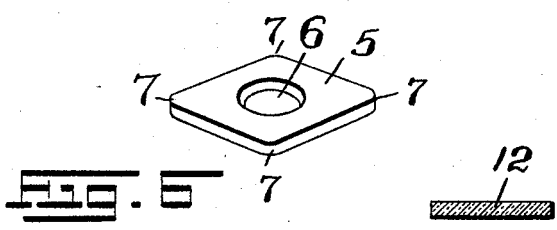
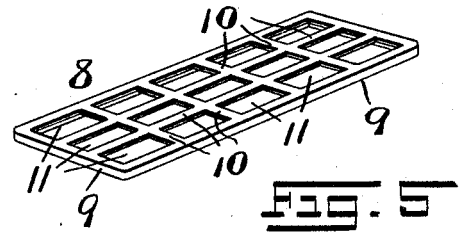
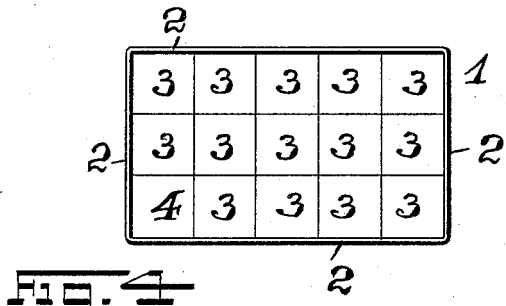
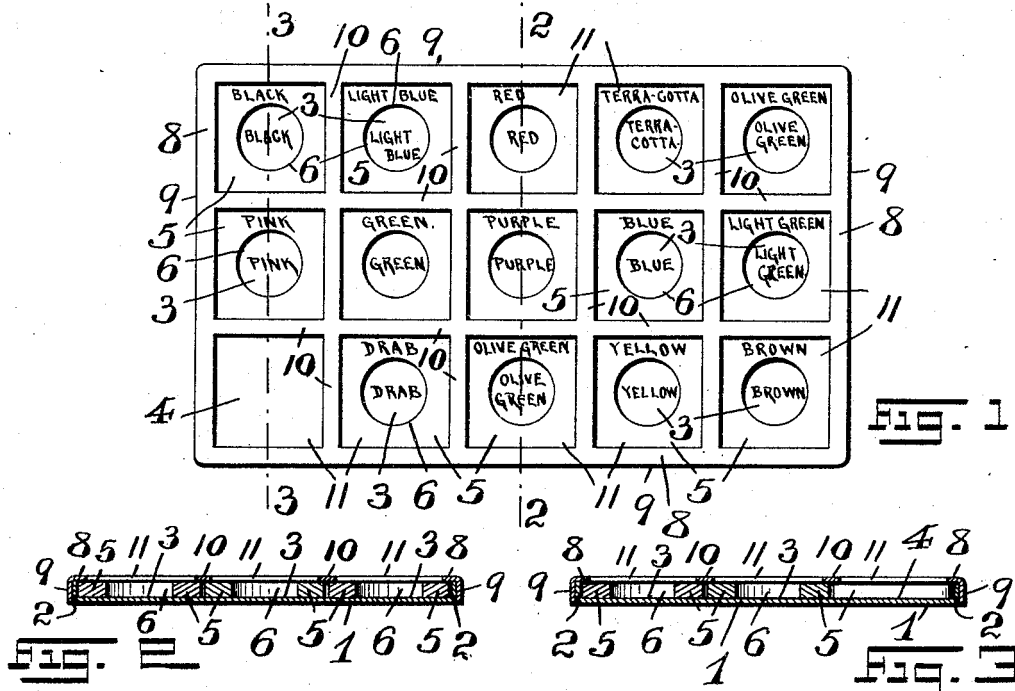


