

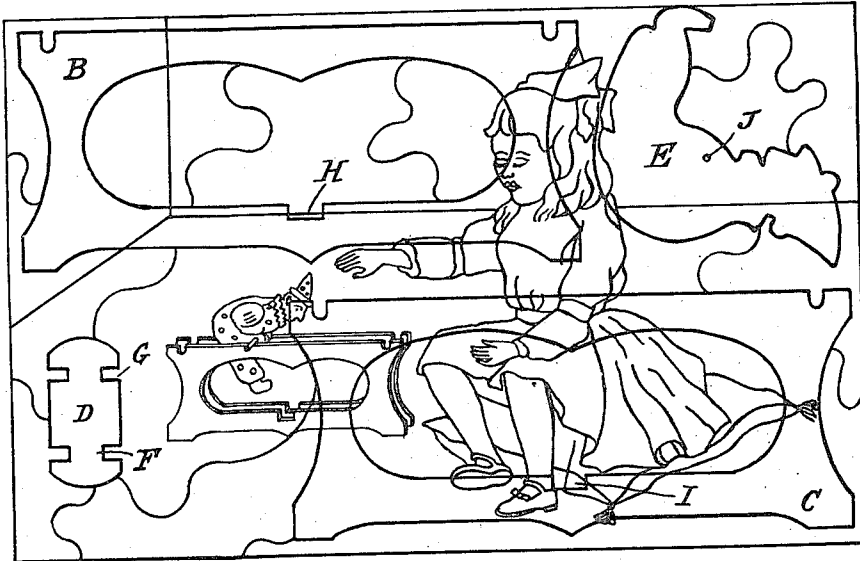
T. BROWN.  
PUZZLE.

APPLICATION FILED NOV. 24, 1915.

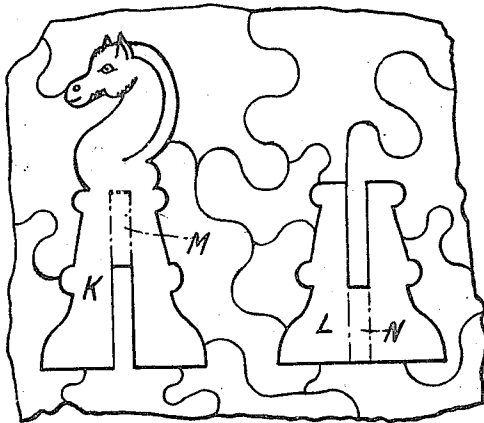
Patented June 12, 1917.  
2 SHEETS—SHEET 1.

1,229,580.

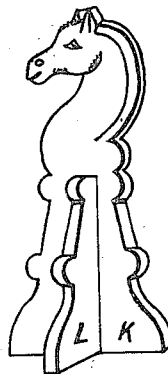
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Invented:-  
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Fig. 4.

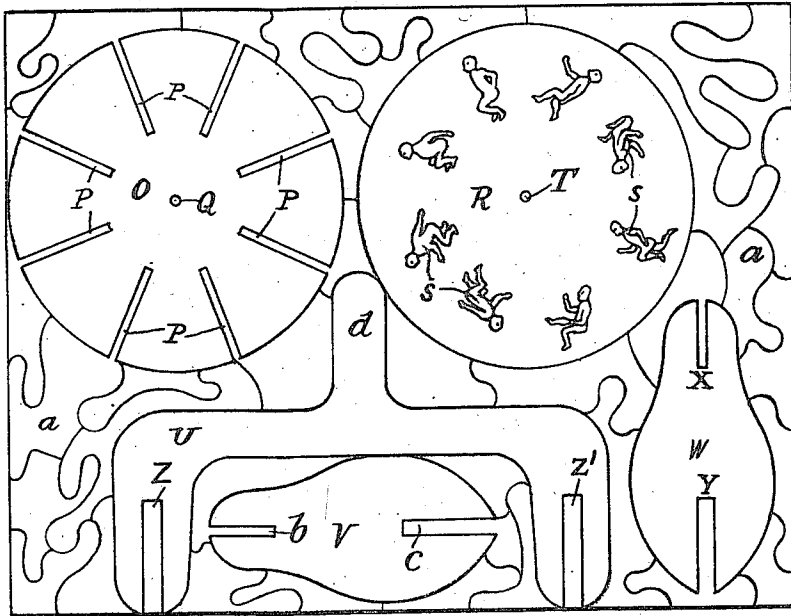
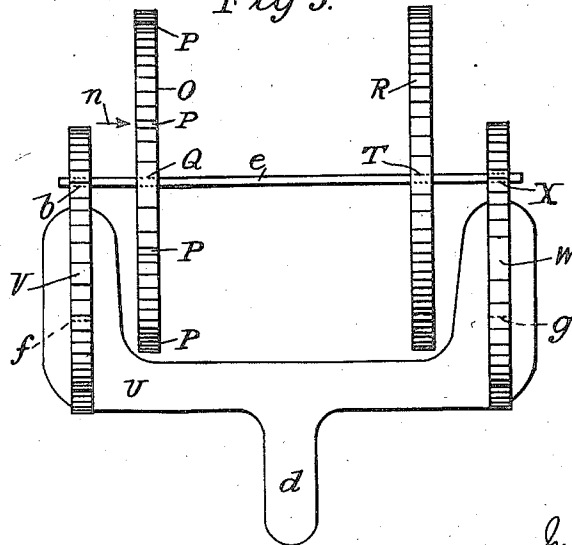


