Maze Tag is a lively and highly interactive game played in, on, and above a board or maze with marbles guided by sticks. The game may be played either indoors or outdoors. Players of all ages from four years old to more than eighty-four are attracted to participate. Much of the excitement and exercise common to the age-old game of tag are included in the game, however the game requires both less vigor and less space than tag. A certain dexterity to manipulate the sticks and marbles is advantageous, but not necessary. The existence of various strategies of play gives multiple levels of interest to the game. Three qualitatively different ways to play Marble Tag are: as individuals, as partnerships, and with handicaps. Furthermore, other games can be played with the same Marble Tag apparatus or on mazes with minor modifications.
FIGURE THREE

FIGURE FOUR
MAZE TAG GAME

BACKGROUND OF THE INVENTION

[0001] There is a need for a moderately active game that can involve all ages, that can be played in a small space, that requires a minimum of skill, where no player must stand idle waiting for others to take a “turn,” where no player will be a loser, and where the object is to chase and be chased, and just have fun.

DESCRIPTION OF PRIOR ART

[0002] All earlier games are the “prior art.” The “need” expressed in the preceding paragraph is not succinctly met by the “prior art.” Some examples of where the “need” is not met are that other games:

[0003] 1. require large spaces or special places, as: baseball, bowling, billiards, and bocce ball;
[0004] 2. are sedentary, as: bridge, bingo, and computer games;
[0005] 3. are too active, as: ping-pong and volley ball (not a drawback for some);
[0006] 4. have an order of play so that players must wait their “turns,” as: chess and horse shoes (not always a drawback, as often it is fun to watch others perform);
[0007] 5. develop one or more winners and therefore one or more losers, as: all of the afore-mentioned games; and
[0008] 6. have levels of skill, which discourage players of all ages, shapes and sizes from playing together, as: almost all of the afore-mentioned games.

[0009] There are two kinds of games which have some aspects similar to Marble Tag:

[0010] One kind includes games in which marbles, balls, disks, or other objects are skillfully propelled by sticks or cues (shot by shot) into scoring positions; scores are accumulated to determine winners and losers. These kinds of games are not games of tag. Players wait their “turns” and win or lose depending on the score accumulated. Play is not continual.

[0011] The second kind of game includes games of tag which involve a player running to physically touch another player in order to transmit the “it” designation. Marbles and propelling sticks are not used.

[0012] References Cited:

[0013] With limited experience I have searched www.uspto.gov for all years back to 1970 with the key words “tag,” “maze,” “marble,” and other key words. For four patents (U.S. Pat. Nos. 5,603,452; 5,749,575; 5,386,994; and 4,252,320), which had some similarities to my invention, I searched the patents which they referenced which dated back to 1894. The first of these four patents (U.S. Pat. No. 5,603,452), entitled Marble Maze Board Game, is the most similar (certainly in name) to my invention but is, however, quite different in almost all respects. In the “1790 to 1975” time span I also viewed classes 273/108.1 (32 hits), 273/118R (157 hits), 273/441 (52 hits), 273/459 (181 hits), and 273/287 (217 hits).

[0014] Each patent viewed has one or more of the following characteristics which makes each patent very different from Marble Tag:

[0015] 1. depressions to hold marbles in places between “turns” of play (play is by “turns”),
[0016] 2. scoring location(s) for the marble(s) (yielding winners and losers),
[0017] 3. mazes able to be tilted to allow gravity to guide the marbles (games of skill),
[0018] 4. mazes drawn on a board over which tokens are moved,
[0019] 5. boards on which a variation of the traditional game of marbles might be played wherein one attempts to knock other marbles from a given location (“turns” are taken and skill is valuable),
[0020] 6. pin-ball like games,
[0021] 7. mazes with holes to be avoided,
[0022] 8. Simulations of games like croquet, golf, and soccer, or
[0023] 9. miscellaneous boards, etc. bearing little resemblance to Marble Tag.

[0024] Moreover, none of the game boards look like the Marble Tag game board (a maze), nor are any of the patented games like Marble Tag.

DETAILED DESCRIPTION OF THE INVENTION

[0025] Marble Tag is a game of tag played in, on, and above a maze with marbles guided by sticks. The Marble Tag components, namely: maze, marbles, and sticks will be defined below. When these particular definitions are to be considered the word (maze, marbles, or stick) will be enclosed in quotation marks. Other words in this text, when they are enclosed in quotation marks, have the special meanings indicated when they first appear.

