

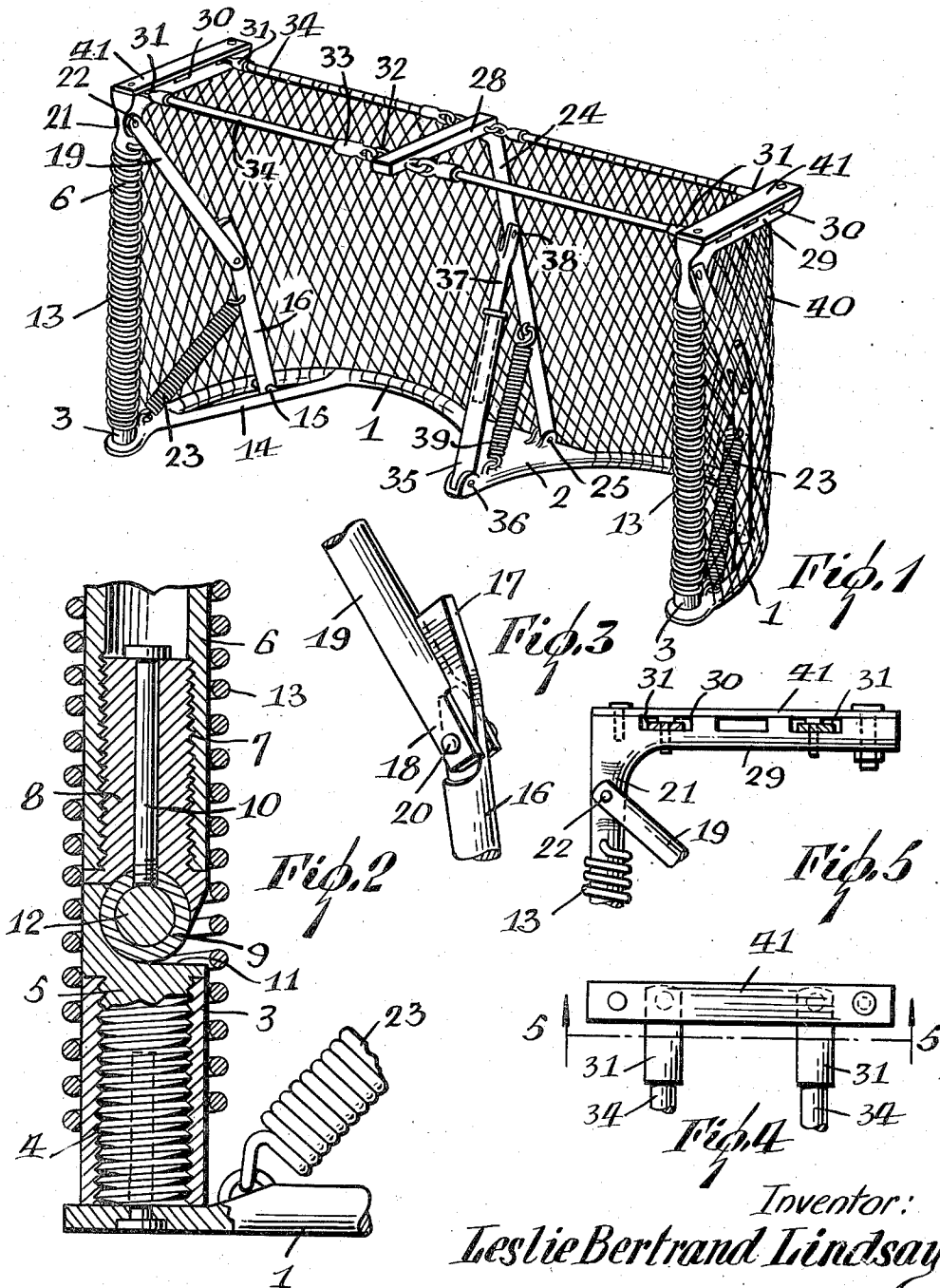
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HOCKEY GOAL

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HOCKEY GOAL

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The present invention pertains to a novel goal for ice hockey and similar games.

It is well known that in ice hockey, a player is frequently injured by collision with a rigid goal post. The object of this invention is to provide a goal that precludes or lessens such injury and is accomplished generally by the provision of yielding posts in the goal structure.

More specifically, each front post consists of two normally aligned sections hingedly connected to each other, the lower sections being fixed to a base. Each such post is surrounded by a strong coil spring and is further supported by an articulated prop also maintained in position by a coil spring. The upper post sections will obviously yield under impact and will return to position by the action of the springs.

There is also provided a yielding center post with a suitable support and return spring. The net or screen is fastened to the base and posts and also to top rails which are also hingedly mounted in order to yield under impact.

The invention is fully disclosed by way of example in the following description and in the accompanying drawings in which:

Figure 1 is a perspective view of the device;

Figure 2 is a detail vertical section of one of the posts;

Figure 3 is a detail view of one of the joints;

Figure 4 is a detail plan view; and

Figure 5 is a section on the line 5—5 of Figure 4.

Reference to these views will now be made by use of like characters which are employed to designate corresponding parts throughout.