A. COE.
PUZZLE OR GAME APPARATUS.
APPLICATION FILED NOV. 17, 1904.

3 SHEETS—SHEET 1.



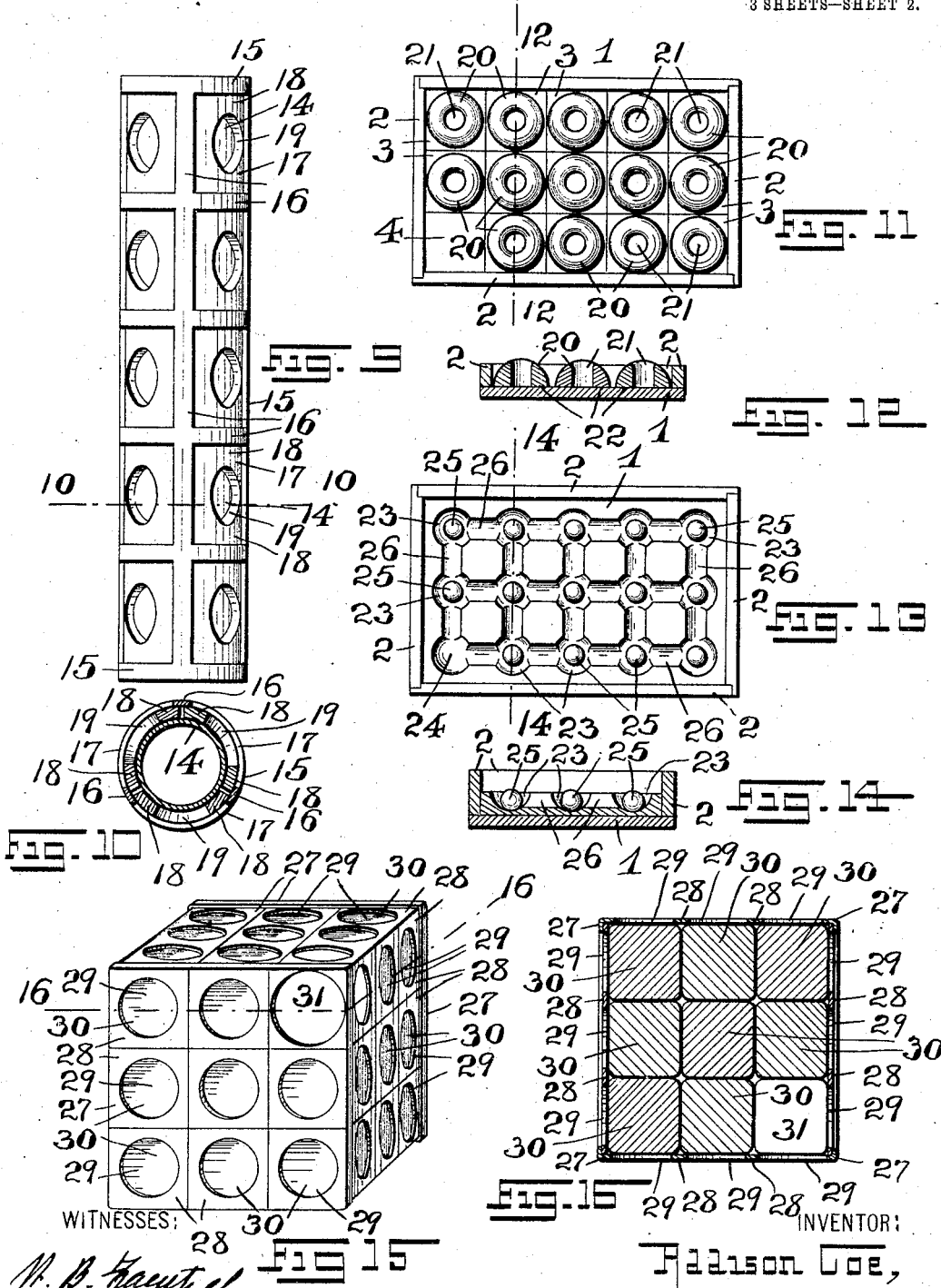
WITNESSES:
Geo. D. Richards.
H. B. Fraentzel.

FIG. 8

INVENTOR;
 Addison Coe,
 BY *Fred C. Fraentzel.*
 ATTORNEY

A. COE.
PUZZLE OR GAME APPARATUS.
APPLICATION FILED NOV. 17, 1904.

3 SHEETS—SHEET 2.



WITNESSES:
M. B. Fraentzel.
Geo. D. Richards.