[0026] Definitions:

[0027] 1. “Maze”:

[0028] The game board or “maze” can be of a variety of forms. Its substrate may be of a variety of forms such as: a flat surface or an uneven surface (with perhaps a “speed bump”) or a surface of an electromagnetic nature. Walls on the substrate, made of almost any material such as: wood, plastic, metal, electromagnetic force fields and representations thereof, stone, earth, sand, piping or tubing, rubber, and/or hedges of growing materials, define features such as straight passageways, curving passageways, corners, other passageway intersections, holes, dead ends, moving parts, tunnels, and/or open spaces.

[0029] 2. “Marbles”:

[0030] Corresponding to the variety of “mazes” are a variety of “marbles” such as common glass marbles and/or marbles made of other materials such as: wood, metal, plastic, sponges, electromagnetic force fields and represen-
tations thereof, and/or rubber. To illustrate (but not to limit) the wide range of items which could be considered as “marbles” some additional specific examples are: ping-pong balls, Nerf balls, icons on a television or computer screen, plastic beverage bottles, large rubber balls, etc.

[0031] 3. “Sticks”:

[0032] Corresponding to the variety of “mazes” and to the variety of “marbles” are a wide variety of “sticks” such as: wooden dowels about ½” in diameter and about 7” long, larger diameter and longer plastic rods (soft and somewhat pliable are suggested), brooms or broom handles, air jets, water jets, and various other rods of metal, plastic, wood, etc. and remote controllers such as joy sticks, electronic switches and rheostats, etc. “Sticks” may be of various shapes and sizes depending on the “maze” and “marbles” in the game.

EXAMPLES OF “MAZES”

[0033] The following examples are cited to illustrate the concept of a “maze,” not to limit the broad definition given above:

[0034] 1. A board about 40” by 40” with straight passageways, corners, dead ends, and open spaces (see FIG. 1 and FIG. 2) usually supported on a table about card table size or taller.

[0035] 2. A board with both straight and curved passageways, dead ends, and open spaces (see FIG. 3) usually supported on a table about card table size or taller. Compared to the previous example, this octagonally shaped board has smoother corners (very difficult to jump from) in the outermost passageway, more uniform access to the center, and a slightly longer distance across.

[0036] 3. A children-sized board about 32” by 32” supported on a table or on the floor or ground.

[0037] 4. A series of connected walls (and some may be not connected) laid out on the ground to form the spaces and passageways. This form of the “maze” may be quite large with correspondingly large “sticks” (as long as 3’ to 5’) or “sticks” which are air jets or water jets and large “marbles” such as Nerf balls or Styrofoam balls up to or greater than one foot in diameter. The walls may be pipes, hedges (see FIG. 4), or other materials. These large versions of the game of Marble Tag can be played on a lawn with trees and bushes as “maze” components, on city streets with or without natural hazzards (broom sticks make good “sticks” and two-quart soda bottles with caps make good “marbles”), or in gymnasiums. These large games are also well suited to playing with teams.

[0038] 5. A board whereby the “marbles” are confined by electromagnetic forces to electromagnetically defined spaces and/or passageways and/or their representations on a screen(s) (see FIG. 5). The “sticks” exert electro-magnetic forces to control the “marbles.” Each player has a “stick” which can be continually operated without waiting for other players.

[0039] 6. A board with holes. Holes provide a hazzard for Marble Tag, but introduce variations of rules applicable to games essentially different from Marble Tag and all other games. These variations of Marble Tag will be described in the claims.

DISCUSSION OF A SPECIFIC EXAMPLE OF MARBLE TAG

[0040] Some aspects of Marble Tag will be discussed referring to the following specific “marbles,” “sticks” and “maze”:(When referring to this specific example of “maze,” “sticks,” and “marbles,” or components very similar, the words maze, stick, and marble will be italicized.) Glass marbles ½” in diameter (see FIG. 7) are guided by ½” diameter, 7” long, wooden sticks (see FIG. 6) in, on, or above the maze illustrated in FIG. 2 which has passageways ¾” wide and ¾” deep. FIGS. 6 and 7 are drawn to a scale approximately ½ of the actual size of the marble and stick, and FIG. 2 is drawn to a scale approximately ¼ of the actual size of the maze.

