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(54) **HARDENED PAINTBALL REFILL RECEPTACLES**

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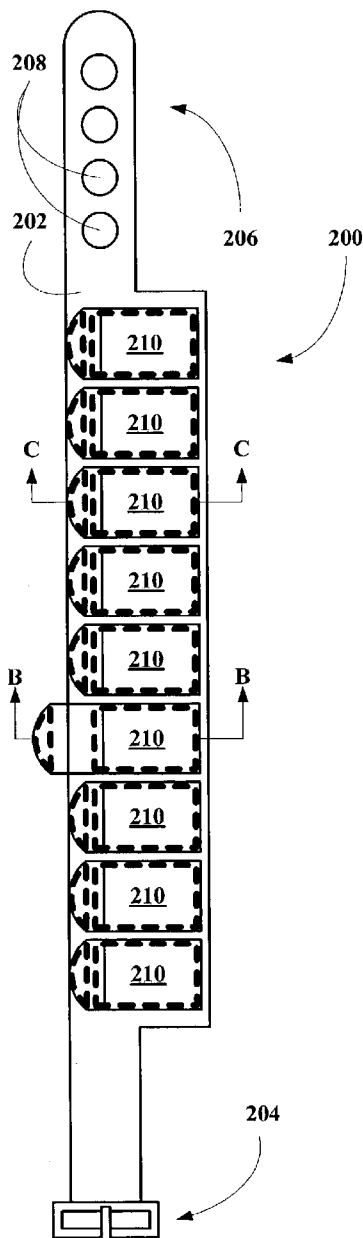
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(57) **ABSTRACT**

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A container apparatus is disclosed including a body and a receptacle having a hard shell or wall designed to protect objects placed inside the receptacle from contact with other objects. The apparatus are especially well suited for holding paintball refills or reloaders.

(21) Appl. No.: **10/430,899**



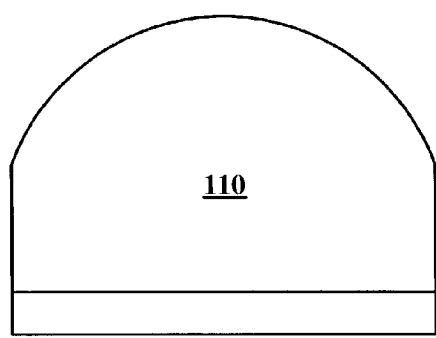
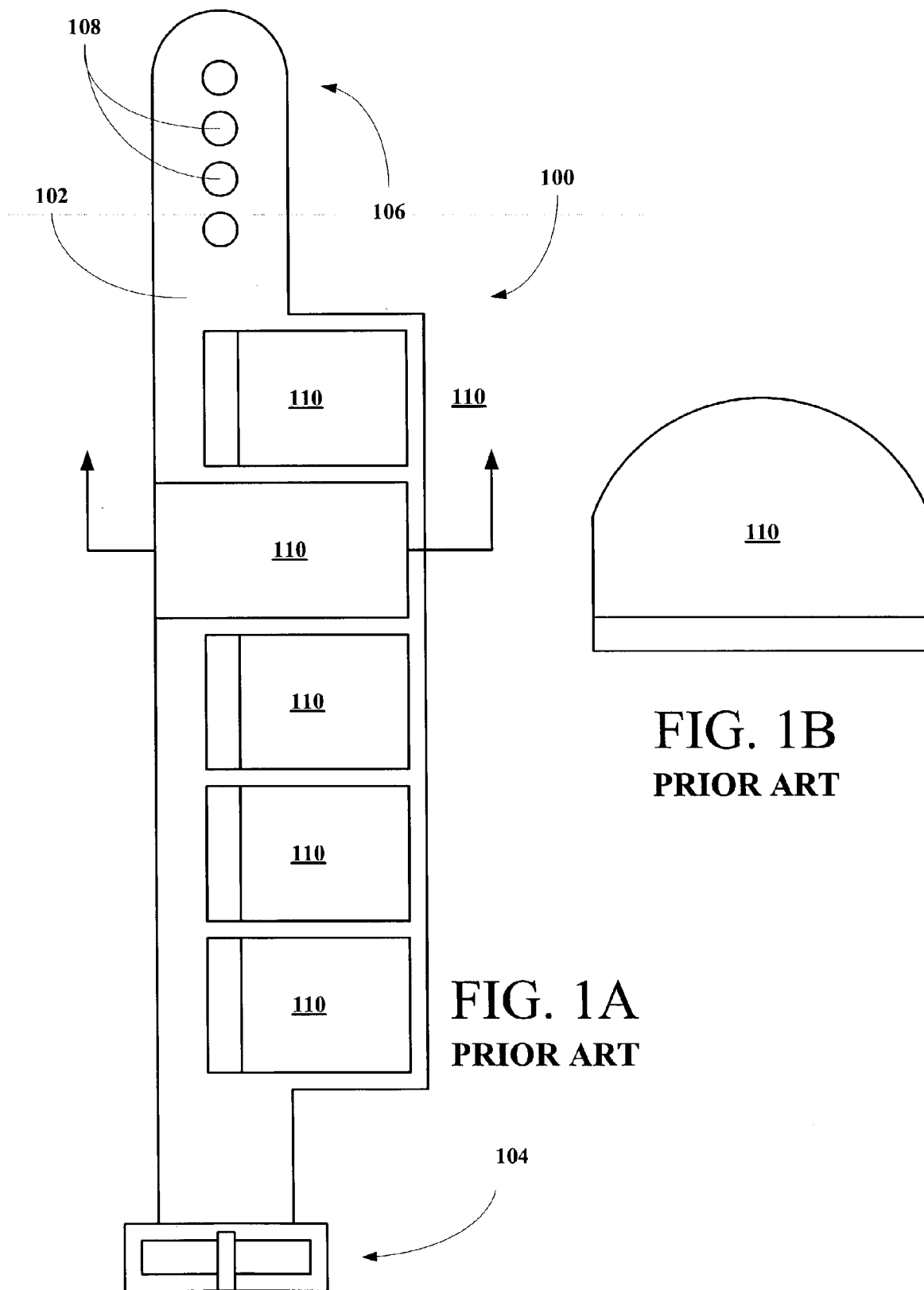


FIG. 1B
PRIOR ART

FIG. 1A
PRIOR ART

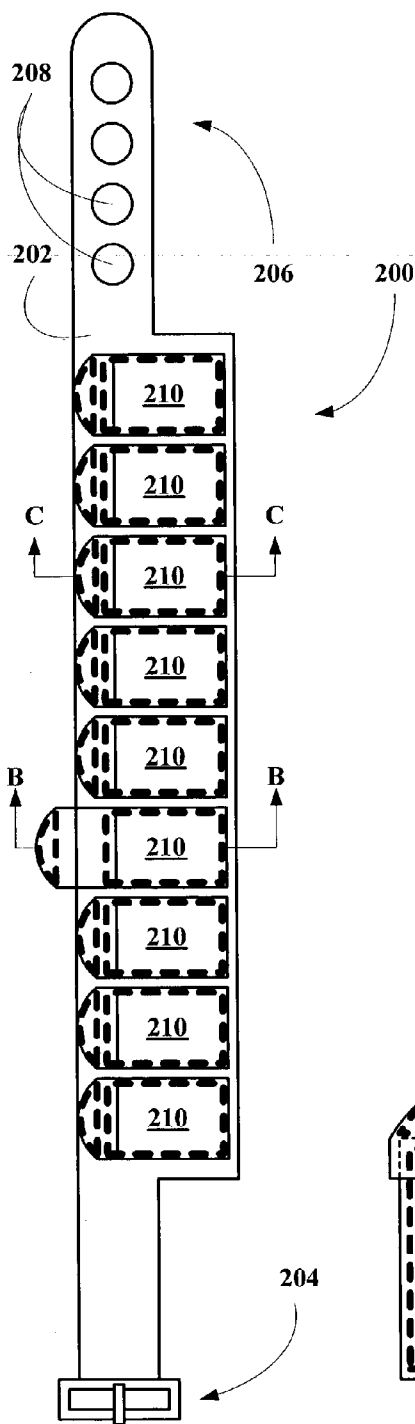


FIG. 2A

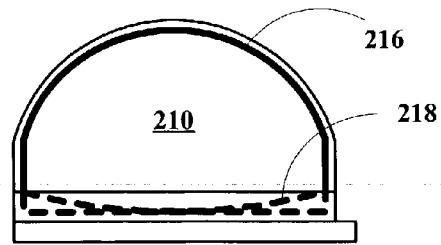


FIG. 2B

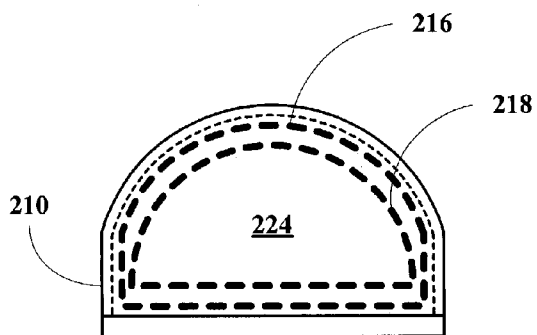


FIG. 2C

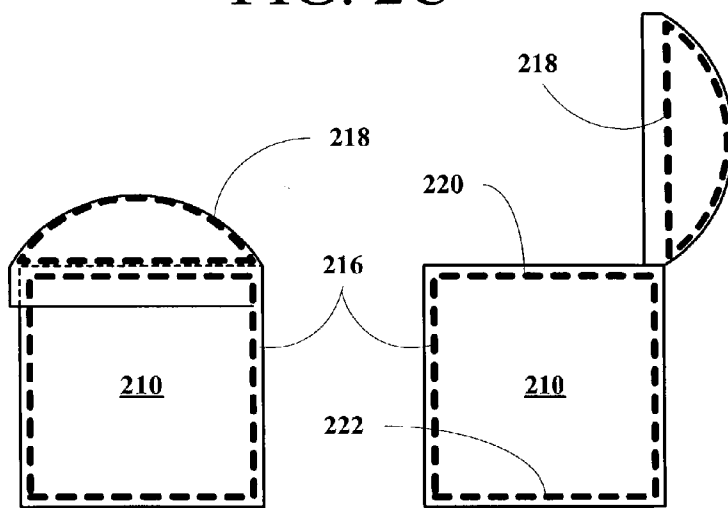
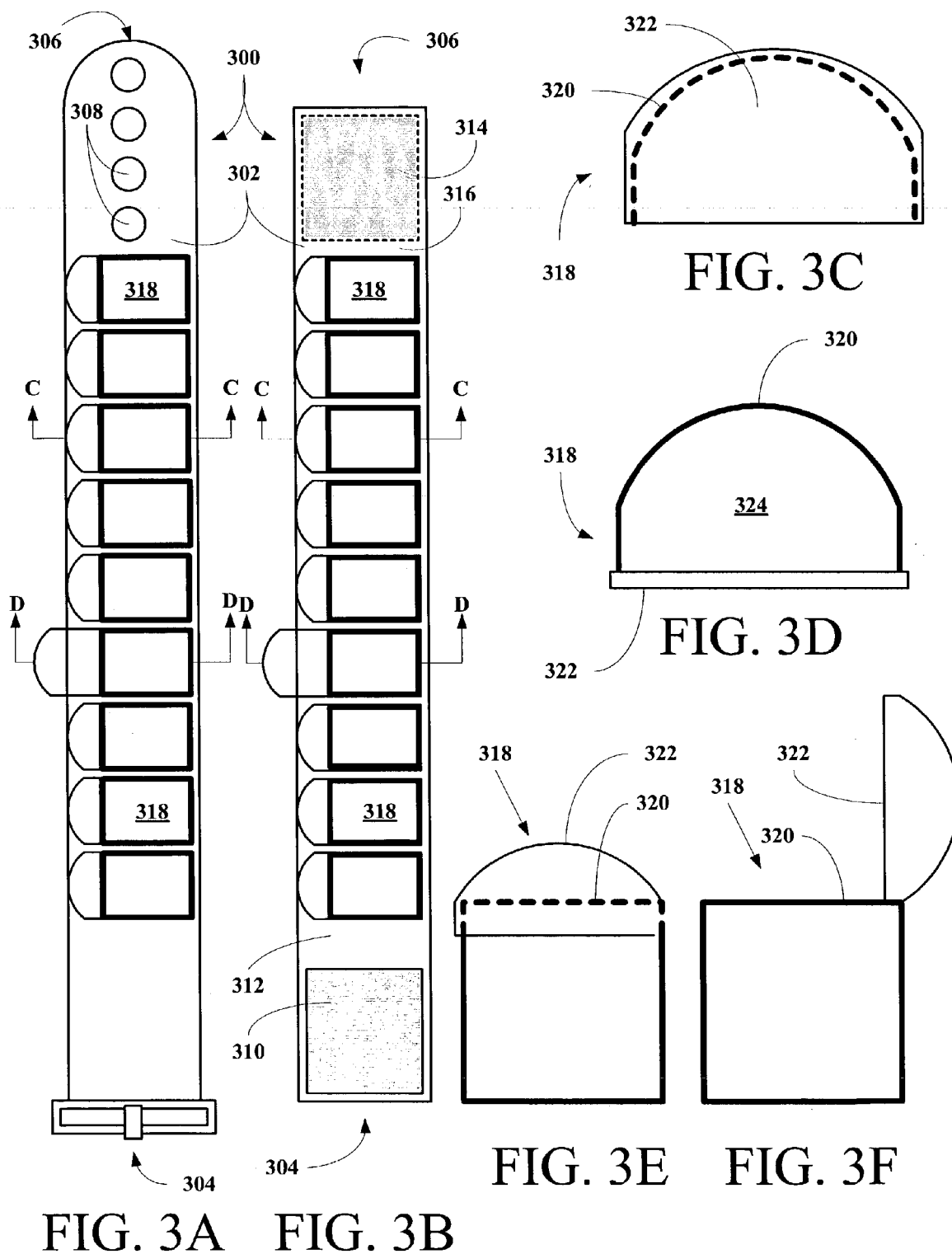


