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Faiferlick

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[54] **DIE FOR USE IN PLAYING DICE GAMES**

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[52] **U.S. Cl.** ..... **273/146,** 273/138 R

[51] **Int. Cl.** **A63f 9/04**

[58] **Field of Search**.... 273/138 R, 146, 147, 134 D, 273/134 DB, 135 AA, 137 R, 137 AD, 104, 95 R, 95 F, 58 D, 58 K; D34/5 DT, 5 GP, 15 W; 35/18 A; 46/64, 65, 73, 27

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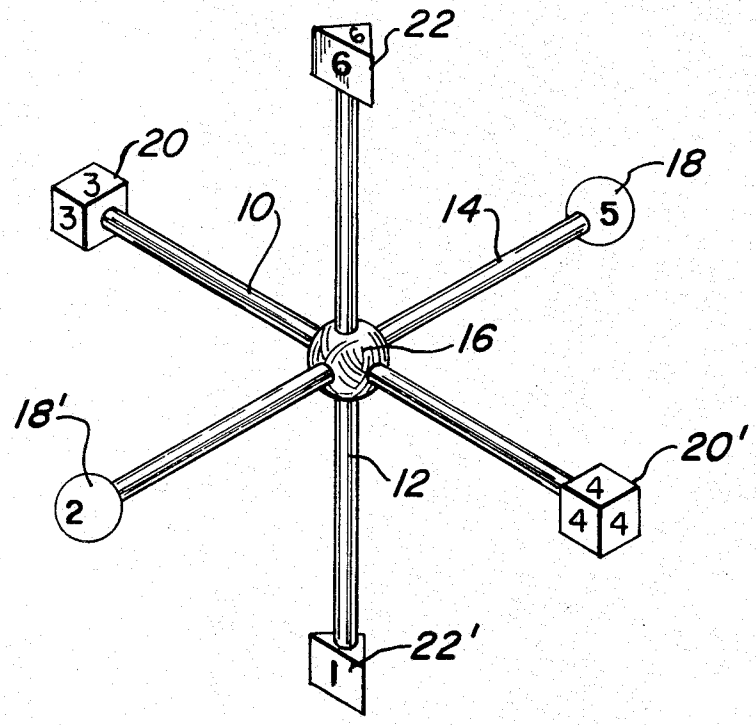
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[57] **ABSTRACT**

A die for use in playing dice games in which the die is formed from three like shaft members fixedly secured at their midpoints to each other in mutually perpendicular relationship. Indicia elements representing the numbers one through six are respectively located at the outer ends of each shaft member. When cast, the die will come to rest in a stable position with three ends of the shafts resting on the playing surface with the three remaining opposite ends facing upwardly. The number called may thus be taken as the sum of the three numbers on the up ends of the shaft or, under other rules, may be called as that number on the end of a shaft pointing in a precalled direction. By mounting block like members of differing configurations and colors at the ends of the shaft members, number, shape and color permutations may be set up in accordance with predetermined rules to introduce games of widely varying odds.

