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Phillips

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(54) **SLIDING EXERCISE APPARATUS AND RECREATIONAL DEVICE**

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(73) Assignee: **Worldslide, LLC**, Napa, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 105 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **11/983,525**

(22) Filed: **Nov. 12, 2007**

Related U.S. Application Data

(60) Division of application No. 09/819,256, filed on Mar. 27, 2001, now Pat. No. 7,309,302, which is a continuation-in-part of application No. 09/344,302, filed on Jun. 24, 1999, now Pat. No. 6,231,483.

(51) **Int. Cl.**
A63B 22/00 (2006.01)
A63B 9/00 (2006.01)

(52) **U.S. Cl.** **482/51**; 482/35

(58) **Field of Classification Search** 482/31–36, 482/51, 27–29; 472/116–117, 128; 182/48
See application file for complete search history.

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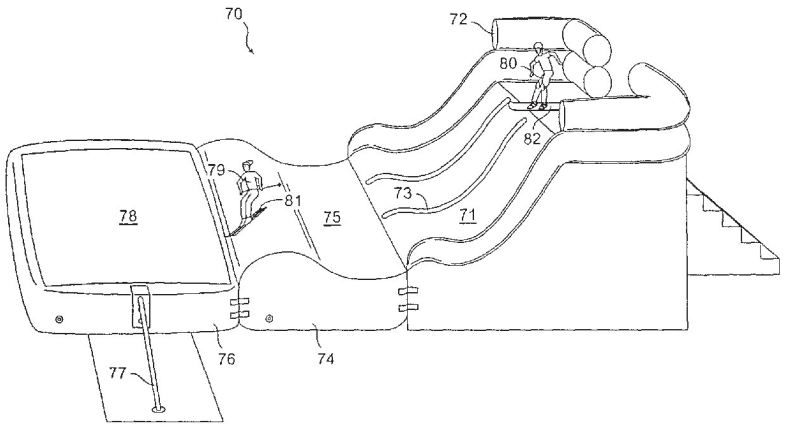
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(57) **ABSTRACT**

A sliding exercise apparatus and recreational device which can be employed both wet and dry. A user can traverse the device which includes a surface which can be inclined as a durable low friction sheeting material. The user can be supported by a wide variety of vehicles including sports boards and clothing apparel which, in turn, have a durable low friction layer for contacting the sliding exercise apparatus and recreational device for entertainment and in order to enhance gymnastic and board skills.

33 Claims, 16 Drawing Sheets



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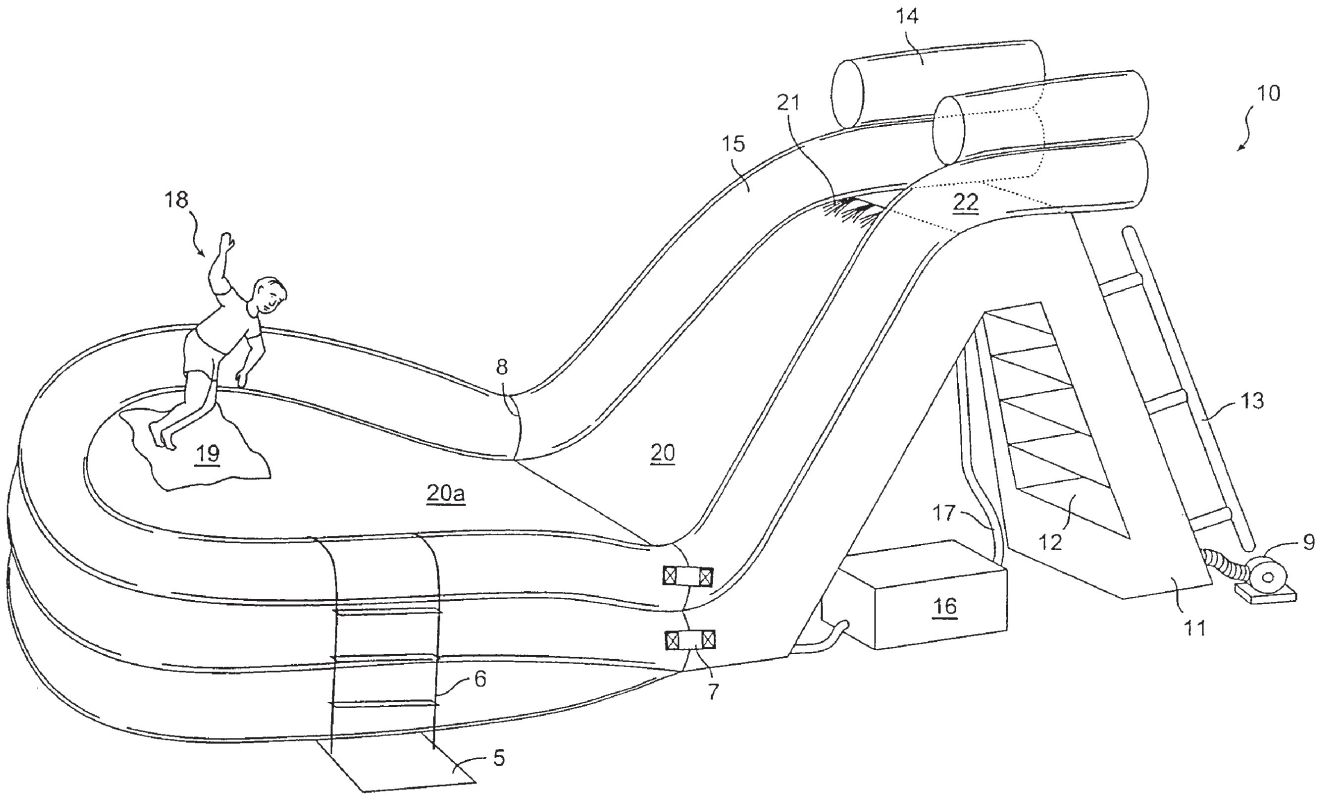


