Bill!Chess

(Patent Pending)

ABSTRACT

A billiard-type game played on a chess-like board by two players or by one player against a computer as the opponent. Each player has a complete set of chess pieces and an imaginary billiard ball. Since seeing the movements and the trajectories of the two billiard balls is essential for playing the game, the balls are replaced by laser beams in this game. Game pieces influence the path of the laser beams. This invention consists of two games – chess and an altered version of billiard – that are simultaneously played. The billiard game is heavily influenced by the movement/interaction of the chess pieces. The chess pieces (and therefore the chess game) are not influenced by the two laser beams. The game pieces are placed in a predetermined "starting" configuration and a laser source/emitter is placed in a predetermined position, in front of each player.

FIELD OF THE INVENTION

The present application relates to video games and in particular relates to video games which are easily understood, require an element of skill and are competitive.

BACKGROUND OF THE INVENTION

Games involving strategic movement and/or positioning of playing elements along a grid-based board are well known in the art. These games include (but are not limited to) chess, checkers, backgammon, go, etc. However, board game enthusiasts are continually looking for new challenges and modern games of strategy, and the features and advantages of the present invention are described in greater detail within this description.

INVENTION SUMMARY

The present invention combines the strategy of traditional games billiard and chess* with modern technology, for an engaging experience. **Billi**ard + **Chess** = **Billi****Chess**.

> * NOTE that any board game where its pieces move/interact according to certain rules (well-established or newly invented) may be used.

The game of the present invention has the universal and enduring appeal of classic games, in an embodiment which incorporates lasers.

The players have to make the best out of two strategies: The chess strategy and the Billi strategy (where “Billi” stands for the altered version of the billiard game presented here). The Billi strategy has to be rethought over and over again since the laser beams’ trajectories will be altered many times throughout the game by the movement and capturing of the chess pieces.

The game can be played with one person against another person or against a computer as the opponent. For a more enjoyable visual experience, on a black and white board, we define the two players as the blue player and the red player. The blue player has the blue game pieces and the Blue Laser Beam (BLB); the red player has the red game pieces and the Red Laser Beam (RLB).

Compared to the basic version described here, in future, more advanced versions of this game new features and rules will be added, including:

- choice of a fourth lifeline which is different from the three mentioned in BR6;
- choice of a different (i.e. other than chess) board game;
- different board size;
- a game clock. (A game clock can also be part of the basic version of the game).

BRIEF DESCRIPTION OF THE DRAWINGS

The invention can be better understood with reference to the following drawings.

FIG. 1 is a front view of the 12X12 (= 144 squares) chessboard with all the pieces on, before the game starts. It can be seen where the Blue Laser Beam Emitter (BLBE), the Red Laser Beam Emitter (RLBE), the Blue Achilles’ Heel (BAH) and the Red Achilles’ Heel (RAH) are located. Note that the Laser Emitters are off at this stage. They will turn on, i.e. start emitting, after each team made a move.

FIG. 2 is an example of a LaserMate. It also shows how the Blue Laser Beam (BLB) interacts with different chess pieces (including the pawn that stops the beam) and the board frame. Note that after the position exemplified in FIG. 2:

2a. if the pawn moves (one square ahead), then the BLB is free to continue its journey;
2b. if the pawn is captured by any adverse piece, then the BLB will interact with the new piece as explained in “Basic Rules”.

FIG. 3 is an example of a LaserMate-K (a LaserMate where the red K is crossed by the BLB). It also shows all the possible interactions between Laser Beams and the chess pieces (except for the pawn, which was covered in FIG. 2).

FIG. 4 is a partial view of the board game showing how a laser beam is diverted by a Joker when the Joker chooses the lifeline “N-Reflection”.

FIG. 5 shows a “sucked” and resurfaced laser beam.