[0041] The specific maze will be discussed first:

[0042] 1. Larger mazes have the drawback that marbles can get beyond the reach of the player’s guiding stick; this leads to hectic running around the maze” often unpleasant interactions with other players (unpleasant, because they occur at high speeds), lack of control, and a greater playing space requirement. Smaller mazes have the drawback that adult players can stand still to reach all areas of the maze and so decrease both the interaction with other players (in this case, pleasant interactions, because they occur at low speeds) and the moderate exercise which the game generates with the controlled circling of the maze. Advantages of a smaller maze (about 32” by 32”) is that it is lighter, requires less material to make the maze, and small children can reach to the center of the maze. The specific maze being described requires a relatively small area for play, somewhat less than about 8’ by 8’. Physically handicapped players (for example: players in wheelchairs) can play.

[0043] 2. The passageway walls are boards with rectangular cross-section 2½” wide and ¾” thick. Note that the board thickness determines the passageway wall height. This wall height sets the balance between confining a marble to stay in a passageway and allowing the marble to be flicked out of the passageway to escape. Sides too short and sides too tall detract from the good balance of marble confinement and escape; passageway in a range of heights from ½ to 1½ times the marble diameter are quite acceptable. Wall width is also important. Wide walls leave too little room for many passageways in the maze, and narrow walls have tops too precarious to easily traverse. The wall lengths range from very short to the entire maze length (the boards which form the outer edge of the maze.)

[0044] 3. Passageway widths are 1.2 times the marble diameter. Passageways too wide make guiding the marble difficult, allow marbles to get jammed, and in the extreme allow marbles to pass each other. Passageways do not all need to be the same width. Note
that the ⅜" wide passageways in this specific maze being considered can be jumped by marbles navigating the wall tops.

5. The small open space (labeled B) can be used as a safety zone in some variations of play.

5. The large central open space (labeled A) is where it is recommended that the first player declared “it” starts and where marbles which have fallen off the maze onto the floor or onto the ground are restarted. Such a fallen marble is normally declared to be “it” when it restarts.

6. The maze has many dead ends and many branch passageways joining at right angles to each other, which is the easiest construction. Other examples of “mazes” have passageways joining at various angles. The dead ends encourage both guiding one’s marble to the upper levels of the walls and also flicking the marble into the air. These two maneuvers will be called “aerial advances.” Aerial advances can also be done in “corners” and on the smooth sides of the large clearing and even the small clearing. By design controlled “aerial advances” are impossible in the midst of the common ⅜" wide by ¾" deep passageways, another reason why passageways should not be too wide.

7. The continuous nature of the outermost passageway of the maze is recommended. This is one of the more exciting raceways in the game. At the start players who are not “it” conveniently start in this outside track.

8. Several passageways open into clearing A. If there were no such openings, the first motion of the first “it” and the first motion of someone becoming “it” by falling off the maze must be an “aerial advance”, “aerial advances” are somewhat difficult to control. Also, if some other marble is in the central space with the “it” marble and there are no passageways for escape, the consternation level is unnecessarily high. Likewise, several passageways open into the continuous outermost passageway for many of the same reasons. Only one passageway needs to open into clearing B because it has much the same properties as a dead end (when not designated as a “safe” area).

Stick diameter and shape are important (see FIG. 6). A round dowel slightly smaller than the marble diameter (see FIG. 7) with flat ends and about ⅞" long is ideal (that is, a cylindrical shape). A shaped guiding edge and/or end is not as good, since a shaped stick continually requires orientation to properly guide a marble, and the shape may inhibit or enhance the marble-flicking ability of the stick and thereby detract from the balance among areas of play; that is, when play is in good balance, it occurs mostly in the maze, yet often on the maze, and less often above the maze (indeed, the cylindrical shaped stick provides the best balance among these areas of play). ⅞" long is about ideal because a longer stick is unwieldy and a shorter stick lacks the reach and leverage. There is no loss in time to determine which end of the stick to use in guiding one’s marble, if the stick has symmetrical ends.

A Typical Way of Playing Marble Tag:

The following “rules” are consistent with the specific example of Marble Tag components described and discussed in the last section. Italicized words still refer to those specific components, the marble, stick, and maze.

1. Each player has a marble & a stick. From three to five playing at the same time make a good game. Two or six players make almost as good a game.

