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COMPLETE SPECIFICATION

(54) **A GAME OR SHAPE RECOGNITION DEVICE**

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PATENT APPLICATION BY (71) **WILLIAM BARRINGTON PINK, OF GIPSY HALL, DULLINGHAM, NEWMARKET, SUFFOLK, ENGLAND, A BRITISH SUBJECT.**

Price 12½p

This invention relates to a game or shape recognition device.

According to the invention there is provided a game or shape recognition device comprising a plurality of pairs of
5 like optically discernable contours, the said pairs being located in a common plane in rows each containing a like number of pairs of contours, the contours of each of said pairs thereof being opposed one to the other and symmetrically disposed about a medium line common thereto, said medium
10 line passing through an axis at right angles thereto and about which the pair of contours is rotatable by increments of 90° , and a set of cards bearing differing illustrations, one per card, each of a shape to be formable by rotation of pairs of contours relative to other pairs thereof.

15 In one embodiment of the invention members bearing each pair of contours are located on a base board for movement relative thereto and one to the other. Each bearer member may be a square member locatable in a pocket on the base board and the median line be a diagonal of the square.

Alternatively, each bearer member may be a disc rotatable relative to the base board and the medium line be a diameter of the disc. The disc may be provided with a pin rotatable in a hole in the base board or the disc may be rotatable in a pocket provided on the base board. Detent means may be
 5 provided to locate the disc in positions thereof to which it is rotated.

As another alternative, each bearer member may be made of ceramic material and comprise a square base block with the
 10 contours upstanding from the top thereof, the medium line being a diagonal of the square, and the base board comprise a box in which the base blocks are arranged in rows in abutting relation.

The contours of a pair may be like arcs of a circle the
 15 centre of which is the centre of two pairs of adjacent bearer members one pair of which is in one horizontal row and the other of which is in the next horizontal row, the bears of the pair in one row being aligned with the bearer members of the other pair.

20 In order that the invention may be clearly understood, embodiments thereof will now be described, by way of example, with reference to the accompanying drawings, in which:-

Fig. 1 is a plan of a base board and bearer members forming part of a game or shape recognition
 25 device according to the invention,

Fig. 2 is an end elevation of Fig. 1,

Figs. 3 and 4 illustrate cards for use with the base board and bearer members of Figs. 1 and 2,

Figs. 5 and 6 are views similar to that of Fig. 1 but with
 30 some of the bearer members rotated to form the

shapes shown on the cards of Figs. 3 and 4,
 Fig. 7 is a plan of a part of an alternative form of
 base board and bearer members,
 Fig. 8 is a section through Fig. 7;
 5 Fig. 9 is a section similar to that of Fig. 8 but
 illustrates a modification thereto,
 Fig. 10 is a plan of a part of a further alternative
 form of base board and bearer members, and
 Fig. 11 is a perspective view of a still further altern-
 10 ative form of bearer members.

In the drawings like references denote like or similar parts.

Referring to Figs. 1 to 6, the game or shape recognition
 device comprises a plurality of pairs of like optically dis-
 15 cornable contours 10 located in a common plane with the pairs
 of contours arranged in rows 11, 12 each containing a like
 number of pairs of contours. As shown in Fig. 1 each row
 contains seven pairs of like contours but it is to be under-
 stood that the rows may contain a greater or lesser number
 20 than seven as desired. As can be seen from Fig. 1, the con-
 tours 10 of each pair are opposed one to the other and are
 symmetrically disposed about a median line 13 common thereto.
 The median line 13 passes through an axis 14 at right angles
 thereto and about which the pair of contours 10 is rotatable
 25 by increments of 90° . The device is completed by a set of
 cards or the like, of which examples are illustrated in Figs.
 3 and 4, bearing differing illustrations, one per card, each
 of a shape to be formed by rotation of pairs of contours 10
 relative to other pairs thereof. Each card bears a number
 30 showing the number of moves necessary to form the shape

illustrated on the card when the board is set up as shown in Fig. 1.

