Nov. 25, 1969 S. R. WISE 3,480,273

HURDLE AND TARGET

Filed May 24, 1967

FIG. 2

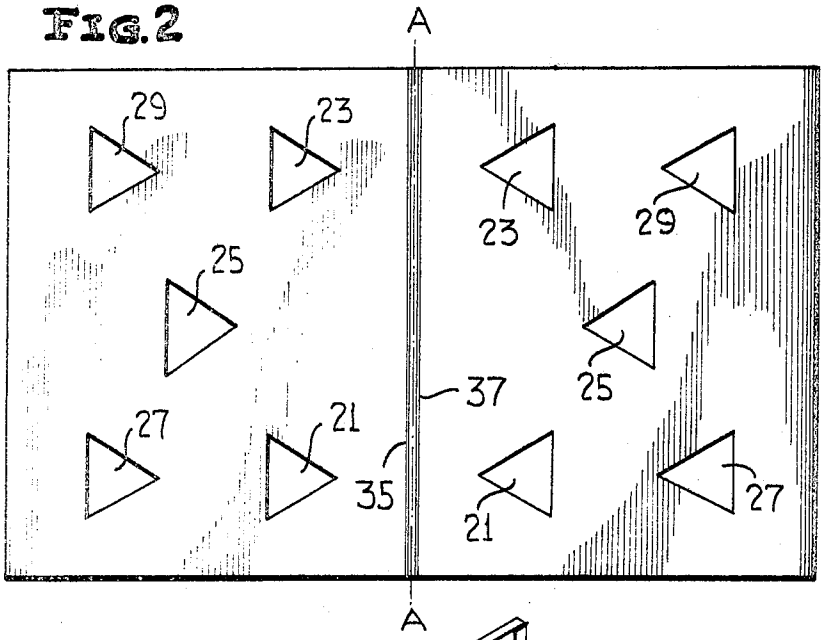


FIG. 1

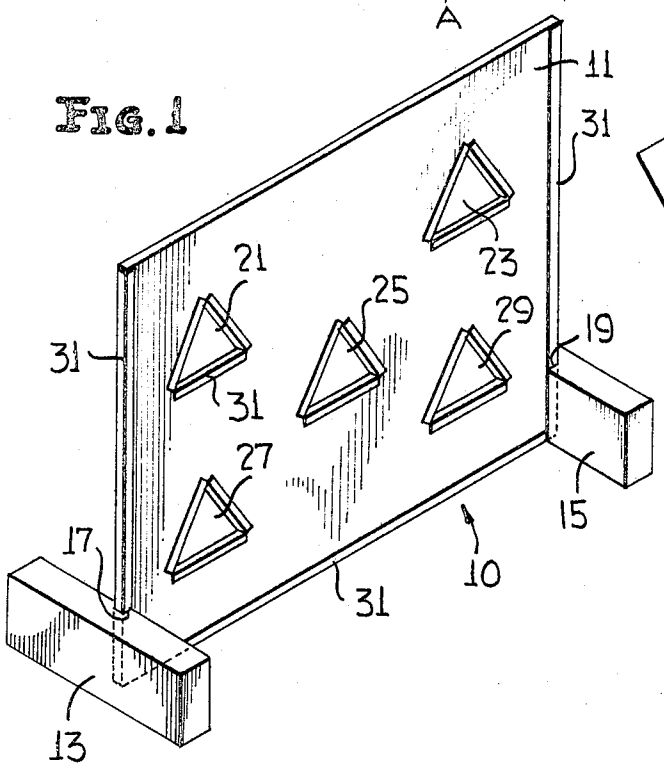
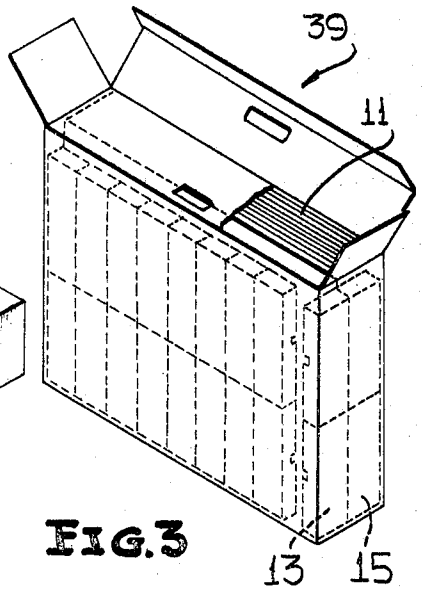


FIG. 3



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HURDLE AND TARGET

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ABSTRACT OF THE DISCLOSURE

A hurdle comprising a rectangular cardboard panel supported in vertical plane by a pair of support blocks, the panel being alternatively supported with either its length or width extending vertically. Apertures are defined in the panel to minimize its wind resistance and serve as targets for thrown balls.

