April 23, 1946. J. O. KLEBER 2,399,041

GAME BOARD FOR THE BLIND

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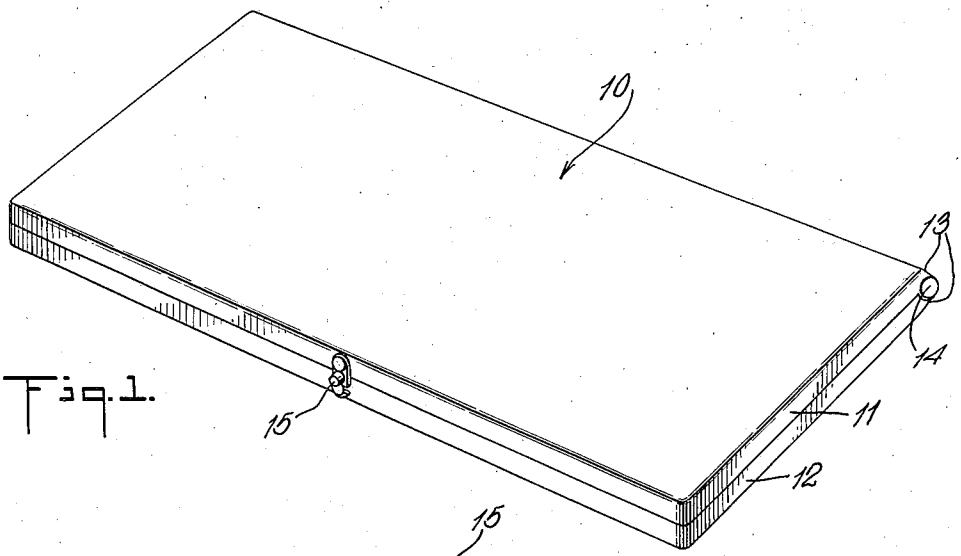


Fig. 1.

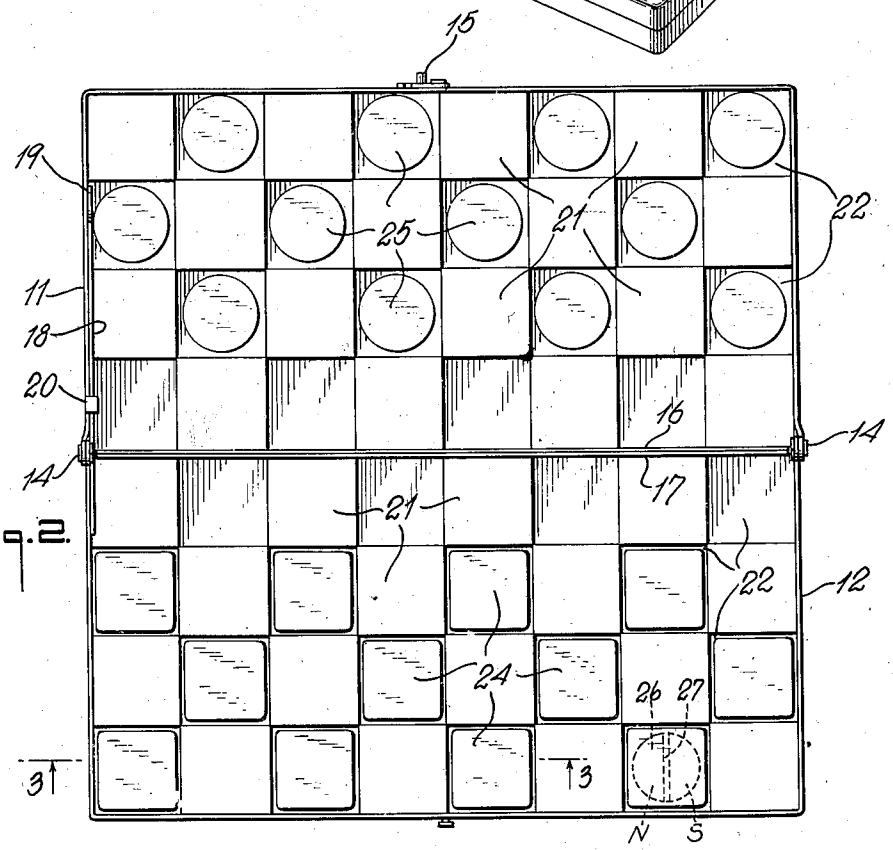
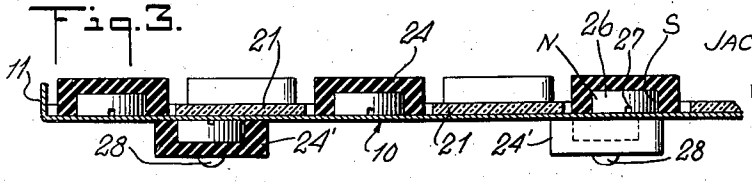


Fig. 2.

