

Feb. 8, 1966

R. H. SHEETS

3,233,897

GOAL STRUCTURE

Filed Aug. 29, 1962

FIG. 1

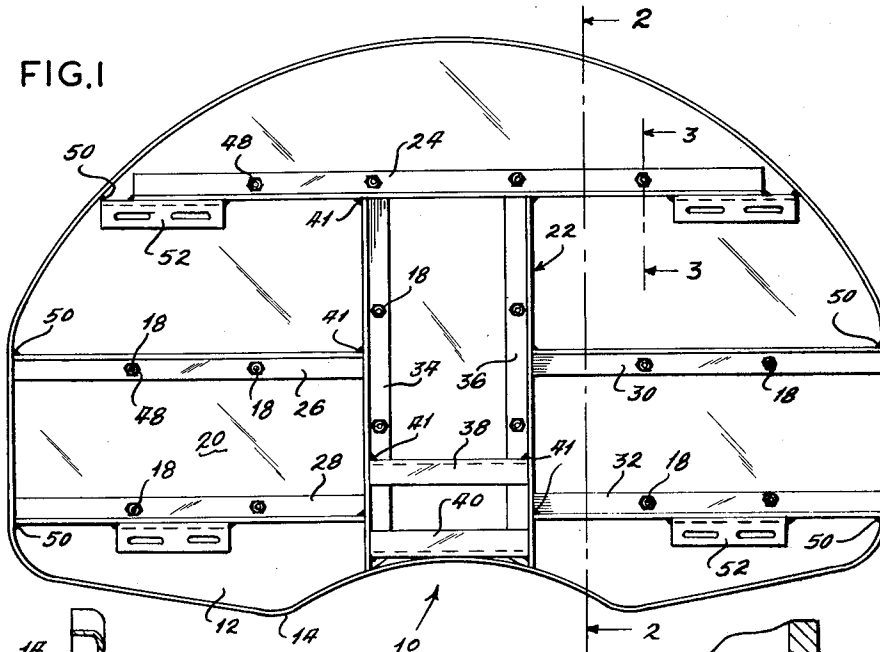


FIG. 2

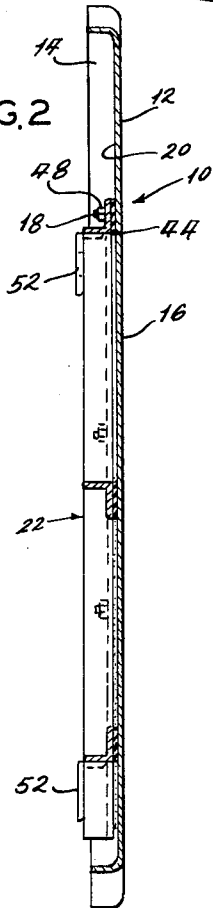
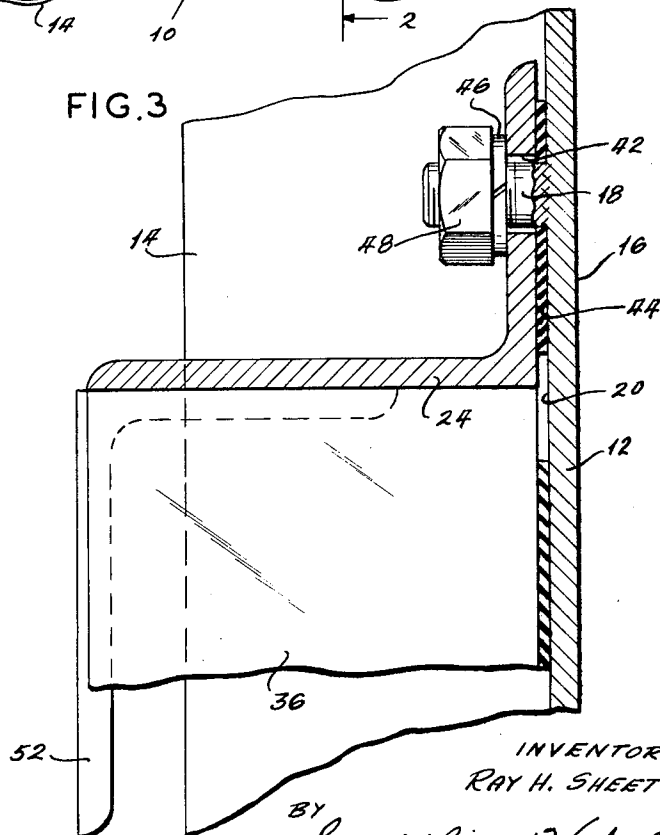


FIG. 3



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3,233,897

GOAL STRUCTURE

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Filed Aug. 29, 1962, Ser. No. 220,274

2 Claims. (Cl. 273-1.5)

The present invention relates generally to goal structures and more particularly to a goal structure for basketball and similar sports.

Many goal structures have been devised and used heretofore. All known existing structures, however, have had one or more disadvantages and for this and other reasons have not been entirely satisfactory. The disadvantages and shortcomings which have been most noticeable and troublesome in existing goal structures, and particularly basketball goal structures, are due to surface imperfections or defects in the playing surface which are caused during construction by the construction means and methods employed; the fact that most existing structures are noisy producing objectionable drumming and vibrating sounds when struck; and furthermore most existing goal structures are relatively weak and tend to warp and bend and become inaccurate. Warping and bending also contribute to making structures objectionably noisy and a warped or bent structure may also be unacceptable for competitive play.

