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Abbott

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[54] **HOCKEY RINK CONSTRUCTION**

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[52] **U.S. Cl.** **256/24,** 52/629, 256/25, 272/2

[51] **Int. Cl.** **E04h 17/16**

[58] **Field of Search** ..... 256/24, 25, 26, 1; 52/629, 52/630, 309; 272/2, 3; 273/1 B

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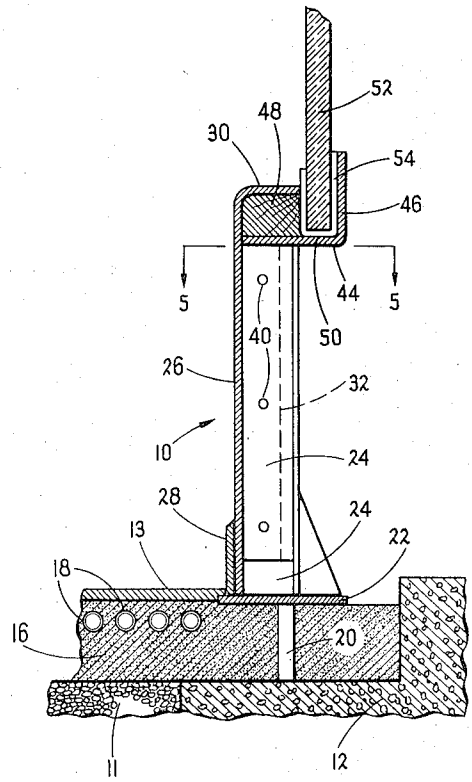
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[57] **ABSTRACT**

An ice skating rink includes an improved construction for the walls surrounding the skating surface, usually referred to as the "boards". The boards are made from molded fiberglass and binding resin construction. Improved means are provided for supporting the boards about the skating rink.

