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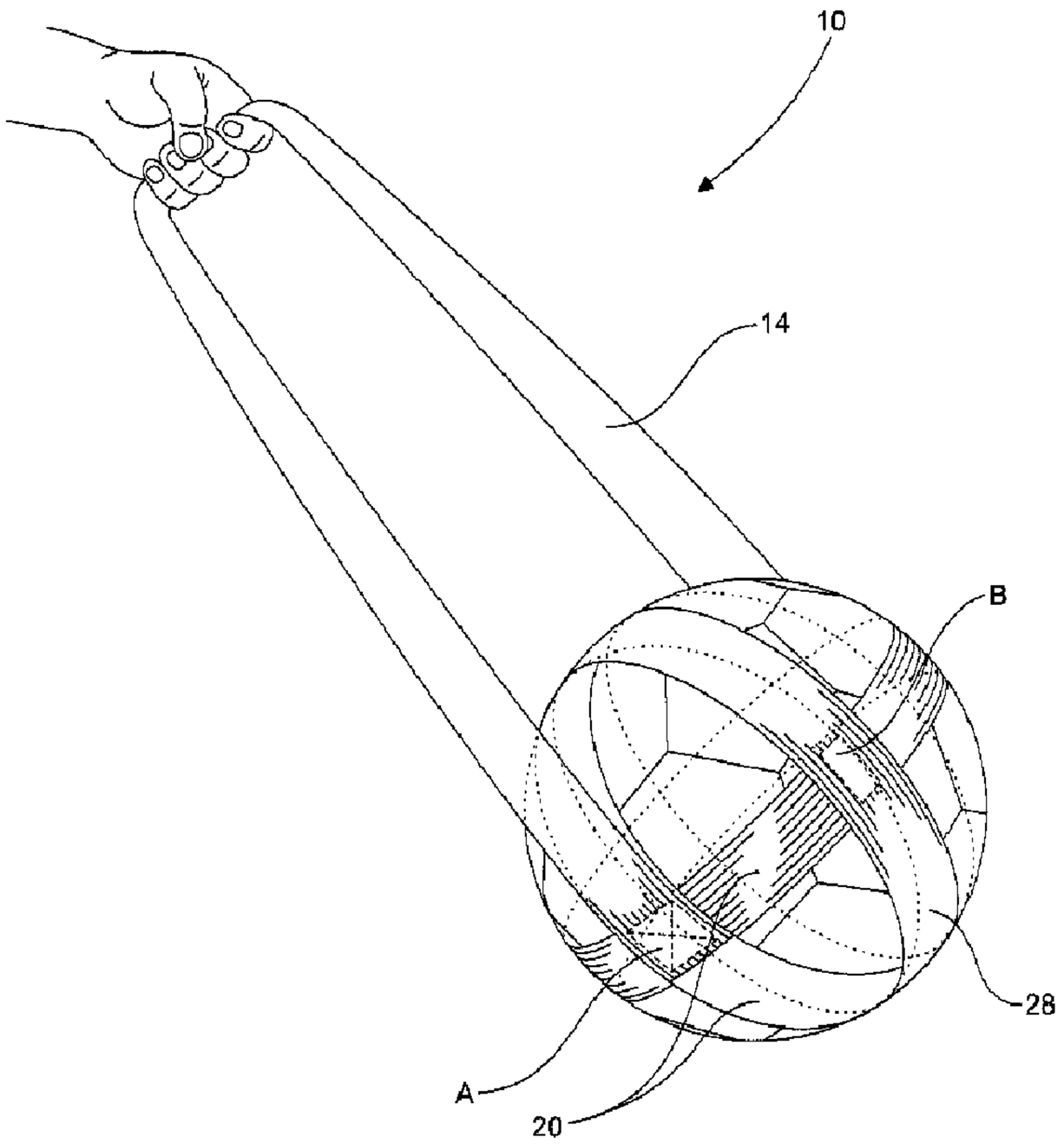
(54) **Titre : APPAREIL DE PRATIQUE D'HABILITES DE JEUX DE SOCCER DANS LES AIRS**
(54) **Title: DEVICE FOR PRACTICING AERIAL SOCCER SKILLS**



(57) Abrégé/Abstract:
Described is a device and method for practicing aerial soccer control skills. The device has an elongated tether and a harness-type holder that has a plurality of straps configured to hold a soccer ball. The harness-type holder is attached to one end of the tether at

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(57) **Abrégé(suite)/Abstract(continued):**
a first site and to the other end of the tether at a second site that is spaced from the first site. The method comprises grasping an elongate tether with one hand, suspending a soccer ball that is attached to the elongate tether at a height that is at or slightly above the knee, and tapping the ball with the feet, knees or legs to cause the ball to move upwards or sideways in predetermined directions. The device enables a person to practice aerial soccer ball control skills without the need to retrieve the ball or play with a partner.

