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㉓ **Puzzle.**

⑥ A puzzle that includes pieces or chips arranged in vertical columns on a board. In the desired design when the puzzle is solved, each chip will be in an ordered sequence in its particular column. For example, there can be four columns of five rows of playing cards and each column includes a royal flush in the particular suit when the puzzle is solved. The columns alternate as to suits and color. The pieces of the puzzle are originally scrambled. A pocket is provided for sliding one chip out of playing position so that the remaining tiles can be moved either vertically or horizontally one at a time. A tongue and groove arrangement in the chips and board allows the chips to be slid easily without falling out.

**EP 0 090 112 A2**

## PUZZLE

## BACKGROUND OF THE INVENTION

5 The present invention relates to a puzzle played by  
moving slidable chips from a scrambled pattern to a  
predetermined desired pattern. The public has displayed a  
keen interest in games which require an analytic approach  
and which challenge the ability to foresee the results of  
actions that are taken or moves that are made. The several  
10 cube puzzles currently on the market and their popularity  
indicate the desire on the part of a large number of  
consumers to engage in this type of challenging activity.

15 It is an object of the present invention to provide a  
new and improved puzzle which is challenging and which is  
economical to produce.

20 It is another object of the present invention to  
produce a new and improved puzzle which can be made in  
compact size and wherein the puzzle is integrated so that  
the pieces of the puzzle are contained and will not fall  
out.

It is another object of the present invention to  
provide a new and improved puzzle which lends itself to  
various ordered designs.

## SUMMARY OF THE INVENTION

25 A puzzle wherein chips are arranged in columns and  
rows in a scrambled fashion for moving in a horizontal or  
vertical direction one at a time to accomplish a desired

pattern. One of the chips is moved to a reserved pocket so that the other chips may be moved in sliding fashion relative to each other and to the puzzle frame.

#### DESCRIPTION OF THE DRAWINGS

5           Figure 1 is a plan view of the puzzle of the present invention with the playing chips out of final order, and making a straight.

          Figure 2 is a plan view of the puzzle of the present invention with the playing chips arranged in final order,  
10           and making a royal flush.

          Figure 3 is a sectional view taken along line 3-3 of Figure 1, with the playing chips removed.

          Figure 4 is a plan view of one of the playing chips.

          Figure 5 is a front view of the playing chips shown in  
15           Figure 4.

          Referring to the drawings, a generally rectangular frame is shown at 10. The frame 10 has a rectangular opening in its face resulting in a back board 12. In the embodiment shown, twenty chips 14 are positioned on the  
20           back board 12 in the frame 10. In Figure 2, these chips are placed in an ordered sequence in each column to solve the puzzle. The first column has the cards representing a royal flush in spades. The second column has a royal flush in hearts. The third column shows a royal flush in clubs.  
25           The fourth column has a royal flush in diamonds. This is the pattern to be accomplished when the puzzle is solved. When the puzzle is first received, the order is scrambled as shown in Figure 1. Each column has an alternating sequence of black and red cards which is scrambled or  
30           disordered as shown in Figure 1.

The frame 10 includes a ledge 16 extending along one end and a ledge 18 extending along one side of the opening in the face of the frame. A groove 20 extends along the other end and a groove 22 extends along the other side of the frame 10. Each chip 14 includes a ledge 24 extending along one side and a ledge 26 extending along one end. These ledges can be one piece and are rounded at the corner 28. The ledges extend to a point short of the opposite side and end of the chip. The other side of the chip includes side groove 27 and the other end of the chip includes end groove 29. The chips 14 fit together in sliding engagement, with the ledges of one chip extending into the grooves of the adjacent chip. The grooves and ledges of the chip fit in the frame ledges and grooves. Thus, the chips 14 can be readily slid in a vertical or horizontal direction with respect to each other and with respect to the frame 10.

The frame 10 has a pocket 30 therein so that the lower right chip 14 can be moved vertically down and out of playing position. This leaves a blank space where the chip was previously located, and the remaining chips can now be manipulated horizontally or vertically to form the desired arrangement where the columns are in vertical sequence of the same card suit as shown in Figure 2. The last chip is moved into position from the reserve pocket 30 to complete the design, and solve the puzzle.

