



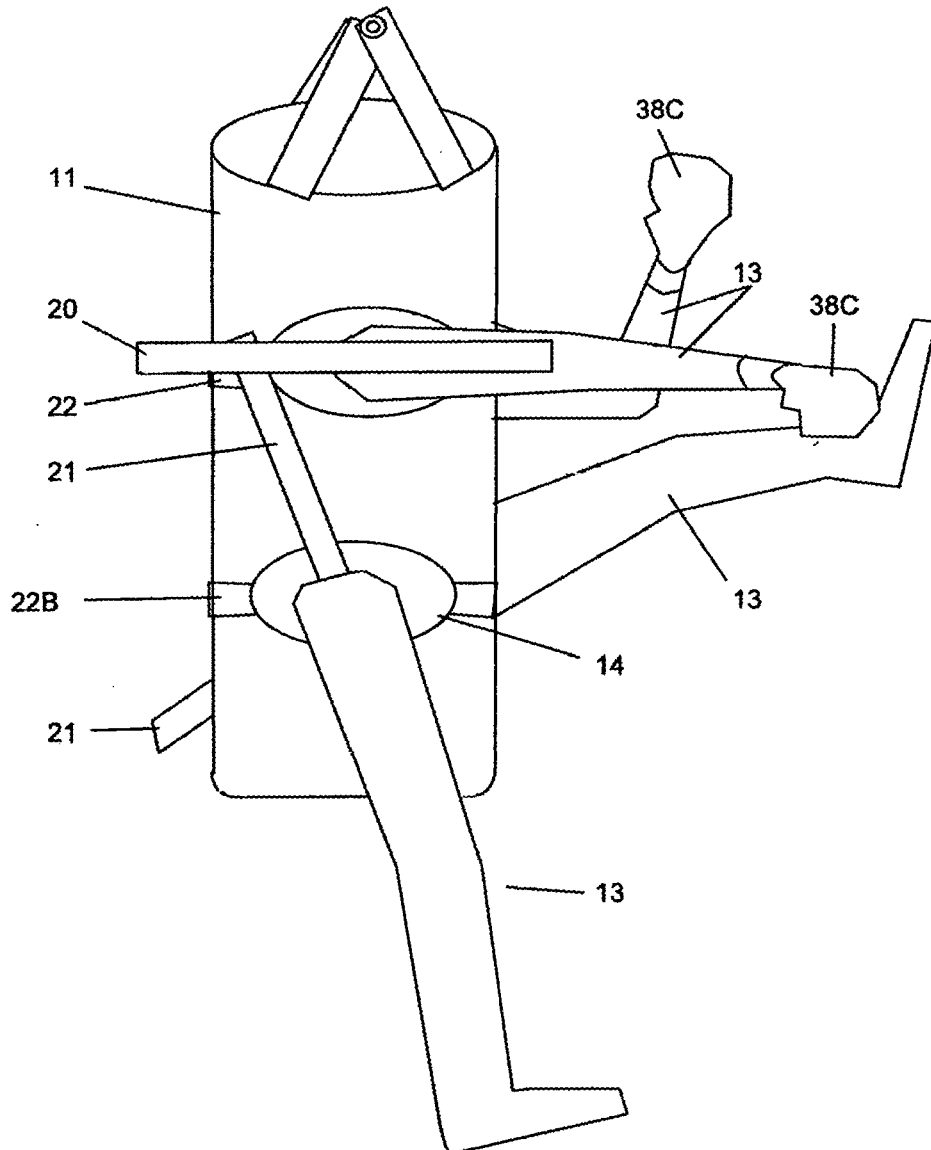
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(19) **United States**(12) **Patent Application Publication**
Elmore(10) **Pub. No.: US 2019/0143189 A1**(43) **Pub. Date: May 16, 2019**(54) **DEFENSE AND OFFENSE COMBAT /
FOOTBALL TRAINER**(52) **U.S. Cl.**CPC *A63B 69/345* (2013.01); *A63B 2243/007*
(2013.01); *A63B 2244/10* (2013.01); *A63B*
69/004 (2013.01)(71) Applicant: **Dinitras Elmore**, Milwaukee, WI (US)(72) Inventor: **Dinitras Elmore**, Milwaukee, WI (US)(21) Appl. No.: **15/732,446**(22) Filed: **Nov. 14, 2017****Publication Classification**(51) **Int. Cl.***A63B 69/34* (2006.01)*A63B 69/00* (2006.01)

(57)

ABSTRACT

A portable martial arts/football training device that has the ability to be removed and attached to a support structure such as a heavy punching bag. A boxing/football device that fights back in response to an attacker's strikers to simulate a boxing match or football game. It is equipped with padded arms each having a boxing glove or hand at its end and padded legs with a foot on each one at its end as well. These arms and legs are removable and connected to each its own Velcro belt. The arms and legs can be removed and the entire device can be transported by the practitioner with simple a duffle bag.



