

J. P. COOPER

SIMULATED ICE HOCKEY GAME

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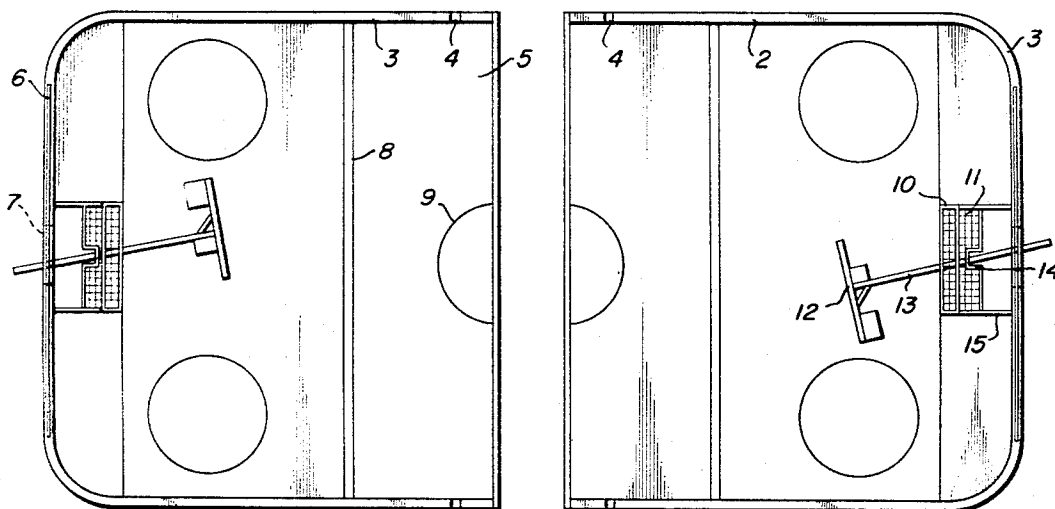


