

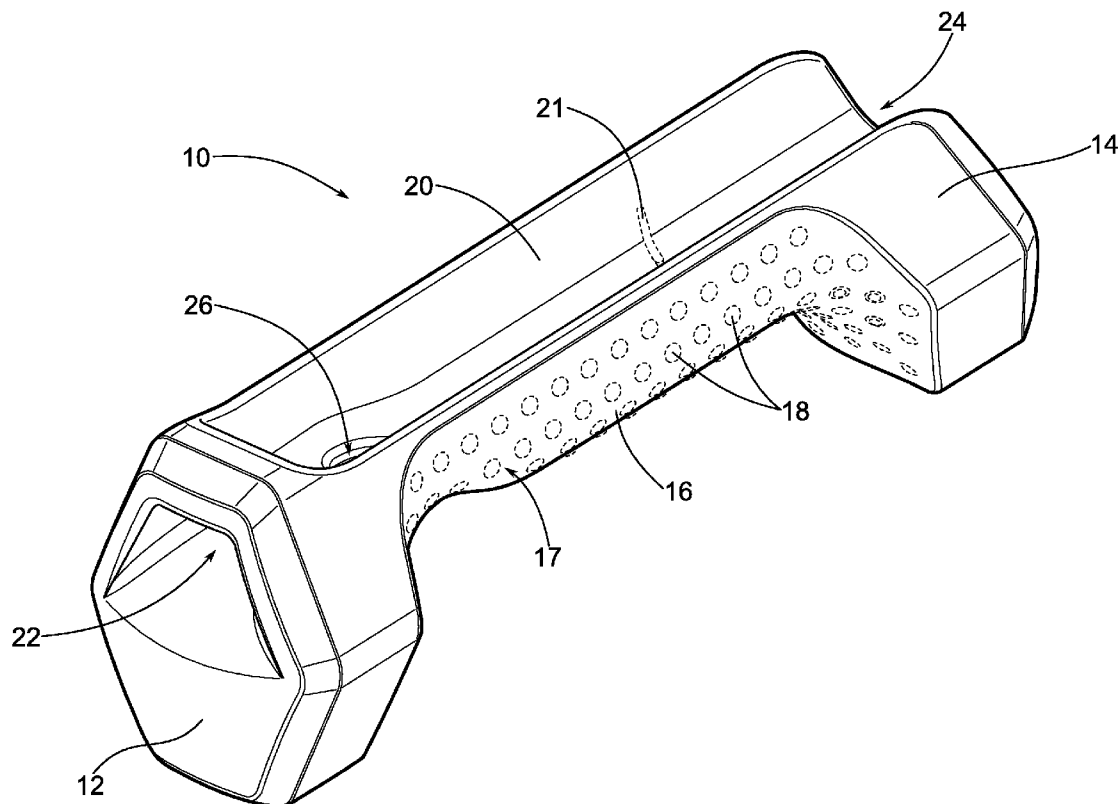


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(19) **United States**(12) **Patent Application Publication**  
**HOLCOMB et al.**(10) **Pub. No.: US 2010/0178981 A1**(43) **Pub. Date: Jul. 15, 2010**(54) **WEIGHTED ACCESSORY FOR GAME  
CONTROLLER**(22) Filed: **Jan. 12, 2010****Related U.S. Application Data**(76) Inventors: **Paul L. HOLCOMB**, Canton, GA  
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GA (US)(63) Continuation-in-part of application No. 29/337,907,  
filed on Jun. 1, 2009, Continuation-in-part of applica-  
tion No. 29/337,908, filed on Jun. 1, 2009.(60) Provisional application No. 61/144,371, filed on Jan.  
13, 2009, provisional application No. 61/242,095,  
filed on Sep. 14, 2009, provisional application No.  
61/252,852, filed on Oct. 19, 2009.**Publication Classification**(51) **Int. Cl.**  
**A63F 9/24** (2006.01)  
**A63B 21/072** (2006.01)(52) **U.S. Cl.** ..... **463/37; 482/108**(57) **ABSTRACT**

An accessory for a game controller, the accessory having a substantial weight and attachment features for securing the game controller thereto, to provide for resistance training and exercise while using the game controller.

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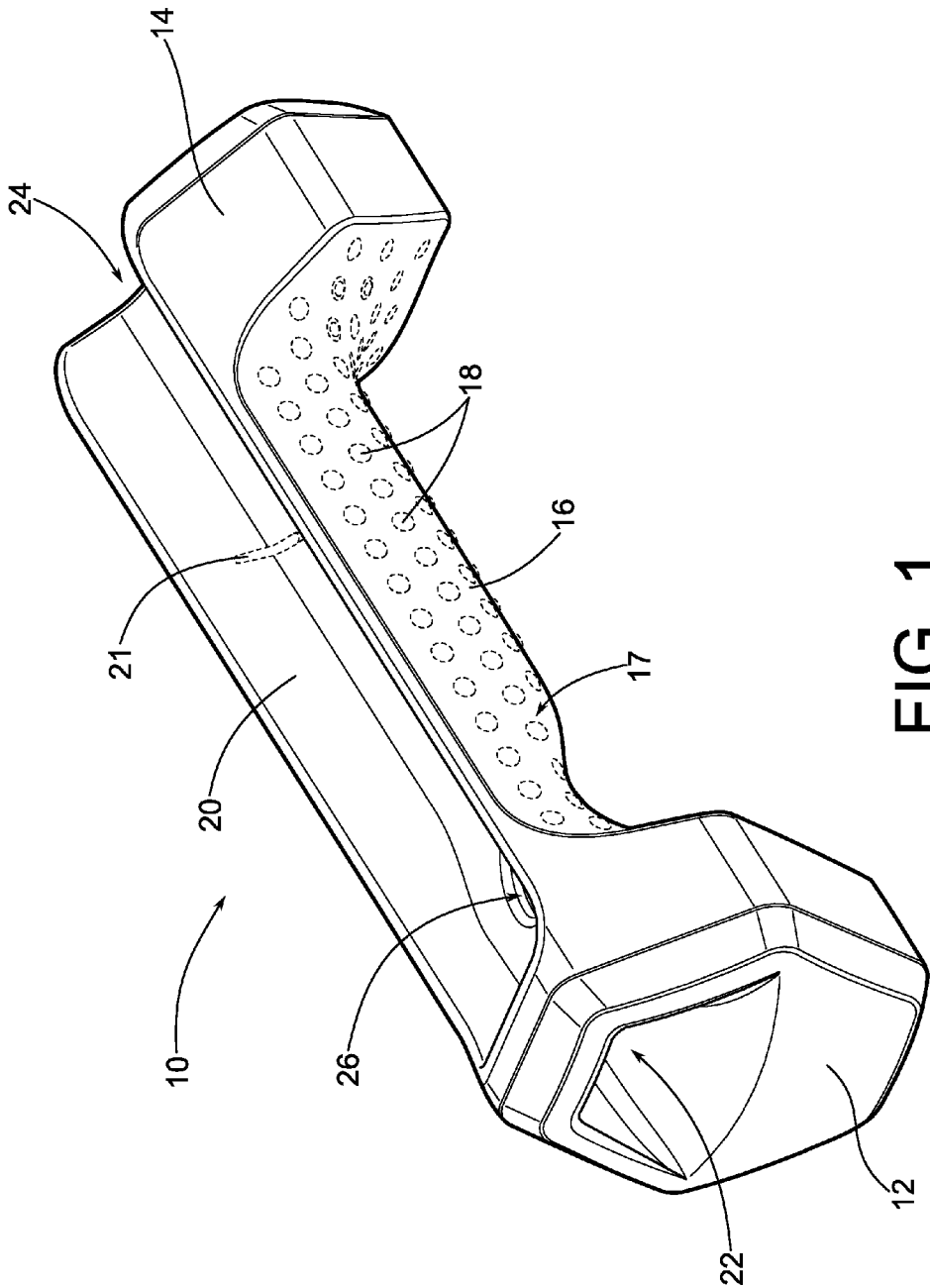


