Feb. 2, 1960 M. KAPPEL 2,923,548

AERIAL PROJECTILE GAME

Filed Dec. 19, 1958

Fig. 1.

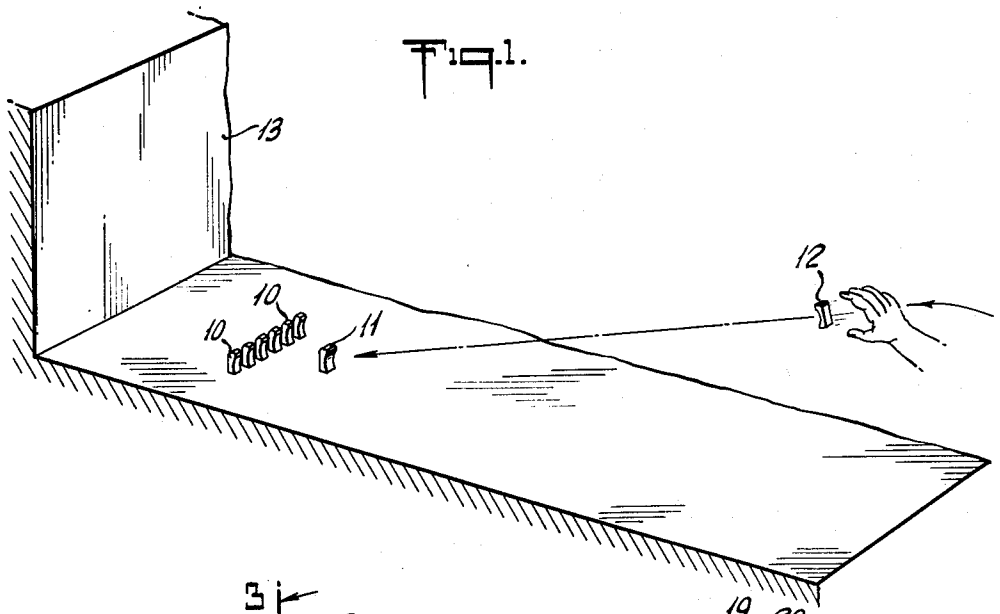


Fig. 2.

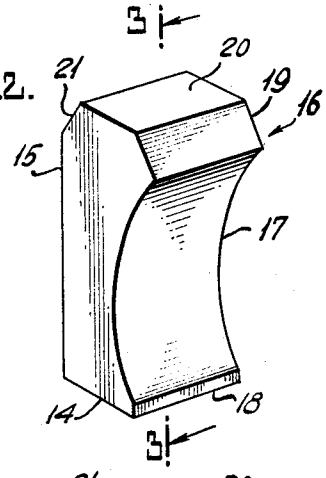


Fig. 3.

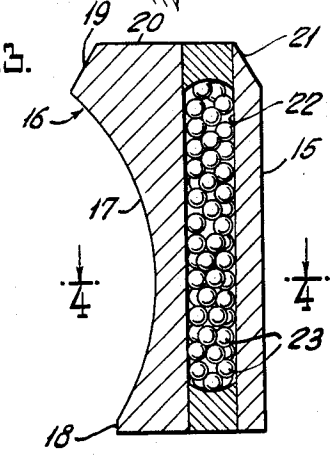


Fig. 5.

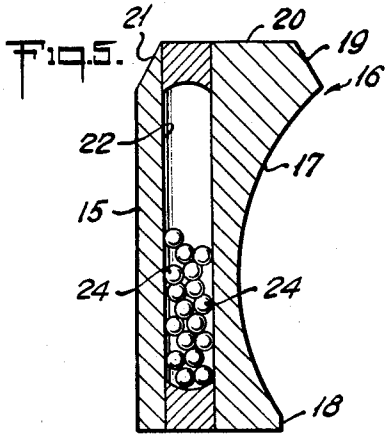
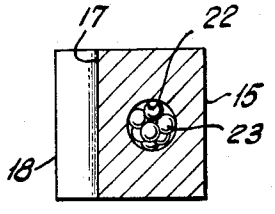


Fig. 4.