1 Claim, 2 Drawing Figures



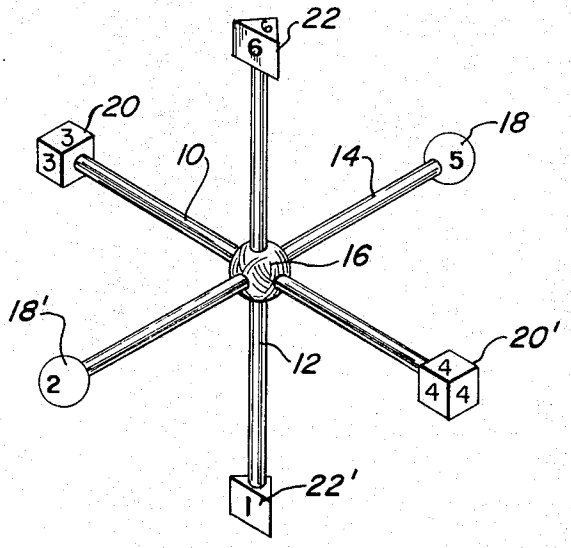


Fig_1

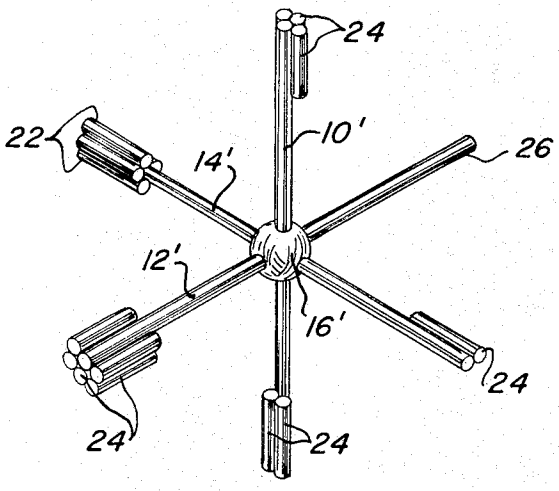


Fig_2

DIE FOR USE IN PLAYING DICE GAMES

BACKGROUND OF THE INVENTION

The present invention is specifically designed to provide a die or set of dice which, while retaining the conventional numbers one through six employed on conventional cubical dice greatly expand the number of possible totals available from a cast of a pair of dice, thus expanding the range of probability of achieving a given number and in which the cast of a single die may result in any of eight positions in contrast to the six presented by a conventional die.

SUMMARY OF THE INVENTION

A die according to the present invention is constructed from three rod like shaft members fixedly secured at their midpoints to each other in mutually perpendicular relationship to each other. Each end of each shaft member is assigned a number from one to six, the sums of the numbers on any given shaft being equal to seven. When cast upon a flat surface, the die will eventually assume a stable position in which one end of each of the three shaft members rests upon the surface, thus leaving the three opposite shaft member ends facing up. Determination of the number cast may be made either by taking the sum of the numbers of the three up shaft ends or alternatively may be made by taking the number on a shaft end pointing in a general direction established before the die is cast. Where the point number is determined by the sum of the three up numbers, a single die may indicate any of eight numbers, and thus when two dice are cast simultaneously there are 64 possible combinations of numbers.

To more clearly indicate the number assigned to each shaft end, block like enlargements may be mounted on each shaft end to display the number assigned, or alternatively, additional short shaft sections may be mounted on the ends of all shafts except one with the number of shaft sections corresponding to the assigned number. Where block like elements are employed to display the assigned number, the shape or configuration of the members may vary from shaft to shaft to introduce a further possibility of permutation of the ultimate indication.

Because of the fact that a given die, while employing only six numbers can present a total number of eight different possibilities, the dice of the present invention are useful for playing a wide variety of games of chance.

Other objects and features of the invention will become apparent by reference to the following specification and to the drawings.

IN THE DRAWINGS

FIG. **1** is a perspective view of a die embodying the present invention; and

FIG. **2** is a perspective view of another exemplary form of die embodying the present invention.

Referring first to FIG. **1,** a die embodying the present invention is disclosed as including three shaft members **10, 12** and **14** fixedly secured to each other at their midpoints in mutually perpendicular relationship with each other. In the FIG. **1** embodiment, members **10, 12** and **14** are shown as being adhesively bonded to each other as by a suitable adhesive **16.** At each end of each shaft member, a block like member **18, 18' 20, 20', 22,** 22' is mounted for the purpose of displaying a number

or other indicia assigning a particular value to each shaft end. The block like members may, in some instances, be all of the same shape or configuration or, as shown in FIG. **1,** the block like members may be of differing configurations, such as the sphere **18,** the cube **20,** or the triangular prism **22.** Although not illustrated in the drawings, the various shafts or block like members may be of different colors to add the possibility of further permutations to the cast of a die.

In its preferred form, as shown in FIG. **1,** the numbers one through six are respectively assigned to the six ends of the three shafts, the sum of the numbers assigned to a given shaft totalling seven in correspondence to the assignment of numbers to the six faces of the conventional cubical die.

