

Jan. 14, 1964

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3,117,788

PUCK CONSTRUCTION

Filed June 1, 1959

2 Sheets-Sheet 1

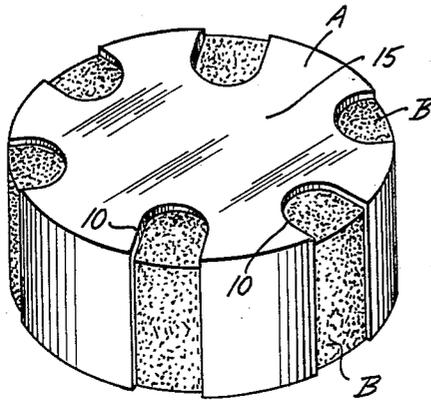


FIG. 1

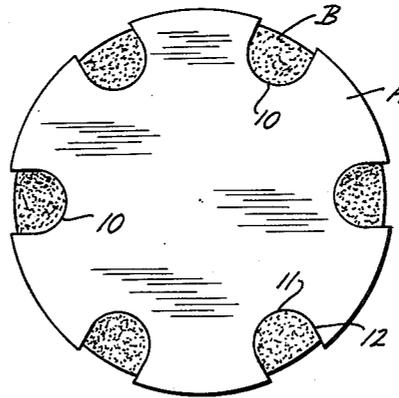


FIG. 2

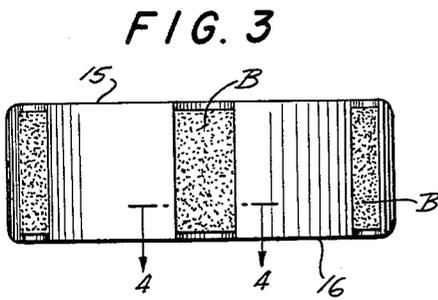


FIG. 3

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2 Sheets-Sheet 2

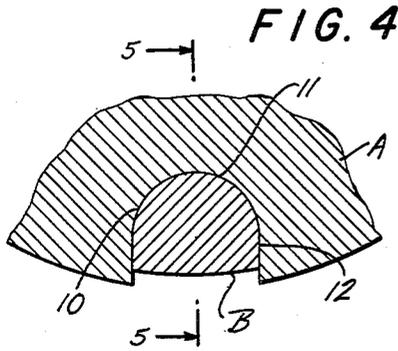


FIG. 4

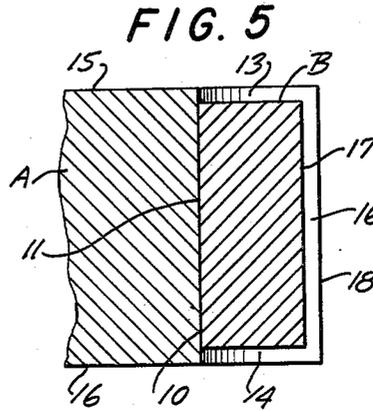


FIG. 5

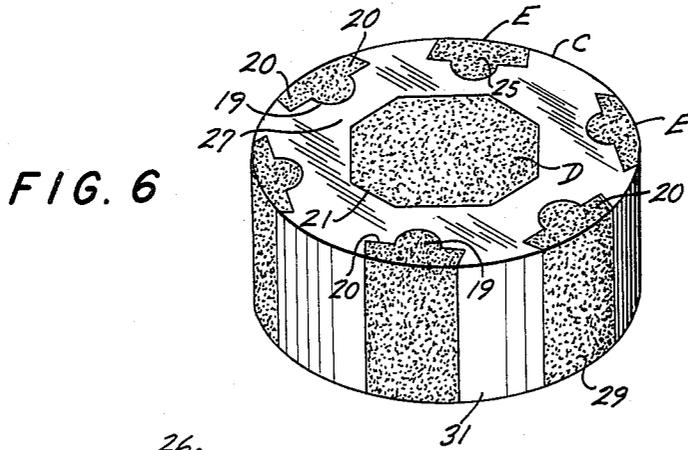


FIG. 6

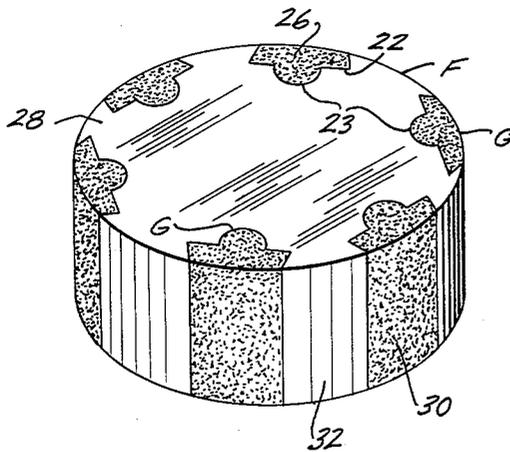


FIG. 7

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3,117,788

**PUCK CONSTRUCTION**

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9 Claims. (Cl. 273-128)

