No. 860,887. PATENTED JULY 23, 1907.

J. B. SCHMALZ.

PUZZLE.

APPLICATION FILED FEB. 27, 1907.

FIG. 1.

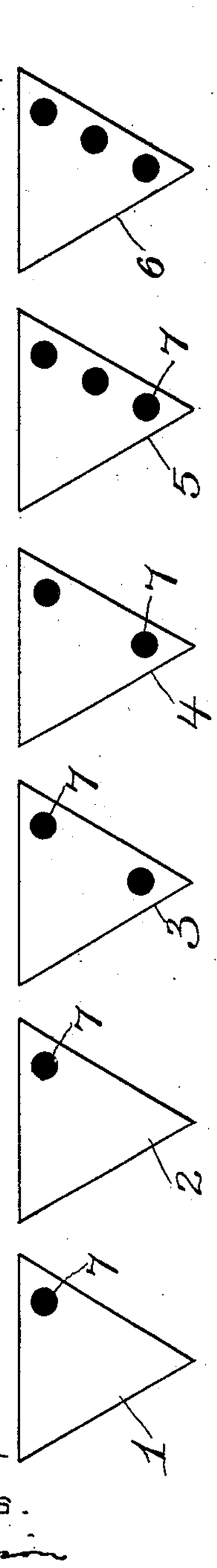


FIG. 3.

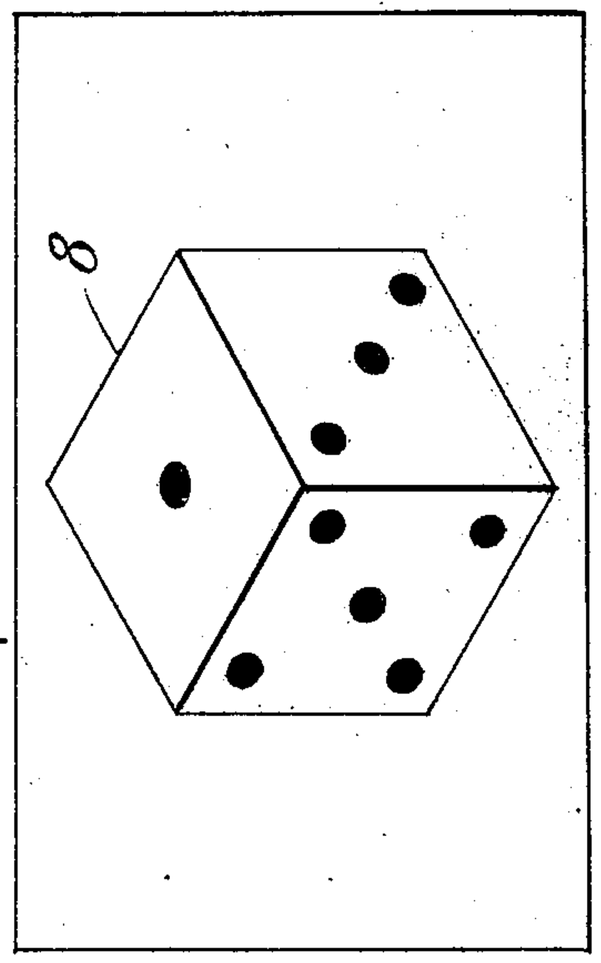
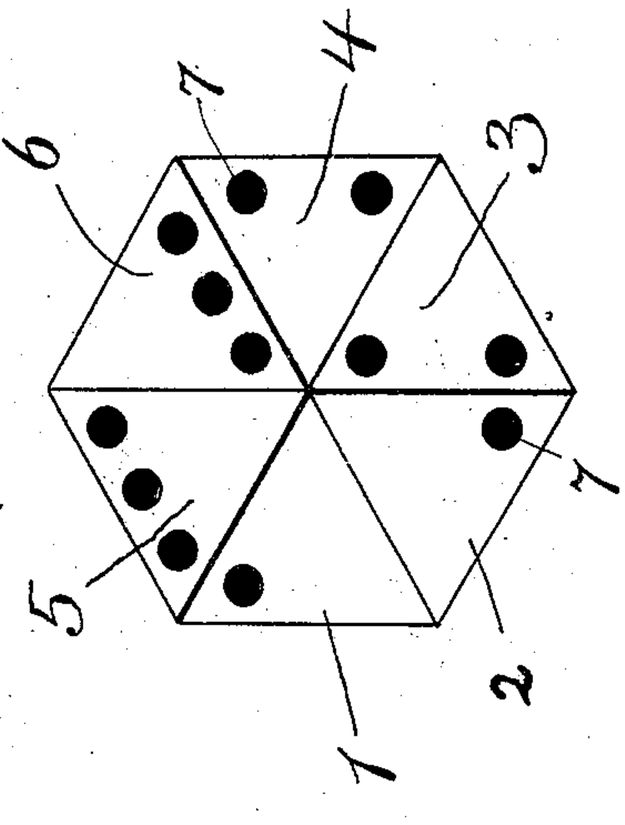


FIG. 2.