Because of its configuration, when cast upon a flat surface, the die of FIG. **1** will eventually assume a position of equilibrium with the block like member at the end of three of the shafts resting on the surface and the three opposite ends of the respective shafts facing upwardly. The point or number indicated may be taken as the sum of the three numbers at the upper ends of the shafts, as illustrated in FIG. **1,** the number indicated would be 7 — i.e., one plus four plus two. Where the ends of the three shafts are numbered respectively one through six as illustrated in FIG. **1,** and the point is taken to be the sum of the three upper ends of the die, the possible points or totals are as follows:

$$1+2+3=6$$
$$1+2+4=7$$
$$1+3+5=9$$
$$1+4+5=10$$
$$2+3+6=11$$
$$2+4+6=12$$
$$3+5+6=14$$
$$4+5+6=15$$

As can be seen from the foregoing, the possible points of indication of the dice can be any of eight different numbers — that is, the numbers 6 through 15 with the exception of 8 and 13.

When two dice of the type of FIG. **1** are employed, because each die can show any of eight given numbers, there are a total of 64 possible combinations of numbers whose total sums fall between 12 and 30 inclusive. A table of the probability of rolling any number between 12 and 30 with a pair of dice as shown in FIG. **1** is set forth below.

TABLE OF PROBABILITY

POINT	PROBABILITY	
12 or 30	1:64	.016
13 or 29	2:64	.032
14 or 28	1:64	.016
15 or 27	2:64	.032
16 or 26	4:64	.064
17 or 25	4:64	.064
18 or 24	5:64	.080
19 or 23	4:64	.064
20 or 22	5:64	.080
21	8:64	.125
PROBABILITY-CONVENTIONAL DICE		
2 or 12	1:36	.028
3 or 11	2:36	.056
4 or 10	3:36	.084
5 or 9	4:36	.112
6 or 8	5:36	.140
7	6:36	.168

It will be noted from the foregoing table that in contrast to the conventional cubical dice, the probability does not vary directly with the desired number or point because it is not possible to achieve certain numbers within the range (that is 8 and 13) of sums possible with a single die. Thus, a greater range of possible numbers is provided and the probability of achieving a given number is in general decreased.

The permutations possible for a given cast of the dice may be further increased by employing different block like configurations as shown in FIG. **1** to further modify the probabilities of achieving a given outcome in this arrangement, for example, it might be ruled that the number on a spherical block such as **18'** is included in the total sum if it is an odd number and not included in the total sum if it is an even number. In this instance, for example, the die of FIG. **1** would give a total of **5.** Many other variant forms of games not possible with conventional dice can easily be imagined.

In FIG. **2** a modified form of the invention is disclosed which includes three like shaft members **10'**, **12'**, and **14'** joined to each other at their midpoints and mutually perpendicular to each other which, in the FIG. **2** embodiment, have been cast or molded as a single unitary body. In the embodiment of FIG. **2,** the number assigned to each shaft end is determined by the number of additional shaft sections, such as 24, secured to the respective shaft end. The total number of shaft sections **24** secured on any given shaft totals **5** which, when added to the shaft end itself provides a representation of numbers from 1 to 6. Thus, end **26** of shaft **12'** has no section **24** secured to it, hence end **26** is indicative of the number 1. Five shaft sections **24** are secured to the opposite end of shaft **12'** to indicate the number 6. The remaining shaft sections have appropriate numbers of sections **24** secured to their ends to indicate the numbers 2 through 5.

While two exemplary embodiments of the invention have been disclosed, it will be apparent to those skilled in the art that the disclosed embodiments may be modified. Therefore, the foregoing description is to be considered exemplary rather than limiting and the true scope of the invention is that defined in the following claims.

I claim:

1. A die comprising three like elongate shaft members fixedly secured at their midpoints to each other in mutually perpendicular relationship, a block-like element at each end of each shaft with at least the block-like elements on any one shaft being of a different configuration than the block-like elements on any of the other two shafts, and each block-like element having distinctive indicia thereon different from the indicia on each of the other blocklike elements.

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