FIG. 1

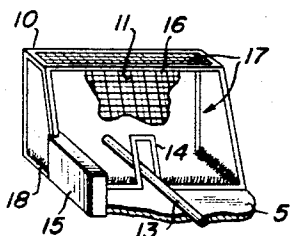


FIG. 2

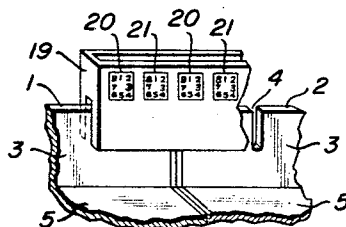


FIG. 3

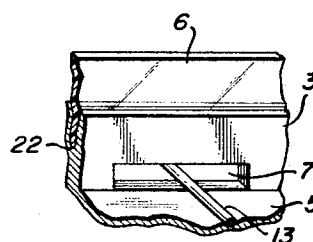


FIG. 4

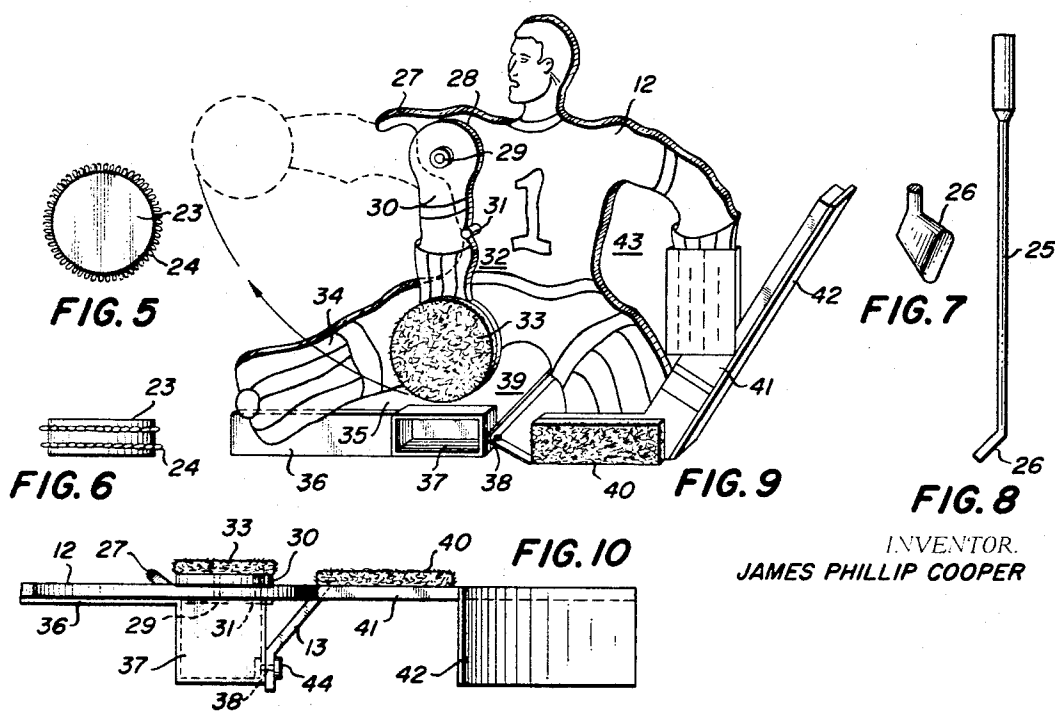


FIG. 8

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SIMULATED ICE HOCKEY GAME
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Summary

This invention relates to a simulated ice hockey game which is designed to be played on a gameboard simulating a regulation ice hockey rink. Simulated cages, goalies (goal keepers), sticks and pucks are also employed in the play of the game. From one to six people can play the game.

The major objective of this invention is to simulate the game of ice hockey by simulating many of the features of real ice hockey in a simulated ice hockey game. Another objective is to provide two gameboards, that when joined by two attaching devices, form one complete simulated ice hockey rink. The advantage of providing a rink in two separate, attachable sections is that by placing one section inside of the other, less storage space is required when the game is not being played.

Explanation of views

The nature of my invention can best be comprehended by reference to the enclosed drawings. The specific embodiment of the invention is shown by way of example only, and not by way of limitation. Modifications are possible without departing from the invention which is defined in the claims.

FIGURE 1 is a plan view of the board or rink used for the game in accordance with the invention showing the playing surface, lines and circles, sideboards, screens, cages, cage deflectors, goalie and goalie control lever.

FIGURE 2 is a perspective view of the cage, with its component parts, a cage deflector and a goalie control lever.

FIGURE 3 is a perspective and section view of the scoreboard and its components as mounted on the sideboards.

FIGURE 4 is a perspective and section view showing the section of the sideboards that contain the goalie control lever slot, the goalie control lever and the screen.

FIGURE 5 is a plan view of the top of the puck.

FIGURE 6 is a plan view of the side of the puck.

FIGURE 7 is a perspective view of the stick blade.

FIGURE 8 is plan view of the stick in its entirety.

FIGURE 9 is a perspective view of the goalie with his component members.

FIGURE 10 is a plan view of the bottom of the goalie member showing his component members.

Description of drawings

In reference to the drawings, the left half of the gameboard 1 and the right half of the gameboard 2, as shown in FIGURE 1, are securely attached to one another to form a complete gameboard which is in the form of a simulated ice hockey rink by pushing the two halves together and placing the scoreboard 19 into the two scoreboard slots 4 on one side of the rink and the other scoreboard 19 into the two scoreboard slots 4 on the other side of the rink, as shown in FIGURE 3. The two halves of the rink could also be attached by hinges or other mechan-

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ical means. The purpose of employing either two separate halves, one of which would be placed inside of the other when the game is not in use, or using hinges or other means of attaching two sections, is to reduce the size of the game when it is not in use.

Two rectangular frames, each of which is curved in the two corners of one end, compose the playing surface 5, which is equivalent to the "ice" in real hockey. The playing surface 5 can be made from metal, plastic, wood or Masonite or any other similar material. The surface is marked with lines 8 and circles 9 in the exact manner that a regulation hockey rink is marked. Sideboards 3 are attached to the playing surface 5 and thus complete the rink. The sideboards 3 can be made from the same materials as the playing surface 5. The sideboards 3 are curved in the four corners of the rink. The rink can be mounted on legs or can be placed on a table or any other flat surface.

A screen 6 fits into screen slots 22 in the sideboards 3 at both ends of the rink as shown in FIGURES 1 and 4. The screens 6 should preferably be made of clear plastic, but metal, wood, Masonite or any other similar material could be used.