FIG. 1

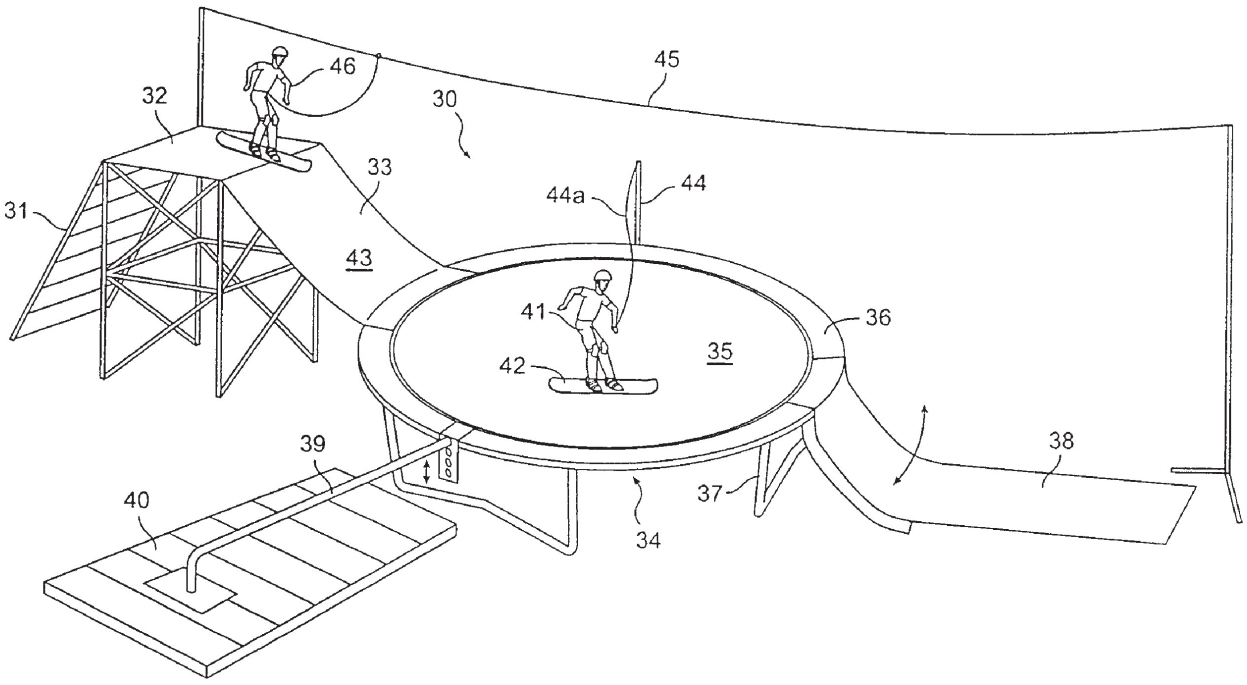


FIG. 2

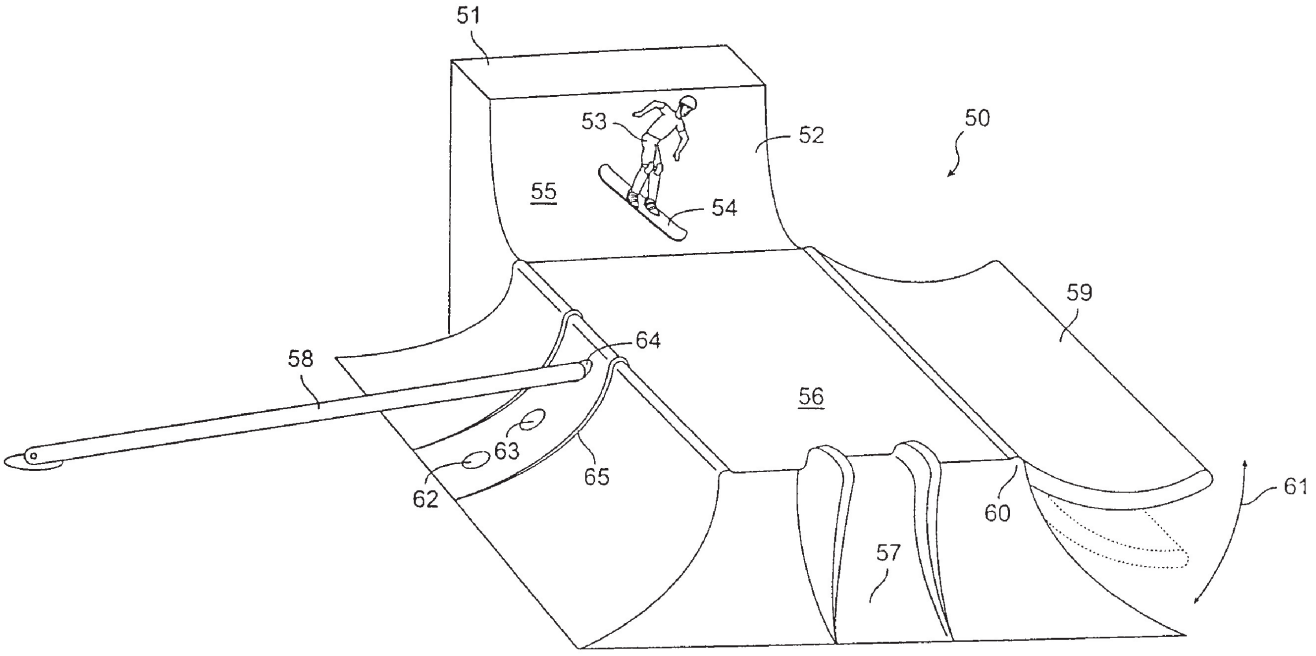


FIG. 3

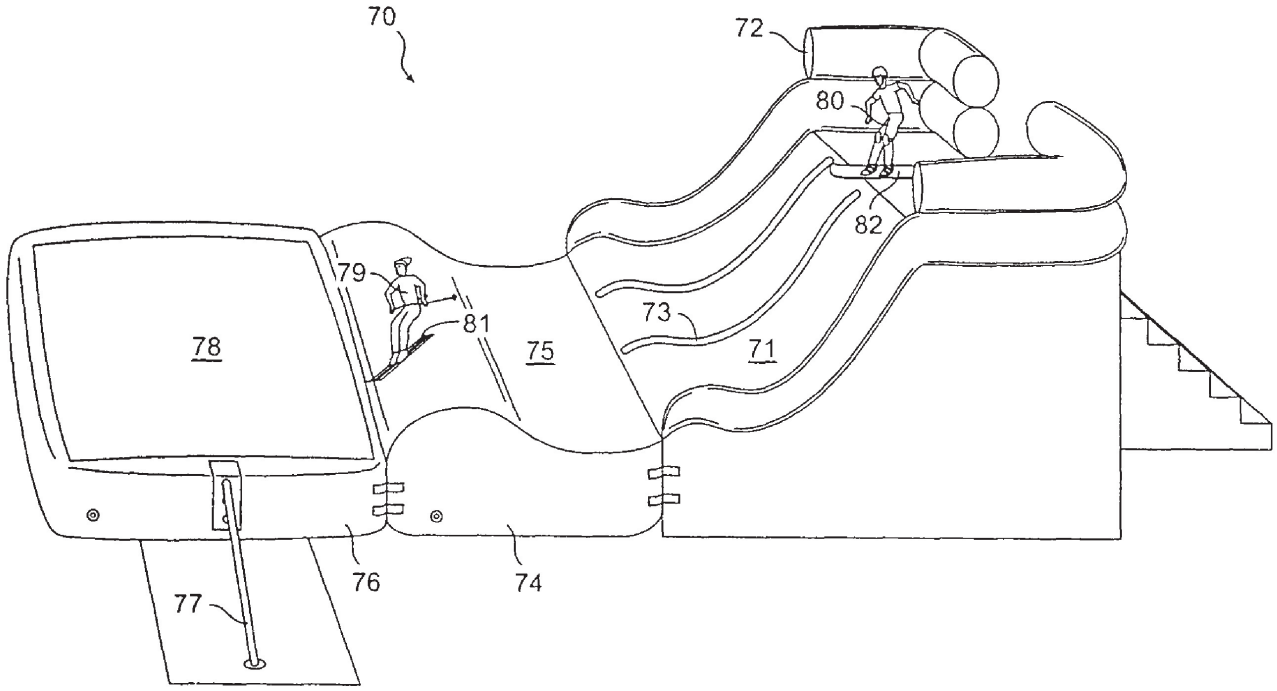


FIG. 4

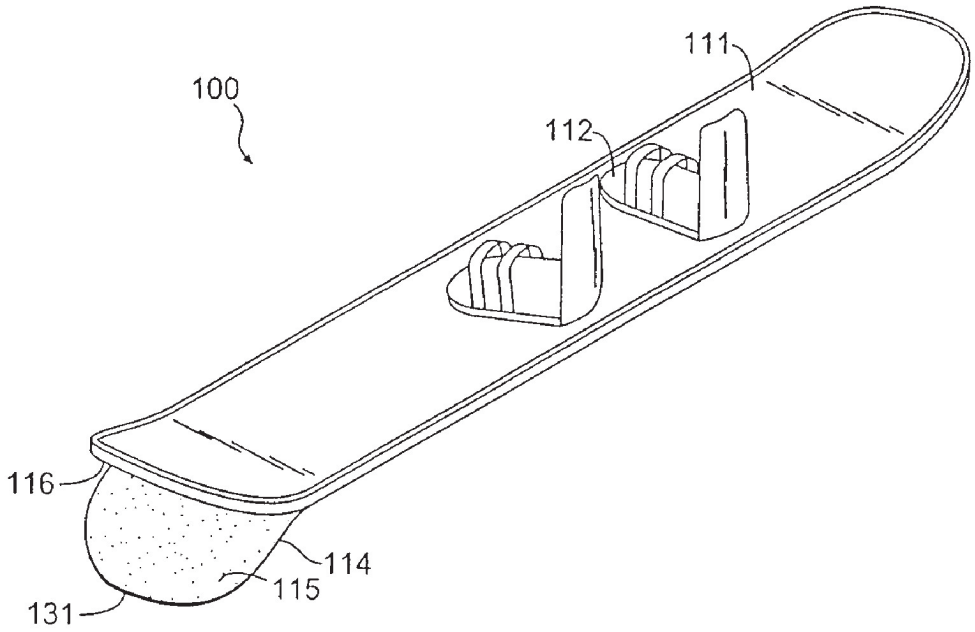


FIG. 5

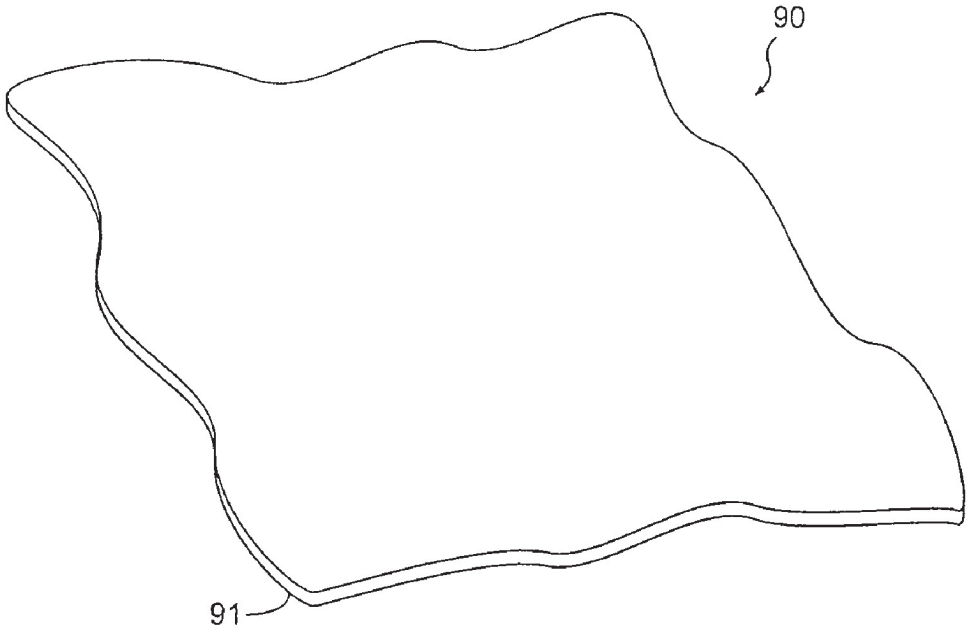


FIG. 6

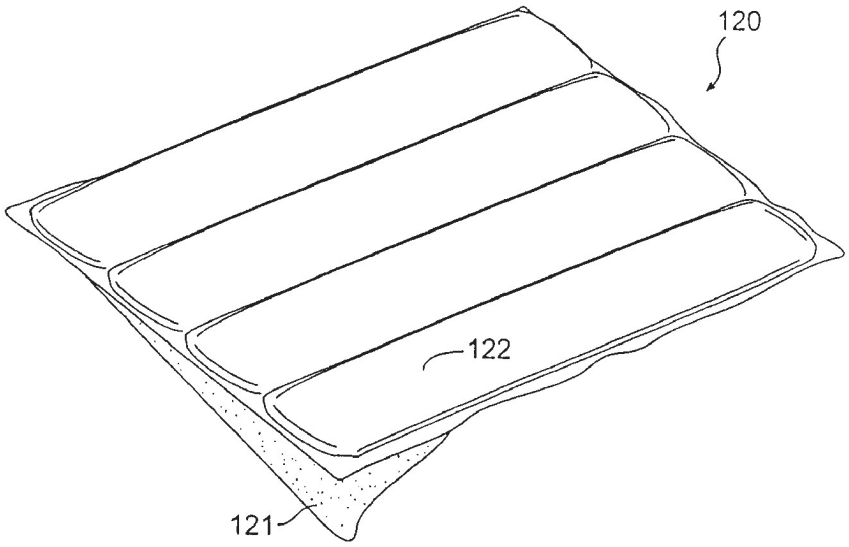


FIG. 7

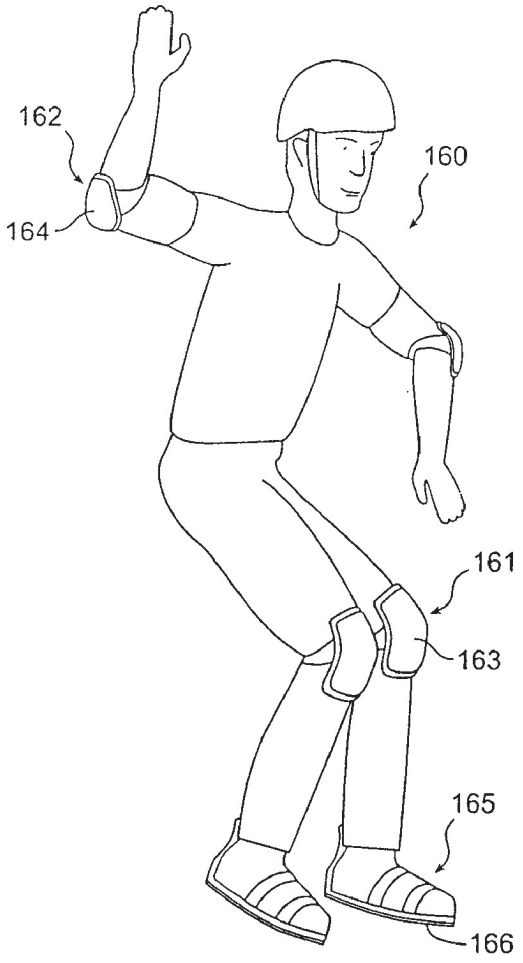


FIG. 8

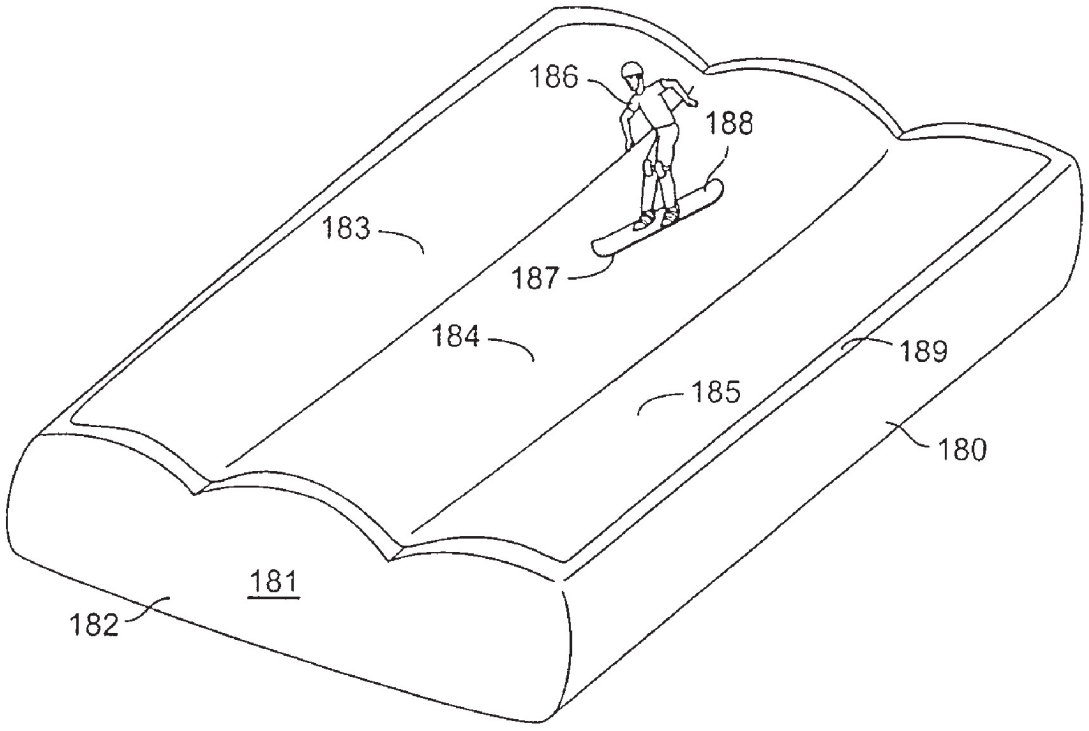


FIG. 9

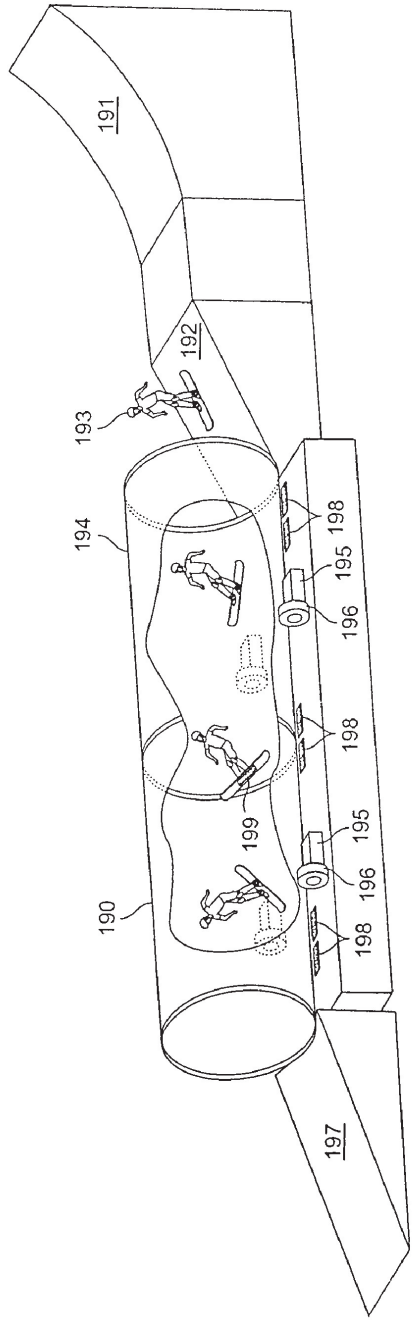


FIG. 10

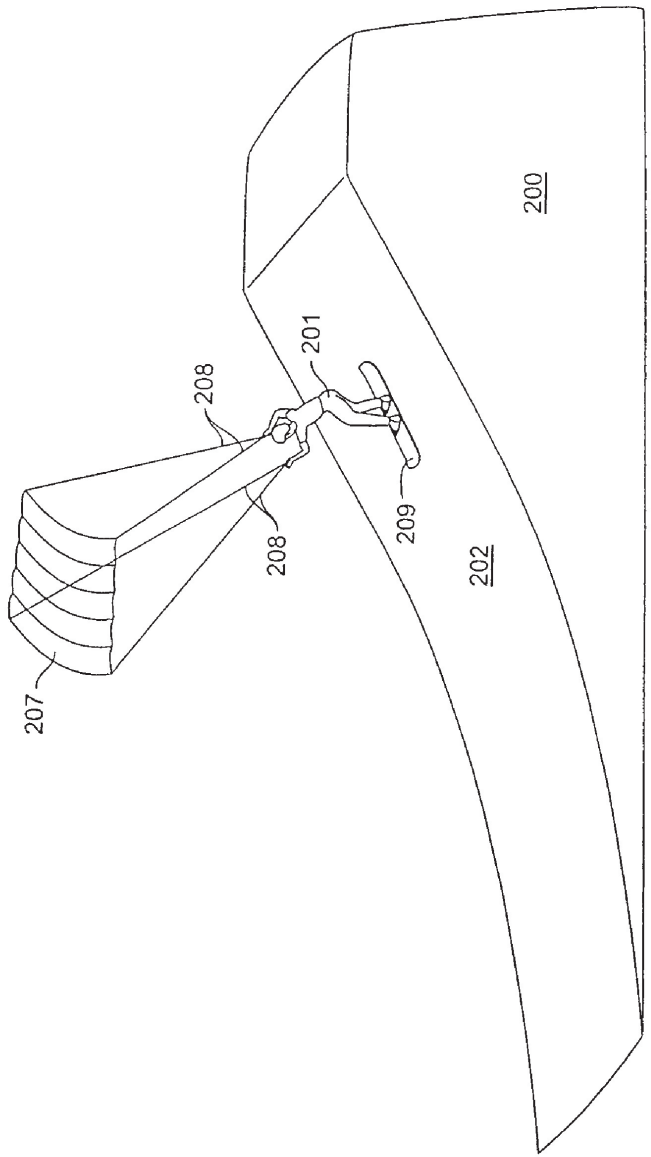


FIG. 11

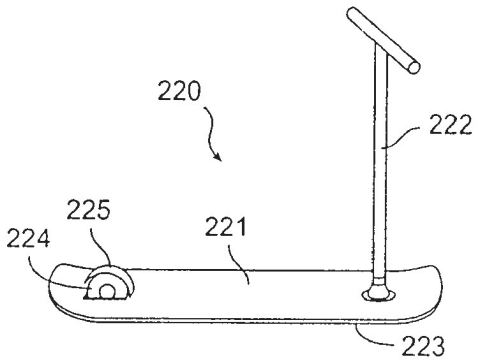


FIG. 12A

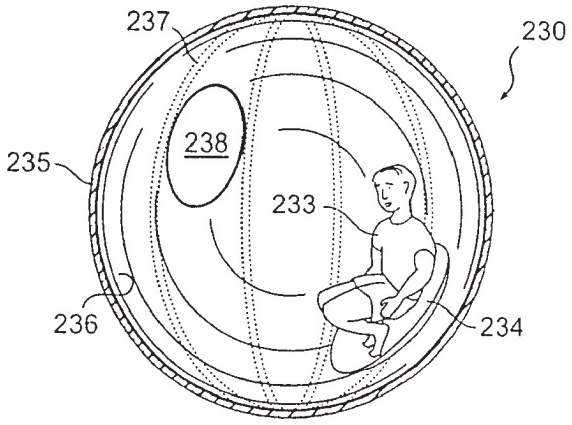


FIG. 12B

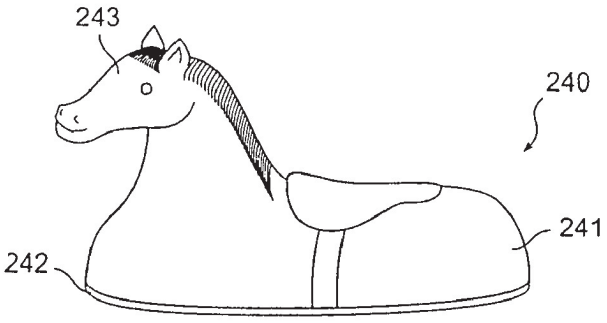


FIG. 12C

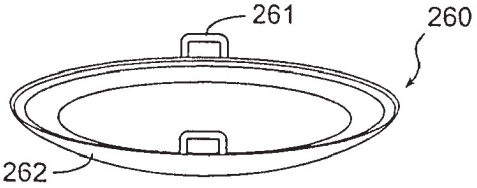


FIG. 12D

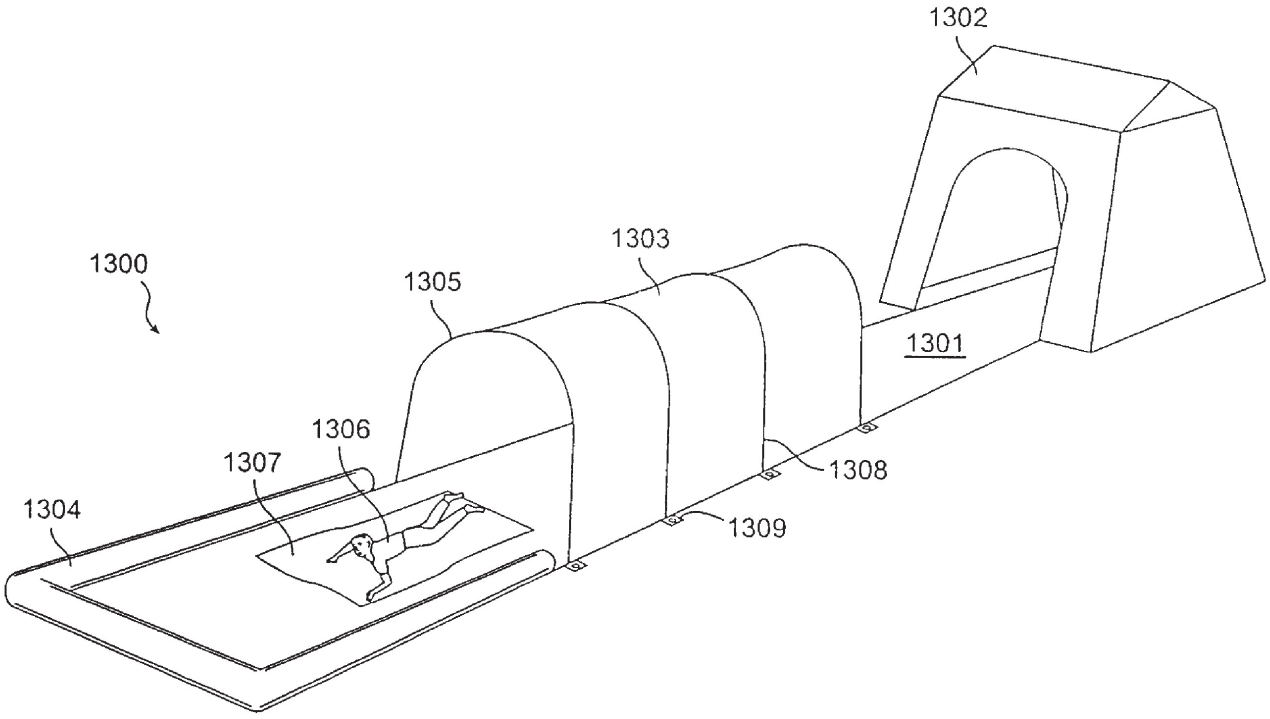


FIG. 13

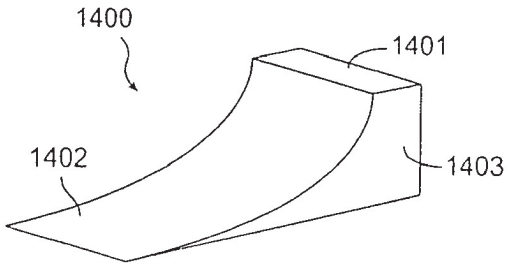


FIG. 14A

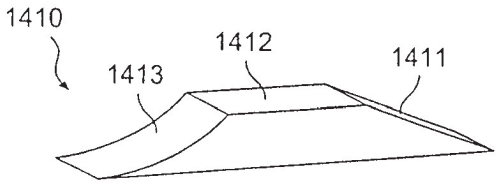


FIG. 14B

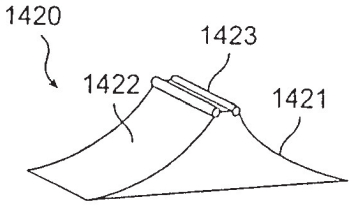


FIG. 14C

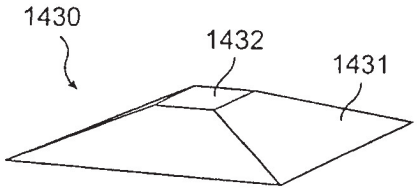


FIG. 14E

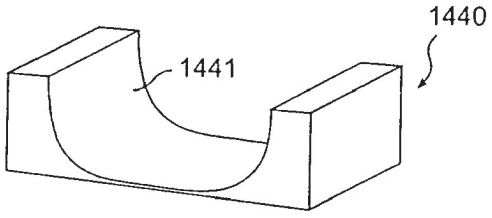


FIG. 14D

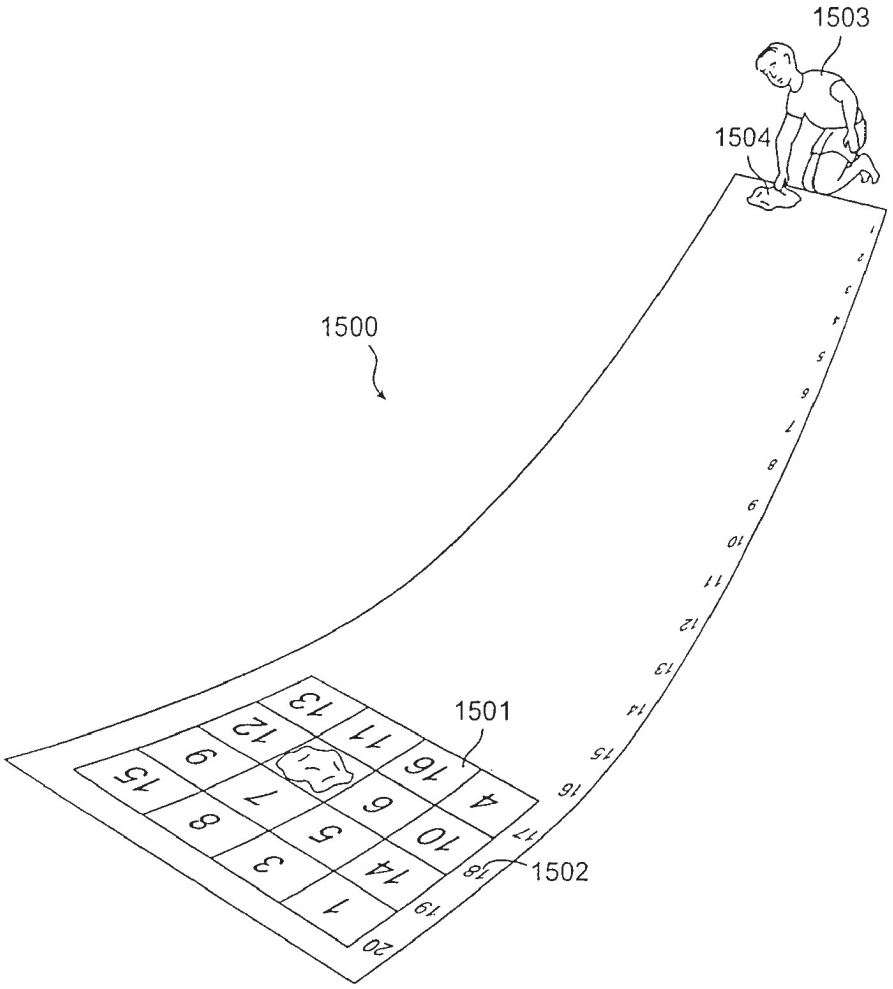


FIG. 15

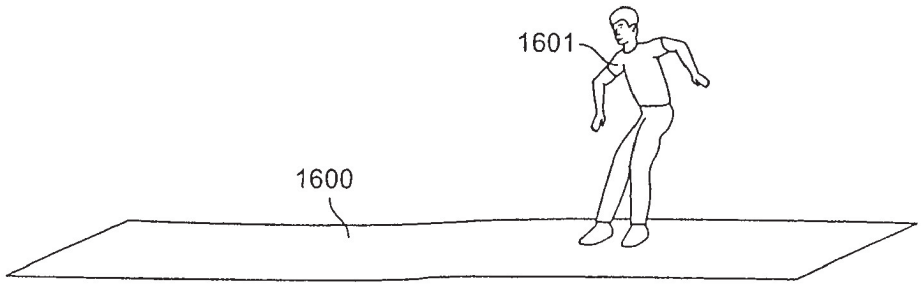


FIG. 16A

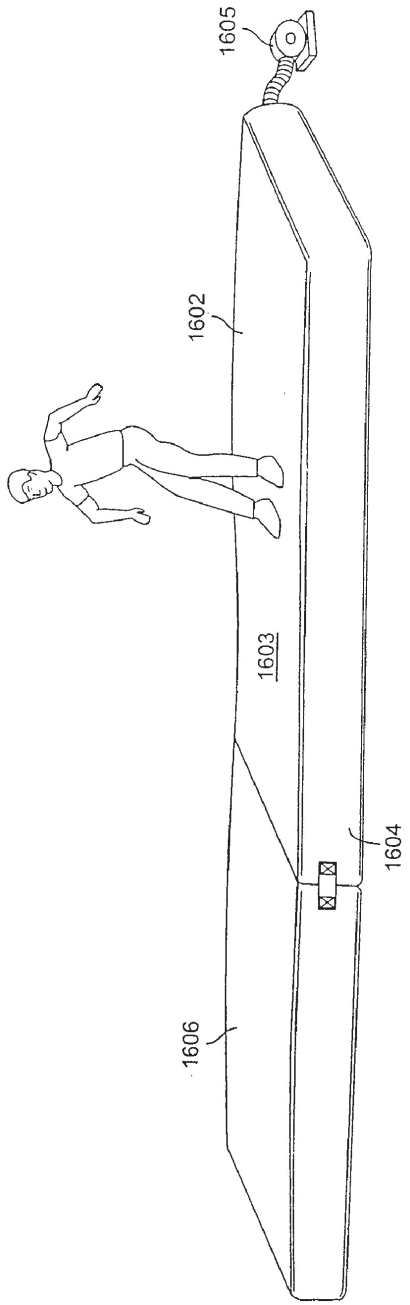


FIG. 16B

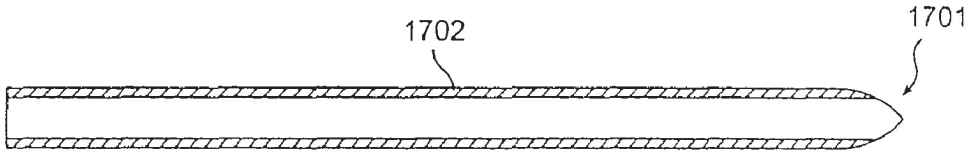


FIG. 17A

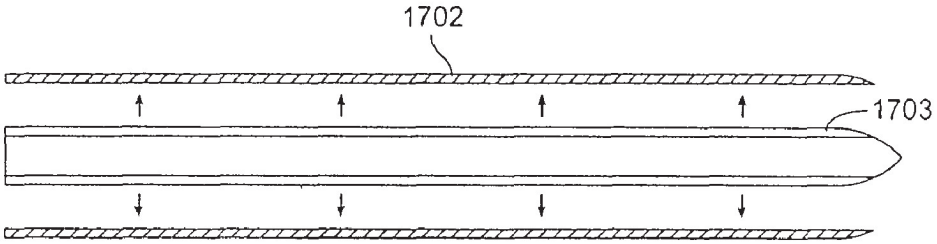


FIG. 17B

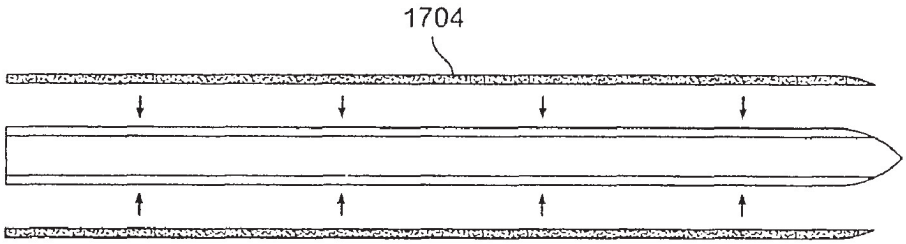


FIG. 17C



FIG. 18A



FIG. 18B

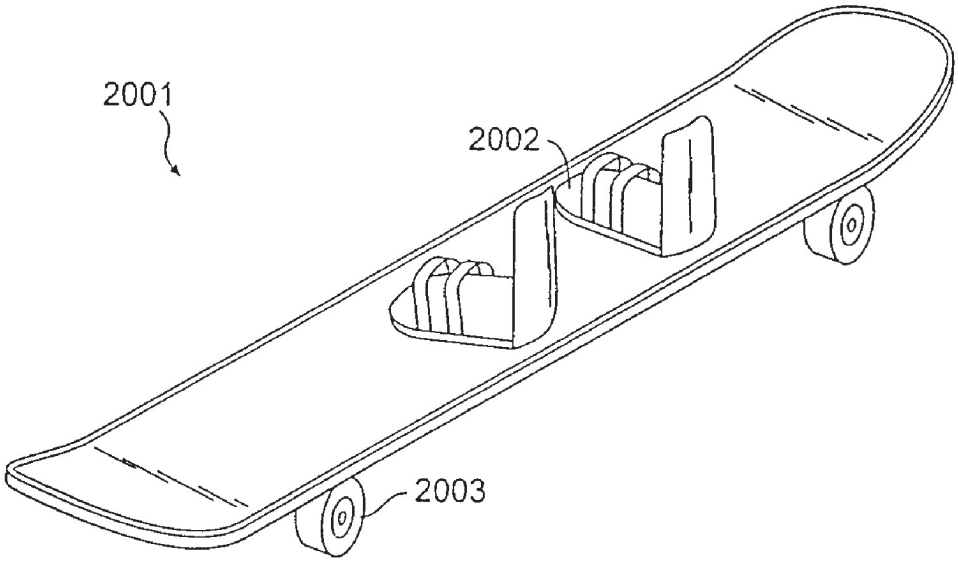


FIG. 19

SLIDING EXERCISE APPARATUS AND RECREATIONAL DEVICE

RELATED APPLICATIONS

