United States Patent

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[54] **BASKETBALL BACKBOARD SET**
11 Claims, 7 Drawing Figs.

[52] **U.S. Cl.** ..... **273/1.5 R**
[51] **Int. Cl.** **A63b 63/04**
[50] **Field of Search** 273/1.5; 248/201, 237, 44

[56] **References Cited**

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ABSTRACT: A basketball backboard set including a backboard for carrying a basketball hoop extending outwardly from a ball receiving surface of the backboard, the hoop being adapted for receiving basketballs therethrough, and universal pivotally adjustable mounting arms for mounting the backboard to any desired surface such as a slanted roof, a vertical wall or a vertical standard by using the same mounting brackets. The mounting arms are secured to the back surface of the backboard so as to be universally pivoted so that the arms will adjust to a multitude of mounting situations to conform to the degree of slope of the particular roof to which the backboard set is mounted as well as being adaptable for mounting on a vertical wall of a building or a vertical standard without the need of extra brackets.

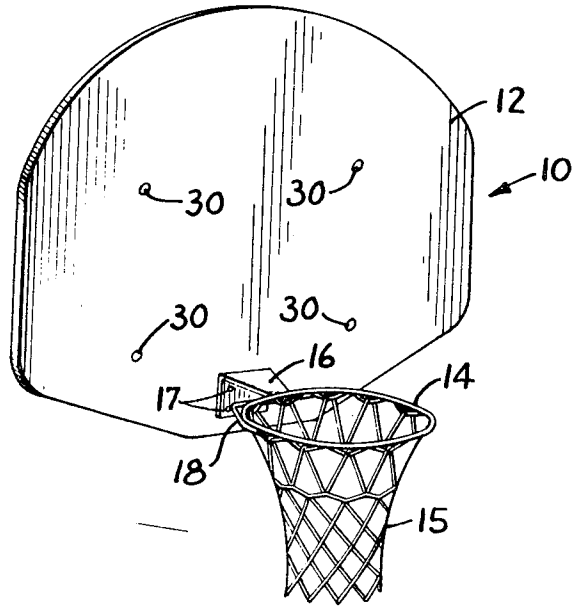


FIG. 1

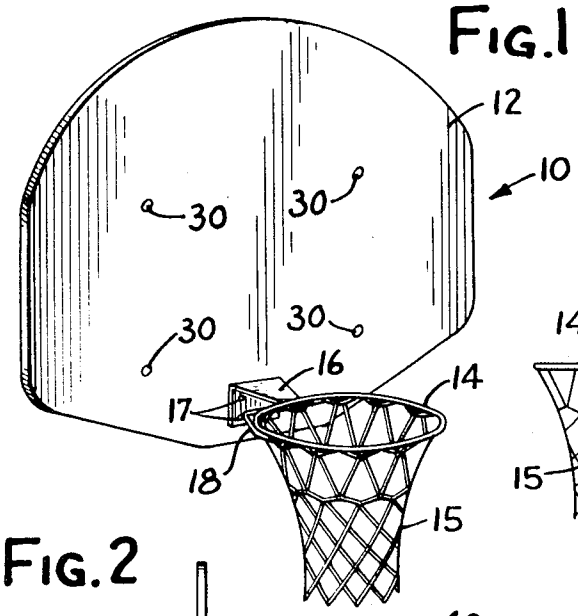


FIG. 6

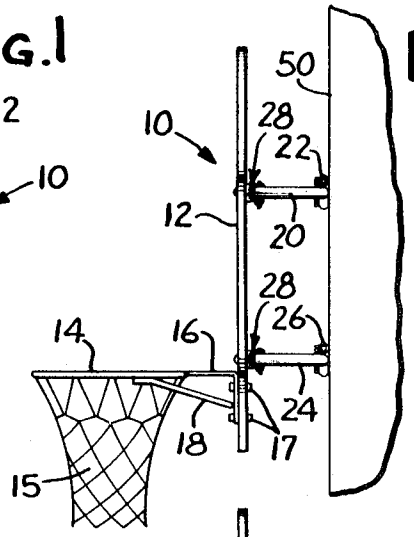


FIG. 2

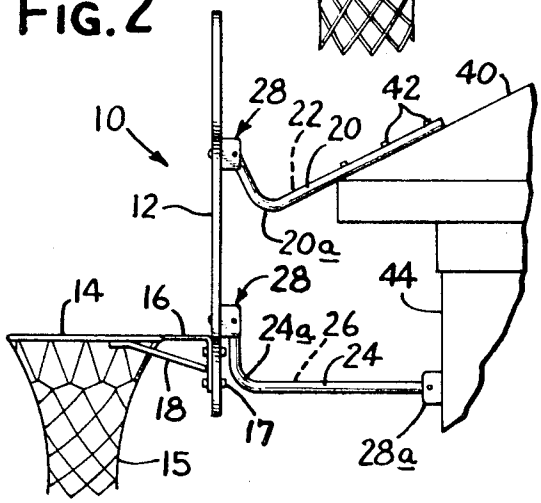


FIG. 4

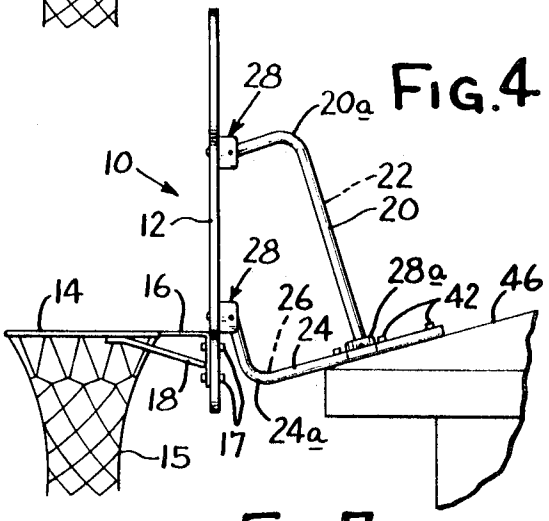


FIG. 7

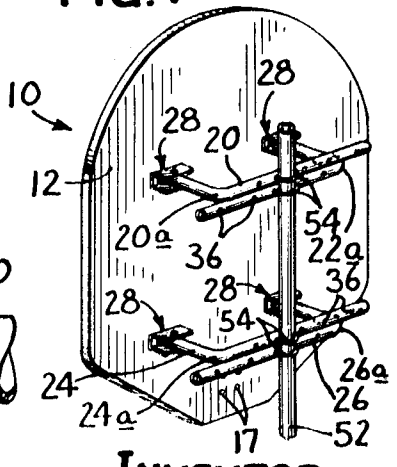


FIG. 5

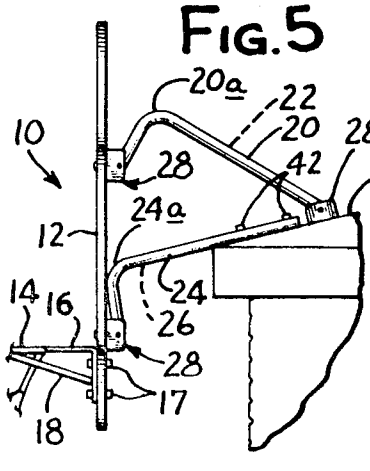
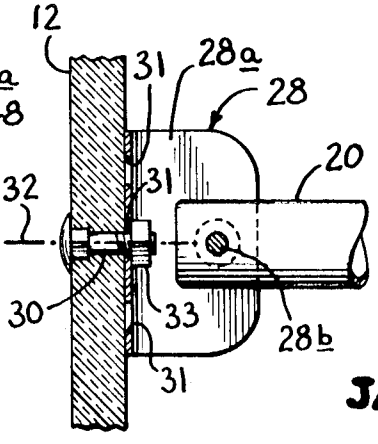


FIG. 3



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BASKETBALL BACKBOARD SET

This invention relates generally to basketball backboard sets and more particularly to a new and improved arrangement of mounting arms for mounting basketball backboard sets to surfaces of different configurations.

