## J. D. VAN BIBBER.

GAME BOARD FOR PRODUCING MAGIC SQUARES, PLAYING CHECKERS, &c.

No. 300,534.

Patented June 17, 1884.

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2 Ty 3 5	26 37 6	7 6 37	
7 68	138	38 2	
69 63	139 8	9 30	
a-10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 1 2 2	3/2	Fig. 1.
20 20	2 73 04	0 2 63	
3 1	3 4 37	0 2 2	
a 25 8	33 68 2	3 3 6	
3-1	C <sup>4</sup>		
<i>b</i>			
b'-		$\frac{1}{c}$	$C^3$
			TUENTOR.
A. Haseltine.		A	Van Bibber and A. Hoselline. Attorney.
			Attorney.

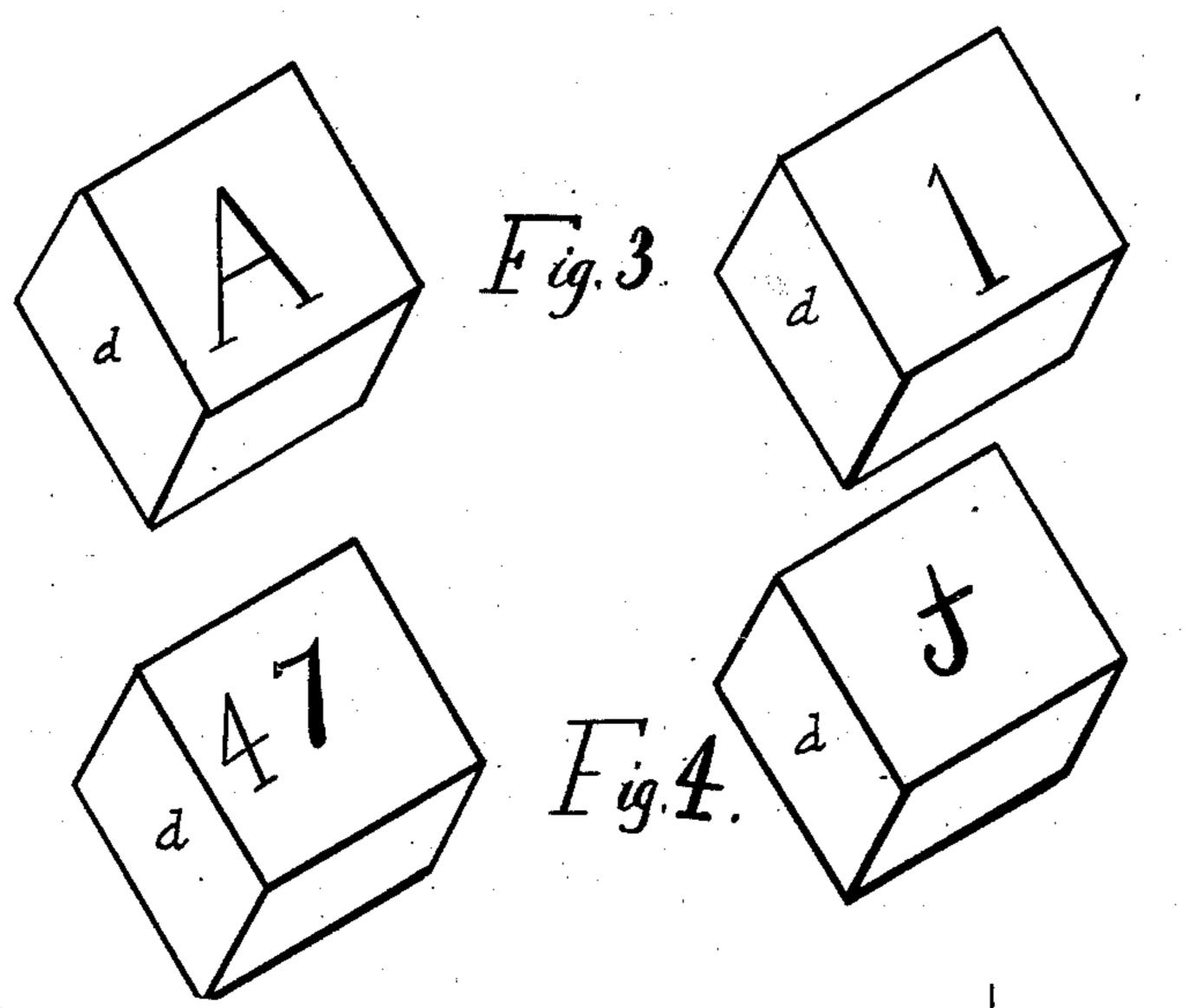
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$b_{-}$	Ŀ	AG	6	b	b'	Ь	6'	6		
•				21		13	, , , , , , , , , , , , , , , , , , , ,	a' <b>5</b>	F	
$E_{\alpha^3}^3$					22		14		$a^{z}$	
·	7							15		
16,9		8				·		· .	as Lig.	
	17		9	B						
		18		2				n ,		
			10		2					
		19		11		3	-			
			20	·	12		4			
•				011	.,	Q <sup>6</sup>	F'	a	TF'	



G. A. Haseltine. N. A. Haseltine James D. Van Bibber
By Seward A. Haselline
Attorney.

## United States Patent Office.

JAMES D. VAN BIBBER, OF SPRINGFIELD, MISSOURI.

