed from portions of an outward extension of the lid portion **4415** coupling to an outward extension of the base portion **4410**.

In some embodiments, the extended portion can be comprise a substantially rounded and contoured shape, extending gradually outward from each end of the privacy/security enclosure **4400** to generally centrally positioned region extending along at least a partial length of the privacy/security enclosure **4400**. In some embodiments as shown, the central region of the extended portion can be positioned substantially equidistant from each end of the privacy/security enclosure **4400**. Further, in some embodiments as shown, the extended central portion can be comprise a substantially rounded and contoured shape, generally smoothly integrated with portions of the extended portion at each end of the privacy/security enclosure **4400**, In some other embodiments, the extended portion can comprise other shapes than those illustrated. For example, in some embodiments, the extended portion can comprise substantially rounded and contoured portions, and/or angular, square, or rectangular portions.

In some embodiments of the invention, the base and lid portions **4410**, **4415** of the privacy/security enclosure **4400** shown in FIGS. **44-45** can be moved with respect to each to provide access to the inner region **4402** of the privacy/security enclosure **4400**. Moreover, as shown, in some embodiments, the privacy/security enclosure **4400** can include a bottom enclosure portion (comprising the base portion **4410**), and a lid portion **4415** coupled along one edge. In some embodiments, each portion **4410**, **4415** can be positioned and pivoted with respect to each other to enable at least partial access to the inner region **4402** of the privacy/security enclosure **4400**. For example, in some embodiments, the base portion **4410** and a lid portion **4415** can be pivotally moved with respect to each other to open and close the privacy/security enclosure **4400**. In some embodiments, the privacy/security enclosure **4400** can include a base portion **4410** and a lid portion **4415** coupled by at least one pivot mechanism **4425**. For example, in some embodiments, the privacy/security enclosure **4400** can include a base portion **4410** and a lid portion **4415** coupled by at least one conventional hinge mechanism **4425**. In some embodiments, the hinge mechanism **4425** can comprise any of the aforementioned hinge mechanisms. Further, in some embodiments, the base portion **4410** or lid portion **4415** or both can include one or more apertures for providing attachment of various portions of a pivot mechanism within the extended portion (not shown). Moreover, in some embodiments, the hinge mechanism **4425** can be at least partially shielded from view by integrating at least partial portions of the hinge mechanism within portions of the extended portion (e.g., the outwardly extending portions of the base and lid portions **4110**, **4115** can at least partially housing a pivot mechanism as described earlier). In some embodiments, the inner region **4402** can include a base enclosure **4430** that can be used to cradle or enclose a user's device.

In some embodiments, the lid portion **4415** can be moved to a partially open position. For example, FIG. **46** illustrates a front perspective view of a privacy/security enclosure **4400** in a partially open position. In some embodiments, the lid portion **4415** can be moved to a partially open position so that the lid portion **4415** is pivoted about the base portion **4410** and positioned to about 45° with respect to the base portion **4410**. In some further embodiments, the lid portion **4415** can be pivoted about the base portion **4410** and positioned between about a 0° (i.e., the lid is closed) to about 190° or higher with respect to the base portion **4410**.

In some further embodiments, the lid portion **4415** can be moved so that the lid portion **4415** is pivoted about the base portion **4410** and positioned at other angles with respect to the base portion **4410**. For example, in some further embodiments, the lid portion **4415** can be moved to a partially open position so that the lid portion **4415** is pivoted about the base portion **4410** and positioned to about 90° with respect to the base portion **4410**.

In some other embodiments, the lid portion **4415** can be moved further from the aforementioned partially open positions so that the lid portion **4415** is pivoted about the base portion **4410** and positioned to other angles with respect to the base portion **4410**. For example, in some other embodiments, the lid portion **4415** can be moved further from the aforementioned partially open positions so that the lid portion **4415** is pivoted about the base portion **4410** and positioned to about 190° so that the privacy/security enclosure **4400** lid portion **4415** can rest against a supporting surface when substantially fully open and be stable (i.e., not tip) with respect to the base portion **4410**. Further, FIG. **47** illustrates a bottom rear perspective view of a privacy/security enclosure **4400** in a similar open position.

In some other embodiments, the lid portion **4415** can be moved to other positions from the aforementioned partially open positions so that the lid portion **4415** is pivoted about the base portion **4410** and positioned to other angles with respect to the base portion **4410**. For example, in some embodiments, the lid portion **4415** can be moved by a user to open positions so that the lid portion **4415** is pivoted about the base portion **4410** and positioned to at angles between greater than about 0° and less than about 45° with respect to the base portion **4410**. In some embodiments, the lid portion **4415** can be moved to open positions so that the lid portion **4415** is pivoted about the base portion **4410** and positioned to at angles between greater than about 45° and less than 90° with respect to the base portion **4410**. In some embodiments, the lid portion **4415** can be moved to open positions so that the lid portion **4415** is pivoted about the base portion **4410** and positioned to at angles greater than about 90° and less than about 180° with respect to the base portion **4410**. In some other embodiments, the lid portion **4415** can be moved to extended open positions so that the lid portion **4415** is pivoted about the base portion **4410** and positioned to at angles greater than about 180° and less than about 360° with respect to the base portion **4410**.

In some embodiments, the base portion **4410** of the privacy/security enclosure **4400** shown in FIGS. **44-47** can comprise a base housing **4411** comprising a bottom side coupled to four base sides. In some embodiments as shown, the base sides can comprise a generally curved side wall extending from the bottom side to a generally curved outer base edge. Further, in some embodiments, the lid portion **4415** can comprise a lid housing **4416** comprising a top side coupled to four lid sides. In some embodiments as shown, the lid sides can comprise a generally curved side wall extending from the top side to a generally curved outer lid edge. In some embodiments, the lid side can comprise a generally curved surface. In some other embodiments, at least a portion of the lid side can be generally flat. Further, in some embodiments, the generally curved outer lid edge can be shaped to generally or substantially complement the generally curved outer base edge. Therefore, in some embodiments, when the privacy/security enclosure **4400** in closed so the privacy/security enclosure **4400** can include the base portion **4410** and the lid portion **4415** coupled substantially continuous along one edge by coupling the generally curved outer lid edge to substantially complement the generally curved outer base edge to form a substantially sealed enclosure.

In some embodiments, privacy can be enhanced by disabling or making less effective one or more of the following sensors or systems through the use of motors, magnets or known signal blocking or attenuating techniques: accelerometers, magnetometers, gyroscopes, Near Field Communication systems, humidity sensors, infrared or other light sensors, orientation sensors, pressure sensors, force sensors, proximity sensors, rotational or vector sensors, significant motion sensors, pedometers and any other sensors or systems.

Within the FIGS. **54-128**H, details of various labyrinth and gasket architectures are provided. For example, as shown, in FIG. **54**, the privacy/security enclosure **5400** include a "knife edge" **5415** where the edge **5410** of the lid portion **5408** of the privacy/security enclosure **5400** can be positioned and wedged between two or more gaskets **5240** positioned within a groove **5407** of a base portion **5405** of the privacy/security enclosure **5400**.

Some further embodiments of the invention include privacy/security enclosures that allow RF pass through capabilities, where specific frequencies can be allowed to pass through the Faraday cage while maintaining protection against other frequencies (i.e. while maintaining privacy protection of the device). Some embodiments include privacy/security enclosures that allow an RF pathway to be closed to reinstate a RF protection via an RF/Antenna cut-off switch.

Some embodiments of the invention include privacy/security enclosures that include RF filtering and/or RF band selection. In some embodiments, RF bands that can pass through the enclosures are adjacent to other bands that can be blocked or attenuated. For example, band **40** and **41** of the cellular spectrum are adjacent to the bands that carry WiFi and Bluetooth (which overlap). In order to pass WiFi and Bluetooth while still providing protection against cellular bands, some embodiments include a series of filter that allow this to happen.

Some embodiments of the invention include a privacy/security enclosure that includes at least one external to internal interface and communication apparatus. In some embodiments, the privacy/security enclosure can enable passing certain types of information from inside to outside the Faraday cage without compromising its protection (i.e., information can be transmitted from the enclosed device while maintaining privacy protection of the device).

Some embodiments of the invention include privacy/security enclosures that enable DC power pass-through. In some embodiments, the privacy/security enclosure can enable charging of one or more batteries within the privacy/security enclosure. Further, some embodiments also enable charging of batteries of one or more enclosed devices. Moreover, in some embodiments, charging of one or more batteries in the privacy/security enclosure and one or more batteries of at least one enclosed device can occur substantially at the same time. In some embodiments, the privacy/security enclosure can comprise one or more charging conductors or wires that pass through the Faraday cage of the privacy/security enclosure for purposes such as charging. Prior art designs would be akin to putting one or more antennas through the Faraday cage, but some embodiments of the invention allows charging to take place without materially degrading the enclosure's RF protection. Further, in some embodiments, the privacy/security enclosure can comprise one or more charging conductors or wires that pass through the Faraday cage of the privacy/security enclosure for purposes such as charging that do not require a user to connect and disconnect separate leads on the inside and/or outside of the privacy/security enclosure.

Some embodiments of the invention include privacy/security enclosures that comprise one or more optical pass-through components, regions, or structures. In some embodiments, the privacy/security enclosure can include one or more micro-controllers on both the inside and outside of the Faraday cage. In some embodiments, in order to allow the microcontrollers to communicate with each other without including additional holes for additional conductors/wires, holes can be included to allow communication via optical signaling without materially degrading the performance of the Faraday cage.

In some embodiments, power (e.g., for one or more LED's), data, or other information and/or electromagnet radiation can be passed through the Faraday cage while maintaining privacy protection for the enclosed device.

Some embodiments of the invention can enable a head set pass-through. For example, in some embodiments, a user can plug a headset into the outside of the privacy/security enclosure (through the Faraday cage) to access a corresponding feature or port on the device enclosed inside the Faraday cage in the privacy/security enclosure while maintaining privacy protection of the enclosed device.

Some embodiments of the invention include at least one form of audio protection. Some embodiments of the invention include an open case audio protection" ("OCAP"). For example, in some embodiments, audio protection can be enabled while the privacy/security enclosure is open. In this instance, a user can use at least a portion of the functionality of the device while maintaining audio protection. For example, where the enclosed device is a phone, the privacy/security enclosure can provide a user with at RF functionality (e.g., to check if calls are coming in and/or to receive and/or respond to text messages). The privacy/security enclosure can also provide a user with screen access (e.g. to send and/or receive emails, check calendars, notes, To Do's, play games, use apps etc.). Further, the privacy/security enclosure can provide a user with access to the use of a front and rear facing camera, and use of various buttons and device functions requiring physical access by the user.

Some embodiments of the invention include listen and respond capabilities. Some embodiments enable a user to use one or more microphones to listen to the environment and play one or more masking signals when sound is detected. Some embodiments include a privacy/security enclosure that comprises one or more microphones that are band limited to specific frequencies that are associated with voice. In this instance, the microphones have a lowered noise floor that is below the threshold of microphones in enclosed user devices (e.g. the enclosed, phone, computer, tablet etc.) For example, in some embodiments, the privacy/security enclosure can comprise one mic in the middle of the low frequency of the common voice frequency band and another in the middle of the medium frequency voice band. In some embodiments, by being very deep (in terms of noise floor) in each of these areas, the presence of speech can be detected (while not capturing the voice content) while ensuring privacy/security enclosure protection is activated.

Some embodiments of the invention include speaker and/or speaker driver selection specifically for masking. Some embodiments include a privacy/security enclosure that can produce one or more specific waveforms to mask human speech. Moreover, some embodiments include speakers that can produce the masking signal with minimal power consumption.

In some embodiments, the privacy/security enclosure can change and/or delay a starting time for the masking signal. For example, in some embodiments, the privacy/security enclosure includes a control system that enables the system and/or the user to select and vary the amount of time between speech detection and masking signal activation.

In some embodiments, the privacy/security enclosure can change the masking signal tail time. For example, after speech ceases, the control system can stop the transmission of the masking signal substantially immediately. In some further embodiments, after speech ceases, the control system can include a transmission of the masking signal that comprises a tail (i.e. a transmission for a certain period of time after speech ceases). In some embodiments, this can minimize obtrusiveness as testing indicates that a constant start/stop is more obtrusive than continuous transmission. In some embodiments, tuning the tail can allow substantially continuous broadcast through the normal starts and stops and pauses that are a part of human conversation. Further, in some other embodiments, the volume of the masking signal can be varying. In some embodiments, the control system or the user can vary the volume of the masking signal based on the volume of the detected sound (e.g. such as a human voice).

In some embodiments of the invention, the privacy/security enclosure can include an obfuscation and/or randomness setting. In some embodiments, for a variety of reasons, the privacy/security enclosure can prevent an unauthorized listener from detecting the presence of speech. In some embodiments, in the obfuscation and/or randomness mode, the privacy/security enclosure can randomly broadcast to simulate protection even if no one is speaking, thereby diminishing the ability of an unauthorized listener of detecting when there is actual speech by a user using the system.

Some embodiments of the invention include an always on mode. In this instance, the privacy/security enclosure includes active audio masking that is always on. In this mode, the privacy/security enclosure can maintain privacy protection substantially constantly.

Some embodiments of the invention include user signaling. In some embodiments, the privacy/security enclosure can include one or more LED's or other forms of communication to indicate when the privacy/security enclosure is providing protection, which mode the privacy/security enclosure is in (always on, obfuscation and/or randomness mode setting, etc.), and/or can be configured to flash anytime the privacy/security enclosure is broadcasting.

Some embodiments of the invention include remote activation. In some embodiments of the invention, a privacy/security enclosure can include audio technologies that can be used independently of RF and other protection technologies. For example, some embodiments include the capability to remotely activate various modes of audio protection. For example, some embodiments can include a remote control that activates audio protection in the privacy/security enclosure that can attach to a smart TV or gaming console that can include built-in microphones. Other examples include cars and any other electronic device with a microphone. This can capture three concepts: 1) The audio protection can be used/applied independent of any other type of protection (RF, etc.); 2) The audio protection can be packaged to protect against any device that has microphone (car, TV, etc.) and 3) Any audio protection can be activated in one or more ways: a.) automatically by some sensing and/or control mechanism built into the product; b.) by physical user interaction/activation (some type of physical button or switch etc.) and c.) a remote activation capability that uses a non-physical interface (RF, infrared/light based, sound (perhaps voice or sound activated by saying a keyword, clapping or something similar.)

Some embodiments of the invention include a noise delivery system that takes the masking signal generated by one or more speakers within the privacy/security enclosure and delivers it to the various microphones that are being protected by the privacy/security enclosure. Some embodiments of the invention include a privacy/security enclosure that comprises a collection point. This is the point at which signals generated by the speakers are captured and are coupled to the delivery system. Some example embodiments include an open port near a privacy/security enclosure speaker or a shaped capture point that changes or impacts capture and delivered signals.

Some embodiments of the invention include a delivery system. In some embodiments, the privacy/security enclosure can comprise a system that channels a signal through at least a portion of the physical architecture of the privacy/security enclosure and delivers it proximate the microphones of the device against which are being protected. Some example embodiments can include tubes (e.g. similar to tubes used to deliver sound to the ear in a conventional hearing aid). Some example embodiments include channels or paths that are built into the privacy/security enclosure. In some embodiments, depending on the location and proximity of the microphones being delivered a signal, the transmission of the speaker can be propagated to the microphone. In some embodiments, the length, diameter, shape, material and stiffness of the tubes and channels can vary and can impact the signal that is being delivered by the privacy/security enclosure.

Some embodiments of the invention can include one or more microphone attachment and/or sealing mechanisms. In some embodiments, a physical element of the privacy/security enclosure architecture can be placed against the surface of the device against microphones that are being protected. In some embodiments, this physical element can comprise a seal or gasket that minimizes the escape of our masking signal to the surrounding environment, and thereby can reduce the noise detected by people nearby. For example, in some embodiments, the tube delivering the sound can open to a hole which is greater than the location of the microphone so that when it is sealed and/or attached, a substantial majority of the signal can be delivered to the microphone rather than to the environment.

Some embodiments of the invention include an extensible design. In some embodiments, in order to facilitate reusing one design to be able to protect against multiple devices, embodiments of the invention include a privacy device that includes be the ability to slide or move the delivery point in order to accommodate devices with different microphone locations.

Some embodiments of the invention include an audio pass-through. In some embodiments, if a user receives a phone call that they want to take, they can be provided with the option to remove the sealed delivery element such that they can take the call (including if they want to do so on speakerphone, for a video call etc.) Some embodiments can improve audio clarity depending on the physical architecture of the privacy/security enclosure. Some embodiments include holes that are placed on the mechanism that holds the protected device in place. In this instance, if the holding mechanism overlaps with a microphone and/or speaker, audio pass-through applies in both directions, listening to the caller and passing through the audio content of the speaker. In some embodiments, the sealing can attenuate an external audio signal coming from outside the seal to the microphone as well as attenuate a masking signal going from inside the seal to outside (that can reduce obtrusiveness). In some embodiments, depending on the degree of external audio attenuation, the level of the masking signal can be lower on one microphone position versus another.

In some embodiments, using any of the previously mentioned protection technologies, other sensor protection can be provided by a privacy/security enclosure. Some embodiments can provide protection and/or degradation of the performance of all sensors contained within various electronic devices as disclosed herein.

Some embodiments of the invention include shock absorption features. These features help protect against falls, but also can act as a shock absorber that helps minimize vibrations caused by sound from reaching the IMU's within specific devices.

In some embodiments of the invention, RF gasketing can provide the secondary benefit of minimizing the transmission of air, water, dust and other such substances from passing into the interior of the case when it is closed. In some embodiments, other environmental gaskets can be added to that are more specifically designed for this purpose.

Some embodiments of the invention enable the user to select different levels or types of protection provided any given time. Some embodiments provide multiple selectable states, each of which provides different types or levels of protection.

For embodiments of the invention that include cases that can close, ramps or other features can be provided that prevent damage to interior portions of the case in the event the user is closing the case without having put at least one portion of the interior in the optimal state. In some embodiments of the invention that do not include a sock or lifting mechanism that allows the enclosed device to be elevated, kickstands can be built into or on top of the back of such products to provide similar functionality. Tacky or soft elements can be added to cases or housings to minimize slipping and sliding of products when they are on slippery surfaces.

Some embodiments of the invention allow users to use as much of their native device functionality as possible. Accordingly, some embodiments of the invention provide access to both front and rear facing cameras, side buttons, and other device controls.

Some embodiments of the invention do not use the previously described sock mechanisms. Accordingly, some embodiments utilize different ways of loading, unloading and holding protected devices within the case. Some embodiments include different ways to interface with various ports and plugs on the phone (i.e. power, headset etc.) In some embodiments, access is not provided to some or all of these capabilities while the device is within the case (even if the case is closed to provide RF protection).

Some embodiments of the invention include passive RF protection and passive audio protection. Some of these embodiments include a microphone blocker and a corresponding release function. In some embodiments, when a user takes a sock out of down mode (wherein passive audio protection is provided while the case is open) and the phone is sprung up to an angled position within the case, ready for use, a lift mechanism lifts the phone from the audio sealing material inside the bottom of the sock. These embodiments allow speakerphone and video calls to be made without muffling the clarity of the speaker at the other end of the call as well as the clarity of the speaker using the case. Some of these embodiments use foam (or springs or other such mechanisms) that lift the phone when the phone is not in the compressed or "down" mode. Some embodiments include holes drilled or otherwise formed into the bottom of the sock (or include a grill or some other such pass through method) that allow sound to pass through more easily.

Some embodiments of the invention include passive RF protection and active audio protection. Some of these embodiments of the invention can include shapes that are dissimilar from a bathtub type of design. These alternative embodiments can leverage knife edge labyrinth and gasket designs etc. in order to provide a compact and effective device.

Some embodiments of the invention include different Faraday cage designs. While some embodiments include one piece cases with a book-type of hinge, other embodiments use vertical hinges, two-piece or multi-piece products with removable pieces that both do and do not attach to the pieces that were not removed from the protected or enclosed device.

Some embodiments of the invention include a user interface comprising controls and status indicators. The user interface can display different modes and status using LED's or other visual or audio features. Embodiments of the invention that use active audio masking technology can include a user interface which users to turn the device on/off and/or activate different modes, provide battery and other status, etc.

Further embodiments of privacy/security enclosures including components, assemblies, and methods of use are shown in FIGS. **55**A-**128**H. For example, FIGS. **55**A-**55**C illustrates views of a privacy/security enclosure lid with a U-channel gasket according to another embodiment of the invention. The main housing **5505** can include at least one peripheral u-shaped channel or groove **5520** into which a portion of a lid **5510** can be inserted. The u-shaped channel or groove **5520** can include a gasket **5530** that at least partially fills the u-shaped channel or groove **5520** and the enclosed portion of the lid **5510**.

FIG. **56** illustrates a perspective view of a privacy/security enclosure **5600** with mesh fabric gaskets **5625** according to a further embodiment of the invention. In some embodiments, two rows of mesh fabric gaskets **5625** can be formed into a u-shaped channel or groove of the privacy/security enclosure **5600**. FIGS. **57**A-**57**B illustrates a perspective view of a privacy/security enclosure **5600** with mesh fabric gaskets according to a further embodiment of the invention. For example, the main housing **5605** can include at least one channel **5608** into which a lid portion **5610** can be inserted between gaskets **5620** comprising an upper gasket **5625***a* and a lower gasket **6525***b*.

Further gasket configurations can be seen in FIG. **58** illustrating a cross-sectional view of a privacy/security enclosure **5800** according to one embodiment of the invention. A lid or gasket portion **5810** can be positioned between an interface **5815** formed between an upper portion **5805** and lower portion **5808** of the privacy/security enclosure **5800**. In some embodiments, gaskets **5820** can be positioned in the interface **5815** between the upper and lower portions **5805**, **5808**. In some embodiments, a single gasket can be used placed in the interface **5815** between the lid or gasket portion **5810** and the upper portion **5805**, or between the lid or gasket portion **5810** and the lower portion **5805**.

FIG. **59** illustrates a cross-sectional view of an edge of a privacy/security enclosure **5900** according to one embodiment of the invention. In some embodiments, the privacy/security enclosure **5900** can comprise a lower portion **5905** including a groove **5907**, and an upper portion **5910** including a tongue **5912**. In some embodiments, tongue **5912** can be positioned in the groove **5907** and one or more gaskets **5925** can be place between the tongue **5912** and the lower portion **5905** (e.g., on one or both sides of the tongue **5912** as described for the example embodiment of FIG. **58**).

FIG. **60**A shows a partial perspective view of a portion of a privacy/security enclosure **6000** according to one embodiment of the invention. FIG. **60**B shows a cross-sectional view of a privacy/security enclosure **6000** according to one embodiment of the invention. FIG. **60**C shows a cross-sectional view of an edge of the privacy/security enclosure **6000** shown in FIGS. **60**A-**60**B according to one embodiment of the invention. In some embodiments the privacy/security enclosure can comprise lid portion **6005** positioned engaged with a base portion **6015** with a gasket **6010**. Referring to FIGS. **60**B and **60**C, in some embodiments, the base portion **6015** can comprise first groove **6025** and second groove **6027**, and the lid portion **6005** can comprise first tongue **6030** and second tongue **6035**. The base portion can also comprise a base tongue **6020** between the grooves **6025**, **6027**, and the lid portion **6005** can comprise a groove **6033** between the tongues **6030**, **6035**. In some embodiments, the privacy/security enclosure **6000** can comprise a gasket seal **6007** including gasket **6010** comprising the second tongue **6035** positioned in the second groove **6027**, the tongue **6020** positioned in the groove **6033**, and the first tongue **6030** positioned in the first groove **6025**.

FIG. **61**A illustrates a cross-sectional view of a privacy/security enclosure **6100** according to one embodiment of the invention. FIG. **61**B illustrates a cross-sectional perspective view of a privacy/security enclosure **6100** according to one embodiment of the invention. Referring to FIGS. **61**A-**61**B, in some embodiments, the main housing **6105** of a privacy/security enclosure **6100** can comprise a base portion **6110** coupled to a lid portion **6115**, and a gasket seal **6120** can be formed within the wall **6112** of the base portion **6110**. FIGS. **61**C-**61**F illustrate various alternative embodiments of the gasket seals **6120** for a privacy/security enclosure **6100** according to one embodiment of the invention. For example, referring to FIG. **61**C, some embodiments include a gasket seal **6120***a* comprising a tongue and groove architecture comprising a groove **6130** and a tongue **6140** at least partially inserted in the groove **6130**. In some embodiments, an inner gasket **6150** (e.g., such as a fabric gasket as described earlier) can be positioned in the groove **6130** between the inner wall **6112***a* of the wall **6112** and the tongue **6140**. Referring to FIG. **61**D, in some embodiments, the gasket seal **6120** can comprise a gasket seal **6120***b*. In this example embodiments, groove **6130** can include tongue **6140** positioned between an inner and outer gasket **6150**, **6151**. In this instance, the inner gasket **6150** can be positioned in the groove **6130** between the inner wall **6112***a* of the wall **6112** and the tongue **6140**, and the outer gasket **6151** can be positioned in the groove **6130** between the outer wall **6112***b* of the wall **6112** and the tongue **6140**.

Referring to FIG. **61**E, some embodiments include a gasket seal **6120***c* comprising a tongue and groove architecture comprising a groove **6130** and a tongue **6140** at least partially inserted in the groove **6130**. In some embodiments, an inner gasket **6150** can be positioned in the groove **6130** between the inner wall **6112***a* of the wall **6112** and the tongue **6140**, and a base gasket **6152** (e.g., such as a mesh gasket) can be positioned at the bottom of the groove **6130** between the tip of the tongue and the bottom of the groove **6130**. Referring to FIG. **61**F, in some embodiments, the gasket seal **6120** can comprise a gasket seal **6120***d*. In this example embodiments, groove **6130** can include tongue **6140** positioned between an inner and outer gasket **6150**, **6151**. In this instance, the inner gasket **6150** can be positioned in the groove **6130** between the inner wall **6112***a* of the wall **6112** and the tongue **6140**, and the outer gasket **6151** can be positioned in the groove **6130** between the outer wall **6112***b* of the wall **6112** and the tongue **6140**. Further, an inner gasket **6150** can be positioned in the groove **6130** between the inner wall **6112***a* of the wall **6112** and the tongue **6140**, and a base gasket **6152** (e.g., such as a mesh gasket) can be positioned at the bottom of the groove **6130** between the tip of the tongue and the bottom of the groove **6130**.

Some embodiments include pivoting and/or articulating privacy/security enclosures that can enable functional and elegant options for a user to insert or remove a device (e.g., such as user device **10**). For example, FIGS. **62**A-**62**F various views of a privacy/security enclosure **6200** in progressive stages of opening and device insertion or removal according to one embodiment of the invention. In some embodiments, the privacy/security enclosure **6200** can comprise a lower case **6210**, coupled to an inner enclosure **6245** and an articulating enclosure **6240**. In some embodiments, an outer case or shell **6250** can at least partially enclosure the inner enclosure **6245**. In some embodiments, a user can use a latch **6260** to open the privacy/security enclosure **6200** enabling the articulating enclosure **6240** to pivot, and for the case or shell **6250** to be removed (shown progressively in FIGS. **62**A-**62**D.

FIG. **63**A illustrates a perspective view of a closed privacy/security enclosure **6300** according to one embodiment of the invention. FIG. **63**B illustrates a cross-sectional view of the privacy/security enclosure of FIG. **63**A according to one embodiment of the invention. FIG. **63**C illustrates the privacy/security enclosure of FIG. **63**A in an open configuration according to one embodiment of the invention. FIG. **63**D illustrates a cross-sectional view of the privacy/security enclosure of FIG. **63**C according to one embodiment of the invention. Some embodiments include a main housing **6305** comprising a base assembly **6310**, a case or cover **6315**, a base cover **6325**, and a hood **6335**. In some embodiments, an articulation assembly **6360** can be used to extend the enclosure **6340** including an inside RF shield **6375** from the base assembly **6310**.

FIG. **64**A illustrates an assembly view of an example embodiment of a privacy/security enclosure according to one embodiment of the invention. FIG. **64**B illustrates a base shell assembly view of a privacy/security enclosure according to one embodiment of the invention. Some embodiments include a cover **6310***a* and a base shell **6310***b* including a gasket **6311** coupled to a base shell bezel **6312**. Some embodiments include a base assembly **6370** coupled to base shell **6310***b*. Embodiments of the assembly can comprise a lower gasket lever **6372**, electronics/PCB (inside RF case) **6375**. Some embodiments include phone bed **6380**, hood **6385**, and masking speaker **6388**. Referring to FIG. **64**C illustrating a hood sub-assembly view of a privacy/security enclosure according to one embodiment of the invention, some embodiments include a hood exterior **6335** coupled to a hood interior **6335***a*, with coupled gasket **6335***b*. Some embodiments include one or more indicators of function and/or privacy such as an integrated hood—LED beacon **6335***c*. FIGS. **65**A-**65**E depicts various views of a privacy/security enclosure **6300** in use according to one embodiment of the invention. For example, some embodiments include a privacy/security enclosure **6300** including a base assembly **6325** coupled to a user device **10**. As shown in FIG. **65**E, the hood exterior **6335** can enable a device camera **13** of the user device **10** to have viewing access when extended from the main housing.

Referring to FIGS. **66**A-**66**C depicts various views of a privacy/security enclosure **6300** in use according to one embodiment of the invention. In some embodiments, the enclosure **6305** can be positioned in or on the case or shell **6315**. For example, in some embodiments, the enclosure **6305** including hood **6335** and Faraday base **6370** can be removed from the case or shell **6315** (shown in removal process FIG. **66**B and FIG. **66**C), and turned over and reversed in position to enable the enclosure **6305** including hood **6335** and Faraday base **6370** to be placed in an elevated position on the case or shell **6315**. FIGS. **67**A-**67**F depicts various views of a privacy/security enclosure **6300** in use according to one embodiment of the invention, and show views of the interaction between the enclosure **6305** and the case or shell **6315** (shown as **6310***a* in FIG. **67**E). Further, as shown in FIG. **67**E, the hood **6335** can be extended away from the user device **10** to enable insertion and removal of the user device **10**.

FIG. **68** shows a privacy/security enclosure **6800** according to another embodiment of the invention. Some embodiments include a main housing **6805** comprising a base portion **6810** and lid portion **6815**. In some embodiments, the hinge mechanism **6820** main housing **6805** can be pivoted with respect to the base portion **6810**. FIG. **69** shows a further example of a privacy/security enclosure **6900** according to another embodiment of the invention. Some embodiments include a main housing **6905** comprising a lid portion **6910** and base portion **6915**. FIG. **70** shows another example of a privacy/security enclosure **7000** according to another embodiment of the invention. Some embodiments include a case or shell **7005** enveloping an enclosure **7010**. In some embodiments, the main housing **7010** can be removed from the case or shell **7005** to enable access to a user's device.

FIGS. **71**A-**71**D shows privacy/security enclosures according to various embodiments of the invention. FIG. **71**A shows a privacy/security enclosure **7100** comprising a main housing **7105** including a base portion **7110** pivotably coupled to a lid portion **7115** using a hinge **7108**. The enclosure **7120** shown within the privacy/security enclosure **7100** can comprise a base enclosure **7130** and hood enclosure **7140** that can be accessed by opening the privacy/security enclosure **7100** using a latch **7125**. Further, FIG. **71**B shows a privacy/security enclosure **7150** including a base portion **7147** coupled to a lid portion **7145** using a hinge **7148**. The base enclosure **7155** shown can be accessed by opening the privacy/security enclosure **7150** using a latch **7158**. FIG. **71**C shows enclosure **7160** comprising a main cover or shell **7165** that can enclose enclosure **7167** comprising a base enclosure **7175** and hood enclosure **7170**. FIG. **71**D shows enclosure **7180** including base enclosure **7185** and hood enclosure **7198**, and a cover or shell **7190** comprising an inner region **7195** into which the enclosure **7180** can be inserted.

FIGS. **72**A-**72**D depicts a privacy/security enclosure **7200** in use in accordance with some embodiments of the invention. Referring to FIG. **72**A, the privacy/security enclosure **7200** can comprise a main housing **7205** including a cover or shell **7210** enclosing an enclosure **7215** and including a latch **7230**. As shown in FIG. **72**B, the user device **10** can be positioned in the enclosure **7215** to provide some privacy while the cover or shell is removed and/or folder away from the enclosure **7215**. The user device **10** can be removed from the privacy/security enclosure **7200** for use by a user (as depicted in FIG. **72**C showing user **25**). The user device **10** can also be mounted in the privacy/security enclosure **7200** using a standing feature (shown in FIG. **72**D). Further views of the privacy/security enclosure **7200** are shown in FIGS. **73**A-**73**C, FIGS. **74**A-**74**D, and FIGS. **75**A-**75**F depicting a privacy/security enclosure **7200** in use in accordance with some embodiments of the invention.

FIGS. **76**A-**76**D depicts a privacy/security enclosure **7600** in use in accordance with some embodiments of the invention, and FIGS. **77**A-**77**C depicts a privacy/security enclosure **7600** in use in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure **7600** includes main housing **7605**, cover or shell **7608**, and enclosure **7610** including base enclosure **7630**, enclosure support **7635**, hood cap **7640**, and hood **7650**. In some embodiments, the enclosure **7610** can be removed from the cover or shell **7608**. Further, in some embodiments, the hood **7650** and/or hood cap **7640** can be extend and retracted to facilitate insertion and removal of a user device **10**.

FIGS. **78**A-**78**C depicts a privacy/security enclosure **7800** in use in accordance with some embodiments of the invention, and FIGS. **79**A-**79**C depicts a privacy/security enclosure **7800** in use in accordance with some embodiments of the invention. Some embodiments include main housing **7805** including a cover or shell **7808** and enclosed enclosure **7810** comprising an enclosure base **7815** and hood **7825**. Referring to FIG. **79**C, in some embodiments, proximate the hood wall **7815**, and aperture **7818** can be included to enable access to one or more controls of the user device **10**. Further, referring to FIG. **79**B, in some embodiments, the hood cap **7830** can be pivoted from an open position (shown as **7802**) to a closed position (shown as **7804**) to enable the enclosure **7810** to enclose and clasp the user device **10**.

FIGS. **80**A-**80**F illustrate various views of a privacy/security enclosure **8000** according to at least one embodiment of the invention. Some embodiments include a main housing **8005** including a removable outer cover **8007**, a rear outer enclosure **8010**, a front outer enclosure **8030**, and a base enclosure **8040**. Some embodiments include an LED or button **8042** positioned in the base enclosure. Some embodiments include an extendible hood **8050** including a hood cap **8055**. In some embodiments, the hood cap **8055** can comprise at least one function, status, and/or privacy indicator comprising an indicator LED **8070**. In some embodiments, logo **8088** can be including on at least a portion of the main housing.

FIG. **81**A-**81**D illustrate various views of a privacy/security enclosure **8100** according to at least one embodiment of the invention. In some embodiments, the privacy/security enclosure **8100** can include a main housing **8105** comprising an enclosure **8110**, cover or shell **8115**, base enclosure **8112**, and hood **8114**. In some embodiments, the enclosure **8110** can be removed from the cover or shell **8115**. FIG. **81**D shows a user device **10** in a standing mode. FIGS. **82**A-**82**D illustrate various views of a privacy/security enclosure **8100** according to at least one embodiment of the invention. In some embodiments, the enclosure **8110** can comprise a support **8215** coupled to the base enclosure **8112** and hood **8114**. As shown in FIG. **82**C, in some embodiments, the hood **8114** can comprise a clip portion **8114***b* that can be pivoting about a pivot **8114***a* to enable the clip portion **8114***b* to grip a user device **10** or to enable a user to remove a user device **10** from the enclosure **8110**.

FIGS. **83**A-**83**D illustrate various views of a privacy/security enclosure **8300** according to at least one embodiment of the invention. Some embodiments include a main housing **8305** comprising an enclosure **8310** and a cover or shell **8315**, and base enclosure **8312**. In some embodiments, the enclosure **8310** can be removed from the cover or shell **8315** (removal process shown in FIG. **83**B and removed cover or shell **8315** shown removed in FIG. **83**C). Referring to FIG. **83**D, some embodiments, the hood **8316** with a hood clip **8314** can be moved from a closed position (shown as **8314***a* in FIG. **83**C) to an open position (shown as **8314***b* in FIG. **83**D). This is further illustrated in FIGS. **84**A-**84**D, illustrating various views of a privacy/security enclosure **8300** according to at least one embodiment of the invention. FIG. **84**A shows the closed position **8314***a*, and FIG. **84**B shows a user **25** in the process of opening the hood **8314**. FIG. **84**C shows the open position **8314***b* of the hood **8314**. This view also shows the aperture **8307** enabling access to the user device **10** as described for another embodiment earlier. Further, FIG. **84**D shows the hood **8316** can be extended away from the enclosed user device **10** forming a gap **8303** and enabling access to one end of the user device **10**.

FIGS. **85**A-**85**C illustrate various views of a privacy/security enclosure **8500** according to at least one embodiment of the invention. In some embodiments of the invention, the privacy/security enclosure **8500** can include a main housing **8505** comprising a cover **8507**, enclosure **8510**, coupled base enclosure **8515** and hood **8540** including hood cap **8545**. A user device **10** is shown cradled in the enclosure **8510** with one end positioned in the base enclosure **8515**, and another end clasped in the hood **8540** with the hood cap **8545**. An access aperture **8517** is shown in the base enclosure **8515** to enable user access to one or more controls of the user device **10**. Further views of the privacy/security enclosure **8500** are shown in FIGS. **86**A-**86**D including various positions of the cover **8507** with respect to the enclosure **8510** in accordance with some embodiments of the invention.

