

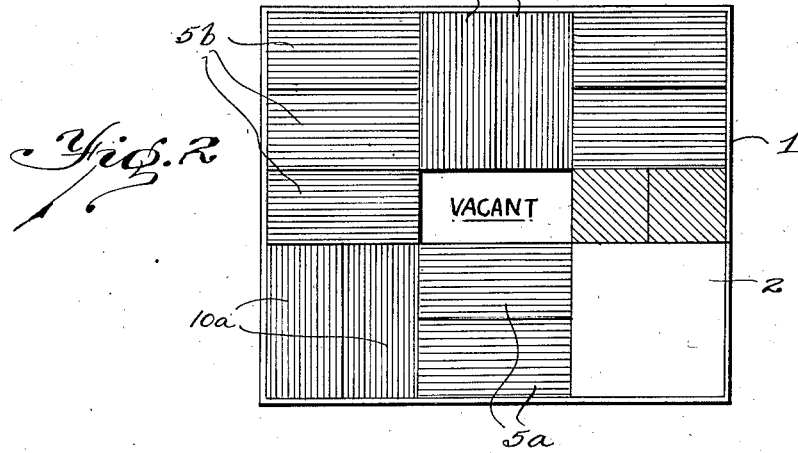
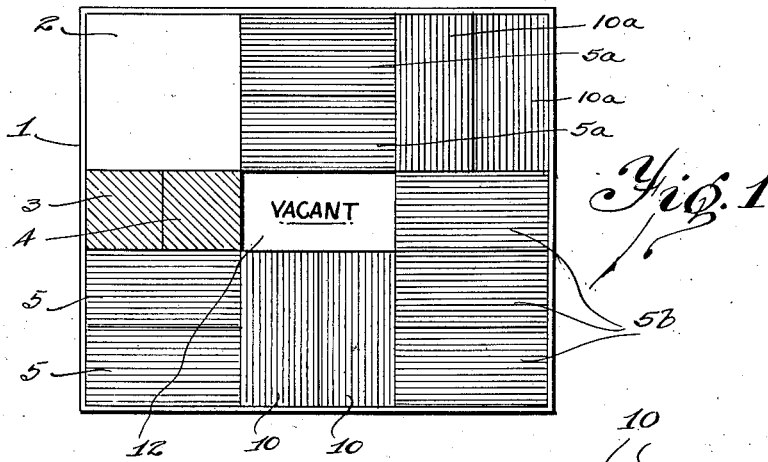
March 27, 1928.

1,663,568

J. M. SCHNEIDER

PUZZLE

Filed March 21, 1927



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

Fig. 3

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PUZZLE.

Application filed March 21, 1927. Serial No. 176,939.

This invention relates to a puzzle, which consists primarily of blocks of different sizes held by a container, the blocks being adapted to be moved from an original position to a final position according to certain rules.

It is the object of the invention to provide an inexpensive puzzle or game, the operation or solution of which is sufficiently difficult to hold the interest of those who attempt to solve the puzzle. Another object of the invention is the provision of such a puzzle wherein the blocks, when the puzzle is solved, are in exactly the reverse position from the original position so that when such puzzle is solved and the container is reversed, the blocks are automatically in the original position and the puzzle ready to be again solved.

In the accompanying drawings:

Fig. 1 is a plan view of the puzzle showing the blocks in the container and in the original or starting position.

Fig. 2 is a plan view showing the position of the blocks when the puzzle has been solved.

Fig. 3 is a diagram with the spaces, or units of area in the box numbered.

In the accompanying drawings a container is referenced 1. This container is preferably half of a box within which the blocks are contained when the puzzle is sold. As shown, the cover is removed and the container is the body portion of the box.

As will be noted by reference to Fig. 3, the dimensions of the container are six units in one direction, and five units in the other. The exact dimensions are not material, but a box approximately four and three-fourths inches by four inches is satisfactory. The units of area are square.

The blocks in the box consist of a relatively large square block 2 which is equal to four units of area; two small square blocks 3 and 4 equal to one unit each, and two oblong blocks 5 equal to two units each, arranged in a vertical row, as shown in Fig. 1. Next to this vertical row are two blocks 5^a, and two blocks 10, which are oblong and of the same size as the two mentioned blocks 5. These blocks, when arranged in a row, leave a vacant space in the center of the box, as shown at 12. The third row consists of two blocks 10^a, and three blocks 5^b.

All the blocks 5, 5^a, 5^b, 10, and 10^a are oblong and are equal to two area units. It will be noted that the blocks 10 and 10^a are arranged in a vertical position, or in other

words, with their small side toward the operator, whereas the blocks referenced 5, 5^a, and 5^b are arranged horizontally, or rather with their long side toward the operator.

