

(No Model.)

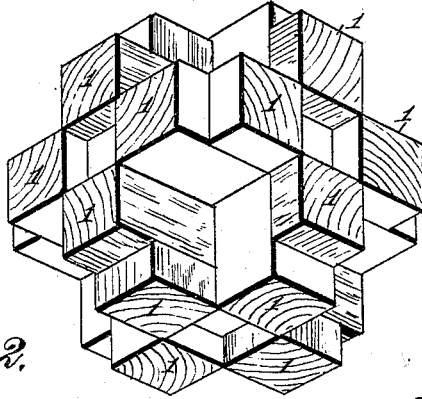
W. ALTEKRUSE.

BLOCK PUZZLE.

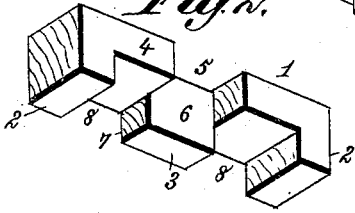
No. 430,502.

Patented June 17, 1890.

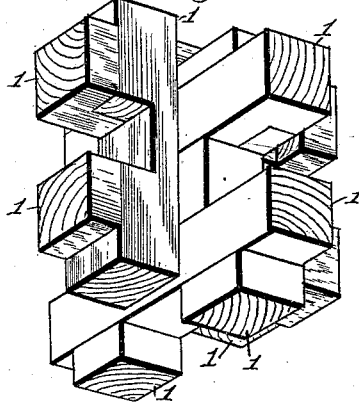
*Fig. 1.*



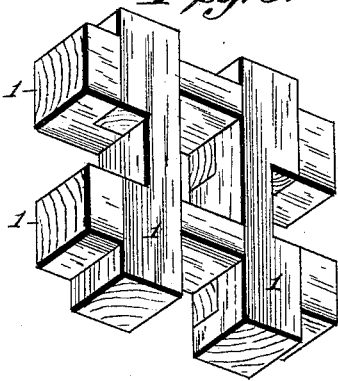
*Fig. 2.*



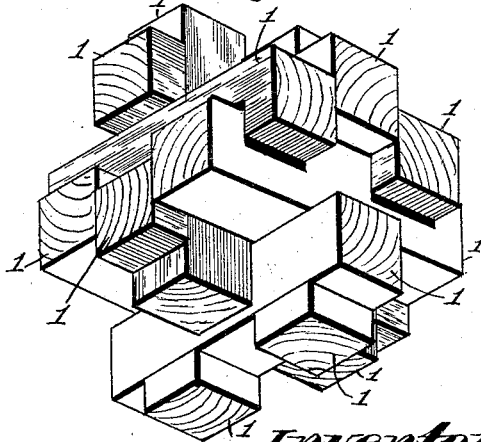
*Fig. 4.*



*Fig. 3.*



*Fig. 5.*



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# UNITED STATES PATENT OFFICE.

WILLIAM ALTEKRUSE, OF GLANDORF, OHIO.

## BLOCK-PUZZLE.

SPECIFICATION forming part of Letters Patent No. 430,502, dated June 17, 1890.

Application filed April 3, 1890. Serial No. 346,437. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM ALTEKRUSE, a citizen of the United States, residing at Glandorf, in the county of Putnam and State of Ohio, have invented new and useful Improvements in Block-Puzzles, of which the following is a specification.

This invention has for its object to provide a novel manifold block system which constitutes a perplexing and intricate puzzle or toy for testing the ingenuity, and which can with difficulty be worked in one way into an apparently integral structure or solid body of peculiar form, having various square ends and plane angles at different sides, the construction being such that, while the individual parts can be used by children in many ways as toy blocks, they can with ingenuity be brought together in such relation as to produce a structure wherein a series of twelve blocks are interlocked to present the appearance of twenty-four arms, arranged in six sets of four arms each, all radiating from a common center or head.

The object of my invention is accomplished in the manner and by the means hereinafter described in detail, and specifically set forth in the claim, reference being made to the accompanying drawings, in which—

Figure 1 is a perspective view of the puzzle completed. Fig. 2 is a detail perspective view of one of the twelve puzzle-blocks. Fig. 3 is a perspective view showing four of the blocks connected together. Fig. 4 is a perspective view showing eight blocks united, and Fig. 5 is a perspective view showing the entire set of twelve blocks interlocked to produce a structure different from that exhibited by Fig. 1.

The manifold block-puzzle system comprises twelve rectilinear blocks which are the counterpart of each other in all respects, and every block 1 is rectangular in cross-section, with a right-angled lip-extension 2 at each end, and a square lug or projection 3 centrally between the ends, of a height relatively to the height or greatest thickness of the block, and one-half the height of the end lip-extensions. The edge 4 of each block, and by the edge I refer to the thinnest part of the block, is formed with a square mortise 5, coinciding with the plane top surface 6 of the central square projection, which latter has its

other surface 7 flush with the edge of the block which is opposite the mortised edge 4. This construction produces a block of the peculiar form shown by Fig. 1, and as all the twelve blocks are identical a description of one is deemed sufficient for the purposes of this specification. The lip-extensions 2 and the lug or projection 3 are square and extend in the same direction from what I will term the "inside of the block," and between the central lug and each lip-extension the space creates a square recess or mortise 8, these recesses or mortises being co-ordinate or coextensive, and are adapted to receive and accurately fit any two of the blocks, as shown by Fig. 3. The several mortises must be so correct as regards plane angles that the blocks set therein will tightly fit and be retained by friction, while the blocks can be engaged and disengaged with the mortises of other blocks by sliding one lengthwise of the other. This is essential in order that eight blocks can be interlocked, as indicated by Fig. 4, and subsequently the remaining four blocks added, as indicated by Fig. 5. The blocks may be placed together in the form of squares, crosses, frames, and various other shapes and in many different ways; but to produce the form shown in Fig. 1 is perplexing, and, if successfully done, is difficult of separation. The engagement of the blocks, as in Fig. 1, will produce an apparently integral structure with six sets of arms—four in each set—all radiating from a common center or head and showing square ends and various plane angles.

Having thus described my invention, what I claim is—

A block-puzzle consisting of a series of counterpart rectilinear blocks, each formed at the inside with square right-angled end lips, a central square lug, and co-ordinate mortises, and at one edge with a central square mortise coinciding with the lug, substantially as described.

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

WILLIAM ALTEKRUSE.

Witnesses:

GEORGE FRITZ,  
JOSEPH KERSTING.