Two goalie lever slots 7 are cut into the sideboards 3 at each end of the rink directly in back of the cage 10 as shown in FIGURES 1 and 4. The playing surface 5 composes the bottom of the slots. The purpose of the slots is to allow the goalie lever 13 to pass through the sideboards 3 as shown in FIGURES 1 and 4.

Two simulated ice hockey cages 10 are located at each end of the rink as shown in FIGURE 1. The lower back member of the cage frame 17 is shaped to produce a hoop which is the cage hoop 14 and shown in FIGURES 1 and 2. The goalie lever 13 moves back and forth inside of the hoop and is pivoted as it moves from one side to the other by the hoop. The frame, including its hoop, should preferably be made of metal or plastic, but any other similar material could also be used.

As shown in FIGURES 1 and 2, two rectangular frames, which are grooved at one end to fit into the cage frame 17, fit between the cage 10 and the sideboards 3 and thus prevent the puck 23 from entering the area behind the cage 10. The frames are the cage deflectors 15. They can be made of the same materials as the playing surface 5.

As shown in FIGURE 2, the parts of the cage frame 17 that rest on the playing surface 5 are partially covered with Velcro strands. These are the puck retainers 18. When the puck 23 comes in contact with a retainer, the puck 23 will often attach itself to the retainer which prevents the puck 23 from bouncing out of the cage 10. The retainers can be cemented to the inside edge of the parts of the cage frame 17 that rest on the playing surface 5 or attached mechanically. An outer netting 11, as shown in FIGURES 1 and 2, is attached to the cage frame 17. An inner netting 16, shown in FIGURE 2, is attached to either the outer netting 11 or the cage frame 17. The inner netting 16 is more finely meshed than the outer netting 11. The purpose of the inner netting 16 is to provide a finely meshed surface for the Velcro loop puck rim 24 of the puck 23 to attach to when it is shot into the cage 10. The netting can be made of plastic, fabric or any other similar material.

The goalie lever 13, as shown in FIGURES 1, 2, 4 and 10, connects to the goalie 12 and is held in the player's hand. The purpose of the lever is to transmit

the motions of the player's hand to the goalie 12. The lever is attached to the goalie 12 as shown in FIGURE 10. The curved end of the lever is attached to that portion of the goalie 12 in back of the goalie stick blade 40. The lever can be welded to the goalie 12, screwed into a threaded opening in the goalie 12 or attached by other mechanical means. At the curve in the lever, the goalie lever attachment member 44 passes through the lever and the goalie lever attachment hole 38 and attaches the lever to the box 37, as shown in FIGURE 10. As shown in FIGURES 1, 2, 4 and 10, the lever connects with the goalie 12, extends through the cage hoop 14 and the goalie lever slot 7 and ends in the hand of a player. The lever can be made of metal, plastic or any other similar material. The scoreboard 19, in addition to attaching the two halves of the rink, records goals scored on the goal indicators 20 and games won on the game indicator 21, as shown in FIGURE 3. Each team has a scoreboard 19 on which a goal indicator 20 and a game indicator 21 are located. The scoreboard 19 can be constructed from the same materials as the rink.

The puck 23 is unique and novel because a strip with Velcro loops covers its sides as shown in FIGURES 5 and 6. This strip is the puck rim 24. Strips with Velcro strands cover the lower portion of the movable arm 30 and the lower portion of the goalie stick 41 as shown in FIGURES 9 and 10. These strips are the glove 33 and the goalie stick blade 40, respectively. When the Velcro loops of the puck 23 contact the Velcro strands of the glove, blade and puck retainers 18 or the inner netting 16, the loops intertwine with the strands or the netting and become attached to the strands or the netting. In the course of playing the game, a firm contact is frequently made between loops and strands and the inner netting. Thus the puck 23 acts as if it were magnetized. The purpose of using the loops and strands and the inner netting 16 is to impart qualities to the puck 23. As shown in FIGURES 1, 9 and 10, the goalie 12 is designed to block only a portion of the cage frame 17 opening. Openings through which the puck 23 may travel through the goalie 12 are designed to block only a portion of the cage frame 17 opening. Openings through which the puck 23 may travel through the goalie 12 are provided under the goalie's right leg, torso and left arm. The puck 23 must be small enough to travel through the openings in the goalie 12 and through the space between the goalie 12 and the cage frame 17 opening, which represents the portion of the net that the goalie 12 cannot guard. The core of the puck 23 can be constructed of wood, rubber, plastic or any other similar material. The top and bottom of the puck 23 could be covered with a soft, spongy material, such as foam plastic, in order to cut down its speed as it travels on the playing surface 5.