Fig. 3.



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GAME BOARD FOR THE BLIND

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2 Claims. (Cl. 273—131)

This invention relates to checkerboards and the like game equipment, of a type particularly adapted for use by the blind.

According to the invention, a checkerboard is arranged with playing positions formed of or embodying ferro-magnetic material, these positions alternating with relatively raised areas which are non-magnetic or relatively less magnetic than the playing positions. The board is adapted for use in combination with movable magnetized game pieces which will firmly adhere to the magnetic areas but will be substantially non-adhering or adhere less firmly to the intervening raised areas.

I am aware that heretofore it has been proposed to use magnetized checkers, chessmen and the like adapted to adhere to a game board formed of magnetic metal, but so far as I am aware no such arrangement has heretofore been provided in a form adapted for use by the blind. In order for the blind to play the game rapidly with assurance of making proper moves, they must be able to quickly and frequently determine by touch the disposition of all of the game pieces, and to do this they must run their fingers over the board rapidly. If magnetized checkers are used with a magnetic metal board having the usual plane surface throughout, the blind person is liable to more or less displace some of the game pieces in his attempts to thus rapidly check the positions by touch. That is, even though the game pieces are strongly attracted by magnetism in a direction perpendicular to the board, they still may be rather easily displaced slidably in directions along the surface of the board. Also, even though the board is of magnetic metal for use with magnetized checkers, if the surface of the board is a plane, it will not be adapted for use by the blind since the playing positions can not be readily distinguished by touch from the intervening areas.

With the present invention, the above noted difficulties are preferably avoided by providing the board with magnetic surface areas effectively confined to the playing positions, while the intervening non-magnetic raised areas not only serve to enable the blind to distinguish same by touch, but also the edges of these raised areas provide definite barriers preventing the game pieces from being slid out of position or unintentionally displaced. That is, in order to move a game piece from one position to another, it must be raised with considerable force upwardly out of contact with the magnetic metal area, whereupon of course the game piece may be moved and deposited at the desired new position. Also if a game piece is "jumped," the "jumped" piece will be positively retained in position by the barrier edges of the raised areas surrounding it, whereas without such barriers the "jumped" piece would often be displaced either by the blind person's fingers or by contact with the game piece which is being used in jumping.

The raised non-magnetic areas have certain further functions and advantages. More particularly, the edges of the raised areas provide guides at each corner of each playing position such that the movement of the checker is directed accurately in the desired diagonal direction 45° with respect to the edges of the playing area, toward one or another of the diagonally adjacent playing areas. Thus, rapid and accurate playing movements by the blind are facilitated. Furthermore, it will be found that as the game pieces are moved on to a new playing position, the same will usually be slid off the adjacent raised areas onto the magnetic metal area, whereupon the game piece will snap into position due to the magnetic attraction, and cause a quite noticeable "click," and thus audibly indicate to the opposing player that a movement has been completed. Both the opposing blind players will thus be able to hear when the plays have been made, and mistakes due to playing twice or out of turn will be noted and avoided.

Various further and more specific objects, features and advantages of the invention will appear from the detailed description given below taken in connection with the accompanying drawing which forms a part of this specification and indicate merely by way of example a preferred form of the invention.

In the drawing:

Figure 1 is an external view of a casing in closed condition and which embodies a checkerboard arrangement according to the preferred construction.

Figure 2 is a view of the open checkerboard.

Figure 3 is a sectional view taken substantially along line 3—3 of Figure 2.

As shown in Figure 1, the casing 10 is formed of two elongated plate-like portions of magnetic metal and having mating flanges as at 11 and 12 which conjointly form the side walls or edges of the casing. At each side of the casing, the flanges 11 and 12 may be extended rearwardly as at 13 so as to be adapted to be connected by hinge pins such as at 14. At the front of the casing, the flanges are adapted to be connected

by a suitable releasable clasp as at 15 for retaining the casing closed.

As shown in Figure 2, as the casing is opened to a flat position, the flanges 11 and 12 provide a raised border or frame well adapted to demark for blind persons the outline of the checkerboard. The edges of the casing portions along the hinge axis may also be formed with flanges as at 16, 17 preferably somewhat narrower than the flanges 11, 12, and when the casing is opened flat as in Figure 2, the flanges 16 and 17 provide engaging abutments limiting the swing of the casing cover to 180°. Flanges 16, 17 will also provide a raised line well adapted to demark for the blind the center line of the checkerboard.

The casing may be retained in flat open position by a slidable strip 18 having a raised fingerpiece portion 19 whereby the strip may be slid into and out of locking position. That is, the strip may slide along just inside the flange 11 while being slidably retained in this position by a small lug piece 20 struck inwardly from the casing flange 11. As shown the lower end of strip 18 has been slid down past the axis of the hinge so that it prevents swinging the casing cover to closed position. When it is desired to close the casing, the strip 18 is slid upwardly so that its lower end is above the hinge axis, whereupon the casing is free to be closed.