4 Claims, 5 Drawing Figures



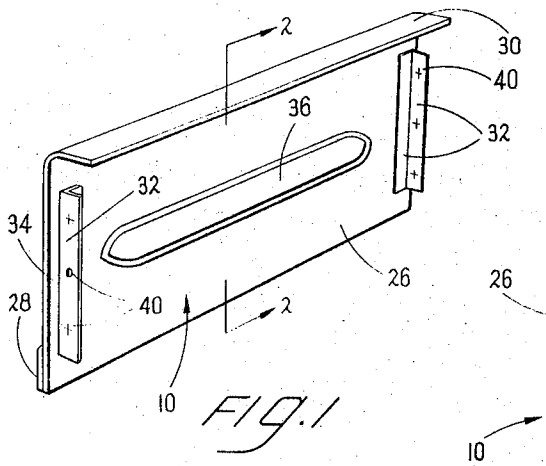


FIG. 1

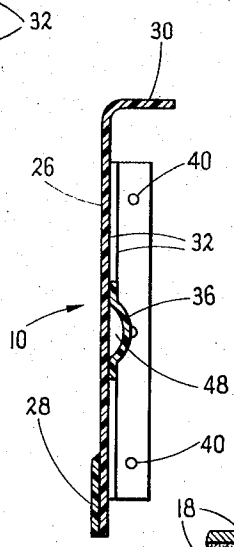


FIG. 2

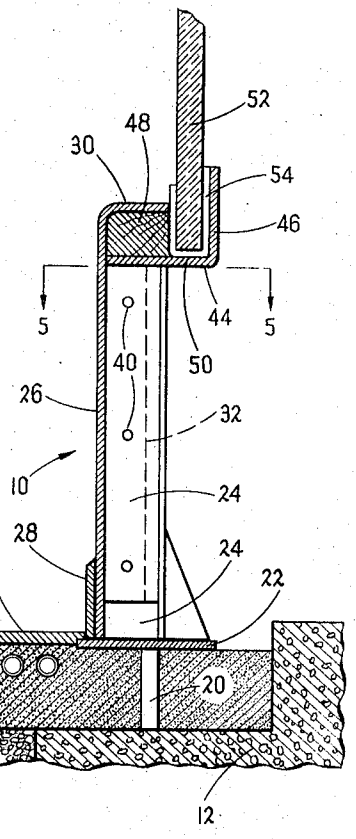


FIG. 4

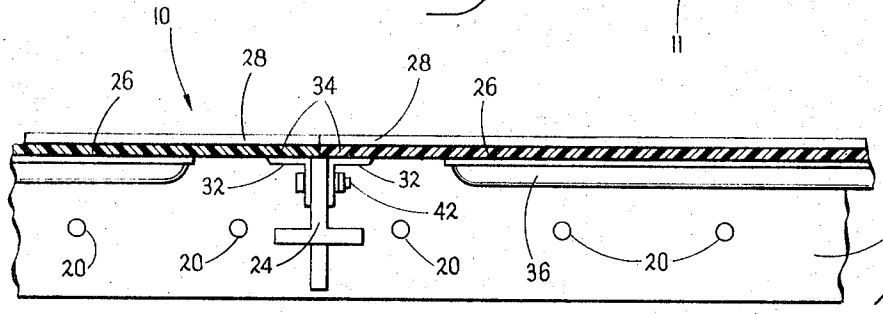


FIG. 5

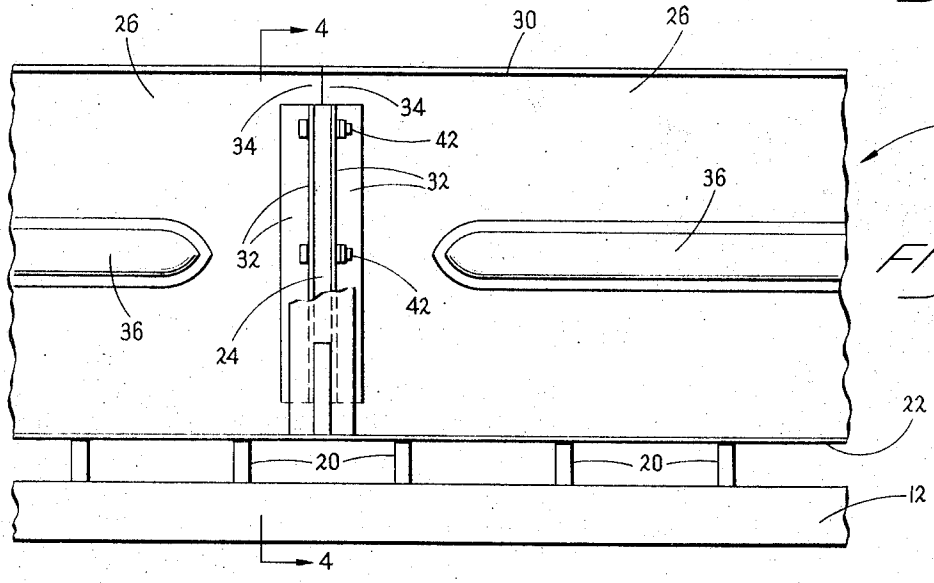


FIG. 3

HOCKEY RINK CONSTRUCTION

BACKGROUND OF THE INVENTION

Typically, prior boards have been constructed from wood and a number of sections are supported end-to-end about the ice skating surface to define a substantially continuous wall. Among the inherent inconveniences of such prior arrangements has been that the boards tend to chip and splinter because of the rough conditions to which they are exposed. During hockey play, they are struck repetitively by the hockey puck, skate blades, etc. Additionally, commonly employed ice surface refinishing machines which move over the ice surface sometimes strike the boards and can damage it further. A splintered board can be particularly dangerous to a skater who might brush against the boards. Additionally, the upper ends of the boards usually are arranged to define a rail at approximately arms-height above the skating surface. Rough hockey play frequently is against the boards and the wooden rail may splinter which can present considerable danger to the skater. As a result, typical prior board arrangements required that board sections defining the wall be replaced periodically. Prior supporting arrangements for the boards made replacement somewhat awkward and difficult. It is among the primary objects of the invention to provide a generally improved board construction which avoids the foregoing difficulties.

