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Stubblefield

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[54] **PRACTICE JAVELIN**

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[52] **U.S. Cl.** ..... **272/59 R,** 273/106 R

[51] **Int. Cl.** **A63b 65/02**

[58] **Field of Search** ..... 272/59 R, 59; 273/106 R, 106 A, 106 E, 106.5 B, 106.5 C, 106.5 R, 199 R, 199 A, 106, 106.5, 199; 46/86 A, 86 R, 79

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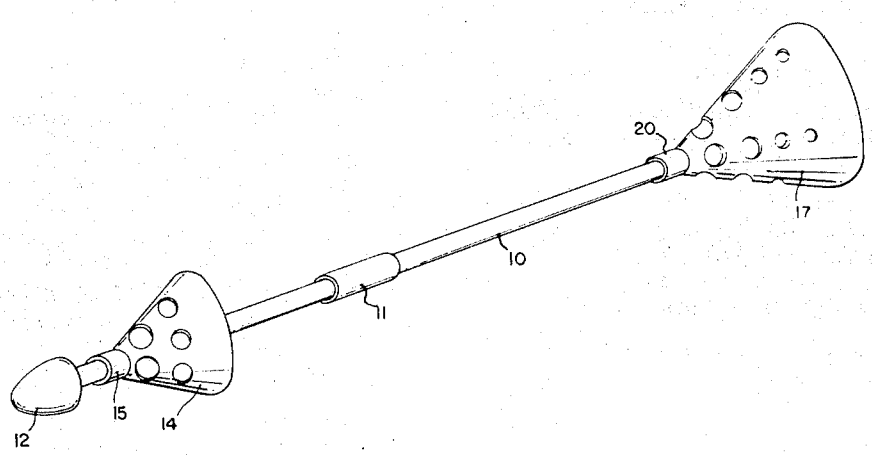
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[57] **ABSTRACT**

A javelin for practice throwing indoors having drag inducing members adjacent its ends which react with the air-stream to limit the javelin's travel. The drag inducing members are preferably of conical shape, apertured to provide the drag desired without causing unstability of the javelin in flight. The javelin additionally includes a blunt resilient impact member at the javelin's forward end to prevent damage to floor or wall surfaces.