FIG. 2D

FIG. 2E



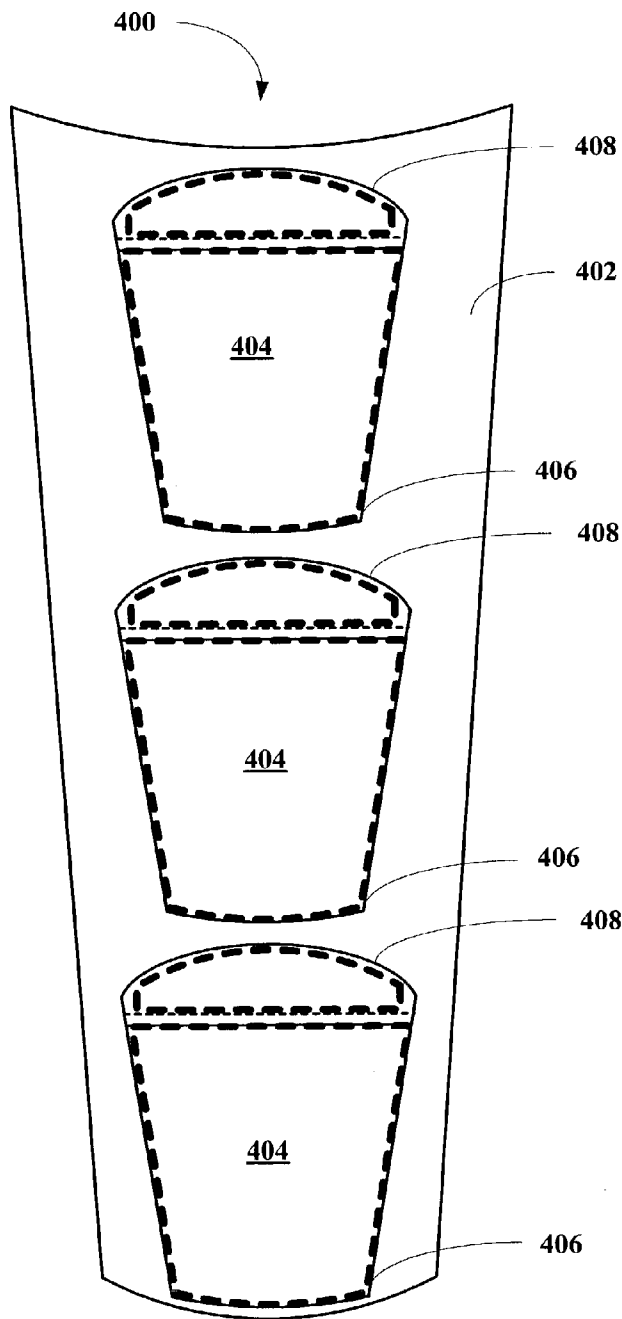


FIG. 4A

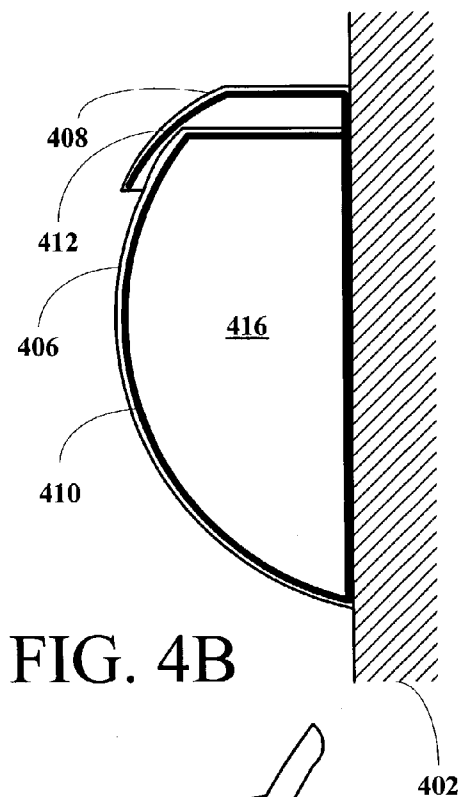


FIG. 4B

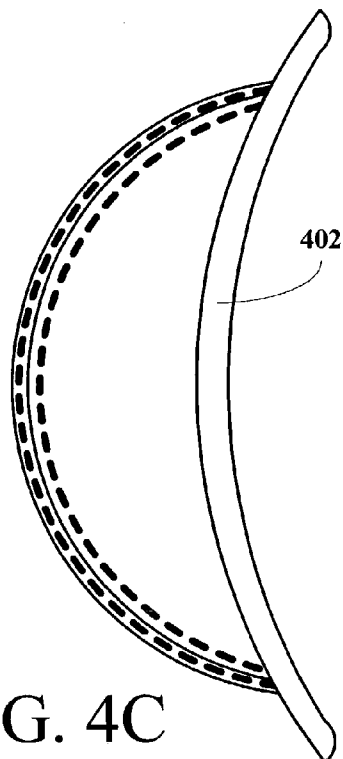
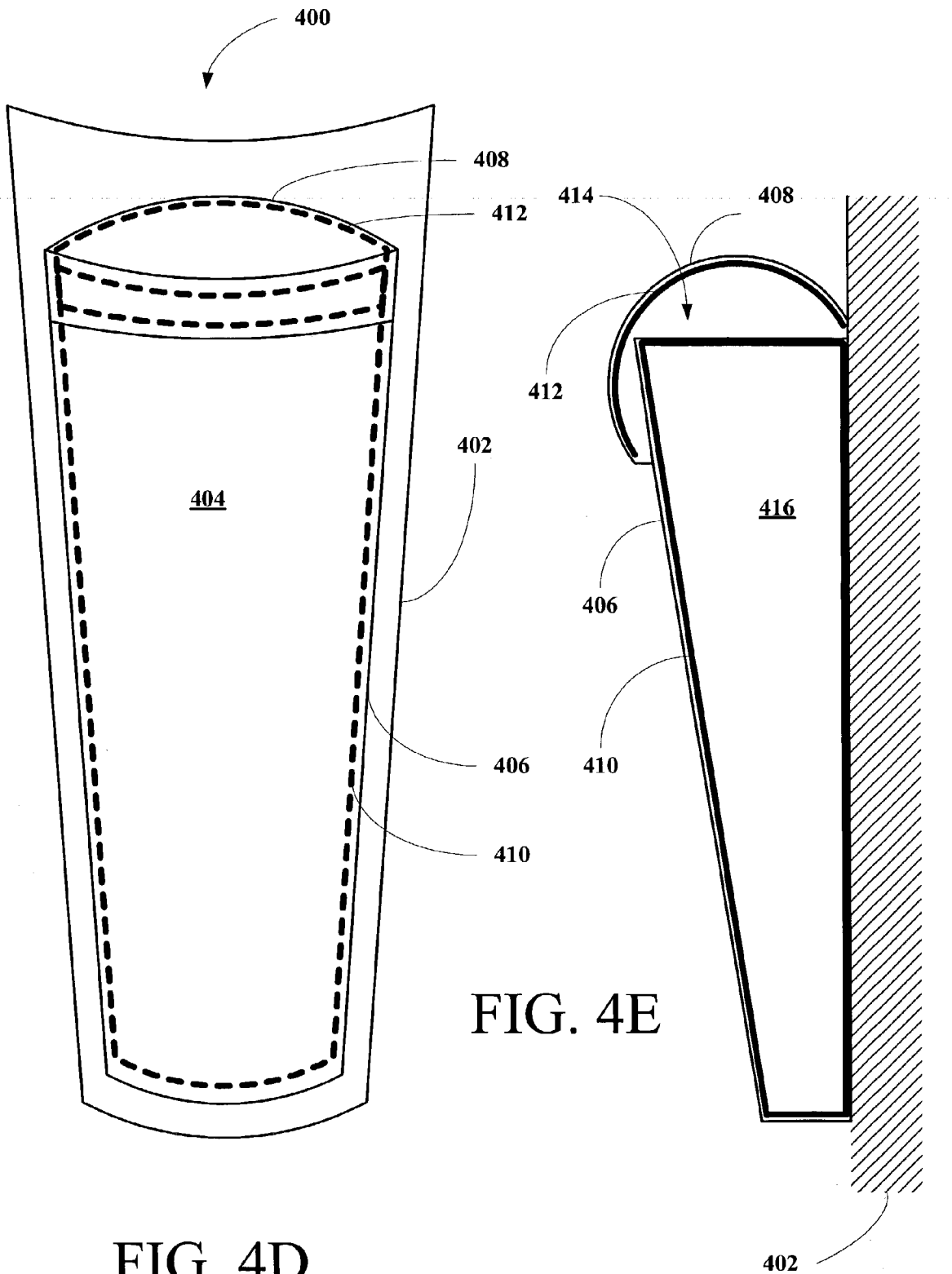


