

[54] **GOAL SHIELD** 3,675,921 7/1972 Meyers 273/1.5 A
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[22] Filed: **Oct. 13, 1972**

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[21] Appl. No.: **297,293**

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[52] **U.S. Cl.**..... 273/1 B; 273/105 R; 273/105.2; 273/127 B

[51] **Int. Cl.**..... **A63b 69/00**

[58] **Field of Search** 273/1 B, 105 R, 105.2, 273/127 R, 127 A, 127 B, 1.5 A, 85 D, 181 A, 85 F

[57] **ABSTRACT**

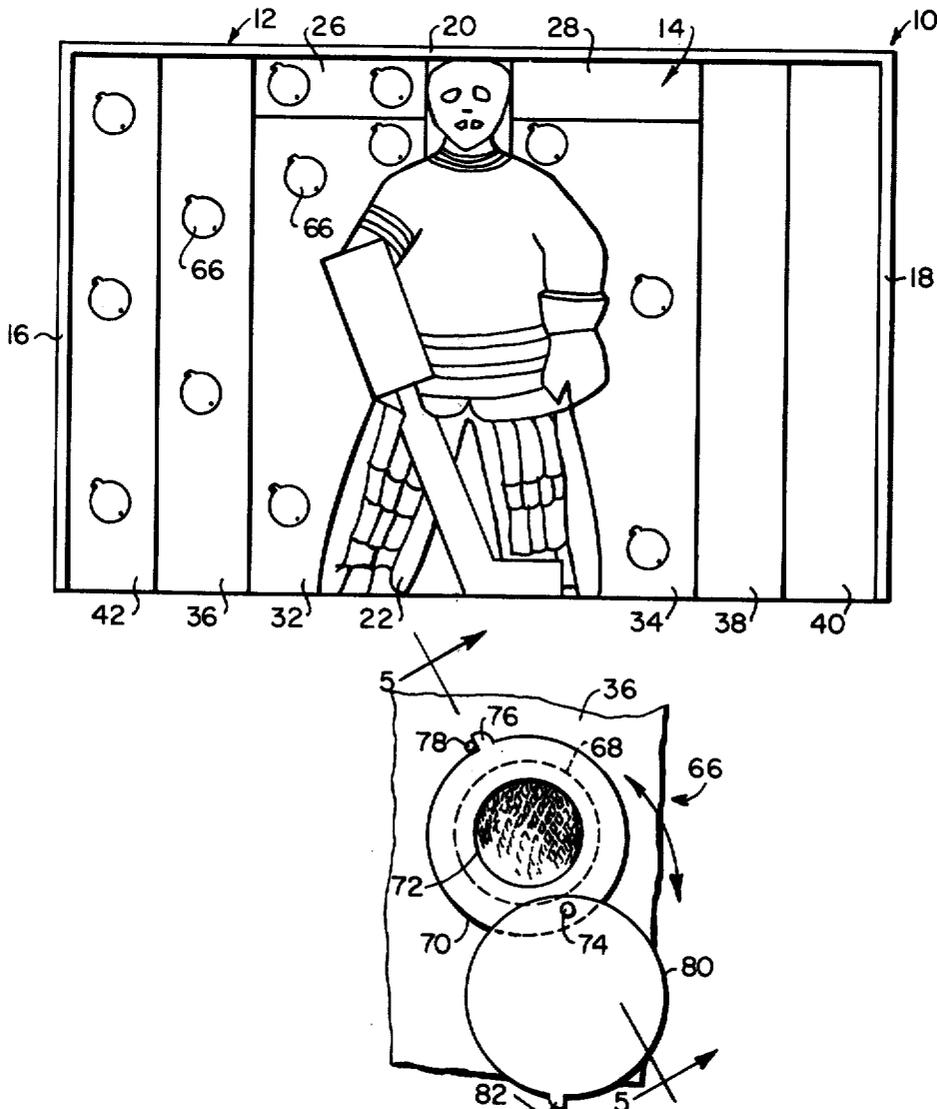
A frame defining a goal opening and a plurality of readily attachable and detachable panels cooperate to form a goal shield. A plurality of fasteners are provided on the frame and adjacent sides of the panels for interlocking the panels and the frame. Selected panels are removed by disengaging certain fasteners to form random target areas in different locations in the goal opening. Plates are rotatably mounted to the panels about through holes formed in the panels, additional target areas being provided when the plates are rotated to expose the through holes.