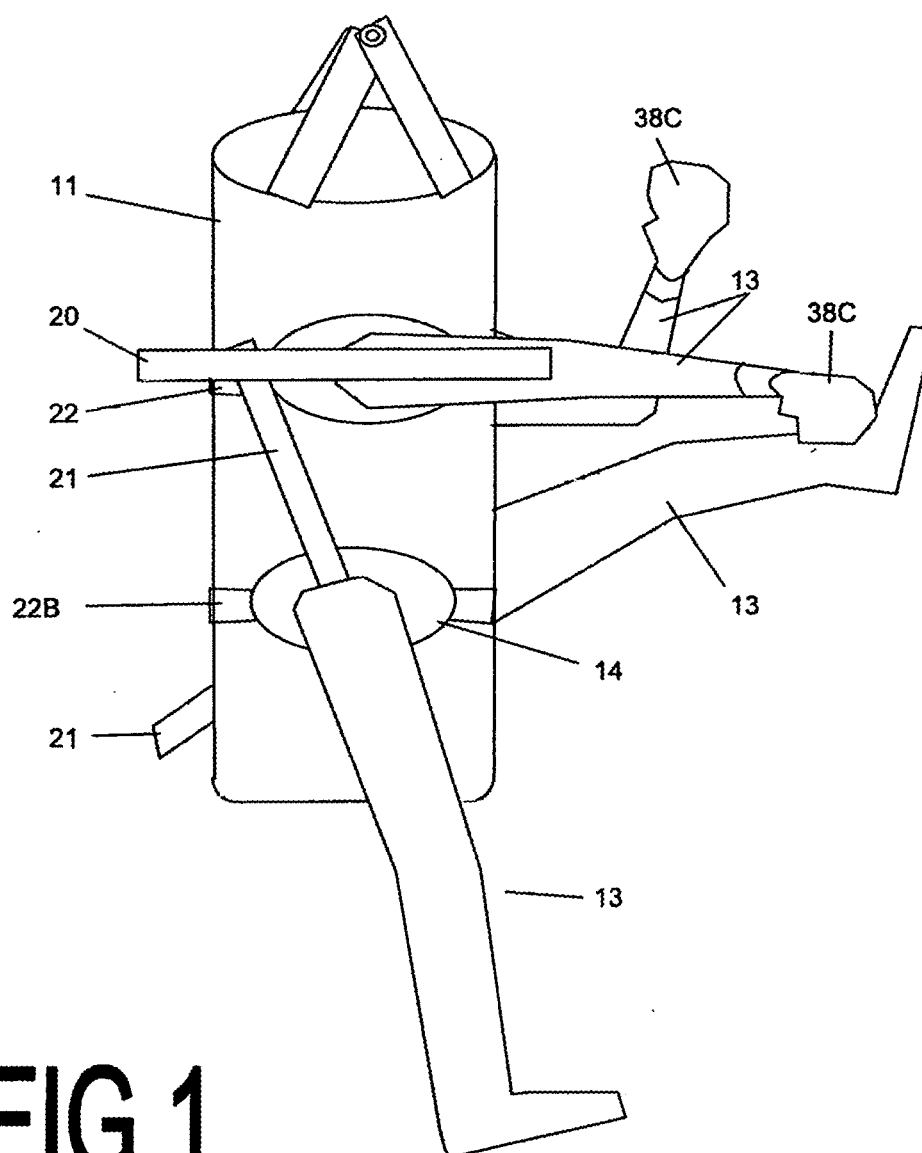
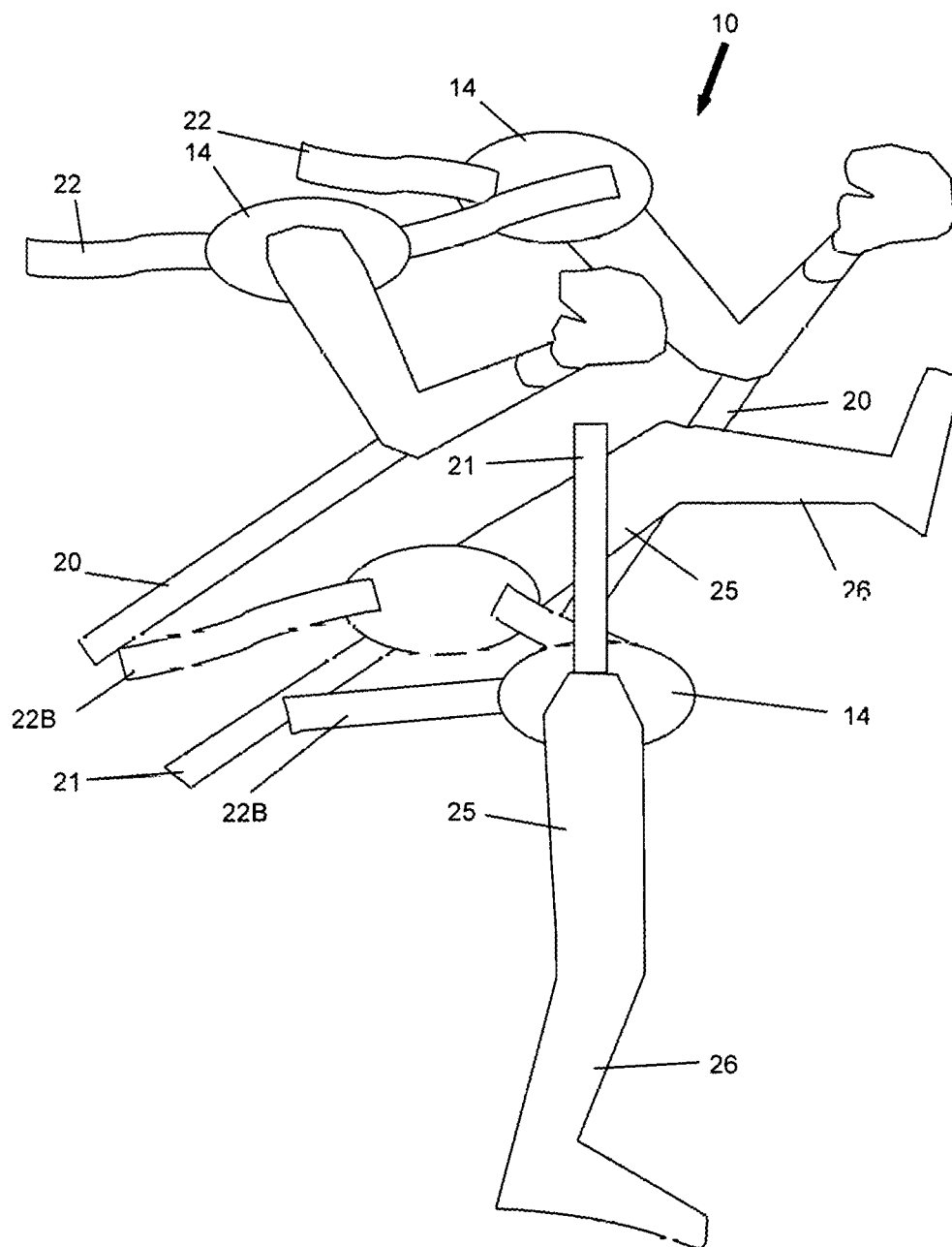
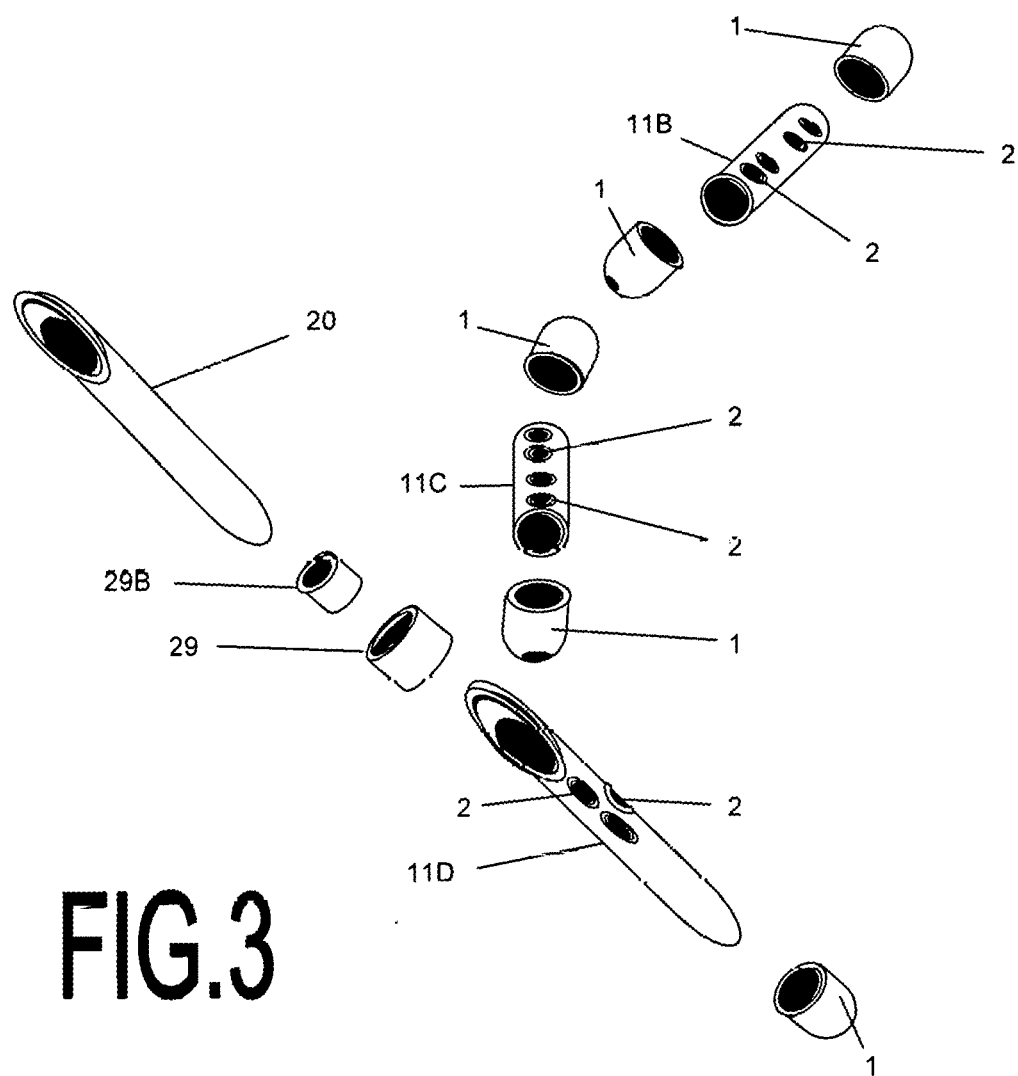