Each pair of contours 10 is defined on a bearer member 15 and the bearer members are located on a base board 16 for movement relative thereto and one to the other. As shown in Figs. 1 and 2, the bearer members 15 are each square members and are located in pockets formed by ribs 17, 18 secured to or integral with the base board 16 and the median line 13 is a diagonal of the square. The contours 10 are printed or otherwise marked on the members 15 and may be coloured. As shown in Fig. 1, the contours 10 of a pair are like arcs of a circle the centre 19 of which is the centre of two pairs of adjacent bearer members 15 one pair of which is in one row 12 and the other of which is in the next adjacent row, the bearer members of the pair in one row being aligned with the bearer members of the other pair.

The contours illustrated in Fig. 10 are of a shape other than arcuate but the arrangement of the base board 16 and bearer members 15 is otherwise similar to that of Figs. 1 and 2.

When the device of Figs. 1 to 4 is being used as a game two or more players are each dealt a predetermined number of cards, for example three or five, from the pack which may consist of fifty-two cards. The board is set up as shown in Fig. 1 and the player to the left of the dealer makes the first move by rotating through 90° one of the bearer members 15 calculated to begin on the board a shape or pattern as shown on one of his cards. Subsequent moves, taken in turn, are calculated either to further the formation of the selected shape or pattern or are intended to prevent the formation

of a shape or pattern selected by his opponent(s). When a shape or pattern is formed on the board to correspond with that on a card held by any player that player scores points to the value shown on the card bearing the shape or pattern formed on the board. For example, if the shape or pattern formed is that indicated at 20, Fig. 5, the player calls "Amoeba", places his card face uppermost in front of him and scores four, being the number indicated on the card of Fig. 3. If the shape or pattern formed is that of Fig. 6 the player scores three, this being the number on the card of Fig. 4 and the number of 90° turns of bearing members 15 needed to form the shape of pattern shown on the card. He then takes another card from the pack so that at all times, except at the end of a game, when the pack is exhausted, he holds the predetermined number, for example three or five, of cards in his hand.

It will be understood that various rules governing play may be formulated but basically the game is intended to be continued until the pack of cards is exhausted when the winner is the player who has scored the highest number of points. Although it was mentioned above that the game starts with the board as shown in Fig. 1, if desired an arrangement of the bearing members 15 different from that of Fig. 1 may be selected as the starting pattern.

If the device is to be used as a shape recognition device for teaching children, the pupils will be given cards and the teacher will move the bearing members 15 to form shapes or pattern while the pupils will watch the board and tell the teacher when they recognize on the board the pattern or shape shown on the cards which they hold.

Figs. 7 and 8 illustrate an alternative form for the bearing members 15. In these figures the bearing members 15 are discs rotatable relative to the base board 16 and the median line 13 is a diameter of a disc. The disc is provided with a pin 21, 5 Fig. 8, which is rotatable in a hole 22 in the base board. A knob 23 is provided on the disc to facilitate rotation thereof. Alternatively the discs may be rotatable in pockets 24, Fig. 9, provided in the baseboard, with or without pins 21. With these 10 embodiments detent means of any suitable kind are provided to locate the discs in positions thereof to which they are rotated.

It will be understood that, if desired, the bearing members 15 illustrated in Figs. 1 and 2, 5 and 6 and 10 may be provided with knobs, similar to the knobs 23, to facilitate raising and rotation of the bearing members.

15 Fig. 11 illustrates a further alternative form of the bearing members 15. In this embodiment each bearing member is made of ceramic material and comprises a square base block 25 with the contours 10 upstanding from the top of the block. The median line is a diagonal of the square block 25 and the base 20 member consists of a box, not shown, in which the base blocks 25 are arranged in rows in abutting relation.

It will be understood that, in all instances, the base board and the bearing members may be made of any suitable materials and that, if desired, the bearing members of Fig. 11 25 may be made of materials other than ceramic.

In the foregoing description the bearing members have been described as being manipulated directly by the hand. If desired, however, the pairs of contours may be arranged for rotation relative one to another by remote control, for example 30 by electrical control either by individual players or by a single operator.