Four simulated hockey sticks 25 are employed. Two sticks 25 have a longer blade and a longer shaft than the other two. The long sticks 25 are used by offensive players; the shorter ones by defensive players. The offensive players must play in a larger area than the defensive players and therefore need longer sticks 25. The shorter blade of the defensive stick 25 does not enable the defensive player to pass or shoot as effectively as the offensive player, which simulates the situation in real hockey, but it is more than adequate to accomplish his primary function which is to harass the opponent and break up plays. The stick blade 26, as shown in FIGURE 7, is not a straight extension of the shaft; it is at an angle to the shaft. The puck 23 will rise off the surface of the rink when it is hit with the lofted blade and a realistic "lift" or "fly" shot will be produced. The players hold the sticks 25 by the handle in their fingers. The sticks 25 should preferably be made of glass fiber, but plastic-like materials, metal, wood or any other similar materials could be used.

The following is shown in FIGURES 9 and 10. The

right arm of the goalie 12 moves in a 90° arc. This is the movable arm 30. The glove 33 covers the lower portion of the movable arm 30 and can be attached to the arm by cement or mechanical means. The arm pivot member 29 extends through the right shoulder and the movable arm 30. The pivot member is not attached to the shoulder or the arm. The arm and pivot members move in a free manner. The size and shape of the pivot member keeps the arm nearly flush to the shoulder and yet allows free movement of the arm. A flange extending from the right shoulder 28 stops the upward movement of the arm. This is the upper arm stop 27. A rivet, which is attached to the back of the right side 32 of the goalie 12, extends through the goalie 12 and protrudes from the front of the right side 32. This stops the downward movement of the arm. This is the lower arm stop 31. When the goalie 12 is moved swiftly to the left or when he is flipped over on his right side, enough power is supplied to make the arm move from its normal vertical position to any point along the arc. When the power is spent, gravity will pull the arm back to its normal vertical position. The goalie 12 and his movable arm 30 should preferably be made of metal, but plastic, wood or any other similar material could be used.

A single unit, which has two sections, a rectangular member and a box-like member comprises the leg deflector 36 and the box 37. These components could be separate pieces that could be joined mechanically. The purpose of the deflector is to block shots. The puck 23 will frequently enter the box 37 and be retained by the box 37. Therefore, the purpose of the box 37 is to snare the puck 23. The unit can be cemented to the right leg 34 or attached mechanically. As shown in the discussion of the goalie lever 13, the box 37 is attached to the goalie lever 13.

Voids or openings in the body of the goalie 12 are provided to allow the puck 23 to travel through the goalie 12. These openings are under leg openings 35, under torso openings 39 and the under arm opening 43.

Attached to the blade of the goalie stick 41, which is part of the body of the goalie 12, is the goalie stick blade 40. The blade can be attached to the stick by cement or mechanically.

A rectangular member is attached to the goalie stick 41. This is the goalie stick deflector 42. When the goalie 12 is in an upright position, the deflector blocks shots from the left side. When the goalie 12 is flipped over on his side, the deflector pins the puck 23 to the ice and stops its movement. The deflector can be cemented to the stick or attached mechanically.

The goalie stick deflector 42, the leg deflector 36 and the box 37 should preferably be constructed from clear, hard, durable plastic so that they will not be too noticeable and therefore will not detract from the normal appearance of the goalie 12. These members could also be made of metal, wood or any other similar material in which case they should be colored to match the color of the playing surface 5 in order to be not too noticeable.

Dimensions

The components of the game may be of any convenient size, but a realistic relationship is established among the components if the playing surface is approximately 4 feet long and 3 feet wide with sideboards approximately 3 inches high with cages approximately 3 inches high, 4½ inches wide and 2½ inches deep protected by goalies approximately 3 inches high and 3 inches wide. The realistic relationship is continued if the offensive sticks are approximately 15 inches long with a blade that is approximately 1¼ inches long and if the defensive sticks are approximately 12 inches long with a blade that is approximately 1 inch long. A puck that is ¾ of an inch high and ⅝ of an inch in diameter would be properly related to the above mentioned components.