INVENTOR:
 Allison Coe,
 BY
Fred L. Fraentzel,
 ATTORNEY

A. COE.
PUZZLE OR GAME APPARATUS.
APPLICATION FILED NOV. 17, 1904.

3 SHEETS—SHEET 3.

Fig. 17

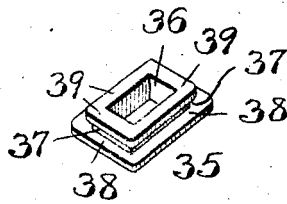
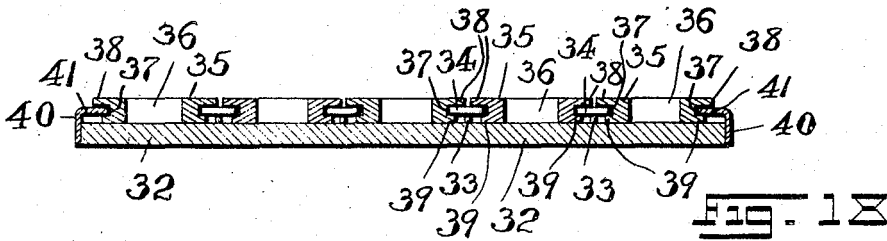
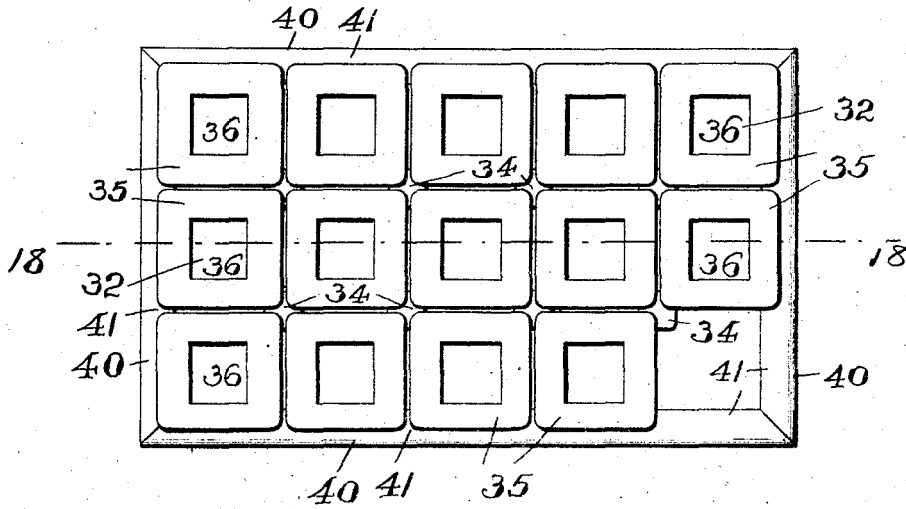


Fig. 19

WITNESSES:

Geo. D. Richards
W. B. Fraentzel

INVENTOR:

Edison Coe,
BY *Fredk. Fraentzel,*
ATTORNEY

UNITED STATES PATENT OFFICE.

ADDISON COE, OF NEWARK, NEW JERSEY.

PUZZLE OR GAME APPARATUS.

SPECIFICATION forming part of Letters Patent No. 785,665, dated March 21, 1905.

Application filed November 17, 1904. Serial No. 233,063.

To all whom it may concern:

Be it known that I, ADDISON COE, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Puzzle or Game Apparatus; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to numerals of reference marked thereon, which form a part of this specification.

The present invention has reference to improvements in that class of toys known in the art as "puzzles" or "games;" and this invention has for its principal object to provide a novel and simple puzzle or game, comprising a suitable playing board or boards divided into spaces which are variously colored, and provided with a number of correspondingly-colored playing pieces or checkers which can be moved from space to space over the board, there being one playing piece or checker less than the number of spaces into which the board is divided, the purpose, finally, being to arrange the said playing pieces or checkers in position upon the various spaces of the board that the moved playing pieces or checkers will rest, respectively, upon the spaces of the board bearing the colors which correspond to the colors of the said moved and finally-placed checkers.

Other objects of this invention not at this time more particularly specified will be clearly understood from the following detailed description of the said invention.

The invention consists, primarily, in the novel puzzle or game hereinafter set forth; and, furthermore, the invention consists in the arrangements and combinations of devices and parts, as well as in the details of the construction of the same, all of which will be fully described in the following specification and then finally embodied in the clauses of the claim which are appended to and which form an essential part of this specification.