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4 Claims, 8 Drawing Figures



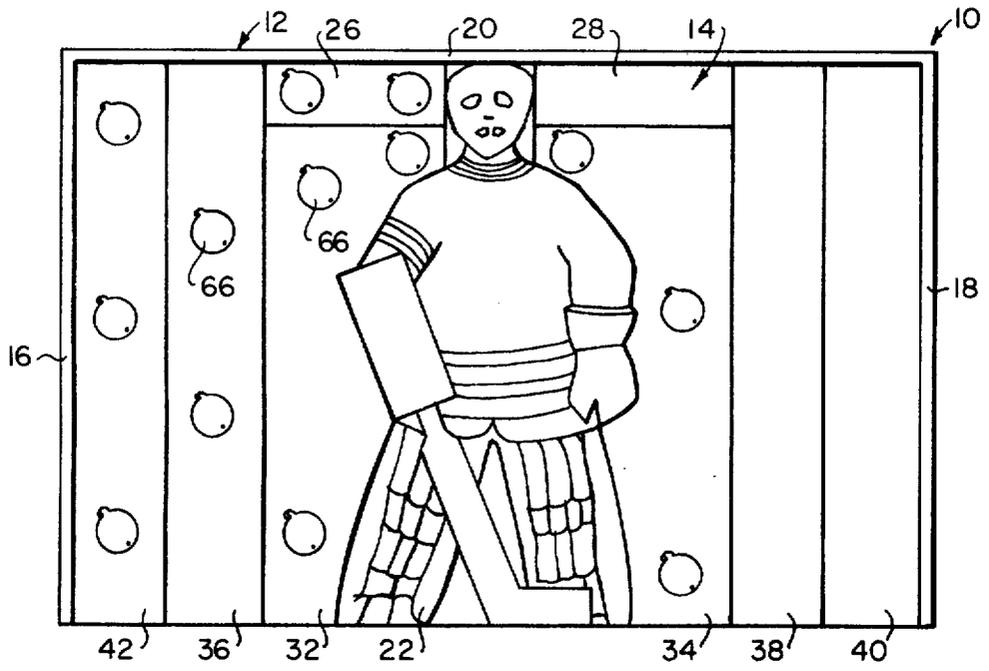


FIG. 1

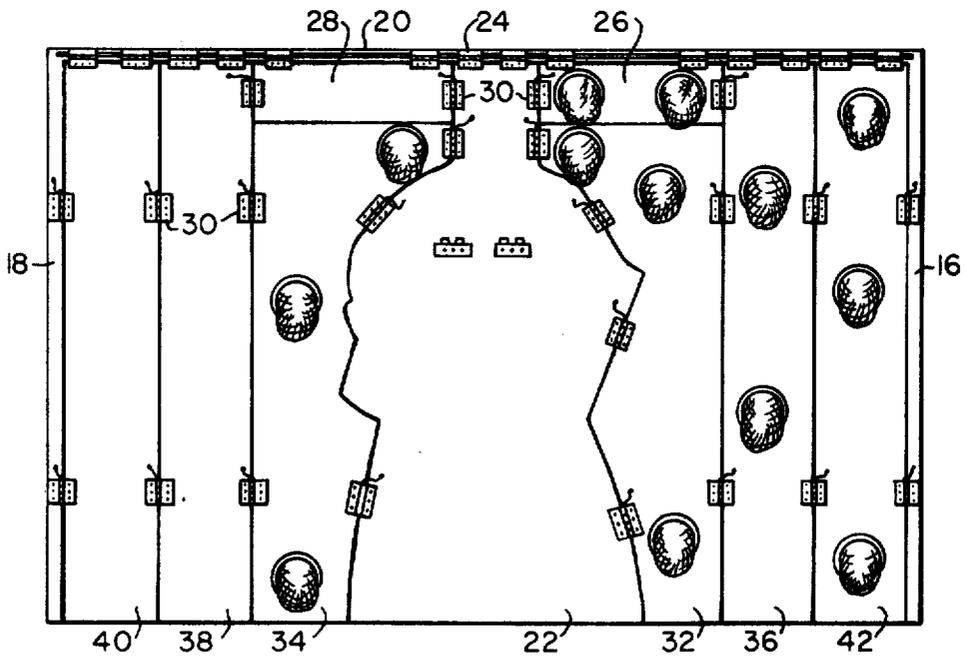


FIG. 2

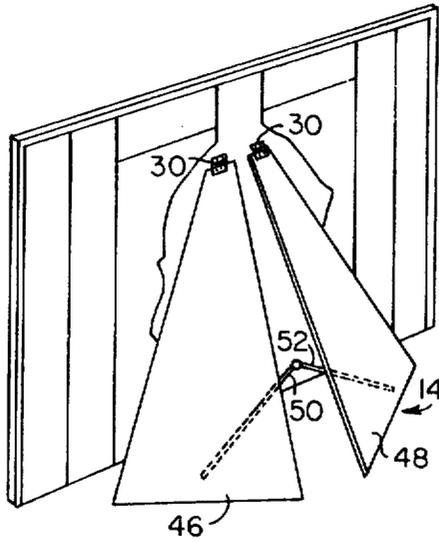


FIG. 3

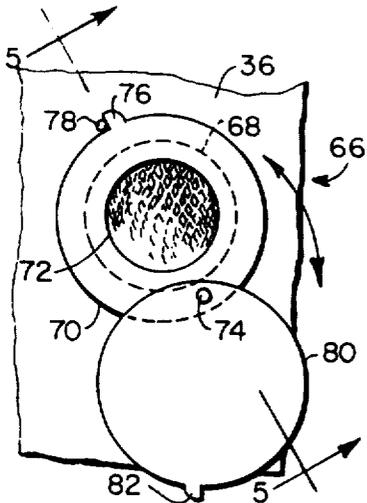


FIG. 4

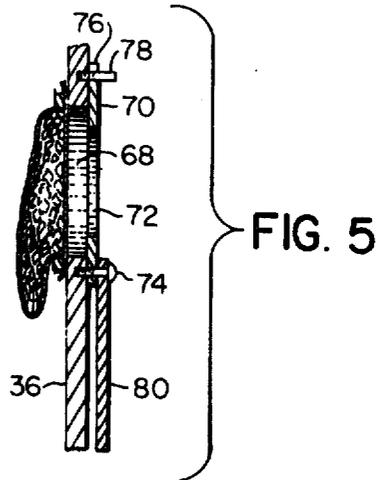


FIG. 5

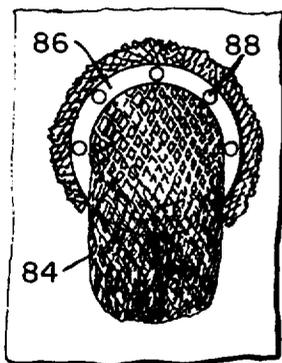


