United States Patent

Nekton

[15] **3,703,293**

[45] **Nov. 21, 1972**

[54] **GAME BOARD WITH RECORDING MEANS**

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[22] Filed: **Dec. 31, 1970**

[21] Appl. No.: **103,157**

[52] **U.S. Cl.** .....**273/136 C,** 101/103

[51] **Int. Cl.** **A63f 3/02**

[58] **Field of Search** 173/131, 136; 101/103

[56] **References Cited**

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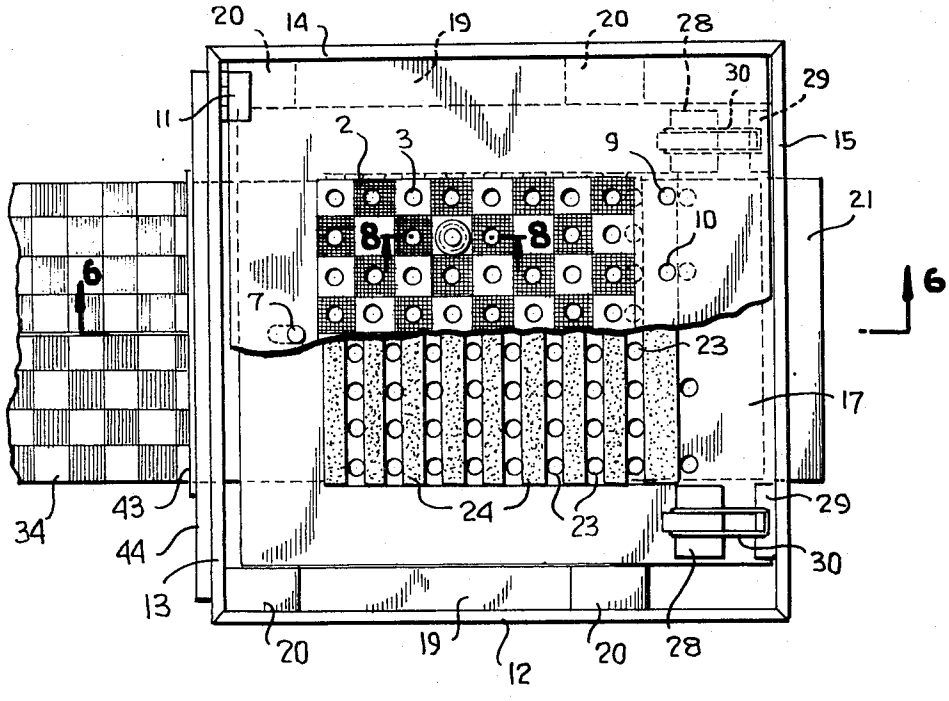
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Primary Examiner—Delbert B. Lowe
Attorney—Markva, Smith & Kruger

[57] **ABSTRACT**

A game apparatus for playing and recording successive plays in a game of chess wherein the game board has squares marked thereon. Each square has a vertical opening therethrough for receiving a playing piece having a shank and an end with recording indicia thereon. A grid beneath the game board is movable between a recording position and an inking position and has openings for receiving the shanks of the playing pieces when the grid is in its recording position. The grid also has inking means located on the surface of the grid facing the game board for receiving the ends of the playing pieces having recording indicia thereon when the grid is in its inking position. Means are provided below the grid to supply a continuous web of material for recording the position of the playing pieces.