DETAILED DESCRIPTION OF THE INVENTION

The game board **20** is an oversized chessboard of 12X12 squares (instead of the regular 8X8) bounded by a frame **21**. With the standard chess pieces on, the board looks like the one in Fig. 1, where:

P = Pawn
N = Knight
B = Bishop
R = Rook
Q = Queen
K = King

BLBE = Blue Laser Beam Emitter **22**. It emits a Blue Laser Beam (BLB) **23** from the southeast corner of the l2 square at an angle of 45 degrees **24** toward the central area of the chessboard. (See also FIG. 3)

RLBE = Red Laser Beam Emitter **25**. It emits a Red Laser Beam (RLB) **26** from the northwest corner of the a11 square at an angle of 45 degrees **24** toward the central area of the chessboard. (See also FIG. 2)

BAH = Blue Achilles’ Heel **27**. It is the southeast corner of the l1 square. If the RLB hits the BAH, the Red Player (with the red pieces **28**) wins the game.

RAH = Red Achilles' Heel **29**. It is the northwest corner of the a12 square. If the BLB hits the RAH, the Blue Player (with the blue pieces **30**) wins the game.

As for how the chess pieces move, interact and how to checkmate the opponent's king, the chess game itself is played by the well-known established rules. (The game of the present invention can be played on a standard 8X8 chessboard with the BLBE placed in the southeast corner of the h3 square, and RLBE placed in the northwest corner of the a6 square. Other game board sizes can be used).

The Laser Beams (BLB and RLB) are parallel to the playing surface and reflect off the frame **21** of the board (like a billiard ball would bounce off the cushion) and interact with the chess pieces according to the following:

Basic Rules:

BR1. The pawns do not reflect any LB, that is any LB hitting a pawn will stop there;
BR2. The rooks, bishops and knights reflect any LB;
BR3. The queen will let her own color LB go through but it will block (like a pawn) the adverse LB.;
BR4. The king reflects its own color LB but will let the adverse LB go through (i.e., when hit by an adverse color LB the king will let it pass like there's nothing there).
BR5. When a LB hits a reflective chess piece it acts like hitting a mirror (which mirror is parallel to the columns) precisely in the center of the square where that chess piece is.

So there are: (i) Non-reflective game pieces: eight pawns and a queen for each player; (ii) Reflective pieces (that act like two mirrors oriented back-to-back to produce separate surfaces reflecting in opposite directions): two rooks, two bishops and two knights for each player; (iii) Selectively reflecting pieces (see 4. in Basic Rules above): one king for each player.

NOTE: All reflections are specular: The angle of incidence just before the collision is equal to the angle of reflection just after the collision. Therefore since the initial angle of the Laser Beams (BLB and RLB) is 45 degrees **24** and all the action happens inside a square-shaped game board **20**, for all reflections the angle of incidence = angle of reflection = 45° **24**. Thus all LB's trajectories will cross an empty square **35** from one corner to the (diagonally) opposite corner. Also: A reflective game piece acts like two mirrors (oriented back-to-back to produce separate surfaces reflecting in opposite directions) parallel to the rows of the game board and placed on the centerline of the square it occupies.

BR6. The first knight to be moved by each player will become the Joker Knight (marked as N* in FIG. 4). The Joker Knight has three lifelines: on the top of the fact that it

(always, except for when using a lifeline) reflects the incoming laser beams, it can let through the beams, N-Reflect (see “Negative-Reflection” defined in the next paragraph) them or stop them. (By “let through” I mean the LB continues its journey unaffected, like no game piece was on that square). Each lifeline can be used only once per game and using it is at the complete discretion of the player owning the Joker. If a Joker Knight captures the adverse Joker Knight, the remaining (on the board) Joker acquires a fourth lifeline. The fourth lifeline can be one of the three mentioned ones and can be used only after the three original lifelines were consumed. Whether a lifeline is used for its own color laser beam or for the adverse beam, once it is used it’s gone. The Joker can affect a laser beam only when it is hit by that beam, and the option to use a lifeline has to be made by the owner of the Joker immediately following the move (whether the move was his or not) that directed the beam to hit the Joker. The decisions to use lifelines, the blue Joker and the red Joker **36** have no influence on the chess game, but are very important (really life savers or/and game winners) in the billiard game. This will make the Joker the most powerful game piece from the billiard game perspective.

By Negative-Reflection (noted N-Reflection) we mean diverting the incident **31** laser beam in the opposite direction (180 degrees **32**) of the standard reflections defined here. See in FIG. 4 the incident **31** laser beam, the standard reflected **33** laser beam and the N-Reflected **34** laser beam.

