

No. 750,954.

PATENTED FEB. 2, 1904.

W. J. ELLIS.
FLOOR TILING.

APPLICATION FILED MAY 13, 1903.

NO MODEL.

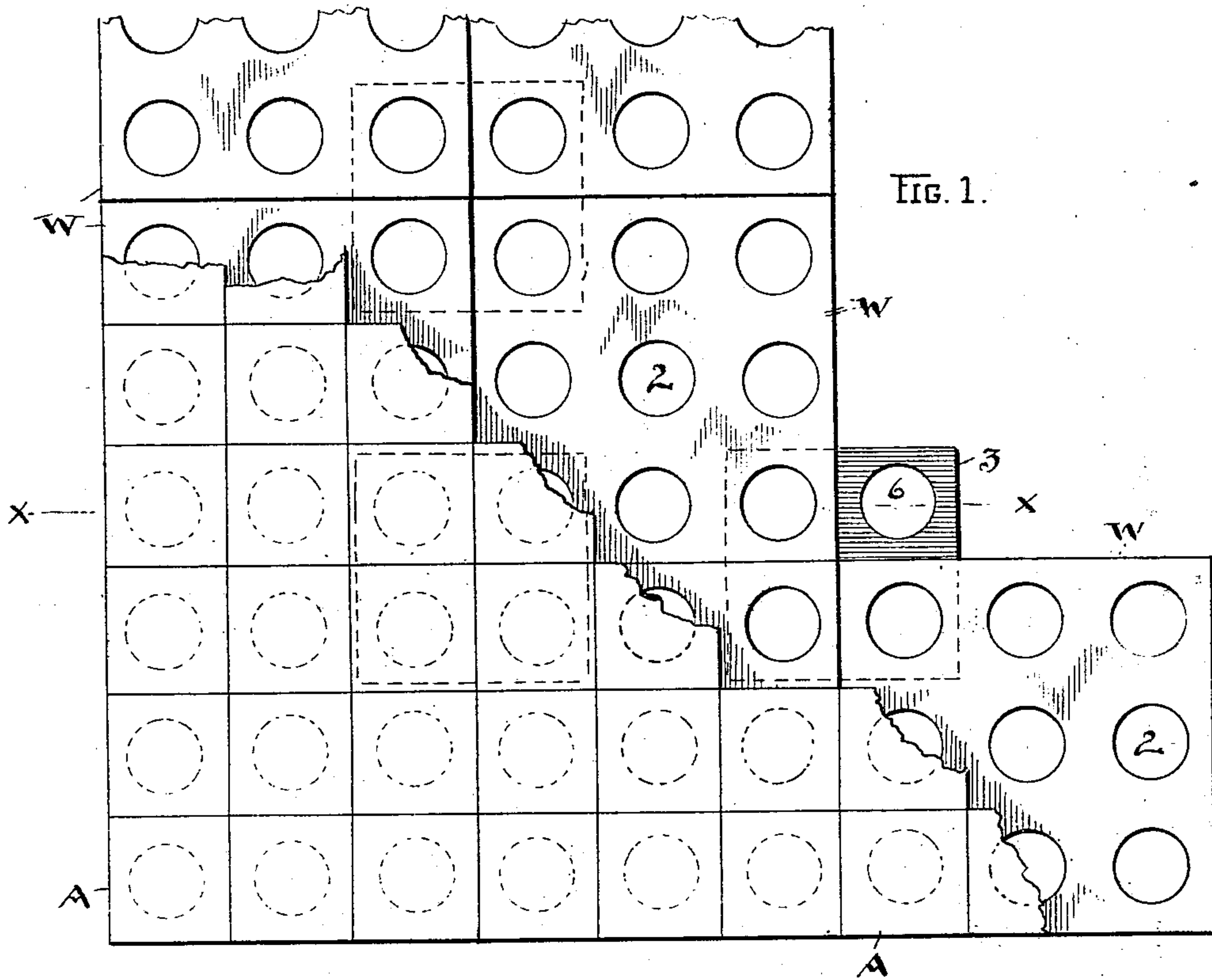


FIG. 1.

