

O. W. BROWN.  
PUZZLE.

APPLICATION FILED JUNE 27, 1916.

1,225,760.

Patented May 15, 1917.

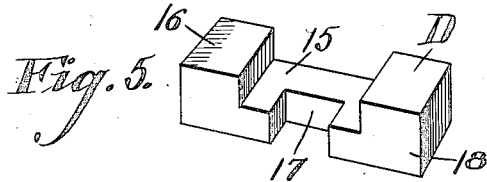
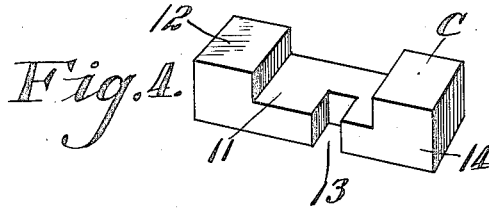
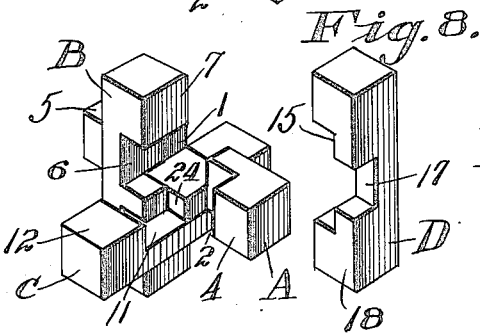
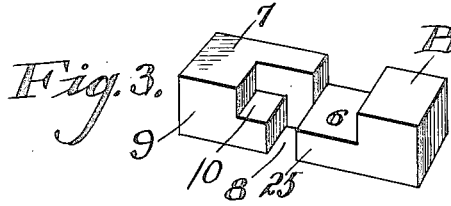
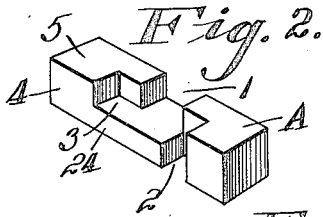
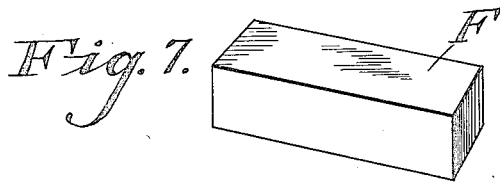
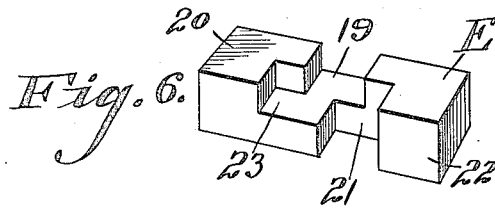
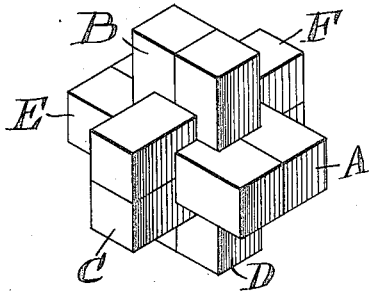


Fig. 1.



WITNESSES

*Rolando Williams.*  
*Gloyd W. Patch*

INVENTOR

*Oscar W. Brown*

BY *Richard Owen.*

ATTORNEY

# UNITED STATES PATENT OFFICE.

OSCAR W. BROWN, OF WHITE ROCK, SOUTH DAKOTA.

## PUZZLE.

1,225,760.

Specification of Letters Patent.

Patented May 15, 1917.

Application filed June 27, 1916. Serial No. 106,243.

*To all whom it may concern:*

Be it known that I, OSCAR W. BROWN, a citizen of the United States, residing at White Rock, in the county of Roberts and State of South Dakota, have invented certain new and useful Improvements in Puzzles, of which the following is a specification.

My invention relates to an improvement in puzzles, and more particularly to devices of this character commonly known as "block puzzles", in which a plurality of blocks are arranged to be brought together in an inter-fitting relation and are notched and cut out to have portions thereof interfitted, thus presenting the structure in such a manner that the proper fitting of the parts presents an exceedingly perplexing and intricate puzzle.