The sequence (trajectories) of reflections is permanently visible in blue (for BLB) and red (for RLB).

When BLB hits the southwest corner of the a1 square it will stop there and will get out of the mentioned corner due to the following movement(s)/interacting of the chess pieces.
When RLB hits the northeast corner of the l12 square it will stop there and will get out of the mentioned corner due to the following movement(s)/interacting of the chess pieces.

When BLB hits the northeast corner of the l12 square it will be “sucked” by the corner and will resurface/reemerge from the southwest corner of the a1 square continuing its journey, at a 45 degrees angle **24**, toward the center of the game board.
When RLB hits the southwest corner of the a1 square it will be “sucked” by the corner and will resurface from the northeast corner of the l12 square continuing its journey, at a 45 degrees angle **24**, toward the center of the game board. FIG. 5 shows a “sucked” **37** and resurfaced **38** RLB.

A laser beam keeps going straight down its path until it hits a game piece or the frame. The game piece or the frame will alter/divert the beam’s path as described. If there is no game piece in its path, the laser beam just continues to interact with the frame eventually ending up in a loop until a game piece will end/break the loop. A laser beam can end up in a loop while interacting with one or more game pieces and/or the frame until a game piece will end/break the loop.

The objective of this game is to LaserMate -- see (B) and (C) -- the opponent. The winner of the game is the player with the highest score. The top three scores in BilliChess are achieved by:

(A) Checkmate = 150 points. The game continues with the checkmated King banned to move (from the square where it was checkmated) till the end of the game. The game will continue until (B) or (C) happens, or until it is determined that (B) or (C) cannot happen.

(B**)** LaserMate (when BLB hits RAH – blue wins, or when RLB hits BAH – red wins) = 600 points. A LaserMate ends the game. (See FIG. 2)

(C) LaserMate-K (when BLB hits RAH and the red King is crossed by BLB, or when RLB hits BAH and the blue King is crossed by RLB) = 850 points. A LaserMate-K ends the game. (See FIG. 3)

The invention is intended to embrace all alterations, modifications and variations that fall within the spirit and scope of the above description. For example, it is not necessary that the game be played on a computer: The game can be played as a board game, in a less convenient manner than that facilitated by a computer and a computer network.