Fig. 5.



Invented by:  
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# UNITED STATES PATENT OFFICE.

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## PUZZLE.

1,229,580.

Specification of Letters Patent. Patented June 12, 1917.

Application filed November 24, 1915. Serial No. 63,307.

*To all whom it may concern:*

Be it known that I, THEODORE BROWN, a subject of the King of Great Britain and Ireland, residing at 29 Welham road, Streatham, London, S. W., England, have invented certain new and useful Improvements in Puzzles, of which the following is a specification.

This invention relates to puzzles of the type in which a board, slab or stiff sheet of material is divided into a number of separate pieces of irregular shape, the solution of the puzzle consisting in the correct re-arrangement or fitting together of the pieces edge to edge in a flat position after they have been separated. Such puzzles are known as jig-saw puzzles and are usually made by sawing or stamping a thin board or the like into the desired number of pieces.

Heretofore the interest in the puzzle resided solely in the assembling or fitting together of the parts with the corresponding flat surfaces of their opposite sides or faces in the same planes such surfaces which usually formed or carried portions of a picture or pictures constituting when assembled the completed picture or pictures on one or both sides of the divided board or slab.

Now this invention has for its object to provide such puzzles with an additional attractive and interesting feature and consists in so shaping certain of the said pieces that they perform a double function, that is to say, in addition to forming parts of a picture or the like in the manner referred to, they also form wholly or in part toys, models and the like or pieces for playing games and are adapted to be easily fitted together to enable such toys, models or pieces to be constructed as hereinafter described.

In the accompanying drawings,

Figure 1 is a plan of a jig-saw puzzle constructed according to this invention in part with pieces of special shape for forming a toy.

Fig. 2 is a similar view to Fig. 1 illustrating a portion of a puzzle containing pieces of a special shape which are capable of being used for constructing a knight for use in playing the game of chess.

Fig. 3 is a view in elevation illustrating the method of constructing a knight from the flat pieces shown in Fig. 2.

Fig. 4 is a similar view to Fig. 1 but illustrating a puzzle containing pieces for forming a different toy, and

Fig. 5 is an elevation of the toy constructed of flat elements contained in the dissected board shown in Fig. 4.

Referring to Fig. 1, the puzzle consists of a thin board having on one surface a picture of a child playing with a toy shown at A consisting of an acrobatic clown performing on parallel bars. This board is dissected, stamped or sawed along the thicker lines, into a number of irregular pieces, some of said pieces which are outlined by thick lines and indicated by the references B, C, D and E, being those from which the actual mechanical toy shown in the picture can be constructed.

On the reverse side of the dissected board the coloring and details appertaining to the pieces B, C, D, E, may be filled in, the remaining pieces being preferably left blank.

In using the puzzle, the pieces being assumed to be dissociated are first arranged and correctly fitted together edge to edge so that when assembled the complete picture shown in Fig. 1 is made.

The picture thus composed shows (on a reduced scale) the toy that is to be constructed out of certain of the pieces specially shaped for that purpose and contained in correct collocation in the complete assembly of pieces.

Having noted the characteristics and manner of constructing the toy illustrated, the operator now turns the whole puzzle over when he will discover that on the reverse side, each unit of the toy to be constructed is shown in detail and on a larger scale than that shown in the picture on the front side of the puzzle.

