# United States Patent [19]

**Caveney**

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[54] **BASKETBALL RETRIEVAL APPARATUS AND METHOD**


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[51] **Int. Cl.** ..... **A63b 69/00**

[58] **Field of Search** ..... 273/1.5 R, 1.5 A, 103, 273/127 B



[56] **References Cited**

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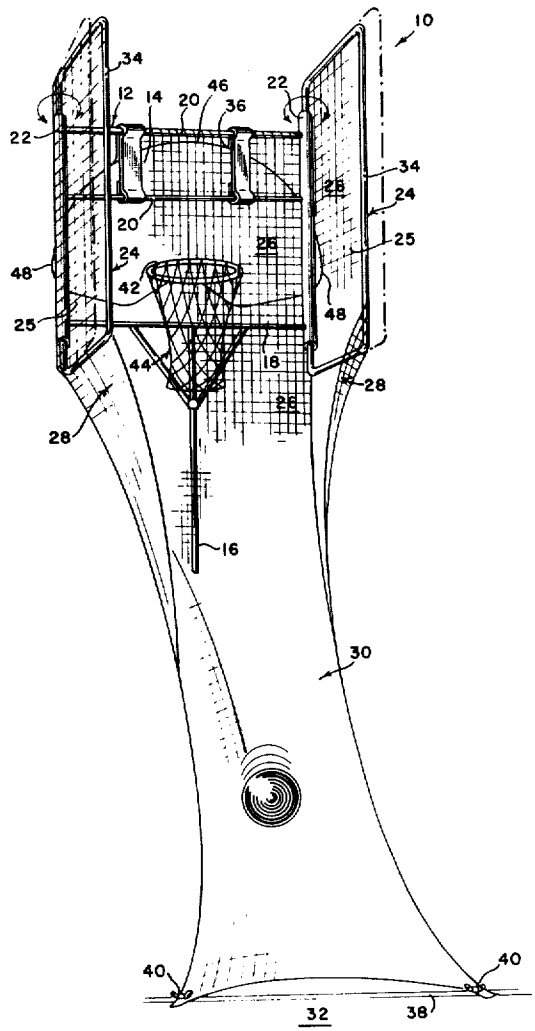
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[57] **ABSTRACT**

A novel, portable, foldable, ball-retrieving apparatus and method for use in conjunction with a basketball backboard and hoop and comprising a pair of side frame deflectors pivotally arranged on a main back frame adapted for mounting on a conventional backboard. Depending from these side and back frames is an open chute of flexible sheeting which provides means to intercept and capture a basketball and return it to a player at the foul line. The method induces concentration by the step of limiting access to the basket and varying the limits thereof with swingable lateral ball deflectors.


