

No. 698,031.

Patented Apr. 22, 1902.

B. P. LESLIE.

TILE.

(Application filed Nov. 25, 1901.)

(No Model.)

Fig. 1.

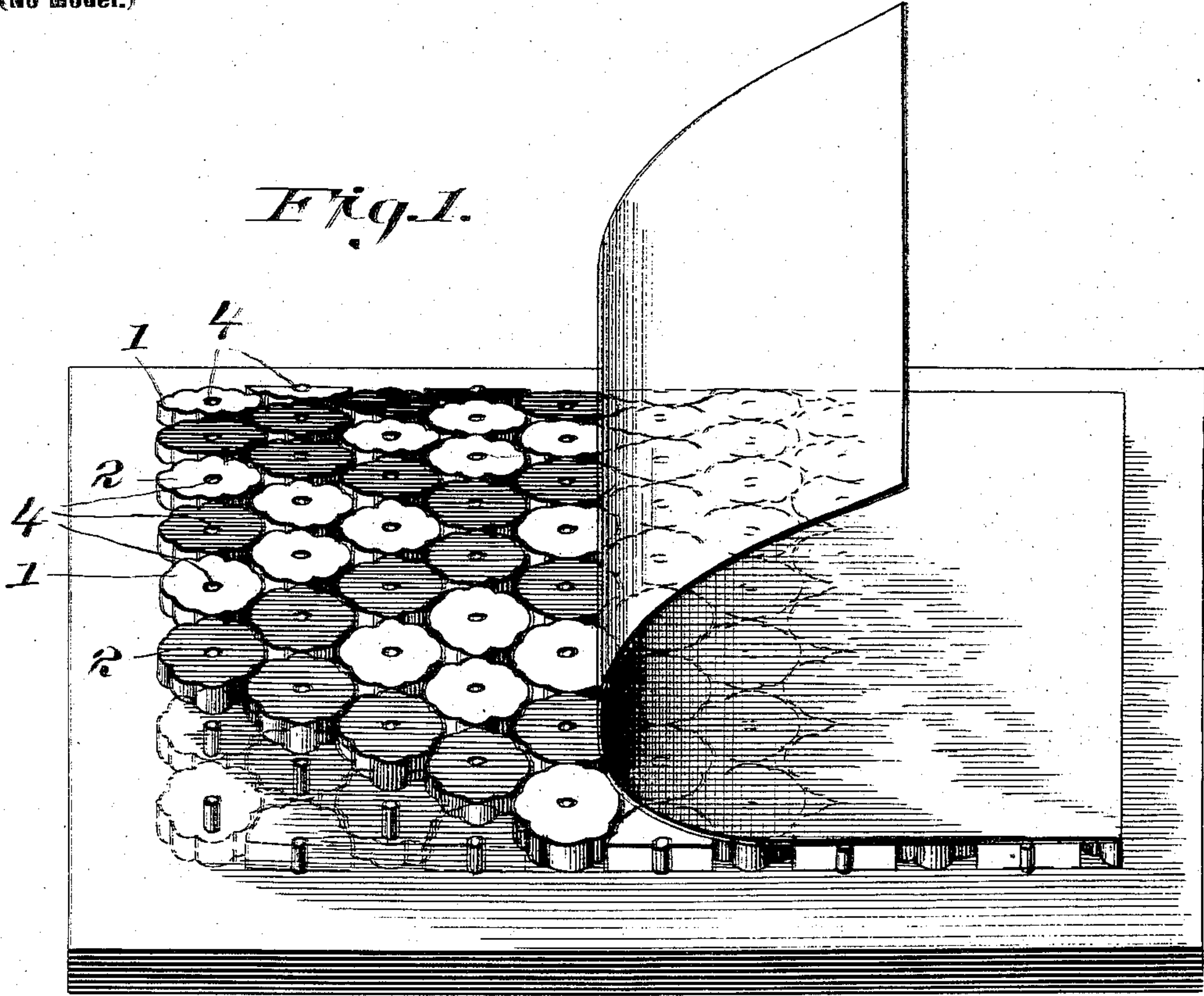


Fig. 2.