FIGS. **87**A-**87**E illustrate various views of a privacy/security enclosure **8700** according to at least one embodiment of the invention. The privacy/security enclosure **8700** is shown comprising a main housing **8705** including a cover **8707**, base enclosure **8715**, hood enclosure **8740**, and removable cover **8750***a*. As depicted in FIGS. **87**C-**87**E, the removable cover **8750** positioned coupled to the base enclosure **8715** can be rotated to a rotated position **8750***b*, and removed (shown as removed cover **8750***c*)

FIGS. **88**A-**88**C illustrate various views of a privacy/security enclosure **8800** according to at least one embodiment of the invention. Some embodiments include a privacy/security enclosure **8800** comprising a main housing **8805** including a cover **8807** positioned at least partially covering an enclosure **8810** and coupled to a base assembly **8815**. The enclosure **8810** can comprise a hood **8830** including a cap **8840**. FIGS. **89**A-**89**E illustrate various views of a privacy/security enclosure **8800** including some an assembly view (shown in FIG. **89**C). In some embodiments, a removable cover **8802** can couple to the main housing **8805** including base enclosure **8815**, hood **8830**, and cap **8840**.

FIGS. **90**A-**90**F illustrate various views of a privacy/security enclosure **9000** according to at least one embodiment of the invention. In some embodiments, the privacy/security enclosure **9000** can comprise a cover or shell **9010** at least partially enclosing an enclosure assembly **9015** including enclosure **9040**, pivot assembly **9050**, pivot **9060**, and blocker **9065**. In some embodiments, the enclosure **9040** can pivot using the pivot assembly **9050** about the pivot to couple the blocker **9065** with a microphone, speaker, camera, or other sensor of the user device.

FIGS. **91**A-**91**C illustrate various views of a privacy/security enclosure **9100** according to at least one embodiment of the invention. In some embodiments, the privacy/security enclosure **9100** can include the main housing **9105** comprising the enclosure **9110** and frame **9115**, hood **9130**, and base assembly **9020**.

FIGS. **92**A-**92**E illustrate various views of a privacy/security enclosure **9200** according to at least one embodiment of the invention. In some embodiments, the privacy/security enclosure **9200** can include main housing **9205** comprising enclosure **9215** and frame **9235**, hood **9225**. FIG. **92**D shows an assembly view showing frame **9235** positioned to accept a user device **10** and/or for insertion into the main housing **9205**. FIG. **92**C shows the hood **9225** in a closed position **9225***a*, and FIG. **92**D shows the hood **9225** in an open position **9225***b*. FIGS. **93**A-**93**C illustrate various views of a privacy/security enclosure **9200** according to at least one embodiment of the invention, where FIG. **93**A shows the closed position **9225***a* of the hood **9225** (enclosing a user device **10**) and FIG. **93**B shows the hood **9225** in an open position **9225***b* in preparation for a user **25** to remove the user device.

FIGS. **94**A-**94**D illustrate various views of a privacy/security enclosure **9400** according to at least one embodiment of the invention. In some embodiments, the privacy/security enclosure **9400** includes main housing **9405** with covers **9407**, **9420** (shown in the assembly view of FIG. **94**A), removable cover **9410**, aperture **9415** (shown in FIG. **94**D with cover **9410** removed). In some embodiments, removable cover **9410** can be separated from the privacy/security enclosure **9400** to change the privacy of an enclosed device.

FIGS. **95**A-**95**C illustrate various views of a privacy/security enclosure **9500** according to at least one embodiment of the invention. Some embodiments include a main housing **9505** with slidable cover **9525**. In some embodiments, the cover **9525** can be rolled beneath the main housing **9505** to uncover an enclosed user device **10** (shown depicted in FIG. **95**C).

FIGS. **96**A-**96**B illustrate various views of a privacy/security enclosure **9600** according to at least one embodiment of the invention. Some embodiments include a housing **9605** enclosing an enclosure **9610** and base enclosure **9615**. The assembly view of FIG. **96**A shows the removal of a user device **10** within enclosure **9610** by removal from the housing **9605**, and assembly of the enclosure **9610** on the exterior of the housing **9605**. Further, FIG. **96**B shows the separation of the housing **9605** and the enclosure **9610**.

FIGS. **97**A-**97**C illustrate various views of a privacy/security enclosure **9700** according to at least one embodiment of the invention. Some embodiments include a housing **9705** and enclosure **9710** with hood cover **9725**. The assembly view of FIG. **97**A shows the partial removal of a user device **10** within enclosure **9710** by partial separation of the cover portion **9725** from the housing **9705**. Further, FIG. **97**B shows the assembly view of the separation of the cover portion **9725**, and FIG. **97**C shows the stand configuration **9726** using fold **9725***a* of the cover portion **9725**.

FIGS. **98**A-**98**B illustrate various views of a privacy/security enclosure **9800** according to at least one embodiment of the invention. In some embodiments, the privacy/security enclosure **9800** can comprise a main housing **9805**, enclosure **9810**, coupled base assembly **9815**, and foldable cover **9825**. FIG. **98**B shows the separation and folding or flipping of the cover **9825**, and FIG. **98**C shows the flipped cover **9825** with bend **9825***a*.

FIGS. **99**A-**99**C illustrate various views of a privacy/security enclosure **9900** according to at least one embodiment of the invention. In some embodiments, the privacy/security enclosure **9900** can comprise a main housing **9905** including a pivoting cover **9910** and enclosure **9915**. FIG. **99**A shows the assembly view of the pivoting cover **9910**, FIG. **99**B shows the privacy/security enclosure **9900** with the pivoting cover **9910** at least partially rotated from the user device **10**, and FIG. **99**C shows the assembly view with removal of the cover **9910**.

FIGS. **100**A-**100**C illustrate various views of a privacy/security enclosure **10000** according to at least one embodiment of the invention. In some embodiments, the privacy/security enclosure **10000** can comprise main housing **10005** including a first half **10010** and a second half **10020** that can enclose an enclosure **10025** comprising a base assembly **10045** and hood **10035**. FIG. **100**B shows the action view of the halves **10010**, **10020** pivoting apart from each other. Further, FIG. **100**C shows an assembly view of the insertion or removal of the enclosure **10025** including user device **10** from the main housing **10005**.

FIGS. **101**A-**101**C illustrate various views of a privacy/security enclosure **10100** according to at least one embodiment of the invention. In some embodiments, the privacy/security enclosure **10100** can include an enclosure **10105** and reversible removable cover **10110**. For example, FIG. **101**A shows the reversible removable cover **10110** coupled to the enclosure **10105**. FIG. **101**B depicts separation of the reversible removable cover **10110** from the enclosure **10105**. FIG. **101**C shows removal of the enclosure **10105** from the reversible removable cover **10110** that has been reversed to function as a tray or holder.

FIGS. **102**A-**102**C illustrate various views of a privacy/security enclosure **10200** according to at least one embodiment of the invention. In some embodiments, the privacy/security enclosure **10200** can include an enclosure **10205** with base portion **10220** and hood **10230** and reversible removable cover **10210**. For example, FIG. **102**A shows the reversible removable cover **10210** on the enclosure **10205**. FIG. **102**B depicts separation of the reversible removable cover **10210** from the enclosure **10205**. FIG. **102**C shows removal or insertion of the enclosure **10205** from or to the reversible removable cover **10210**.

FIGS. **103**A-**103**B illustrate various views of a privacy/security enclosure **10300** according to at least one embodiment of the invention. The enclosure **10305** includes hood **10310** and a removable wallet enclosure **10315**. In some embodiments, the latch **10325** can coupled or decoupled the foldable access flap **10335** portion of the removable wallet enclosure **10315** to enable insertion, removal, or access to a user device **10**.

FIGS. **104**A-**104**B illustrate various views of a privacy/security enclosure **10400** according to at least one embodiment of the invention. In some embodiments, the privacy/security enclosure **10400** can comprise a main housing **10405** appearing and/or functioning as a shoe. In some embodiments, the privacy/security enclosure **10400** can comprise an enclosure **10410** with a pivoting shoe cover **10415** (shown in action view from closed to open in FIG. **104**A, and in use in FIG. **104**B).

FIGS. **105**A-**105**C illustrate various views of a privacy/security enclosure **10500** according to at least one embodiment of the invention. For example, privacy/security enclosure **10500** can comprise main housing **10505** with enclosure **10510** as shown in FIG. **105**A. The assembly view of FIG. **105**B shows the removal or insertion of the enclosure **10510** from the main housing **10505**. FIG. **105**C shows the removal of the enclosure **10510** from the main housing **10505** and the subsequent partial collapse of the main housing **10505** to a lower profile (shown progressively as **10515***a* to **10515***b* to **10515***c*.)

FIGS. **106**A-**106**C illustrate various views of a privacy/security enclosure **10600** according to at least one embodiment of the invention. In some embodiments, the privacy/security enclosure **10600** can include an enclosure **10605** and reversible removable cover **10615**. For example, FIG. **106**A shows the reversible removable cover **10615** coupled to the enclosure **10605**. FIG. **106**B depicts separation of the reversible removable cover **10610** from the enclosure **10605**. FIG. **106**C shows removal of the enclosure **10605** from the reversible removable cover **10610** that has been reversed to function as a tray or holder.

FIGS. **107**A-**107**D illustrate various views of a privacy/security enclosure **10700** according to at least one embodiment of the invention. In some embodiments, the enclosure

10705 can comprise a base assembly **10715** and rotatable hood **10710**. Referring to FIG. **107**B, in some embodiments, the rotatable hood **10710** can be extended and rotated via a tensioner **10712**. Referring to FIG. **107**C, in some embodiments, the rotatable hood **10710** can be extended and rotated from a first or closed position **10710***a* (clasping a user device **10**) to a second or open position **10710***b* to enable a user to access and/or remove the user device **10** from the enclosure **10705**.

FIGS. **108**A-**108**C illustrate various views of a privacy/security enclosure **10800** according to at least one embodiment of the invention. In some embodiments, the privacy/security enclosure **10800** comprises a main housing **10805** including an enclosure **10810**, coupled hood **10815**, and base enclosure **10820**. In some embodiments, the base enclosure **10820** can include a sliding plug **10825** movable from a first position (shown as **10825***a* in FIG. **108**A) to a second position (shown as **10825***b* in FIG. **108**B). In some embodiments, the sliding plug **10825** can be used to modify the privacy of an enclosed user device **10**.

FIGS. **109**A-**109**C illustrate various views of a privacy/security enclosure **10900** according to at least one embodiment of the invention. Some embodiments of the invention include a main housing **10905** comprising a rotatable hood **10915** pivotably coupled to a base support **10917** about a pivot **10918**. The base support **10917** is further coupled to a base enclosure **10920**. In some embodiments, a user can open and remove a user device by rotating the rotatable hood **10915** by pivoting the hood **10915** from the base support **10917** about the pivot **10918** (show rotated in FIGS. **109**B-**109**C).

FIGS. **110**A-**110**C illustrate various views of a privacy/security enclosure **11000** according to at least one embodiment of the invention. In some embodiments, the privacy/security enclosure **11000** can comprise an enclosure **11005** including a base assembly **11020**, and including an extendible hood **11015** coupled to an extender **11017**. In some embodiments, the hood **11015** can be extended or moved upwards away from the base assembly **11020** to enable access to an enclosed user device **10**, or to enable a user to insert a user device **10** in the enclosure **11005** (see FIG. **110**B). Referring to FIG. **110**C, in some embodiments, the user device **10** can be inserted or removed into or from the enclosure **11005** with the hood **11015** extended outward coupled to the extender **11017**.

FIGS. **111**A-**111**B illustrate various views of a privacy/security enclosure **11100** according to at least one embodiment of the invention. In some embodiments, the enclosure **11105** can comprise a base assembly **11120** with a base extension spring **11125**, and a rotatable hood **11115** coupled to a hood pivot **11117**. In some embodiments, access to a user device **10** and/or insertion or removal of the user device **10** can be facilitated by rotating the hood **11115** about the pivot **11117** to move the hood **11115** from a closed position (**11115***a*) to an open position (**11115***b*), and/or by extending the base assembly **11120** on the base extension spring **11125** (see the assembly view of FIG. **111**B).

FIGS. **112**A-**112**B illustrate various views of a privacy/security enclosure **11200** according to at least one embodiment of the invention. In some embodiments, the enclosure **11205** can comprise a base assembly **11220**, and a rotatable hood **11215** coupled to a hood pivot **11217**. In some embodiments, access to a user device **10** and/or insertion or removal of the user device **10** can be facilitated by rotating the hood **11215** about the pivot **11217** to move the hood **11215** from a closed position (**11215***a*) to an open position (**11215***b*) (see the assembly view of FIG. **112**B).

FIGS. **113**A-**113**B illustrate various views of a privacy/security enclosure **11300** according to at least one embodiment of the invention. In some embodiments, the enclosure **11305** can comprise a base assembly **11320** with a base pivot **11325**, and a rotatable hood **11315** coupled to a hood pivot **11317**. In some embodiments, insertion or removal of the user device **10** can be facilitated by rotating the hood **11315** about the pivot **11317** to move the hood **11315** from a an open position (**11315***a*) to a closed position (**11315***b*), and/or by rotating a portion of the base assembly **11320** and/or a clamp on the base pivot **11325** (see the assembly view of FIG. **113**B).

FIGS. **114**A-**114**B illustrate various views of a privacy/security enclosure **11400** according to at least one embodiment of the invention. In some embodiments, the privacy/security enclosure **11400** can include the enclosure **11405** comprising a hood **11415** and base assembly **11420**. In some embodiments, the user device **10** can be removed from the privacy/security enclosure **11400** (shown in the assembly view of FIGS. **114**A and **114**B).

FIGS. **115**A-**115**B illustrate various views of a privacy/security enclosure **11500** according to at least one embodiment of the invention. In some embodiments, the privacy/security enclosure **11500** comprises a main housing **11505**, a coupled flip cover **11510**, pivotable coupled to an enclosure **11515** including a base assembly **11520** and lever assembly **11530**. In some embodiments, the upper cover **11550** of the flip cover **11510** can pivot about the pivot **11512** to open or close the cover **11510**. In some embodiments, the lever assembly **11530** can into and out of the base assembly as the upper cover **11550** is opened and closed.

FIGS. **116**A-**116**B illustrate various views of a privacy/security enclosure **11600** according to at least one embodiment of the invention. In some embodiments, the privacy/security enclosure **11600** can comprise an enclosure **11605** including a hood **11615** and base assembly **11620**. In some embodiments, the enclosure **11605** including the hood **11615** can be extended or retracted using a gear **11630** coupled to teeth **11635**. Using the action shown in FIG. **116**B, the inner region **11606** can be enlarged (to enable a user to access a user device **10** or to place a user device **10** in the enclosure **11605**).

FIGS. **117**A-**117**B illustrate various views of a privacy/security enclosure **11700** according to at least one embodiment of the invention. In some embodiments, the privacy/security enclosure **11700** can comprise an enclosure **11705** including a hood **11715** movable from a closed hood **11715***a* to an open hood **11715***b* using a pivot **11717** (show in action view of FIG. **117**B). Further, in some embodiments, the base assembly **11720** can include a lever or plug **11735** coupled to the hood **11715** by a cable **11730** and spring or tensioner **11740**. In some embodiments, actuation of the hood **11715** to a closed position (**11715***a*) can cause the lever or plug **11735** to extend into or against a portion of the user device **10**. Further, actuation of the hood **11715** to an open position (**11715***b*) can cause the lever or plug **11735** to extend out of or away from a portion of the user device **10**.

FIG. **118** depicts a microphone blocking assembly **11800** according to one embodiment of the invention. In some embodiments, a user can use a switch **11810** coupled to a belt assembly **11820** including a belt **11840** and pulley assembly **1850** to block (sealing position **11830**) or unblock a microphone of a user device **10**.

FIG. **119** depicts a microphone blocking assembly **11900** according to one embodiment of the invention. In some embodiments, the enclosure **11905** can comprise a roller **11915**, base enclosure **11920**, microphone blocker **11928**, gear assembly **11932**, and teeth **11934**. In some embodiments, the microphone blocker **11928** can be rotated onto one or more microphones of an enclosed user device **10** by rotation of the gear assembly **11932** on the teeth **11934**.

FIG. **120** depicts a microphone blocking assembly **12000** according to one embodiment of the invention. In some embodiments, a main housing **12005** can comprise an enclosure **12010** with coupled door **12015** including a coupled microphone blocker **12017**. In some embodiments, the door **12015** can be rotated on the pivot **12019** to couple the microphone blocker **12017** with one or more microphones of a user device.

FIG. **121** depicts a microphone blocking assembly **12100** according to one embodiment of the invention. Some embodiments include a main housing **12105** comprising a rear entry frame **12110**, enclosure **12115**, and pivot **12120**. In some embodiments, the rear entry frame **12110** can be pivoted about the pivot **12120** to couple with a user device **10** and to seal at least one microphone of the user device **10**.

FIG. **122** depicts a microphone blocking assembly **12200** according to one embodiment of the invention. Some embodiments of the invention include a main housing **12205** comprising an enclosure **12210**, hood **12215**, base enclosure **12220**, movable microphone blocker **12225**, and control lever **12235**. In some embodiments, the movable microphone blocker **12225** can be moved by a user using the control lever **12235**.

FIGS. **123**A-**123**C depicts views of a microphone blocking assembly **12350** according to one embodiment of the invention. Some embodiments include a main housing **12305** comprising an enclosure **12310** base enclosure **12320** latch assembly **12350** including a microphone blocker latch **12315**, tensioner assembly **12360**, and pivot **12370**. Referring to FIG. **123**B, in some embodiments, a user can move the microphone blocker latch **12315** by rotating the pivot **12370** under tension by the tensioner assembly **12360**. FIG. **123**C shows the reverse action to cover a microphone of a user device **10**.

FIGS. **124**A-**124**B depicts views of a microphone blocking assembly **12400** according to one embodiment of the invention. Some embodiments include a main housing **12405** including enclosure **12420**, pivotably coupled to a base **12430** including a microphone blocker portion **12410**. In some embodiments, the base **12430** including microphone blocker portion **12410** can be rotated with respect to the enclosure **12420** about the pivot **12440** to block or unblock a microphone of a user device **10**.

FIGS. **125**A-**125**G show privacy/security enclosure housing cross-sections according to one embodiment of the invention. For example, FIG. **125**A shows an example embodiments of a Faraday shell **12510**. FIG. **125**B depicts a Faraday shell **12520** layer **12530** comprising a full RF layer with non-RF shielding. FIG. **125**C shows a Faraday shell **12540** including an inner layer **12550** comprising an RF layer with RF shield plastic insert. FIG. **125**D depicts a Faraday shell **12560** with layer **12570** comprising a non-RF shielding plastic with a conductive spray/mesh/cloth layer. FIG. **125**E shows a Faraday shell **12580** including a layer **12585** comprising an RF shielding plastic layer and conductive spray/mesh/cloth layer. FIG. **125**F shows a Faraday shell **12590** layer including a fingerstock **12595**. FIG. **125**G depicts a Faraday layer **12598** comprising a metal injection molded RF layer (e.g., a magnesium thixo-molding).

FIGS. **126**A-**126**C illustrate various views of a privacy/security enclosure **12600** housing according to one embodiment of the invention. Some embodiments include base portion **12601**, shelf portion **12603**, rim **12605**, and gasket seal **12608**. Referring to FIG. **126**B, in some embodiments, the gasket seal **12608** can comprise an upper layer **12610** with tongue and groove gasket **12615**. A lower layer **12620** including groove **12640** can couple with tongue **12630** as shown to form the gasket seal **12608**.

FIGS. **127**A-**127**D illustrate user device insertion and positioning into a privacy/security enclosure according to one embodiment of the invention. Some embodiments include enclosure **12705** comprising removable foam blocks **12708** and at least one removable foam block **12710** forming a cavity **12720** for insertion of a user device **10**. FIG. **127**B shows a privacy/security enclosure **12750** comprising a housing **12705** including straps **12755** threaded though apertures **12760** enclosing a user device **10**. FIG. **127**C shows an enclosure frame **12775** including an adjustable clamp **12778** with adjuster **12779** for clamping a user device **10** in the frame **12775**. Further. FIG. **127**D shows a privacy/security enclosure **12785** comprising a clip **12790** for positioning a user device **10**.

FIGS. **128**A-**128**F illustrate cross-sectional detail views of privacy/security enclosure housing gasket seals according to one embodiment of the invention. For example, FIG. **128**A shows upper layer **12810** and lower layer **12811** with first o-ring **12812** and second o-ring **12813**. FIG. **128**B shows upper layer **12820** with lower layer **12821** and upper o-ring seal **12822** and lower o-ring seal **12823**. FIG. **128**C shows upper layer **12830**, lower layer **12831**, and o-ring seal **12832**. FIG. **128**D shows upper layer **12840**, lower layer **12841**, and o-ring seal **12842**. FIG. **128**E shows upper layer **12850**, lower layer **12851**, and o-ring seal **12852**. FIG. **128**F shows upper layer **12860**, lower layer **12861**, first o-ring seal **12862**, and second o-ring seal **12863**. FIG. **128**G shows upper layer **12871**, lower layer **12872**, first o-ring seal **12873**, and second o-ring seal **12784**. FIG. **128**H shows upper layer **12880**, lower layer **12881**, first tongue **12882**, second tongue **12883**, and second groove **12884**, and first groove **12885**. Any of the gasket seals shown in FIGS. **128**A-**128**H can be used in any of the privacy/security enclosures disclosed herein.

Some embodiments of the invention include a charging interface comprising at least one microcontroller that can determine the power that can be drawn by a power source into which the interface is plugged. Some embodiments of the charging interface include logic regarding the sequence and priority of charging masking technology as well as an enclosed device and any other desired accessories.

In some embodiments, the privacy/security enclosure can comprise a rigid, structurally self-supporting chamber that can be opened and closed by a user. Further, the chamber can be formed of a material which attenuates RF radiation emitted to or from any RF antennas or transceivers positioned inside the privacy/security enclosure.

In some embodiments, the privacy/security enclosure can comprise one or more separable and/or moveable portions. For example, some embodiments include a privacy/security enclosure comprising a lower portion (i.e. a base portion) and an upper portion (i.e., a lid portion). In some embodiments, the privacy/security enclosure can comprise a Faraday cage configured to attenuate, or at least partially block, reception or transmission of RF radiation. In some embodiments, the Faraday cage includes and/or is formed by the one or more RF gaskets. In some embodiments of the invention, the RF gasket can attenuate (i.e. reduce in signal strength) an RF signal. In some embodiments, the RF gasket can attenuate a portion of an RF signal while still disrupting effective communication. In some embodiments, the RF gasket can attenuate or at least partially block RF radiation from entering or exiting a privacy/security enclosure to which it is coupled. In some embodiments, this can provide bandwidth selectable pass-through capabilities.

In some embodiments, at least a portion of the RF gasket can be formed of a material which at least partially attenuates RF radiation emitted from one or more mobile or stationary communication devices. In some embodiments, the RF gasket can be formed of a material including at least a portion that substantially attenuates RF. In some embodiments, at least a portion of the RF gasket can at least partially attenuate RF radiation emitted from outside of the privacy/security enclosure. In some embodiments, at least a portion of the RF gasket can at least partially attenuate RF radiation emitted from within the privacy/security enclosure.

Referring to FIG. **129**, illustrating a perspective view of a privacy/security enclosure **12900** including a partial cutaway interior view, of some embodiments of the invention. In some embodiments of the invention, the privacy/security enclosure **12900** can comprise an upper portion **12910** that can be coupled to the base portion **12920** to at least partially enclose a user device. Further, the upper portion **12910** and base portion **12920** can be at least partially uncoupled and/or separated to enable a user to access the privacy/security enclosure **12900** (e.g., to insert or remove one or more user devices). Further, FIG. **130** illustrates an interior view from line **2** of the privacy/security enclosure of FIG. **129** according to some embodiments of the invention, and FIG. **131** illustrates a cross-sectional view of the privacy/security enclosure of FIG. **129** through cut line **3** of FIG. **130** according to at least some embodiments of the invention. As shown in FIG. **130**, the RF gaskets **12930** can extend completely and/or continuously around the interface **12922**. In some other embodiments of the invention, the RF gaskets **12930** can partially extend around the interface **12922**.

In some embodiments, the privacy/security enclosure can include one or more RF gaskets extending around at least a portion of an interface **12922** between the upper portion **12910** and base portion **12920** of the privacy/security enclosure (e.g., such as the privacy/security enclosure **12900** or any other privacy/security enclosure disclosed herein). In some embodiments, the privacy/security enclosure can include one or more RF gaskets that can extend completely around a region of the upper and/or lower portion of the privacy/security enclosure (e.g., such as the interface **12922** between the upper portion **12910** and base portion **12920**).

In some embodiments of the invention, the privacy/security enclosure **12900** can include a conventional or custom fingerstock assembly. Referring to FIG. **131** and FIG. **133** illustrating a close up cross-sectional view of the privacy/security enclosure of FIG. **129** through cut line **5** of FIG. **131**, as well as FIG. **132** illustrating a fingerstock assembly in accordance with some embodiments of the invention, the privacy/security enclosure can include at least one fingerstock **13200**. In some embodiments, the fingerstock assembly **13200** can comprise a plurality of fingers **13225** comprising generally C-shaped, angular and/or curved extensions or tabs extending from a base or mounting surface **13210**. The fingers **13225** can comprise contact areas **13325***a* that can be used to couple with one or more portions of the upper and/or lower portions for the privacy/security enclosure **12900** such as the upper portion **12910** and base portion **12920**. For example, in some embodiments, the plurality of fingers **13225** can comprise contact areas **13225***a* that can be used to couple with one or more inner walls of the upper portion **12910** to provide an electromagnetic seal. The base or mounting surface **13210** and the individual fingers themselves can be flexible enough to enable the fingers **13225** to bend or pivot with respect to the base or mounting surface **13210** using force applied by a user (e.g., to enable two surfaces such as surfaces of the portions **12910**, **12920** to be coupled to at least partially prevent passage of electromagnetic radiation).

In some embodiments, the fingers **13225** can be integrally formed with the base portion **12920** as shown. As discussed further below, in some other embodiments, the C-shaped curved fingers **13225** can comprise separate C-shaped curved extensions or tabs. In some embodiments, these can be coupled or mounted directly to a portion of the privacy/security enclosure **12900**. In other embodiments, the fingers **13225** can be coupled or mounted to a support and coupled to at least one portion of the privacy/security enclosure **12900**. For example, in some embodiments, the fingers **13225** can be coupled or mounted to an inner gasket. Further, in some embodiments, the shape of the extensions or tabs can be varied to accommodate different portions of the privacy/security enclosure **12900**, and/or to provide different levels of RF attenuation and/or different levels of seal between portions of the privacy/security enclosure.

In some embodiments, more than one RF gasket can be used within a privacy/security enclosure. For example, in some embodiments, the privacy/security enclosure can include two RF gaskets positioned at an interface between an upper and lower portion of the privacy/security enclosure. In some embodiments, the RF gaskets can be positioned adjacent each other within an inner wall of a lid receiving end of the privacy/security enclosure. In some embodiments, one RF gasket can be positioned coupled to the inner wall of the lid receiving end of the privacy/security enclosure adjacent the top surface of the base, and a second RF gasket can be positioned coupled to the inner wall of the lid receiving end of the privacy/security enclosure proximate the first RF gasket and adjacent the lid receiving wall of the base gasket.

In other embodiments of the invention, the privacy/security enclosure can include three or more fingerstocks and/or a plurality of base gaskets. For example, FIG. **133** illustrates a close up cross-sectional view of the privacy/security enclosure **12900** of FIG. **129** through cut line **5** of FIG. **131** showing a dual fingerstock (comprising fingerstock **13100** and fingerstock **13150**), and an RF gaskets **12930** comprising a gasket **13175** according to some embodiments of the invention. The close-up cross-sectional view shows section **12925** of the base portion **12920** and section **12915** of the upper portion **12910**, with the dual fingerstocks **13100**, **13150** forming a seal between the sections **12915**, **12915**.

In some embodiments, any of the previously mentioned RF gaskets can be capable of forming a compliant privacy seal between portions of the privacy/security enclosure (e.g., between an upper and a lower portion and/or between two halves of any of the privacy/security enclosures described herein). Further, in some embodiments, the formed seal can be capable of functioning as an environmental barrier in addition to functioning as an RF shield. In some embodiments of the invention, RF gasketing can provide the secondary benefit of minimizing the transmission of air, water, dust and other such substances from passing into the interior of the privacy/security enclosure when the enclosure is closed.

In some embodiments, other or additional environmental or sealing gaskets can be included that are more specifically designed for this purpose. The environmental or sealing gaskets can be used with one or more RF gaskets as required. For example, as shown in at least FIGS. **131** and **133**, in some embodiments, at least one base or sealing gasket **13175** can be positioned at or adjacent the interface **12922** between the sections **12915**, **12925**. In some embodiments, the gasket **13175** can be used with or without one or more fingerstocks (i.e., with one or both or more fingerstocks **13100**, **13150**).

In some embodiments, the gasket **13175** can be positioned to accommodate and couple with at least a portion of a base end of an upper portion such as a lid. For example, in some embodiments, as the upper portion **12910** is coupled with the base portion **12920**, the base end of the upper portion **12910** (show as section **12915**) can slide onto or over a portion of the base portion **12920** (shown as **12950***a* in FIG. **133**) to couple with the gasket **13175**. Further, as shown, the gasket **13175** can couple with the inner surface **12910***a* of the upper portion **12910** as the upper portion **12910** is coupled with the base portion **12920**. In some further embodiments, one or more gasket **13175** can be positioned coupled to the inner wall **12920***a* of the base portion **12920** adjacent or proximate to one or more gaskets **13175**.

Other combinations of RF gaskets comprising single and/or multiple fingerstock **13400** and gaskets **13175** can be used. For example, FIG. **134** illustrates an example of the view of FIG. **133** including a single fingerstock **13400** and gasket **13175** according to some embodiments of the invention. As shown, some embodiments include a single gasket **13175** positioned as previously described. For example, in some embodiments, the fingerstock **13400** can be positioned generally equally spaced between the top surface **12925***b* of the base portion **12920** and the interface **12922**. In some other embodiments, the fingerstock **13400** can be positioned proximate the top surface **12925***b* of the base portion **12920**. In some further embodiments, the fingerstock **13400** can be positioned proximate the interface **12922**.

In some embodiments of the invention, a combination of one or more grooves formed within one or more surfaces of one or more portions of the privacy/security enclosure (such as privacy/security enclosure **12900**) can be used with one or more RF gaskets (e.g., such as fingerstock **13400** and gasket **13175**) to provide various levels of coupling, seating, and/or sealing of the privacy/security enclosure. For example, in some embodiments, at least some portion of an upper and/or base portion of a privacy/security enclosure can comprise at least one form, cavity, or depression (i.e. forming a groove) for coupling to at least one or more RF gaskets. In some embodiments, at least one form, cavity, or depression can be formed during any of the aforementioned manufacturing processes. For example, FIG. **135** illustrates an assembly view of FIG. **133** depicting insertion of an upper portion **12918** onto the base portion **12920** (shown as section **12925**) of a privacy/security enclosure. This example embodiment includes fingerstock grooves **12918***a*, **12918***b* formed within the upper portion **12918**. FIG. **136** illustrates the assembled view of FIG. **135** according to some embodiments of the invention. As shown, in some embodiments, as the upper portion **12918** is coupled with the base portion **12920**, the base end **12919** of the upper portion **12918** can slide onto or over an edge wall **12925***a* of the base portion **12920** to couple with the gasket **13620**. Further, as shown, the gaskets **13610**, **13615** can each couple with the fingerstock grooves **12918***a*, **12918***b* formed within the upper portion **12918**.

In some embodiments, one or more fingerstocks can be used together within one or more inner gaskets to form an RF gasket or seal. Some embodiments of the invention can comprise an RF gasket assembly comprising at least two components. For example, some embodiments include an assembly of components comprising at least one fingerstock coupled to at least one gasket. For example, FIG. **137** illustrates a compound gasket assembly **13700** according to some embodiments of the invention, FIG. **138** illustrates a cross sectional view of a compound gasket assembly **13700**. Further, FIG. **139** illustrates a rear view of a gasket assembly **13700** according to one embodiment of the invention, and FIG. **140** illustrates a front view of a gasket assembly **13700** according to one embodiment of the invention. As illustrated, in some embodiments, the compound gasket assembly **13700** can comprise a fingerstock **13701** coupled to one or more inner gaskets **13720**.

In some embodiments, the compound gasket assembly **13700** can comprise a fingerstock **13701** comprising a series of generally C-shaped curved fingers **13710** extending from a base or mounting surface **13705**. In some embodiments, the fingers **13710** can be integrally formed with the mounting surface **13705**. In some other embodiments, the C-shaped curved extensions or tabs can comprise separate fingers **13710** that can be coupled to or mounted onto or over an inner gasket **13720**. Further, in some embodiments, the shape and/or the spacing of each of the fingers **13710** can be varied to accommodate different portions of a privacy/security enclosure, and/or to provide different levels of RF attenuation and/or different levels of sealing between portions of the privacy/security enclosure. In some embodiments, the fingerstock **13701** can provide mechanical or physical support to the inner gasket **13720**. In some further embodiments, the fingerstock **13701** can provide degradation or wear protection to the inner gasket **13720**. For example, in some embodiments, when used to provide one or more RF and/or environmental seals between surfaces and/or portions of a privacy/security enclosure, the use of a fingerstock **13701** at least partially enveloping the inner gasket **13720** can prevent wear and extend the life of the inner gasket **13720**.

FIG. **141** illustrates an example of the view of FIG. **133** including dual fingerstocks of FIG. **138** (shown as gasket assembly **14150**, **14160**) and base gasket **14170** according to some embodiments of the invention. As shown, in some embodiments, the privacy/security enclosure portion **14100** can include two RF gaskets (formed by gasket assembly **14150**, **14160** positioned at an interface **14105** formed between an upper and lower portions **14110**, **14120** of the privacy/security enclosure). In this example embodiment, the mounting surfaces **14150***a*, **14160***a* of the fingerstocks of gasket assemblies **14150**, **14160** can be coupled to the inner surface **14115** of the upper portion **14110**, and the fingers **14155**, **14165** of the gasket assemblies **14150**, **14160** can extend away from portion **14110**, coupling with the surface **14120***a* of the base portion **14120**. In some other embodiments of the invention, the gasket assemblies **14150**, **14160** can be rotated by 180°. For example, FIG. **142** illustrates an example of the view of FIG. **133** including gasket assemblies **14150**, **14160**. As shown, the mounting surfaces **14150***a*, **14160***a* of the fingerstocks of gasket assemblies **14150**, **14160** can be coupled to the surface **14120***a* of the base portion **14120**, and the fingers **14155**, **14165** can extend towards the inner surface **14115** of the upper portion **14110**.

In some embodiments, a privacy/security enclosure can be sealed without a base gasket. For example, FIG. **143** illustrates an example of a view **14300** of FIG. **133** including dual fingerstocks of FIG. **138** (shown as gasket assemblies **14150**, **14160**) according to some embodiments of the invention, and FIG. **145** illustrates an example of a view **14500** of FIG. **133** including a single gasket assemblies **14150** of FIG. **138** according to some embodiments of the invention. In this example embodiment, the mounting surfaces **14150***a*, **14160***a* can be positioned and coupled as described for FIG. **141**. Further, FIG. **144** illustrates an example of the view **14400** of FIG. **133** including gasket assemblies **14150**, **14160** of FIG. **138** according to some embodiments of the invention, and FIG. **146** illustrates an example of view **14600** of FIG. **133** including a single gasket assembly **14150** of FIG. **138** according to some embodiments of the invention. As shown, in this example embodiment, the mounting surfaces **14150***a*, can be positioned and coupled as described for FIG. **142**.

In some embodiments, one or more fingerstocks can be used together within one or more inner gaskets to form an RF gasket or seal. For example, FIG. **147** illustrates a compound gasket assembly **14700** according to some embodiments of the invention, FIG. **148** illustrates a cross sectional view of a compound gasket assembly **14700**. Further, FIG. **149** illustrates a rear view of a gasket assembly **14700** according to one embodiment of the invention, and FIG. **150** illustrates a front view of a gasket assembly **14700** according to one embodiment of the invention. As illustrated, in some embodiments, the compound gasket assembly **14700** can comprise a fingerstock **14701** coupled to one or more inner gaskets **14720**. In some embodiments, the compound gasket assembly **14700** can comprise a fingerstock **14701** comprising a series of generally C-shaped curved fingers **14710** extending from a base or mounting surface **14705**. In some embodiments, the fingers **14710** can be integrally formed with the mounting surface **14705**. In some other embodiments, the C-shaped curved extensions or tabs can comprise separate fingers **14710** that can be coupled to or mounted onto or over an inner gasket **14720**. Further, in some embodiments, the shape and/or the spacing of each of the fingers **14710** can be varied to accommodate different portions of a privacy/security enclosure, and/or to provide different levels of RF attenuation and/or different levels of sealing between portions of the privacy/security enclosure. In some embodiments, the fingerstock **14701** can provide mechanical or physical support to the inner gasket **14720**. In some further embodiments, the fingerstock **14701** can provide degradation or wear protection to the inner gasket **14720**. For example, in some embodiments, when used to provide one or more RF and/or environmental seals between surfaces and/or portions of a privacy/security enclosure, the use of a fingerstock **14701** at least partially enveloping the inner gasket **14720** can prevent wear and extend the life of the inner gasket **14720**.

FIG. **151** illustrates an example of the view of FIG. **133** including a gasket assemblies **14700** of FIG. **148** (shown as gasket assemblies **15150**, **15160**) and base gasket **15170** according to some embodiments of the invention. As shown, in some embodiments, the privacy/security enclosure portion **15100** can include two RF gaskets (formed by gasket assemblies **15150**, **15160** positioned at an interface **15105** formed between an upper and lower portions **15110**, **15120** of the privacy/security enclosure). In this example embodiment, the mounting surfaces **15150***a*, **15160***a* of the fingerstocks of gasket assemblies **15150**, **15160** can be coupled to the inner surface **15115** of the upper portion **15110**, and the fingers **15155**, **15165** of the gasket assemblies **15150**, **15160** can extend away from portion **15110**, coupling with the surface **15120***a* of the base portion **15120**. px4 the gasket assemblies **15150**, **15160** can be rotated by 180°. For example, FIG. **152** illustrates an example of the view of FIG. **133** including gasket assemblies **15150**, **15160**. As shown, the mounting surfaces **15150***a*, **15160***a* of the fingerstocks of gasket assemblies **15150**, **15160** can be coupled to the surface **15120***a* of the base portion **15120**, and the fingers **15155**, **15165** can extend towards the inner surface **15115** of the upper portion **15110**.