This application is a divisional of U.S. application Ser. No. 09/819,256, entitled "Sliding Exercise Apparatus and Recreational Device," filed on Mar. 27, 2001, which is a continuation-in-part of U.S. Pat. No. 6,231,483 issued May 15, 2001.

TECHNICAL FIELD AND INVENTION

The present invention is directed to an exercise apparatus and recreational system composed of a plurality of interconnecting parts which include a slide having a low friction, durable top layer upon which a user can traverse in both a wet or dry condition. The sliding aspects of this invention may be applied to a number of conventional board sports or may be adopted to novel uses including equipping apparel or shoes with low friction material to allow the user to slide without additional encumbrances. The invention can also be considered a recreational device whereby a user can slide upon a surface which can be inclined while being supported by a low friction, durable membrane either attached to a sports board or as stand-alone sheeting material. The sliding surface of the invention may be configured to simulate a variety of terrains. Such slides can be inflatably employed with or without structural frames, be portable or fixed and employed with bouncy surfaces and include trampolines and ramps to make complex recreational centers.

BACKGROUND OF THE INVENTION

Although there are a plethora of sliding devices which are employed for recreational purposes, the art is devoid of such devices which are provided with practical universal applicability to satisfy a number of diverse and seemingly unrelated characteristics. For example, it is oftentimes a design goal to provide a slide which is portable. Other