

T. HYATT.  
Mode of Covering, Lighting, and Ventilating Areas,  
Vaults, &c.

No. 206,571.

Patented July 30, 1878.

Fig. 1.

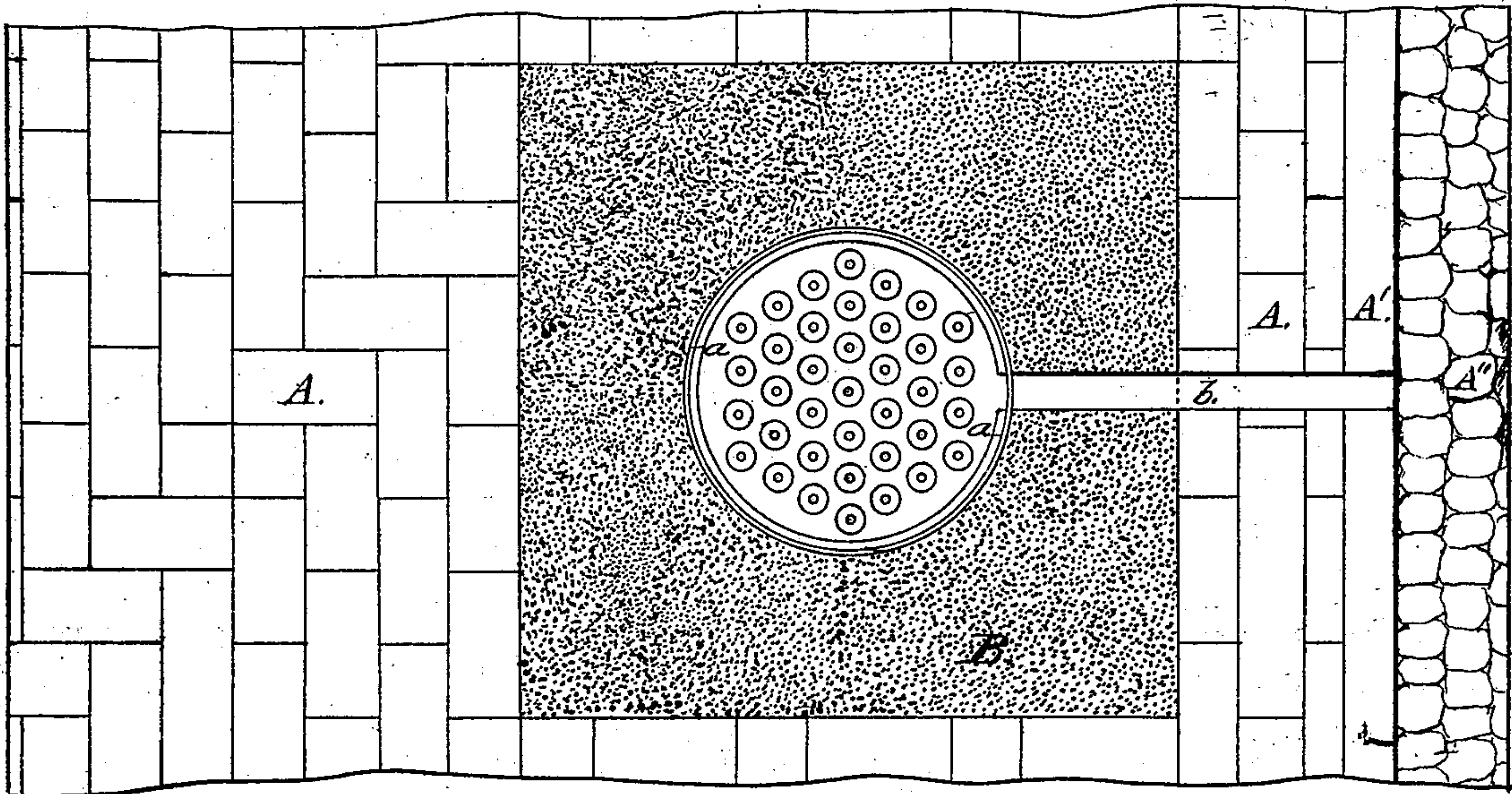


Fig. 2.