The present invention relates to a puck construction and it particularly relates to a puck construction for ice hockey and similar games.

It is among the objects of the present invention to provide a composite puck construction, and particularly a puck construction of high visibility which may be readily propelled without loss in playing quality and which is inexpensively constructed and which will retain its shape and form although subjected to very severe usage.

Another object is to provide an improved puck construction with ready visibility and yet having decreased rollability and tending to return or remain in flat position during propulsion and violent play.

A further object is to provide a better balanced puck construction which when turned will readily return to either flat side without tending to roll or stand on edge.

A still further object is to provide a puck construction whose visibility will be of high order, even though the type of illumination be changed and whether used on sunny or cloudy days or indoors under artificial light, and which will function equally well upon surfaces of varying roughness or smoothness and even those containing a substantial amount of surface water.

Still further objects and advantages will appear in the more detailed description set forth below, it being understood, however, that this more detailed description is given by way of illustration and explanation only and not by way of limitation, since various changes therein may be made by those skilled in the art without departing from the scope and spirit of the present invention.

In accomplishing the above objects it has been found most satisfactory to recess the edges of the puck in such a manner that there will be provided on six equally spaced points along the periphery thereof molded inserts of different hardness and color, which will be firmly and integrally joined with the rubber base of the puck.

Desirably six of these inserts are provided at equal angular spacings around the periphery of the puck, and, if desired, in one form of the invention, a central insert may also be provided of contrasting color and consistency.

Desirably the inserts along the periphery or at the center of the puck may be of a contrasting light color, as for example white as compared to black, or red as compared to brown, so as to give maximum illumination, and it has been found that even with high speed movement the puck is at all times brightly observable to the players and may be readily avoided when it is moving at high speed through the air so that the likelihood of injury is greatly reduced.

Desirably the inserts may be of substantially the same composition as the main body of the puck, but desirably of a slightly softer mix, and they are desirably integrated with the main body by such a heat treatment as to cause a substantial fusing or blending along the contact edges.

With the foregoing and other objects in view, the invention consists of the novel construction, combination and arrangement of parts as hereinafter more specifically described, and illustrated in the accompanying drawings, wherein is shown an embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to which fall within the scope of the claims hereunto appended.

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In the drawings wherein like reference characters denote corresponding parts throughout the several views:

FIG. 1 is a top perspective view of one form of the puck, showing the inserts of slightly smaller size than the recesses formed in the side of the puck.

FIG. 2 is a top plan view of FIG. 1.

FIG. 3 is a side elevational view of FIG. 1.

FIG. 4 is a transverse fragmentary sectional view upon the line 4-4 of FIG. 3, upon an enlarged scale as compared to FIG. 3.

FIG. 5 is a transverse sectional view upon the line 5-5 of FIG. 4.

FIG. 6 is a top perspective view of an alternative form of the invention.

FIG. 7 is a top perspective view of a still further alternative form of the invention.

Referring to FIGS. 1 to 5, there is shown a puck A with inserts B.

The puck A may be made of a relatively hard black rubber material, whereas the inserts B may be made of a light contrasting color and they are desirably molded into the puck construction after the recesses 10 have been cut into the original puck construction.

There are six recesses shown in the embodiment of FIGS. 1 to 5, but four or eight recesses may also be employed, in which case the recesses respectively will be larger or smaller than the six, as shown in FIGS. 1 to 5.

Desirably there is a welding by heat or chemicals along the contacting surfaces 11 at the bottom of the recess 10 and at 12 at the sides of the recess 10.

In the preferred form of the invention shown in FIGS. 1 to 5, the insert B has spaces 13 and 14 away from the top face 15 and the bottom face 16 of the puck A, and this appears to give an unusual stability, causing the puck to fall on a flat face without rolling on the edge. This effect is also enhanced by the spacing at 16 between the outer face 17 of the insert B and outer face 18 of the puck A.

