

Sept. 7, 1965

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3,204,345

MATHEMATICAL GAME

Filed July 29, 1963

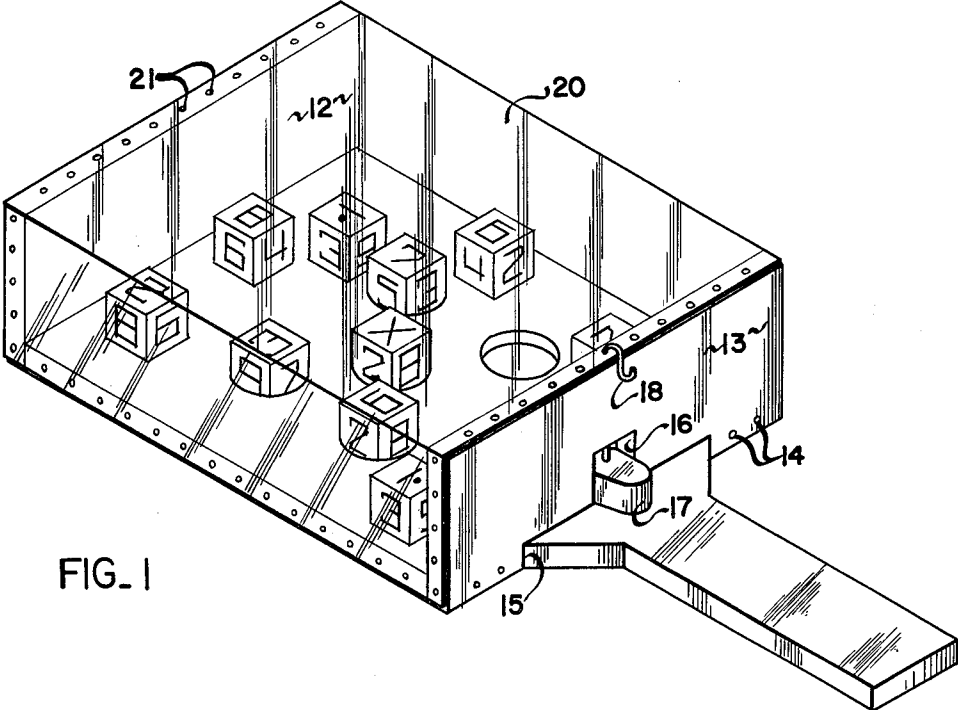


FIG. 1

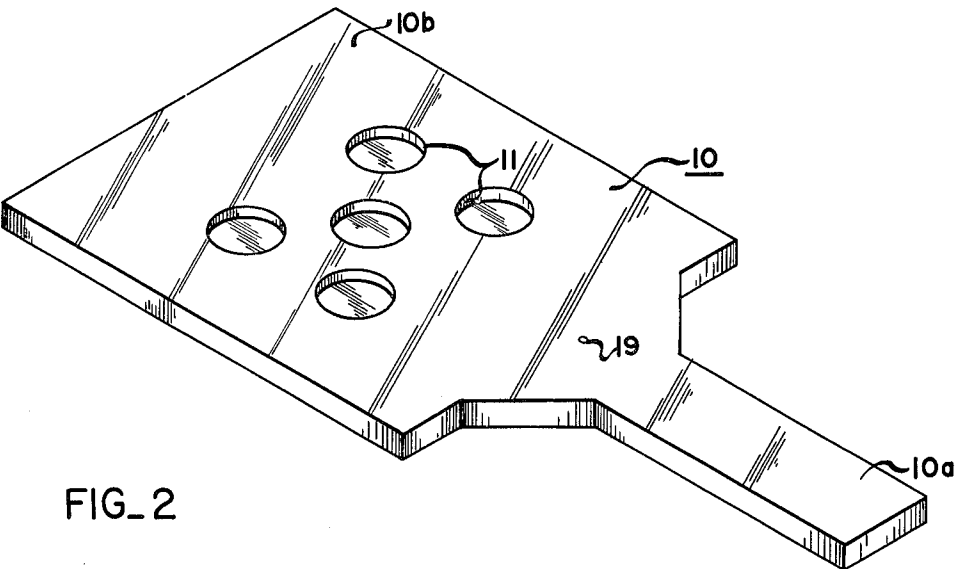


FIG. 2

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1

3,204,345

MATHEMATICAL GAME

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Filed July 29, 1963, Ser. No. 298,093

2 Claims. (Cl. 35-31)

The present invention relates to a game and, more particularly, a mathematical game especially designed to educate children under the pleasant environment of the competition of a game to learn the four mathematical functions of addition, subtraction, multiplication, and division.