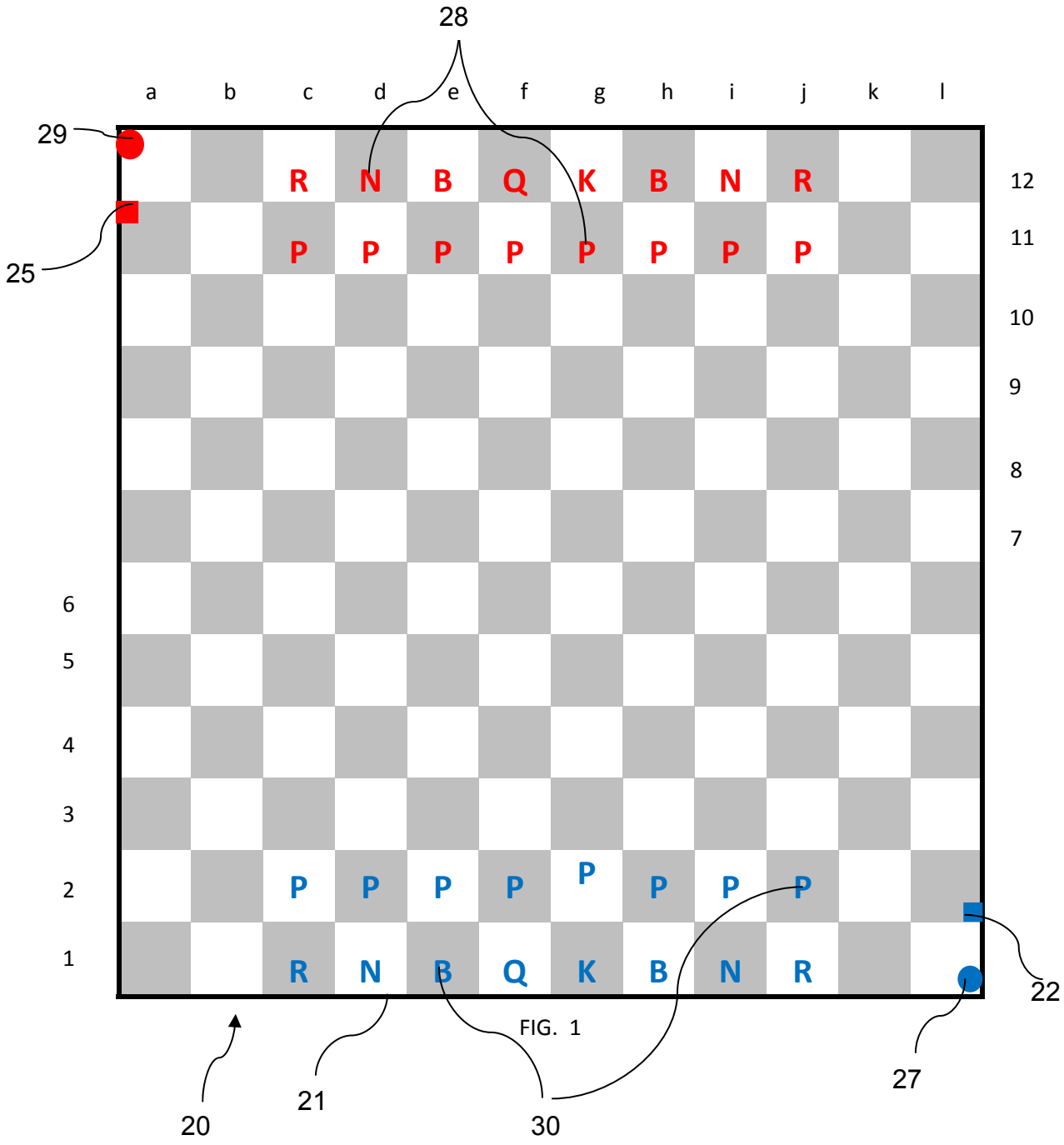
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FIG. 1