ABSTRACT

Described is a device and method for practicing aerial soccer control skills. The device has an elongated tether and a harness-type holder that has a plurality of straps configured to hold a soccer ball. The harness-type holder is attached to one end of the tether at a first site and to the other end of the tether at a second site that is spaced from the first site. The method comprises grasping an elongate tether with one hand, suspending a soccer ball that is attached to the elongate tether at a height that is at or slightly above the knee, and tapping the ball with the feet, knees or legs to cause the ball to move upwards or sideways in predetermined directions. The device enables a person to practice aerial soccer ball control skills without the need to retrieve the ball or play with a partner.

DEVICE FOR PRACTICING AERIAL SOCCER SKILLS

FIELD

This disclosure relates to a device that enables a person to practice aerial ball control and passing skills and techniques by themselves.

BACKGROUND

[0001] Tethered balls for use as toys or as practice devices exist. US Patent 5,094,462 describes a tethered soccer ball wherein the ball is in a net, the net is attached to one end of a bungee cord and the other end of a bungee cord is attached to a strap that wraps around a person's wrist or ankle. The device is used to practice kicking a soccer ball. After the ball is kicked it returns to the vicinity of the player and the player can then kick it again.

[0002] EP 0821983 describes a game ball recreational or training device that comprises a housing that is held in a user's hand, and which has a reel on which is wound a tether. The ball is at the end of the tether, and when it is kicked the tether will unwind from the reel and thereafter rewind onto the reel bringing the ball back to the vicinity of the user.

[0003] US 2005/0282664 describes a soccer training device comprising a tether secured to a stationary member (e.g., a stake) and a ball enclosure for carrying a soccer ball. The tether is secured to a swivel that allows a user to practice kicking and throwing skills.

[0004] US 4,687,209 describes a soccer training assembly that comprises a soccer ball attached to one end of an elastic tether, the other end of which is attached to the waist of a user. After being kicked the ball returns to the user. US 5,443,576 and US 6,352,484 likewise describe devices that attach to the waist of a user, whereas US 4,687,209 describes a device that attaches to the neck of a user.

[0005] US 4,689,209 and US 4,042,241 describe soccer training assemblies that comprise a soccer ball attached to one end of an elastic tether, the other end of which is attached to a foot, leg or head of a user.

[0006] There is a need in the art for a device that can be used by a person to practice aerial soccer ball control skills, without the need to retrieve the ball or play with a partner. The device should be durable and easy to manufacture.

SUMMARY

[0007] Described herein is a ball training device and method that are designed to aid users in improving technique, rhythm, eye-and-leg/body coordination, balance and reflexes, to thereby improve their aerial soccer ball control skills. The ball training device comprises a harness like ball holder and an elastic tether that is held in the hand of the user. After a ball is inserted into the ball holder, the user holds the ball above the ground, and practices controlling and moving the ball around with their knees, feet, legs, head, chest and shoulders, thereby honing their aerial ball control skills.

[0008] In one aspect, described herein is a soccer training device comprising:

a) an elongated tether having a first end and a second end, and

b) a harness-type holder that comprises a plurality of straps configured to hold a soccer ball, the harness-type holder being attached to the first end of the tether at a first site, and to the second end of the tether at a second site spaced from the first site.

[0009] In one embodiment the first site and the second site are on opposite sides of the harness-type holder. The plurality of straps may elastic. The tether may elastic. In one embodiment the plurality of straps are made of a flat braided, woven or knit elastic strap. In one embodiment the plurality of straps comprises at least two circular longitudinal straps and at least one circular transverse strap at a right angle the longitudinal straps. The at least two circular longitudinal straps may be nested one inside the other, and the straps stitched together at the points where the straps overlap.

[0010] The at least one circular transverse strap may be stitched to at least one of the circular longitudinal straps. The device may further comprise Velcro® to fasten the longitudinal straps to the transverse strap at points where the longitudinal straps and transverse straps overlap.

In some embodiments the distance between the first end and the second end of the tether is between about 15 and about 72 inches.

[0011] In another aspect, described herein is a method of practising aerial soccer control skills comprising:

a) grasping an elongate tether with one hand, and suspending a soccer ball that is attached to the elongate tether at a height that is at or slightly above the knee,

b) tapping the ball with a foot, knee or leg with sufficient force to cause the ball to move upwards or sideways in a predetermined direction,

c) adjusting the position of the body or any part thereof, in order to tap the ball again with the same, or the other, foot knee or leg, to cause the ball to move upwards or sideways in a next predetermined direction; and

d) repeating step c) for as many times as desired.

[0012] In one embodiment the soccer ball is suspended from a tether that is attached to the ball at two different sites on the ball. In one embodiment the two different sites on the ball are at opposite sides of the ball.

[0013] In one embodiment of the method the elongate tether comprises a first end and a second end and a midpoint between the first end and the second end, and the first end of the tether is connected to the ball at a first site, and the second end of the tether is connected the ball at a second site spaced from the first site, and the user grasps the tether at about the midpoint. The soccer ball may be directly attached to the second end of the tether. Or, it may be indirectly attached to the second end of the tether by putting the soccer ball in a holder, and attaching the second end of the tether to the holder.