2. One player is designated as “it”; for example: a player may volunteer to be “it,” be the last to say “not it,” land the farthest from a selected point in the maze when the marbles are tossed from a distance, or be designated by some other method agreeable to the group. Players are always expected to toss their own marble.

3. Start the game by tossing (from close range) the “it” marble into clearing A of the maze and all the other marbles into the outermost passage.

4. Each player should then use their stick to briskly guide their marble in, on, or above the maze.

5. Action above the maze is accomplished by flicking the marble into the air. This “flicking” is most easily accomplished by reaching a “corner” or dead end and slipping the stick under or partway under the marble. Flicking the marble into the air is also possible at the edges of the open spaces (A and B) by placing the stick nearly parallel to and near the maze bottom with the marble between the stick and the wall; roll the stick around its long axis so that the marble is raised from the maze bottom; that is, the top of the cross section of the stick moves away from the wall. “Nearly parallel” means that the bottom end of the stick is on the maze bottom (flat end nearly perpendicular to the maze bottom) and the top end of the stick, held by the hand, is just above the maze wall; fingers might touch the maze. In passageways ¾" wide it is not possible to place the stick near the maze bottom with the marble between stick and wall. That’s why it is not possible to make a controlled jump of the marble from such a spot.

6. The player who is “it” attempts to tag another player’s marble, stick, or person with the “it” marble. The tagged then becomes “it.”

7. Play continues without picking up any marble.

8. A touchback is allowed after the tagged marble and/or the tagging marble have gone around a total of two corners; here are three examples:

A. Each marble rounds one “corner” (perhaps the newly tagged marble pursuing the last “it”);

B. The tagged marble moves around a “corner” and then returns (a 2nd “corner”) to touchback; or

C. the tagged marble jumps to an upper level (rolling on the walls), then back into maze.

9. A player may only strike their own marble with their stick. Possible penalty: if player A strikes another player’s marble with their stick, player A becomes “it.”
10. A player’s marble may strike any stick and any marble except the “it” marble with no penalty. If the struck marble is the “it” marble, the striker becomes “it.”

11. If any player touches any marble with hand or other part of the body, that player becomes “it.” (This penalty may be conveniently overlooked when small children play.) An aside activity, which provides additional interest, is for a player who is not “it” to flick their marble into the air to touch some unsuspecting player who is leaning too far over the maze. According to this rule the player who has been touched by the flying marble is now declared to be “it”—a reminder that extensive leaning might be considered unmanly.

12. If a marble lands on the floor, couch, or otherwise does not return into or onto the maze, that marble becomes “it” and is tossed into the large central clearing. Any other marbles in that area should seek to evade the new “it’s” deftly as possible. If rules 9 and 11 are broken this rule is void and the marble leaving the maze may be replaced in the maze wherever the owner wishes.

13. As each person moves around the maze or is standing still, avoid blocking other players with your body, especially those players being chased and/or in hot pursuit.

**Variations:**

Part of the beauty of playing Marble Tag is that rules do not have to be rigidly obeyed. For example: one overlooks young children using fingers on occasion.

- Partnerships of two or more may play against partnerships and/or individuals.

- One or more players may be required to guide more than one marble (a handicap when trying to evade, yet a benefit when in pursuit). Handicap or benefit can be eliminated by having to control more than one marble only when “it” (no more handicap) or more marbles only when not “it” (no more benefit).

- Clearing B may be declared a safe area (Furnish, safety may be limited to last [or first] arriving marble). Observing both rules 9 and 10 in the last section, a player may try to push other marbles from this safe area.

- To gain practice (or just for fun) Marble Tag may be played alone.

- Special “sticks” may be shaped for carrying the marble (not a good variation).

- The maze may be one large, clear open space which may or may not have movable blocks. This was the first version of Marble Tag.

- Irregularly shaped passageways & clearings are possible. Passageways may be shaped to be “one-way” passageways forming closed loops with no branch passageways leading in or out and no “corners” or jumping places very difficult to escape from.

8. The “maze” may be overlaid with additional layers and chutes in a 3-D array.

9. A smaller sized maze is suitable for children playing on the floor inside or on the outside.

10. A smaller sized maze is also suitable for people seated around a table.

The previous seven pages, in which a specific game maze and apparatus have been described and in which a typical way to play Marble Tag has been described, illustrate how Marble Tag solves various drawbacks (previously noted) which other games (prior art) seem to have.