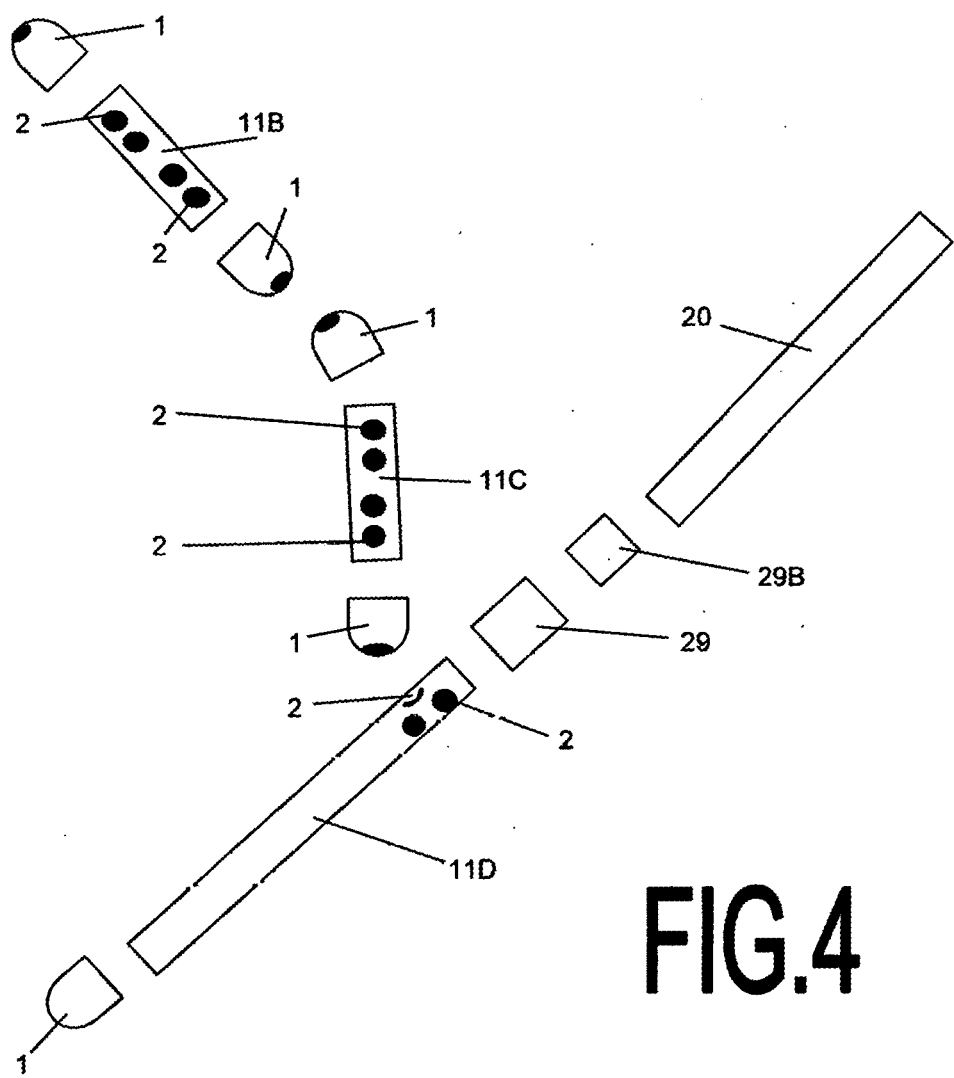
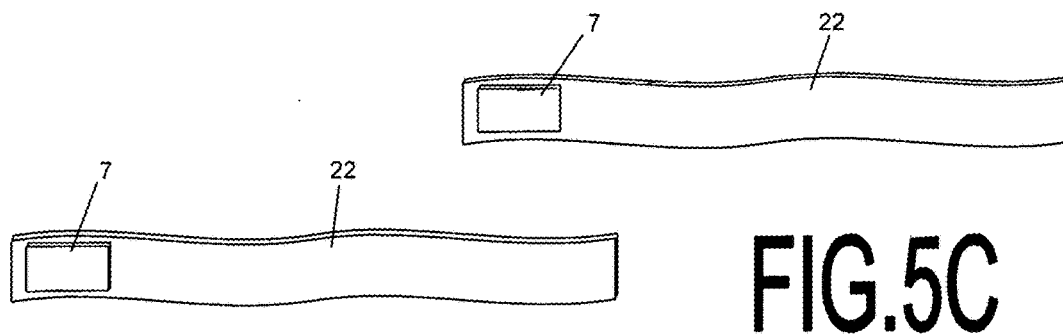
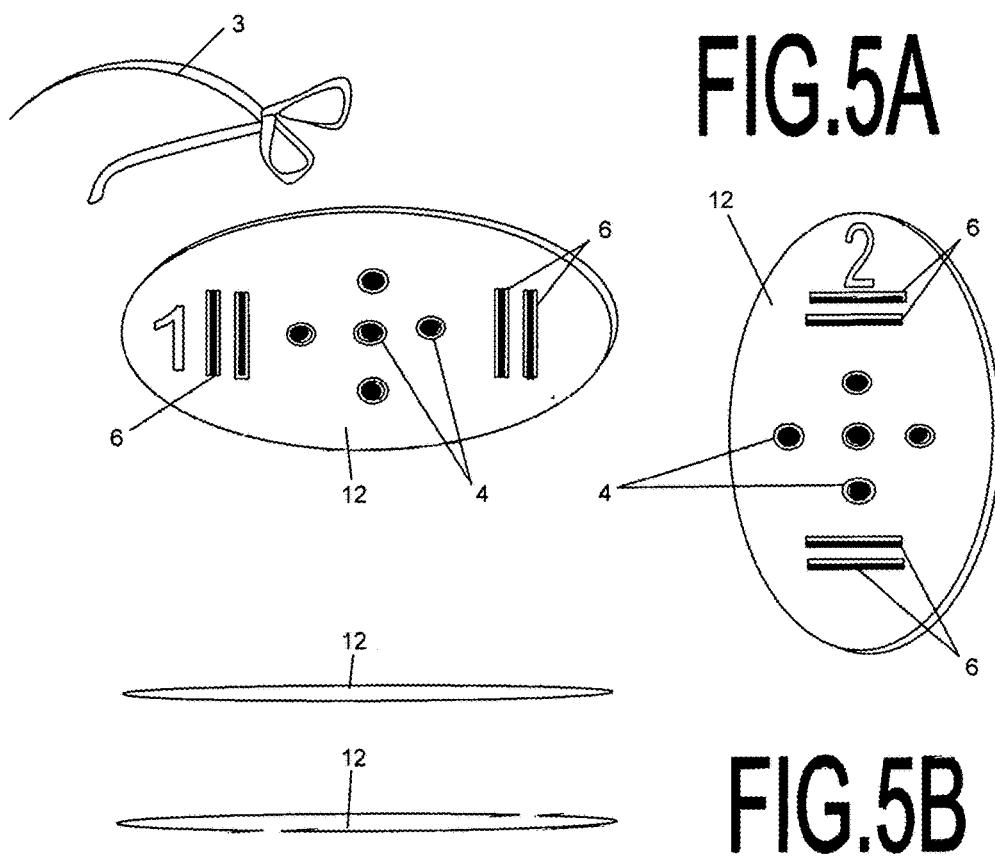