[0014] In another aspect described herein is a soccer training device comprising:

a) an elongated tether made of a flat braided, woven or knit elastic having a first end and a second end;

b) a harness-type holder that comprises a plurality of circular straps made of a flat braided, woven or knit elastic and assembled together to allow insertion of a soccer ball therein and removal of a soccer ball therefrom, and

c) the first end of the tether being attached to a first side of the holder and the second end of the tether being attached to a second side of the holder, opposite the first side.

[0015] The harness type holder may comprise two circular longitudinal straps and one circular transverse strap at a right angle the two longitudinal straps. The one circular longitudinal strap may be inside the other circular longitudinal strap and the straps may be overlapped at the first side and the second side of the holder, and stitched to each other at the overlaps. The circular transverse strap may be stitched to at least one of the circular longitudinal straps where the straps overlap. The longitudinal and circular straps may further be held together at points of overlap by Velcro®.

BRIEF DESCRIPTION OF THE DRAWINGS

[0016] Figures 1A and 1B show an embodiment of the soccer training device before and after it is disposed about the ball (A and B respectively). Figure 1C shows detail of the overlap of two longitudinal bands at the side of the ball, with the tether removed from the drawing for clarity.

[0017] Figure 2 shows a user practicing aerial soccer control skills according to the method described herein. In Figure 2A the user is ready to begin practicing. In Figure 2B the ball is juggled off of a knee, in Figure 2C off of the side of a foot, in Figure 2D off of the head and in Figure 2E, off of the chest.

DETAILED DESCRIPTION

[0018] Described herein is a method and device for practicing aerial soccer ball skills. The device 10 comprises a tether 14 and a ball holder 18. The tether is sized to be held in the user's hand, and to suspend a ball that is inserted into the ball holder at about the height of the user's upper leg or knee during a practice session. The ball holder is designed to allow the user to insert and remove a soccer ball from the holder, so that the soccer ball can be used in other type of training exercises, or in a game.

[0019] Ball 12 is any type or size of soccer ball that would be used to play a game of soccer.

[0020] The holder of device 10 is a harness-type holder 18 which encompasses and confines ball 12 therein. In preferred embodiments, holder 18 comprises a plurality of co-ordinating straps which surround the ball's surfaces and securely hold the ball. In preferred embodiments the co-ordinating straps are broad and thin, and have a minimal impact on the original shape of the ball. Because the holder 18 minimally impacts the shape of the ball, practicing aerial ball control skills with the soccer ball inside the holder provides a realistic real-game experience.

[0021] The harness-type holder 18 allows insertion and removal of the ball from the holder. The plurality of co-ordinating straps used to form the holder are, therefore, configured and assembled to allow a soccer ball to be inserted into the holder, to securely hold the ball in the holder while the device is being used, and to then allow removal of the ball from the holder when the practice session is completed.

[0022] In one embodiment, shown in Fig. 1A and 1B, harness-type holder 18 comprises at least two longitudinal co-ordinating straps 20 which encircle the ball, overlapping at opposite sides of the ball. The at least two longitudinal straps therefore cross over one another at what will be the opposite sides of the ball, after the ball is inserted into the holder. The longitudinal straps are spaced evenly from one another around the ball. More than two longitudinal straps 20, for example three or four longitudinal straps 20 that encircle the ball, may be used.

[0023] In this embodiment, at the site where the at least two longitudinal straps overlap, the straps are attached to one another, for example by stitching (permanently) or by using mating Velcro® surfaces (reversible) that are affixed to the straps. Preferred is the use of stitching to hold the straps together where they overlap. Fig. 1C is a drawing in which tether 14 not shown, so that the overlap of the two longitudinal straps at one side, and their stitching 30. together can be seen.

[0024] This embodiment of holder 18 additionally comprises at least one transverse co-ordinating strap 28 which encircles the ball transverse to the at least two longitudinal straps (that is, at a right angle to these straps). The transverse strap is preferably around (i.e., on the outside surface of) the longitudinal straps, but it need not be. In a preferred embodiment shown in Fig.

1B, the at least one transverse strap 28 is positioned around the ball, about midway between the two sides of the ball (or midway between the two points of overlap of the longitudinal straps). In other embodiments two or more transverse straps 28 may be used. The transverse strap 28 is attached to the longitudinal straps at one or more points of overlap, so that it does not move when the device is being used, and to also hold the longitudinal straps in place. This attachment may be permanent or reversible, for example, by stitching or with Velcro®. When the longitudinal and transverse straps are properly positioned the ball and attached to one another, none of the spaces formed between the co-ordinating straps are large enough to permit the ball to fit therethrough, and therefore the ball is held securely in the holder.

[0025] Harness type holder 18 is attached to a tether 14 that is configured to be held in a user's hand, and to position the soccer ball 12 at a height that is at about the knee or slightly above it, when the forearm is held at an angle that is approximately perpendicular to the long axis of the body, as shown in Figure 2A. This distance is preferred because it enables the user to work the ball with either the knee or the foot, when practicing. If the tether is longer, it is difficult to practice hitting the ball with the knee because the ball is too low (the hand has to be raised to uncomfortable heights to get the ball within range of the knee), and if the tether is shorter it is difficult to practice hitting the ball with the feet, because the ball is too high (the user has to bend over too much). The distance between the users hand and the top of the ball when it is inserted in holder 18 will vary depending on the height of the intended user. In most embodiments the distance is between about 0.5 feet and about 3 feet.

