

(No Model.)

J. L. & D. H. COLES.
GAME APPARATUS.

No. 402,230.

Patented Apr. 30, 1889.

Fig. 1.

1	2	3	4	5	6	7	8	9	10	11	12
2	4	6	8	10	12	14	16	18	20	22	24
3	6	9	12	15	18	21	24	27	30	33	36
4	8	12	16	20	24	28	32	36	40	44	48
5	10	15	20	25	30	35	40	45	50	55	60
6	12	18	24	30	36	42	48	54	60	66	72
7	14	21	28	35	42	49	56	63	70	77	84
8	16	24	32	40	48	56	64	72	80	88	96
9	18	27	36	45	54	63	72	81	90	99	108
10	20	30	40	50	60	70	80	90	100	110	120
11	22	33	44	55	66	77	88	99	110	121	132
12	24	36	48	60	72	84	96	108	120	132	144

Fig. 2.



Fig. 3.



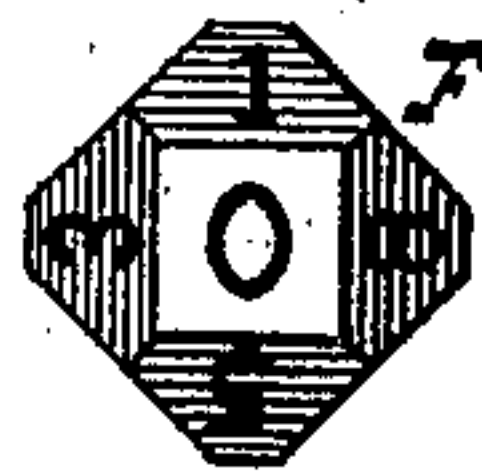
Fig. 4.



Fig. 5.



Fig. 6.



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JOHN L. COLES AND DAVID H. COLES, OF BROOKLYN, ASSIGNORS TO THE
EMPIRE STATE MANUFACTURING COMPANY, OF NEW YORK, N. Y.

GAME APPARATUS.

SPECIFICATION forming part of Letters Patent No. 402,230, dated April 30, 1889.

Application filed October 25, 1888. Serial No. 289,110. (No model.)

To all whom it may concern:

Be it known that we, JOHN L. COLES and DAVID H. COLES, both citizens of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Game Apparatus, of which the following is a specification.

This invention relates to a game apparatus, the peculiar and novel construction of which is pointed out in the following specification and claim and illustrated in the accompanying drawings, in which—

Figure 1 represents a face view of the game-board. Figs. 2, 3, and 4 are sections of the markers. Figs. 5 and 6 are plan views of the numerators.

Similar letters indicate corresponding parts.

In the drawings, the letter A designates the game-board, which is marked on its face with a multiplication-table. In the example shown in the drawings, this multiplication-table runs up to 144; but we do not want to be confined to this precise figure, since multiplication-tables of smaller or larger compass will serve our purpose. In combination with this game-board we use various sets of markers B C D and the numerators E F. The markers are made in any suitable form or shape, and the various sets of markers are distinguished by colors, each set containing twenty-four (more or less) pieces. The enumerators E F are made in the form of polyhedrons, the number of sides of each of which exceed the square root of the largest figure on the game-board. In the example shown in the drawings, the largest figure on the game-board is 144. The square root of one hundred and forty-four is twelve, and the number of sides of each numerator is fourteen. On twelve of the faces of each numerator are marked the figures from 1 to 12, while on one of the remaining faces is marked an 0, and on the other a *; but the number of the faces of the numerators may be reduced to thirteen, and in this case the * is left out; or the number of the faces of the enumerator may be increased, and the additional faces may be marked with suitable characters or designs. If the largest number on the game-board is 100, the numerators will be made in the form of dodeca-

hedrons, and if the largest number on the game-board is 324, the numerators would be made in the form of icosahedrons, and they will be marked as above stated.

In the example shown in the drawings we have shown two numerators; but this number may be increased, if desired.

The game may be played by two or more players. On commencing, divide the markers equally between the players, each taking a separate color, then throw the numerators from the box for first play, the highest number playing first. The players then throw the numerators in regular order, counting each throw as follows: The top number on each numerator may be taken separately and markers set on the squares of the board bearing such numbers, or the numbers may be added together and a marker set on the square whose number equals the sum of the two. Example: Suppose the throw to be 4 and 12. A marker may be set on a number 4 and also one on a number 12; or add the numbers together and set a marker on a number 16. A player throwing a cipher with any number may reject it and only use the number, or he may place the cipher at the right of the number and set or move the marker accordingly. Example: 0 and 12 may count 120, and 0 and 5 may count 50, and so on. A player may use both numbers thrown on the numerators for either setting or moving his markers, or one for setting and the other for moving, and may use all the rules above stated, either for setting or moving. A player may move his markers in any direction on the board as many squares as are indicated by his throw of the numerators, and may jump over his opponent's or his own markers in moving to the squares desired; but should a player desire to move a marker to some particular square, and the numbers as thrown, or as they may be computed, indicate a greater number than is required to move the marker to the desired square, the player may move said marker to the said desired square, but cannot have the benefit of the surplus. A player cannot move or set a marker on a square already occupied, but may move one of his own markers, and then set a new marker on the square from which he has

moved should the numbers thrown, or as they may be computed, admit of such a play. The playing is thus continued until all the squares on the board are filled, and the player
5 having the greatest number of markers on the board wins the game.

Instead of playing the game by addition, as above stated, it may be played by subtraction, by multiplication, or by division, or
10 by any two or more of these combined, and the game may be considered terminated if all the squares on the board are covered, or if one player succeeds in covering one complete row of squares with his markers.

15 The board is numbered after the manner of a multiplication-table, in order that it may contain only the figures on the faces of the numerators, or multiples thereof.

If the game-board contained only an arbitrary arrangement of figures, it would be
20 doubtful if any player could cover all the squares, and it may be said that it would be practically impossible to do so.

The number of faces on the numerators exceed the square root of the highest figure on
25 the game-board in order to obtain one or

more blank faces on each numerator, since without these blank faces the game would be terminated in an exceedingly short time and would lose its charms.

What we claim as new, and desire to secure by Letters Patent, is—

A game apparatus consisting of a board having on its face a multiplication-table, consisting of a series of numbers arranged in
35 line, and the successively increasing multiples of such numbers arranged in successive lines to form a rectangular board, in combination with various sets of markers, and with polyhedral numerators, the number of sides
40 of each of which exceeds the square root of the largest figure on the multiplication-table, said sides being marked with figures and signs, substantially as described.

In testimony whereof we have hereunto set
45 our hands and seals in the presence of two subscribing witnesses.

JOHN L. COLES. [L. S.]

DAVID H. COLES. [L. S.]

Witnesses:

W. C. HAUFF,

E. F. KASTENHUBER.

It is hereby certified that the assignee, "The Empire State Manufacturing Company," in Letters Patent, No. 402,230, granted April 30, 1889, upon the application of John L. Coles and David H. Coles, of Brooklyn, New York, for an improvement in "Game Apparatus," should have been described and specified as *The Empire State Manufacturing Company, a corporation organized under the laws of the State of New Jersey, and doing business at Jersey City, N. J., and New York, N. Y.*; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 21st day of May, A. D. 1889.

[SEAL.]

GEO. CHANDLER,

First Assistant Secretary of the Interior.

Countersigned:

C. E. MITCHELL,

Commissioner of Patents.