CLAIMS

1. A game or shape recognition device comprising a plurality of pairs of like optically discernable contours, the said pairs being located in a common plane in rows each
 5 containing a like number of pairs of contours, the contours of each pair of said pairs thereof being opposed one to the other and symmetrically disposed about a median line common thereto, said median line passing through an axis at right angles thereto and about which the pair of contours is rotat-
 10 able by increments of 90° , contour selection means bearing differing illustrations, one per card, each of a shape to be formable by rotation of pairs of contours relative to other pairs thereof.
2. A device according to Claim 1, wherein members
 15 bearing each pair of contours are located on a base board for movement relative thereto and one to the other.
3. A device according to Claim 2, wherein each bearer member is a square member locatable in a pocket on the base board and the median line is a diagonal of the square.
- 20 4. A device according to Claim 2, wherein each bearer member is a disc rotatable relative to the base board and the median line is a diameter of the disc.
5. A device according to Claim 4, wherein the disc is provided with a pin rotatable in a hole in the base board.
- 25 6. A device according to Claim 4, wherein the disc is rotatable in a pocket provided on the board.
7. A device according to Claim 5 or Claim 6, wherein detent means are provided to locate the disc in positions thereof to which it is rotated.
- 30 8. A device according to Claim 2, wherein each bearer

member is made of ceramic material and comprises a square base block with the contours upstanding from the top thereof, the median line being a diagonal of the square, and wherein the base board comprises a box in which the base blocks are
5 arranged in rows in abutting relation.

9. A device according to any one of Claims 2 to 8, wherein the contours of a pair are like arcs of a circle the centre of which is the centre of two pairs of adjacent bearer members one pair of which is in one row and the other of which is in
10 the next adjacent row, the bearer members of the pair in one row being aligned with the bearer members of the other pair.

10. A game or shape recognition device substantially as herein described with reference to Figs. 1 to 4; or to Figs. 7, 8, 3 and 4; or to Figs. 7, 9, 3 and 4; or to Figs. 10, 3 and
15 4; or to Figs. 11, 3 and 4.