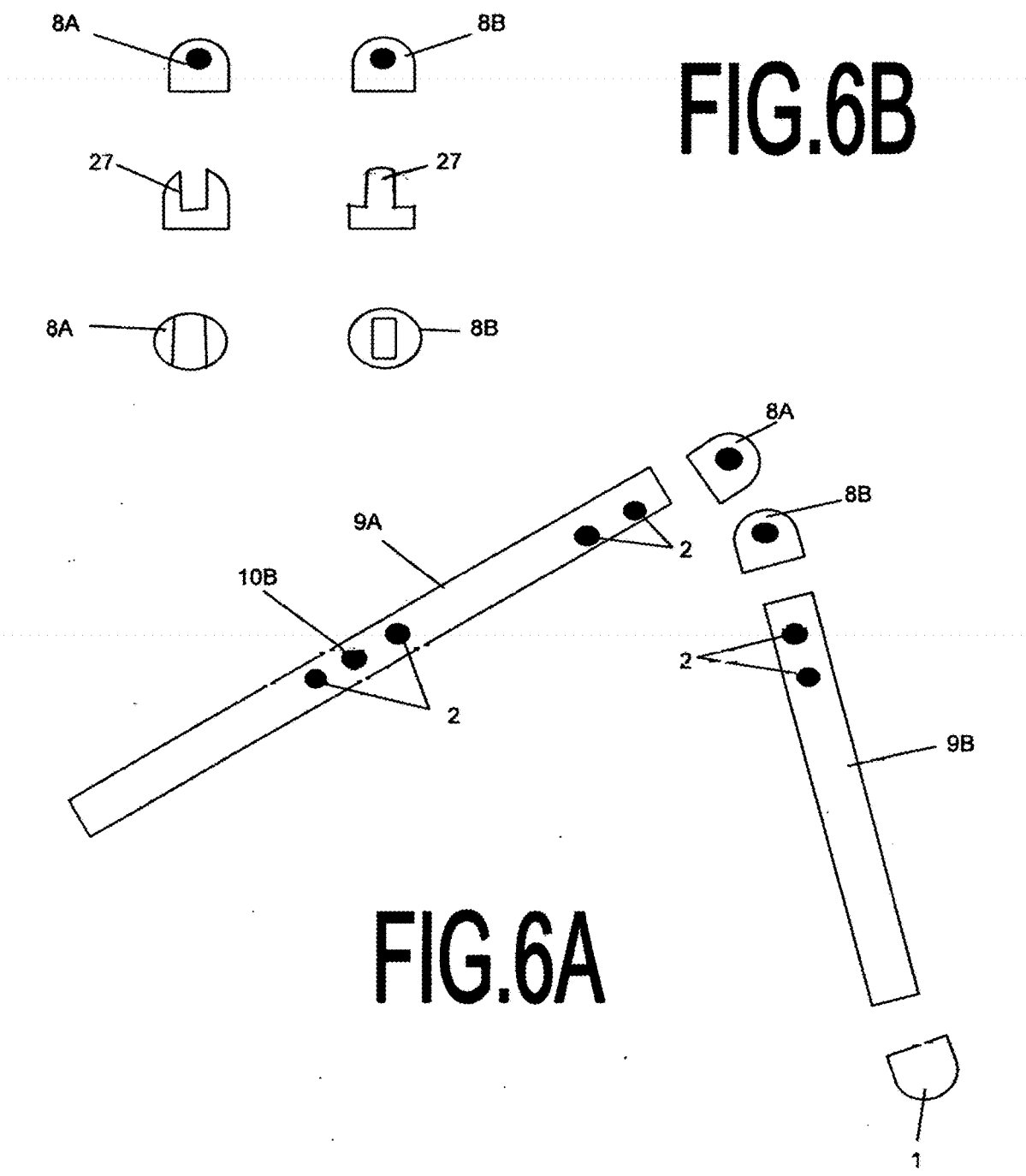
FIG.2











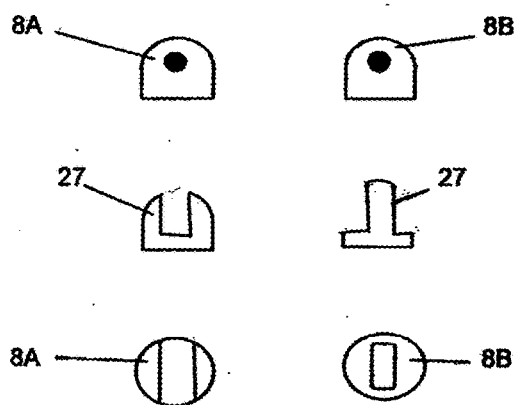


FIG. 7B

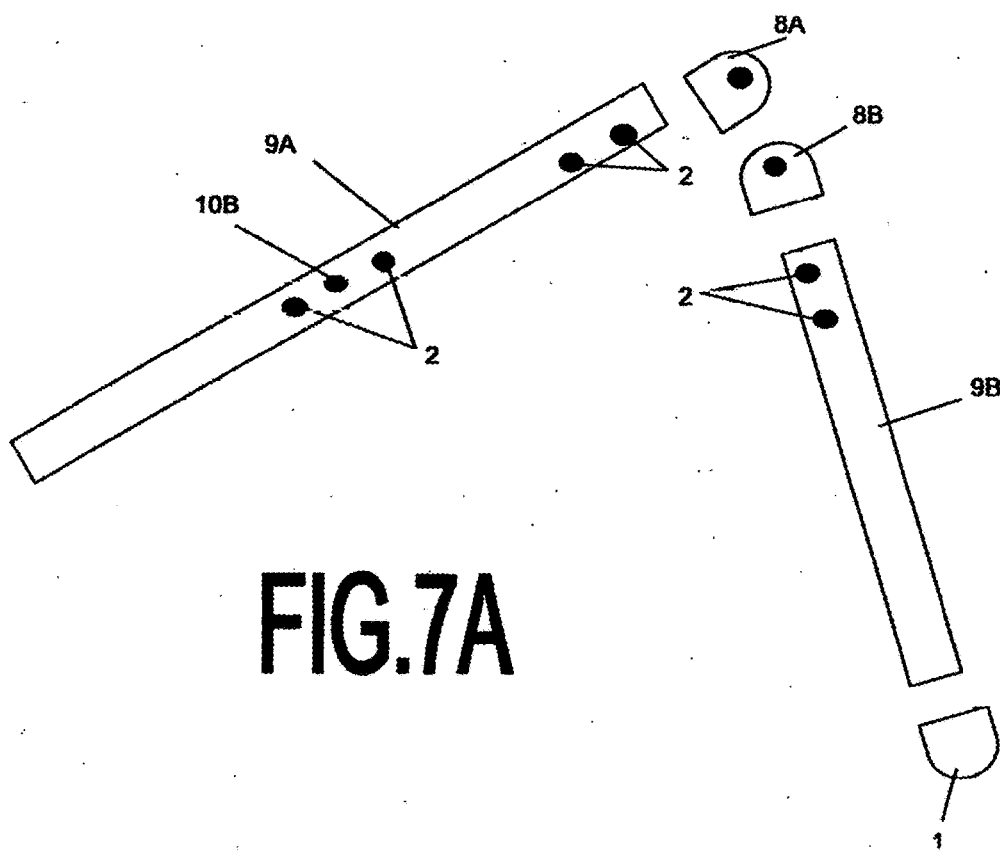
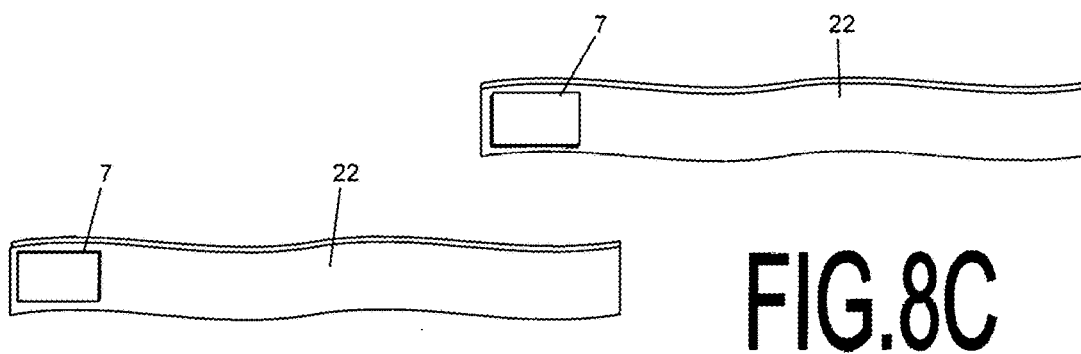