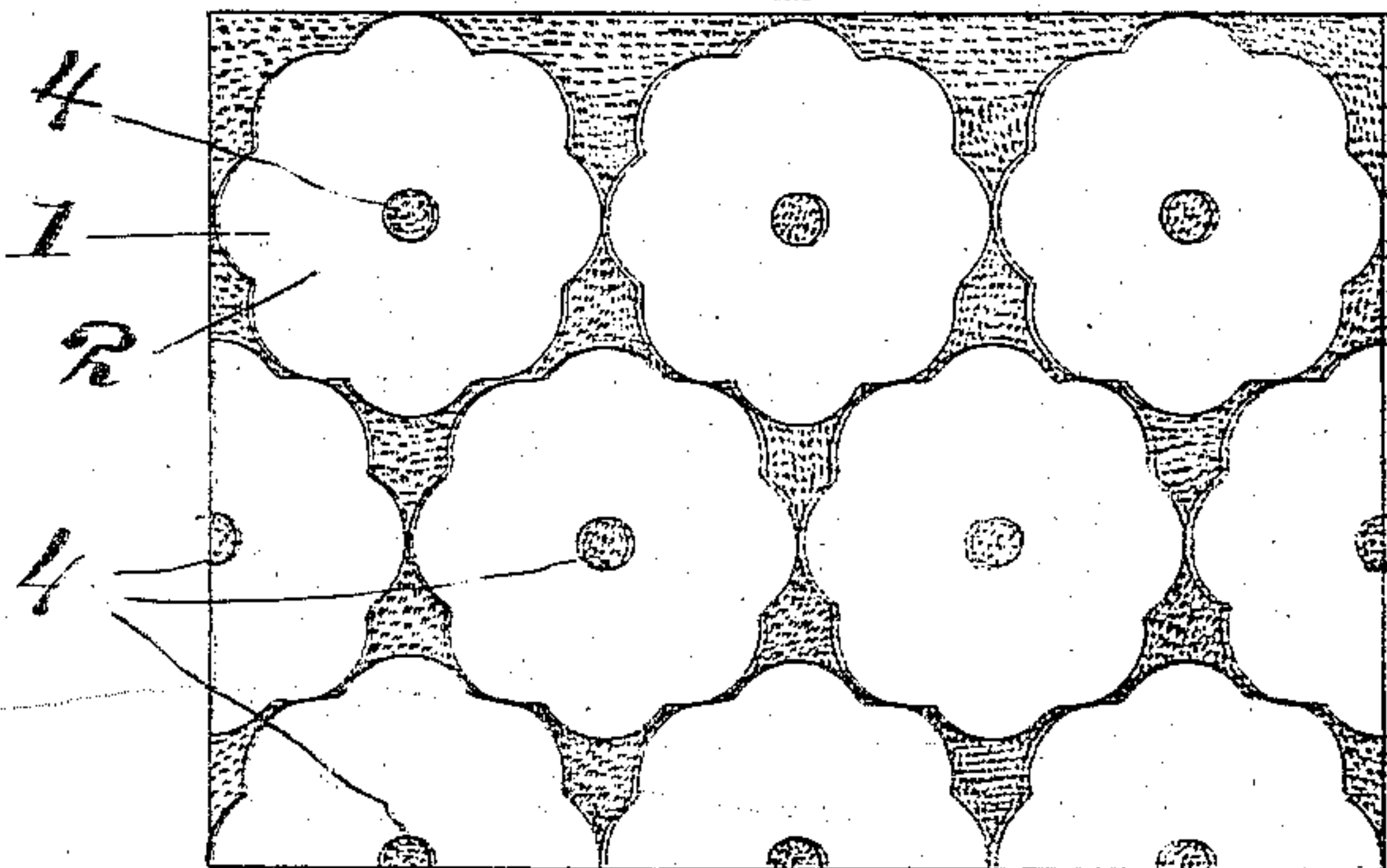
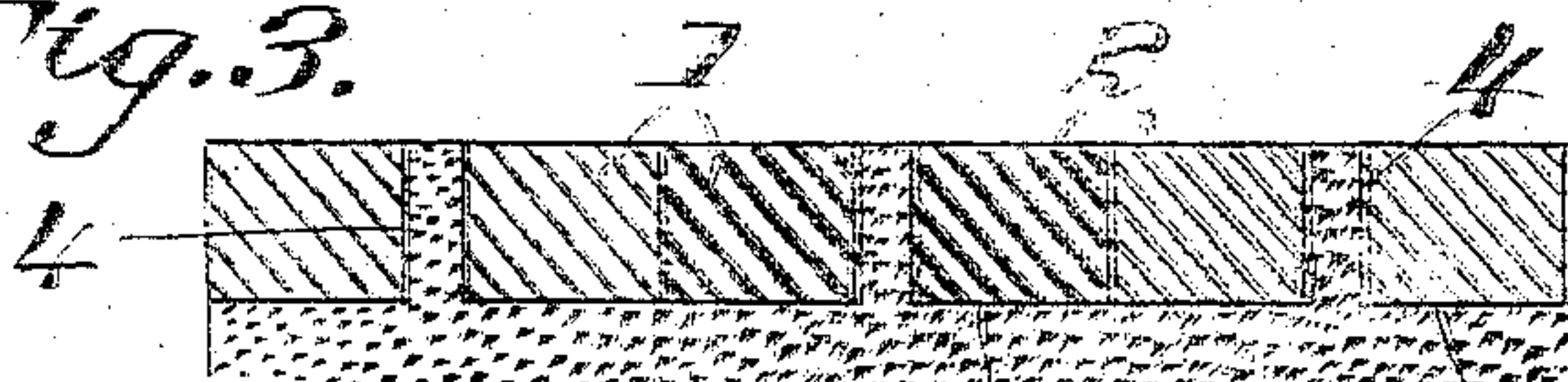