16 Claims, 11 Drawing Figures

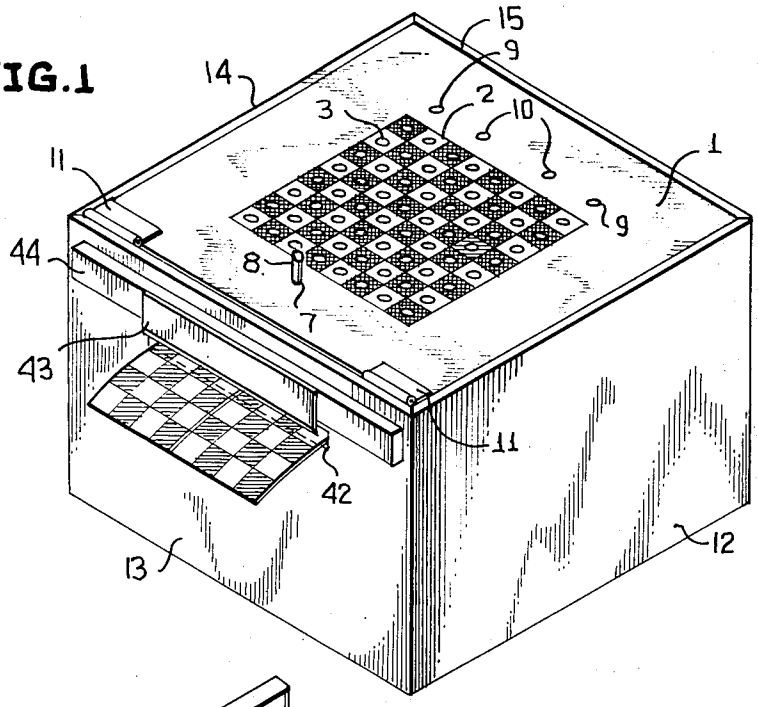


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SHEET 1 OF 3

FIG.1



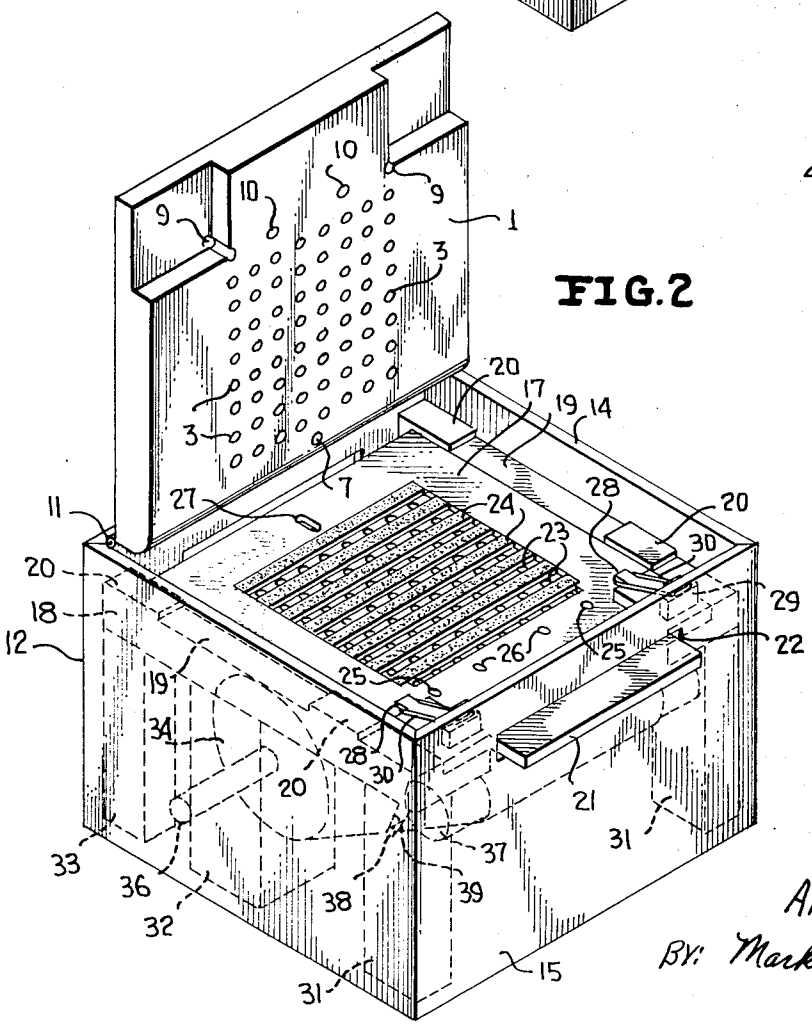


FIG.2