A royal flush has been demonstrated in the drawings, but it will be recognized that a straight flush or any other sequential arrangement can be utilized. Also, any other ordered arrangement of chips can be used. One

example is a boy chasing a girl who is chasing a hound, who is chasing a fox, who is chasing a chicken. Each of these figures is represented on a separate chip. There can be alternating colors of red and gray figures for example in the columns, or each column of chips can be a different color. The chips are scrambled when the puzzle is received and the player must arrange the columns in proper sequence.

This puzzle is challenging and time consuming to solve. The chips cannot fall out of the frame because of the tongue and groove arrangement and yet they are easy to slide. The pieces of the puzzle are simple and inexpensive to manufacture. Various sequential, ordered designs can be provided to make the puzzle interesting.

## CLAIMS

## 1. A puzzle comprising:

2 a rectangular frame with chip connecting means along  
its internal edge portions and an extension forming a  
4 reserve pocket;

a plurality of rectangular chips, each chip having  
6 engaging means for connecting said chips with each other  
and with said connecting means on said frame in sliding  
8 engagement to prevent said chips from falling out of said  
frame;

10 said chips forming vertical columns and horizontal  
rows to fill said frame except for said reserve pocket;

12 said chips being slidable vertically or horizontally  
in said frame one at a time when one chip is moved into  
14 said reserve pocket;

said chips being initially disorganized with respect  
16 to a desired pattern and being alignable in said desired  
pattern by moving one of said chips into said reserve  
18 space, moving the remainder of said chips one at a time,  
and moving the last chips out of said reserve space to  
20 complete the desired pattern.

## 2. A puzzle according to Claim 1 wherein:

2 the desired arrangement of said chips is a plurality  
of columns each having a vertical sequence of chips of the  
4 same color and ordered pattern, with adjacent columns  
having different colored chips; and

6 the initial arrangement of chips is scrambled.

3. A puzzle according to Claim 2 wherein the initial  
2 arrangement is scrambled so that the colors alternate in  
each column and row and with no chip in the proper vertical  
4 sequence in a column.

4. A puzzle according to Claim 1 wherein:  
2 the frame has an inwardly protruding ledge at one end  
and a groove in the opposite end;  
4 the frame has an inwardly protruding ledge along one  
side and a groove in the opposite side; and  
6 each chip has an outwardly projecting ledge on one end  
and one side and a groove on the other end and other side;  
8 whereby the ledges are in sliding engagement with the  
grooves so that the chips can slide with respect to each  
10 other and with respect to the frame.

5. A puzzle according to Claim 4 wherein the reserve  
2 pocket has a groove along one side and an inwardly  
extending ledge along the other side so that a chip can  
4 slide in and out of said reserve pocket.

6. A puzzle according to Claim 4 or 5 wherein:  
2 the end ledge and side ledge on each chip are joined  
at a rounded corner; and  
4 wherein the end ledge on the chip extends from the  
rounded corner horizontally to a point short of the  
6 opposite side and the side ledge on the chip extends from  
the rounded corner vertically to a point short of the  
8 opposite end.

7. A puzzle, according to Claim 1 wherein the desired  
2 pattern is four columns of playing cards arranged  
vertically in value sequence of royal flushes, said columns  
4 alternating as to suit and color.

8. A puzzle according to Claim 1 wherein:  
2 the desired pattern is a plurality of columns arranged  
in a vertical ordered sequence.

9. A puzzle according to Claim 8 wherein in the desired  
2 sequence in solving the puzzle:  
there are four vertical columns with identical  
4 sequences; and  
the first and third columns have chips of the same  
6 color and the second and fourth columns have chips of the  
same color.