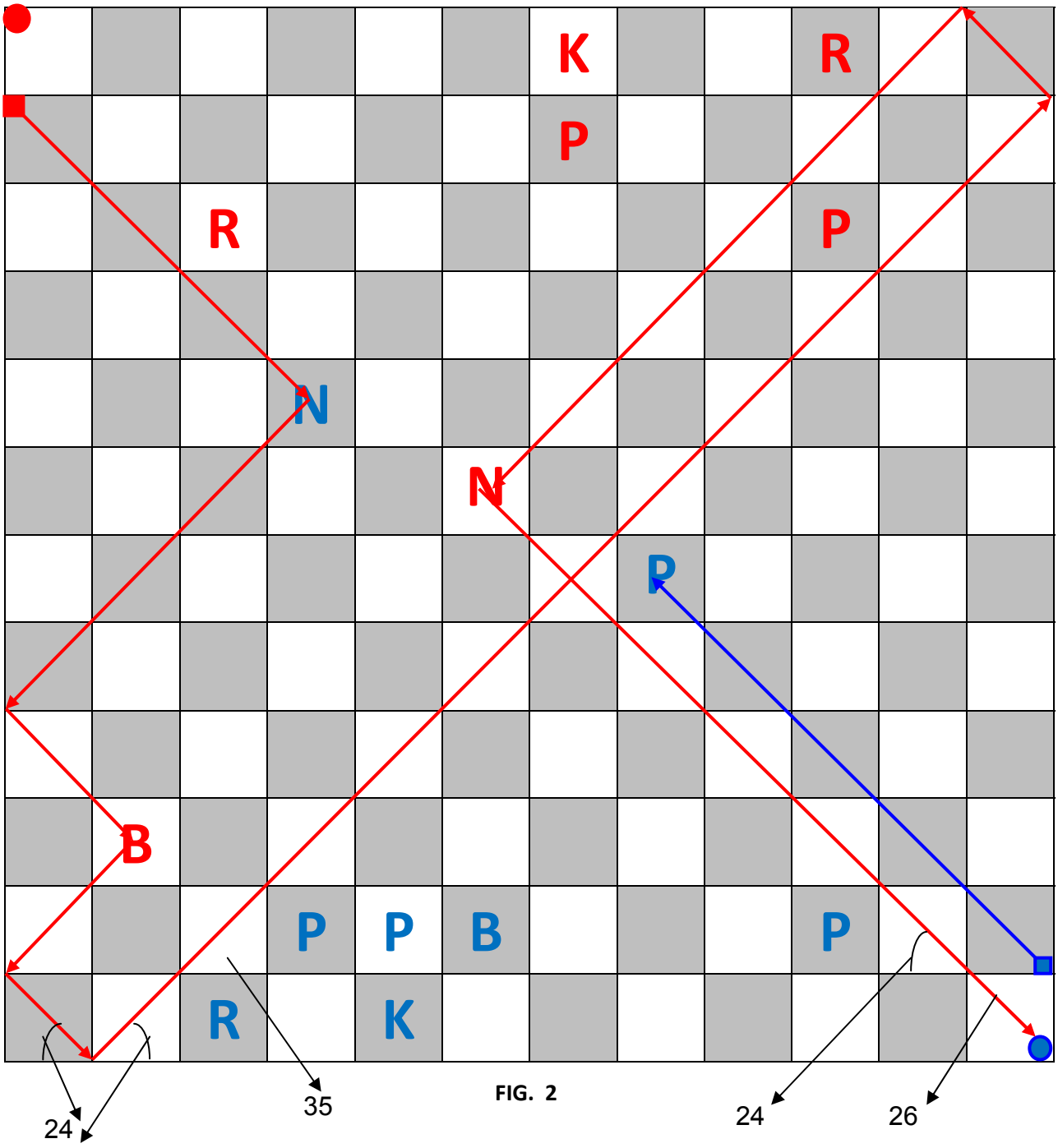

FIG. 2

