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#### (54) DEVICE FOR FOOTBALL TACKLE **TRAINING**

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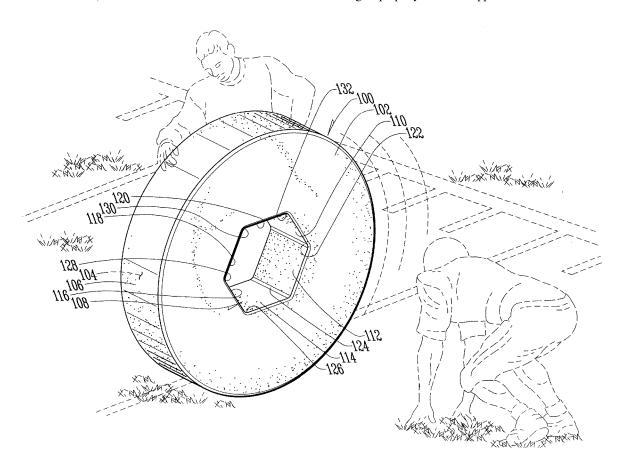
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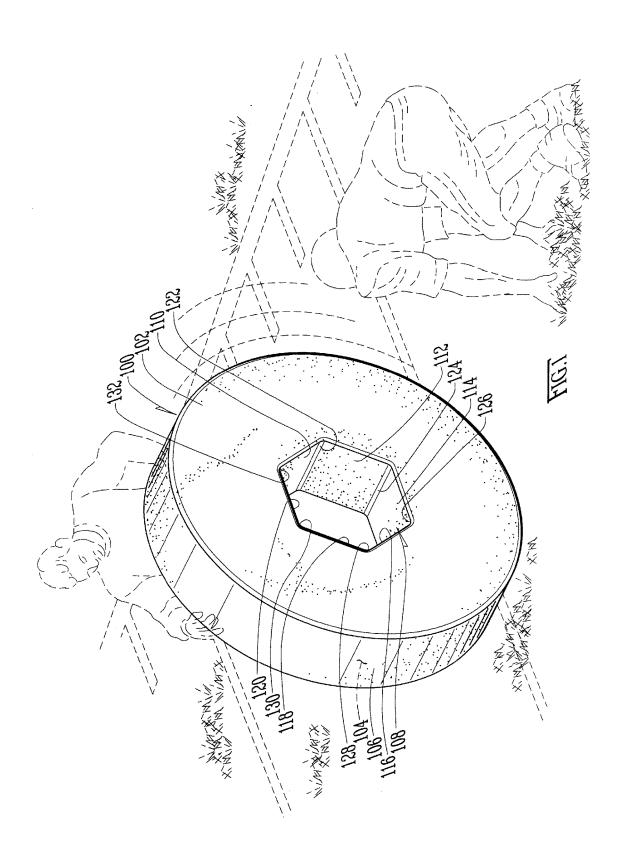
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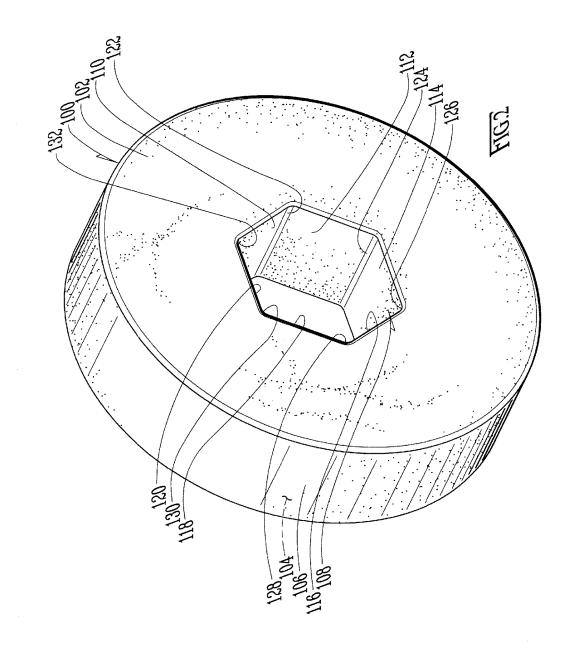
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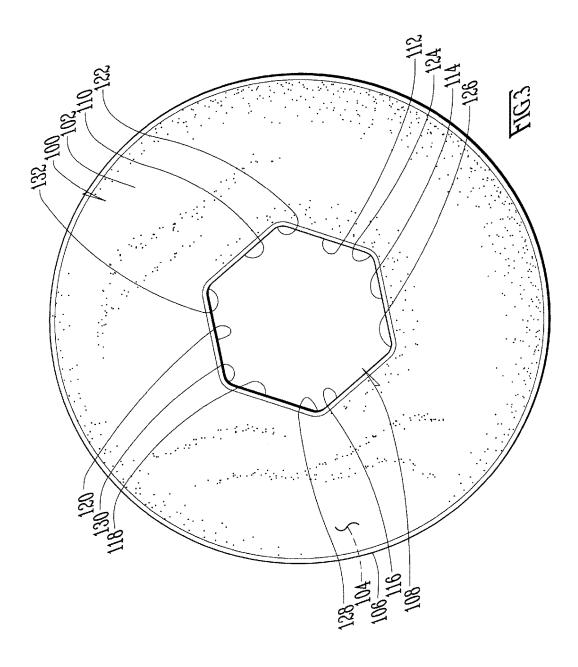
ABSTRACT (57)

