April 20, 1954 G. F. WALES 2,676,086

GAME ACCESSORY

Filed March 20, 1950 4 Sheets-Sheet 1

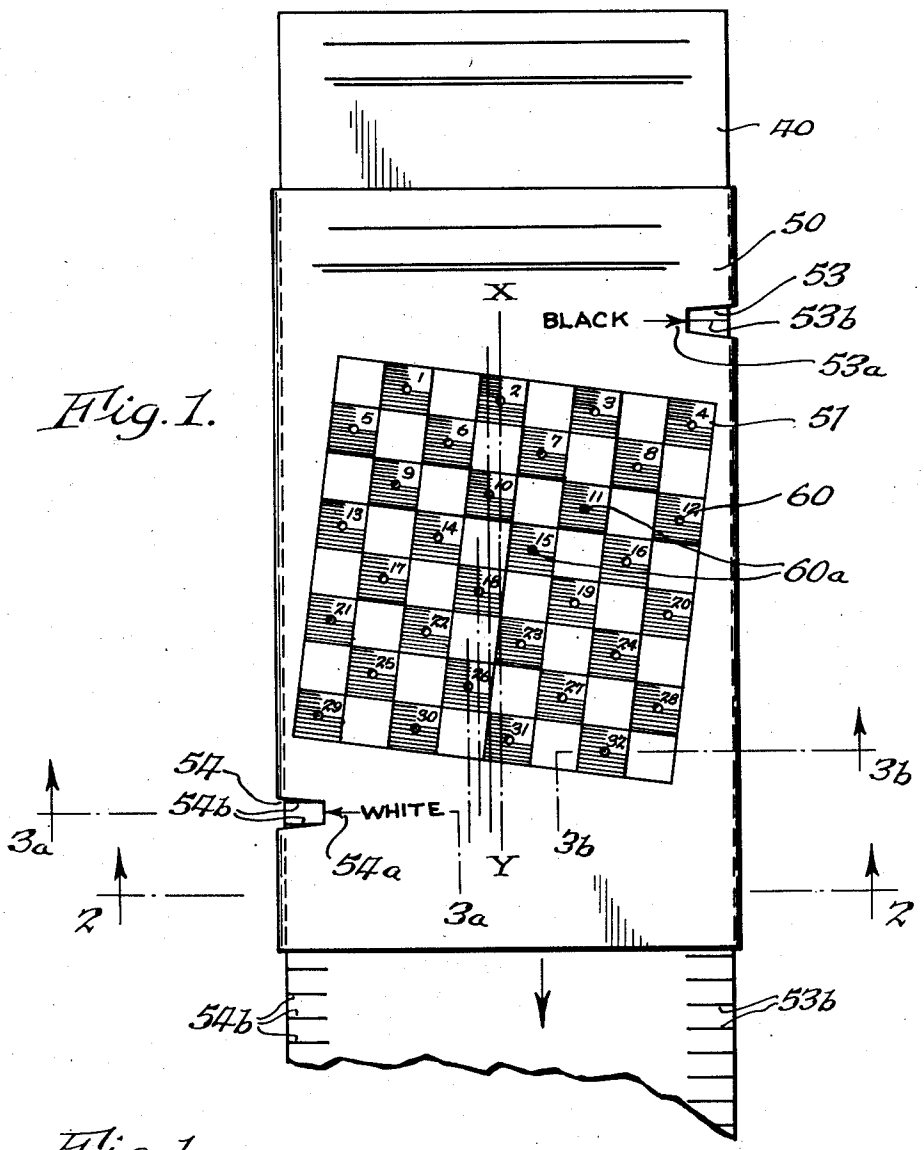


Fig. 1.

Fig. 1a.

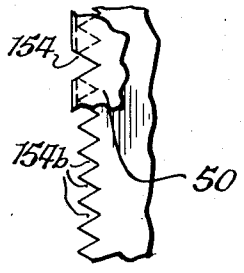
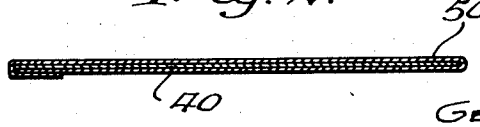


Fig. 2.