times, slides which are bouncy are sought after. As will be more fully developed below, it is suggested that both design goals can be met by providing slides which are inflatable. Other users seek recreational complexes in which slides are employed with activity sections such as trampolines and ramps which are detachable from one another and thus can be configured into a variety of shapes and orientations to enhance a user's recreational experience. None of these design goals have been achievable in the past particularly when dealing with such devices which can be employed both wet and dry.

In addition to recreational use of sliding exercise apparatus and recreational devices, as will be more fully embellished below, the present invention deals with the enhancement of sports board skills and thus can be used as a training tool by the serious sports enthusiast. For example, virtually all sports board enthusiasts face the problem of how to maximize recreational practice, skill development and exercise during times of the year when use of such equipment is not feasible. For example, snow boarders find that after a full winter season, their skills are enhanced but after the spring, summer and fall months of inactivity, board skills must be redeveloped and tuned once winter conditions provide the appropriate backdrop for practicing the sport.

Not only do winter sports enthusiasts face the grim prospect of having to go long periods between board usage, others, such as surfers, face similar constraints. Obviously, the surfer can only effectively use a surfboard when ocean access is available. There are times when surfers must travel inland and away from major bodies of water preventing board usage. As such, the invention can be used with a wide and diverse list of sliding vehicles which currently exist or are configured specifically for use herein including roller skates, rollerblades, skateboards, skis, waterskis, sleds, air mats, rubber/foam mats, body boards, skimboards, knee boards, wake boards, ice skates, surfboards, snowboards, mountain boards, sand boards, sail boards, snow luge, street luge, knee pads, elbow pads, wrist guards, clothes, suits, shoes, socks, plush vehicles, plush animals, plush objects, scooters, bikes, tricycles, snowmobiles, spheres, discs, sheets, bags and cases.

In addition to the above-noted uses, it has been recognized that certain advantages are inherent in providing a sliding surface which is either inflatable or padded. A sports enthusiast or recreational user can employ such a sliding surface to practice extreme skills knowing that the forgiving nature of the slide will substantially reduce the risk of injury. Even wheel-bearing sporting goods such as in-line skates and skate boards can be used in conjunction with the present exercise apparatus and recreational system providing a safer platform for such activity than would otherwise be available.

It is thus an object of the present invention to provide a sliding exercise apparatus and recreational system which can be both stationary and portable, have a number of subsidiary activity sections such as trampolines as well as ramps **10** which can be employed in both a wet and dry state.