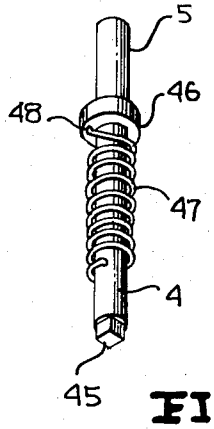


FIG.3

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FIG.4

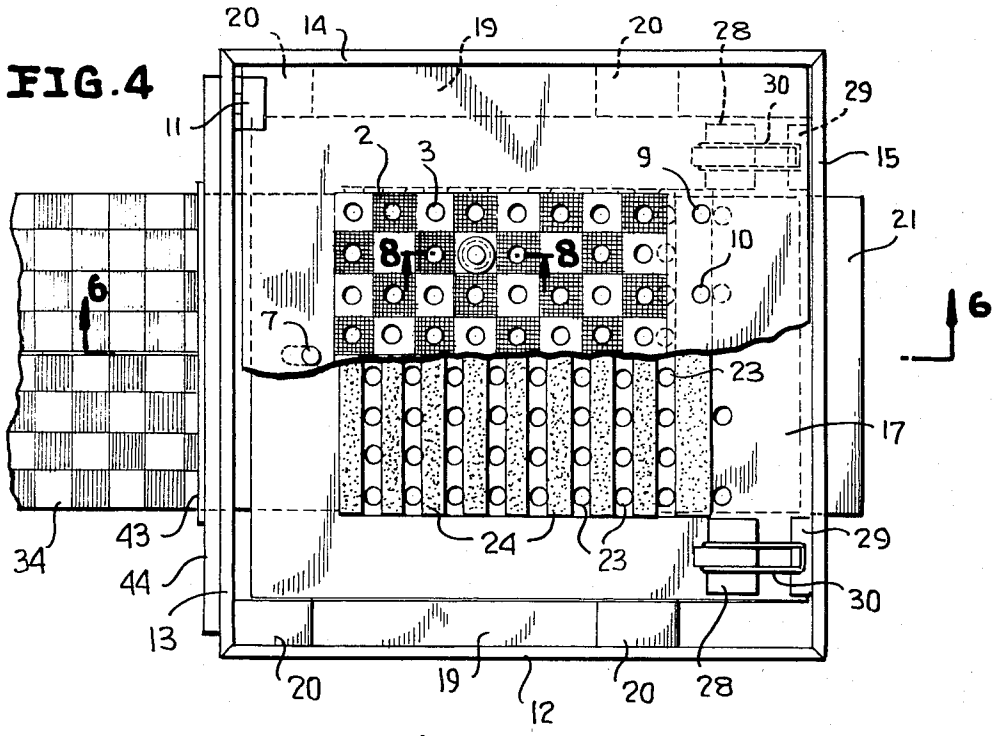
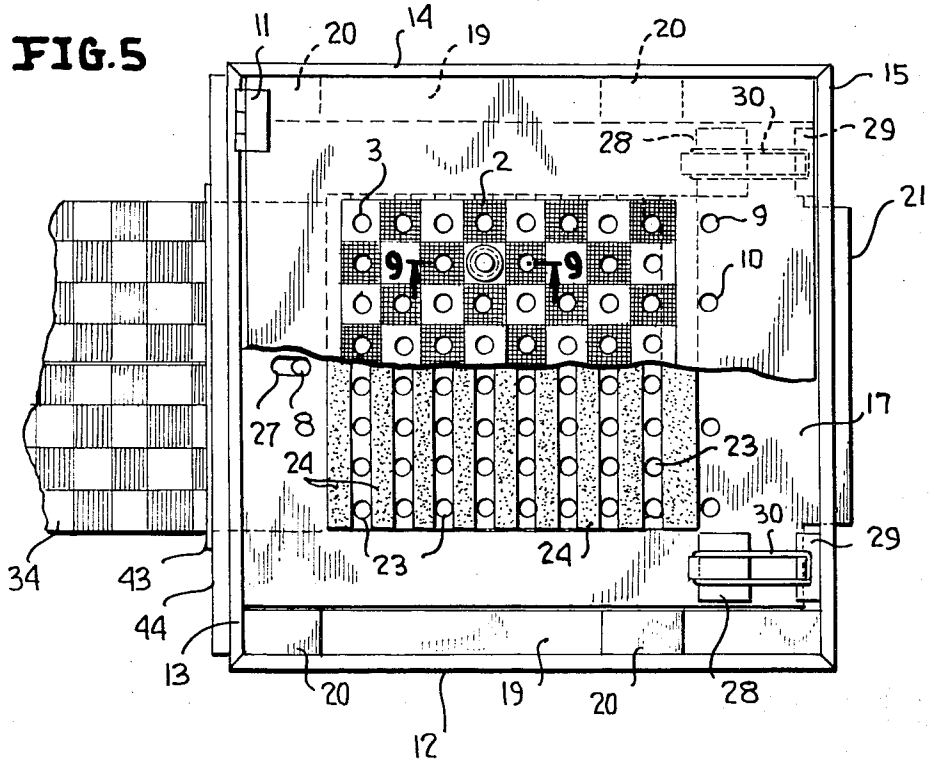