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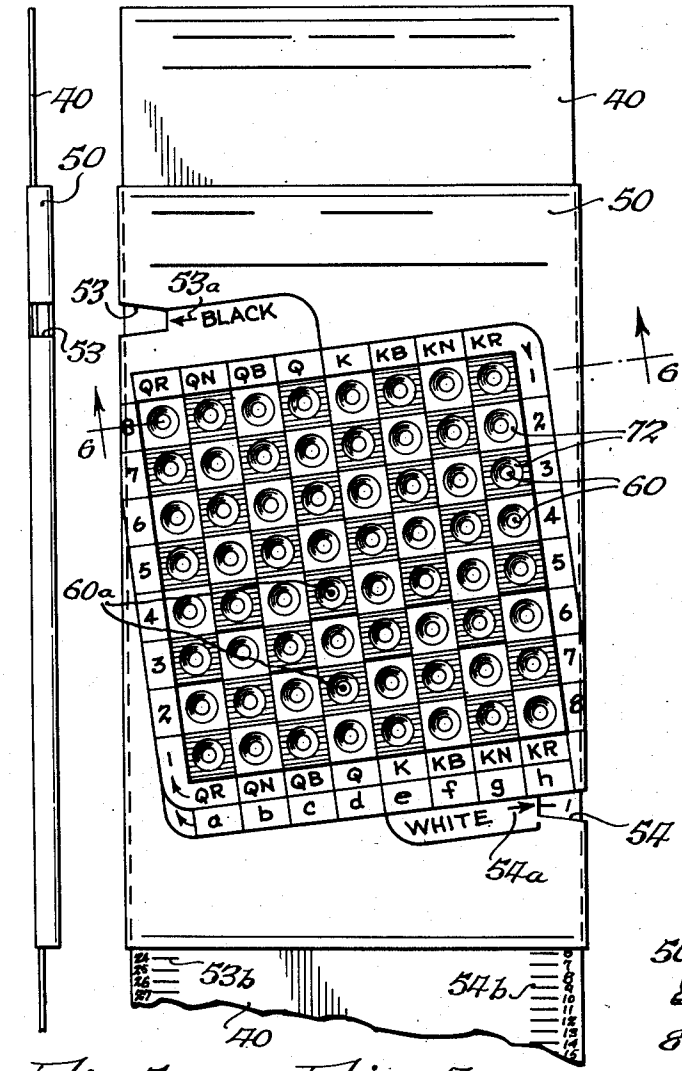


Fig. 5. Fig. 4.

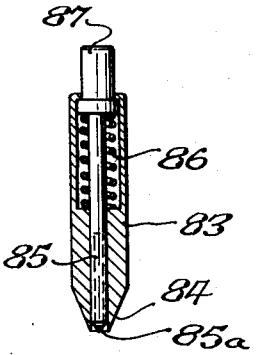


Fig. 7.

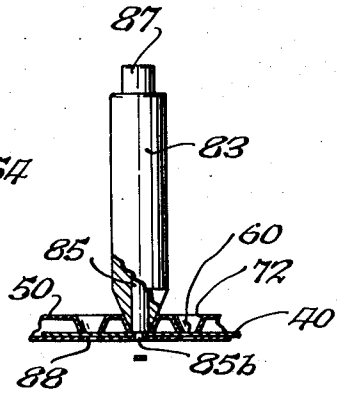


Fig. 8.

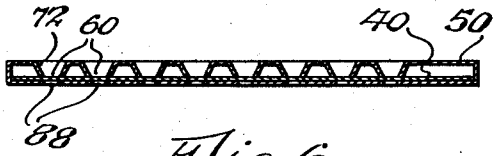


Fig. 6.

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Fig. 3.

