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[54] **BAR STRUCTURE FOR THE HORIZONTAL BARS OF A GYMNASTIC APPARATUS**

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[51] **Int. Cl.** **A63b 3/00**

[58] **Field of Search** 272/62, 63; 52/84, 309, 720, 52/730; 161/56, 175, 176, 177; 211/123, 124

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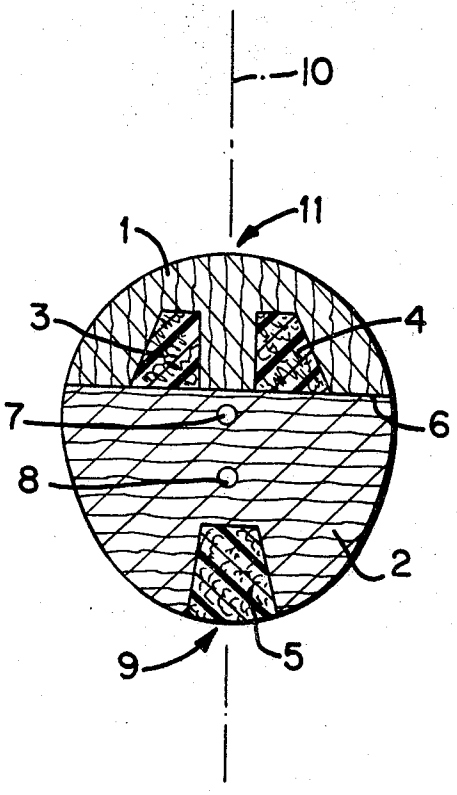
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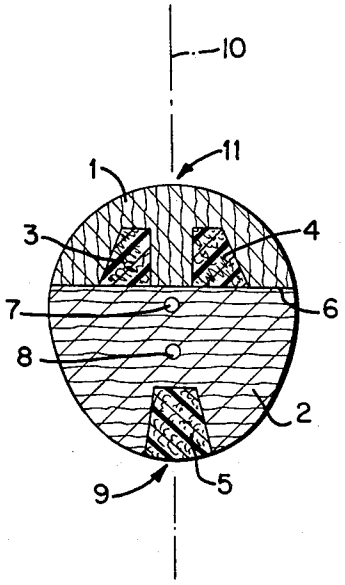
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[57] **ABSTRACT**

A gymnastic apparatus having horizontal laminated bars substantially of wood, wherein each bar comprises upper and a lower lamena glued together at an interface therebetween, and wherein longitudinal, cord-like inserts of elastic, synthetic material of inorganic origin are disposed in grooves of the lamenas. The bar is symmetrical along an imaginary vertical center line. The lamenas have at least three inserts. The direction of the fiber of the upper of the lamenas extends substantially vertically. Two of the inserts are disposed in the upper lamena and engage the interface provided between the upper and lower lamenas, and the third of the inserts is disposed in the lower lamena and extends to the lower outer face of the lower lamena.

8 Claims, 1 Drawing Figure




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BAR STRUCTURE FOR THE HORIZONTAL BARS OF A GYMNASTIC APPARATUS

The present invention relates to a gymnastic apparatus having horizontal bars, in general, and a laminated bar of wood for gymnastic bars consisting substantially of wood, fortified with longitudinal cord-shaped inserts disposed in grooves of lamenas glued together, the inserts being made of an elastic synthetic material, for example with fibers, threads or wires of inorganic origin, in particular.

Bars which are break-safe are known.

It is one object of the present invention to provide a gymnastic apparatus wherein break-safe bars are gripping-fast to an optimum.

It is another object of the present invention to provide a gymnastic apparatus wherein the bar symmetrical along a vertical center line comprises two lamenas of wood and is composed of three inserts, whereby the fiber direction of the upper lamena extends horizontally. Furthermore two of the inserts are disposed in the upper lamena, so that they engage the glue face, while the third insert is flush with the lower outer face of the lower lamena.