As described earlier with respect to the example embodiments of FIGS. **143-144** and **145-146**, in some embodiments, the privacy/security enclosure can be sealed without a base gasket. In some embodiments, a privacy/security enclosure can be sealed without a base gasket. For example, FIG. **153** illustrates an example of a view **15300** of FIG. **133** including a dual fingerstocks of FIG. **148** (shown as gasket assemblies **15150**, **15160**) according to some embodiments of the invention, and FIG. **155** illustrates an example of a view **15500** of FIG. **133** including a single gasket assemblies **15150** of FIG. **148** according to some embodiments of the invention. In this example embodiment, the mounting surfaces **15150***a*, **15160***a* can be positioned and coupled as described for FIG. **151**. Further, FIG. **154** illustrates an example of the view **15400** of FIG. **133** including gasket assemblies **15150**, **15160** of FIG. **148** according to some embodiments of the invention, and FIG. **156** illustrates an example of view **15600** of FIG. **133** including a single gasket assembly **15150** of FIG. **148** according to some embodiments of the invention. As shown, in this example embodiment, the mounting surfaces **15150***a*, can be positioned and coupled as described for FIG. **152**.

In some embodiments, at least a portion of any of the RF gaskets described herein can comprise a metal or a metal alloy. In some embodiments, at least a portion of any of the RF gaskets described herein can comprise copper or a copper alloy. In some other embodiments, at least a portion of any of the RF gaskets described herein can comprise iron or steel. In some embodiments, at least a portion of any of the RF gaskets described herein can comprise nickel or a nickel alloy (e.g., a nickel-copper alloy), or an alloy of copper and tin. In some embodiments, at least a portion of any of the RF gaskets described herein can comprise aluminum, magnesium, or mixtures or alloys thereof.

In some embodiments, at least a portion of any of the RF gaskets described herein can comprise a polymer. For example, in some embodiments, at least a portion of any of the RF gaskets described herein can comprise one or more homopolymers, one or more copolymers, or mixtures thereof. In some embodiments, the polymer matrix can comprise an elastomeric polymer such as rubber or silicone. In some embodiments, the polymer can comprise a solid rubber or silicone. Other embodiments can include a polymer comprising a sponge rubber or silicone. In some embodiments, the polymer can comprise a butyl rubber, silicone rubber, a fluorosilicone, chloroprene rubber, nitrile rubber, or combinations thereof.

In some embodiments, at least a portion of any of the RF gaskets described herein can comprise an elastomer that is cut or machined to size. In some other embodiments, at least a portion of the RF gasket can comprise an elastomer that is molded (injection molding or thermoforming, transfer molding, insert molding) and/or cured to a specified shape. In some other embodiments, the RF gasket can be formed by other conventional manufacturing processes such as extrusion, die-cutting, laser cutting, or printed using a three dimensional printer, etc.

In some embodiments, at least a portion of any of the RF gaskets described herein can comprise a polymer-based matrix material including a dispersed secondary material. For example, some embodiments include an RF gasket comprising one or more polymers infused with conductive elements, conductive compounds, and/or conductive mixtures. Further, in some embodiments, at least a portion of any of the RF gaskets described herein can comprise a polymer-based matrix material including metal filaments dispersed in a matrix to form a polymer composite material. In some other embodiments, at least a portion of any of the RF gaskets described herein can comprise a carbon fiber-filled matrix material including metal filaments dispersed in a matrix to form a carbon fiber composite material. In some embodiments, the polymer can include one or more homopolymers, one or more copolymers, or mixtures thereof. In some embodiments, the polymer matrix can comprise a butyl rubber, silicone rubber, a fluorosilicone, chloroprene rubber, nitrile rubber, or combinations thereof, and the secondary phase can include at least one dispersed conductor. In some embodiments, the conductor can comprise a metal or a carbon-based conductor. In some embodiments, the metal can comprise copper, iron, aluminum, silver, nickel, copper-silver alloy, or combinations thereof.

In some other embodiments, materials useful in one or more embodiments of the invention include a layer of material comprising a carbon fiber-based matrix material including metal filaments dispersed in a matrix to form a carbon fiber composite material. In some embodiments, the carbon fiber matrix can comprise at least one homopolymer and/or copolymer, and can include at least one ceramic, and/or at least one polymer-ceramic mixture. In some embodiments, the metal filaments can comprise nickel filaments. In some further embodiments, the metal filaments can include copper filaments, brass filaments, stainless steel filaments or combinations thereof.

In some embodiments, when used in combination with one or more RF shield layers (coated, embedded, or attached to any portion of the privacy/security enclosure) the combination of the privacy seal formed by the one or more RF gaskets described here and/or one or more additional RF shield layers can form a Faraday cage. In some embodiments, the Faraday cage can substantially attenuate or at least partially block RF transmission into and/or out of the privacy/security enclosure. In some embodiments, the Faraday cage attenuates RF transmission to a level of at least 120 dB.

In some embodiments, more than one type of RF gasket can be used. In some embodiments, any of the RF gaskets described herein can be optimized for a specific function (either to at least partially block or attenuate RF, and/or at least partially block or attenuate sound, and/or at least partially block or attenuate light, and/or at least partially block or attenuate moisture, etc.) However, any one RF gasket can function to attenuate or at least partially block a combination of RF, sound, light, etc. For example, in some embodiments, one or more RF gaskets can function to attenuate RF, and one or more additional RF gaskets can function to attenuate sound, and one or more further RF gaskets can function as an environmental barrier. Moreover, in some embodiments, one or more of the RF gaskets are larger or smaller than one or more other RF gaskets.

In some embodiments, any of the fingerstock described herein (including any fingerstocks forming any of the compound gasket assemblies described herein) can comprise a pitch of about 0.06 inches and a slot diameter of about 0.02 inches. Further, the base height ("B") can be about 0.09 inches. The number of fingers can be 200, although this number can be increased or decreased based on the architecture of the privacy/security enclosure. In some further embodiments, any of the gaskets described herein can include an outer diameter ("A") of about 0.06 inches or 0.062 inches, and an inner diameter ("B") of about 0.02 to about 0.035 inches. Further, in some other embodiments, the outer diameter ("A") of the gasket can be about 0.09 inches, with an inner diameter ("B") of about 0.06 inches. In some embodiments, the inner and outer diameters can be greater or less than as described above.

In some embodiments, any of the fingerstocks described herein can comprise fingerstocks supplied by Parker Chometrics, Woburn, Mass. (http://www.chomerics.com/contact/index.html). Some embodiments include fingerstocks with part numbers 81-C14-XXX-YDZZZZ and/or 81-C15-XXXX-YDZZZZ. In some further embodiments, any of the fingerstocks described herein can comprise one or more stacked or coupled fingerstocks. In some embodiments, the fingerstock can be represented as two stacked fingerstocks comprising fingerstocks with part numbers 81-C07-XXXX-YDZZZZ available from Parker Chometrics mentioned above. In some embodiments, the contact areas of any of the fingers of the fingerstocks described herein can be used to couple with one or more portions of the upper and/or base portions of any of the privacy/security enclosures described herein.

In some embodiments, the fingers of any of the fingerstocks described herein can be integrally formed with the base or mounting surface, and the fingers and mounting surfaces can be coupled or mounted directly to any portion of any interface or sealing surfaces within any of the privacy/security enclosures described herein.

In some embodiments, the fingerstock can be formed by etching a metal substrate and forming the extensions or tabs, and/or any portion of the mounting base of the fingerstock. For example, FIGS. **157**A-C and FIGS. **158**A-**158**C illustrate custom fingerstocks according to some embodiments of the invention, any one of which can be formed by conventional etching and/or forming methods.

FIG. **157**A illustrates a custom etched fingerstock plate **15700** with a clip **15713** including a bend line **15702**, and a tab form **15704** that can form a clip **15713** when formed (shown in FIG. **157**B). The etched plate **15701** can include an upper etched finger **15705** and a lower etched finger **15707**. FIG. **157**B illustrates a formed fingerstock array **15710** comprising an end surface **15712**, upper finger **15714**, and lower finger **15716**. In some embodiments, the custom fingerstock can include a clip (shown in FIG. **157**C). In some embodiments, the clip can extend from the base or mounting surface in a generally opposite direction from the extensions or tabs. The form clip **15713** is shown in FIG. **157**C, including tab **15720** extending from the end surface **15712**.

FIG. **158**A-C illustrate custom fingerstocks according to some embodiments of the invention. FIG. **158**A illustrates a custom etched fingerstock plate **15800**. This example embodiments does not include the clip **15713**. As shown, the etched plate **15802** can include upper etched finger **15805** and lower etched finger **15807**. FIG. **158**B illustrates a formed fingerstock array **15810**. The array **15810** can comprise a formed array plate **15812**, with an upper finger **15814** and lower finger **15816** extending from the plate **15812** (shown in FIG. **158**C).

FIG. **159**A-**159**C illustrates custom fingerstocks integrated with a privacy/security enclosure **15900** according to some embodiments of the invention. In some embodiments, an RF gasket comprising a compound gasket assembly including one or more of the aforementioned fingerstocks can be used to couple and/or seal a privacy/security enclosure. In other embodiments, the RF gasket can comprise custom fingerstocks without a gasket. FIG. **159**A illustrates a cross-sectional view of a privacy/security enclosure **15900** shown in FIG. **159**C. A close up of the RF gasket **15950** showing wall **15915** with inner surface **15915**a is shown in

FIG. **159**B. For example, in some embodiments, at least one RF gasket **15950** can be positioned coupled to, adjacent to, or proximate to an inner surface **15915***a* of an upper portion **15910** of the privacy/security enclosure **15900**. For example, in some embodiments, an RF gasket **15950** can be positioned coupled to the inner surface **15915***a* (see FIGS. **159**A and **159**B). Further, in some embodiments, at least one RF gasket **15950** can be positioned coupled to the inner surface **15915***a* of the upper portion **15910** of the privacy/security enclosure **15900** so that the fingers **15960**, **15965** are positioned within the inner region **15905** privacy/security enclosure **15900**, and the mounting surface **15927** coupled to the at least one RF gasket **15950** and inner surface **15915***a*. Further, in some embodiments, the at least one RF gasket **15950** including a clip **15955***a* (shown in FIG. **159**B) can be further coupled to the upper portion **15910** by at least partially extending over and/or around at least a portion of the end surface **15916** of the upper portion **15910**.

FIG. **160** illustrates RF attenuation behavior of various embodiments of the invention. As illustrated, the use of one or more compound gasket assemblies can attenuate RF when used with a privacy/security enclosure including one or more of the embodiments described herein. As shown, the greater attenuation can be provided with embodiments comprising dual compound gasket assemblies with and without a base gasket.

FIG. **160** illustrates RF attenuation behavior of various embodiments of the invention. The attenuation plot **16000** shows attenuation versus frequency for RF gasket configuration **16100** (data plot **16101**), RF gasket configuration **16200** (data plot **16201**), RF gasket configuration **16300** (data plot **16301**), RF gasket configuration **16350** data plot **16351**, RF gasket configuration **16400** data plot **16401**, RF gasket configuration **16500** (data plot **16501**).

In some embodiments of the invention, the privacy/security enclosure can comprise a case formed from at least one housing assembly. In some embodiments, the housing assembly can comprise a single monolithic element or can be formed from a plurality of sub-assemblies and/or components. In some embodiments, at least one of the plurality of sub-assemblies and/or components can be movable with respect to another portion, assembly, or sub-assembly of the housing assembly. In some embodiments, the housing assembly can include an enclosure for a user device. In some embodiments, the enclosure can couple directly to a user device such as a smart phone. In some further embodiments, at least one of the plurality of sub-assemblies and/or components can be rotatable, and/or or pivotable with respect to another portion, assembly, or sub-assembly of the housing assembly

Referring to at least FIGS. **161**A-**162**C, in some embodiments of the invention, the housing assembly **16110** including the case **16115** of the privacy/security enclosure **16100** can include at least one chiseled, carved, and/or angular face or surface. For example, in some embodiments, two or more chiseled, carved, and/or angular faces can be coupled to at least one other surface with an edge (such as edges **16113**, **16117**). In some embodiments, the surface or edge can comprise a hard or substantially abrupt edge surface (providing a chiseled-off appearance or look). In some other embodiments, the edge can comprise a soft or substantially curved or rounded edge surface. In some further embodiments, the two or more chiseled, carved, and/or angular faces can form a portion of the housing assembly providing a chiseled-off appearance and/or an armored and/or robust appearance. In some embodiments, the chiseled-off appearance, and/or an armored and/or robust appearance can extend to the base **16130**. Further, in some embodiments, an access edge **16120** can include a chiseled-off appearance, and/or an armored and/or robust appearance.

Referring to at least FIGS. **163**A-**163**C, in some embodiments of the invention, the housing assembly **16205** including the cover **16210**, and/or the base **16215**, and/or the hood **16220** can include at least one sliced, carved, and/or angular face or surface. For example, in some embodiments, two or more sliced, carved, and/or angular faces can be coupled to at least one other surface with an edge such as edges **16211**, **16213**. In some embodiments, the surface or edge can comprise a hard or substantially abrupt edge surface (providing a sliced-off appearance). In some other embodiments, the edge can comprise a soft or substantially curved or rounded edge surface. In some further embodiments, the two or more sliced, carved, and/or angular faces can form a portion of the housing assembly providing a sliced-off appearance.

Referring to at least FIGS. **164**A-**164**C, in some embodiments of the invention, the housing assembly **16405** including the cover **16415** coupled to the chassis or carrier **15410**, can include at least one sliced, carved, and/or angular face or surface. For example, in some embodiments, two or more sliced, carved, and/or angular faces can be coupled to at least one other surface with an edge such as edges **16412**, **16213**. In some embodiments, the surface or edge can comprise a hard or substantially abrupt edge surface (providing a sliced-off appearance). In some other embodiments, the edge can comprise a soft or substantially curved or rounded edge surface. In some further embodiments, the two or more sliced, carved, and/or angular faces can form a portion of the housing assembly **16405** providing a sliced-off appearance. In some embodiments of the invention, the housing assembly **16405** can include at least one curved or angular face or surface and/or sub-assembly **16425** substantially monolithically and/or seamlessly coupled to another portion of the housing assembly **16410**. For example, in some embodiments, two or more curved or angular faces or surfaces and/or sub-assemblies can be substantially monolithically and/or seamlessly coupled to at least one other surface. In some embodiments, the at least one curved or angular face or surface and/or sub-assembly can comprise a hard or substantially abrupt edge surface (providing a sliced-off appearance or look). In some other embodiments, the at least one curved or angular face or surface and/or sub-assembly edge can comprise a soft or substantially curved or rounded edge surface. In some further embodiments, the two or more curved or angular faces or surfaces and/or sub-assemblies can form a portion of the housing assembly **16410** providing a monolithic or substantially seamless appearance.

Referring to at least FIGS. **165**A-**166**C depicting a privacy/security enclosure **16500**, **16600**, in some embodiments of the invention, the housing assemblies **16505**, **16605** can include at least one curved or rounded face, surface, edge and/or sub-assembly. Some embodiments of the invention can include a privacy/security enclosure **16500**, **16600** comprising housing assemblies **16505**, **16605** with at least one curved or rounded face, surface, edge and/or sub-assembly substantially coupled to at least one other curved or rounded face, surface, edge and/or sub-assembly substantially. For example, in some embodiments, any portion of the enclosures **16510**, **16610** and/or covers **16515**, **16615** can include curved or rounded faces or surfaces and/or sub-assemblies that can be substantially monolithically and/or seamlessly coupled to at least one other curved or rounded faces or surfaces and/or sub-assemblies including for example the base portions **16520**,

16620. Further, in reference to at least privacy/security enclosure **16500** the housing assembly **16505** can comprise at least one movable, slidable, removable, or replaceable portion. For example, in some embodiments, at least a portion of the housing assembly **16505** can comprise a section, portion and/or component that can be moved, slid, removed, rotated or pivoted, latched or unlatched from, or with respect to, other portions of the privacy/security enclosure. Further, in some embodiments, the privacy/security enclosure can comprise at least one removable or replaceable section, portion, or component that can be removed, slid, latched or unlatched from the privacy/security enclosure after moving, sliding, removing, rotating, or pivoting at least a portion of the housing assembly with respect to other portions of the housing assembly. For example, the privacy/security enclosure **16500** including an housing assembly **16505** with enclosure **16110** including lower portion **16540** and moveable hood portion **16530**, the portions **16530**, **16540** can include curved or rounded faces or surfaces and/or sub-assemblies that can be substantially monolithically and/or seamlessly coupled to at least one other curved or rounded faces or surfaces and/or sub-assemblies (including for example the base portion **16520**). In some embodiments, the at least one curved or rounded face or surface and/or sub-assembly can comprise a soft or substantially rounded or curved edge surface (providing a smooth, rounded, or soft geometric appearance or look).

In some embodiments of the invention, the privacy/security enclosure can include a housing assembly that can comprise at least one splined surface. For example, in some embodiments, any of the privacy/security enclosures **16100**, **16200**, **16300**, **16400**, **16500**, **16600** can comprise two or more splined surfaces or faces can be coupled to at least one other surface and/or splined surface or face. In some embodiments, the at least one splined surface can comprise a hard or substantially abrupt edge surface (providing a splined-off appearance or look). In some other embodiments, the at least one splined surface can comprise a soft or substantially curved or rounded edge surface. In some embodiments, the two or more splined surfaces can form a portion of the housing assembly, providing a splined appearance.

Referring to at least FIGS. **167**A-**167**C, in some embodiments of the invention, the privacy/security enclosure **16700** can include a housing assembly **16705** that can comprise at least one layered, wrapped, and/or coupled surface or structure. For example, in some embodiments, the housing assembly **16705** can comprise a chassis **16710** and/or cover **16715** and/or surface **16718**, and/or base **16720** can include at least one layered, wrapped, and/or coupled surface or structure can be coupled to at least one other one layered, wrapped, and/or coupled surface or structure. In some embodiments, the at least one layered, wrapped, and/or coupled surface or structure can comprise a hard or substantially abrupt edge surface (providing a chiseled, carved, sliced, and/or splined-off appearance or look). In some other embodiments, the at least one layered, wrapped, and/or coupled surface or structure can comprise a soft or substantially curved or rounded edge surface. In some embodiments, two or more one layered, wrapped, and/or coupled surfaces or structures can form a portion of the housing assembly providing a layered, wrapped, and/or multiple parts or assembly coupled appearance.

In some embodiments of the invention, the housing assembly of a privacy/security enclosure can comprise at least one moveable, slidable, and/or latching portion that can engage or disengage with at least a portion of the housing assembly and/or a user device when placed within the privacy/security enclosure. For example, in some embodiments, at least a portion of the housing assembly can comprise a section, portion and/or component that can be moved, slid, rotated, pivoted, latched, or unlatched from or with respect to other portions of the privacy/security enclosure. Further, in some embodiments of the invention, the at least one moveable, slidable, and/or latching portion can engage or disengage with at least a portion of the housing assembly to enable insertion or removal of a user device such as a smart phone, tablet, computer or other such device with one or more microphones and/or camera(s) and/or RF transceiver(s) and/or other sensor(s). In some embodiments, the at least one moveable, slidable, and/or latching portion can be positioned proximate or adjacent one end of the privacy/security enclosure. In some embodiments, the housing assembly can comprise at least two moveable, slidable, and/or latching portions. In some embodiments, the at least two moveable, slidable, and/or latching portions can be positioned proximate each end of the privacy/security enclosure. In some embodiments, the housing assembly can comprise at least one moveable, slidable, and/or latching portion that can engage or disengage with at least a portion of the housing assembly and/or a user device when placed within the privacy/security enclosure that covers one side of the user device only.

FIGS. **168**A-**168**C illustrate perspective views of various embodiments of a privacy/security enclosure **16800** including separable components that can be coupled by sliding one component (e.g., a component for housing a user device) into another component such as a case or cover. For example, housing assembly **16805** illustrates an enclosure **16810** including hood **16812**, base **16820**, and a removable cover **16815** (FIG. **168**C showing an assembly view for insertion of the enclosure **16810** into the case or cover **16815**.

Referring to at least FIGS. **169**A and **169**B illustrating privacy/security enclosure **16900**, FIGS. **170**A-**170**B illustrating privacy/security enclosure **17000**, FIGS. **171**A-**171**B illustrating privacy/security enclosure **17100** and FIGS. **172**A-**172**B illustrating privacy/security enclosure **17200**, in some embodiments of the invention, the housing assembly can at least partially house or couple to a user interface and/or an indicator such as an LED, or other conventional illumination device, port, or other connector.

FIGS. **169**A-**169**B illustrate perspective views of various embodiments of a privacy/security enclosure **16900**. In some embodiments, the privacy/security enclosure **16900** can comprise a housing assembly **16905** including an enclosure **16910**, hood **16912**, cover or case **16915**, and base **16920**. In some embodiments, the base **16920** can include a user interface **16925**. In some embodiments, the user interface **16925** can display an operation of the privacy/security enclosure **16900** and/or a function of any enclosed device. Similarly, FIGS. **170**A-**170**B illustrate perspective views of various embodiments of a privacy/security enclosure **17000**. In some embodiments, the privacy/security enclosure **17000** can comprise a housing assembly **17005** including an enclosure **17010**, hood **17012**, cover or case **17015**, and base **17020**. In some embodiments, the base **17020** can include a user interface **17030**. In some embodiments, the user interface **17030** can display an operation of the privacy/security enclosure **17000** and/or a function of any enclosed device.

As described earlier, some embodiments of the invention include a privacy/security enclosure that can comprise a housing assembly including at least one moveable, slidable, and/or latching portion or section. Further, in some embodiments of the invention, a privacy/security enclosure can comprise a housing assembly including at least one moveable, slidable, and/or latching portion with at least one user interface and/or an indicator (within either the movable or static portions of the privacy/security enclosure). In some embodiments, the at least one moveable, slidable, and/or latching portion can be positioned at one end of the privacy/security enclosure, and the at least one user interface and/or an indicator can be positioned adjacent or proximate the other end of the privacy/security enclosure. Further, in some embodiments, the at least one moveable, slidable, and/or latching portion can engage or disengage with at least a portion of the housing assembly and/or a user device when placed within ore removed from the privacy/security enclosure. In some embodiments, an action such as movement of the at least one moveable, slidable, and/or latching portion can substantially coincide with and/or cause an action or operation of the user interface and/or an indicator. For example, in some embodiments, when the at least one moveable, slidable, and/or latching portion is moved (e.g., to prepare for insertion or removal of a user device), at least a portion of the user interface and/or the indicator providing an indication (e.g., such as lighting or illumination or the user interface) can change state (e.g., such as light or illuminate and/or display colors, text, or graphics). In some embodiments, at least a portion of the user interface and/or the indicator can provide an indication when opening. In other embodiments, at least a portion of the user interface and/or the indicator can provide an indication when closing.

For example, further referring to FIGS. **171**A-**171**B, in some embodiments, the privacy/security enclosure **17100** can comprise a housing assembly **17105** including an enclosure **17110**, hood **17112**, cover or case **17115**, and base **17120**. In some embodiments, the base **17120** can include a user interface **17130** (shown positioned at an end **17111** of the enclosure **17110**). In some embodiments, the user interface **17130** can display an operation of the privacy/security enclosure **17100** and/or a function of any enclosed device.

In some embodiments of the invention, a user interface of any of the privacy/security enclosures described herein can include at least one user-accessible function. For example, in some embodiments, a user action of the at least one user-accessible function of the user interface can change a status or actuate a function of the privacy/security enclosure, change a status or actuate a function of the user interface, and/or change a status or actuate a function of at least one user device covered, held or cradled with the privacy/security enclosure. For example, in some embodiments of the invention, the user interface can comprise at least one button capable of enabling a user to power-on or power-off the privacy/security enclosure. For example, in some embodiments, the user can press and hold the button for a specified period of time to power-on the privacy/security enclosure. As an example embodiment, the user can press and hold the button for a short period of time to control the power of the privacy/security enclosure.

In some embodiments, an action by the user of one or more functions of any of the privacy/security enclosures described here through the user interface can change a display or illumination status of the user interface of the privacy/security enclosure. For example, in some embodiments, the action of powering on or off of the privacy/security enclosure by the user using the user interface can be accompanied by a change of display or illumination of the user interface. Some embodiments of the invention include a user interface that comprises an LED that can change illumination status based on the user's interaction with the user interface. For example, in some embodiments, upon turning on the privacy/security enclosure, an LED lamp can illuminate. In some embodiments, the LED can be placed behind a lens. Further, in some embodiments, other user actions such as pressing the button for a short period can change the indicator response. Further, in some embodiments, the user can use the button to power-down the privacy/security enclosure (e.g., by pressing the button for a specified, short (up to several seconds) period of time. In some embodiments, the user interface can comprise an audible interface. For example, in some embodiments, the user interface, or other coupled portion of the privacy/security enclosure can emit one or more sounds based at least in part on a change in status of the privacy/security enclosure, a user initiated action (such as any of the user actions previously described), and/or a change in status or function of at least one user device that is at least partially enclosed by or otherwise coupled to the privacy/security enclosure. In some embodiments, the user interface can comprise capacitive or toggle-style buttons.

In some embodiments, the indicating status of the user interface can be based at least in part on a status or position of at least one moveable portion of the privacy/security enclosure. For example, referring specifically to FIGS. **171**C-**171**D, illustrate user interface **17155** and uses of user interfaces **17155** of a privacy/security enclosure **17150** comprising enclosure **17151**, in some embodiments, when the at least one moveable portion of the privacy/security enclosure **17150** (e.g., a hood **17152** is shown in the example embodiment) is moved by a user (e.g., from a closed position shown in FIG. **171**D to an open or partially open position shown in FIG. **171**C), the indicating status **17155***a* of the user interface **17155** can change.

Further examples of privacy/security enclosures including one or more of the above described functions including user interfaces (e.g., such as a beacon) and other functions and alerts of an operational status or state are shown in FIGS. **172**A-**172**C, and **173**-**187**. For example, FIGS. **172**A-**172**C show detailed perspective views of various embodiments of a privacy/security enclosure **17200** according to some embodiments of the invention. In some embodiments, the privacy/security enclosure **17200** can comprise an enclosure **17210** including a hood **17250** and a base **17220**. In some embodiments, a cover or case **17215** can be coupled to the enclosure **17210**. Further, FIGS. **173**-**175** show detailed perspective views of various embodiments of a privacy/security enclosure **17400** according to some embodiments of the invention. In some embodiments, the privacy/security enclosure **17400** can comprise an enclosure **17410** including a hood **17450** and a base **17420**. In some embodiments, a cover or case **17415** can be coupled to the enclosure **17410**. Further, FIGS. **176**-**178** show detailed perspective views of various embodiments of a privacy/security enclosure **17600** according to some embodiments of the invention. In some embodiments, the privacy/security enclosure **17600** can comprise an enclosure **17610** including a hood **17650** and a base **17620**. In some embodiments, a cover or case **17615** can be coupled to the enclosure **17610**. FIGS. **179**-**181** show detailed perspective views of various embodiments of a privacy/security enclosure **17900** according to some embodiments of the invention. In some embodiments, the privacy/security enclosure **17900** can comprise an enclosure **17910** including a hood **17950** and a base **17920**. In some embodiments, a cover or case **17915** can be coupled to the enclosure **17910**.

FIGS. **182**-**184** show detailed perspective views of various embodiments of a privacy/security enclosure **18200** according to some embodiments of the invention. In some embodiments, the privacy/security enclosure **18200** can comprise an enclosure **18210** including a hood **18250** and a base **18220**. In some embodiments, a cover or case **18215** can be coupled to the enclosure **18210**. FIGS. **185-187** show detailed perspective views of various embodiments of a privacy/security enclosure **18500** according to some embodiments of the invention. In some embodiments, the privacy/security enclosure **18500** can comprise an enclosure **18510** including a hood **18550** and a base **18520**. In some embodiments, a cover or case **18515** can be coupled to the enclosure **18510**.

Referring to one or more of the privacy/security enclosures **17200**, **17400**, **17600**, **17600**, **17900**, **18200**, and **18500** described above, in some embodiments, when the at least one moveable portion of the privacy/security enclosure (e.g., such as a hood) is moved by a user (e.g., from a closed position to an open or partially open position), the indicating status of the user interface of the hood of the privacy/security enclosure or other portion of the privacy/security enclosure, or both can provide an indicating status. In some other embodiments of the invention, at least some portion of the interior region of the privacy/security enclosure can illuminate and/or can be illuminated upon an action or change of status of the privacy/security enclosure. For example, in some embodiments, when the hood is raised, the interior region of the privacy/security enclosure can illuminate and/or can be illuminated. In some embodiments, the illumination of the interior can be indicative of the unprotected status of any user device within the privacy/security enclosure.

In some other embodiments of the invention, movement of the hood can change a status of the privacy/security enclosure. For example, in some embodiments, when the hood is raised (i.e., when the privacy/security enclosure is opened) the privacy/security enclosure can move to a power off state. In some embodiments, a user can access a button on the user interface of the privacy/security enclosure to power-on the privacy/security enclosure (e.g., by pressing a button on the user interface for a specified, short period of time such as a period between about 0.5 to about 3 seconds).

In some embodiments of the invention, a user can access a battery status using the user interface. For example, in some embodiments of the invention, a user can access a "poll" button on the user interface to ascertain the charge status of the battery of the privacy/security enclosure. In some embodiments, the privacy/security enclosure can display a battery status at pre-determined intervals. Further, in some embodiments, when the battery is being charged, successive LED indicators can illuminate based on the charge status of the battery.

In some embodiments, the privacy/security enclosure can comprise at least one icon display. For example, in some embodiments, the privacy/security enclosure can comprise at least one user interface configured as an icon display and/or configured to display at least one icon. Referring to FIGS. **188-190**D illustrating icon displays of a privacy/security enclosure in accordance with some embodiments of the invention, in some embodiments, the icon display can comprise one or more audio function-related icons. For example, in some embodiments, the icon can comprise one or more microphone enabled and/or audio-protected icons. Further, in some embodiments, the icons can comprise combined audio and battery and/or charge indicator icons.

FIG. **188** illustrates icon displays of a privacy/security enclosure in accordance with some embodiments of the invention. Some icons can be illuminated, marked, and/or animated (e.g., flashed on and off or color cycled) depending on a status of one or more functions of at least one of the privacy/security enclosures described herein. Icons include indicators of the status of one or more microphones and audio protection characteristics. For example, some embodiments include at least one microphone enabled icon **18810**, audio protected icon **18815**, microphone enabled icon **18820**, audio protected icon **18825**, microphone enabled icon **18830**, audio protected icon **18835**, microphone enabled icon **18840**, and audio protected icon **18845**. Any of the privacy/security enclosures disclosed herein can utilize icons **18810**, **18815**, **18820**, **18825**, **18830**, **18835**, **18840**, and **18845**.

FIG. **189** illustrates icon displays of a privacy/security enclosure in accordance with some embodiments of the invention. Some icons can be illuminated, marked, and/or animated (e.g., flashed on and off or color cycled) depending on a status of one or more functions of at least one of the privacy/security enclosures described herein. Icons include indicators of microphone status, audio protection (including microphone enabled icon **18910**), audio protected icon **18915**, microphone enabled icon **18920**, audio protected icon **18925**, microphone enabled icon **18930**, and audio protected icon **18935**. Any of the privacy/security enclosures disclosed herein can utilize icons **18910**, **18915**, **18920**, **18925**, **18930**, **18935**.

FIGS. **190**A-**190**D illustrates icon displays of a privacy/security enclosure in accordance with some embodiments of the invention. Some icons can be illuminated, marked, and/or animated (e.g., flashed on and off or color cycled) depending on a status of one or more functions of at least one of the privacy/security enclosures described herein. Icons include indicators of battery charge or status, microphone status, audio protection. For example, referring to FIG. **190**A, some embodiments include charged and microphone-enabled icon **19010**, half-charged and microphone enabled icon **19020**, and half-charged and audio-protected icon **19030**. Any of the privacy/security enclosures disclosed herein can utilize icons **19010**, **19020**, **19030**. Further, referring to FIG. **190**B, some embodiments include audio-protected icon **19040**, microphone-enabled icon **19045**, and battery charge icon **19050**. Any of the privacy/security enclosures disclosed herein can utilize icons **19040**, **19045**, **19050**.

Further, referring to FIG. **190**C, some embodiments include microphone enabled icon **19060**, audio-protected icon **19065**, microphone-enabled icon **19070**, and audio-protected icon **19075**. Any of the privacy/security enclosures disclosed herein can utilize icons **19060**, **19065**, **19070**, **19075**. Further, referring to FIG. **190**D, some embodiments include microphone-enabled icon **19080**, audio-protected icon **19085**, audio protect on icon **19087** (pulsing when on), and battery low indicator icon **19089**. Any of the privacy/security enclosures disclosed herein can utilize icons, **19080**, **19085**, **19087**, **19089**.

Further details of the structure, assembly, and operating functions of the privacy/security enclosure are described related to FIGS. **191**A-**205**F. Referring to at least FIGS. **191**A-**191**F illustrating an overview of a privacy/security enclosure **19100** in accordance with some embodiments of the invention, in some embodiments of the invention, the privacy/security enclosure **19100** can comprise a chassis **19110** that includes a base **19120** that can hold electronics and a user interface. In some embodiments, the back **19110*a*** of the chassis **19110** can hold a rechargeable, user or non-user accessible battery. In some embodiments, at least a portion of the base **19120** can form part of an RF attenuation cage (e.g., a Faraday cage). In some embodiments, when assembled, a cover **19115** completes the RF cage. In some embodiments, the top portion of the chassis (hood **19112**) can lower onto or over the top of an enclosed device (shown generically as device **10**) such as a smart phone, tablet, computer or other such device with one or more microphones and/or camera(s) and/or RF transceiver(s) and/or other sensor(s). In some embodiments, the chassis **19110** can couple to an enclosure **19105** positioned and formed to support a user's device **10**. In some embodiments, the hood **19112** can be moved from a lower position (FIGS. **191**B-**191**C) to a raised position (FIGS. **191**D-**191**F). In some embodiments, the user can raise and lower the hood to facilitate insertion and removal of a user device into the privacy/security enclosure **19100**. In some embodiments, the movement of the hood **19112** can change a function or status of the privacy/security enclosure **19100** as described earlier.

In some embodiments, the privacy/security enclosure **19100** and/or any privacy/security enclosure disclosed herein can prevent or reduce the ability of an authorized or unauthorized listener from using the microphone or other sensors, from detecting the presence of speech, or, if the presence of speech can be detected, reducing or eliminating the intelligibility of such speech. In some embodiments, when set to a obfuscation and/or randomness mode, the privacy/security enclosure can randomly broadcast to provide protection even if no one is speaking, thereby diminishing the ability of an authorized or unauthorized listener of detecting when there is actual speech by a user using the system.

In some embodiments, for the device(s) protected by the privacy/security enclosure, including at least one of the privacy/security enclosures disclosure here, lowering a hood or hood equivalent portion or other mechanism, the hood can seal one to all of the microphones (e.g. front, rear, bottom etc.) device(s), and can cover one to all of the cameras (e.g, front, rear etc.), and engage masking sound(s) to be received by the sensor(s) of the protected device(s). In some embodiments, the sealing/unsealing, covering/uncovering and/or activation/deactivation for any up to all of the sensors of the protected device(s) can occur with a single movement or action of the hood or other desired structure (e.g. raising or lowering) or other portion of the privacy/security enclosure, while in others it can require one or more movements and/or actions. In some embodiments, the movement/action described can be manually actuated, while in others the movement/action can be partially or fully electro-mechanically actuated.

In some embodiments, the ability to protect against different types of sensors in different physical locations on the protected device(s) in one or more motions/action can be accomplished by physical or electrical linkages between the portions of the enclosure providing the protection against each and/or every sensor. In some embodiments, the privacy/security enclosure will include sensors to determine if and where any protected devices reside within the enclosure and to determine the state (e.g. raised or lowered) of specific protective assemblies, thereby allowing coordination of protection.

In some embodiments of the invention, the mechanisms that provide protection to a user's device, including protections against audio, video, RF transmit/receive capability and/or other sensors (i.e. gyroscope, accelerometers and/or any other sensor that is part of the enclosed device(s) etc.) can be integrated into the core structure of the privacy/security enclosure. In some embodiments, such mechanisms can be activated or deactivated with a conventional slide, button, switch and/or other such physical and/or electromechanical feature. In some embodiments, the feature can activate/deactivate the protection for one or more microphones, cameras, RF antennas or RF transmit/receive functionality for the enclosed device(s) in a single actuation, action, motion, and/or interaction. In other embodiments of the invention, such a feature can require two or more actuations, action, motion, and/or interactions (i.e. button press, switch slide, etc.). In some embodiments, the two or more actuations, actions, motions, and/or interactions can comprise two or more individual sequential or parallel single actuations, actions, motions, and/or interactions.

In some embodiments of the invention, with the hood down, all or most of the enclosed device(s) functions that do not include secured sensors can be available. In some further embodiments, with the hood raised, all or most of the enclosed device(s) functions can be available. In some embodiments, a button can be used to the masking audio sound turn on and off. In some embodiments, one LED can indicate a masking sound, and another can indicate a battery status, while yet another could indicate other functions such as maintenance requirements and/or feature indications/activations. In other embodiments, the indications/status of the previously mentioned functions could be combined into one or more LEDs. In some embodiments, the case and enclosed device(s) are charged through a micro-USB or other such charging port.