FIG. 1

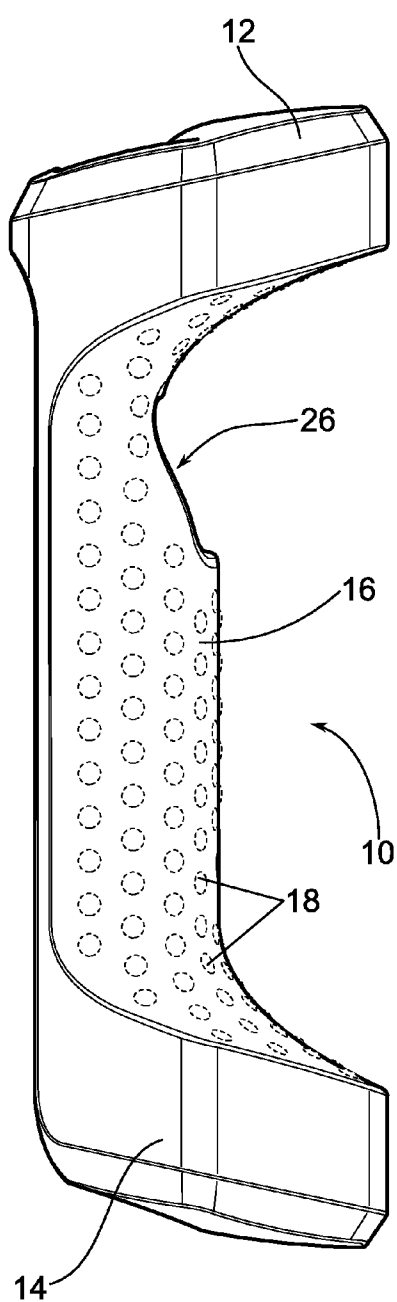


FIG. 2

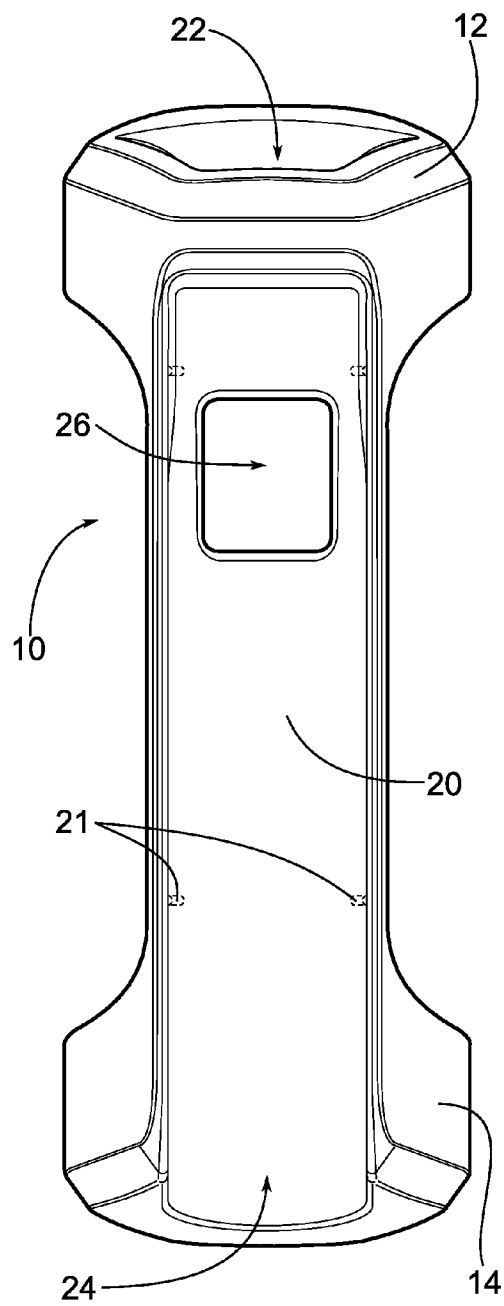


FIG. 3

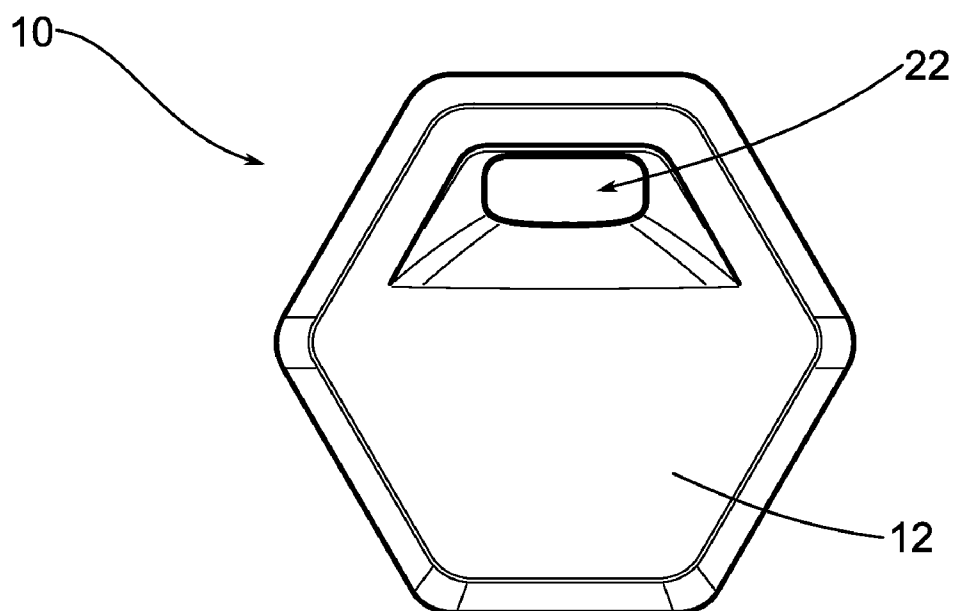