An object of my invention is to provide a puzzle of the type set forth above in which a plurality of rectilinear blocks are notched and mortised out to form grooves and cavities in the side central portions, said blocks having the grooves and cavities formed in such relations and shaped to be of such configuration that when the blocks are properly associated a close fitting of the same is permitted, and in associating with the notched and mortised blocks, a counter-part rectilinear key block to be fitted through an opening left between adjacent blocks to secure the interfitted blocks against displacement.

A further object lies in constructing the key block to be of a substantially rectangular prismatic shape without notching or mortising and in notching and mortising the remaining blocks each upon two adjacent sides and in forming the notches and mortises of various blocks so that they very closely resemble each other, thus making the fitting of the parts more perplexing and intricate.

With the above and other objects in view, my invention consists in certain novel features of construction and combinations of parts which will be hereinafter set forth in connection with the drawings and then more particularly pointed out in the claims.

In the drawings:

Figure 1 is a view in perspective showing the several blocks fitted in the assembled mounting and with the key block in place;

Figs. 2, 3, 4, 5 and 6, are views in per-

spective of the various counter-part rectilinear blocks which are notched and mortised out to form the grooves and cavities.

Fig. 7 is a perspective view of the key block; and

Fig. 8 is a perspective view showing three of the notched and mortised blocks mounted in the interfitted relation and with a fourth block about to be mounted in place.

The members of the puzzle comprise six counterpart rectilinear blocks, as shown in Figs. 1 to 7 inclusive, and as is designated A, B, C, D, E, and F. These blocks are square in their cross sections, being say perhaps  $\frac{3}{8}$ ths of an inch through and are perhaps  $1\frac{1}{2}$  inches long, as this forms a convenient size for the block.

By making the rectilinear blocks in the proportion as above set forth, the width or transverse dimension is  $\frac{1}{2}$  of the longitudinal dimension, and in the fitting of the notched and mortised blocks, it is the impression that each block shall present a substantially cubically shaped end, this meaning that the crossing and interfitted of the parts is accomplished so that the ends of each of the blocks are permitted to extend. The block F is a key or locking block, and as it is the intention that this block shall be fitted endwise in an opening left by the arranging of the remaining blocks, this block F is made plain throughout its entire extent and is not notched, mortised or otherwise cut out or shaped in its body portion.

In referring to the notching or mortising of the several block members A, B, C, D and E, it will of course be understood that the notches and mortises are all formed to extend only one-half of the distance through the block, and also it is to be understood that all notches and mortises will be entirely within the two central fourths of the lengths of the blocks as above divided for convenience in describing the manner of forming the notches and recesses. The block A has a notch 1 cut centrally through one side thereof and of width equal to the transverse dimension of the block, and a notch of one-half width is cut in an adjacent side as at 2, to extend substantially at right angle to the notch 1 and placed entirely outside of this notch. A mortise 3 is cut into the block A from the side 4 in which the notch 2 is cut and extends half way across the face 5 of the block, this mor-

60

65

70

75

80

85

90

95

100

105

110

tise being also formed to be of a length corresponding to one-half the width of the block.

The block B has a notch 6 cut in the face 7 thereof and adjacent to one of the side ends and a right angularly disposed notch 8 is cut in the face 9 of the block with its inner side at the longitudinal center thereof, the mortise 10 being formed in the block as substantially a continuation of the notch 6. The block C has a notch 11 cut in the face 12 thereof of twice the width of the block, and a right angularly extending notch 13 is cut in the side 14 to be of one-half the width of the block and with its inner line disposed substantially at the longitudinal center of the block. The block D has a notch 15 cut in the side 16 thereof similar to the notch 11, and then a full width notch 17 is cut in the side 18 of the block to extend equally on each side of the longitudinal center thereof. A full width notch 19 is cut in the side 20 of the block E, and is spaced at the longitudinal center of the block, and a full width notch 21 is cut in the face 22 and is offset to have its inner line at the center of the block, a mortise 23 being provided to open into the face 22 and forming an L-shaped extension from the notch 19, this mortise being extended for only one-half the width of the block E and having its length from the notch 19 the same.