[0026] The tether connects to at least two different sites on the holder, and indirectly therefore to at least two different sites on the ball. In a preferred embodiment, as shown in Fig. 1A and Fig 1B, the tether attaches to the holder at the positions where the two longitudinal straps overlap one another, at what will be the opposite sides of the ball. In another preferred embodiment, similar to the device shown in Fig 1A and B, the tether attaches at one end where the two longitudinal straps overlap, and at the other end where the transverse strap overlaps with a longitudinal strap (e.g., at "A"). However, the attachment points may be even closer together, for example spaced apart by about 1, 2 or 3 inches, the closer attachments being used by the more advanced user.

[0027] By using two points of attachment to the ball, as opposed to one point of attachment, it is easier for the user to control, manipulate and position the ball with their hand, for correct impact by the user's foot, leg, knee, chest or head, as the case may be. With two attachment points, opposing forces counteract each other to assist in stabilizing the ball and its movement, as compared to the more free movement about a single attachment point, which results for example in more spinning of the ball. Thus, the user has more and better control of the position of the ball in the air with two points of attachment as opposed to one. The closer the attachment points are to one another, the less they oppose one another and the more difficult it is to practice skills with the ball.

[0028] In the embodiment shown in Fig. 1A and 1B, tether 14 is an elongated strap with a first end attached to holder 18 at a first site where the longitudinal straps overlap, and a second end attached to holder 18 at a second site where the longitudinal straps overlap. The tether is to be held in the user's hand at about its midpoint. In these embodiments the tether is preferably between about 15 to about 72 inches long from the first end to the second end. For a device to be used by small children, a 15 to 20 inch tether is generally appropriate, for a device to be used by adults, a 36 to 50 inch long tether is generally appropriate.

[0029] The tether may be any type of elongated strap, cord, rope or other elongated structure, and need not be elastic. However in preferred embodiments the tether is elastic, which provides a rebound force that can be used to the users advantage during a practice session. In preferred embodiments the tether is made from a flat elastic, such as a braided, woven or knit elastic, made with polyester, nylon or other material. In preferred embodiments the tether is between 0.5" and 2.0" in width, more preferably between about 1.0" and 1.5". In specific embodiments the elastic is B5-1" or B5-1.5" woven elastic, available for example from PanCana Enterprises Ltd. The woven elastic may be cut to size and the ends attached to the holder preferably by stitching, but alternatively by other means such as by Velcro®, or by fusing (gluing) them together. For devices intended to be used by children, a 1" width is preferable; for adults a 1.5" width is preferable.

[0030] In the device 10 herein, the plurality of co-ordinating straps which are used to form the ball holder allow a ball to be inserted into the holder and removed from the holder, and will not

allow the ball to slip out of the holder when it is being used. The straps may be made of any material or combination of materials, or have any shape or combination of shapes, that meets these objectives. The straps are preferably elastic. The straps are preferably broad and thin. A mesh-type of holder is also contemplated herein.

[0031] In preferred embodiments the straps are made from a flat elastic, such as a braided, woven or knit elastic, made with polyester, nylon or other material. The elastic for a strap is cut to size and the ends are overlapped and stitched together to form a circular strap that encircles the ball. The straps have a diameter such that they need to be stretched to encircle the soccer ball and hold it securely. In preferred embodiments the elastic is between 0.5" and 2.0" in width, more preferably between about 1.0" and 1.5". In specific embodiments the elastic is B5-1" or B5-1.5" woven elastic, available for example from PanCana Enterprises Ltd. The 1.5" wide elastic is useful for ball sizes 3, 4 and 5 (used by adults), whereas the 1.0" wide elastic is useful for ball sizes 1 and 2 (used by children).

[0032] The embodiment shown in Fig. 1A and 1B may be made from a plurality of co-ordinating braided woven or knit flat elastic straps that are sewn together into circles, as described above. The ball holder comprises two such longitudinal coordinating straps that encircle the ball, with one strap nested inside the other. The longitudinal straps are stitched together where they overlap (at opposite sides of the holder). One transverse coordinating strap 28, encircles the longitudinal straps, as shown in Fig. 1A and 1B. The elongated tether 14, which may or may not also be a braided woven or knit flat elastic strap, but which is preferably a braided woven or knit flat elastic strap, is stitched 30 to the two sites where the longitudinal straps overlap (at what will be the opposite sides of the ball). In this embodiment therefore there are no loose parts, or metal clips or attachments, and the holder is easy to assemble with the ball.

[0033] The ball is inserted into the holder 18 of the embodiment shown in Fig 1A through one of the openings that is formed between two adjacent longitudinal straps and the transverse strap, by stretching the straps to insert the ball into the holder. The longitudinal straps are then spaced equidistantly around the ball and the transverse strap is positioned on the ball as shown in Fig. 1B. There are therefore four points of overlap between the transverse and longitudinal straps, A,

B, C and D (two of these are labelled A and B in Fig. 1B; site C (not shown) is opposite A, and site D (not shown) is opposite B).