FIG.5



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FIG.6

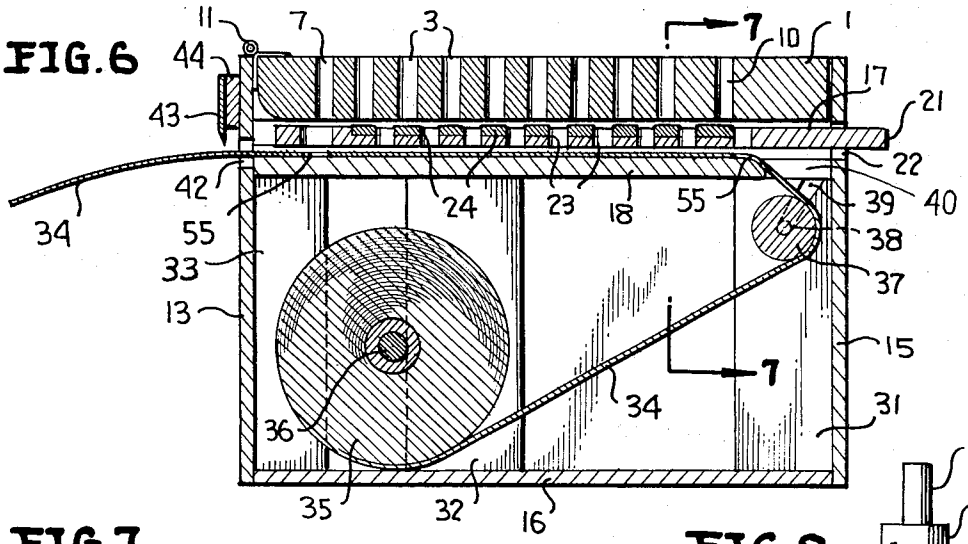


FIG.7

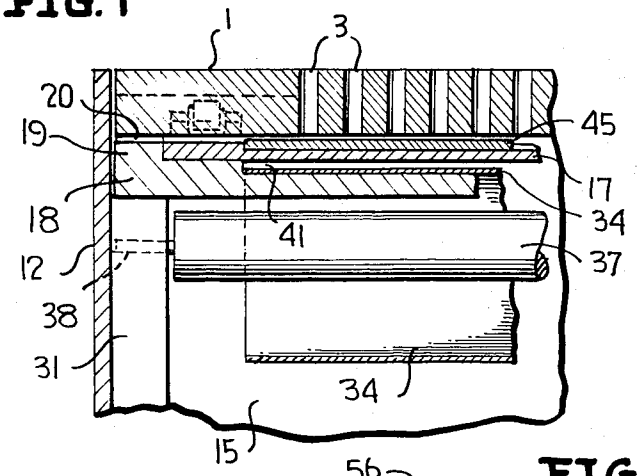


FIG.8

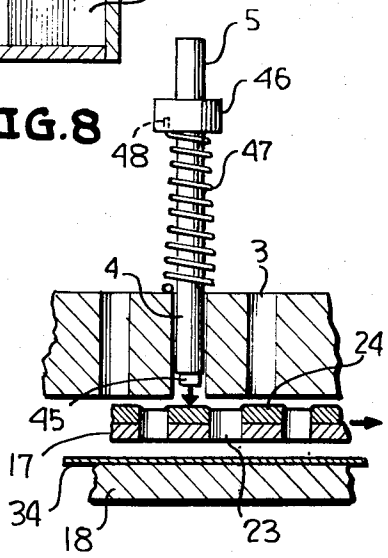


FIG.10

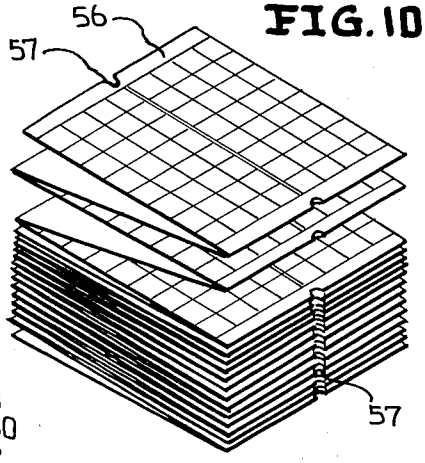


FIG.9

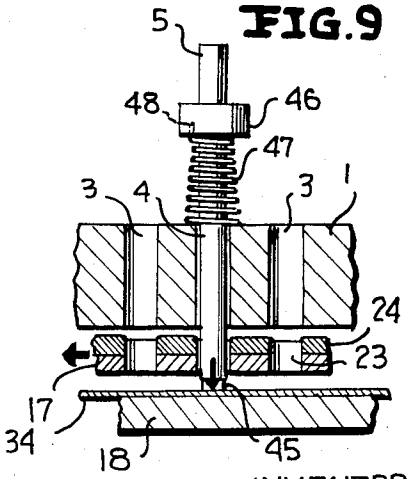
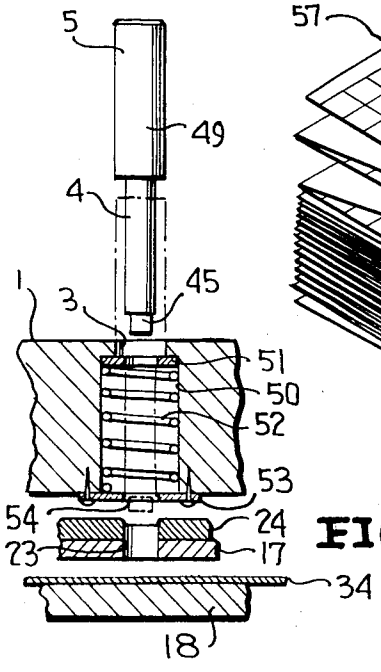


