



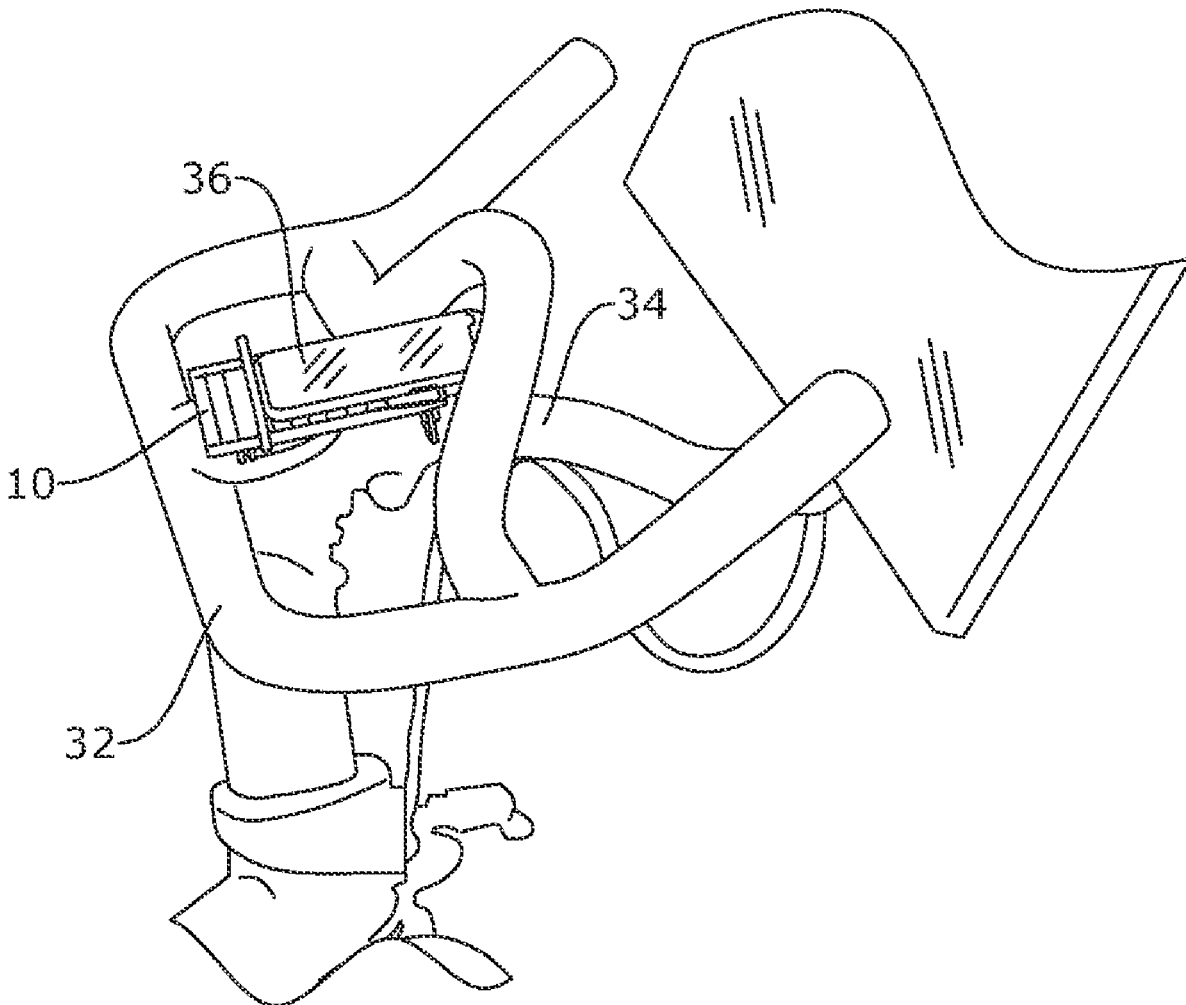
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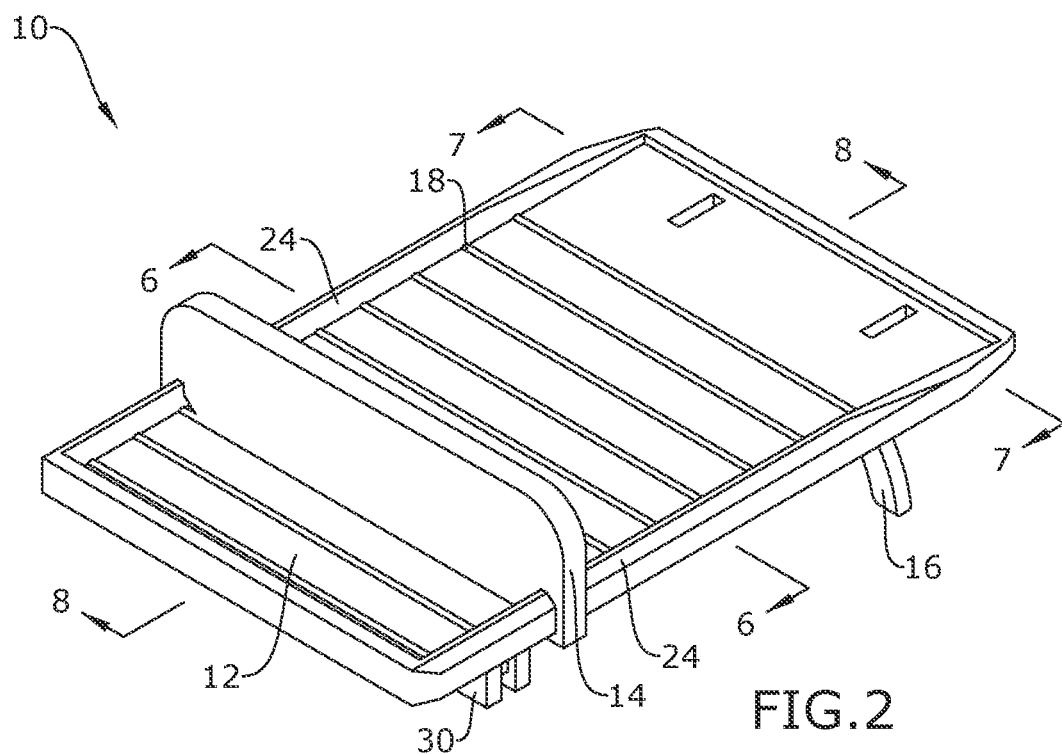
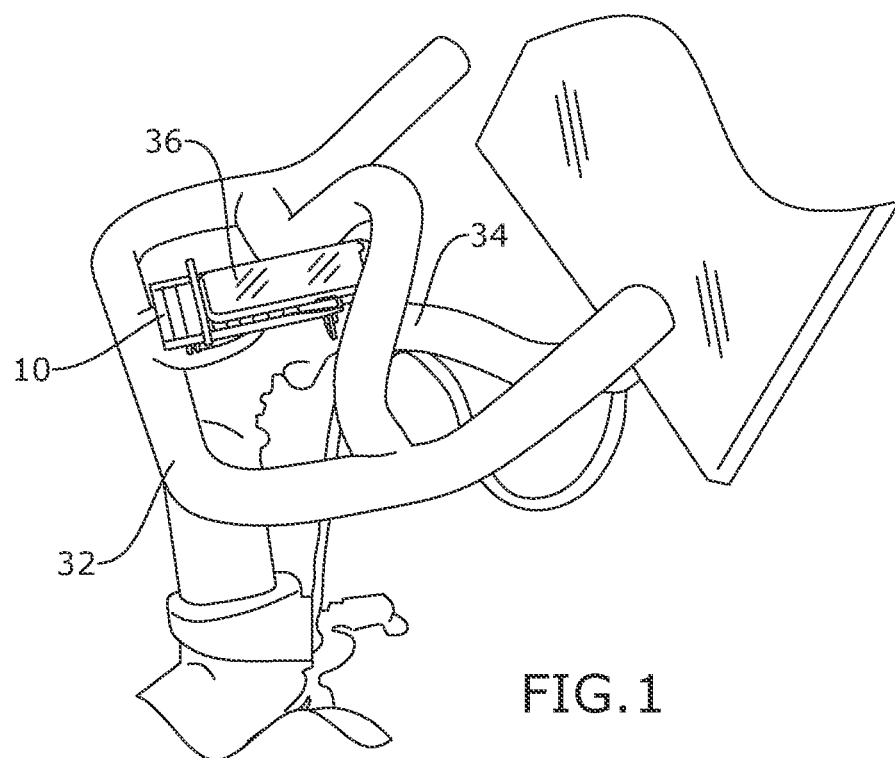
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Francis(10) **Pub. No.: US 2021/0368976 A1**(43) **Pub. Date: Dec. 2, 2021**(54) **DEVICE FOR RETAINING A SMART
DEVICE TO EXERCISE EQUIPMENT**(52) **U.S. Cl.**CPC *A47B 23/06* (2013.01); *A63B 2225/685*
(2013.01); *A63B 21/4035* (2015.10)(71) Applicant: **Matthew Landon Francis**, Atlanta, GA
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7, 2020.**Publication Classification**(51) **Int. Cl.***A47B 23/06* (2006.01)*A63B 21/00* (2006.01)