Background of the invention

This invention relates to hurdles and more particularly to a hurdle which may alternatively be employed at two heights and which is constructed so as to minimize the danger of a hurdler injuring himself when impacting against the hurdle.

Prior art hurdles are not suited for utilization in teaching hurdling techniques to children. For one thing, the standard thirty-inch high low hurdle is too high for elementary and junior high school children. In addition, due to the wooden material generally employed, prior art hurdles are apt to cause a child to injure himself upon accidentally impacting against the hurdle.

Summary of the invention

In accordance with the present invention a hurdle is provided which comprises a panel of cardboard-like material supported in a vertical plane by a pair of support blocks. The panel may be supported with either its length or width extending vertically to provide a hurdle of either of two corresponding heights. Typically, the two hurdle heights are the standard low hurdle height and a somewhat lower height which is more suitable for novice hurdlers.

The support blocks each have a channel defined in a surface thereof, the blocks being disposed so that each channel receives the lowermost portion of a respective vertical panel edge. When a student impacts against the panel, depending upon the point and force of impact, one of the following results will ensue: the hurdle may overturn; the hurdle may collapse with the panel becoming disassembled from the blocks; or the panel may remain intact but be moved by the force of impact. Any of these results of impact would minimize the danger of injury to the student.

A plurality of apertures are defined through the panel to minimize its wind resistance and thereby improve its stability. These apertures may be designed to serve as targets for balls or bean bags thrown by the students.

It is an object of this invention to provide a hurdle which reduces the possibility of a child injuring himself upon impact therewith.

It is another object of the invention to provide a hurdle which can be supported at a relatively low height for novice hurdlers and at a standard height for more experienced hurdlers and which substantially reduces the possibility of a child injuring himself upon impact with the hurdle.

It is still another object of this invention to provide a hurdle for use in teaching hurdling techniques to children, the component parts of the hurdle having separate recreational utility.

The above and still further objects, features and advantages of the present invention will become apparent upon consideration of the following detailed description of one specific embodiment thereof, especially when taken in conjunction with the accompanying drawing, wherein:

Brief description of the drawing

FIGURE 1 is a view in perspective of a hurdle in accordance with the principles of this invention;

FIGURE 2 is a plan view of one component of the hurdle of FIGURE 1 prior to assembly; and

FIGURE 3 is a view in perspective of a package containing a plurality of unassembled hurdle components.

Description of the preferred embodiment

Referring specifically to FIGURE 1, there is illustrated a hurdle generally designated by the numeral **10**. Hurdle **10** comprises a rectangular cardboard panel **11** supported in a vertical plane by a pair of rectangular wooden support blocks **13** and **15**. The blocks **13** and **15** each have a shallow channel **17** and **19** centrally defined in and extending entirely across a surface thereof. Channels **17** and **19** are slightly wider than the thickness of plate **11**. The blocks **13** and **15** are disposed on opposite ends of panel **11** with channels **17** and **19** extending vertically and facing one another so that the lowermost portion of each of the two vertical edges of panel **11** are received in a respective channel. The undersurfaces of blocks **13** and **15** and the lower horizontal edge of panel **11** rest flush against the ground or other support surface.

The width of panel **11**, illustrated in FIGURE 1 as extending vertically, is preferably twenty-four inches. The length of panel **11**, illustrated in FIGURE 1 as extending horizontally is preferably thirty inches, the latter dimension being equal to the height of the standard low hurdle. The panel may be supported with either its length or width extending vertically, therefore permitting alternative utilization of hurdle **10** as either a standard low hurdle or a training hurdle of lower height.

Five triangular apertures **21**, **23**, **25**, **27** and **29** are defined through panel **11**. These apertures serve primarily to improve the stability of the hurdle **10** by minimizing its wind resistance. In addition, the apertures may serve as targets for balls or bean bags thrown by students. The shape, number and location of the apertures are not critical for purposes of reducing the wind resistance of panel **10** and therefore may be designed specifically for their target aperture function. The five triangular-shaped apertures **21**, **23**, **25**, **27** and **29** illustrated in FIGURE 1 have proved effective in maintaining student interest in this additional form of recreation.

A waterproof plastic tape **31** is employed to bind and seal the outer edges of panel **11** and the peripheries of the apertures **21**, **23**, **25**, **27** and **29**. The tape **31** seals the various edges to protect them from wear and from water leakage which might otherwise cause the cardboard panel **11** to rot. In addition, if panel **11** comprises more than one layer, tape **31** serves to bind the layers together. As will subsequently be described in greater detail with reference to FIGURE 2, the preferred embodiment of panel **11** comprises a double layer of cardboard resulting from folding a single cardboard sheet in half. Since the upper horizontal edge of panel **11** corresponds to the fold line, this edge does not need to be bound or sealed by tape **31**. It is to be understood however, that where a number of disconnected layers are employed for panel **11**, tape **31** should be employed about the entire panel periphery.

