

(No Model.)

S. C. ROWELL.
PUZZLE.

No. 606,030.

Patented June 21, 1898.

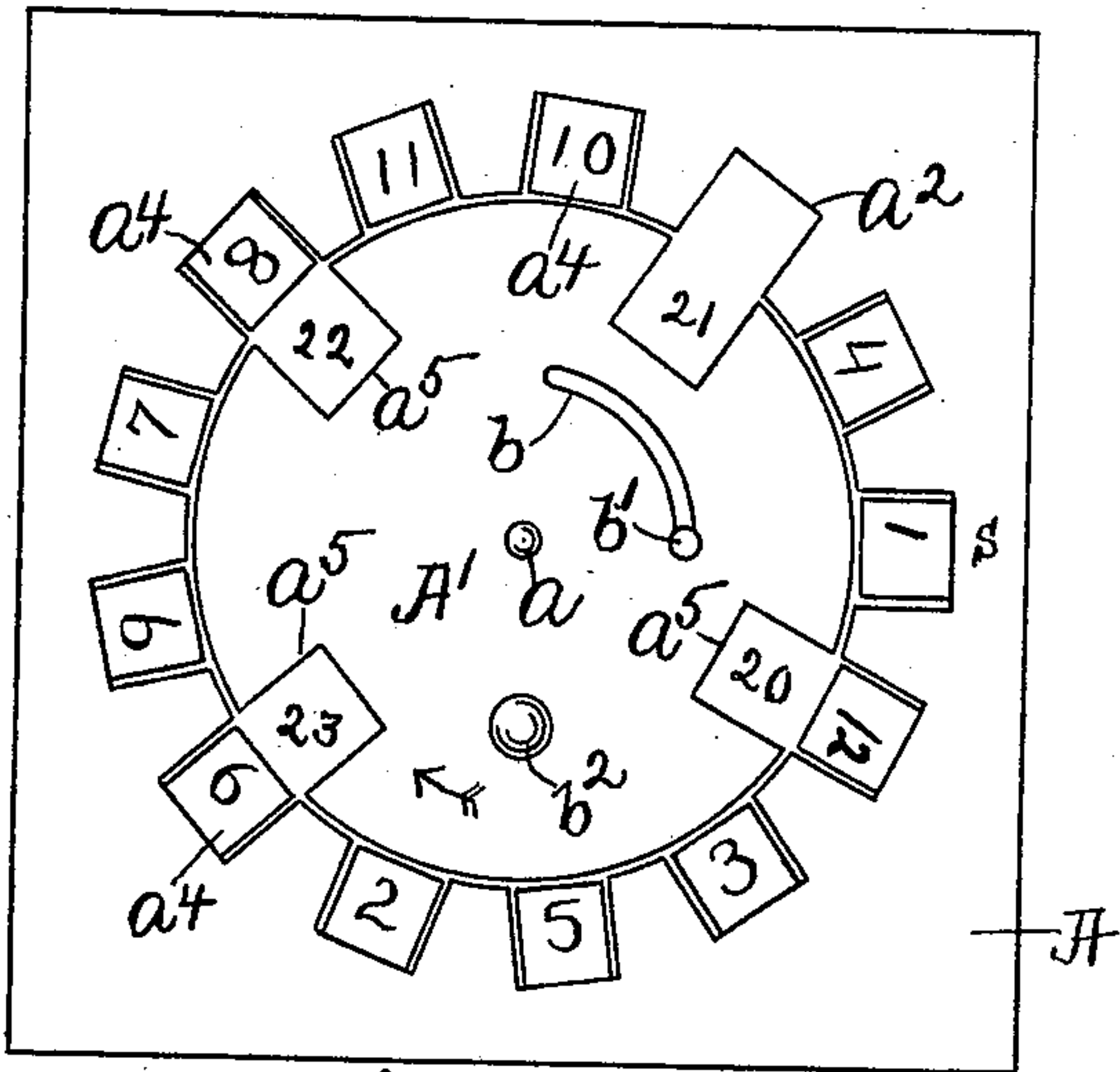


Fig. 1.

