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Rothman

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(54) **MULTIPLE-PLANE OR USER-ENCLOSING REBOUND SURFACES FOR PRACTICING SOCCER OR OTHER SPORTS**

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(76) **Inventor: Stephen Paul Rothman, Palos Verdes Estates, CA (US)**

(57) **ABSTRACT**

Correspondence Address:

Stephen P. Rothman
1533 Addison Road
Palos Verdes Estates, CA 90274 (US)

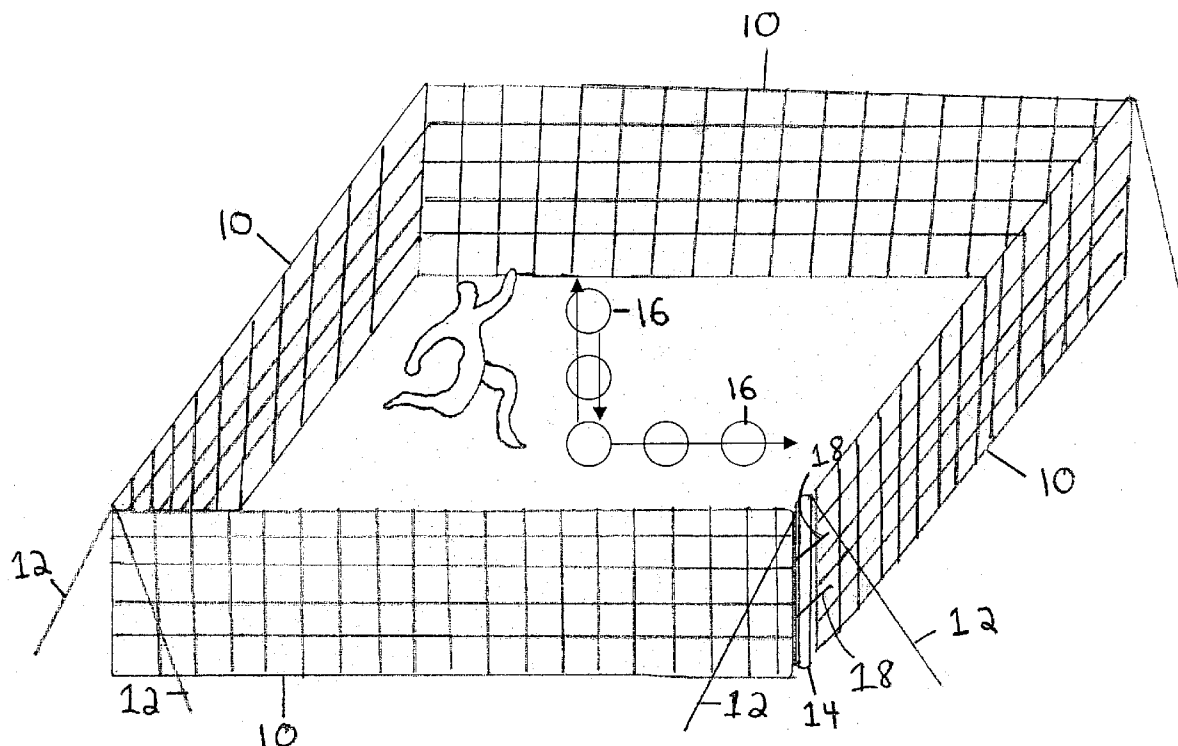
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A sports device consisting of rebound surfaces facing in different directions, which will rebound a ball or other projectile propelled in one direction and also rebound a ball or other projectile propelled in at least one other different direction. The multiple rebound surfaces may form an enclosure consisting of four vertical surfaces with a rectangular footprint (see FIG. 1), usable for soccer practice, with multiple net surfaces (10) that rebound a soccer ball (16) kicked in any direction from the interior of the enclosure, back to the kicker.



