

[54] **MULTI-PURPOSE GAME PUCK**

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[58] Field of Search **273/128 R, 127, 126, 273/1 B, 129, 105.4; D34/5 PC**

[56] **References Cited**

UNITED STATES PATENTS

2,467,043	4/1949	Kotler.....	273/128 R
2,640,699	6/1953	Garbo.....	273/128 R
3,675,928	7/1972	Gentile.....	273/128 R

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[57] **ABSTRACT**

A multi-purpose game puck formed of relatively hard material and being generally cylindrical in shape with upper and lower flat star-shaped surfaces adapted to slide over a playing surface and indented surfaces between the star points to provide air channels and which aid in movement over rough or irregular playing surfaces, and circular recesses formed in the center of each star-shaped surface to provide an air pocket which is effective to cushion the puck as it slides over irregular surfaces with air flowing into the pocket via the air channels.

5 Claims, 3 Drawing Figures

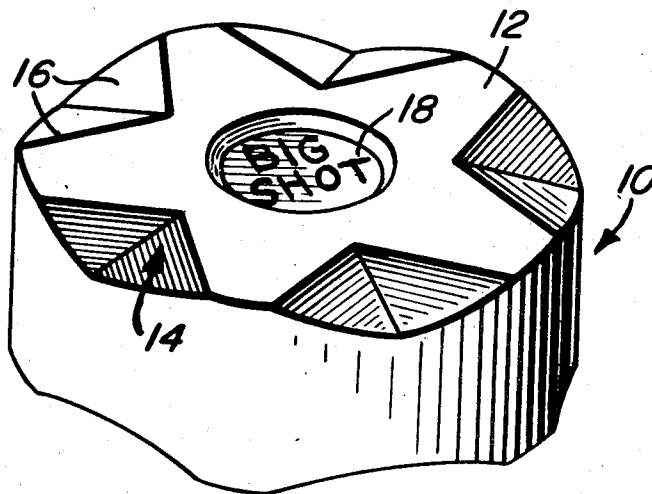


Fig. 1

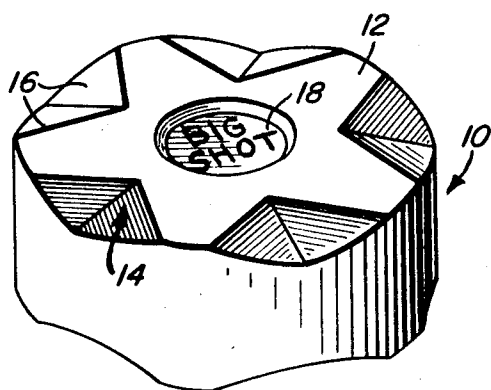


Fig. 2

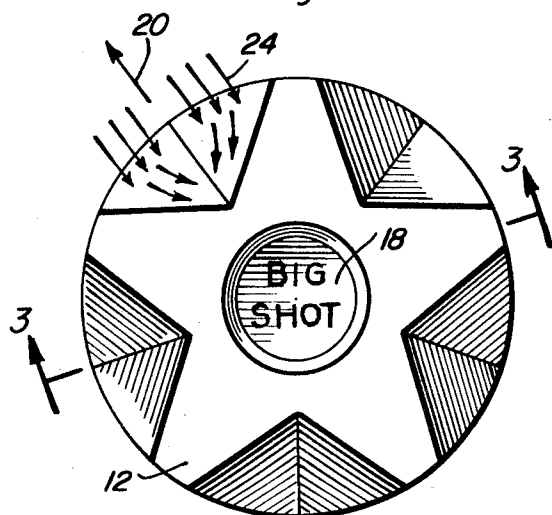
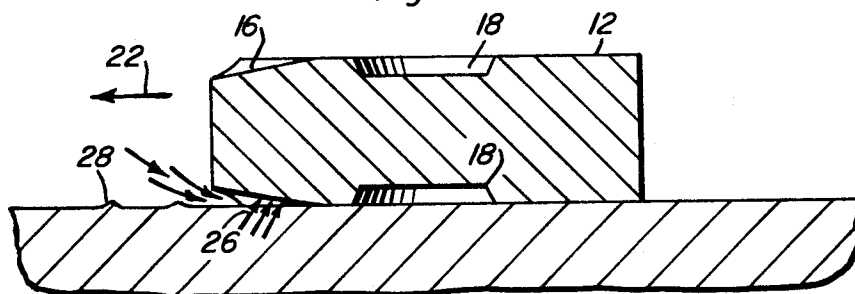


Fig. 3



MULTI-PURPOSE GAME PUCK

The present invention is generally related to athletic and game devices and, more particularly, to an improved multi-purpose game puck which is aerodynamically stabilized during use. The game puck of the present invention may be utilized in various athletic activities such as hockey, shuffleboard and similar games requiring the use of a game piece which slides over a playing surface.

