



FIG. 1.

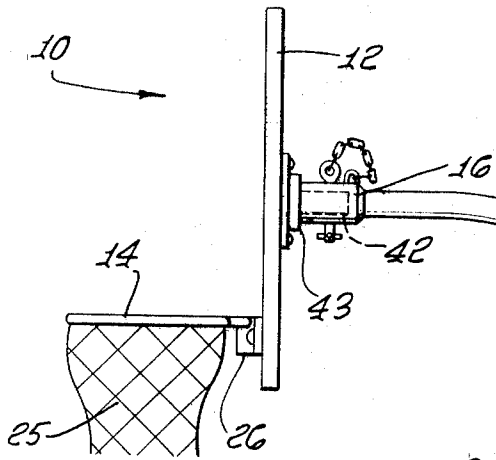


FIG. 2.

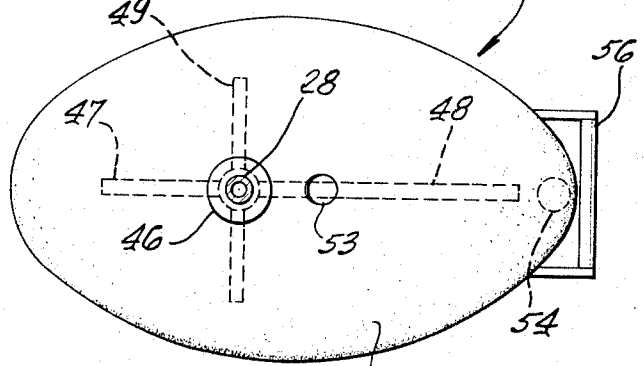


FIG. 4.

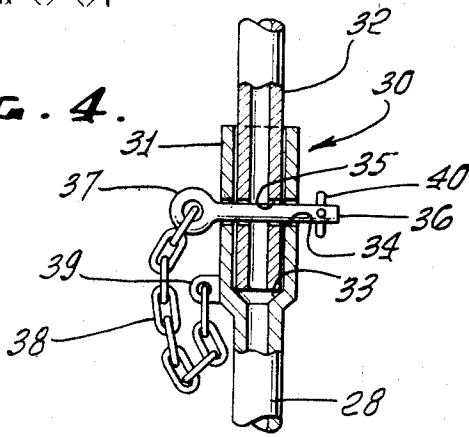


FIG. 5.

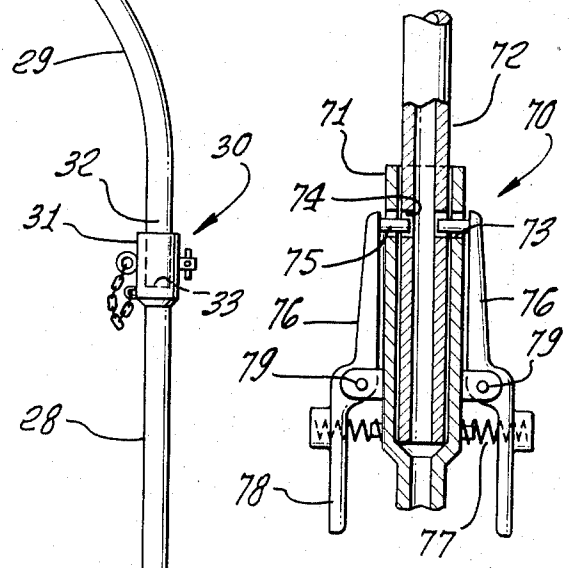
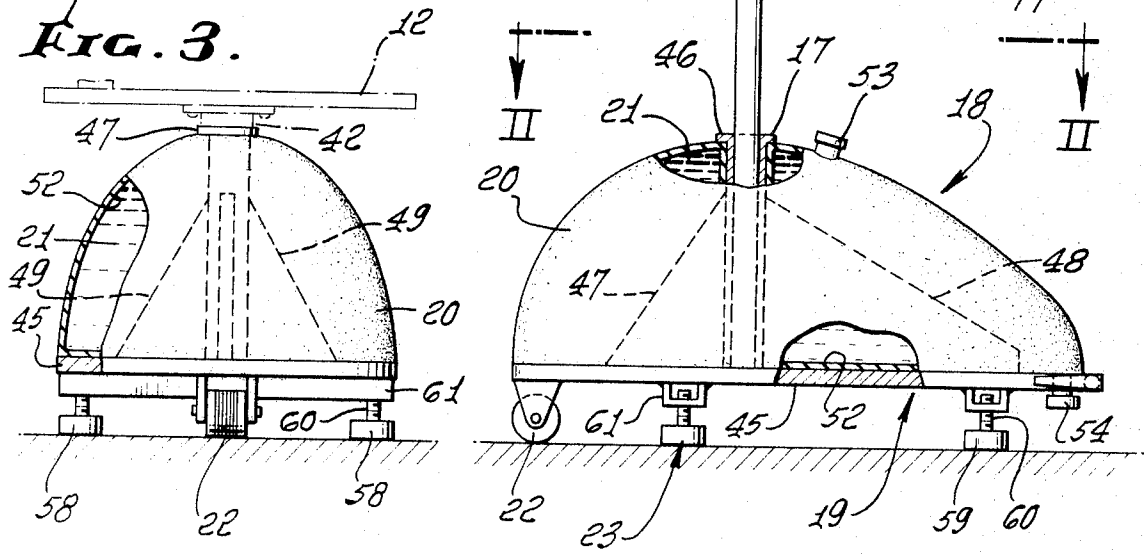


