Oct. 3, 1950 G. W. SPEIRS 2,524,548

EDUCATIONAL DEVICE

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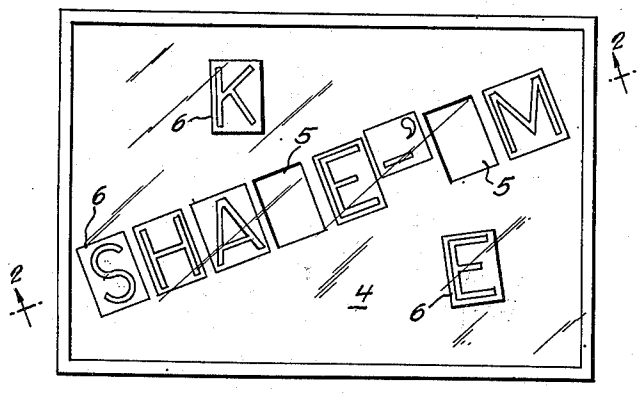
Fig. 1



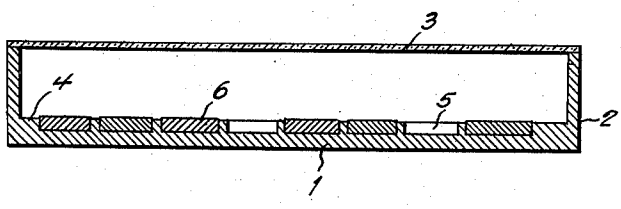


Fig. 2

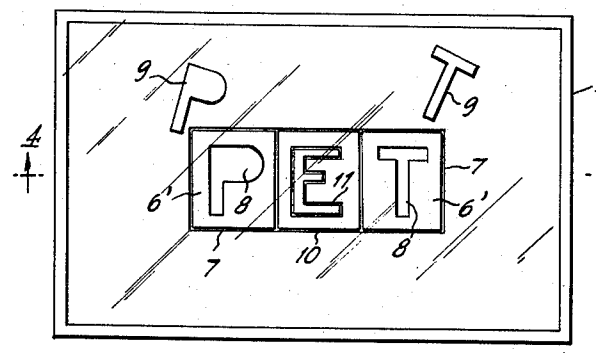


Fig. 3

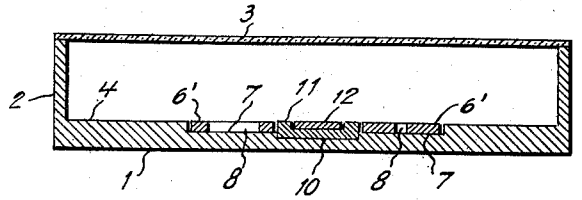


Fig. 4

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Fig. 5

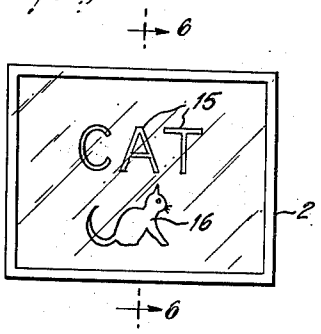


Fig. 6

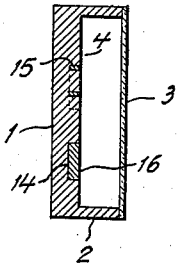


Fig. 7

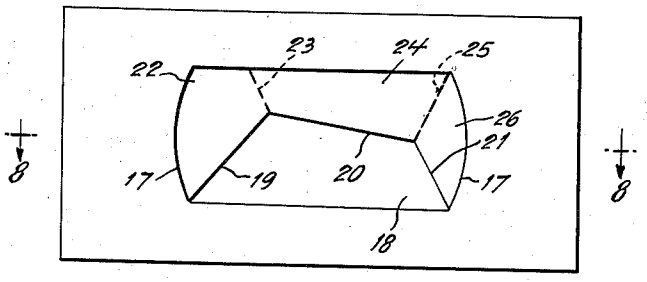
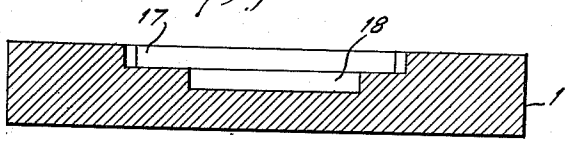