4 Claims, 6 Drawing Figures



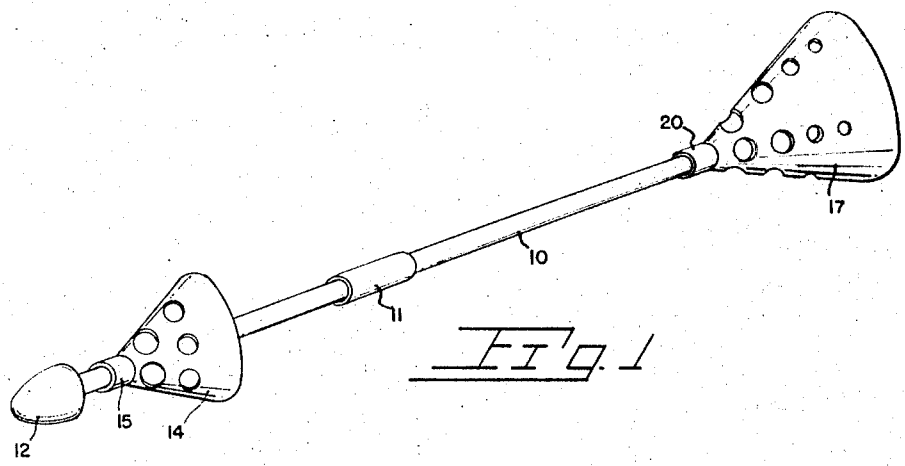


Fig. 1

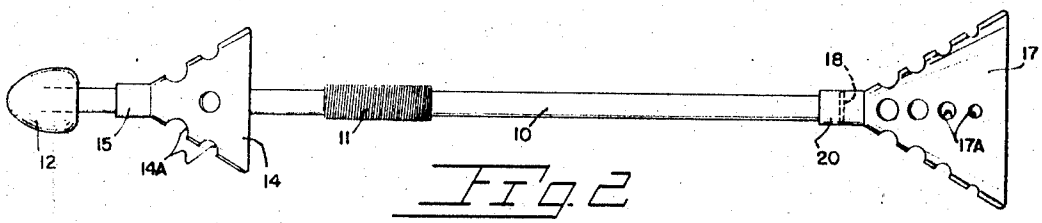


Fig. 2

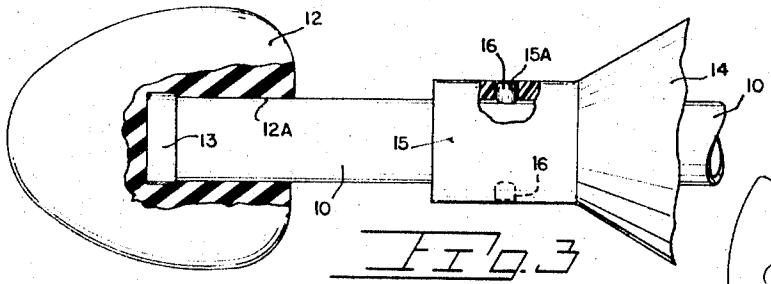


Fig. 3

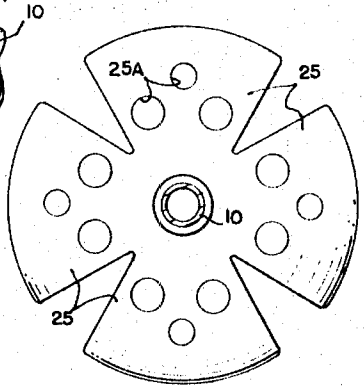


Fig. 6

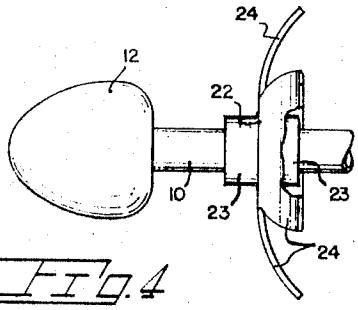


Fig. 4

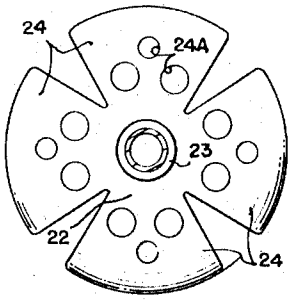


Fig. 5

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PRACTICE JAVELIN

BACKGROUND OF THE INVENTION

The present invention relates generally to athletic equipment and particularly to a practice javelin for throwing in areas where use of a conventional javelin is not practical.

Track and field competition in high schools and beyond has included javelin throwing as a competitive sport for many years. As is the case with any athletic endeavor, training to a large extent determines the individual's skill in a particular event. Training for the javelin throw ordinarily requires an open, unobstructed area of substantial size such as an athletic field. Obviously, for safety reasons, all other uses of the practice area must be held in abeyance during practice. Accordingly javelin throwing must, in some schools, be done with some inconvenience at a location removed from the immediate school area or at times other than during school hours. The addition of the javelin throw in girls and womens track and field competition further limits available practice area.

Since the throwing of the conventional javelin must, for all practical purposes, be done out-of-doors the duration of an athletic training period is dependent upon suitable weather. In geographical areas where winter weather is such as to prevent outdoor practice the competing athlete is at a disadvantage by reason of the shortened training period. Since most track and field competition takes place in the spring an individual having only a couple months training time is at a severe disadvantage competing against an individual who has the advantage of continuous training.

SUMMARY OF THE INVENTION

The present invention is directed towards providing a practice javelin which may be thrown within an enclosed area such as for example a school gymnasium.

The javelin of the instant invention includes a lightweight tubular body fitted with drag inducing appendages to retard the flight of the javelin. Impact of the thrown javelin is lessened by a resilient, rounded nose member. Accordingly the practice javelin is suitable for indoor use within a school gym.

An important object of the present invention is to provide a practice javelin useable in areas less than half the length of practice areas for conventional javelin throwing. In most instances the gymnasium of a high school or college is of adequate length and hence practice may be conducted indoors, the year around, unaffected by climate.

A second important object is the provision of a javelin having a resilient front end member of large crossectional area relative to the javelin body and effective to absorb, without damage, the contact of the javelin with the floor surface. Further such a blunt front end member affords a safety factor should the present javelin come into thrown contact with another person. The low velocity at which the javelin travels is an additional safety factor.

A further important object resides in the provision of drag inducing means carried by the javelin to efficiently reduce the travel of the thrown javelin. Drag is imparted to the javelin by flexible members disposed on the javelin which members may yield on javelin impact to avoid damage. Means are provided for replacement

of such drag members should same become distorted or fractured after long usage.

Another important object of the present invention is the provision of a practice javelin having the weight and balance of a javelin used in competition. The transition from a practice javelin to a conventional javelin is accordingly made easier. Further, the distances thrown with a practice javelin may also be correlated on a table of comparative distances to provide an indication to the thrower of what distances he may expect when using a conventional javelin.

BRIEF DESCRIPTION OF THE DRAWINGS

In the accompanying drawings:

FIG. 1 is a perspective view of a practice javelin embodying the present invention,

FIG. 2 is a side elevational view of the javelin shown in FIG. 1,

FIG. 3 is an enlarged detail view of the forward end of the practice javelin,

FIG. 4 is a side elevational view of the forward end of a modified practice javelin,

FIG. 5 is a vertical section of FIG. 4 showing the modified drag inducing means, and

FIG. 6 is an elevational view of modified drag inducing member used with that shown in FIGS. 4 and 5.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

With continuing reference to the accompanying drawings wherein applied reference numerals indicate parts similarly identified in the following specification, the reference numeral 10 indicates the elongate body of the practice javelin which may be formed from lightweight aluminum tubing.