A Partial List of Variations in “Maze” Design and Variations in Play Include:

- Octagonal “maze” shape (easier to run around; “maze” center is more reachable). (see FIG. 3)

- Passageways with a variety of curves (a very popular and beautiful variation, especially when painted). (see FIG. 3)

- Holes in the “maze”. This variation in “maze” design introduces new games which are quite different from Marble Tag. Similarities to Marble Tag, as described in A Typical Way of Playing Marble Tag, include: the same maze, marbles, and sticks and the same continuous play (no waiting to take “turns”). Differences include: teams, winners and losers, different sizes of marbles, and, of course, the holes. The holes can simply be drilled in the maze or a platform can be added with the holes drilled in the platform. In the following 3 variations the common links to Marble Tag are the “marbles,” “sticks,” “marbles,” and the same continuous play (no waiting to take “turns”).

- A) In this variation tag is not played. A team scores by landing their marbles in one or more holes.

- B) This second variation is also not a game of tag. In this variation there is both scoring and blocking. With a ½” hole, ½” marbles can fall through to score and ¼” marbles will block the hole to prevent scoring. Other ¼” marbles can strike a blocking marble to dislodge the block. ½” marbles are nearly ineffective in dislodging a larger marble. The ¾” size marbles are just small enough to be able to travel through the ¾” passageways.

- C) In a third variation, which is a variation of the last variation, the aspect of tag is reintroduced. This third variation is called Frenzy. A team behind in score may toss a special marble into play which can win the game for that team if either

- i) the special marble can elude the opponents for a certain length of time or

- ii) the special marble can elude the opponents and score in a certain hole or way.

- Marble Tag is playable on large “mazes” such as a lawn, city street, playground, or gymnasium with the typical rules (previously described) or variations in the rules, such as the following or combinations of the following.

- These large variations introduce vigorous exercise in common settings.

- A) The “marbles” are carried and thrown.

- B) The “marbles” are kicked as in soccer.
C) Teams control many “marbles” (one for each player).

D) Each team controls one “marble.”

i) score is kept as to how long a team is “it.”

ii) time is multiplied by different factors depending on whether the “tag” is the “it” “marble” striking the other “marble,” another “stick,” or another player. A time-clock like a chess-clock is used. This is a particularly good variation in combination with B above.

BRIEF DESCRIPTION OF THE FIGURES

On page 24:

FIG. 1: Perspective drawing of a typical Marble Tag “maze.”

FIG. 2: Top view of a second example of a typical Marble Tag “maze.”

FIG. 3: Perspective drawing of a third example of a typical Marble Tag “maze.”

FIG. 4: Drawing of a larger Marble Tag “maze” with players in the “maze.”

FIG. 5: Drawing of computer screen which would show a “maze,” three mouse pads with mice, cords to two other mice (not shown), mixer to receive input from active mice, and computer to translate mixer output to appropriate motion of “marbles” in, on, and “above” the “maze.”

FIG. 6: A typical Marble Tag “stick.”

FIG. 7: A typical Marble Tag “marble.”

FIG. 8: An example of a component of the “maze” shown in FIG. 3.

FIG. 9: An example of a component of the “maze” shown in FIG. 3.

FIG. 10: An example of a component of the “maze” shown in FIG. 3.

FIG. 11: An example of a component of the “maze” shown in FIG. 3.

FIG. 12: An example of a component of the “maze” shown in FIG. 3.

FIG. 13: An example of a component of the “maze” shown in FIG. 3.