WITNESSES.

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INVENTOR.

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UNITED STATES PATENT OFFICE.

JOHN B. SCHMALZ, OF NEWTON, MASSACHUSETTS, ASSIGNOR TO DICE PUZZLE COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

PUZZLE.

No. 860,887. Specification of Letters Patent. Patented July 23, 1907.

Application filed February 27, 1907. Serial No. 359,579.

To all whom it may concern:

Be it known that I, JOHN B. SCHMALZ, of Newton, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Puzzles, of which the following is a specification.

This invention has for its object to provide a puzzle the solution of which demands a desirable degree of perseverance and investigation on the part of the person attempting it.

The puzzle is embodied in six flat-sided triangular sections, adapted to be assembled to form a hexagonal body, which represents an isometrical projection of a cubical gaming die (the word die as here used being the singular of dice). The said sections are distinctively marked with dots or equivalent marks, such as are commonly used on dice, the markings of the sections being such that when the sections are properly assembled they will present the markings which are to be seen on three contiguous sides of a gaming die when the die is in such position that three of its sides are exposed to the eye of the observer. With the sections I provide a picture representing a perspective view, showing the three sides of a die opposite those which are presented by the properly assembled sections.

As is well known, the spots on a gaming die are so arranged that the sum of the spots on any two opposite sides will be 7. The spots shown by the picture differ in number from any that can possibly be produced by any assemblage of the sections, so that the party solving the puzzle, after failing to reproduce the arrangement of spots shown by the picture, will be led to reflect and investigate until he finds that the solution of the puzzle is the arrangement of the sections in such manner that the spots of each of the three sides shown, when added to the spots on one of the sides shown in the picture, will produce 7.

Of the accompanying drawings, forming a part of this specification,—Figure 1 represents a view of the sections of my puzzle separated from each other. Fig. 2 represents a view showing the sections assembled in their intended relative positions. Fig. 3 represents the picture which is furnished with the puzzle.

The same letters of reference indicate the same parts in all the figures.

In carrying out my invention, I provide six triangular flat-sided pieces or sections 1, 2, 3, 4, 5, and 6, each being an equilateral triangle and all being of the same size. The sections are adapted to be assembled to form a hexagonal body, as shown in Fig. 2. The sections 1 2 are supposed to represent one of the sides of the cube, the sections 3 4 another side, and the sections 5 6 the third side, the cube being viewed so that three of its sides are visible. The sections are provided with spots or other suitable marks 7, which differ in number so that the sections are distinctively marked, as hereinafter explained.

8 represents a picture representing a perspective view or isometrical projection of a gaming die, the picture showing three sides of the die corresponding in shape to the sides formed by the sections, as shown in Fig. 2. In this example of the invention, one of the sides of the picture 8 shows one spot, another side three spots and the third side five spots. The party attempting to solve the puzzle being informed that the solution lies in forming a perfect die by assembling the sections, will naturally attempt to reproduce the arrangement of spots shown by the picture. The spots on the sections are so arranged, however, that this result will be impossible, the only way by which the sections can be assembled to form the representation of a perfect die, being to give each of the three faces a number of spots which, added to the spots on the corresponding face in the picture, will amount to seven; that is to say, the proper arrangement of the sections here shown is that represented in Fig. 2, where the sections 1 and 2, collectively, bear two dots, this number, added to the five dots shown on the corresponding side of the picture, amounting to seven. The same arrangement is carried out in each of the other two sides formed by the sections. The side formed by the sections 3 and 4 presenting four dots, added to the three on the corresponding side of the picture, equals seven, while the side formed by the sections 5 and 6 presents six dots, which added to the one dot shown on the corresponding side of the picture, amounts to seven.

The picture 8 may be printed on a card, and constitutes a part of the puzzle, which will be put up in a box or envelop with the triangular sections.

I claim:

1. A puzzle comprising six triangular sections adapted to be assembled to form a hexagonal body simulating an isometrical projection of a cube, said sections being distinctively marked so that when properly assembled they present the markings of three contiguous sides of a gaming die.

2. A puzzle consisting of six triangular sections adapted to be assembled to form a hexagonal body simulating an isometrical projection of a cube, said sections being distinctively marked, so that when properly assembled they present the markings of three contiguous sides of a gaming die, and a representation of three contiguous sides of a standard gaming die, said sides having markings which, in a complete standard die, are at the opposite sides of the die from those which are capable of being represented by a proper assemblage of the sections.

In testimony whereof I have affixed my signature, in presence of two witnesses.

JOHN B. SCHMALZ.

Witnesses:
P. W. PEZZETTI,
E. BATCHELDER.