In some embodiments, any of the privacy/security enclosures described herein can include the circuit layout shown in FIG. **192**. FIG. **192** illustrates a circuit system layout **19200** that can be used in any of the privacy/security enclosures described herein. As illustrated, the circuit system layout **19200** can comprise a RF case half section **19210**, base circuitry and connections **19201**, case half connections **19228** including cover **19230**, hood **19240**, and miscellaneous external connections **19203**. In some embodiments, the circuit system layout **19200** can comprise an interface board **19202**, main board **19270** with optical communication **19204**, case battery **19224**, and Lightning™ connector **19226**. Connections can comprise charging socket **19206**, USB connector **19208**, power plug **19209**, power socket **19212**, i/o features **19214**. Visual indicators or masking functions can comprise masking LED **19216**, and battery capacitor LED **19218**. Other components include foot speaker **19232**, hood/phone switch **19260**, and pass-through filter **19280**. In some embodiments, the pass-through filter **19280** can allow the transmission of specific frequencies, while filtering and/or attenuating others. In some further embodiments, the pass-through filter **19280** can allow the passage of a physical wire through the surface of the Faraday cage, while not materially degrading the RF attenuation capabilities of the Faraday cage. Further, in some embodiments, the boards **19202**, **19270** can be coupled using at least one optical communication link **19204**, configured to communicate in such a way that does not materially degrade the RF attenuation of the Faraday cage through which the communication is passing. In some embodiments, a hood **19240** and/or enclosed device detection switch (**19260**) can be coupled to the main board **19270**. Further, in some embodiments, the hood **19240** and/or a bottom, foot and/or other portions of the privacy/security enclosure (eg., components **19201**, **19210**, **19230**) can comprise one or more sound generators (e.g., speakers). Further, some embodiments include the battery **19224** coupled to the main board **19270** and/or a Lightning™ connector **19226**, USB, micro-USB, and/or other type of power connector coupled to the main board **19270**. In some embodiments of the invention, the interface board **19202** is coupled to a charging socket **19206**, and input/output features such as a masking LED **19216**, a battery capacitor capacity LED **19218**, and an on/off button **19222**. In some embodiments, the charging socket **19206** can be coupled to a USB connector **19208** and/or a wall charger **19212**.

As described earlier and illustrated in FIGS. **171**C-**171**D, in some embodiments, the indicating status of the user interface can be based at least in part on a status or position of at least one moveable portion of the privacy/security enclosure. FIG. **193** illustrates an operational state diagram of a privacy/security enclosure (represented as privacy/security enclosure **19300**) with a phone present in accordance with some embodiments of the invention.

For example, the privacy/security enclosure **19300** can include a chassis **19310** with an upper portion **19312**, base **19320**, a hood **19350**, and an attached outer housing or case **19315**. In some embodiments, operation of the privacy/security enclosure **19300**, movement of the hood **19350**, opening of the case **19315** (e.g., such as that defined by any of the symbols **19311**) can define a state **19311**, and include a status of the case **19315** (status **19314**), phone acoustics (**19316**), masking status (**19318**), and user device presence (**19319**). In some embodiments, the operational parameters can be defined as **19370**, **19375**, **19380**, **19385**, or **19390** as shown. For example, in some embodiments, a state **19312** comprising "closed off" can be representative of a closed privacy/security enclosure, sealed acoustics, and masking off (**19370**). In this instance, the privacy/security enclosure **19300** can comprise a microphone sealed indicating symbol turned on.

In some embodiments, a "closed on" state **19312** can comprise a case closed, phone acoustics sealed, and masking fully on (shown as **19375**). In this instance, the privacy/security enclosure **19300** can comprise two indicating symbols turned on including a microphones sealed indicator and a masking playing indicator. In some embodiments of the invention, the privacy/security enclosure can comprise an open free state **19312** comprising an open case, unsealed phone acoustics, and masking off (shown as **19380**). In this instance, the privacy/security enclosure can comprise no indicating symbols turned on indicating masking silent and microphones unsealed. In some further embodiments, the privacy/security enclosure can comprise an open off state **19312**, comprising a case open, phone acoustic sealed, and masking off (shown as **19385**). In this instance, the privacy/security enclosure **19300** can comprise an indicating symbol turned on comprising a microphones sealed indicator. In some other embodiments, the privacy/security enclosure can comprise an open on state **19312**, comprising a case open, phone acoustic sealed, and masking full on (shown as **19390**). In this instance, the privacy/security enclosure can comprise two indicating symbols turned on including a microphones sealed indicator and a masking playing indicator.

FIG. **194** illustrates a state cycle diagram of a privacy/security enclosure in accordance with some embodiments of the invention. In some embodiments, the state cycles can be represented as phone in/out interactions, power on/off interactions, cover on/off interactions, and hood up/down interactions, where solid lines represent a require pathway and a dashed line represents an optional path per hood memory. FIG. **194** illustrates a state cycle diagram **19400** of a privacy/security enclosure in accordance with some embodiments of the invention. In some embodiments, the state cycle diagram **19400** can apply to any of the privacy/security enclosures disclosed herein. The state cycle diagram **19400 19440**. In some embodiments, operational state **19440** can be indicated by icons **19446** based on interactions **19448**, and parameters **19450**.

FIGS. **195**A-**195**B illustrates partial interior perspective views of a privacy/security enclosure **19500** in accordance with some embodiments of the invention. In some embodiments, portions of the privacy/security enclosure **19500** can be completely enclosed by separate and unattached other portions of the privacy/security enclosure (including for example base **19520** as coupled to the chassis **19505**, with the combined enclosure providing different and/or increased levels of audio, video, RF and/or other types of sensor, drop, environmental or other types of protection.

Further internal structures, components and assembly can be seen in FIGS. **196**-**198**D. For example, FIG. **196** illustrates a partial cut-away view of a privacy/security enclosure in accordance with some embodiments of the invention. Some embodiments include a cover Faraday assembly **19615**, a base assembly **19620** with Faraday assembly **19630**, and a DC pass-through assembly (shown in FIG. **197**B as **19770**), all supported in a privacy/security enclosure **19605**.

In some embodiments of the invention, any RF gasket or seal (shown as **19610**) of the privacy/security enclosure (e.g., forming the Faraday cage) can include a conventional or custom fingerstock or any fingerstock or component gasket assembly described earlier. In some embodiments, at least a portion of the fingerstock can comprise a metal or a metal alloy. In some embodiments, at least a portion of the fingerstock can comprise copper or a copper alloy. In some other embodiments, at least a portion of the fingerstock can comprise iron or steel. In some embodiments, at least a portion of the fingerstock can comprise nickel or a nickel alloy (e.g., a nickel-copper alloy), or an alloy of copper and tin. In some embodiments, at least a portion of the fingerstock can comprise aluminum, magnesium, or mixtures or alloys thereof. In some embodiments, the fingerstock can comprise beryllium copper ("BeCu") that can electrically couple the cover to the base, and when closing the case. In some embodiments, the fingerstock can comprise a base metal (e.g., such as nickel) with varying thicknesses of plated metals, including, but not limited to gold, palladium nickel, and titanium blend plating options. Some embodiments of the invention can include one or multiple rows of fingerstock brazed soldered, welded, bonded with conductive adhesive, or otherwise conductively bonded into the cover assembly. In some embodiments, in each row of fingerstocks, a hollow or solid circular profile of extruded conductive elastomer can be used. In some embodiments, the bearing surface on the base can be nickel-plated for conductivity and surface hardness.

Some embodiments include openings in the RF cage that do not materially compromise RF attenuation performance. Some embodiments include a DC pass-through assembly **19770** that allows DC power to pass between boards on either side of the cage. In some embodiments, one or more holes or windowed ports can allow light to pass to enable optical communication between boards (such as the main board and the interface board). Some embodiments include a RF pass-through for one or more frequency bands, while continuing to attenuate other frequency bands. In some embodiments, base assembly **19620** and/or Faraday assembly **19630** can include an RF pass-through switch, which allows physical interaction/linking between inner and outer portions of the Faraday cage or privacy/security enclosure, without materially degrading RF protection/attenuation.

FIGS. **197**A-**197**B illustrates a close-up view of the partial cut-away view in FIG. **196** in accordance with some embodiments of the invention. As illustrated, in some embodiments, the cap **19749** can comprise machined aluminum, and the cover body **19750** can comprise extruded and machined aluminum. In some embodiments of the invention, the privacy/security enclosure can comprise inner and/or outer bezels (**19752**, **19754**) comprising machined aluminum, and one or more inner and/or outer fingerstock (**19756**, **19757**) such as a BeCu fingerstock or other such fingerstock or other RF gasket. In some embodiments, the inner and/or outer fingerstock (**19756**, **19757**) and/or interface can include a stepped landing. In some embodiments of the invention, a stepped fingerstock interface can reduce the sliding distance that would be experienced by the leading row of the fingerstock. In some embodiments, reducing the sliding distance can both reduce the wear on the fingerstock, and reduce the wear on the fingerstock landing area (i.e., the rim). In some embodiments, the stepped profile can equalize the sliding distance experienced by the inner, outer or other such rows of fingerstock.

In some embodiments, the cap **19749**, the cover body **19750**, the inner and outer bezels (**19752**, **19754**), and the inner and outer fingerstocks (**19756**, **19757**) shown as **19764** can be coupled together (e.g., using welding, brazing, or other conventional joining methods). Further, some embodiments also include a Faraday rim **19762** and Faraday pan **19766**. In some embodiments, the Faraday rim **19762** and Faraday pan **19766** can be coupled together (e.g., using welding, brazing, or other conventional joining method). In some embodiments, the Faraday rim **19762** and Faraday pan **19766** can comprise aluminum. In some embodiments, the Faraday rim **19762** can comprise machined aluminum, and the Faraday pan **19766** can comprise deep drawn aluminum. In some embodiments, the DC pass-through assembly **19770** can comprise brass, aluminum, magnesium or a blended metal alloy assembly. Further, some embodiments include optical communication holes or ports **19621**. In some embodiments, the DC pass-through assembly **19770** can be coupled to the base **19620** (shown as **19727**) by soldering.

As described earlier, in some embodiments, acoustic security/protection can be achieved through audio masking. The audio masking noise can be emitted from the privacy/security enclosure proximate or adjacent the expected location of a microphone of an enclosed device, and/or in the general vicinity of the device. In some embodiments, assemblies for masking noise can include one or more assemblies configured to emit noise for pickup up by front, rear, and/or bottom or any other microphones of an enclosed/protected device. For example, FIGS. **198**A-**198**D illustrate partial interior views of portions of a privacy/security enclosure in accordance with some embodiments of the invention showing masking module assemblies comprising at least one speaker driver, coupling, and seal. Further, some embodiments include assemblies to mask a bottom microphone including a push-rod, bottom masking module (comprising a speaker driver, caliper, and seal), and a caliper boot.

FIGS. **198**A-**198**D illustrates partial interior views of portions of a privacy/security enclosure including the base **19620** described above. In some embodiments of the invention, the privacy/security enclosure can include a plurality of sub-assemblies that can each be assembled individually before being assembled together to form the privacy/security enclosure. In some embodiments, the major sub-assemblies can comprise a cover assembly that can form an outer cover, at least partially enclosing a chassis assembly. In some embodiments, the chassis assembly can comprise the hood assembly (shown as **19812**) and a base **19620**). Further, in some embodiments, the base **19620** can comprise a Faraday base assembly **19630** as described earlier.

In some embodiments, the hood assembly **19812** can comprise a hood housing **19814** including a left and right hood shroud. In some embodiments, the hood assembly **19812** can include a hood clamp that can be used to seal and unseal to the front and back microphones. Consequently, when the hood assembly **19812** or other such mechanism is raised and lowered, the rubbing/sliding/interaction of the sealing surface against the mating surface on/of the protected device(s) can be minimized or reduced thereby enabling a higher cycle count of hood assembly **19812** raises/lowers, reducing or mitigating wear of the gasket/seals). In some embodiments, when the hood assembly **19812** is lowered, tension or compression forces can cause the hood assembly to spring away from the surface of the enclosed device (similar to a binder clip in reverse) and as the hood assembly **19812** is raised, the seals lift. In some embodiments, when the hood assembly **19812** is lowered, ramps can compress the hood clip and force the seals against the microphone with the correct amount of compression to deliver the designed audio protection.

Some embodiments include a different mechanism for the bottom or other microphone(s), the sealing/unsealing of which can be coordinated with the single motion of raising and lowering the hood, where the two or more mechanisms are coupled so that they function together. In some embodiments, the seal to the bottom or other microphone(s) can include mechanisms that reduce the rubbing/sliding/physical interaction between the sealing path and the mating surface when the mechanism is engaged/disengaged, reducing wear and increasing cycle life for such mechanisms.

Some further embodiments include the design of sealing paths to various sensors on the protected device in order to enhance or improve the effectiveness, efficiency and/or usability of protection. In some embodiments, the sealed or partially sealed path/channel from sound generators (e.g. speakers or drivers) can increase the amount of acoustical energy reaching the microphone(s) of the protected devices, reducing power requirements and/or allowing the use of smaller and/or less powerful drivers/speakers when compared to the acoustical power that would be required to deliver an equivalent level of protection in an open or non-sealed/non partially sealed environment. In some embodiments, the sealed or partially sealed path/channel from sound generators (e.g. speakers or drivers) reduces and/or attenuates the amount of masking signal(s) reaching outside of the path/channel, thereby reducing the detectability and/or obtrusiveness of such signal to the outside environment. In some embodiments, the sealed or partially sealed path/channel from sound generators (e.g. speakers or drivers) reduces and/or attenuates outside signals/sounds/audio content from reaching the protected device(s)' microphone(s) and/or sensors, providing some level of protection and/or reducing the level of masking signal(s) required to deliver an equivalent level of protection when compared to an open or non-sealed/non partially sealed environment.

In some embodiments of the invention, the source and/or seed for random and/or other audio, actuator or other such masking signal(s) can be electrical components (such as a diode and/or the thermal noise of a resistor). In some embodiments of the invention, such seed/source can be amplified in order to reach a desired level of protection. In some embodiments of the invention, the seed, amplified and/or unamplified, can be filtered and/or sculpted to a more desired noise profile for the audio or other such masking signal (e.g. blue, pink, gray, white and/or other such profile) which can provide desired characteristics for one or more specific purposes, including, but not limited to lower power consumption and/or more effective masking for a similar/related level of protection against certain types of audio information (e.g. human speech and/or other types of audio information) when compared to other profiles. In some embodiments of the invention, less obtrusive and/or noticeable noise profiles can be created by lowering the frequency components/content above certain frequency levels (e.g. varying and/or different frequency levels typically ranging anywhere from between 300 Hz to 3 kHz) when compared to noise profiles that haven't been filtered/sculpted and/or modified for such purposes. In some embodiments of the invention, the seed can be used as the seed for encryption key(s) and/or for generating the encryption key(s) for voice, data, video and/or other types of encryption implemented and/or supported by the privacy/security enclosure itself and/or by the hardware and/or software of device(s) protected by the privacy/security enclosure.

In some embodiments of the invention, a single and/or multiple audio masking signals (random, pseudo-random, deterministic or other) can be used as the source for protection against one or more microphones and/or other sensors. In some embodiments of the invention, separate and/or distinct audio masking signals (random, pseudo-random, deterministic and/or other) can be used as the source for protection against one or more microphones and/or other sensors, including some embodiments where separate, dedicated audio masking signals can exist for each microphone of any device(s) protected by the privacy/security enclosure. In some embodiments of the invention, separate and/or distinct random audio masking signals can be used for each microphone on a device(s) protected by the privacy/security enclosure, reducing the likelihood and/or ability of an authorized and/or unauthorized listener subtracting and/or otherwise using one signal against another in order to extract and/or process and/or otherwise attempt to recover protected audio content. In some embodiments of the invention, the audio masking signal can be a combination of different types of filtered or sculpted noise profiles and/or can be a result of cycling through a variety of different noise signals.

In some embodiments of the invention, the thermal noise of a resistor can be amplified as the seed of a random acoustic noise source. In other embodiments, other electrical components such as diodes could also serve as the base generator. In some embodiments, the naturally broad noise can be filtered or sculpted to a custom "Pink" profile closely matching the spectral content of human voice. For example, FIG. **206** illustrates a frequency profile **20610** of pink noise in accordance with some embodiments of the invention, and FIG. **207** illustrates a frequency profile **20710** of human voice in accordance with some embodiments of the invention. In some embodiments, this method can provide a number of advantages including that the thermal noise is truly random and secure (i.e., it cannot be cracked). Further, the custom pink profile can use the least amount of power to optimally mask voice. Furthermore, in some embodiments, the pink noise can create the least obtrusive masking signal due to its relatively muted components above about 500 Hz.

In some further embodiments, an independent noise generation circuit can be used for each microphone on an enclosed device(s). If only one source was used for multiple microphones, it could be possible to record the noise on a microphone that was less open to the voice signal (or via some other means of recording), and use that noise to cancel the noise detected by another microphone, increasing the likelihood of recovery of protected audio content.

Some embodiments can include speaker(s)/driver(s) with no or reduced rear port(s) or opening(s). In some embodiments, since rear ports are common in speakers/drivers to help tune the fidelity of the speaker/driver, but thus provide a path for external sound to modulate the speaker/driver cone which in turn can couple to the protected microphone(s), serving to reduce masking effectiveness, the privacy/security enclosure can use speakers/drivers with no ports and/or can close, block, seal, reduce, or otherwise obstruct ports in drivers/speakers that have them.

Some further embodiments include one or more apertures (e.g., holes or slots) in the base portion of the case to allow more sound to reach the bottom microphone (or other microphone(s) accessible via such apertures in any other portions of the privacy/security enclosure) such microphone(s) are uncovered. In some embodiments, the apertures can also allow sound from the speaker(s) accessible by such apertures to more effectively be heard. In some embodiments, this can provide the user with a good user experience if they are using their enclosed device(s) in speakerphone mode or with some other function that uses the bottom or other such speaker. As described earlier, the hood assembly can also include a speaker assembly including speaker drivers, driver mounts, and microphone seals. In some embodiments, the shrouds can comprise DuPont™ Delrin® acetal homopolymer resin and the hood housing can comprise aluminum. In some embodiments, the driver mounts can comprise an acrylonitrile butadiene styrene ("ABS") polymer. Some embodiments of the invention include microphone seals comprising a foam material (e.g., such as a polymer foam).

Some embodiments include a cover assembly. In some embodiments, a cover spring can comprise stainless steel. In some embodiments, the cover sleeve can comprise polyethylene. In some embodiments, the environmental seal can comprise an ethylene propylene diene terpolymer, and the cover outer bezel can comprise an ABS-type polymer.

FIGS. **199**A-**201**E illustrate exterior views of a privacy/security enclosure in accordance with some embodiments of the invention. Some embodiments can include various configurations, branding placements, at least one layer forming the exterior of the privacy/security enclosure that can comprise at least one exterior surface material composition, and/or texture or finish.

FIGS. **199**A-**199**E illustrates exterior views of a privacy/security enclosure **19900** in accordance with some embodiments of the invention. The privacy/security enclosure **19900** can comprise housing assembly **19905**, enclosure **19910**, a removable case or cover **19915**, base **19920**, and hood **19930**. Further, FIGS. **200**A-**200**D illustrates exterior views of a privacy/security enclosure **20000** in accordance with some embodiments of the invention. The privacy/security enclosure **19900** can comprise housing assembly **20005**, enclosure **20010**, a removable case or cover **20015**, and base **20020**. Referring to FIG. **200**A, in some embodiments, the base **20020** can include a pass-through button with hole (shown as **20025**) to a main LED. Further, referring to FIG. **200**D, on the reverse side of the privacy/security enclosure **20000**, the base **20020** can include a hole **20027** to pass through LED indications or other optical information.

FIGS. **201**A-**201**E illustrates exterior views of a privacy/security enclosure **20100** in accordance with some embodiments of the invention. The privacy/security enclosure **20100** can comprise housing assembly **20105**, enclosure

20110, a removable case or cover **20115**, base **20120**, and hood **20130**. FIG. **201**A shows a front view, FIG. **201**B shows a side view, FIG. **201**C shows a front view with case or cover **20115** removed, FIG. **201**D shows a side view of the view of FIG. **201**C, and FIG. **201**D shows a rear view.

In some embodiments, the privacy/security enclosure can comprise a housing assembly that can include at least one logo (e.g., name, entity, and/or company emblems, representations, and/or descriptions), shown as **20142**. In some embodiments of the invention, the privacy/security enclosure can include a logo **20142** on any side or face, edge or other portion of the privacy/security enclosure **20100**. In some embodiments, the privacy/security enclosure **20100** includes at least one logo **20142** positioned on a moveable portion of the privacy/security enclosure (e.g., such as the hood **20130**). In some embodiments, the logos **20142** can be embossed, engraved, pressed, etched, printed, or formed by any suitable conventional method provided they do not compromise the shielding effectiveness of the privacy/security enclosure. In some embodiments, the lower cover **20144** can comprise a different color, material, or texture than the other portion of the case or cover **20115**. For example, in some embodiments, the lower cover **20144** can comprise a medium gray anodized bead blast look. Some embodiments include a base trim **20148**. In some embodiments, a button and/or LED **20150** can be integrated with the base **20120**. In some embodiments, the button and/or LED can comprise a logo **20142**.

In some embodiments of the invention, at least a portion of the housing assembly comprises a conductive material. In some embodiments, at least a portion of the outer surface of the housing assembly includes a conductive material. In some embodiments, the conductive material is positioned coupled with a non-conductive portion of the housing assembly. In some embodiments, the housing assembly includes regions of conductive and non-conductive materials that are substantially seamlessly coupled. In some embodiments of the invention, at least a portion of the exterior surface of the housing assembly can comprise an aluminum type surface finish, a brushed finish, a satin finish, an anodized finish, and/or a texturing finish. In some embodiments, the outer surface can comprise at least one of a polymer, metal, or natural material such as wood or leather, or mixtures thereof. In some embodiments, the housing assembly can include at least one exterior trim component forming an exterior surface of the privacy/security enclosure. In some embodiments, the exterior trim can comprise a polymer, metal, wood, leather, or mixtures thereof. In some embodiments, any portion of the exterior can comprise any color or combination of colors. In some embodiments, a portion of the housing assembly can comprise at least one aperture. In some embodiments, the at least one aperture can be aligned with at least a portion of a user interface. In some embodiments, the at least one aperture can be aligned with at least a portion of the privacy/security enclosure comprising an indicator such as an LED.

In some embodiments of the invention, by making the core portion of the privacy case only audio/video protective (and optionally protective for some other sensors), all of the RF protection can be positioned in a separate device and/or enclosure. In some embodiments, this can result in a reduction in the size, weight, and cost of the device. In some embodiments, different sizes of Faraday covers or enclosures can be used to accommodate multiple types and sizes of enclosed device(s) cases (e.g., with some Faraday cases or privacy/security enclosures being capable of handling an Apple® iPhone 6+, a Samsung Galaxy® 6, and other large phone or other device models while a medium case would handle audio/video/other sensor protection enclosures for mid-size or other grouping of phones or other device(s) (e.g. tablets, laptops etc.). Galaxy® is a registered trademark of Samsung Electronics.

In some embodiments of the invention, the privacy/security enclosure can comprise a removable Faraday enclosure. For example, some embodiments include a Faraday enclosure that can be added or removed from the privacy/security enclosure as a separate module. In some embodiments, the Faraday enclosure can comprise of two or more parts that can or may not be physically linked/attached to each other. In some embodiments, the use of one or more compression or other type of RF gaskets can be used to enhance the level of RF attenuation provided by the device.

In some embodiments of the invention, there is no need for RF shielding and/or gasketing for the inner pod (which can provide audio and/or video and/or other sensor protection, but not native RF attenuation/protection.) In some embodiments, such a non-RF protective/privacy case can have a pass-through port to allow access to the headphone jack or other ports of the enclosed device. In some embodiments, both RF and non-RF protective, native or pass-through button and/or switch access to the enclosed device's buttons/switches/controls can be provided. In some embodiments, the Faraday bottom can include passive controls and indicators, and electronics for optional pass-through charging or controlling of the interior device's functions, and/or access/visibility to the interior device's LED's or other such status indicators. Some embodiments include LED pin-hole pass through that can be aligned with passive buttons as described earlier.

FIG. **202**A illustrates a privacy/security enclosure **20200** including removable Faraday enclosure **20250** in accordance with some embodiments of the invention. FIG. **202**B a removable Faraday enclosure **20250** shown in FIG. **202**A in accordance with some embodiments of the invention. As shown in FIGS. **202**A-**202**B, some embodiments include a Faraday top (the housing assembly **20205** including enclosure **20210** and case or cover **20215** comprising a passive shell that can be coupled to a Faraday bottom (the Faraday enclosure **20250**). Referring to FIG. **202**B, in some embodiments, the Faraday enclosure **20250** can comprise passive controls and indicators **20255** including, but not limited to LED pin-hole pass-through, and one or more passive buttons. Further, FIG. **203** depicts an assembly view of the privacy/security enclosure **20200** including removable Faraday enclosure **20250** in accordance with some embodiments of the invention.

FIGS. **204**A-**204**C, and **205**A-**205**F illustrate a privacy/security enclosures including removable Faraday enclosures and privacy/security enclosures that can be used with removable Faraday enclosures in accordance with some embodiments of the invention. For example, FIG. **204**A illustrate a privacy/security enclosure **2410** including a removable Faraday enclosure **20415**. Further, FIG. **204**B shows a privacy/security enclosure **20420** with enclosure **20421**, and base Faraday enclosure **20425**. Further, FIG. **204**C shows a privacy/security enclosure **20430** including enclosure **20431** with attached base Faraday enclosure **20435**. Other alternative embodiments of privacy/security enclosures are shown in FIGS. **205**A-**205**F including privacy/security enclosure **20500** including enclosure **20510** and case or cover **20515**, hood **20512** (shown in FIGS. **205**B and **205**C), and Faraday base **20520**. Further, FIGS. **205**D-**205**F shows privacy/security enclosure **20550** including enclosure **20555** and case or cover **20560**, and hood **20557** (shown in FIG. **205**E in a lowered position, and FIG. **205**C in a raised position).

Some embodiments of the invention include charge sharing. Some embodiments include a button or switch that is externally accessible or accessible through an aperture (e.g., by inserting the end of a paper clip) that when actuated can enable a dump charge of the privacy case battery to the user's device. For example, in some embodiments, a fixed percentage (e.g., from about 10% to about 20%) of the charge can be transferred. Some embodiments can also include an emergency override that can transfer substantially all remaining charge from the battery).

Some embodiments of the invention can include hardware and software control features to enable battery conservation. For example, some embodiments include a dim LED mode to indicate protection is active while not being distracting to the user in certain environments (e.g., such as during the night in a bedroom or in a darker environment such as a movie theater, etc.) Further, some embodiments include a bright LED mode to enable uses to know if their device is protected while in bright environments (e.g., such as outside on a sunny day or in some other such brightly lit environment.) Further, some embodiments enable the user cycle between various brightness modes (e.g., bright and dim modes, or other modes). Moreover, some embodiments include a status check feature where the user can either press a button to see a bright LED (for some portion of time) to provide an indication that they are being protected, and where the brightness level subsides to a lower level soon after. In some instances, this can happen by default including at any time after the LED state is changed and/or after audio protection is turned on. For example, if a user wakes up in the morning and wants to change from dim mode to a brighter mode, the user can press the button and the LED goes to 90% power for 10 seconds, then subsides to 25% power (which can be more visible than the dim mode, while not excessively draining the battery and reducing the length of time the privacy case can provide audio protection.

In some embodiments, various components include tamper-proof and/or tamper prevention mechanisms. For example, in some embodiments, portions of any of the housing assemblies and enclosures of any of the privacy/security enclosures illustrated in FIGS. **1-205**F can include one or more tamper-proof prevention mechanisms. In some further embodiments, internal components such as PCB assemblies can include tamper prevention mechanisms. In some embodiments, the tamper prevention mechanisms can include one way tabs. In some further embodiments, the tamper prevention mechanism can include a protective layer or material.

In some embodiments of the invention, the privacy/security enclosure can protect against one or more gesture sensors and/or emitters. For example, in some embodiments, the privacy/security enclosure can protect against or reduce the effectiveness of a radar sensor/emitting assembly (e.g., such as a broad beam radar sensor) to measure Doppler image, IQ and spectrogram for use in gesture control of any enclosed device(s).

Some embodiments of the invention can utilize methods to optimize battery performance and longevity. Further, some embodiments can include a battery management profile. For example, some embodiments include a battery management profile that can resist the urge to "fully" charge the battery. In some embodiments, by doing this, the battery capacity fall-off exhibited by LiION cells can be reduced such that the battery can retain its required capacity through more charge cycles. In some embodiments, as disclosed in http://batteryuniversity.com, in terms of longevity, the optimal charge voltage is 3.92 volts per cell. Battery experts believe that this threshold eliminates all voltage-related stresses, and going lower may not gain further benefits but induce other symptoms. Also disclosed is the following table that summarizes the capacity as a function of charge levels. All values are estimated.

TABLE 1

capacity as a function of charge levels (from http://batteryuniversity.com/)

Charge level (V/cell)	Discharge cycles	Capacity at full charge
[4.30]	[150-250]	~[114%]
4.20	300-500	100%
4.10	600-1,000	~86%
4.00	1,200-2,000	~72%
3.92	2,400-4,000	~58%

Table 4: Discharge cycles and capacity as a function of charge voltage limit

Every 0.10 V drop below 4.20 V/cell doubles the cycle but holds less capacity. Raising the voltage above 4.20 V/cell would shorten the life. Guideline: Every 70 mV reduction in charge voltage keeps 10% of usable capacity vacant

In some embodiments, the any privacy/security enclosure described herein and shown in at least FIGS. **208-265**B herein can be mounted or attached to a user's device. In some embodiments, the user's device can comprise a display device such as a computer monitor or display, a smart display or television, or other audio-visual device. The user's device can also include an integrated display and computer. For example, in some embodiments, the display can include components of a computer so that the display functions as a computer. As used herein, the "display", "display device", or "display monitor" can include example embodiments where the display is coupled to a computer and/or integrated with a computer. The user can position the privacy/security enclosure at least partially based on the structure of the user's device, and any structures, components, or devices that a user wishes to cover or otherwise make privatize (i.e., to privatize). As used herein, the terms privatize or make private are intended to describe making substantially completely private or at least partially private. In some embodiments of the invention, the privacy/security enclosure can be used to privatize a computer or display device that includes a camera and/or microphone. The user can modify the position of the privacy/security enclosure based on the location of the number and location of the structures, components, or devices that a user wishes to privatize.

In some embodiments, any privacy/security enclosure described herein and shown in at least FIGS. **208-265**B can include a portion or section that can be moved by sliding, raising or lowering, pivoting or rotating, or flipping with respect to another portion or section of the privacy/security enclosure to adjust the level of privacy of the device. In some embodiments, the privacy level of the privacy/security enclosure can be changed by sliding, raising or lowering, pivoting or rotating, or flipping at least a portion of the privacy/security enclosure with respect to another portion of the privacy/security enclosure. For example, in some embodiments, by sliding, raising or lowering, pivoting or rotating, or flipping a portion or section of the privacy/security enclosure, at least one sensor (such as a camera and/or microphone) can be uncovered and revealed. In some embodiments, the sliding, raising or lowering, pivoting or rotating, or flipping can be enabled by one or more slides, hinges, grooves, tracks, springs, and/or other conventional mechanisms. For example, in some embodiments, the privacy/security enclosure can comprise at least one portion that can be coupled to another portion by at least one hinge. In some embodiments, the privacy level of the privacy/security enclosure can be changed by pivoting or rotating at least a portion of the privacy/security enclosure with respect to another portion of the privacy/security enclosure using the at least one hinge.

In some embodiments, in a slide-closed position, any privacy/security enclosure described herein and shown in at least FIGS. **208**-**265**B can privatize the underlying device. In some embodiments, the privacy level of the privacy/security enclosure can be changed by sliding at least a portion of the privacy/security enclosure with respect to another portion of the privacy/security enclosure. For example, in some embodiments, by sliding a portion or section of the privacy/security enclosure, as the slidable portion or section of the privacy/security enclosure is slid away from an underlying aperture of a fixed portion of the privacy/security enclosure, the interior of the privacy/security enclosure can be revealed to a user, and potentially at least one sensor (such as a camera and/or microphone) can be uncovered and revealed. In some embodiments, the sliding can be enabled by one or more guides or tracks. As described earlier in some other embodiments, the interior of the privacy/security enclosure can be color-coded to alert a user to a security threat that might be posed when the privacy/security enclosure is at least partially slid open. In some embodiments, the user can use the slidable portion or section of the privacy/security enclosure to uncover one sensor versus the other (for example when a user prefers to use their computer's microphone to dial into a conference call, but not participate in a video portion. Alternatively, in other circumstances, the user may want to use their video display to show something to other people during a teleconference call, but they may have dialed into the conference call on a land line, and prefer not to use the computer's microphone. In other circumstances, the user may want all sensors to be uncovered (e.g., during a FaceTime® or Skype® call on a computer where both the camera and microphone will be used simultaneously). FaceTime® is a registered trademark of Apple, Inc. SKYPE®, is a registered trademark of Microsoft Corporation.

In some embodiments, the interior of any privacy/security enclosure described herein and shown in at least FIGS. **208**-**265**B can be color-coded to alert a user to a security threat that might be posed when the privacy/security enclosure is at least partially open. For example, in some embodiments, the interior can be colored red. In other embodiments, the interior can be colored yellow, blue, or magenta. In some embodiments, the interior can include switchable illumination to alert the user to at least partial lack of privacy.

Referring to FIG. **208**, illustrating a front view of a computer or display monitor, in some embodiments, a mounted privacy/security enclosure **20800** can be coupled to the computer or display monitor (shown as user's device **11**). In some embodiments, the privacy/security enclosure can be mounted to any portion of the user's device **11**. For example, in some embodiments, a user can position the privacy/security enclosure **20800** shown in FIG. **208** to any portion of the computer or display monitor shown in this example embodiment. In some embodiments, the user can use the privacy/security enclosure **20800** to cover more than one portion, component or device of the user's device **11**. In some further embodiments, the user can use more than one privacy/security enclosure **20800** to privatize the user's device **11**.

In some embodiments of the invention, the privacy/security enclosure **20800** can be optionally configured to increase or reduce a level of privacy of a user's device **11**. In some embodiments, this can be accomplished simply by positioning or repositioning the privacy/security enclosure **20800**. In other embodiments, this can be accomplished by moving and/or adjusting a portion of the privacy/security enclosure **20800**. For example, in some embodiments, the privacy/security enclosure **20800** can comprise a main housing **20810** including a movable portion, section, or hood **20850**, and a couple or integrated moveable portion, section, window, door or shutter (shown as **20820**). In some embodiments, a privacy/security enclosure including a main housing **20810** and hood **20850** can be coupled to a computer and/or display. The main housing **20810** can remain stationary during operation, and the hood **20850** can move relative to the computer and/or display in order to seal and un-seal against the microphones of the user's device. For example, FIG. **209** illustrates a close up view of the privacy/security enclosure **20800** of FIG. **208** in accordance with some embodiments of the invention. In some embodiments, the hood **20850** of the privacy/security enclosure **20800** can be moved with respect to another portion or section of the privacy/security enclosure **20800** (e.g., with respect to the main housing **20810** or other coupled component) to adjust the coverage (and therefore the privacy level) of the privacy/security enclosure **20800** mounted or coupled to the user's device **11** (e.g., a computer or display monitor as shown in the example embodiment of FIG. **208**.) In some embodiments, the privacy/security enclosure **20800** can also be used with other user devices such as laptops, tablets and devices that contain cameras, microphones or other such sensors.

In some embodiments, the level of privatization can be partial in that some components or devices of the user's device **11** can remain non-private and others are private. For example, in some embodiments, a hood **20850** of the privacy/security enclosure **20800** can be moved with respect to another portion or section of the privacy/security enclosure to cover and make private a webcam but leave open a microphone. For example, example, FIG. **210** illustrates a close up front perspective view of a privacy/security enclosure **20800** in a covered and protected configuration **20802** in accordance with some embodiments of the invention. In the configuration **20802**, the hood **20850** is lowered into the main housing **20810**. Conversely, FIG. **211** illustrates a close up front perspective view of a privacy/security enclosure **20800** in an uncovered and unprotected configuration **20804** in accordance with some embodiments of the invention. This example embodiment shows the hood **20850** in a raised position.

In some embodiments, the main housing **20810** can contain one or more PCBs, electronics components, and at least one battery such as a Li-Ion battery for at least partially powering the privacy/security enclosure, one or more springs, and one or more latches, etc. In some embodiments, the user's device can be attached by snapping it into the mounting plate. In some embodiments, the mounting plate includes a release lever that can allow the device to be removed from the mounting plate. In some embodiments, this lever can also act as a spring to hold the device in place when it is attached.

In some embodiments of the invention, the hood **20850** can contain at least one sealing mechanism, one or more PCBs, and/or one or more LEDs, etc. In some embodiments, the hood **20850** can be positioned in two positions (e.g., down and up). In some embodiments, when the hood **20850** is down, it can be fully seated into the main housing **20810**, and any rubber seals can be in contact with the areas around the microphones to provide audio sealing. In some embodiments, when the hood **20850** is up, the seals may not be in contact with the computer and/or display, and hence the microphones can provide audio functionality.

In some embodiments, the hood **20850** or other moveable and/or upper portion can include a texture or pattern. In other embodiments, other portions of the main housing **20810** can include a texture or pattern. In some further embodiments, the hood **20850** or other movable upper portion can include an outer surface comprising a glossy surface. In some embodiments, other portions of the main housing **20810** can include a glossy outer surface. In some other embodiments, the movable upper portion can include an outer surface comprising a matte surface. In some embodiments, other portions of the main housing **20810** can include a matte outer surface.

Some embodiments include one or more mechanisms for moving and/or closing portions of the privacy/security enclosure (e.g., a lower portion or base portion and an upper portion or lid or hood **20850**). For example, in some embodiments, when a user applies a force to the lid or hood **20850**, the privacy/security enclosure **20810** can be closed. In some embodiments, by pulling on the lid or hood **20850**, the privacy/security enclosure **20810** can be opened. In other embodiments, the user can push a closed lid or hood **20850** to open or release it from the main housing **20810**. In some other embodiments, the user can push the hood **20850** down to lower it, and can push a button to raise the hood **20850** (uncovering one or more microphones). In some embodiments, the button can be on the top of the privacy/security enclosure, the front of the privacy/security enclosure, or somewhere else on the device.

In some embodiments of the invention, the mechanisms that provide protection, including protections against audio, video, and/or other sensors (i.e. gyroscope, accelerometers and/or any other sensor that is part of the enclosed/protected device(s) etc.) can be integrated into the core structure of the privacy/security enclosure (i.e. not require the described hood **20850** mechanism). In some embodiments, such mechanisms can be activated/deactivated with a slide, button, switch and/or other such physical and/or electro-mechanical feature, which feature can activate/deactivate the protection for zero, one or more microphone(s), camera(s) or other sensors for the enclosed device(s) in a single action/motion/interaction, while in other embodiments of the invention, such a feature can require two or more actions/motions/interactions (i.e. button press, switch slide, etc.).