[0034] The transverse strap 28 is then secured to the longitudinal strap at points where it overlaps these straps. This may be done using mating Velcro® surfaces. However, in some embodiments the transverse strap 28 is permanently secured (e.g., by stitching it) to the longitudinal strap at one or more sites of overlap. However all sites of overlap cannot be stitched together, as it will not then be possible to insert the ball into the holder. Thus, at least one site of overlap must be left unstitched in the embodiment shown in Fig. 1A and 1B, to allow the longitudinal and transverse straps to be moved relative to one another so that a space that is large enough for insertion of the ball into the holder or removal therefrom is created by moving and stretching the straps.

[0035] In the embodiment shown in Fig. 1A and B therefore, straps overlapping at A or B, at A and B, at A and C, or at A, B and C may be stitched together. By stitching the transverse and longitudinal straps together at some points, it may be somewhat easier to arrange the holder around the ball 12 as the straps are in their predetermined proper position. This embodiment may be useful therefore to enable small children to more easily insert the ball into the device.

[0036] Other embodiments of a harness-type holder made of braided woven or knit flat elastic straps that contain more than two longitudinal straps that encircle the ball and/or more than one transverse strap that encircle the ball are contemplated herein. These straps may likewise be arranged to be stitched together and/or connected by Velcro® in a manner analogous to that described for the embodiment of Fig. 1A and 1B, provided that a ball can still be inserted into and removed from the holder.

[0037] Also described herein, with the assistance of the accompanying Figs. 2A to 2e, is a method of practicing soccer. In the method, a soccer ball is suspended from a tether that is held in the hand of a user, and which positions the ball at about the knee or slightly above it, when the forearm is held at an angle that is approximately perpendicular to the long axis of the body. The tether can attach directly to the soccer ball, for example as shown in US 4,687,209, 4,121,829 or 4,042, 241, and may swivel about the attachment point(s). Alternatively, the tether can attach indirectly to the ball via a holder that holds the ball, and which is attached to the tether, for

example as described above, or in US 5,443,576, 5,094,462 or 2005/0282664. The tether may be attached to the ball at two different spaced apart locations, preferably on opposite sides of the ball, as described above for device 10.

[0038] The tether is grasped in one hand, allowing the ball to hang down. The user may optionally bend at the waist, extend or flex the arm, or raise or lower it, to position the ball properly depending upon the skill that to be practiced. The ball may then be tapped or kicked with a leg, foot or knee, causing the ball to move in an upwards or sideways direction, at which time the user can re-direct the ball with their knee, foot, or leg, endeavouring to control the movement of the ball and its direction of travel. The objective may be to juggle the ball using the knees and feet, or to direct the ball from one foot, knee or leg to the other, or to opposite sides of the same foot or knee, or between a foot and a knee. The ball may optionally be swung overhead by hand, and allowed to drop, enabling the user to practice upper body skills such as heading the ball and/or trapping it with the chest. Or, the ball may optionally be kicked with a large force, to cause an elastic tether to stretch and contract with force, for example for goalie practice. The user will have to reposition their body, upper body, head, feet, legs and/or knees in order to contact the ball at the appropriate angle and with the appropriate force to control the movement of the ball. Fig. 2B shows a user contacting the ball with their knee to lift the ball; Fig. 2C shows a user contacting the ball with the side of their foot to move the ball sideways, Fig. 2D shows a user hitting an overhead ball with their forehead and Fig. 2E shows a user directing the ball with their chest. The user's technique, rhythm, eye-and-leg/body coordination, balance, reflexes, etc. are thereby improved.

[0039] While the soccer training device and method have been described in conjunction with the disclosed embodiments and examples which are set forth in detail, it should be understood that this is by illustration only. The scope of the claims should not be limited to the preferred embodiments but should be given the broadest interpretation consistent with the description as a whole.

CLAIMS

1. A soccer training device comprising:

a) an elongated tether having a first end and a second end, and

b) a harness-type holder that comprises a plurality of straps configured to hold a soccer ball, the harness-type holder being attached to the first end of the tether at a first site, and to the second end of the tether at a second site spaced from the first site.

2. The device of claim 1 wherein the first site and the second site are on opposite sides of the harness-type holder.

3. The device of claim 1 or 2 wherein the plurality of straps are elastic.

4. The device of any one of claims 1 to 3 wherein the tether is elastic.

5. The device of any one of claims 1 to 4, wherein the plurality of straps are made of a flat braided, woven or knit elastic strap.

6. The device of any one of claims 1 to 5, wherein the plurality of straps comprises at least two circular longitudinal straps and at least one circular transverse strap at a right angle the longitudinal straps.

7. The device of claim 6, wherein the at least two circular longitudinal straps are nested one inside the other, and the straps are stitched together at the points where the straps overlap.

8. The device of claim 6 or 7, wherein the at least one circular transverse strap is stitched to at least one of the circular longitudinal straps.

9. The device of any one of claims 6 to 8 further comprising Velcro® to fasten the longitudinal straps to the transverse strap at points where the longitudinal straps and transverse straps overlap.