Approximately at the javelins center of gravity a hand hold 11 is provided which may be a wrapping of cord similar to that provided on a conventional javelin.

The forward end of the body 10 terminates in engagement with an impact member 12 preferably formed of butyl rubber and configured to provide a blunt nose for the javelin capable of absorbing impact forces without damage to javelin or the impacted surface. A recess 12A in the member frictionally receives the end of the javelin body 10 in secure retention. To prevent further penetration of the end of the body member 10 shown tubular being tubular, a cap at 13 may be applied closing the end of said body member.

Indicated at 14 is a first or forward drag inducing member affixed to the elongate body 10 rearwardly adjacent the impact member 12. A preferred form of the invention provides a drag inducing member of hollow, conical shape having a collar portion at 15 circumposed about a segment of the main body 10. Attachment of said collar to the main body may be by a pin 16 in a pressed fit with apertures in the body and with aligned openings 15A in the collar.

A second or rearward drag inducing member at 17 is affixed to the rearward end of body 10 in the same manner by means of a pin 18 extending transversely through said body and the collar portion 20 of said second member. Again, the second member is preferably of hollow, conical shape with the base (trailing edge) of the conical member being of greater diameter than that of said first drag inducing member.

Each of the members 14 and 17 is desirably molded from a durable, flexible plastic of the type lending itself

to low cost molding methods. The plastic members **14** and **17** are of thin wall configuration and yield upon contact with a floor to avoid damage. Should a drag inducing member incur damage, replacement thereof simply entails removal of its associated retention pin and in the case of the first drag member the removal of the impact member **12.**

The drag members **14** and **17** are of perforate construction having openings respectively at **14A** and **17A.** Drag member **14** being of lesser diameter and presenting a smaller surface for reaction with the airstream than the surface of drag member **17** for purposes of stability.

As earlier noted the practice javelin should have the "feel" of a conventional javelin to permit the thrower to readily adjust to the conventional javelin used in competition. For this reason the main body **10** is of a diameter equal to that of a conventional javelin body. Similarly weight of the practice javelin should be 800 grams or 1 ¾ pounds. While a conventional javelin is approximately 8 ½ feet in length the practice javelin is preferably of lesser length with one suitable embodiment of the invention having a length of less than 5 feet. In said embodiment the forward and rearward drag members have diameters respectively of 8 and 11 inches. Obviously the invention dimensions and even weights are subject to being changed to meet training objectives of the individual athletes and their coaches.

In FIGS. **4** and **5** I show a modified form of drag inducing means wherein a forward drag member is indicated at **22** with a collar portion **23** affixed to the forward portion of the javelin body indicated at **10.** The drag means **22** is of generally disc shape having rearwardly directed segments **24** which project outwardly for action upon by the passing airstream. As in the case of the first described drag means the modified drag means is apertured at **24A** for aerodynamic purposes. The rearward drag member at **25** of the modified drag means as seen in FIG. **6** would be of identical configuration but of larger diameter to obtain the flight stability earlier mentioned in connection with the first form of drag members. Apertures therein are indicated at **25A.**

While I have shown but two embodiments of the invention it will be apparent to those skilled in the art that the invention may be embodied still otherwise without departing from the spirit and scope of the invention.

Having thus described the invention what is desired to be secured under a Letters Patent is:

1. A practice javelin having certain characteristics of a conventional javelin for the training of a javelin thrower within an area of restricted size, said practice javelin comprising,

a main elongate body having a handgrip thereon approximately at the javelin's center of gravity,

a resilient impact member of rounded configuration affixed to the forward end of said elongate body, and

cone shaped members for inducing drag located both forwardly and rearwardly of the javelin's handgrip, the forward cone shaped member being of a configuration inducing lesser aerodynamic drag than the rearward cone shaped member for purposes of dynamic stability.

2. A practice javelin as claimed in claim **1** wherein said cone shaped members include collar portions removably mounted to said main body for replacement purposes.

3. A practice javelin having certain characteristics of a conventional javelin for the training of a javelin thrower within an area of restricted size, said practice javelin comprising,

a main elongate body have a handgrip thereon approximately at the javelin's center of gravity,

a resilient impact member of rounded configuration affixed to the forward end of said elongate body, and

disc shaped members for inducing drag located both forwardly and rearwardly of the javelin's handgrip, the forward disc shaped member having less surface area than the rearward disc shaped member whereby the forward disc shaped member induces lesser aerodynamic drag than the rearward disc shaped member for purposes of dynamic stability.

4. A practice javelin as claimed in claim **3** wherein said disc shaped members include collar portions removably mounted to said main body for replacement purposes.

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