United States Patent

[11] **3,554,549**

[72] Inventor **Thaddeus Grabowski**
5132 W. 10th St., Oak Lawn, Ill. 60453

[21] Appl. No. **773,783**
[22] Filed **Nov. 6, 1968**
[45] Patented **Jan. 12, 1971**

[54] **GAME WITH MAGNETIC PROJECTOR AND PROJECTILE**
8 Claims, 8 Drawing Figs.

[52] **U.S. Cl.** **273/94,** 273/85, 273/126, 273/128, 273/129; 46/241
[51] **Int. Cl.** **A63f 7/06**
[50] **Field of Search** ..... 273/1(M), 126A, 128, 85G, 94; 46/238, 241

[56] **References Cited**

UNITED STATES PATENTS

2,277,057	3/1942	Bach	273/128
2,903,264	9/1959	Munro et al.	46/241X
3,091,459	5/1963	Lindman	273/1X
3,214,171	10/1965	Luchsinger	273/1X

FOREIGN PATENTS

451,000	9/1948	Canada	273/85

Primary Examiner—Anton O. Oechsle
Assistant Examiner—Theatrice Brown
Attorney—Lawrence S. Galka

ABSTRACT: A game having a magnetic scoring object for movement on a playing surface by manual manipulation of a plurality of pieces, representing opposed teams. Attraction and repulsion between the pieces magnetic tips and areas of alternate polarity on the object determines control. The magnetic tips and areas are bar magnets with N–S axes vertically disposed, so relative polarity is readily changed by flipping of the pieces, which are manipulated by individual stick members to transport and impel, or to block and intercept, the object, respectively, in a manner simulating sports action of either hockey, soccer, football, basketball, or the like.