FIG. 4C



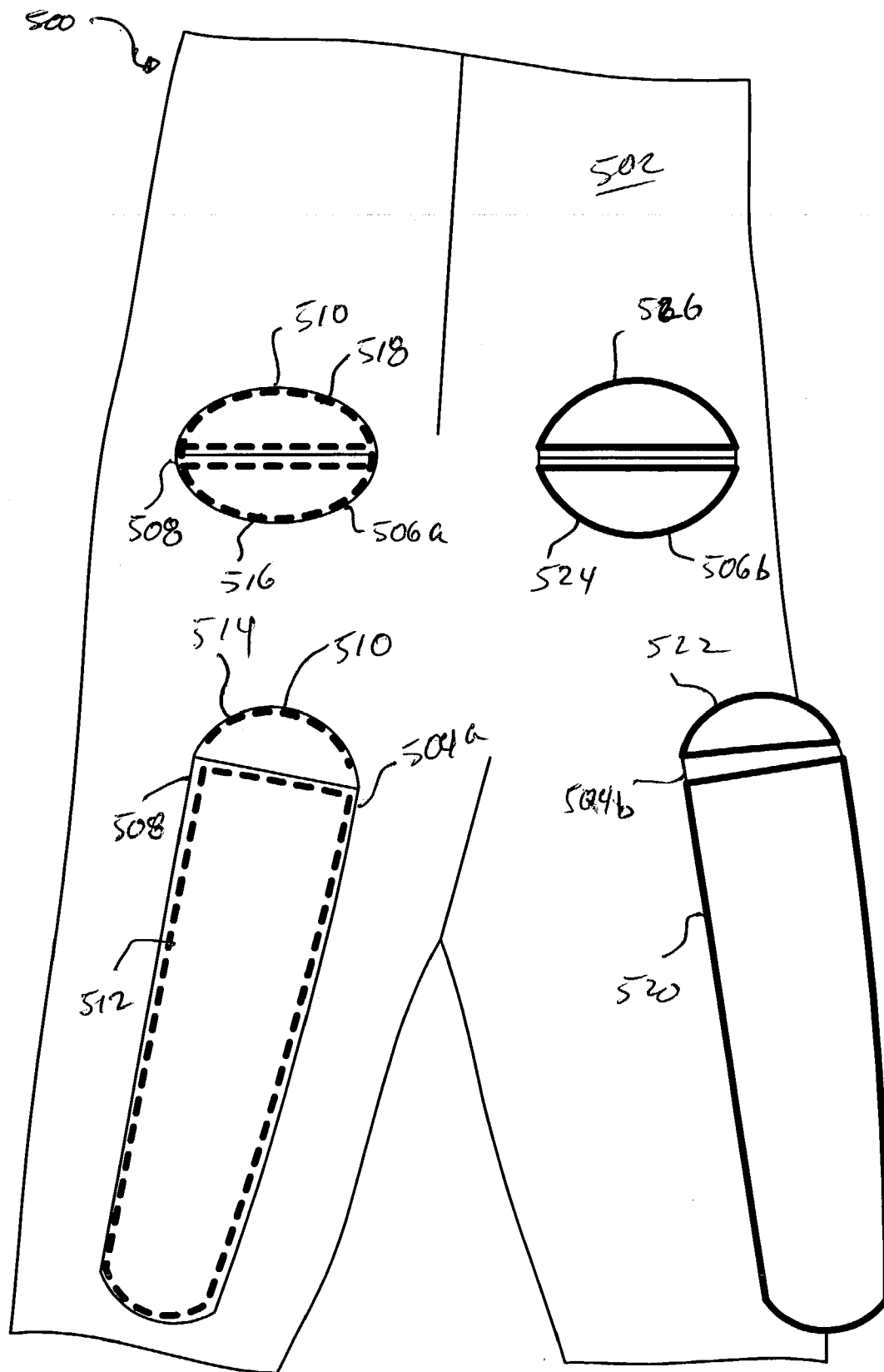


FIG. 5

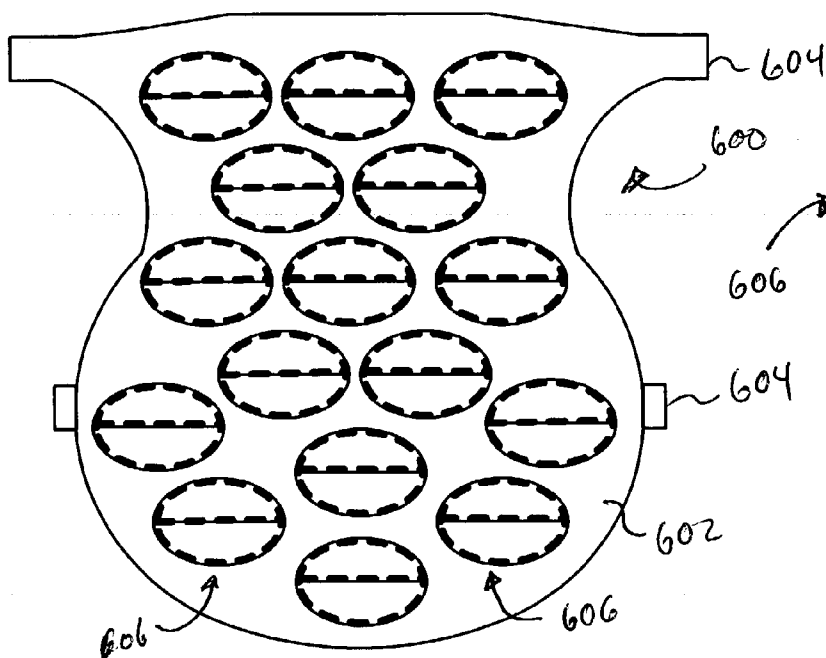


FIG. 6A

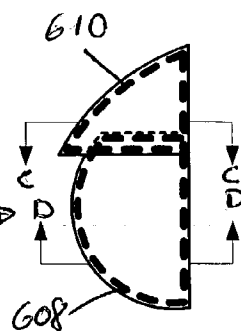


FIG. 6B



FIG. 6C



FIG. 6D

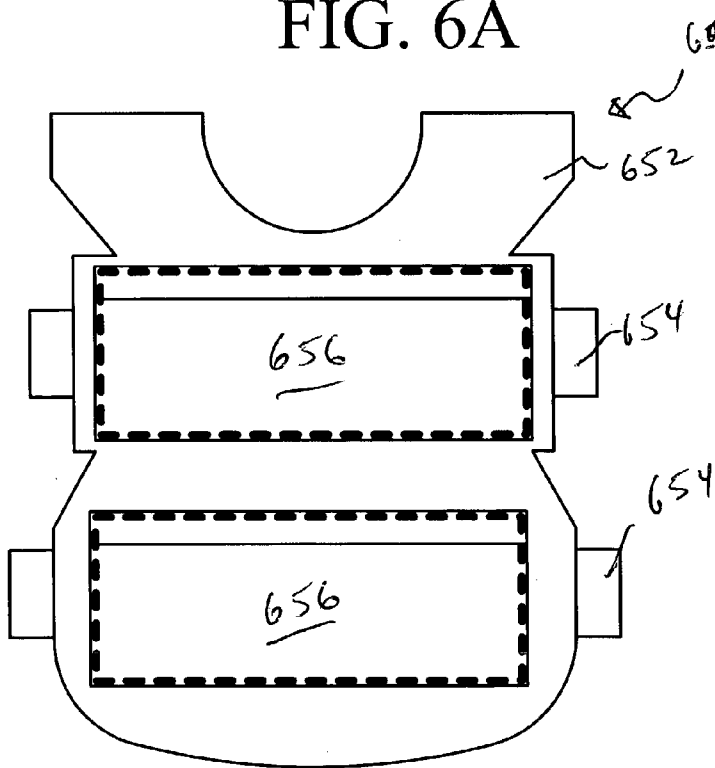


FIG. 6E

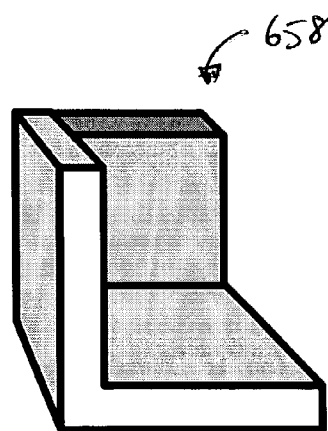


FIG. 6F

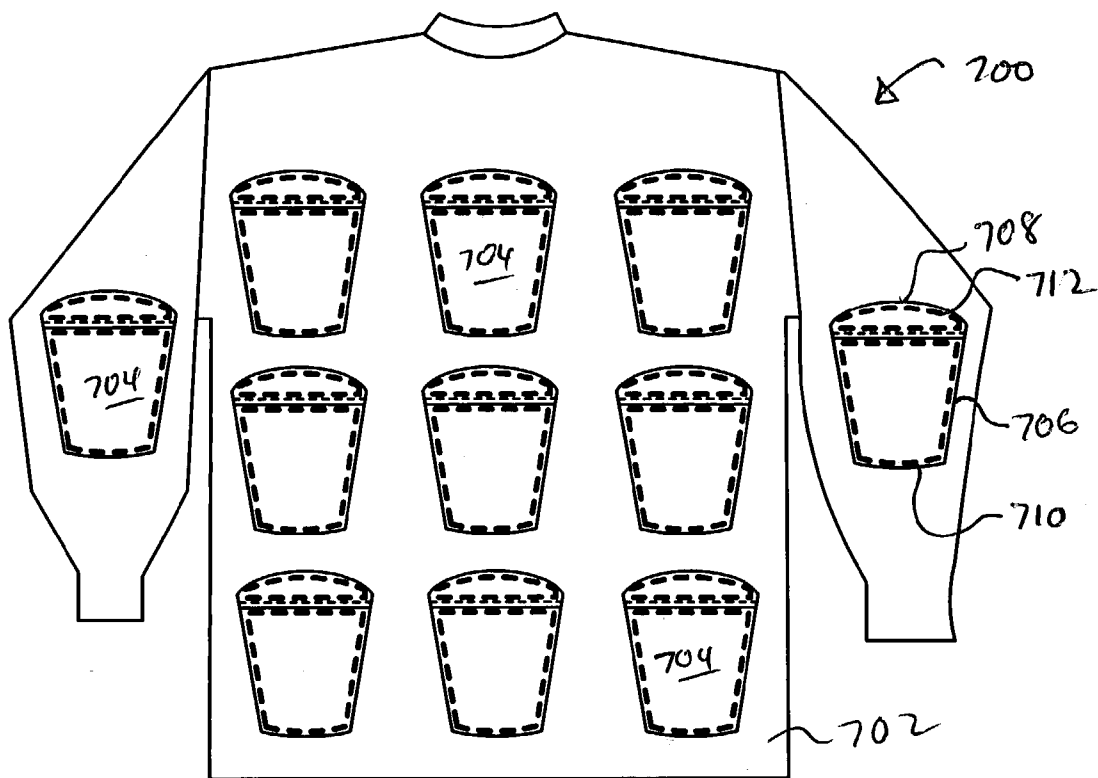


FIG. 7A

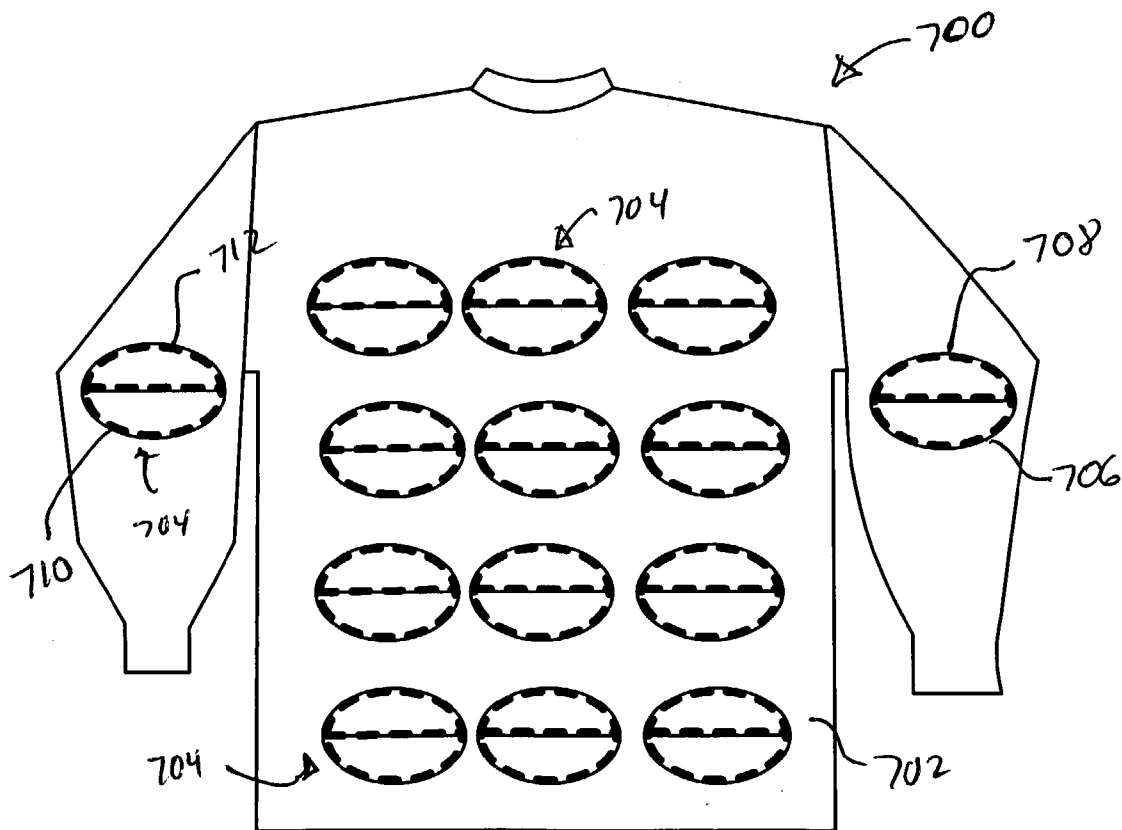


FIG. 7B

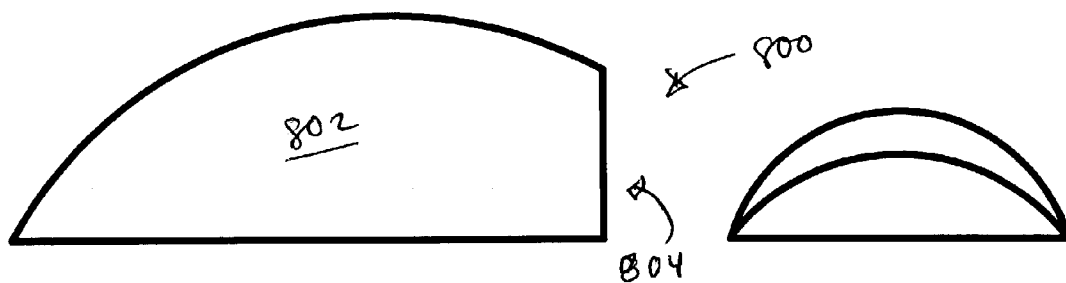


FIG. 8A

FIG. 8B



FIG. 8C



FIG. 8D

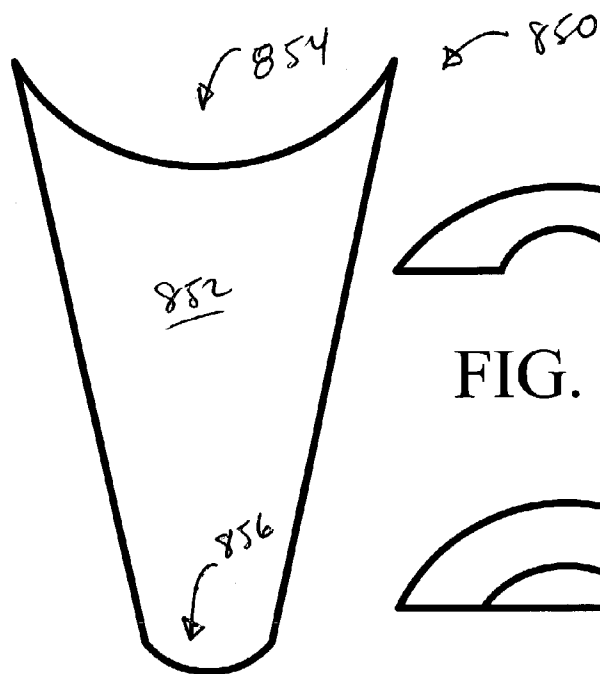


FIG. 8E

FIG. 8H



FIG. 8G