The invention is clearly illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of the preferred form and construction of puzzle or game embodying the principles of the present invention. Fig. 2 is a transverse vertical section of the same, taken on line 2 2 in said Fig. 1; and Fig. 3 is a similar section taken on line 3 3 in said Fig. 1. Fig. 4 is a plan view of the playing-board with the playing pieces or checkers and a retaining frame or grid for retaining the checkers movably upon the board omitted from the said figure. Fig. 5 is a perspective view of the said retaining frame or grid, and Fig. 6 is a similar view of one of the playing pieces or checkers. Fig. 7 is a plan view of a playing piece or checker made from a transparent material, as glass, celluloid, or the like, and Fig. 8 is a cross-section of the same. Fig. 9 is a modified construction of puzzle or game embodying the principles of this invention; and Fig. 10 is a horizontal section of the same, said section being taken on line 10 10 in said Fig. 9. Fig. 11 is a plan view, Fig. 12 a transverse section on line 12 12 in said Fig. 11, and Fig. 13 is a plan view, and Fig. 14 a transverse section on line 14 14 in Fig. 13, of two other modified forms of puzzles or games, both the said constructions embodying the principles of this invention. Fig. 15 is a perspective view of still another modified form of puzzle or game made according to this invention; and Fig. 16 is a horizontal section of the same, said section being taken on line 16 16 in said Fig. 15. Fig. 17 is a plan view of another modified construction of puzzle or game embodying the novel features of this invention. Fig. 18 is a vertical section of the same, the said section being taken on line 18 18 in said Fig. 17; and Fig. 19 is a perspective view of one of the playing pieces or checkers shown in said Figs. 17 and 18.

Similar characters of reference are employed in the above-described views to indicate corresponding parts.

Referring now to the drawings, the reference character 1 indicates a suitably-shaped playing-board preferably made with the surrounding sides 2 so as to form a box or compartment. The said playing-board, which, as will be evident, may be made of any suitable

material, is divided upon its face, as represented in Fig. 4 of the drawings, into suitably-disposed spaces, such as squares or other geometrical figures, as 3, all of which are variously colored, as indicated in Fig. 1; but one of the spaces, as 4, is left without any color, as white, or said space 4 may be of any other color distinctive from any of the colors of the playing-pieces 5 and the corresponding colors of the spaces 3. The said playing pieces or checkers 5, of which there is one less in number than the combined number of said spaces 3 and 4, are made from any suitable material—such as metal, wood, celluloid, or the like—and they are variously colored to correspond to the variously-colored spaces 3. That the colors of the various spaces 3 may be exposed to view when the playing pieces or checkers are arranged upon the playing-board the said playing pieces or checkers are provided with suitable openings or perforations 6, and that the said checkers 5 may be easily moved either vertically or horizontally upon the playing-board they are provided with rounded corners 7, as shown. It will be understood, however, that the said playing pieces or checkers 5 may be of any other suitable marginal configurations. The various playing pieces or checkers 5 are retained in their movable positions upon the face of the playing-board 1 by means of a frame or grid 8, of metal or other suitable material, the said frame or grid being provided with marginal sides or edges, as 9, which are fitted over and about the sides 2 of the said playing-board 1 and are fixed in position in any desired manner, either by clamping, soldering, or otherwise. The said frame or grid 8 being made with suitably-arranged cross-pieces 10, forming the open spaces 11 in said frame substantially as illustrated in said Figs. 1, 2, 3, and 5 of the drawings, it will be evident that a suitable means is provided for the placing of the finger into the said spaces 11 to manipulate the playing pieces or checkers 5, arranged upon the playing-board and beneath the said frame or grid 8, as will be clearly understood. At the same time these openings 11 in the frame or grid 8 serve as a means through which the colors of the playing pieces or checkers 5 and the colors of the spaces upon the playing-board may be seen. When these various parts have in this manner been arranged and secured in their assembled relation, as indicated in Figs. 1, 2, and 3 of the drawings, it will be evident that the playing pieces or checkers 5 can be variously moved into different positions above the spaces of the playing-board 1, the colors of the spaces showing through the openings or perforations 6 of the playing pieces or checkers 5, and it now is the purpose of the player to quickly arrange the several playing pieces or checkers, with the least number of moves, in their normal initial positions upon the spaces of the playing-board, that the color of

each finally-placed playing piece or checker 5 will correspond to the color of the space 3 upon which it rests. In this manner, as will be clearly evident, a cheaply-constructed and instructive puzzle or game is produced which affords great pleasure and amusement.

In lieu of the construction of the playing pieces or checkers 5 hereinabove described playing pieces or checkers 12, which may be solid and are transparent, as indicated in Figs. 7 and 8, may be used, these pieces being made of glass, transparent celluloid, or the like, but having certain portions thereof colored, as at 13, as clearly indicated in said Fig. 7 of the drawings.