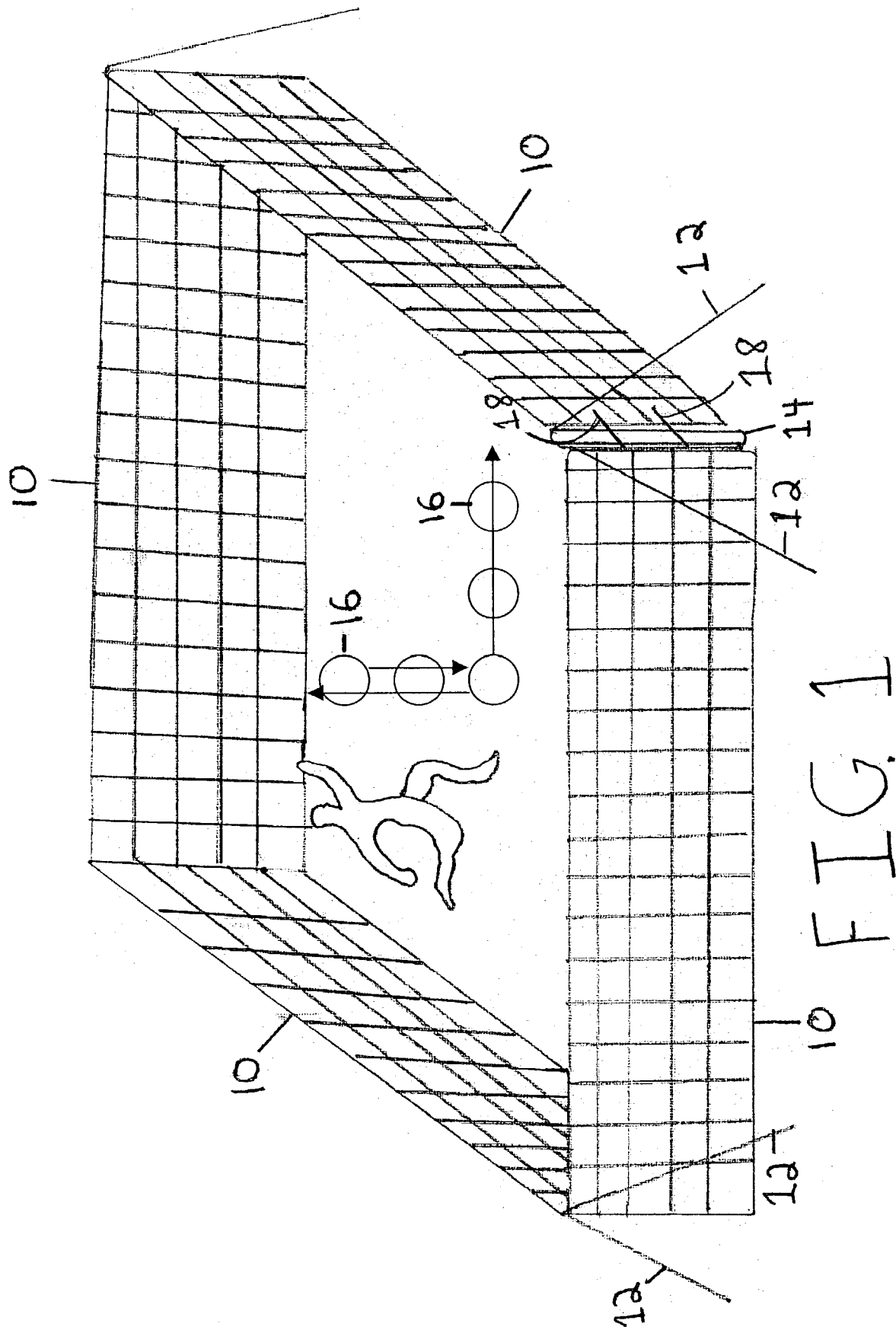


FIG. 1

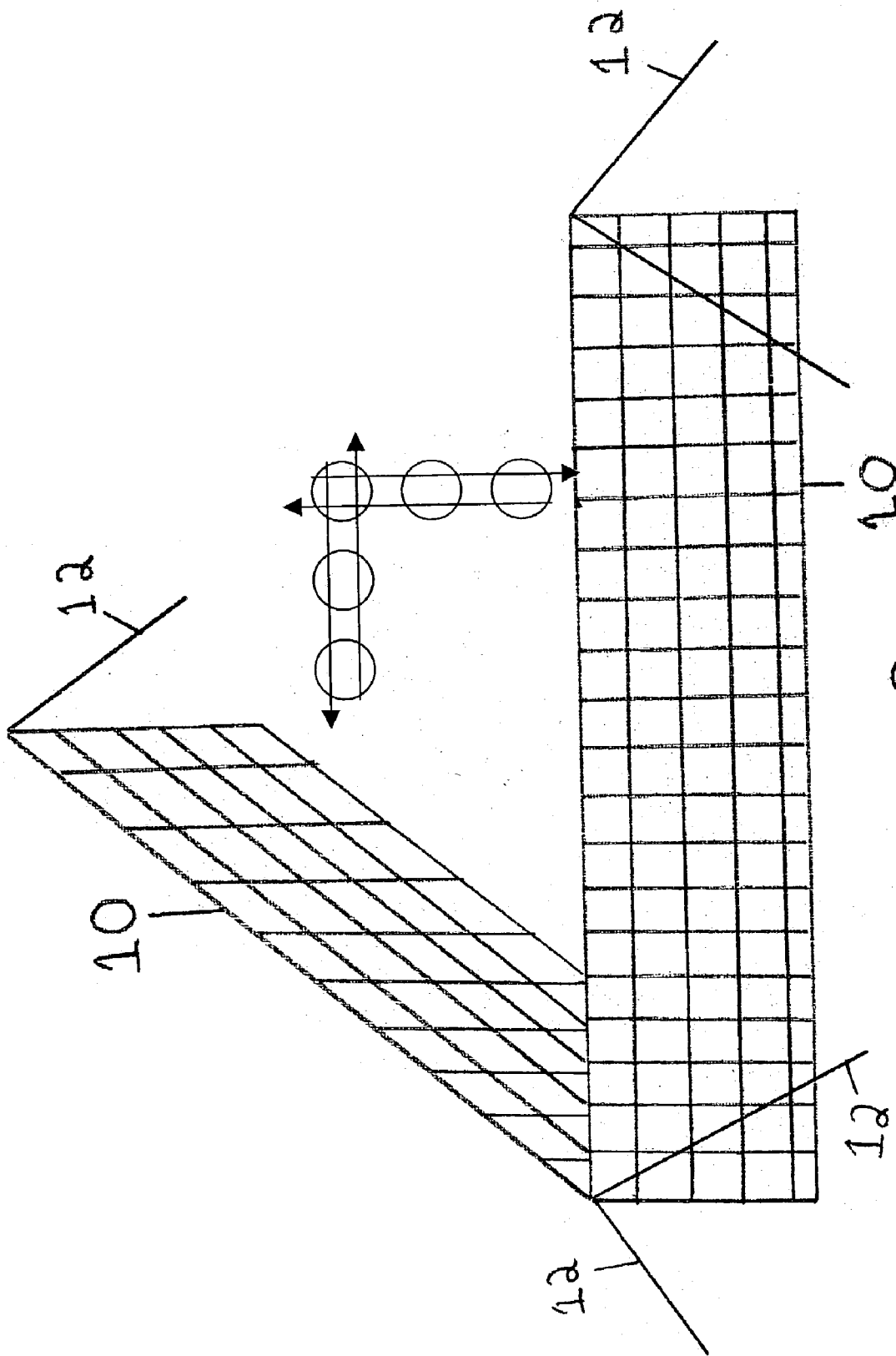


FIG. 2

MULTIPLE-PLANE OR USER-ENCLOSING REBOUND SURFACES FOR PRACTICING SOCCER OR OTHER SPORTS

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] Not Applicable

FEDERALLY SPONSORED RESEARCH

[0002] Not Applicable

SEQUENCE LISTING OR PROGRAM

[0003] Not Applicable

BACKGROUND OF THE INVENTION

[0004] 1. Field of Invention

[0005] This invention relates to devices used in training for the sport of soccer (known in most of the world as "football"), as well as other sports that involve propelling a projectile toward a goal, and particularly to devices for rebounding a kicked soccer ball or other propelled projectile toward the kicker or other user to be kicked or struck a second or additional times.

[0006] 2. Background of the Invention

[0007] Various products exist for training in soccer, as well as other sports, known as "rebounders" or "bounce-back" or "return" nets or goals. When a practicing soccer player kicks a soccer ball into one of these devices, the device returns the ball to be kicked again. Such devices generally consist of a net with some elasticity, or other rebound surface, tautly stretched across a frame of aluminum, some other metal, PVC pipe or a similarly rigid material. These rebound devices differ from a conventional soccer goal with a baggy net with slack in it, in that the rebounder saves the user from having to retrieve the ball after each kick. This allows many more touches on the ball in a given period of time and thereby enhances soccer training. The same or similar products can be used for returning balls in other sports, for example, returning a thrown baseball, softball, lacrosse ball or basketball, or a struck tennis ball. These devices range in size from the full dimension of a standard soccer goal (8 feet high by 24 feet wide), to small devices such as 4 feet by 6 feet intended for backyard use. They are often portable, with some method for holding them in place during use, such as metal J-hooks that clamp over the base of the frame and are driven into the ground, or ropes that attach to the frame and are tied down to anchoring pegs.