FIG. 6

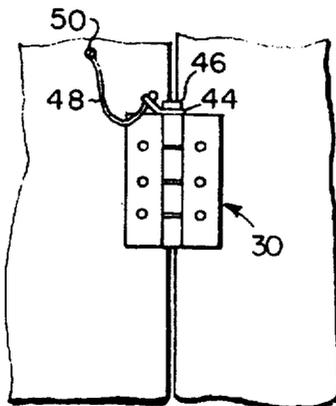


FIG. 7

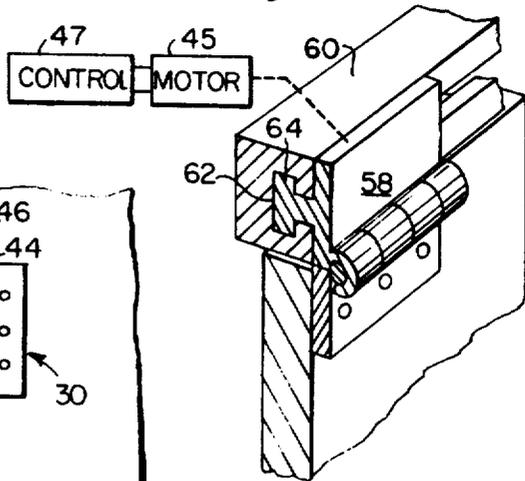


FIG. 8

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GOAL SHIELD

BACKGROUND OF THE INVENTION

1. Field of Invention

The present invention relates to recreational equipment and, more particularly, is directed towards a goal shield.