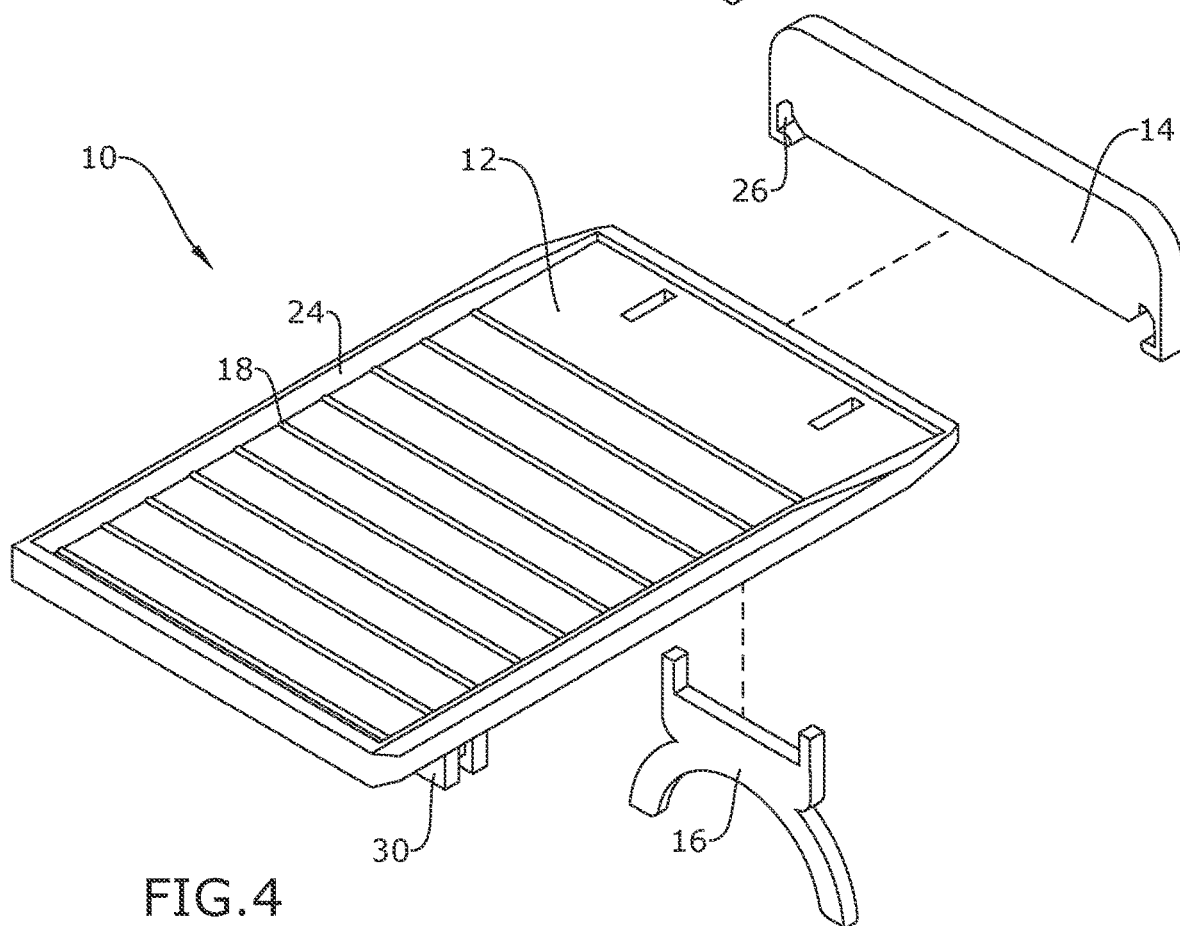
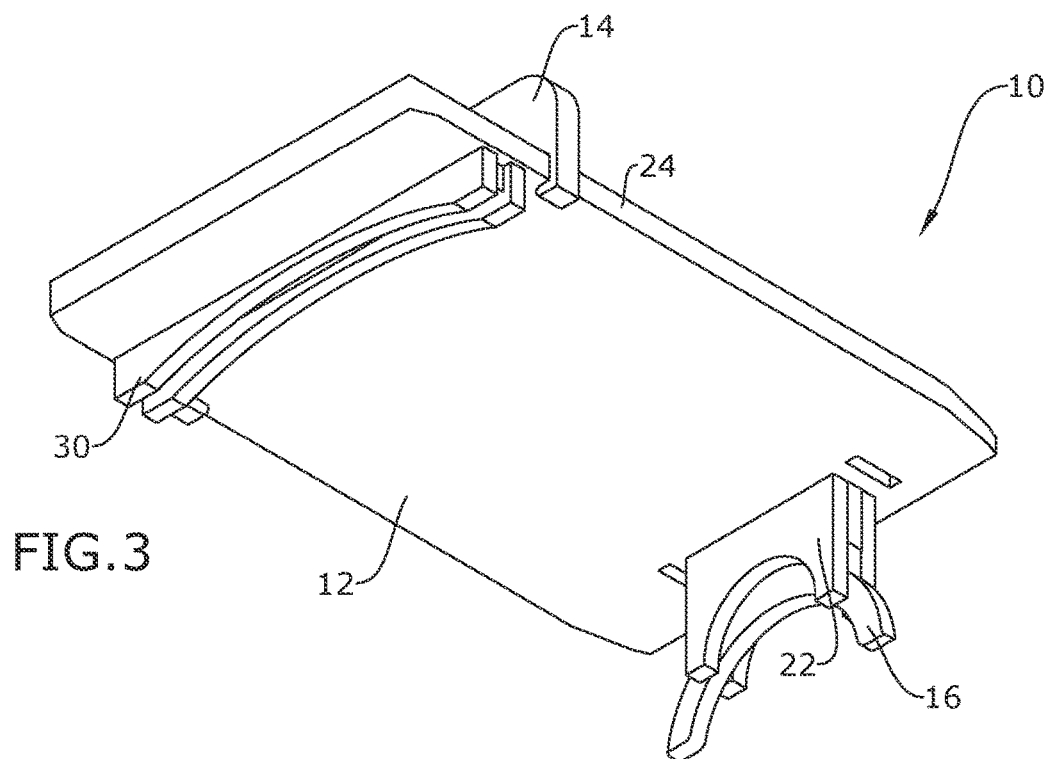
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