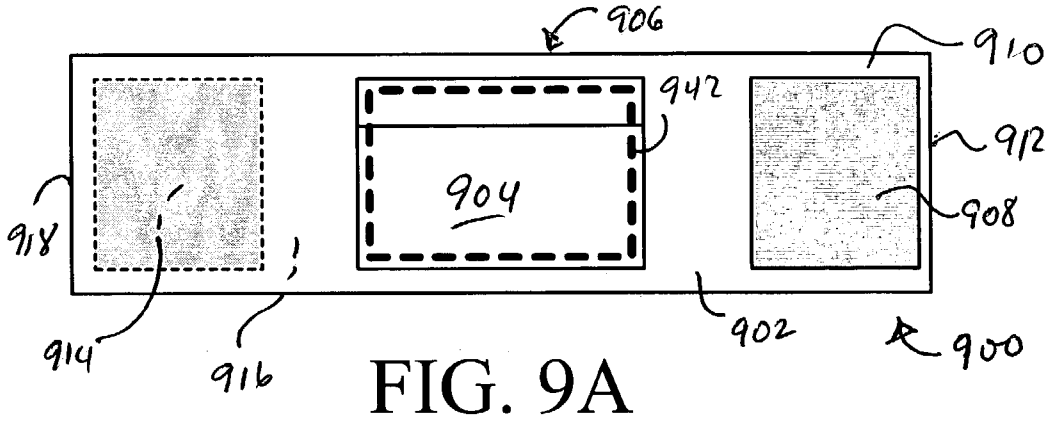


FIG. 9A

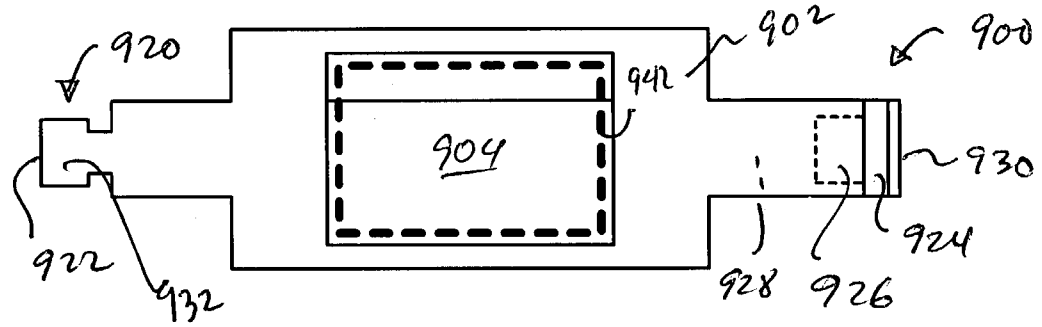


FIG. 9B

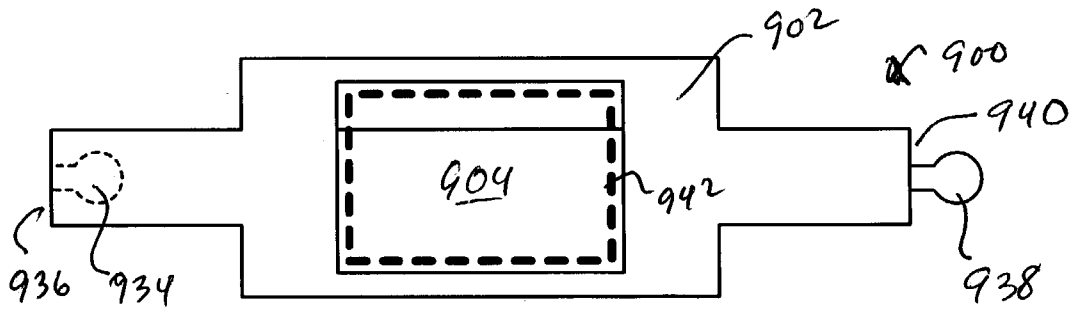


FIG. 9C

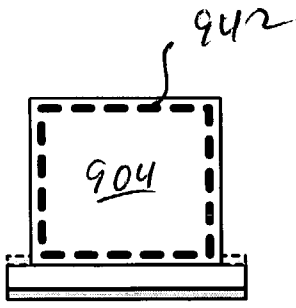


FIG. 9D

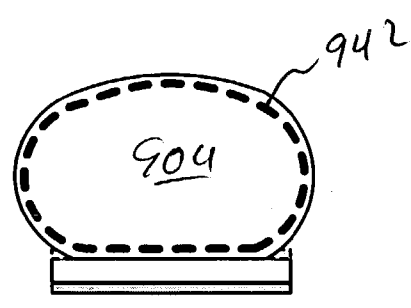


FIG. 9E

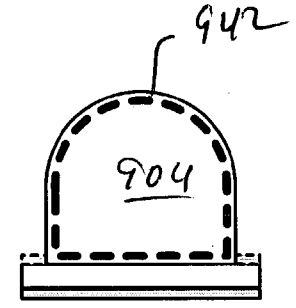


FIG. 9F

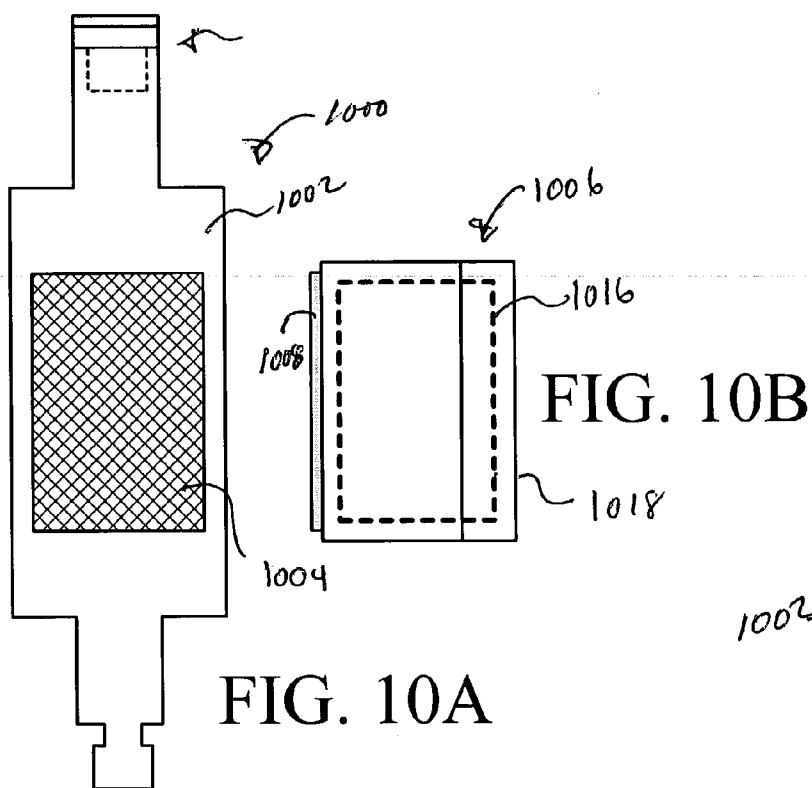


FIG. 10A

FIG. 10B

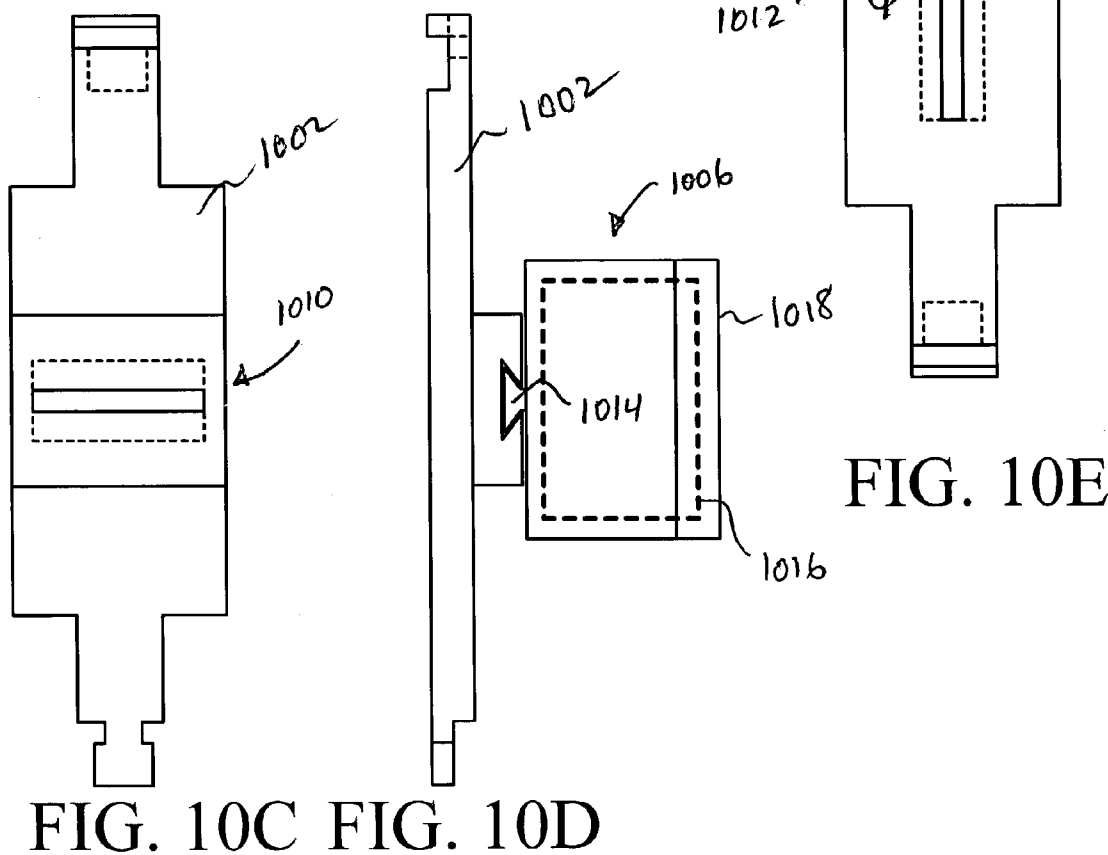
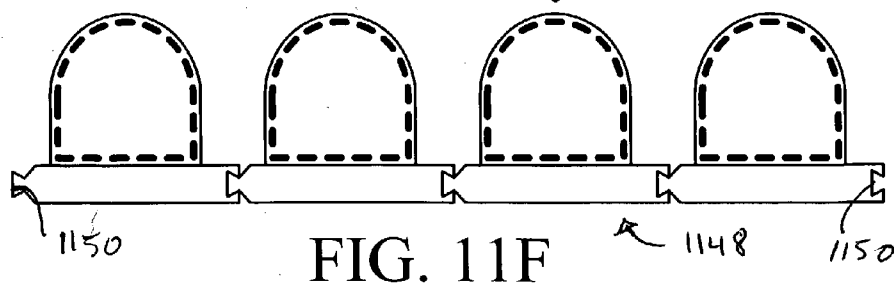
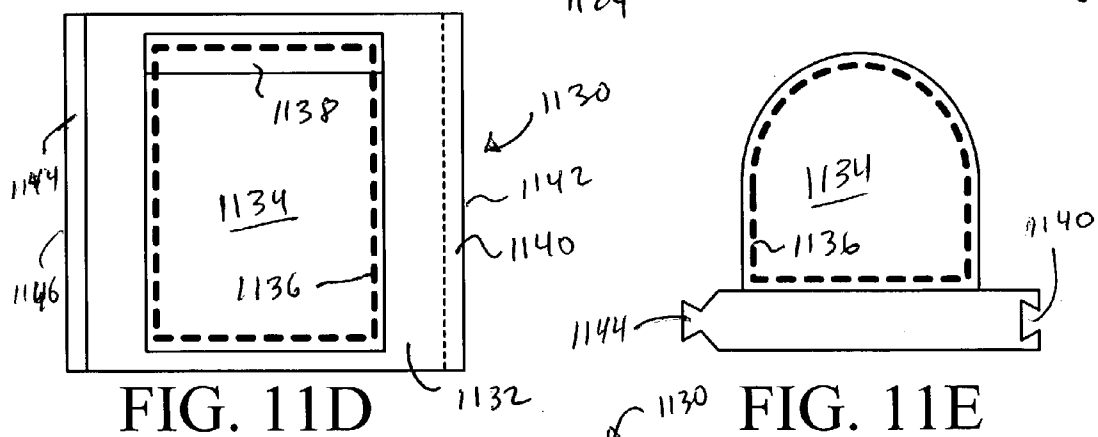
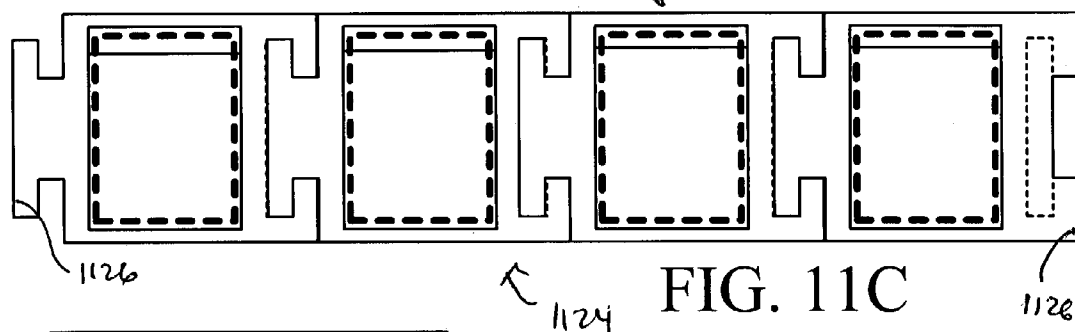
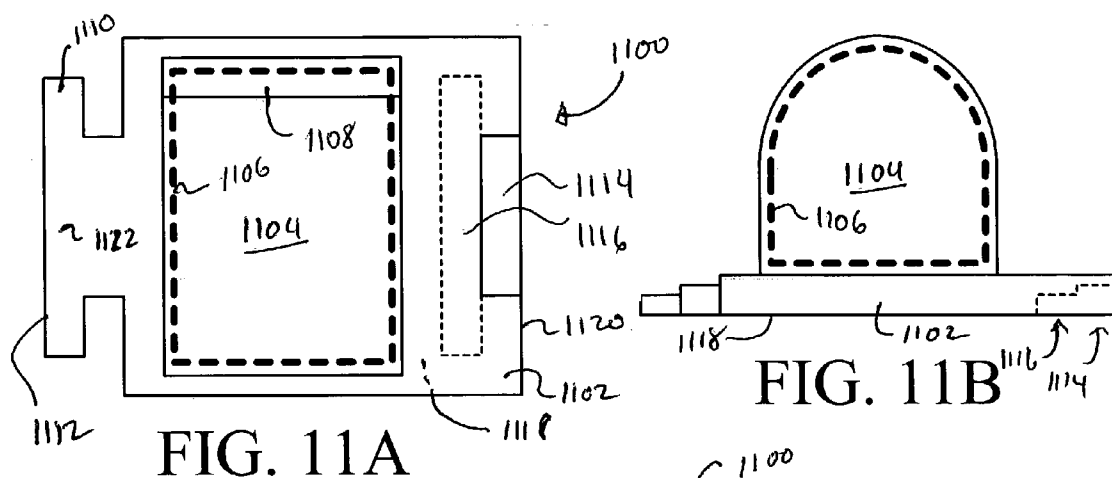