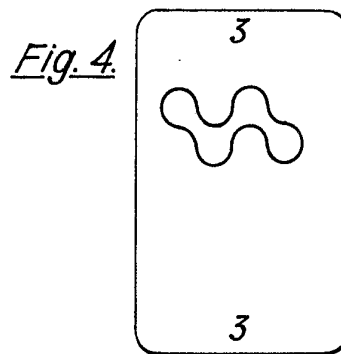
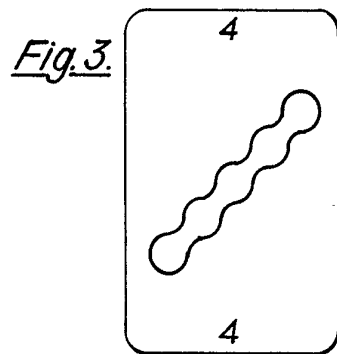
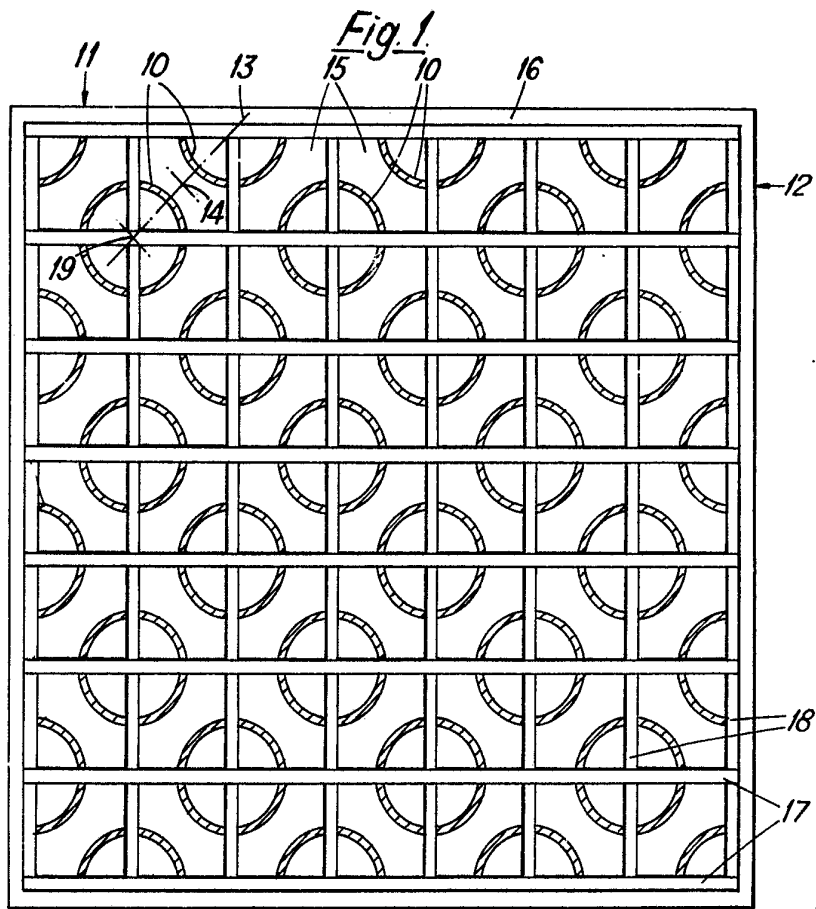
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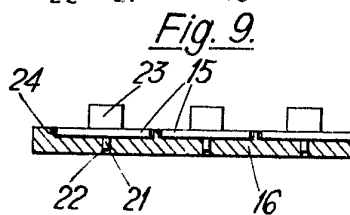
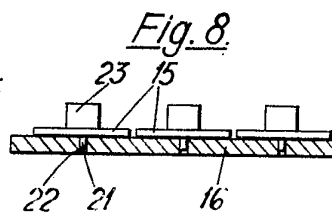
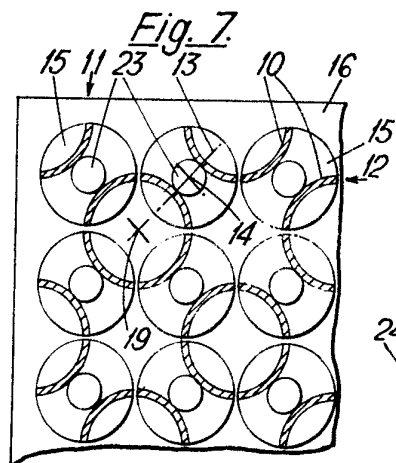
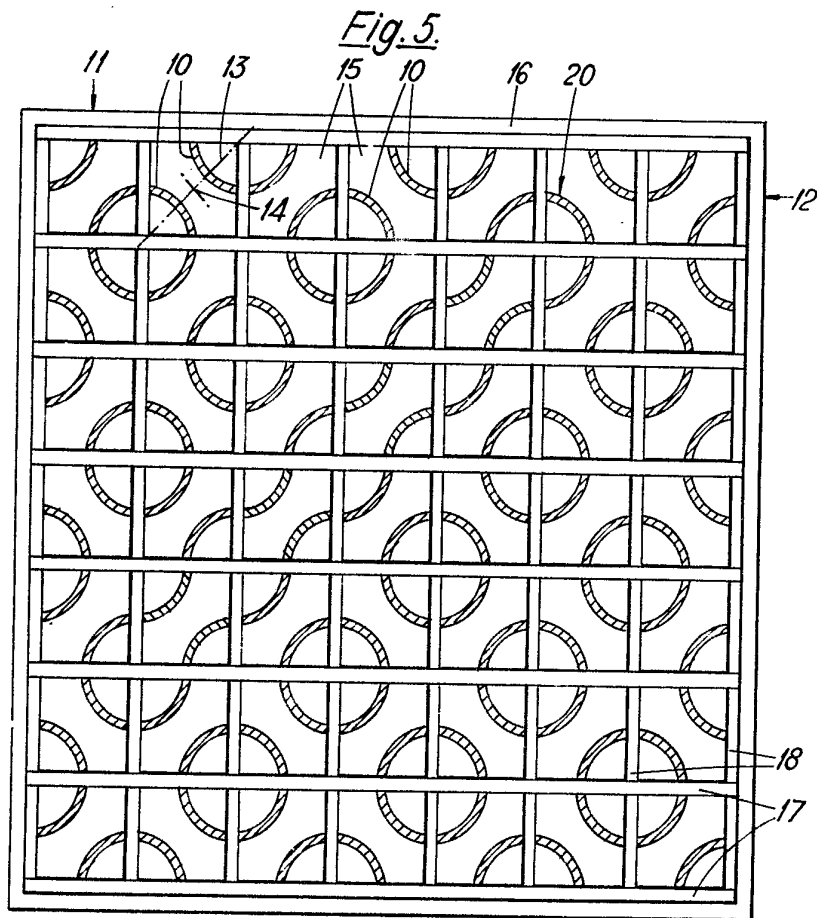
F. R. KELLY & CO.

