

(No Model.)

A. NIGGEMANN.
GEOMETRICAL GAME OR PUZZLE.

No. 368,484.

Patented Aug. 16, 1887.

Fig 1.

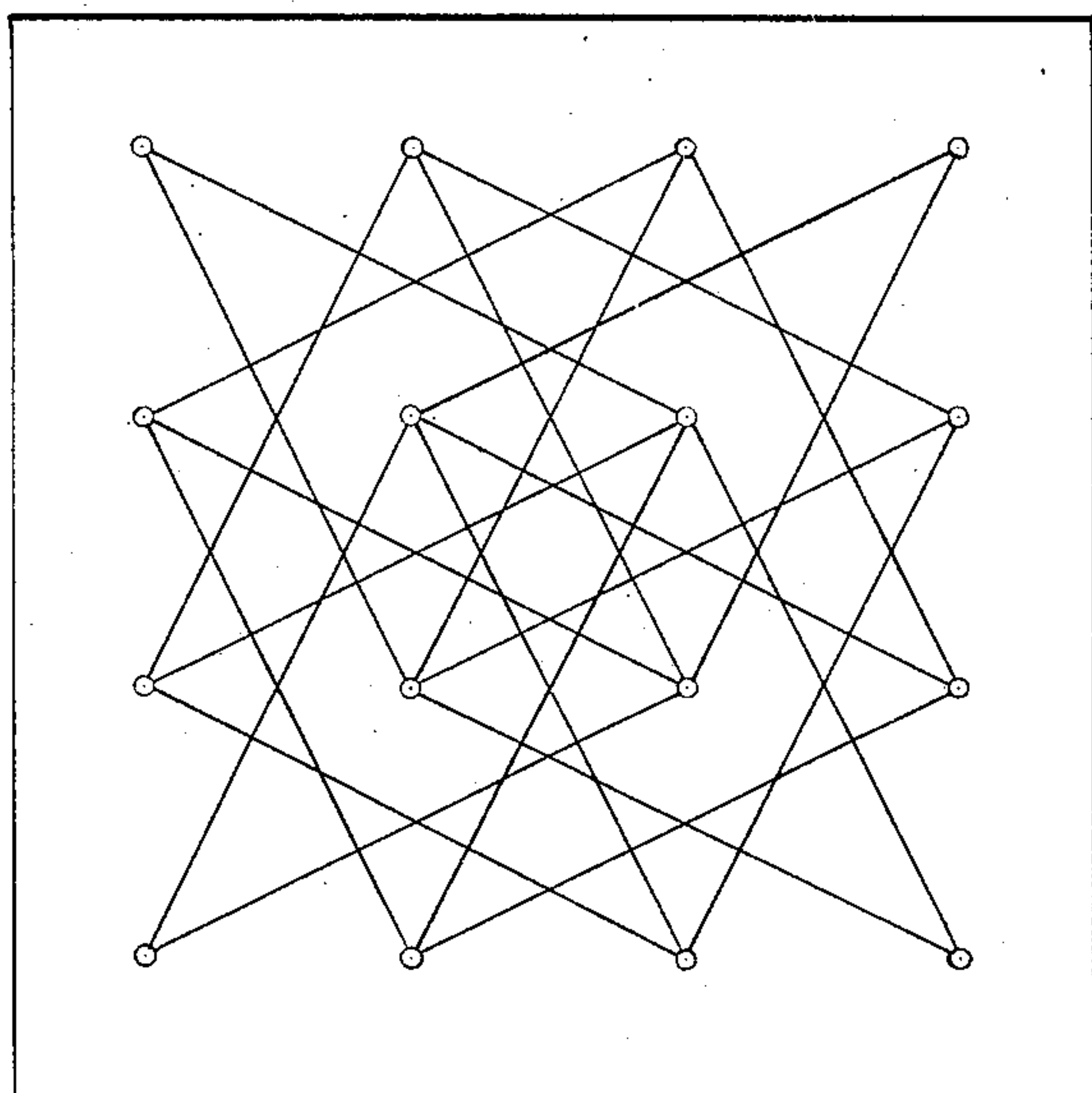
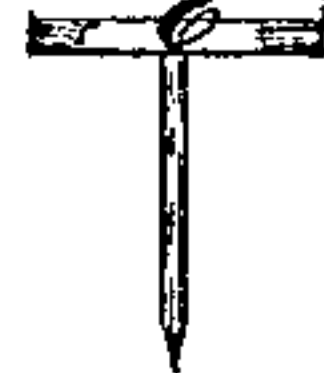


Fig 2



Fig 3



Witnesses.

John H. Fisse
Marcus H. Taft

Inventor.

Albert Niggemann
By Wm. E. Fisse
Attorney.

UNITED STATES PATENT OFFICE.

ALBERT NIGGEMANN, OF ST. LOUIS, MISSOURI.

GEOMETRICAL GAME OR PUZZLE.

SPECIFICATION forming part of Letters Patent No. 368,484, dated August 16, 1887.

Application filed May 14, 1887. Serial No. 238,265. (No model.)