FIG. 10C FIG. 10D

FIG. 10E



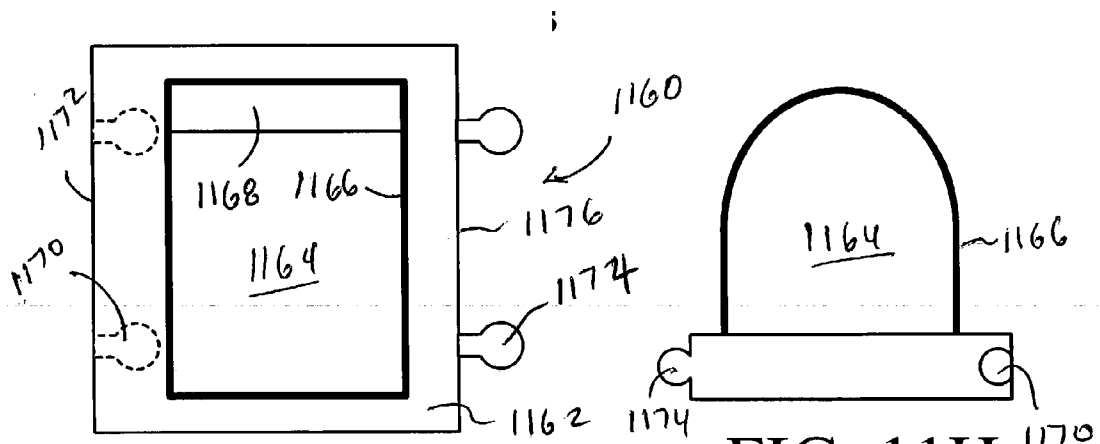


FIG. 11G

FIG. 11H

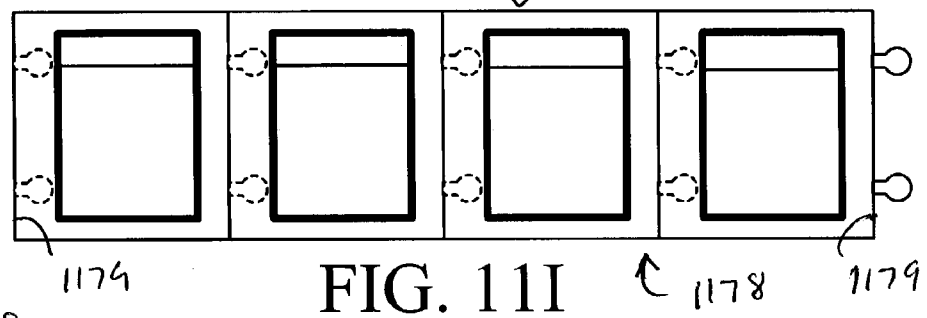


FIG. 11I

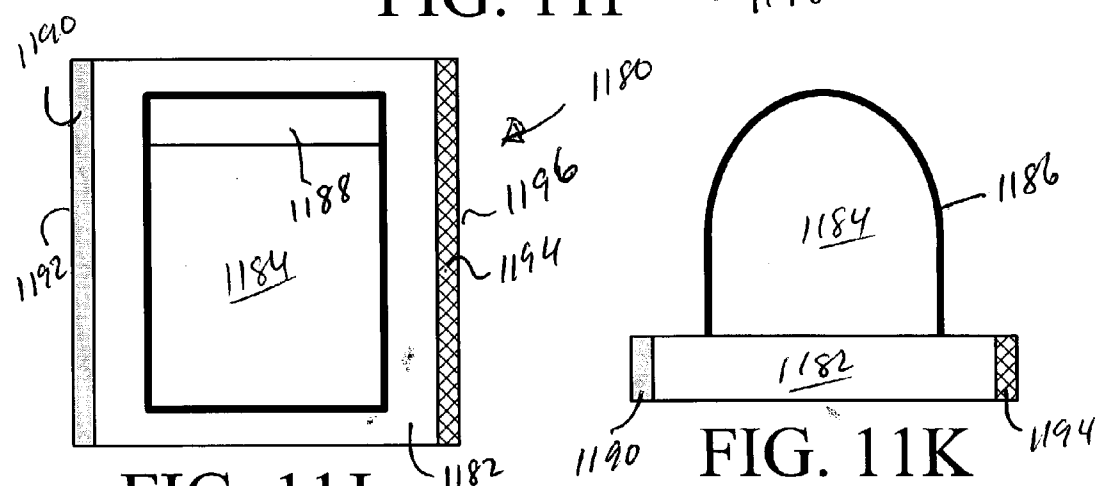


FIG. 11J

FIG. 11K

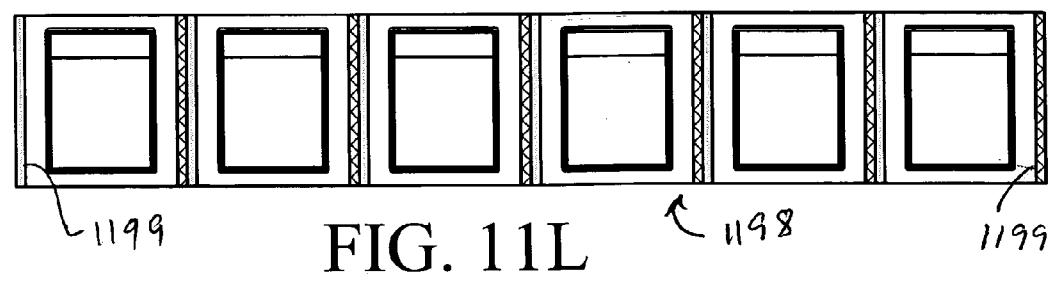


FIG. 11L

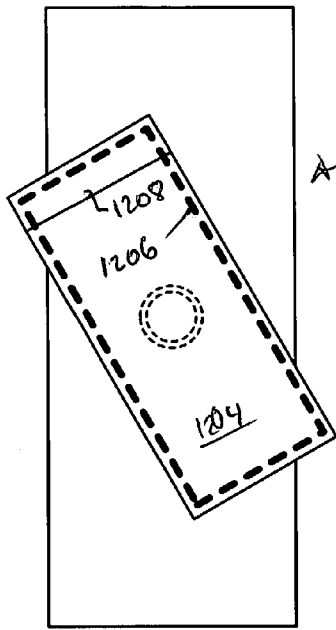


FIG. 12C

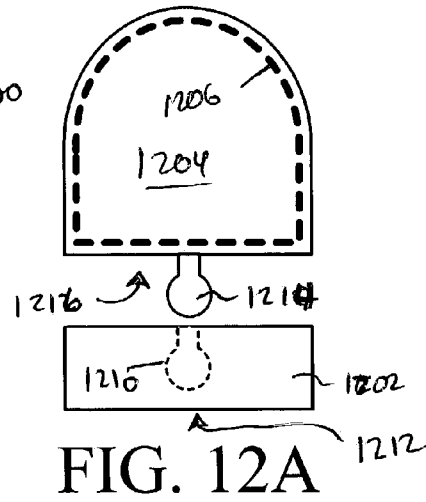


FIG. 12A

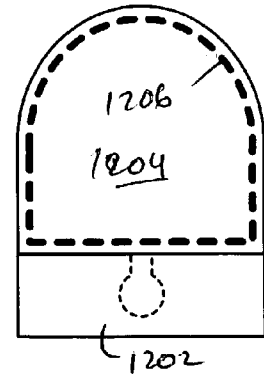


FIG. 12B

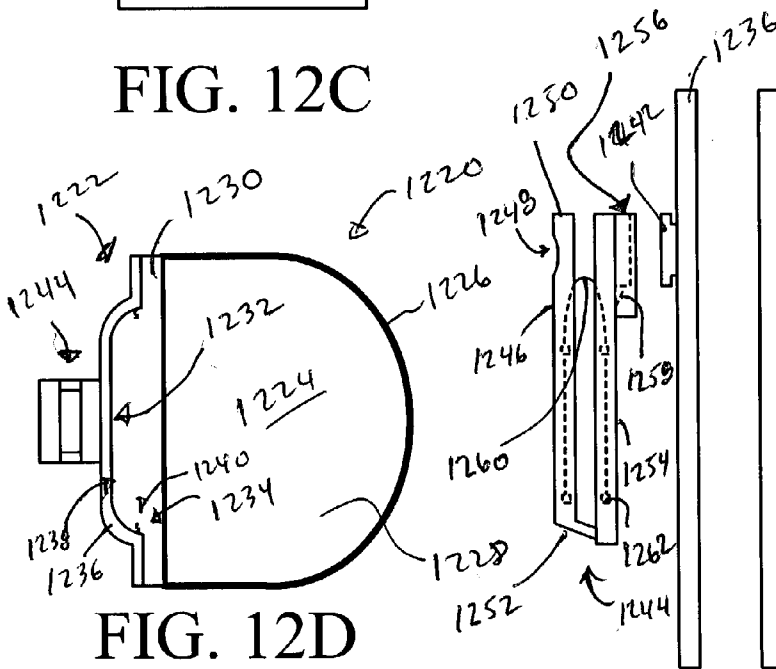


FIG. 12D

FIG. 12E

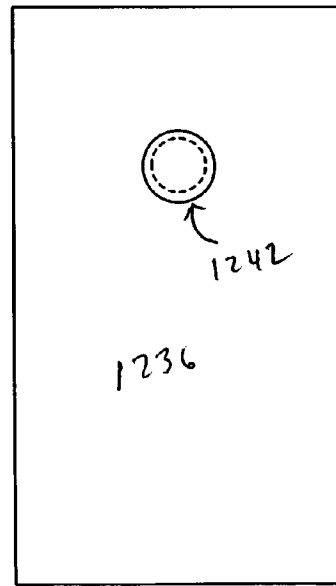


FIG. 12F

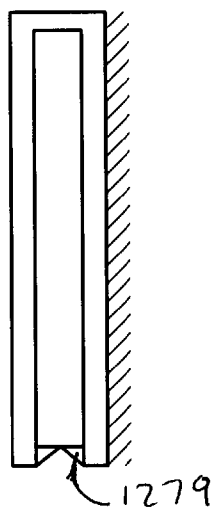


FIG. 12G

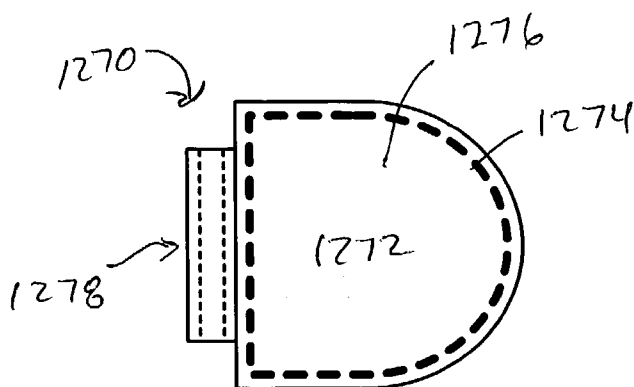


FIG. 12H

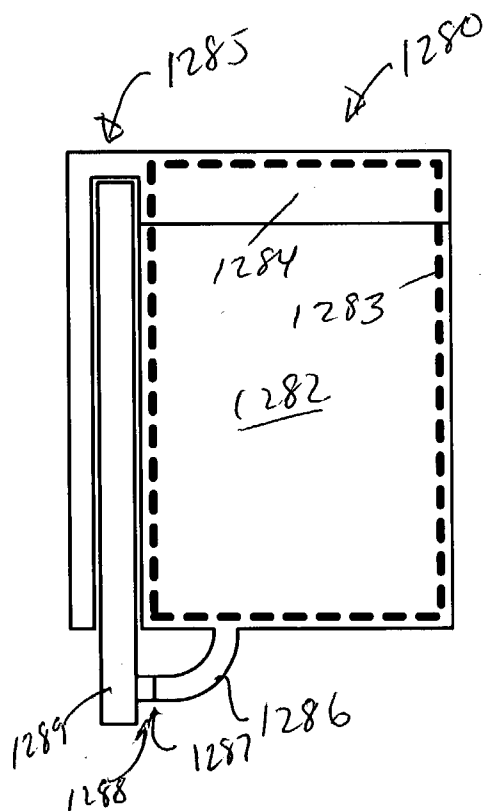


FIG. 12I

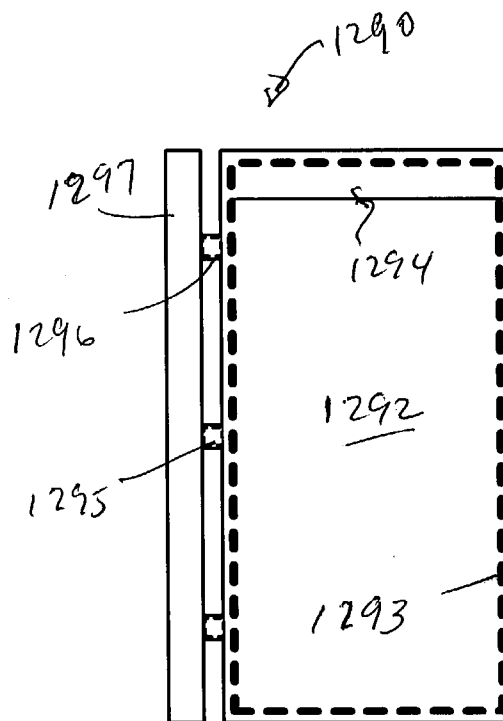


FIG. 12J

HARDENED PAINTBALL REFILL RECEPTACLES

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to a paintball clothing accessories, articles of clothing for use in paintball games, having hardened paintball refill receptacles.

[0003] More particularly, the present invention relates to an article for storing paintball refill bags including at least one hardened refill receptacle designed to hold paintball refill bags in a enclosure protected from incidental and/or deliberate impact including impacts from fired paintballs, from walls, ground, or the like. The present invention also relates to methods for making and using the hardened receptacles and to shells to hardened harness receptacles for currently made paintball harnesses.

[0004] 2. Description of the Related Art

[0005] Numerous harnesses have been developed for holding paintball gun accessories such as hoppers and/or feeders. These harnesses are generally bulky because the receptacles or pouches must be large enough to accommodate the hoppers and/or feeders, which are generally bulky plastic shells with a neck adapted to engage either a feed tube of a paintball gun or the opening of a hopper. Because the hoppers and/or feeders are bulky, only a limited number, generally, less than about 5, can be comfortably placed in receptacles or pouches in a harness. Moreover, the harness must be wide enough to support the pouches when they contain a hopper and/or feeder.

[0006] Thus, there is a need in the art for an improved paintball paintball clothing accessories which include hardened paintball refill receptacles or pouches, where the hardening is sufficient to protect the paintballs from incidental and/or deliberate impact.

SUMMARY OF THE INVENTION

[0007] The present invention provides articles of clothing used as accessories in paintball games or contests, where the articles include at least one hardened pouch designed to hold at least one paintball refill apparatus like though disclosed in co-pending U.S. patent application Ser. No. 10/420528 filed on 22 Apr. 2003 and Ser. No. 10/ filed 5 May 2003 bearing express mail number EV 333 399 442 US, and where the hardening is sufficient to protect the paintballs in the refill apparatuses or loader from damage due to incidental and/or deliberate contacts and/or impacts with fired paintballs, walls, floors, ground, etc.

[0008] The present invention also provides a paintball harness including at least one hardened pouch designed to hold at least one paintball refill apparatus like though disclosed in co-pending U.S. patent application Ser. No. 10/420528 filed on 22 Apr. 2003 and Ser. No. 10/ filed 5 May 2003 bearing express mail number EV 333 399 442 US, and where the hardening is sufficient to protect the paintballs in the refill apparatuses from damage due to incidental and/or deliberate impacts with fired paintballs, walls, floors, ground, etc.

[0009] The present invention also provides a paintball chest protector including at least one hardened pouch designed to hold at least one paintball refill apparatus like

though disclosed in co-pending U.S. patent application Ser. No. 10/420528 filed on 22 Apr. 2003 and Ser. No. 10/ filed 5 May 2003 bearing express mail number EV 333 399 442 US, and where the hardening is sufficient to protect the paintballs in the refill apparatuses from damage due to incidental and/or deliberate impacts with fired paintballs, walls, floors, ground, etc.

