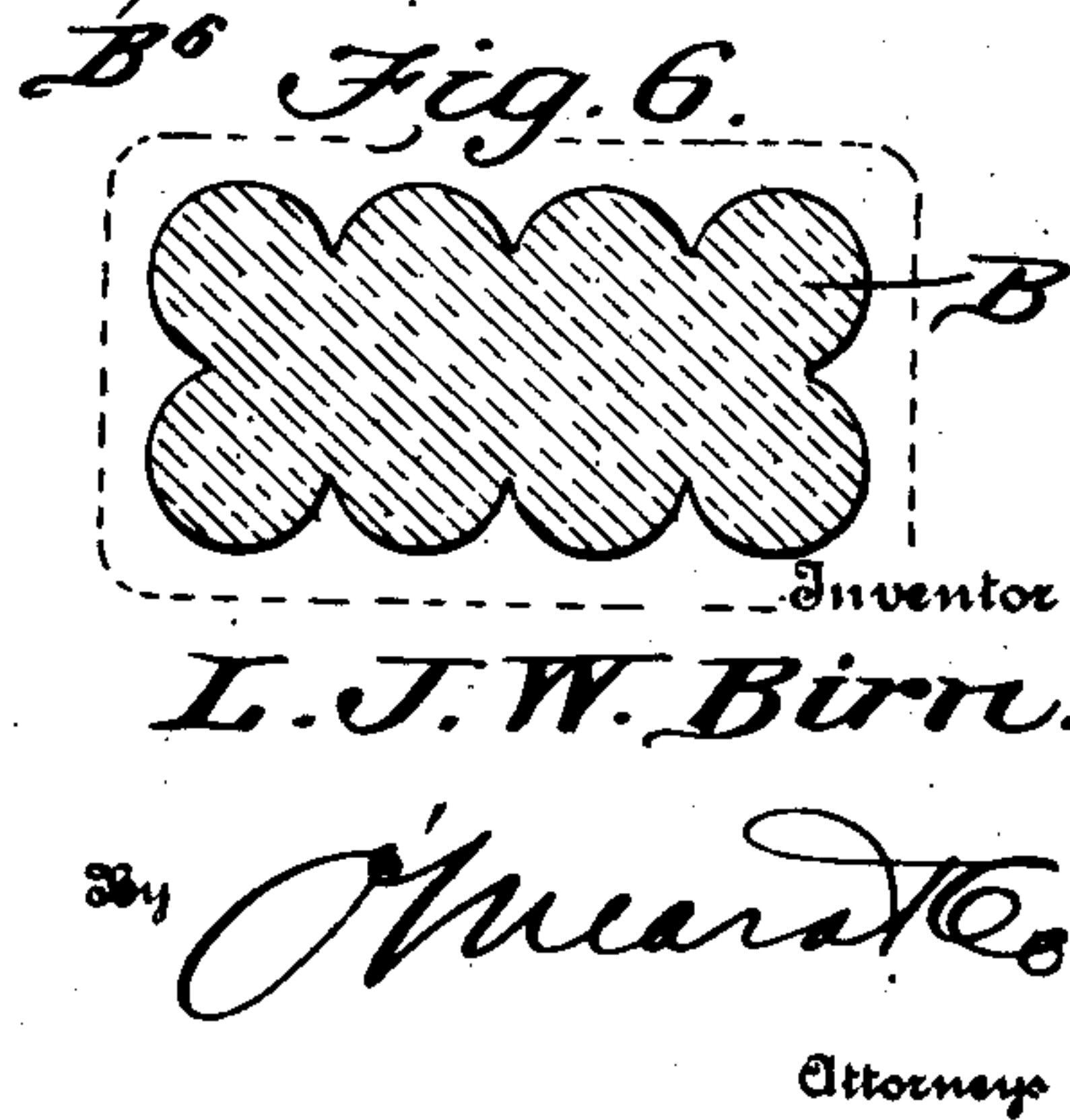
