Sept. 7, 1948. S. H. GAINSLEY 2,448,667

JIG-SAW PUZZLE AND RACK THEREFOR

Filed Nov. 30, 1944

Fig. 2

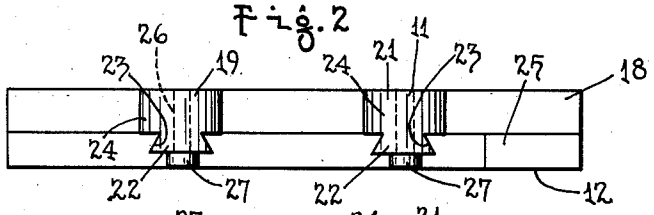


Fig. 1

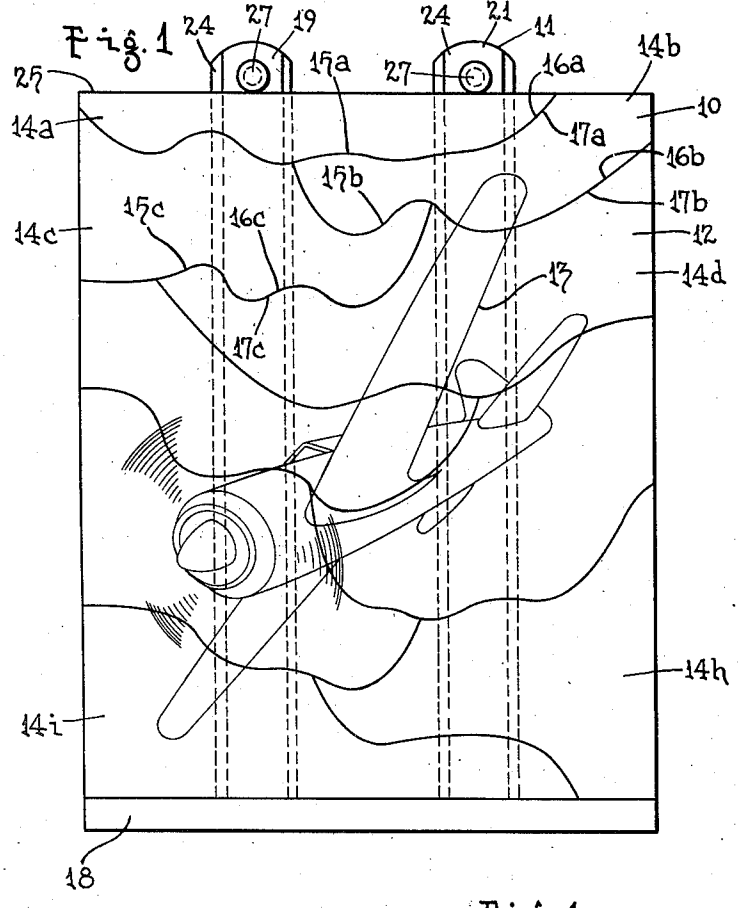


Fig. 3

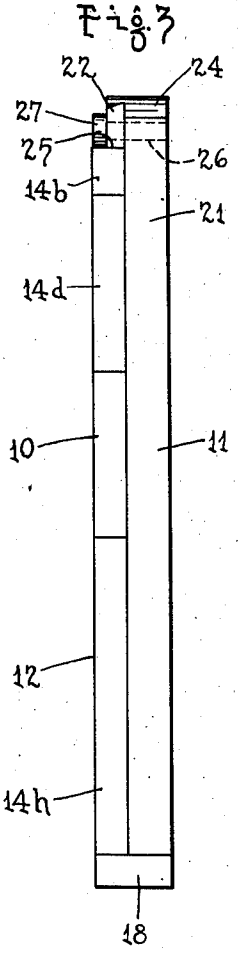


Fig. 4

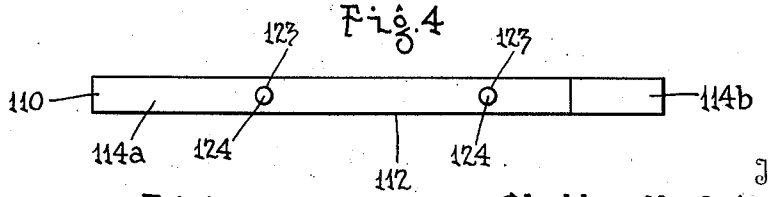
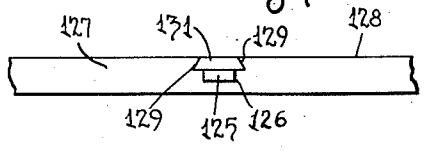