DETAILED DESCRIPTIONS OF THE FIGURES

FIG. 1: This “maze” is 44” by 44” and 1” thick. The substrate backing is ¾” thick plywood. The walls are boards 2½” wide, ¾” thick, and of various lengths. The walls are glued securely to the backing. The “maze” is cut in half and hinged to fold along the center line shown. Five hinges are shown. When folded the walls are on the inside and the backing is on the outside. The walls form the labyrinth of passageways. The passageways are therefore ¾” deep. The passageways are also ¾” wide. The central clearing is labeled A. A is a square 16½” on edge. A smaller clearing is labeled B. B is a square ¾” on edge. Notice the continuous passageway at 3” from the outer edge of the “maze.” During play this becomes a raceway with a lot of action. Near the center is a dashed square with four arrows indicating a clockwise direction. This dashed path is an inner raceway which is easy to traverse in the direction of the arrows but not possible to traverse in the reverse direction. This is because a “marble” can be easily flicked into the air from dead ends and “corners” but not from the midst of a passageway. That is, at the far left corner of the dashed square (at C) it is not possible to jump the nearby wall from the midst of the passageway to go against the arrows, but it is possible to jump the wall from the “corner” formed by the two passageways just on the other side of the wall (next to C) to go in the direction of the arrows. This same order of features, that is: “corner,” wall, and then passageway, an order which can be traversed in only one direction, occurs again in the far right corner (at D). This repetition of feature order reinforces the clockwise-only direction for the raceway.

FIG. 2: This is a top view of another “maze” layout. The scale is ¼” actual size. This “maze” is quite similar to the “maze” of FIG. 1; it has the same “maze” length, width, and thickness, outer raceway, inner “one-way” raceway, hinges, and dimensions of the backing, walls, passageways, and clearings. However, the inner raceway is clockwise for a different reason. In FIG. 2 the inner raceway occurs in the square of passageways one wall-width in from the outer raceway. When trying to traverse this inner raceway in the counter-clockwise direction, the “marble” tends to go past the openings to the raceway passageways in the upper left corner (at C) and the upper right corner (at D) whereas in the clockwise direction, when the “marble” reaches those corners, it may easily be directed to continue in the raceway. However, in this “maze” it is possible to traverse the inner raceway in the counter-clockwise direction; it just takes skill to stop a “marble” (which is traveling swiftly in a straight and continuous passageway) at just the right moment in order to enter the mouth of a passageway at right angles to the “marble’s” motion.

FIG. 3: This “maze” is an octagon, 48” across (which means that each of the 8 edges is about 20” long) and ¾” thick. The octagon is made out of two sheets of plywood, each with two corners sawed off, hinged to form the midline of the “maze” (6 hinges are shown). Handle holes (about 4½” long and 1½” wide and extending through the entire board thickness) are shown in the nearest foreground edge and in the farthest background edge. When the maze is folded these handle holes line up smoothly for ease in carrying the “maze.” The passageways are made with a router and are ¼” wide, flat bottomed, and about ½” deep. Router bits to make widths wider than ¾” are more costly and overheat when routing passageways ¾” deep. The router depth is adjusted so that passageway bottoms don’t intersect any glued joints of the plywood’s plys. Lettering is made with a round ended router bit set to a depth of about ¼”. These letters are part of the playing field. This same shallow and rounded-bottom router setting can be used to make upper level passageways (not shown) in the tops of the walls of any of the “mazes” shown in FIGS. 1, 2, and 3. There is
a central clearing, A, and a smaller clearing, B. A continuous raceway is shown about 3” from the outer edge of the “maze.” There is a second continuous raceway which curves gracefully around clearing, A. This raceway is not restricted to one-way and is very fast. Enlargements of several passageway configurations are shown in FIGS. 8, 9, 10, 11, 12, and 13. The discussions of these Figures bring out a few of the subtleties in the design of Marble Tag “mazes.” FIG. 4: A formal “maze” is shown with real people playing in the “maze” using common brooms as “sticks” (just the broom sticks, without the straw, make even better “sticks”). The “marbles” are lively, soft rubber-balls like school children use for dodge ball. This is an example of a relatively small “maze” for outside play. An example of an informal and relatively large “maze” with the same players, “marbles,” and “sticks” is a rolling lawn in which the “walls” are trees, bushes, and other obstacles to hide behind and run around. Note that, if the “sticks” were eliminated and the players were allowed to kick the “marbles” this Figure would illustrate one of the variations of Marble Tag which is a combination of soccer-like play and tag.