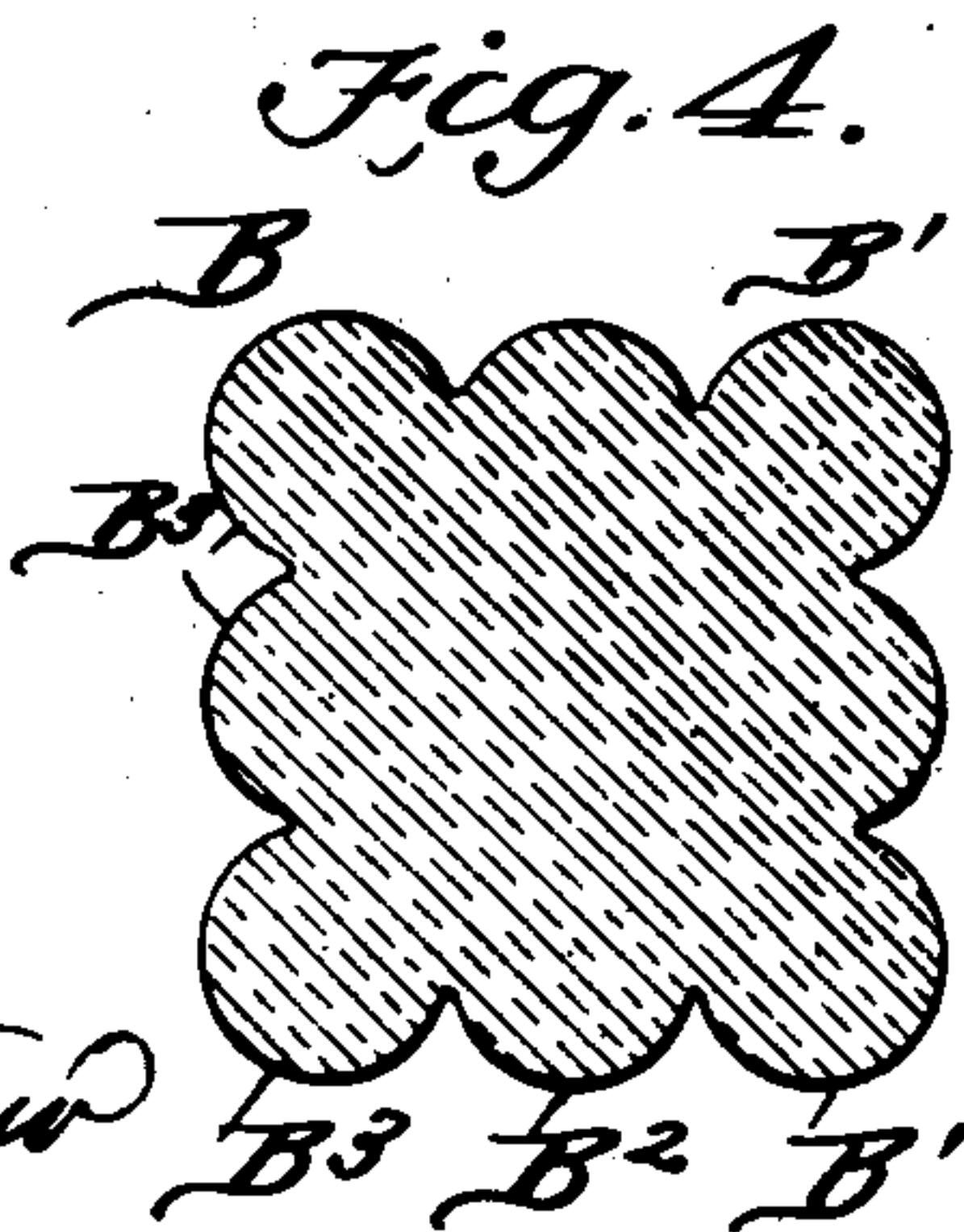