[0008] Various devices of this kind are sold by Kwik Goal Ltd, 140 Pacific Drive Quakertown, Pa 18951, and can be seen at their web site at www.kwikgoal.com; by Jafco Sports of Springfield, Mo. (www.soccerrebounder.com); and by Goal Sporting Goods, Inc., 37 Industrial Park Road, Essex, Conn. 06426 (www.goalsports.com). One such rebounder product is disclosed in U.S. Pat. No. 6,250,634 to Strain et al. (2001), a sports apparatus for bouncing back a sports object, consisting of an elastomeric sheet stretched across a frame. Another is a device that can be used either as a soccer goal or as a ball-returning practice net for backyard use, disclosed in U.S. Pat. No. 4,083,561 to Daffer, Jr. (1978). A third is disclosed in U.S. Pat. No. 6,287,220 issued to Caruso

(2001), which dispenses with upper and lower frames, but stretches a net between two vertical uprights held in place with guy ropes. U.S. Pat. No. 5,048,844 to Haseltine (1991) suggests a method of causing a ball struck along the ground into a net to rebound with an upward velocity component. A slightly different approach to the problem of returning a kicked ball to the kicker is disclosed by U.S. Pat. No. 5,556,106 issued to Jurcisin (1996), which describes a solid vertical screen that blocks the kicked balls, with a trough at the bottom that collects the kicked balls and funnels them to a conveyor that returns the balls to the kicker.

[0009] Another relevant device existing in prior art is the "batting cage" for practicing hitting in baseball or for practicing golf. These are commonly used to contain the ball struck by a batter or golfer. The surfaces of such cages generally consist of heavyweight knotted nylon netting or similar material. These devices will contain a projectile, but differ from rebounders in that they are not designed to rebound the projectile to the user. Cages of this kind made by Carron Net Company, Inc., 1623-17th Street, Two Rivers, Wis. can be seen at its web site at <http://www.carronnet.com/sportbw.pdf>.

BACKGROUND OF THE INVENTION

OBJECTS AND ADVANTAGES

[0010] All of the heretofore disclosed rebounder devices consist of a rebounding target in a single plane, that is placed perpendicular to the line of travel of the ball between the kicker and the target. The present invention differs from all these in that the user faces rebound surfaces on multiple sides, and may be substantially surrounded by rebound surfaces. For example, in the preferred embodiment, the rebound surfaces form an enclosure in the shape of a square, with each of four sides consisting of a rebounding net or other rebound surface. The user enters said enclosure through an opening and then closes the opening behind the user. In the preferred embodiment this opening is made by attaching one of the rebound surfaces to its frame with Velcro straps that the user can remove to permit entry and then re-attach to close the device. Once inside, the training athlete may kick the ball in any direction and have it returned by a rebound surface. This invention has advantages over the prior art of rebounders that are very significant in training for the sport of soccer, including:

[0011] (a) the prior art only allows the kicker to practice kicking the ball back in the direction from which it came, which is where the rebounder net is placed; in actual soccer game situations, one often wants to kick the ball perpendicular to the direction of its arrival, as when shooting at the goal a ball that has been struck across the field by a teammate; one also often wishes to practice facing in one direction to receive a ball, and then turning 180 degrees to face the other direction and kick the ball; the present invention allows practicing both these maneuvers, and indeed allows practicing repeatedly kicking the ball at any angle in relation to its direction of arrival;

[0012] (b) with the prior rebounder art, if the kicker misses the goal, he is forced to retrieve the ball, wasting practice time; with the current invention, the kicker is surrounded by rebound surfaces, so retriev-

ing stray balls is eliminated; with the prior batting cage art, there is a complete enclosure that contains the projectile, but the ball is not returned to the kicker or other user; and

[0013] (c) a secondary use of the full enclosure embodiment of the invention is as the scene for a game between two or more soccer players, in which goals are inserted within the enclosure at opposite ends, and kicking the ball off of the net walls or other rebound surfaces of the enclosure is permitted as a tactic in trying to pass the opponent and move the ball toward the appropriate goal.

SUMMARY

[0014] A device to use in soccer training in which the athlete is confronted on multiple sides, or substantially surrounded, by surfaces consisting of a stretched net or other material that will cause a ball or other projectile to rebound when kicked or otherwise propelled against said surfaces. The surface or surfaces must be in at least two different planes, and may substantially laterally enclose the user, forming a triangle, square, circle, or other geometric shape around the user. (The term "laterally enclose" or "laterally surround" is used throughout this patent application to mean that rebound surfaces appear on substantially all sides of the user, but not below the user and not necessarily above the user). Using the invention, a soccer player can kick the ball against a rebound surface, receive the ball back, and then kick it again in a different direction against another rebound surface or a portion of the rebound surface in another plane. This device may be used to practice many soccer maneuvers, including kicking the ball at various angles to its line of arrival, such as 90 degrees, or turning 180 degrees and kicking the ball in the same direction it was heading when it arrived at the kicker. In each case the ball or other projectile is captured by a rebound surface and therefore the user need not waste time retrieving the ball. A teammate to feed the ball to the user is also not necessary because the athlete can feed himself the ball by striking it against one rebound surface which returns the ball to prompt the user's next action.