INVENTOR
MAX KAPPEL

BY
Curtis, Morris & Safford
ATTORNEYS

United States Patent Office 2,923,548 Patented Feb. 2, 1960

2,923,548

AERIAL PROJECTILE GAME

Max Kappel, Pine Plains, N.Y.

Application December 19, 1958, Serial No. 781,679

3 Claims. (Cl. 273—95)

The present invention relates to a game in which skill and chance are both factors in determining the score.

An object of the invention has been to provide a set of game pieces which can be employed indoors or outdoors to provide mild exercise and relaxation with an element of competition where two or more players are involved. It is a further object of this invention to provide playing pieces of moderate size and of relatively compact design for convenience in storing and handling. Other features of said pieces are intended to enhance the chance factor in play.

Another object has been to provide game pieces which can be made of any suitable durable and otherwise appropriate material at relatively low cost, as plastic, wood, or the like.

In general, a set of game pieces according to the present invention comprises a plurality of counters or pawns, a target or king piece and a missile piece. In size and shape, all these pieces are substantially alike, the length of each being generally twice its width and thickness and each piece being of generally rectangular cross-sectional contour with its cross-sectional area increasing toward both ends from a minimum at its midportion to a maximum adjacent one end.

Each of said game pieces is irregular in shape in that it is formed with a flat supporting face, a flat top face, a flat rear face, flat side faces and a front face having a curved portion extending between a lower flat end portion and an upper flat end portion, some of said faces intersecting to form end corners. The arrangement is such that said upper flat end portion projects forward beyond said curved portion and beyond the lower flat front face providing in effect an overhanging mass at the front top edge portion of each piece and a resulting potential unbalance when the piece is tilted from upright position.

The missile piece differs from the counters or pawns and target or king pieces in being provided with a cavity or chamber which confines a weight, such as a lead slug or a plurality of lead shot, for example, dimensioned for free endwise movement in the cavity, or dimensioned to substantially fill said cavity and thus remain stationary in relation to the missile as a whole.

An embodiment of my invention as applied to a set of game pieces adapted for indoor or outdoor playing is illustrated in the drawings accompanying this application and wherein:

Figure 1 is a schematic view in perspective showing a set of game pieces according to the invention and including a plurality of counters or pawns and a target or king piece arranged in a typical set-up for play, and a missile piece leaving the hand of a player and in motion toward the target and the counters;

Figure 2, a view in perspective of one of a set of game pieces as seen in Figure 1, all being alike in size and shape;

Figure 3, a central longitudinal section showing one form of missile or loaded piece appropriate for use in the set of game pieces as seen in Figure 1;

Figure 4, a transverse section on line 4—4 of Figure 3; and

Figure 5, a central longitudinal section showing a modified form of missile wherein the loading material is free to move endwise within the missile body.

Referring to the drawings, each game piece of the set there shown is substantially the same in size and shape as each other piece. Thus, as seen in Figure 1, the pawns **10** are substantially the same in size and shape as king piece **11** and missile **12**. As set up for play, the pawns **10** are arranged about ¾ inch apart in a row or rectilinear line which is spaced forwardly from a back stop **13**. Where the pawns are relatively small, as about two inches long with a bottom face **14** substantially one inch square, said line or row of pawns **10** is conveniently spaced about two or three feet in front of said back stop **13**; and the king piece **11** is spaced about ten inches forward from said row of pawns **10**.

In shape, the game pieces are unsymmetrical in relation to a median vertical plane in that the rear face **15** of each piece is flat whereas the front surface is of irregular contour and such that an upper end portion **16** thereof extends beyond the lower end portion, producing in effect an over-hang which creates a potential unbalance when the piece, as a pawn or a king, is rocked on its bottom face **14** in play.

The irregular front face of each game piece includes a re-entrant curved face **17** extending between a lower front flat face **18** and an upper obliquely disposed front flat face **19**. The curve of face **17** in relation to rear face **15** is such as to produce between their opposed midportions the minimum cross-sectional area of the piece, which area increases with the curved contour of the front face toward both ends of the piece but to a greater extent at the upper end of said curved face.