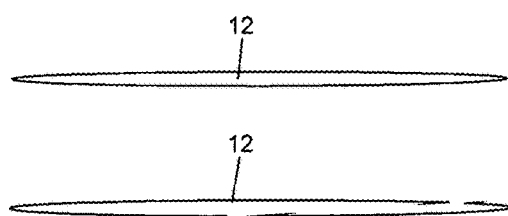
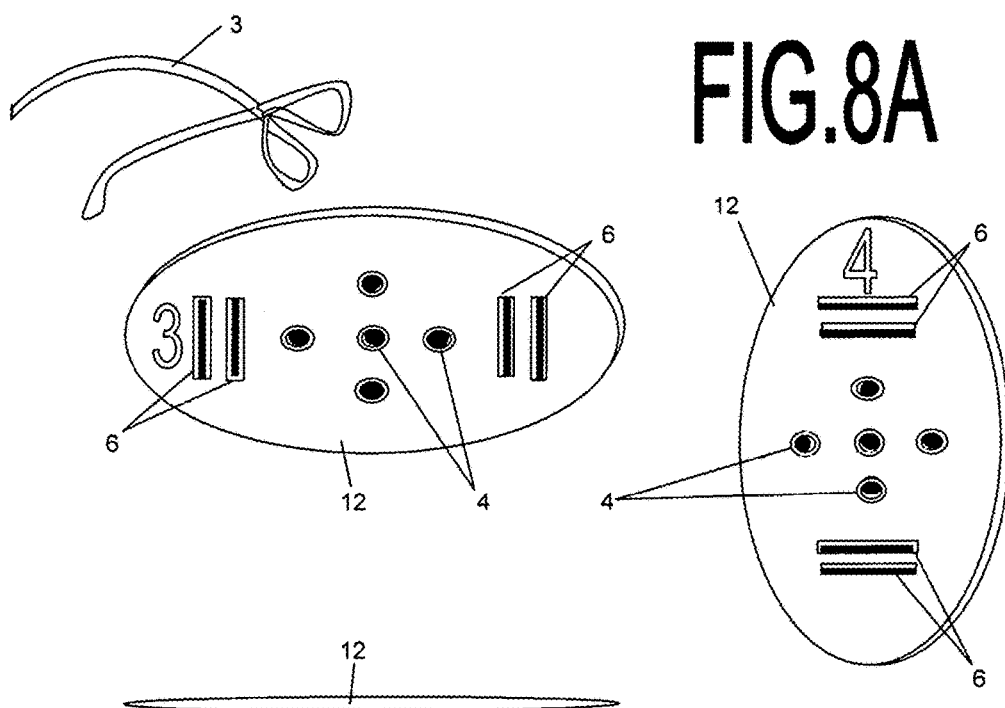


FIG. 7A



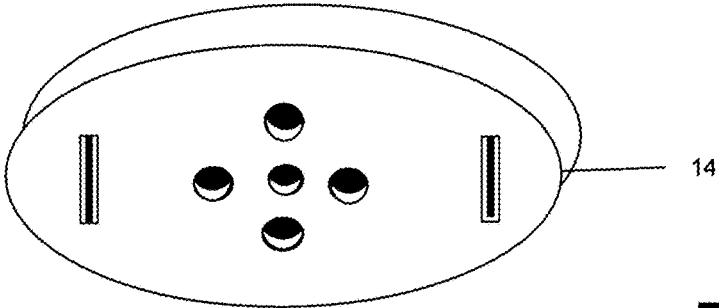


FIG. 9A

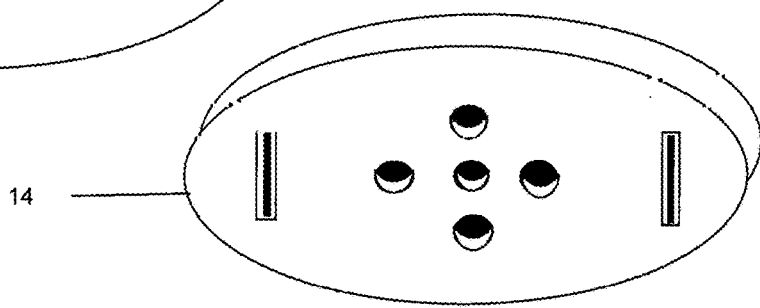
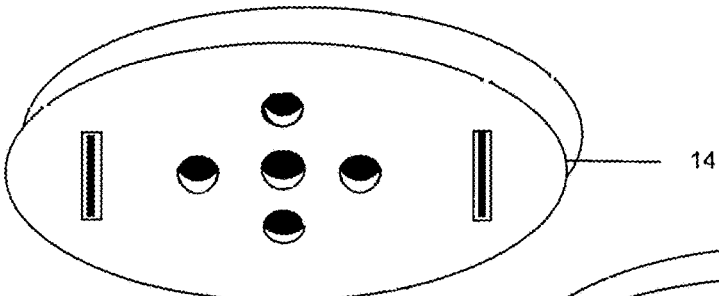