DRAWINGS

[0015] FIG. 1 shows the square enclosure embodiment of the invention, with a soccer player using it to strike the ball first in one direction against one surface, and then perpendicular to its path of return, against another surface.

[0016] FIG. 2 shows an alternative embodiment which does not form a full enclosure, but consists of two vertical rebound nets at 90-degree angles to each other.

DRAWINGS LIST OF REFERENCE NUMERALS

- [0017] 10 net rebound surface
- [0018] 12 guy rope supports
- [0019] 14 aluminum tubing frame member
- [0020] 16 soccer ball, arrow showing path
- [0021] 18 Velcro closure strips attaching net to frame

DETAILED DESCRIPTION

[0022] Preferred Embodiment

[0023] A preferred embodiment of the invention is illustrated in FIG. 1. The preferred embodiment is in the shape of a rectangular solid of which the base is 10 yards long and 10 yards wide and the height is eight feet. The bottom surface of the device is open, so that when the device rests on the ground, the bottom face consists of the turf or other surface on which the device stands. In the preferred embodiment, the top surface of the device is also open, although a top surface or roof may be added to prevent escape of a ball or projectile. The preferred embodiment of the device has four vertical walls 10, each 10 yards wide and eight feet tall.

[0024] In the preferred embodiment, in each of the four corners at the base of the rectangular solid shape stands a vertical frame element 14 (in FIG. 1, for simplicity, the vertical frame element detail is shown only in the right front corner of the device, or lower right corner of the page). In the preferred embodiment, the vertical frame element is made of aluminum tubing with an outside diameter of two inches, but galvanized steel tubing or poly vinyl chloride ("PVC") pipe would also serve and the exact diameter may vary. The vertical frame tubes may be stabilized against lateral movement by placing the hollow tubing over a stake partially driven into the ground. Each vertical frame tube is connected at the top at right angles to two horizontal frame tubes that constitute top sides of the rectangular solid shape. The connections between frame pieces may be made by nuts and bolts or by sleeves that lock into place with push buttons. The four vertical frame tubes are connected by four horizontal frame tubes only at the top. There are no frame pieces running along the surface of the ground. If a permanent placement of the invention is desired, 4-inch by 4-inch wood posts such as are used in standard soccer goals could also be used as frame pieces.

[0025] In the preferred embodiment, each two adjacent vertical frame tubes and the horizontal frame tube that connects them form a vertical square. The surface of this square consists of a net 10 attached at each side to a vertical frame tube and at the top to the horizontal frame tube. The net may be made of polypropylene or nylon with a one-inch square mesh. The net is attached to and stretched tautly between the two adjacent vertical frame tubes, and is also attached to the horizontal frame tube above it. The attachments may be made by one-inch wide strips of Velcro 18 wrapped through the border of the net and around the frame tube. The net functions as the rebound surface that returns a ball or projectile struck against it.

[0026] Additional stability of the device against lateral movement caused by the impact of the ball or other projectile against the vertical rebound surface is provided by guy ropes 12 that attach at each top corner of the device, and are tied to stakes driven into the ground a few yards away.

[0027] Alternative Embodiments

[0028] The angle that the plane of each rebound surface makes with the ground, ninety degrees in the preferred embodiment, can be varied, which in turn varies the angle of flight of a ball as it returns to the user. In one embodiment, these angles at which the ball returns can be made variable at the option of the user by movements of the frame tubing.

The angle of ball return can also be influenced by using a curved rather than straight frame to hold the net or other rebound surface.

[0029] In another alternative embodiment of the invention, there is an upper surface, top or roof to the lateral enclosure formed by the rebound surfaces. This upper surface functions to prevent the escape of a ball or projectile out of the enclosure. A disadvantage of this embodiment is that the roof prevents kicking the ball to an indefinite height without interference, which limits some potential practice applications. The roof or upper surface may be made of a net similar to the rebound surfaces or may be of any other material that will prevent escape of a ball or projectile.

[0030] There are many alternatives to the rectangular solid shape of the enclosure shown in the preferred embodiment. In some of these, the device still consists of an enclosed space in which the user may be substantially laterally surrounded by rebound surfaces. One example is an enclosure consisting of three vertical rebound surfaces, which can be at various angles to each other, such that a horizontal cross section of the enclosure would be in the shape of a triangle, as distinct from the four vertical walls of the preferred embodiment shown in FIG. 1, of which a horizontal cross-section is a square. Another alternative embodiment is a rebounding surface in the shape of a cylindrical enclosure, in which the vertical rebound surface has a circular cross section, and by which the user may be laterally surrounded.