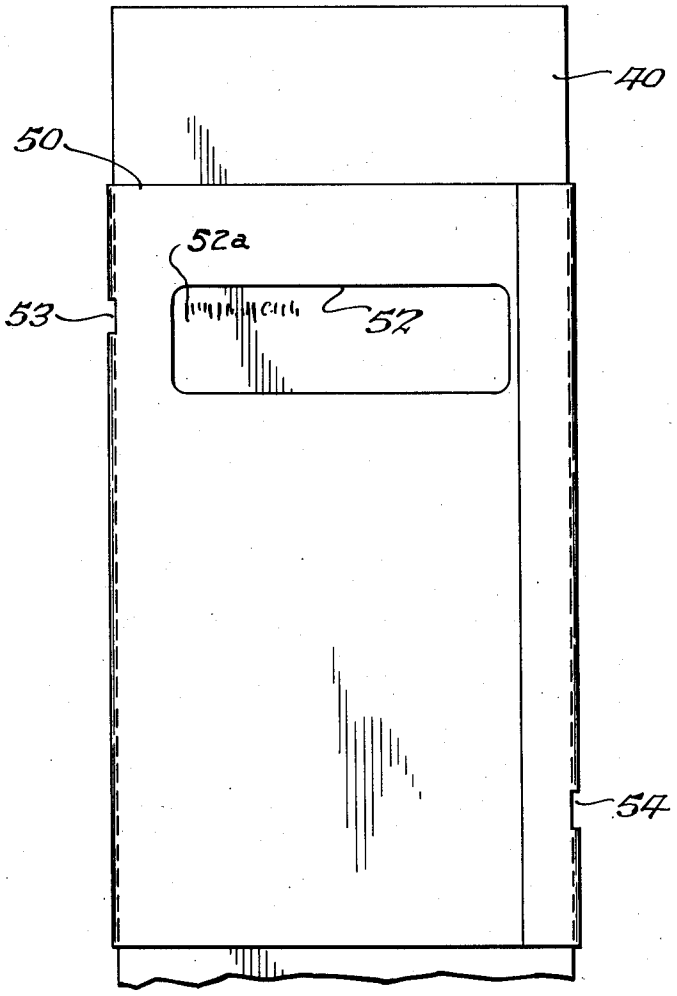


Fig. 3a.

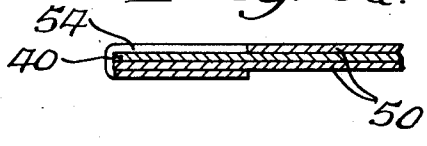
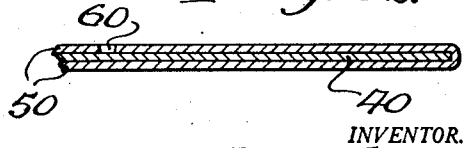


Fig. 3b.



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Fig. 9.