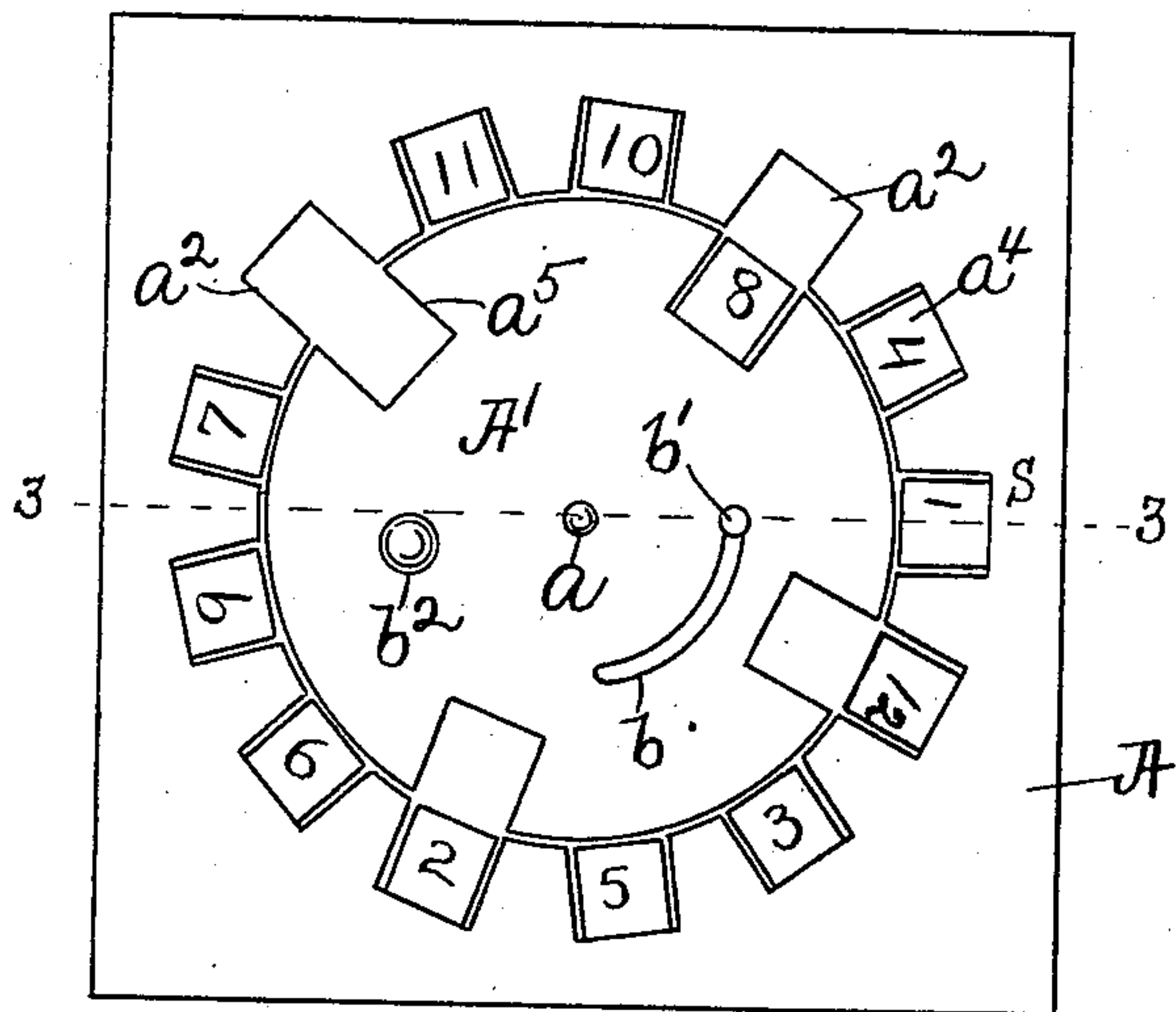


Fig. 2.