Basketball backboard sets are commonly mounted upon garage roofs, sides of buildings or vertical support standards at the desired height to enable the user thereof to shoot baskets at a basketball hoop fastened backboard and extending from a backboard of the basketball backboard set. The problems encountered in mounting basketball backboard sets to surfaces of different configuration, i.e. slanted roofs or varying slopes or vertical sidewalls of buildings, are due to the construction, limited arrangements and positions which the prior mounting brackets could assume relative to the backboards involved. Thus, prior basketball backboard sets require a plurality of different kinds of mounting brackets for mounting the basketball backboard sets to different surfaces of different configurations and either a large selection of mounting brackets must be provided by the seller of such basketball backboard sets or the purchaser must have a mounting bracket arrangement custom made for his particular use.

Accordingly, an object of this invention is to provide a basketball backboard set with a single set of mounting brackets which are so constructed, positioned, arranged, and adjustable that they can be used together in different positions and arrangements securely and easily to mount a backboard to vertical walls, vertical posts and slanting roofs of various configurations and sizes.

Briefly, the basketball backboard set of this invention most advantageously includes vertically spaced-apart mounting arms extending from the rear surface of the backboard and pivotally secured at their inner ends thereof by universal type swivel joints to allow the arms to be adjusted to a multitude of mounting situations. Preferably each of the mounting arms comprises an elongated tulular member, circular in cross section, and having a bend intermediate the ends thereof, the distance between the bend and the arm end connected to the backboard preferably being much less than the distance from the bend to the initially free outer end thereof. The outer end of each of the mounting arms most advantageously may be provided with an anchoring member pivotally secured thereto and having one or more apertures therein for receiving fasteners such as screws for securing the basketball backboard set to roofs and/or sides of buildings. Also, the portions of each mounting arm extending from the bend to the free end thereof is preferably provided with apertures to provide for a selection of anchoring positions. The configuration of the mounting arms and the pivotal anchoring and mounting means at the opposite ends thereof enable the mounting arms to be positioned horizontally in vertically spaced-apart relation to enable the intermediate portions of the arms to be anchored to a vertical wall surface or to a vertical standard such as a pole. In the latter case, a pair of apertures formed in each mounting arms are positioned to receive U-shaped clamps or the like which extend behind the vertical pole and project through selected ones of the mounting arm apertures and are drawn lightly about the pole by suitable nuts threaded over the ends of the clamps.

The universally pivoted mounted arms are secured to the rear surface of the backboard at points sufficiently spaced apart to provide the necessary rigidity to prevent the backboard from shifting or moving from its secured position as a result of the impact imposed on the backboard when a basketball strikes the backboard. Although any number of mounting arms may be used in accordance with the broad aspect of this invention, there is preferably provided four such mounting arms universally pivoted to the backboard at points which may define the four corners of a rectangle. Thus there will be provided upper and lower pairs of mounting arms securable to a vertical mounting surface spaced a sufficient distance from the rear surface of the backboard that the backboard will be spaced substantially from the vertical mounting surface to provide adequate running room under the backboard. When each of the upper and lower pairs of mounting arms are each moved to positions where they extend generally horizontally in nestled relation, the basketball backboard set can be mounted to a vertical walls surface or to a vertical pole as described above. When mounting the basketball backboard set to a sloping roof, the upper pair of mounting arms are pivotally positionable so that anchoring members located at the outer ends thereof can be anchored to the roof surface or the intermediate portions of the mounting arms can be anchored to the roof surface. The lower pair of mounting arms are pivotally positionable so that the anchoring members at the outer end thereof can either be fastened to the vertical siding of the building just below the roof edge or overhang thereof or the intermediate portions of the lower pair of mounting arms can be secured to the roof surface while the upper pair of mounting arms have the anchoring members connected to their outer ends secured to the roof surface.

The above and other objects, features and advantages of this invention will be more fully realized and understood from the following detailed description when taken in conjunction with the accompanying drawings wherein like reference numerals throughout the various views of the drawings are intended to designate similar elements or components.