Some embodiments include one or more springs to help raise the hood **20850** up from the down position. Different types of springs with different spring rates and different dampening mechanisms can be used to give varying levels of tension and different mechanical feedback to the user for raising and lowering the hood **20850**. In some embodiments, different types of material can also be used to change the sound the user hears when the hood **20850** raises or lowers. In some other embodiments, the privacy/security enclosure can include at least one latch that can be used to couple with the hood **20850** as it is lowered to the base. In some embodiments, a catch mechanism can be used with the latch. In some embodiments, the latch can be released from the catch using a release button. An embodiment including a latch is discussed further below in relation to FIG. **217**C.

In some embodiments, the hood **20850** can include a push-pull action to open and close the hood **20850** with the main housing **20810**. For example, in some embodiments, the hood **20850** can be pushed down by the user to translate one or more seal mechanisms from the open unsealed state to the closed sealed state. Further, in some embodiments, one or more internal latches can retain the hood **20850** in the closed position to maintain pressure on the seals. Some embodiments include internal rods that are mounted in the stationary main housing **20810**, and guides in the hood **20850** couple with the rods to enable the rods to slide smoothly in the correct positions. In some embodiments, dual, triple or quadruple rods and corresponding guides can be used.

In some embodiments, the hood **20850** can be pulled up by the user to release the seals and move the hood **20850** to the open position. In some further embodiments, the retaining latch can be overpowered by the force of the user pulling up, and the hood **20850** can be moved until it reaches a peak position. In some embodiments, when released from the user's finger or hand, the hood **20850** can be maintained in the upright position by the retaining latch. Some further embodiments include the addition of at least one spring to provide a spring-assisted motion to the hood **20850**.

In some embodiments of the invention, the user can perform a similar action to close the hood **20850** (i.e., by pushing down on the hood **20850**). In some embodiments, one or more conventional internal latches can be installed. In some embodiments, the latch can couple onto the hood **20850**, and when the full distance of the stroke is achieved, the user can release the hood **20850**, and the hood **20850** can be retained in the sealed position. In some embodiments, the latch can require an over travel of about 1-2 millimeters. In this instance, after reaching the fully depressed position and being released, the latch can allow the hood **20850** to return a couple of millimeters on the upward stroke before the mechanical lock can fully engage into a final position.

In some embodiments, in order to release the hood **20850** to the upright position, the user can again push down on the hood **20850** from the top. This movement actuates the latch and releases the hood **20850**, and the hood **20850** can then move upward into a fully open position. In some embodiments, the system can be spring loaded to provide an upward spring force on the hood **20850**, driving the hood **20850** into the upright open position when it is released.

In some embodiments of the invention, the hood **20850** can be pushed down from the top to mechanically latch in place in a final sealed position. In some embodiments, an internal custom-made latch can be positioned in the main housing **20810** to retain the hood **20850**. In some embodiments, over-travel is not required in this system. In some embodiments, in order to release the hood **20850**, a push-button can be positioned on the front of the device. In some embodiments, a user can push this button move the latch from the retaining feature and spring loaded hood **20850** lifts to an open position. In some embodiments, the release of the latch can be actuated from a button on the side, or front, or back, or top of the device. In some embodiments, a lever or pull-button, or other conventional actuator can be used in place of the button.

In some embodiments, the hood **20850** can be moved using an electronic and/or electro-mechanical assembly. For example, in some embodiments, the hood **20850** can be translated using a solenoid or small motor. In some embodiments, these systems can involve the user pushing a button (on the device, or remote to the device, either tethered or wireless) that can actuate the motor/solenoid. This would translate the hood **20850** from the open to the closed position, or vice-versa. The button could be protected with an additional security layer, such as a PIN entry keypad, or fingerprint sensor, or other.

In some embodiments, the privacy/security enclosure **20800** can utilize various sub-assemblies and components that attach to and/or mechanically interact with the computer and/or display. For example, some embodiments of the invention include one or more mounting plates. For example, some embodiments include a molded plastic plate that can be aligned relative to the top, rear and/or other such microphones on the computer and/or display, and can be attached to the rear surface with an adhesive tape. Some embodiments include a v-notch in the center of the top portion of the plate that indicates where a specific microphone should be in relation to the plate. Some further embodiments include one or more upper alignment tabs (e.g., one on each side) of the mounting plate that can hang over the top edge of the computer and/or display to position the mounting plate vertically on the computer and/or display. Further, some embodiments include various features, detents, holes, etc., on the mounting plate that interact with the sealing mechanisms of the device. Some embodiments include a plurality of tabs on the mounting plate that act as features to guide and retain the device when it is mounted to the mounting plate. In some further embodiments, an adhesive foam tape can be positioned under the mounting plate to enable a mechanical attachment to the computer and/or display, while proving a substantially sealed audio coupling between the housing of the computer and/or display and the mounting plate. Substantially sealed as used herein means providing a seal sufficient to enable the privacy/security enclosure to minimize and/or reduce eavesdropping or the effectiveness of eavesdropping on or listening to communications. Gaskets can also be used to help improve the sealing characteristics as well.

Embodiments of the invention include various sealing element geometries (e.g., flat, conical, round, o-ring, molded, etc.), and with various durometer values, and within various rubber materials (EPDM, polyurethane, etc.) In some embodiments, the sealing element can be attached to the computer and/or display with adhesive tape. In other embodiments, the sealing element can be attached to the hood **20850**, and configured to couple to the computer and/or display when translated up and/or down. Perfect seals are impossible to create in these applications, of course, but seals suitable for the purposes of these embodiments are readily created using the disclosed structures. Accordingly, the term "seal" as used herein is not limited to a complete or perfect seal, but instead a seal that is sufficient to provide desired reduction or attenuation.

In some embodiments of the invention, the hood **20850** can house or integrate one or more speakers and PCB with the noise generators, an LED "on" light, and other electronic components. In some embodiments, each of the speakers can be embedded in a molded sealing element that can act to partially seal out ambient noise from the speaker chamber. In some embodiments, when this sealing element is an intimate contact with the computer and/or display and/or the mounting plate, the speaker can partially isolated from the ambient noise, and a small column of air can be trapped between the microphone and the speaker. In this instance, when the speakers are turned on, the microphones can primarily sense the noise that is being generated by the device. In some embodiments, the sealing element, the sealing surface on the mounting plate, the seal between the mounting plate and the computer and/or display, and the locking force provided by the retaining features/latches/spring of the system can be factors in providing an adequate seal to the microphones.

In some embodiments of the invention, the upper microphone sealing mechanism can operate by applying downward force from the hood **20850**, through the sealing element, to the surface of the computer and/or display around the top microphone. In some embodiments, the compression force can be retained by the internal latch of the system.

Some embodiments of the invention include a lever seal. For example, some embodiments include a spring loaded lever that would normally pull the sealing element of the rear speaker to an upright, or open position. In some embodiments, when the hood **20850** is closed, the lever can be rotated into the closed position to provide the sealing force on the sealing element, where the lever or something coupled to the lever contacts a feature of the mounting plate as it reaches the sealing position. In some embodiments, the spring force, the lever geometry and actuating feature geometry can function together to provide the timing and effectiveness of the seal. Further, in some embodiments, the system can be reversed, so that the lever can be spring loaded to be normally closed, and an actuating feature on the mounting plate can move the lever as the hood **20850** is raised to the open position.

Some embodiments include a piston seal. In some embodiments, a spring loaded carrier can house the sealing element. In some embodiments, the spring loaded mechanism can force the sealing element down normal to the mounting plate. In some embodiments, the carrier can include multiple contact pins that serve to space the sealing element at a distance from the mounting plate. In some embodiments, this can ensure that when the hood **20850** is anywhere other than the final sealing location, the pins can lift the sealing element up off the mounting plate, and thus the microphones can offer normal functionality. In some embodiments, there are detent features in the mounting plate corresponding to the pins that allow the carrier to move down into the final sealed position when the hood **20850** is in the closed position. Therefore, in some embodiments, the rear sealing element can be in intimate contact with the mounting plate in the closed position, and the rear microphone can sealed from ambient noise.

Some further embodiments include one or more sealing paths to various sensors on the protected device in order to enhance or improve the effectiveness, efficiency and/or usability of protection. In some embodiments, the sealed or partially sealed path/channel from sound generators (e.g. speakers or drivers) can increase the amount of acoustical energy reaching the microphone(s) of the protected devices, reducing power requirements and/or allowing the use of smaller and/or less powerful drivers/speakers when compared to the acoustical power that would be required to deliver an equivalent level of protection in an open or non-sealed/non partially sealed environment. In some embodiments, the sealed or partially sealed path/channel from sound generators (e.g. speakers or drivers) can reduce and/or attenuate the amount of masking signal(s) reaching outside of the path/channel, thereby reducing the detectability and/or obtrusiveness of such signal to the outside environment. In some embodiments, the sealed or partially sealed path/channel from sound generators (e.g. speakers or drivers) can reduce and/or attenuate outside signals/sounds reaching the protected device(s) microphone(s) and/or sensors, providing some level of protection and/or also reducing the level of masking signal(s) required to deliver an equivalent level of protection in an open or non-sealed/non partially sealed environment.

In some embodiments of the invention, the source and/or seed for random audio masking signal(s) can be electrical components such as a diode and/or the thermal noise of a resistor. In some embodiments of the invention, such random noise seed/source can be amplified in order to reach a desired level of protection. In some embodiments of the invention, the noise seed, amplified and/or unamplified, can be filtered and/or sculpted to a more desired noise profile for the audio masking signal (e.g. blue, pink, gray, white and/or other such profile) which can provide desired characteristics for one or more specific purposes, including, but not limited to lower power consumption and/or more effective masking for a similar/related level of protection against certain types of audio information (e.g. human speech and/or other types of audio information) when compared to other noise profiles. In some embodiments of the invention, less obtrusive and/or noticeable noise profiles can be created by lowering the frequency components/content above certain frequency levels (e.g. varying and/or different frequency levels typically ranging anywhere from between 300 Hz to 3 kHz) when compared to noise profiles that haven't been filtered/sculpted and/or modified for such purposes. In some embodiments of the invention, the random seed can be used as the seed for being and/or generating encryption keys for voice, data, video and/or other types of encryption implemented or supported by the privacy/security enclosure itself and/or the hardware and/or software of device(s) protected by the privacy/security enclosure.

In some embodiments of the invention, a single and/or multiple audio masking signals (random, pseudo-random, deterministic or other) can be used as the source for protection against one or more microphones and/or other sensors. In some embodiments of the invention, separate and/or distinct audio masking signals (random, pseudo-random, deterministic and/or other) can be used as the source for protection against one or more microphones and/or other sensors, including some embodiments where separate, dedicated audio masking signals can exist for each microphone of any device(s) protected by the privacy/security enclosure. In some embodiments of the invention, separate and/or distinct random audio masking signals can be used for each for each microphone on a device(s) protected by the privacy/security enclosure, reducing the likelihood and/or ability of an authorized and/or unauthorized listener from subtracting and/or otherwise using one signal against another in order to extract and/or process and/or otherwise attempt to recover protected audio content. In some embodiments of the invention, the audio masking signal(s) can be a combination of different types of filtered/sculpted noise profiles or they can be a result from cycling through a variety of different noise signals.

In some embodiments of the invention, the volume and/or power level of some and/or all audio masking signals can be varied, with resulting effects such as the increase and/or decrease in the level of audio masking effectiveness in masking signal detectability, etc. In some embodiments of the invention, the variation in audio masking signal power can be performed without user interaction/input while in other embodiments of the invention the user can control such variation with buttons, knobs, dials, sliders, software and/or other user input/output/interaction mechanisms.

In some embodiments of the invention, the hood **20850** and/or the main housing **20810** can contain a sensor system (such as a sensor coupled to a controller) that interacts to determine if the hood **20850** is at least partially open or in a sealed position. For example, in some embodiments, a magnet can be attached to the main housing **20810**, and a Hall-effect sensor can be coupled to the hood **20850**. In some embodiments of the invention, when the hood **20850** is closed, the magnet can be sensed by the Hall-effect sensor, and the system can determine that the hood **20850** is in the closed position. In some embodiments, this event can cause the system to turn on or off and/or activate and/or deactivate the noise speaker(s). In some embodiments, when the hood **20850** moves from the closed position, the system (using the Hall-effect sensor) can sense the absence of the magnet, and the system can turn off. In some embodiments, this can be done with a reed sensor in place of a Hall-effect sensor, or with a mechanical switch actuated when the hood **20850** moves. In some embodiments, by sensing when the hood **20850** is in the closed position, the user interface can be simplified because there is no "on-off" switch. Moreover, it ensures that the system is turned on when the hood **20850** is in position, so the user is prevented from forgetting to turn the audio masking on.

In some embodiments, the privacy/security enclosure can include an alternative hood **20850** sensor that allows to the user to determine when the hood **20850** is in the raised versus lowered position. In some embodiments, the hood sensor can be used by a control system to automatically turn off any current audio masking signal when the hood **20850** is raised, and automatically turn the signal back on when the hood **20850** is lowered).

In some embodiments of the invention, the hood **20850** can provide enhanced audio when it is raised. For example, in some embodiments, any cavities created when the hood **20850** is raised can be shaped or curved to modify and/or enhance the amount and/or quality of sound that reaches the microphone(s) when the hood **20850** is raised. In some embodiments, well-known sound enhancing shapes can be provided in the hood **20850**. In some embodiments of the invention, where multiple cavities are created when the hood **20850** or other portion of the invention is moved, the creation and/or shape of the cavities can be used to enhance noise reduction/cancellation and/or echo cancellation technologies using the various uncovered microphones.

In some embodiments of the invention, the privacy/security enclosure can include one or more gesture sensors and/or emitters. For example, in some embodiments, the privacy/security enclosure can include a radar sensor/emitting assembly (e.g., such as a broad beam radar sensor) to measure Doppler image, IQ and spectrogram for use in gesture control of the privacy/security enclosure and/or any user device contained within the privacy/security enclosure.

FIGS. **212**A-**212**C illustrate an internal architecture view of a privacy/security enclosure **21200** in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure **21200** and other example embodiments including privacy/security enclosures shown in FIGS. **213**A-**265**B can include any of the features and functions described above, including those described for privacy/security enclosure **20800** in the preceding paragraphs. In some embodiments of the invention, the privacy/security enclosure **21200** can include a main housing **21210** enclosing various operation components of the privacy/security enclosure. In some embodiments, the privacy/security enclosure **21200** can comprise a main housing **21210** and a moveable hood **21250**. In some embodiments, the privacy/security enclosure **21200** can include a webcam **21220**. In other embodiments, the privacy/security enclosure **21200** can include an aperture providing adjustable access to a webcam of a user's device **11**. In some embodiments, the privacy/security enclosure **21200** can include at least one PCB and electronics component **21230**, at least one battery (such as battery **21235** comprising a 450 mAh Li-ion battery, and a battery **21240** such as a 600 mAh Li-ion battery) for at least partially powering the privacy/security enclosure. In some embodiments, the main housing **21210** can include at least one movable portion (e.g., hood **21250**) for covering a component or device such as a webcam and/or a microphone. Further, in some embodiments, the privacy/security enclosure **21200** can include integrated speakers **21245** configured to emit sound. In some further embodiments, the privacy/security enclosure **21200** can include integrated microphones **21248** configured to sense sound.

FIGS. **213**A-**213**B illustrate front and rear perspective views of a privacy/security enclosure **21300** in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure **21300** can comprise at least one universal mount **21318** for coupling the privacy/security enclosure to a user device. In some embodiments, the at least one universal mount **21318** can comprise a VHB mount clip, slide on, snap-on, and/or a magnetic mount. In some other embodiments, the privacy/security enclosure can include a custom mount specific to one or more computers or computer displays. For example, some embodiments include one or more custom components for coupling to various surfaces or edges of the computer or computer display.

In some embodiments, the privacy/security enclosure **21300** can comprise a main housing **21310** that comprises or includes the at least one universal mount **21318**. Further, the main housing **21310** can include a coupled camera shutter **21320** and a camera shutter button **21325** for operating the camera shutter **21320**. The privacy/security enclosure **21300** can also include at least one visual indicator of operation such as one or more LED indicators **21330**, along with an LED dimmer button **21335**. The hood **21350** can comprise a microphone seal **21340** that can be used to seal with the inner region **21342** of the main housing **21310**. Further, in some embodiments, the hood **21350** can be operational to form a microphone seal engagement using finger grip, button release and push-down, and/or pen style push and release. Data, power, or other connectivity can be accomplished through cable management **21345** (e.g. a USB cable management).

Some further embodiments can include alternative embodiments of cable management. For example, in some embodiments, the privacy/security enclosure can include USB cable management comprising magnetic control management, and/or color coded management, and/or at least one visual cue. FIGS. **265**A-**265**B illustrate rear perspective views of computer or display mounted privacy/security enclosure **26500** including hood **26550** with cable management **26570** in accordance with some embodiments of the invention. In some embodiments, cable power and/or communication cables can be routed away from the privacy/security enclosure to a USB and/or power connection in various adjustable directions using a wire routing coupler(s) coupled to the computer or display.

In some embodiments, some portion of the privacy/security enclosure can include an alignment marking or notch. In some embodiments, the marking or notch can assist the user to position the cover or mount to a specific location. Some embodiments can also include an aperture that can be aligned with and/or placed over one or more microphones of the device (e.g., such as a top and/or rear facing microphone).

In some further embodiments, the privacy/security enclosure can include one or more mounting tabs that can be used for attachment to a computer and/or display. Some embodiments can include moveable release mechanisms to enable attachment or release of the privacy/security enclosure. In some embodiments, the mounting bracket or feature can include mechanical structures and/or mating, sealing and/or other such materials that aid in the creation of a sealed path/channel between any speaker(s) of the privacy/security enclosure and microphone(s) of the protected device(s).

In some embodiments, the privacy/security enclosure can include at least one microphone seal. Some embodiments include a microphone seal that comprises a vertical slide. In some further embodiments, the microphone seal can comprise a flip, pivot, or rotating seal that can flip, pivot, or rotate from the main body of the privacy/security enclosure to provide effective sealing that is durable over a larger number of sealing and unsealing cycles than many conventional sliding seals.

In some embodiments, engagement of the microphone seal can be accomplished using a finger grip. In some further embodiments, a user can engage the microphone seal using a button release and combined push down. Some further embodiments can comprise a pen-style push and release (e.g., such a conventional spring-loaded push down and release mechanism used in a conventional pen).

Some embodiments include LED indicators. Some embodiments can include one or more logos and/or brand images, including logos and/or brand images that comprise LED indicators. Some embodiments include a light pipe as at least a portion of an indicator. In some embodiments, the privacy/security enclosure can include a light pipe to allow ambient light through the privacy/security enclosure so that the automated screen brightness function of the enclosed user device (if it has one) continues to function even though at least a portion of the privacy/security enclosure is at least partially covering the user's device. In some embodiments, the privacy/security enclosure can comprise an LED dimmer button. In some embodiments, the button can comprise a capacitive touch button, a round button, or a square button.

As described earlier, in some embodiments, the privacy/security enclosure can be configurable or reconfigurable to adjust the level of privacy. In some embodiments, the privacy/security enclosure can include a removable portion or section that can be added or removed with respect to another portion or section of the privacy/security enclosure to adjust the level of privacy of the device. In some other embodiments, the privacy/security enclosure can include a movable portion or section that can be moved with respect to another portion or section of the privacy/security enclosure to adjust the level of privacy of the device.

Some embodiments of the invention can comprise at least one surface provided with an adhesive (e.g., such as an adhesive tape) to couple the privacy/security enclosure to a surface of the user's device. In some embodiments, other conventional attachment mechanisms can be used including, but not limited to clips, guides or sliders, snap-on mounts, magnetic mounts, and Velcro® mounts. For example, in some embodiments, the privacy/security enclosure can be coupled to a computer and/or display using double-sided adhesive. FIG. **214** depicts a reconfiguration of a mounted privacy/security enclosure and includes an adhesively mounted portion **21420**. The privacy/security enclosure **21400** can comprise a main housing **21410** that can be attached to the mounting portion **21420** (e.g., using adhesive **21425**). Once mounted, the privacy/security enclosure **21400** can be move, slid, repositioned on the mounted portion **21420**. Further, the privacy/security enclosure **21400** can be positioned on the mounted portion **21420** to align the aperture **21415** with the hood **21450**. Power and/or data can be fed and/or managed through cable management **21430**.

In some embodiments, the privacy level of the privacy/security enclosure **21400** can be modified by sliding the slidable main housing **21410** so that the aperture **21452** of the main housing **21400** and aperture **21415** at least partially overlap. In other embodiments, the privacy level of the privacy/security enclosure **21400** can be increased by sliding the slidable main housing **21410** so that the aperture **21452** of the main housing **21410** and aperture **21415** do not overlap.

FIG. **215** depicts a reconfiguration of a mounted privacy/security enclosure in accordance with another embodiment of the invention. The privacy/security enclosure **21500** includes main housing **21510**, and a mounting portion **21520** with aperture **21515**. Using the adhesive **21525**, the mounting portion **21520** can be coupled to the user's device **11**. Once mounted, the privacy/security enclosure **21500** repositioned on the mounted portion **21520**. Further, the privacy/security enclosure **21500** can be positioned on the mounted portion **21520** to align the aperture **21515** with the hood **21550**. Power and/or data can be fed and/or managed through cable management **21530**. In some embodiments, the privacy level of the privacy/security enclosure **21500** can be modified by positioning the slidable main housing **21510** so that the aperture **21552** of the main housing **21500** and aperture **21515** at least partially overlap. In other embodiments, the privacy level of the privacy/security enclosure **21500** can be increased by positioning the main housing **21510** so that the aperture **21552** of the main housing **21510** and aperture **21515** do not overlap.

In some embodiments of the invention, the privacy/security enclosure can include a movable portion or section that can be moved by rotating or pivoting with respect to another portion or section of the privacy/security enclosure to adjust the level of privacy of the device. For example, FIG. **216** illustrates architecture views of a privacy/security enclosure in accordance with some embodiments of the invention.

FIG. **216** illustrates architecture views of a privacy/security enclosure **21600** in accordance with some embodiments of the invention. In some embodiments, the mounting portions **21425**, **21525** can comprise the enclosure **21600**. In some embodiments, the privacy/security enclosure **21600** can comprise a main body **21649** that can comprise a front surface **21647** and a rear surface **21645** folded from a surface **21640** defined between edges **21615**. Initially the privacy/security enclosure **21600** can be formed or assembled as shown in FIG. **16** by folding about hinges **21603***a*, **21603***b* (thus forming edges **21615** and the surface **21640**). The privacy/security enclosure **21600** can also comprise at least one aperture including, but not limited to, a webcam alignment aperture **21630** and a microphone alignment aperture **21620**.

In some embodiments of the invention, a section or portion of the privacy/security enclosure can be raised or lowered to alter the privacy level of the privacy/security enclosure. Various seals can be engaged and disengaged during this process including seals to microphones, speakers, sensors and optical capture devices. For example, FIGS. **217**A-**217**C illustrates views of a privacy/security enclosure **21700** in accordance with some embodiments of the invention, and FIGS. **218**A-**218**C illustrates views of a privacy/security enclosure **21800** in accordance with some further embodiments of the invention.

FIG. **217**A shows the privacy/security enclosure **21700** including main housing **21710** and movable hood **21750**. In some embodiments, in a lowered position (shown in FIG. **217**B), the privacy/security enclosure **21700** can privatize the underlying device. In some embodiments, one or more rubber seals **21715** can coupled to one or more microphones **21717**. Further, in some embodiments, the main housing **21710** can include at least one sound tube **21719** coupled to at least one speaker **21721**. FIG. **2171**C shows the privacy/security enclosure **21700** with hood **21750** raised, and depicts sound **21752***a*, **21752***b* directed to microphones **21717***a*, **21717***b* open to the sound. In some embodiments of the invention, the privacy/security enclosure **21800** can comprise a latch to enable the hood **21750** of the privacy/security enclosure **21700** to be decoupled from the unmoved portion (main housing **21710**) of the privacy/security enclosure **21700**. In some embodiments, as the hood **21750** of the privacy/security enclosure is moved away from the main housing **21710**, the interior of the privacy/security enclosure can be revealed to a user. When lowered, the latch that retains the hood **21750** in place. For example, referring to FIG. **217**C, in some embodiments, a latch **21713** can be coupled to the main housing **21700** positioned to couple to the hood **21750** when the hood **21750** is lowered into the main housing **21710**.

FIGS. **218**A-**218**C illustrates views of a privacy/security enclosure in accordance with some embodiments of the invention. FIG. **218**A shows the privacy/security enclosure **21800** including main housing **21810** and movable hood **21850**. In some embodiments, in a raised position (shown in FIG. **218**B), the privacy/security enclosure **21800** can privatize the underlying device. In some embodiments, one or more rubber seals **21815** can coupled to one or more microphones **21817**. Further, in some embodiments, the main housing **21810** can include at least one sound tube **21819** coupled to at least one speaker **21821**. FIG. **2171**C shows the privacy/security enclosure **21800** with hood **21750** lowered, and depicts sound **21852***a*, **21782***b* directed to microphones **21817***a*, **21817***b* open to the sound. In some embodiments, hinge **21723** can be coupled to the main housing **21800** and the hood **21850** positioned to enable the hood **21750** to be lowered and raised by rotating about the hinge **21723**.

In some embodiments of the invention, any of the privacy/security enclosures shown and described in FIGS. **208**-**265**B can suppress or attenuate sound to reduce the ease and/or effectiveness of eavesdropping. In some embodiments, one or more o-rings or gaskets can be used to attenuate or partially block sound. In some embodiments, the cover can include sound dampening layers/materials. Some embodiments of the invention have at least a portion of the privacy/security enclosure formed of a material at least partially attenuating sound emitted from inside the privacy/security enclosure. In some other embodiments, at least a portion of the privacy/security enclosure is formed of a material partially or substantially attenuating sound emitted from outside of the privacy/security enclosure.

In some further embodiments, any of the privacy/security enclosures shown and described in FIGS. **208**-**265**B can partially block and/or damp the signals reaching audio sensors and/or microphones within the user's device. For example, in some embodiments, the privacy/security enclosure can include audio blocking/reducing/confusing capabilities so that typical conversation-level audio outside the privacy/security enclosure will be partially or substantially unintelligible or indiscernible by the enclosed device's microphone. Some embodiments of the invention can include one or more microphone attachment and/or sealing mechanisms. In some embodiments, a physical element of the privacy/security enclosure architecture can be placed against the surface of the device at location at or near where the microphones that are being protected are located. In some embodiments, this physical element can comprise a seal or gasket that minimizes the passage of sound.

Some embodiments of the invention include active sound masking. Some embodiments of the invention include a noise delivery system that takes the masking signal generated by one or more speakers within the privacy/security enclosure and delivers it to one or more of the various microphones that can be covered and/or protected by the privacy/security enclosure. In some embodiments, any of the privacy/security enclosures shown and described in FIGS. **208-265**B can play one or more masking signals to muffle, overwhelm, confuse or mask sounds being picked up by one or more microphones of the user device. Further, some embodiments of the invention include listen and respond capabilities. Some embodiments enable the privacy/security enclosure to use one or more microphones to listen to the environment and play one or more masking signals when sound is detected. Some embodiments include a privacy/security enclosure that comprises one or more microphones that are band limited to specific frequencies that are associated with voice. In this instance, the microphones have a lowered noise floor that is below the threshold of microphones in the enclosed user device.

For example, in some embodiments, the privacy/security enclosure can comprise one microphone in the middle of the low frequency of the common voice frequency band and another in the middle of the medium frequency voice band. In some embodiments, using a deep noise floor, the presence of speech can be detected (while not capturing the voice content) while ensuring privacy/security enclosure protection is activated. Some embodiments include a random masking signal. In some embodiments, one or more speakers can be used to cover one or more microphones to create a separate random, pseudo-random or other type of noise source and separate speaker for each microphone in a protected device. Some embodiments of the invention include specialized speaker and/or speaker driver selection. Some embodiments include a privacy/security enclosure that can produce one or more specific waveforms to mask human speech. Moreover, some embodiments include speakers that can produce the desired waveforms with relatively low power consumption. For example, some waveforms can be produced with power consumption less than 850 uA. In some embodiments, the privacy/security enclosure can change and/or delay a starting time for the masking signal. For example, in some embodiments, the privacy/security enclosure includes a control system that enables the system and/or the user to select and vary the amount of time between speech detection and masking signal activation.

In some embodiments, any of the privacy/security enclosures shown and described in FIGS. **208-265**B can change the masking signal tail time. For example, after speech ceases, the control system can stop the transmission of the masking signal substantially immediately. In some further embodiments, after speech ceases, the control system can include a transmission of the masking signal that comprises a tail (i.e. a transmission for a certain period of time after speech ceases). In some embodiments, this can minimize

obtrusiveness as testing indicates that a constant start/stop is more obtrusive than continuous transmission. In some embodiments, tuning the tail can allow substantially continuous broadcast through the normal starts and stops and pauses that are a part of human conversation. Further, in some other embodiments, the volume of the masking signal can be varying. In some embodiments, the control system or the user can vary the volume of the masking signal based on the volume of the detected sound (e.g. such as a human voice).

In some embodiments of the invention, any of the privacy/security enclosures shown and described in FIGS. **208-265**B can include an obfuscation and/or randomness setting. In some embodiments, for a variety of reasons, the privacy/security enclosure can prevent or reduce the ability of an authorized and/or unauthorized listener from detecting the presence of speech, or, if the presence of speech can be detected, reducing or eliminating the intelligibility of such speech. In some embodiments, in the obfuscation and/or randomness mode, the privacy/security enclosure can randomly broadcast to provide protection even if no one is speaking, thereby diminishing the ability of an authorized and/or unauthorized listener of detecting when there is actual speech by a user using the system. Some embodiments of the invention include an always on mode. In this instance, the privacy/security enclosure includes active audio masking that is always on. In this mode, the privacy/security enclosure can broadcast at least one masking/obfuscation signal(s) as long as there is power to the device or enough charge in one or more batteries (if included) to power the transmission of such signal(s).

In some embodiments of the invention, a section or portion of the privacy/security enclosure can be slid or moved to alter the privacy level of the privacy/security enclosure. For example, FIG. **219** illustrates an operational view of a privacy/security enclosure **21900** in accordance with some embodiments of the invention. The privacy/security enclosure **21900** can comprise a main housing **21910** mountable to a user device **11**. Part of the housing **21900** includes a moveable portion or hood **21950** that can be moved away from the housing wall **21912** to lower a privacy level, or can be coupled to the housing wall **21912** to raise or set a privacy level. In some embodiments, surfaces **21915** and/or **21955** can be color coded and/or illuminated to warn or caution a user of a non-private configuration or a lower privacy setting.

As described earlier with respect to privacy/security enclosure **20800**, some embodiments can include an integrated moveable portion, section, window, door or shutter. Further example embodiments of privacy/security enclosures with various shutter and shutter actuation methods are shown in FIGS. **220-226**. For example, FIG. **220** illustrates an operational view of a privacy/security enclosure **22000** in accordance with some further embodiments of the invention. Some embodiments of the invention include a privacy/security enclosure **22000** comprising a main housing **22010** including a coupled hood **22050**. The main housing **22010** can include a shutter aperture **22020** and an actuable shutter **22030**. Further, the shutter **22030** can be actuated by a user using an integrated shutter actuator **22040**. In some embodiments, the shutter **22030** can be manually or automatically actuated. For example, in some embodiments, a user can close the shutter **22030** by sliding the slider insert **22040**. When closed, the shutter **22030** can be opened by moving the slider insert **22040** in the reverse direction.

In some embodiments of the invention, regions of the privacy/security enclosure that can be used for user interaction (e.g., various surfaces that can be used to grip or move a portion of the privacy/security enclosure) can include tabs or raised areas (e.g., ramps etc.) that can enable the user to more easily move the portion of the device that needs to be moved, and also to provide a cue as to where and how they should actuate such a mechanism. Some embodiments include textured surfaces or materials/coatings that make such surfaces less slippery to the user.

FIG. **221** illustrates an operational view of a privacy/security enclosure **22100** in accordance with some embodiments of the invention. Some embodiments of the invention include a privacy/security enclosure **22100** comprising a main housing **22110** including a coupled hood **22150**. The main housing **22110** can include a shutter aperture **22120** and an actuable shutter **22130**. Further, the shutter **22130** can be actuated by a user using an integrated shutter grip surface **22140**. In some embodiments, the shutter **22130** can be manually or automatically actuated. For example, in some embodiments, a user can close the shutter **22130** by pushing the shutter **22130** aided by the grip surface **22140**. When closed, the shutter **22130** can be opened by moving the slider insert **22140** in the reverse direction. In some embodiments, the grip surface **22140** can comprise an uneven or textured surface. In some further embodiments, the grip surface **22140** can comprise at least one notch or at least one extension.

In some embodiments, a user can activate a portion of the privacy/security enclosure to privatize the underlying device. In some embodiments, the privacy level of the privacy/security enclosure can be changed by opening at least a portion of the privacy/security enclosure (such as a shutter) with respect to another portion of the privacy/security enclosure. In some embodiments, the privacy/security enclosure can comprise a button-activated aperture such as a shutter. In some embodiments, the camera shutter can comprise an iris. In some embodiments, the camera shutter can comprise a horizontal shutter. In some further embodiments, the camera shutter can comprise a vertical shutter.

In some embodiments of the invention, the privacy/security enclosure can comprise a camera shutter operating mechanism. For example, in some embodiments, the camera shutter can comprise a push-button mechanism. In some further embodiments, the camera shutter can comprise a slider, such as a slide positioned in one or more guides. For example, in reference to FIG. **222** illustrating an operational view of a privacy/security enclosure **22200** in accordance with some further embodiments of the invention, in some embodiments, by activating a button positioned on the fixed body of the privacy/security enclosure, at least a portion or section of the privacy/security enclosure can be opened or slid away from an underlying aperture of a fixed portion of the privacy/security enclosure. At this stage, the interior of the privacy/security enclosure can be revealed to a user, and potentially at least one sensor (such as a camera and/or microphone) can be uncovered and revealed. In some embodiments, the interior of the privacy/security enclosure can be color-coded to alert a user to a security threat that might be posed when the privacy/security enclosure includes a shutter that is at least partially slid open.

Some embodiments of the invention include a privacy/security enclosure **22200** comprising a main housing **22210** including a coupled hood **22250**. The main housing **22210** can include a shutter aperture **22220** and an actuable shutter **22230**. Further, the shutter **22230** can be actuated by a user using an integrated shutter actuator button **22240**. In some embodiments, the shutter **22230** can be manually or automatically actuated. For example, in some embodiments, a user can close the shutter **22230** by actuating the shutter actuator button **22240**. When closed, the shutter **22230** can be opened by actuating the shutter actuator button **22240**.

Referring to FIG. **223**, illustrating an operational view of a privacy/security enclosure **22300** in accordance with some embodiments of the invention, in some embodiments, a user can close an open shutter by sliding the shutter to a closed position. Some embodiments of the invention include a privacy/security enclosure **22300** comprising a main housing **22310** including a coupled hood **22350**. The main housing **22310** can include a shutter aperture **22320** and an actuable shutter **22330**. Further, the shutter **22330** can be actuated by a user using an integrated shutter actuator button **22340**. In some embodiments, the shutter **22330** can be manually actuated after actuation of the button **22340**. For example, in some embodiments, a user can close the shutter **22330** by actuating the shutter actuator button **22340**, and pushing the shutter **22340** towards the button **22340**. When closed, the shutter **22330** can be opened by actuating the shutter actuator button **22340**. The shutter can then either automatically open, or the user can pull or push-open the shutter **22330**.

Referring to FIG. **224**, illustrating an operational view of a privacy/security enclosure in accordance with some further embodiments of the invention, in some embodiments, the button can be positioned on the sliding shutter. Some embodiments of the invention include a privacy/security enclosure **22400** comprising a main housing **22410** including a coupled hood **22450**. The main housing **22410** can include a shutter aperture **22420** and an actuable shutter **22430**. Further, the shutter **22430** can be actuated by a user using an integrated shutter actuator button **22440** that is positioned on the shutter **22430**. In some embodiments, the shutter **22430** can be manually or automatically actuated. For example, in some embodiments, a user can close the shutter **22430** by actuating the shutter actuator button **22440**. When closed, the shutter **22430** can be opened by actuating the shutter actuator button **22440**. In either case, actuation of the button **22440** can release the shutter **22430** for movement manually or automatically (e.g., using a conventional spring actuation or motor).

Referring to FIGS. **225** and **226**, in some embodiments of the invention, the privacy/security enclosure can include one or more logos and/or brand images. In some embodiments, the privacy logos and/or brand images can comprise an LED dimmer button. In some embodiments, the button can comprise a capacitive touch button.

Referring to FIG. **225**, some embodiments of the invention include a privacy/security enclosure **22500** comprising a main housing **22510** including a coupled hood **22550**. The main housing **22510** can include a shutter aperture **22520** and an actuable shutter **22530**. Further, the shutter **22530** can be actuated by a user using an integrated slider **22540**. In some embodiments, the shutter **22530** can be manually or automatically actuated. When closed, the shutter **22530** can be opened by moving the slider integrated slider **22540** in the reverse direction. In some embodiments, the main housing **22510** can comprise an LED dimmer, and/or a backlit logo (shown as **22548**).

Referring to FIG. **226**, some embodiments of the invention include a privacy/security enclosure **22600** comprising a main housing **22610** including a coupled hood **22650**. The main housing **22610** can include a shutter aperture **22620** and an actuable shutter **22630**. Further, the shutter **22630** can be actuated by a user using an integrated shutter actuator button **22640**. In some embodiments, the shutter **22630** can be manually or automatically actuated. For example, in some embodiments, a user can close the shutter **22630** by actuating the shutter actuator button **22640**. When closed, the shutter **22630** can be opened by actuating the shutter actuator button **22640**. In some embodiments, the main housing **22510** can comprise an LED dimmer, and/or a backlit logo (shown as **22648**).