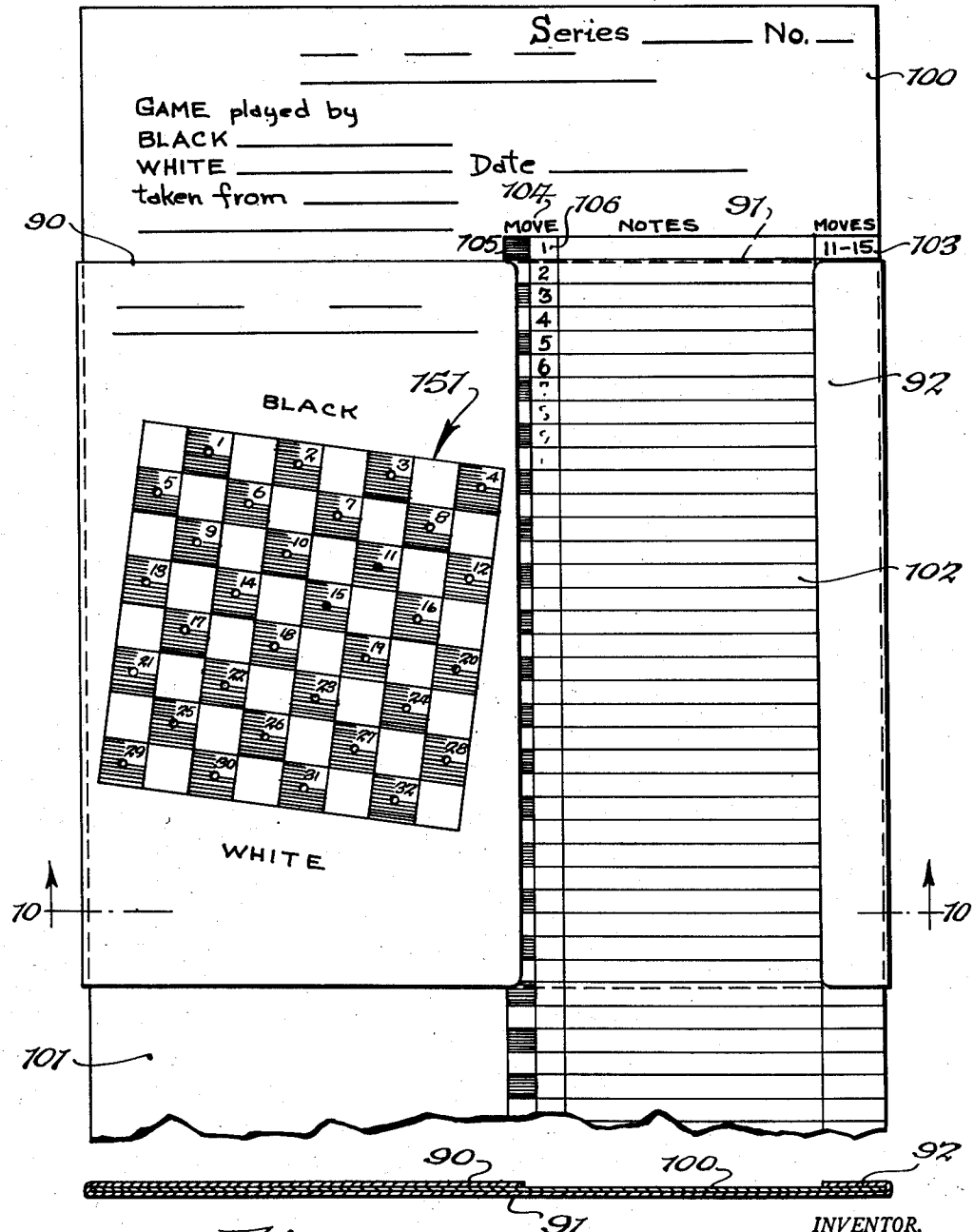


Fig. 10.

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UNITED STATES PATENT OFFICE

2,676,086

GAME ACCESSORY

George F. Wales, Kenmore, N. Y.

Application March 20, 1950, Serial No. 150,669

1 Claim. (Cl. 346—78)

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This invention relates to a game accessory, being concerned more particularly with an accessory which, although not so limited, is characterized by features which render it of particular utility for recording and indicating the moves of the game pieces, or men, of various games such as chess, checkers and the like.

With a view to adding to their knowledge and increasing their skill, students and adherents of games of the kind referred to, study games, and moves thereof, as actually played during various matches and tournaments. Hypothetical situations or problems such as might arise in an actual game are also studied with the same objects in view. As the games of chess and checkers are of ancient origin and as their popularity has endured throughout the ages, there have been innumerable books, periodicals and articles published for the student and adherent presenting different situations and problems and indicating the strategy called for under various circumstances. Also, over the years there have been developed standard systems of nomenclature and notation for such games. For example, in the game of checkers there is the "Alma" opening which determines the sequence of moves which follow in a game. As thousands of possible moves can be made from any given opening, the student endeavors to learn as many of these openings as possible together with the moves best calculated to overcome any advantage obtained by such openings. In order that such moves may be indicated, or recorded, the squares on the board are numbered from 1 to 32. Moves can, therefore, be designated by referring to the numbers of the squares. Thus 10–15, for example, indicates a move of a game piece, or man, from square 10 to square 15. In chess also the well known and less frequently employed openings are referred to by names as, for example, "Evans Gambit." In chess, however, the system of notation is necessarily different from that of checkers. For example, a move designation may read Knight to Queen Bishop Three, indicated by the characters N–QB3.

Heretofore in employing the systems of notation generally described above, it has been the practice to arrange on a game board all of the game pieces involved in any particular move and then make the move called for. The mental activity involved in reading the instructions and in arranging and moving the game pieces on the game board in accordance with such instructions renders it difficult to concentrate properly on, and assimilate, the reasons behind the moves which are made.

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The principal object of the present invention, therefore, is to overcome the above objection, this object contemplating an accessory which may be availed of to record accurately and with facility the moves of a game as it is played (or as played and previously recorded) in such a manner that replaying of the game, or moves thereof, may be accomplished without the necessity (and distraction) of having to render to and assimilate numerical or lettered data for the purpose of visualizing the various moves on the game board.