FIG. 9B

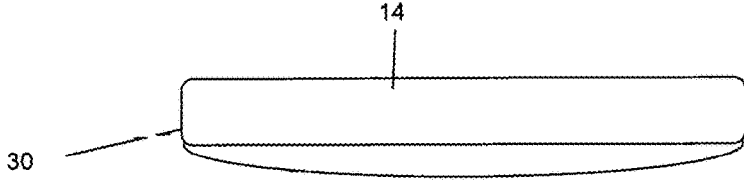




FIG.10

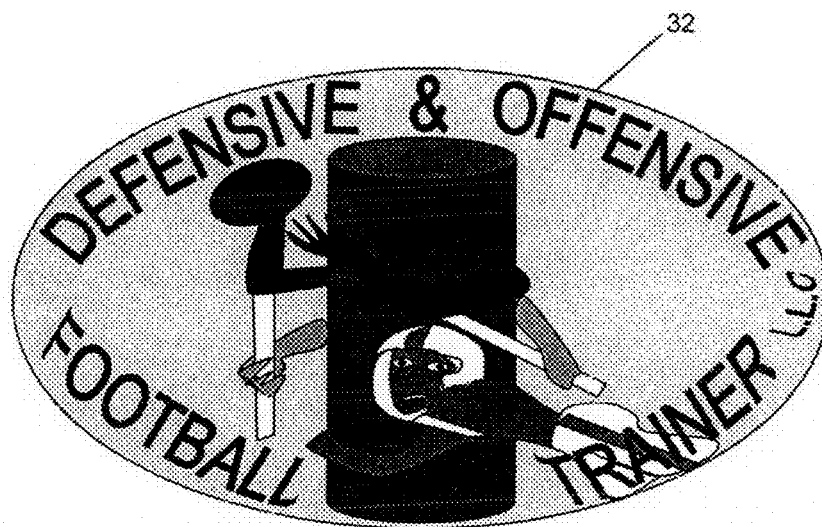
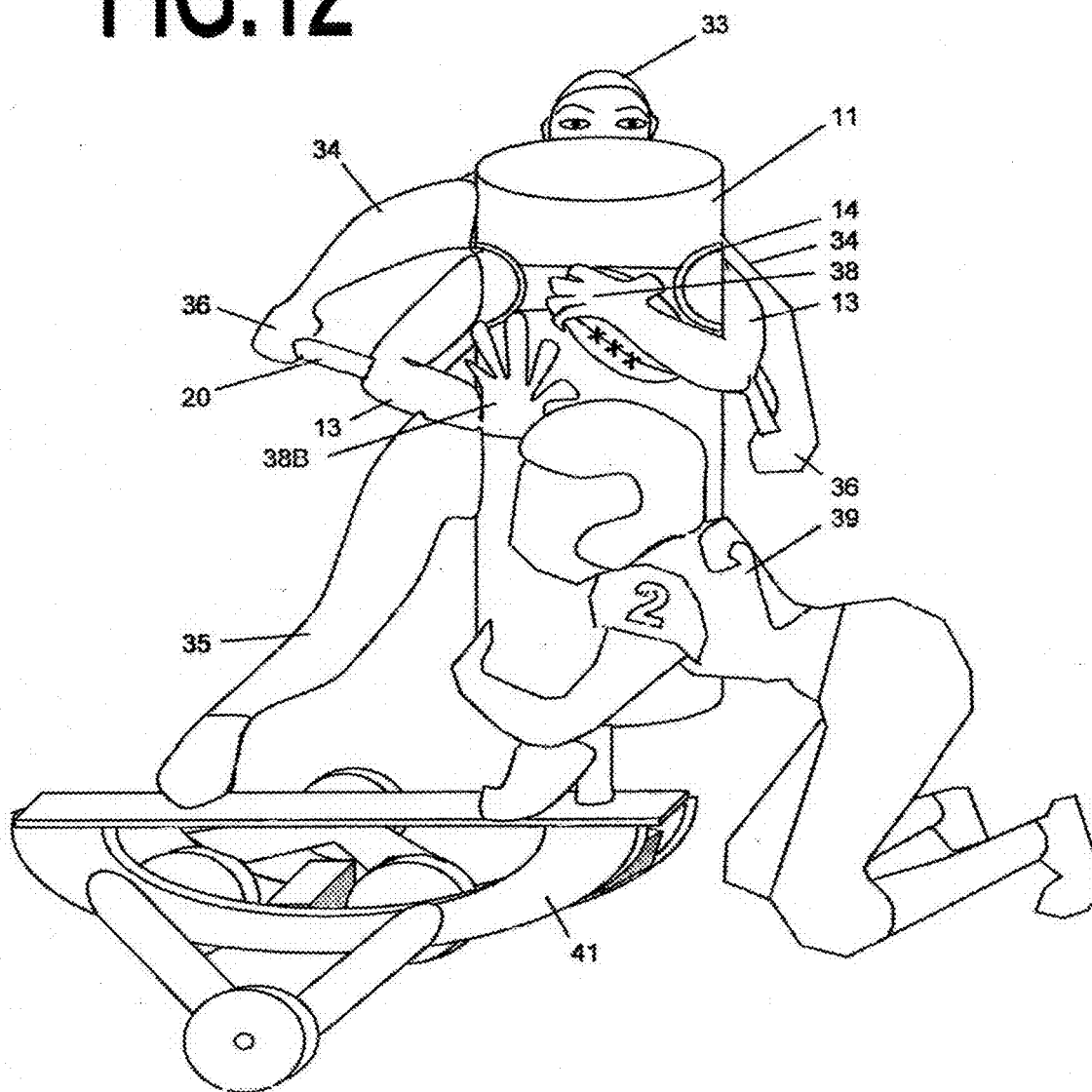


FIG.11

FIG.12



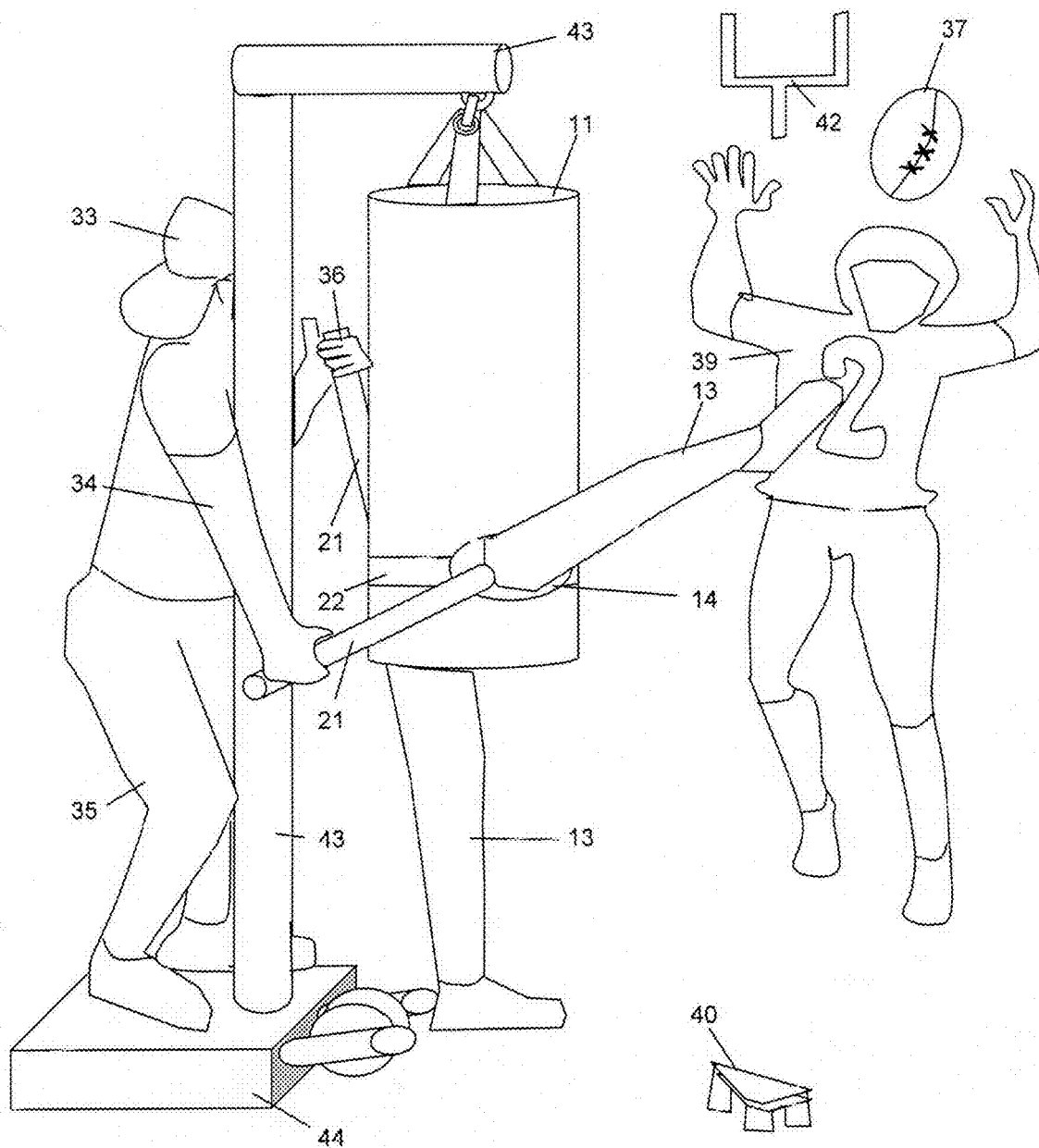


FIG.13

DEFENSE AND OFFENSE COMBAT / FOOTBALL TRAINER

CROSS-REFERENCE TO RELATED APPLICATIONS

FEDERALLY SPONSORED RESEARCH

[0001] (Not Applicable)

SEQUENCE LISTING OR PROGRAM

[0002] (Not Applicable)

[0003] This application does not claim the benefit of the provisional patent application.

