

SPECIFICATION

(A) Title of Invention

DIRECTIONAL CHESS SET

(B) Inventor

Ryan Andrew Levy

(C) Abstract of the Disclosure

A chess set that aims to educate the player on how each piece moves. Through the design of the set, each piece has arrows at their base showing the general direction of how they move, including whether or not they can move only one space, or as many as possible. This design is unique in that one can learn how the basics of chess simply by looking at the pieces. They are also designed to look like standard Staunton chess pieces, so they can be used for continued play after learning, not to be discarded as only educational models.

(D) Background of the Invention

(1) Field of the Invention

This invention pertains to chess pieces. More specifically, the invention pertains to chess pieces designed for educational purposes.

(2) Description of the Related Art

Chess pieces have generally been designed according to the standard Staunton Chess Set that is used widely in chess competitions. This design, while made to be universally recognized and easy to use, lacks the ability to teach new players how the pieces move. There are two main designs that do aim to teach by altering the design of the pieces.

The first design is one in which all the chess pieces are cubes. These have the direction of how the piece moves on one side and a picture of the piece on the opposite side.¹ Other's like this have minimalist drawings of how the pieces move etched onto a side of the cube. This lacks the common style of how chess pieces look. Playing with pieces that don't look like common pieces may hinder one's ability to move from "educational chess pieces" to "standard" ones. Also, people who are blind or visually impaired cannot use these pieces.

The second design maintains the general shape of a chess piece and adds a short description on the bottom half of the piece explaining how it moves. This design does maintain the look of a "standard chess piece", however the explanation of how the piece moves does not flow with the

¹ Desmond W. Margetson, (1971). *SET OF CHESS PIECES* (U.S. Patent No. 3,608,904). US Patent and Trademark Office.

rest of the design of the piece – it is simply an added rectangle on the bottom of each piece. These pieces look somewhat elementary and may not appeal to adults or continued use in play after it serves its educational purposes.

(E) Brief Summary of the Invention

This invention is a chess piece set designed to educate the player on how the pieces move. The pieces each have the general direction of how they move built into them. They maintain the look of standard chess pieces to encourage continued use even after learning.

(F) Objects of the Invention

It is an object of the invention to provide a way for new chess players to easily learn how each piece moves by only looking at the piece.

It is another object of the invention to provide a chess set that one does not need to read any explicit directions to understand the moves of the pieces.

(G) Brief Description of the Drawing

FIGS 1, 5, 9, 13, 17, and 21 show a front perspective view of the pawn, rook, bishop, knight, king, and queen pieces respectively.

FIGS 2, 6, 10, 14, 18, and 22 show an angled perspective view of the pawn, rook, bishop, knight, king, and queen pieces bottom up respectively.

FIGS 3, 7, 11, 15, 19, and 23 show a bottom perspective view of the pawn, rook, bishop, knight, king, and queen pieces respectively.

FIGS 4, 8, 12, 16, 20, and 24 show an angled perspective view of the pawn, rook, bishop, knight, king, and queen pieces face up respectively.

FIG 25 shows a front perspective of all six pieces and **FIG 26** shows them at an angled perspective view bottom up.

(H) Detailed Description of the Invention

The chess set is comprised of six unique pieces: pawn, rook, bishop, knight, king, and queen. The pieces are designed to look similar to the standard Staunton chess set with their base designed to show the direction of how each respective piece moves. The pieces may be made of any suitable material such as plastic, aluminum, steel, ceramic material, wood, etc. The shading on certain pieces may be manufactured with a grooved hatching, different texture, wood stain, etc.

The pieces of the set have many advantages. The ability to know how the pieces move is the main hurdle for beginners getting into chess. Having the directionality built into the base of the piece will allow those learning how to play chess to easily acclimate to how each piece

moves. Since they look sleek and akin to a standard chess piece, they can be used not only to educate learners, but also for continued play. This is so a player will not have to buy a new set once they are done learning the basic moves. Also, this design does not contain any text on the pieces, so they can be manufactured and sold globally due to their universality. Referring now to the drawings:

The pawn in **FIGS 1-4** has one arrow **1** at the base showing that the pawn moves only one space forward (after the initial move). To help know how to orient the piece, the top part of the arrow **3** will be shaded. For the white pieces, it will be shaded darker, and for the black pieces, it will be shaded lighter. The top of the piece **4** is designed to look like a standard Staunton pawn. From the top to the base, there is a sleek, flowing connection **2**. The pawn's directional indicator has a single arrow, indicating after the first move the pawn only moves one space.