A further object of the invention is to provide a game accessory for the purpose generally described which is simple and compact and which may be readily carried in a pocket or purse.

A still further object is an accessory which is so designed that the indicia on the record form may be provided simply by a pencil or pen, although other special instruments for this purpose may be employed, if so desired.

Yet another object is to provide an accessory which may be availed of to record the moves of a game in such a manner that such game, or moves thereof, may be replayed at any time, it being understood that the accessory is available for use (in its indicating capacity) not only in connection with records produced on it but also in connection with records produced on other similar accessories or printed for such purpose.

A related object is to provide an accessory characterized by features which facilitate identification of the game piece involved in any particular move, its origin and destination.

A still further object is to provide an accessory which may be utilized to record or indicate, either or both, the moves of the game pieces of a game of the character described, this object contemplating the use of the device either by a participant or an observer.

Yet another object is to provide an accessory wherein with respect to any particular move only the origin and destination of the particular game piece involved are recorded or indicated, there being provision, however, for recording or indicating at any stage of play the positions of all of the game pieces, or all of the game pieces of one player.

A related object is to provide an accessory wherein only the origin of a move is indicated with destination left to the discretion of the player, or conversely, wherein the destination of a move is indicated and the origin left to the discretion of the player.

A further object is an accessory which is so designed that a move involving any particular game piece may be indicated by two indicia, each

of these being of a simple nature such as a dot, for example.

Yet another object of the invention is to provide an accessory wherein the area which represents, or simulates, the game board and the record form are so related that the capacity of the record form with respect to the number of indicia which it may carry is large, this having the advantage that the number of games, or moves, which a record form may carry is correspondingly large and having the attendant advantage that the use of record forms of small size is rendered possible.

A still further object is an accessory which is so designed that it is available for use in connection with various kinds of games.

A still further object is an accessory wherein provision is made for recording, or indicating, notes pertinent to the moves which are recorded or indicated.

A still further object is an accessory which may be produced inexpensively from inexpensive materials and which, as a result of its low cost, may be discarded without substantial loss when it has served its purpose.

A still further object is to provide an accessory wherein the record form employed is of such a size and weight that it will be suitable for use in correspondence matches, being sent back and forth between the contestants through the mail for use in the duplicate accessories of each of the game's participants.

A still further object is an accessory which is so designed that when employed for indicating purposes, any particular move may be hidden until the user makes what, under the circumstances, he considers to be the proper move and the accessory thereafter manipulated so that the correct move will be indicated and compared with the actual move.

Yet another object is a novel design and arrangement of the parts of the accessory, whereby to simplify and facilitate its use for the purposes described and in so doing enable the novice and the expert to acquire knowledge and gain skill in a highly interesting and entertaining manner.

The accessory is illustrated in the accompanying drawings, wherein:

Figure 1 is a plan view of an accessory embodying the features of the invention, the accessory in this instance being designed particularly for use in connection with the game of checkers;

Figure 1*a* is a fragmentary view illustrating another means for indexing a record in relation to the accessory.

Figure 2 is a transverse section taken along line **2**—**2** of Figure 1;

Figure 3 is a back view of the accessory;

Figure 3*a* is a sectional view taken as noted along line **3***a*—**3***a* of Figure 2.

Figure 3*b* is a sectional view taken along line **3***b*—**3***b* of Figure 1.

Figure 4 is a plan view similar to Figure 1, the accessory in this instance being designed for use in connection with the game of chess;

Figure 5 is a side elevational view of the accessory shown in Figure 4;

Figure 6 is a transverse section taken along line **6**—**6** of Figure 4;

Figure 7 is a sectional view through one novel form of indicia-producing instrument;

Figure 8 is a view partially in section of an instrument similar to that of Figure 7, but with a punch insert, showing the latter in its operative relation with respect to the accessory and being operated to punch a perforation in the record form;

Figure 9 is a plan view of a modified form of accessory wherein provision is made for recording or indicating notes pertinent to the moves recorded or indicated in connection with the use of the accessory; and

Figure 10 is a transverse section taken along line **10**—**10** of Figure 9.