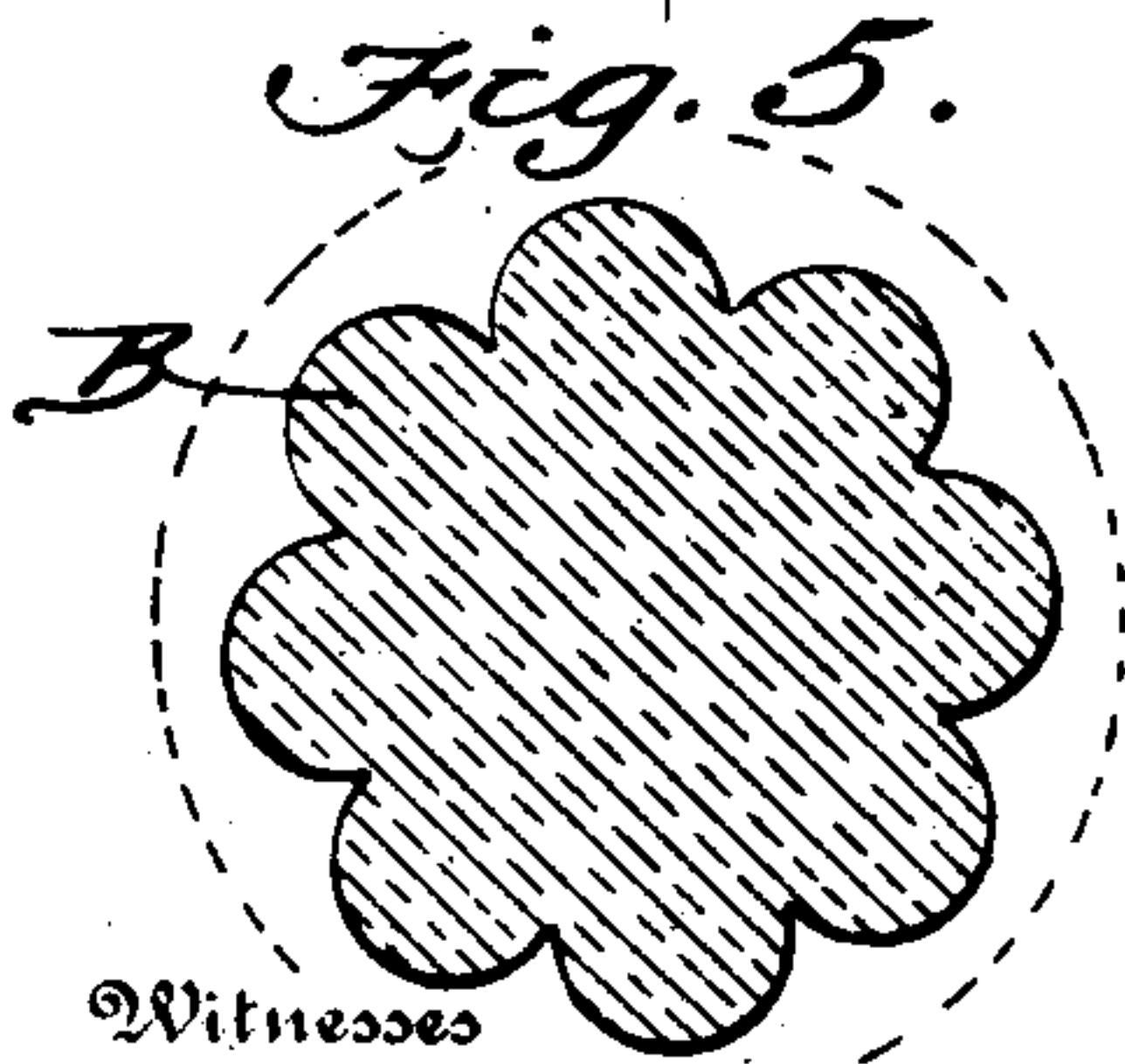
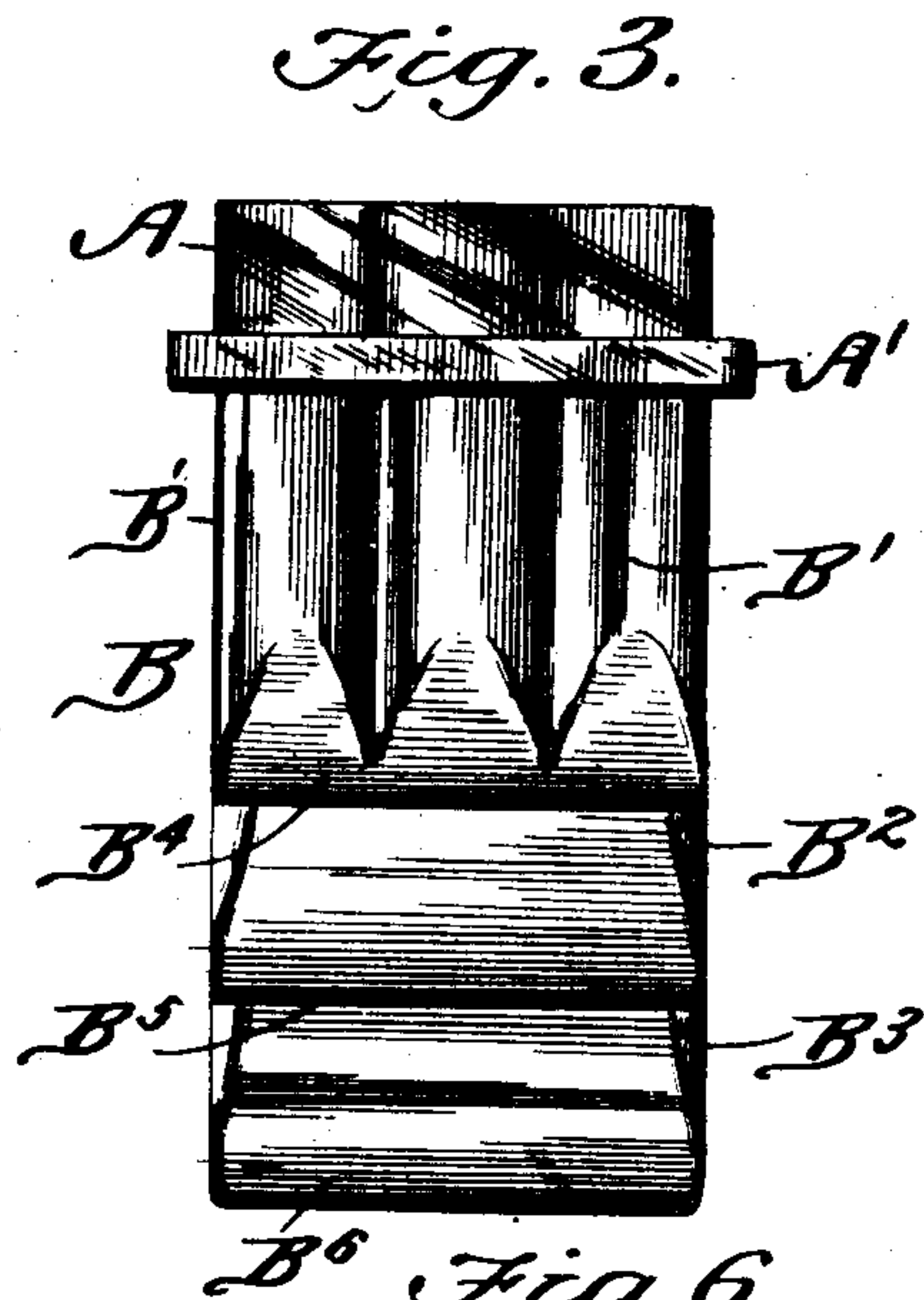