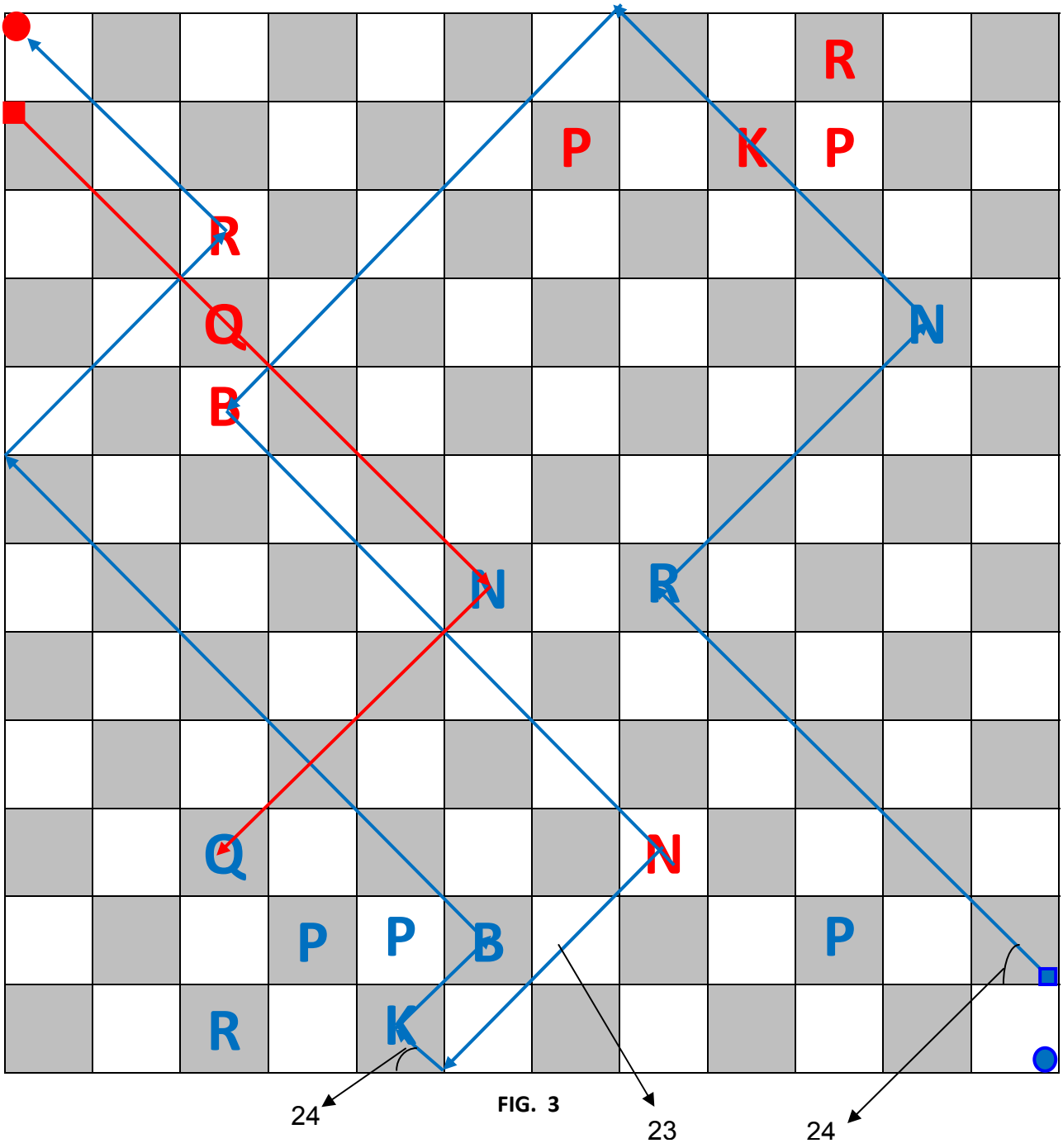

FIG. 3

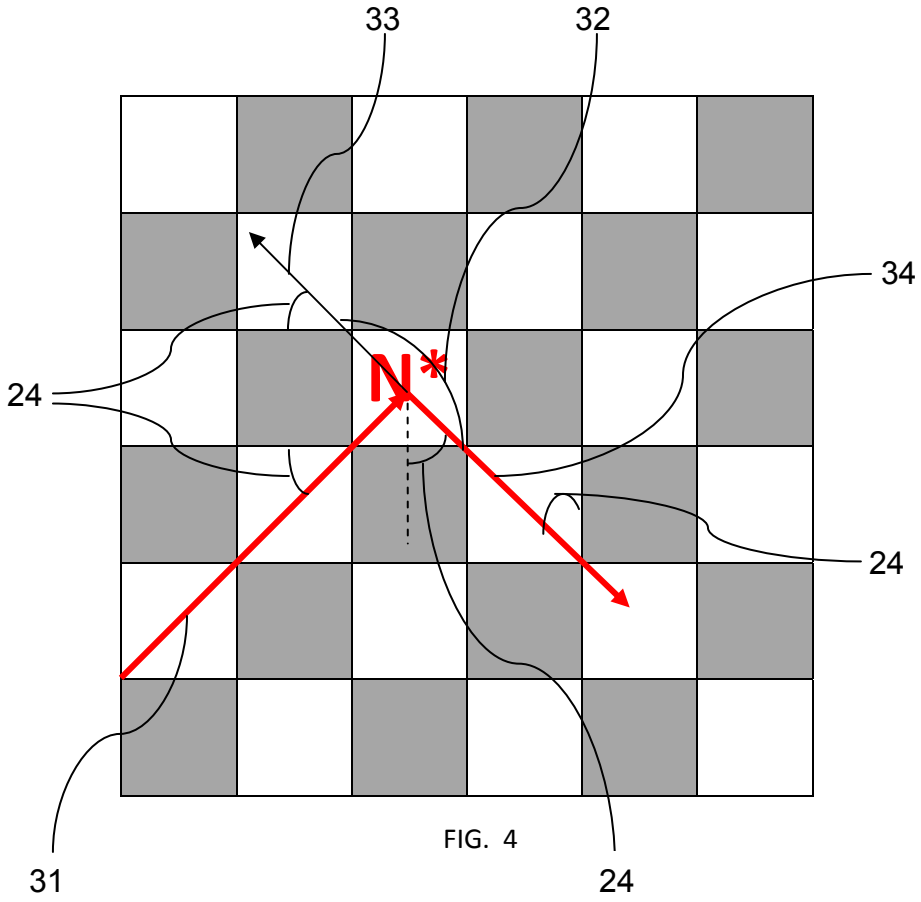