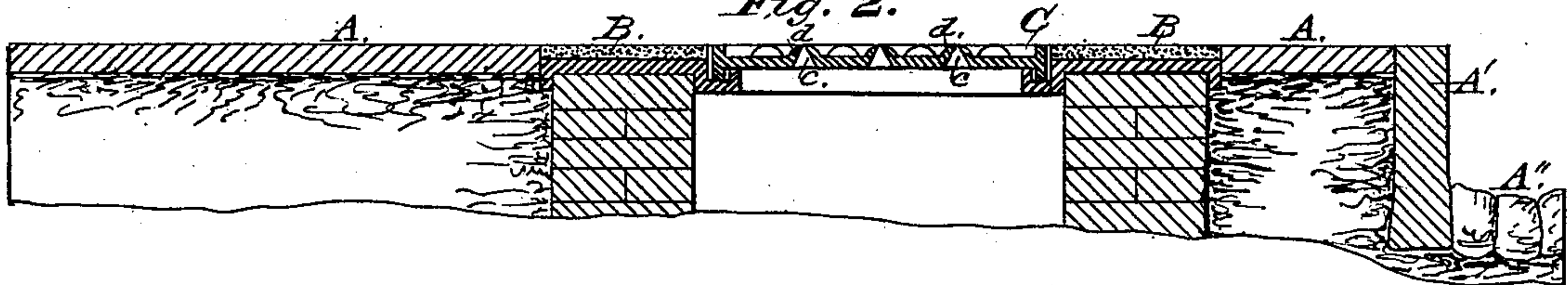


Fig. 3.

