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ADJUSTABLE BASKETBALL HOOP MOUNTING

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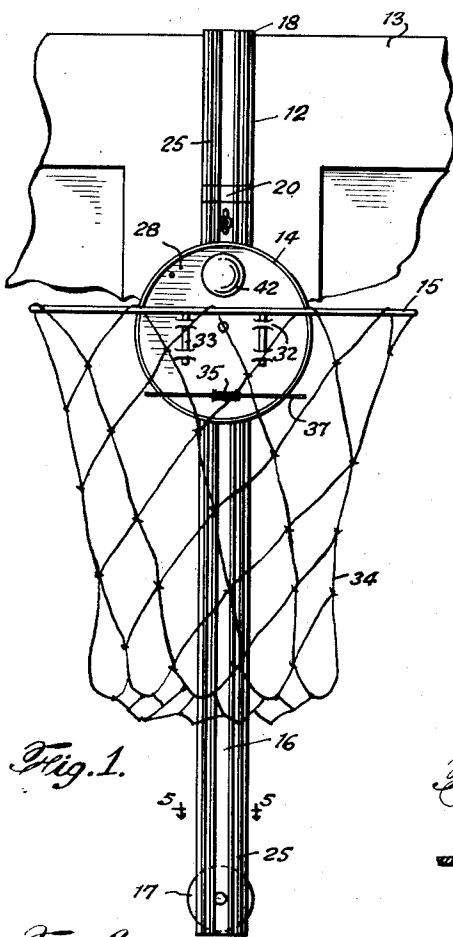


Fig. 1.

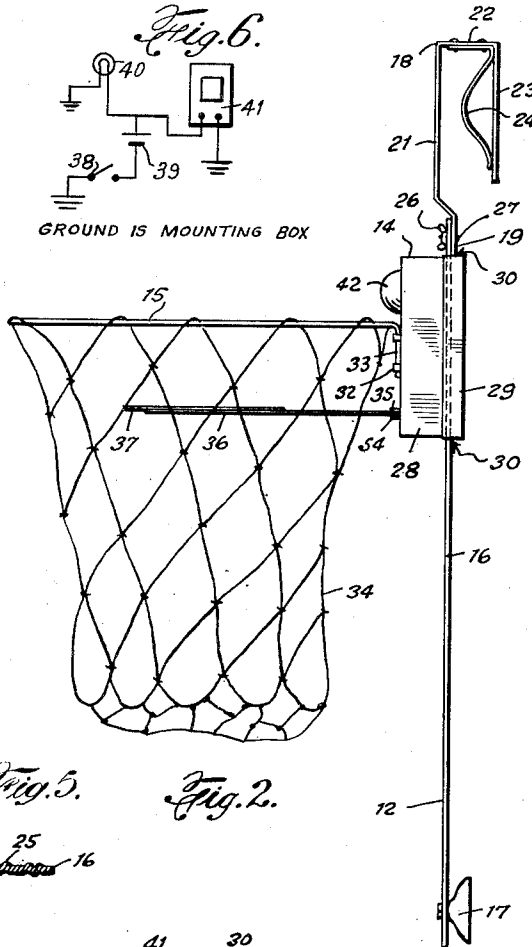


Fig. 2.

Fig. 5.

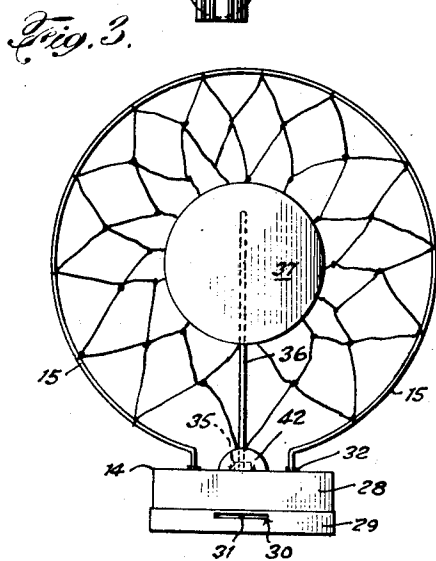


Fig. 3.

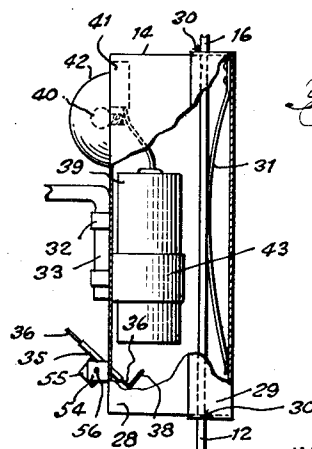
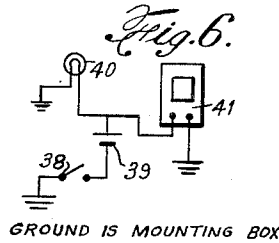


Fig. 4.



