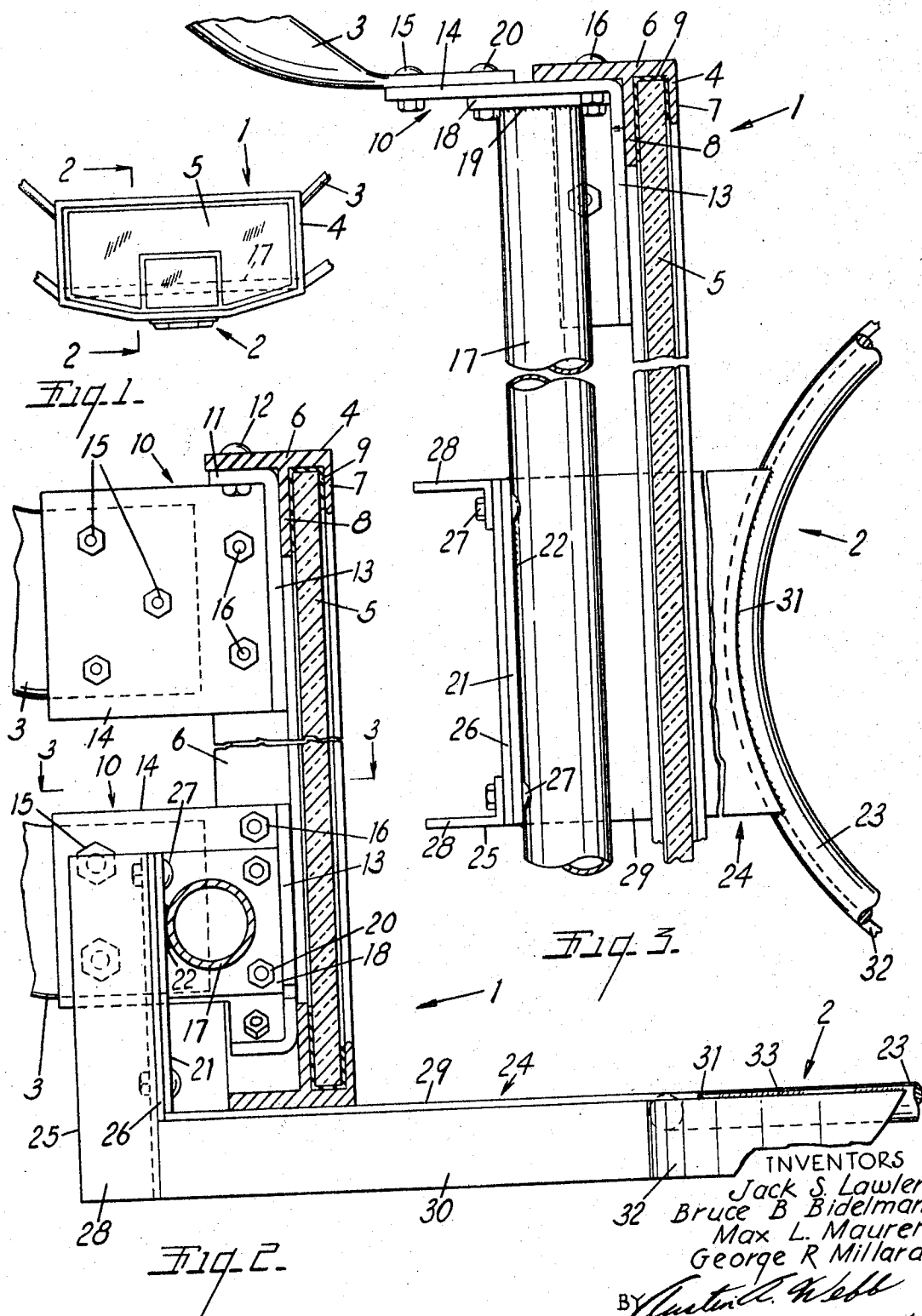


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BASKETBALL GOAL WITH BACKBOARD ABOVE AND SEPARATELY
SUPPORTED FROM THE GOAL HOOP
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BASKETBALL GOAL WITH BACKBOARD ABOVE AND SEPARATELY SUPPORTED FROM THE GOAL HOOP

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11 Claims

ABSTRACT OF THE DISCLOSURE

The backboard frame has supporting brackets at its corners adapted to be connected to mounting or supporting arms. The lower brackets have a tubular bar connected thereto and extending in spaced parallel relation behind the lower portion of the board. A mounting plate is rigidly connected to the center of the bar, and an angled basket supporting bracket has an upstanding arm rigidly secured to the mounted plate, and a forwardly extending arm located in unconnected relation to the bottom of the backboard frame and projecting forwardly from the frame into supporting connection to the goal hoop.

This invention relates to improvements in basketball goal with backboard above and separately supported from the goal hoop.