Fig. 5



Inventor

Sheldon H. Gainsley

By Caswell & Lagaard

Attorneys

Patented Sept. 7, 1948

2,448,667

UNITED STATES PATENT OFFICE

2,448,667

JIGSAW PUZZLE AND RACK THEREFOR

Sheldon H. Gainsley, Minneapolis, Minn.

Application November 30, 1944, Serial No. 565,817

3 Claims. (Cl. 273—157)

1

My invention relates to puzzles and has for an object to provide a puzzle of the type in which a number of complementary pieces having meandering edges adapted to fit the edges of other pieces are assembled to form a composite figure.

An object of the invention resides in providing a support for holding the pieces in assembled relation.

Another object of the invention resides in constructing the support in the form of a rack on which the pieces are assembled.

A still further object of the invention resides in providing a guide with means on certain of the pieces forming a guideway adapted to engage the guide and hold the pieces in assembled relation.

Another object of the invention resides in constructing the rack with one or more uprights and in forming the pieces with grooves or holes adapted to receive the uprights, thereby supporting the pieces.

A feature of the invention resides in constructing the rack with a base to which the uprights are attached.

Other objects of the invention reside in the novel combination and arrangement of parts and in the details of construction hereinafter illustrated and/or described.

In the drawings:

Fig. 1 is an elevational view of a puzzle illustrating an embodiment of my invention.

Fig. 2 is a plan view of the puzzle structure shown in Fig. 1.

Fig. 3 is a side elevational view of the structure shown in Fig. 1.

Fig. 4 is a view similar to Fig. 2 of a modification of the invention.

Fig. 5 is a view similar to Fig. 4 of still another form of the invention.

In the working of puzzles comprising complementary pieces adapted to be assembled, the usual practice is to lay the pieces on a flat surface during assembly and to fit the same together while so arranged. During the assembly, the order of the pieces is frequently unintentionally disturbed, to the annoyance of the worker of the puzzle. After assembly, it becomes impossible to remove the assembled pieces from the surface on which they rest, without having the pieces falling apart. The present invention provides a construction whereby the pieces may be assembled either while flat on a table or in upright position and which, after assembly, permits of carrying the puzzle about.

My invention comprises a puzzle including a

2

board 10 divided into numerous pieces to be subsequently described in detail, and which are assembled on a support 11 in the form of a rack. These parts will now be described in detail.

The board 10 may be constructed of wood, plywood or some other material and has a face 12 on which a picture 13 or other form of embellishment is placed. This may be directly printed on the board or the same may consist of a sheet of paper having a picture printed thereon and glued to the board. The board 10, with the picture thereon, is cut up to form a number of pieces 14*a*, 14*b*, 14*c*, 14*d*, etc. These pieces are constructed by sawing the board with a jig-saw or similar tool, along meandering lines 15*a*, 15*b*, 15*c*, etc. By means of this construction, the pieces are provided with meandering edges 16*a*, 16*b*, 16*c*, etc., which fit corresponding edges 17*a*, 17*b*, 17*c*, etc., of other of the pieces. When the various pieces are assembled, as shown in the drawings, they form a composite figure, which shows the picture 13 in its complete form.

The support 11 is in the form of a rack and consists of a base 18 to which two uprights 19 and 21 are attached. These uprights constitute rack bars, the cross section of which is best shown in Fig. 2. Each of these rack bars is provided with a guide 22 which, in the form of the invention shown in Figs. 1, 2, and 3, consists of a dove-tailed tongue. In the back of the board 10 are cut two dove-tailed slots 23 which are spaced from one another the exact distance apart of the tongues 22 and which receive the said tongues. It will become evident that when the board is cut up into the various pieces that the grooves 23 extend through the said pieces. With my invention, the lines 15*a*, 15*b*, 15*c*, etc., preferably traverse the extent of the grooves 23, so that portions of the pieces are left intact to engage the tongues 22 on both sides thereof and to thereby firmly secure the pieces to the support when the pieces are assembled on the rack. The various cuts are made so that the lines intersect at least one of the grooves 23 and in some of the pieces, two of said grooves.