Fig. 3.



WITNESSES:

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Fig. 4.

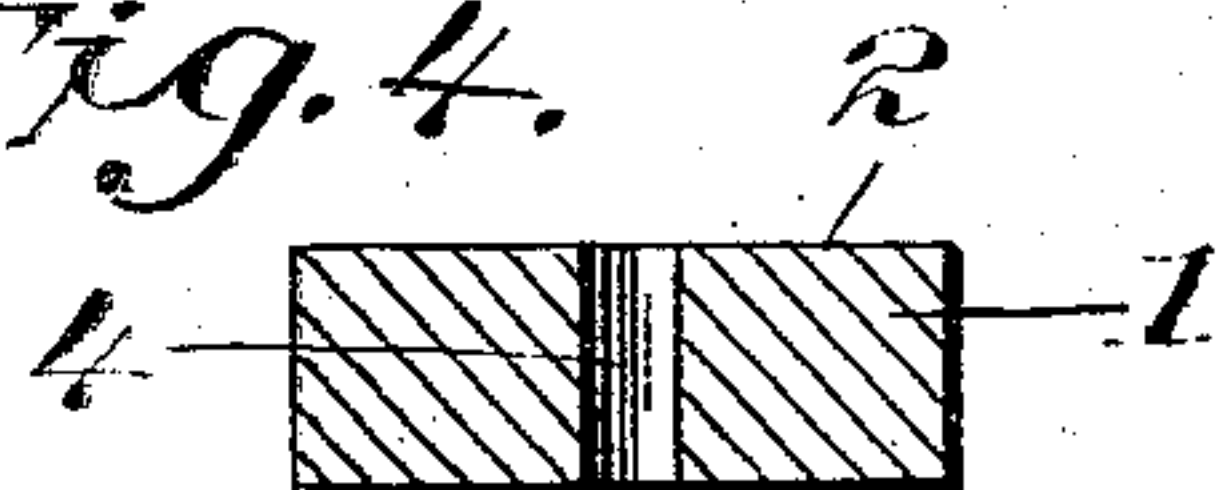


Fig. 5.

