This invention relates generally to games and is particularly concerned with a game employing a magnetic scoring device.

It is an object of the present invention to provide a game which utilizes a magnetic pointer to indicate the score of each of the players thereof.

Another object of the invention is to provide a game of the character indicated which permits each of its players to impel the said magnetic pointer to a position where it is deflected so as to indicate a suitable score.

A further object of the invention is to provide a simulated baseball game which employs an improved magnetic scoring device.

A still further object of the invention is to provide a simulated baseball game of the character indicated which is of simple and economical design and construction.

Other objects and advantages of the present invention will become apparent from the following discussion as read in connection with the accompanying drawings.

In the drawings:

FIGURE 1 is a plan view of one embodiment of the present invention;

FIGURE 2 is an enlarged cross-sectional view taken about the line 2—2 of FIGURE 1;

FIGURE 3 is a cross-sectional view taken about the line 3—3 of FIGURE 2;

FIGURE 4 is a perspective view taken about the line 4—4 of FIGURE 3 with the missile removed;

FIGURE 5 is a cross-sectional view taken about the line 5—5 of FIGURE 4.

Throughout the various views, similar numerals are employed to indicate similar parts of the aforesaid embodiment of the invention.

The present invention is adapted for use with a variety of games and is intended as a novel and attractive means for indicating the score of each player participating therein.

Thus, while the discussion which follows describes one form of the invention as incorporated in a simulated baseball game, it is to be understood that the application of the invention is not limited to baseball games, as such, but that it may be incorporated in other types of games as well.

As shown in FIGURE 1 of the accompanying drawings, one embodiment of the present invention comprises a simulated baseball game which is played on a rectangular board 10 or planar surface. The game may be played by two players disposed on opposite sides of the board 10, such as the upper and lower sides thereof depicted in FIGURE 1.

The board 10 is imprinted or otherwise marked with a baseball diamond 11 which includes suitable circles or other symbols of a home plate 12, bases 13, 14, 15 and pitcher's mound 16. For the convenience of the players, the home plate may be deemed to be located at the circle designated by the numeral 14; and a suitable base may be deemed to be located at the circle designated by the numeral 12. So also, if desired, the pitcher's mound may be deemed to be located at the circle designated by the numeral 16.

A suitable number of upright members 19, may be disposed in the vicinity of each player of the players, each said upright member 19 being provided with an axial extension or peg 20 removably engageable with suitable apertures 21 formed in said board 10 in the vicinity of each of the players. Similar apertures 22 are provided at the circle representing home plate and each of the bases on the diamond 11.

So, also, for purposes which will hereinafter explained, a pair of dials 23 are provided upon the board 10, one of said dials 23 being imprinted or otherwise marked upon the board 10 in the vicinity of each of the players. The dials 23 are semicircular in form; and at the diametral center of each of said dials 23, a suitable indicator or pointer 24 is pivotally secured as by a pin 25. The pointer 24 may be rotated, as desired, so that its free end 26 is disposed adjacent to any of the numerical gradations 27 which are provided upon each of the dials 23.

With the foregoing arrangement, the upright members 20 may be disposed upon the baseball diamond 11 and moved thereon according to the conventional rules of baseball, and pursuant to suitable scoring of hits, runs, strikeouts, etc., the said upright members 20 being deemed participants of two opposing teams representing the aforesaid two opposing players.

An important feature of the present invention resides in the means for accomplishing the aforesaid scoring. This, as may be seen in FIGURE 1 of the drawings, the scoring means may be conveniently located on the right hand side of the board 10. Said scoring means includes a pair of impellers, generally designated by the numeral 30, said impellers being disposed at opposite ends of the board 10.

As may be seen in FIGURE 2 of the drawings, each said impeller 30 includes an upright supporting member such as a vertical rod 31 provided with an axial extension 32. This axial extension 32 is engaged with a suitable aperture 33 formed in the board 10. The upper end 34 of the rod 31 is received within an aperture 35 formed within a cylindrical housing 36, the said housing 36 being supported in spaced relation with respect to the board 10 by the rod 31.

Each cylindrical housing 36 is disposed horizontally and provided with an axial bore 38 which is frictionally engaged with a horizontal guide rod 39, projecting intermedately of each said housing 36.

Each housing 36 is also provided with an enlarged aperture or mouth 40 formed coaxially with the bore 38 and having a vertically offset surface 41. As can be seen in FIGURES 1, 2 and 3, the mouth 40 of each housing 36 receives a coiled compression spring 42 and seats said spring 42 on the vertically offset surface 41, each of these compression springs being engaged with and disposed annularly of the guide rod 43. Thus, it will be seen that since there are two housings 36, there are two of such compression springs 42 disposed on opposite sides of the board 10.