SUMMARY OF THE INVENTION

The boards are arranged to surround the ice skating surface of the rink endlessly in end-to-end relation. Each borad is fabricated, substantially entirely from a fiberglass and binding resin construction and includes a main wall having a baseboard at ice level of double thickness. The upper end of each board section includes an integral and outwardly extending horizontal rail. The boards are mounted by means of molded fiberglass angled sections secured integrally to the backside of each board segment adjacent each end but spaced from the end of the board segment to define a margin. Adjacent ends of adjacent boards are secured, through the integral angles to an upstanding post secured in place in the rink foundation. The surface facing inwardly toward the rink defines a continuous smooth surface having almost imperceptible joints. The outer facing surface of the board also inlcudes an integral horizontally extending reinforcing rib at approximately knee height above the skating surface.

It is among the primary objects of the invention to provide an improved board construction for a skating rink.

A further object of the invention is to provide skating rink boards including an improved mounting arrangement which facilitates replacement and provides a smooth continuous surface facing inwardly toward the skating rink.

A further object of the invention is to provide an improved ice skating board construction which is free of hazardous splinters and which minimizes replacement frequency.

Still another object of the invention is to provide a board arrangement for an ice skating rink in which the boards include a one piece main wall and top rail.

DESCRIPTION OF THE DRAWINGS

The foregoing and other advantages of the invention will be appreciated more fully from the detailed description thereof, with reference to the accompanying drawings wherein:

FIG. **1** is an illustration of a typical board section as seen from its backside;

FIG. **2** is a sectional elevation of the board shown in FIG. **1** as seen along the line **2—2** of FIG. **1**;

FIG. **3** is a rear elevation of a pair of boards supported in end-to-end relation and defining the wall about the skating rink;

FIG. **4** is a side elevation, in section, of a supported board section and further shows the arrangement by which the board sections support a glass screen as seen along the line **4—4** of FIG. **3**; and

FIG. **5** is a plan view of a supported board section, shown in section, as seen along the line **5—5** of FIG. **4.**

DESCRIPTION OF THE PREFERRED EMBODIMENT

The board segments indicated generally by the reference character **10** are arranged in end-to-end abutting relation about the ice skating rink and include straight and curved sections. The rink may include a concrete foundation **12** and appropriate underlayment materials beneath the intended ice skating surface **13** such as gravel **14,** sand **16** or the like. Brine tubes **18** for freezing the water on top of the underlayment may extend through the underlayment.

The foundation **12** supports a plurality of pillars **20** which are anchored therein and which are spaced substantially circumferentially about the ice skating surface **13.** The pillars **20,** in turn, support at their upper ends a support plate **22** which extends substantially about the intended region of the skating surface. Secured to and extending upwardly from the plate **22** are a plurality of supporting posts **24.** The posts may be of T-shaped cross section as shown or other appropriate configuration. The supporting posts **24** are spaced in increments substantially equal to the width of the board sections **10** and are arranged so that they may support the board sections as described herein.

The board sections **10** are of one piece construction and are made from molded fiberglass and an appropriate binding resin. Each board section **10** includes a main wall **26** having a base board strip **28** secured thereto at its lower region. The upper end of the main wall is formed to define a smoothly merging and outwardly extending top rail **30.** By way of illustration, a typical board section may be approximately 10 feet in length and with the top rail **30** extending 42 inches above the ice skating surface **13.** The rail preferable extends outwardly approximately 6 inches from the main wall **26** of the board section.

Located adjacent each end of each board section **10** and along the backside is a vertically extending angle-shaped, mounting bracket **32** which is also fabricated from reinforced fiberglass and which has an upwardly extending vertical flange. The brackets **32** are mounted as to be spaced somewhat from the ends of the section to define a margin **34.** The board sections also are reinforced by means of a horizontal rib **36** which extends between the mounting brackets along the backside of the boards **10.** The reinforcing rib **36** is located at a

height along the board section which substantially corresponds to the skaters knee height, for example, between one-third and one-half the distance from the bottom of the board section **10.** An eighteen inch height is desirable. The reinforcement is fabricated by providing an elongate form **38** (see FIG. **2**) such as of a foam plastic material on the backside of the section **10** and then covering the form **38** or core with resin reinforced fiberglass which is bonded to the outwardly facing surface of the board section **10.**

The board sections **10** are mounted about the skating rink by the mounting brackets **32** and supporting posts **24.** Each of the board sections is positioned between a pair of supporting posts **24** with the rearwardly extending flange of the mounting bracket **32** against the side of its associated post **24.** The brackets include holes **40** through which bolts **42** may be passed to fasten an end of each board section to its associated post. The margins **34** of the adjacent ends of the boards are dimensioned in relation to the dimensions of the post **24** so that the main wall edges of adjacent board sections can abut and define a smooth inner surface about the inside of the rink.