FIG. 1 is a perspective view showing the front playing surface and basketball hoop of a basketball backboard set provided with the mounting arms (not shown) according to this invention;

FIG. 2 is a side elevational view of the basketball backboard set of FIG. 1 with the mounting arms thereof arranged and positioned to be mounted to the roof and siding of a building;

FIG. 3 is an enlarged fragmentary sectional view showing an exemplary swivel anchor providing universal pivotal connection between the inner end of each mounting arm and the backboard of FIGS. 1 and 2;

FIG. 4 is a side elevational view of the basketball backboard set of FIG. 1 with all the mountings arms thereof arranged and positioned to be mounted to the roof of a building;

FIG. 5 is a side elevational view of the basketball backboard set of FIG. 1 with another arrangement of the mountings arms thereof where all the arms are mounted to the roof of a building;

FIG. 6 is a side elevational view of the basketball backboard set of FIG. 1 with the mounting arms thereof arranged and positioned extending toward one another in parallel vertical spaced apart pairs and mounted to the siding of a building; and

FIG. 7 is a perspective rear view showing the basketball backboard set of FIG. 1 with the mounting arms thereof arranged as in FIG. 6 but mounted to a vertical standard.

Referring now to the drawings, there is seen a basketball backboard set **10** in accordance with this invention. A backboard **12** is provided for carrying a basketball hoop **14** and attached net **15** a distance spaced from the backboard **12** determined by an outwardly extending support **16** which is fastened to the backboard **12** by means of a plurality of bolts or rivets **17**. The support **16** preferably includes support braces **18** secured to the support **16** and extend outwardly therefrom to engage and support the periphery of the basketball hoop **14**.

In accordance the preferred form of this invention, two vertically spaced pairs of mounting arms **20–22** and **24–26** are universally pivotally fastened at their inner ends to the rear surface of the backboard **12** by universal pivot swivel anchors **28**. Each illustrated swivel anchor **28** includes a channel member **28***a* pivotally secured to the backboard for movement about an axis **32** perpendicular to the backboard by a single pivot bolt **30** (FIG. 3) passing through one of four holes **35** in the backboard located at the corner of a horizontally elongated rectangle. The axis **32** passes through the center of bolt **30** which is shown extending through the center aperture of a plurality of spaced apart aligned apertures

31 in the web of the channel member 28*a*, there preferably being three such apertures 31, the outer two apertures being used to receive fasteners so that similar channel member 28*a* may be used on the outer ends of the mounting arms in the manner to be described. A nut 33 threadedly engages the bolt 30 to fasten the swivel anchor to the backboard 12. Each swivel anchor includes a transverse removable pivot pin or bolt means 28*b* extending between the flanges of the channel member 28*a* and passing through an opening at the end of the associated mounting arm to provide pivotal movement of the mounting arm about an axis at right angles to the axis 32 and parallel to the rear surface of the backboard 12. The outer ends of each of some of the mounting arms like 24 and 26 in FIG. 2, are selectively provided with fastening means, preferably which are identical to the aforesaid channel members 28*a* of the universal swivel anchors 28, so the channel members form removable anchors and pivot support where the fastening means can pivot relating to the associated mounting arm about an axis transverse to the length of the arm, thereby enabling the fastening means to be secured to mounting surfaces of different inclination for each given orientation of the mounting arm.

Each of the mounting arms 20, 22, 24 and 26 is provided with means for securing the same directly to a mounting surface at any one or more of a number of points therealong. These means preferably are apertures 36 (FIG. 7) longitudinally spaced along and passing through the mounting arms to receive fasteners such as nails or screws.

In the preferred form of this invention the mounting arms 20, 22, 24 and 26 are identical in configuration and each preferably is provided with a bend 20*a*, 22*a*, 24*a*, or 26*a* intermediate the ends of the mounting arms, the distance between the bend and the end connected to the backboard preferably being much less than the distance from the bend to the outer end of the mounting arm. In the embodiment disclosed herein, the mounting arms 20, 22, 24 and 26 are formed of elongated tubular members, circular in cross section. Where the bends referred to are right-angle bends, when the pairs 20–22 and 24–26 of universally pivoted mounting arms are moved to a position extending toward one another the outer portions of the arms between the bends and the outer ends thereof are parallel to and spaced from the rear surface of the backboard a distance determined by the distance between the bends and the inner ends thereof connected to the backboard as shown in FIGS. 6 and 7.

