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DISCUS STRUCTURE

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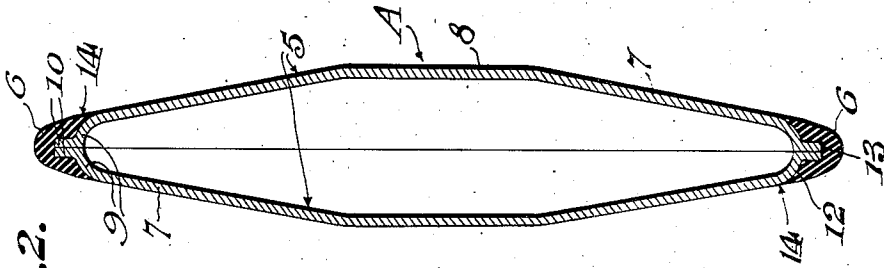


Fig. 2.

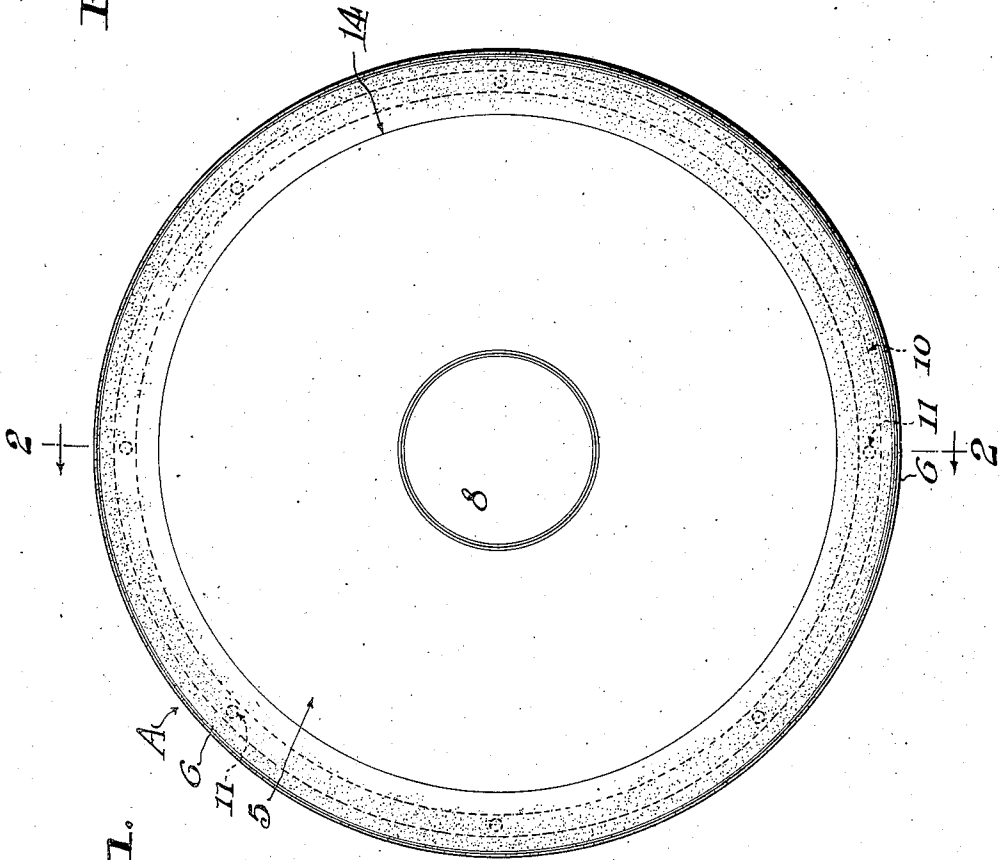


Fig. 1.

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## DISCUS STRUCTURE

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3 Claims. (Cl. 272-59)

This invention relates to new and useful improvements in discus structures of the type used by athletes in discus throwing events in sports competitions.

It has been found desirable to design a discus particularly adapted for the use by boys of high school and academy age.

Heretofore, the standard discus used in collegiate and open competitions has also been used for scholastic competitions, and the results obtained have been disproportionately unfavorable to the scholastic users. It has been noted that this standard discus is somewhat impractical for scholastic use due to its size, weight, weight distribution, and construction.

In an effort to remedy this condition, a series of comparative tests were conducted to determine the desired quantitative values of the above mentioned physical qualities for a discus for scholastic use, in which the standard collegiate discus was used as a basis of comparison.

As a result of this series of tests it was accurately determined that a scholastic discus should have the following physical characteristics; diameter  $8\frac{1}{4}$  inches, thickness at center  $1\frac{1}{8}$  inches, thickness adjacent the rim  $\frac{1}{2}$  inch, and weight 3 pounds 9 ounces.

Having determined the above mentioned physical properties, it was then necessary to design a discus in accordance therewith.