BY: Merad Dunsela

27, Clyde Road, Dublin 4.

Agents for the Applicants.





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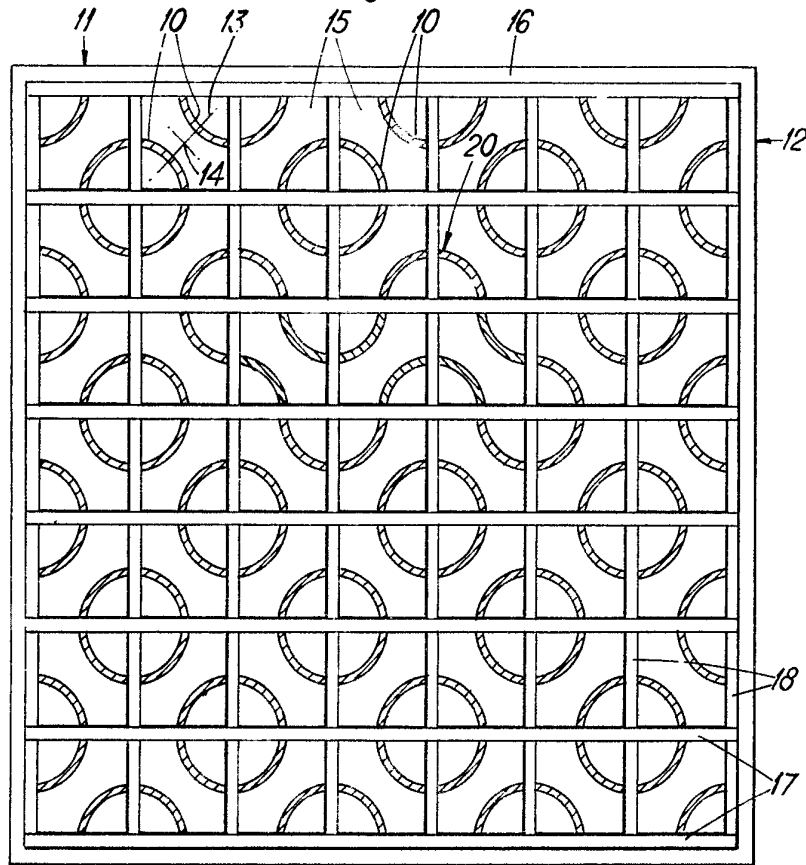
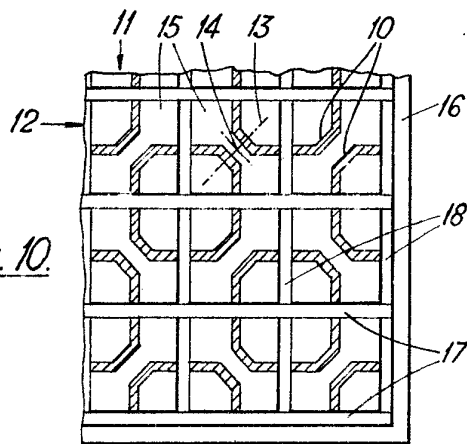
Fig. 6.*Fig. 10.*

Fig. 11.