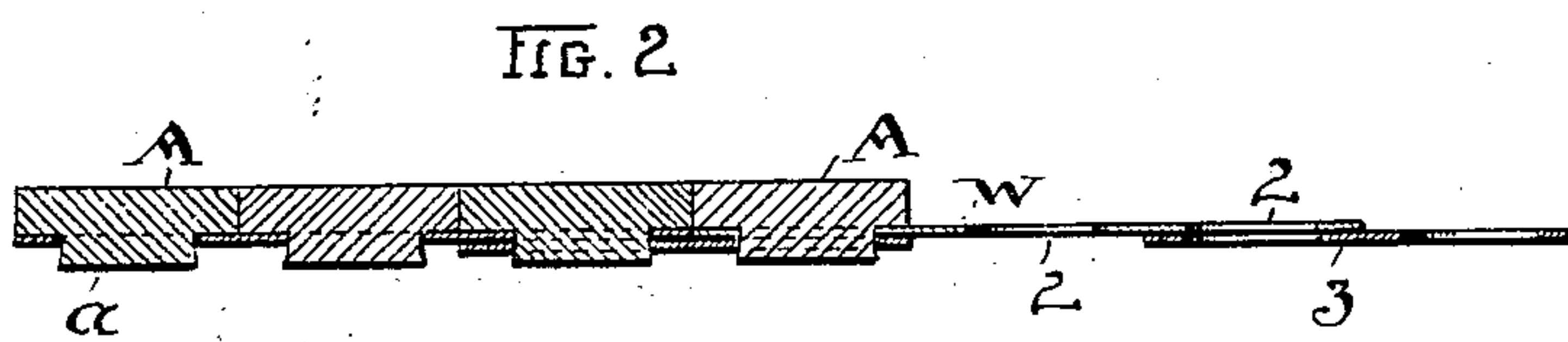


FIG. 2.

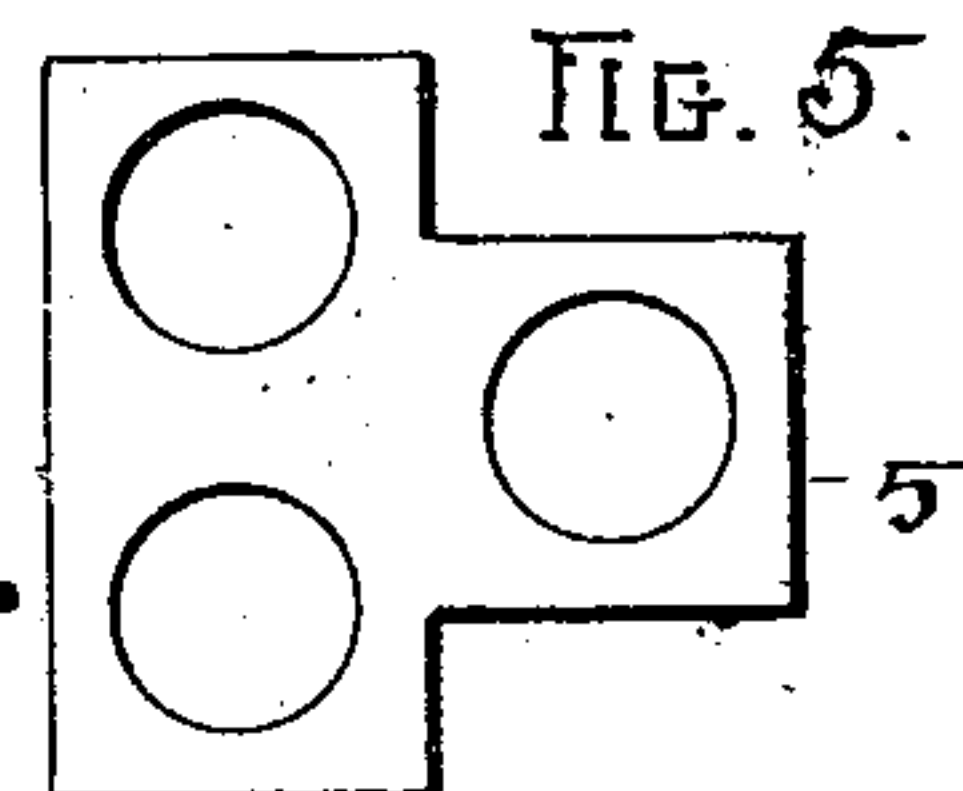


FIG. 5.