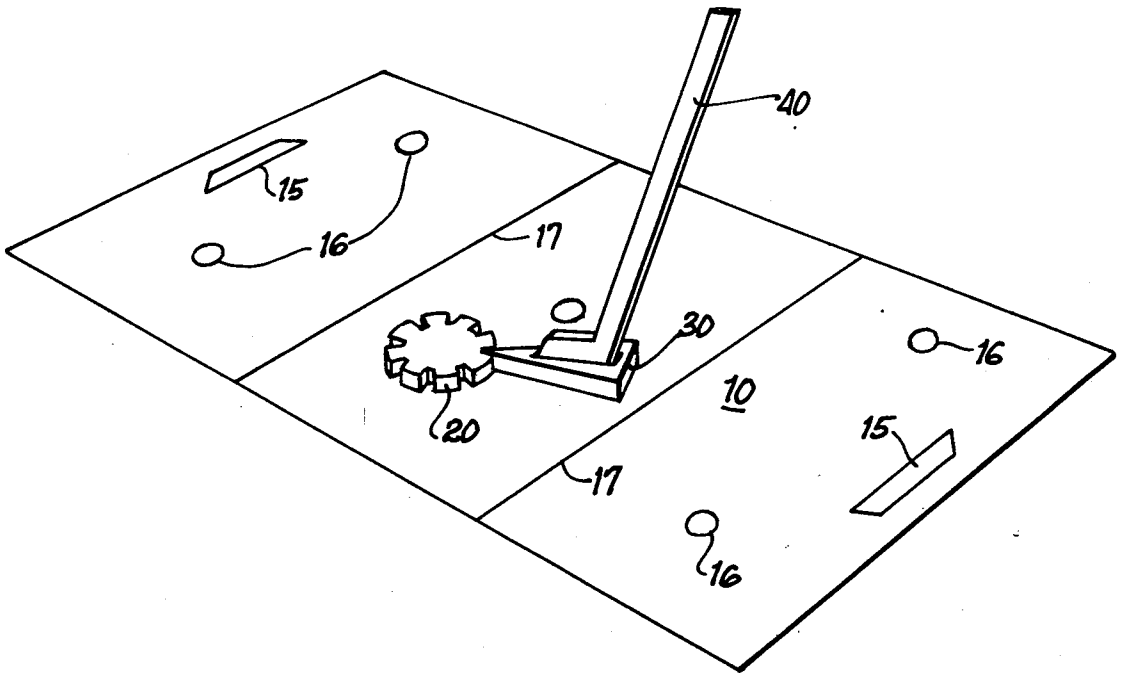


FIG. 1

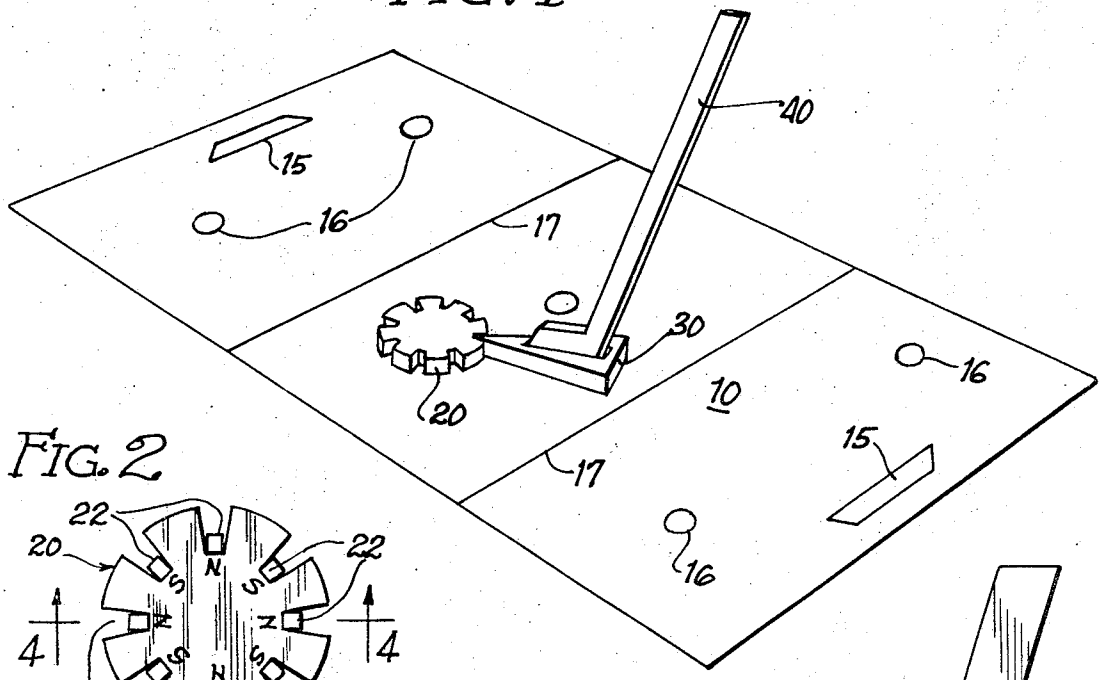


FIG. 2

FIG. 3

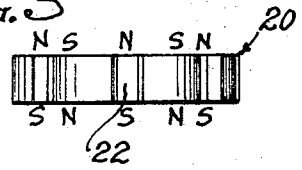


FIG. 4

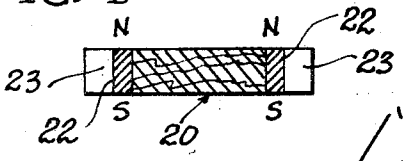
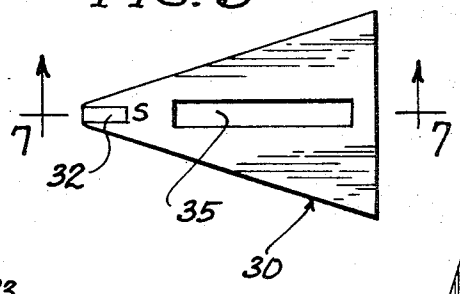


