United States Patent [19]

Liong

[11] **3,901,509**

[45] **Aug. 26, 1975**

[54] **SHUTTLE BALL**

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[52] **U.S. Cl.** ..... **273/106 A**

[51] **Int. Cl.**[2] **A63B 67/18**

[58] **Field of Search** ..... 273/106 R, 106 A

[56] **References Cited**

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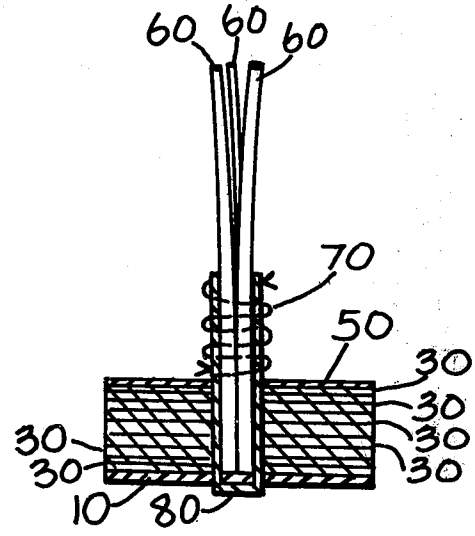
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Primary Examiner—Paul E. Shapiro

[57] **ABSTRACT**

A strip is threaded through holes in a plurality of circular discs arranged into a stack. A plurality of feathers are also disposed in the holes, and extend out the top of the stack, and are attached to the strip by a rubber band. The resultant article can be used as a shuttleball.

2 Claims, 10 Drawing Figures



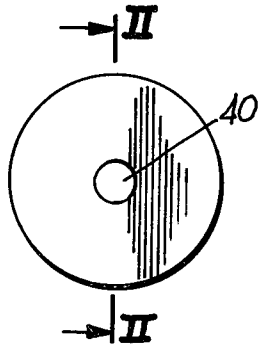


FIG. 1.



FIG. 2.

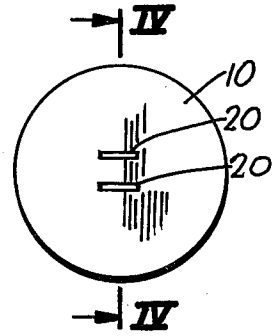


FIG. 3.

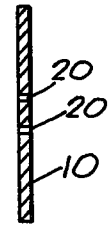


FIG. 4.

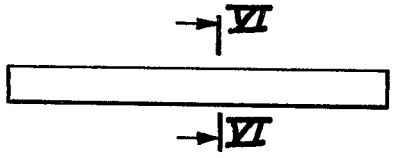


FIG. 5.



FIG. 6.

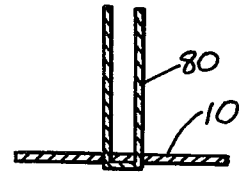


FIG. 7.

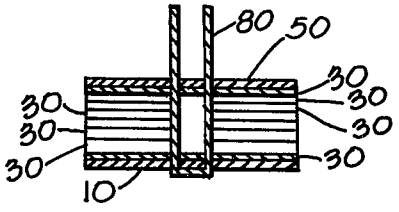


FIG. 8.

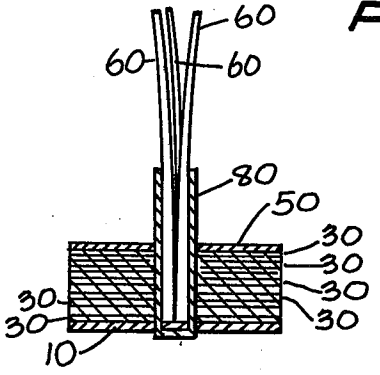


FIG. 9.