FIG. 4

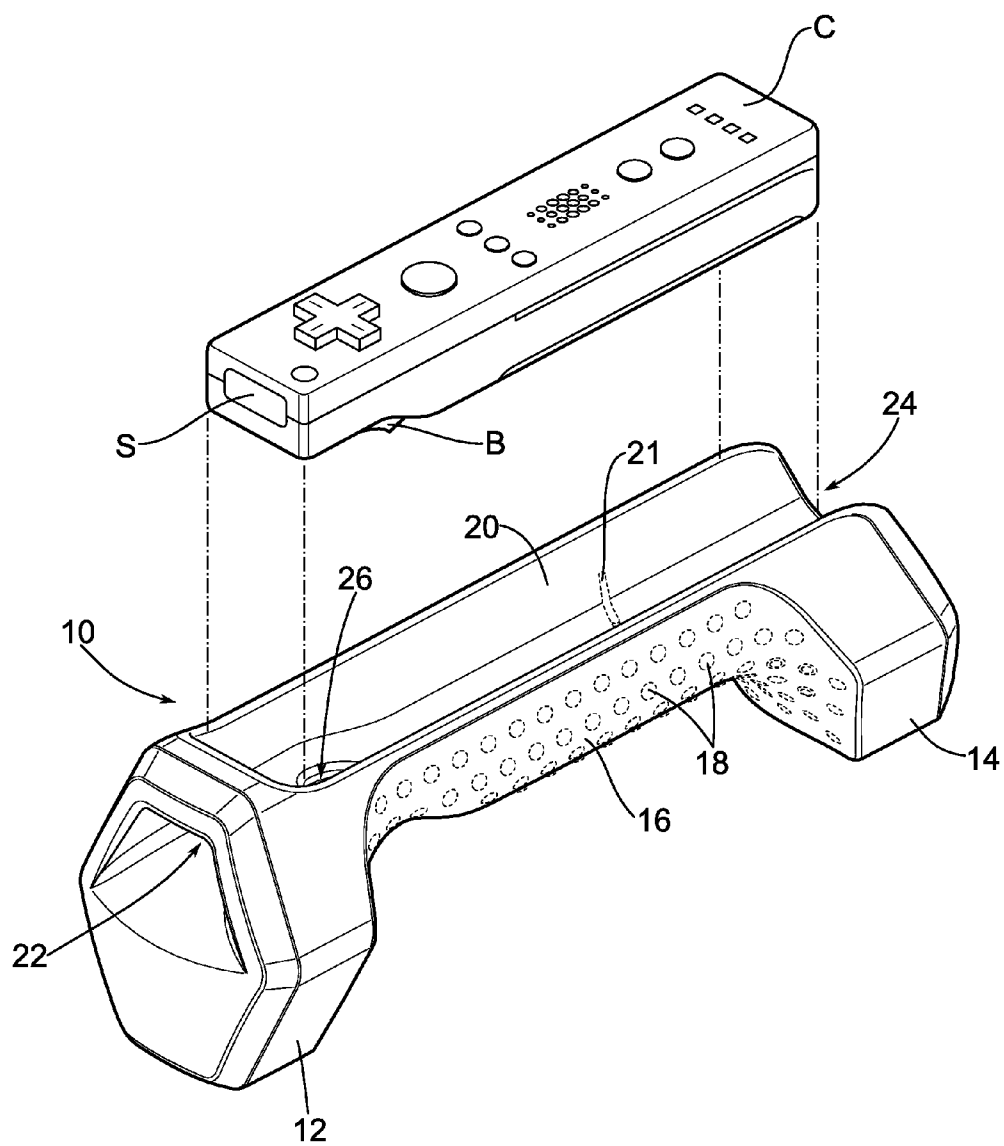


FIG. 5

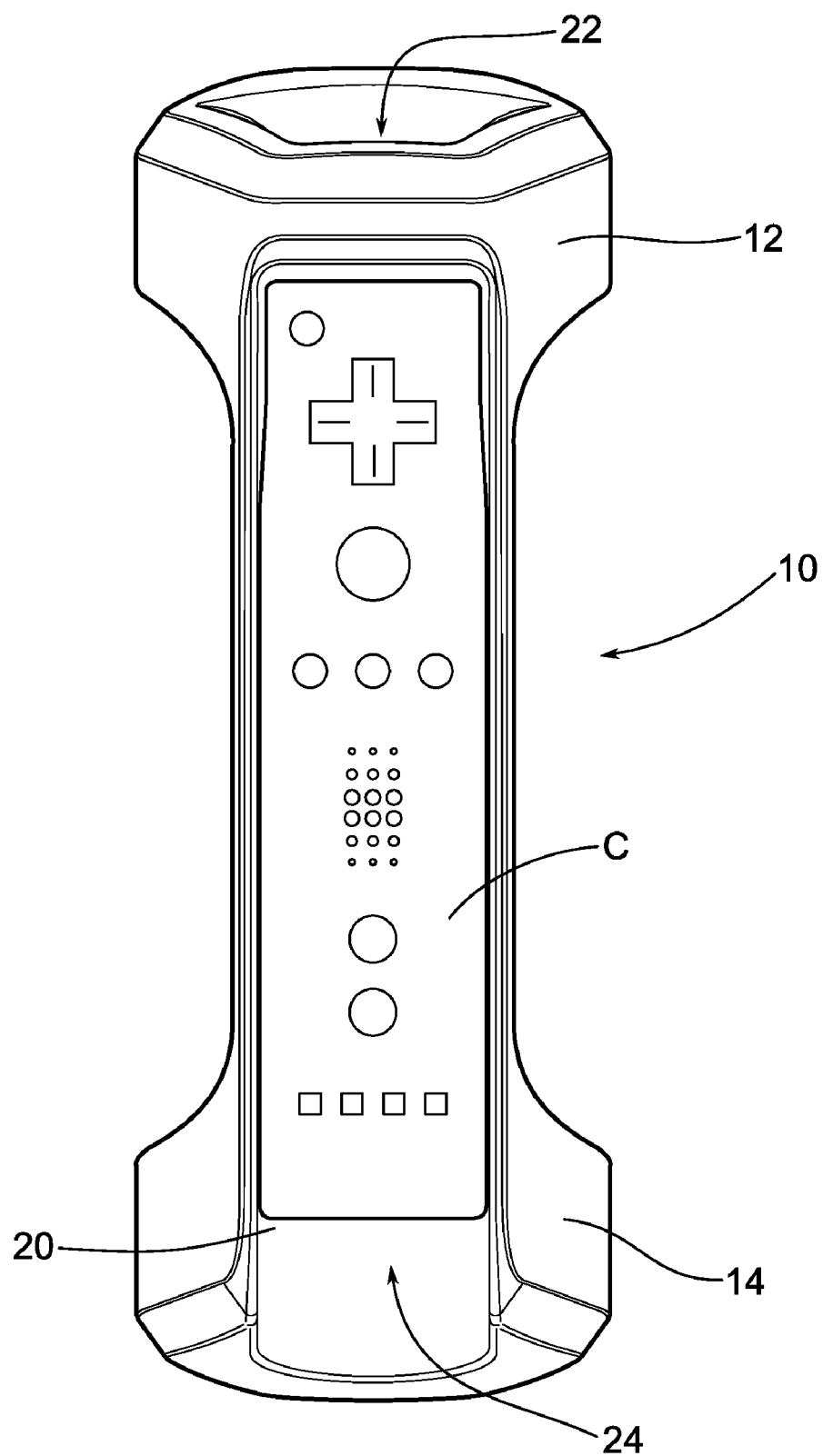


FIG. 6

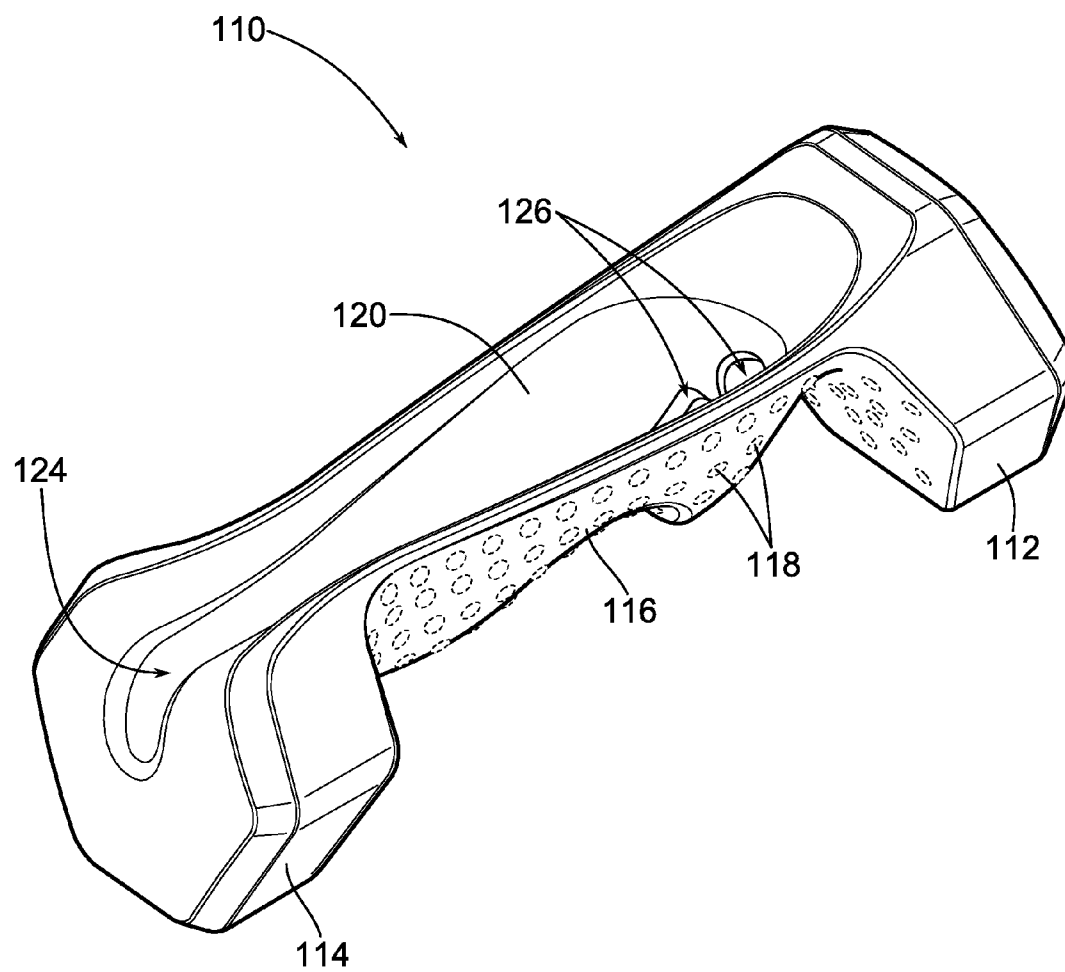