The edges as shown in FIGS. 1 to 5 along the top and bottom faces of the puck and along the cylindrical edges of the puck tend to prevent rolling either on the edge or cylindrical side of the puck.

The puck, as shown in FIGS. 1 to 5, will be unusually stable and effective and will be highly visible throughout play.

In the embodiment shown in FIG. 6, the puck C has a central insert D and the peripheral inserts E.

The peripheral inserts E each have a semi-cylindrical insert portion 19 with side wings 20 which give better visibility and enable a firm connection between the inserts and the body of the puck C itself.

The central insert D may have a hexagonal or octagonal form as shown at 21.

In the puck construction of FIG. 7, the body F has the peripheral inserts G, six in number being shown, with the side wings 22 and the semi-cylindrical central key portion 23.

It will be noted in FIGS. 6 and 7 that the top faces 25 and 26 of the inserts are flush with the top faces 27 and 28 of the puck bodies C and F respectively.

In addition the outside faces 29 and 30 of the inserts E and G are flush with or on the same cylindrical surface as the faces 31 and 32 of the puck itself.

The puck construction as shown has high visibility and stability, will not tend to roll and will tend to lie flat. This is particularly so where the inserts have a smaller or lower specific gravity by 5% to 15% than the body of the puck A, C or F itself.

Furthermore it has been found that the balance is better and the striking power is more effective when the inserts are of softer material, having a softness of

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about 5 to 10 points softer on a standard elasticity or plasticity measuring device than the body of the puck itself.

As many changes could be made in the above puck construction, and many widely different embodiments of this invention could be made without departure from the scope of the claims, it is intended that all matter contained in the above description shall be interpreted as illustrative and not in a limiting sense.

Having now particularly described and ascertained the nature of the invention, and in what manner the same is to be performed, what is claimed is:

1. A hockey puck comprising a hard rubber flat cylindrical disk body having a cylindrical vertical outside face and flat parallel top and bottom faces and a plurality of spaced peripheral side recesses extending vertically through the periphery of the puck with parallel spaced side walls and a semi-cylindrical vertical interior terminal wall, said recesses being partly filled with a soft material of lesser specific gravity than the hard rubber disk body.

2. A hockey puck comprising a hard rubber flat cylindrical disk body having a cylindrical vertical outside face and flat parallel top and bottom faces and a plurality of spaced peripheral sides recesses extending vertically through the periphery of the puck with parallel spaced side walls and a semi-cylindrical vertical interior terminal wall, said recesses being partly filled with a soft material of lesser specific gravity than the hard rubber disk body, the upper and lower faces of the inserts being parallel to but slightly recessed inside of the top and bottom faces of the disk and the outer faces of the inserts being cylindrical and slightly recessed inside of the cylindrical vertical outside face.

3. A hockey puck comprising a hard plastic disk body having flat top and bottom faces which are parallel to each other and a peripheral cylindrical outside face connecting the parallel top and bottom faces and a plurality of spaced peripheral side recesses extending transversely through the periphery of the puck and between the outside flat top and bottom faces and transversely to said

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top and bottom faces, and a relatively soft plastic material substantially filling said recesses.

4. The puck of claim 3, the body of said puck being of hard rubber and said recesses being filled with a soft material of lesser specific gravity.

5. The puck of claim 3, said relatively soft plastic material being recessed so that it has top and bottom surfaces spaced slightly inside of the top and bottom faces and an outside peripheral arcuate face.

6. A hockey puck consisting of a disk body of hard rubber with a plurality of peripheral recesses filled with a soft material of contrasting color of lower specific gravity than the material of the disk body so that the device will have less tendency to overturn when in use.

7. A puck construction having a relatively disk-like cylindrical body with top and bottom parallel faces and a cylindrical outside face, said body being formed of a solid plastic molded material and said body having a plurality of equi-spaced peripheral recesses extending the full height of the body from face to face thereof and contrasting colored plastic material lodged in said recesses and joined integrally to the body of the puck.

8. The construction of claim 7, the contrasting colored plastic material only partly filling said recesses so that there will be spaces between the material in the recesses and the outer faces of the puck.

9. The construction of claim 7, the colored plastic material in the recesses being of a softer material than the solid plastic molded material.

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