

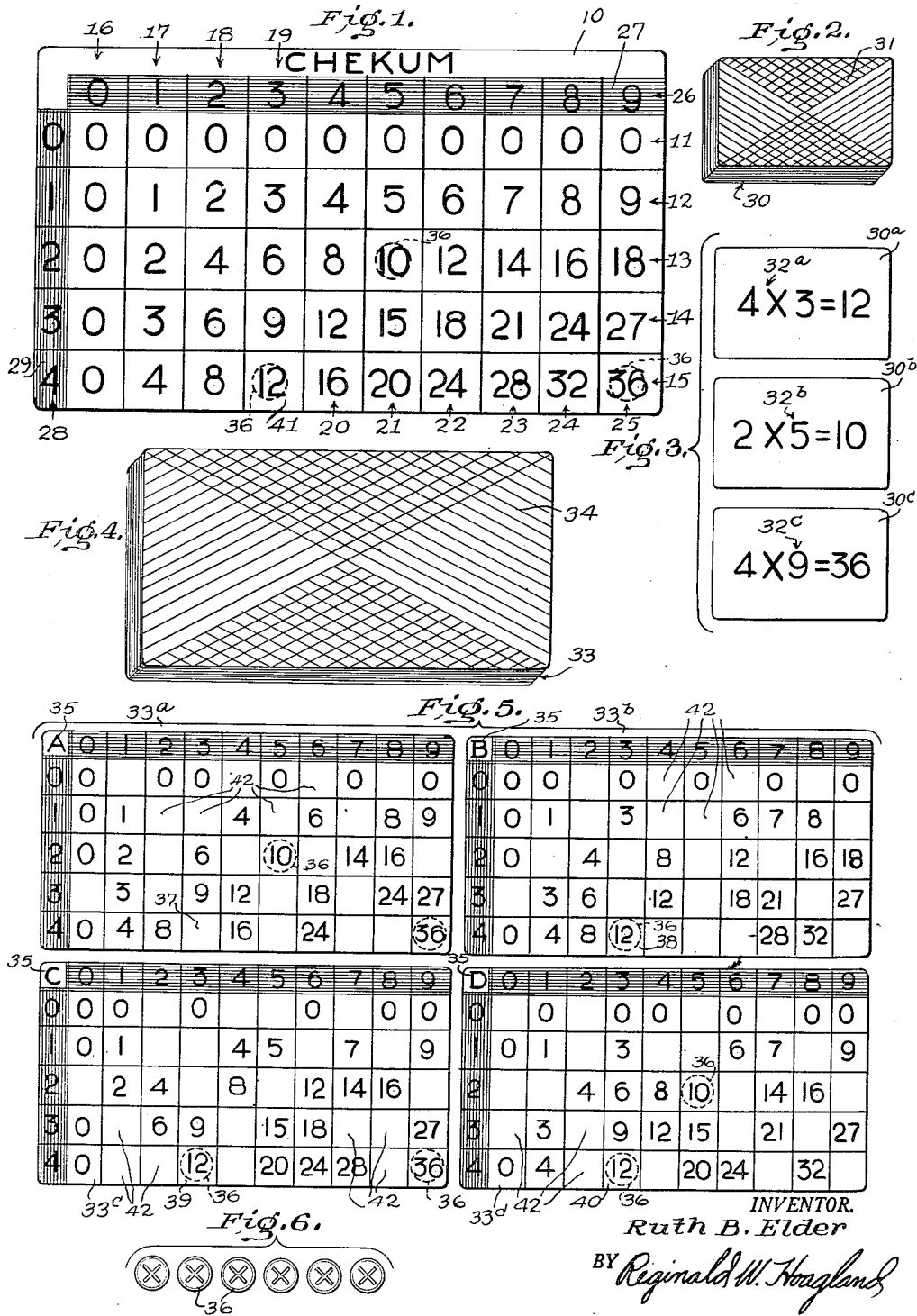
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EDUCATIONAL MATHEMATICAL GAME APPARATUS

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1

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EDUCATIONAL MATHEMATICAL GAME APPARATUS

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1 Claim. (Cl. 273—135)

The present invention relates to an educational mathematical game and it consists in the combinations, constructions and arrangements of parts herein described and claimed.