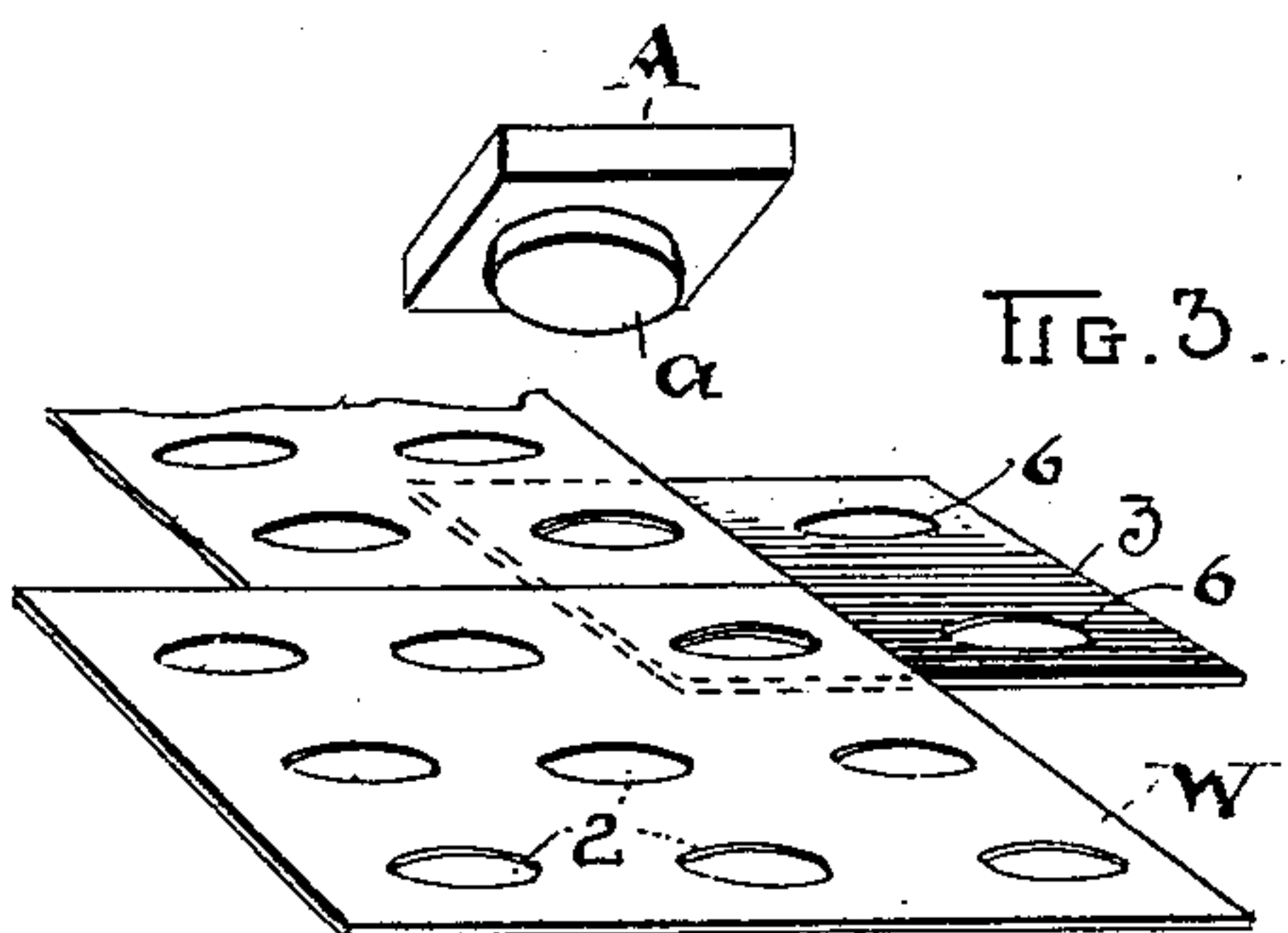


FIG. 3.