The invention contemplates an accessory which is of such a size that it may be readily carried in the pocket or purse of a player or observer and be utilized for recording the moves of a game by a pencil, pen or suitable perforating instrument as in each case the indicia is simple in character, being in the form of a dot or hole. The accessory may be held in one hand while recording the moves of a game with the other or while transferring to the accessory a previously recorded game. After a game, or moves thereof, has been recorded, the accessory is employed as an indicator and the game, or moves thereof, may be replayed without the distraction of referring to and assimilating numerical or lettered data as a prelude to visualizing the moves involved and the strategy on which such moves are based.

The accessory, as illustrated in Figure 1, is designed for use in connection with the game of checkers. It includes a holder which, as best shown in Figure 2, is in the form of a flat sleeve and which may be formed from a single sheet of material such as paper, metal, plastic or any other material of a suitably stiff character. The front side of the sleeve is suitably provided with a checkered surface which simulates a checkerboard and which may, if desired, be employed as a checkerboard. The squares of the checkered area may, in accordance with conventional practice, be numbered 1 through 32 to facilitate identification of the playing pieces and the designation of moves.

In accordance with the invention, the front side of the sleeve is formed with an aperture, or window, **60**, shown in Figure 3*b*, which is located in each area occupied by one of the squares, the apertures, or windows, preferably, although not necessarily being located centrally with respect to their respective squares.

The holder **50** is open at its upper and lower ends and accommodates a strip-like record form **40** so that the latter may be moved lengthwise while being guided so that lateral movement to any substantial degree is prevented. In this connection it will be noted that the apertures **60** in the front side of the holder are arranged in a plurality of parallel, linear series which extend at an angle with respect to the marginal edges of the record form and the line of travel of the latter. Preferably, this angular relation and the spacing of the apertures of the various series is such that only one aperture will be located along any line parallel to the line of travel of the record strip. This relation is clearly illustrated by the lines X—Y which are drawn parallel to the line of travel of the record form and one of which passes through each of the apertures of one of the linear series. Hence any indicia made on the record form through any one of the apertures **60** will, as the record form is advanced, move along a line which will miss all other of the apertures. The arrangement of apertures in the manner described thus has the advantage that only those indicia involving a particular move will be visible at any one time. A further advantage obtained is that the capacity of the

record form with respect to the number of indicia which it may carry is large, it being noted that even though the record form may carry indicia representing moves involving a plurality of squares in the same linear series, each indicia provided on the record form will register only with the apertures through which it was produced so that the particular moves, in their proper sequence, will be indicated when the record form is subsequently passed through the device for this purpose.

At the upper end and on one side of the holder **50**, the front side of the latter is cut away to provide a window **53**. An arrow points to a transversely-extending reference line **53***a* which leads to the central portion of the inner, longitudinally-extending edge of the window and opposite the window the holder bears the legend "Black." At the lower end and on the opposite side of the holder, a similar window **54** is formed. In this instance an arrow points to a transversely-extending reference line **54***a* and the holder in this area bears the legend "White."

Referring to Figure 1, it will be noted that the windows **53** and **54**, the latter shown in sectional view 3*a*, expose the opposite, longitudinally-extending marginal edges of the front of the record form **40**. The marginal edge which is exposed through the window **53** carries transversely-extending lines **53***b* which are regularly spaced and which may be aligned with the reference line **53***a* by moving the record form **40** lengthwise. The opposite edge of the record form carries similar lines **54***b* which are regularly spaced and which may be moved into alignment with the reference line **54***a* when the record form **40** is moved lengthwise, it being noted that the lines **53***b* are so related to the lines **54***b* that the lines of the two series align alternately with the gauge lines **53***a* and **54***a* when the record form is moved in the manner described.

Figure 1*a* illustrates a modification of the alignment or register means **54** comprising a notch **154** in holder **50** to which notches **154***b* are aligned in the manner and for the purpose described heretofore.