FIG. 3.



## PORTABLE BASKETBALL BACKSTOP CONSTRUCTION

### BACKGROUND OF INVENTION

Basketball is very popular both as an indoor and an outdoor game. Basketball backstops have been made for use in gymnasiums on outside playground basketball courts, in residential back yards and driveways and for almost any location where there is sufficient open flat playing surfaces to allow playing of basketball. Backstops are often mounted on garages above the garage door where the overhang or forward offsetting of the backstop from the plane of the door is often insufficient to permit certain types of basketball lay-up shots. In open yard playing space the basketball backstop was often supported on a vertical post having one end positioned in a relatively deep hole in the ground.

Where basketball courts and basketball backstops were provided for outside play, presently proposed backstop constructions included a number of disadvantages. Where the backstop was supported on a fixed post or on a garage, the backstop was not readily disassembled or adapted to be moved inside for protection against winter or rainy seasons. Since such backstop mountings were exposed to weather, the backstop was adequate for a period of time but soon became loosened due to the loosening and deterioration of the mounting means because of weather and the continual pounding of a basketball thereagainst. In some instances if the backstop mounting was not properly maintained damage would result to the garage roof or other part of a garage construction. In addition, such post or garage mounted backstops were relatively difficult to properly mount with the facilities available to a home owner or family. Erecting a post with a heavy backstop at the top end thereof was not easy. Preparation of the post hole in a pavement or adjacent to a paved surface for a permanent installation was also difficult.

It has been therefore felt that a backstop construction which could be easily and quickly assembled and located at a desired flat smooth playing surface was very desirable whether the flat playing surface was located near a garage, a back yard, a paved parking area, a playground, or even inside a gymnasium or other type of building.

### SUMMARY OF INVENTION

The present invention therefore relates to a novel portable basketball backstop construction which obviates the disadvantages of prior proposed backstop installations and which provides for placement of a basketball backstop at any desired location with respect to a playing surface. The invention particularly relates to a novel basketball backstop construction which includes a novel base means which permits the fixation of the backstop at a desired location without utilizing other structural means.

An object of the present invention is to provide a basketball backstop construction arranged for convenient assembly and disassembly and capable of being located at any playing surface and providing enhanced stability and steadyness.

Another object of the present invention is to disclose and provide a novel backstop construction of essentially three elements: a backstop with a goal thereon, a

post means, and a base means of hollow liquid impervious construction to permit use of water as ballast for anchoring the post and backstop.

Another object of the invention is to provide a novel base means for an athletic apparatus wherein the apparatus can be readily anchored in a selected location by ballast means and may be readily moved to a different location upon draining or withdrawal of the ballast means from the base means.

A further object of the present invention is to disclose a base means for an athletic apparatus wherein said base means includes a one-piece preformed resilient yieldable container means adapted to be filled with water for providing sufficient weight to anchor the athletic apparatus.

A more particular object of the present invention is to provide a base means for an athletic apparatus which is capable of supporting and holding sufficient fluid or liquid to fixedly anchor and support a backstop having a desired amount of overhang, the container means having a yieldable wall for minimizing chance of injury to a player underneath the backstop.