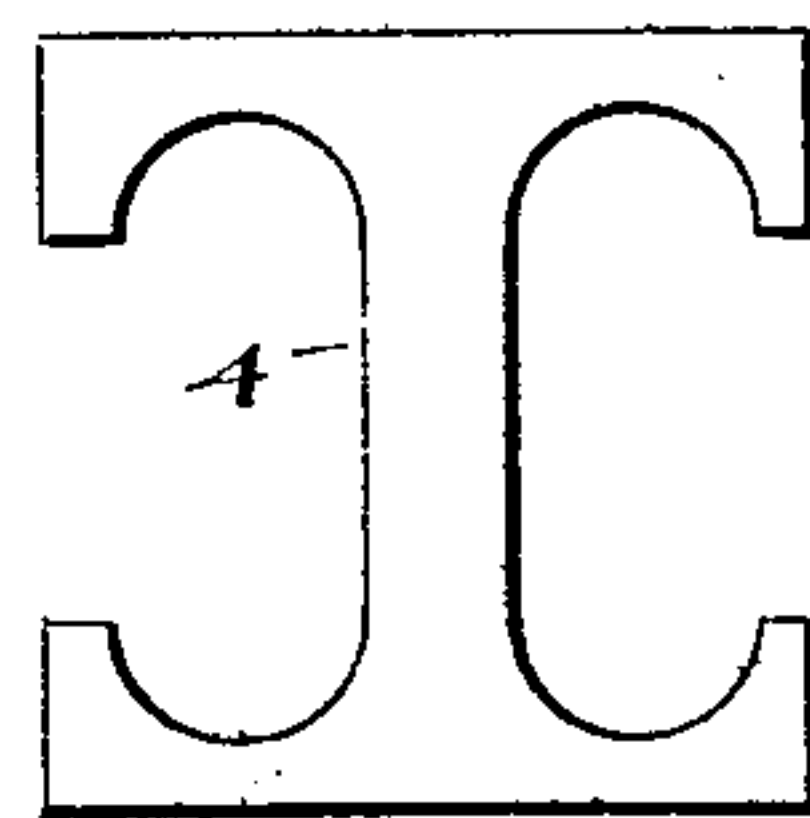


FIG. 4.

ATTEST.

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ATTY

UNITED STATES PATENT OFFICE.

WILLIAM J. ELLIS, OF AKRON, OHIO.

FLOOR-TILING.

SPECIFICATION forming part of Letters Patent No. 750,954, dated February 2, 1904.

Application filed May 13, 1903. Serial No. 156,949. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. ELLIS, a citizen of the United States, residing at Akron, in the county of Summit and State of Ohio, have
5 invented certain new and useful Improvements in Floor-Tiling; and I do declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and
10 use the same.

My invention relates to floor-tiling; and the object of the invention is to provide a removable and interchangeable tiling for floors which has various desirable capabilities and
15 advantages, such as forming a complete and continuous covering as far as it goes, like a rug, mat, or carpet; which is comparatively flexible and yielding to the foot and soft enough to be noiseless; which is made up in
20 sections or blocks that may be added to or taken from, so that an entire floor of any size may be covered or only a small space; in which all the constituent surface parts are separate and separable, whereby any one part or so-
25 called "stud" can be removed and substituted by another, and, finally, in which the webbing or element which constitutes the binder for the studs in their subdivisions or sections is supplemented by a tie or connection adapted
30 to bring all the sections thus laid into unitary relation and arrangement, substantially as shown and described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is
35 a plan view of a series of tiling-sections connected and constructed in accordance with my invention. Fig. 2 is a cross-section thereof on a line corresponding to $x x$, Fig. 1. Fig. 3 is a perspective view of a couple of sections
40 or pieces of webbing and a single corner-connecting plate or tie in working relation thereto with a stud apart therefrom and disclosing a bottom view thereof. Figs. 4 and 5 show modifications of the corner-connecting
45 plates or ties seen in Figs. 1 and 2.

As thus shown, A represents the so-called "studs," a name by which these parts are commonly known and which in this instance are made of rubber and square and flat top
50 and bottom and provided at their centers

with lugs or shanks a , preferably circular and likewise flat on their bottom to rest directly upon a floor and through which the entire structure is supported. Obviously, also, any other shape than a perfectly square one may
55 be adopted for the stud, if preferred, provided that the same advantages of construction be obtained or preserved as in the present construction. Among these are close-fitting lugs at all their edges, so as to get the effect of a practically continuous one-piece covering and also the facility for adding to and
60 taking from the covering one or more sections or series of sections and leaving a finished structure in which there are no ragged edges in the webbing.