FIG.11



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GAME BOARD WITH RECORDING MEANS

This invention relates to recording apparatus for games, and particularly to apparatus or mechanism for recording successive moves of the game pieces or men in games such as chess, checkers, and the like, by use of the playing pieces during actual play. The invention is an improvement over the device disclosed in my U.S. Pat. No. 3,477,715.

Students of the game of chess frequently find it beneficial to replay and analyze games played by themselves to find fallacies or mistakes made in their play and improve their technique. To do this, it is necessary to make a record of the successive plays of the game. Also, to cope with interruptions of the game at any point or to review the status of the game at any stage, it is necessary to provide quick and simple means for recording all the positions of the pieces at any point.

This invention has for its salient object to provide apparatus for easily, quickly and accurately recording the move of each game piece as soon as it is made, thus providing an accurate record of the game.

A further object of the invention is to provide a simple construction for supplying a continuous web of material for recording the positions of the playing pieces.

Another object of this invention is to provide a game apparatus for playing and recording successive plays which may be easily assembled and disassembled when necessary and which may be inexpensively manufactured.

A still further object of the invention is to provide a convenient means whereby ink may be applied to the recording indicia on each of the playing pieces.

Further objects of the invention will appear from the following specification taken in connection with the drawings which form a part of this application in which:

FIG. 1 is a perspective view of a game board embodying the invention;

FIG. 2 is another perspective view of the game board shown in FIG. 1 in open position showing some of the interior parts thereof;

FIG. 3 is a side view of one embodiment of a game piece;

FIG. 4 is a top plan view of the game board shown in FIG. 1 partly in section with the grid in its inking position;

FIG. 5 is a top plan view of the game board shown in FIG. 1 partly in section showing the grid in its recording position;

FIG. 6 is a cross-sectional side view of the game board taken along the line 6—6 of FIG. 4;

FIG. 7 is a further cross-sectional view taken along the line 7—7 of FIG. 6;

FIG. 8 is a sectional view through a portion of the game board taken along the line 8—8 of FIG. 4 showing a game piece relative to the inking position of the grid;

FIG. 9 is a sectional view similar to FIG. 8 taken along the line 9—9 of FIG. 5 showing the grid in recording position and a game piece in the position of recording on a paper web;

FIG. 10 is a perspective view of an alternative arrangement for the continuous paper web supply; and

Fig. 11 is a view similar to FIG. 8 but showing an alternative arrangement for holding the game piece in elevated position.

In the particular embodiment of the invention illustrated in the drawings, there is shown a game board 1 having a checkerboard pattern 2 thereon. The checkerboard pattern is divided into eight vertical rows of squares and eight horizontal rows of squares and each square has an opening 3 therethrough for receiving the shank 4 of a playing piece 5. The game board has an opening 7 for receiving a record stop pin 8, openings 9, one on each playing side, for receiving captured playing pieces and openings 10, one on each playing side, for receiving checking playing pieces.

The playing board itself is mounted by means of hinges 11 along one side thereof on a box-like structure comprising side walls 12, 13, 14 and 15 and bottom 16. Immediately beneath the game board 1 is a grid 17 slidably supported on a guide plate 18 between guides 19 on opposite sides thereof. The guides 19 include raised support portions 20 which retain the bottom of the game board 1 a fixed distance above the grid 17 allowing the grid to be freely movable between a recording position towards wall 13 and an inking position towards wall 15. The grid 17 includes a tongue 21 projecting through a slot 22 in wall 15 to manually control movement of the grid 17 between the two positions.