The principal objects of the invention are:

First, to provide a basketball goal including a backboard and goal hoop in which the lower edge of the backboard is raised to approximately the level of the goal hoop to reduce the chance of injury to players jumping below the hoop and backboard by coming into contact with the backboard.

Second, to provide a basketball goal in which the goal hoop is separately supported from the backboard so that torsional strains or loads applied to the loop as by the ball or players coming in contact with the hoop are not transmitted through the hoop supporting connections to the backboard so that there is no likelihood of damage to the backboard, especially if the board is made of transparent materials.

Third, to provide a basketball goal in which the lower edge of the backboard and the supporting connections thereto may be raised, in part, above the level of the goal hoop in order to lessen the danger of players being injured by jumping into contact with the backboard and its supports.

Fourth, to provide a basketball goal including the foregoing safety features which retains the necessary functions and parts of providing a support for the goal hoop and a rebounding backboard panel at the desired distance behind the hoop.

Other objects and advantages of the invention will be apparent from a consideration of the following description and claims. The drawings, of which there is one sheet, illustrate a highly practical form of the invention.

FIGURE 1 is a fragmentary front elevational view of the basketball backboard and hoop goal of the invention with supporting connections to a part of the building (not shown) in which the goal is mounted.

FIGURE 2 is a fragmentary vertical cross sectional view taken along the plane of the line 2—2 in FIGURE 1 and looking in the direction of the arrows.

FIGURE 3 is a fragmentary horizontal cross sectional view taken along the plane of the line 3—3 in FIGURE 2 and looking in the direction of the arrows.

In the sport of basketball, players have become capable, due to practice or extreme height, of reaching to

the standard or recognized level of the goal hoop and thereabove. In actively contested games there is danger of players being injured by jumping into contact with the lower edges of the backboard and its mounting structure. In addition the popularity this sport has produced increased demands for spectator seating which has required that some spectators be seated behind the goals. This in turn has lead to the adoption in some cases of transparent backboards behind the goal hoops so that the spectators may observe the play through the backboard. These backboards are made of heavy glass which is relatively strong but still subject to breakage if the mounting connections for the goal hoop apply localized strains to the glass backboard. The present invention overcomes both of these disadvantages by raising the lower edge of the backboard and its glass material and supporting framework higher above the playing floor and by supporting the goal hoop in front of the backboard independently of any direct connection to the backboard whether the backboard be made of glass or other materials.

As shown in FIGURE 1 the basketball goal comprises a backboard generally indicated at 1 and a goal hoop generally indicated at 2. The goal is supported with the standardized hoop 2 at a standardized level above the playing floor by means of suitable supports and brace bars 3 which extend upwardly and rearwardly to portions of the building in which the goal is mounted. The supports 3 are connected to the frame 4 of the backboard as will be described presently. The connection of the supports to the building structure is relatively immaterial and varies in different gymnasiums and so is not illustrated.

As appears more clearly in FIGURES 2 and 3 the back panel 5 which is commonly made of glass is supported by the frame 4 which consists of top and bottom and side members of channel shape cross section, conveniently made as aluminum extrusions with an outer base 6, a relatively narrow front flange 7, and a wider middle flange 8 which coacts with the flange 7 to form a channel receiving the edges of the panel 5. A layer of cushioning material such as rubber may be interposed between the surfaces of the glass and the metallic channel as indicated at 9.

The horizontal and upright pieces of the frame are connected or reinforced at the corners by mounting or support brackets indicated generally at 10. The brackets 10 have outwardly or rearwardly facing flanges 11 which engage the rearwardly projecting portions of the base 6 of the top and bottom members and are secured thereto as by bolts 12. The brackets have transverse front flanges 13 which engage the back of the intermediate flange 8 of the frame members and have rearwardly projecting somewhat enlarged flanges 14 which are connected to the support members 3 in any suitable fashion such as by the bolts 15. The forward portions of the flanges 14 are connected to the rearwardly projecting portions of the side frame members as by the bolts 16 so that the frame members are connected to each other and in turn rigidly connected to the supporting members.

Positioned behind and above the lower portion of the backboard is a torsion bar 17 which has mounting plates 18 secured to its ends as by welding at 19. The bar is of such a length that the plates 18 fit between the rearwardly turned flanges 14 of the lower mounting brackets and are secured thereto as by the bolts 20. Intermediate of its ends and in the middle of the backboard panel 5 the torsion bar 17 is provided with a connecting plate 21 which is rigidly connected to the bar as by welding at 22. The connecting plate 21 is arranged vertically and generally parallel to the backboard panel 5 when the bar 17 is connected to the brackets, but this is not necessary.