The blocks B, C, D, E, are then separated from the others and used for the erection of the toy. B and C constitute the parallel bars with their supports and are placed erect upon a flat surface and held parallel with each other by placing the stay piece D between B and C in such a position that the part F of D fits at right angles into the recess H of B, while the part G of D fits at right angles into the recess I of C thus locking B and C together in an erect and parallel relation one with the other with a small space intervening.

The piece E constituting the clown is now taken and a small round stick (supplementary to the puzzle) is fitted into the hole J made in that piece so that the two ends of the stick project on either side of the clown

piece E far enough to allow of it to rest upon the upper edges of the parallel bars B, C when the clown piece E is in position. By giving the stick a slight twisting motion, the clown will turn over and over, the stick rolling along the edges of the parallel bars till it reaches the small recesses made at or near the ends of the said parallel bars.

For the sake of clearness, I have shown in Fig. 1 my invention with the provision for only one constructional toy in addition to the picture puzzle itself, but several toys, models and the like may be provided for in one set of such picture blocks.

In the example of the invention shown in Figs. 2 and 3, specially formed pieces K, L are included among others in the jig-saw puzzle. By separating these pieces from their surroundings and sliding L at right angles over K at the dotted line M, so that the lower part of K abuts L at the dotted line N, a knight piece as used in the game of chess will be formed which will appear when erected as shown in Fig. 3.

In applying my invention as partially indicated in Figs. 2 and 3 to the game of chess, I preferably devote the front surface and central portion of the composite board to the formation of any suitable picture or design and the surrounding marginal portion to pieces among which are distributed a sufficient number specially formed to serve for the erection of a complete set of pieces required in the game of chess. On the reverse side of the puzzle and preferably occupying a central position, I depict the squares that are needed to make a chess-board, the margin surrounding the said board being occupied (as on the reverse side) by the specially formed pieces needed for the construction of chess pieces, together with annexed and waste pieces. The details of the chess pieces are preferably depicted on both sides of the board so that when detached and erected they have a more complete appearance than would otherwise be the case.

In the form of the invention illustrated in Figs. 4 and 5 I arrange among other jig-saw pieces *a*, five main pieces O, R, U, V, W, of special shape which when separated from the other pieces and assembled as shown in Fig. 5, form the toy known as the zoetrope. The remaining irregular shaped pieces *a* fill up all spaces between the main pieces and the whole of the pieces may when assembled form on the reverse side to that shown in Fig. 4 any suitable picture as for example a boy playing with

As shown in Fig. 4 the main pieces comprise a disk O with radial slots or sight apertures P and a central hole Q, a picture

disk R having a central hole T and a series of figures S near the edge in different attitudes representing phases of motion, a fork shaped main support U with a handle *d* and supplementary supports V W slotted at *b c* and X Y respectively.

In addition a rod *e* of metal or wood which would be supplementary to the puzzle is employed to form a support for the disks O, R. In practice this rod would be thin enough to fit loosely in the slots *b X* in the supports V W. These supports are placed at right angles over the arms of the fork shaped support U, the slots *c Y* in the support V W, and slots Z Z' in the support U permitting of the parts being interlocked by fitting one over the other at *f g*. The pictures are viewed by looking through the sight apertures P in the direction of arrow *n*.

All the pieces excepting those used for the constructions of chess pieces and toy parts are preferably of an irregular or zig-zag formation, the particular function of my invention being to provide among a complete set of jig-saw pieces a given number of special form pieces adapted to be joined or connected together temporarily for special purposes as aforesaid.

In addition many toys, games, articles of utility and the like may be constructed solely from the pieces themselves by reason of their particular formation.

They may be designed to lock, interlock, brace or stay each other together. In some instances, however, I propose to use supplementary accessories such for instance as small wooden or metal rods, pins, pegs, elastic or steel springs.

What I claim and desire to secure by Letters Patent is:—

1. A puzzle comprising a board, having printed upon one of its sides a picture delineating a number of separable pieces of different outline, certain of these pieces having inter-engaging elements whereby they may be assembled to form a mechanical toy.

2. A puzzle comprising a board having printed upon one of its sides, a picture, said board being composed of a number of suitably shaped and separable pieces, certain of these pieces being provided with notches in their edges, and other pieces adapted to engage the notches, whereby to construct a mechanical toy having height, breadth and width.

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

THEODORE BROWN.

Witnesses:

S. NASE,  
H. D. JAMISON.