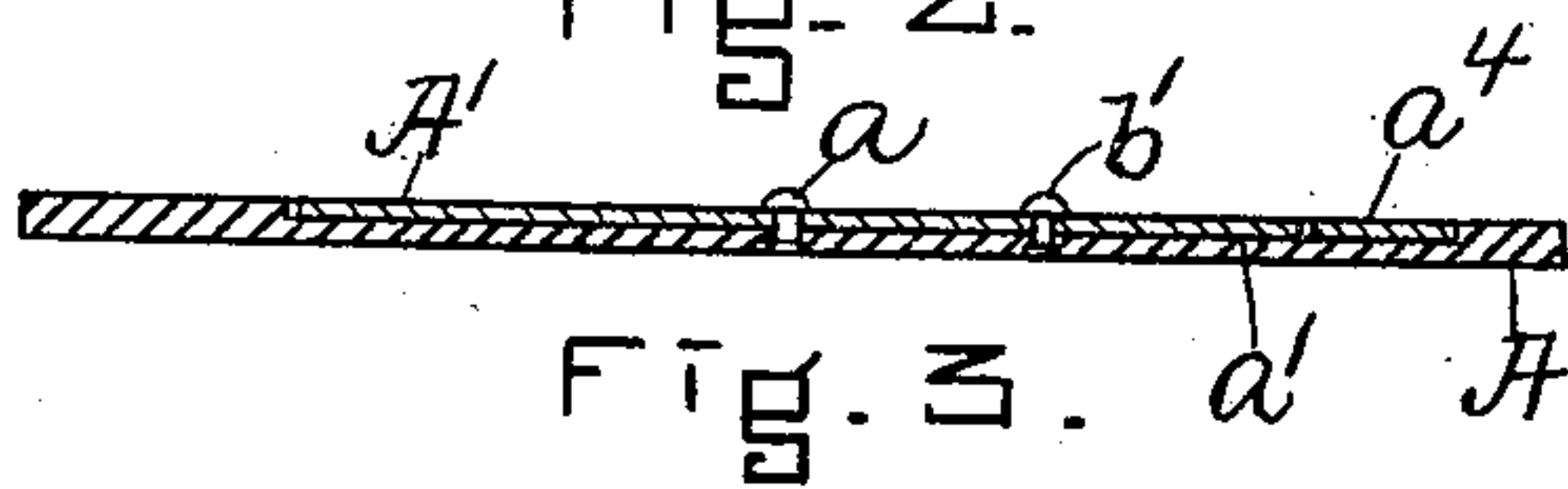


Fig. 3.

WITNESSES.

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SAMUEL C. ROWELL, OF BOSTON, MASSACHUSETTS.

PUZZLE.

SPECIFICATION forming part of Letters Patent No. 606,030, dated June 21, 1898.

Application filed May 18, 1897. Serial No. 637,050. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL C. ROWELL, of Boston, county of Suffolk, and State of Massachusetts, have invented an Improvement in Puzzles, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

This invention relates to a novel puzzle in which a series of pieces, numbered or otherwise distinguished, are to be arranged in sequence in a series of receptacles or pockets in a suitable base by means of a carrier having slots or receptacles which are adapted to be brought into line with the pockets in the base, as will be described. The pockets in the base are preferably arranged in a circle and are greater in number than the pieces, and the carrier is preferably made as a disk which revolves within the circle of pockets and is provided at its periphery with a plurality of slots less in number than the pockets in the base. The disk or carrier is given a limited movement, for a purpose as will be described.

Figure 1 is a plan view of a puzzle embodying this invention with the pieces in the pockets of the base; Fig. 2, a plan of the puzzle, showing one of the pieces in a slot in the carrier ready to be transferred; and Fig. 3, a section of the puzzle on the line 3-3, Fig. 2, looking toward the top of the sheet.

Referring to the drawings, A represents the base, and A' the carrier of the puzzle. The base A may be made of paper-board, wood, metal, or other suitable material, and the carrier A' may be of the same or a different material.

The carrier A' in the present instance is shown in the form of a disk suitably secured, as by a center pin or pivot a , in a circular depression, recess, or cavity a' in the upper face of the base A.