In Figs. 9 and 10 I have shown a construction of puzzle embodying the principles of this invention, in which a playing-board 14 of a cylindrical shape is employed instead of the board 1, the said cylinder being surrounded by a cylindrically-formed grid or frame 15, provided with cross-bars 16, which form suitably-disposed open spaces 17, as shown. The cylindrical board is provided with variously-colored spaces, and movably arranged either vertically or horizontally between the outer surface of the said cylindrical board 14 and the inner cylindrical portion of the grid or frame 15 are correspondingly-curved playing pieces or checkers 18, which may be provided with the openings 19, as shown, or they may be made solid and of a transparent material, if desired. The number and arrangement of the spaces upon the cylinder 14 and that of the playing pieces or checkers 18, as well as the disposal of the colors upon the latter, is the same as that shown and described in connection with the construction shown in said Figs. 1, 2, and 3 of the drawings and hereinabove fully described.

In Figs. 11 and 12 of the drawings I have shown another modified form of puzzle or game comprising a playing-board 1, having sides 2 and is divided into the spaces 3 and 4 in the manner indicated in Fig. 4 of the drawings, the playing pieces or checkers 20 in this case being variously-colored pieces of glass, celluloid, or other similar and suitable material, each piece being of a semispherical configuration and being provided with a vertically-extending duct or opening 21, through which the color of the spaces upon the playing-board upon which the flat face or surface 22 of each playing piece or checker 20 is movably arranged is readily exposed to view.

In Figs. 13 and 14 I have shown a similarly-formed playing-board 1, having sides 2, the inner face of the base, however, being provided with retaining depressions or pockets 23 and 24, all of which are variously colored in the manner of the spaces 3 and 4 of the construction represented in said Figs. 1, 2, 3, and 4 of the drawings, correspondingly-colored balls or marbles 25 being disposed in the said retaining depressions or pockets 23 and being

capable of being passed or rolled from pocket to pocket through connecting ducts or channels 26, arranged to connect the various pockets or depressions 23 in the manner illustrated.

5 The playing-pieces, which are arranged as shown in the various constructions of said Figs. 9 to 12, inclusive, are moved and manipulated in the manner of the construction of puzzle illustrated in said Figs. 1, 2, and 3
10 and will be clearly understood without any further detailed description of the same.

In Figs. 15 and 16 I have shown another form of puzzle or game which embodies the principles of this invention, the device comprising a suitably-constructed cube-shaped grid or frame 27, the same being divided upon its various outer sides or faces into variously-colored squares or spaces 28, each space 28 being formed with an opening 29, substantially as shown. Suitably arranged within the said cube-shaped frame or grid 27 are a number of variously-colored cube-shaped playing pieces or checkers 30, the said playing pieces or checkers 30 being of such number
25 (in this case twenty-six of them) that no matter how the said pieces or checkers may be arranged there will always be a cube-shaped open space 31, as shown. The said cube-shaped playing pieces or checkers 30, as will be evident, can thus be variously moved into
30 different positions within the cube-shaped grid 27, and the purpose of the puzzle then is to reset, with the least number of moves, all of the said playing pieces or checkers 30, that their colors, which are exposed through the openings 29 of the said frame or grid 27 will correspond to the coloring of the squares or spaces 28 on all sides of the cube-shaped frame 27, as will be clearly understood.

40 Coming now to the modified construction of puzzle illustrated in Figs. 17 and 18 of the drawings, the same consists, essentially, of a base 32, which is divided into suitably-colored squares or spaces similar to those shown in
45 Fig. 4 of the drawings. At the several corners of the squares I have driven into the base 32 small pins or tacks 33, provided with the heads 34, preferably of a square or rectangular configuration, and arranged slightly
50 above the surface of the base to leave a space beneath each head 34, substantially as shown in Fig. 18 of the drawings. Movably arranged between the said pins or tacks 33 are the playing-pieces 35 of the various colors,
55 as above stated, each playing-piece having a central opening 36 and a peripheral groove or channel 37, formed by the flanges 38 and 39, as will be seen from an inspection of Fig. 19, and into which grooves or channels 37
60 portions of the heads 34 of the pins or tacks 33 extend to retain the playing pieces or checkers 35 in their movable relation upon the face of the board or base 32. Suitably secured upon the marginal edges of the said
65 base or board 32 are strips of metal 40, hav-

ing right-angled portions or members 41 extending in inward directions into the grooves or channels 37 of the various playing pieces or checkers 30, when the latter are moved into the outer rows of spaces upon the base
70 or board 32.