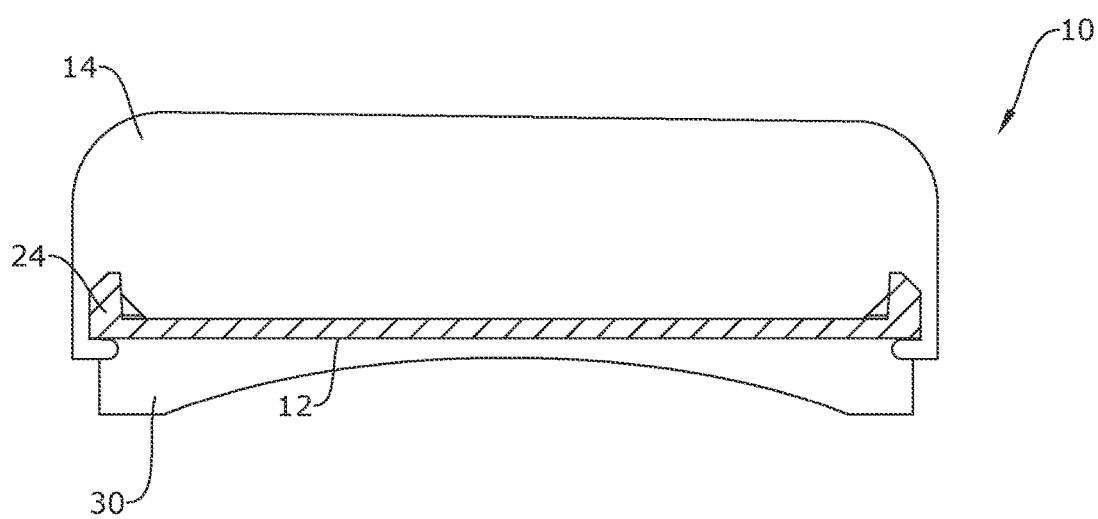
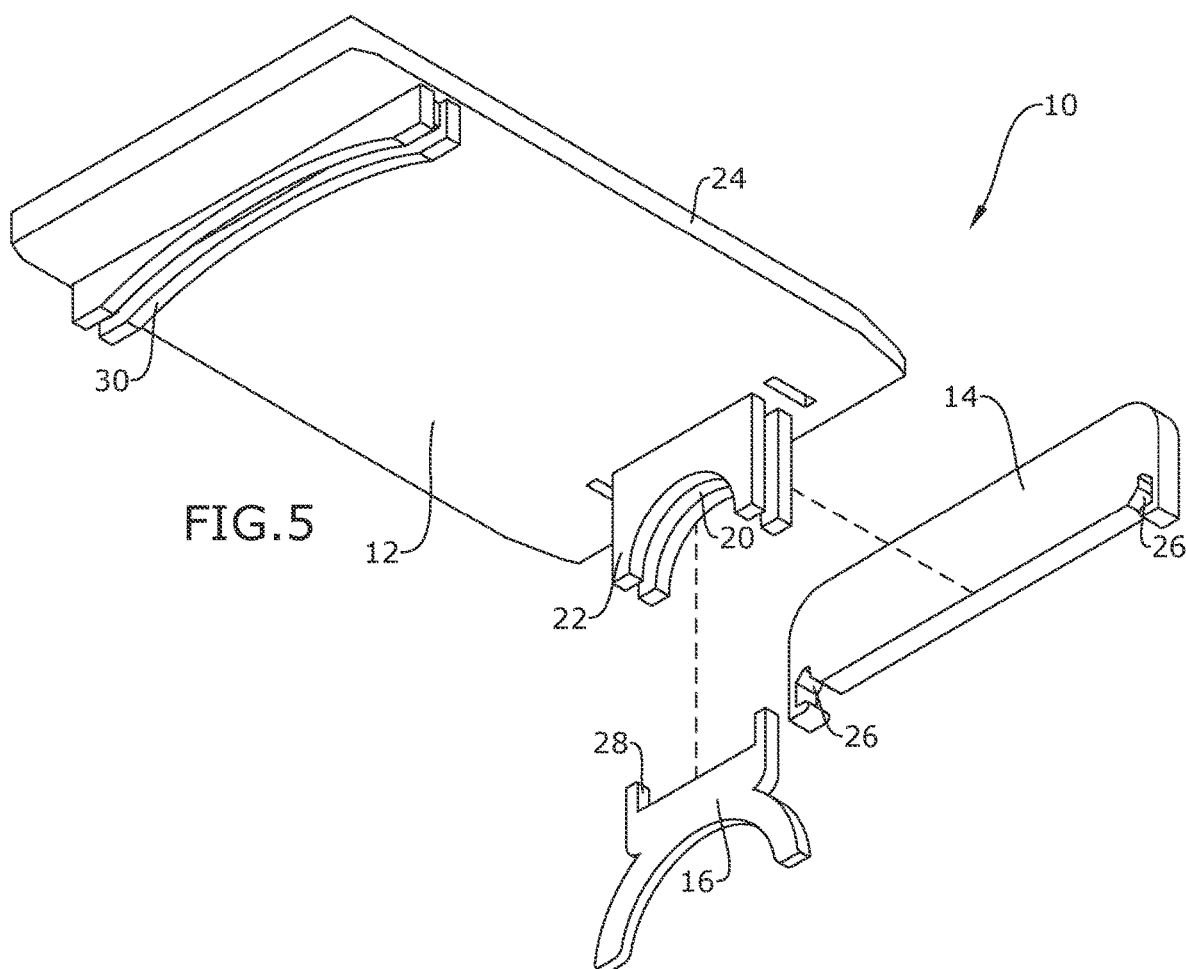
ABSTRACT