In Figure 1 the base of the goal is shown as comprising two arcuate sections 1 made integral by a connecting web 2. At the ends of the base 1 are secured the lower sections 3 of the front goal posts. Each section 3 is a short length of pipe which is tapped at 4 to receive a screw plug 5 in its upper end. The upper section 6 of each front post is also a length of pipe tapped at 7 from its lower end to receive a plug 8. To the bottom of each plug 8 is secured a cylindrical journal 9 by means of a long pin 10, the journal being received in a suitable seat 11 formed in the upper end of the plug 5. A cross pin or stud 12 passed through the journal and the plug 5 holds the journal from slipping endwise. The aligned sections 3 and 6 are surrounded by a coil spring 13. When the upper section 6 is swung by impact, as will presently be pointed out, it is promptly returned by the spring 13.

Each base section 1 has an internal brace 14

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at its outer end, with a cross pin 15 between each brace and the base itself. Each pin 15 is used for hingedly mounting the lower section 16 of a goal post support. The upper end of each section 16 is flattened at 17 to pass through the forked end 18 of an upper section 19 of the support; the parts 17 and 18 being articulated to each other by a pin 20. A plug 21 in the upper end of each post section 6 is hingedly attached to the upper end of the corresponding support section 19 by a pin 22. Each section 16 is joined by a coil spring 23 to the base 1 at a point near the adjacent member 3.

To the web 2 is pivotally attached the lower end of a center 24 post by means of a hinge 25. The upper end of the center post 24 is secured to a top bar 28 extending forwardly.

Top bars 29 extend rearwardly from the upper ends of the plugs 21 and are substantially parallel and equal in length to the bar 28. The bars 29 are slotted at 30 in the top for the pivotal attachment of hinge members 31. Opposite these members the middle bar carries links 32 on its sides engaging linked socket members 33 thereby constituting universal joints. Top rails 34 are suspended between the hinges 31 and the respectively opposite members 33.

At the apex of the web 2 opposite the hinge 25, a cylinder 35 is pivotally mounted at 36. A rod 37 is slidably mounted in the cylinder 35 and has its upper end hinged at 38 to the upper center post section 26. A coil spring 39 joins the web 2 to the section 24.

A screen or net 40 has its lower edge laced to the arcs 1, its upper edge to the rear rails 34 and its ends to the front posts 3, 6. Finally, plates 41 are mounted on the bars 29 to cover the slots 30.

In the use of the device, the upper post sections 6 will hinge on their journals 9 when struck by the body of a player or by another object. Consequently the injury, especially to a player, is much less severe than if a rigid post were struck. The pivotal movement is guided and to some extent limited by the articulated support 16—19. When the force of the impact has been removed, the section 6 promptly returns to its normal position under the action of the springs 13 and 23.

When a player collides with the center of the goal, the pivoted post 24 yields and is guided by the telescopic articulated prop 35—38. The top rails 34 yield with the post 24 because of their hingedly mounted ends. The position of the center parts is restored by the spring 39. In like

manner, the upper portion of the goal will yield under impact on the rails 34.

A standard goal measures six feet between the front posts, four feet high and 29 inches deep. The upper sections 6 are constructed to swing 34½ inches at their upper ends. The several posts, their supports or props and the major portion of the base may conveniently be constructed of pipe sections of suitable dimensions. Obviously, different dimensions for the goal and different material for the parts may be employed where necessary or desired.

Although a specific embodiment of the invention has been illustrated and described, it will be understood that various alterations in the details of construction may be made without departing from the scope of the invention as indicated by the appended claims.

What I claim as my invention is:

1. A goal comprising a base having two ends, a pair of posts at the ends thereof, each post including a lower section fixed to the base and an upper section articulated to the lower section, spring means maintaining the upper sections in alinement with the lower sections, and a net attached to said base and posts.

2. A goal comprising a base having two ends, a pair of posts at the ends thereof, each post including a lower section fixed to the base and an upper section articulated to the lower section, a coil spring surrounding the upper and lower sections of each post, and a net attached to said base and posts.

3. A goal comprising a base having two ends, a pair of posts at the ends thereof, each post including a lower section fixed to the base and an upper section articulated to the lower section, a coil spring surrounding the upper and lower sections of each post, an articulated support for each post having its ends hinged respectively to said base and to the upper section of the post, spring means maintaining the upper sections in alinement with the lower sections, and a net attached to said base and posts.

4. A goal comprising a base having two ends, a pair of posts at the ends thereof, each post including a lower section fixed to the base and an upper section articulated to the lower section, spring means maintaining the upper sections in alinement with the lower sections, a center post pivoted to said base, top bars extending from said upper sections and from said center post, top

rails joining the center top bar to the end top bars and having their ends articulated to said bars, and a net attached to said base, posts and certain of said rails.

5. A goal comprising a base having two ends, a pair of posts at the ends thereof, each post including a lower section fixed to the base and an upper section articulated to the lower section, spring means maintaining the upper sections in alinement with the lower sections, a center post pivoted to said base, a telescopic prop for said center post, a coil spring joining said base to said center post for maintaining the latter in a predetermined position, top bars extending from said upper sections and from said center post, top rails joining the center top bar to the end top bars and having their ends articulated to said bars, and a net attached to said base, posts and certain of said rails.

6. A goal comprising a base having two ends, a pair of posts at the ends thereof, each post including a lower section fixed to the base and an upper section articulated to the lower section, a coil spring surrounding the upper and lower sections of each post, an articulated support for each post having its ends hinged respectively to said base and to the upper section of the post, spring means maintaining the upper sections in alinement with the lower sections, a center post pivoted to said base, a telescopic prop for said center post, a coil spring joining said base to said center post for maintaining the latter in a predetermined position, top bars extending from said upper sections and from said center post, top rails joining the center top bar to the end top bars and having their ends articulated to said bars, and a net attached to said base, posts and certain of said rails.

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