Dec. 18, 1951 G. D. GARVEY 2,579,312

BASKETBALL NET

Filed Jan. 13, 1950

Fig 1.

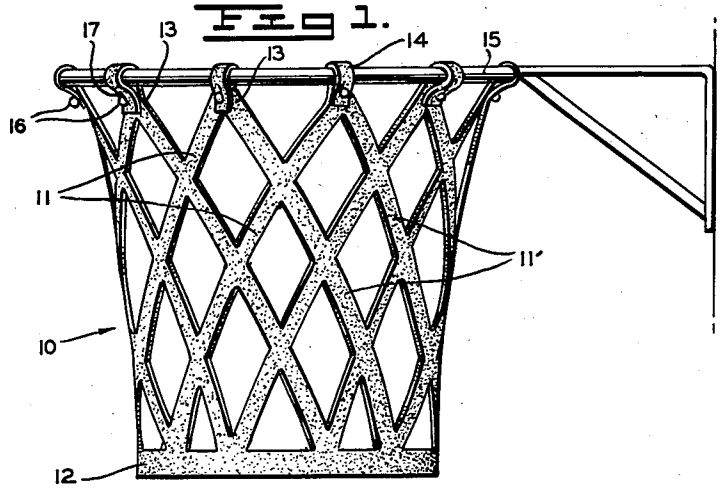


Fig 2.

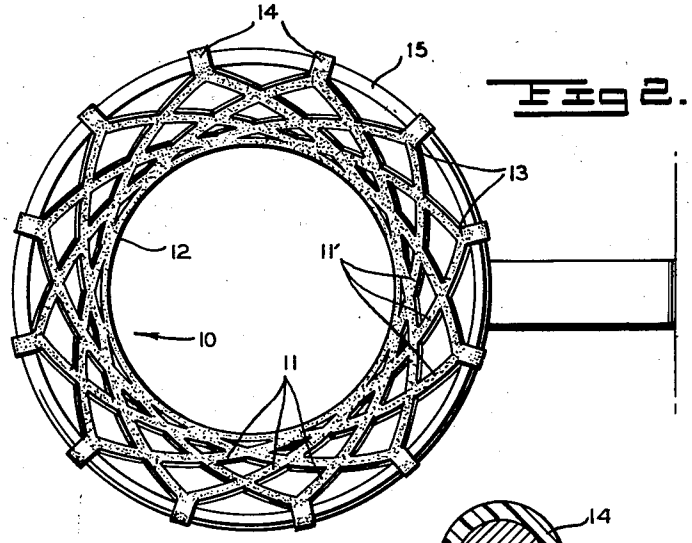


Fig 3.

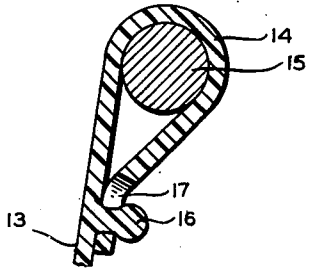
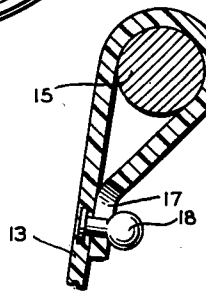


Fig 4.



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BASKETBALL NET

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1 Claim. (Cl. 273—1.5)

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This invention relates to basketball nets, and has for a principal object the provision of an improved, durable, attractive and economical net.

Common cord basketball nets are adversely affected by weather and are generally unsatisfactory for outdoor use. Rain, for example, causes cord nets to shrink whereby they are rendered unfit for use until completely dry, and weathering deteriorates the nets so that they rarely last more than two months, whereby the trouble and expense of replacement recur frequently. Additionally, cord nets have the further disadvantage of occasionally whipping up over the hoop in use, stopping play until freed.

It is a particular object of the present invention, accordingly, to provide a basketball net integrally molded or similarly formed of synthetic organic plastic material in novel form, whereby the aforesaid disadvantages of prior nets are entirely overcome, and a shape-retaining, weather-resistant net of sturdy construction is attained.

It is a further object of the present invention to provide a basketball net offering improved visibility to players, officials and spectators alike, and so constructed as to be incapable of whipping over the net hoop. Still another object is to provide a net readily and quickly secured to and removed from a hoop. Further objects will be in part obvious and in part pointed out hereinafter.

The invention and the novel features thereof may best be made clear from the following description and the accompanying drawings, in which:

Figure 1 is an elevational view of a preferred embodiment of the invention, in place on a conventional net hoop;

Figure 2 is a plan view of the net of Figure 1;

Figure 3 is an enlarged sectional view through one of the hoop-engaging straps of the net, showing details of the fastening means therein, and

Figure 4 is an enlarged sectional view corresponding to Figure 3, showing details of alternative fastener structure.