10. The device of any one of claims 1 to 9, wherein the distance between the first end and the second end of the tether is between about 15 and about 72 inches.

11. A method of practising aerial soccer control skills comprising:

a) grasping an elongate tether with one hand, and suspending a soccer ball that is attached to the elongate tether at a height that is at or slightly above the knee,

b) tapping the ball with a foot, knee or leg with sufficient force to cause the ball to move upwards or sideways in a predetermined direction,

c) adjusting the position of the body or any part thereof, in order to tap the ball again with the same, or the other, foot knee or leg, to cause the ball to move upwards or sideways in a next predetermined direction; and

d) repeating step c) for as many times as desired.

12. The method of claim 11, wherein the soccer ball that is suspended from the tether is attached to the tether at two different sites on the ball.

13. The method of claim 12 wherein the two different sites on the ball are at opposite sides of the ball.

14. The method of any one of claims 11 to 13, wherein the elongate tether comprises a first end and a second end and a midpoint between the first end and the second end, and wherein the first end of the tether is connected to the ball at a first site, and the second end of the tether is connected the ball at a second site spaced from the first site, and the user grasps the tether at about the midpoint.

15. The method of any one of claims 11 to 14 wherein the soccer ball is directly attached to the second end of the tether.

16. The method of any one of claims 11 to 15, wherein the soccer ball is indirectly attached to the second end of the tether by putting the soccer ball in a holder, and attaching the second end of the tether to the holder.

17. A soccer training device comprising:

a) an elongated tether made of a flat braided, woven or knit elastic having a first end and a second end;

b) a harness-type holder that comprises a plurality of circular straps made of a flat braided, woven or knit elastic and assembled together to allow insertion of a soccer ball therein and removal of a soccer ball therefrom, and

c) the first end of the tether being attached to a first side of the holder and the second end of the tether being attached to a second side of the holder, opposite the first side.

18. The device of claim 17 wherein the harness type holder comprises two circular longitudinal straps and one circular transverse strap at a right angle the two longitudinal straps.

19. The device of claim 18 wherein one circular longitudinal strap is inside the other circular longitudinal strap and the straps are overlapped at the first side and the second side of the holder, and stitched to each other at the overlaps.

20. The device of claim 18 or 19 wherein the circular transverse strap is stitched to at least one of the circular longitudinal straps where the straps overlap.

21. The device of any one of claims 18 to 20, wherein the longitudinal and circular straps are further held together at points of overlap by Velcro®.