How the objects of the invention are attained

The objects of the invention are attained by employing the following unique and novel concepts which simulate the features of real ice hockey. The playing surface is marked with lines and circles in the same and exact manner that a regulation ice hockey rink is marked. These markings are used in the same manner that they are used in real ice hockey. Each marking has a definite function and is not merely decorative. For instance, actual face offs where the puck is actually dropped between players are conducted in the circles. The screen is not merely decorative, it serves a real function. Many shots are "lift" shots that travel in the air or the surface of the ice. The screens actually stop many of the shots from flying out of the rink. The screens perform the same function as screens on a real hockey rink.

Four unique concepts are incorporated into the construction of the cage. The cage hoop is designed in such a manner that the goalie lever which moves through it can move with nearly complete freedom. It differs from pivot hoops used in similar games in that the lever is not attached to the pivot point, it moves through the pivot point. If the goalie lever moves freely, the goalie will move freely since the goalie is attached to the end of the lever. Thus, the goalie in this game moves with nearly complete freedom as a result of the relationship between the hoop and the lever. This arrangement allows the goalie to move very far to the right and to the left of the net and from inside the cage to very far in front of the net. This being the case, the goalie can move to any point within these boundaries. This is the situation in real hockey. In other similar games, the goalie either moves in a fixed arc with no forward or backward movement or in a fixed arc with very limited forward and backward movement. Thus, the goalie in similar games cannot cover the area or reach points to the left and right and in front of the cage of the extent that the goalie of this game can. The construction of the hoop also allows the lever to move in such a manner that the goalie can flip over on his left side and jump off the playing surface. Pivoting devices in other similar games do not allow these realistic movements on the part of the goalie.

When the puck is in the area behind the cage, which is difficult to play in, exerting time consuming "scrambles" for possession of the puck occur. Some people like to scramble, some don't. This game provides an option. If scrambles are not desired, the rectangular cage deflectors can be fitted between the cage and the sideboards in order to deter the puck from entering the area in back of the cage. If scrambles are desired, the deflectors need not be used. If "partial scrambles" are desired, only one deflector should be used. This will deter the puck from entering on one side but not on the other.

The inner netting and the puck retainers will "catch" the puck as discussed earlier. This simulates the puck being caught in the net as in real ice hockey. It also confirms that a goal was actually scored by preventing the puck from bouncing out of the net and casting doubt as to whether a goal were scored or not.

The puck is unique and novel in several respects. It is not only small enough to go past the goalie into the cage, but small enough to be caught and trapped by the goalie and pass through the openings in the goalie. Pucks used in similar games are considerably larger and not capable of performing these functions. Often, when the puck contacts the goalie's glove or stick or the inner netting or retainer in the cage, the puck will adhere to these surfaces in a magnetic-like manner. As a result, as in real ice hockey, pucks are caught in the cage and the goalie can catch the puck with his glove and stick and move out in front of his cage and gain possession of the puck by contacting it with his stick. Like the goalie in real ice hockey, the goalie of this game can knock down a puck with his stick and then retain it on his stick.

The shape of the puck is such that its sides are beveled.

The blades of the sticks are angled. Often, when the angled blade contacts the beveled puck, the puck will rise off the surface of the ice as in real ice hockey and "lift" or "fly" shots will be produced. Due to the construction of the puck and the sticks, and since the player controls the sticks with his hands, the player can produce a variety of shots, as in real hockey, ranging from slow, short, weak shots that don't leave the surface of the ice to fast, long, blazing "slap shots" that rise off the surface of the ice and travel with considerable force. The puck will, on occasion, fly out the rink and hit a person or object. Since the puck is small, light and rimmed with soft Velcro fabric, there is no danger of injury or damage as is the case when the heavier, unprotected pucks used in other similar games leave the rink.

The goalie, whose function is to defend the cage from penetration by a puck, is unique and novel in several respects. The goalie is in an action stance as is the case with a real goalie. His stance is like that of a real goalie making a play in the thick of action. In a similar game, the goalie is more upright with legs together and arms close to the body in the stance that is used by real goalies when they are waiting for something to happen and not directly involved in the play.