The unique and novel aspects of this invention enable the basketball backboard set 10 to be mounted to surfaces of a multitude of different configurations without the need of extra mounting components. For example, FIG. 2 illustrates one mounting situation to which the basketball backboard set 10 is readily adaptable. Here the upper pair of mounting arms 20 and 22, with the fastening means 28*a* removed therefrom, are pivoted into an angled upwardly position in conformity with the slope of a roof 40 with at least a portion of the mounting arms 20 and 22 engaged with and directly fastened to the surface of the roof 40 by means of a plurality of fasteners 42 such as nails, screws or bolts. The lower mounting arms 24 and 26 then are pivoted so as to extend transversely rearwardly of the backboard 12 so that the web of the channel member 28*a* forming the outer end fastening means engages the siding 44 beneath the roof edge or overhang of the building to which the basketball backboard set is connected. A pair of nails or screws or bolts passing through the outer apertures 31—31 in the web of the channel member 28*a* are used to anchor the outer end of the mounting arms 24 and 26 to the siding 44.

FIG. 4 illustrates yet another mounting situation to which the basketball backboard set 10 is readily adaptable. Here the lower pair of mounting arms 24 and 26, with their fastening means 28*a* removed, are pivoted to an angular upwardly inclining position in conformity with the slope of a roof 46 with the mounting arms 24 and 26 being secured thereto by fasteners 42 passing through selected ones of the apertures 36. The upper mounting arms 20 and 22 are there pivoted to a downwardly angled position with the fastening means 28*a* pivotally secured to the outer ends of the mounting arms, the fastening means 28*a* being also secured to the roof 46 by nails or screws through the outer aperture 31 thereof.

FIG. 5 illustrates yet another mounting arrangement to which the basketball backboard set 10 is readily adaptable again without the need of extra brackets or mounting hardware. Here the lower pair of mounting arms 24 and 26 are rotated 180° with their short lengths extending upwardly and the longer portions of the mounting arms are pivoted to an angled upwardly position in conformity with the slope of a roof 48 and fastened thereto by the fasteners 42 and the upper mounting arms 21 and 22 are pivoted to a downwardly angled position with the fastening means 28*a* secured to the surface of a roof 48 by suitable fasteners such as nails, screws or bolts passing through the outer apertures 31.

FIG. 6 illustrates yet another mounting situation to which the basketball backboard set 10 is readily adapted, and which, heretofore, basketball backboard sets of the prior art generally provide inadequate mounting means. In this arrangement, the upper mounting arms 20 and 22 with their fastening means 28*a* removed, are pivoted to a position extending toward one another in parallel nestled relation and the mounting arms are fastened to the siding 50 of a building by suitable nails, screws or bolts as desired. Similarly the lower mounting arms 24 and 26 are pivoted to a position extending toward one another in parallel nestled relation and also fastened to the siding 50 thus providing mounting for the backboard set 10 spaced outwardly of the siding 50.

With the mounting arms 20, 22, 24 and 26 arranged substantially in the same manner as shown in FIG. 6 the mounting arms provide means for mounting the basketball backboard set to vertical standard 52, as seen in FIG. 7. In this arrangement clamp fasteners 54 are positioned about the standard 52 and extend through certain ones of the apertures 36 and receive suitable nuts at the ends of the clamp fasteners 54 thus mounting the basketball backboard set. Here again it will be noted that the basketball backboard set 10 is mounted from the vertical standard 52 in a similar fashion to that shown in the arrangement of FIG. 6. Therefore, basketball backboard sets provided with universally pivoted mounting arms in accordance with this invention will be adaptable to mounting on a multitude of different surface configuration, and in all cases support the backboard outwardly of the surface or surfaces to which it is mounted to provide adequate running room underneath the basketball hoop.