[0010] The present invention also provides a paintball shin or forearm guard including at least one hardened pouch designed to hold at least one paintball refill apparatus like though disclosed in co-pending U.S. patent application Ser. No. 10/420528 filed on 22 Apr. 2003 and Ser. No. 10/ filed 5 May 2003 bearing express mail number EV 333 399 442 US, and where the hardening is sufficient to protect the paintballs in the refill apparatuses from damage due to incidental and/or deliberate impacts with fired paintballs, walls, floors, ground, etc.

[0011] The present invention also provides a paintball belt including at least one hardened pouch designed to hold at least one paintball refill apparatus like though disclosed in co-pending U.S. patent application Ser. No. 10/420528 filed on 22 Apr. 2003 and Ser. No. 10/ filed 5 May 2003 bearing express mail number EV 333 399 442 US, and where the hardening is sufficient to protect the paintballs in the refill apparatuses from damage due to incidental and/or deliberate impacts with fired paintballs, walls, floors, ground, etc.

[0012] The present invention also provides a paintball shoulder holsters including at least one hardened pouch designed to hold at least one paintball refill apparatus like though disclosed in co-pending U.S. patent application Ser. No. 10/420528 filed on 22 Apr. 2003 and Ser. No. 10/ filed 5 May 2003 bearing express mail number EV 333 399 442 US, and where the hardening is sufficient to protect the paintballs in the refill apparatuses from damage due to incidental and/or deliberate impacts with fired paintballs, walls, floors, ground, etc.

[0013] The present invention also provides paintball pants including at least one hardened pouch designed to hold at least one paintball refill apparatus like though disclosed in co-pending U.S. patent application Ser. No. 10/420528 filed on 22 Apr. 2003 and Ser. No. 10/ filed 5 May 2003 bearing express mail number EV 333 399 442 US, and where the hardening is sufficient to protect the paintballs in the refill apparatuses from damage due to incidental and/or deliberate impacts with fired paintballs, walls, floors, ground, etc.

[0014] The present invention also provides a paintball jersey including at least one hardened pouch designed to hold at least one paintball refill apparatus like though disclosed in co-pending U.S. patent application Ser. No. 10/420528 filed on 22 April 2003 and Ser. No. 10/ filed 5 May 2003 bearing express mail number EV 333 399 442 US, and where the hardening is sufficient to protect the paintballs in the refill apparatuses from damage due to incidental and/or deliberate impacts with fired paintballs, walls, floors, ground, etc.

[0015] The present invention provides a hardened shell designed to be placed inside pouches of a paintball harness and provide protection to paintball refill apparatus like though disclosed in co-pending U.S. patent application Ser. No. 10/420528 filed on 22 Apr. 2003 and Ser. No. 10/ filed 5 May 2003 bearing express mail number EV 333 399 442

US, so that the harness can be used to store paintball refill apparatus like though disclosed in co-pending U.S. patent application Ser. No.10/420528 filed on 22 Apr. 2003 and Ser. No. 10/ filed 5 May 2003 bearing express mail number EV 333 399 442 US.

[0016] The present invention provides a container apparatus including a hardened shell designed to be placed inside a pouch of the apparatus to provide protection to items placed inside the pouch from incidental and/or deliberate contact with other objects.

[0017] The present invention provides a paintball refill container apparatus including a hardened shell designed to be placed inside a pouch of the apparatus or including a pouch having hardened walls, where the shell or walls provide protection to paintball refill apparatus placed inside the pouch like though disclosed in co-pending U.S. patent application Ser. No. 10/420528 filed on 22 Apr. 2003 and Ser. No. 10/ filed 5 May 2003 bearing express mail number EV 333 399 442 US.

[0018] The present invention also provides a method for storing paintball refill apparatus like though disclosed in co-pending U.S. patent application Ser. No. 10/420528 filed on 22 Apr. 2003 and Ser. No. 10/ filed 5 May 2003 bearing express mail number EV 333 399 442 US, including the step of placing at least one paintball refill into a hardened pouches of an articles of clothing used in paintball games, exercises, contests, or the like. The method can also include the steps of removing a refill from the pouch and refilling a empty hopper with a new load of paintballs.