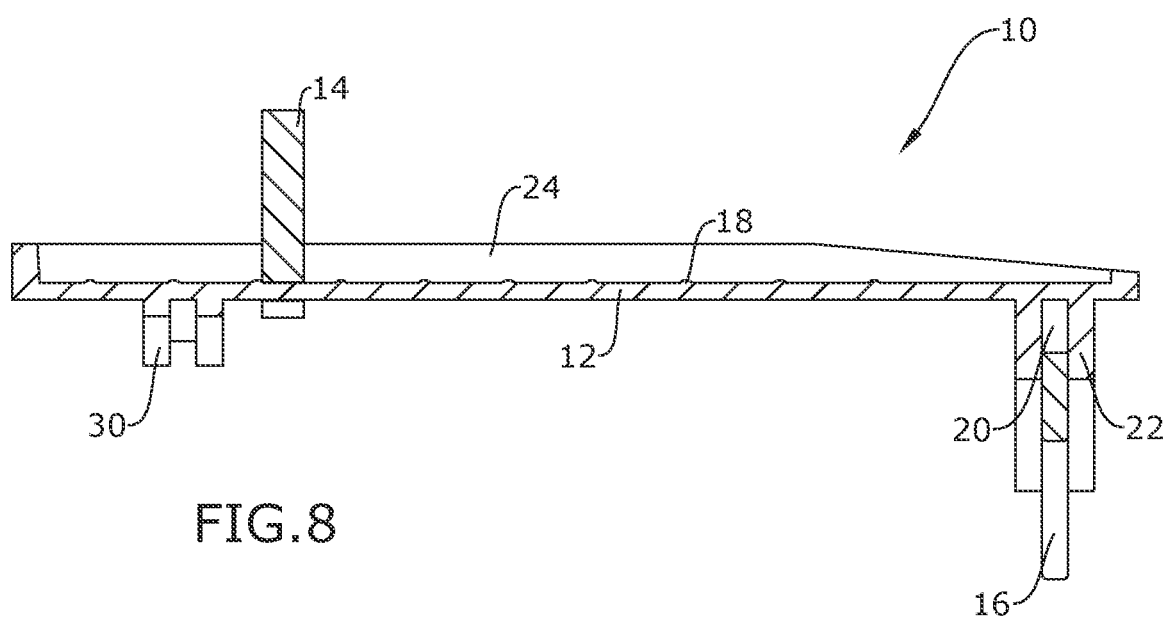
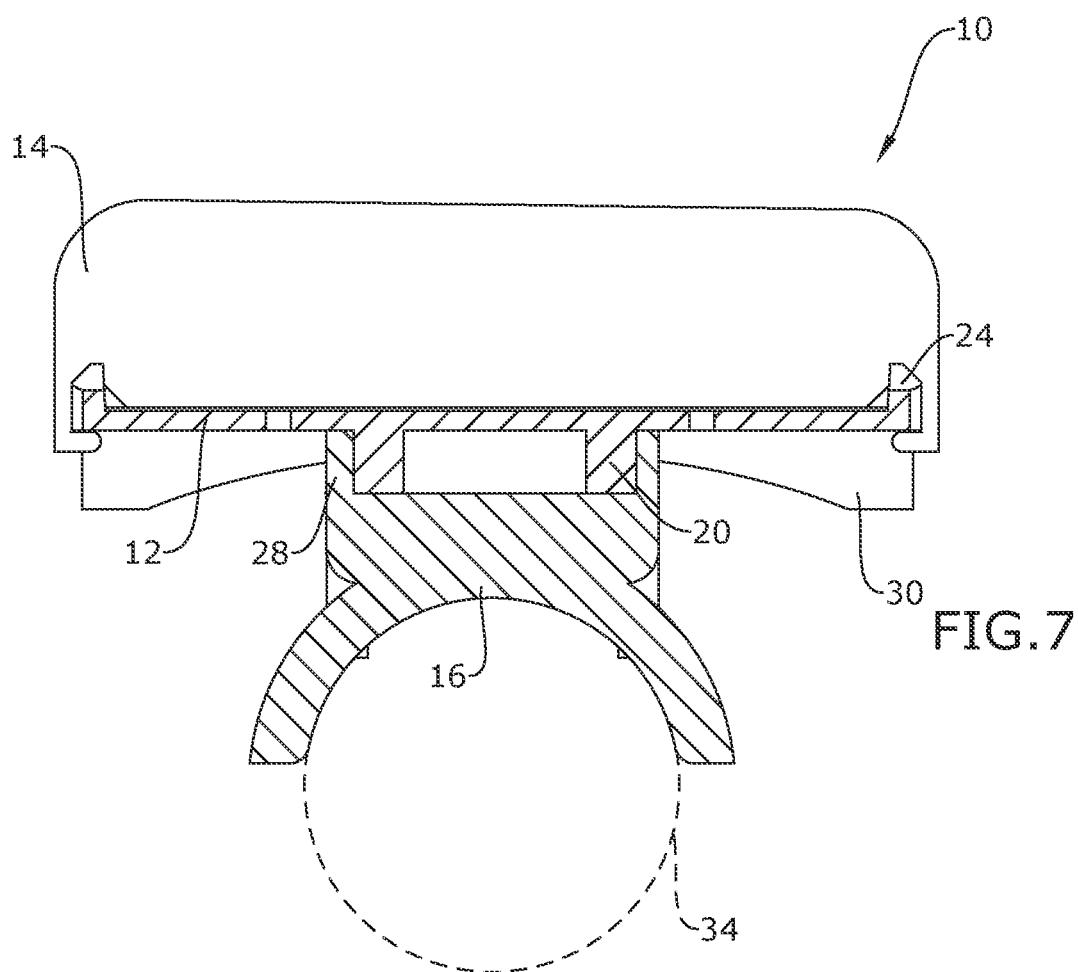
A device for retaining a mobile device on exercise equipment without screws or tape and gravity alone. The retaining device may include a platform for accessibly supporting the smart device along an upper surface of the platform. The upper surface provides a sliding shelf that can be selectively secured to different locations along a longitudinal axis of the platform. A lower surface of the platform may provide spaced apart rearward and forward notches for removably securing the platform to one of various exercise equipment, wherein the forward notches are selectively exchangeable and the rearward notch has large radius of curvature to substantially engage more planar portions of the exercise equipment.