The rook in **FIGS 5-8** has a square cross **6** with arrows on each end of the cross. To orient the rook correctly, only one of the arrow tops is shaded **8** a different color from the rest of the piece, and this arrow should be facing forward. The arrows on the rook have an extruded offset **10**, looking as if there are two arrows ("double arrows"). This is to indicate that the rook can move as many squares as one wants in the direction the arrows are pointing, forward, backward, left, and right. The pawn, unlike the rook, does not have this offset extra arrow, indicating that it can only move one square in the direction of the arrow.

The bishop in **FIGS 9-12** also has a square cross **11** with arrows on each end of the cross. To orient the bishop correctly (since the base is identical to the rook), two adjacent arrows **13** are shaded a different color from the rest of the piece. Since two adjacent arrows are shaded, the player will know to position these arrows forward. This shows that the direction the bishop moves is diagonal. The bishop also has "double arrows" **15** showing it too can move as many squares as the player wants.

The knight in **FIGS 13-16** has a T-shaped base **16**, indicating how the knight moves. The base has six grooved lines **20** dividing the T-shape base into five sections, showing that the knight moves three spaces in one direction, and one space in the perpendicular direction. These lines extend up the base **31** so a player will not have to turn the pieces around to know how the knight moves. The knight's arrows are not shaded **18** showing that it does not matter which way you orient the knight— as the directionality remains the same in any orientation.

The king in **FIGS 17-20** and queen in **FIGS 21-24** have similar bases, with eight arrows pointing outward from the center **21, 26**. They differ in that the queen has the "double arrows" **30** showing that it can move as many spaces as possible whereas the king does not have "double arrows" **25** showing it can only move one space in any of the eight directions. The king and queen do not have any shading on their arrows **23, 28** showing they can be oriented any way and it does not affect the indication from the arrows.

All the pieces' tops are similar to the design of a Staunton chess piece **4, 9, 14, 19, 24, 29** and the middle of the pieces is a tapered design to the base **2, 7, 12, 17, 22, 27**.

The height of the pieces in the set will generally be relative to that of the Staunton chess set, whereas the pawn is the shortest and the king and queen are the tallest, shown in **FIG 25**.