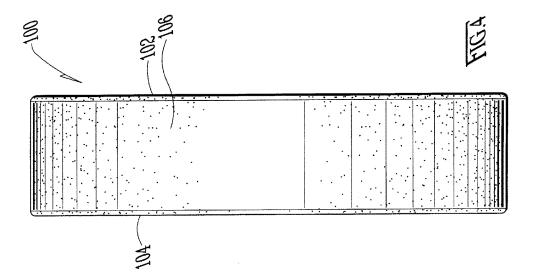
A football tackle dummy made of dense foam and covered with durable materials. The device is round and has an inner opening formed with multiple angles. Adjacent sides of the inner opening are different colors which replicate the flashing of a player's legs during play. The angles formed in the inner opening replicate the angles of a player's hip, knee, and ankle which are preferred tackle point. When the device is rolled along the ground, the practicing player learns to focus on the angles and the changing colors in the inner opening. The device is intended to decrease injuries while learning to properly tackle an opponent.

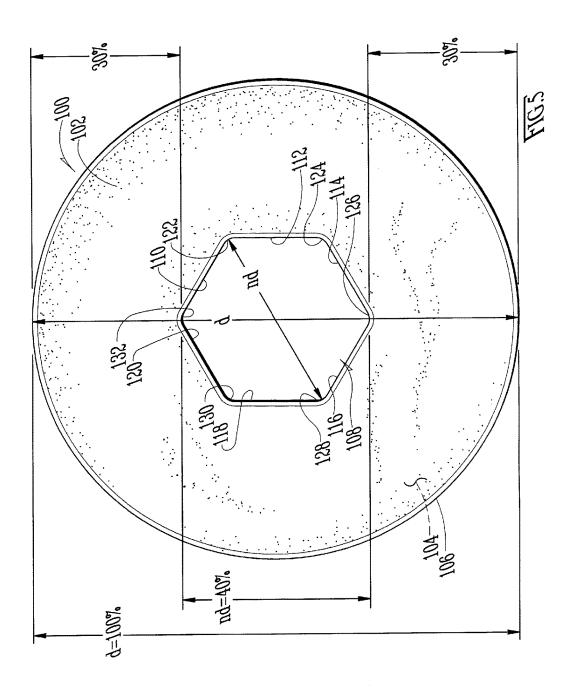












## DEVICE FOR FOOTBALL TACKLE TRAINING

### CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the priority of U.S. Provisional Patent Application No. 62/251,224 filed Nov. 5, 2015 and U.S. Provisional Patent Application No. 62/307,105 filed Mar. 11, 2016, each of which is incorporated by reference herein in its entirety.

#### BACKGROUND OF THE INVENTION

[0002] The present invention relates to a football tackling aid, sometimes generally referred to as a tackle dummy. A tackle dummy is used to train athletes to properly tackle another player without player on player physical contact. [0003] Football, also known as tackle football or American football involves substantial player on player physical contact. As is known, player on player contact does result in injuries and repeated contact during practice elevates the risk of player injury. Moreover, football has been under stricter levels of scrutiny after investigations show damaging health issues to current and former players attributable to repeated physical contact, primarily severe player on player tackles. These recent discoveries have shown that football players can experience severe brain disorders as a result of frequent contact with opposing players. While the use of protective padding and helmets diminish the likelihood of some injuries, it is known that injuries will occur due to the physical trauma to players from hard tackles. Many former professional and college football players are now discussing the life-long injuries they have sustained as a direct result of repetitive tackling. This information, along with the aforementioned research, have brought attention to football and the impact it has on players' well-being at all levels of the sport. Particular concerns exist at the preparatory and high school playing levels where players without training and experience in proper tackling technique have an increased frequency of injury. And as athlete's age and gain experience, they tend to tackle harder which also elevates risk of

[0004] Foam padded tackling "blocks" have been used for decades to train football players how to hit and tackle an opponent. The known devices are generally rectangular or oblong sections of foam covered with vinyl and may be provided with handles or straps. A coach, or other player, holds the block in front of their body and another player hits the block to simulate player on player contact. Because these blocks are stationary and held by another person, they do not allow a player to experience tackling a running player. Further, some players are unwilling to hit a tackling block at full force or speed because they do not want to injure the person holding it. This limits the training experience.