FIG. 5



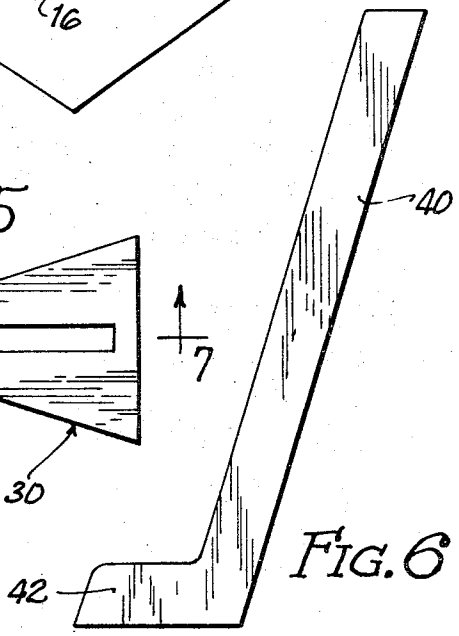


FIG. 6

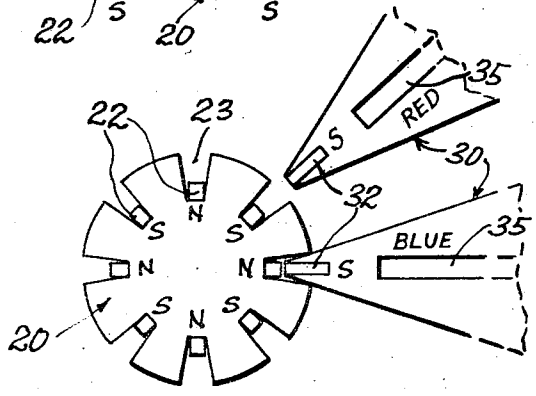


FIG. 8

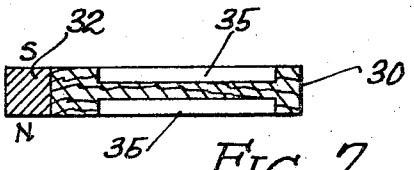


FIG. 7

INVENTOR
Thaddeus P. Grabowski
by Davis, Lucas, Brewer
and Brugman Attys

GAME WITH MAGNETIC PROJECTOR AND PROJECTILE

BACKGROUND OF THE INVENTION

This invention relates generally to games, and more particularly, to a magnetic game simulating the sports action of hockey, soccer, football, basketball, or the like.

In the past, various games have been devised in an effort to simulate he various sporting events, such as hockey, soccer, etc. In one game form, a scoring object was moved by chance in accordance with the dictates of dice, a spinner, or the like. In other mechanical forms, a scoring object, usually a ball, was rolled by manipulation of various stationary mechanisms, which were expensive and subject to breakage. Thus, past games were either based entirely on chance, or were too mechanical in nature. They were lacking in strategy and freedom of movement. Furthermore, the past games were not readily adaptable to more than one type of sporting event, and never really simulated a particular sporting event.

SUMMARY OF THE INVENTION

Therefore, to overcome the foregoing and other difficulties of the prior art, the general object of this invention is to provide a new and improved game concept, utilizing magnetism to simulate the various sporting events. To this end, the present invention proposes a game having a magnetic scoring object for movement on a playing surface by manual manipulation of a plurality of player pieces. Control over the object is dependent upon attraction and repulsion between magnetic tips of the player pieces and areas of alternate polarity on the scoring object. Each of the magnetic tips and areas is an individual bar magnet with N-S axes vertically disposed, so that relative polarity may be readily changed by flipping over the player pieces. Each flat side of the player pieces has a socket for reception of individual stick members. Manipulation of the player pieces, in turn, transports and impels, or blocks and intercepts, the scoring object, respectively, in a manner simulating the sports action of either hockey, soccer, football, basketball, etc.

Thus, one of the objects of this invention is to provide a game concept which is economical and readily adaptable to more than one type of sporting event.

Another object of this invention is to provide a nonmechanical game which is not entirely dependent upon chance, but which involves manual skill, dexterity, freedom of movement, and strategy in simulation of sporting events.

It is still another object to provide a game having a magnetic scoring object for movement on a playing surface by manual manipulation of a plurality of player pieces, representing opposed teams.

Yet another object is to utilize magnetic attraction and repulsion in a game simulating a sporting event.

It is also an object to utilize magnetic attraction and repulsion in a game to determine control, and wherein relative polarity is readily changed by manual manipulation.

It is still another object to provide a durable, and simple game which is economical to produce by utilizing a minimum of conventional, currently available components and materials that will lend themselves to standard mass production manufacturing techniques.