It is an object of the present invention to provide a novel game puck with aerodynamic characteristics which permit it to follow a truer course with a minimum amount of frictional drag even over playing surfaces which are rough or have slight irregularities.

Another object of the present invention is to provide a versatile multi-purpose game puck with the above advantages and which is durable, long lasting, yet relatively inexpensive to manufacture compared with conventional game pucks not having these advantages.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout and in which:

FIG. 1 is a perspective view of the multi-purpose game puck of the present invention.

FIG. 2 is a bottom view of the game puck shown in FIG. 1.

FIG. 3 is a sectional view taken along section line 3—3 of FIG. 2 with arrows indicating the air flow and forces imparted upon the puck during forward travel.

Referring now, more particularly, to the drawings, the multi-purpose game puck of the present invention is indicated by the numeral 10 and is generally cylindrical in shape with upper and lower star-shaped flat sliding surfaces 12 adapted to support the puck in sliding engagement over a relatively flat playing surface. The upper and lower surfaces of the puck are provided with a plurality of circumferentially spaced indentations 14 between the points of the associated star-shaped sliding surface. Each indentation is defined by a pair of oppositely disposed planar surfaces 16 which join each other along a line lying in a radial plane passing through a trough point of the associated star-shaped surface. The puck is further provided with a pair of central, axially extending recesses 18 which may be utilized for identification purposes, such as the name "BIG SHOT," and which define air pockets as hereinafter explained.

It will be appreciated that the indentations 14 serve as air channels when the puck is propelled forward along a playing surface. As the puck is propelled forward in a direction indicated by arrows 20 and 22 in FIGS. 2 and 3, air is forced into the air channel located along the leading edge of the puck. The oppositely disposed planar surfaces 16 associated with the air channel are effective to funnel the air flow, as indicated by arrows 24, to cause a mild compression thereof, which, in turn, produces upward forces at the bottom air channel, as indicated by the arrows at 26. These forces are effective to reduce frictional drag along the leading surfaces of the puck while in motion. It will also be appreciated that the air channels aid the puck in fol-

lowing a truer path of travel. This is caused in part by the fact that bumps 28 and irregularities on the playing surfaces are more easily negotiated by the puck in a smooth fashion, such that the puck does not tend to hop or skip when contacting an irregularity.

Since some lifting of the puck does occur particularly upon engagement of larger bumps or irregularities, return to the normal position is cushioned somewhat by the air collected in the lower axial recess 18, such air being compressed slightly due to the funneling effect of the air channel along the leading edge. Thus, it will be appreciated that the air channels together with the axial recesses are effective in aiding forward movement of the puck on an irregular playing surface, the air channels providing gently inclined sliding surfaces which engage the irregularity and which are also effective to produce pneumatic lift forces thereby reducing the frictional drag.

The multi-purpose game puck of the present invention may be made of relatively hard material such as plastic, wood, steel or the like. The puck may be utilized for improving many athletic and game skills and at the same time developing general and specific body strength when used alone or when used with a means of motivation, such as a hockey stick. While the game puck is illustrated with sliding surfaces on both sides, permitting the puck to be used in either position, it may be provided with an upper surface of different shape, if so desired.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

What is claimed as new is as follows:

1. An aerodynamic multi-purpose game puck comprising a generally cylindrical rigid member including at least one flat sliding surface generally star-shaped in configuration and adapted to slide upon a playing surface, and a plurality of circumferentially spaced indentations, each located between adjacent points of said star-shaped sliding surface and tapering toward the center to terminate at an apex between opposite edges associated with said star-shaped surface, said indentations providing air channels along the leading edge of the puck when in motion to produce mild lifting forces and to aid the puck in passing over irregularities on the playing surface.

2. The structure set forth in claim 1 wherein said game puck includes a central recess in said star-shaped sliding surface which serves as an air pocket to cushion the puck when passing over irregularities in the playing surface.

3. The structure set forth in claim 1 wherein each of said indentations is comprised of a pair of oppositely inclined substantially planar surfaces each defined in part by opposite ones of said star-shaped surface edges, said substantially planar surfaces meeting along a line lying in a radial plane passing through said apex point.

4. The structure set forth in claim 3 wherein said game puck includes a central recess in said star-shaped sliding surface which serves as an air pocket to cushion

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the puck when passing over irregularities in the playing surface.

5. The structure set forth in claim 4 wherein both sides of said game puck are provided with said star-shaped sliding surfaces, indentations, and central recess.

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