Fig. 1

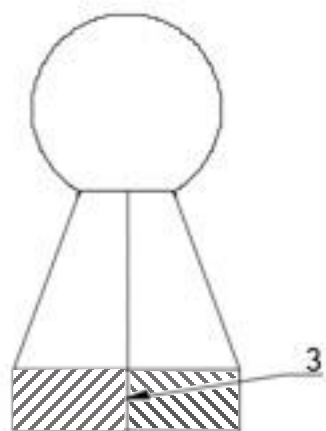


Fig. 2

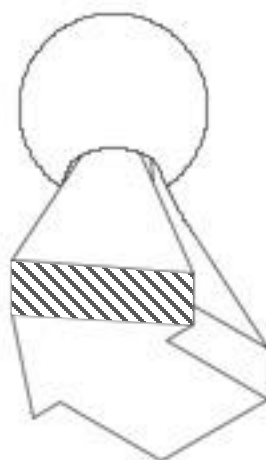


Fig. 3

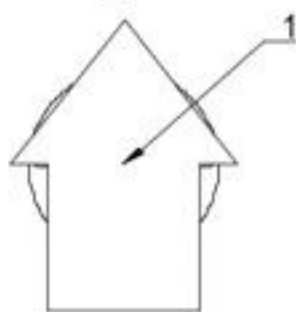


Fig. 4

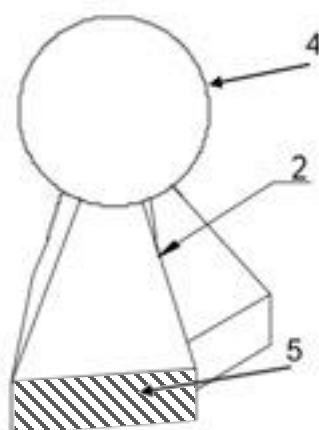


Fig. 5

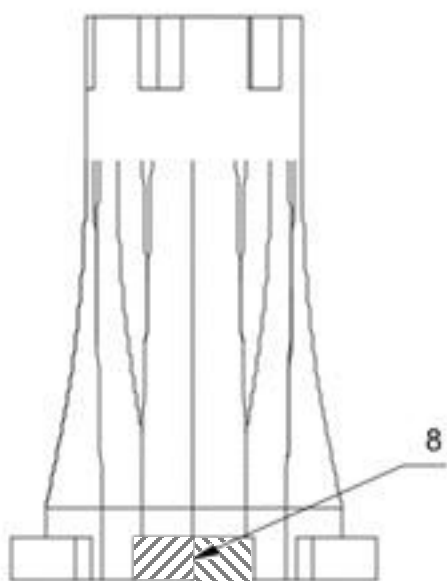


Fig. 6

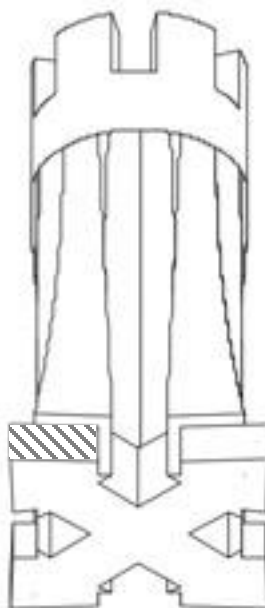