Further and other objects, and a more complete understanding of the invention may be had by referring to the following description and claims, taken in conjunction with the accompanying drawings.

DESCRIPTION OF THE DRAWINGS

For the purpose of illustrating the invention, there is shown in the drawings a form which is presently preferred, it being understood, however, that this invention is not necessarily limited to the precise arrangements and instrumentalities there shown.

FIG. 1 is a schematic perspective, not in scale, showing a magnetic scoring object and player piece for manipulation on a playing surface;

FIG. 2 is a plan view of a magnetic scoring object of the invention;

FIG. 3 is a side elevation of the magnetic scoring object shown in FIG. 2;

FIG. 4 is a cross section of FIG. 2, taken along line 4–4;

FIG. 5 is a plan view of a player piece;

FIG. 6 is an elevational view of a stick member for manipulation;

FIG. 7 is a cross section of FIG. 5, taken along line 7–7; and

FIG. 8 is a plan view illustrating the magnetic attraction and repulsion control concept.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawings in detail, wherein like numerals indicate like elements, there is shown in FIG. 1, a game board providing a nonmagnetic playing surface 10 with goals 15 designated thereon. Various markings, such as the face off circles 16 and time line 17, for the particular sporting event to be simulated, in this case hockey, are also designated on surface 10. It is understood, of course, that markings on surface 10 are dependent on the particular sporting event to be simulated.

A scoring object 20 is provided for movement on surface 10 to the goals 15 for scoring by the offensive team. On the other hand, of course, the defensive team's objective is to block and intercept the scoring object 20. The scoring object 20 shown has the shape of a round, flat disc and is made of wood or cork. However, it is understood that other lightweight nonmagnetic materials and other flat configurations might also be used; for example, elliptical football, or other shape, again dependent upon the simulated sport. With reference to FIGS. 2, 3 and 8, it is seen that the scoring object 20 is magnetic, having areas of alternate polarity, as indicated. That is, individual bar magnets 22, are recessed within the peripheral notches 23, each with its N–S axes vertically disposed.

A plurality of player pieces 30 are provided of two different colors to represent opposed teams, Each of the pieces 30 has a magnetic portion at its tip provided by an individual bar magnet 32. Again the bar magnet 32 has its N–S axis vertically disposed, as shown. The pieces 30 may be flat and triangular; say, for example, isosceles triangles, and are made of wood or other light nonmagnetic material. Of course, other shapes may be found to be suitable for particular games. As shown, each flat side of the triangular pieces 30 includes a socket 35. It is to be noted that the indications of polarity shown on the drawings (N–S) are not present on the actual scoring object 20 and player pieces 30. However, individual player pieces 30 may be distinguished on each team by number, color, or the like, if desired.

Manipulation means to manually move and position the pieces 30, are provided by individual stick members 40, each having a foot 42 for reception in sockets 35. The stick members are of wood, plastic, or other durable light nonmagnetic material. It is understood that the stick members 40 are manually held by handle portions 47 for manipulation of the player pieces 30. The manipulation is usually through insertion of the foot 42 into the socket 35. On the other hand, when it is desired to change polarity, the stick 40 may be used to flip over a player piece 30.

The basis of the game is manipulation by participants of the player pieces 30, by means of the stick members 40, to move the scoring object 20 on playing surface 10 to score points by passing through goals 15. It is understood, of course, that FIG. 1 is not drawn to scale, the playing surface 10 in reality being much larger in relation to the scoring object 20, and player pieces 30. It is further understood that a plurality of player pieces 30 are used, at least one player piece for each participant. Of course, game rules may provide a number of player pieces 30 for each participant. That is, for example, with two participants, three player pieces 30 for each, two for maneuvering and one to defend the goals 15. Naturally, with more participants, the rules may provide that more player pieces 30 be utilized.