Fig. 8



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Patented Oct. 3, 1950

2,524,548

UNITED STATES PATENT OFFICE

2,524,548

EDUCATIONAL DEVICE

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Application July 11, 1949, Serial No. 103,994

2 Claims. (Cl. 35—73)

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The present invention is directed to educational or game devices adapted for use by adults as well as children and suitable for advertising purposes or for amusement. More particularly the invention is directed to a game box with movable elements which may be assembled into words, pictures, designs or the like.

Generally devices of this kind have been on the market and have found some use. For instance, in one such device, there was provided a box having a transparent cover and containing on flat pieces portions of a complete picture and in effect constituting a jigsaw puzzle. It was intended by the patentee that the box be shaken until the individual members fall into the proper positions to complete the jigsaw picture. However, it was quite difficult for the user to obtain the final picture as it was difficult to keep certain movable pieces in final position while shaking the box in order to cause other pieces to fall into place. As a result, interest in the device was quickly lost.

In another type of device, there was provided a box with a transparent cover and a series of recesses in the bottom of the box. A number of balls were contained within the box and the player by shaking the box and causing the balls to roll eventually caused each of the balls to fall into a recess. Such a game was practical in that the player was able to accomplish the final result. However, it was a very simple type of device so that here also interest in the device was quickly lost.

The present invention is intended and adapted to overcome the difficulties and disadvantages inherent in prior devices of the type described, it being among the objects of the present invention to provide a game in which there are a plurality of flat game pieces adapted to be slid in the bottom of a box having a transparent cover and in which each of the pieces is adapted to fall into and be held by properly formed depressed portions.

It is also among the objects of the present invention to provide a device of the character described in which there are depressed portions of different depths with corresponding movable pieces to fall into and be held by such depressed portions.

It is further among the objects of the present invention to provide a device in which at least some of the movable pieces, in addition to fitting into depressed portions, themselves contain openings or depressions to enable still other pieces to be fitted into the same.

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It is still further among the objects of the present invention to provide a device which is simple in construction, which may be manufactured at a low cost, in which various types of games, puzzles or advertising matter may be incorporated, and which has a very substantial amount of interest for the user.

In practicing the present invention, there is provided a box as heretofore, having a transparent cover. The bottom is substantially flat and a number of game pieces, also flat, are placed on the bottom surface so that they may slide as the box is shaken or moved. There is also provided a depressed portion for each of the game pieces so that it is held in place after it has been moved into the depressed portion.

The invention also contemplates that some of the game pieces themselves shall have depressed portions of a predetermined form and size. Additional game pieces are provided which are capable of sliding and of fitting into such depressed portions in the other game pieces. In some cases, there are provided two or more depths of depressed portions in the bottom of the box and game pieces of suitable depth are provided to fit into the same so that when so fitted, the top surfaces of the pieces are in approximately the same horizontal plane.

Usually the cover of the box is made of transparent material although one or more sides thereof may be made transparent. This allows the player to look into the box while the pieces are being moved about but at the same time prevents him from touching any other playing pieces. The only manner in which the pieces may be moved is by shaking, tapping, twisting or turning the box.

In the accompanying drawing constituting a part hereof and in which like reference characters indicate like parts,

Fig. 1 is a top plan view of a device made in accordance with the present invention, in which the box has a transparent top, showing most of the game pieces in final position and other game pieces in position for being shifted into final place;

Fig. 2 is a vertical cross-sectional view thereof taken along the line 2—2 of Fig. 1;

Fig. 3 is a view similar to Fig. 1, showing a modification of the invention in which movable game pieces are held at different levels and some game pieces have other pieces fitting into the same;

Fig. 4 is a vertical cross-sectional view thereof taken along the line 4—4 of Fig. 3;

Fig. 5 is a top plan view of a modified form of the invention, showing the use of movable letters and of complete pictures of objects;

Fig. 6 is a vertical cross-sectional view thereof taken along the line 6—6 of Fig. 5;

Fig. 7 is a top plan view of a further modified form of the invention, showing the use of game pieces for anchoring other game pieces in position, and

Fig. 8 is a vertical cross-sectional view thereof taken along the line 8—8 of Fig. 7.