In use, the hurdle **10** of this invention substantially minimizes the possibility of a child injuring himself when impacting against panel **11**. For example, if a hurdler accidentally impacts the panel near its top, the hurdle

will overturn rather than present substantial resistance to the hurdler's momentum. If the hurdler impacts against the center or lower portions of panel **11**, the hurdle will either disassemble (i.e., panel **11** becomes disengaged from channels **17** and **19** of the support blocks) or yield intact to the force of impact. Which of the latter two results occurs upon any given impact depends upon the force and direction of impact. In either case, however, the hurdle **10** presents sufficiently small resistance to the hurdler's momentum as to substantially minimize the possibility of the hurdler injuring himself.

Wooden support blocks **13** and **15** may also be employed separate from hurdle **10** as starting blocks for use in student races. Proper starting techniques may thus be taught to the students with the aid of these blocks.

FIGURE 2 illustrates a cardboard sheet **33** from which panel **11** of FIGURE 1 is constructed. A pair of lines **35, 37** are scored or notched across the width of sheet **33** adjacent opposite sides of a center line A—A of the sheet. For each of apertures **21, 23, 25, 27** and **29** of FIGURE 1, a pair of similarly numbered apertures are symmetrically disposed about centerline A—A so that when sheet **33** is folded closed along lines **35** and **37**, the aperture pairs are in precise alignment.

FIGURE 3 illustrates a carrying case **39** containing ten sets of individual hurdle components (panel **11**, blocks **13** and **15**). The ten panels **11** are packaged adjacent one another in an upright position and are surrounded by the support blocks. The case **39** is preferably made of cardboard and therefore is lightweight to permit easy handling and storage.

While a panel having dimensions of 24 x 30 inches has been described as preferable for purposes of this invention, other dimensions for panel **11** may be employed in accordance with the alternative hurdle heights desired. For example, the panel length may be made equal to the standard high hurdle height while the panel width may be made equal to the standard low hurdle height.

The embodiment illustrated in FIGURES 1 and 2 has been constructed in accordance with the following specifications and found satisfactory for the purposes described: Sheet **33** and case **39** comprised polycoated 275 pound test corrugated cardboard; sheet **33** before folding was 48⅜ x 30 inches; apertures **21, 23, 25, 27** and **29** were equilateral triangles having five inch sides; support blocks **13** and **15** were made of hemlock and were 2 x 4 x 12 inches; channels **17** and **19** were formed centrally in and across the width of the 4 x 12 surface of the blocks and were ⅝ inch wide and one inch deep; the carrying case **39** was 31⅝ x 7½ x 24 inches.

While I have described and illustrated one specific embodiment of my invention, it will be clear that variation of the details of construction which are specifically illustrated and described may be resorted to without departing from the spirit and scope of the invention as defined in the appended claims.

I claim:

1. A hurdle comprising:

a rectangular panel of cardboard-like material, said panel having a width along one edge which is less than the height of a standard low hurdle;

means for supporting said panel wtih said edge vertically disposed comprising a pair of wooden blocks, each block having a channel defined in one of its surfaces for receiving an edge of said panel;

at least one aperture defined in said panel for minimizing the wind resistance of said hurdle;

wherein said panel and said supporting means are sufficiently lightweight that said hurdle is moved when impacted by a hurdler; and

wherein said panel comprises a pair of adjacent corrugated cardboard sheets, the edges of said adjacent corrugated cardboard sheets and the periphery of said one aperture being sealed with plastic tape.

2. A hurdle comprising:

a rectangular panel of cardboard-like material, said panel having a width along one edge which is less than the height of a standard low hurdle;

means for supporting said panel with said edge vertically disposed comprising a pair of wooden blocks, each block having a channel defined in one of its surfaces for receiving an edge of said panel;

at least one aperture defined in said panel for minimizing the wind resistance of said hurdle;

wherein said panel and said supporting means are sufficiently lightweight that said hurdle is moved when impacted by a hurdler; and

wherein said panel has a length along a second edge equal to the standard low hurdle height, whereby said panel extends to the standard low hurdle height when supported by said blocks with said second edge vertically disposed.

3. The hurdle according to claim **2** wherein said panel has a plurality of spaced triangular-shaped apertures formed therein for minimizing wind resistance and for providing targets for thrown objects.

4. The hurdle according to claim **3** wherein said panel comprises a sheet of cardboard folded about a centerline to provide two substantially identical adjacent panel layers.

5. The hurdle according to claim **4** wherein the edges of said panel and the peripheries of said apertures are sealed with plastic tape.

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U.S. Cl. X.R.

273—105