To all whom it may concern:

Be it known that I, ALBERT NIGGEMANN, a citizen of the United States, residing at the city of St. Louis, in the State of Missouri, have invented a new and useful manufacture—to wit, a new Geometrical Game or Puzzle—of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

The invention is composed of the game-board shown in Figure 1 of the annexed drawings, and the “men” or pieces to be placed upon or moved thereon. These are shown in Figs. 2 and 3.

The game board, which may be of any suitable size or material, has printed, painted, or otherwise delineated upon its upper surface the diagram or design shown in Fig. 1 of the drawings. This diagram is formed by arranging sixteen points or dots in four parallel rows of four points each, and by connecting these points by means of straight lines in the manner hereinafter described. I prefer to so arrange the points or dots that the four rows will be parallel both horizontally and vertically; but it is not necessary that they should be so situated. All the points in the outer series of the horizontal and vertical rows, except the four points at the outer corners, are first connected so as to form an eight-pointed-star-shaped figure composed of two squares superimposed upon each other. The first of these squares is formed by connecting in the manner above described the following four points: the third in the first horizontal series, the second in the first or left-hand vertical series, the second in the lowest horizontal series, and the third in the fourth or right-hand vertical series. The second square is formed by connecting in the manner above described the following points: the second in the first horizontal series, the third in the first or left-hand vertical series, the third in the lowest horizontal series, and the second in the fourth or right-hand vertical series. The remaining eight points not included in the above squares are then connected by straight lines in such manner as to form a four-pointed star-shaped figure composed of two lozenge-shaped figures which are superimposed upon each other. The first of these lozenge figures is formed by

connecting in the manner described the two points situated at the upper left-hand corner and at the lower right-hand corner of the horizontal series of rows of dots, with two of the central points or dots situated within the above-mentioned squares, and the second is formed by connecting in like manner the remaining four points not included either in the squares or in the first-mentioned lozenge figure. The points at the angles of each square are then connected with the points situated in the obtuse angles of each lozenge figure by straight lines which are parallel with the lines of the other square. By means of these straight lines each one of the four points at the outer corners of the figure are connected with two other points in the series. The remaining eight points in the outer series of points or dots are each connected with three other points in the series, and the central dots are each one connected with four other points in the series. In the board there are small perforations at each one of these points or dots, to mark the places where the men are to be placed in playing the game and to receive and hold the men or pieces. These men or pieces are sixteen in number, and consist of small disks of wood or other suitable material, of any suitable and convenient shape and size, having inserted in the under surface a small pin or peg fitted to the perforations in the board. Fifteen of these men bear numbers printed, painted, or otherwise impressed on their upper surfaces, the notation beginning with the number 1 and ending with the number 15. The remaining one of the men is left plain on its upper surface, and is called the “blank.”

The method of using the invention at playing the game consists in moving the men upon the board according to certain arbitrary rules, and finally arranging either a portion or all of them upon the board in a certain order or succession. The manner of moving the men is to carry them from point to point along the straight lines connecting the points of the figure.

I suggest the following as interesting problems, out of a great many, which may be worked out or solved in this game:

First. Place fifteen men on the board (leaving off only the blank one) promiscuously and

without regard to any numerical order, thereby leaving one point vacant. Then, by shifting the men on the board in the manner and according to the rule above mentioned, arrange them on the board in regular numerical order, placing 1 in the upper left-hand corner.

Second. All the men being on the board, remove them from the board and replace them thereon in sixteen moves, beginning by placing any man or piece at any point in the diagram. Place the second at some of the other points connected with the point at which the first is situated by the straight lines, and in like manner placing succeeding ones at some one of the points in the figure connected with the point at which the last piece preceding was placed till all are on the board. No piece can be put in a place already occupied, nor at any point excepting one connected, as above, with the point at which the last preceding man put on the board was placed.

The diagram upon the game-board need not of necessity be constructed with simple lines, as shown in the drawings herewith and described above; but for these lines may be substituted bands of any convenient width, according to the size of the board. In such case blocks of wood of any suitable size, square or round, or of any other suitable shape, would be substituted for the men above described; and, instead of perforations at the points and angles of the diagram, spots could be printed of convenient size and suitable shape, and the blocks could be moved along the bands from spot to spot according to the rules laid down above. Or still another method of manufacture would be to substitute depressions in the surface of the board, instead of the perforations of circular or oval shape, and connecting them by grooved

straight passages, when globular substances bearing the same notation as above described might be used in place of the men or pieces herein first described. Other methods of manufacture will also suggest themselves to any one who becomes familiar with the board and diagram as herein first described.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The game-board above described, made of wood or any suitable material in any convenient shape and size, having delineated on its upper surface the diagram above described, formed by placing sixteen points in four parallel rows and connecting these points by straight lines, substantially in the manner above described, said board having sixteen perforations in its surface at points coincident with the points which form the basis of the above diagram.

2. A game-board made of wood or any suitable material in any convenient shape and size, having delineated on its upper surface the diagram above described, formed by arranging sixteen points in four parallel rows of four points each, and connecting these points by straight lines, substantially as above described, with perforations in the surface of the board at points coincident with the points forming the basis of the diagram, combined with the movable disks above described, the same being provided with distinguishable numbers or characters, and having stems or pins fitting said perforations in the board, substantially as set forth.

ALBERT NIGGEMANN.

Witnesses:

JACOB KLEIN,
SAMUEL KNOX, Jr.