From the foregoing description of the various devices it will be clearly evident that while they are all differently constructed still they all embody the principles of the present invention, and the invention provides a simple or game of utility and instructiveness and one from which may be derived much pleasure and amusement, as will be readily evident.

It will be obvious that changes may suggest themselves without departing from the spirit and scope of my present invention. Hence I do not limit my invention to the exact arrangements and combinations of the devices and parts as described in the foregoing
85 specification, and as illustrated in the accompanying drawings, nor do I confine myself to the exact details of the construction of the said parts.

Having thus described my invention, what I claim is—

1. A puzzle or game apparatus, comprising a playing-board divided into variously-colored spaces, and a set of movable playing-pieces arranged upon said playing-board, the number
95 of said playing-pieces being one less than the number of spaces upon said playing-board, each playing-piece having a color corresponding to the color of a space upon said board, and each playing-piece being provided with
100 an opening through which the color of the space over which the playing-piece is moved will be exposed, substantially as and for the purposes set forth.

2. A puzzle or game apparatus, comprising
105 a playing-board divided into variously-colored spaces, a set of vertically and horizontally movable playing-pieces arranged upon said playing-board, the number of said playing-pieces being one less than the number of spaces
110 upon said board, each playing-piece having a color corresponding to the color of a space upon said board, and a grid or frame connected with said board and forming with the spaced face of said board a chamber in which
115 the playing-pieces are movably arranged, and said grid preventing the removal of said playing-pieces from said board, substantially as and for the purposes set forth.

3. A puzzle or game apparatus, comprising
120 a playing-board divided into variously-colored spaces, a set of vertically and horizontally movable playing-pieces arranged upon said playing-board, the number of said playing-pieces being one less than the number of spaces upon
125 said board, each playing-piece having a color corresponding to the color of a space upon said board, means for preventing the removal of said playing-pieces from said board, and each playing-piece being provided with an
130

opening through which the color of the space over which the playing-piece is moved will be exposed, substantially as and for the purposes set forth.

5 4. A puzzle or game apparatus, comprising a playing-board divided into variously-colored spaces, a set of vertically and horizontally movable playing-pieces arranged upon said playing-board, the number of said playing-pieces
10 being one less than the number of spaces upon said board, each playing-piece having a color corresponding to the color of a space upon said board, a grid or frame connected with said board and forming with the spaced face
15 of said board a chamber in which the playing-pieces are movably arranged, said grid preventing the removal of said playing-pieces from said board, and each playing-piece being provided with an opening corresponding to
20 the openings in the said grid or frame through which the color of the space over which the playing-piece is moved will be exposed, substantially as and for the purposes set forth.

5 5. In a puzzle or game apparatus, the combination, with a board divided into variously-colored spaces, and having sides 2, of a grid or frame 8, comprising flanges 9 arranged and secured over said sides 2, said frame or grid
25 being provided with cross-bars 10 forming openings 11 corresponding to the number of said colored spaces upon said board, and playing-pieces movably arranged upon the said board and behind said frame 8, substantially
30 as and for the purposes set forth.

35 6. In a puzzle or game apparatus, the combination, with a board divided into variously-colored spaces, and having sides 2, of a grid or frame 8, comprising flanges 9 arranged and

secured over said sides 2, said frame or grid being provided with cross-bars 10 forming
40 openings 11 corresponding to the number of said colored spaces upon said board, and playing-pieces movably arranged upon the said board and behind said frame 8, the number of said playing-pieces being one less than the
45 number of spaces upon said board, and each playing-piece having a color corresponding to the color of a space upon said board, substantially as and for the purposes set forth.

7. In a puzzle or game apparatus, the combination, with a board divided into variously-colored spaces, and having sides 2, of a grid or frame 8, comprising flanges 9 arranged and secured over said sides 2, said frame or grid
50 being provided with cross-bars 10 forming openings 11 corresponding to the number of said colored spaces upon said board, and playing-pieces movably arranged upon the said board and behind said frame 8, the number of said playing-pieces being one less than the
60 number of spaces upon said board, each playing-piece having a color corresponding to the color of a space upon said board, and each playing-piece being provided with an opening through which the color of the space over
65 which the playing-piece is moved will be exposed, substantially as and for the purposes set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this
70 15th day of November, 1904.

ADDISON COE.

Witnesses:

SAMUEL COE,
FREDK. C. FRAENTZEL.