The present goal structure overcomes these and other objectionable features and shortcomings of the known existing structures.

Briefly, the present goal structure comprises a sheet metal member or bank, one surface of which forms a playing surface, a plurality of spaced threaded members welded to the sheet metal member opposite from said playing surface, a framework of rigid support members having a plurality of spaced openings that register with the threaded members, a layer of cushioning material positioned between the sheet metal members and the framework, and means cooperating with the threaded members to secure the framework to the sheet metal members with the cushioning material therebetween.

A principal object of the present invention is to provide an improved goal structure for basketball and similar sports.

Another object is to improve the playing surface of a goal structure.

Another object is to reduce objectionable noises such as drumming and vibration noises in a goal structure.

Another object is to provide improved support for the playing surface of a structure.

Another object is to provide a relatively inexpensive and easy to construct goal structure.

Another object is to minimize bending and warping of a flat sheet metal member.

These and other objects and advantages of the subject goal structure will become apparent after considering the following detailed description of a preferred embodiment in conjunction with the accompanying drawing wherein:

FIG. 1 is a rear view of a goal structure construction according to the present invention;

FIG. 2 is an enlarged cross-sectional view taken on line 2-2 of FIG. 1; and

FIG. 3 is a further enlarged fragmentary cross-sectional view taken on line 3-3 of FIG. 1.

Referring to the drawing by reference numbers, number 10 is a basketball goal structure constructed according to the present invention. The structure 10 includes a sheet metal member or bank 12 having the shape of a basketball rebound board or backstop. The particular

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shape of the rebound surface is not important to the invention and it is contemplated to make goal structures according to the present invention in many different shapes and sizes including the well known rectangular shape.

The sheet metal member 12 has a rearwardly extending peripheral flange 14 and a playing surface 16. A plurality of threaded studs 18 are welded at preselected locations to the rear surface 20 of the member 12 as shown in FIG. 1. It is important that the studs 18 be welded to the surface 20 using a welding instrument operated at a position on the rear side of the backstop member 12. This is in order to prevent marring or damaging the playing surface 16. A spot welding tool can be used to weld the studs 18 to the surface 20. The positions for studs 18 can be located and the studs can be held during welding by a suitable jig, not shown.

A rigid frame 22 is constructed for attaching to the rear surface 20 of the member 12. The frame 22 is formed of a plurality of connected members 24, 26, 28, 30, 32, 34, 36, 38 and 40 which are preassembled using a jig, not shown, and which are preferably connected together by welding as shown by the triangular welds 41 in FIG. 1. Another jig can be used to locate and drill holes 42 (FIG. 3) at suitable locations in the frame 22 to register with the studs 18.

After the studs 18 are attached to the member 12, strips of perforated cushioning material 44 are placed over the studs 18 and against the surface 20. The material 44 is arranged on the surface 20 in the shape of the frame 22. Thereafter with the material 44 in the position described the frame 22 is moved to a position against the surface 20 with the studs 18 extending through the holes 42. Lock washers 46 and nuts 48 are then placed on each stud 18 and tightened to hold the frame rigidly against the member 12. This compresses the cushioning material 44 which has a noise deadening effect between the frame 22 and the member 12.

When the frame is in the position described, the ends of certain of the frame members about the peripheral flange 14. It is usually desirable to weld these abutting frame ends to the flange 14 as shown and by the welds 50 to increase the strength of the structure and to further reduce noise and vibration therein.

The frame 22 is also provided with mounting members 52, four being shown, for mounting the goal 10 on a supporting structure (not shown). The form and locations of the members 52 can be varied depending upon the construction of the supporting structure. The members 52 are welded or otherwise attached to the frame 22. All of the frame members 24-40 and the members 52 are shown as angle iron pieces for illustrative purposes, although other forms and shapes can also be used, if desired.

Thus there has been shown and described a novel basketball backstop or the like which fulfills all of the objects and advantages sought therefor. Many changes, modifications and variations of the subject goal structure will become apparent to those skilled in the art after considering this specification and the accompanying drawing which disclose a particular preferred embodiment. All such changes, modifications and variations which do not depart from the spirit and scope of the invention are deemed covered by the invention which is limited only by the claims which follow.

What is claimed is:

1. In a basketball backstop assembly the improvement of a metal bank having a generally vertical flat playing face and a rear surface, said bank having a peripheral flange projecting outwardly from the rear surface to stiffen the marginal areas of the vertical playing face, a pre-assembled frame including a plurality of elements

distributed over the rear surface of said bank, each of said elements having a flat face of substantial width presented to said rear surface and lying in substantially the same plane with the flat faces of others of said elements, means carried by the rear surface of said bank and projecting outwardly therefrom to secure said frame to said bank at a plurality of spaced places to retain said flat playing surface substantially flat and to stiffen said bank behind said vertical playing face inwardly of said peripheral flange, and basketball impacts sound deadening means on said bank and in position to reduce vibration in said playing face, said sound deadening means comprising compressible cushion strips engaging elongated areas of the bank by being disposed between said flat face of said frame elements and the adjacent rear surface of said bank, said sound and vibration deadening cushioning strips being secured in position by said projecting means securing said frame to said bank.

2. The assembly as set forth in claim 1, wherein the means carried by the rear surface of the bank and projecting outwardly therefrom comprises metal studs welded to said rear face.

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DELBERT B. LOWE, *Examiner*.