Generally the invention comprises a plurality of playing cards each of which has an identical back face and each of which has displayed upon its front face a mathematical problem with its answer as, for example, $4 \times 3 = 12$. The game also contemplates the use of a plurality of charts to be issued to the various players of the game and each of the charts is in the form of a relatively large rectangular card having vertical and horizontal columns and having further displayed in the uppermost horizontal columns a series of digits with a colored background and in its first vertical column at the left thereof as viewed by the player another series of digits with a differently colored background. In certain selected areas where the vertical and horizontal columns intersect there is displayed the result of multiplying the two colored digits while in other of the intersecting areas no indicia is displayed. Each of the charts is different from all of the remaining charts in the positioning of the blank intersecting areas. The game may be played by two or more players as will be set forth hereinafter and is one wherein the players need not know the multiplication tables, addition, subtraction or division but one in which the players will unconsciously learn the mathematics called for by the game during the playing thereof while at the same time being amused thereby. The game is one which may be played at home or in the school and which permits player participation to a large degree.

It is accordingly an object of the invention to provide a novel and amusing educational mathematical game.

Another object of the invention is to provide a novel game apparatus of the character set forth.

Still another object of the invention is to provide a device of the character set forth which is simple in construction, inexpensive to manufacture and yet effective and efficient in use.

Another object of the invention is to provide, in a game apparatus of the character set forth, a novel chart forming a part of the invention.

Other and further objects of the invention will become apparent from a reading of the following specification taken in conjunction with the drawings, in which:

Figure 1 is a plan view of a master chart forming a part of the invention,

Figure 2 is a perspective view of a deck of playing cards forming a part of the invention,

Figure 3 is a plan view of a plurality of the playing cards shown in Figure 2, showing the same with their faces displayed,

Figure 4 is a perspective view of a plurality of stacked charts forming a part of the invention,

Figure 5 is a plan view of a plurality of the charts shown in Figure 4 but showing the same with their faces displayed, and

2

Figure 6 is a plan view of a plurality of game pieces or markers forming a part of the invention.

Referring more particularly to the drawing, there is shown therein a relatively large rectangular master chart 10 which is provided with a plurality of horizontally extending columns each generally indicated at 11, 12, 13, 14 and 15 and a plurality of vertically extending columns each generally indicated at 16 to 25, inclusive.

Adjacent the upper end of the chart 10 there is provided a horizontal column generally indicated at 26 and provided with a colored background 27 which may be blue, for example, and there is also provided at the left hand marginal edge of the chart 10 a vertical marginal column generally indicated at 28 and provided with a colored background 29 which may be, for example, red. The marginal column 26 is divided into areas by the intersection thereof with the vertical column 16, etc., and, reading from left to right as viewed in Figure 1, such areas are provided with successive digits "0," "1," etc., while the marginal column 28 is likewise divided into areas by the intersection of the columns 11, 12, etc., and these areas are likewise numbered in a downward direction successively as "0," "1," etc. In the remaining rectangular spaces formed by intersection of the horizontal columns 11 through 15 and vertical columns 16 through 25 are other digits which are the answers to the mathematical problems of multiplying the digits in the colored columns 26 and 28 that are intersected by the same horizontal and vertical columns.

A series of playing cards 30a, 30b, 30c, etc., is provided as a part of the invention and may be stacked as indicated at 30 in Figure 2. Each of the cards is provided with a uniform back as shown at 31 and each has displayed upon its face a mathematical problem with its answer as shown, for example at 32a, 32b, and 32c in those cards shown in Figure 3.

A series of playing charts 33a, 33b, 33c, and 33d is shown in Figure 5 and each is provided with vertical and horizontal columns together with vertical and horizontal marginal columns identical with that shown in the master chart 10. These charts do, however, differ from the master chart 10 in that some and different rectangular answer spaces are blank, as clearly indicated by the four different charts illustrated in Figure 5. In actual practice, it has been found that as many as twenty-five of such charts may be used and these may be stacked as indicated at 33 in Figure 4, and these are provided with a uniform backing 34. Upon the face of each of the charts 33a, etc., in the upper left hand corner thereof as viewed by the players, there is displayed an indicia 35 to distinguish the particular charts, such indicia being, of course, different in each of the charts.

Also forming a part of the game apparatus is a series of game pieces 36 shown in Figure 6 as being circular in shape but which may be of any suitable or desired shape and which may be formed of any suitable material such as, for example, wood, metal, plastic material, or the like.