[0005] Other known tackle dummies are complex and difficult to properly use. For example, several efforts have been made to develop a tackle dummy that releases from a frame when hit so the player experiences the transfer of weight during a tackle.

### SUMMARY OF THE INVENTION

[0006] The present invention is intended to train football players how to correctly grasp and tackle a moving player. It is intended to replicate the experience of tackling an

opposing player running with the football. It is designed to "feel" like an opposing player in energy absorption and resistance due to its construction from a proprietary energy absorbing material. This innovative tackle dummy has a round circumference so it can be rolled along the ground. Further, it has an opening at the middle to create a "donut". However, the middle opening has angled sides, preferably in a hexagon configuration. Alternating sides of the hexagon are provided in differing colors so that when the device is rolled along the ground, the alternating sides of the middle opening create a repeating pattern of color that substantially replicates the "flash" or "flicker" of a player's legs as they run.

[0007] A player is taught to properly tackle another player by learning to properly tackle the dummy. An assistant rolls the device along the ground. The player is directed to focus on the color pattern at the center opening of the device as it rolls. The proper tackling technique is for the player to approach the dummy at an acute angle to the direction of roll and then simultaneously contact the side of the device with their shoulder while pushing their arm through the opening to engage the inner opening at a vertices or angle between two of the sides. This replicates hitting a player and grabbing them at an angle, whether it is the angle at the knee, hip or ankle

[0008] These and other objects, features and advantages of the present invention should become apparent from the following description and drawings.

### BRIEF DESCRIPTION OF THE DRAWINGS

[0009] FIG. 1 is a perspective view of the inventive tackle dummy showing, in phantom lines, its intended use.

[0010] FIG. 2 is another perspective view of the inventive tackle dummy.

[0011] FIG. 3 is a side view thereof.

[0012] FIG. 4 is an edge or end view of the inventive tackle dummy.

[0013] FIG. 5 is a side view showing the ratio of dimensions of the inventive tackle dummy.

# DETAILED DESCRIPTION OF THE INVENTION

[0014] The following description of the invention is not intended to limit the scope of the claims herein presented. The teaching of the present invention includes the discovery that a variety of shapes, sizes and configurations of the inventive tackle dummy can be achieved within the scope of this invention as more particularly described herein.

[0015] Referring now generally to the drawings, the inventive tackle dummy disclosed herein is a substantially annular padded device used to train football players to properly tackle other players. As shown in FIGS. 2-4, the tackle dummy has an annular body 100 with two opposed sides 102, 104 and an outer periphery or edge 106 substantially perpendicular to and spanning completely between the sides 102, 104. It is provided with a centrally oriented opening 108 forming an inner periphery having at least one angle formed within the periphery. As shown, the opening 108 is preferably hexagonally shaped, although it is understood that other geometric shapes may be provided without departure from the scope of this invention.

[0016] The tackle dummy 102 is manufactured from a dense fiber or viscoelastic foam although other foam prod-

ucts, generally termed "memory foam" can be used. The device is manufactured from a single piece of foam which has a longer useful life than pieced together or multi-part foam components. Moreover, the uniform composition of a unitary piece of foam creates uniform feel of the entire device when it is used. A covering of vinyl, plastic, polyurethane or other weather resistant material is used to fully cover the inner foam piece. The covering can be provided in any colors.

[0017] The opening 108, as presented, has six sides 110, 112, 114, 116, 118 and 120 which form the hexagonal shape of the opening. Each pair of adjacent sides of the opening creates an angle or vertices at the point of joinder. Generally, each vertices or angle is approximately 120 degrees and the opening includes six rotational symmetries and six reflection symmetries. Sides 110 and 112 form angle 122, sides 112 and 114 form angle 124, sides 114 and 116 form angle 126, sides 116 and 118 form angle 128, sides 118 and 120 form angle 130 and sides 120 and 110 form angle 132. Each angle, 122 through 132 are substantially the same. It is preferred that alternating sides of the opening will have different colors, such that sides 110, 114 and 118 will be a first color and sides 112, 116 and 120 will be a second color.

[0018] When the device is used, as shown in FIG. 1, the edge 106 is placed on the ground and the dummy is rolled in a desired direction by a person. A football player practicing tackling techniques runs toward the device on a path to intersect with the tackle dummy and forcibly knocks down (tackles) the dummy. The correct technique for tackling is taught by having the practicing player focus attention on the opening 108 of the device as it rolls. Particularly, the alternating colors of the sides 110 through 120 create a flash which replicates movement of a player's legs and hips as they run. By focusing on the opening 108 and sides 110 through 120 of the devices as it rolls, a player learns to focus on and pinpoint specific target areas of a player being replicated. Angles 122 through 132 replicate angles of a player's body, including the connections of the foot/ankle bone with the shin, the connection of the shin at the knee and the juncture of the thigh and hip bone. Each of these is a preferred grasping point for player to player tackles.