In some embodiments of the invention, the privacy/security enclosure can include at least one external connector such as a USB or micro-USB connector. In some embodiments, the external connector can include a coupled lead such a USB or micro-USB lead. In some embodiments, the coupled lead can provide power to the privacy/security enclosure. In some embodiments, a USB wall charger can be used to couple to the USB to provide power to the privacy/security enclosure.

In some embodiments, the external connector and/or external lead can be positioned adjacent one end of the privacy/security enclosure. In other embodiments, the external connector and/or external lead can be positioned between the ends of the privacy/security enclosure. In some embodiments of the invention, the external connector and/or external lead can be positioned at the rear of the privacy/security enclosure. For example, FIG. **227** illustrates a rear view of a privacy/security enclosure **227** comprising a main housing **22710** in accordance with some embodiments of the invention. In some embodiments, the external connector **22735** and/or external lead can include a color accent **22745**. Further, FIG. **228** illustrates a rear view of a privacy/security enclosure **22800** comprising main housing **22810** in accordance with some embodiments of the invention, and shows the external connector **22830** and/or external lead can include a color accent **22845**. In some further embodiments, the external connector and/or external lead **22735**, **22845** can include internal illumination.

Some embodiments comprise an internally powered privacy/security enclosure. For example, FIG. **229** illustrates a front view of a privacy/security enclosure **22900** in accordance with some embodiments of the invention, and FIG. **230** illustrates a side view of a privacy/security enclosure **22900** in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure **22900** can comprise a main housing **22910** that can include a main section **22911** housing electronics **22930** and at least one battery **22935**, and a secondary section including an upper portion **22920** including at least one extension or flange **22915**. In some embodiments, the upper portion **22920** can house at least one speaker **22960**. During use, a user can clip the extension or flange **22915** over and/or around a device to be privatized, and position the privacy/security enclosure **22900** to at least partially align the at least one speaker **22960** with at least one microphone of the user's device.

In some embodiments, a privacy/security enclosure can include at least one speaker mounted in the main section of the main housing and positioned proximate the inner surface of the main portion of the main housing, and at least one speaker mounted in the upper portion of the main housing, and positioned proximate the inner surface of the upper portion. For example, FIG. **231** illustrates a side view of a privacy/security enclosure **23100** in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure **23100** can comprise a main housing **22310** that can include a main section **22311** housing and a secondary section including an upper portion **23120** including at least one extension or flange **223122**. In some embodiments, the upper portion **22920** can house at least one speaker **23165** coupled to a seal **23175**, and the main section **23111** can include at least one speaker **23160** coupled to a seal **23170**. During use, a user can clip the extension or flange **23122** over a device to be privatized, and position the privacy/security enclosure **23100** to at least partially align the at least one speaker **23165**, **23160** with at least one microphone of the user's device and seal at least one of the seals **23175**, **23170**.

FIGS. **232**A-**245**C illustrate various views of privacy/security enclosures in accordance with some embodiments of the invention. In some embodiments, in addition to or in place of the color coded interior of the privacy/security enclosure alerting to a potential non-privacy, the privacy/security enclosure can include one or more active visual indications of potential non-privacy. Further, referring to at least FIGS. **232**A-**234**C, and **236**A-**236**C in some embodiments, a movable portion or shutter of an extension or flange can be positioned in a frame. For example, FIGS. **232**A-**232**C illustrate views of a privacy/security enclosure showing an embodiment including a webcam LED. FIG. **232**A shows a front perspective view, FIG. **232**B shows a rear perspective view, and FIG. **232**C shows a front view. As illustrated, the privacy/security enclosure **23200** can comprise a main housing **23210** with an extendable hood **23250**. At least one logo **23212**, **23260** can be positioned on the main housing including a logo **23212** positioned on the main section, and logo **23260** positioned on the secondary section **23215**. The privacy/security enclosure **23200** can include a shutter aperture **23225** including slidable shutter **23220**. In some embodiments, the slidable shutter **23220** includes an LED lightpipe **23222** that can be configured to block at least one camera of the user's device. In some embodiments, the webcam LED assembly **23222** can illuminate based on the position of the movable cover, the shutter, or both. Further, as also shown in FIGS. **233**A-**236**C, in some embodiments, LED assembly **23222** can include an LED light-pipe that can be positioned to block a camera of the user's device.

In reference to FIGS. **233**A-**233**C, some embodiments include a privacy/security enclosure **23300** comprising a main housing **23310** including a main section **23320**, and secondary section **23325**, and hood **23350**. In some embodiments, raising the hood **23350** can expose a color accent warning **23330**. The shutter **23335** can include an LED assembly and/or LED lightpipe **23337**. Further, in some embodiments, the main housing **23310** can include at least one backlit capacitive touch control **23352**. Further, FIGS. **234**A-**234**C illustrate perspective views of a privacy/security enclosure **23400** comprising a main housing **23410** including a main section **23415** and secondary section **23420**, and hood **23450**. In some embodiments, raising the hood **23450** can expose a color accent warning **23430**. The shutter **23420** can be positioned within the frame **23455**, and can include an LED assembly and/or LED lightpipe **23425**. Further, in some embodiments, the main housing **23410** can include at least one backlit jewel button **23452**.

In some further embodiments, one or more lightpipes can be used to enable a user to view at least a portion of the display or other structure of the user's device. For example, in some embodiments, a lightpipe can include an optical pass-through function to enable the LED signal of the underlying device to pass-through to the user. For example, if the user's device has display or LED that is lit (e.g., indicating that the device's camera is recording), even though a portion of the privacy device can actually be covering or partially obstructing such LED.

Referring to FIGS. **235**A-**235**C, some embodiments include a privacy/security enclosure **23500** can comprise a main housing **23510** including a main section **23520**, and secondary section **23525**, and hood **23550**. In some embodiments, raising the hood **23550** can expose a microphone opening **23535** and a color accent warning **23530**. The shutter **23560** can include an LED assembly and/or LED lightpipe **23565** in some embodiments. Further, in some embodiments, the hood **23550** can include at least one backlit capacitive touch control **23552**.

FIGS. **236**A-**236**C illustrate perspective views of a privacy/security enclosure **23600** in accordance with some embodiments of the invention. Some embodiments include a privacy/security enclosure **23600** comprising a main housing **23610** including a main section **23615**, secondary section **23625**, and hood **23650**. In some embodiments, raising the hood **23650** can expose a color accent warning **23635**. The shutter **23645** can include a webcam LED assembly **23670** and/or LED lightpipe **23660**. Further, in some embodiments, the main housing **23610** can include at least one backlit capacitive touch control **23695** and/or at least one illuminated or non-illuminated logo **23690**. The frame **23622** can form part of the secondary section **23625**, supporting the shutter **23645**.

FIGS. **237**A-**237**C illustrate perspective views of a privacy/security enclosure **23700** in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure **23700** can comprise a main housing **23710** including a hood **23750**, shutter aperture **23720** and a shutter slider **23730**. In some embodiments, the privacy/security enclosure **23700** can comprise a main housing **23710** that includes at least one glossy surface. For example, in some embodiments, an end portion **23710***a* of the privacy/security enclosure **23700** can comprise a glossy outer surface. In other embodiments, the privacy/security enclosure **23700** can comprise an outer surface that includes at least one non-glossy or matte surface **23710***b*.

In some further embodiments, the privacy/security enclosure **23700** can comprise an outer surface that includes at least one patterned or textured outer surface. In some embodiments, raising the hood **23750** can expose a color accent warning. Further, in some embodiments, the main housing **23710** can include at least one capacitive touch control **23712**. In some embodiments, the main housing **23710** can include one or more logos **23711**. Further, in some embodiments, a micro-USB connector can be coupled into the main housing **23710**.

Referring to FIGS. **238**A-**238**D, illustrating perspective views of a privacy/security enclosure **23800** in accordance with some embodiments of the invention, in some embodiments, a movable portion (such as the angled microphone seal **23880**) of the privacy/security enclosure **23800** can comprise a capacitive touch button **23805**. In some embodiments, a user can touch the capacitive touch button **23805** to extend the movable portion **23880** from the main housing **23810** to open the privacy/security enclosure **23800** (i.e. the movable portion **23880** can rise to open). In some embodiments, a shutter slider **23830** can be integrated into the main housing **23810**. Further, as illustrated, the privacy/security enclosure **23800** can include an internal color warning accent **23885**. When closed, the angled microphone seal **23880** can include deflection points **23801**, **23802** to deflect and/or absorb audio or visual information. Further, in some embodiments, the main housing **23810** can include and/or at least one illuminated or non-illuminated logo **23840**.

FIGS. **239**A-**239**C illustrate perspective views of a privacy/security enclosure **23900** in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure **23900** can include a shutter **23935** that can be flipped by rotating or pivoting with respect to the main housing **23910** of the privacy/security enclosure **23900** to adjust the level of privacy of the user's device **11**. For example, in some embodiments, by rotating or pivoting the shutter **23935** of the privacy/security enclosure **23900**, at least one sensor (such as a camera and/or microphone **23930**) can be uncovered and revealed. In some embodiments, the rotation or pivoting can be enabled by one or more hinges **23925** and/or other conventional mechanisms. In some embodiments, the interior of the privacy/security enclosure (e.g., such as an inner surface **23935***a* of the shutter **23935**, shutter aperture **23922** or surface **23923**) can be color-coded to alert a user to a security threat that might be posed when the privacy/security enclosure **23900** is at least partially open. Further, in some embodiments, the shutter **23935** can include a warning notification comprising a text warning **23935***b*. Further, in some embodiments, the privacy/security enclosure **23900** can include a hood **23950** of the privacy/security enclosure **23900** can comprise a capacitive touch button **23955**.

The example embodiments of FIGS. **239**A-**239**C illustrate a shutter **23935** that can be flipped by rotating or pivoting left or right, with an axis of rotation generally parallel with the end of the privacy/security enclosure **23900**. In some embodiments, a privacy/security enclosure can include a shutter that can be flipped by rotating or pivoting left or right, with an axis of rotation generally perpendicular to the end of the privacy/security enclosure. For example, FIG. **240**A-**240**C illustrates perspective views of a privacy/security enclosure in accordance with some further embodiments of the invention showing the portion or section that can be flipped by rotating or pivoting up or down with an axis of rotation generally parallel with the upper and lower surfaces of the privacy/security enclosure.

FIG. **240**A-**240**C illustrates perspective views of a privacy/security enclosure **24000** in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure **24000** can include a shutter **24035** that can be flipped by rotating or pivoting with respect to the main housing **24010** of the privacy/security enclosure **24000** to adjust the level of privacy of the user's device **11**. For example, in some embodiments, by rotating or pivoting the shutter **24035** of the privacy/security enclosure **24000**, at least one sensor (such as a camera and/or microphone **24030**) can be uncovered and revealed. In some embodiments, the rotation or pivoting can be enabled by one or more hinges **24025** and/or other conventional mechanism. In some embodiments, the interior of the privacy/security enclosure (e.g., such as an inner surface **24035***a* of the shutter **24035**, shutter aperture **24022** or surface **24023**) can be color-coded to alert a user to a security threat that might be posed when the privacy/security enclosure **24000** is at least partially open. Further, in some embodiments, the shutter **24035** can include a warning notification comprising a text warning **24035***b*. Further, in some embodiments, the privacy/security enclosure **24000** can include a hood **24050** of the privacy/security enclosure **24000** can comprise a capacitive touch button **24055**.

Referring to FIG. **241**A-**241**C, illustrating perspective views of a privacy/security enclosure **24100** in accordance with some embodiments of the invention, in some embodiments, the front face **24115** of the privacy/security enclosure **24100** can comprise at least one shutter slider **24140**. In some embodiments, the shutter slider **24140** can comprise a color accent **24140***a*. In some embodiments, the privacy/security enclosure **24100** can comprise an external connector and lead **24170** that include a color accent **24175**. In some embodiments, the color accents of the shutter slide and the connector and lead can be matched. The privacy/security enclosure **24100** can comprise a main housing **24110** including a hood **24150**, and shutter aperture **24120**. In some embodiments, raising the hood **24150** can expose a color accent warning. Further, in some embodiments, the main housing **24110** can include at least one capacitive touch control or logo **24155**. In some embodiments, the main housing **24110** can include one or more logos.

Referring to FIGS. **242**A-**242**C, illustrating perspective views of a privacy/security enclosure **24200**, in some embodiments, the hood **24250** can include at least one textured surface **24255**. In some embodiments, the hood **24250** can include a capacitive touch button including an LED indicator **24212**. Further, in some embodiments, the front facing surface **24251** of the hood **24250** can comprise a textured surface **24214** (such as textured touch points). The privacy/security enclosure **24200** can also include a shutter **24235** positioned in a shutter aperture **24220** in the main housing **24210**. In some embodiments, the shutter **24235** can comprise a vertical shutter. Further, in some embodiments, the shutter **24235** can include a colored or textured surface **24235***a*. In some embodiments, the privacy/security enclosure **24200** can comprise an external connector and lead **24270**. In some embodiments, the lead **24270** can include a color accent.

In some embodiments of the invention, the shutter of a privacy/security enclosure can be moved by a user using an extension or slider at one end of the privacy/security enclosure. For example, referring to FIGS. **243**A-**243**D and **244**A-**244**C, in some embodiments, the extension or slider can extend from a side of one end of the privacy/security enclosure. In some embodiments, the extension or slider can be moved upwards or downwards (i.e., generally along an axis parallel with the end of the privacy/security enclosure) to move the shutter upwards or downwards respectively. For example, FIG. **243**A-**243**D illustrates perspective views of a privacy/security enclosure **24300** in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure **24300** can comprise a main housing **24310** including a primary portion **24312** coupled to an end of an upper portion **24314**. A secondary portion **24315** of the main housing **24310** can couple to an opposite end of the upper portion **24314**. The privacy/security enclosure **24300** can include an extendible hood **24350** that can extend out from the upper portion **24314** of the main housing **24310**. In some embodiments, the privacy/security enclosure **24300** can include a shutter aperture **24320** positioned in the secondary portion **24315**. A shutter **24330** can be positioned within the aperture **24320**. Further, in some embodiments, a shutter slide **24340** can be positioned extending from a side of the main housing **24310**, and can be configured to enable a user to move the shutter **24330** by moving the slide **24340** away from or towards the upper portion **24314** of the main housing **24310**.

Further, FIG. **244**A-**244**C illustrates perspective views of a privacy/security enclosure **24400** in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure **24400** can comprise a main housing **24410** including a primary portion **24413** coupled to an end of an upper portion **24414**. A secondary portion **24415** of the main housing **24410** can couple to an opposite end of the upper portion **24414**. The privacy/security enclosure **24400** can include an extendible hood **24450** that can extend out from the upper portion **24414** of the main housing **24410**. In some embodiments, the privacy/security enclosure **24400** can include a shutter aperture **24420** positioned in the secondary portion **24415**. A shutter **24430** can be positioned within the aperture **24420**. Further, in some embodiments, a shutter slide **24440** can be positioned extending from a side of the main housing **24410**, and can be configured to enable a user to move the shutter **24430** by moving the slide **24440** away from or towards the upper portion **24414** of the main housing **24410**. Further, in some embodiments, the upper portion **24414** and/or the hood **24450** can include a capacitive touch switch **24412**. In some embodiments, the switch **24412** can be configured to raise and/or lower the hood **24450**.

Referring to FIGS. **245**A-**245**C, illustrating perspective views of a privacy/security enclosure **24500** comprising a main housing **24500**, and including a shutter aperture **24520** and integrated shutter **24530**. In accordance with some embodiments of the invention, the privacy/security enclosure **24550** can include at least one LED indicator **24515**. In some embodiments, the indicator **24515** can traverse around at least a portion of the main housing **24510**. In some embodiments, the privacy/security enclosure **24515** can comprise at least one LED indicator **24515** that can extend around the privacy/security enclosure **24500** extending from an upper surface **24552** to a lower surface **24512** on both sides of the privacy/security enclosure **24500**. In some embodiments, the LED indicator **24515** can extend around a push button release **24665** positioned on the upper surface **24552** of the main housing **24510**. In some embodiments, the at least one LED indicator **24515** can comprise a color that is substantially the same as the color accent of a coupled extension and lead **24580**. Further, the color of the interior surface **24570** of the privacy/security enclosure **24500** can comprise a privacy alert color that matches the accent color. Further, in some embodiments, the privacy/security enclosure **24500** can include a capacitive touch arm **24545** positioned on a front face portion **24517** of the main housing **24510**. In some embodiments of the invention, the use of the LED indicator(s) such LED indicator **24515** and others described herein can include indicating that certain types of privacy protection are active (i.e. the active audio masking signal is being transmitted), the battery status (if a battery in included) and maintenance or alert signals of different types. The LED indicators could also be decorative in nature.

In some embodiments, the main housing can be customized. For example, FIG. **246**A-**246**D illustrates perspective views of a privacy/security enclosure **24600** and accent covers **24612**, **24614** in accordance with some embodiments of the invention showing at least one customizable component. In some embodiments, the main housing **24610** of the privacy/security enclosure **24600** can comprise an outer face plate **24611** that can be customized (e.g., customized by a user or purchaser of the privacy/security enclosure). For example, in some embodiments, the outer face plate **24611** shown positioned on the main housing **24610** of the privacy/security enclosure **24600** can be customized to be replaced with or coupled to a glossy face plate **24612** (FIG. **246**B) or a textured faceplate **24614** (FIG. **246**C). In some further embodiments, the outer face plate **24611** can comprise a matt, textured, or patterned face plate. In some embodiments, the outer face plate **24611** can be positioned adjacent or proximate the aperture **24620**. In some embodiments, the outer face plate **24611** can include an aperture generally matched in size and geometry to the aperture **24620**. In some embodiments, the outer face plate **24611** can be positioned adjacent or proximate the hood **24650**. In some embodiments, the outer face plate **24611** can positioned at least partially around the hood **24650**.

In some embodiments, the privacy/security enclosure can be mounted to a surface by coupling to an adapter. In some embodiments, the adapter can be configured specifically for a user device (such as a 21" or 27" computer or display). In some embodiment, the adapter can be coupled to the user device using one or more adhesive strips. In some embodiments, after coupling the adapter to the user device, the privacy/security enclosure can be mounted to the user device by coupling the privacy/security enclosure with the adapter. In some other embodiments, the privacy/security enclosure can be mounted to the adapter, and the privacy/security enclosure with adapter can be mounted to the user device. In some embodiments, a gasket can be used in addition to the adapter to improve the seal between the surface and the cover and/or adapter. For example, FIG. **247** illustrates a privacy/security enclosure mounting assembly view in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure **24700** can be assembled and attached to the user device **11** using either one of adapters **24718**, **24720**. For example, in some embodiments, the adapter **24718** can be coupled to the inner surface **24711** of the main housing **24710** of the privacy/security enclosure **24700**. Alternatively, in some embodiments, the adapter **24720** can be coupled to the inner surface **24711** of the main housing **24710** of the privacy/security enclosure **24700** as determined by the size and/or geometry of the user's device **11**. In some embodiments, to mount the privacy/security enclosure **24700** including either of the attached adapters **24718**, **24725**, the privacy/security enclosure **24700** can be hung over an edge and/or top of the device **11** placing the primary portion **24715** of the main housing over or against one side or portion of the device **11** and the secondary portion **24717** of the main housing over another side or portion of the device **11**. In some embodiments, the privacy/security enclosure **24700** and adapters **24718**, **24725** can be adapted, shaped, and sized to be used with a 21" diagonal display or a 27" diagonal display.

In some embodiments, the privacy/security enclosure embodiments **24800** can be mounted to a user device. For example, FIG. **248** illustrates a front perspective view of a privacy/security enclosure **24800** in accordance with some embodiments of the invention, and FIG. **249** illustrates a rear perspective view of the privacy/security enclosure **24800** of FIG. **248** mounted to a computer or display (user device **11**) in accordance with some embodiments of the invention. The privacy/security enclosure **24800** can comprise a main housing **24810** including secondary portion **24815** including a shutter **24830**. The secondary portion **24815** can be mounted over the device **11** on one side, and the main section **24811** can be mounted over an opposite side of the device **11**. Power and/or data can be coupled to the privacy/security enclosure **24800** through the connector **24870** on the side of the device **11** opposite the secondary portion **24815** as shown. Further, FIG. **250** illustrates a front perspective view of a privacy/security enclosure **25000** in accordance with some embodiments of the invention, and FIG. **251** illustrates a rear perspective view of the privacy/security enclosure **25000** of FIG. **250** mounted to a computer or display device in accordance with some embodiments of the invention. The privacy/security enclosure **25000** can comprise a main housing **25010** including secondary portion **25015** including a shutter **25030**. The secondary portion **25015** can be mounted over the device **11** on one side, and the main section **25011** can be mounted over an opposite side of the device **11**. Power and/or data can be coupled to the privacy/security enclosure **25000** through the connector **25070** on the side of the device **11** opposite the secondary section **25015** as shown.

In some embodiments, the privacy/security enclosure embodiments **25200** can be mounted to a user device. For example, FIG. **252** illustrates a front perspective view of a privacy/security enclosure **25200** in accordance with some embodiments of the invention, and FIG. **249** illustrates a rear perspective view of the privacy/security enclosure **25200** of FIG. **252** mounted to a computer or display (user device **11**) in accordance with some embodiments of the invention. The privacy/security enclosure **25200** can comprise a main housing **25210** including secondary portion **25215** including a shutter **25230**. The secondary portion **25215** can be mounted over the device **11** on one side, and the main section **25211** can be mounted over an opposite side of the device **11**. Power and/or data can be coupled to the privacy/security enclosure **25200** through the connector **25270** on the side of the device **11** opposite the secondary section **25215** as shown.

Further, FIG. **254** illustrates a front perspective view of a privacy/security enclosure **25400** in accordance with some embodiments of the invention, and FIG. **251** illustrates a rear perspective view of the privacy/security enclosure **25400** of FIG. **254** mounted to a computer or display device in accordance with some embodiments of the invention. The privacy/security enclosure **25400** can comprise a main housing **25410** including secondary portion **25415** including a shutter **25430**. The secondary portion **25415** can be mounted over the device **11** on one side, and the main section **25411** can be mounted over an opposite side of the device **11**. Power and/or data can be coupled to the privacy/security enclosure **25400** through the connector **25470** on the side of the device **11** opposite the secondary section **25415** as shown. In some embodiments, the privacy/security enclosure **25200** can comprise at least one logo and/or at least one button or capacitive control or arm. For example, in some embodiments, the privacy/security enclosure **25200** can comprise a at least one button or capacitive control or arm **25275** and/or at least one logo **25285**. Further, in some embodiments, the privacy/security enclosure **25400** can comprise a at least one button or capacitive control or arm **25475** and/or at least one logo **25485**.

Further, FIGS. **256-258** illustrate views of a privacy/security enclosure **25600** in accordance with some embodiments of the invention. The privacy/security enclosure **25600** can comprise a main housing **25610** including secondary portion **25615** including a shutter **25630**. The secondary portion **25615** can be mounted over the device **11** on one side (shown in FIG. **256**), and the main section **25611** can be mounted over an opposite side of the device **11** (shown in perspective view in FIG. **257**, and in side view in FIG. **258**). Power and/or data can be coupled to the privacy/security enclosure **25600** on the side of the device **11** opposite the secondary section **25615**. In some embodiments, the privacy/security enclosure **25600** can comprise at least one logo **25657** and/or at least one button or capacitive control or arm **25655**. Further, in some embodiments, the privacy/security enclosure **25600** can comprise a at least one button or capacitive control **25610** for actuation of the shutter **25630**. The partial inner view of FIG. **258** depicts an internal actuator assembly. In some embodiments, the actuator assembly can comprise an internal release assembly **25690** including at least one internal release mechanism configured to enable the hood **25650** to be raised and lowered within the main housing **25610**. For example, the inner view shown in FIG. **257** shows internal release mechanisms **25691**, **25692**. Example internal release mechanisms suitable for internal release mechanisms **25691**, **25692** for use in any of the privacy/security enclosure embodiments disclosed herein are also shown in FIGS. **259**, **259**A, **259**B, **260**, **260**A, **261**, **261**A. Some embodiments include one or more push-rods that can be actuated by a user to operate a release catch, seal, or other conventional latching mechanism. Some embodiments include a combination of at least one push or pull rods and a slidable latch, catch, or conventional holding or sealing mechanism. For example, some embodiments can utilize a push latch or panel access mechanism from GBK-UK (e.g., such as push latch—small reference code **41002**).

FIGS. **259**, **259**A, **259**B, **260**, **260**A, **261**, **261**A illustrates internal release mechanisms in accordance with some embodiments of the invention. For example, some embodiments include at least one release rod **25910** coupled to at least one control spring **25912**. In some embodiments, a latch **25930** (shown in perspective in FIG. **259**B) can control release and capture of the at least one release rod **25910**. Some embodiments also include one or more seals (shown in FIGS. **259**A, **260**A, and **261**A). For example some embodiments include a seal **25960**, **26010**, **26110**. In some further embodiments, a release rod **25910** can be used in conjunction with a tension spring **26120** to provide a push and pull type action to raising and lowering of a hood of a privacy/security enclosure.

FIGS. **262**-**263** illustrate rear perspective views of computer or display mounted privacy/security enclosures in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure **26200** can be mounted on a user device **11** including connector and lead **26210**. Referring to FIGS. **264**A-**264**B illustrating rear perspective views of privacy/security enclosures **26400**, **26401**, including textures **26430**, **26455**, in some embodiments, connector and lead **24670** (used in either of the privacy/security enclosures **26400**, **26401**) can comprise any of the leads and/or connectors described herein.

FIG. **266** illustrates a front perspective view of a privacy/security enclosure **26600** according to some embodiments of the invention. The privacy/security enclosure **26600** can comprise a main housing **26610** including a coupled hood cover assembly **26615** and an enclosure **26605**. In some embodiments, the privacy/security enclosure **26600** can also include a base assembly **26620** that can comprise a Faraday base as described in preceding embodiments. Further, in some embodiments, the hood cover assembly **26615** can include a reversible cover **26620***a*. In some embodiments, the privacy/security enclosure **26600** can include one or more surface facets **26625** extending at least a partial length of the privacy/security enclosure. In some embodiments, the facets **26625** can be formed in the hood cover assembly **26615** and/or in the base assembly **26620**. For example, as shown in FIG. **266**, the hood cover assembly **26615** and base assembly **26620** can include facets **26626**, **26621**. In this example embodiment, the geometry of the facets **26626** in the hood cover assembly can complement the facets **26621** of the base assembly thereby providing a seamless outer structure extending the length and width of the privacy/security enclosure. In some embodiments, the facets **26625** can extend to the outer edge surfaces of the hood cover assembly and/or the base assembly. In some embodiments, the geometry of the facets **26626** of the hood cover assembly and/or the facets **26621** of the base assembly can complement facets on the outer edge surfaces (such as outer edge surfaces **26617***b*), thereby providing a seamless outer structure extending the length and width of the privacy/security enclosure including the outer edge surfaces. In some embodiments, the hood cover assembly **26615** and/or the base assembly **26620** can comprise one or more product logos, markings, signs, or graphics (e.g., such as logo **26670** show on the hood cover assembly **26615**).

In some embodiments of the invention, a hood cover or enclosure/cover **26615***a* can be coupled with an internal case or device in multiple orientations, including, but not limited to, a 180 degree or reversible orientation. In some embodiments, features of the internal case or enclosed/covered device can be accessible, visible or be able to be activated or deactivated, tuned, adjusted, or changed via various devices and/or assemblies, including, but not limited to light pipes, buttons, switches, controls, transparent, translucent or otherwise light, texture and/or touch sensitive/passing materials and/or surfaces.

In some further embodiments of the invention, the passing of sensor information, data communication via wired or wireless technologies and/or other types of energy or information transfer can be allowed in at least one direction to or from, through or to the inside and outside of the privacy/security enclosure **26600**. For example, in some embodiments, a port or mechanism for data transfer can be included to allow power passing and/or charging of batteries. Further, ports or mechanisms to pass other forms of energy such as sound, light, pressure, heat and others can be included. In some embodiments of the invention, any information or energy passing to/from or through any cover or enclosure of the privacy/security enclosure **26600** can be modified, changed, obfuscated, amplified, attenuated or blocked for a particular purpose. For example, in some embodiments of the invention, a port or other mechanism can be included such that sensors (including, but not limited to barometric, echo location/sonar, motion, heat, light, RF, video or sound sensors) can operate within the cover or enclosure.

In other embodiments of the invention, the port or other mechanism can be sealable/closable to a full or partial percentage to content/information passing through the port, another mechanism or the cover or enclosure itself can be modified or changed by features or functions built into or around the cover or enclosure, making it either easier or more difficult for the sensor or impacted capability to operate or to record/capture information as compared to the absence of such port, mechanism, seal, repeater, amplification, modification, masking, obfuscation or other capability. For example, FIG. **266** shows an embodiment of a hood cover with a pass-through button **26680** that allows LED or other optical signaling/feedback information to pass through the hood cover, while simultaneously providing a button by which a user can activate, deactivate or otherwise tune audio masking/jamming or other capabilities of the internal case or device. In some embodiments of the invention, the capabilities described can be asymmetrically provided in the cover or enclosure. For example, FIG. **266** depicts a transfer button and LED pass-through capability (shown as **26680**) on one side of a reversible cover **26620***a*. In some embodiments, a user can select or vary functionality by choosing the desired orientation of the cover or enclosure (i.e., the reverse side of the cover **26620***a* is devoid of the pass-through button **26680**.

Some embodiments can include an enclosure that can be at least partially opened or closed by a user, and/or can include a portion that can be moved, adjusted, opened or closed by a user to adjust a level of privacy/security. In some embodiments, at least a portion of the housing assembly can be moved with respect to another portion of the housing assembly, or can comprise one or more separable and/or moveable portions. For example, FIG. **267** illustrates a front perspective view of the privacy/security enclosure **26600** with a hood or cover portion with a hood cover assembly

26615 removed according to some embodiments of the invention. With the hood cover assembly 26615 removed, a base assembly 26625 including a Faraday base assembly 26627 can be seen at the base end of the enclosure, and a hood assembly 26630 can be seen at the other end of the enclosure 26625. All of these components and assemblies can be coupled to form the housing assembly 26701. The structure including enclosure 26605 shown in FIG. 267 can form a cradle or enclosure for one or more user devices (such as a user device 10). In some embodiments, the inner surface 26607 of the cradle or enclosure 26606 of the enclosure 26605 can include a patterned surface 26609. Further, in some embodiments, the inner surface 26607 can comprise one or more product logos, markings, signs, or graphics 26611.

The structure shown in FIG. 268 illustrates an exploded assembly view 26801 of portions of the privacy/security enclosure 26600 in accordance with some embodiments of the invention. In some embodiments, various structural, functional, and aesthetic components can be assembled and coupled to form at least a portion of the housing assembly 26701, including for example, the hood cover assembly 26615, a base assembly 26625 including a Faraday base assembly 26627, and a hood assembly 26630. In no particular order of importance, embodiments of the housing assembly 26701 can include a variety of components and sub-assemblies including a hood arm 26810, hood mask 26823, hood arm lid 26825, hood cap 26827, slider 26829, hood spring 26821, and hood clamp 26816. Some embodiments of the invention can include various electrical and electronic components, in addition to various structures and materials for housing and/or protecting the components. For example, some embodiments include a phone detect switch 26818, a speaker flex board 26918, speaker drivers 26814, and acoustic seals 26812.

Some embodiments include structures forming or housing a Faraday cage (including, without limitation, the Faraday base assembly 26627 shown in FIG. 267). For example, FIG. 269 illustrates components of the Faraday base assembly 26627 including, but not limited to, a lower portion comprising a Faraday pan 26915, and an upper portion forming a Faraday rim 26910. The Faraday pan 26915 and Faraday rim 26910 can be coupled to form part of the base assembly 26625 illustrated in FIG. 267. In some embodiments, a DC pass-through assembly 26920 can be housed within the base assembly 26625. In this instance, the DC pass-through assembly 26920 can be coupled to the Faraday pan 26915 and/or coupled to the Faraday rim 26915.

Further components of the base assembly 26625 can be seen in FIG. 270, illustrating an exploded assembly view of portions of the base assembly 26625 in accordance with some embodiments of the invention. For example, in some embodiments of the invention, the Faraday base assembly 27010 can be coupled to a housing sub-assembly forming an end portion of the privacy/security enclosure 26600 (or other privacy/security enclosure described herein). For example, in some embodiments, the Faraday base assembly 27010 can be coupled to a removable main base 27025. The main base 27025 can form a structurally supporting portion of the housing assembly 26701, while also forming a portion of the coupled hood cover assembly 26615 and an enclosure 26605 of the privacy/security enclosure 26600. In some embodiments of the invention, various functional components can be coupled and/or integrated to the Faraday base assembly 27010 and/or the main base 27025, when the Faraday base assembly 27010 is coupled to the main base 27025. For example, some embodiments include an interface board 27015.

In some further embodiments, one or more components can extend through the main base 27025. For example, in some embodiments, a control button assembly 27020 can be positioned in the main base 27025, including a portion (i.e., a button 27021) that extends through an aperture 27026 in the main base 27025 to enable access and control of at least one function of the privacy/security enclosure 26600 by the user. Other embodiments can include one or more light-pipe assemblies 27030 positioned within the main base 27025 to enable optical transfer.

The main board assembly with the base assembly can also be seen in FIG. 271, illustrating an exploded assembly view 27101 of portions of the privacy/security enclosure 26600 in accordance with some embodiments of the invention. In no particular order of importance or function, the exploded assembly view 27101 can include assembly of components and sub-assemblies comprising enclosure 27105, hood assembly 27107, detent wear inserts 27109, battery wear sheet 27111, and miscellaneous screws and screw covers or other fasteners 27113. Further, some components include battery 27117, battery door 27119, base assembly 27121, and main board 27123. Further, other components coupled to the main board 27123 include an Apple Lightning™ connector pivot 27115 and lower acoustic seal 27125. The assembly of the base assembly 27121 with the aforementioned hood assembly 26630 can be seen in the example embodiments. Lightning™ is a registered trademark of Apple, Inc. of Cupertino, Calif.

Some embodiments can include various Faraday cage related structures and/or shell or cover components. For example, FIG. 272 illustrates an exploded assembly view 27201 of portions of the privacy/security enclosure 26600 in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure 26600 can include a Faraday tube or canister 27207 and/or a Faraday cover assembly 27209, and outer shell 27205. In some embodiments, the privacy/security enclosure 26600 can include the Faraday tube or canister 27027 and/or the outer shell 27205 coupled to the metal bezel 27211. In some embodiments, wear strips 27221 can be assembled into the privacy/security enclosure 26600 to prevent or limit wear caused by movable portions or sections of the privacy/security enclosure 26600. Further, some embodiments include one or more conductive o-rings 27215 and one or more fingerstock 27213 coupled between the metal bezel 27211 and the main base (27025 shown in FIG. 270). Some embodiments also include various components to cover or protect the privacy/security enclosure including a cover bumper 27219 and/or an environmental seal 27217. Some embodiments include one or more detents to enable one or more components (e.g., such as outer shell 27205) to be added or removed while creating an audible sound and/or vibration that appears satisfying to a user.

Many modern mobile phones have the ability to measure acceleration in the x, y, and z axis (e.g., using an accelerometer), and have the ability to measure rotational velocity around the x, y, and z axis (e.g., using a gyroscope). In some embodiments, it is possible to convert measurements from accelerometer and gyroscope outputs to signals that capture the human voice. For example, in the case of a user's mobile phone contained within an enclosure resting on a table, acoustic energy from user's conversation can be captured by the table and can be coupled to the mobile phone via the enclosure. A major coupling mechanism in this example, depending on the source of the audio content, can be the accelerometer z axis, where the z axis is defined as perpendicular to the surface of the mobile phone and the table.

Some embodiments of the invention include systems and methods for obscuration or elimination of the detection of human voice using any sensor within a mobile communication device. For example, such obscuration can prevent or disrupt the ability of a sensor such as an accelerometer and gyroscope to detect the presence of a human voice, discriminate the gender of a spoken human voice, and/or understand the content and meaning spoken by a human voice (i.e., the recorded communication is not intelligible.)

FIGS. **273**-**276** illustrate perspective views of privacy/security enclosures including mechanical isolation structures and functions in accordance with some embodiments of the invention. Referring to FIG. **273**, some embodiments include an assembly **27300** that can include mechanical isolation of the mobile phone from the enclosure. In some embodiments, the mobile phone (user device **10**) can be isolated from the enclosure **27310** using one or more suspension elements **27320**. In some embodiments, the suspension elements **27320** can be mounted at both the top and bottom interfaces, and/or at both ends. In some embodiments, the suspension elements **27320** can be mounted at least one interface and/or at one end of the enclosure **27310**. In some embodiments, one or more suspension elements **27320** can comprise any compliant and/or sprung material including a spring or other material that can provide vibration damping.

Referring to FIG. **274**, some embodiments can include mechanical isolation of the enclosure from the external environment. For example, in some embodiments, using one or more suspension elements **27410**, the enclosure **27400** can be mechanically isolated from the external environment (when placed on a surface **27405** while containing a user device **10** as shown). Some embodiments include suspension elements **27410** mounted at both the top and bottom interfaces, and at both ends of the enclosure **27400**. In some further embodiments, the suspension elements **27410** can be mounted at one interface and/or at one end of the enclosure **27400**.

Referring to FIG. **275**, some embodiments include mechanical isolation of the enclosure **27510** from the case **27500**. In some embodiments, the enclosure **27510** is mechanically isolated from the case **27500** when placed within the case **27500**, and the user device **10** is contained within the enclosure **27510**. Some embodiments include suspension elements **27520** mounted at both the top and bottom interfaces, and at both ends of the enclosure **27510**. In some further embodiments, the suspension elements **27520** can be mounted at one interface and/or at one end of the enclosure **27520**.

Referring to FIG. **276**, in some embodiments, the case **27600** can be mechanically isolated from the external environment (placed on a surface while containing the enclosure **27510** containing the user device **10**). Suspension elements **27520** can isolate the enclosure **27510** from the case **27600**, while suspension elements **27614** and/or **27612** can isolate the case **27600** and the enclosure **27510** from an external surface.