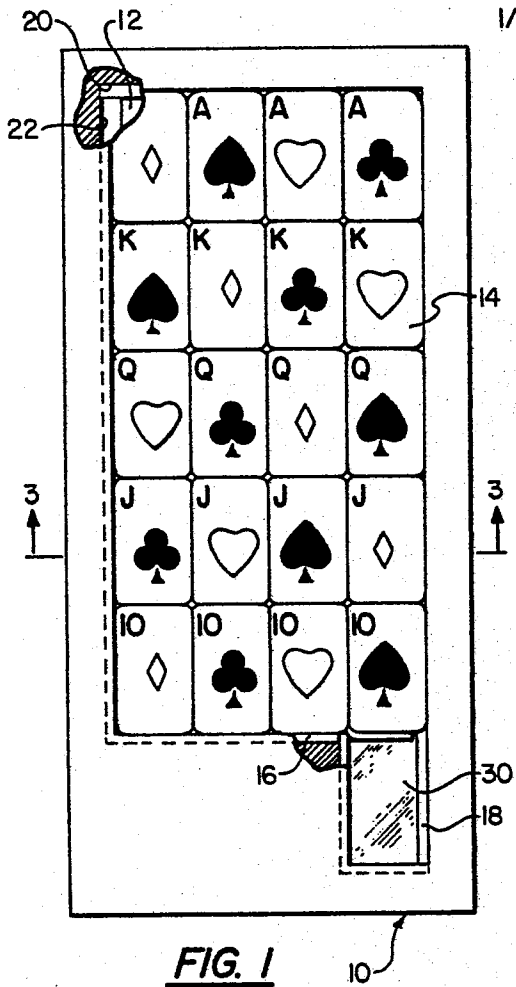


FIG. 1

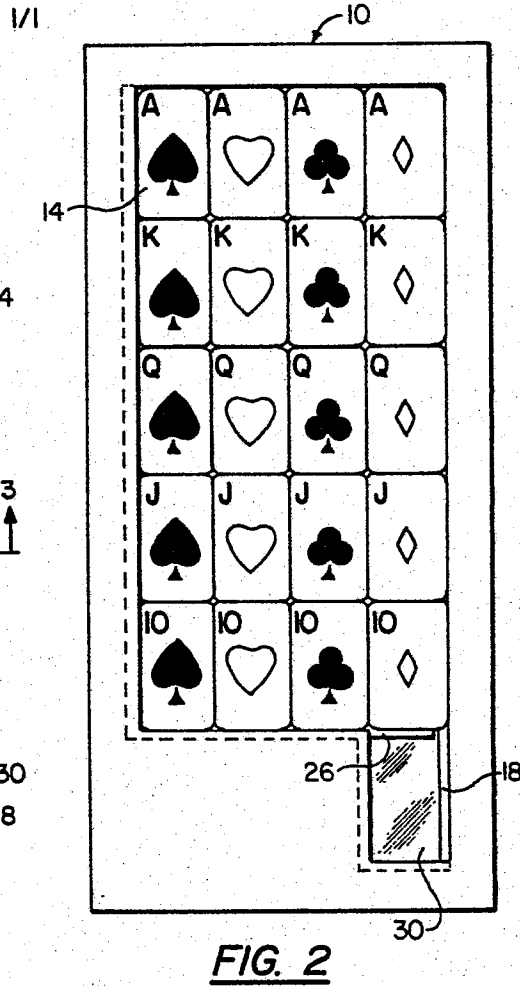


FIG. 2

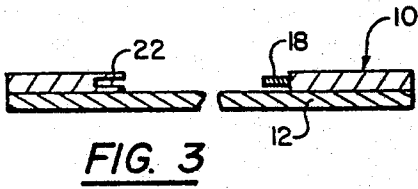


FIG. 3

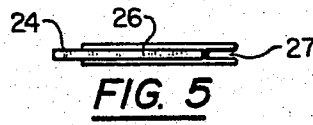


FIG. 5

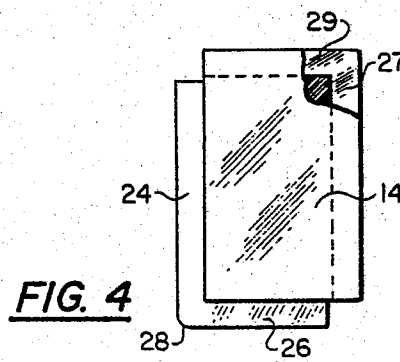


FIG. 4