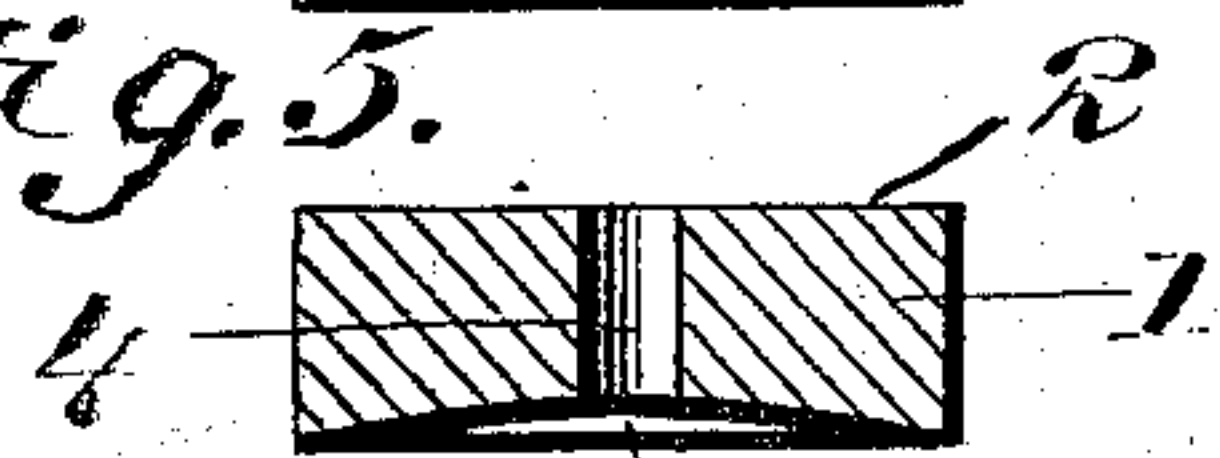


Fig. 6.