**9 Claims, 2 Drawing Figures**



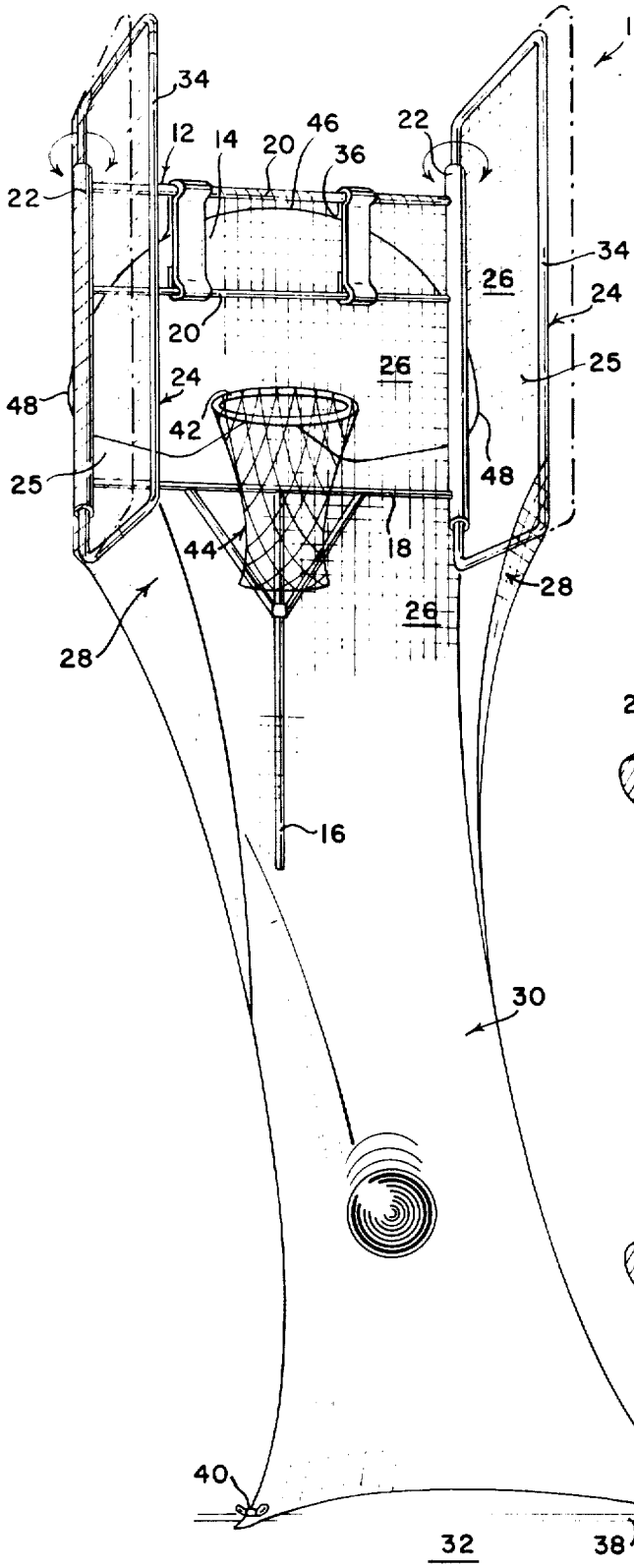

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Fig. 1

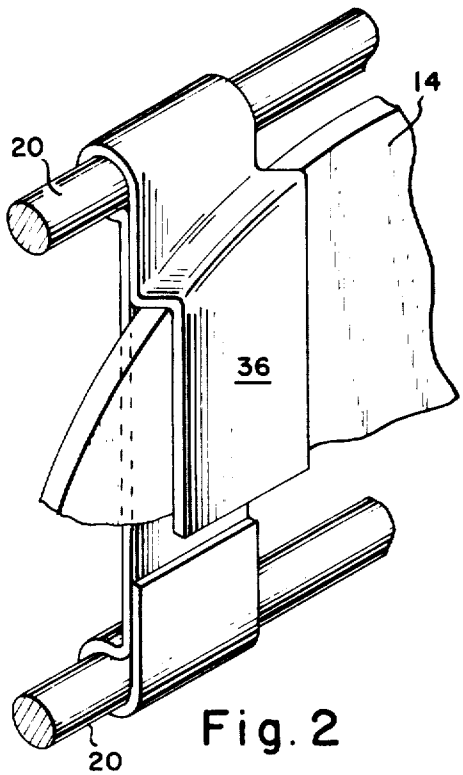

14
20
36
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Fig. 2

# BASKETBALL RETRIEVAL APPARATUS AND METHOD

This invention relates to an apparatus useful in practicing "shooting baskets" through a basketball hoop. The apparatus consists of means to return the ball to a practicing player at a predetermined point on the basketball floor.

Those familiar with basketball will understand that, on failure of the ball to go through the hoop on a given shot, the ball is likey to rebound from the hoop in any direction within the **180°** arc defined by the backboard on which the basket is mounted. Thus during practice it normally takes two or three players and two basketballs to keep a practicing shooter reasonably occupied with his shooting practice, rather than with the retrieval of the basketballs. Thus the continuity of the shooting practice is interrupted and the development of a suitable shooting rhythm made more difficult.