DESCRIPTION OF THE DRAWINGS

[0019] The invention can be better understood with reference to the following detailed description together with the appended illustrative drawings in which like elements are numbered the same:

[0020] FIGS. 1A-B depicts a prior art paintball harness, respectively;

[0021] FIGS. 2A-B depicts a preferred embodiment of a paintball harness of this invention including a plurality of hardened pouches;

[0022] FIGS. 3A-B depicts another preferred embodiment of a hopper/feeder or magazine apparatus of this invention in an open and closed state, respectively;

[0023] FIGS. 4A-B depicts another preferred embodiment of a hopper/feeder or magazine apparatus of this invention in an open and closed state, respectively;

[0024] FIG. 5A depicts a preferred embodiment of a paintball gun having a hopper/feeder apparatus of this invention attached to a gun barrel feed tube via a threaded connection;

[0025] FIG. 5B depicts another preferred embodiment of a paintball gun having a hopper/feeder apparatus of this invention attached to a gun barrel feed tube via a threaded connection and a tightening member;

[0026] FIGS. 5C-E depict two front views and one side view of a preferred embodiment of a tightener for use with the paintball gun of this invention, where the two front views depict the tightener in an untightened state and a tightened state, respectively;

[0027] FIG. 6A depicts another preferred embodiment of a paintball gun having a connecting member and a hopper/feeder apparatus, where the connecting member connects to the feed tube and to the hopper/feeder apparatus and the connection between the connecting member is via a threaded connection;

[0028] FIG. 6B depicts another preferred embodiment of a paintball gun having a connecting member and a hopper/feeder apparatus, where the connecting member connects to the feed tube and to the hopper/feeder apparatus and the connection between the connecting member is via a threaded connection and a tightening member;

[0029] FIG. 7 depicts another preferred embodiment of a paintball gun having a bent connecting member and a hopper/feeder apparatus, where the connecting member connects to the feed tube and to the hopper/feeder apparatus and the connection between the connecting member is via a threaded connection;

[0030] FIGS. 8A-B depict a cross-sectional view, a side view and a top interior plan view of a preferred embodiment of a closing system for the hopper/feeder apparatus of this invention, respectively;

[0031] FIGS. 9A-D depict two top plan views, a front view, and side plan view of another preferred embodiment of a closing system for the hopper/feeder apparatus of this invention and an exterior plan view of the closing system integrated into hopper/feeder apparatus, respectively.

[0032] FIGS. 10A-B depict a side view and a bottom view of another preferred embodiment of a closing system for the hopper/feeder apparatus of this invention;

[0033] FIGS. 11A-B depict two side views of another preferred embodiment of a closing system for the hopper/feeder apparatus of this invention, one view shows the closed state and one view shows the open state, respectively; and

[0034] FIGS. 12A-B depict two side views of another preferred embodiment of a closing system for the hopper/feeder apparatus of this invention, one view shows the closed state and one view shows the open state, respectively.

DETAILED DESCRIPTION OF THE INVENTION

[0035] The inventor has found that a container apparatus or paintball accessories, such as harnesses, belts, holsters, chest, shin or forearm guards, or the like, can be constructed where the container includes at least on pouch, pocket, receptacle or the like having hardened walls or where the pouch, pocket, receptacle or the like includes a hard shell, where the shell or hardened walls are designed to protect items inside the pouch, pocket, receptacle or the like from damage due to incidental and/or deliberate contact and/or impact with other objects.

[0036] The present invention broadly relates to a container apparatus including a least one pouch, pocket, receptacle or the like having hardened walls or a container apparatus including at least pouch, pocket, receptacle or the like and a hard shell designed to fit inside the pouch, pocket, receptacle or the like, where the shell or hardened walls protect items inside the pouch, pocket, receptacle or the like from damage due to incidental and/or deliberate contact and/o rimpact

with other objects. Such container apparatuses are ideally well-suited for use in paintball games, where the pouch, pocket, receptacle or the like is designed to hold at least one paintball refills, such as those disclosed in co-pending U.S. patent application Ser. No. 10/420528 filed on 22 Apr. 2003 and Ser. No. 10/ filed 5 May 2003 bearing express mail number EV 333 399 442 US.

[0037] The present invention also broadly relates to a paintball accessory articles including a least one pouch, pocket, receptacle or the like having hardened walls or a container apparatus including at least pouch, pocket, receptacle or the like and a hard shell designed to fit inside the pouch, pocket, receptacle or the like, where the shell and hardened walls are designed to hold and to protect at least one paintball refills, such as those disclosed in co-pending U.S. patent application Ser. No. 10/420528 filed on 22 Apr. 2003 and Ser. No. 10/ filed 5 May 2003 bearing express mail number EV 333 399 442 US, placed inside the pouch, pocket, receptacle or the like from damage due to incidental and/or deliberate contact and/or impact with other objects.

[0038] The shells or walls can be continuous, perforated, made up of discontinuous pieces or can be constructed in any other format so long as the resulting construct is strong enough to protect objects placed in an interior of the pouch, pocket, receptacle or the like from contact with other objects.

[0039] The present invention also broadly relates to methods for making such container apparatuses and paintball accessory articles of this invention and for using such container apparatuses and paintball accessory articles of this invention.

[0040] The container apparatus can be constructed in any suitable shape or geometry and size depending on what the apparatus is designed to hold. In the case of paintball refills, the shape or geometry and size should be designed to hold at least one paintball refill having between about 50 and about 300 paintballs per refill, and because the refills contemplated are not rigid structures, the shape is a matter of aesthetics. In the case of a apparatus for holding other objects, the size and shape are adjusted to accommodate whatever objects the apparatus needs to hold.

[0041] Suitable materials out of which the container apparatus can be constructed include, without limitations, any material or combination of materials that can be used to construct containers. Preferably, the non-hardened parts of the container are constructed out of flexible materials such as woven or non-woven natural and/or synthetic materials, such as natural or synthetic fabrics, plastics, composites such as fiber reinforced plastics, elastomers such as natural or synthetic rubbers or the like, urethanes rubbers, silicon rubbers or any other resilient and shock absorbing materials or mixtures or combinations thereof.

[0042] Suitable material out of which the hardened walls or shells of this invention can be constructed include, without limitation, metals, wood, plastics, composites, ceramics, or the like, or mixtures or combinations thereof.

[0043] Suitable natural fabrics include, without limitation, cotton, wool, silk, other natural fabrics, or mixtures of combinations thereof.

[0044] Suitable synthetic fabrics includes, without limitation, polyamide fabrics such as nylon, aramid (kevlar®),

dacron®, rayon®, polyester, other synthetic fabrics, or mixtures of combinations thereof.

[0045] Suitable plastics include, without limitation, polyolefins such as polyethylene, polypropylene, polybutylene, polyhexylene, polystyrene, polyalphanethylstyrene, or the like or copolymers thereof, acrylics, urethanes, polyesters, thermoplastics, thermal setting resins, thermoplastic elastomers, liquid crystal polymers, polyalkyleneoxides, or any other structural plastic suitable for making a durable apparatus.

[0046] Suitable metals include, without limitation, aluminum, aluminum alloys, copper, copper alloys, iron, iron alloys, titanium, titanium alloys, nickel, nickel alloys, tin, tin alloys, noble metals, noble metal alloys, any other metal or metal alloy, or mixtures or combinations thereof.

[0047] Suitable composites include, without limitation, polymer matrices selected from the plastics listed above reinforced by a fiber such as carbon fibers, polyamides such as Kevlar, boron-nitride fibers, glass fibers, or the like or mixture or combination thereof.

[0048] Suitable wood includes, without limitation, any wood having sufficient strength to protect the contents of the pouch, pocket, receptacles or the like or mixtures or combinations thereof.

[0049] Suitable ceramics include, without limitation, fired clays, porcelain, any other ceramic or ceramic containing composite, or mixtures or combinations thereof.

[0050] Combined Hopper/Feeder Apparatus—Closable Magazines

[0051] Referring now to FIGS. 1A&B, an example of a prior art harness for use in paintball game, generally **100**, is shown to include a belt portion **102** having a buckle end **104** and a retained end **106** including adjustment holes **108**. Along the length of the harness **100** are pouches or pockets **110** designed to hold a hopper for a paintball gun, one of which is shown opened. The hoppers are fairly bulky structures having a volume of about 36 in³ and being of a banana shape, a spherical shape, an oval shape or the like. Because the hopper are bulky, conventional harnesses can only hold at most five hoppers (typically less than five) and the harnesses are constructed so that the hoppers are positioned along a user's back, being too bulky to be carried on the user's front. The pockets **110** are generally made of flexible material such as a fabric and can have an aperture in the bottom to accommodate the neck of the hopper.

[0052] Referring now to FIGS. 2A-E, a preferred embodiment of a harness of this invention, generally **200**, is shown to include a belt portion **202** having a buckle end **204** and a retained end **206** including adjustment holes **208**. Along the length of the harness **200** are pouches or pockets **210** one shown opened. The harness **200** is shown to have a much reduced size than the harness of FIGS. 1A&B because the pockets **210** are not designed to hold a hopper, but instead are designed to hold refill loaders such as those disclosed in co-pending applications Ser. No. 10/420528 filed on 22 Apr. 2003 and Ser. No. 10/ filed 5 May 2003 bearing express mail number EV 333 399 442 US or any other container the includes 50 to 300 paintballs. Each pocket **210** includes an outer layer **212** having a top **214** that can be opened. Each pocket **210** also includes two hard inserts **216** and **218**. The

insert **216** is of a general half cylinder shape having an opened end **220** and a closed end **222** and is designed to be inserted into an interior portion **224** of the pocket **210**, while the insert **218** is a general half moon shape is designed to be inserted into the top **214**. The outer layer **212** preferably includes retaining pockets for receiving the inserts **216** and **218**. The inserts **216** and **218** are designed to protect the contents of the interior **224** of each pocket **210** against incidental and/or deliberate contact and/or impact from other objects such as fired paintballs, walls, floors, the ground, etc.

[0053] Referring now to FIGS. 3A-F, a preferred embodiment of a holster or chest ammo belt of this invention, generally **300**, is shown to include a strap portion **302** having a buckle end **304** and a retained end **306** including adjustment holes **308**. Alternatively, the strap portion **302** can include a hook and loop attachment system having a hook patch **310** on one side **312** of the strap portion **302** at the buckle end **304** and a loop patch **314** on the other side **316** of the strap portion **302** at the retained end **306**. Along the length of the ammo belt **300** are pouches or pockets **318** (one shown opened) designed to hold refill loaders such as those disclosed in co-pending applications Ser. No. 10/420528 filed on 22 Apr. 2003 and Ser. No. 10/ filed 5 May 2003 bearing express mail number EV 333 399 442 US or any other container the includes 50 to 300 paintballs. Each pocket **318** includes a hardened outer layer **320** and a non-hardened top **322** that can be opened. The hardened outer layer **312** is a half cylindrical shell and can include a bottom or not. The hardened outer layer **320** is designed to protect the contents of the interior **324** of each pocket **318** against incidental and/or deliberate contact and/or impact from other objects such as fired paintballs, walls, floors, the ground, etc.

[0054] Referring now to FIGS. 4A-C, a preferred embodiment of a shin, thigh or forearm guard apparatus of this invention, generally **400**, is shown to include a guard body **402** and three pockets, pouches, receptacles or the like **404**. Each pocket **404** includes an outer layer **406** having a top **408** that can be opened. Each pocket **404** also includes two hard inserts **410** and **412**. The insert **410** is of a half cut oval shape having an opening **414** and is designed to be inserted into an interior portion **416** of the pockets **404**, while the insert **412** is a general cap shape and is designed to be inserted into the top **408**. The outer layer **406** preferably includes retaining pockets for receiving the inserts **410** and **412**. The inserts **410** and **412** are designed to protect the contents of the interior **416** of each pocket **404** against incidental and/or deliberate contact and/or impact from other objects such as fired paintballs, walls, floors, the ground, etc.

[0055] Referring now to FIGS. 4D&E, another preferred embodiment of a shin, thigh or forearm guard apparatus of this invention, generally **400**, is shown to include a guard body **402** and a single pocket, pouche, receptacle or the like **404**. The pocket **404** includes an outer layer **406** having a top **408** that can be opened. The pocket **404** also includes two hard inserts **410** and **412**. The insert **410** has an opening **414** and is designed to be inserted into an interior portion **416** of the pockets **404**, while the insert **412** is designed to be inserted into the top **408**. The outer layer **406** preferably includes retaining pockets for receiving the inserts **410** and **412**. The inserts **410** and **412** are designed to protect the contents of the interior **416** of the pocket **404** against

incidental and/or deliberate contact and/or impact from other objects such as fired paintballs, walls, floors, the ground, etc.