Another object of the invention is to provide a novel portable basketball backstop apparatus provided with a base means of a preformed attractive configuration and provided with enhanced safety features.

A still further object of the present invention is to provide a portable basketball backstop apparatus which is readily assembled and which in disassembly may be readily arranged for storage or other uses such as a table.

Other objects and advantages of the present invention will be readily apparent from the following description of the drawings in which an example of the invention is shown.

### IN THE DRAWINGS

FIG. 1 is a side elevational view of a portable backstop embodying this invention, the base means being shown partly in section.

FIG. 2 is a view taken from the horizontal plane indicated by line II—II of FIG. 1 and showing the configuration in plan of the base means.

FIG. 3 is a front view of FIG. 2, the base means being shown partly in section.

FIG. 4 is an enlarged fragmentary sectional view of a connecting means in the post means of the apparatus.

FIG. 5 is an enlarged fragmentary sectional view of a different embodiment of the connecting means used in a post means of the apparatus.

The portable basketball backstop construction embodying this invention is generally indicated at 10, FIG. 1. Generally speaking the backstop construction includes a backstop member 12 provided with a goal or hoop 14. A post means 15 of suitable curvature to provide a specified overhang of backstop member 12 has a connecting means 16 for backstop 12 and at its lower end has a connecting means 17 for the base means generally indicated at 18. Base means 18 includes a frame structure 19 and a hollow container means 20 adapted to be filled with liquid such as water 21. The frame structure also includes wheel means 22 for facilitating moving of the backstop construction and foot means 23 for facilitating support and level adjustment of the backstop construction at a selected site.

In detail, backstop member 12 may be made of suitable material such as wood, plastic, metal or glass of standard backstop size such as 4 feet by 6 feet and either rectangular or configured in well-known manner. Backstop member 12 supports goal 14 with a net 25 at a selected height from the ground, usually 10 feet, and at a selected height above the bottom edge of backstop member 12. Goal 14 may be attached to backstop member 12 by a suitable bracket and fastening means 26 so that goal 14 will be rigidly connected to the backstop member 12. Fastening means 26 may include suitable bolt and nut assemblies or preferably a single threaded connecting fastener so that the goal may be readily assembled and disassembled with the backstop member 12.

Post means 15 may be made of two post sections 28 and 29. Post section 28 may comprise a vertical straight length of metal pipe having a diameter of from three to four inches to provide necessary strength and rigidity. The upper end of pipe section 28 and the lower end of pipe section 29 may be rigidly joined by a connecting means 30 of suitable form. In this example connecting means 30 includes an open ended enlarged cylindrical socket 31 welded to pipe section 28 and having an inner diameter to permit a sliding fit with the end 32 of pipe section 29. The enlarged socket 31 defines an internal shoulder 33 upon which the pipe end 32 may seat in assembly. The pipe end 32 and socket 31 are provided with respective aligned ports 34, 35 which permit the passage therethrough of a securement pin 36 having an eye 37. A suitable chain 38 may be connected to a bracket 39 on the socket 31 and to the eye 37 of the pin 36 to prevent loss of pin 36. A suitable retainer element 40 such as a cotter pin on the protruding end of pin 36 prevents withdrawal of the pin.

Pipe section 29 may be bent or curved through an included angle of 90 degrees to position the upper end of pipe section 29 in a horizontal line to permit connection to backstop member 12 with member 12 in a vertical plane. Connecting means 16 will not be described in detail since connecting means 16 is of the same construction as connecting means 30 shown in detail in FIG. 4 with the exception that pipe end 32 is replaced by a pipe stud 42 welded to a base 43 secured to the back face of backstop member 12. In assembly and disassembly of the backstop member 12 and the post section 29, it will be apparent that such operation may be readily accomplished when the post means 15 is in erect position or when the post means 15 is unconnected to the base means 18.

Base means 18 provides a novel ballast or weight means for fixedly and immovably maintaining the backstop construction at a selected location with respect to a playing surface. Base means 18 comprises frame structure 19 which may include a flat relatively heavy metal plate 45 of suitable configuration, in this example, an elongated generally elliptical configuration.