Therefore, the principal object of the invention is to provide a discus for use in sports events which comprises a pair of generally frusto-conical metallic shells, disposed in opposed relation and having their bases secured together, to thereby form a hollow shell.

Another object of the invention is to provide a device of the above mentioned character in which the peripheral edge portions of the shells are shaped to form an annular flange upon which is removably mounted an annular resilient rim, the rim serving to permit a positive finger purchase and to decrease potential hazards should the discus contact any animate or inanimate object while in flight.

A further object of the invention is to provide a device of the aforementioned character in which the major portion of the weight is distributed over the outer portions thereof.

Another object of the invention is to provide a device of the aforementioned character which is rugged, simple in construction, and economical to manufacture.

With these and other objects in view which will more fully appear, the nature of the inven-

tion will be more clearly understood by following the description, the appended claims, and the several views illustrated in the accompanying drawing.

In the drawing:

Figure 1 is a face view of a discus constructed in accordance with the invention, and

Figure 2 is a central vertical cross section.

Referring to the drawing in detail, the invention is embodied in a discus A comprising a pair of symmetrically opposed metallic half shells 5, 5 and a resilient rim 6.

The half shells 5 are identically formed and each is of generally frusto-conical shape and includes a coniform portion 7 merging at its smaller diameter with a disc 8 and at its larger diameter in an inwardly curved portion 9 terminating in an annular peripherally extending flat rim portion 10.

In assembled shell forming relation the rim portions 10 are disposed in abutting relation and are secured together in any approved manner as by spot welding at a plurality of points as indicated at 11.

The rim portions 10 when secured in this manner, compositely form an annular mounting flange.

If desired, the external surfaces of the shell may be metal plated, as with brass, to minimize the effects of corrosion.

The resilient rim 6, preferably formed from rubber, is provided with a generally concave inner face 12 including a mounting flange-receiving groove 13 and encircles the assembled shell with the concave portion 12 engaging the curved shell portions 9 and the groove 13 receiving the mounting flange formed by the rim portions 10. The outer edge portion of the rim 6 is rounded to provide a smooth finger-engaging surface area to facilitate a relatively strong finger purchase or grip. It will be observed by reference to Figure 2 of the drawing that the face portions of the resilient rim terminate in inwardly extending feather edges 14 merging into the surface planes of the respective half shell sections 5 to thereby provide resilient finger grip portions of substantial extent.

Should the rim 6 become worn, have nicks formed in it by repeated contact with the ground, or otherwise be rendered unfit for further use, it can be readily removed from the shell and replaced by a new one. It should be here noted that by replacing the rims as they become worn, the discus can be maintained at a more nearly constant weight. This feature is important in the

use of the discus as any change in the weight thereof would cause some variation in the distances over which it can be thrown and would change the "feel" of it to the athletes throwing it.

Thus it will be seen that herein is disclosed a discus comprising a hollow shell formed of a pair of opposing identical half portions including a peripheral mounting flange which engages and retains a removably mounted resilient annular rim, and which is rugged, simple in construction and economical to manufacture.

It is of course to be understood that the details of structure and arrangement of parts may be variously changed and modified without departing from the spirit and scope of our invention.

We claim:

1. In a discus, a body portion comprising a hollow metallic shell, said shell including a pair of identical half shell sections generally frusto-conical in shape and disposed in opposed base to base relation with the peripheries thereof secured together, and a resilient rim disposed around the periphery of said shell, the face portions of said resilient rim terminating in inwardly extending feather edges merging into the surface planes of the respective half shell sections to thereby provide resilient finger grip portions of substantial extent.

2. In a discus, a body portion comprising a hollow metallic shell, said shell including a pair of identical half shell sections generally frusto-conical in shape and secured together in opposed

base to base relation, the bases of said half sections terminating in outwardly extending rim portions, said rim portions together forming a peripheral mounting flange, and a resilient annular rim removably mounted on said shell, said rim being provided at its internal face with a groove for receiving said flange, the face portions of said resilient rim terminating in inwardly extending feather edges merging into the surface planes of the respective half shell sections to thereby provide resilient finger grip portions of substantial extent.

3. In a discus, a body portion comprising a hollow metallic shell, said shell including a pair of identical half shell sections generally frusto-conical in shape and opposed base to base, the bases of said half sections terminating in outwardly extending rim portions, said rim portions together forming a peripheral mounting flange, means securing said rim portions together to form the flange and constituting the sole means for joining the shell sections, and a resilient annular rim mounted on said shell, said rim being provided at its internal face with a groove for receiving said flange whereby said rim overlies and embraces said securing means, the face portions of said resilient rim terminating in inwardly extending feather edges merging into the surface planes of the respective half shell sections to thereby provide resilient finger grip portions of substantial extent.

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