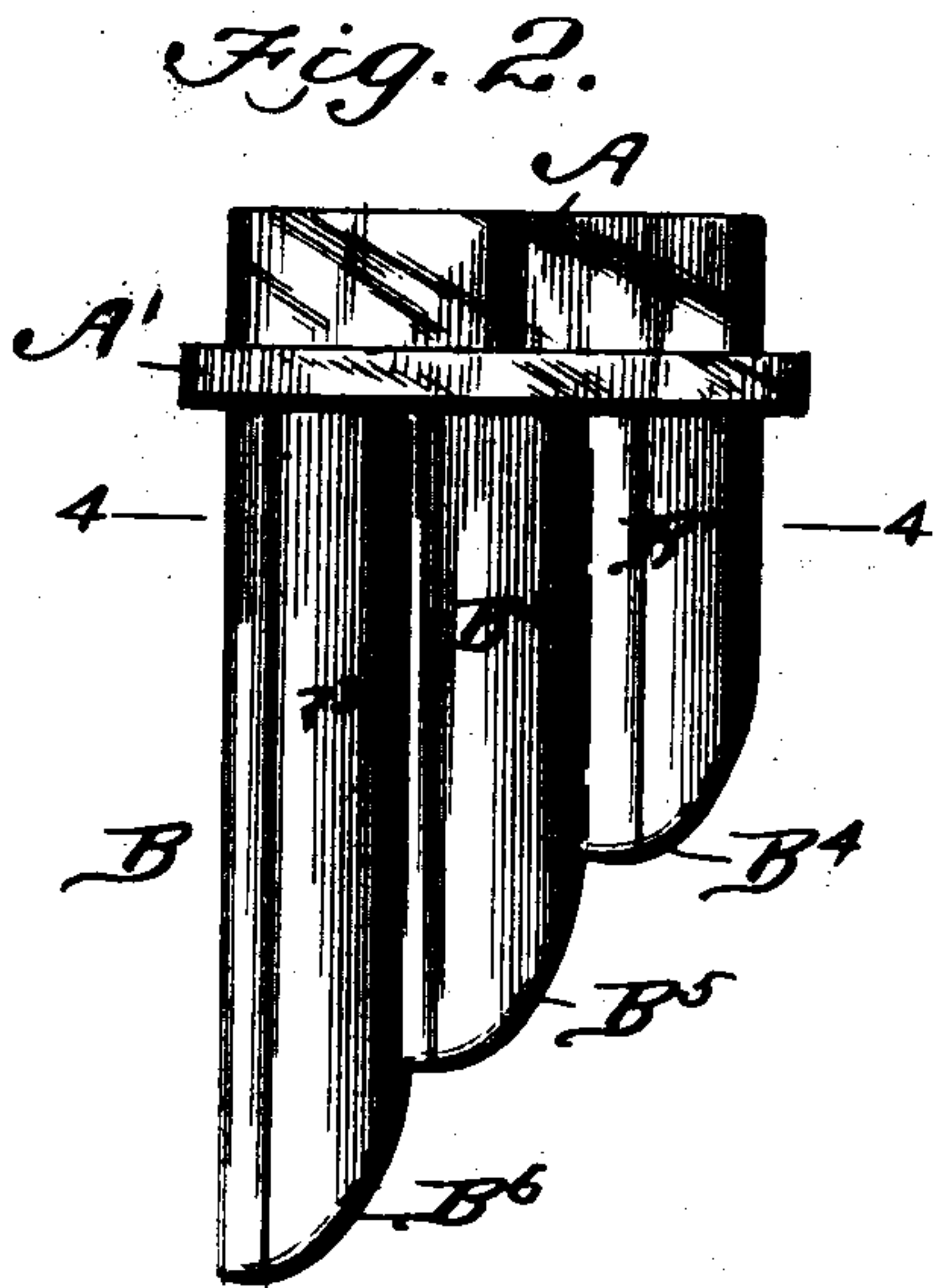