From the above it will be seen that the blocks A, B, and E are very similar in the formation of the notches and mortises, and that the blocks 4 and 5 will appear substantially the same until a most careful analysis of the same is made, also it will be apparent that the various blocks might be fitted in a number of mountings in the various notches and mortises of the remaining blocks, however, it is the object of the puzzle to arrange the blocks so that they will occupy the relative positions shown in Fig. 1, and in fitting the members together in the proper relations, a start may be made with the block A and the remaining blocks may be built or set up therearound. With the block A held to predispose in substantially the same position as illustrated, the block B is fitted in conjunction with the block A in such relation that the tenon 24 of the block A is received in the groove 8 of the block B and the tenon 25 of the block B will then be received in the cavity formed by the mortising of the block A at 3. The block C is then fitted to lie across beneath the block B with a portion of this block received in the groove 13 and the block C thus extends substantially at right angles to the block A with the upper face 12 thereof in a plane parallel with the bottom of the groove 1. The block D is next fitted in place by having the face 16 thereof brought against the face 9 of the

block B and by having the reduced portion thereof adjacent to the groove 17 fitted in the groove 2 of the block A. The block E is then inserted in the open end of the groove 15 of the block D to be received in the groove 17 of the block D and to have the block B received in the groove 21, in which relation of the parts the bottom of the groove 19 is in line with the face 12 of the block C and with the bottom of the groove 6 of the block B, thus leaving a substantially square opening through the entire structure, and by insertion of the key or locking block F, the block E will be held against displacement and through its interlocking engagement with the remaining blocks, the parts will be held against movement or against disassembling until the key or locking block F is again removed.

It is preferable that the various notches and mortises be cut or formed with a considerable precision so that as the blocks are fitted in the set up relation, it will be somewhat difficult to detect where the various blocks are cut or notched and thus some difficulty will be experienced in disassembling as well as in assembling the several blocks.

From the foregoing it will be seen that I have provided a puzzle comprising a comparatively few parts which can be very readily and inexpensively manufactured by being cut or shaped from blocks of wood or cast or otherwise formed from blocks of such other suitable material, and that the blocks have the grooves and cavities formed therein in such relations that the blocks very closely resemble each other and also allow fitting of the parts in many combinations which will not bring about a complete assembling of the parts in the proper relation, and while I have herein shown and described only one specific form and arrangement of the parts, it will be understood that slight changes and variations might be resorted to without departing from the spirit of the invention, and hence I do not wish to be limited to the exact disclosure but rather to only such points as may be set forth in the claims.

I claim:

1. A block puzzle comprising a rectilinear key block and a plurality of counterpart rectilinear blocks each notched out on two of its adjacent sides and in the middle portion to permit interfitting of the blocks in a relation that they are assembled in crossed mounting and leave an opening through which the key block may be inserted to hold the counterpart notched blocks in the mounted relation.

2. A puzzle comprising a plurality of rectilinear blocks each notched on two adjacent sides and certain of said blocks mortised out adjacent to the notches to thus form grooves and cavities, said blocks having the grooves and cavities thereof formed to permit inter-

fitting of the blocks in a crossed relation and to leave an opening through the structure, and a counter-part rectilinear key block to be fitted through the opening to hold the  
5 notched and mortised blocks against displacement from their interfitted mountings.

3. A block puzzle comprising six counter-part rectilinear blocks, one of which is left plain to be used as a key block, each of the  
10 remaining blocks notched on two adjacent sides and three of the notched blocks mortised out to form cavities in addition to the grooves formed by the notching, said

notched and mortised blocks being shaped to be interfitted in crossed relation and in  
interlocking mounting, and the key block adapted to be fitted through an opening  
formed by the proper fitting of the remaining blocks to secure the same in the proper  
relation and against disassembly. 15

In testimony whereof I affix my signature  
in presence of two witnesses. 20

OSCAR W. BROWN.

Witnesses:

A. H. KOLSET,  
A. L. ERICKSON.