It is further an object of the present invention to provide a sliding exercise apparatus and recreational system which is covered, on its top surface, with a low friction, durable sheeting material and which can be used both recreationally and further to enhance board skills in both a wet and dry condition.

It is still a further object of the present invention to provide a sliding exercise apparatus which can be employed with or without structural frame members and which can either be configured as a permanently fixed installation or be made portable for on-site assembly.

These and further objects will be more readily apparent when considering the following disclosure and appended claims.

SUMMARY OF THE INVENTION

The present invention is directed to a low friction, durable sheeting material which can be used in both a wet and dry condition as well as a sliding exercise apparatus and recreational system which includes a slide for supporting a user, such slide having a top surface, at least a portion of which can be inclined to facilitate gravity-induced sliding. The top surface is provided with said low friction, durable sheeting material which enables the user to traverse thereon whether the top surface is wet or dry. The slide can be inflatable or padded and can be optionally fixed to a rigid frame or made free standing without a frame. It can be made to reside in a fixed location or made to be portable. The slide can be designed to reside on land or on water and can be employed with a variety of ancillary expedients such as pumps and related tubing to circulate water over the top surface of the slide to provide a wet surface as well as a refrigerator unit to create snow or ice to more closely replicate wintry conditions.

The present invention further is directed to a sliding activity center comprising in combination, a slide as recited above and a plurality of appended activity sections. It is contemplated that these activity sections can be removably and interchangably appended to the slide to both add to the recreational experience in employing the present invention and provide skill enhancing stations for those so inclined. Activity

sections can include additional slides with surfaces of varying frictional characteristics and profiles as well as trampolines, water pools, zip lines, tubes, ramps, barrels and chutes to name just a few. The activity sections are positioned such that a user can transition between the slide and the appended activity without constraint enabling a user to take full advantage of the recreational and skill development opportunities which are available in practicing this invention.

As one embodiment, the present invention contemplates the use of a sports board, being of sufficient size and rigidity to support a user on the present exercise and recreational center. The sports board is provided with a top for contacting the user and a bottom for sliding upon a slide. As in the previous embodiments, the slide is provided with a top surface which can, in one embodiment, be inclined to facilitate gravity-induced sliding thereon. The top surface is further characterized as having a low friction, durable sheeting layer which enables a user to traverse thereon whether the top surface is wet or dry and an additional low friction, durable sheeting layer appended to and supported by the bottom of the sports board such that each low friction, durable sheeting layer is designed to engagingly contact one another as a user is supported by the sports board for sliding on the top surface. Alternatively, the sports board can support wheels, thus obviating the need for the sheeting layer thereon. In addition, the present invention contemplates, instead of the use of a sports board, the use of a highly durable low friction membrane which acts as a sheeting layer for supporting a user as the user traverses the top surface of the slide. The membrane itself can be composed of a low friction, durable sheeting material which enables the user to traverse the slide in both a wet and dry condition. This membrane, in addition to being used as a stand-alone flexible sheet, can also be employed in small sections which are appended to the clothing of a user such as the bottom of one's feet and the outer surface of typically employed knee pads.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a perspective view of one embodiment of a slide configured pursuant to the present invention.

FIGS. **2**, **3** and **4** are perspective views of the combination of a slide, trampoline, ramp and other additional elements constituting further embodiments of the present invention.

FIG. **5** is a perspective view of a sports board useful in practicing the present invention.

FIG. **6** is a perspective view of a membrane useful in supporting a rider when employing the present invention.

FIG. **7** is a perspective view of a modification of the membrane shown in FIG. **6**.

FIG. **8** is a perspective view of a user of the present invention employing yet a further embodiment thereof.

FIG. **9** is a perspective view of a portion of a slide for use herein, shown in partial cross-section.

FIG. **10** is a perspective view of yet another embodiment of the present invention.

FIG. **11** is a side plan view of a slide and user thereof pursuant to the present invention.

FIGS. **12**A, **12**B, **12**C and **12**D are perspective views of three embodiments of "vehicles" used to support a user in practicing the present invention.

FIG. **13** is a perspective view of the present invention showing the use of a 10 tent structure and tented "pipe" as a further embodiment.

FIGS. **14**A-**14**E are a series of perspective views of various ramp and ramp-like structures for use herein.

FIG. **15** is a perspective view of the present invention wherein indicia is provided to enhance the recreational use thereof.

FIGS. **16**A and **16**B are perspective views of the present invention in its simplest iteration.

FIG. **17** is a plan view of a series of modifications being made to an existing ski for use in the present invention.

FIG. **18** is a perspective view of a surfboard modified for use in practicing **20** the present invention.

FIG. **19** is a perspective view of a modified snowboard to illustrate the use of dedicated vehicles for use herein.

DETAILED DESCRIPTION OF THE INVENTION

FIG. **1** depicts slide **10** used as the focal point of the exercise apparatus and recreational system of the present invention. As shown, optional framework **11** supports stairs **12** and railing **13** to enable a user to enjoy slide **10** as a recreational device. Slide is provided with top surface **20** which, need not be, but in this illustration is inclined to facilitate gravity-induced sliding thereon. Top surface **20** is composed of a flexible sheeting layer of a durable, low friction material enabling the user to traverse the slide whether the top surface **20** is wet or dry.

As further noted by reference to FIG. **1**, slide **10** is provided with bumpers **14** and **15** to define top surface **20** and to prevent the inadvertent slippage from top surface **20**. FIG. **1** shows water pump **16** and hosing **17** to enable slide **10** to be used dry (as shown) or wet by introducing water through piping **21**. Alternatively, element **16** could be a refrigerator unit which could supply snow or ice to the slide surface through hosing **17** in order to replicate wintry conditions. Slide **10** is shown as having a top or beginning portion **22** in the form of a substantially flat pad. The pad can be of higher friction material to prevent inadvertent slippage and can be, for example, a bouncy surface such as a trampoline to enable a user to create a bouncing motion prior to launch upon top surface **20**.

FIG. **1** further illustrates an infant as user **18** clearly employing slide **10** as a recreational device. In this instance, user **18** is supported by membrane **19** in the form of low friction durable sheeting material as more clearly depicted in FIG. **6** and discussed hereinafter with regard to that figure. Both membrane **6** and top surface **20** can each be composed of low friction high durable material such as a member selected from the group consisting of nylon, Teflon, sailcloth, Dacron, vinyl, artificial turf, synthetic carpet and polyester resins. This enables user **18** to traverse top surface **20** in a dry state without need for an optionally induced wet surface through the injection of water through jets **21**.

Slide **10** of FIG. **1** can be constructed permanently in a single location or be made portable. Portability is enhanced by producing slide **10**, at least as to its bumpers **14** and **15** and support area below top surface **20** as inflatable membranes which can be collapsed when deflated for storage and portability. Inflation can be maintained through the use of one or more blowers **9**. In addition, inflatable membranes add to the bouncing characteristic which many users find appealing. For example, as noted previously, top or launch pad **22** can be in the form of a trampoline which enables a user to commence use of slide **10** by bouncing first on pad **22** whereupon user **18** progresses along top surface **20**. Alternatively, the slide can be made of padded elements which, although not enhancing portability, can create a safe recreational system. Further, the slide can be made in sections shown joined along seam **8** and held together by fasteners **7**. Area **20***a* can be a continuation of surface **20** or can be filled with water or plastic or Styrofoam balls (not shown). When filled with water, a simulated wave

machine can be employed to create wave action for user **18**. To facilitate exiting from area **20***a*, ladder **6** can be draped over the bumper to step on area **5**.

FIG. **2** depicts yet another example of the present invention. In this instance, the invention is depicted as a sliding activity center **30** including a number of elements which are selectively combined to produce such an activity center which can function not only as a recreational device but also as a skill enhancement sports tool. Sliding activity center **30**, in the embodiment shown in FIG. **2**, includes stairway **31** to enable a user to climb to an elevation as defined by launch pad **32**. Slide **33**, as in the embodiment shown in FIG. **1**, is provided with a top surface **43** of a durable low friction layer which can either be permanently bonded to slide **33** or consist of a sheeting material that lays across a padded or inflated membrane as desired.

As noted previously, activity center **30** is composed of a number of elements some of which are depicted in FIG. **2** while others are shown in later drawings and each of which can optionally be detachable from one another so that their component parts can be rearranged as well for storage and portability. As such, sliding activity center **30** is merely illustrative of one of an almost limitless number of combinations constituting the present invention. In this instance, top surface **43** of slide **33** leads directly into activity section **34** which, in this instance, comprises a trampoline having a bouncy trampoline surface **35** held in place by framework **36** and **37**. As shown, user **41** on sports board **42** is depicted bouncing upon trampoline surface **35** having progressed along top surface **43**. As in the previous embodiment, all of the component parts of the present invention including the top surface of trampoline **35** as well as the bottom surface of sports board **42** can be optionally provided with durable low friction sheeting material so that the present invention can be employed in a dry condition. Other add-on features can also be appended to enhance the recreational and skill building aspects of the present invention. For example, pontoon pole **44** and bungee line **44***a* can be used as well as zip line **45** elevated above surface **35** to support user **46**.

Once user **41** decides to exit trampoline bouncy surface **35**, several routes can be taken. For example, user **41** can progress along ramp **38** which again can be covered with a low friction durable sheeting material. As an alternative, user **41**, if appropriately skilled, can exit bouncy surface **35** and onto adjustable sliding rail **39** which itself can be optionally covered with a low friction durable material. Both rail **39** and ramp **38** can be made adjustable as they connect to trampoline frame **36** so that their angles of inclination with respect to surface **35** can be altered as the skill level of the user so dictates. Again, each of the component parts including trampoline **34**, ramp **38** and rail **39** can optionally detach from one another and the various component parts rearranged. For example, one could configure the sliding activity center of FIG. **2** such that a user would, upon exiting slide **33**, proceed to adjustable sliding rail **39**, and, upon leaving adjustable sliding rail **39**, enter trampoline **34** whereupon the activity center is exited by proceeding along ramp **38**.