FIG. 5: A computer, C, is shown. C’s monitor is shown with screen, S. The “maze” and “marbles” appear on S and are not shown. Three mouse pads, MP, are shown, each with a mouse, M. Two wires for two additional M and MP’s are shown terminating at the two O’s. A mixer, X, is shown which samples the signals from each M and feeds the sample to C, M, the mixer electronics, and C’s electronics correspond to a “stick.” M can either directly guide a “marble” or control a representation which appears on S of a “stick” which guides the “marble.” The “maze” is a representation which appears on S of the restrictions (the “walls”) set by C to the allowed movement of the “marbles.” The “marbles” are “icons” which appear on S. These “icons” can take on a variety of forms such as: people, a fox and geese, round disks, etc. Each player’s “marble” has special identification. C reports when a tag is made and thereafter keeps track of which “marble” is “it” by giving it a special highlight. C takes into account the angle and magnitude of the “stick” force (including a mouse button for levitation), the angle and magnitude of the wall forces, a small amount of frictional force, any other forces, and the “marble’s” velocity and mass to determine the course of each “marble.”

FIG. 6: A typical Marble Tag “stick” is shown. This “stick” is a ½” diameter, 7” long wooden dowel. The Figure is approximately ⅓ of the actual size. Its flat ends, length, diameter, and lightness are well suited for the Marble Tag “mazes” like those shown in FIGS. 1, 2, and 3. Shaped ends spoil the simplicity of the game in that: the “stick” must be held with a particular orientation, and the balance among areas of play (in, on, and above the “maze”) is altered. A shorter “stick” is inferior in three respects: 1) it lacks the reach needed to cover a wide area of the “maze,” 2) it lacks the leverage to get under the “marble” in order to flick the “marble” into the air both in the “corners” and in the dead ends, and 3) it lacks the length to efficiently roll a “marble” up the straight edges of the large central clearing (A in FIGS. 1, 2, and 3) and the smaller clearing (B in those same three Figures). A longer “stick” is also inferior since it offers too much leverage (the controlling hand is too far from the “marble” being guided for delicate control) and it offers too long a reach, allowing a player to cover too large an area of the “maze” without the player physically moving around the outside of the “maze.”

FIG. 7: A typical Marble Tag “marble” is shown. This “marble” is a spherical glass marble ½” in diameter. The Figure is approximately ⅓ of actual size. A “marble of ½” diameter is the right size to be guided by a ½” diameter “stick” through ½” wide passageways. “Marbles” of smaller diameter are more difficult to get a “stick” under for levitation and are more easily lost when landing off the “maze.” (½” diameter “marbles” are not too small, but ⅛” “marbles” are.) “Marbles” of diameter larger than ½” won’t pass through ¼” passageways. Most glass marbles, which are sold as ⅛” diameter marbles, have shrunk just a little on cooling.

FIG. 8: An enlarged view of a passageway configuration found in the far right corner of FIG. 3 (passageways are shaded). The Figure illustrates a passageway configuration which is almost a trap for a “marble” being pursued. The dead end, A, is directed toward the outside so that too energetic a levitation lands the “marble” off the “maze.” However, there is a sharp, but smooth, curve just before the end which allows a “marble” being chased sufficient time to make a controlled jump. A configuration similar to this Figure, wherein the largest diameter semi-circular passageway spiral is continued to encircle A one and three quarters times (that is, continue the passageway along the dashed curve), increases the excitement: as the pursuer approaches, the freeing marble jumps one wall and must then escape around an entire circle. In that moment the pursuer reverses direction to be in close pursuit.

FIG. 9: An enlarged view of a passageway configuration found near the right edge (toward the front) of FIG. 3 (passageways are shaded). In this Figure a “marble” spirals inward and then outward with considerable elegance to progress from side A of the Figure to side B. If one jumps into the midst of this Figure or pauses too long en route, one is apt to forget which direction of rotation leads to which side.

FIG. 10: An enlarged view of a passageway configuration found in the center of the near right corner of FIG. 3 (passageways are shaded). This “heart” shaped Figure has no passageway connection to the rest of the passageways. To enter or leave a “marble” must jump. A controlled jump to escape can only be done from point A. Too gentle a jump from A tends to land the “marble” back in the “heart” shaped passageway. Too vigorous a jump tends to land the “marble” off the “maze,” since the jumping point is located near the edge of the “maze” and directed toward that edge.

FIG. 11: An enlarged view of a passageway configuration found on the right of the near edge of FIG. 3 (passageways are shaded). This tends to be a one-way passage. It is easy to go from B to A, but difficult to go from A to B. On trying to go from A to B the “marble” tends to overshoot the passageway entrances and travel on to the dead ends (which are pointed away from B).