The common basis of almost all sporting events, such as hockey, soccer, football, basketball, etc., is control of the scoring object. With reference to FIG. 8, control of the magnetic scoring object 20 is based on magnetic attraction and repulsion. That is, considering the magnetic principle that like poles repel and unlike poles attract, it is readily understood that whenever a bar magnet 32 at the tip of a player piece 30 is inserted into a notch 23 of object 10 having a bar magnet 22 of unlike polarity, there will be attraction. Vice versa, as indicated by the separation on FIG. 8 between object 20 and player piece 30, if magnet 32 at the tip of a player piece 30 is brought near a bar magnet 22 of similar polarity, there will be repulsion. Thus, control of the scoring object 20 is dependent upon magnetic attraction. In other words, in order to move the scoring object 20 down playing surface 10 to the goals 15 for scoring, it must be done by a player piece 30 which is magnetically attracted thereto. The player pieces 30 of the defending team will attempt to gain control of the scoring object 20. As an arbitrary rule, for hockey, soccer, or the like, if a defensive player piece 30 is attracted, it gains control, and the former offensive team gives up possession. On the other hand, for football, or the like, defensive attraction could represent a tackle. Unlike the representations in the drawings, the magnetic object 20 and the player pieces 30 are unmarked as to magnetic polarity. Thus, participants cannot know whether or not a particular player piece will attract or repel the object until an attempt is made. In order to permit movement of the object up and down the playing surface 10, arbitrary rules should provide that once an attempt has been made to gain control that as been repulsed, a further attempt cannot be made with the same piece until its polarity has been reversed. Change in polarity of the player pieces 30 is readily achieved by flipping over. The object may also be passed from one player piece 30 to another of the same team. The receiving player piece 30 must attract the object 20 for reception. Passing may be accomplished by moving the two player pieces 30 toward each other and permitting the object 20 to pass from one to the other, or it may be impelled from one player piece 30 to the other. That is, with practice, it is possible to give a quick twist of the stick 40 which will impel the object 20 a short distance. Other various rules, depending upon the type of sporting event, will, of course, be necessary. For example, in hockey and soccer, it will, of course, be necessary that the offensive team permit the defensive team an opportunity to attract the scoring object 20. If a defensive player piece 30 fails to attract, the offensive team continues in an attempt to score. Also, movement of all pieces shall stop until it is determined which side has control of the scoring object.

Blocking between player pieces 30 is also dependent upon magnetic attraction or repulsion. For example, the rules may arbitrarily provide that if player pieces 30 of opposed teams attract, the offensive player piece is temporarily immobilized. On the other hand, if they repel, the defensive team's player piece is immobilized. The other player piece, of course, resumes play. The rules may also provide for a time period or periods within which the game is to be played and also for the points scored, in accordance with common sporting events.

The present invention may be embodied in other specific forms without departing from the spirit of potential attributes thereof, and, accordingly, reference should be made to the appended claims, rather than to the foregoing specification as indicating the scope of the invention.

I claim:

1. A magnetic game comprising in combination: a game board providing a playing surface and designating a goal thereon; a flat scoring object for movement and resting on said surface, said object having a plurality of separate individual and spaced magnetic areas defined at peripheral intervals thereabouts, each of said magnetic areas being of an opposite polarity with respect to adjacent of said areas; a plurality of flat player pieces for movement and resting on said surface, said player pieces representing opposed teams, each of said pieces having a magnetic portion for attraction into engagement with and repulsion apart from a chosen one of said magnetic areas, respectively, depending upon polarity thereof; and manipulation means to manually move and position said pieces on said surface and thereby transporting and impelling said object by virtue of said engagement to said goal for scoring and, on the other hand, blocking and intercepting said object to defend said goal, respectively.

2. A game in accordance with claim 1, wherein said areas are individual bar magnets each with the N–S axis vertically disposed.

3. A game in accordance with claim 2, wherein said areas are defined by peripheral notches with said magnets recessed therein.

4. A game in accordance with claim 3, wherein said pieces have a magnetic tip for reception with said notches.

5. A game in accordance with claim 4, wherein said magnetic tip is provided by an individual bar magnet with its N–S axis vertically disposed, each of said pieces being readily flipped to change polarity thereof.

6. A game in accordance with claim 5, wherein said pieces are flat and triangular, said magnet being at one tip thereof, each flat side thereof including a socket for reception of said manipulation means.

7. A game in accordance with claim 6, wherein said pieces are isosceles triangles of different colors representing said opposed teams.

8. A game in accordance with claim 7, wherein said manipulation means are provided by individual stick members having a foot for reception in said socket.