A number of devices have been suggested to remedy this situation. In U.S. Pat. No. **1,765,269** to Hatley is disclosed a net attached to the lower part of the backboard and sloping downwardly to form a hill which causes the ball to be returned to a **3,233,896** position on the court. U.S. Pat. No. **3.233.896** to King discloses a conduit for attachment to the outlet at the bottom of the basket netting which conduit provides means to return the ball to the practicing player.

Using a different approach, Cumings discloses a tethering line attached to the basketball, whereby the basketball is suspended from, say, the ceiling and returned to the player through a split in the basketball hoop.

## SUMMARY OF THE INVENTION

Therefore it is an object of the invention to provide an improved basketball retriever apparatus.

Another object of the invention is to provide such apparatus comprising means to deflect shots rebounding laterally from said basket.

Still another object of the invention is to provide a ball-retriever apparatus which has an adjustable target feature to encourage careful practice.

The foregoing objects have been substantially achieved by construction of a ball-retriever apparatus having a frame consisting of a rearward portion adapted for engaging a standard backboard and, on said frame, two laterally extending deflector members for holding lateral restraining means. A chute, advantageously formed of a light netting or other such sheet material, depends from the frame and the deflectors and is a means for returning a basketball directly to the practicing player.

In one convenient embodiment of the invention, a fastening means, such as a thumbscrew or the like, will be attached to the chute and adapted to fit into receptacles installed flush with the floor of the practice court.

Moreover, in the most advantageous embodiments of the invention, the deflectors are pivotally mounted so they may each be turned to be parallel with one another, thereby to facilitate shooting at an angle; or they may each be turned inwardly to narrow the target or provide a guide through which the practicing player may aim at the basket; or they may be opened to form an obtuse angle relative to one another, thereby to be suitable for generaly shooting practice by a plurality of players. In this latter case, a single player may act as the



distributor of balls returned by the chute. The second of the above listed modes of use is particularly useful because closing the deflector members until they define a space just a few inches wider than the basketball will assure that younger players aim the ball carefully. Failure to so aim will not only cause a missed shot, but a sort of "punishment" because the ball will bounce off the front edge of one deflector or the other and, consequently, miss the retriever net. Moreover, with very young players, the feature whereby they may secure a "partial success" by getting the ball through the narrow path between the deflectors is of considerable value in encouraging their interest in the game.

The netting used may be of any appropriate sheet material. Ease of handling and weight considerations usually dictate the use of a lightweight netting, such as one formed of synthetic fabrics like nylon or polyester or of such fabrics as wool. Plastic sheet may also be used. Advantageously, plastic sheet reinforced with a netting will be used because it combines strength and light weight.

## BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 shows a general perspective view of the device of the invention.

FIG. 2 shows a detail view of the hanger.

## ILLUSTRATIVE EXAMPLE OF THE INVENTION

In this application and accompanying drawings, there is shown and described a preferred embodiment of the invention and various alternatives and modifications thereof are suggested, but it is to be understood that these are not intended to be exhaustive and that other changes and modifications can be made within the scope of the invention. These suggestions herein are selected and included for purposes of illustration in order that others skilled in the art will more fully understand the invention and the principles thereof and will be able to modify it and embody it in a variety of forms, each as may be best suited in the condition of a particular case.

Referring to FIG. **1**, it is seen that ball-retriever apparatus **10** comprises a main frame **12** which hangs on backboard **14.** The placement of frame **12** is accomplished by one person using handle **16** mounted on lower horizontal bar **18** of frame **12.** Also mounted on horizontal bars **18** and **20** are vertical rods **22,** with which rods **18** and **20** form the main frame **12.**

On each vertical rod **22** is pivotally mounted a rectangular frame **24.**

Each frame **24** includes deflector means **25** formed of a sheet material, such as netting **26** which is attached to the frame and covers the opening formed by the frame, thereby forming a barrier against a rebounding basketball. Netting **26** also depends from lower bar **18** and forms an open trough or chute **30** which delivers the ball to the foot of a practicing player. It will be noted that the netting depending from the deflector means **25** forms side walls **28** of chute **30,** thus assuring the return of a rebounding basketball to position **12.** 32.