GROUND IS MOUNTING BOX

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ADJUSTABLE BASKETBALL HOOP
MOUNTING

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2 Claims. (Cl. 273—1.5)

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The present invention relates to improvements in basketball hoop mountings and more particularly to those which may be employed so as to enable the user to position elements of the device at varying heights.

Presently, basketball hoops are used by removably mounting the same on doors or the like and by affixing them to the sides of tree trunks, barns, and divers similar vertical surfaces. However, means have not been provided for variously positioning the same in height once so mounted or affixed. Hence, if it is intended that both youngsters and adults are to use such hoops, either a compromise height suitable to neither one of the groups must be employed or a height best adapted to the requirements of one group is used at the expense of the convenience or enjoyment of the other group.

An object of my invention is to provide a mounting for a basketball hoop which enables the users of such hoops to variously position the same in height after they have been mounted or affixed to a vertical surface.

A further object of my invention is to provide mountings for basketball hoops which permit the same to be positioned at varying heights and which may be used either to mount them by means making use of the tops of doors, chairs and fences or the like.

Other objects and a fuller understanding of my invention may be had by referring to the following description and claims, taken in conjunction with the accompanying drawings which illustrate preferred embodiments thereof, it being understood that the foregoing statement of the objects of my invention is intended to generally explain the same without limiting it in any manner.

Fig. 1 is a front elevational view of a basketball hoop and associated mounting embodying my invention.

Fig. 2 is a side elevational view thereof.

Fig. 3 is a top plan view of the mounting box and associated elements removed from the mount.

Fig. 4 is an enlarged fragmentary side elevational view of the mounting box and track, broken away to show portions of the interior of said box.

Fig. 5 is a sectional view along the line 5—5 of Fig. 1.

Fig. 6 is a schematic of the electrical circuit in said mounting box.

Referring to the drawings and more particularly to the embodiment of the invention, as shown in Figs. 1 to 6 thereof, it comprises a

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mount 12 adapted to be affixed to a door 13 on which mount is slideably mounted a mounting box 14 to the front of which box is secured a basketball hoop 15.

The feature of adjustability in height is made possible by the mount 12 which consists preferably of a linear section of track 16, at the lower portion of which is secured a suction cup 17, and a clip member 18 comprising a preferably short linear panel 19, a frontward extending panel 20, a front leg 21, a top 22, and a rear leg 23, said legs and top being formed into an inverted U, the open end of which extends downwardly and overlies in part said panels. A spring 24 is secured to top 22 and bent downwardly so as to bulge out from rear leg 23. Track 16 and clip 18 are preferably made of the same type of strip metal which may have some resiliency and may be reinforced by corrugations 25. The mount 12 is assembled by aligning holes in the upper portion of track 16 and linear panel 19 of clip 18 and fastening the two together by means of wing nut 26 and bolt 27. The corresponding corrugations 25 assist in such alignment.

Mounting box 14 may be round and may consist of two sections, a body member 28 in the form of a relatively shallow open can and a cover member 29 adapted to slide over and close the open end of the body member, the walls of the cover member extending for some distance over the walls of the body member. The walls of both members have corresponding slots 30 at the tops and bottoms thereof, to permit track 16 to pass through mounting box 14. A spring 31 is mounted on the inside of cover member 29 and is shaped to bulge toward track 16 and exert pressure against it when the track is inserted through the slots. Slotting the walls of the members, in addition to providing a means to enable mounting box 14 to slide up and down track 16 also serves to lock cover member 29 in place over body member 28 and prevents relative rotational movement between the members. Two pairs of loops 32 oppositely disposed across the vertical axis of the front face of box member 28 are formed by making a pair of vertically aligned horizontally extending slits for each loop and then bending the metal between said slits outward to form each of such loops.

Basketball hoop 15 consisting of an almost complete circle of a relatively heavy wire which terminates in downwardly extending prongs 33 is mounted upon the mounting box 14 by inserting each of the prongs through a pair of loops 32. Depending from the hoop 15 is a conventional