Referring to the drawings, in Figure 1 is shown a reticulate structure substantially frusto-conical in shape, the structure being designated generally as 10 and including two integrally joined sets of parallel diagonal bands 11 and 11', the band sets being angulated oppositely relative to the axis of the structure and to each other whereby they define together a diamond network. At

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the small diameter end of the structure, the diagonal bands 11 and 11' merge smoothly into an annular strip 12, disposed with its center on the structure axis. At the large diameter end, individual bands 11 and 11' intersect and are joined into a plurality of circumferentially spaced V's 13, from each of which a hoop-engaging strap 14 extends longitudinally.

The large diameter end of structure 10 is properly dimensioned to fit closely within a standard hoop 15, and each of the straps 14 is adapted to be curved thereabout back onto itself and fastened, whereby the structure is engaged to and supported by the hoop. For fastening purposes, an integral button 16 may be provided extending outwardly from the base of each of the straps, and a slit 17 may be provided adjacent the outer strap ends, adapted for fastening engagement with the strap buttons as illustrated in Figure 3. In place of integral buttons 16, a metal button 18 may be suitably incorporated into the base of each strap, as shown in Figure 4, or if desired cooperating fastener elements other than buttons and slits may be incorporated into the strap bases and ends, any conventional fastening means which does not protrude into the interior of the structure being suitable. Buttons and slits are preferred, however, because of the ease and speed with which they may be engaged and disengaged, and because readily and inexpensively formed or incorporated into a unitary, molded structure.

For strength, simplicity and adequate rigidity, the net structure, including bands 11 and 11', strip 12, straps 14 and optionally buttons 16, is preferably formed integrally, as by molding, of suitably flexible and resilient synthetic organic plastic material. A preferred material is vinyl chloride polymer, for example a polyvinyl chloride-acetate copolymer of the following formulation, all parts being by weight:

	Parts
Vinyl resin	54.0
Filler	10.0
Plasticizer	33.3
Stabilizer	2.0
Lubricant	0.7

Other materials of equivalent properties may be employed, such as polyethylene, polystyrene and silicone rubber. These materials, especially the preferred vinyl resin, are easily molded and confer on the net structure excellent resistance to wear, aging, checking, cracking, heat, cold water, mildew and other atmospheric consequences. If desired, the material of which the net is constructed may be reinforced by fibers or wire, and

permanently colored by filler or other pigment. White color, combined with the particular configuration of the net structure, effects a net of outstanding visibility to players, officials and spectators, especially when combined with transparent back boards. The color, of course, is permanent, and remains bright after long usage.

The reticulate structure shown and described, including diagonal bands arranged in a diamond network and joined at their lower ends by an annular strip, permanently retains its shape and returns quickly thereto when deflected. The bands, strip and straps are desirably rectangular in cross section, as shown, and disposed with their long dimensions in the surface of the structure **10**, whereby maximum strength, rigidity and visibility are combined. The bottom annular strip **12**, in conjunction with the diamond network of diagonal bands, functions effectively to prevent the net from whipping up over the hoop and becoming entangled therein. Additionally, the strip **12** prevents fraying of the bottom of the net, and separation of the bands **11** and **11'** where joined, contributing substantially to the long useful life thereof.

The V's **13** and straps **14** extending therefrom provide excellent flexible support for the net, and the straps are adapted as previously described for quick and easy emplacement on and removal from a hoop. The particular strap and fastener structure shown impart a smooth, unbroken inner surface to the net, whereby it cannot interfere with or deflect a basketball hitting the inside of the hoop. The integral construction of the net lends itself to ease and economy of manufacture, as well as to strength and durability.

It will thus be seen that there has been provided by this invention a structure in which the various objects hereinbefore set forth, together with many practical advantages, are successfully

achieved. As various possible embodiments may be made of the mechanical features of the above invention, all without departing from the scope thereof, it is to be understood that all matter hereinbefore set forth or shown in the accompanying drawings is to be interpreted as illustrative, and not in a limiting sense.

I claim:

A one-piece basketball net comprising a flexible, resilient reticulate structure substantially frusto-conical in shape and composed of synthetic organic plastic material, said tructure including two integrally joined sets of parallel diagonal bands angulated oppositely relative to the axis of said structure and to each other, said band sets merging at the small diameter end of said structure into an annular flat smooth strip that imparts rigidity thereto, said band sets at the large diameter end merging into a plurality of circumferentially spaced V's, an integral strap extending longitudinally from each of said V's, fastening means incorporated into the base of each of said straps, and complementary fastening means incorporated into the outer end of each of said straps, said net being constructed and arranged to retain its shape when exposed to all kinds of change in weather conditions.

GEORGE D. GARVEY.

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