Fig. 8

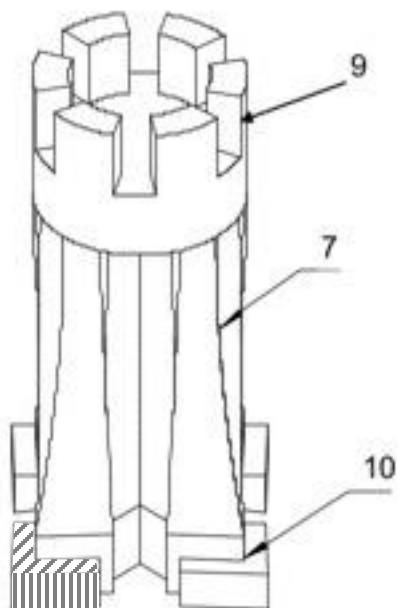


Fig. 7

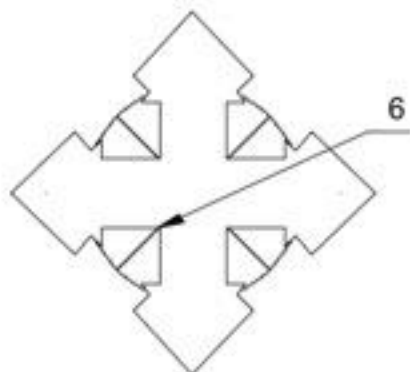


Fig. 9

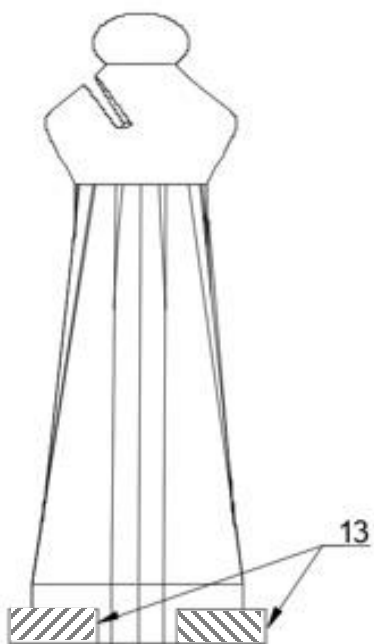


Fig. 10

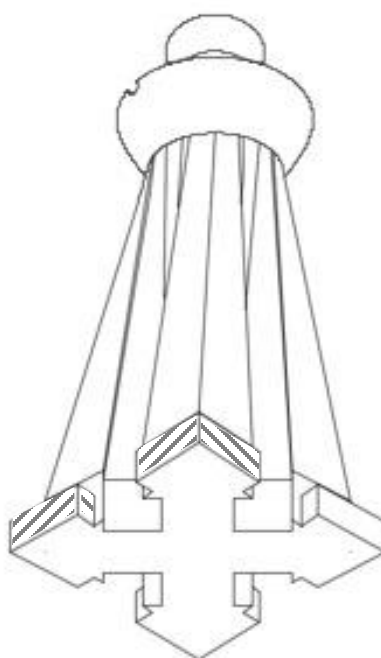


Fig. 12

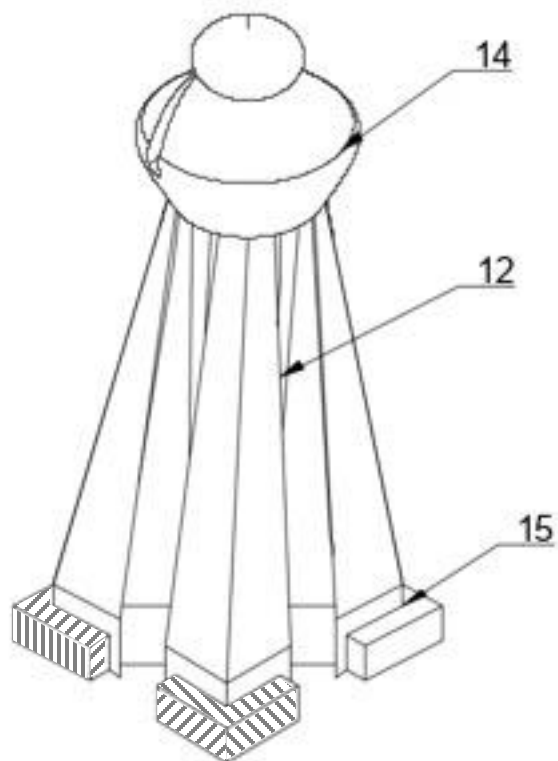


Fig. 11

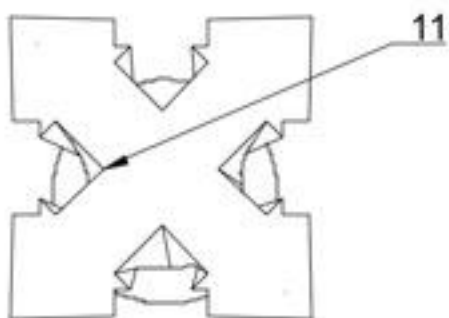