FIG. 7

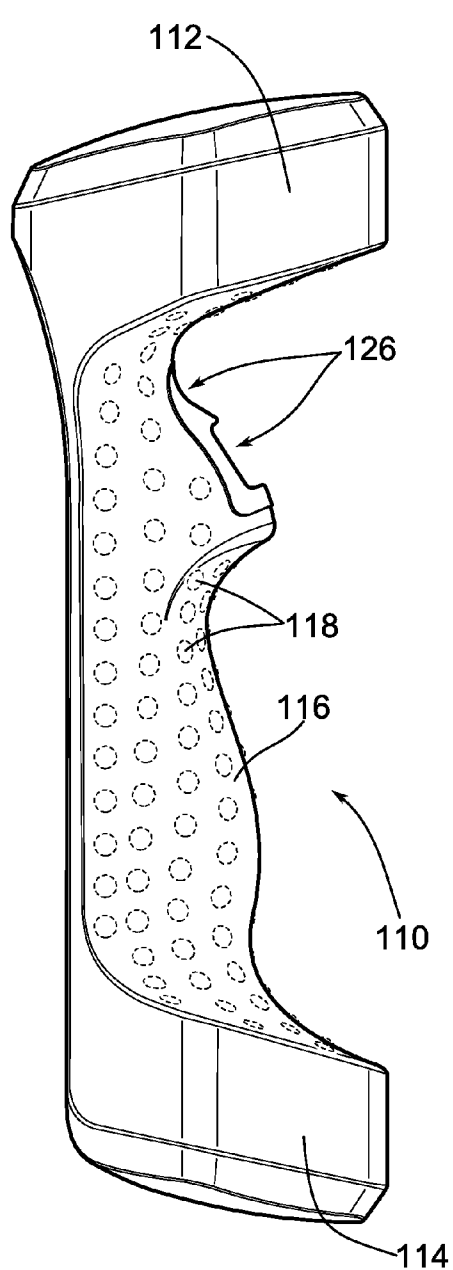


FIG. 8

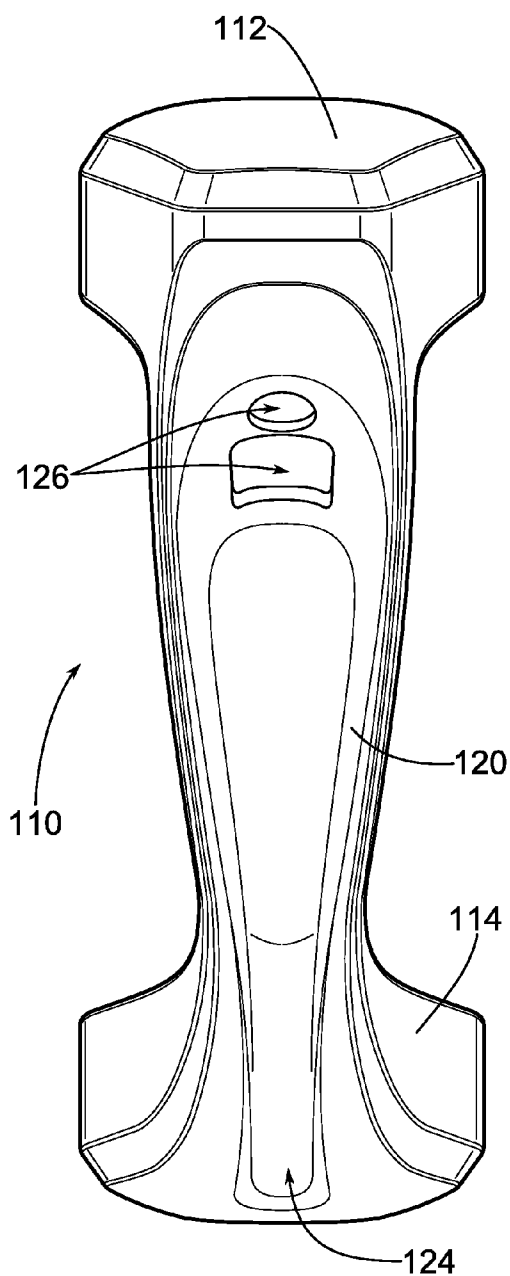
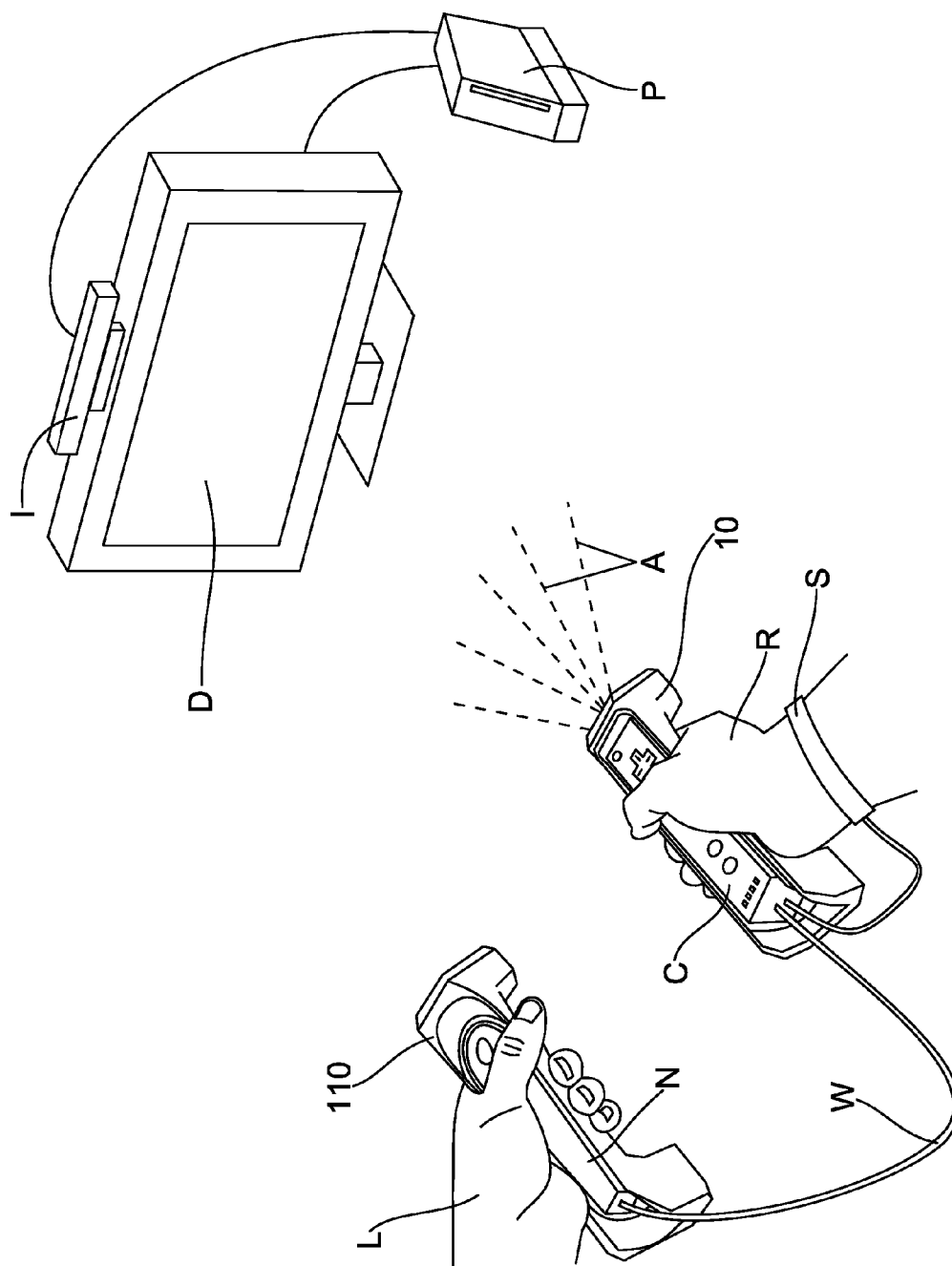