[0056] Referring now to FIG. 5, a preferred embodiment of a pair of paintball pants of this invention, generally **500**, is shown to include a pants body **502** having two leg pockets **504a&b** and to oval shaped hip pockets **506a&b**. The pocket **504a** includes an outer layer **508** having a top **510** that can be opened and includes two inserts **512** and **514**. The insert **512** extends the length of the pocket **504a** and can be a shell or have a bottom and may or may not be inserted into a receiving slot in the pocket **504a**. The insert **512** is designed to fit in the top **510**, generally into a receiving slot. The pocket **506a** includes an outer layer **508** having a top **510** that can be opened and includes a bottom insert **516** and a top insert **518**. The bottom and top inserts **516** are of a quarter oval shape and are designed to be insert into the pocket **506a** and the top **510**. The pocket **504b** includes a hard outer layer **520** and a hard top layer **522**. The pocket **506b** also includes a hard bottom layer **524** and a hard top layer **526**.

[0057] Referring now to FIGS. 6A-D, a preferred embodiment of a paintball chest protector of this invention, generally **600**, is shown to include a body **602** having straps **604** and a plurality of oval shaped pockets **606**. Each pocket **606** also includes a hard bottom insert **608** and a hard top insert **610**. As shown in FIGS. 6C and D, each insert **608** and **610** is a curvilinear shell.

[0058] Referring now to FIGS. 6E-F, another preferred embodiment of a chest protector of this invention, generally **650**, is shown to include a body **652** having straps **654** and two rectangular shaped pockets **656**. Each pocket **656** also includes a hard insert **658**. As shown in FIG. 6F, the insert **658** is box missing a top and a back.

[0059] Referring now to FIGS. 7A&B, two preferred embodiment of paintball jerseys of this invention, generally **700**, is shown to include a jersey body **702** and a plurality of pockets **704**. Each pocket **704** including a pocket body **706** having a top **708** that opens and a bottom hard insert **710** and a top hard insert **712**. In the jersey of FIG. 7A, the pockets **704** are of a cup shape, while in the jersey of FIG. 7B, the pockets **704** are of an oval shape.

[0060] Referring now to FIGS. 8A-D, a preferred hard insert of this invention, generally **800**, is shown to include a half cut oval **802** having an opened end **804**. Referring now to FIGS. 8E-G, another preferred insert of this invention, generally **850**, is shown to include a half funnel **852** having an opened top end **854** and a opened bottom end **856** or a closed form **858**.

[0061] Referring now to FIGS. 9A-C, three preferred embodiments of waist, arm or leg bands, generally **900**, are shown to includes a body **902** and a pouch **904** located in a central region **906** of the body **902**. Looking at FIG. 9A, the body **902** includes a hook patch **908** on a top surface **910** of a first end **912** and a loop patch **914** on a bottom surface **916** of a second end **918** of the body **902**, where the patches **908** and **914** are designed to engage holding the band **900** in place. Although the patches **908** and **914** are shown here as a hook-and-loop attachment assembly, the patches **908** and **914** can also be magnetic films. Looking at FIG. 9B, the body **902** includes an insertion tab **920** at a first end **922** and a receiving slot **924** and groove **926** on a bottom surface **928**

of a second end 930 of the body 902, where the tab 920 is designed to be inserted into the slot 924 and snap in place so that a square portion 932 of the tab 920 fits flush into the groove 926. and 914 are designed to engage holding the band 900 in place. Looking at FIG. 9C, the body 902 includes a circular receiving slot 934 at a first end 936 and a nob 938 at a second end 940 of the body 902, where the nob 938 is designed to be inserted into the slot 934. The pouches 904 can be rectangular shaped as shown in FIG. 9D, oval shaped as shown in FIG. 9E or half cylindrical shaped as shown in FIG. 9F and each pouch 904 includes a hard insert 942.

[0062] Referring now to FIGS. 10A-E, other preferred embodiment of waist, arm or leg bands of this invention, generally 1000, are shown to include a body 1002 having an body engaging member 1004 adapt to receive and engage a receptacle 1006 having a receptacle engaging member 1008. Looking at FIG. 10A, the body engaging member 1004 and the receptacle engaging member 1008 can make up a hook-and-loop engaging connections or can be magnetic films. Looking at FIG. 10C, the body engaging member 1004 includes a lateral slot 1010, while in FIG. 10E, the body engaging member 1004 includes a longitudinal slot 1012. The corresponding receptacles 1006 as shown in FIG. 10D include an appendage 1014 designed to be inserted into the slot 1012 of the engaging member 1004. Each receptacle 1008 includes a hard insert 1016 and a top 1018 that opens.

[0063] Referring now to FIGS. 11A-C, a preferred connectable container apparatus of this invention, generally 1100, is shown to include a base 1102 and a receptacle 1104 having a hard insert 1106 and a top 1108 and having a half cylindrical shape. The base 1102 includes an insertion tab 1110 at a first end 1112 and a receiving slot 1114 and groove 1116 on abottom surface 1118 of a second end 1120 of the base 1102, where the tab 1110 is designed to be inserted into the slot 1114 and snap in place so that a square portion 1122 of the tab 1110 fits flush into the groove 1116. The apparatuses 1100 are designed to be attached together as shown in FIG. 11C to form a long chain 1124 of interconnected apparatuses 1100. The chain 1124 can be interconnected to form a loop or can be attached to a strap having a tab at one end and a slot and groove on the other end matching the unattached ends 1126 of the chain 1124.

[0064] Referring now to FIGS. 11D-F, another preferred connectable container apparatus of this invention, generally 1130, is shown to include a base 1132 and a receptacle 1134 having a hard insert 1136 and a top 1138 and having a half cylindrical shape. The base 1132 includes a groove 1140 at a first end 1142 and an appendage 1144 at a second end 1146 of the base 1132, where the groove 1140 is designed to receive the appendage 1144. Of course, the groove 1140 can extend down only a portion of the height of the base 1132 and the appendage 1144 contour can be formed in a corresponding height of the second end 1146. Moreover, the groove 1140 and the appendage 1144 can include locking tabs to secure the connections. The apparatuses 1130 are designed to be attached together as shown in FIG. 11F to form a long chain 1148 of interconnected apparatuses 1130. The chain 1148 can be interconnected to form a loop or can be attached to a strap having a tab at one end and a slot and groove on the other end matching the unattached ends 1150 of the chain 1148.

[0065] Referring now to FIGS. 11G-I, another preferred connectable container apparatus of this invention, generally 1160, is shown to include a base 1162 and a receptacle 1164 having a hard outer surface 1166 and a top 1168 that opens and having a half cylindrical shape. The base 1162 includes two post shaped receiving slots 1170 at a first end 1172 and two nobs 1174 at a second end 1176 of the base 1102, where the slots 1170 are designed to receive and hold the nobs 1174. The apparatuses 1160 are designed to be attached together as shown in FIG. 11I to form a long chain 1178 of interconnected apparatuses 1160. The chain 1178 can be interconnected to form a loop or can be attached to a strap having a tab at one end and a slot and groove on the other end matching the unattached ends 1179 of the chain 1178.

[0066] Referring now to FIGS. 11J-L, another preferred connectable container apparatus of this invention, generally 1180, is shown to include a base 1182 and a receptacle 1184 having a hard outer surface 1186 and a top 1188 that opens and having a half cylindrical shape. The base 1182 includes a first engaging patch 1190 at a first end 1192 and a second engaging patch 1194 at a second end 1196 of the base 1102, where the patches 1190 and 1194 are designed to engage and hold the apparatus together, where the patches 1190 and 1194 can form a hook-and-loop assembly or are magnetic films. The apparatuses 1180 are designed to be attached together as shown in FIG. 11L to form a long chain 1198 of interconnected apparatuses 1180. The chain 1198 can be interconnected to form a loop or can be attached to a strap having a tab at one end and a slot and groove on the other end matching the unattached ends 1199 of the chain 1198.

[0067] Referring now to FIGS. 12A-C, another preferred container apparatus of this invention, generally 1200, is shown to include a base 1202 and a receptacle 1204 having a hard insert 1206 and a top 1208 that opens and having a half cylindrical shape. The base 1202 includes a post shaped insertion slot 1210 in a central region 1212 thereof and the receptacle 1204 includes a nob or post 1214 in a central back region 1216 thereof. The slot 1210 is designed to receive the post 1214 allowing the receptacle to be turned about the slot 1210 as show in FIG. 12C. Of course, this type of base can be associated with any article of clothing or clothing accessories such as belts, straps, etc. so that a receptacle of 1204 can be attached thereto.

[0068] Referring now to FIGS. 12D-F, another preferred container apparatus of this invention, generally 1220, is shown to include a base 1222 and a receptacle 1224. The receptacle 1224 includes a hard outer surface 1226, a top 1228 that opens, a back 1230 having a convex portion 1232 with retention slots 1234 and has a half cylindrical shape. The base 1222 includes a curved receiver 1236 having a concave portion 1238 with retention tabs 1240 and a circular appendage 1242. The base 1232 also includes a click assembly 1244. The assembly 1244 includes a first member 1246 having an indentation 1248 at one end 1250 and a angled second end 1252. The assembly 1244 also includes a second member 1254 having a slot 1256 having a securing tab 1258 and a spring member 1260 affixed to each member 1246 and 1254 by holders 1262. The assembly 1244 is designed to receive the circular appendage 1242 so that the base 1232 can rotate about the slot 1256. The convex portion 1232 of the back 1230 of the receptacle 1224 is designed to lockingly engage the concave portion 1238 of the base 1232 being locked by the retention tabs 1240 and slots 1234.

[0069] Referring now to FIGS. 12G-H, another preferred container apparatus of this invention, generally 1270, is shown to include receptacle 1272 having a hard insert 1274, a top 1276 that opens, a clip 1278 and having a half cylindrical shape. The clip has two holding member 1279.

[0070] Referring now to FIGS. 12I, another preferred container apparatus of this invention, generally 1280, is shown to include receptacle 1282 having a hard insert 1283, a top 1284 that opens, a clip 1285 and an appendage 1286 having a snap 1287 designed to engage a snap 1288 on a belt 1289.

[0071] Referring now to FIGS. 12J, another preferred container apparatus of this invention, generally 1290, is shown to include receptacle 1292 having a hard insert 1293, a top 1294 that opens, a plurality of snaps 1295 designed to engage corresponding snaps 1296 on a belt 1297.

[0072] Although several preferred embodiments of closing assemblies of this invention are shown, it should be clear to an ordinary artisan that any closing assembly can be used as well all of which are intended to be covered in the appended claims.

[0073] All references cited herein are incorporated by reference. While this invention has been described fully and completely, it should be understood that, within the scope of the appended claims, the invention may be practiced otherwise than as specifically described. Although the invention has been disclosed with reference to its preferred embodiments, from reading this description those of skill in the art may appreciate changes and modification that may be made which do not depart from the scope and spirit of the invention as described above and claimed hereafter.

I claim:

1. A container apparatus comprising a body and a receptacle including a hard shell or a hard wall, where the shell or the wall protects objects placed in an interior of the receptacle from contact or impact from other objects.

2. The apparatus of claim 1, wherein the body is a paintball harness and receptacles are designed to hold at least one paintball loader.

3. The apparatus of claim 1, wherein the body is a paintball belt and receptacles are designed to hold at least one paintball loader.

4. The apparatus of claim 1, the body is a paintball chest holster and receptacles are designed to hold at least one paintball loader.

5. The apparatus of claim 1, the body is a paintball jersey and receptacles are designed to hold at least one paintball loader.

6. The gun of claim 2, the body is a paintball chest guard and receptacles are designed to hold at least one paintball loader.

7. The gun of claim 1, the body is a paintball shin or forearm guard and receptacles are designed to hold at least one paintball loader.

8. The gun of claim 1, the body is a paintball waist, arm or leg band and receptacles are designed to hold at least one paintball loader.

9. A connectable container apparatus comprising a base including a connector at each end of the base and a receptacle including a hard shell or a hard wall, where the shell or the wall protects objects placed in an interior of the receptacle from contact or impact from other objects and the connectors are designed to interlock so that the apparatuses can be formed into a chain.

10. The apparatus of claim 9, wherein the apparatus is associated with a paintballs accessory.

11. The apparatus of claim 9, wherein the accessory is selected from the group consisting of pants, shin guards, forearm guards, chest guards, belts, harnesses, holsters, arm, waist or leg bands, and jerseys.

12. A container apparatus comprising a base including a connector and a receptacle including a hard shell or a hard wall and a connector, where the shell or the wall protects objects placed in an interior of the receptacle from contact or impact from other objects and the connectors are designed to interlock so that the receptacle can be rotated about the connection.

13. The apparatus of claim 12, wherein the apparatus is associated with a paintballs accessory.

14. The apparatus of claim 12, wherein the accessory is selected from the group consisting of pants, shin guards, forearm guards, chest guards, belts, harnesses, holsters, arm, waist or leg bands, and jerseys.

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