FIG. 4

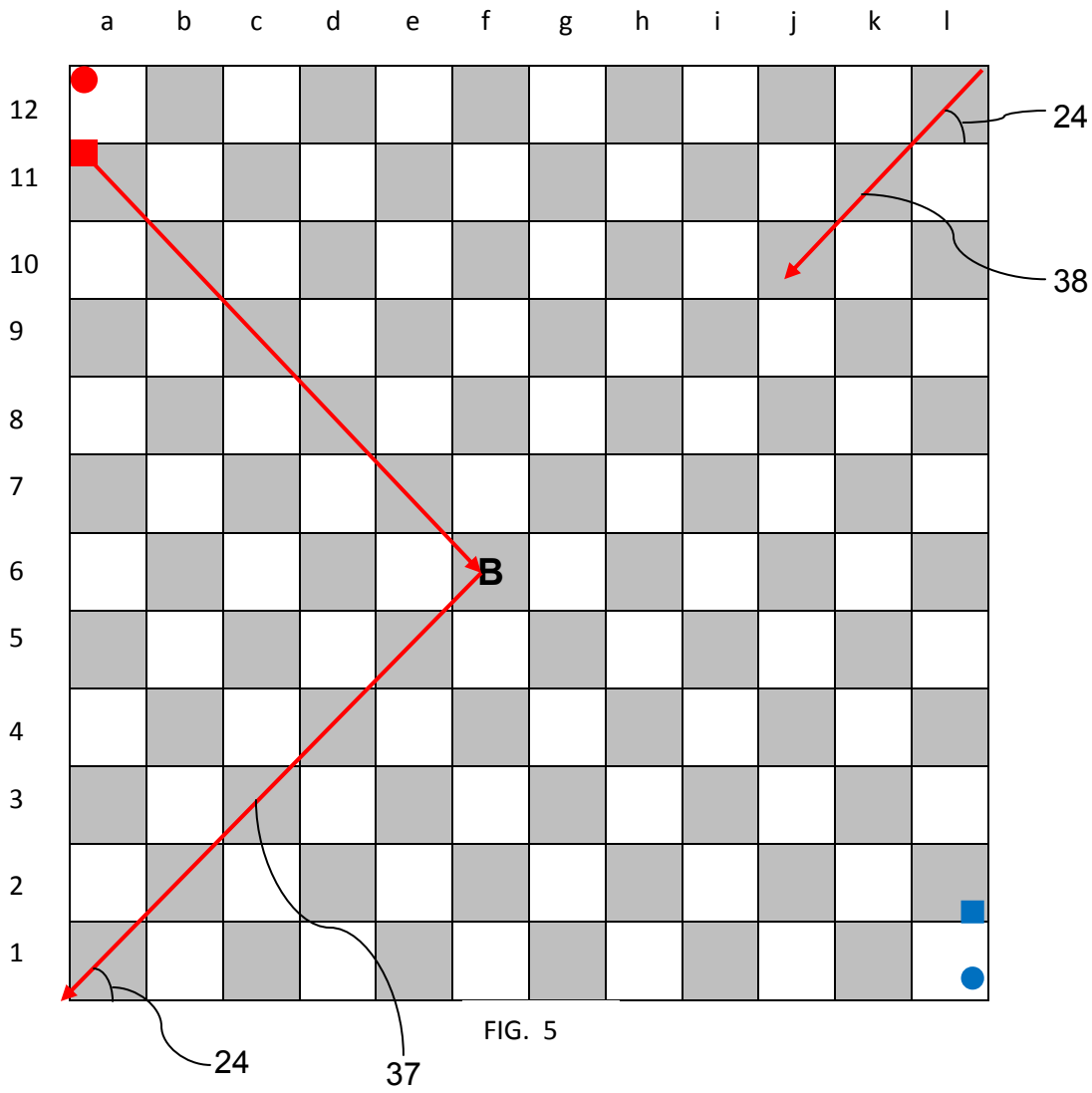

FIG. 5