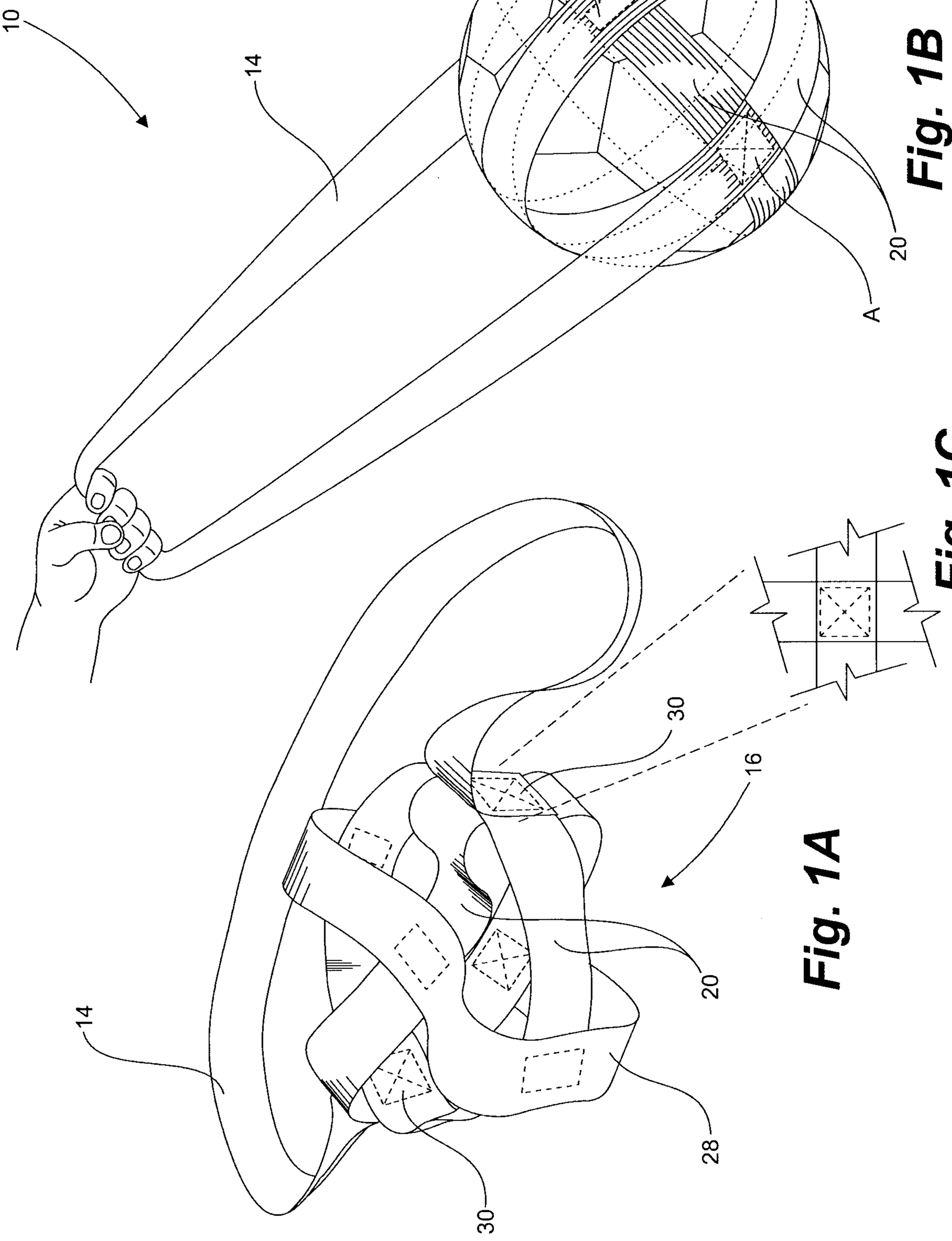


Fig. 1B

Fig. 1C

Fig. 1A

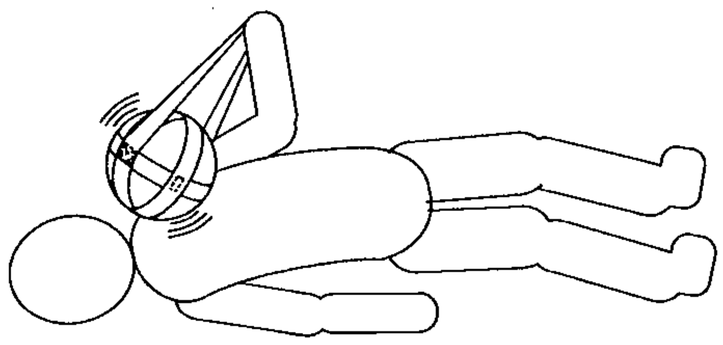


Fig. 2E

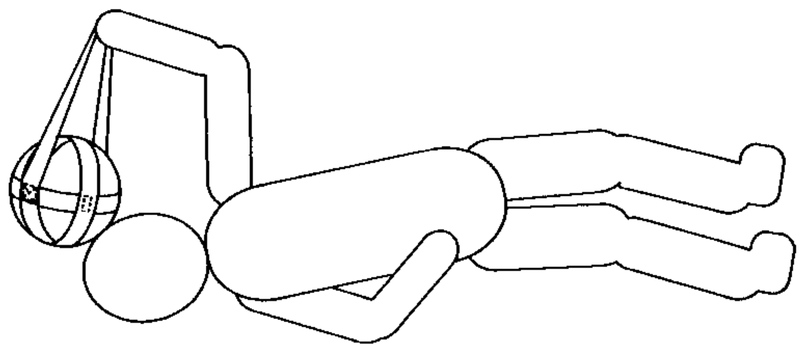


Fig. 2D

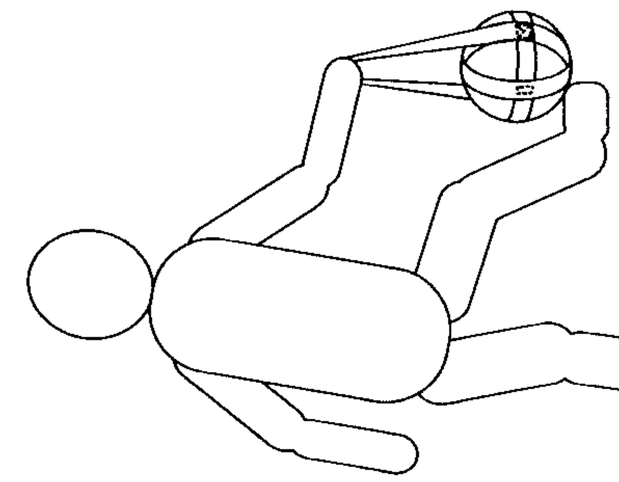