W represents the webbing by which the studs are connected or bound together in sections or blocks, as shown herein, but which sections may be larger or smaller and of varying shapes. For example, the tiling might
70 be laid in sectional strips comprising a single line of studs in each strip or there might be blocks or sections of varying sizes, according to the space to be covered. The webbing is shown here as a plain sheet of thin metal having holes 2 adapted to receive the lugs a of the studs and tie said studs together in sections or blocks.

Preferably I form the lugs a with a slight inward taper, so that they are smallest at the immediate bottom of the stud and the effect of which is to cause the webbing to work upward in respect to the stud rather than downward and hold it against the under side of the studs. This affords support for the stud about
85 its edge outside lug a and gives a surface which is uniform and even to the touch as one walks over it instead of making the floor uneven and disagreeable to walk upon, as would occur if the sides of the studs sagged under the foot—that is, if the outer portion of the stud did not have a bottom support at least substantially as firm as its middle. The said webbing is shown and described as of sheet
90 metal, which is its preferable form at present; but a webbing of woven wire or the like would be its equivalent, especially since the office of the said webbing is mainly to enable one to handle the studs in sections when a floor is be-
100

ing laid and to keep said studs in their places relatively to one another and to the adjacent sections and hold up the edges of the studs under weight of a person walking over or upon the same; but I find it advantageous also to tie the several sections or blocks of tiling thus made up together here and there, so that at last all said sections become as one floor-covering. For this purpose I use the tie-plate 3 shown in Figs. 1 and 3 or the ties 4 and 5, according to the place and kind of use.

Plate 3 is square with four holes 6 matching holes 2 in size and location and adapted to fit over or upon lugs *a*, as seen in Fig. 2, and they may be beneath or over plate W.

Plate or tie 4 has four circular hooks in lieu of holes and may be substituted for plate 3, and tie 5 serves for connecting two sections at their corners with a straight opposite edge and in which the holes are not in alinement with those of the sections tied thereto.

By my invention I can work out various fanciful designs in shapes and colors, if preferred, and there are large possibilities for taste and originality in this direction.

The studs in each section may have various shapes other than square, and each section may form a part or block in a harmonious floor design comprising part or all of the sections.

As shown herein, the outer edges of all the studs are flush with the edges of the webbing or plate; but their design may be such as to lap more or less over upon the adjacent plate or webbing. In any event, however, the edges of the webbing are straight or uniform, so as to come snugly together.

The rubber is soft or yielding enough to enter lugs *a* through holes 2 by such compression thereof as may be needed; but the said lugs need not be tapered at all to serve my purpose very well.

What I claim is—

1. In floor-tiling, a tiling consisting of a

series of studs constructed to form a close and continuous floor-covering and provided each with a lug on its bottom, and a webbing through which said lugs are inserted and serving to unite said studs into a single section or block of floor-covering, the outer edges of said webbing being straight, substantially as described.

2. A floor-tiling consisting of a series of flat-surfaced studs matching at their edges and provided with lugs centrally on their bottom, and a flat webbing having openings through which said lugs are inserted, and the said webbing resting against the bottom of said studs about the base of said lugs, and the lugs extending through beneath the webbing, substantially as described.

3. The floor-covering, comprising studs with flat top and bottom surfaces and having lugs with flat bottoms to rest upon, a webbing supported on said lugs against the bottom of the studs having the lugs extending through the same to provide supports for the covering, substantially as described.

4. The floor-covering substantially as described, comprising a series of separate sections consisting of studs and webbing uniting the studs and the webbing of said sections having straight edges, in combination with removable ties binding said sections together, thereby forming a continuous and unitary covering, substantially as described.

5. In floor-coverings, a series of separate sections having separate studs and a webbing in which said studs are inserted from the top, in combination with ties uniting said sections, the said studs having lugs projecting through said webbing and ties, substantially as described.

Witness my hand to the foregoing specification this 1st day of May, 1903.

WILLIAM J. ELLIS.

Witnesses:

R. B. MOSER,
R. ZBORINK.