For holding the various pieces in position, the ends 24 of the uprights 19 and 21 extend above the uppermost edge 25 of the board 10. In these ends are drilled holes 26 which receive pegs 27 frictionally held in place in said holes. These pegs are disposed above the edges 25 and restrain movement of the pieces in an upward direction. The lowermost pieces 14*h* and 14*i* rest directly upon the base 18 and downward movement of the

pieces along the guides or uprights 19 and 21 is thus prevented by means of said base.

The method of using the invention is as follows: The support or rack 11 is preferably arranged in upright position, resting upon the base 18. The various pieces are then selected and assembled on the uprights 19 and 21 by causing the ends 24 of said uprights to enter into the grooves 23 of the various pieces. After the pieces have been properly assembled, the pegs 27 are inserted in the holes 26 and the various pieces are held in proper assembled relation.

In Fig. 4, I have shown a modification of the invention in which the board, which is divided to form the pieces, is indicated by the reference numeral 110 and the various pieces by the numerals 114*a*, 114*b*, etc. Instead of the dovetailed grooves 23 used in the pieces of the other form of the invention, two spaced round holes 123 are drilled in each piece parallel to each other and parallel to the faces 112 of the board 110. These holes receive two rods 124 which are secured to a base in the same manner as the uprights 19 and 21 of the other form of the invention. With this form of the invention, the rods 124 take the place of the tongues 22 and also serve as the uprights for supporting the pieces. The manner of use of this form of the invention is the same as that described in connection with the device shown in Figs. 1 to 3, inclusive, and will not be repeated.

Instead of using a round rod or dowel pin for supporting the pieces of the puzzle as shown in Fig. 4, an upright or rectangular cross section such as indicated at 125 in Fig. 5 may be employed. With such construction, a single support will suffice. This upright is received in a rectangular shaped hole 126 in the pieces 127 which is formed by cutting a groove in from the back 128 of the pieces 127 having dove-tailed recesses 129 adjacent the back 128. In these recesses is glued a key 131 which closes the slot to form the hole 126.

The advantages of the invention are manifest. By means of my invention, the various pieces of the board are held in assembled relation, preventing disturbance of the assembly during the assembly of the pieces and after completion of the assembly. With my invention, the puzzle, after assembly, can be picked up and moved about. The assembly can take place while the puzzle is lying in horizontal position upon a table or while the same is in upright position. Likewise, the completed puzzle can be left lying

flat on a table or the same can be elevated or supported by the base of the rack on which the pieces are mounted. My improved puzzle involves little additional expense and may be manufactured at an economical cost. With my invention, the pieces are less likely to be lost.

Changes in the specific form of my invention, as herein described, may be made within the scope of what is claimed without departing from the spirit of my invention.

Having described my invention, what I claim as new and desire to protect by Letters Patent is:

1. A puzzle comprising a number of complementary pieces having meandering edges adapted to fit the edges of other pieces, said pieces being adapted to be assembled to form a composite figure, a rack including a rack bar, a tongue on said rack bar, and grooves formed in said pieces and adapted to receive said tongue to hold the pieces in assembled relation.

2. A puzzle comprising a number of complementary pieces having meandering edges adapted to fit the edges of other pieces, said pieces being adapted to be assembled to form a composite figure, a rack including a rack bar, a dovetailed tongue on said rack bar, and dovetailed grooves formed in said pieces and adapted to receive said tongue to hold the pieces in assembled relation.

3. A puzzle comprising a number of complementary pieces having meandering edges adapted to fit the edges of other pieces, said pieces being adapted to be assembled to form a composite figure, a support including a guide rectangular in cross section, certain of said pieces having a groove extending through the back thereof and adapted to receive said guide, said groove being formed with dove-tailed recesses near the back of the pieces and a key closing said groove and overlying said guide, said key being received within said recesses.

SHELDON H. GAINSLEY.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
964,065	Snedeker	July 12, 1910

FOREIGN PATENTS

Number	Country	Date
261,772	Germany	July 10, 1913