It is therefore principal object of the invention to provide an improved game.

Another object is to provide a mathematical game intended chiefly for the pleasure and education of children.

A further object is to provide a compact mathematical game which is readily portable and from which the game pieces cannot be easily lost as by children.

Other advantages will become apparent as the description proceeds.

To the accomplishment of the foregoing and related ends, the invention consists of the features hereinafter fully described and particularly pointed out in the claims, the annexed drawing and following disclosure describing in detail the invention, such drawing and disclosure illustrating, however, but one or more of the various ways in which the invention may be practiced.

In the accompanying drawing:

FIGURE 1 is a perspective view of my game when assembled; and

FIGURE 2 is a perspective view of the base game or paddle board of the assembly of FIGURE 1.

In general, the game equipment includes, in one form, a game board having cavities or recesses and preferably provided with a transparent enclosure. The enclosure prevents separation of the dice from the game board, and the transparent nature of the enclosure enables one to observe the fall of the dice. Preferably, the dice exceed in number the number of the cavities or recesses, so that upon shaking the board or otherwise agitating the dice with respect to the board and enclosure, the recesses are readily filled with dice.

The faces or sides of the dice have numerical indicia and in one or more instances one or more faces of each die may have one of the four mathematical symbols indicating addition, subtraction, multiplication, or division. The dice are of the usual cubical shape.

In use, a player shakes the game board until each recess receives a die, thereby allowing the dice to assume what positions they will in the recesses. The values of the resulting exposed faces of the dice can then be reckoned, further altering the resulting reckoned figure by any mathematical symbol similarly exposed by one or more dice caught within a recess. For example, the lowest number of those appearing from the caught and exposed dice may be added, subtracted, multiplied by, or divided into the combined values of the other dice similarly caught in recesses.

A variety of modifications are possible in scoring the game. For example, if the same number or indicia appears more than once after the "shake" or "throw" or in a given row of dice, extra value or points can be scored on that shake. A predetermined number of shakes or throws for each player determines one complete game.

FIGURES 1 and 2 illustrate a preferred embodiment in which a paddle generally indicated at 10a has a handle portion and a board portion 10b. The latter has a number of evenly spaced apart cavities or recesses of a diameter substantially to circumscribe a cubical die. The depth of a cavity 11 is also such as to receive a die in an upstanding or even position. This position exposes one

2

face or side of a die as shown in FIGURE 1, the exposed face constituting the "score" in that cavity.

End walls 12 and 13 are suitably secured to the game board portion 10b as by brads 14. Wall 13 has a slot 15 in order to straddle the throat portion of the paddle 10. The slot 15 also has a gate 16 through which dice may be passed or removed as desired. A plug 17 normally closes the gate 16. A stiff wire 18 freely passes through a suitable passage which extends widthwise of the wall 13 and also through a like passage in the plug 17 to fit into a hole 19 in the paddle 10 and thereby keep the plug 17 in position. A clear transparent cover 20, preferably of a plastic such as polyethylene, encloses the area formed by the game board portion 10b and walls 12 and 13. Suitable fasteners such as brads 21 secure the cover 20 to the walls and board portion.

The dice employed may be subject to many modifications. The dice may have different numbers on their faces like ordinary dice but in addition there may be one or more of the four possible mathematical signs for multiplication, division, addition, and subtraction. The dice can, for example, differ in color, each color having a special connotation as to its scoring. In the embodiment illustrated, the dice have numerical indicia on their faces, one half having even numbers and the other half having odd numbers. In addition, one or more dice may have one or more symbols of the mathematical functions which, as previously indicated, can be used to compute the score if such symbol is exposed in a cavity 11.