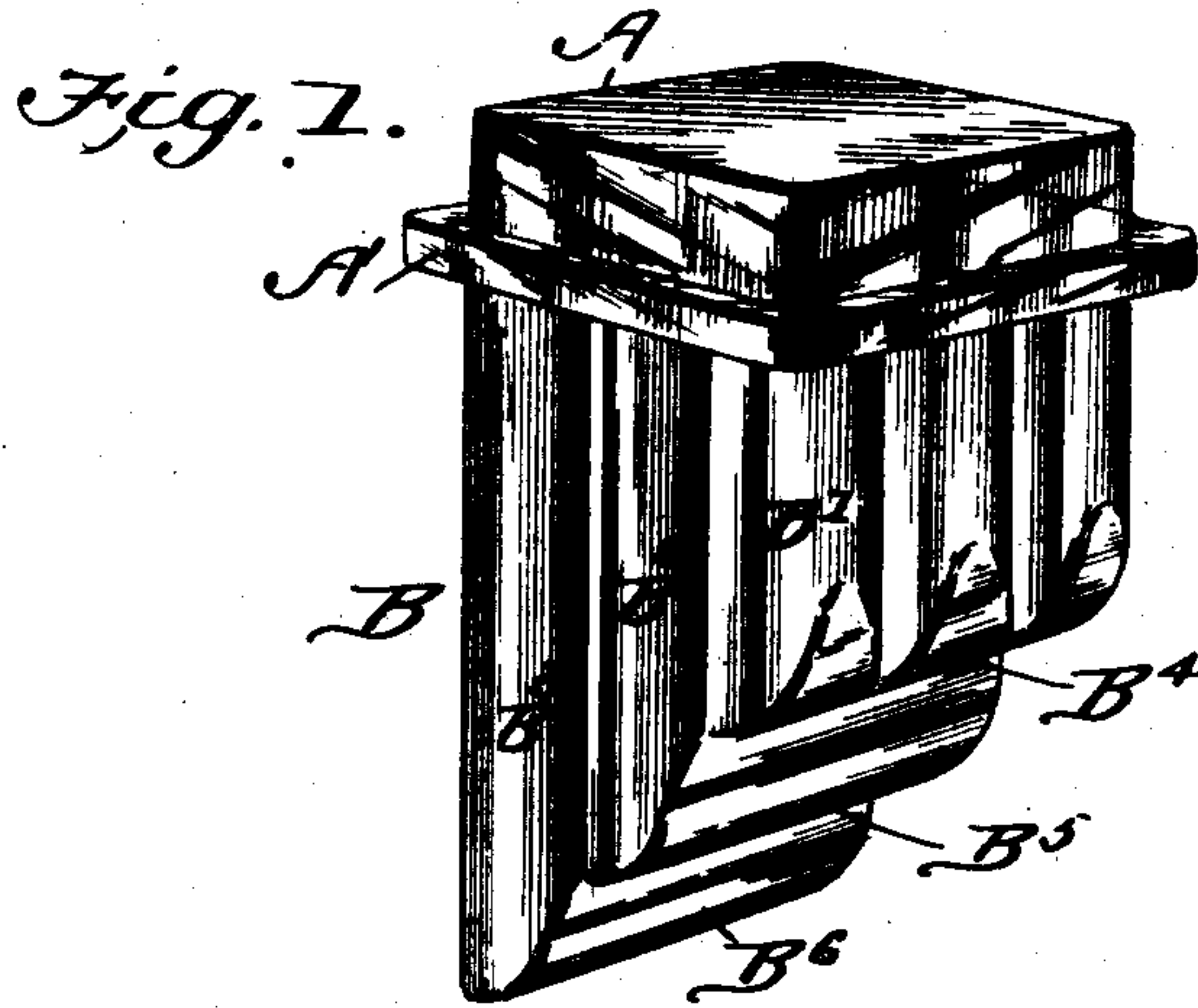