Fig. 13

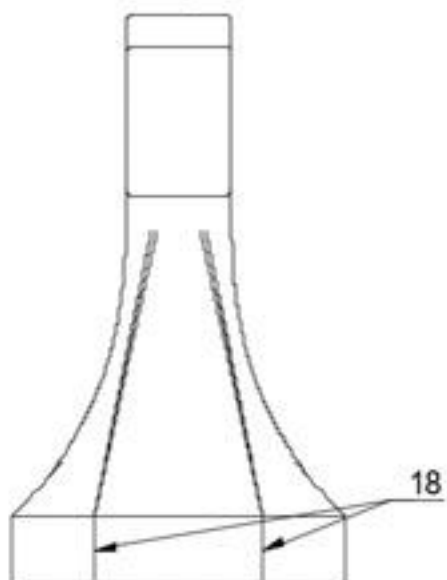


Fig. 14

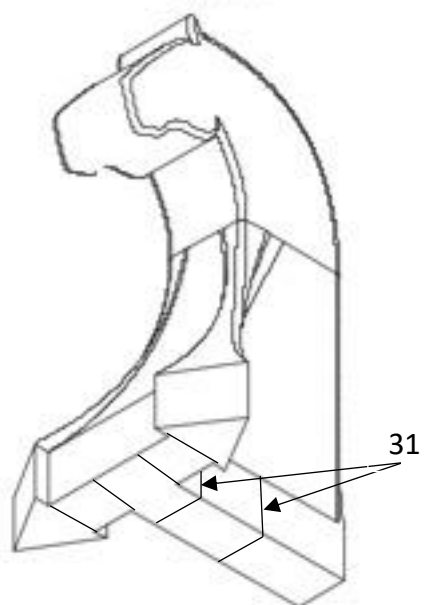


Fig. 16

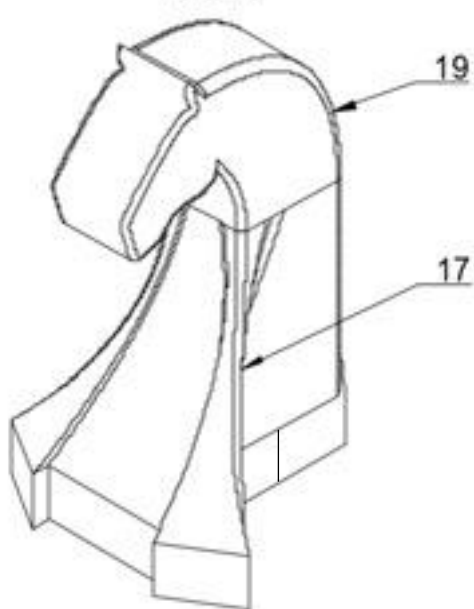


Fig. 15

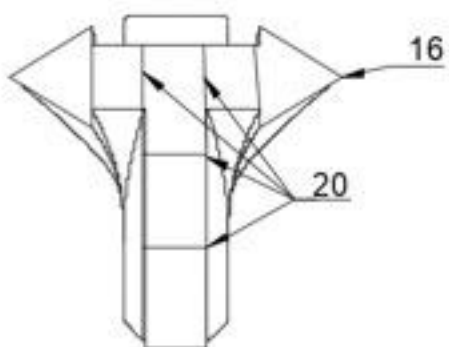


Fig. 17

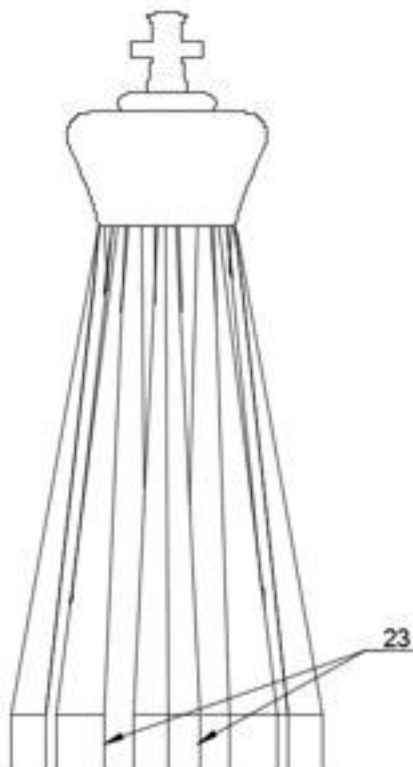


Fig. 18