[0019] It is understood the size and overall configuration of the device can be varied greatly. Smaller versions are useful for younger players but are also suitable for teaching all players to tackle close to the ground. Larger versions of the device help train tackling larger and heavier players. The proportions of the device, however, are substantially uniform for all sizes. The inner opening 108 diameter is between approximately 25 percent and approximately 45 percent of the overall diameter d of the body 100. If the opening is too small, it becomes difficult for players to grasp the device. If the opening is too large, the integrity of the device may be compromised and the weight of the body may substantially compress the opening and make it difficult to roll the device.

[0020] In the preferred embodiment having the hexagonal opening, the proportions of the inner opening to the body diameter are not uniform. For the purpose of this description, the measurements are based on the diameter of the hexagon hd, defined as the distance between any two vertices or angles. As shown in FIG. 5, the diameter at opposing angles, for example, from angle 122 and angle 128 is approximately 40 percent of the overall body diameter. Accordingly, the distance between any point on the inner

periphery and the edge 106 is at least 30% of the total body diameter. The range of acceptable dimensions for a body 100 with a hexagonal opening is for the opening to have a diameter hd from between approximately 25% and approximately 45% of the overall body diameter d. In the preferred embodiments, the device will have an overall diameter between 35 and 60 inches and a width of approximately 12 inches. Weight of the device varies with size from between about 13 pounds at a 40 inch diameter to about 29 pounds with a 53 inch diameter.

[0021] The device 100 is particularly useful for training young players how to tackle before they experience actual tackling. A coach or assistant can control the angle, approach and rate of speed of roll for the tackle dummy to create different player experiences. Moreover, a player can tackle the dummy at full speed without concern of contacting hard objects such as helmets, shoulder pads and cleats of another player. The present invention creates a feel very similar to tackling another player in both energy absorption and resistance.

[0022] A second outer cover may be provided for the device made of materials similar to those used for football uniforms. This cover replicates the experience of tackling a person and contacting their clothing which enhances the overall "feel" of the device during use.

[0023] Because it is important to create different tackling scenarios for practice, the tackle dummy 100 can be provided in a variety of sizes and weights, all of which are within the scope of this disclosure and the appended claims. [0024] The foregoing description has been directed to particular embodiments of the invention for illustrative purposes and explanation of the inventive device. It will be apparent to those skilled in this art that modifications and changes may be made without departing from the scope and spirit of the invention. The following claims are intended to encompass all such modifications.

What is claimed is:

- 1. A football tackle dummy, comprising:
- an annular body having two opposed sides, an outer periphery and an opening defining an inner periphery between the opposed sides; and
- at least one angle formed in the inner periphery.
- 2. The tackle dummy of claim 1 wherein the at least one angle formed in the inner periphery comprises six angles and six sides to substantially form a hexagonal opening.
- 3. The tackle dummy of claim 2 wherein the six sides have alternating colors.
- **4**. The tackle dummy of claim **1** further comprising a durable cover mounted over the body.
- 5. The tackle dummy of claim 1 further comprising a covering mounted over the body made of the fabrics used to make football uniforms.
- **6**. The tackle dummy of claim **4** further comprising a covering mounted over the durable cover made of the fabrics used to make football uniforms.
  - 7. A football tackle dummy, comprising:
  - an annular body having two opposed sides, an outer periphery and an opening defining an inner periphery between the opposed sides, a durable cover over the body and wherein the inner periphery is formed with six angles and six sides to form a hexagonal shape.
- **8**. The football tackle dummy of claim 7 wherein the diameter of the opening is from between approximately 25% and approximately 45% of the diameter of the body.

- **9**. The football tackle dummy of claim **8** wherein the diameter of the opening is approximately 40% of the diameter of the body.
- 10. The football tackle dummy of claim 7 wherein the six sides of the inner periphery have alternating colors.
- 11. The football tackle dummy of claim 7 further comprising a covering mounted over the durable cover made of the fabrics used to make football uniforms.
- 12. The football tackle dummy of claim 7 wherein the body is manufactured from a viscoelastic foam.
- 13. The football tackle dummy of claim 7 wherein the diameter of the body is from between approximately 35 inches to approximately 60 inches.
- 14. The football tackle dummy of claim 13 wherein the body is approximately 12 inches wide.
- 15. The football tackle dummy of claim 13 wherein the diameter of the body is from between approximately 40 inches and approximately 53 inches.

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