As discussed previously, the goalie of this game moves with nearly complete freedom and therefore can duplicate the actions of a real goalie far better than the goalies of similar games. He ranges to the left and to the right and moves in and out and up and down. The stick deflector will trap the puck when the goalie flips on his left side. This simulates a goalie falling on and trapping a puck. When the goalie is upright, the deflector blocks shots from the left side.

Since the right arm of the goalie is movable and with move up and out when the goalie is flipped on his left side or moved suddenly to the right, the goalie of this game can block shots like a real goalie with his arm. Since the puck can be caught on the glove, the goalie can catch a puck by moving his right arm.

The three openings in the body of the goalie allow the puck to go through the goalie. This simulates the real ice hockey situation where often the puck will go between or under the goalie's legs and between the goalie's torso and arms. In similar games, the puck can only go past, not through, the goalie.

As can be seen in the drawings, the right leg of the goalie is in the air off the ice. This aids in creating an action appearance. The leg deflector extends from the leg to the ice. Its purpose is to block shots. It is as if the goalie moves his right leg down to the ice in order to block a shot.

The box attached to the goalie's right leg will catch the puck when it is on the ice or slightly above the surface. The puck will often enter the box and come to rest in the back of the box. This simulates a real goalie sitting on the puck or pressing it to the ice with his glove. Often the puck will come to rest just inside of the box. Then, by flipping the goalie, a player can cause the puck to leave the box and sail on to the ice. This simulates a real goalie catching a puck, holding it for the allotted time and then throwing it back on to the ice and thereby putting it in play again.

As mentioned previously, the puck will adhere to the blade of the goalie's stick. If a shot contacts the blade and is retained on the blade, the situation where a goalie knocks down a puck and then presses it to his pads with his stick is simulated. The goalie can also simulate the real situation where a goalie will move out in front of his cage and steal the puck from an opposing player by moving out and catching the puck with his stick blade.

It can be seen from the above discussion that the simulated goalie of this game by moving freely in all directions, falling on the puck, catching the puck, trapping the puck with his box and stick blade, blocking the puck

with his body, stick and deflectors, flipping the puck back into play after catching it and allowing shots to go through him as well as past him more perfectly simulates the action of a real, live goalie than the goalies of other similar games.

Method of play

In play, a game commences when the puck is faced off between two teams in the center circle. Each team attempts to score on the opposing team by attempting to shoot the puck past or through the opposing goalie into the opponents cage for a goal.

With certain exceptions, the methods, practices, strategies and rules of real ice hockey are employed in this game. For example, face offs and penalties occur in the game for the same reasons as in real hockey.

The rink is divided by two blue lines into three equal sections or zones. One end section contains the cage of one team and is that team's defensive ice. The other end section contains the cage of the other team and is that team's defensive ice. The two end sections are separated by a middle section which is known as center or neutral ice. Center ice and the other team's defensive ice is a team's offensive ice.

When the puck enters the opponents cage, it is scored as a goal provided the shot originated from the shooting team's offensive ice. Shots originating in back of a team's blue line in their defensive zone can never be scored as a goal. In other similar games, a goal can be scored on a shot originating from any point on the ice. In real hockey, goals are seldom scored from the shooting team's defensive ice. Thus, this game simulates real hockey in that a team must work to move the puck through its defensive ice, past its blue line, in order to attain a scoring position.

Six people can play the game at one time. A team may be composed of one, two or three players. Generally, each team has the same number of players, but one team could have one or two more players or one of two less players than the other team.

When one player compose a team, he controls the goalie with one hand and controls a long stick with the other. He plays both offense and defense. He may move his stick to any point on the ice. He can score from any point in his team's offensive ice.

When two players compose a team, one player plays defense, the other player plays offense. The defensive player controls the goalie with one hand and controls a short stick with the other. He can move his stick to any point in his defensive zone and to any point in that portion of center ice between his blue line and the red center line. He can score only from a point in the above mentioned portion of center ice. The offensive player controls a long stick with one hand. He may move his stick to and score from any point in that portion of center ice between the red center line and the opposing team's defensive ice. Thus, the defensive player plays in the half of the ice in which his team's cage is located and the offensive player plays in the half of the ice in which the opposing team's cage is located.