FIG. 12: An enlarged view of a passageway configuration found on the left side of the near edge of FIG. 3 (passageways are shaded). “Marbles” tend to get caught in the “doughnut” shaped passageways both because one can’t jump out and also because one tends to overshoot the exit passageways. It is therefore difficult to travel in either direction across this Figure. Four or five “doughnuts” in a row greatly slow the chase, but greatly increase the excitement as players more frantically (and usually less effectively) manipulate their “sticks.”
FIG. 13: An enlarged view of a passageway configuration found in the middle near the left edge of FIG. 3 (passageways are shaded). This configuration has similarities to the “heart” configuration (see FIG. 10) as follows: there is no passageway connection to other passageways; a jump tends to land one back in the figure; and too energetic a jump from one point sends the “marble” off the “maze.” When the pursuer and the pursued are both in the figure at the same time the pursued has a slightly better chance at getting away than in the “heart” shaped figure. Increasing the length and bends in the passageway branches at A and B further increases the pursued’s chances of escape.

Note that in FIG. 3 the passageway ended labeled C of FIG. 11 is next to and pointed toward the configuration shown in FIG. 10, the “heart.” Otherwise it would be very difficult to get into the “heart.” Likewise, note in FIG. 3 that there are passageway ends next to and one pointed toward the configuration shown in FIG. 13. Otherwise it would be difficult to get into that configuration.

1-3. (cancelled).

4. An amusement game of “tag” intended to be played by a plurality of players, one of whom is originally designated as “it”, comprising a display having a plurality of pathways and open spaces therebetween, some of the pathways and open spaces intersecting each other and at least one pathway being non-intersecting and standing alone, wherein a plurality of objects are guided in the respective pathways, there being at least one object per player, and the objects being manipulated along the plurality of pathways by the respective players, continuously or intermittently at the discretion of each respective player, so as to pursue another player’s object in the case of the “it” player or to avoid pursuit of the “it” player in the case of the other players, wherein the “it” player attempts to guide and propel his or her object so as to “hit” a respective object of one of the other players, thereby to “tag” that respective player as the new “it” player; and wherein a player is allowed to expel his or her object out of a respective pathway, jump over an intermediate open space, and into another pathway.

5. The amusement game of claim 4, wherein the display comprises a board.

6. The amusement game of claim 5, wherein the board is octagonally shaped and sized to fit over a conventional card table.

7. The amusement game of claim 6, wherein the board is hinged at the center thereof and may be folded into complementary halves for compact storage and carrying purposes.

8. The amusement game of claim 7, wherein the board is molded.

9. The amusement game of claim 4, wherein the pathways are selected from the group consisting of spiral, straight, angular, irregular and random pathways.

10. The amusement game of claim 4, wherein the objects are balls.

11. The amusement game of claim 10, wherein the balls are colored marbles.

12. The amusement game of claim 4, wherein if a player’s object completely leaves the board and lands off the board, then that player is the new “it”, and his or her object is returned to the board.

13. The amusement game of claim 4, wherein the objects are manipulated along the respective pathways by hand-held implements.

14. The amusement game of claim 13, wherein the hand-held implements comprise sticks.

15. An amusement game of “tag” intended to be played by a plurality of players, one of whom is originally designated as “it”, comprising a board having a plurality of pathways and open spaces therebetween, some of the pathways and open spaces intersecting each other and at least one pathway being non-intersecting and standing alone, wherein a plurality of objects are guided in the respective pathways, there being at least one object per player, and the objects being manipulated along the plurality of pathways, or over the open spaces by the respective players, continuously or intermittently at the discretion of each respective player, so as to pursue another player’s object in the case of the “it” player or to avoid pursuit of the “it” player in the case of the other players, wherein the “it” player attempts to guide and propel his or her object so as to “hit” a respective object of one of the other players, thereby to “tag” that respective player as the new “it” player, wherein one player may expel his or her object completely out of the respective pathway, jump over an open space, and into another pathway on the board; wherein the objects are balls, and wherein if one player’s ball completely leaves the board, then that one player becomes the new “it”.

16. The amusement game of claim 15, wherein the board is molded and is hinged at the center thereof and may be folded into complementary halves for compact storage and carrying purposes, wherein the pathways are selected from the group consisting of spiral, angular, irregular and random pathways, and wherein the balls comprise colored marbles.

17. The amusement game of claim 15, further including teams of players.

18. The amusement game of claim 15, wherein a player controls more than one marble.

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