The grid 17 comprises a plurality of holes 23, equal in number to the openings 3 in the game board 1, which are arranged in vertical and horizontal rows for alignment with the openings 3 when the grid 17 is in recording position. Between the horizontal rows of holes 23 ink pad strips 24 are horizontally arranged for alignment with the horizontal rows of openings 3 in game board 1 when the grid 17 is in inking position. Holes 25 and 26, one of each on each playing side, are provided between the tongue 21 and the plurality of holes 23 and correspond to openings 9 and 10 for receiving captured playing pieces and checking playing pieces respectively in the game board 1. In the opposite side of the grid 17 a slot 27 is provided which corresponds to opening 7 in the game board 1 and receives therethrough the record stop pin 8 while permitting the grid 17 to freely slide between the inking and recording positions. Two lugs 28 are provided on the grid 17 and a corresponding two lugs 29 are located on the interior surface of wall 15. A rubber band 30 extends between each pair of lugs 28 and 29 to bias the grid 17 towards the inking position in the direction of wall 15 whereby the inking pad strips 24 are positioned beneath each of the rows of openings 3 in playing board 1. By manually pushing tongue 21 the grid 17 may be moved to the recording position towards wall 13, extending rubber bands 30 and causing the holes 23 in grid 17 to be aligned with the openings 3 in game board 1. Releasing pressure on tongue 21 causes the rubber bands 30 to promptly return the grid 17 to the inking position whereby the inking pad strips 24 are again aligned beneath the rows of openings 3 in game board 1.

The guide plate 18 is supported on pairs of blocks 31, 32 and 33 secured in the bottom of the box-like structure. A continuous strip of paper web 34 in the form of a roll 35 is mounted on a spindle 36 which is retained between the pairs of blocks 32 and 33. The paper web 34 passes around a roller 37 mounted on a spindle 38 which is supported in slots 39 extending downwardly from the top of each of the blocks 31. The paper web 34 then passes upwardly through opening 40 in guide plate 18 and horizontally along a recessed part 41 in

the guide plate. The end of the paper web **34** is manually drawn out of the box-like structure through slot **42** in wall **13**. Conveniently, a cutter bar **43** having a serrated edge may be secured with block **44** to the exterior surface of wall **13** above and a short distance rearwardly of slot **42**. With this arrangement short increments of the continuous web **34** may be torn off after being withdrawn leaving a short part of the web **34** between the exterior side of the wall **13** and the serrated edge of the cutter bar **43** which can be gripped manually when a further increment of the continuous web **34** is to be withdrawn.

There are two sets of playing pieces **5** in the game of chess, one of them usually designated as the white pieces and the other designated as the black pieces. The white pieces would be mounted on one side of the game board and the black pieces would be mounted on the opposite side, the sides being on opposite sides of a center line extending between the record stop pin **8** and a point midway between openings **10**.

Each playing piece has the conventional head and body identifying it as for instance Rook, Bishop, Queen, etc. as shown in my U.S. Pat. No. 3,477,715. For the sake of simplicity these have all been identified in the drawings as playing pieces **5**. The end of the shank **4** of each of the playing pieces **5** has a unique indicia **45** mounted thereon. Each of the indicia identify the particular playing piece. Thus, the Queen may have a "Q" on the bottom and the King may have a "K," etc. or each may have an equivalent identification character or means. A black or bold face letter will identify a black playing piece while a white or open face letter will identify a white playing piece.

Any suitable arrangement may be provided to maintain the playing pieces **5** in elevated position in the openings **3** in the playing board **1**. Various means are disclosed in my U.S. Pat. No. 3,477,715. In one possible arrangement each of the playing pieces **5** includes a collar **46** and a helical spring **47**, one end of which is secured in a hold **48** in the collar. The spring extends downwardly only part of the way along the shank **4**. The playing pieces are positioned in the openings **3** in the game board **1** with the part of the shank **4** below the spring retained within the opening **3**, with the end of the spring **47** resting on the surface of the board **1** as shown in FIG. **8**.

An alternative arrangement is shown in FIG. **11** wherein the shank **4** is provided with a collar **49**. The opening **3** includes an enlarged bore **50** in which is retained a washer **51** and a helical spring **52**. A plate **53** having a hole **54** is secured across the bottom of the bore **50** retaining the spring **52** in place. The playing piece **5** is inserted through the opening **3**, washer **51**, spring **52**, and the hole **54** in plate **53**, the bottom of the collar **49** resting on the surface of the washer **51**.

The record sheet has printed thereon a plurality of squares, each square corresponding to a square in the game board. With the grid **17** in its inking position as seen in FIG. **4** and arranged with the inking pad strips **24** beneath the openings **3**, any of the game pieces may be depressed against the pressure of spring **47** or spring **52** to press the indicia **45** against the surface of the respective inking pad strips **24** as seen in FIG. **8** whereby the indicia **45** is inked after which pressure on the playing piece is released, the playing piece returning to its normal elevated position. When it is desired to record the movement of a playing piece **5**, the tongue **21** is first pressed inwardly causing the grid **17** to move towards wall **13** and its recording position as seen in FIG. **5** after which the particular playing piece **5** is depressed causing the indicia **45** and a shank **4** to pass through the respective hole **23** in the grid **17** and the indicia **45** to be pressed against the surface of the web strip **34** marking the corresponding square on the web strip with the unique indicia of the particular playing piece as seen in FIG. **9**. The playing piece **5** is then released causing it to return to its normal position after which the tongue **21** is released permitting the grid **17** to return to its inking position.