No. 713,591.

Patented Nov. 18, 1902.

L. J. W. BIRN.
ILLUMINATING TILE.
(Application filed June 18, 1901.)

(No Model.)



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UNITED STATES PATENT OFFICE.

LUDWIG J. W. BIRN, OF CHICAGO, ILLINOIS.

ILLUMINATING-TILE.

SPECIFICATION forming part of Letters Patent No. 713,591, dated November 18, 1902.

Application filed June 15, 1901. Serial No. 64,746. (No model.)

To all whom it may concern:

Be it known that I, LUDWIG J. W. BIRN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Illuminating-Tile, of which the following is a specification.

This invention is an improved construction of illuminating-tile, the object being to provide a simple and easily-constructed tile which will serve to diffuse the rays of light passing therethrough, thereby enabling a vault or cellar to be lighted throughout by means of a series of tiles arranged at any one point suitable for receiving light.

With these objects in view the invention consists in the peculiar formation of the tile, which will be fully described hereinafter and pointed out in the claims.

In the drawings forming part of this specification, Figure 1 is a perspective view of my improved tile. Fig. 2 is a side view of the same. Fig. 3 is a similar view looking in the direction at right angles to that shown in Fig. 2. Fig. 4 is a detail cross-section on about line 4 4 of Fig. 2; and Figs. 5 and 6 are detail views in section, showing several forms in which my tile may be constructed.

In constructing a tile in accordance with my invention I employ the base A, which is preferably surrounded by means of a flange A' to facilitate the setting of the tile in a metal framework. Depending from the base A are a series of intersecting cylinders or prisms B, said cylinders or prisms being arranged in vertical series, as shown, and these series are arranged in stepped order, the series B' being shorter than the series B² and the series B² being shorter than the series B³. It will also be noted that the under surface of the series B' is curved, as indicated at B⁴, and the under surface of the series B² is curved, as indicated at B⁵, and the under surface of the series B³ is curved, as indicated at B⁶.

By employing a series of cylinders or prisms arranged in groups the light, which enters through the base A, will be reflected, refracted, and diffused in its passage through the depending portion of the tile, and in this manner I am enabled to throw the light into the most distant portions of the vault or cellar.

While this invention is particularly adapted for sidewalk-lights, it can be used in any other place where a wide diffusion of light is required. In practice I prefer to employ a square construction of tile; but it will of course be understood that the base A may be round, oblong, or any other shape desired, and while I have illustrated the depending portions B as cylindrical in form it will of course be understood that they may be prismatic in form with any desired number of faces.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An illuminating-tile comprising a base having a depending portion, the sides of which are formed in a series of longitudinal semicircular protuberances, and the bottom of said depending portion formed oblique and with approximately convex protuberances across said bottom, substantially as described.

2. An illuminating-tile comprising a base having a shoulder or flange thereon, and a pendent portion, the sides of which are formed in a series of longitudinal semicircular protuberances, and the bottom of said pendent portion formed oblique and with approximately convex protuberances across said bottom, substantially as described.

LUDWIG J. W. BIRN.

Witnesses:

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