FIG. 9



**FIG. 10**

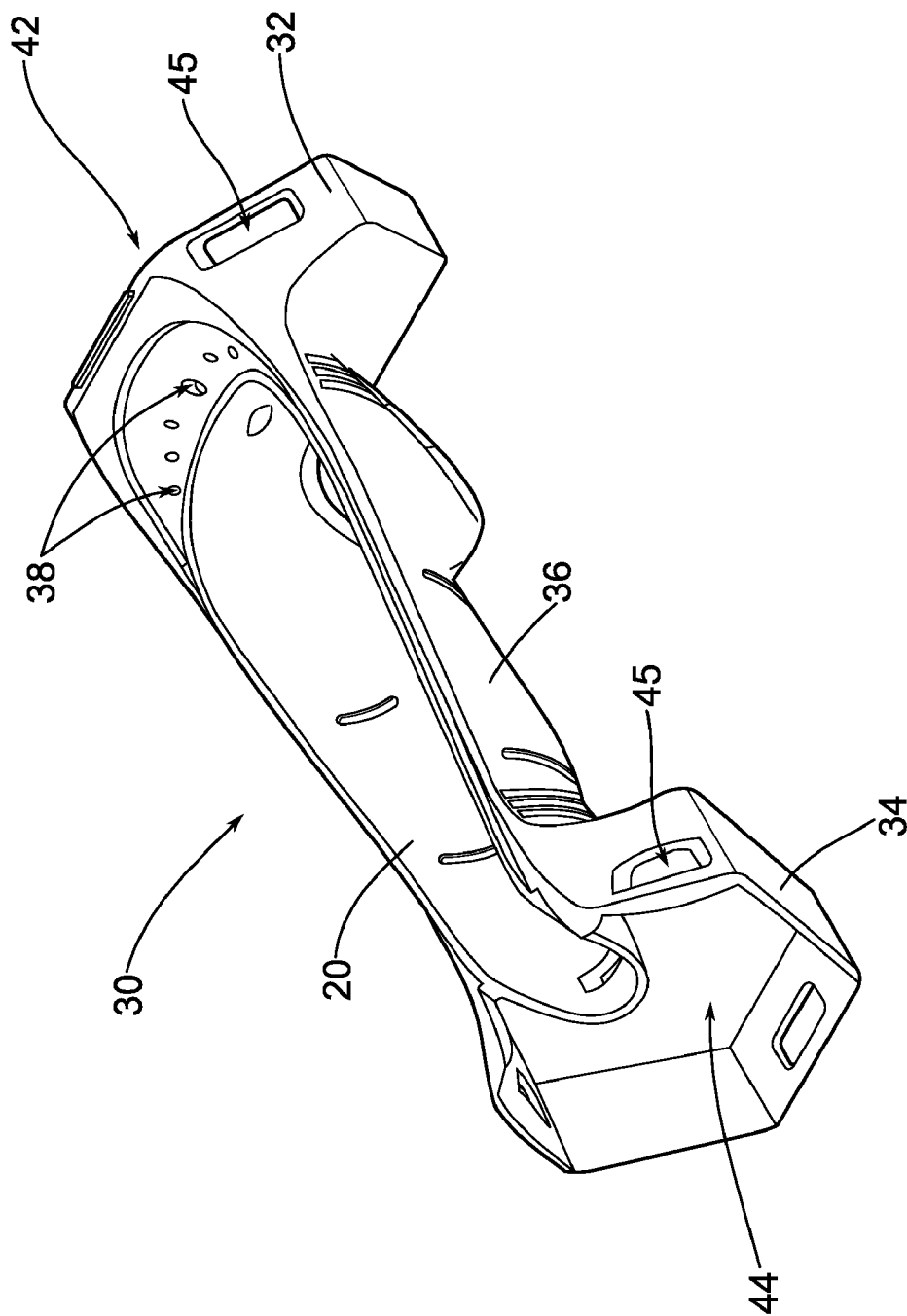


FIG. 11

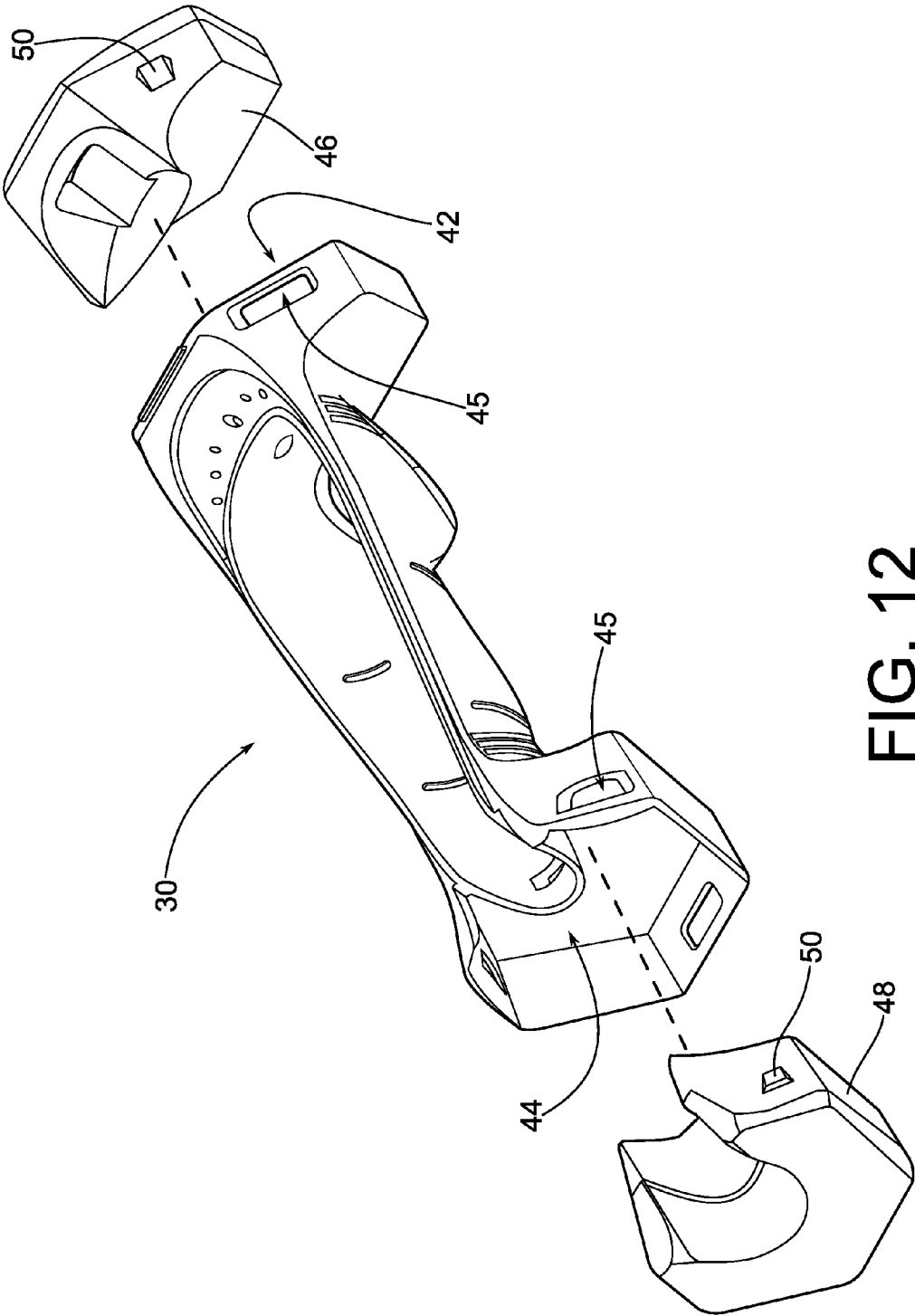


FIG. 12

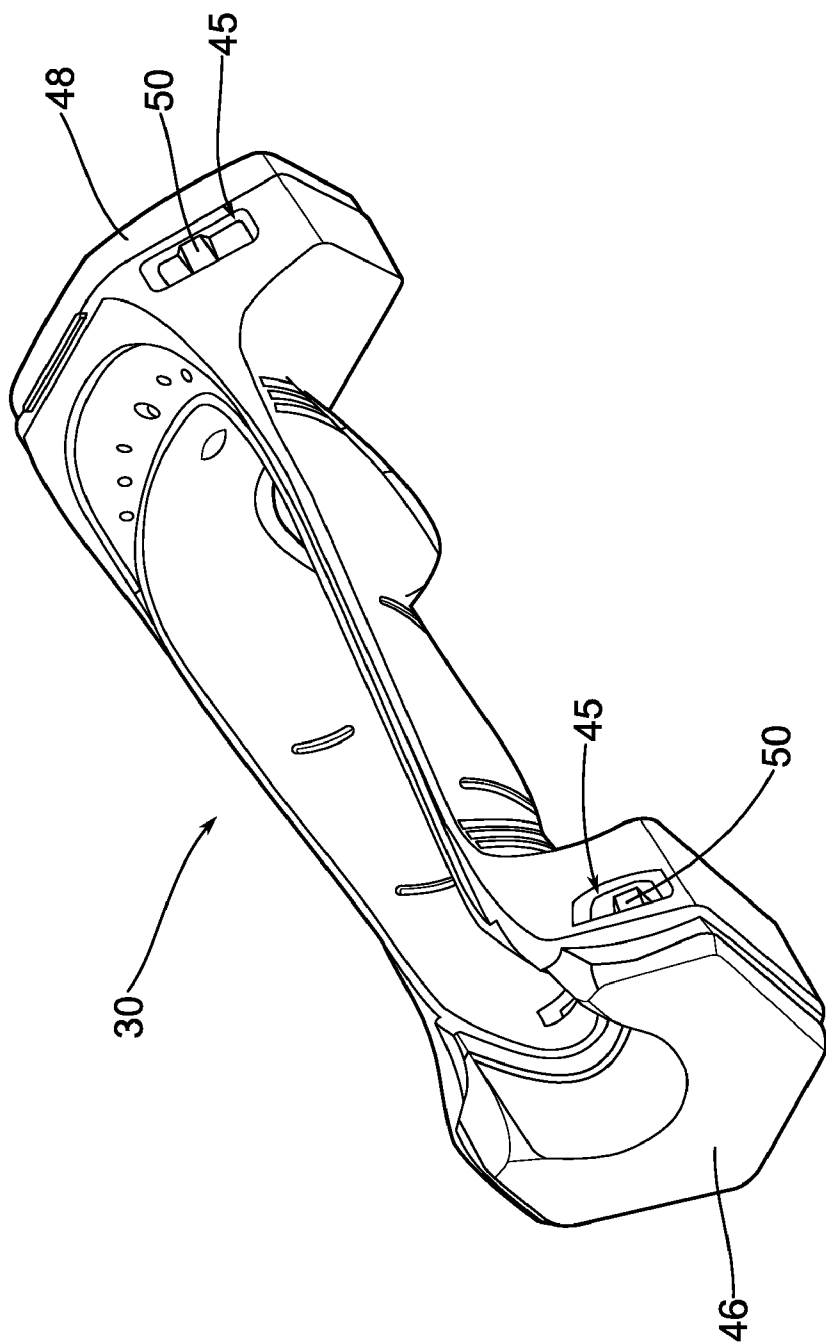


FIG. 13

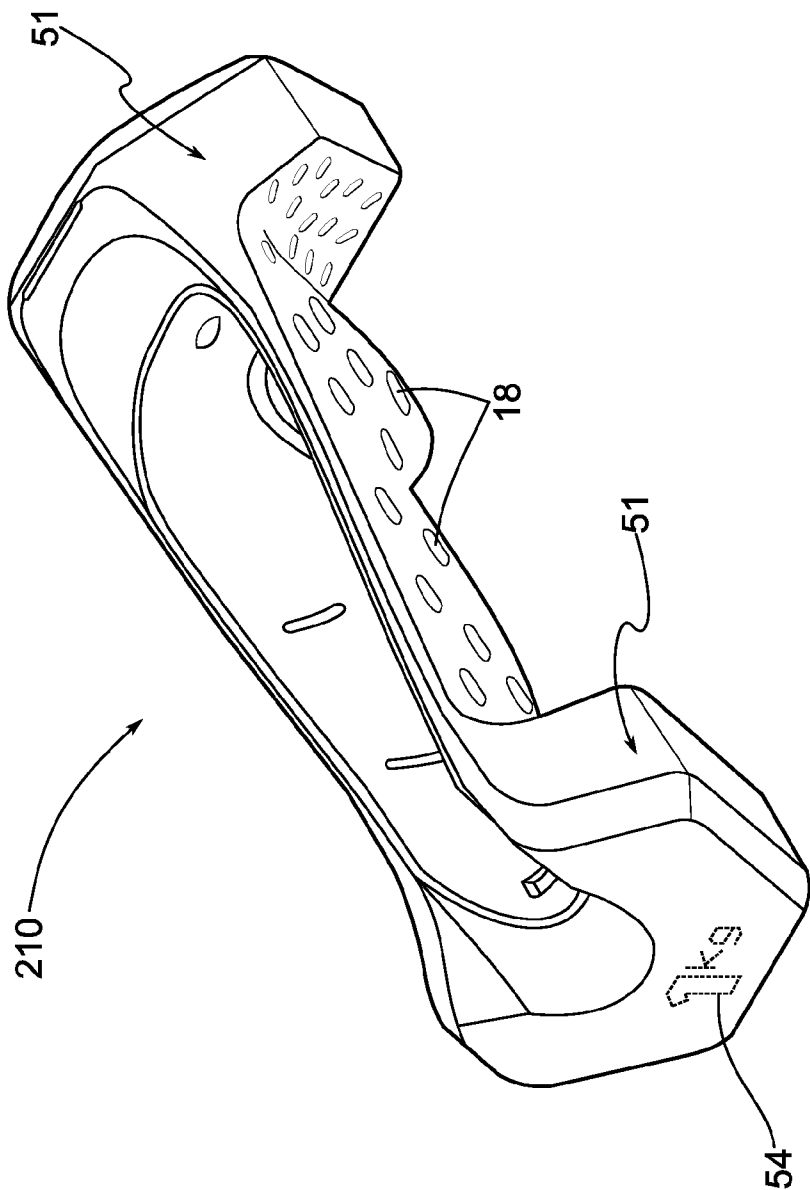


FIG. 14

## WEIGHTED ACCESSORY FOR GAME CONTROLLER

### CROSS-REFERENCE TO RELATED APPLICATION

**[0001]** This application claims priority benefit of U.S. Provisional Patent Application Ser. No. 61/144,371, filed Jan. 13, 2009, U.S. Provisional Patent Application Ser. No. 61/242,095, filed Sep. 14, 2009, and U.S. Provisional Patent Application Ser. No. 61/252,852, filed Oct. 19, 2009; and this application is a continuation-in-part of U.S. Design patent application Ser. No. 29/337,907, filed Jun. 1, 2009, and is a continuation-in-part of U.S. Design patent application Ser. No. 29/337,908, filed Jun. 1, 2009, all of which are hereby incorporated by reference herein in their entireties.

### TECHNICAL FIELD

**[0002]** The present invention relates generally to a weighted dumbbell-like accessory for hand-held controllers such as those commonly used with video games.

### BACKGROUND

**[0003]** Hand held controllers like those used with the Nintendo Wii™ have become part of a growing trend of fitness and exercise regimens facilitated through video games. Nintendo's Wii Fit™ has introduced additional ways to integrate yoga, balance, aerobics, and strength training into fun and interactive games.

**[0004]** Although many of the fitness related video games include a strength-training component, which uses the hand-held controller, there is not enough weight to a standard game controller to provide enough resistance to build strength through lifting and manipulating the controller.

**[0005]** Controllers are typically of lightweight design in order to provide comfortable use for extended periods of play. Thus, heretofore it would have been counterintuitive to add weight to a controller, and doing so would be contrary to the typical practice in this field of art.

### SUMMARY

**[0006]** In example embodiments, the present invention relates to a weighted attachment designed for hand-held game controllers. The attachment is a balanced weighted device similar to conventional hexagonal dumbbell design. The device allows for the secure attachment of a hand-held game controller like those used with the Nintendo™ Wii, Sony™ Playstation 3, Microsoft™ Xbox 360, and other electronic gaming devices or consoles.

**[0007]** In one aspect, the present invention allows for access to buttons and other input devices of the controller that are typically needed for interaction with the gaming console. The device also permits opening and custom fittings required for proper function and security of the handheld controller. Additional straps or securing devices may be added to support the weighted device in the hands of the user.

**[0008]** When held, the device will permit the user to make use of the game controller in the manner in which the manufacturer designed it, with the added benefit of weight-based resistance. The device is created to minimize the addition of bulk around the handle area and does not inhibit access to controller input devices.