BACKGROUND OF THE INVENTION

Field of Invention

[0004] The present invention relates generally to the field of Martial Arts/Football training devices. Particularly to devices that are easily disassembled, portable and to a device that fights back and serves as a sparring partner or football offensive/defensive trainer by swinging its own arms and kicking its own legs to its attackers.

Description of the Prior Art

[0005] Martial Arts is increasing in popularity and in every city there are numerous schools teaching kickboxing, the Oriental arts of Karate, Judo, Tae kwon-do, and many other forms of self-defense. To practice these forms of self-defense has presented difficulty against a live opponent, due to the kicks and strikes must be done at a slower speed as well as a punch being pulled to prevent injury to the opponent. The dangers of injury are very realistic in full contact sparring, thus making it very beneficial for practitioners without the opponent. The issue with the lack of a real opponent is in simulating actual sparring conditions. Also in every city there are numerous high schools and colleges teaching the practice of football. As said above the dangers of injury are very realistic in full contact sport while practicing defense and offense of both combat and football.

[0006] The prior art has addressed the problem by utilizing many different forms and kinds of targets and devices which safely absorbs the punches and kicks during training and eliminating the need of another person being involved. Devices have been proposed to substitute for another person such as the device described in U.S. Pat. No. 4,817,941 issued to McCarry on Apr. 4, 1989, where an adjustable target holder is used. It is a horizontally supportive structure where an object is to be struck and can be at various levels in height. Unlike McCarry's invention, my invention is not geared for a delivery of multiple targets. McCarry's invention is portable because it's on wheels, however it is limited. My invention can be un-mounted and the entire device can be transported by the practitioner with a duffle bag.

[0007] U.S. Pat. No. 4,946,159 issued to Jones on Aug. 7, 1990, teaches a martial arts training device with reactive areas. Jones' device displays multiple arms that react to allow the striker to practice his defense as well as offense but does not describe a device that could be easily transported. It would involve more secure attachments and would not lend itself to being carried into a gymnasium or taken to a backyard to be strapped to a standing heavy bag.

[0008] U.S. Pat. No. 4,572,504 issued to DiBartolo on Feb. 25, 1986, teaches a holder for karate boards and shows a device that can easily be strapped to a vertical type support such as a heavy punching bag. But unlike my invention, DiBartolo's device is limited to holding flat planar type objects and does not allow for the sparring against a target with simulating legs and a torso of an opponent.

[0009] Desousa teaches in U.S. Pat. No. 5,281,191 issued in Jan. 25, 1994, a striking dummy which is very portable and could be used on many vertical supports. It does not instruct any convenient carrying mechanism on how to transport it such as my invention. It is also more suited for the training of boxing since it does not have any provision for allowing kicking or such as karate type strikes.

[0010] Stelmach teaches a martial arts training apparatus and is a heavy punching bag along with straps to affix it to the bag. The limited feature of this very portable invention is that it only addresses the need to practice kicks. It would be virtually unrealistic to practice anything but kick with it.

[0011] None of the above inventions and patents, taken either singly or in combination are known to be in comparison to my invention that I am bringing forth.

SUMMARY OF THE INVENTION

[0012] The invention that I am presenting is a martial arts/football training device having Velcro hook and loop fasteners coupled to an Acrylic Disc. This Acrylic disc is transparent with a 6" diameter and 1/4" thick bases which can also be fastened by one or more straps to a vertical support such as a heavy punching bag or even a standing heavy bag. Also one or more flexible, horizontally supported, and shock absorbent limbs made up of P.V.C. pipe cylindrical with pads that are detachable. These padded arms and legs are used to throw punches and kicks by the martial arts instructor in response to the practitioner's defensive movements and offensive advances. The padded P.V.C. pipe cylindrical arms and legs can be quickly disassembled and placed within a duffle bag for easy transportation.

[0013] Accordingly, it is the main principle of the invention to provide a training device for practicing the delivering of punches and kicks, field goal kicks, blocks and making football fumbles. A benefit of my invention is that it provides a training device to an instructor and practitioner while allowing the student to deliver blows at the maximum force. Another benefit to add of what my invention provides as a training device is that it can be utilized just about anywhere that a vertical support is available, such as a heavy punching bag at a local gymnasium or somewhere as simple as a tree in the backyard. One of the objective's of my invention is to provide a training device that can be easily transported as carrying a duffle bag. These factors and other objectives of my invention will become readily apparent upon further review of the following specification and drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0014] FIG. 1—is a perspective right side view of the invention attached to a heavy bag.

[0015] FIG. 2—is a perspective front view of the invention not installed to a heavy bag.

[0016] FIG. 3—is a perspective view of the left side armature components.

[0017] FIG. 4—are the right side of the counterparts to FIG. 3.

[0018] FIG. 5A—is a perspective front view of the invention vertically and horizontally showing both shoulder discs 1 & 2, with flexible rope connection in accordance with the invention.

[0019] FIG. 5B—is a perspective horizontal right side view showing both shoulder disc devices of the invention.

[0020] FIG. 5C—is a perspective front view of the Velcro hook and loop fasteners.

[0021] FIG. 6A—is a perspective vertical view of the right side num chucks skeletal system.

[0022] FIG. 6B—is the male and female knee separable parts shown separately.

[0023] FIGS. 7A and 7B—are the left side counterparts of figured 6A and 6B.

[0024] FIG. 8A—is a perspective front view of my invention, vertically and horizontally showing both disk 3 and 4 with flexible rope connection in accordance with the invention.

[0025] FIG. 8B—is a perspective horizontal view showing arms and legs in both oval shaped disk view accordance with the invention.

[0026] FIG. 8C—is a perspective front view horizontal view showing Velcro hook and loop fasteners accordance with the invention.

[0027] FIGS. 9A and 9B is perspective front view and horizontal right-side view showing both oval shaped padding.

[0028] FIG. 10—is a perspective front view of my DOCT invention logo in black and white not installed on my product showing trainer throwing punches and striking practitioner using DOCT.

[0029] FIG. 11—is a perspective front view of my DOFT invention logo in black and white not installed on my product showing trainer simulating quarterback throwing pass using DOFT.

[0030] FIG. 12—is a perspective front view of my DOFT attached to a heavy bag, the heavy bag is installed on a blockage cart simulating running with a football and blocking.

[0031] FIG. 13—is a perspective side view of my DOFT attached to a heavy bag is installed on a bag extension pole which has a pole base. The trainer is simulating kicking a field goal while being rush by the practitioner.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0032] Referring to the drawings, the invention provides a martial arts/football device, #10 (See FIG. 2), that can be mounted on a vertical supporting structure, #11 such as a heavy punching bag as shown in FIG. 1. The device #10 (See FIG. 2), includes four oval shaped plastic discs, shoulder, and thighs (See FIG. 8A) #12, which is covered in general oval shaped padding, see #14 (FIG. 9A). The padding shown in #14, is filled with a resilient padding shown in #30, (See FIG. 9B), made from a high impact absorbent material such as foam, liquid, or any other conventional means that will withstand the shock and force from punches and kicks by the practitioner.