2. Background of the Invention

In hockey, an essential member to the team is a goal keeper whose skill affects the proficiency of the team. That is, during practice, the adeptness of the goal keeper in preventing players from scoring goals reflects in the shooting proficiency of the players. Thus, an extremely good goal keeper will sharpen the shooting skills of players and, conversely, a mediocre goalkeeper will not enhance shooting proficiency.

SUMMARY OF THE INVENTION

It is an object of the present invention to provide a goal shield, particularly for the game of hockey, having a variable target area through which a goal is scored. The present invention is characterized by a frame having cooperating panels which form a goal shield. The panels are juxtaposed in edge to edge relationship and joined to one another and mounted to the frame. The scoring area is varied by removing selected panels. Rotatably mounted plates cover apertures formed in the panels, exposed apertures defining additional scoring areas. The combination of frame, removable panels and exposable apertures is such as to provide a goal shield for enhancing the shooting proficiency of game players.

The invention accordingly comprises the device possessing the construction, combination of elements, and arrangement of parts that are exemplified in the following detailed disclosure, the scope of which will be indicated in the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

For a fuller understanding of the nature and objects of the present invention, reference should be had to the following detailed description taken in connection with the accompanying drawings wherein:

FIG. 1 is a front view of a goal shield embodying the invention;

FIG. 2 is a rear view of the goal shield of FIG. 1;

FIG. 3 is a perspective of the goal shield of FIG. 2;

FIG. 4 is a front view, somewhat exaggerated, showing details of the cover plate of FIG. 1;

FIG. 5 is a section taken along the lines 5—5 of FIG. 4;

FIG. 6 is a rear view of FIG. 5;

FIG. 7 is a rear view, somewhat exaggerated, showing details of a hinge for fastening adjacent panels; and

FIG. 8 is a schematic diagram illustrating an alternative hinge and drive mechanism.

DETAILED DESCRIPTION OF THE INVENTION

Referring now to the drawings, particularly FIGS. 1 and 2, there is shown a goal shield 10 comprising a frame 12 and a sectional body 14. Frame 12 and sectional body 14 are composed of a rigid material for example, wood, aluminum, metal or fiberglass.

Frame 12 includes a pair of vertical supports 16 and 18, the upper ends of which are connected by means of a cross-member 20. Supports 16 and 18 are in spaced parallel relationship to one another and in perpendicu-

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lar relationship to cross-member 20. Frame 12 defines an inverted U-shaped structure having a profile corresponding to a hockey goal cage mouth, for example. If desired, frame 12 may be attached to the goal cage by means of suitable clamping devices.

In the illustrated embodiment, by way of example, sectional body 14 is organized about a panel 22 having a profile defining a goal keeper. The upper portion of panel 22 is mounted to cross-member 20 by means of fasteners 24. A pair of like profile panels 26, 28 are joined to opposite edges of the upper portion of panel 22 by means of fasteners 30 and to cross-member 20 by means of fasteners 24. A panel 32 is mounted in mating relationship with panels 22 and 26 by fasteners 30, the outer side edges of panels 26 and 32 being in vertical registration. As viewed in FIG. 1, the right hand edges of panels 26 and 32 and the left hand edge of panel 22 have complementary profiles; panels 22, 26, and 32 juxtaposed in edge to edge relationship. A panel 34 is mounted in mating relationship with panels 22 and 28 by fasteners 30, the outer side edges of panels 28 and 34 being in vertical registration. As viewed in FIG. 1, the left hand edges of panels 28 and 34 and the right hand edge of panel 22 have complementary profiles; panels 22, 28 and 34 juxtaposed in edge to edge relationship. A panel 36 is joined to panels 26 and 32 by fasteners 30 and to cross-member 20 by fasteners 24. A panel 38 is mounted to panels 28 and 34 by fasteners 30 and to cross-member 20 by fasteners 24. A panel 40 is joined to support 16 and panel 36 by fasteners 30 and to cross-member 20 by fasteners 24. A panel 42 is mounted to support 18 and panel 38 by fasteners 30 and to cross-member 20 by fasteners 24. It is to be understood that fasteners 24 and 30 are selectively located so that frame 12 and panels 22, 26, 28, 32, 34, 36, 38, 40 and 42 cooperate to provide a unitized goal shield 10.

As best shown in FIG. 3, goal shield 10 is provided with a stand 44 comprising truncated triangular legs 46 and 48 which are connected to the rear face of panel 22 at the upper portion thereof by fasteners 30. Restraining devices 50 and 52, for example straps, are fastened between legs 46 and 48 and panel 22 for limiting the rearward extending position of legs 46, 48.