Referring to the form of the invention shown in Figs. 1 and 2, there is provided a box having a bottom member 1, sides 2, here shown integral with the bottom, and a transparent cover 3 of glass, plastic or other suitable material. The upper surface 4 of bottom 1 has a series of depressed portions 5 therein separated from each other. A number of game pieces 6 each of the size and shape of depressed portions 5 are provided within the box. They have flat bottom surfaces in order to slide over the surface 4 and they have flat top surfaces so that they may slide over other game pieces already in final position, as shown particularly in Fig. 2.

In playing a game or otherwise using the device, the box is shaken so that all of the game pieces are on surface 4 and then the operator begins to shake and move the box in order to cause at least one of the game pieces to fall into its proper opening. If an improper arrangement is made, the pieces are shaken out of position and the playing of the game starts over again. As shown in Figs. 1 and 2, a definite set of words is finally formed. There may also be provided a series of letters which can be formed into a number of different words, and the player may cause the letters to slide into the various recesses to form successively a series of words.

Referring to the modification shown in Figs. 3 and 4, the game box as previously described is used. There are formed several depressed portions 7 suitably arranged in surface 4. Game pieces 6' are adapted to fit into such recesses. Each of pieces 6' has an opening 8 therein of predetermined character, here shown as letters of the alphabet. There are also provided game pieces of the proper size and shape to fit into openings 8.

A depressed portion 10 is also provided in surface 4, the depth of said depressed portion being greater than the depth of portion 7. A game piece 11 is adapted to fit into depressed portion 10. The latter game piece has a depression or recess in the top surface thereof. An additional game piece 12 of suitable size and shape is provided, it being adapted to fit into said recess.

In the operation of this embodiment, the pieces are removed from the depressed portions and the player first slides game piece 11 into depressed portion 10. This provides a complete frame for the depressed portions 7 and thus serves as an anchor for other game pieces. Then game pieces 6 may be shifted into their proper positions to complete the primary set-up. Then game pieces 9 and 12 may be fitted into openings 8 and recess in piece 11 in any desired order.

Referring to Figs. 5 and 6, there is shown a form of the invention quite similar to that of Figs. 1 and 2 in that the depressed portions are in the same level. Letters 15 instead of being formed on rectangular blocks are cut out and the depressed portions 13 are of the same shape so that the letters fit in perfectly into the depressed portions. There is also shown the figure 16 of an

animal, which is a slidable game piece and this is adapted to fit into depressed portion 14 which is of the same size and shape.

In the modification shown in Figs. 7 and 8, the game box is provided with a depressed portion 17 of relatively large extent. In the bottom of depressed portion 17 is a further depressed portion 18 of greater depth and of irregular outline, having angular sides 19, 20 and 21. A plurality of game pieces are provided, one of them being of the size and shape of depressed portion 18, and a plurality of other movable game pieces adapted to be fitted together in the unoccupied part of depressed portion 17.

One of such additional game pieces is adapted to fit into section 22 formed by wall 19 and an edge of 17. This provides a wall 23 so that a second game piece will fit into section 24. This forms a wall 25 so that still another game piece may fit into section 26. During the procedure each of the pieces newly placed in position is held or anchored by the cooperative effect of game pieces already in place. Thereby the player is enabled to complete the entire game without being interrupted by pieces already in place accidentally jumping out of position.