As further shown in Figures 2 and 3, square raised areas as at 21 are provided, the edges of these areas serving to demark the square playing areas as at 22. That is, the surface of the playing areas 22 may simply comprise portions of the inside surfaces of the casing, which may preferably be made of sheet iron or steel or other highly ferro-magnetic metal. The intervening non-playing areas 21 may be formed of insulation material such as any suitable plastic composition, laminated wood, etc., secured by a suitable adhesive to the inside surfaces of the casing.

As shown in Figure 2, checkers of different configuration may be used by the opposing players. For example, one player may use square checkers as at 24 which may be readily contrasted by touch with circular checkers as at 25 for the opposing player.

As best shown in Figure 3, the main body portion of each checker may be formed of non-magnetic material such as insulation material, including wood, plastic materials, etc., the lower surface of which has been hollowed out, preferably with a circular cavity for receiving a magnet as at 26. These magnets in each of the checkers may have the shape of circular discs with a groove as at 27 cut diametrically across the bottom surface so as to divide such surface into two pole pieces as indicated at N and S in Figure 3. This construction is further shown by dotted lines on the checker in the lower right-hand corner of Figure 2. The magnet pieces 26 are preferably formed of highly magnetic material strongly magnetized in a direction such that the above described pole pieces will be of opposite polarity. The magnet pieces may be fitted into the cavities within the body portions of the checkers with a forced fit or retained therein by a suitable adhesive. The lower surfaces of the pole pieces should either be flush with the lower surface of the non-magnetic part of the checker, or protrude downwardly slightly further so as to assure good contact with the metal of the checkerboard without any intervening gap in the magnetic circuit when the checker is in position.

When a game is finished, the checkers may all be placed as shown on playing positions and thereby the magnetic metal of each playing position will serve as a "keeper" for each of the magnets.

It will be noted that when the casing is closed, each of the playing positions will be superposed respectively over one of the raised areas. Thus, there will be pocket-like spaces at the playing positions adapted respectively to positively retain all of the checkers in proper position against sliding around in the casing when carried about. Also when the casing is opened, all of the checkers will be in proper position ready for immediate starting of the game. Since, when the casing is closed, each of the checkers firmly adheres to the surface of a playing area, there will be no possibility for the checkers to rattle within the casing when it is being carried around.

The magnetic playing areas in conjunction with the non-magnetic raised areas have the further advantage that when the casing is to be closed, the blind person can quickly place the numerous checkers respectively at their respective playing positions where same are positively retained from sliding out of place while the casing is being closed. Thus, the closing can be accomplished without any danger that the blind person will jam some of the checkers against each other or against the casing parts or raised areas.

When the game is being played and one of the game pieces has been "jumped" and removed, the same may be applied and held in position magnetically on the underside of the casing as indicated at 24' in Figure 3. Thus any danger that the blind will lose the pieces which are not being used, is minimized.

The game pieces which represent "kings" may be distinguished in various ways. For example, non-magnetic raised areas, such as brass tacks 28 (see Figure 3), may be imbedded in game pieces which are to represent kings. A number of these game pieces of both the circular and square types may be provided. When the casing is closed, these kings may be deposited on the playing areas along the center line of the board. Then, when the casing is opened up, they may be temporarily applied to the underside of the casing as shown in Figure 3.

While the invention has been described and shown in connection with a game board for playing the standard game of checkers, it will be understood that the invention is equally applicable for other games requiring a board of a checkered pattern or the like, and the word "checkerboard" as used in the claims is intended to be applicable thereto. It will further be apparent that several of the advantages of the invention may be utilized in chess boards, in which event it may be desired to form both the raised and the relatively depressed areas as shown in Fig. 2, of magnetic material.

While the invention has been described in detail with respect to a particular preferred example, it will be understood by those skilled in the art after understanding the invention, that various changes and modifications may be made without departing from the spirit and scope of the invention, and it is intended therefore in the appended claims to cover all such changes and modifications.

What is claimed as new and desired to be secured by Letters Patent is:

1. A checkerboard for the blind, adapted for use in combination with movable magnetized

game pieces, comprising areas providing playing positions embodying ferromagnetic material, alternating with relatively raised areas which are substantially non-magnetic, whereby the magnetized pieces will be substantially non-adhering to the latter areas, the edges of the latter areas also comprising barriers for preventing magnetized pieces when adhering at the playing areas from being slidably displaced.

2. A checkerboard comprising a casing of ferromagnetic metal formed of two hingedly connected plate-like parts adapted when the casing is open, to conjointly form the playing board, and having areas forming playing positions adapted to receive removably adhering magnetized game pieces, the areas between playing positions being substantially raised by coverings of non-magnetic material secured thereto.

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