The target area through which a goal can be scored is varied by removing one or more of the interconnected panels. In order to facilitate removal of any panel, in the preferred embodiment, FIG. 7, each fastener 30 is a double leaf hinge having a retaining ring 54 affixed to a hinge pin 46. Ring 54 is connected to one of the adjacent panels by means of a strap 56 and a screw 57. In the illustrated embodiment, fasteners 24 and 30 are like hinges. In an alternative embodiment, each fastener 24 is a modified hinge structure 58 of the type shown in FIG. 8.

Referring now to FIG. 8, it will be seen that in the alternative embodiment, cross-member 20 is a channel 60 which is formed with a T-shaped keyway 62 extending along the longitudinal axis thereof. Hinged structure 58 is provided with a T-shaped key 64 which is frictionally engaged within keyway 62. It will be readily appreciated that each hinged structure 58 is slidable within keyway 62, thus facilitating movement of the panels comprising sectional body 14 and providing various scoring area arrangements. For example, if panels 36, 38, 40 and 42 are removed, the area through which a goal is scored is defined by the area bounded by sup-

port 16, cross-member 20, panel 26 and panel 32 and the area bounded by support 18, cross-member 20, panel 28 and panel 34. In order to change the scoring area, panels 22, 26, 28, 32 and 34 are moved towards support 16 or support 18. In another embodiment, panels 26, 28, 32, 34, 36, 38, 40 and 42 and stand 44 are removed. As shown in FIG. 8, a motor 45 is operatively connected to modified hinge structure 58 for moving panel 22 back and forth across the length of channel 60. Although not shown, it is to be understood that goal shield 10 is supported by means of a suitable stand affixed to frame 12 or is clamped to a goal cage. A control 47 is electrically connected to motor 45 for control thereof. In one embodiment, control 47 is manually operated for selective movement of panel 22 and in an alternate embodiment control 47 includes logic circuitry for moving panel 22 back and forth across channel 60 at predetermined rates. Reference character 66, shown in detail in FIGS. 4, 5, and 6, denote additional scoring areas.

Referring now to FIG. 4 there is shown a fragmentary view of panel 36 which is formed with a through hole 68. A plate 70 formed with an aperture 72 is rotatably mounted to panel 36 by a pin 74. By way of example, in the illustrated embodiment, the diameter of hole 68 is approximately three and one half inches and the diameter of aperture 70 is approximately four and one half inches. Plate 70 is provided with a stop 76 which is engaged by a stud 78 mounted to panel 36. A cover plate 80, rotatably mounted to pin 74, is provided with a stop 82 is engaged by stud 78. Pin 74 and 78 are offset from the center of hole 68 so that when plates 70 and 80 are placed in the engaged or in the disengaged position, they will remain there, plate 70 shown in the engaged position and plate 80 shown in the disengaged position. As best shown in FIGS. 5 and 6, a net pocket 84 is attached to the rearward face of panel 36 by means of a ring 86 and screws 88. It is to be understood that the additional scoring areas denoted by reference character 66 and described in conjunction with panel 36 are provided in selected ones or all of the panels at predetermined locations. In the illustrated embodiment, net pocket 84 is a closely woven material composed of, for example, a synthetic material such as a polyamide resin. Preferably, the net pocket material is colored to provide a readily perceivable target.

Since certain changes may be made in the foregoing disclosure without departing from the scope of the invention herein involved, it is intended that all matter contained in the above description and shown in the accompanying drawings be construed in an illustrative and not in a limiting sense.

What is claimed is:

1. A goal shield comprising:

- a. a frame having a substantially U-shaped profile in cross section, said frame including a pair of side members and a top cross member;
- b. a body coplanar with said frame, said body including first, second, third, fourth, and fifth panels;
- c. a plurality of fastening means mounted to said frame and said body, said fastening means including first, second and third members, said third member adapted to readily engage and disengage said first and second members, said first member detachably mounted to said second member when said first and second members are engaged by said third member;