DEVICE FOR RETAINING A SMART DEVICE TO EXERCISE EQUIPMENT

CROSS-REFERENCE TO RELATED APPLICATION

[0001] This application claims the benefit of priority of U.S. provisional application No. 62/971,640, U.S. provisional application number filed 7, Feb. 2020, the contents of which are herein incorporated by reference.

BACKGROUND OF THE INVENTION

[0002] The present invention relates to retaining devices and, more particularly, a device for retaining a smart device to exercise equipment without fasteners, adhesives or other joining methods.

[0003] Millions of individuals incorporate treadmills and stationary bikes into their exercise routines. A vast majority of these individuals also employ handheld computing devices, smart phones and the like. Many users of such mobile devices feel the need to compulsively check these handheld devices, even during said exercise routines. Attempting to accessibly retain the smart device on a stationary bike that does not have an intrinsic phone holder, however, can be a challenge. And faulty attempts to do so can be the reason individuals get injured or damage their smart device during their exercise routines, which can become quite vigorous.

[0004] Current mobile phone retaining device require a high level of skill to install to avoid damaging the equipment on which they are installed. Specifically, these devices use screws or tape that can damage or aesthetically mar the equipment. Moreover, such retaining devices are designed to be installed in places that make it hard to access and engage one's phone during exercise routines. Finally, when exercising in a public space, such as a gym, users do not have the time for an elaborate installation process, especially if they are in hurry or there are others waiting to use the exercise equipment.