When three players compose a team, one player controls the goalie, one plays defense and one plays offense. With three, the defensive and offensive players play in the exact same manner as with two players on a team.

A unique feature of the game is that it can be played in a different manner than described above. One person, who comprises a team can play against an imaginary opponent. This could be done by the player shooting at the cage blocked by the goalie, who, although stationary, would block a large portion of the net. For example, by taking three long, three medium and three short shots in each of three periods for a total of 27 shots, he can approximate the situation that would occur if he was playing against an opponent. In the normal course of the game, a team taking 27 shots would score approximately three goals per game or one per period.

The indicator of a dial with twelve sections, one marked 3 goals, two marked 2 goals, five marked 1 goal and four marked 0 goals, could be spun at the beginning of each period to determine the number of goals scored by the imaginary opposing team during a given period. With such a dial, the imaginary opponent would also score approximately 3 goals per game. The number of goals scored each period by each team would, of course, deviate from the averages and thus create realistic period and game scores.

The game, as played by one person, would provide much enjoyment since the shooting, "saves" by the goalie and scoring of goals against an opponent functions of the multiple player game would be approximated in the one player version. One player can also derive much enjoyment and sharpen his skills by practicing shooting and passing by himself.

Since the multiple player version of the game is played like real ice hockey, many situations occur that call for decision making. Face offs, penalties, penalty shots and legality of goals are examples. Thus, there is a need for refereeing just as in real hockey. A nonplaying party, or a player, if no nonplaying party is available, could serve as referee. The injection of a refereeing function, which is very interesting, into the game allows a person who is interested in the game, but doesn't care to play or a person who is not physically capable of playing, to derive enjoyment from the game. It also increases the number of people who can participate to seven.

When two or three are playing on a team, defensive and offensive players actually pass the puck to one another to get set up for a scoring attempt. With one on a team, the player can pass the puck into the sideboards and pick up the rebound on the other side of the ice. This has the same effect as a pass since the position of the puck has changed. A player can actually move the puck down the ice by stickhandling just as in real hockey.

The real hockey function of harassing the opponent by poke checking, fore checking and back checking are simulated in this game since a player can hit the puck off the stick of an opponent with his stick. Overzealous harassment, in this game as in real hockey, will call for a penalty decision by the referee.

The game can be a game of precision, just like real hockey. The suggested dimensions of the components will produce a very precise, realistic game, where an 1/8 of an inch difference in a pass, shot, check or motion of the goalie could determine whether a play would be successful or not. As in real hockey, success would sometimes be a matter of inches or fractions of an inch.

In other similar games, players control mechanical devices which move simulated sticks. Control of the sticks is not direct and the sticks can move only in certain directions and in certain prescribed areas of the ice. In this game, as in real hockey, the sticks are actually held in the player's hand and the stick can move in all directions in all areas of the ice. Thus, greater realism is attained.

The specific embodiment of the invention herein disclosed may be modified without departure from the scope of the invention as defined in the following claims.

I claim as my invention:

1. A simulated ice hockey game comprising a game-board composed of a plurality of attachable sections designed to simulate a regulation ice hockey ring with cages at opposite ends of said rink, goalie members disposed in front of said cages and lever means connected with said goalie members that extend through the cages and sideboards at each end of said rink with handle means exterior to said rink for direct manual manipulation of the said goalie members in defense of the said cages against penetration by simulated puck members, said cage members constructed to include:

(a) pivot hoop means carried by said cages which in interaction with said goalie lever means allow said goalie members to move with nearly complete free-

dom in the horizontal plane and with enough freedom in the vertical plane to allow substantial vertical and tilting movements.

- (b) inner netting members at the back of each cage and of a mesh sufficiently fine to engage and retain the loops of pucks having Velcro attached thereto and shot into the inner netting as a result of a lift shot. 5
- (c) Velcro puck retainer members carried by the portions of the cakes which engage the playing surface and which will adhere to and retain such pucks shot into the cages as a result of a shot that does not rise off the playing surface. 10
2. A game as in claim 1 wherein an elongated member is freely pivoted at one end to said goalie member.
3. A game as in claim 2 wherein a piece of Velcro is disposed adjacent a free end of said elongated member. 15

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