The flat side faces of each piece intersect the rear flat face **15**, the bottom end face **14**, the top end face **20**, the curved face **17**, the lower flat face **18** and the upper flat face **19**. The intersections at top and bottom of the piece form corners of different sizes and angular contours thus contributing both to the irregular contour of the piece and to its inherent or potential unbalance when rocked or tilted in play. The desired irregular overall contour is due in part to corners formed by intersection of an upper obliquely disposed rear flat face **21** with said flat side faces, said top end face **20** and said rear flat face **15**.

In view of the unique function of missile **12** in play, it differs from the pawn and king pieces in weight and/or in the distribution of its weight. Thus, as shown in Figures 3 and 4, a longitudinally extending bore or chamber **22** confines within the missile a weight or loading which may be a single mass, as a lead slug, or it may be a plurality of lead shot **23** or the like, which remain in substantially fixed relation in said chamber. In the modified form of missile shown in Figure 5, the loading, as a plurality of shot **24**, is of less volume and smaller dimensions than the chamber **22** and hence is free to move longitudinally in said chamber when the longitudinal axis of the missile is changed from one angular position to another, as in throwing or bouncing.

A game kit employing pieces as above described may advantageously consist of twelve pawns, one king piece, and one missile, or "throwing piece." Where less than four players participate in a typical match, each contributes two pawns to the row or line of pawns in the initial set up. The object is for each player to win as many pawns as possible.

Under a typical set of rules, each player in turn takes his playing position about nine paces, or other suitable distance, in front of the king piece and throws, pitches or rolls his missile toward the king and pawns. If his throw strikes down the king alone, he wins all the pawns

in the set up; and the players contribute to a new set up. If a throw strikes down only one or more pawns, the player wins those which fall. If a throw strikes down both the king and one or more of the pawns, the player is penalized by having to contribute a pawn to the set up; and the knocked down pawns and any leaners are set up again for the next player.

It will be apparent that the pawns and king may be set up on any fairly level surface which is large enough to provide a suitable throwing or pitching distance, as 12 to 20 feet. Also the bounce effects following impact of the missile of a given material will vary with the character of the ground or floor on which the pieces are set up. It is also expected that a missile having a freely moving load will behave differently on impact from a missile having a load or core in fixed position.

It is contemplated that sets of game pieces may be provided which are different in dimensions and/or details of shape from those above described and that the arrangements of the pieces and the rules of play may be varied within wide limits, while retaining and employing the unique or distinguishing characteristics of the above described game pieces.

I claim:

1. A set of game pieces for playing a game, said pieces comprising a plurality of counters, a target and a missile, all of said pieces being of substantially uniform size and shape, the length of each piece being generally twice its width and thickness and each piece being of generally rectangular cross-sectional contour with its cross-sectional area increasing toward both ends from a minimum at its mid-portion to a maximum adjacent its top end, each of said pieces being formed with a flat supporting face, a flat top face, a flat rear face, flat side faces, and a front face having a portion of longitudinally

curved reentrant contour extending between a lower flat end portion and an upper flat end portion, some of said faces intersecting to form end corners, said upper flat end portion projecting forward beyond said curved portion of the front face and beyond the lower flat portion of the front face, and arranged and adapted to provide an overhanging mass at the front top edge portion of each piece and a resulting potential unbalanced mass when the piece is tilted from upright position, the particular shape of the game pieces providing an improved factor of unpredictability in the playing of the game.

2. A set of game pieces according to claim 1 and wherein the missile piece is provided with a closed internally positioned cavity and a weight element of greater specific gravity than the material of the missile piece is confined in said cavity, said weight element being dimensioned for free movement lengthwise of the cavity.

3. A set of game pieces according to claim 1 and wherein the missile piece is provided with a longitudinally extending cavity closed at both ends, and a weight element therein is of greater specific gravity than the target piece and is dimensioned to substantially fill said cavity and thereby remain stationary in relation to the missile piece as a whole.

References Cited in the file of this patent

UNITED STATES PATENTS

907,571	Chesebro	Dec. 22, 1908
1,542,063	Knight	June 16, 1925
1,627,517	Littleford	May 3, 1927
1,991,671	Hodson	Feb. 19, 1935
2,623,748	Lucero	Dec. 30, 1952
2,666,643	Miller	Jan. 19, 1954
2,828,964	Horton	Apr. 1, 1958