basket net 34. An opening on the vertical axis of mounting box 14 below the level of hoop 15 is made by slitting the box vertically a short distance and then making two horizontal slits on each side of the vertical slits the metal between such slits being bent outward to a position substantially normal to the front face of the box to form oppositely disposed ears 54. A thin oval-shaped sleeve 35 comprising preferably a sheet of metal bent to form the sleeve leaving the ends thereof at the bottom of the sleeve slightly apart and having projecting downward therefrom prongs 55 corresponding in size to ears 54 is pivotally mounted on said ears by passing pin 56 through corresponding holes in the prongs and ears. When so mounted, portions of sleeve 35 extend inside of mounting box 14 and portions, including prongs 55 are outside of said box. Arm 36 is mounted on the mounting box 14 by inserting the same through sleeve 35 the width of the arm approximating the width of the sleeve and hence the arm is held in place by frictional engagement with the sides of sleeve 35. Arm 36 extends from a position inside the said box to a position approximately underneath the center of hoop 15. Since sleeve 35 is pivotally mounted on mounting box 14, the arm is likewise free to move vertically. At the outer end of the arm may be secured a contact plate 37 which is preferably a substantially circular disk. To the end of the arm 36 within the mounting box 14 is affixed a spring contact 38 which is lifted into contact with the bottom or negative terminal of storage cell 39 when arm 36 is depressed as by a basketball passing through hoop 15 and striking contact plate 37. An incandescent lamp 40 of the flashlight bulb type is mounted in the upper portion of mounting box 14 by drilling a suitable aperture therein so that the lamp may be screwed into place by engagement of its threads with the wall of the box. For convenience, storage cell 39 which may be of the 1½ volt type is secured by means of clamp 43 to the inside of the mounting box intermediate lamp 14 and spring contact 38, as shown in Fig. 4. Adjacent to the storage cell is mounted a conventional buzzer 41. The electrical circuit linking the various electro-responsive components is shown in Fig. 6 wherein spring contact 38 is represented as a switch. It can be seen that when the spring contact is elevated so as to touch the negative terminal of storage cell 39 it effectively connects the said negative terminal to ground, which in this case is the mounting box 14 itself and thus completes the circuit through ground so as to cause incandescent lamp 40 to be illuminated and buzzer 41 to sound. Thus, when a ball strikes contact plate 37, the outside portion of arm 36 is depressed, the portion of the arm within the mounting box is elevated and brings spring contact 38 into contact with the negative terminal of storage cell 39, causing the visual and auditory responses described. Mounted over the bulb portion of incandescent lamp 40 is a translucent hemispheric shell 42 completely covering the same and guarding it from contact with the thrown basketball.

To assemble the device, the end of track 16 opposite suction cup 17 is passed through slots 30 with the suction cup facing away from mounting box 14. Then clip 18 is fastened to the track as explained above. The entire device may then be placed upon a door 13, as shown in Fig. 1, by pressing the clip down upon the top of the door until top 22 of clip 18 is in contact with the top of the door. In this position, spring 24 will press

tightly against the side of the door and hold the top of the mount in place. It may be observed that due to the action of spring 24 the assembly may be securely mounted upon doors of varying thicknesses. If then pressure is applied to the back of suction cup 17, the entire assembly will be securely affixed to the side of the door. Mounting box 14 and the elements associated with it may then be positioned at various heights by merely sliding the same up or down track 16. The box will be held in place along the track by the pressure of spring 31 against the track and also by reason of the frictional engagement of the longer edges of slots 30 with the broad faces of the track resulting from the distributed weight of the box and loop 15.

My invention has utility features in addition to those which are incidental to the use of adjustable basketball hoops embodying it where the players are of different heights. For example, in connection with the use of the basketball device, many games can be readily contrived which employ a basket at a height lower than the regulation height or lower than the height of the top of the door. In addition, youngsters may be encouraged to learn to throw a basketball if at the commencement of their period of learning it is made easier for them to score baskets. So, a youngster might start with a basket mounted on a track in a low position and gain confidence in some skill while the basket is kept at a low position. As the youngster's skill is increased, the basket may be raised.

It is axiomatic in the toy game and athletic fields that the utility of a game or device may be lessened when the players or users achieve a high degree of skill with the game or device. Hence, if the opportunities are present for varying the conditions of the game or of the athletic endeavor, then the game or device is that much more useful and, of course, is that much more salable as an item of merchandise.

Although I have described my invention with a certain degree of particularity, it is understood that the present disclosure has been made only by way of example and that numerous additional changes in the details of construction, combination and arrangement of parts may be resorted to without transcending the scope of the invention as hereinafter claimed.

I claim as my invention:

1. In a portable, adjustable and knock-down support for basketball hoops, an elongated track member, an inverted substantially U-shaped clip member adjustably and detachably connected to the upper end of said track member, a leaf-spring engaged with a portion of said clip member to enable the latter to be yieldingly engaged with the top of a vertical structure to position said track member in linear suspension therebelow, a mounting box of materially greater width than said track member having vertically aligned slots in the upper and lower ends thereof to receive said track member therethrough, means within said mounting box coacting with portions of said track member to yieldingly retain said box member in vertically adjusted positions on the track member, a basketball hoop, means formed on the front face of said mounting box for detachably connecting the ends of said hoop thereto, and means at the lower end of said track member for detachably connecting the latter to the face of the structure on which the device is supported.

2. In a portable, adjustable and knock-down

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support for a basketball hoop, an elongated track member, an inverted substantially U-shaped clip member adjustably and detachably connected to the upper end of said track member, a leaf-spring engaged with a portion of said clip member to enable the latter to be yieldingly engaged with the top of a vertical structure to position said track member in linear suspension therebelow, a mounting box of materially greater width than said track member having vertically aligned slots in the upper and lower ends thereof to receive said track member therethrough, spring means within said mounting box co-acting with portions of said track member to yieldingly retain said box member in vertically adjusted positions on said track member, a basketball hoop, means formed on the front face of

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said mounting box for detachably connecting the ends of said hoop thereto, and means at the lower end of said track member for detachably connecting the latter to the face of the structure on which the device is supported.

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