To solve the problem, the blocks are moved around within the container without turning the blocks over and without lifting the blocks from the container, and there is always a vacant space equal to two area units to permit such moving. The puzzle is solved when the position of the blocks is completely reversed, as shown in Fig. 2. It will be noted that the large block 2 has been removed from the upper left-hand corner, to the lower right-hand corner of the container, and that all the other blocks are correspondingly reversed in position. In order to again work the puzzle, all one needs to do is to reverse the container, and the blocks are in the position as shown in Fig. 1.

I have found that the most simple solution of the puzzle involves sixty-two moves or changes in the position of the blocks. While the puzzle may be solved in other ways, yet these ways are more difficult, require a greater number of moves, and it is more in the nature of an accident when the puzzle is solved by these other ways. What I prefer as the correct solution of the puzzle is given as follows, reference being had to Fig. 3 wherein the area units are numbered. The solution involving sixty-two moves is as follows:

- | | | |
|------------------------------|------------------------------|-----|
| 21-22-27-28 to 15-16-21-22 | 1-7 to 13-19 | 90 |
| 25-26 to 27-28 | Move entire column to left. | |
| 19-20 to 25-26 | 18-24 to 6-12 | |
| 14 to 19 | Move entire column to right. | |
| Move entire column to left. | 1-7 to 13-19 | |
| 6-12 to 18-24 | Move entire column to left. | |
| Move entire column to right. | 11 to 6 | |
| 13-19 to 1-7 | Move entire column up. | 95 |
| Move entire column to left. | 25-26-27-28 to 27-28-29-30 | |
| 6-12 to 18-24 | 13-14-19-20 to 19-20-25-26 | |
| Move entire column to right. | 15-16 to 13-14 | |
| 8 to 1 | 3-4-9-10 to 9-10-15-16 | |
| Move entire column up. | 1-2 to 3-4 | |
| 27-28 to 25-26 | Move entire column up. | |
| Move entire column down. | 27-28-29-30 to 25-26-27-28 | |
| 1-2 to 3-4 | Move entire column down. | |
| Move entire column up. | 3-4 to 5-6 | 100 |
| 27-28 to 25-26 | Move entire column up. | |
| Move entire column down. | 25-26 to 27-28. | |
| 5-6 to 3-4 | 13-14-19-20 to 19-20-25-26 | |
| 11-12 to 5-6 | 15-16 to 13-14 | |
| 9-10 to 11-12 | 3-4-9-10 to 9-10-15-16 | |
| 3-4 to 9-10 | 1-2 to 3-4 | |
| 5-6 to 3-4 | Move entire column up. | |
| 12 to 5 | 27-28-29-30 to 25-26-27-28 | |
| 18-24 to 6-12 | Move entire column down. | 105 |
| 17-23 to 18-24 | 3-4 to 5-6 | |
| 5-11 to 17-23 | Move entire column up. | |
| 6-12 to 5-11 | 25-26 to 27-28 | |
| 18-24 to 6-12 | 13-14-19-20 to 19-20-25-26 | |
| Move entire column to right. | 15-16 to 13-14 | |

I claim:

1. A sliding block puzzle comprising a flat container arranged to contain three separate rows of blocks (the rows considered as run-

ning longitudinally to the line of vision),
each row being two units wide and five units
high, there being fitted into the container
two single-unit blocks, eleven two-unit
5 blocks, and one four-unit block, leaving a
two-unit empty space, all the two-unit blocks
being the same shape and size, whereby the
first row to the left can contain two trans-
versely lying two-unit blocks, followed by
10 two one-unit blocks, and finally a four-unit
block; the second row can contain two lon-
gitudinally lying (with the line of vision)
two-unit blocks, a vacant space, and two
transversely extending two-unit blocks, while
15 the final row can contain three transversely
lying two-unit blocks and finally, two lon-
gitudinally lying two-unit blocks, and the in-
tended goal can be sliding the blocks to ob-
tain a block position which is exactly the
20 block position that would be obtained by
turning the box as a whole through a half
turn.

2. A sliding block puzzle comprising a flat
25 container arranged to contain three separate
rows of blocks (the rows considered as run-

ning longitudinally to the line of vision),
each row being two units wide and five units
high, there being fitted into the container
two single-unit blocks, eleven two-unit
30 blocks, and one four-unit block, leaving a
two-unit empty space, all the two-unit blocks
being the same shape and size, whereby one
outside row can contain two transversely-
lying two-unit blocks followed by two one-
unit blocks and finally a four-unit block; 35
the middle row can contain two longitudi-
nally-lying (with the line of vision) two-
unit blocks, a vacant space, and two trans-
versely-extending two-unit blocks, while the
40 other outside row can contain three trans-
versely-lying two-unit blocks and two lon-
gitudinally-lying two-unit blocks, and the in-
tended goal can be sliding the blocks to ob-
tain a block position which is exactly the
45 block position that would be obtained by
turning the box as a whole through half a
turn.

In testimony whereof I affix my signature.

JOHN M. SCHNEIDER.