[0033] Although there are some padding materials such as #30 (FIG. 9B), that would not require an outer covering, however it is commonly known that materials such as canvas's, leather, polyethylene or nylon type plastic be employed. One embodied of the invention would utilize the device #10 (FIG. 2), strictly in conjunction with a heavy

bunching bag #11 (FIG. 1) which would require the pad #14 (FIG. 1). To have padding of #30. Since the plastic oval shaped disc #12 would not absorb the impact of the punches and kicks the preferred embodiment of the oval shaped plastic disc #12 is covered with a high impact resisting padding material made of foam, see #30 (FIG. 9B).

[0034] FIG. 2 depicts the front surface of the oval shaped disc member #12 (FIG. 8A) which displays the Velcro hook and loop straps #22 (FIG. 8C) interposed between the front surface of #12 and the back surface of #14 (FIG. 9A) of the pad #30 (FIG. 9B). Each disc #12 is positioned and rotated which is coupled to an appendage target by a Velcro hook and loop strap #22.

[0035] Each appendage target #13 is comprised of a realistic limb of an opponent, the inner limb known as target #25, and the outer limb known as target #26. These limbs of #25 and #26 will simulate to the practitioner as actual arms and legs of a real opponent, providing a realistic experience without the dangers that come with sparring during a training session. FIG. 5 illustrates the front and back surface of #12 of the disc #1 and #2. The disc #12 has four hooks and four loops that are Velcro straps for #22, which encircles the supporting structures of #11 and then is attached to the device of #10. The disc #12 has a buckle known as #6 on its surface of each end of #12. The attachable straps of #22 consists of four Velcro hooks and four loop straps. All four straps of #22 have end integrals with the back of the surface of #7. (FIG. 8C) displays the other two Velcro straps as #22. The attachable straps #22 have a rough side called a hook and on the other side is called a loop #22. The fastening straps #22 of the shoulder disc #12, operate in the same manner as the attachable straps #22 for the thighs #25 (See FIG. 2). The hooks engage into the loop and provide a closure mechanism. There are many forms and combinations of hooks and loops as well that are self-engaging. It is to be appreciated that in lieu of Velcro, the straps can be canvas, leather, or some other plastic materials such as vinyl instead of a Velcro strap arrangement.

[0036] The limbs #25 and #26 of the appendages each have a P.V.C. pipe skeletal system known as #9A and #9B. FIG. 6A depicts the P.V.C. pipes #9A and #9B having opposite ends, socket end #8A (See FIG. 6A), and for engaging rope connector portions #8B with a distal end for engaging the opposite side of another rope connector for 8 A. These P.V.C pipes #9A will be wrapped with an impact absorptive material known as #30 as discussed for the pad #14 above. The limbs #25 and #26 will also be covered with similar nylon, vinyl, or canvas materials like disc #12 by pad #14.

[0037] With #8A being a revertible connector, 8B is a P.V.C. fitting designed for a P.V.C. pipe interference fit comprised of two semi-concentric portions known as #27 labeled male #8B and female #8A. A rope type connection known as #3 holds the semi-concentric portions #27 together. At the center of the cylinder #9A, there is a rope type connection with #10B (See FIG. 6A), which gives the limbs #25 and #26 their ability to be mounted to the disc #12. At the other end of the cylinder #9A is a hand grip (28) for kicking ability (See FIG. 1). The practitioner can then deliver kicks and punches as if there was a real live opponent and the limbs #25 and #26 would react as would human limbs.

[0038] When the device #10 is to be transported, the appendages as in #13 are disconnected along with the plastic

disc #1, 2, 3, and 4. Then will be placed in an axial relationship to each other to be transported by the practitioner with the use of a duffle bag and is carried with a well-suited handle.

[0039] In the preferred embodiment the device #10 will utilize for appendage targets as in #13 to simulate the human arms and legs. The device will further employ four pairs of plastic mounting discs: #1, 2, 3, and 4 along with four pairs of hook and loop Velcro fastening straps as in #22.

[0040] It is to be understood that my invention is not limited to a sole embodiment as described above, but encompasses any and all embodiments with the scope of the following claims.

REFERENCES

- [0041] 1. End Connector
- [0042] 2. Connection holes
- [0043] 3. Connection Rope
- [0044] 4. Disc Mounting holes
- [0045] 6. Buckle
- [0046] 7. Hook and Loop fastening
- [0047] 8A. Reversible connector (female) hole side
- [0048] 8B. Reversible connector (male) top side
- [0049] 9A. Inner skeletal system
- [0050] 10A. DOCT/DOFT Device
- [0051] 10B. Inner skeletal system mounting holes
- [0052] 11. Supporting structure
- [0053] 11B. Arm bar (upper)
- [0054] 11C. Arm bar (middle)
- [0055] 11D. Arm bar (lower)
- [0056] 12. Mounting Disc
- [0057] 13. Limb appendages
- [0058] 14. Disc impact pad cover
- [0059] 20. Arm extension pole
- [0060] 21. Leg extension pole
- [0061] 22. Velcro strap arms
- [0062] 22B. Velcro strap legs
- [0063] 25. Inner leg appendage
- [0064] 26. Outer leg appendage
- [0065] 27. Reversible connector male/female
- [0066] 28. Hand grip
- [0067] 29. Arm extension connector/29B. Arm extension connector
- [0068] 30. Impact Absorbent
- [0069] 31. Defensive Offensive Combat Trainer logo
- [0070] 32. Defensive Offensive Football Trainer logo
- [0071] 33. Trainers head
- [0072] 34. Trainers arm
- [0073] 35. Trainers leg
- [0074] 36. Trainers hand
- [0075] 37. Football

[0076] 38. Kung Fu grip hand-38A/Open hand-38B/Boxing glove-38C

[0077] 39. Wide receiver/practitioner

[0078] 40. Football tee

[0079] 41. Blockage cart

[0080] 42. Football goal

[0081] 43. Bag extension pole

[0082] 44. Bag extension pole base

I claim:

1. A portable martial arts training device designed to be removable and attachable to a support structure for use in the practice of martial arts/football and its techniques comprising of:

Four plastic mounting disc members, a mounting disc having a general oval shape with four oval pads filled with impact absorbing material. The pads having a front surface means for attaching the plastic mounting disc member to support the structure.

A plurality of appendage targets for emulating human limbs and each appendage target consisting of an inner limb and an outer limb. A skeletal system coextensive interposed within each limb with the skeletal system wrapped with an impact absorbing material.

A plurality of Velcro hook and loop fasteners while each hook and loop fastener is coupled to the mounting disc.

2. The device according to claim 1, wherein the coupling means for mounting the appendages to the mounting disc comprises of:

—A plurality of Velcro hook and loop fasteners while each hook and loop fastener are coupled to the mounting disc.

3. The device according to claim 2, wherein attaching means a plurality of Velcro hook and loop straps having a rough side which is called a hook. Its softer mate is called a loop. The hooks engage into the loop and provide the closure mechanism having one end threaded through opposite ends of the mounting disc and after encircling the support structure are attached by the Velcro hook and loop.

4. The device according to claim 3, the fastening means comprises of at least one strap, the appendages can be removed and stored into a duffle bag.

5. The device according to claim 4, wherein the resilient impact material of the mounting disc and appendage arms and legs are foam.

6. The device according to claim 5, wherein the covering material for the device is canvas.

7. The device according to claim 6, wherein has the logo installed on the covering material.

8. The device according to claim 7, wherein has hand accessory/hand adapters; Kung fu grip hands, open hands and boxing gloves, installed on the arms covering end by the Velcro connection.

* * * * *