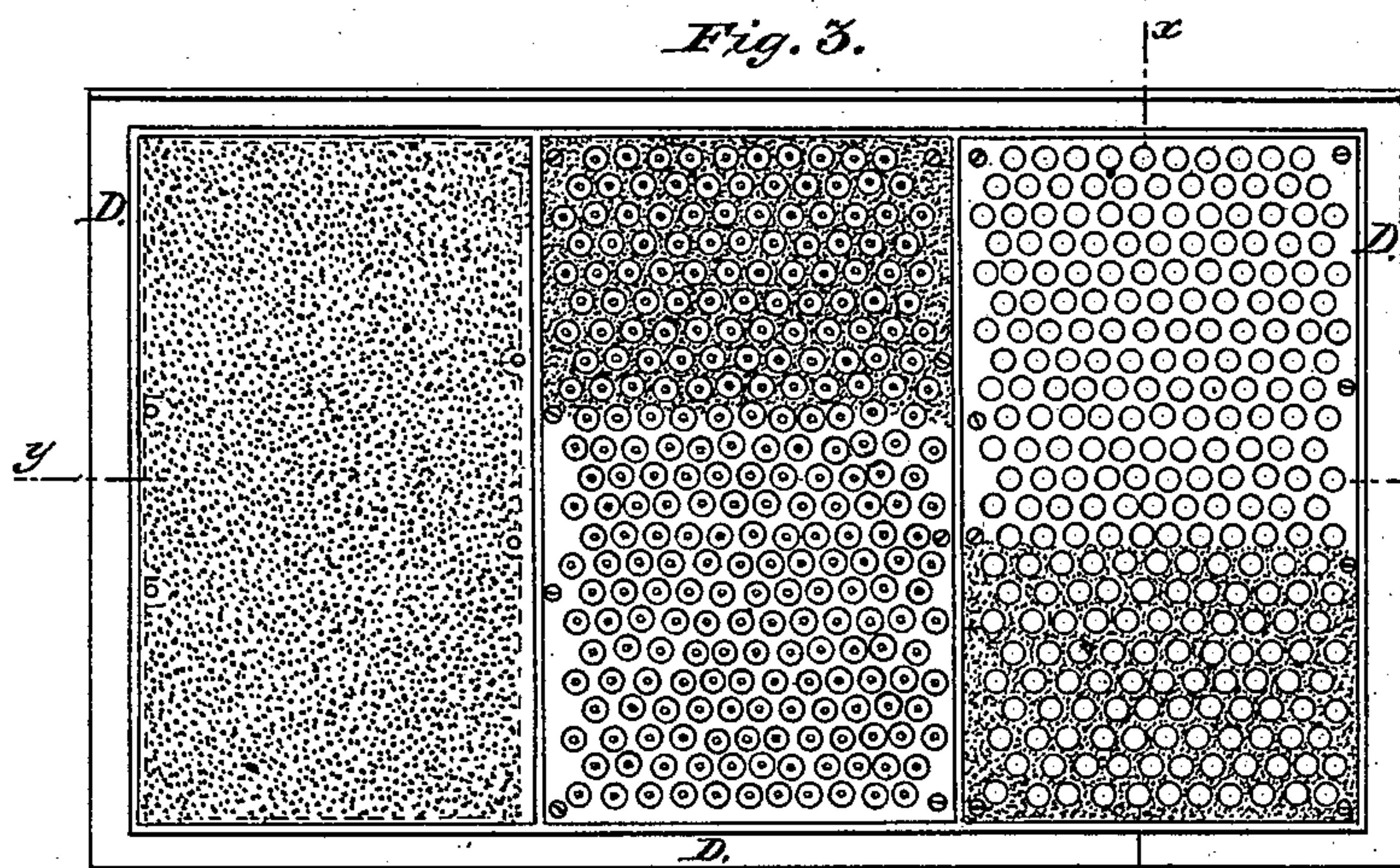


Fig. 5.

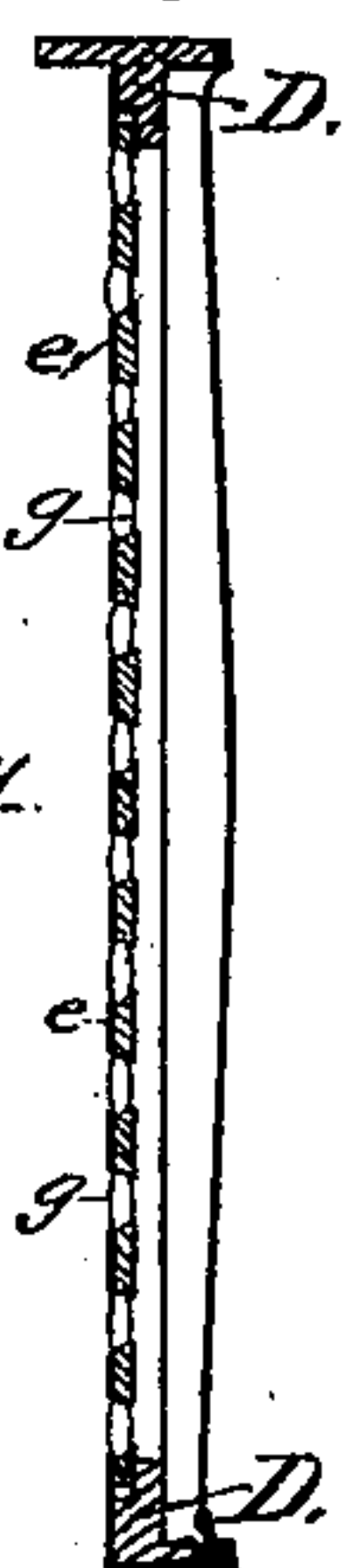
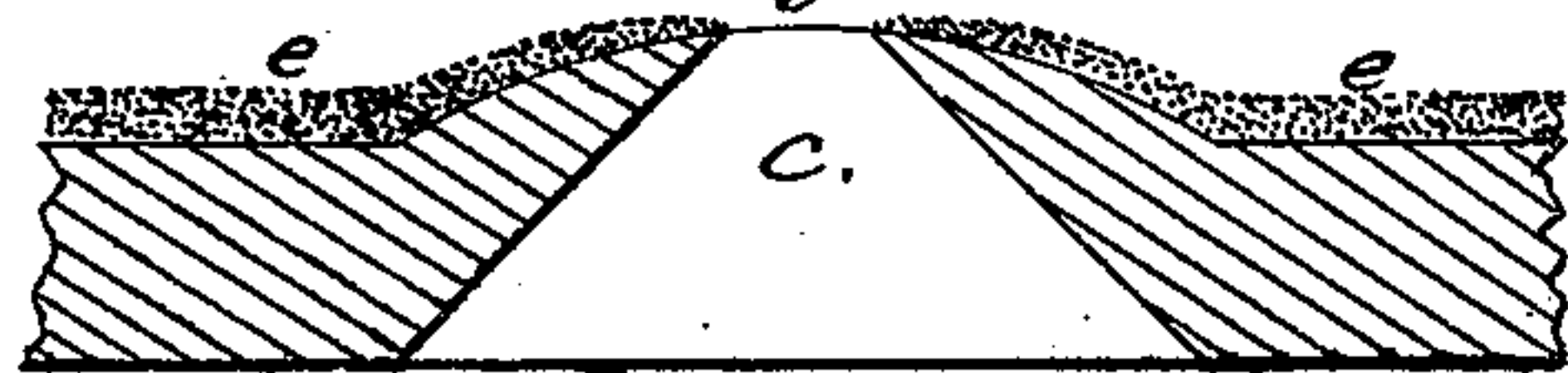


Fig. 4.