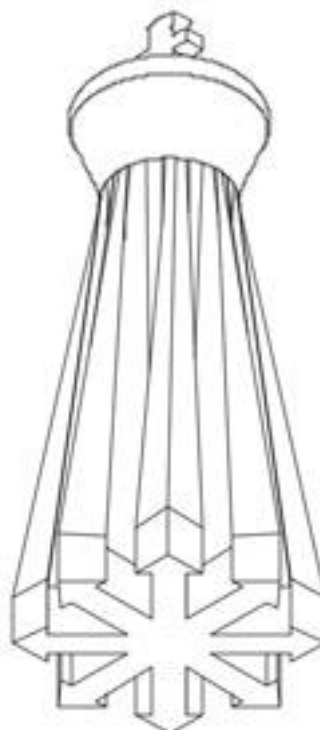


Fig. 20

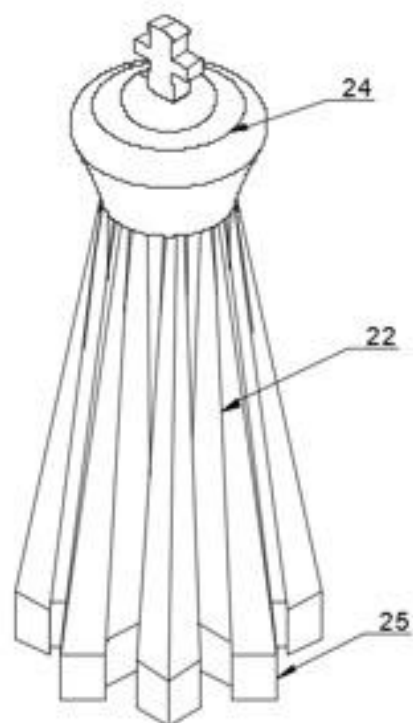


Fig. 19

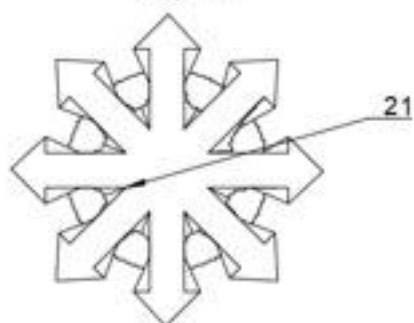


Fig. 24

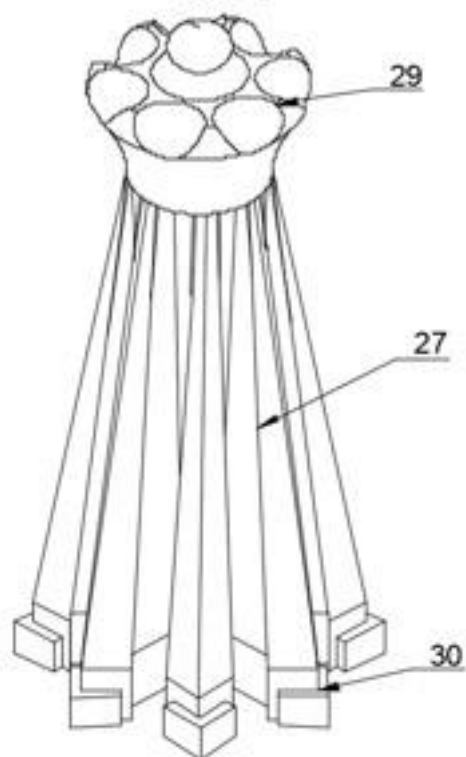


Fig. 21

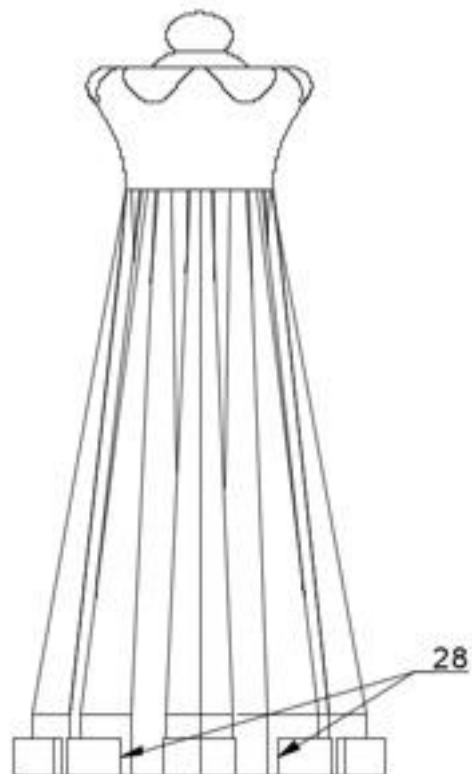


Fig. 22

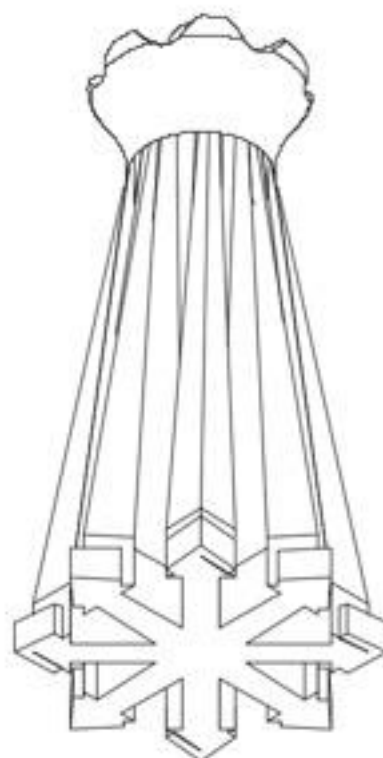


Fig. 23