A missile, generally designated by the numeral 43 is slidably engaged with the guide rod 39 and abutable in the manner hereinafter indicated against the end of each compression spring 42 which projects from its respective housing 36. This missile 43 is preferably formed with a generally spherical head portion 44 and a tapered extension 45. The head portion 44 is provided with a bore 46 engaged with the guide rod 39 and the tapered extension 45 is provided with a permanent magnet 48 which projects downwardly and axially of the tapered extension 45, as may be seen in FIGURE 2.

To begin the game, one of the players retracts the missile 43 against the bias of the compression spring 42 to any desired extent. If desired, such retraction may bring the missile 43 into the mouth 40 of the housing 36 and into a slot 49 formed within the wall of said mouth 40, as for example, to the position depicted in broken lines in FIGURE 2 and designated by the numeral 47. Upon such retraction to the extent desired by the player manipulating the missile 43, it is released, thereby permitting the spring 42 to project the missile into a region located inter-
mediately of the two housings 36 and provided with means for restraining the movement of the missile 43 on the guide rod 59 and deflecting the tapered shaft 45 into a scoring position in the manner hereinafter described.

More specifically, as may be seen in FIGURES 1, 4 and 5 of the drawings, the above-noted intermediate region includes a platform, generally designated by the numeral 50 and surrounding the board 10. This platform includes a groove having a horizontal bed 51 disposed parallel and below the guide 39. The said groove is also provided with a pair of inclined walls 52, 53 extending laterally of said bed 51.

Within the bed 51, a column of aligned permanent magnets 54 is disposed. The upper end of each of these magnets 54 has the same polarity as that which characterizes the lower end of the magnet 48 projecting from the tapered extension 45. Thus, in the described embodiment of the invention, the lower end of the magnet 48 and the upper end of each of these magnets 54 in the bed 51 have a South polarity.

When the missile 43 is impelled in the manner previously described above the platform 50, the magnets 54 will, by virtue of the aforesaid similarity in polarity, deflect the magnet 48 together with the tapered extension 45 from the vertical position indicated in broken lines in FIGURE 4 towards either of the inclined walls 52, 53, as for example, to the position of the missile 43 depicted in solid lines in said FIGURE 4.

In the inclined walls 52, 53, there are parallel columns of permanent magnets of alternately reversed polarity. Thus, as shown in FIGURE 5, the column of permanent magnets in the inclined wall 52 have upper faces which are characterized by a South polarity, as at the magnets designated by the numeral 55, and that immediately of the magnets 55 are magnets designated by the numeral 55a and having upper faces characterized by a North polarity.

The magnets in the bed 51 and in the inclined walls 52, 53 are also aligned in rows, each row including three of said magnets. However, it will be noted that in the column of magnets disposed in inclined wall 53, the upper faces of the magnets may be disposed so as to present a polarity opposite to that of the magnet in the same row and in the wall 52. Thus, for example, as may be seen in FIGURE 4, the magnet 56 provided in the inclined wall 53 has an upper face characterized by a South polarity whereas the magnet provided in the inclined wall 52 has an upper face characterized by a North polarity.

With this arrangement, it will be seen that when the missile 43 is disposed above any of the said rows of magnets, it will tend to be deflected towards only one of the inclined walls 52, 53, namely that wall wherein the magnetic member of the row presents a face or end portion having a polarity opposite to that of the lower face or end of the magnet 48. Of course, if the missile 43 should be disposed above the next of said rows of magnets, then by reason of the alteration in polarity of the magnets in each column thereof in the walls 52, 53, the magnets 48 will be deflected towards the other of said inclined walls. Thus, if the missile depicted in FIGURE 4 were disposed above a row of magnets adjacent to the row shown in said figure, the magnet 48 would be deflected towards the inclined wall 53.

Of course, the disposition of the missile 43 with respect to said magnets will also be determined by the impelling force of the spring 42 at the time it is released by the player who has previously retracted the spring 42 and such impelling force, in turn, will be determined by the extent of said retraction. Thus, by attempting to correlate the extent of said retraction with the ultimate position of the missile 43 after it is impelled by the spring 42, the player manipulating the missile can attempt to determine that ultimate position, thereby achieving a score corresponding therewith.

Thus, as may be seen in FIGURES 1, 4 and 5, the faces of the magnets disposed within the platform 50 are flush with its surface. This surface may be provided with appropriate indicia of baseball scores. For example, a sheetlike member, such as a paper sheet 58, may be superimposed upon the platform 50, and those portions of the sheet 58 which cover the magnets towards which the magnet 48 will be attracted when disposed in their vicinity, may be marked in terms of a home run, single, double or triple, or, as shown, for example, in FIGURE 1 of the drawings. Hence, when the missile 43 is impelled into the area of the platform 50, it will point towards one of these scoring areas.