In the embodiment shown, ten dice are used with five recesses or cavities on the game board. Five dice may be yellow and have even numbers, with three dice having X on one face. Two of the dice of this group have 0 on one face. The remaining five dice have odd numbers with three dice having — on one face. Two of the dice of this group have 1 on a face.

In order to illustrate one set of rules which may be employed with the present game, the following examples are presented. The numbers in parentheses indicate the relative order of exposed faces of the dice as in the cavities shown in FIGURE 2.

- (9) (3) Obtaining any number three times in a row may be called a Span or Slam and increases the score by multiplying by three the sum of such numbers so scored. In this instance the score is 40 ($27+9+4$).
- (3) (4)
- (3) (4)
- (3) (4) A Span with a multiplication mark means the score as calculated in the manner just shown is multiplied by the remaining number. In this instance the score is 108 (27×4).
- (3)
- (X) (3)
- (X) (5) A Span with two X's means the multiplication is carried out twice. In this instance the score is 1125 (multiplying twice by 5).
- (5) (X)
- (10) (4) Obtaining a Span with the symbol — means the score obtained by a Span is doubled. In this instance the score is 82 ($72+10$).
- (4) (—)
- (X) (6) A Span with each of the symbols X and — means that the addition of the three numbers is multiplied by three, and from this is subtracted one of the numbers. In this instance the score is 48.
- (6)
- (6) (—)
- (9) (1) If the symbol — appears without a Slam the largest number is deducted from the sum of the smallest three numbers. In this instance the score is 3.
- (6)
- (5) (—)
- (8) (8) If the same number is obtained in the four corner holes, a Grand Slam is scored. In this case the sum of the four numbers is
- (3)
- (8) (8)

3

multiplied by 4 twice. In this instance the score is 512.

- (8) (8) A Grand Slam with an X in the middle adds
(X) 100 points to the score. In this instance
(8) (8) the score is 612. A Grand Slam with a — 5
in the center hole adds only 50 points to
the score.
- (6) (6) A Star is scored when all five numbers are the
(6) same. This adds 500 points to the score
(6) (6) normally calculated. In this instance the
sum of the 6's was multiplied by 5, that
product by 6, and that product by 5. To
the result 500 was added for a total sum
of 5,000.

In addition to the foregoing, there may be additional rules such as shaking two —'s means a zero score for that shake. Obtaining three of these symbols puts the player out of the game. Various other modifications are possible.

It will now be apparent that I have provided an improved game and especially a mathematical game intended chiefly for the education of children under the pleasant environment of friendly competition of a game. The present game may be readily carried about and the game pieces are not easily lost due to the enclosed structure of the game board.

Other forms embodying the features of the invention may be employed, change being made as regards the features herein disclosed, provided those stated by any of the following claims or the equivalent of such features be employed.

I therefore particularly point out and distinctly claim as my invention:

1. A mathematical game including a game board provided with a transparent enclosure, a plurality of dice within said enclosure, said game board having a plurality of substantially uniformly spaced-apart recesses fewer in

4

number than the number of said dice, each recess being of a size to receive only one die and in an upstanding position to expose only one face of the die, said dice having numerical indicia and symbols of mathematical functions on their faces, whereby the value of the exposed faces of dice caught in said recesses by shaking said game board, the order and spacial arrangement of numerical indicia of dice so caught, and the presence and absence of any of said symbols can be used to determine the score of a player for that shake.

2. A mathematical game including a paddle having a handle portion and a board portion provided with a transparent enclosure, a plurality of dice within said enclosure, said board portion having a plurality of substantially uniformly-spaced apart circular recesses fewer in number than the number of said dice, each recess having a diameter substantially to circumscribe a die, thereby readily to receive a die in upstanding position and expose one face of the die, said dice having numerical indicia on their faces, at least one die having on a face a symbol indicating multiplication, at least one die having on a face a symbol indicating subtraction, thereby the value of the exposed faces of dice caught in said recesses by shaking said handle portion, the order and spacial arrangement of like numerical indicia of dice so caught, and the presence and absence of either of said symbols determines the score of a player for that shake.

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