Metal plate 45 may have welded thereto at a central part of the plate, an upstanding socket member 46 which may comprise a metal pipe having an inner diameter to slidably receive the lower end of pipe section 28. The bottom end of pipe section 28 may be seated on the plate 45 when in full assembled relation therewith. Upstanding socket means 46 may be reinforced for rigidity by front and rear triangular gussets 47 and 48 respectively and by side gussets 49. As best seen in FIGS. 1 and 3 the top edges of gussets 47, 48 and 49

are spaced a substantial distance from interior surfaces of the walls 52 of the hollow container means 20. Gusset plates 47, 48, and 49 may be welded to the plate 45 and to the socket means 46 and rigidly fixedly support socket means 46.

Hollow container means 20 is designed and constructed with a sufficient volume capacity to provide a ballast weight which will resist movement of the backstop construction during play. Container means 20 preferably includes a preformed hollow container or receptacle of one piece of monolithic construction to avoid the necessity of sealing joints and to retain liquid in leak-proof manner. Container wall 52 may be of suitable plastic somewhat yieldable resilient material such as a molded rubber or a molded plastic of polyurethane or polyvinyl. Preferably container 20 is molded to the frame structure 19 as by a blow molding process. As a result the top surfaces of floor plate 45 and the exterior surfaces of the gusset plates and socket means 46 are coated with a wall or layer of the plastic material forming the container means 20. Thus the container means may comprise a continuous unseamed resilient yieldable wall construction having a bottom portion of the same configuration as the elliptical shape of the bottom wall 45 and upstanding convex exterior walls which extend to the top of the socket means 46. Adjacent the top of the socket means 46 a fill or inlet fitting 53 is provided and at the back end of the container means adjacent to the plate 45 is a drain or outlet fitting 54. It will be understood that the drain fitting 54 and inlet fitting 53 may be located at other suitable locations on the container means 20.

While container means 20 has been described as preferably being a one-piece structure molded and bonded to the metal surfaces of the frame structure 19, it will be understood that the present invention contemplates other types of receptacle or container means for liquid which will ballast the base means 18. In such a latter construction, the container means may be seated upon the floor plate 45, filled with water and secured by suitable means such as external straps not shown. Such separate container means may be preformed to a selected shape and arranged in such a manner as to include surfaces spaced a sufficient distance from the gussets 47, 48 and 49 so that the base means will present no dangerous surfaces to a basketball player.

The hollow container means 20 may be designed to provide a specific volume capacity so that when water at 62.4 pounds per cubic foot is used to fill the container means, the total weight of the water in the container means may be in the order of 450 to 500 pounds. It will be readily apparent that the cubic foot capacity of the hollow container means may require only seven or 8 cubic feet to accomplish this result. The frame structure, including the steel plate, gussets, socket and wheels adds additional weight to that computed for the hollow container means when filled with water. Since the major weight is water, when empty, the base means may be readily transported to a selected site, and then filled with water through the inlet 53 at the desired location. The drain outlet 54 permits flow of water from the container means onto the playing surface or it can be guided by a suitable hose to any other drainage area.

The base means 18, which includes the front wheels 22 of sufficient capacity to transport the base means when empty, may be readily transported by lifting the

base means at handle 56 as if it were a wheel barrow. The backstop construction may thus be moved to a suitable play location with the backstop in erected position or in the absence of the post means 15 and backstop 12.

Foot means 23 for leveling the base means and the backstop 12 with respect to the playing surface and for supporting the backstop construction firmly upon the playing surface may comprise front and back sets of adjustable supports 58. Each support 58 includes a foot element 59 having an upstanding threaded leg 60 having threaded engagement with a bracket 61 secured to the bottom of the plate 45. The adjustable supports 59 may be readily regulated when the container means is empty so that the plate 45 is level or horizontal or in parallel relation with the playing surface so that the backstop 12 will be properly located with respect to the playing surface.

In FIG. 5 a modified connecting means 70 for the post means and backstop connection may comprise, as before, a socket 71 serving to receive the end of a pipe section or stud pipe 72. The socket and pipe end are provided with aligned through openings 73 and 74 which receive retainer pins 75 each carried on a pivoted lever handle 76 normally biased to closed position by a spring 77. Upon pressing inwardly the handle portion 78 of the lever clamp 76 about pivot point 79, pin 75 is withdrawn from the aligned posts and the pipe end 72 may be readily withdrawn from socket 71. Other types of fastening or connecting devices may be used to assemble the backstop 12 with the post means, the post means with the socket 46 in the base means, and the two sections of pipe 28 and 29.