It is further noted that ramp **38** of FIG. **2** can assume a number of alternative embodiments. In this regard, reference is made to FIGS. **14**A-E. In FIG. **14**A, take-off ramp **1400** can be installed within activity center **30** in place of ramp **38**. Horizontal ramp surface **1401** and sloping ramp surface **1402** supported by base **1403** can be coated with durable low friction sheeting material to enable wet or dry use. Turning to FIG. **14**B, fly box **1410** which is made up of nested elements in the form of ramps **1411** and **1413** which each abut central (horizontal) box portion **1412**. As a further alternative, reference is made to FIG. **14**C showing ramp **1420** having inclined surfaces **1421** and **1422** which, at their joint apex, is provided spine **1423** enabling skate boarders and similar enthusiasts to confront an edge to hone their skills. Similarly, reference is made to FIG. **14**D showing pyramid structure **1430** having four sloping side walls **1431** and top flat pad **1432**. Again, this surface can be coated with a low friction durable coating material and used as a ramp as previously discussed. Finally, reference is made to FIG. **14**E showing a half pipe **1440** having curved pipe surface **1441** used by skating and sports board enthusiasts.

FIG. **3** is an illustration of a sliding exercise apparatus and recreational system further embodying various elements constituting the present invention. Sliding exercise apparatus and recreational system **50** is shown with various interrelated component parts. Specifically, slide **52** is shown as having an incline to induce rider **53** on sports board **54** to travel along top surface **55**; the top surface, as in the previous embodiments, being optionally composed of durable low friction sheeting material. This particular embodiment shows horizontally oriented launch pad surface **51** which can be comprised of a relatively high friction material to enable a user to achieve a sense of stability. At the bottom of slide **52** is shown trampoline **56** enabling rider **53**, upon exiting slide **52**, to practice jumping on the bouncy trampoline surface atop sports board **54**. User **53** would then have a number of options including exiting from the trampoline along chute **57**, adjustable rail **58** or adjustable ramp **59**. In each instance, these surfaces can be optionally covered with highly durable low friction sheeting material.

Again, turning to FIG. **3**, it is noted that ramp **59** can be pivoted along axis **60** so that the inclination of ramp **59** can be varied as ramp **59** proceeds upwardly or downwardly in direction shown by arrow **61**. Similarly, rail **58** can be received by any one of openings **62**, **63** or **64** within frame **65** in order to vary the angle of inclination of rail **58** with respect to trampoline **56**. Further, as previously noted, each of the component parts leading to trampoline **56** can be selectively removable from the trampoline so that the order in which the components are confronted by a user can be varied. Along these lines, reference is made to FIG. **4**.

FIG. **4** discloses sliding exercise apparatus and recreational device **70** including slide **71** having bumpers or rails **73** in order to establish lanes upon top surface **83**. In this embodiment, bumpers **72** are included within slide **71** which is optionally made up of air inflatable membranes much like that shown in FIG. **1**.

The embodiment of FIG. **4** shows slide **71** transitioning to ramp **74** having uneven surface **75** to create somewhat of a mogul-like effect. This embodiment can be used to practice a number of board sports as well as be employed for recreational purposes. As such, rider **80** is shown on a snow board **82** at the top of slide **71** while user **79** is shown atop skis **81**. As noted, rider **79** upon exiting ramp **74** transitions onto trampoline **76**. The rider could then simply depart the trampoline by swinging his or her skis **81** over its edge or by progressing down adjustable rail **77** in a manner previously discussed. In each instance, the bottom surfaces of snowboard **82** and skis **81** as well as top surface **83** of slide **71**, surface **75** of ramp **74** and surface **78** of trampoline **76** can be covered with low friction high durability sheeting material of the type previously recited. As noted previously, the sliding exercise apparatus and recreational system of FIG. **4** can be employed in both a wet and dry state while practicing the present invention. Further, the sliding exercise apparatus and recreational system of FIG. **4** could be selectively coated with ice or snow to more closely replicate real life conditions when climactic

conditions make this feasible. As an example, area **78** could be in the form of a frozen layer of ice or a tub filled with plastic balls. However, to reiterate, the present invention is usable in a dry condition and without snow or ice being applied to any of the above-recited top surfaces.

FIG. **5** depicts a sports board such as that shown as board **82** of FIG. **4**. In this instance, board **100** having bindings **112** is of the shape of a snowboard having a rigid top surface **111**, bindings **112** and bottom surface **116**. As noted previously, durable low friction sheeting material **114** can be applied to bottom surface **116** by applying adhesive **115** to sheeting material **114** and adhering it to board **111**. As an alternative to a sports board, a rider such as user **18** of FIG. **1** can employ a flexible membrane shown as element **90** of FIG. **6**. Membrane **90** can take on a number of geometrical shapes as well as thicknesses and physical characteristics so long as bottom surface **91** is composed of low friction durable sheeting material. In other words, membrane **90** can be a single sheet of such material in the form of a rectangle or any other geometric shape upon which a user would sit or lie upon when employing the present invention or, alternatively, a durable low friction membrane **121** could be adhered to a three-dimensional sliding element **120** as depicted in FIG. **7**. In this instance, low friction durable sheeting material **121** is adhered to a body section **122** which can be inflated or provided with stuffing material to take on a three-dimensional configuration thus providing additional cushioning to a user. Because the present invention can be employed in a dry condition, the body of sliding element **120** need not necessarily be water repellent while being functional in practicing the present invention.

As a further embodiment, reference is made to FIG. **8** where, instead of employing durable low friction sheeting material as shown in FIGS. **6** and **7** upon which a user would reside, it depicts similar material shown as being selectively adhered to clothing or protective gear of a user so that one could employ the present invention without the need for a separate sports board or slidable membrane material whatsoever. Specifically, user **160** is provided with shin pads **161** and elbow pads **162**, each of which can be provided with patches of durable low friction membrane material **163** and **164**. Further, sandals or shoes **165** can be provided with similar low friction high durability membrane material **166** on the bottoms or sole portions thereof. One could even employ socks composed entirely of said low friction durable material for use herein. As such, user **160** could progress along the various slides, ramps, rails and trampolines of the present invention on one's knees, elbows or even in a standing orientation; thus one is able to enhance one's balance as well as engage in an enjoyable recreational pursuit.

Next, reference is made to FIG. **9** showing a portion of an inflatable slide **180**. In this embodiment, membrane **182** encloses internal volume **181** which is ideally under sufficient pressure to support the structure of slide **180**. In this instance, low friction durable sheeting material **183** is placed on the top surface of slide **180** and over seams **184** and **185**. Along the top surface of slide **180**, seams **184** and **185** create indents which can further enhance employment of the present invention. Specifically, rider **186** can employ board **187** which, in turn, supports in-line wheels **188**. This board can traverse slide **180** along seams **184** or **185** as a means of engaging in both a recreational pursuit and skill enhancement in the use of an in-line skate or skate board.

Turning to FIG. **10**, yet another embodiment of the present invention is disclosed in an attempt to demonstrate the breadth of the present invention. Ramp **191** can act as the launching point for slide **190** or can be the continuation of a previous or upstream recreational device. User **193** on sports board **192** can traverse ramp **191** which, itself, can optionally be selectively covered with a durable low-friction material so that the invention can be used in a dry state. Rider **193** can then progress within metal or plastic cylinder **194** which can, as a preferred embodiment, be rotated either clockwise or counterclockwise through the use of motor **195** driving motorized wheels **196**. As with ramp **191**, the interior of cylindrical member **294**, can be selectively coated with a durable, low-friction surface enabling user **193** to employ the present invention in a dry state. As a further embodiment permanent magnets **198** could be installed below cylindrical member **294** with other magnets **199** embedded in a user's vehicle of the same facing or repelling polarity. This would reduce any friction between the user's vehicle and cylindrical member. User **193** can remain within cylindrical member **194** sliding along its inner surface as motor **195** turns cylinder **194** as desired. At any time, rider **193** can exit cylinder **194** by progressing down ramp **197**.

Turning back to FIG. **9**, it is noted that in any particular sliding structure, it is possible to selectively provide low friction durable sheeting material **183** to the top surface of slide **180**. For example, border **189** can be devoid of such material thus providing a higher friction border about sheeting material **183**. Such selective high friction areas can be employed as safety means to slow a user upon approaching an edge of the slide. Additionally, areas of relatively high friction can be dispersed about low friction high durable sheeting material **183** to act as obstacles to be traversed by the skilled enthusiast.

Reference is next made to FIG. **11** which shows user **201** traversing down the top surface **202** of slide **200**. In this illustration, user **201** employs a parachute or kite **207** which could act to pull user **201** while grasping lines **208**.

Virtually any riding element can be employed by a user while remaining within the spirit and scope of the present invention. For example, in developing sports board skills, a user might wish to employ snow boards, surf boards, boogie boards, skis, skate boards and body boards in employing the exercise apparatus and recreational system of the present invention. Further, dedicated boards consisting of nothing more than a solid core surrounded by selective padding and a bottom surface of a durable low friction sheeting material can be employed as well. As previously noted, stand-alone sheets of such material can be employed to support a user as one traverses along the slide and related elements of the present invention and can even employ patches of such material adhered to selected body portions such as the soles of one's shoes or on the surfaces of knee and elbow pads.

In order to further illustrate the breadth of the present invention, reference is made to FIGS. **12**A, **12**B, **12**C and **12**D showing just several of the myriad of diverse riding elements contemplated for use herein. For example, FIG. **12**A depicts sled **220** having bottom portion **221** for supporting a user and handle portion **222** to enable a user to maintain one's balance and steer sled **220** by shifting the user's body weight. As in previous embodiments, ideally, bottom surface **223** is wholly or partly covered with a low friction durable sheeting material to enhance sliding of sled **220** over the top surface of the slide and related components of the present invention. Sled **22** can also be provided with wheel **224** for control and brake **225** for the same purpose.