The missile may then be retracted and projected above the platform again in an effort to improve the score and this procedure may be continued until three outs are accomplished according to the conventional rules of baseball. Thereafter, the opposing player, from his side of the board 10 will have a similar opportunity to score by means of the spring adjacent to his side of the said board.

It will also be seen that upon each ejection of the missile, the spring employed to accomplish such ejection will tend to remain within the housing or in the vicinity thereof. However, if necessary, it can be brought into contact with the said spring so as to move it to the position depicted in FIG. 2. For example, such retraction of the missile may be accomplished manually, the missile being freely slideable on the guide rod.

The aforesaid scoring may be accompanied by each player positioning the upright members 20 of his team on the baseball diamond 11 in a position consistent with said score; and the total number of runs scored by each player may be perpetuated by disposing the pointer 24 in a corresponding position on the dial 23 adjacent to said player.

It will also be noted that if a player manipulating the missile 43 so desires, he may retract it sufficiently so that when released, it will contact the opposing spring and rebound therefrom before coming to rest above the platform 50.

From the foregoing, it will be seen that the described embodiment of the invention presents to each player a challenge to develop his skill in projecting the missile 43 to a point above the platform 50 where a favorable scoring position will be achieved. In this way, the game becomes an exercise in concentration and attraction to its players.

The embodiment of the invention illustrated and described hereinabove has been selected for the purpose of clearly setting forth the principles involved. It will be apparent, however, that the present invention is susceptible to being modified in respect to details of construction, combination and arrangement of parts which may be resorted to without departure from the spirit and scope of the invention as claimed.

I claim:

1. A scoring device comprising, in combination:
   (a) a board;
   (b) impelling means supported within a housing surrounding said board, said impelling means being disposed in spaced relation with respect to said board;
   (c) a missile projectable by said impelling means into the vicinity of a pre-selected region on said board;
   (d) said missile being provided with magnetic means deflectable to at least one predetermined area in said region;
   (e) said predetermined area being provided with means for attracting said magnetic means;
   (f) said predetermined area indicating the score of a game simulated on said board;
   (g) said housing being provided with a horizontal guide rod;
   (h) said guide rod extending through a bore formed in said missile whereby said missile is suspendable above said predetermined area;
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(i) said missile being disposed in spaced relation with respect to said predetermined area when said missile is in the vicinity of said predetermined area.

2. A device according to claim 1, said impelling means including:

(a) a second housing connected to said first housing to form a pair of housings engaged with upright members depending from said bond;
(b) said horizontal guide rod connecting said housings;
(c) said missile being slidably engaged with said guide rod;
(d) a pair of spring means engaged with said guide rod;
(e) said missile being disposed intermittently of said pair of spring means;
(f) each of said spring means being scabable within one of said housings upon retraction of said missile against said spring means;
(g) said spring means urging said missile towards said pre-selected region upon release of said spring means.

3. A device according to claim 1, said missile including:

(a) a generally spherical member wherein said bore is a horizontal aperture;
(b) said aperture being engaged with said guide rod included in said impelling means;
(c) said spherical member being provided with an extension member;
(d) said magnetic means being disposed at one extremity of said extension member.

4. In a game, a scoring device comprising, in combination:

(a) a rectangular board;
(b) a pair of vertical rods depending from said rectangular board and disposed on opposite sides thereof;
(c) said rods being engaged with a pair of cylindrical housings;
(d) said cylindrical housings being connected by a horizontal guide rod disposed axially within said cylindrical housings;
(e) each of said cylindrical housings being formed with a recess terminating in a vertical surface adjacent to said guide rod;
(f) a pair of compression springs engaged with said guide rod and abutable against said vertical surfaces;
(g) a generally spherical member slidably engaged with said guide rod and retractable against the bias of each of said compression springs;

5. In a device according to claim 4, said platform including:

(a) said graduated areas comprised of a groove aligned parallel to said guide rod;
(b) said groove including a central bed disposed intermittently of a pair of outwardly inclined walls;
(c) said plurality of magnets being aligned in rows and columns in said bed and walls;
(d) said bed including a column of magnets presenting a like polarity to that presented by the permanent magnet of the extension member, thereby deflecting said extension member towards one of said inclined walls;
(e) each of said walls including a column of magnets presenting an alternately reversed polarity, whereby only one of the magnets in any said row thereof presents a polarity opposite to that of the permanent magnet in said extension member;
(f) the lower extremity of said extension member being in spaced relation with respect to said platform.

6. A device according to claim 1, said missile including:

(a) spring means engaged with said guide rod and seated between said housing and missile;
(b) said missile being retractable against the bias of said spring means;
(c) said spring means urging said missile towards said pre-selected region upon release of said spring means.

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