The "Black" and "White" legends on the holder represent the opposing players and the particular line **53***b* or **54***b* which aligns with its respective reference line **53***a* or **54***a* indicates which player is to have his move recorded or is to make a move. After the move of one player has been recorded, or made, the record form is moved lengthwise in the direction of the arrow until the next line on the opposite edge of the form is aligned with its reference line, thereby indicating that the move of the opposing player is to be recorded, or made. It will be apparent, therefore, that when a game is being recorded it is necessary only to shift the record form one increment and then produce indica **60***a*, such as shown at 11—15, Figure 1, upon the record form through the two apertures **60** which represent the origin and destination of the game piece involved. Thereafter, the card may be shifted another increment and the same procedure repeated with respect to the opposing player. Upon completion of the game, the record form **40** with the indicia thereon, assuming the accessory is being used for recording, will represent the various moves of the games as played and in their proper sequence.

When it is desired to replay the game, it is only necessary to set up a checkerboard with the game pieces placed thereon. Then by moving the record form increment-by-increment in the same manner in which it was moved when the game was recorded, and by making each move called for after each movement of the record form, replaying of the game will be in accordance with the original game, the movements of the game pieces on the game board being, of course, in accordance with the moves indicated by the accessory. The use of the accessory, therefore, in the manner described has the advantage that the student or adherent need only be concerned with the immediate moves that are made, as indicated by the accessory. The need for assimilating numerical or lettered data such as has heretofore been employed to indicate the moves of a game is avoided. The student or adherent may, therefore, concentrate more fully on the strategy involved in connection with the various moves involved.

As a means of instruction it is also possible to illustrate first only the destination or origination at one position of the record leaving it to the student or adherent to attempt to discover whichever element of the move is missing. The exercise of the mental faculties in determining say the origination of a game piece knowing only its destination or vice versa being particularly suited to training in the science of the game. The student's choice of moves can then be verified by advancing the record to the next position at which the missing element is disclosed.

Although reference has been made to the use of the accessory primarily as a recorder and indicator, it is to be understood that the accessory itself may serve as a game board, if desired; in such case the game pieces may be transparent or washer-like in shape, such as is shown in my co-pending application, Serial No. 155,149, filed April 11, 1950, so that they will not conceal the apertures in the squares which may be occupied by them.

The back of the holder may, as shown in Figure 3, be formed with a transversely-extending window **52**. The latter exposes the back of the record form **40** thereby making it possible to write any notes, such as note **52***a*, upon the record form which may be pertinent to any of the moves recorded upon the front of the record form.

The structural features of the accessory are such that the latter may be availed of with equal facility in connection with the game of chess, as the checkered area employed is the same as in checkers. However, as all of the squares are employed instead of half of them, a different notation system is employed for designating the squares. An accessory suitable for use with respect to chess may, therefore, be the same structurally as the checker accessory heretofore described, the holder and the record form being modified suitably with respect to the differences in the notation systems. If desired, a single accessory may be provided, so that one face may be employed as a recorder and indicator in connection with the game of checkers while the opposite face may be employed in a similar manner in connection with the game of chess.

An accessory designed especially for use in connection with the game of chess is illustrated in Figure 4, and the various related sectional views. Referring to Figure 4, it will be noted that the squares of the checkered area are numbered in the direction of play and that the squares extending transversely with respect to the direction of play are lettered so that co-ordi-

nates of any move may be designated by reference to such numbers and letters.

As an alternate structure, the holder **50** shown in Figure 4 differs structurally from the one shown in Figure 1 in the respect that the central areas of the squares are in the form of conical seats **72** which taper in the direction of the apertures **60** through which the record form **40** is exposed. By forming similarly-shaped projections on the bottoms of any game pieces employed in connection with the accessory, the game pieces will be held against accidental shifting with respect to the squares which they occupy. Openings through the game pieces will expose the record form through the apertures **60**.