FIG. **12**B shows an inflated or foam padded hollow sphere sized to capture user **233** within open area **231**. The user can slide along inner surface **232** with or without sports board **234** which can be coated with a durable, low friction layer of material while sphere **230** rolls down the slide and appended components of the present invention. Sphere **230** is provided

with inner frame **237** supporting air or foam padded membrane **236** and outer durable shell **235**. User **233** can enter and exit sphere **230**.

Finally, FIG. **12**C shows a modified sports board **240** for use by children. In this instance, board **242** having seating area **241** is intended to support a toddler who might grasp onto a configured animal head portion **243** for sliding on the slide of the present invention.

As noted, the present invention can be employed with sleds of various configurations. As an illustration, reference is made to FIG. **12**D wherein saucer sled **260** is provided with handles **261**. As in previous embodiments, sled **260** can have a durable, low friction layer applied to bottom surface **262**.

Turning to FIG. **13**, slide **1300** includes slide surface **1301** again composed of a low friction, highly durable material which, in this embodiment, is shown terminating by means of inflatable bumpers **1304** thus preventing rider **1306** residing upon membrane **1307** from inadvertently progressing beyond the slide surface. To enhance the recreational nature of the present invention, tent **1302** is erected at the launch point of slide surface **1301** while tent fabric **1303** can be provided in the form of a pipe or tube by means of spaced wire ribs **1308** anchored to the surrounding surface by anchor bolts **1309**. In doing so, rider **1306** upon exiting tent structure **1302** would be caused to progress down slide **1301** while experiencing a tunnel-like ride.

As yet a further embodiment, reference is made to FIG. **15** whereby slide **1500** is shown having written indicia **1501**/**1502** etc. In doing so, slide **1500** is converted into a game whereby rider **1503** can either progress down slide **1500** exercising whatever sliding skills he or she might happen to have to enable rider **1503** to either travel down slide **1500** on membrane **1504** to selectively stop in a predetermined numbered area or alternatively to employ slide **1500** in a shuffleboard-like fashion by propelling membrane **1504** upon slide **1500** for the same purpose.

Reference is now made to FIGS. **16**A and **16**B. In its simplest iteration, the present invention is directed to a sheet or membrane of highly durable low friction material **1600** enabling user **1601** to slide upon sheet **1600** even when sheet **1600** is in a dry state. Up to now, membranes employed for this purpose have only been used with a wet surface in order to create the necessary low friction surface characteristics promoting sliding. Similarly, slide **1602** of FIG. **16**B shows that top surface **1603** of a low friction highly durable sheeting material can be supported by substructure **1604** which can be an inflatable membrane whose three-dimensional confirmation is maintained by air blower **1605** or, alternatively, membrane **1604** can be stuffed with a core of foam or rubber for the same purpose. In addition, various sliding elements **1606** can be added end-to-end or side-to-side to slide element **1602** in order to create slides of additional length and/or width. Attachment can be by any well-recognized means such as through the use of Velcro hook and loop connectors, snaps, zippers, ropes, springs, nylon netting and similar expedients.

As previously noted, the present invention can be employed with commercially available sports vehicles which have been modified for use herein. In this regard, reference is made to FIGS. **17** and **18** in order to illustrate this point. Specifically, FIG. **17** discloses the bottom surface ski **1701** including metal runners **1702**. Metal runners **1702** are normally sharpened to enable a skier to catch an edge which is quite helpful when traversing icy terrain. However, metal runners **1702** could cause damage to the slides of the present invention. As such, as noted in FIG. **17**, metal runners **1702** are removed from the bottom surface of slide **1701** exposing runner indent or slot **1703**. At that point, rubber runners **1704** can be installed within slot **1703** to provide the user with a well-defined edge but one which is composed of a material which would not be detrimental to the slide upon which it is used.

Similarly, reference is made to FIG. **18** showing surf board **1801** which, commercially, is sold with fin **1802** for stability. However, when surf board **1801** is used on a slide of the present invention, it is quite apparent that fin **1802** would severely harm the top surface of the slide. As such, as noted in FIG. **18**, fin **1802** is removed when using a commercially available surf board for the present invention. FIGS. **17** and **18** represent two of a wide variety of commercially available sports boards which could be modified for use herein.

Similarly, reference is made to FIG. **19** which displays a sports vehicle similar to that shown in FIG. **5**. In the iteration shown in FIG. **19**, sports board **2001** supporting bindings **2002**, from its top surface, looks like a fairly traditional snow board. However, in this instance, removable wheels **2003** can be appended to the bottom surface of the skateboard in a traditional fashion. When done, there is no need for use of a durable low-friction sheeting material to be applied to the bottom of sports board **2001** although, optionally, this could be considered a further embodiment, noting that wheels **2003** can be made removable.

Although practice of the present invention can involve the use of commercially available sports vehicles or commercially available sports vehicles such as sports boards which have been modified for use herein, it is quite apparent that, as an alternative, one could produce a dedicated sports vehicle from the outset.

It should be quite apparent from the above discussion that the present invention contemplates a broad range of configurations. The exercise apparatus and recreational system of this invention which can be both fixed or portable, inflated or padded, and used either wet or dry, alone or with a broad range of appended systems is uniquely adapted to provide one with a platform for skill enhancement and recreational pursuit.

What is claimed is:

1. A sliding activity center comprising in combination:

a. at least one slide for supporting a user, said slide having a slide top surface, at least a portion of which is inclined to facilitate gravity induced sliding, said slide top surface being characterized as having a low friction durable sheeting layer which enables said user to traverse thereon whether said top surface is wet or dry; and

b. at least one appended activity section having an activity section top surface positioned such that a user can transition between said sliding activity center and said activity section while sliding;

c. said activity center further comprising a trampoline, said trampoline further comprising at least one ramp appended to said trampoline for receiving a user exiting from said trampoline; and

said ramp being provided with a ramp top surface supported by a base, a portion of which is inclined to facilitate gravity induced sliding upon said ramp top surface.

2. The sliding activity center of claim **1**, wherein said slide, trampoline, activity section and ramp are selectively detachable from one another to facilitate shipment of said sliding activity center and to enable a user to interchange various component parts of said sliding activity center to enhance its flexibility of use.

3. The sliding activity center of claim **1**, wherein said ramp comprises a ramp base having a ramp top surface of a low friction, durable sheeting layer enabling said user traverse thereon whether said ramp top surface is wet or dry.

4. The sliding activity center of claim 1, wherein said activity section comprises at least one rail sized, angled and positioned to enable a user to optionally slide upon said rail as said user traverses said activity center; and said angles are adjustable.

5. The sliding activity center of claim 1, wherein the angles of inclination between said trampoline, said slide and said ramp top surface are adjustable.

6. The sliding activity center of claim 1, wherein said activity section is at least one swimming pool.

7. The sliding activity center of claim 1, wherein said activity section is at least one hot tub.

8. The sliding activity center of claim 1, wherein said activity section is at least one zip line.

9. The sliding activity center of claim 1, wherein said activity section is at least one set of stairs for accessing said activity center.

10. The sliding activity center of claim 1, further comprising a fluid conduit for introducing a fluid onto said activity center.

11. The sliding activity center of claim 10, wherein said fluid conduit includes a fluid pump.

12. The sliding activity center of claim 1, wherein at least one of said slide, said activity section, said trampoline and said ramp is inflatable.

13. The sliding activity center of claim 1, wherein said activity center is constructed to float on a body of water.

14. The sliding activity center of claim 1, wherein means are provided for introducing snow and ice to said activity center.

15. The sliding activity center of claim 1, wherein said activity section is at least one activity slide.

16. The sliding activity center of claim 1, in combination with a low-friction sliding support for supporting a user while said sliding support slides upon said sliding activity center.

17. The sliding activity center combination of claim 16, wherein said sliding support is at least one low-friction sliding skate for supporting said user while said skate slides on said sliding activity center; and said skate having means for attaching to said user's feet.

18. The sliding activity center combination of claim 16, wherein said sliding support is at least one snowboard.

19. The sliding activity center combination of claim 16, wherein said sliding support is at least one ski.

20. The sliding activity center combination of claim 16, wherein said sliding support is at least one wakeboard.

21. The sliding activity center combination of claim 16, wherein said sliding support is at least one skimboard.

22. The sliding activity center combination of claim 16, wherein said sliding support is at least one surfboard.

23. The sliding activity center combination of claim 16, wherein said sliding support is at least one bodyboard.

24. The sliding activity center combination of claim 16, wherein said sliding support is at least one sailboard.

25. The sliding activity center combination of claim 16, wherein said sliding support is at least one kiteboard.

26. The sliding activity center combination of claim 16, wherein said sliding support is at least one skateboard.

27. The sliding activity center combination of claim 16, wherein said sliding support is at least one wake skateboard.

28. The sliding activity center combination of claim 16, wherein said sliding support is at least one snow skateboard.

29. The sliding activity center combination of claim 16, wherein said sliding support is at least one kneeboard.

30. The sliding activity center combination of claim 16, wherein said sliding support is at least one sled.

31. The sliding activity center combination of claim 16, wherein said sliding support is at least one dedicated sliding vehicle.

32. The sliding activity center combination of claim 16, wherein said sliding support is at least one hollow sphere having a low-friction inner surface for supporting a user while said user slides on said inner surface while said hollow sphere contacts said activity center.

33. The sliding activity center combination of claim 32, further comprising; a low-friction sliding support for supporting a user, said sliding support characterized as having; a top surface for contacting said user; a low friction bottom surface for sliding on said low-friction inner surface while said sliding support for supporting said user slides upon said inner surface supporting said user; and said hollow sphere having an outer low-friction surface for contacting said sliding activity center.

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