[0005] As can be seen, there is a need for a device for retaining a smart device on exercise equipment without fasteners, adhesives or other joining methods, making it easy and quick to install and safer to use. The present invention provides a platform that is installed without screws or tape to minimize the possible damage to the exercise equipment yet still provide a secure, accessible platform to retain the user's phone/device; thereby retaining the phone/device on the exercise equipment that does not have an intrinsic phone holder.

[0006] In sum, the present invention provides the ability to fit different bikes/stationary equipment, as well as adapt for horizontal or vertical device holding situations, by way of the slot/attachment functionality disclosure herein.

[0007] Finally, the present invention does not have to use screws, glue, tape or other joining means for a user to exploit the mobile device retainer assembly's advantages.

SUMMARY OF THE INVENTION

[0008] In one aspect of the present invention, a mobile device retainer assembly for an exercise equipment, the retainer assembly includes the following: a platform having an upper surface and an opposing surface; a shelf slidable along the longitudinal axis of the upper surface in such a way that the shelf selectively engages one of a plurality of

unslidable/stopped conditions; a rearward notch spaced apart from the lower surface; and a forward notch spaced apart from the lower surface, wherein a first radius of curvature of the rearward notch is at least twice that of a second radius of curvature of the forward notch.

[0009] In another aspect of the present invention, the retainer assembly further including: a plurality of stops spaced apart along a longitudinal axis of the upper surface, wherein the shelf selectively engage one stop of the plurality of stops in each unslidable/stopped condition; a side rail along each longitudinal edge of the upper surface; and the shelf having rail slots that engage said side rails; a pair of spaced apart forward legs that define the forward notch; an adaptor slot defined by said pair; and a plurality of adaptor notches, each adaptor notch configured to engage the adaptor slot, wherein each adaptor notch has a radius of curvature greater than the second radius of curvature and the other adaptor notches, wherein no radius of curvature of the plurality of notches is greater than the first radius of curvature (as there is no need as the platform can be rotated hundred and eighty degrees so the rearward notch becomes the forward notch and vice versa).

[0010] In yet another aspect of the present invention, a method of securing a mobile device to an exercise equipment by using gravity alone, the method including the following: providing the above-mentioned retainer assembly; placing the forward notch along a handlebar portion of the exercise equipment; placing the rearward notch along a point rearward of the handle bar portion; selectively sliding the shelf prior to placing the mobile device; and placing the mobile device along the upper surface.

[0011] These and other features, aspects and advantages of the present invention will become better understood with reference to the following drawings, description and claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] FIG. 1 is a top perspective view of an exemplary embodiment of the present invention, shown in use;

[0013] FIG. 2 is a top perspective view of an exemplary embodiment of the present invention;

[0014] FIG. 3 is a bottom perspective view of an exemplary embodiment of the present invention;

[0015] FIG. 4 is a top exploded perspective view of an exemplary embodiment of the present invention;

[0016] FIG. 5 is a bottom exploded perspective view of an exemplary embodiment of the present invention;

[0017] FIG. 6 is a section view of an exemplary embodiment of the present invention, taken along line 6-6 in FIG. 2;

[0018] FIG. 7 is a section view of an exemplary embodiment of the present invention, taken along line 7-7 in FIG. 2; and

[0019] FIG. 8 is a section view of an exemplary embodiment of the present invention, taken along line 8-8 in FIG. 2.

DETAILED DESCRIPTION OF THE INVENTION

[0020] The following detailed description is of the best currently contemplated modes of carrying out exemplary embodiments of the invention. The description is not to be taken in a limiting sense, but is made merely for the purpose

of illustrating the general principles of the invention, since the scope of the invention is best defined by the appended claims.

[0021] Broadly, an embodiment of the present invention provides a device for retaining a mobile device on exercise equipment, like a stationary bike, without screws or tape. The retaining device may include a platform for accessibly supporting the smart device along an upper surface of the platform. The upper surface provides a sliding shelf that can be selectively secured to different locations along a longitudinal axis of the platform. A lower surface of the platform may provide spaced apart rearward and forward notches for removably securing the platform to one of various exercise equipment, wherein the forward notches are selectively exchangeable and the rearward notch has large radius of curvature to substantially engage more planar portions of the exercise equipment, like a user interface, console, or crossbar of the handlebars.

[0022] Referring now to FIGS. 1 through 8, the present invention may include a smart device retainer assembly 10 providing a platform 12 dimensioned and adapted to support a mobile device 36 along an upper surface of the platform 12. A lower surface of the platform 12 may provide a plurality of notches for removably securing the platform 12, through the effects of gravity alone, to multiple points along two spaced apart portions of exercise equipment 32, such as a stationary bike, treadmill, row machine, and other fitness training equipment.