- d. said first panel connected to one of said side members, said top cross member, and said second panel;
 - e. said second panel connected to said top cross member, said first panel, said third panel, and said fourth panel;
 - f. said third panel connected to said top cross member, said second panel, said fifth panel;
 - g. said fourth panel connected to said second panel and said fifth panel;
 - h. said fifth panel in the form of a hockey goal keeper, said fifth panel detachably connected to said top cross member, said third panel, and said fourth panel;
 - i. at least two of said first members mounted on each said first, second and third panels, at least one of said first members mounted on adjacent sides of each said first, second and third panels;
 - j. at least two of said second members mounted on said frame, at least one second member mounted on one of said side members and on said top cross member;
 - k. a first plate rotatably mounted to said body at a forward face thereof, said first plate rotatably between a first position and a second position, said body formed with a through hole, said through hole covered by said first plate when said first plate is in said first position, said through hole exposed when said first plate is in said second position; and
 - l. a second plate rotatably mounted to said body at the forward face thereof, said second plate rotatable between a first position and a second position, said first and second plates having substantially circular profiles, said through hole and said first and second plate being coaxial, said second plate formed with a through hole having a diameter less than the diameter of said through hole formed in said body, said first plate having a diameter larger than said through hole formed in said second plate, said through hole formed in said second plate covered when said first plate is in said first position and exposed when said first plate is in said second position, a portion of said through hole formed in said body covered when said first plate is in said second position and said second plate is in said first position, all of said through hole formed in said body exposed when said first plate is in said second position and said second plate is in said second position.
2. The goal shield as claimed in claim 1 including a net pocket mounted to a rearward face of said body about said through hole formed in said body.
3. A goal shield comprising:
- a. a frame having a substantially U-shaped profile in cross section, said frame including a pair of side members and a top cross member;
 - b. a body coplanar with said frame, said body including first, second, third, fourth, and fifth panels;
 - c. a plurality of fastening means mounted to said frame and said body, said fastening means including first, second and third members, said third member adapted to readily engage and disengage said first and second members, said first member detachably mounted to said second member when said first and second members are engaged by said third member;
 - d. said first panel connected to one of said side members, said top cross member, and said second panel;

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- e. said second panel connected to said top cross member, said first panel, said third panel, and said fourth panel;
- f. said third panel connected to said top cross member, said second panel, said fifth panel: 5
- g. said fourth panel connected to said second panel and said fifth panel:
- h. said fifth panel detachably connected to said top cross member, said third panel, and said fourth panel; 10
- i. at least two of said first members mounted on each said first, second and third panels, at least one of said first members mounted on adjacent sides of each said first, second and third panels;
- j. at least two of said second members mounted on said frame, at least one second member mounted on one of said side members and on said top cross member; 15
- k. a first plate mounted to said body at a forward face thereof, said first plate movable between a first position and a second position, said body formed with a through hole, said through hole covered by said first plate when said first plate is in said first position, said through hole exposed when said first plate is in said second position; and 20 25
- l. a second plate mounted to said body at the forward face thereof, said second plate movable between a first position and a second position, said second plate formed with a through hole having a diameter less than the diameter of said through hole formed in said body, said through hole formed in said second plate being coaxial with said through hole formed in said body when said second plate is in said first position, said first plate having a profile larger than the diameter of said through hole formed in said second plate, said through hole formed in said second plate covered when said first plate is in said first position and exposed when said first plate is in said second position, a portion of 30 35 40

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- said through hole formed in said body covered when said first plate is in said second position and said second plate is in said first position, all of said through hole formed in said body exposed when said first plate is in said second position and said second plate is in said second position.
- 4. A goal shield comprising:
 - a. a frame;
 - b. a body formed with a through hole;
 - c. fastening means for mounting said body to said frame;
 - d. a first plate mounted to said body at a forward face thereof, said first plate movable between a first position and a second position, said through hole covered by said first plate when said first plate is in said first position, said through hole exposed when said first plate is in said second position; and
 - e. a second plate mounted to said body at the forward face thereof, said second plate movable between a first position and a second position, said first and second plates having substantially circular profiles, said through hole and said first and second plate being coaxial, said second plate formed with a through hole having a diameter less than the diameter of said through hole formed in said body, said first plate having a diameter larger than said through hole formed in said second plate, said through hole formed in said second plate covered when said first plate is in said first position and exposed when said first plate is in said second position, a portion of said through hole formed in said body covered when said first plate is in said second position and said second plate is in said first position, all of said through hole formed in said body exposed when said first plate is in said second position and said second plate is in said second position.

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