Further features of the present invention provide, that the glue face extends within the greatest width of the bar, that the upper inserts have a right angle trapezoid cross-section, that the right angles are adjacent each other, while the profile of the lower insert is oblique-angled, that the height of the upper lamina is smaller than the height of the lower lamena, and that the height of the upper inserts is smaller than the height of the lower insert.

With these and other objects in view, which will become apparent in the following detailed description, the present invention, which is shown by example only, will be clearly understood in connection with the accompanying drawing, in which the only FIGURE is a cross-section of a bar of the gymnastic apparatus designed in accordance with the present invention.

Referring now to the drawing, the bar comprises two lamenas 1 and 2 and is made substantially of wood, fortified with longitudinal, cord-shaped inserts 3, 4 and 5 disposed in grooves of the lamenas which are glued together. The inserts are made of elastic synthetic material for example, a polyester with fibers, or threads or wires of inorganic origin. The bar is symmetric to an imaginary center line 10.

The direction of the fibers of the upper lamina 1 extends vertically. Two of the inserts 3 and 4 are disposed in the upper lamena, such that they engage an interface constituting a glue face 6 between the upper and lower lamenas 1 and 2, while the third insert 5 extends to the lower outer face 9 of the lower lamena 2. The glue face 6 extends within the range of the largest bar width.

The upper inserts 3 and 4 have a right angle trapezoid cross-section, such that the right angles of the upper inserts 3 and 4 are adjacent each other, while the profile of the third insert 5 is oblique-angled. The height of the upper lamena 1 is smaller than the height of the lower lamena 2. The height of the upper inserts 3 and 4 is smaller than the height of the lower insert 5.

The fibers of the lamenas 1 and 2 are arranged such that they are particularly dense at the apex 11, so that the hands of a gymnast exercising gymnastics on the apparatus of the present invention engage the bars, and are thus particularly well secured against lateral sliding. The balls of the thumbs adhere within the range of the apex 11 of the lamena 1.

While we have disclosed on embodiment one the present invention, it is to be understood that this embodiment is given by example only and not in a limiting sense.

We claim:

1. A gymnastic apparatus having horizontal laminated bars substantially of wood, each of the bars comprising
   - an upper and a lower lamena of wood glued together at an interface,
   - longitudinal, cord-like inserts of elastic, synthetic material of inorganic origin in said bar and disposed in grooves of said lamenas,
   - said bar being symmetrical along an imaginary vertical center line,
   - said cord-like inserts being at least three in number,
   - the direction of the fiber of the wood of said upper lamena extending substantially vertically and the direction of the fiber of the wood in said lower lamena extending horizontally,
   - two of said inserts being disposed inside said upper lamena and engaging said interface provided between said upper and lower lamenas, and
   - the third of said inserts constituting a cord-like insert being disposed in said lower lamena and extending from inside said lower lamina to the lower outer surface of said lower lamena.

2. The gymnastic apparatus, as set forth in claim 1, wherein
   - said elastic, synthetic material of inorganic origin comprises fibers.

3. The gymnastic apparatus, as set forth in claim 1, wherein
   - said elastic, synthetic material of inorganic origin comprises threads.

4. The gymnastic apparatus, as set forth in claim 1, wherein
   - said elastic, synthetic material of inorganic origin comprises wires.

5. The gymnastic apparatus, as set forth in claim 1, wherein
   - said interface between said upper and lower lamenas extends within the range of the greatest width of said bar.

6. The gymnastic apparatus, as set forth in claim 1, wherein
   - the height of said upper lamena is smaller than the height of the lower of said lamenas, and
   - the height of the upper inserts is smaller than the height of the lower insert.

7. The gymnastic apparatus, as set forth in claim 1, wherein
   - said two of said inserts disposed in said upper lamena are trapezoid in cross-section.

8. The gymnastic apparatus, as set forth in claim 7, wherein
   - said upper inserts have a right angle trapezoid cross-section,
   - the right angles are arranged adjacent each other, and
   - the profile of said lower insert is oblique-angular.

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