[0023] The upper surface of the platform 12 may be defined by a side rail 24 upwardly joined along at least the two opposing longitudinal edges of the upper surface. A plurality of spaced apart ridges or stops 18 may extend latitudinally between the longitudinal edges. A shelf 14 also extending upwardly from the upper surface may be provided. The shelf 14 has a rail slot 26 adjacent each end. The rail slots 26 provide sufficient spaced so that the shelf 14 may ride along the two side rails 24 up and down the longitudinal axis of the platform 12 when the shelf 14 is manually manipulated by a user. When not so manipulated, under the effects of gravity, the shelf 14 will be stopped by a downward ridge stop 18 of the plurality of stops 18. Thus, the shelf 14 is selectively movable along the longitudinal axis of the platform 12 as well as selectively secured at each of the plurality of stops 18 so that the user may select an effective disposition of their mobile device 36 laying, face up, along the upper surface of the platform 12.

[0024] The lower surface may have forward legs 22 and rearward legs 30 disposed adjacent respective ends of the platform 12. The rearward legs 30 may define a rearward notch having a first radius of curvature of approximately 20 mm to 140 mm. The forward legs 22 may define a forward notch having a second radius of curvature of approximately 5 mm to 40 mm. In certain embodiments, the first radius of curvature is at least twice that of the second radius of curvature.

[0025] The forward legs 22 (as well as the rearward cradle 30) may be pair of spaced apart legs 22, thereby defining an adaptor slot 20. One of a plurality of bar adaptors 16 may be provided by the present invention. Each bar adaptor 16 provides a adaptor notch with a radius of curvature different than the second radius of curvature, thereby the user can selectively adjust the forward notch's radius of curvature to engage a forward portion 34 of the exercise equipment 32, which may have different profiles or circumferences depend-

ing on the piece of exercise equipment 32. Each bar adaptor 16 may have a pair of centering rails 28 to facilitate the removable connection to the pair of forward legs 22 and its adaptor slot 20.

[0026] A method of using the present invention may include the following. The mobile device retainer assembly 10 disclosed above may be provided. The user may securely place the retainer assembly 10 along an accessible portion of the exercise equipment 32 and align the forward notch to an appropriate forward portion 34 of the framework of the exercise equipment 32 (e.g., the vertical bar of the top handlebars of a Peloton™ bike, respectively), and the rearward notch to rearward portion of the exercise equipment 32. The large radius of curvature of the rearward notch stabilizes the platform 12 along a rearward point or portion on the exercise equipment 32, which tend to be more planar portions of the exercise equipment 32, like a user interface, console, or crossbar of the handlebars.

[0027] The handlebars or other bars for an individual to effectuate the exercise equipment 32 is typically sloped downward toward the user from the forward point 34 to the rearward portion. Accordingly, the user may slidably adjust the location of the shelf 14 along the upper surface's longitudinal axis. The mobile device 36 is supported by the shelf 14.

[0028] It should be understood, of course, that the foregoing relates to exemplary embodiments of the invention and that modifications may be made without departing from the spirit and scope of the invention as set forth in the following claims.

What is claimed is:

1. A mobile device retainer assembly for an exercise equipment, the retainer assembly, comprising:
 - a platform having an upper surface and an opposing surface;
 - a shelf slidable along the longitudinal axis of the upper surface in such a way that the shelf selectively engages one of a plurality of stopped conditions;
 - a rearward notch spaced apart from the lower surface; and
 - a forward notch spaced apart from the lower surface, wherein a first radius of curvature of the rearward notch is at least twice that of a second radius of curvature of the forward notch.
2. The retainer assembly of claim 1, further comprising:
 - a plurality of stops spaced apart along a longitudinal axis of the upper surface, wherein the shelf selectively engage one stop of the plurality of stops in each stopped condition.
3. The retainer assembly of claim 2, further comprising:
 - a side rail along each longitudinal edge of the upper surface; and
 - the shelf having rail slots that engage said side rails.
4. The retainer assembly of claim 3, further comprising:
 - a pair of spaced apart forward legs that define the forward notch;
 - an adaptor slot defined by said pair; and
 - a plurality of adaptor notches, each adaptor notch configured to engage the adaptor slot, wherein each adaptor notch has a radius of curvature greater than the second radius of curvature and the other adaptor notches.
5. The retainer assembly of claim 4, wherein no radius of curvature of the plurality of notches is greater than the first radius of curvature.

6. The retainer assembly of claim 5, wherein the first radius of curvature is approximately 20 millimeters to 140 millimeters.

7. The retainer assembly of claim 6, wherein the second radius of curvature is approximately 5 millimeters to 40 millimeters.

8. A method of securing a mobile device to an exercise equipment by using gravity alone, the method comprising:
providing the retainer assembly of claim 1;
placing the forward notch along a handlebar portion of the exercise equipment;
placing the rearward notch along a point rearward of the handlebar portion; and
placing the mobile device along the upper surface.

9. The method of claim 8, further including selectively sliding the shelf prior to placing the mobile device.

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