One game which may be played with the above-described game apparatus may be played in the following manner: a group of players will first select in any suitable manner a leader to whom the master chart 10 will be given. The leader will then shuffle the cards 30a, 30b, etc., into a stack such as is shown at 30 with their faces downwardly so that the remaining players may not see the problems displayed thereon. The players may then take one or more of the charts 33a, 33b, etc., displaying the same face upwardly before themselves. Each player will be provided with a plurality of the game pieces 36 whereupon the game is ready to be played. The leader will thereupon turn face upwardly the uppermost of the cards in the stack 30. Supposing, for ex-

ample, this card should be the card 30a upon which the problem 32a is displayed. It will be seen that this problem is "4×3=12." The leader will read such problem orally so that the various players may hear it and then, the players having the answer appearing in the proper square will place one of the pieces 36 in the square, as shown in dotted lines in Figure 5. This square is indicated at 37 upon chart 33a, at 38 upon chart 33b, at 39 upon chart 33c, and at 40 upon chart 33d. It is also indicated at 41 upon the master chart, and the leader will likewise place one of the pieces 36, as shown in dotted lines, upon this square 41. This manner of play will continue until one of the players has covered with game pieces 36 all of the squares with answer digits in one of the horizontal columns upon his chart, which squares bear an answer to a problem as indicated by the various cards which have been played. This constitutes such player the winner of the game. Thereupon, the leader will have such player call back to him the problems and answers in his winning column. This may easily be determined by the player by first reading the indicia in the colored left hand marginal column, next, the indicia in the horizontal colored column, and finally the answer as displayed in the intersecting square indicated by the two colored marginal columns.

The rules of the game must state in which of the colored columns 28 or 26 the first and second numbers called and to be multiplied are to be found. In the game just described wherein the example $4 \times 3 = 12$ was used, the number "4" must be found in the vertical red column 28 and the number "3" in the horizontal blue column 26. If the rules did not incorporate such facts, a person could use the numbers to be multiplied in wrong columns and come up with a like answer. For example, playing chart 33a has the number "12" in the intersecting answer square of "4" in the horizontal blue column 26 and "3" in the vertical red column 28, and to cover this square with one of the pieces 36 would be an incorrect play. Thus, it can be seen that a player cannot merely rely on the answers called to determine if he has a play, but must also observe the numbers being multiplied and the order in which the numbers are called.

It will be apparent that instead of multiplication problems, problems in addition, subtraction, or division may be displayed upon the various playing cards and that corresponding answers may be displayed in the various squares upon the master chart and the various playing charts. It will likewise be seen that the various playing charts differ from one another in their provision of blank squares such as are indicated at 42, for example. Likewise, it will be seen that in order to secure a greater "player" participation in the various games possible with the present apparatus, the players themselves may orally repeat the problems given by the leader immediately

after the leader has recited the same, thus not only affording greater amusement and a greater feeling of participation in the game but also permitting the players to subconsciously through repetition, learn the answers to the various problems presented. In this respect, it will be apparent that each player hears, thinks, sees, reads, and speaks the various problems and their answers as they are given by the leader, thus allowing each player to assimilate knowledge through a plurality of his senses.

While I have herein described a specific form which the invention may take, it will be understood that changes and modifications may be made by those skilled in the art which still fall within the spirit and scope of the appended claim.

What is claimed is:

A game apparatus of the character described comprising a plurality of cards each having displayed thereon a mathematical problem together with the answer thereto, a plurality of rectangular player charts each having displayed thereon a plurality of vertical and horizontal intersecting lines forming vertical columns and horizontal rows of squares, numerical indicia representing problem components in the squares in a marginal row of squares, numerical indicia representing other problem components in the squares in a marginal column of squares, other numerical indicia in certain other squares each indicating the answer to a mathematical problem involving the components in the marginal squares of the row and columns of squares intersecting in said certain other squares, the remaining squares of said charts being blank, said charts each differing in the position of said answer-bearing squares and said blank squares, a master chart also having a marginal row and a marginal column of squares bearing indicia representing problem components and having answer-bearing indicia in all of its remaining squares, both similar to those of the player charts, and game pieces positionable upon the answer-bearing squares of said player charts whereby players are required to place said game pieces upon said answer-bearing squares on said player charts in accordance with the problems as given upon said cards.

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