When a player captures an opponent's game piece he inserts the piece in the opening **9** on his side of the playing board **1** and after inking the indicia thereon and moving the grid **17** to recording position he records the identity of his opponent's captured piece on the paper. Each time a player makes a move checking his opponent's King he similarly records the identity of his checking piece by inserting it in the opening **10** on his side of the playing board **1**.

The continuous paper web **34** contains perforations **55** along the center of the web strip at regularly spaced distances equivalent to approximately the distance from one side of the game board **1** to the other side. The web strip is held in position beneath the grid **17** and game board **1** by the weighted record stop pin **8** which passes downwardly under the influence of gravity through opening **7** in the game board **1**, slot **27** in the grid **17** and one of the perforations **55** in the paper web strip **34**. The top end of the record stop pin **8** extends above the surface of the game board **1** so that it can be manually lifted.

When it is desired to remove an increment of the paper web strip **34** upon which recordings have been made, the record stop pin **8** is raised releasing the paper web strip **34** after which it is withdrawn a short distance through slot **42** in wall **13**. The record stop pin **8** may then be returned to nearly its normal position pressing against the surface of the paper web **34**. Withdrawing of the paper web **34** is continued until the record stop pin **8** drops into the next succeeding perforation **55** in the paper web causing further withdrawal of the paper web to be stopped. The withdrawn paper web **34** containing the recordings may then be conveniently torn off by means of cutter bar **43**.

An alternative arrangement for the continuous paper web supply is shown in FIG. **10** wherein a folded continuous web stack **56** is substituted for the supply roll **35**. Perforations **57** are provided in the web strip **56** in a similar manner as the perforations **55** in web **34**. The web strip **56** can be withdrawn in the same manner as the web **34** is withdrawn around roller **37** and across guide plate **18**. Alternatively the stack **56** can be located outside the box and fed directly into the box through slot **40**, bypassing roller **37**. As the web is withdrawn the folded stack shown in FIG. **10** is diminished

To load or reload the game apparatus with fresh paper web, the game board **1** is pivoted upwardly on its hinges as seen in FIG. **2** exposing the grid **17**. The rubber bands **30** are then removed from lugs **28** and **29** and the side of the grid **17** adjacent wall **13** is then

raised and withdrawn causing the tongue **21** to pass through slot **22**. This exposes the guide plate **18** which may then be lifted upwardly off the pairs of blocks **31**, **32** and **33**. The roll of paper **35**, or stack **56** if housed within the box, is then inserted. In the case of the roll, the spindle **36** passes downwardly between blocks **32** and **33** and the end of the paper web is drawn upwardly around roll **37** after which the guide plate **18** is replaced. In the case of the stack **56** fed directly from the outside of the box, guide plate **18** need not be removed or replaced. After laying the paper web across the top of the guide plate **18** in recessed part **41** and through slot **42** in wall **13** the grid **17** is replaced, the rubber bands **30** replaced and the game board **1** pivoted back into position. The game apparatus is then ready for play.

At any point in a game all or any part of the playing pieces and their moves can be printed on the paper web. The pattern or sequence of movements in playing, when moving the pieces from square to square and recording the moves, is, one, lift; two, move to new holes; three, depress for inking; four, push inwardly tongue **21**; and five, depress for recording. The same sequence is followed when a piece is checking or has been captured in which case the four holes **9** and **10** and the ink strip therebeneath are utilized.

Thus, a complete move-by-move and position-by-position record can be kept as the game moves along with practically no disturbance of the game. The positions of all the playing pieces can be recorded at any time, or each individual move as made can be recorded. The options are up to the players. For instance, the players may wish to record their first eight or 10 moves without moving the paper web, but then with each move thereafter the paper web will be moved by one increment. Other players may want to wait until important tactical divergent courses arise at which time the positions of all the playing pieces will be recorded so that the players can later explore new possibilities from that point after they have tried a first line of play. It will be appreciated that the game goes on uninterrupted whether the players wish to record or not, and a complete pictorial record is available at the will of the players.

From the foregoing specification it will be seen that the recording means shown and described is very simple in construction and can be economically manufactured and easily and quickly used during and simultaneously with each play to record on the record sheets the plays made by the black and white playing pieces **5**.