The base A at the circumference of the circular cavity a' is provided with a series of pockets or receptacles a^2 of suitable size and shape to receive pieces or parts a^4 to be moved. These parts or pieces a^4 are herein shown as substantially square in form and provided with numbers; but they may be of other forms and distinguished in other ways. In the present instance the base A is provided with thirteen pockets or receptacles a^2 and

twelve pieces or movable parts a^4 are employed, which are normally located in the pockets a^2 in an irregular or promiscuous manner. The object of the puzzle is to rearrange the movable pieces in the pockets a^2 in regular order or sequence by means of the carrier A', which is provided with receptacles or slots a^5 for the reception of the movable pieces or parts a^4 , but which slots are materially less than the number of pockets in the base, and the number of slots a^5 is a divisor of the number of pockets a^2 less one, and in the present instance the carrier A' is provided with four receptacles or slots. The carrier A' is given a limited movement, which may be effected, as herein shown, by means of a slot b in the carrier, through which a pin b' is extended into the base. The slots a^5 are made in the carrier at such distances apart that three of them will be equidistant apart and the fourth and first separated a greater distance, and by reference to Fig. 1 it will be seen that the slot a^5 numbered 20 is separated from the slot numbered 21 the same distance the slot 21 is separated from the slot 22 and 22 from 23; but it will be seen that 23 is separated a greater distance from the slot 20. The slot b is made of such a length as will enable the carrier A' to be moved substantially ninety degrees, so that each slot a^5 may register with four pockets, and as there are four slots in the carrier sixteen slots would be required in the base were it not that three of the pockets in the base are used twice to enable each slot a^5 to register with four pockets with only thirteen pockets in the base. It will be seen that by subtracting three from sixteen thirteen is left, which is the number of the pockets in the base. The manner in which each slot in the carrier coöperates may be represented numerically as follows:

1, 2, 3, 4.

4, 5, 6, 7.

7, 8, 9, 10.

10, 11, 12, 13.

The carrier A' may be moved by means of a suitable handle or thumb-piece b^2 or in any other suitable manner.

In operation the numbered parts or pieces a^4 are placed promiscuously in the pockets a^2 , and the pocket marked S in Figs. 1 and 2 may be regarded as the starting-point, in

which the part numbered 1 is to be placed and from which the other parts are to be arranged in sequence. In order to effect the rearrangement of the numbered parts, a numbered part in one of the pockets a^2 is moved into a slot a^5 in the carrier and transferred to the vacant pocket in the base, into which it is placed or moved. The carrier is then moved so as to bring its slots opposite other pockets in the base, and a new numbered part is transferred to the pocket in the base left vacant, as above described. By transferring and retransferring the numbered parts or pieces in the manner described the said parts or pieces may be properly arranged on the base.

By reference to Figs. 1 and 2 it will be seen that the part numbered 8 has been transferred from the pocket a^2 it occupied in Fig. 1 opposite to the pocket a^2 normally vacant, as shown in Fig. 2, into which pocket it is to be moved. I prefer to arrange the pockets a^2 in a circle and employ a circular carrier; but I do not desire to limit my invention in this respect, as the pockets might be arranged in a straight line and the carrier made to slide or reciprocate along the line of pockets, which would be the same as developing the circular arrangement of the pockets a^2 and the disk A'.

I have herein described the carrier A' as movable with relation to the base; but it is evident the base may be movable with relation to the carrier. Furthermore, I do not desire to limit my invention to the particular number of pockets a^2 and slots a^5 herein shown, as other numbers may be used, pro-

viding the number of pockets a^2 less one is divisible by the number of slots in the carrier.

I claim—

1. A puzzle consisting of a base provided with a series of pockets or receptacles, a plurality of distinguishable pieces or parts adapted to fit into said receptacles or pockets and less in number than said pockets, and a carrier provided with a number of slots which is a divisor of the number of pockets less one in the base and having a limited movement in opposite directions to permit each of its slots to register with only a portion of the pockets in the base, substantially as described.

2. A puzzle consisting of a base provided with a series of pockets arranged in a circle, movable parts or pieces adapted to fit into said receptacles, and less in number than the same, a disk or circular carrier pivoted to move within the circle of pockets and provided with slots at its circumference of a number which is a divisor of the number of pockets less one in the base, and means to limit the movement of the said disk in opposite directions to permit each of the slots in said disk to register with only a portion of the pockets in the base, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SAMUEL C. ROWELL.

Witnesses:

JAS. H. CHURCHILL,
J. MURPHY.