Some embodiments include integrated vibrators or actuators. For example, FIG. **277** illustrates an end view of a privacy/security enclosure **27700** including broadband vibration in accordance with some embodiments of the invention. Some embodiments include a system for creating broadband vibration at the surface (or other portion) of a user device **10** positioned within the enclosure **27705** for use as a mask or obscuration of audio reception or passage of vibrations caused by audio or the human voice. In some embodiments, an actuator **27710** can be electronically driven using a broadband signal to provide the broadband vibration described above. Further, some embodiments include signal spectral output that is matched or otherwise tailored to mask audio frequencies of interest.

Some embodiments of the invention include integrated vibrators or actuators designed to mask, reduce, confuse, trick, send false or misleading information or prevent the ability of gyroscopes, accelerometers or other sensors to provide movement and/or location information. For example, in some cases, given a known or approximated starting location, even in the absence of location tracking capabilities provided by cellular triangulation, GPS capabilities, WiFi, beacon or other technologies, gyroscopes, accelerometers or other such sensors can be able to provide general or specific movement information such that when an ending location is known or approximated, movements between the starting and ending location can be determined, either roughly or specifically. Some embodiments of the invention can use signals such as pulsed, random, pseudo-random, deterministic, broadband, tuned and/or otherwise tailored signals to drive vibrators and/or actuators in such a way that masks, confuses, misleads, reduces or prevents the ability of sensors to determine movement and/or location information. Such vibrators and/or actuators can be coupled to the user device **10** in conventional ways or as described above. Some embodiments of the invention can use the motion of the enclosed user device **10** or of the enclosure itself as an input/variable used in determining the signal driving the vibrators/actuators.

In some embodiments, a sensor can be used to measure vibrational energy at the surface of the user device **10**, and an actuator is used to create a compensating vibration at the surface of the user device **10**. In some embodiments of the invention, a processing element can receive signals from a sensor. In some embodiments, the processing element sends a drive signal to an actuator to indicate that the sensed vibrations are compensated within the audio bandwidth. In this instance, the resulting vibration at the surface of the phone is changed, reduced or practically eliminated. In some embodiments, the sensing and actuating elements can be the same (e.g. piezoelectric drive/piezoelectric sensing). In some other embodiments, the sensing and actuating elements can be different. For example, FIG. **278** illustrates an end view of a privacy/security enclosure **27800** including active vibration cancellation in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure **27800** can comprise a system **27850** configured for active vibration cancelling that can be used to reduce, change or eliminate vibration at the surface of a user device **10**. For example, some embodiments include an enclosure **27805** with a system **27850** comprising at least one actuator **27810** and at least one sensor **27830** coupled with close loop processing control of the at least one actuator **27810** based at least in part on a signal from sensor **27830**.

Some embodiments can include controlled light transfer and/or collection. For example, FIG. **279** illustrates an internal cross-sectional view of a privacy/security enclosure **27900** with a light pipe **27910**. In some embodiments, a light pipe **27910** can be placed directly above a conventional ambient light sensor. In some embodiments, a light pipe **27910** can be proximate a speaker slot **27920**. Referring to FIG. **280** shows an example assembly of shells parts **28020** and spring parts **28010**, and light pipes **28005** with minimal space and tight assembly tolerances. FIGS. **281**-**282**, and **283**-**284** illustrate light pipe structures (**28100**, **28200**, **28300**, **28400**) arranged in a periscope-like configuration (light transfer element **28201** coupled to light transfer element **28203** coupled to light transfer element **28205**) for use in light transmission within a privacy/security enclosure in accordance with some embodiments of the invention. In some embodiments of the invention, the placement and collecting area of the ambient light gathering portion of the light pipe can be placed in order to minimize visibility of the light pipe by users of the privacy/security enclosure. In other embodiments of the invention, the collecting surface area and the reflecting and/or transit surface areas and/or volumes can be designed, engineered and/or optimized such that light sensors of protected devices can operate as if they were not being blocked, or so that the light provided to them via the light pipe only results in a reduction of 10%-30%. In this instance, users of the privacy/security enclosure can be minimally aware or unaware that the native light sensor(s) of protected devices are covered by the privacy/security enclosure.

Referring to FIGS. **285**A-**285**E, in some embodiments of the invention, the privacy/security enclosure can include an adjustable aperture for use in covering and uncovering a portion of the user's device while attached or coupled to the user's device. For example, in some embodiments, the user's device can include at least one window. In some embodiments, the window can be slid open and closed to uncover or cover a portion of the user's device (e.g., such as a camera or other sensor). In some embodiments, the window can be attached or clipped on. In some embodiments, the window can comprise a compliant material that can be folded or wrapped (e.g., such as a flap or curtain). In some embodiments of the invention, devices such as mobile communication and computing devices including cellular phones, smart phones, computer laptops and tablets etc., desktop computers, gaming consoles, wearable devices such as smart watches and Google Glass® can be rendered at least partially private using one or more of the disclosed privacy/security enclosures. For example, embodiment **28505** illustrated in FIG. **285**B shows an adhesively attachable shutter **28507**. Further, for example, embodiment **28505** illustrated in FIG. **285**A shows a sliding shutter **28510**. Further, for example, embodiment **28520** illustrated in FIG. **285**C shows a flappable shutter **28530**. Further, the embodiment **28540** illustrated in FIG. **285**D shows a magnetic coupling and a foldable shutter **28550**. Further, for example, embodiment **28560** illustrated in FIG. **285**E depicts a clip-on shutter.

In some embodiments, the privacy/security enclosure can comprise a structure that accommodates a user using the privacy/security enclosure as a sleeve to protect or make private one or more user devices. In some embodiments, the privacy/security enclosure can be wrapped, attached, secured, or otherwise coupled to the user's device. For example, FIG. **286** illustrates a privacy/security enclosure including a Faraday sleeve **28600** in accordance with some embodiments of the invention. In some embodiments, an enclosure **28610** can be inserted into the Faraday sleeve **28600** to enhance the privacy of the user's device. In some further embodiments, the privacy/security enclosure can be coupled to the user's device using a conventional adhesive. In other embodiments, the attached, secured, or otherwise coupled device can be coupled to the user's device using any suitable conventional device, component or materials including, but not limited to a "snap-on" assembly, Velcro, clip, screw, magnet, or combination thereof. Further, referring to FIGS. **287**A-**287**B, illustrating privacy/security enclosures for use with device cases, in some embodiments of the invention, the privacy/security enclosure can be clipped around portions of the case or housing of a user's device (e.g., such as a laptop case or shell). In some embodiments, the privacy/security enclosure can include one or more separate portions clipped to the user's device. Alternatively, in some embodiments, the user can attach more than one privacy/security enclosure to various areas of the user's device. For example, FIGS. **287**A-**287**B illustrate privacy/security enclosures **28700**, **28710** for use with device cases and user devices **15** in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure **28700**, **28710** can wrap and/or attach to the user device **15**.

In some embodiments, the privacy/security enclosure can communicate to the user's device though this connection and/or receive power from this connection. In some embodiments, the privacy/security enclosure can control one or more components of the user's device through the device's USB, micro-USB or other port and/or while coupled to the device's USB, micro-USB or other port. In some embodiments, the privacy/security enclosure can physically cover or electronically control one or more sensors of the user's device including, but not limited to, a camera or microphone.

In some embodiments of the invention, the privacy/security enclosure can couple to a USB, micro-USB or other port/connector of a user's device. For example, FIG. **288** illustrates a USB-powered active portion **28805** of a privacy/security enclosure **28800** in accordance with some embodiments of the invention. In some embodiments, the portion **28805** can be coupled to the USB port **15***a* of a device **15** to alter the privacy level of the device **15**.

In some embodiments, the privacy/security enclosure can be configured with one or more device tethers. For example, FIGS. **289**A-**289**C illustrate a tethered privacy/security enclosure **28900** in accordance with some embodiments of the invention. For example, referring to FIGS. **289**A-**289**B, in some embodiments, the privacy/security enclosure **28900** can include an elevated stand **28910**. Further, in some embodiments, a tethered enclosure **28930** can be coupled to the privacy/security enclosure **28900**. Further, referring to FIG. **289**C, in some embodiments, the privacy/security device **28955** can be coupled to the user's device **15** and be tethered to the user's device **15**. In some embodiments, the privacy/security enclosure **28950** can be coupled to the user's device **15** and be tethered to the privacy/security device **28955**. FIG. **296** also illustrates embodiments of a tethered privacy/security enclosure illustrating a tethered privacy/security enclosure **29600** coupled to a user's device **15** comprising a laptop with coupled keyboard.

FIG. **290** illustrates an ultrasonic clip-on privacy/security enclosure **29000** in accordance with some embodiments of the invention. For example, in some embodiments, one or more privacy/security enclosures **29000** can be configured to attach, clip, or otherwise couple to a user's device **15**. In some embodiments, the privacy/security enclosure **29000**, attached, clipped or otherwise coupled to a user device **15** can include an ultrasonic "tapper" **29010** (e.g., such as an ultrasonic and/or vibratory emitter). In some embodiments, the ultrasonic "tapper" **29010** can be integrated into a privacy/security enclosure **29000** to enable the privacy/security enclosure **29000** to transfer ultrasonic energy to at least a portion of the user's device **15** (e.g., such as a microphone).

In some embodiments of the invention, the privacy/security enclosure can be configured to create at least a partial vacuum in at least a portion of the user's device **15**. For example, FIG. **291** illustrates a vacuum seal over microphone in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure **29100** can draw air out of the privacy/security enclosure **29100** to form at least a partial vacuum in the user's device **15**. In some embodiments, the formation of at least a partial vacuum within or adjacent to microphone of the user's device can partially attenuate, suppress or prevent the transmission of sound to the microphone.

In some embodiments of the invention, the privacy/security enclosure can comprise a system or method for redirecting or channeling fan exhaust air within the user's device over or to a microphone of the user's device **15**. For example, FIG. **292** illustrates internal air flow acoustic muffling **29200** in accordance with some embodiments of the invention. In some embodiments, any privacy/security enclosure disclosed herein can comprise a channel fluidly coupling one or more exhaust fans of the user's device and one or more microphones of the user's device. In some embodiments, the air flow does not overwhelm the microphones rendering them unresponsive to any inputs. Instead, in these embodiments of the invention, the air flow can render the output of the microphones useless or less useful for determining speech content while still allowing some response by the microphones to the user's speech. Many other embodiments of the invention provide this same benefit without rendering sensors, microphones, or speakers completely or virtually completely unresponsive. These approaches can significantly reduce energy consumption and ambient noise compared to prior art devices.

In some embodiments, the geometry and structure of the privacy/security enclosure can be adjusted to complement the size, shape, or form factor of the user's device. In some embodiments, the privacy/security enclosure can include a structure capable of at least partially housing and enclosing a laptop or computer tablet. For example, FIGS. **293**A-**293**B illustrate perspective views of a privacy/security enclosures **29300**, **29350** and method of use in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure **29300** can comprise a sleeve-type structure **23950** (similar to that described earlier with respect to FIG. **286**). In other embodiments, the privacy/security enclosure can comprise a clam-shell type structure **29300**.

In some embodiments of the invention, the privacy/security enclosure can comprise a docking station type configuration. In some embodiments, a user device **10** (or **15**) can be docked into an aperture of the privacy/security enclosure or the privacy/security enclosure can be wrapped or folded around the user device to dock or secure the device. For example, FIGS. **294**A-**294**B illustrate a privacy/security enclosure **29400** for docked devices in accordance with some embodiments of the invention. In some embodiments, while docked (e.g., by sealing the user's device with portion **29420**), the user can adjust the privacy/security level of the privacy/security enclosure **29400** using one or more moveable elements (i.e. such as a moveable shutter, section, window or lever **29410**). In other embodiments, while docked, the user can adjust the privacy/security level of the privacy/security enclosure using one or more buttons or controls on the privacy/security enclosure, or using a remote control.

Alternative privacy/security enclosure structures are shown in FIGS. **295**A-**295**D, illustrating privacy/security enclosures for partial cases in accordance with some embodiments of the invention. In some embodiments, the user's device **10** can be docked or coupled to a holder, display case, frame or partial frame, cover (such as an elastomeric cover **29500**), or shell or partial shell structure. Similarly, any of these example embodiments can include options for privacy/security adjustment including any of the moveable options described above. In some embodiments, the cover **29500** can include a coupled connector such as Lightning™ connector **29510**. Further, some embodiments include an attached section **29550** (FIG. **295**C). In some embodiments, attached section **29550** can include a slidable window **29555**. Further, referring to FIG. **29570**, some embodiments include attachable section **29570** (FIG. **295**D). In some embodiments, attached section **29570** can include a slidable window **29575**.

Some embodiments of the invention include a privacy/security enclosure configured to emit noise. For example, FIG. **297** illustrates a privacy/security enclosure **29700** comprising a noise emitter in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure **29700** or a component of a privacy/security enclosure **29700** can comprise a noise emitter configured to be coupled to at least one input or output port or connector such as head-phone jack, firmware port, USB or micro-USB port, etc. (shown as **29710**).

In some embodiments of the invention, the privacy/security enclosure can be configured as an added cover or enclosure to cover or cover of a user's device. For example, FIG. **298** illustrates a cover add-on privacy/security enclosure **29800** in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure **29800** can be configured with more than one cover **29810**. For example, some embodiments include a standard cover **29820** and an additional cover **29830**. In some embodiments, the additional cover **29830** can comprise a metal cover. In some embodiments, the additional cover **29830** can include one or more privacy/security protection devices including, but not limited to, at least one active protection device **29840**.

In some embodiments, the privacy/security enclosure can include a privacy/security enclosure configured to alter the privacy/security of a commercial gaming or gaming peripheral. For example, FIGS. **299**A-**299**D illustrate privacy/security enclosures for a Microsoft Kinect™ system (device **20**) in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure can include a sheath or sleeve portion that can be slid or positioned over a region of the Microsoft Kinect™ system, including for example a camera, IR, and/or motion sensor. For example, some embodiments of privacy/security enclosure **29900** can comprise an assembly including a main housing **29910** and integrated shutter **29925**. As shown in the assembly view of FIG. **299**A, in some embodiments, the privacy/security enclosure **29900** can be slid over the device **20** to enable a user to adjust the privacy of the device **20**.

In some embodiments, the privacy/security enclosure for a Microsoft Kinect™ system or similar gaming system or gaming peripheral can comprise one or more foldable or articulating covers. For example, FIGS. **300**A-**300**B illustrate a fold-down cover or flap **30010 30060** privacy/security enclosure for a Microsoft Kinect™ system in accordance with some embodiments of the invention. The example embodiment as shown includes a moveable cover or flap portion coupled to a flange (**30015** shown in FIG. **300**A) or hinge assembly (shown in FIG. **300**B) coupled or mounted to the Microsoft Kinect™ system. In some embodiments, the cover or flap **30010**, **30060** can be rotated or flipped by a user to cover or uncover at least a portion of the Microsoft Kinect™ system. In some embodiments, the cover or flap **30010**, **30060** can include an acoustic absorbing or dampening material (shown as **30011** in FIG. **300**A and **30012** in FIG. **300**B) that can be used to cover one or more microphones of the Microsoft Kinect™ system. For example, in some embodiments, an acoustic absorbing or dampening material can applied along one edge or surface of the cover or flap and positioned to couple to the microphones when the cover or flap is closed against the Microsoft Kinect™ system.

In some embodiments, the privacy/security enclosure can include privacy/security adjustment options for optical and IR sensing and audio functions of the Microsoft Kinect™ For example, FIG. **301** illustrates a remote cover privacy/security enclosure **30100** for a Microsoft Kinect™ system in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure **30100** can include a configurable cover slide **30105** in addition to a configurable sound bar **30110**. In some embodiments, the cover slide **30105** can include a slidable window **30107** to enable the user to alter the privacy/security level of the Microsoft Kinect™. In some embodiments, the sound bar **30110** can comprise a foldable sound protection bar that can be folded over one or more audio functions of the Microsoft Kinect™ (including a microphone and/or a speaker).

In some further embodiments, the privacy/security enclosure can comprise a recess in a box enclosure. For example, FIGS. **302**A-**302**B illustrate an elevator recess cover privacy/security enclosure **30200** for a Microsoft Kinect™ system in accordance with some embodiments of the invention. In some embodiments, the Microsoft Kinect™ system can be elevated up and out of the privacy/security enclosure **30200** or lowered and enclosed within the privacy/security enclosure.

In some embodiments, the privacy/security enclosure can include an attachable cover comprising a sound dampening material. FIG. **303** illustrates an attachable cover privacy/security enclosure **30310** for a Microsoft Kinect™ system in accordance with some embodiments of the invention. In some embodiments, the cover **30310** can include integrated active and/or passive privacy/security features, and or more or more status indicators. For example, in some embodiments, the cover **30310** can include a noise emitter **30305** to provide additional sound masking or muffling capability. Further, in some embodiments, the cover can include a battery indicator or other status indicator **30315**.

In some embodiments of the invention, the actuation of privacy/security features, the movement of any or all covers, flaps, sheaths, sleeves, shields or any other moveable portion of the enclosure can be accomplished via electro-mechanical assemblies or devices. In some embodiments of the invention, the triggering or activation of any powered protection features, such as the electro-mechanical movement of a cover, shield, sleeve or any other moveable portion of the enclosure, the turning on, off or increase/decrease in the volume or level of protective features such as audio masking, the modification of some aspect of the user interface such as the brightness of LED's or other such feature can occur via switches, buttons or other physical interface on the enclosure, or via one or more remote-controlled, wired or wireless interface device. In some embodiments of the invention, the controls of the privacy/security enclosure can be triggered by voice or sound activation, motion or other such interface.

In some embodiments, the privacy/security enclosure can comprise a privacy/security device configured to operate as a power controller and/or circuit breaker between the Microsoft Kinect™ system and one or more gaming systems. In some embodiments, a user can use a wired or wireless controller of a coupled gaming system to control the privacy/security device (e.g., to enable or disable power and/or connectivity between the Microsoft Kinect™ system and one or more gaming systems).

For example, in some embodiments of the invention, the privacy/security enclosure can control the power, connectivity, or at least one function of the Microsoft Kinect™ system. As just one example, FIG. **304** illustrates an interruption privacy/security device **30400** in accordance with some embodiments of the invention. In some embodiments, a remote transmitter or transceiver **30405** can activate or control the privacy/security device **30400**. In some further embodiments of the invention, the privacy/security enclosure **30400** can comprise a privacy/security device configured to operate as a power controller and/or circuit breaker and/or MAC (media access control) address changer for any powered electronic device, including but not limited to devices such as cable modems, routers, switches, video cameras, computers, servers, laptops, electric panels, any network connected devices or internet of things enabled devices and others.

In some embodiments of the invention, the privacy/security enclosure can comprise a cylinder or roll-cover type assembly. For example, FIGS. **305**A-**305**B illustrate a Faraday cylinder privacy/security enclosure **30500** in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure **30500** can comprise a generally cylindrical-shaped housing **30505** including at least one movable cover portion **30510**. In some embodiments, the at least one movable cover portion **30510** can be rolled back to expose at least a portion of the Microsoft Kinect™ system. Further, in some embodiments, the cover can be rolled down to a closed position to cover the Microsoft Kinect™ system to form or couple with a Faraday cage system.

Referring to FIG. **306**, some embodiments include a privacy/security enclosure **30600** including optical blinding in accordance with some embodiments of the invention. In some embodiments, one or more LED's or other conventional light and/or IR sources **30620** can be integrated into a portion **30610** of a housing **30605** of the privacy/security enclosure **30600** and used to blind, confuse, white-out, or otherwise distort or impair an input to one or more optical sensors and/or control circuitry of the Microsoft Kinect™ system, any other system containing a camera or video recording device or any other cameras or video recording device of any type, in any shape or form. In some embodiments, at least one of the light or IR sources can be positioned within a moveable flap or cover.

In some embodiments of the invention, multiple distortion, confusion or masking light sources can be coordinated to reduce or eliminate the ability of optical sensors to perform their intended function. In other embodiments of the invention, software or hardware based recognition technologies can be used on inbound images and/or data received by camera(s) integrated into the privacy/security enclosure to recognize and/or identify external cameras and optical sensors such that masking, confusing or distorting signals can be targeted towards such identified devices. In some embodiments of the invention, the privacy/security enclosure can be mounted on or within vehicles. In other embodiments of the invention, the privacy/security enclosure can be integrated with or take the shape of wearable devices such as hats, clothing, glasses or some other such form of easily portable or moveable device that can be carried by the user in some or many of their day to day activities.

FIG. **307** illustrates a Microsoft Kinect™ system audio interference system in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure **30700** can comprise a frequency turbulence generator configured to attenuate, overlap, mask or distort an audio signal reaching the Microsoft Kinect™ system.

In some embodiments of the invention, the privacy/security enclosure can comprise a removable adhesive cover or sticker configured to at least partially absorb, reflect, or otherwise prevent transmission of optical or IR radiation. For example, FIG. **308** illustrates an IR sticker privacy/security system **30800** in accordance with some embodiments of the invention. In some embodiments, a cover or sticker **30820** can be peeled from a stock sheet **30810** including a plurality of covers or stickers **30815** and positioned over one or more sensors, emitters, or cameras of the Microsoft Kinect™ system. In some embodiments, the covers or stickers **30815** can include a peel-tab **30825** to facilitate removal and handling from the stock sheet **30810**.

FIGS. **309**A-**309**B illustrate manually operated privacy/security enclosures **30900**, **30950** in accordance with some embodiments of the invention. In some embodiments of the invention, the privacy/security enclosure **30925** can comprise one or more mechanical mechanisms for adjusting or moving a portion of the privacy/security enclosure in order to alter the privacy/security of a coupled user device (device **15**). For example, in some embodiments, the privacy/security enclosure **30900** can comprise a mechanical thumbwheel or gear **30925** that can be rotated to adjusted to move a cover or shutter **30930** over one or more sensors of the user's device. Alternatively, in some other embodiments, the adjustment or movement of a portion of the privacy/security enclosure in order to alter the privacy/security of a coupled user device can be automated or semi-automated. Referring to FIG. **309**A, in some embodiments, a user can touch the top **30960** of an upper housing portion **30955** of the privacy/security enclosure to activate a cover **30980** that slides down. In other embodiments, the cover **30980** can slide across or diagonally.

In some embodiments, the operation and privacy/security of a remote control device can be altered using a privacy/security enclosure. For example, FIGS. **310**A-**310**B illustrate privacy/security protection of a remote control in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure **31000** can enclose the remote (shown as device **17**) and operate to alter the privacy/security of the device **17** as described for any enclosed user device described earlier.

In some embodiments, one or more functions of the privacy/security enclosure can be operated using a remote control transceiver. For example, FIGS. **311**A-**311**B illustrate a remote controlled cover privacy/security enclosure **31100** in accordance with some embodiments of the invention. In some embodiments, a user can use a remote control (such as a device **17**) to operate the privacy/security enclosure and alter the privacy/security features of the privacy/security enclosure **31100** using an attached controller **31105**. In some embodiments, the user can remotely open and/or close a cover, flap, or shutter to alter the privacy/security level of the user's device **15**. As shown in FIG. **311**B, the privacy/security enclosure **31100** can include a shutter **31125**, a status LED **31107**, audio masking **31109**, and a power connector **31111**. FIG. **31150** illustrates an alternative embodiment of the privacy/security enclosure **31100**.

In some embodiments of the invention, the privacy/security enclosure can include smart glass or filter. For example, FIG. **312** illustrates a smart glass privacy/security enclosure **31200** in accordance with some embodiments of the invention. In some embodiments, a portion **31205** of the privacy/security enclosure can include a smart glass or filter **31225** that is switchable between one or more levels of transparency. For example, in some embodiments, when a user wishes to increase the privacy/security setting of the privacy/security enclosure **31200**, the user can activate the smart glass or filter **31225** to induce opacity within the smart glass or filter **31225** to optically block or obscure light transmission. In some embodiments, a user can operate the transmission characteristics of the smart glass or filter **31225** using a remote control.

In some embodiments, the privacy/security enclosure can include a power or battery control function. For example, FIG. **313** illustrates an on-off remote battery circuit breaker **31300** in accordance with some embodiments of the invention. In some embodiments, using a remote function **31303**, a user can control power from a battery **31305** (i.e., turn-on or turn-off power from the battery).

Some embodiments can include automobile privacy protection. For example, some embodiments include a privacy/security enclosure that can act as a switch or circuit breaker controlling the ability of one or more of a vehicle's communication systems to operate. For example, some embodiments of the invention can address the well-publicized remote hacking of a popular manufacturer's vehicle, wherein the brakes, acceleration and other functions of the car were able to be remotely controlled by the hacker. In some embodiments of the invention, the privacy/security enclosure can restrict, filter or cut off access to one or more of the vehicles external communication capabilities, minimizing, reducing, making more difficult or eliminating the ability of a remote actor to control one or more of the vehicle's functions. In other embodiments of the invention, the privacy/security enclosure, actuated either manually by the user or by software in the event of one or more trigger conditions, can restrict, filter or cut off access of one or more portions of a vehicle's systems from one or more others. For example, in some embodiments of the invention, the privacy/security enclosure can cut-off, minimize, filter or restrict access from a vehicle's entertainment system or other such system to provide protective capability in the event that the system is faulty, has been hacked and/or had its software, firmware or hardware added to, modified, deleted or replaced, or had new software, firmware or hardware installed, maliciously or otherwise. In some embodiments of the invention, the privacy/security enclosure can restrict, minimize, filter or eliminate access of one or more portions or sub-portions (e.g. not the entire vehicle control system, but rather the braking system or not the entire braking system, but rather portion of the braking system) of one or more of the vehicles systems to one or more other portions or sub-portions of one or more other systems or to one or more shared networks, buses or other such communication facilities. For example, some embodiments of the privacy/security enclosure can provide more nuanced filtering, reduction or elimination of connectivity such that certain critical, non-faulty or non-hacked capabilities maintain connectivity while other, less critical, faulty or hacked portions of the system have their connectivity reduced, filtered or cut-off. In some embodiments of the invention, the privacy/security enclosure can allow or trigger the connection to or activation of backup vehicle control or other such systems. In other embodiments of the invention, the privacy/security enclosure can allow the ability to access, source or reload one or more backup, redundant, or protected software/code sources for one or more vehicle systems. Some embodiments of the privacy/security enclosure can reduce or eliminate the ability of one or more vehicle systems from being able to access other systems and/or from accessing any remote network or communication capability. For example, some embodiments of the privacy/security enclosure can reduce, eliminate or filter the access of systems that control vehicle operation (e.g., brakes, steering, acceleration, gauges, windshield wipers etc.) from systems such as vehicular entertainment systems or cellular or other forms of remote communication, such that while auto manufacturers or other parties can no longer be able to remotely access sensor data from such systems, hackers can no longer be able to remotely access such systems either.

Some embodiments include automobile privacy/security enclosures configured to function at least as described above. For example, FIGS. **314-317**A illustrate automobile privacy/security enclosures in accordance with some embodiments of the invention. In some embodiments, using one or more of the privacy/security enclosures **31400**, **31500**, **31600**, **31650** depicted, the privacy/security level of a communication system within an automobile (user device **30**) can be changed. Some embodiments include a privacy/security enclosure **31400** installed adjacent to a microphone within or adjacent to a headliner of an automobile or within or adjacent to wherever a microphone can be found within an automobile, truck or other moving vehicle. In this example embodiment, the privacy/security enclosure **31400** can comprise a controller **31405** including a user control **31425** configured to control or engage audio masking. In other embodiments, the privacy/security enclosure **31500**, **31600** can be installed adjacent to the automobiles dashboard or steering wheel. In some further embodiments, the privacy/security enclosure **31650** can be installed in an engine compartment and/or coupled to a vehicle's audio and/or communication electronics. In some embodiments, a vehicle's key or key-fob (device **35**) can be used to activate or control the automobile's privacy/security enclosure **31400**, **31500**, **31600**, **31650**. In other embodiments, the automobile's privacy/security enclosure **31400**, **31500**, **31600**, **31650** can be operated via a cellular connection. In other embodiments, automobile's privacy/security enclosure **31400**, **31500**, **31600**, **31650** can be operated from a control or switch within the vehicle. In some further embodiments, automobile's privacy/security enclosure **31400**, **31500**, **31600**, **31650** can be operated and/or monitored through an internet connection.

FIG. **317**B illustrates a privacy/security system **31700** in accordance with some embodiments of the invention. In some embodiments of the invention, the privacy/security system **31700** can include a privacy/security system **31701** that can be activated by a user to control one or more electrical, mechanical, and/or electromechanical systems of the vehicle. A discussion of specific electrical, mechanical, and/or electromechanical systems of the vehicle that can be controlled by embodiments of the privacy/security system **31700** are shown and described in FIGS. **317**C and **317**D illustrating mechanical, electrical, and electromechanical systems of a vehicle that can be controlled by the privacy/security system of FIG. **317**B. In some embodiments, the privacy/security system **31701** can control at least one electrical, mechanical, and/or electromechanical systems of a user's vehicle. Further, in some embodiments, the privacy/security system **31701** can enable a switch to a backup system for control of at least one electrical, mechanical, and/or electromechanical systems of a user's vehicle. For example, some embodiments include a privacy/security system **31702** that is protected by a Faraday cage.

In some embodiments, the privacy/security systems **31701**, **31702** can enable a user to select and control and/or disconnect existing sensors or inputs to a vehicle's control system (shown as system control **31715**). In some embodiments, the privacy/security systems **31701**, **31702** can enable a user to select and control existing sensors or inputs to a vehicle's control system (shown as system control **31715**). In some embodiments, the privacy/security systems **31701**, **31702** can enable a user to select and control and/or disconnect existing outputs from a vehicle's control system (shown as system control **31710**). Further, in some embodiments, the privacy/security systems **31701**, **31702** can activate/connect one or more backup systems, including blocking access to non-critical systems or those that provide a route for malware (e.g., such as entertainment systems, voice/data communications, remote keyless entry systems, etc. In some embodiments, the privacy/security system **31702** can include backup control systems that comprise protected non-networked systems with no remote access, and base configurations not capable of being modified without physically interaction with the systems. In some embodiments, the various mechanical, electrical, and electromechanical systems that can be protected and controlled includes, but is not limited to, night vision systems, a heads-up display, driver alertness monitoring, instrument cluster, accident recorder, event data recorder, auto-dimming mirror, interior lighting, active cabin noise suppression, voice/data communications, cabin environmental controls, dedicated short-range communication systems (dsrc), entertainment systems, battery management, lane correction systems, electronic toll collection systems, digital turn signals, navigation systems, security system, active exhaust noise suppression, active suspension, hill-hold control, regenerative braking, antilock braking, tire pressure monitoring, parking system, electronic stability control, active yaw control, seat control position, transmission control, lane departure warning, blindspot detection, remote keyless entry, onboard diagnostics, active vibration control, cylinder deactivation, idle stop/start, electronic valve timing, electronic throttle control, electric power steering, automatic braking, adaptive cruise control, adaptive front lighting, airbag deployment, engine control, parental controls, and windshield wiper control

In reference to FIGS. **317**C and **317**D illustrating mechanical, electrical, and electromechanical systems of a vehicle that can be controlled by the privacy/security system of FIG. **317**B, the average new car has dozens of computers that control everything from the airbags and brakes to the lights and entertainment system. The engine control module (ECM) is the most powerful (and expensive) microcontroller in the vehicle. Engine control modules determine where to set the throttle, how much fuel to inject into the cylinders, and when to fire the spark plugs. In many vehicles this controller also regulates the electric power distribution, provides the on-board diagnostics, and communicates with a number of other automotive systems to share information it obtains from various sensors. The engine control modules take data from a wide variety of analog sensors, digitize this information, and use it to calculate the proper engine settings. The results of these calculations are converted to actuator settings, and both digital and analog outputs from the module are used to operate these actuators.

Although cars did not have engine control modules for the first 80-90 years after the gasoline engine was invented, cars today would not be able to meet modern fuel efficiency and emissions requirements without them. Improvements in engine control algorithms, data collection, and data communication continue to be a major reason that cars are more efficient and less polluting with each new model year. Some vehicles allow the driver to make trade-offs between power and fuel economy by simply activating a switch that causes the ECM to run different engine control subroutines. There are also various programmable ECMs that are available to give car enthusiasts a great deal of control over how their engine will perform in various situations.

Today's ECMs generally employ 32-bit microcontrollers with a few megabytes of memory clocked at speeds between 32 MHz and 100 MHz. They generally communicate with other electronic modules using one or more CAN bus interfaces. In cases where the engine control function and the transmission control function are combined in the same module, the module is generally referred to as a powertrain control module (PCM). Various sensors that can be controlled include the pedal position sensor, throttle valve position sensor, engine oil temperature sensor, oxygen sensor, induction air temperature sensor, EGR sensor, oil pressure sensor, fuel level sensor, wheel speed sensor, torque sensor, knock sensor, air flow sensor, crankshaft position sensor, camshaft position sensor, manifold absolute pressure sensor, coolant temperature sensor. Other systems that can be controlled directly or indirectly include actuators, fuel injectors, spark plugs, EGR valve, fuel tank venting, cooling fan, starter motor, throttle position motor, check engine light, and data communications.

Power steering systems supplement the torque that the driver applies to the steering wheel. Traditional power steering systems are hydraulic systems, but electric power steering (EPS) is becoming much more common. EPS eliminates many HPS components such as the pump, hoses, fluid, drive belt, and pulley. For this reason, electric steering systems tend to be smaller and lighter than hydraulic systems. EPS systems have variable power assist, which provides more assistance at lower vehicle speeds and less assistance at higher speeds. They do not require any significant power to operate when no steering assistance is required. For this reason, they are more energy efficient than hydraulic systems. The EPS electronic control unit (ECU) calculates the assisting power needed based on the torque being applied to the steering wheel by the driver, the steering wheel position and the vehicle's speed. The EPS motor rotates a steering gear with an applied force that reduces the torque required from the driver. There are four forms of EPS based on the position of the assist motor. They are the column assist type (C-EPS), the pinion assist type (P-EPS), the direct drive type (D-EPS) and the rack assist type (R-EPS). The C-EPS type has a power assist unit, torque sensor, and controller all connected to the steering column. In the P-EPS system, the power assist unit is connected to the steering gear's pinion shaft. This type of system works well in small cars. The D-EPS system has low inertia and friction because the steering gear and assist unit are a single unit. The R-EPS type has the assist unit connected to the steering gear. R-EPS systems can be used on mid- to full-sized vehicles due to their relatively low inertia from high reduction gear ratios. Unlike a hydraulic power steering system that continuously drives a hydraulic pump, the efficiency advantage of an EPS system is that it powers the EPS motor only when necessary. This results in reduced vehicle fuel consumption compared to the same vehicle with an HPS system. These systems can be tuned by simply modifying the software controlling the ECU. This provides a unique and cost effective opportunity to adjust the steering "feel" to suit the automotive model class. An additional advantage of EPS is its ability to compensate for one-sided forces such as a flat tire. It is also capable of steering in emergency maneuvers in conjunction with the electronic stability control.

In current-day systems, there is always a mechanical connection between the steering wheel and the steering gear. For safety reasons, it is important that a failure in the electronics never result in a situation where the motor prevents the driver from steering the vehicle. EPS systems incorporate fail-safe mechanisms that disconnect power from the motor in the event that a problem with the ECU is detected. The next step in electronic steering is to remove the mechanical linkage to the steering wheel and convert to pure electronically controlled steering, which is referred to as steer-by-wire. This functions by transmitting digital signals to one or more remote electric motors instead of a rack and pinion assembly, which in-turn steers the vehicle. While it has been used in electric forklifts and some tractors, as well as a handful of concept cars. In the event that a problem is detected with the electronic controls, a clutch engages to restore the driver's mechanical control. As with throttle control systems, it is likely that steer-by-wire will become the standard once the electronic controls prove to be safer and more reliable than the current hybrid systems. Any of the above mentioned vehicle control system can be access, selected, controlled, and protected using the privacy/security systems **31701**, **31702**.

Referring to FIGS. **318**A-**321**, in some embodiments, the privacy/security enclosure can be integrated with and/or used with travel accessories. Any of the embodiments as shown and described in FIGS. **318** to **321** can include materials, structures, and fabrication methods as described for privacy/security enclosures shown in the preceding figures. Any of the materials, structures, and fabrication methods can be scaled to any of the structures that are generally larger in size that those described for enclosing single devices such as mobile phones and sensors of portable devices. For example, FIGS. **318**A-**318**C illustrate a protective suitcase privacy/security system **31800** in accordance with some embodiments of the invention. FIGS. **319**A-**319**B illustrate another protective suitcase privacy/security system **31900** in accordance with some embodiments of the invention. Further, FIG. **320** illustrates a Faraday cage in bag privacy/security system **32000** in accordance with some embodiments of the invention, and FIG. **321** illustrates a Faraday sleeve privacy/security system **32100** in accordance with some embodiments of the invention. Referring to FIG. **318**, in some embodiments, the privacy/security enclosure **31800** can form a travel briefcase **31805** capable of housing multiple user devices including mobile phones, laptop computers, computer tablets, etc. Referring to FIGS. **319**A-**319**B, in some embodiments, the privacy/security enclosure **31900** can form a rolling luggage structure **31905** attached to luggage **31910**. In some embodiments, the rolling luggage **31910** including the privacy/security enclosure **31900** can include an access door or lid **31912** and one or more lockable and removable enclosures **31925**. In some embodiments, one or more of the lockable and removable enclosures **31925** can be locked using a lock key **31930**.

In some further embodiments, the privacy/security enclosure **32000** can comprise a back-pack structure. For example, referring to FIG. **320**, in some embodiments, a privacy/security enclosure **32000** can comprise a backpack structure **32005** can include a secure hard inner case **32007** and an outer soft or compliant case **32010**.

Referring to FIG. **321**, in some embodiments, the privacy/security enclosure **32100** can comprise a personal travel sleeve cover **32105**. In some further embodiments, the sleeve cover **32105** can comprise a sealable opening **32110** to enable a user to insert and seal a device.