[0031] Other alternative embodiments of the invention consist of a plurality of rebound surfaces in different planes that differ from the single-plane rebounders existing in prior art, but yet do not completely enclose the user. For example, one alternative embodiment is a device consisting of two vertical rebound surfaces, at 90 degrees to each other, essentially the preferred embodiment with two sides removed. This is shown in FIG. 2. Such an embodiment would allow some but not all of the novel benefits of the preferred embodiment. For example, it would enable repeated practice in kicking a ball at a 90 degree angle to the ball's direction of arrival at the user, but it would not facilitate the user's practicing facing in one direction to receive the ball, and then turning 180 degrees and kicking a ball in the same direction as that in which the ball is traveling on its arrival. Practice of this maneuver is enabled by a complete lateral enclosure such as that of the preferred embodiment shown in FIG. 1.

[0032] As noted, the preferred embodiment uses detachable Velcro straps 18 to connect at least one of the rebound nets to the vertical frame member 14. It is by detaching these straps that the user gains entry to a device that laterally encloses the user. There is an alternative to this method of opening and closing the enclosure. This is to attach the frames of two of the rebound surfaces to each other with hinges, so that an entire side of the rebounding enclosure can be swung open and then re-shut. This avoids the user's having to re-stretch the net to attach the Velcro strips to re-close the device.

[0033] Operation of the Invention

[0034] In the preferred embodiment shown in FIG. 1, the user enters the rectangular enclosure by removing the Velcro strips 18 that connect a portion of one net to its adjacent

vertical tube frame 14, stepping into the interior of the device, and then reconnecting the net using the Velcro strips. In the case of the alternative embodiment shown in FIG. 2, in which there exist a sequence of connected rebound surfaces in different planes that do not completely enclose the user, the user can simply step between the vertical rebound surfaces.

[0035] Once inside the enclosure (in the case of the preferred embodiment shown in FIG. 1), or between the vertical rebound surfaces (in the case of the alternative embodiment in which the device is not laterally closed, as shown in FIG. 2), the practicing player can kick or otherwise propel the ball or other projectile in various directions, receive the ball back from the vertical rebound surface, and then kick or propel it again, either in the same direction or in a different direction. The invention can be used to practice many soccer maneuvers, including kicking the ball at various angles to its line of arrival, such as 90 degrees from the angle at which the ball arrives, or (in the case of the preferred embodiment shown in FIG. 1) receiving the ball while facing in one direction and then turning 180 degrees and kicking the ball in the same direction it was heading when the user received it. In each case the kicked or propelled ball or other projectile is captured by the vertical rebound surface and therefore the user need not waste time going to retrieve the ball or projectile. The user of the device does not need another person to feed the ball because the user can serve himself or herself the ball by striking it against the vertical rebound surface and awaiting its return. The device can also be used to practice heading or trapping a soccer ball by kicking it against the vertical rebound surface and then using the head or other body parts to strike or control the ball on its return.

[0036] The ball or other projectile can be kicked or otherwise propelled any number of times in a continuous fashion, to practice timing and introduce an aerobic conditioning element to the practice session. The user of the device can follow a predetermined sequence of maneuvers, or one that is called out by a coach observing the practice session. The following are several examples of useful soccer practice routines enabled by the invention:

[0037] (a) In a 4-surface enclosure such as the preferred embodiment shown in FIG. 1, the player kicks the ball against one rebound surface. When the ball returns, the player kicks it against a second rebound surface, said second surface being the one adjacent to the first surface and in a clockwise direction from the first surface when viewed from the perspective of the user, so that the movement of the ball propelled by the second kick is at a right angle to the direction of the first kick. When the ball returns after the second kick, the player kicks the ball against a third rebound surface, again moving in a clockwise direction, so that the direction of the third kick is 180 degrees opposite to the direction of the first kick. When the ball returns after the third kick, the user kicks the ball a fourth time, this time against the only rebound surface against which it has not yet been kicked. When the ball returns after the fourth kick, the user again kicks the ball against the surface against which it was first kicked, thereby starting a second rotation identical to the first. This rotation of four kicks against the four different surfaces can be repeated an

indefinite number of times. This drill enhances skill at kicking the ball at a 90-degree angle from its direction of arrival. The drill can be done with kicks in which the ball maintains contact with the ground, or kicks in which the ball flies through the air, to practice volleying (kicking an airborne ball) or half-volleying (kicking a ball just as it lands on the ground). The same drill can be done moving counter-clockwise through the rebound surfaces, or alternating clockwise movement with counter-clockwise movement.