It will be understood that the location of socket 46 in the central portion of the frame structure 19 of the base means 18 is placed in relation to the overhang of the backstop and the resultant force of the liquid in the container 20 so that tipping moment of force of the backstop is neutralized and made ineffective. Such socket location also bears upon the ease with which the base means may be transported when the backstop is associated therewith to a different playing location and without disassembly of the post means and backstop but with drainage of water from the container means.

The backstop construction may be readily assembled at a selected playing site. The container 20 may be filled with water from a suitable water source such as a hose. Post sections 28 and 29 may be interconnected and then assembled with the base means at socket 46. The backstop may then be readily connected with the post means 15.

In disassembly and storage, the backstop may be readily removed by disconnecting the connecting means 16 and the post means 15 withdrawn from the socket 46 and disassembled at connecting means 30. Water is drained from the container means 20 and the separate parts suitably stored. If desired, the backstop 12 with the stud pipe 42 may be connected with the socket 46 so that the backstop member overlies the container 20. The goal 14 may be removed and the playing surface of the backstop member may be used as a table or for storage of other articles. In such reassembly of only the base means 18 and the backstop member 12, it will be readily apparent that the assembly of these two parts may be readily moved to a de-

sired storage location by means of the wheel 22 and handle 56.

It will be readily apparent that when the backstop construction described above is used in basketball play that the container means 20 presents a convex rounded surface which is yieldable and not rigid to prevent possible injury to a player falling thereagainst after attempting a shot at the goal 14. Sharp rigid edges are eliminated or minimized, the draing outlet 54 being preferably located at the rear of the container means. Thus exposure to injury is substantially avoided.

Various modifications and changes may be made in the construction of the base means 18 and in the manner in which the container for liquid is associated with the frame structure. All such changes and modifications coming within the scope of the appended claims are embraced thereby.

I claim:

1. A base means for movable apparatus used in games and physical training, comprising:
  - a frame means comprising a rigid plate having a curvilinear periphery,
  - an upstanding hollow socket member secured to a central area of said plate,
  - gusset members extending between said socket members and plate for fracing said socket member,
  - said socket member providing an attachment means to a piece of athletic equipment;
  - and a hollow container means of resilient material on said plate and having an outer surface extending upwardly from the peripheral edge of the plate and converging at the top of the socket member,
  - said container means enclosing said socket and gusset members,
  - the container means being adapted to be filled with liquid to stabilize and fix said base means and associated equipment at a selected location,
  - the outer surface of the container means above the plate being curvilinear, spaced from the gusset members, and providing a resilient surface adapted to be contacted by and yieldable under a players body without harm or injury thereto.
2. In a base means as stated in claim 2 wherein said hollow container means includes a preformed resilient wall of convex form,
  - a liquid filling said container means to anchor and stabilize said equipment;
  - the resilient convex wall extending between said peripheral edge and the top of said socket member,
  - the resilient container wall and liquid in said container means serving to yeildably cushion contact therewith of a player's body.
3. A readily assembled and disassembled basketball backstop construction adapted to provide ready portability and fixed stability when located, comprising in combination:
  - a backstop member having a goal attached to the front thereof and having a connector element projecting centrally from the back thereof;
  - a post means having a connector member at one end removably attachable to said connector element on said backstop member;
  - said post means having a bottom vertical end laterally spaced from the backstop member;
  - and a base means having a floor plate and a reinforced centrally located upstanding socket member

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to removably receive the bottom vertical end of the post means,

said floor plate having a convex peripheral edge located rearwardly of the backstop member,

and a closed container means of preformed yieldable material on said plate and including a convex wall extending upwardly from the peripheral edge of the plate and converging at the top of the socket member for presenting a smooth curved external surface adapted to be contacted by and yield under a player's body without injury thereto, said container means being adapted to be filled with a fluid.

4. In a backstop construction as stated in claim 3 wherein said post means includes a coupling connec-

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tion intermediate its ends for ready disassembly, said connector element on said backstop member being receivable in said socket member when said post means is disassembled whereby said backstop member may be disposed horizontally for use as a table.

5. In a backstop construction as stated in claim 3 wherein said container means provides a chamber for reception of a liquid above said floor plate and below the top of said upstanding socket member and surrounding said socket member and bottom end of said post means for providing weight to offset the weight of the backstop member.

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