There are a number of advantages in the present invention over games of similar character heretofore known. In the present device the movable pieces slide around on the upper surface of the bottom of the box and when they fall in place, they are held securely so that they will not be accidentally displaced, and so that the positioned pieces are retained without being disturbed by other game pieces which are slid around or tumbled over them by the shaking, tapping or other moving of the box. Each playing piece may be predetermined to be moved and set into a depressed portion, recess or opening, while the remaining playing pieces remain free to slide around on the surface 4.

Although the invention has been described setting forth several specific embodiments thereof, such examples have been introduced for the purpose of illustrating the invention and not to limit it as many other forms may be devised within the principles herein set forth. For instance, the depressed portions as described are in one or two levels, but even a third or more levels may be provided in such a game. As described, some of the game pieces have an opening or recess therein to accommodate another game piece. There may be provided in a game piece more than one recess or opening.

The shapes of the game pieces may be varied at will. While a rectangular game piece is highly satisfactory, other geometric forms, such as a star, circle, octagon and other regular or irregular shapes may be provided and the depressed portions would be in such cases of similar shape. There may also be provided means whereby one movable game piece locks into the other on the same or different levels.

The height of the box may be of any desired character but usually it is preferable that the maximum inside height is less than the minimum width of the movable game pieces so that in the shaking operation the game pieces will not turn over. However, it is also contemplated that in some forms of the game, there will be letters or other indicia on both sides thereof and in such case the height of the box is sufficient to permit the turning over of the movable pieces.

A plurality of game pieces in position may have jointly a single recess or opening so that

another game piece may fit into and between said plurality of pieces. This indicates that many different combinations of one or more of the elements of each of the many forms that the invention may take are possible within the scope of the invention and are contemplated herein.

These and other changes in the details of the invention may be made without departing from the principles disclosed herein and the invention is, therefore, to be broadly construed and not to be limited except by the character of the claims appended hereto.

I claim:

1. An educational game device comprising a closed container having a transparent cover and a substantially flat bottom, a plurality of game pieces of various shapes having flat under surfaces and adapted to slide on said flat bottom, said bottom having at least one recess composed of at least two flat surfaces at upper and lower levels relative to each other and below said flat bottom, at least one of said game pieces fitting into the portion of said recess of lower level, the latter recess being of a size and shape corresponding to said last mentioned game piece, the game piece fitting in the recess of lower level being of such thickness as to extend above the flat surface at the upper level so that its sides form in part the recess at the upper level within which additional game pieces nest, and additional game pieces fitting into the recess of upper level, the peripheral contours of the recesses corresponding to the peripheral contour of the aggregate of the blocks in nested arrangement in the respective levels.

2. An educational game device comprising a closed container having a transparent cover and a substantially flat bottom, a plurality of game pieces of various shapes having flat under surfaces and adapted to slide on said flat bottom, said bottom having at least one recess composed of at least two flat surfaces at upper and lower levels relative to each other and below said flat bottom, at least one of said game pieces fitting into the portion of said recess of lower level, the latter recess being of a size and shape corresponding to said last mentioned game piece, the game piece fitting in the recess of lower level being of such thickness as to extend above the flat surface at the upper level so that its sides form in part the recess at the upper level within which additional game pieces nest, and additional game pieces fitting into the recess of upper level, the peripheral contours of the recesses corresponding to the peripheral contour of the aggregate of the blocks in nested arrangement in the respective levels, at least one of said game pieces having a depression in the surface thereof adapted to have an additional game piece fitted therein.

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REFERENCES CITED

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

UNITED STATES PATENTS

Number	Name	Date
629,527	Shepherd	July 25, 1899
632,982	Alpe	Sept. 12, 1899
641,739	Thompson	Jan. 23, 1900
1,110,434	Garman	Sept. 15, 1914
1,273,763	Garman	July 23, 1918
1,364,778	Mathews	Jan. 4, 1921
2,412,180	Slocum	Dec. 3, 1946

FOREIGN PATENTS

Number	Country	Date
18,913	Great Britain	Nov. 26, 1898
215,168	Great Britain	Apr. 6, 1923
443,726	Germany	May 5, 1927
645,949	France	July 9, 1928