[0038] (b) In a 4-surface enclosure such as the preferred embodiment shown in FIG. 1, the user kicks the ball against one rebound surface. When the ball returns to the user, the user touches the ball with his or her foot in such a manner as to move the ball one or two yards in a direction perpendicular to the ball's path of arrival. The user then turns 180 degrees and kicks the ball against the rebound surface directly opposite the one to which the ball was originally directed. When the ball returns from the second kick, the player again touches the ball slightly to the side and turns and kicks at the first rebound surface. This sequence of 180 degree turns and kicks can be repeated an indefinite number of times. This drill enhances skill at rapidly turning with the ball under control. Various alternative methods of turning with the ball can be practiced, including lifting the ball with the foot, kicking it over the user's head and volleying it at the opposite surface.

[0039] (c) In a 4-wall enclosure such as the preferred embodiment shown in FIG. 1, various combinations of the routines described in paragraphs (a) and (b) are possible, such as a clockwise 90-degree turn followed by a 180 degree turn, followed by another clockwise 90 degree turn and another 180 turn, for an indefinite number of repetitions.

[0040] (d) In a 4-wall enclosure such as the preferred embodiment shown in FIG. 1, the rebound surfaces can be identified with the numbers one through four or in some other manner, and a coach standing outside the enclosure can call out the numbers or other identifiers in a random sequence, with the user being required to direct the ball to the appropriate surface. This drill enhances skills similar to those practiced in the routines described in paragraphs (a) through (c), but better mimics a game situation by adding the additional challenge of forcing the user to respond to changing external circumstances.

[0041] (e) Using either the preferred embodiment shown in FIG. 1, or the alternative embodiment shown in FIG. 2, the player kicks the ball against one rebound surface. When the ball returns, the player kicks it against the next rebound surface, moving in a clockwise direction, so that the movement of the ball propelled by the second kick is at a right angle to direction of the first kick. When the ball returns after the second kick, the player this time turns counterclockwise and again kicks the ball against the rebound surface to which the first kick was directed. The player repeats this sequence turning to the right and then back to the left repeatedly. This drill

enhances development of rhythm and if continued can be an excellent aerobic exercise. Again, the ball can be struck either in the ground or in the air. Also, various combinations of left-footed and right-footed kicks are possible, as are kicks with the various parts of the foot—the shoelace, the inside of the foot, outside of the foot and heel.

[0042] None of the practice routines described above are possible using the prior art. Many other novel practice techniques are also enabled by the invention. Those noted above are merely illustrative.

[0043] In addition to practice drills for individuals such as those described above, the invention also enables a novel form of competitive game between two or more soccer players. This game would be played within a 4-surface rectangular enclosure of perhaps 10 yards width and 20 yards length, similar to FIG. 1 except with one side elongated. Goals, perhaps 4 feet high and 6 feet wide, are inserted within the enclosure at opposite ends of the enclosure, each just in front of the middle of one of the 10-yard wide rebound surfaces. In a 20-yard long enclosure, then, the goals would be slightly less than 20 yards apart. One player attempts to score by kicking the ball into one goal and the other player attempts to score by kicking the ball into the other goal. The players are permitted to kick the ball against the nets or other rebound surfaces at the sides or ends of the enclosure, with the result that the ball rebounds into the enclosure, and the players may use such rebounding kicks as a tactic in attempting to pass the opponent and move toward the appropriate goal.

[0044] In addition to enabling novel practice drills for individuals and the novel form of game described in the preceding paragraph, the current invention can serve as a practice tool for sports other than soccer that also involve propelling a projectile toward a goal, such as lacrosse, hockey and basketball. In this application, the device is used in a manner analogous to the soccer practice drills described above, except that instead of kicking a soccer ball, the user throws or strikes a lacrosse ball, hockey puck or basketball against the rebound surface. Some variation in materials might be necessary for such other sports, such as using net with a different mesh size, or a different rebound surface. In addition to the practice applications for other sports, a multi-person game analogous to that described in the preceding paragraph is also possible for other sports that involve propelling a projectile into a goal.

[0045] Advantages

[0046] Advantages of the invention include:

[0047] (a) It allows practicing repeated kicking or heading of a soccer ball (or throwing or striking another kind of ball or projectile) at any angle in relation to the ball or other projectile's direction of arrival;

[0048] (b) it allows practicing trapping and controlling a soccer ball coming from any direction;

[0049] (c) it retains a kicked or otherwise struck ball or other projectile near the user to avoid wasting time retrieving the ball or projectile;

[0050] (d) in addition to being usable as a training device by an individual, the invention enables a

soccer competition between two or more users in which kicking the ball against the nets or other rebound surfaces of an enclosure is possible, or an analogous competition for other sports in which throwing or striking the ball or other projectile against the nets or other rebound surfaces of an enclosure is possible.