GAME-BOARD FOR PRODUCING MAGIC SQUARES, PLAYING CHECKERS, &c.

SPECIFICATION forming part of Letters Patent No. 300,534, dated June 17, 1884.

Application filed February 29, 1884. (No model.)

To all whom it may concern:

Be it known that I, James D. Van Bibber, a citizen of the United States, residing at Springfield, in the county of Greene and State of Missouri, have invented certain new and useful Improvements in Devices for Instruction and Amusement, of which the following is a specification, reference being had therein

to the accompanying drawings.

My invention relates to improvements in devices for instruction and amusement, the object of which is to provide an addition-table by the arrangement of numbered blocks that will foot the same in every column in either direction, up or down and from one side to the other, and combined with the same a checker-board and checkers, also alphabetical blocks. These objects I attain by means of the device illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a view in elevation, showing the entire device. Figs. 2, 3, and 4 are detailed views.

D represents a box of any desired size and depth, having a cover, A, which is marked off in squares b b', preferably an odd number on each side, as in the illustration, nine on each side, making eighty-one squares. The central 30 one, B, is painted or colored different from the others to distinguish it more easily. The squares are painted or colored alternately different colors, b b', &c., so that eight of them each way from one corner, E, to E' E<sup>2</sup> E<sup>3</sup> will 35 form a checker-board, the other squares, F F F, being painted a different color to more easily define the checker-board. In this box are placed blocks d, made in any desired shape and size, preferably the size of the 40 squares b b', and rectangular in shape. blocks are numbered by impressing, cutting, staining, painting, or otherwise, from 1 or any given number upward consecutively, preferably from number 1 upward consecutively to 45 the square of an odd number, as 3, 5, 7, &c., or 9, as shown, making eighty-one blocks. On the back of these blocks may be placed any desired design by painting or otherwise, but preferably, as shown, the letters of the alpha-50 bet in capitals and small letters. Twelve of the said blocks are painted or formed to be easily distinguished from the others to be used as checkers.

The device is designed, principally, as an attractive means of teaching children to add 55 numbers correctly. This is accomplished by placing the frame C over the marked board or cover A, as shown. Said frame is composed of several pieces,  $c c^2 c^3$ , &c., which are hollow squares, or squares having the center removed 60 to expose a square on the cover. These pieces are hinged to each other,  $c^4$ . The smallest piece, c, exposes nine squares, three each way, the center one, B, always being in the center as the pieces  $c c^2$ , &c., are raised. On the nine 65 squares exposed in the piece c the blocks are taken consecutively and placed, as hereinafter explained, so that the footings of the numbers on the blocks in columns either way—from right to left or up and down—will be the same. 70 To know when the blocks are properly placed will induce the child to add them. After this result is accomplished, the piece c is turned back, which exposes twenty-five squares, or five squares each way, on which twenty-five of the 75 blocks taken consecutively may be placed so as to foot the same each way in the columns. When this is learned, the piece  $c^2$  may be turned back, exposing in the center fortynine squares, on which the blocks may be 80 placed so that their numbers will foot as above; and this may be continued to any desired extent, exposing an odd number of squares on each side, making the whole number of squares exposed equal to the square of 85 the said odd number.

In the illustration, Fig. 2, eighty-one squares, or nine on a side, are shown. The blocks are placed thus: Beginning with any desired number—as 1 in the illustration—90 and taking the blocks as consecutively numbered, place the first block on the square  $a^*$ next below the center square, B. Then, going one square to the right and below, place the next block, No. 2, and thus on with blocks 95 Nos. 3, 4, &c., until the squares run out, as at a. When the row of squares runs out, as in this case below, place the next block in the highest vacant square in the next column to the right of the last block placed, as block No 5 100 on square a'. Placing again to the right and below, there are no squares to be filled at  $a^2$ .

This runs out on the right hand. Then the next block is to be placed on the farthest vacant square to the left, in the column next below the last block placed, as block No. 6 on square  $a^3$ . Then continue as before, placing the blocks to the right and below, until you come to the end, as above, or, as in this case, to a filled square,  $a^4$ . In this case drop past one square, and place the block on the next vacant square below, and then continue as above. In coming to a filled square, should there be none vacant below, place the next block in the highest vacant square in the next column to the right of the one last placed.

15 If there should be one vacant square below and no more, place the next block in the highest vacant square in the same column in which the last block was placed, and thus continue until the squares are all filled with blocks.

Having thus described the construction, use, and operation of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An improved device for instruction and amusement, composed of a box, D, having a 25 cover, A, which is marked off in the square of an odd number of squares, combined with a frame, C, composed of hinged pieces c  $c^2$ , &c., and blocks numbered consecutively equal to the number of said squares, all substantially 30 as shown and described.

2. The combination of a box, D, with a cover, A, marked off in squares, a frame, C, having parts c  $c^2$ , &c., which expose the square of an odd number of squares—as three, five, seven, 35 or nine, &c., squared—and blocks numbered consecutively, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES D. VAN BIBBER.

Witnesses:

S. A. HASELTINE, A. F. INGRAM.