Some embodiments of the invention can be designed to integrate with common consumer household or office products such as jackets or other forms of clothing, purses, handbags, backpacks and briefcases, chairs, couches, kitchen counters, car consoles, seats, dashboards or doors, tables, desks, drawers and/or bed stands/night tables amongst others. In some embodiments of the invention, the privacy/security enclosure can be integrated in such a way that it is not visible to an outside observer. Some embodiments can be integrated into purses and other aforementioned products such that the privacy/security enclosure appears to be integrated into the surface of the product or so that when the purse or other such product is opened, the user can have access to the privacy/security enclosure into which they can place their phone, tablet or other electronic device, in any case at which point that once the privacy/security enclosure is engaged, it can then provide on or more of the protective masking, obfuscation, minimizing, jamming, blocking and/or other privacy/security features via the systems and methods described herein.

Some embodiments include box or cabinet type privacy/security enclosures. For example, FIG. **322** illustrates a lockbox privacy/security enclosure **32200** in accordance with some embodiments of the invention. In some embodiments, privacy/security enclosure **32200** can comprise a housing **32205** including a coupled cover **32210** enabling access to at least one slot **32215**. In some embodiments, the privacy/security enclosure **32200** can include feet **32225** for IMV protection.

FIG. **323** illustrates a safe-type privacy/security enclosure in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure **32300** can include a housing **32305** mounted on a support **32325**. In some embodiments, an access door **32310** can enable a user to access slots **32315** for storage of the user's device(s).

FIG. **324** illustrates a tackle box privacy/security enclosure **32400** in accordance with some embodiments of the invention, and FIG. **325** illustrates a letter box privacy/security enclosure **32500** in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure **32400** can comprise a housing **32405**, and access doors or flaps **32410**, **32415** enabling a user to access one or more slots **32430**. The privacy/security enclosure **32400** can also include an upper tray **32435** including additional slots **32437** for storage of additional user devices. Referring to FIG. **325**, in some embodiments, the privacy/security enclosure **32500** can comprise housing **32505** including a coupled access door or flap **32510** enabling a user to access at least one storage slot **32515**. In some embodiments, one or more user devices can be enclosed and stored within one or more holders, drawers, slots, or compartments of the privacy/security enclosures shown in FIGS. **322-325**.

Some embodiments include privacy/security enclosure specific to office or executive spaces. For example, FIG. **326** illustrates a roundabout cage-type privacy/security enclosure **32600** in accordance with some embodiments of the invention, and FIG. **327** illustrates a built-in type privacy/security enclosure **32700** in accordance with some embodiments of the invention. In some embodiments, the privacy/security enclosure **32600** can comprise a carousel-type structure **32607** including a housing **32605** one or more slots **32615**, and an actuation top **32610**. The slots **32615** can be configured to accept and store a plurality of user devices after the structure **32607** is raised from the lower portion **32606** of the housing **32605**. In some embodiments, structure **32607** can be raised by pressing the actuation top **32610**. Further, in some embodiments, structure **32607** can be lowered into the lower portion **32606** of the housing **32605** by depressing the top **32610**. In some embodiments, privacy/security enclosure **32600** can be integrated into a desk or other type of furniture or decoration of a room (e.g., such as a boardroom).

Some embodiments include a privacy/security enclosure integrated into a desk or other type of furniture or decoration of a room (e.g., such as a boardroom). For example, FIG. **327** illustrates a built-in type privacy/security enclosure **32700**. In accordance with some embodiments of the invention, privacy/security enclosure **32700** can comprise a housing **32705** integrated into a desk or other type of furniture or decoration of a room (e.g., such as a boardroom). The housing **32705** can enclose a slot **32710** into which a user can store one or more device. A door **32715** can be used to close the privacy/security enclosure **32700**.

In some embodiments of the invention, using any of the privacy/security enclosures disclosed here, remote or wireless access to internal electronics such as chips, microprocessors, microcontrollers, memory, storage, PCB boards and other such electronic components, devices or assemblies can be prevented, thereby decreasing the likelihood or ease by which the invention can be hacked, accessed or controlled remotely. In some embodiments of the invention, the use of microprocessors, microcontrollers or other electronic components that have features such as one-time write, read restrictions, that encrypt, lock or otherwise secure or obfuscate their software, firmware or other command/configuration information can be used to prevent or increase the difficulty of hacking, modifying or changing the intended operation and/or functionality of the invention. In some embodiments of the invention, direct, remote, RF, wired or wireless access to electronic component can be prevented or made more difficult by the use of Faraday cages, by the omission of RF transceivers or other connecting or networking capabilities, by the elimination, exclusion or reduction of functionality of internal or external ports that might provide access to electronic components, by the clipping, removal or otherwise destroying or tampering with some or all pins or pathways that can allow software or firmware updates, by soldering, gluing, covering with a foreign material or other technique to make it difficult to remove or change chips, PCB boards or electronic components, or by the combination of some or all of these and other techniques. In some embodiments of the invention, with the potential of increasing the cost or ability to diagnose, repair, replace or reuse some or all of the components, the ability or ease by which some embodiments of the invention can be opened and/or internal components or features can be accessed can be reduced or made more difficult through the use of techniques such as one way connectors, tabs or other such features, the use of ultrasonic welding or other such manufacturing techniques or the obfuscation or hiding of assembly features, any or all of which capabilities can provide for the destruction or degradation of the embodiment's operation or performance or can result in a user being more readily aware that an attempt (successful or unsuccessful) has been made to open or tamper with the embodiment and/or its features or capabilities.

In some embodiments of the invention, any of the privacy/security enclosures disclosed herein can act as a security token for the user to use as part of an authentication or login process with a website, network, computer or other device or facility desiring such a level of authenticated access. For example, in some embodiments of the invention, when a user wants to login to a secure website, device, software, network or facility, a code can be generated by the privacy/security device/enclosure that is required to be provide in order to login or access the desired website, device, software, network or facility. In other embodiments of the invention, communication to or from the enclosed device can be monitored and/or passed, verified, changed, blocked or redirected based on criteria, rules or algorithms either pre-loaded or downloaded (and occasionally or periodically updated if or when desired) on the privacy/security enclosure. In yet other embodiments of the invention, data, voice or video traffic can be encrypted or decrypted by the privacy/security enclosure prior to transmission or on receipt or at some other such time as fits within the desired security profile.

In some embodiments of the invention, one or more microphones can be used to detect and/or capture audio content reaching the privacy/security enclosure, which audio content can then be repeated or replayed, with or without a delay, on one or more speakers/audio drivers included in the enclosure. In some embodiments of the invention, full or partially sealed pathways can be provided from each of one or more speakers/audio drivers to one more or all of the microphone or microphones within an enclosed device or devices. In some embodiments of the invention, sealed pathways may not be used and repeated or replayed sound can be broadcast to the interior or exterior of the enclosure, uncontained by such pathways/seals.

In some embodiments, installation of the privacy/security enclosure can include installation to the user's device so that external audio energy from the external environment is reduced, attenuated or changed. In some embodiments, the installation can include techniques including various conventional seals and sound isolating techniques. In some embodiments, the protected device(s)' microphone(s) can be partially or fully isolated from external audio excitation using compressive materials used to form a seal. Novel structures or baffles or tortuous paths can be used in some embodiments to help reduce or eliminate external audio energy from reaching the protected device(s)' microphone(s).

In some embodiments of the invention, one or more seals can remain in position while in other embodiments of the invention one or more seals can be moveable, sealing and unsealing at different points in time. In some embodiments of the invention, the ability to seal and/or unseal and/or the ability to play/direct masking noise or changed/manipulated/processed audio content to one or more microphones of enclosed devices can be available on a microphone by microphone basis. In other embodiments, it can be available for combinations or all microphones together. In some embodiments of the invention, different audio content (e.g., pass-through, noise, modified, processed, manipulated or otherwise changed content) can be played for different microphones at the same time, while in other embodiments of the invention, similar or the same content can be played at the same time. In some embodiments of the invention, a conventional mechanical or electro-mechanical mechanism can be used to apply one or more seals to its mated surface. In some embodiments of the invention, differing compression levels can be used for one or more seals, even if applied by a conventional mechanism, in order to more effectively deliver the desired functionality (e.g., audio masking, delivering audio content, reduced obtrusiveness, external audio attenuation etc.)

In some embodiments of the invention, seals and/or sealed pathways/channels can be used to more effectively deliver audio content to one or more microphones of enclosed device in order to attenuate broadcast audio content and/or to attenuate external audio content. In some embodiments of the invention, the seals can comprise neoprene or other compliant material. As illustrated in FIGS. **328**A-**328**F, showing seals **32810**, **32820**, **32830**, **32840**, **32850**, and **32860**, in some embodiments of the invention, the seals **32810**, **32820**, **32830**, **32840**, **32850**, and **32860** can be shaped to optimize acoustical coupling to a targeted microphone. This can be achieved by taking into account various factors including, but not limited to, the space available for the seal, the surface material, texture and form of an interface to which the seal can mate, the acoustical path by which the targeted microphone detects audio content (e.g., a hole or pattern of holes in the phone behind which the targeted microphone is mounted, attached or coupled etc.), and the level of sealing required to meet the desired level of attenuation. As further illustrated in FIGS. **328**A-**328**F, in some embodiments of the invention the seal(s) can have a cut-out surrounded by varying thickness and shape of wall in order to meet the goals previously described. In other embodiments of the invention, the seal(s) can have a series of concentric or non-concentric/asymmetric chambers to meet the previously described goals.

In some embodiments of the invention, the audio content captured by the privacy/security enclosure's microphone(s) can be blocked, attenuated, amplified, changed, obfuscated, distorted, filtered, replaced or otherwise modified at, before or during the time it is captured, played, broadcast or transmitted, if it is played, broadcast or transmitted at all by the one or more speakers/audio drivers included in the enclosure.

In some embodiments of the invention, the audio content from the one or more microphones may not be transmitted or replayed/rebroadcast by the one or more speakers/audio drivers in the enclosure, but rather one or more masking signals can be broadcast by the one or more speakers/audio drivers in the system, with one such effect being that it can be more difficult to determine audio content other than the masking signal(s) from recordings or content captured by one or more microphones in any device or devices protected by the privacy/security enclosure. In some embodiments of the invention, the masking signal can be deterministic, while in others it can be truly random or pseudo-random, and in one or more of these examples, the frequency of the masking/jamming signal(s) can be tuned or filtered to a profile such as white, blue, pink, gray or some other such noise or frequency profile as described herein.

In some embodiments of the invention, the user can activate, deactivate, tune or change the level, volume, power or capabilities of the electronic audio repeating and/or masking/jamming capability through the use of switches, buttons or other such physical interface included in or with the enclosure, while in other embodiments of the invention, such features or capabilities can be activated, deactivated, tuned or changed by movements, motion, remote control(s) such as RF, infrared, or other wired or wireless technology or sound such as a spoken keyword or phrase. In some embodiments of the invention, the use of electronic audio repeating, manipulation and/or jamming, masking, attenuating or blocking can provide features or capabilities beyond just audio protection, but can include features such as amplification, audio enhancement, noise or echo canceling, audio mixing and other forms of audio manipulation to name a few.

In some embodiments of the invention, the privacy/security enclosure can be designed such that if power is lost, audio content can no longer be clearly rebroadcast//transferred to the desired microphone, but rather physical characteristics of the enclosure such as sealed pathways and others can result in a noticeable difference in audio quality, detectable by an average listener. For example, in some embodiments of the invention, if a user desires protection of the enclosure and a hacker or other party accidentally or intentionally eliminates power, and/or plugs, blocks or degrades one or more speakers/audio drivers, damages one or more seals or other physical aspects of the enclosure, or otherwise degrades the enclosure's audio jamming/masking/protective capability, the user can detect the reduction or elimination of protection during an audio call with another party. The other party can identify a change to the enclosure's protection because the audio clarity of the conversation can be degraded or different when compared to the audio quality provided when the enclosure is operating correctly. Such degradation or other audio clarity change can be accomplished using proprietary techniques described herein or a variety of techniques well-known to one of ordinary skill in the art.

In some embodiments of the invention, microphone(s) included with the enclosure can be placed such that they are directional can be of higher or lower quality than microphone(s) in the protected device(s). Alternatively, they can include capabilities or features that increase or decrease audio performance when compared to that provided by the enclosed or protected device(s) native microphone(s). In other embodiments of the invention, the transfer function of recorded and replayed audio content can be changed, can be different, or can be optimized for performance in different environments, settings or conditions, for different times of day or for different/varying speakers (e.g. male, female, young, old, loud or soft-spoken individuals, accents etc.). In other embodiments of the invention, the transfer function of recorded and replayed audio content can be changed, distorted, replaced, translated or otherwise modified for various purposes including, but not limited to, protection, communication, fun, novelty or performance.

In some embodiments of the invention, when the privacy/security enclosure's protection is activated, the embedded microphone(s) are disabled or are otherwise prevented from delivering any usable detected, captured or recorded audio content. In some embodiments, this can be achieved by techniques such as eliminating power or turning off/deactivating, disregarding any content detected or captured, physically or electronically disconnecting or blocking any path(s) to any associated speaker/audio driver, or by other conventional methods.

In some embodiments of the invention, the use of electronic audio repeating, manipulation and/or jamming, masking, attenuating or blocking can result in benefits such as reduced cost to design and manufacture, reduced assembly complexity, reduction or elimination of moving parts, increased cycle life, durability, repeatability and control, reduced size/weight and other such benefits when compared to purely mechanical methods of attenuating, blocking or jamming/masking audio content or applying such capabilities to microphone(s) contained by protected device(s).

Some embodiments of the invention can integrate and connect with software running on enclosed or other device(s), communicating via wired or wireless connections. For example, in some embodiments of the invention, a connection to an enclosed smartphone via wireless or wired connection to a data port can allow interaction with a mobile app to provide any of numerous functions, including private or secured messaging and communications, secure token capabilities, monitoring and manipulation or protection of data and data transmissions etc. In some embodiments of the invention, one or more totally dedicated and independent set of mechanical and electrical/electronic components (e.g., microprocessors, microcontrollers, memory, storage etc.) and/or pathways between such electrical/electronic and/or mechanical components can exist to provide a certain set of features, functions and/or interactions. In some embodiments of the invention, the existence of such isolated and dedicated components and pathways can eliminate, minimize or reduce the risk or ability of accidental or intentional manipulation, reduction or elimination of one set of features or capabilities by any individual, software or hardware interacting with, accessing or using another.

In some embodiments, the privacy/security enclosure can mount directly or through a clamping interface. In some embodiments, the privacy/security enclosure can be positioned on the user's device so that the internal microphones are covered and sealed from the external audio environment. In some embodiments, privacy/security enclosure can include microphone transducers to sense the external audio environment and electronics to process captured sound as needed. The device can also be used with laptops, tablets and devices that contain cameras, microphones or other such sensors). In some embodiments, the extension of privacy/security can comprise isolating audio and/or video from the user's device. In some embodiments, the level of privatization can be partial in that some components or devices of a user's device remain non-private and others are private. For example, in some embodiments, a movable portion or section of the privacy/security enclosure can be moved with respect to another portion or section of the privacy/security enclosure to cover and make private a webcam but leave open a microphone.

In some embodiments, removing power from the privacy/security enclosure can turn off the capture and/or rebroadcast of audio content, resulting in a detectable change on the quality, fidelity, volume, clarity or other such sound characteristic when engaging in phone calls or any other microphone application, with such change providing an additional level of security on the system operation as the change can indicate the loss of power, intentional or otherwise.

In some embodiments, plugging, disabling, damaging, changing or blocking a privacy/security enclosure's speaker(s) or broadcast pathway can reduce, attenuate or even effectively eliminate the protected device(s)' audio capture, effectively disabling or impacting audio applications of a protected device(s). In some embodiments, damaging or changing a privacy/security enclosure seal can cause a noticeable audible anomaly by introducing a separate and time-different input to the user's device microphone (e.g., an echo).

In some embodiments, the privacy/security enclosure can provide an option for using a forward or other directionally directed microphone(s) for better audio coupling as compared to the microphone(s) native to the protected device(s). Further, in some embodiments, the privacy/security enclosure electronics can be used to optimally shape the microphone/speaker transfer function. In some embodiments, the electronic privacy/security enclosure device can be more slender than a manually controlled privacy/security device and can be mechanically coupled to the protected device.

FIGS. **329** and **331-344** show some embodiments of the invention including privacy/security enclosures for providing protection for a desktop computer. For example, some embodiments include a privacy/security enclosure **32900**, **33200**, **33600**, **33610**, **34300** that can be used to increase the privacy/security of a user when using or in the presence of a user device. In some embodiments, the privacy/security enclosure can comprise a housing assembly that can comprise a rigid, structurally self-supporting chamber that can be attached, mounted, or otherwise coupled to a user's device.

Referring to FIG. **329**, illustrating privacy/security enclosure, in some embodiments, the privacy/security enclosure privacy/security enclosure **32900** can also include devices for generating noise and directing the output to encapsulated speakers. Further, in some embodiments, switching between feeding the speakers with noise and external audio is accomplished with a single button press (control switch **32925**). For example, the privacy/security enclosure **32900** can comprise a main housing **32905** including a primary portion **32907** and a coupled secondary portion **32909**. An upper portion **32911** can include microphone **32915** and a speaker **32920**. The primary portion **32907** can include a microphone **32916** and speaker **32922**. The control switch **32925** can be positioned in the upper portion **32911**, and a power connector **32930** can extend into the end **32908**.

Some embodiments of the invention include methods to determine the functional status of the privacy/security enclosure. In some embodiments, an application running on a user's computer or other protected device can connect to the protected device's microphone output(s) and measure the signal level(s). In some embodiments, the amplifier to the privacy/security enclosure speaker(s) can be turned off (via a user interface element) so that no sound is emitted by the privacy/security enclosure speaker(s). The protected device's application can "listen" to the output of the device's microphone(s) while outputting audio through the device's speaker. In some embodiments, if the signal measured by the device's microphone is below a predetermined threshold, the mechanical seal of the privacy/security enclosure is properly blocking external audio from the device's microphone(s). The user can be alerted to proper isolation by the device's application.

In some further embodiments, a second and/or third or more microphone(s) can be installed inside the privacy/security enclosure. If the privacy/security enclosure is properly sealed, the extra microphone outputs can be compared to a predetermined threshold within the privacy/security enclosure electronics. In some embodiments, if this threshold is not exceeded, the privacy/security enclosure is determined to be properly sealed. In some further embodiments, the output from the extra microphone(s) can be altered by an electronic filter or signal processing algorithm within the privacy/security enclosure electronics so that the audio signal(s) from the extra microphone(s) can be optimized versus the predetermined threshold used for determining the effectiveness of the mechanical isolation seal. Some other embodiments can include the privacy/security microphone(s) sampling the external environment as a trigger for determining when to sample the threshold comparison described above.

Referring to FIG. **330** illustrates a schematic of a privacy/security system **33000** in accordance with some embodiments of the invention, and FIG. **331** illustrates a system schematic **33001** of a privacy/security system **33000** in accordance with some embodiments of the invention. In some embodiments, privacy/security enclosure **33000** can comprise privacy/security enclosure **33001** including a microphone **33020** coupled to electronics **33010**. A speaker **33030** can be coupled to the electronics and be configured to interface with a computer **33005**. The computer **33005** can comprise an application **33050** coupled to a speaker driver **33060** that is coupled to a speaker **33070**, and can be coupled to a microphone software driver **33040** coupled to a computer microphone **33045**. In some embodiments, the privacy/security enclosure **33001** can include an extra microphone **33075** as shown in FIG. **331**.

FIGS. **332-344** illustrates views of privacy/security enclosures showing portions of the internal structure including a movable portion or section of the privacy/security enclosure can be moved with respect to another portion or section of the privacy/security enclosure to adjust the coverage (and therefore the privacy/security level) of the privacy/security enclosure mounted or coupled to the user's device (e.g., a computer or display monitor as shown in the example embodiment of FIG. **329**). The example embodiments of the invention include some cross-sectional and partial views including various latching mechanisms and structures that are configured to enable a user to control movement of a portion of the privacy/security enclosure that can affect the level of privacy and security the device provides to a user. For example, FIGS. **332-335** illustrate cross-sectional views of a privacy/security enclosure **33200** incorporating internal assemblies to enable a user to open a hood **33210** using a "push down" action in accordance with some embodiments of the invention. A user-actuated latch mechanism **33217** is shown extending within the housing **33205** of the privacy/security enclosure **33200**. In some embodiments, the latch mechanism **33217** includes a coupled tab or button **33212** that extends outward from an aperture **33211** in the front face **33215** of the housing **33205** of the privacy/security enclosure **33200**, and a latch arm **33228** with a catch element **33232** coupled to a pivot **33225** and configured to couple with a spring-assisted strut **33230** for extending or retracting a hood **33210** of the privacy/security enclosure **33200**. The user can initiate movement of the hood **33210** by pressing the button **33212**. The spring-assist (with spring **33240** shown in FIG. **333**) can enable the hood **33210** to be extended with little or no interaction by the user. In other embodiments, the spring **33240** can assist the user extending the hood **33210**. The return of the button **33212** can be assisted by the spring **33218**.

Another example embodiment is shown in FIGS. **336-342** illustrating cross-sectional views of a privacy/security enclosure **33600** incorporating internal assemblies to enable a user to open a hood **33210** using a "push up" action in accordance with some embodiments of the invention. The alternate embodiment includes a latching mechanism **33617** operating the hood **33610** extended out or away from the housing **33605** that can be controlled by pulling or pushing the tab or button **33612** upwards (i.e., toward the top surface **33606** of the hood **33610**). In this configuration, the tab or button release spring **33608** is located in the upper portion **33607** of the housing **33605**, and positioned to be compressed when a user applies force to the tab or button **33612** by moving the tab or button **33612** towards the upper portion **33607** of the hood **33610**. A return action can be assisted by spring **33608**. In this instance, the latch arm **33618** rotates in a clock-wise direction about the pivot **33625**, rather than in an anti-clockwise direction shown for the embodiment in

FIGS. **332-335** described above. The latch arm **33618** of the user-actuated latch mechanism **33217** is shown extending within the front face **33615** of the housing **33205** of the privacy/security enclosure **33600**. In some embodiments, the coupled tab or button **33612** extends outward from an aperture **33611** in the front face **33615** of the housing **33605** of the privacy/security enclosure **33600**, and a latch arm **33628** with a catch element **33632** coupled to a pivot **33625** and configured to couple with a spring-assisted strut **33630** for extending or retracting a hood **33610** of the privacy/security enclosure **33600**. The user can initiate movement of the hood **33610** by pulling the button **33612** upwards towards the top surface **33606** of the housing **33610**. The spring-assist (with spring **33640**) can enable the hood **33610** to be extended with little or no interaction by the user. In other embodiments, the spring **33640** can assist the user extending the hood **33610**.

FIGS. **338-342** illustrates a cross-sectional views of a privacy/security enclosure **33600** including opening hood stage **33601**, locked hood stage **33602**, latch release stage **33603**, latch return stage **33604***a*, and re-latch stage **33604***b*. The stage **33601** shows a latch mechanism **33617** in a stayed position. The stage **33602** shows the hood **33610** lowered and locked. The stage **33603** shows the hood **33610** releasing following pull up of the button **33612**. The stage **33604***a* shows the hood **33610** raised, and the latch **33618** return. The stage **33604***b* shows the button **33612** push down to relatch with a lead-in on the latch foot (shown as **33630**).

FIGS. **343** and **344** illustrate perspective views of a privacy/security enclosure **34300** including adjustable shutter **34330** and showing the tab or button **34355** extending from the front face **34310** of the housing **34505**, with the hood **34350** in the closed position (FIG. **343**) and the open position (FIG. **344**). In some embodiments, a user can apply pressure to the tab or button **34355** to at least partially rotate the latch arm of the latch mechanism about a pivot point described above. This action can cause the latch arm to disengage or move (assisted by the spring) to cause the hood **34350** to move outward from the housing **34305**. In some embodiments, the actions described can be reversed by a user applying force to the top surface **34352** of the hood **34350** to force the hood **34350** inward towards the housing **34305**, compressing the spring, and causing the latch arm to latch to a spring-assisted actuator.

In some embodiments, any protected device's microphone(s) can be mechanically isolated to some extent from external audio sources via a mechanical seal, and a small speaker (e.g., such as a hearing aid speaker) can be placed inside the mechanical seal, tightly coupled to the protected device's microphone(s). In some embodiments, speaker drive electronics can be used to send an audio signal to each privacy/security enclosure speaker. Further, in some embodiments, the driver circuit can be used to send a pink, white or other noise signal to the speakers. In some embodiments, this noise signal can be enabled and the microphone is disabled when the user selects to block/reduce audio by masking some or all of any remaining external audio not blocked by mechanical seals from reaching the protected device's microphone or microphones.

In some embodiments of the invention, one or more microphones in the privacy/security enclosure can be exposed to the external environment. In some embodiments, these microphones can be enabled when the user chooses to allow the protected device's microphone(s) to listen to the external environment. In some embodiments, when enabled, the signal from the privacy/security microphone is amplified such that it can drive the speaker or speakers described above.

In some embodiments of the invention, the output signal from the microphone can be electronically filtered by frequency to either enhance or equalize the frequency response of the system when played through one or more speakers as described above. In some embodiments, the enhancement or equalization can compensate for the frequency response of the speaker. In one embodiment, this compensation can cancel out speaker resonance so that overall system frequency response from microphone input to speaker output is equalized as closely as possible to a generally flat spectrum or some other such desired profile within a certain frequency range. In some embodiments of the invention, output from microphone(s) and/or outputs from signal filtering or other form of change/manipulation to the output of a microphone(s) can be de-amplified before being sent to a speaker for broadcast in order improve the quality of the audio picked up by the targeted microphone. Playing the speaker at low volume can facilitate the ability of a closely coupled microphone(s) to get a good signal and not overwhelm, saturate or otherwise negatively impact the quality of such detected/recorded signal.

In some embodiments, power to the privacy/security enclosure can be provided using a USB cord from the privacy/security enclosure connected to an AC/DC USB power block at an AC outlet and to a USB power compatible input on privacy/security enclosure. Alternatively, the privacy/security enclosure can be powered via a USB port on the computer or associated device (or via a standalone USB power block). In some embodiments, plugging in the USB cable can automatically turn on the unit. Alternatively, the unit can be turned on or latched on via a pushbutton.

Some further embodiments include a disposable lithium coin cell used to power the privacy/security enclosure. In some embodiments, a rechargeable battery can be used to power the privacy/security enclosure. In some embodiments, this battery can be of any standard rechargeable battery type. In some embodiments, a single-celled lithium ion battery can be used. Further, a USB cable can be used to provide charging power to the privacy/security enclosure.

Some embodiments of the invention include privacy/security enclosures that enable DC power pass-through while maintaining a highly functional Faraday cage. For example, FIG. **345** illustrates a circuit diagram **34500** for a DC pass-through in accordance with some embodiments of the invention. In some embodiments, the ferrite bead **34520** can comprise a 200 MHz 0.236 length ferrite bead, such as part number FB43-226-RC (e.g., shown at http://www.digikey.com/product-detail/en/FB43-226-RC/M8700-ND/775239). Further, in some embodiments, the filter **34510** can comprise a 50000 PF C type filter, such as manufacturer part number 4300-014LF (e.g., shown at http://www.digikey.com/product-search/en?vendor=0&keywords=4300-0141f). FIG. **346** illustrates a front view of a DC pass-through assembly **34600** implementing the circuit **34500** of FIG. **345** in accordance with some embodiments of the invention, and FIG. **347** illustrates a rear view of the DC pass-through assembly **34600** of FIG. **346** in accordance with some embodiments of the invention.

In some embodiments of the invention, the capacitors of the circuit as shown are a short circuit to high frequencies such as frequencies above about 1 MHz, and the inductors (the ferrite beads) are high impedance to those high frequencies. Consequently, in some embodiments, the high frequencies have a low impedance path to the case and high impedance to pass through. Moreover, the chambered design as shown (similar to forming two small Faraday cages) can protect the wires from picking up RF radiation, while the direct current flow has a low impedance through (i.e., when powering a device) and a high impedance to the case.

In some embodiments, the privacy/security enclosure can enable charging of one or more batteries within the privacy/security enclosure with a functioning Faraday cage. Further, some embodiments also enable charging of batteries of one or more enclosed devices within the privacy/security enclosure or enclosure. Moreover, in some embodiments, charging of one or more batteries in the privacy/security enclosure and one or more batteries of at least one enclosed device can occur substantially at the same time. In some embodiments, the privacy/security enclosure can comprise one or more charging conductors or wires that pass through the Faraday cage of the privacy/security enclosure for purposes such as charging or communicating. While charging, the Faraday cage remains functional (i.e., the conductor or wire pass-through does not significantly alter the protection/attenuation provided by the Faraday cage relative to the targeted level of attenuation/protection). Further, in some embodiments, the privacy/security enclosure or enclosure can comprise at least one charging conductor or wire that passes through the Faraday cage that do not require a user to connect and disconnect separate leads on the inside and/or outside of the privacy/security enclosure.

Some embodiments include a system and method for alerting the user that the coin cell needs to be replaced or that a battery needs to be recharged. For example, in some embodiments, alerting the user to replace the coin cell can include a blinking red LED. The illumination of the LED can be modified to conserve battery power (e.g., the blink on time can be short and the blink repetition rate can be slow to conserve the remaining battery power when the system is in the low battery state.)

In some embodiments of the invention, the privacy/security enclosure can interact with hardware and/or software components of the device to block, attenuate, reduce, confuse, distort, transform, encrypt, delete, amplify, increase, add or append to, remove, change, mask or otherwise impact or modify energy levels, settings and/or data or information residing on or being sent to or from the protected or enclosed device(s). For example, in some embodiments of the invention, power can be drained from one or more of the enclosure's batteries periodically by sharing or transferring to or from one or more batteries that are part of enclosed or protected device(s) and/or batteries within the enclosed device(s). In some embodiments, the power transfer, drainage or extraction can occur at varying rates and/or at different power levels to prevent or confuse identification or fingerprinting of the protected device(s) via it's battery charge levels, rate of discharge, or other battery related statistic or information. In some other embodiments of the invention, gyroscopes, accelerometers, or any other sensor can be similarly protected via features or capabilities of the privacy/security enclosure by itself or in conjunction with the protected device(s) and/or hardware or software that is a part of or is working with the protected or enclosed device(s).

In some embodiments of the invention, when the privacy/security enclosure has more than one device enclosed, differential protection can be provided based on the location or type of enclosed device and/or protection can be provided between enclosed devices. For example, in some embodiments of the invention, a "high security" portion of the enclosure can be provided while other portions of the enclosure provide a lower level of privacy/security. Other embodiments of the invention can include multiple internal chambers, partitions or sections, each with some or all of the protective features of the others. Some further embodiments of the invention can include protection between the chambers, partitions or sections, with Faraday cages attenuating RF access between one or more sections being just one non-limiting example.

It will be appreciated by those skilled in the art that while the invention has been described above in connection with particular embodiments and examples, the invention is not necessarily so limited, and that numerous other embodiments, examples, uses, modifications and departures from the embodiments, examples and uses are intended to be encompassed by the claims attached hereto. The entire disclosure of each patent and publication cited herein is incorporated by reference, as if each such patent or publication were individually incorporated by reference herein. Various features and advantages of the invention are set forth in the following claims.

The invention claimed is:

1. A privacy/security apparatus for a portable communication device comprising:

a housing assembly configured to at least partially attenuate at least one of sound energy, acoustic energy, and electromagnetic energy including light, optical, and IR energy and RF radiation from passing through the housing assembly, the housing assembly including:

a Faraday cage comprising two or more portions, and

at least one protective shell coupled to or forming at least one aperture, the at least one aperture configured and arranged to at least partially enclose the portable communication device, wherein the at least one protective shell comprises at least a portion of the Faraday cage enabling at least a portion of the portable communication device to be positioned on or adjacent the Faraday cage;

at least one seal coupled or integrated with the protective shell;

a seed source or seed generator, the seed source or seed generator configured to generate at least one random seed;

at least one speaker or noise generator configured and arranged to generate acoustic jamming noise, the acoustic jamming noise comprising at least one audio jamming signal;

a controller circuit coupled to the at least one speaker or noise generator, the controller circuit configured and arranged to generate the acoustic lamming noise sound from the at least one speaker or noise generator based at least in part on at least one user selectable privacy setting and the at least one random seed.

2. The privacy/security apparatus of claim **1**, wherein the housing assembly includes an articulating assembly configured and arranged to articulate a portion of the housing assembly to one or more positions to enable a user to insert or enclose and remove the portable communication device.

3. The privacy/security apparatus of claim **1**, wherein the housing assembly includes a sliding assembly configured and arranged to slide a portion of the housing assembly to one or more positions to enable a user to insert, enclose or remove the portable communication device.

4. The privacy/security apparatus of claim **1**, wherein the at least one speaker or noise generator is coupled to the at least one seal and an active acoustic jamming system, and the active acoustic system is activated by the controller circuit.

5. The privacy/security apparatus of claim 1, wherein the housing assembly is configured and arranged to be movable between an open and a closed position to enable a user to insert or enclose and remove the portable communication device.

6. The privacy/security apparatus of claim 1, wherein the housing assembly comprises a sheath.

7. The privacy/security apparatus of claim 1, wherein the housing assembly comprises a hood assembly and a base assembly, the base assembly including a Faraday base assembly forming at least one of the portions of the Faraday cage.

8. The privacy/security apparatus of claim 7, wherein the hood assembly is configured and arranged to enable and disable a plurality of the portable communication device's microphones and/or cameras from receiving unjammed or unblocked audio and light energy in a single motion.

9. The privacy/security apparatus of claim 7, wherein the hood assembly is configured and arranged to reversibly apply at least one audio jammer to reversibly enable and disable at least one microphone of the portable communication device from receiving unjammed audio energy.

10. The privacy/security apparatus of claim 7, wherein the hood assembly is configured and arranged to reversibly apply at least one element to reversibly cover and uncover at least one camera of the portable communication device.

11. The privacy/security apparatus of claim 7, wherein the at least one seal comprises a seal configured and arranged to cover at least one microphone of the portable communication device irrespective of the position or movement of the hood assembly on the housing assembly.

12. The privacy/security apparatus of claim 1, wherein the at least one seal comprises an environmental seal.

13. The privacy/security apparatus of claim 1, wherein the at least one seal comprises an RF attenuation or absorbing seal.

14. The privacy/security apparatus of claim 1, wherein the at least one seal comprises at least one of a magnetic seal, an electromagnetic seal, an acoustic attenuation seal, and an optical seal.

15. The privacy/security apparatus of claim 1, wherein the at least one seal comprises a fingerstock element.

16. The privacy/security apparatus of claim 15, wherein the seal includes at least one elastomeric element positioned adjacent to the fingerstock.

17. The privacy/security apparatus of claim 16, wherein the at least one elastomeric element is positioned within at least a portion of the fingerstock.

18. The privacy/security apparatus of claim 1, wherein the housing assembly includes at least one port configured to couple with the portable communication device.

19. The privacy/security apparatus of claim 18, wherein the at least one port comprises at least one of a sound transfer port, an RF transfer port, a data transfer port, a power transfer port, and an optical port.

20. The privacy/security apparatus of claim 1, wherein the at least one protective shell includes a decorative layer or region.

21. The privacy/security apparatus of claim 20, wherein the decorative layer or region comprises at least one of a patterned surface, a window, a display, an emblem, and a logo.

22. The privacy/security apparatus of claim 1, wherein the controller circuit is configured and arranged to modulate at least one privacy/security setting selected by a user.

23. The privacy/security apparatus of claim 22, wherein the at least one privacy/security setting includes a setting that is configured and arranged to alter the magnitude of energy reaching the portable communication device through the housing assembly.

24. The privacy/security apparatus of claim 23, wherein the energy comprises at least one of sound energy, RF energy, electrical energy, electromagnetic energy, and optical and/or IR energy.

25. The privacy/security apparatus of claim 1, wherein the housing assembly includes at least one microphone.

26. The privacy/security apparatus of claim 1, wherein the housing assembly includes at least one seal configured and arranged to couple with at least one of a microphone, a speaker, a camera, a display, a sensor, and an RF antenna of the portable communication device.

27. The privacy/security apparatus of claim 1, wherein the controller circuit includes a random noise generator configured and arranged to generate a signal acoustically delivered to at least one microphone of the portable communication device.

28. The privacy/security apparatus of claim 1, wherein the housing assembly includes at least one DC pass-through configured and arranged to pass direct current through the Faraday cage.

29. The privacy/security apparatus of claim 1, wherein the housing assembly includes an onboard power supply.

30. A privacy/security apparatus for a portable communication device comprising:

a housing assembly configured to at least partially attenuate sound energy from passing through the housing assembly, the housing assembly including,

a Faraday cage comprising two or more portions;

at least one protective shell coupled to or forming at least one aperture, the at least one aperture configured and arranged to at least partially enclose the portable communication device so that at least a portion of the portable communication device is positioned within at least one portion of the Faraday cage;

a seed source or seed generator, the seed source or seed generator configured to generate a random seed;

a hood assembly integral or coupled to the housing assembly, the hood assembly reversibly slidable or extendible from the at least one protective shell from a closed position to an open position and any position between the closed and open positions;

a controller configured and arranged to enable generation of acoustic jamming noise based at least in part on at least one user-selectable privacy setting, the position of the hood assembly, and the random seed; and

wherein at least a portion of the acoustic jamming noise is configured to be delivered by at least one speaker or noise generator of the housing assembly and received by one or more microphones of the portable communication device positioned in the at least one protective shell; and

wherein the controller is configured and arranged to automatically turn off any acoustic jamming noise when the hood assembly is not in a closed position, and to automatically turn the acoustic jamming noise on when the controller is activated and the hood assembly is in a closed position at least partially enclosing a portable communication device.

31. The privacy/security apparatus of claim 30, wherein the housing assembly is configured and arranged to reversibly apply at least one element to at least one sensor of the portable communications device with a single movement of at least a portion of the housing assembly.

32. The privacy/security apparatus of claim **31**, wherein sensor comprises the one or more microphones.

33. The privacy/security apparatus of claim **31**, wherein sensor comprises at least one camera.

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