**[0009]** These and other aspects, features and advantages of the invention will be understood with reference to the drawing

figures and detailed description herein, and will be realized by means of the various elements and combinations particularly pointed out in the appended claims. It is to be understood that both the foregoing general description and the following brief description of the drawings and detailed description of the invention are exemplary and explanatory of preferred embodiments of the invention, and are not restrictive of the invention, as claimed.

### BRIEF DESCRIPTION OF THE DRAWINGS

**[0010]** FIG. 1 is a perspective view of a weighted accessory for a game controller according to a first example embodiment.

**[0011]** FIG. 2 is a side view of the weighted accessory of FIG. 1.

**[0012]** FIG. 3 is a top view of the weighted accessory of FIG. 1.

**[0013]** FIG. 4 is a front view of the weighted accessory of FIG. 1.

**[0014]** FIG. 5 is a perspective view of the weighted accessory of FIG. 1 shown in use with an example game controller.

**[0015]** FIG. 6 is a top view of the weighted accessory of FIG. 1 with the example game controller of FIG. 5 embedded therein.

**[0016]** FIG. 7 is a perspective view of a weighted accessory for a game controller according to a second example embodiment.

**[0017]** FIG. 8 is a side view of the weighted accessory of FIG. 7.

**[0018]** FIG. 9 is a top view of the weighted accessory of FIG. 7.

**[0019]** FIG. 10 is a schematic view of the accessory of FIG. 1 and the accessory of FIG. 7 shown in example use with other example electronic devices.

**[0020]** FIG. 11 is a perspective view of a first step of an example manufacturing process of the present invention.

**[0021]** FIG. 12 is a perspective view of a second step of an example manufacturing process of the present invention.

**[0022]** FIG. 13 is a perspective view of a third step of an example manufacturing process of the present invention.

**[0023]** FIG. 14 is a perspective view of a fourth step of an example manufacturing process of the present invention.

### DETAILED DESCRIPTION OF EXAMPLE EMBODIMENTS

**[0024]** The present invention may be understood more readily by reference to the following detailed description of the invention taken in connection with the accompanying drawing figures, which form a part of this disclosure. It is to be understood that this invention is not limited to the specific devices, methods, conditions or parameters described and/or shown herein, and that the terminology used herein is for the purpose of describing particular embodiments by way of example only and is not intended to be limiting of the claimed invention. Any and all patents and other publications identified in this specification are incorporated by reference as though fully set forth herein.

**[0025]** Also, as used in the specification including the appended claims, the singular forms "a," "an," and "the" include the plural, and reference to a particular numerical value includes at least that particular value, unless the context clearly dictates otherwise. Ranges may be expressed herein as from "about" or "approximately" one particular value and/or

to “about” or “approximately” another particular value. When such a range is expressed, another embodiment includes from the one particular value and/or to the other particular value. Similarly, when values are expressed as approximations, by use of the antecedent “about,” it will be understood that the particular value forms another embodiment.

**[0026]** With reference now to the drawing figures, wherein like reference numbers represent corresponding parts throughout the several views, FIGS. 1-4 show a weighted accessory 10 according to a first example embodiment. The weighted accessory 10 includes a first end 12, a second end 14 opposite to the first end 12, and a handle 16 extending between the first and second ends. The weighted accessory 10 generally resembles a dumbbell free weight of a type known commonly in weight lifting. The weighted accessory 10 can be composed of materials ranging from metals, plastics, polymers, rubbers, anti-microbial materials, or any other suitable material. Additionally, the accessory 10 can be constructed to be waterproof and dishwasher safe.

**[0027]** The first end 12 and the second end 14 of the weighted accessory 10 are generally hexagonally shaped, but in other embodiments, they can be circular or have any other geometric shape. The hexagonally shaped first and second ends allow the accessory 10 to rest flat on a planar surface without rolling from side to side and to also provide additional structural support when the accessory 10 is packaged in bulk for transit. Additionally, the accessory 10 can be designed to self correct itself to a default position when placed on a flat surface by designing the mass of the accessory 10 to be offset from its central axis. The first end 12 of the accessory 10 optionally has a first end aperture 22 located thereon. The second end 14 of the accessory 12 optionally has a second end opening 24 located thereon. The first end 12 and the second end 14 have weights (not shown) embedded therein. The weights embedded in the first and second ends can vary in weight, allowing for different embodiments of the weighted accessory 10 to have different weights and sizes, such as, for example 1 pound or kilogram, 2 pounds or kilograms, 2.5 pounds or kilograms, 5 pounds or kilograms, 10 pounds or kilograms, 25 pounds or kilograms, etc. Alternatively, the weight of the accessory 10 can be at least equal to, two times, or three times the weight of the controller it is to be used with. Additionally, optional weight attachments of different increments can be added to the first and second ends of the accessory 10, such as, for example, 1 pound or kilogram, 2 pounds or kilograms, 2.5 pounds or kilograms, 3 pounds or kilograms, 5 pounds or kilograms, 10 pounds or kilograms, etc. Weight attachments can be added and attached to the first and second ends by clamps, threaded connectors, hook and loop fasteners, magnets, or any other suitable type of connector. Alternatively, the weight of the accessory 10 can be slightly less than an even weight increment, since the weight of a controller to be used in conjunction with the accessory 10 must be accounted for. The combined weight of the accessory 10 and the controller is preferably an even increment.

**[0028]** The handle 16 can be contoured and shaped to fit the hand of a user and can optionally have a plurality of raised protrusions 18 placed thereon for aid in gripping the accessory 10. Preferably, the surface of the handle 16 is coated with a layer of a cushioned or non-slip material (e.g. rubber, recycled materials, thermoplastic elastomer, or other materials) 17 in order to provide more friction for the user while he/she grips the accessory 10 and to also protect any furniture

or surface on which the accessory 10 is to be placed upon. The handle 16 is preferably elevated with respect to the first and second ends to allow for a user's hand to be placed underneath the accessory 10 while it is resting on a planar surface. A controller cradle or receptacle 20 is shown recessed within the handle 16. The controller cradle 20 is shaped and contoured to fit and house a controller therein. The cradle 20 in this embodiment is shaped to receive a generally rectangular shaped controller. The cradle 20 optionally has one or more button apertures 26 located thereon, such that a user can operate any buttons, switches, triggers, or any other input control device located on the lower part of a controller placed within the cradle 20.

**[0029]** The cradle 20 optionally can have one or more controller grips 21 located on the inner face of the cradle 20. The grips 21 are preferably made from rubber or any other frictional material, but in other embodiments, the grips 21 can be tabs, hook and loop fasteners, magnets, a slightly adhesive material, etc. The grips 21 can prevent an object placed within the cradle 20 from slipping or moving in an unwanted direction while the accessory 10 is in use. The grips 21 in this embodiment are rubber protrusions placed on the inner surface of the cradle 20 that prevent a controller from sliding or moving in an unwanted direction while the controller is placed inside the cradle 20. In other embodiments, a detachable cover plate or a series of retention bands placed over the handle 16 can be used in conjunction with the present invention to hold an object within the cradle 20.

**[0030]** A controller C is shown in association with the weighted accessory 10 in FIG. 5 and the controller C is shown embedded within the weighted accessory 10 in FIG. 6. The controller C resembles a Nintendo Wii™ Remote, but it should be noted that the scope of the present invention includes accessories that are designed and manufactured to work with other types of controllers. The accessory 10 allows for unrestricted use of the controller C and installation and removal of the controller C from the accessory 10. The controller C can optionally have a button B located on its lower face and a sensor S located on its front face. When the controller C is placed fully within the controller cradle 20, the button B aligns with the button aperture 26 on the lower part of the controller cradle 20. The button B is therefore still reachable and operable through the button aperture 26 while the controller C is placed within the accessory 10. Additionally, the sensor S aligns with the first end aperture 22 on the first end 12, and therefore the sensor is communicable while the controller C is placed within the cradle 20. The sensor S can transmit and/or receive signals that include technologies such as infrared, Bluetooth™, radio frequency, motion tracking, voice commands, or any other similar wireless signal. Optionally, electric cords or wires extending from the rear face of the controller C can be placed within the second end opening 24. Add on modules and peripheral devices associated with the controller C optionally can be added or removed to the controller C without being hindered by the accessory 10. Normally, the controller C is in communication with a video game console or platform, and the accessory 10 does not hinder the ability of the controller C to communicate with its respective video game console or platform.