Fig. 2C

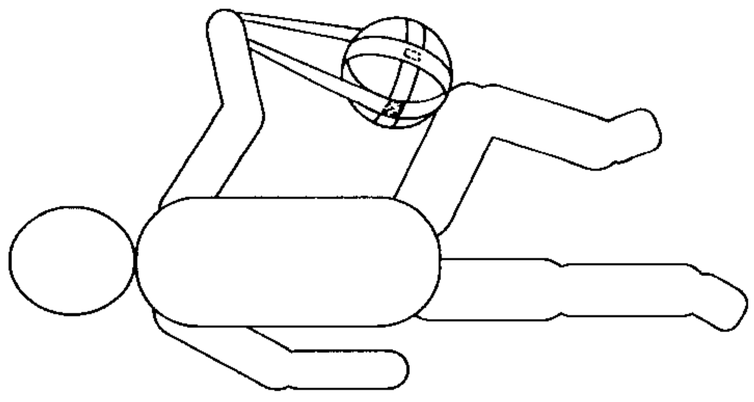


Fig. 2B

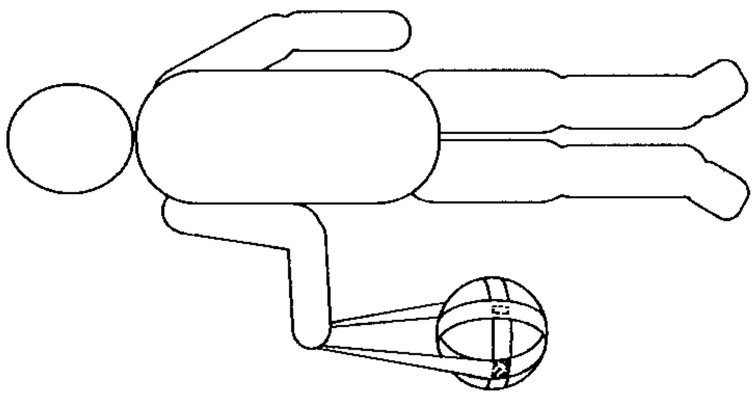
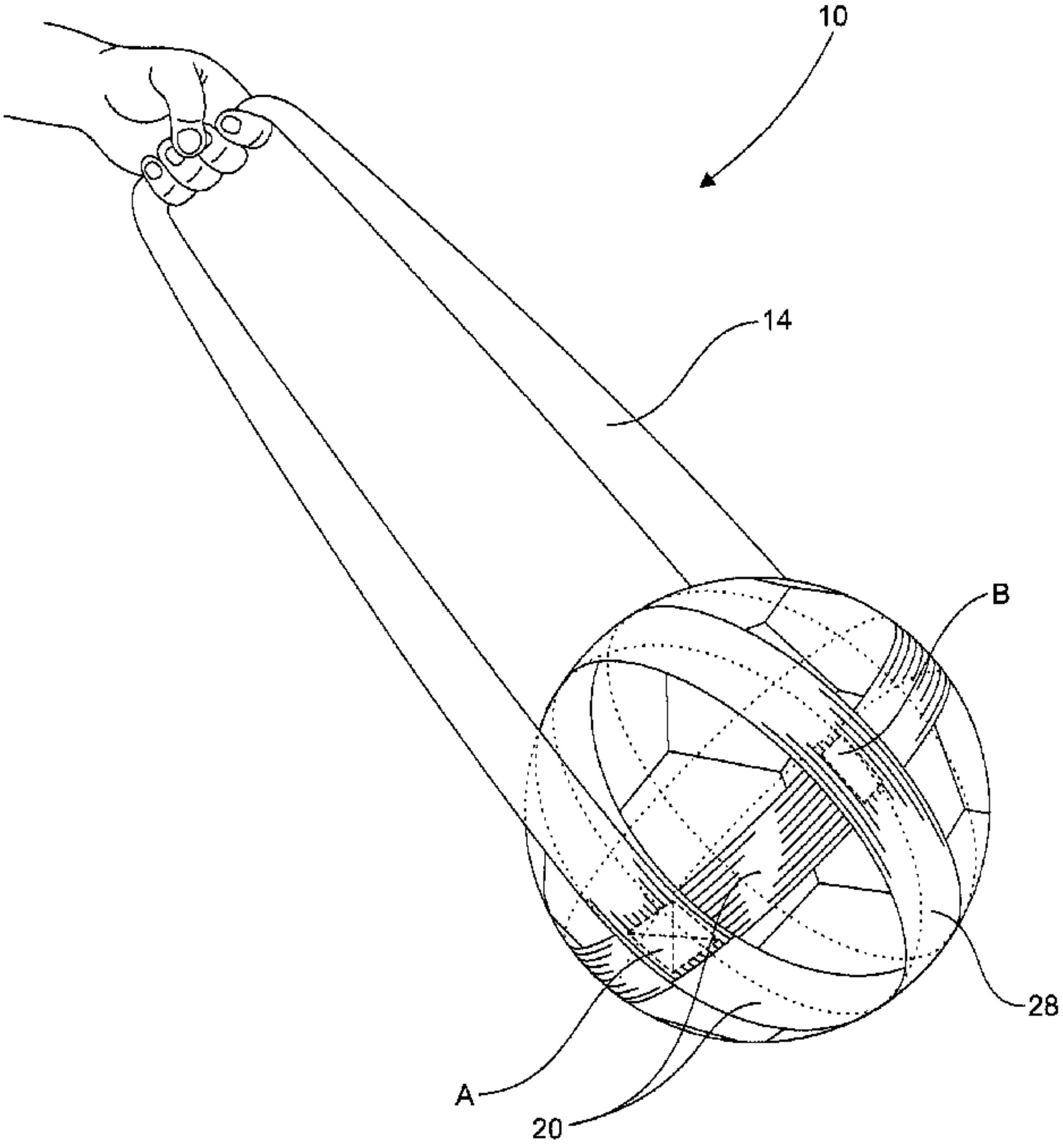


Fig. 2A


10
14
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28
A
20