It will be noted that when frames **24** are bent inwardly so that they form an acute angle with the backboard, a ball will, on failure to pass between them, bounce off the front edge **34,** miss the retreiving net, and force the erring player to chase the rebound.

The ball-retriever apparatus is foldable into flat condition for storage on a gymnasium wall and easily mountable on backboard **14** by hanging the back frame **12** thereon with hooks **36.** The side frames **24** are then opened to a position normal to the backboard and the netting chute pulled out to the foul line **38** and fastened to the flour by inserts **40,** or a suitable plate. It should be noted that the skeletonized, generally rectangular back frame and side frames extend well above the level of the rim **42** of the hoop **44,** up to the top edge **46** of the backboard and out to the side edges **48** of the backboard. On the other hand, the chute **30** is not only an open trough, but it is free of rigid side rails.

It is also to be understood that the following claims are intended to cover all of the generic and specific features of the invention herein described, and all statements of the scope of the invention which, as a matter of language, might be said to fall therebetween.

I claim:

**1.** In a basketball retriever the combination of a basketball backboard of predetermined vertical dimension;

a ball-retriever apparatus comprising a central frame;

means on said frame for mounting the same on said backboard, lateral deflector members mounted on each side of said central frame each deflector being of a vertical dimension to extend above and below said backboard, and a chute depending from said central frame and lateral members forming means to return a ball directly to a user at a predetermined position.

**2.** A ball-retriever apparatus as defined in claim **1,** wherein said deflector members are pivotally mounted on said central frame to fold from a position normal thereto to a position flatwise thereagainst.

**3.** A ball-retriever apparatus as defined in claim **2,** wherein said pivotal mounting forms means to pivot the deflector members to form an acute angle one with the other.

**4.** A ball-deflecting apparatus comprising:

a central frame member having means thereon for supporting the same on a basketball backboard;

deflector members mounted on each side of said central frame member,

said deflector members being pivotally mounted to a said central frame member to form an acute angle one with the other

and a chute of flexible material depending from said central frame member and from said deflector members, said chute being of predetermined length to extend down to floor level at a location in front of said members.

**5.** In combination with a backboard of predetermined vertical dimension having a basketball basket in the lower central portion thereof, mounted at a spaced distance above floor level,

a basketball retrieval apparatus comprising:

a main back frame having a pair of side frames pivotally mounted on each opposite side thereof, said side frames being foldable outwardly from a position flatwise against, and in parallelism with, said main back frame to a position normal thereto;

means for detachably mounting said back frame on said backboard to position said frames above and alongside the hoop of said basket; and

flexible netting chute means covering said frames and extending downwardly therefrom to said floor level, to form an open, flexible chute for returning each successive thrown basketball to the player at the foul line.

**6.** Apparatus as specified in claim **5,** wherein:

said main frames and said side frames are generally rectangular in outline and substantially equal in height to the height of said backboard, to extend above and below said basket.

**7.** Apparatus as specified in claim **5,** wherein:

said detachable mounting means includes hooks on said main frame and an elongated handle of rigid material connected to said main back frame,

whereby said frame may be lifted from the floor by said handle and hung up on the top edge of said backboard by said hooks.

**8.** Apparatus as specified in claim **5,** wherein:

said back frame and said side frames are of substantially greater vertical dimension than the corresponding dimension of said backboard,

whereby said apparatus intercepts basketballs which would have missed said backboard.

**9.** A method of inducing concentration during basketball practice, comprising the steps of:

providing means to retrieve a ball which hits but does not enter the basket; and

limiting the width of the access path of the ball from the court to the rim of the basket in such a way that failure of the ball to enter said access path will result in the ball missing the retrieval means;

said limiting of the access path being achieved by swinging lateral deflector members attached to a backboard inwardly toward the centre of said backboard.

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