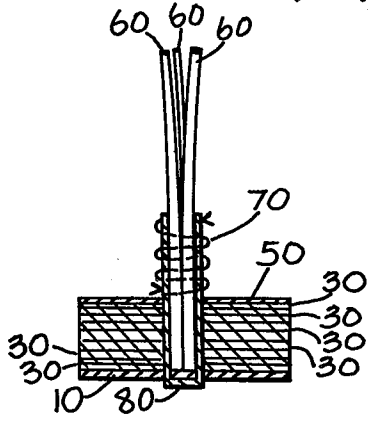


FIG. 10.

SHUTTLE BALL

SUMMARY OF THE INVENTION

The invention is directed towards a new shuttleball to be used in games wherein the players strike the shuttleball with their feet.

A vertical stack of horizontal circular discs is employed. The stack uses a plurality of spacer discs disposed between a base and a top disc. All the discs, with the exception of the base disc, have circular holes punched in their centers. The base disc has two slots punched through its surfaces, the slots defining two opposed sides of a square centered on the center of the disc. The base disc and top disc are placed below and above the stack of spacer discs, respectively, and a strip is threaded through the slots in the base disc and brought up through the holes in the rest of the discs, with the free ends of the strip extending upwardly above the top disc, in the shape of a U.

A plurality of feathers are disposed between the free ends of the strip, in the central well formed by the holes in the discs. The feathers extend upwardly from the base disc, and out above the top disc, and are secured to the strip by a cord wrapped around the free ends of the strip in such a manner as to secure the feathers therebetween. The discs may all be of equal diameter, or may be of different diameters to form non-cylindrical stacks.

BRIEF DESCRIPTION OF THE DRAWINGS

In the drawings:

FIG. **1** shows a top view of each top and spacer discs;

FIG. **2** is a view along line **2—2** in FIG. **1**;

FIG. **3** is a top view of the base disc;

FIG. **4** is a view along **4—4** in FIG. **3**;

FIG. **5** is a top view of the strip;

FIG. **6** is an edge view of the strip;

FIGS. **7, 8, 9** and **10** show various stages in the assembly of the invention.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

Referring now to the drawings, a horizontal leather base disc **10** has a circular periphery and bears two parallel slots **20** which take the form of two opposed sides of a square centered on the center of the disc. An elongated rectangular strip **80** of leather is threaded through the slots in the base disc, with the free ends extending upwardly therefrom, as is shown in FIG. **7** and the following figures.

Thirty-five like horizontal plastic spacer discs **30** are cut from plastic sheets, and take the shape of the disc shown in FIGS. **1** and **2**, with holes **40** in their centers. The diameter of each hole is essentially the same as the length of a slot **20**. The spacer discs are stacked on top of the base disc to form a vertical cylinder with a hollow circular well, with the ends of the strip extending above the stack in the well. A top disc **50** is shaped like a spaced disc and is placed on top of the stack.

Three feathers **60** are disposed in between the ends of the strip, as is shown in FIGS. **9** and **10**, and extend into and upwardly out of the central well in the stack. A rubber band **70** is looped around the strip and feathers to bind them together. A shuttleball is not formed, and is ready to be used in games of various sorts.

While the invention has been described with detailed reference to the drawings, the protection sought is to be limited only by the terms of the claims which follow.

I claim:

1. A shuttleball, comprising:

a horizontal, circular leather base disc having two spaced slots defining two opposed sides of a square centered on the center of the disc;

a plurality of like horizontal circular spacer discs with diameters equal to the diameter of the base disc, each spacer disc having a central hole, with all the spacer discs being located in a vertical stack extending upwardly from the base disc;

a horizontal circular leather top disc having the same shape and size as any one of the spacer discs located on top of the stack;

a rectangular strip extending down through the holes in the top and spacer discs, down through one of the slots in the base disc, below the base disc to the other slot, and up through the other slot and thence up through the holes in the spacer and top discs with the ends of the strip extending above the top disc;

a plurality of feathers extending upwardly from the base disc through the holes in the other discs and located between the ends of the strip; and

a rubber band wrapped around the feathers and the end of the strip to secure the feathers, strip and discs together.

2. The device of claim **1** wherein the spacer discs are made from at least one of the following classes: cardboard, paper and plastic.

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