In the illustrative embodiment, the supporting posts **24** are of T-shaped cross section. However, it would be apparent that other suitable configurations for the posts may be employed provided that the margin dimensions are such that the boards can be abutted end-to-end.

In ice hockey rinks it is the common practice to provide shatter-proof glass extending upwardly above the level of the boards so that the hockey game can be observed while protecting the observers from danger from the flying puck, swung hockey sticks or the like. The board construction lends itself to support of shields. As shown in FIG. **4,** the supporting post **24** is of lesser height than the board segment **10.** The supporting post **24** can include an L-shaped member **44** secured to its upper end and extending outwardly and upwardly of the post. The upwardly extending portion of the member defines a lip **46** which is spaced outwardly from the outer most edge of the top rail **30.** The space between the horizontal portion of the L-shaped member **44** and the underside of the top rail **30** preferably is filled with a wooden inner rail **48** which serves both to support somewhat the top rail and also to define a channel **50** between the wooden filler and the upwardly extending portion of the L-shaped member. The channel may receive the lower edge of the shatter-proof glass plate **52** which usually is retained within a metal channel **54.**

It should be understood that the foregoing description of the invention is intended merely to be illustrative thereof and that other embodiments and modifications may be apparent to those skilled in the art without departing from the spirit.

Having thus described the invention, what I desire to claim and secure by Letters Patent is:

1. A hockey rink board section comprising:

a main wall;

a substantially horizontal and outwardly extending top rail formed integrally and smoothly with said main wall at the upper end of said main wall;

a vertically disposed flange secured to the backsdie of said main wall at each end thereof, each of said flanges being disposed slightly inwardly from the associated end of said main wall thereby to define a vertically extending margin; and

reinforcement means secured integrally to the backside of said board section, and including a horizontally extending rib disposed between said vertical flanges, said rib being disposed above the bottom end of said board section between approximately one-third to one-half of the height of said board section; and

a baseboard secured integrally to the opposite side of said board section and extending along the lower end thereof.

2. In an ice skating rink, an improved board arrangement comprising:

a plurality of boards, each of said boards being formed from reinforced fiberglass and including an upwardly extending wall, the upper end of which having an outwardly substantially horizontally extending top rail;

a vertically disposed flange secured to the outwardly facing surface of each of said board sections, each of said flanges being disposed inwardly from its associated end of said board to define a vertically extending margin;

a plurality of vertically extending supporting posts disposed circumferentially about said intended skating surface rerion, said posts being of a width in relation to the width of said margins such that when adjacent ends of adjacent boards are abutted together, said supporting posts may fit snugly between the facing adjacent flanges of adjacent panels, said posts being disposed entirely outside of said outwardly facing surfaces of said board sections whereby the adjacent vertical edges of adjacent board sections may butt against each other and define a smooth substantially continuous inwardly facing surface; and

means securing said flanges to said posts.

3. An arrangement as defined in claim **2** further comprising:

said skating rink including a foundation extending at least about said rink;

means for supporting a plate by said foundation, said plate being constructed to circumscribe said rink and

said post being secured to said plate, said plate having an inwardly extending portion adapted to support the bottom end of said board section.

4. An arrangement as defined in claim **2** further comprising:

said supporting posts being of less height than said main wall of said section thereby to define a space between the underside of said top rail and the upper end of said supporting posts;

an L-shaped member secured to the upper end of said post and having a portion extending outwardly therefrom and then upwardly therefrom, said upwardly extending portion of said L-shaped member being spaced outwardly from the outward end of said top rail;

a filling member disposed between the underside of top rail and the horizontal portion of said L-shaped member thereby to define a channel between said upwardly extending portion of said L-shaped member and said filling member, said channel being adapted to receive the lower edge of a sheet of protective glass.

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