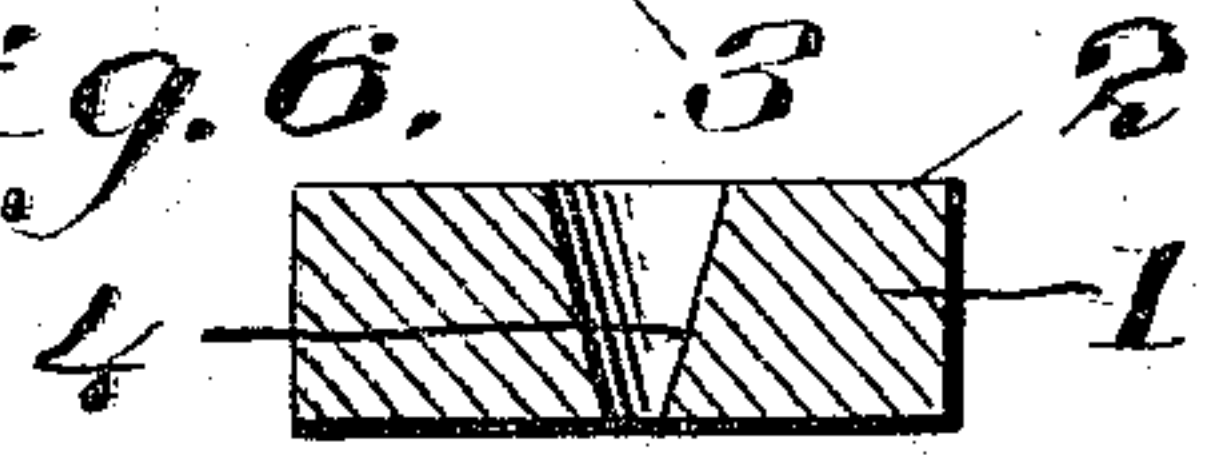
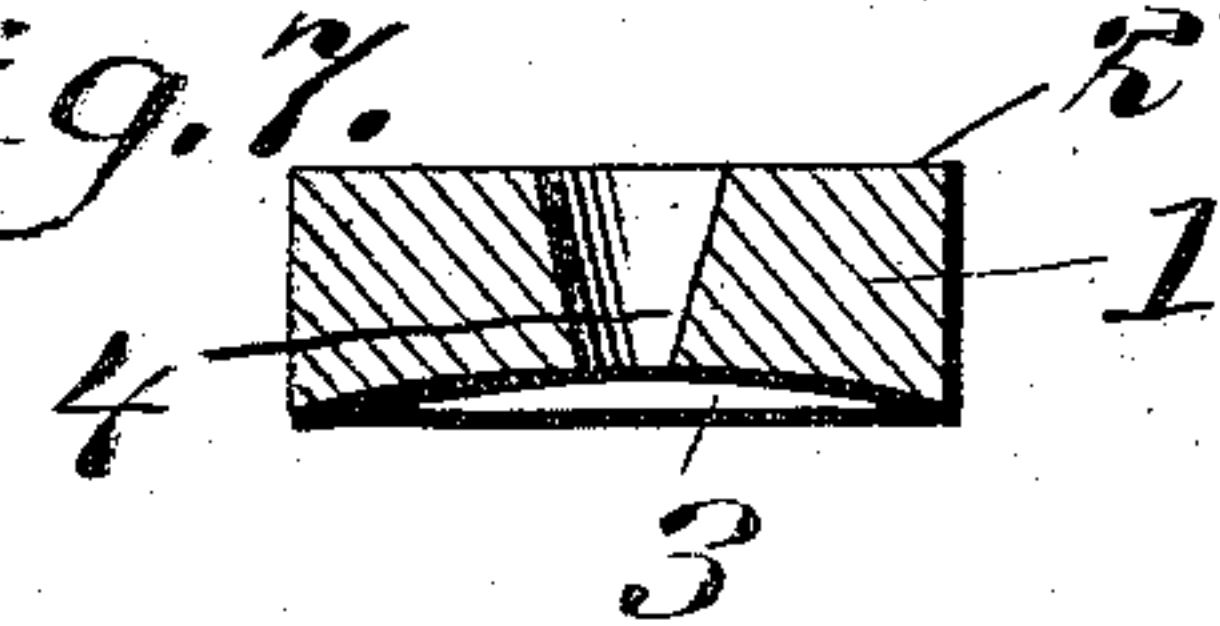


Fig. 7.



INVENTOR

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# UNITED STATES PATENT OFFICE.

BENJAMIN PIERSON LESLIE, OF BROOKLYN, NEW YORK, ASSIGNOR TO THE  
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## TILE.

SPECIFICATION forming part of Letters Patent No. 698,031, dated April 22, 1902.

Application filed November 25, 1901. Serial No. 83,672. (No model.)

*To all whom it may concern:*

Be it known that I, BENJAMIN PIERSON LESLIE, a citizen of the United States of America, and a resident of the borough of Brooklyn, county of Kings, city and State of New York, have invented certain new and useful Improvements in Tiles, of which the following is a specification.

My invention relates generally to tiles for floors, walls, ceilings, fireplaces, &c., and is specifically designed to produce an improved form thereof which when set by being embedded in a layer of cement will be separately and individually keyed in position as the cement hardens.

The preferred forms of tile embodying my invention are illustrated in the accompanying sheet of drawings, throughout the several views of which like numerals of reference indicate corresponding parts.