I claim:

1. A device for use in sports practice or games, including one or more surfaces that will cause a ball or other projectile to rebound from the surface, said device having at least one such rebound surface or portion of a rebound surface that is in a different plane from at least one other such rebound surface or portion of a rebound surface of the device, whereby a user of the device may propel a ball or other projectile against one surface or portion of a surface of the device, and upon the return of the ball or other projectile from said surface or portion of a surface of the device, the user may then propel said ball or other projectile in a different direction against a second rebound surface or portion of a rebound surface of the device, said second rebound surface or portion of a rebound surface being in a different plane from the first surface or portion of surface struck by the ball or other projectile.

2. The device of claim 1, wherein a plurality of substantially vertical rebound surfaces, or portions of a rebound surface, are arranged in a substantially closed geometric shape, whereby a user of the device may enter and be substantially laterally surrounded by such rebound surfaces.

3. The device of claim 1, wherein a plurality of substantially vertical rebound surfaces, or portions of a rebound surface, are arranged in the shape of a rectangular solid, whereby a user of the device may enter and be substantially laterally surrounded by such rebound surfaces.

4. The device of claim 1, wherein the plurality of rebound surfaces, or portions of a rebound surface, are arranged in the shape of a triangular solid, whereby a user of the device may enter and be substantially laterally surrounded by such rebound surfaces.

5. The device of claim 1, wherein the rebound surface is in the shape of a cylinder, whereby a user of the device may enter and be substantially laterally surrounded by such rebound surface.

6. The device of claim 1, wherein the angle made by the intersection of (a) the plane in which one or more rebound surfaces lies and (b) the plane in which the ground underneath the device lies, may be adjusted by the user, whereby a ball or other projectile struck at the rebound surface returns to the user at a different angle.

7. The device of claim 2, wherein the substantially closed geometric shape formed by the vertical rebound surfaces, is covered by a net or other device that along with said vertical rebound surfaces forms an enclosure preventing escape of a ball or projectile.

8. The device of claim 3, wherein the rectangular solid shape formed by the vertical rebound surfaces is covered by a net or other device that along with said vertical rebound surfaces forms an enclosure preventing escape of a ball or projectile.

9. The device of claim 4, wherein the triangular solid shape formed by the vertical rebound surfaces is covered by a net or other device that along with said vertical rebound surfaces forms an enclosure preventing escape of a ball or projectile.

10. The device of claim 5, wherein the cylindrical shape formed by the vertical rebound surface is covered by a net or other device that along with said vertical rebound surface forms an enclosure preventing escape of a ball or projectile.

11. The device of claim 1, wherein at least one rebound surface is a net.

12. The device of claim 1, wherein the perimeter of at least one rebound surface is bounded by a solid frame.

13. The device of claim 12, wherein the frame of at least one rebound surface is made of aluminum, galvanized steel or poly vinyl chloride.

14. The device of claim 12, wherein

(a) the elements of the frames of the rebound surface or surfaces consist of tubing;

(b) said tubing frame elements are interconnected by inserting a smaller-diameter portion of one tubing frame element into a larger-diameter sleeve of another tubing frame element;

(c) said smaller-diameter portion of said first tubing frame element bears a retractable button perpendicular to the surface of the tubing;

(d) said smaller-diameter portion of said first tubing frame element also bears a spring that exerts outward pressure on the retractable button; and

(e) said larger-diameter sleeve of said second tubing frame element contains a hole through which said retractable button can fit;

whereby once said smaller-diameter portion of the first tubing frame element is inserted to the properly assembled position within said larger-diameter sleeve of said second tubing frame element, said spring causes said retractable button on said first tubing frame element to emerge through the corresponding hole in said larger-diameter portion of said second tubing frame element, thereby locking the two tubing frame elements into place.

15. A method of training for a sport involving the kicking, throwing, striking or other propelling of a ball or other projectile, in which:

(a) the athlete positions himself or herself between a plurality of surfaces or portions of surfaces that will cause a ball or other projectile struck against them to rebound from such surfaces or portions of surfaces; and

(b) at least one such rebound surface or portion of a rebound surface is in a different plane from at least one other such rebound surface or portion of a rebound surface;

whereby the athlete sequentially propels a ball or other projectile in at least two different directions against such surfaces or portions of surfaces.

16. The method of claim 15 in which said sport is soccer and said ball is kicked.

17. The method of claim 15 in which said sport is soccer and said ball is struck with the athlete's head.