Although certain specific embodiments of the invention have been particularly shown and described, it should be understood that the invention is capable of further modifications and changes in the arrangement and in the construction of the various parts may be made.

I claim:

1. A game apparatus for playing and recording successive plays in a game using a plurality of playing pieces having embossed recording indicia at one end thereof identifying each playing piece, said apparatus comprising in combination:

a. a game board having a plurality of player positions, each player position including an aperture passing transversely through said board for receiving one of said playing pieces,

b. a grid mounted beneath said game board for movement in a direction substantially parallel to said game board between a recording position and an inking position, said grid including perforations passing transversely therethrough in alignment with said apertures in said game board when said grid is in said recording position and including inking means on the surface thereof facing said game board and in alignment with said apertures in said game board when said grid is in said inking position, and

c. means for retaining a sheet of paper substantially parallel to the plane of said board and grid at a position below the grid,

d. whereby each successive play may be recorded by first pressing a selected playing piece through the aperture at a selected one of said player positions while said grid is in said inking position to ink the recording indicium on the end thereof and then, after moving said grid to said recording position, again pressing said selected playing piece through said aperture in said board and an aligned perforation in said grid to mark said sheet of paper with said inked indicium at a position corresponding to said player position.

2. A game apparatus as claimed in claim **1** wherein said means for retaining said sheet of paper comprises means for supplying a continuous web of paper.

3. A game apparatus as claimed in claim **2** wherein said retaining means comprises a guide plate substantially parallel to said grid for supporting a part of said web of paper adjacent said grid.

4. A game apparatus as claimed in claim **3** wherein said supply means comprises means supporting a continuous roll of paper web for feeding to said guide plate.

5. A game apparatus as claimed in claim **3** wherein said supply means comprises means supporting a continuous folded stack of paper web for feeding to said guide plate.

6. A game apparatus as claimed in claim **3** further comprising means releasably securing said continuous web of material against displacement on said guide plate.

7. A game apparatus as claimed in claim **1** further comprising means biasing said grid in the direction of said inking position.

8. A game apparatus as claimed in claim **1** wherein said grid includes perforations equal in number to said apertures in said game board.

9. A game apparatus as claimed in claim **1** wherein said game board includes an additional aperture and said grid includes an additional perforation in alignment with said additional aperture in said game board when said grid is in said recording position for receiving and recording a captured playing piece.

10. A game apparatus as claimed in claim **1** wherein said game board includes an additional aperture and said grid includes an additional perforation in alignment with said additional aperture in said game board when said grid is in said recording position for receiving and recording a checking playing piece.

11. A game apparatus as claimed in claim **1** wherein said game board comprises biasing means for retaining each of said playing pieces in an elevated position in the apertures in said game board except when said

playing pieces are pressed downwardly to ink said indicia or make a recording on said sheet of paper.

12. A game apparatus as claimed in claim 1 wherein said means for retaining a sheet of paper comprises slide means supporting said grid for movement between said inking and recording positions.

13. A game apparatus as claimed in claim 12 wherein said grid comprises tongue means for manually moving said grid between said inking and recording positions.

14. A game apparatus for playing and recording successive plays in a game comprising in combination:

a. a plurality of playing pieces having embossed recording indicia at one end thereof identifying each playing piece,

b. a game board having a plurality of player positions, each player position including an aperture passing transversely through said board for receiving one of said playing pieces,

c. a grid mounted beneath said game board for movement in a direction substantially parallel to said game board between a recording position and an inking position, said grid including perforations passing transversely therethrough in alignment with said apertures in said game board when said grid is in said recording position and including inking means on the surface thereof facing said game board in alignment with said apertures in said game board when said grid is in said inking position, and

d. means for retaining a sheet of paper substantially parallel to the plane of said board and grid at a position below the grid,

e. whereby each successive play may be recorded by first pressing a selected playing piece through the aperture at a selected one of said player positions while said grid is in said inking position to ink the recording indicium on the end thereof and then, after moving said grid to said recording position, again pressing said selected playing piece through said aperture in said board and an aligned perforation in said grid to mark said sheet of paper with the inked indicium at a position corresponding to said player position.

15. A game apparatus as claimed in claim 14 wherein each of said playing pieces comprises a shank for insertion in any of said apertures located in said game board and spring biasing means for retaining said playing piece in an elevated position in an aperture except when said playing piece is depressed for inking said indicia or for recording on said sheet of paper.

16. A game apparatus as claimed in claim 15 wherein each of said playing pieces comprises a shoulder spaced from the end of said shank, said spring means being a coil spring about said shank.

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