Accordingly, variations and modifications of this invention may be effected without departing from the spirit and scope of the novel concepts set forth herein.

I claim:

1. A basketball backboard set, comprising: a backboard for carrying a basketball hoop extending outwardly of a ball engaging surface at the front side of a backboard; at least two vertically spaced mounting arms at the rear surface of said backboard; anchoring means secured to said mounting arms and the rear surface of said backboard for universally pivotally supporting said mounting arms upon said backboard for rotation about at least a first horizontal axis generally parallel to the plane of the backboard and a second axis transverse to the plane of the backboard wherein said mounting arms are adjustable to different angular positions in planes including a vertical plane transverse to the backboard where they can extend along roofs of different angles or horizontally to be secured at the end thereof to a vertical support surface, and in planes where they can be brought into positions extending at an angle to the vertical and in a plane generally parallel to the backboard where they can be secured to a vertical standard or a vertical support surface; and each of said mounting arms including means for selectively fastening said mounting arms to a mounting surface at any one of a number of different points therealong.

2. The basketball backboard set of claim 1 wherein each of said mounting arms is secured to said anchoring means at the inner end thereof.

3. A basketball backboard set according to claim 1 wherein said mounting arms in one of their positions are in a plane parallel to said backboard where they extend generally horizontally in substantial parallel-spaced relation to the backboard.

4. The basketball backboard set according to claim 1 wherein there are included two pairs of vertically spaced-apart mounting arms defining upper and lower mounting arm pairs, the inner ends of the mounting arms of each pair being secured to universal pivot-forming anchoring means horizontally spaced apart on said backboard.

5. The basketball backboard set according to claim 1 wherein there are included two pairs of vertically spaced-apart mounting arms defining upper and lower mounting arm pairs, the inner ends of the mounting arms of each pair being secured to universal pivot-forming anchoring means positioned on the rear surface of the backboard and at the corners defining a rectangle.

6. The basketball backboard set according to claim 5 wherein the upper pair of mounting arms are pivotable toward one another to be positioned in juxtaposed parallel relation, and the lower pair of mounting arms are pivotable toward one another to be positioned in juxtaposed parallel relation so that the upper and lower pairs of mounting arms can be fastened to vertical support means.

7. The basketball backboard set according to claim 6 wherein said fastening means includes apertures for receiving clamp fasteners, said mounting arms being positionable adjacent a vertical standard with said apertures positioned to securely receive said clamp fasteners and fasten the basketball backboard set to said vertical standard.

8. The basketball backboard set according to claim 1 wherein the mounting arms are universally pivotally mounted at their inner ends, the upper of said vertically spaced mounting arms is pivotable to a downwardly inclining position to be directed toward a roof surface to which the basketball backboard set is to be mounted and there is provided at the outer end of said upper mounting arm fastening means pivotable about a horizontal axis so it can be angled in conformity with the slope of the roof for fastening thereto, and the lower of said vertically spaced mounting arms are pivotable to an upwardly inclining position conforming substantially to the angle of the slope of the roof with at least a portion of the lower mounting arm to extend along the roof for fastening thereto.

9. The basketball backboard set according to claim 1 wherein the mounting arms are universally pivotally mounted at their inner ends, the upper of said vertically spaced mounting arms is pivotable to an upwardly inclining position conforming substantially to the angle of the slope of a roof to which the basketball backboard set is to be mounted with at least a portion of the upper mounting arms to extend along the roof for fastening thereto, and the lower of said vertically spaced mounting arms is pivotable to a position extending transversely to the backboard and there is provided at the outer end of said lower mounting arm fastening means engageable with a vertical wall below the portion of the roof to which the basketball backboard set is to be mounted.

10. The basketball backboard set according to claim 1 wherein each of said mounting arms is substantially identical in configuration.

11. The basketball backboard set according to claim 1 wherein each of said mounting arms is formed of an elongated member having a bend therein, the distance between the bend and the end universally pivotally fastened to the back surface of the backboard being less than the distance between the bend and the outer end of said mounting arms.

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