**[0031]** The open design of the cradle 20 allows for any input control devices on the top surface of the controller C to be accessed while the controller C is placed within the accessory 10. The controller C can optionally include embedded transponders, speakers, motors, or other components for pro-

viding various forms of sensory feedback such as vibration and/or sound which would not be hindered by the presence of the accessory 10. Additionally, a controller security strap attached to the controller C can be included to wrap around and attach to the wrist of a user. This would ensure that the controller C and the accessory 10 are not accidentally flung or dropped while the accessory 10 is in use. The strap can include features for recognizing biometric feedback such as heart rate, body temperature, motion, or other information read by a tethered or non-tethered device attached to the user's body.

**[0032]** FIGS. 7-9 show a weighted accessory 110 for a game controller according to a second embodiment of the present invention. The accessory 110 is substantially similar to the accessory 10 as described above. The weighted accessory 110 includes a first end 112, a second end 114, and a handle 116 extending therebetween. The handle 116 optionally can have a plurality of raised protrusions 118 on its outer surface to improve a user's grip on the handle 116. The accessory 110 additionally includes a second end opening 124 located on the second end 114. The handle 116 includes a controller cradle 120 that is shaped to ideally receive a teardrop shaped controller (not shown). The cradle optionally has two button apertures or openings 126 located proximate to the first end 112. Preferably, the controller to be used in conjunction with the accessory 110 is a Nintendo Wii™ Remote Nunchuk attachment. The shape of the cradle 120 is designed to receive and house the Nunchuk attachment and the position and size of the button apertures 126 are designed to allow the buttons on the Nunchuk attachment to be accessible when the accessory 110 is used in conjunction with the accessory 110. The cord extending from the rear end of the Nunchuk attachment can additionally be fed through the second end aperture 124.

**[0033]** In other embodiments, the weighted accessory of the present invention can be constructed by encasing a cast metal core with injection molded plastic resin. In still other embodiments, the accessory can be constructed with a modular design that would facilitate multiple weight or design versions of the accessory while all sharing common core components. Additionally, the modular design can allow for uniform end-to-end weight distributions for the accessory. The accessory can also be designed to integrate its own electronic devices or circuitry such that a separate controller device is not necessary.

**[0034]** FIG. 10 shows a schematic view of the accessory 10 and accessory 110 being used in conjunction with other electronic devices. This setup is by example only, and is not meant to limit the use of the present invention to this particular example. For this description, the accessory 10 will be referred to as the primary accessory 10 and the accessory 110 will be referred to as the secondary accessory 110. The controller C rests within the primary accessory 10 and acts as a primary controller. A secondary controller N rests within the secondary accessory 110 and is attached by a wire W to the primary controller C. A user holds the primary accessory 10 and the secondary accessory 110 in his right hand R and his left hand L, respectively. Additionally, the primary controller has a security strap S attached to the user's right wrist, which can optionally include biometric signal detecting electronics therein. A video game console P is in electronic communication with a display D and a secondary attachment device I, which rests on the top of the display D. The controller C is in wireless communication with the secondary device I and the

console P, as represented by signal waves A. Alternatively, the connections between the various components can be wired or wireless. The user can interact with the console P through the controller C and perform any type of entertaining or exercising activity while holding the primary and secondary accessories 10 and 110.

**[0035]** With reference now to FIGS. 11-14, an example of a manufacturing process for producing a weighted gaming accessory will be explained. FIG. 11 shows a body or housing 30 shaped similarly to the accessory 110. U.S. Provisional Patent Application Ser. No. 61/252,852 filed Oct. 19, 2009 is incorporated herein by reference for additional detail of an example manufacturing process. It should be noted that the scope of the manufacturing process can apply to any accessory embodiments of the present invention. The body 30 can be made of plastic, resin, polymers, metals, or any other suitable material via injection molding, forging, etc. The body 30 has a first end 32, a second end 34, and a middle portion 36 extending therebetween. The middle portion 36 has a controller cavity 20 embedded therein. The first end 32 has a first cavity 42 embedded therein and the second end 34 has a second cavity 44 embedded therein. The body 30 optionally can have a plurality of filler apertures or holes 38 placed on portions of the body 30 and a plurality of tab apertures 45 on the portions that define the cavities.

**[0036]** As seen in FIG. 12, a first weight 46 and a second weight 48 are shown in association with the body 30. The weights can be blocks of material made from metals, plastics, resins, or any other suitable materials. Additionally, the weights can be vessels containing a substance or material (e.g. rocks, sand, pellets, etc.) conformed to fit any shape. In this particular embodiment, the weights 46 and 48 are casted from steel and are conformed to fit the shape the cavities on the body 30. The weights 46 and 48 optionally have locking tabs 50 extending outwards placed on their circumferential periphery. As the weights 46 and 48 are placed within their respective cavities, the locking tabs 50 snap into and engage with the tab apertures 45 on the body 30. As seen in FIG. 13, the weights 46 and 48 are now securely locked into their respective cavities by the engaging action between the locking tabs 50 and the tab apertures 45. The body 30 and the weights 46 and 48 in FIG. 13 undergo a process in which a material layer 51 is molded over the weights 46 and 48 and portions of the body 30. The end result is a weighted accessory 210 according to a third embodiment of the present invention, as seen in FIG. 14. During the overmolding process, the material layer 51 occupies the space of the filler apertures 38, which help the material layer 51 adhere to the body 30. A plurality of raised protrusions 18 are optionally molded onto the material layer 51. A labeling indicia or mark 54 can optionally be made on the layer 51 to denote the weight of the accessory in either pounds or kilograms.

**[0037]** It should be noted that other manufacturing processes and steps for creating the present invention are within the scope of the invention. For example, the weights can rest within their respective cavities while being held therein by a plurality of cover plates, caps, couplings, connectors, adhesives, or the like. Optionally, the superficial material layer can be excluded from the manufacturing process if so desired.

**[0038]** While the invention has been described with reference to preferred and example embodiments, it will be understood by those skilled in the art that a variety of modifications, additions and deletions are within the scope of the invention, as defined by the following claims.

What is claimed is:

1. An accessory for a game controller, the accessory comprising:

a grip portion having a receiver for engaging the game controller and allowing access to at least one control feature of the game controller;

at least one weighted portion attached to the grip portion.

2. The accessory of claim 1, wherein the grip portion includes at least one opening for access to the at least one control feature of the game controller.

3. The accessory of claim 1, wherein the weight of the accessory is at least equal to the weight of the game controller.

4. The accessory of claim 1, wherein the weight of the accessory is at least two to three times the weight of the game controller.

5. The accessory of claim 1, wherein the weight of the accessory is at least one pound.

6. The accessory of claim 1, wherein the weight of the accessory is at least 2.5 pounds.

7. The accessory of claim 1, wherein the weight of the accessory is at least five pounds.

8. The accessory of claim 1, further comprising weighted attachments for adding incremental weight to the accessory, and means for removably attaching the weighted attachments to the accessory.

9. The accessory of claim 1, wherein the grip portion defines an opening allowing passage of a trigger portion of the controller therethrough.

10. A weighted game controller for a video game system, the weighted game controller comprising at least one actuator for user interaction with the game system, and a substantially weighted portion.

11. The weighted game controller of claim 10, wherein the substantially weighted portion is separable from the actuator.

12. The weighted game controller of claim 10, wherein the substantially weighted portion is integral with the actuator.

13. The weighted game controller of claim 10, having an overall weight of at least one pound.

14. The weighted game controller of claim 10, having an overall weight of at least 2.5 pounds.

15. The weighted game controller of claim 10, having an overall weight of at least five pounds.

16. The weighted game controller of claim 10, further comprising weighted attachments for adding incremental weight, and means for removably attaching the weighted attachments to the controller.

17. An accessory set for an electronic game having a primary controller and a secondary controller, the accessory set comprising a first weighted accessory for releasably engaging the primary controller and a second weighted accessory for releasably engaging the secondary controller.

18. The accessory set of claim 17, wherein the primary controller and a secondary controller have approximately equal weights.

19. The accessory set of claim 17, wherein the primary controller and a secondary controller each comprise a handle portion and at least one weighted portion attached to the handle portion.

20. The accessory set of claim 17, wherein the primary controller and a secondary controller each comprise a handle portion, a first weighted body attached to a first end of the handle portion, and a second weighted body attached to a second end of the handle portion opposite the first end.

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