As has been noted, the indicia on the record form may be dot-like in character and may be produced by a pencil or pen. However, if desired, special indicia-forming instruments may be employed. Special instruments of this character are shown, for example, in Figures 7 and 8, being indicated generally at **83**. As both instruments in those instances have been designed especially for use in connection with the accessory shown in Figure 4, they are formed with a conical base **84** which fits in the conical depressions **72**. In both instruments a stem **85**, which is carried by the instruments, is normally held in a retracted position by a spring **86**. The latter surrounds the stem **85** and is operative to hold an actuating element **87**, or button, in an extended position. In its use, the actuating element **87** may be depressed, as shown in Figure 8, to cause the stem **85** which, as shown in Figure 7, may have a pencil or pen point **85***a*, to mark the record, or as shown in Figure 8, may have a punch **85***b* to be projected and thereby perforate the record form below the depression **72** in which the instrument is, at the time, positioned, it being noted, as shown in Figure 6, that the back wall of the holder **50** has perforations **88** which are aligned with the perforations **60** of the checkered area on the front wall. When designed for use with the marking device shown in Figure 7, this back wall of the holder **50** may or may not have the perforations **88**. The taper of the base of the instruments **83** conform to the taper of the seats **72**. Hence the latter facilitate positioning of either instrument in the proper relation with respect to the aligned apertures through which the stem element is movable to mark or perforate the record form. This arrangement also assists in the rapid interpretation of the record as it places indicia **60***a* on the record **40**, in the center of the area defined by the apertures **60** as is illustrated in Figure 4 by the indicia **60***a* in White's Q2 and Q4. The contrast between indicia **60***a* and the surrounding area of record **40**, as defined by aperture **60**, is much more easy to see than the indicia **60***a* illustrating move 11 to 15 in Figure 1.

In the embodiment of the invention illustrated in Figures 9 and 10, provision is made for writing in notes and other information, which may be pertinent to the moves recorded upon or indicated by the accessory. In this connection, it will be noted that the holder, as in the previous embodiments, is of simple form wherein a top section **90** overlies a bottom section **91** and in spaced relation with respect to the latter, although extending only part way across the bottom section. At its opposite side, the bottom section **91** is formed with a flange **92**, the top and bottom sections and the flange **92** providing a holder and guide for a record form **100** while the top section **90** also carries the checkered area **151** which is arranged in the same angular relation with respect to the direction of movement of the record form as described in the embodiment shown in Figure 1.

In the present embodiment, the record form **100** has a longitudinally-extending area **101** upon which indicia may be recorded, or which may carry recorded indicia, and a parallel-extending area **102** which is exposed between the free edges of the top section **90** and flange **92** and which is adapted to carry notes pertinent to the moves recording upon or indicated by the area **101**. It will be noted that the area **102** of the record form carries a column **103** in which the various moves are indicated by notation indicia which become visible in the proper sequence of such moves as the recrod form is moved to expose such indicia above the upper edge of the flange **92**. Reference is also made to the column **104** which includes an indicator square **105** which signifies Black's move if black, and White's move if white. The numerical move column **106** serves to rapidly determine the number of the move for reference or other purposes.

The various embodiments of the invention have been illustrated and described in connection with the games of chess and checkers. It is to be understood, however, that this is intended by way of example only and that the advantages of the invention may be attained by the use of the accessory in various environments in which recording and indicating for other purposes may be desired.

I claim as my invention:

A game device of the character described for recording and reproducing the successive moves of the gamepieces in a game of checkers, chess, or the like, comprising a holder having front, back, and side walls, and a record form located between said front and back walls and guided by said side walls for step-by-step movement longitudinally of and between the walls of the holder on successive moves of the opposing players of the game, the front wall of said holder having its outside surface marked out as a gameboard which is disposed at an angle to the direction of movement of said record form, said gameboard having a plurality of identical playing squares, and said front wall being provided with a plurality of apertures through each of which a mark may be made on said record form, each aperture being disposed within a separate one of said playing squares, said apertures being identically located within the boundaries of the several playing squares and being disposed in a plurality of parallel lines which extend at said angle to the direction of movement of said record form, so that the marks made through the apertures in the different squares will move, respectively, along separate, parallel longitudinal paths as said record form is moved in said holder, two sets of indicating means on said holder, and two sets of indicating means on said record form, one set of the indicating means of said holder being disposed at one side of said game board and along one side of said holder, and the other set of indicating means of said holder being disposed at the other side of said game board and along the opposite side of said holder, and the two sets of indicating means of said record form comprising two rectilinearly-spaced series of

marks along opposite lateral edges, respectively, of said record form to read, respectively, against the two sets of indicating means of said holder, when aligned, the series of marks in each series being equi-spaced, but the marks in one series being staggered with reference to the marks in the other series to indicate, respectively, the successive steps of movement of said record form corresponding, respectively, to successive moves of the opposing players, respectively, of the game.

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