In the drawings, Figure 1 is a view in perspective, illustrating the method of assembling the tiles to form a suitable design and for securing the same temporarily as assembled. Fig. 2 is a plan view showing a finished section of a tiled surface. Fig. 3 is an edge view of the same. Fig. 4 is a detail central sectional view of my improved form of tile. Fig. 5 is a similar view of a modification. Fig. 6 is a similar view of a second modification, and Fig. 7 is a similar view of a third modification.

In the drawings, 1 1, &c., represent the tiles, which may be of polygonal or curved outline, but, as shown, are preferably in the form of a disk provided peripherally with a series of scallops uniting to form its circular outline. Instead of the scalloped edging the same may be fluted or formed by regular or irregular corrugations, &c., or the ornamental form may be entirely dispensed with and a plain circular or other outline employed; but for practical purposes a corrugated or equivalent form of edging is preferred, as it increases the surface area in contact with the cement foundation.

The upper side or face 2 of the tile is flat; but the lower side 3 may be concave or hol-

lowed out, as shown in Figs. 5 and 7, to further enlarge the surface area, and thereby increase the bond with the cement.

At a suitable point in each tile, preferably at or near the center thereof, a through-opening 4 is formed and may be of uniform or varying diameter. The form of the opening is unimportant, it being essential only that it shall extend entirely through the body of the tile in order to afford free entrance for the cement, as the tile is embedded in the same, and for the purpose also of enabling the workman in pointing up or grouting to include these openings at the same time and by packing them solidly with cement to thereby connect and key each tile to the foundation and also provide additional foothold to prevent slipping on the finished surface.

As a preliminary step in the operation it is customary to assemble the tiles according to a certain design or plan and after dividing the same into sections of suitable size to secure the tiles forming each section to a sheet of paper coated with adhesive substance. Considerable difficulty is encountered in arranging circular tiles, owing to their tendency to get out of alinement, &c., and it frequently happens that a number of tiles become displaced and are out of position when pasted on the paper, &c.

As illustrated in Fig. 1 of the drawings, the open-center tile avoids the objections above noted by enabling the same in the preliminary assembling to be set on equispaced pins projecting from a board or table, which at once insures proper alinement, position, &c., and owing to the fact that each tile is individually held on a pin all danger of displacing one or more tiles when pasting the paper on the same is avoided.

In setting a section of open-center tiling it is placed with the disks downward upon a layer or foundation of cement or other material, and after the paper is removed from the upper surface of the tiles the latter are pressed downward and embedded in the cement which enters and fills more or less completely the joints between the tiles and also the central



openings thereof, as indicated in Figs. 2 and 3. The adjoining sections of tiling are set in a similar manner, and when completed the joints are closed by a process known as "grouting," which consists in applying a solution of cement to the tiled surface and working it in around the tiles and into the central openings thereof until these spaces are solidly filled. The advantages of the invention will be apparent from the foregoing description.

It will be understood that I do not wish to limit myself to the forms of tile herein shown and described, as various changes might be made therein without departing from the spirit and scope of my invention. Tiles having different outlines might be employed, and the same might be solid, hollow, or undercut, &c. The edging might be made up of curved or plain surfaces, &c.; but all such changes I consider obvious and immaterial variations of form and not of substance and still within the meaning of the present inven-

tion, the essential feature of which consists in the opening through the body of the tile.

Having therefore described my invention, I claim—

1. An open-center tile having a concaved under surface.

2. An open-center tile provided with a corrugated periphery.

3. A tile cut away centrally to form an opening of varying diameter and having a concaved under surface.

4. A tile cut away centrally to form a through-opening and provided with a corrugated periphery, the under surface of said tile being concave.

Signed at New York, N. Y., this 15th day of November, 1901.

BENJAMIN PIERSON LESLIE.

Witnesses:

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R. GERBRACHT, Jr.