

E. U. KINSEY.  
Puzzle-Blocks.

No. 207,124.

Patented Aug. 20, 1878.

Fig. 1.

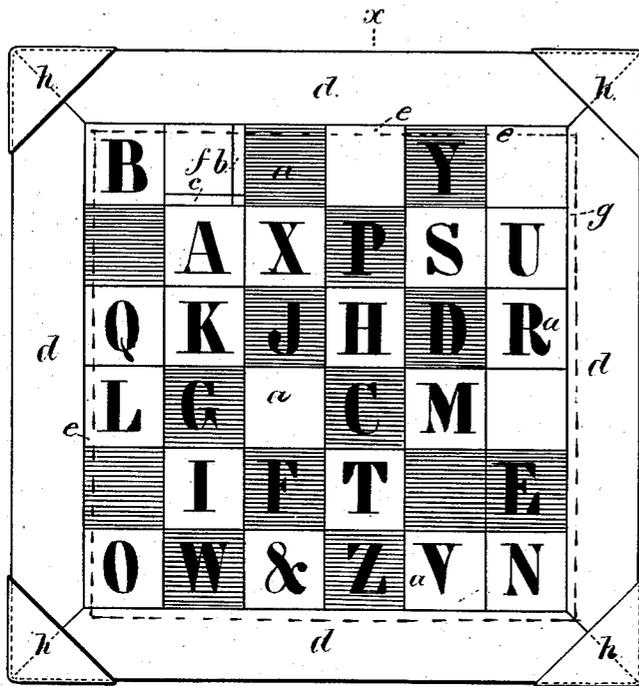
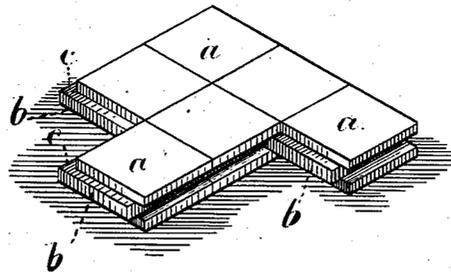


Fig. 3.



Fig. 2.



Witnesses

Chas. H. Smith  
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Inventor

Ernest U. Kinsey.  
per Lemuel W. Sewell  
att'y.

# UNITED STATES PATENT OFFICE

ERNEST U. KINSEY, OF PASSAIC, ASSIGNOR TO HIMSELF AND PRESTON LITTLE, OF TRENTON, NEW JERSEY.

## IMPROVEMENT IN PUZZLE-BLOCKS.

Specification forming part of Letters Patent No. 207,124, dated August 20, 1878; application filed November 22, 1877.

*To all whom it may concern:*

Be it known that I, ERNEST U. KINSEY, of Passaic, in the county of Passaic and State of New Jersey, have invented an Improvement in Block Puzzles, of which the following is a specification:

Letters Patent No. 5,170, heretofore granted, for interlocking tiles, represent the two-faced portions of the tile as in line with each other, and as having a central portion of the same size formed by a rib at two of the edges and grooves at the other two edges, whereby the tiles will interlock firmly.

My invention consists in the employment of toy blocks of the same shape to form a puzzle, and I mount them in a square or oblong frame, that surrounds them moderately tight, one space being left instead of a block, so that the blocks can be slid one at a time and the blocks moved about from place to place thereby. In this manner the blocks are retained in the frame, but can be gradually changed in position.

If blocks of two different colors are made use of, then the same can be moved about gradually, as aforesaid, to arrange the blocks in such positions as to produce different patterns. If letters or numbers are employed on the surface of the blocks, then the puzzle will be to move those blocks so as to arrange them to spell words or to bring the blocks in certain orders. If the surfaces of the blocks compose a picture, then the puzzle will be to arrange the blocks in the order to make up the complete picture.

In the drawing, Figure 1 is a plan view, representing the blocks in a frame. Fig. 2 is a perspective view of some of the blocks separately, and Fig. 3 is a section at the line *x x*.

Each block *a* has a rib, *b*, at one edge, uniting at the angle with a rib, *c*, at the other adjoining edge, and with corresponding grooves at the two opposite edges respectively, so that each block is of a shape that would be produced by three layers of square pieces of wood, each about one-tenth of an inch thick, the intermediate layer being placed so as to project

about an eighth of an inch at two of the edges. The grooves are rather larger than the tongues, so that the blocks can be slid freely, and the blocks are all packed together into a square or oblong form and surrounded by a quadrangular frame, *d*, having tongues or ribs *e* upon the inner edges of two of its sides and grooves *g* upon the inner edges of the other two sides.

One space, *f*, is left unoccupied by a block; hence the next block, at either side, can be slid into that space, thus shifting the space from place to place and allowing a gradual movement of the blocks, and any block can gradually be moved into any position; but the blocks are all held in the frame.

If blocks are left out from two or more spaces the shifting of the blocks will be facilitated, but there will be opportunity to remove the blocks from the frame. If one rib on each of two or more blocks is removed then the blocks can be taken out of the frame after the said block has been removed, and it will be necessary, in replacing the blocks, to introduce at the last one of the blocks having but one rib next to the block that has also but one rib.

If desired the frame may be made to open, so as to be closed around the blocks when they have been placed in position. For this purpose one or more of the corners may be held with a hinge or with a metal corner-piece, *h*, and pins or screws. This allows the blocks to be separated from the frame and arranged or disarranged more rapidly, after which the frame is placed around them and secured.

The blocks might be made triangular, or as diamond-shaped parallelograms. When of a triangular shape the blocks will be similar to the square blocks divided diagonally from corner to corner.

I am aware that alphabet-blocks have been made with grooves at the edges and projecting heads entering undercut grooves in the surface of a holding-board. In my puzzle the blocks interlock by the ribs and grooves on their edges, and they are held by a surrounding frame.

I claim as my invention—

A block puzzle consisting of a group of blocks, each of which is provided with ribs and grooves at its edges for interlocking with the adjacent blocks, as set forth, and with letters or pictures or portions of designs upon one or both surfaces, in combination with a surrounding frame having ribs and grooves

adapted to receive the said blocks and hold them together, substantially as specified.

Signed by me this 19th day of November, A. D. 1877.

ERNEST U. KINSEY.

Witnesses:

GEO. T. PINCKNEY,  
WILLIAM G. MOTT.