The goal hoop 2 consists of a circular hoop 23 of

standardized size and strength which is supported by an arm indicated generally at 24 projecting rearwardly a standardized distance to the plane of the backboard panel 5 and in the present structure behind the back of the backboard frame to a generally vertically upwardly extending portion 25 having a second connecting plate 26 on its forward edge. The connecting plate 26 is secured to the back side of the first connecting plate 21 by means of bolts 27. More specifically the arm 24 and its upwardly extending portion 25 consist of upright angles 28 secured to the back side of the second connecting plate. A forwardly projecting top plate 29 secured to the bottom of the second connecting plate forms the top surface of the arm 24. Vertically disposed side plates 30 are secured along the side edges of the plate 29 to form a generally channel shaped section of the arm for rigidity. The arm passes underneath the bottom of the frame of the backboard and is closely adjacent thereto to provide as much clearance as possible below all portions of the goal. The top plate 29 of the arm 24 is secured by welding as at 31 to the rear edge of the hoop 23 and the side plates 30 are curved transversely outwardly as at 32 to follow around the rear sides of the hoop to place the hoop relative to the arm. The upper edges of the forwardly extending portions 32 are secured to the hoop by welding as at 33.

With the foregoing structure the only projection below the level of the hoop 23 of the goal is the width of the reinforcing side plates 30 of the hoop supporting arm 24. Maximum clearance is thus provided below the hoop. The hoop is supported independently of the backboard panel 5 by reason of its connection to the torsion bar 17 and should a player pull downwardly on the hoop the load is applied through the torsion bar to the lower corner brackets 10 and the lower support members 3 without applying any load to the backboard panel. Likewise, the shock of basketball striking the hoop is transmitted to the frame without affecting the backboard.

In order to accomplish the third object of the invention, the lower cross member 34 of the frame has a horizontal central portion 35, located behind the hoop and over the hoop supporting arm. The side portions 36 of the lower cross member are angled upwardly so that the lower corners of the frame and the connections to the lower supporting members are further raised. The lower edge of the backboard panel is correspondingly shaped, and the lower brackets 14 have downwardly and inwardly inclined flanges 37 to fit the incline of the frame.

The inclined side portions 36 may start upwardly at any point between the sides of the hoop supporting arm and the side uprights of the frame to leave different rebound areas adjacent to the hoop as desired.

What is claimed as new is:

1. A basketball backboard and hoop having a panel supported by means connected to the panel and adapted to be connected to a support,

said backboard and hoop comprising a bar having each end connected to and supported with the bottom corners of said panel and located with its mid-portion between said ends in spaced unconnected relation behind said panel,

and a hoop supporting arm rigidly connected at its rear end to the center of said bar and extending forwardly of said panel in separate unconnected relation below the transverse center of the panel, said hoop being secured to the forward end of said arm in forwardly spaced relation to said panel.

2. A backboard and hoop as defined in claim 1 in which said supporting arm has a generally upright rear portion located behind the midsection of the lower edge of said panel and connected to said bar.

3. A backboard and hoop as defined in claim 2 in which there is a first connecting plate rigidly secured to the mid-portion of said bar,

and a second connecting plate forming part of the rear of said arm and releasably secured in lapped relation to the first of said connecting plates.

4. A backboard and hoop as defined in claim 1 in which the ends of said bar are connected to said panel by means of end plates secured to the bar.

and brackets secured to said end plates and to said panel.

5. A backboard and hoop as defined in claim 1 in which said panel has a horizontal central portion on its lower edge with upwardly inclined portions extending from said horizontal center portion to the bottoms of the side edges of said panel.

6. A backboard and hoop as defined in claim 5 in which said panel is transparent, a metallic frame surrounding said panel and having upright side members and a lower cross member conformed to the shape of the lower edge of said panel, and means connecting the ends of said bar to the lower corners of said frame.

7. A backboard and hoop as defined in claim 1 in which said panel is transparent, and further comprises a metallic frame surrounding said panel, the ends of said bar being connected thereto.

8. A basketball goal comprising a backboard panel having a lower edge with a straight horizontal central portion,

upwardly inclined portions of said lower edge extending from the ends of said central portion to side edges of said panel,

means secured to the lower corners of said panel at the upper ends of said inclined portions and adapted to be connected to supports,

a hoop supporting arm, having forward and rear ends, extending forwardly of said panel below said central portion,

and a goal hoop secured to the forward end of said arm in forwardly spaced relation to said central portion,

said means connected to the corners of said panel having a bar connected thereto and extending therebetween behind said panel in unconnected relation to the panel,

said arm being connected at its rear end to the mid-section of said bar.

9. A goal as defined in claim 8 in which said arm extends from said bar below said central portion and forwardly to said hoop.

10. A goal as defined in claim 8 in which there is a section of connecting structure between said arm and the corners of said panel which is relatively more angularly yieldable about the axis of said bar than the remainder of the connecting structure.

11. A goal as defined in claim 10 in which said section of relatively angular yieldability lies in relative torsional twistability of said bar.

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