Fig. 6.



Witnesses:

J. C. Brecht.  
O. E. Duffy

Inventor:

Madden Hyatt

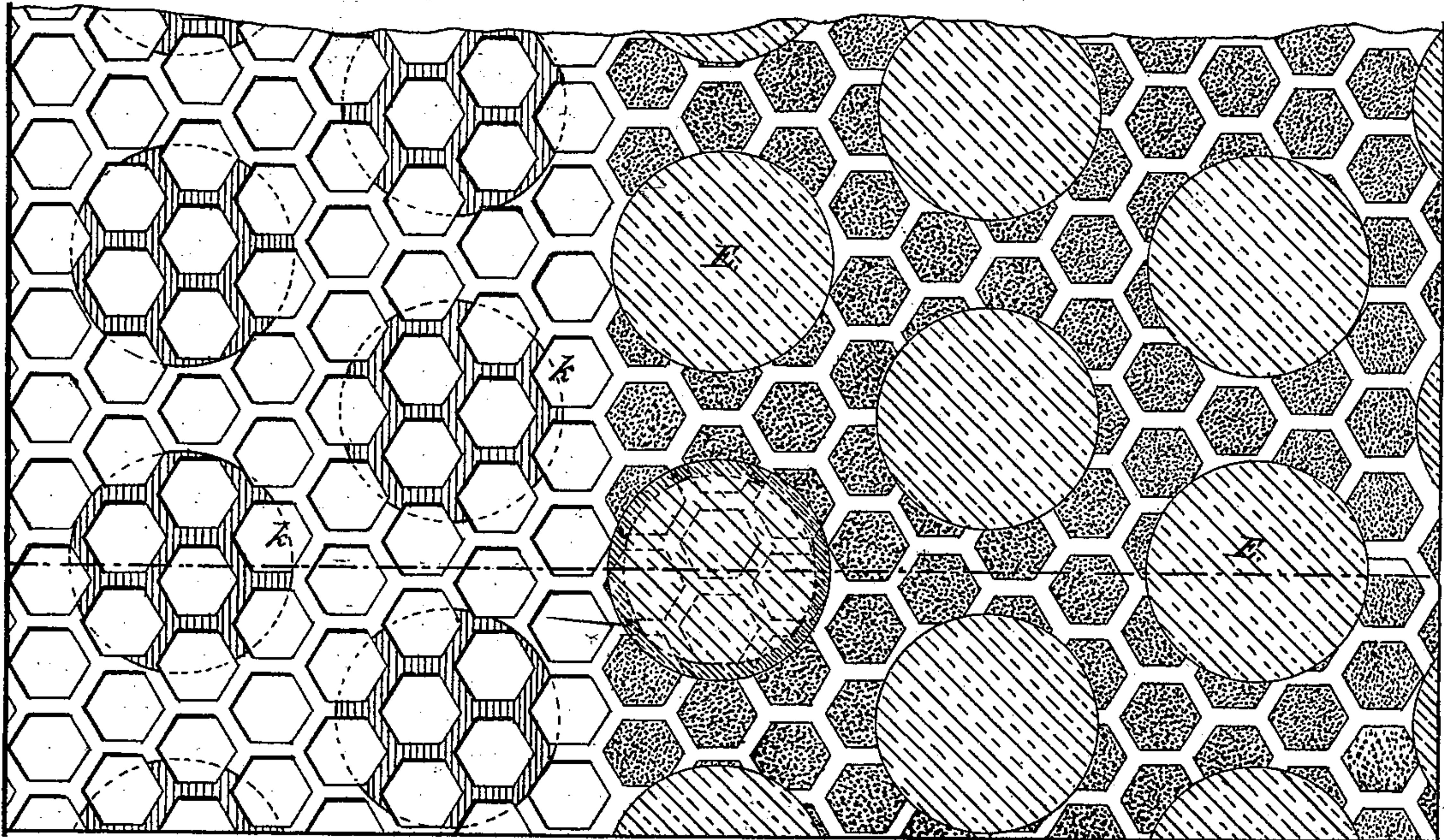


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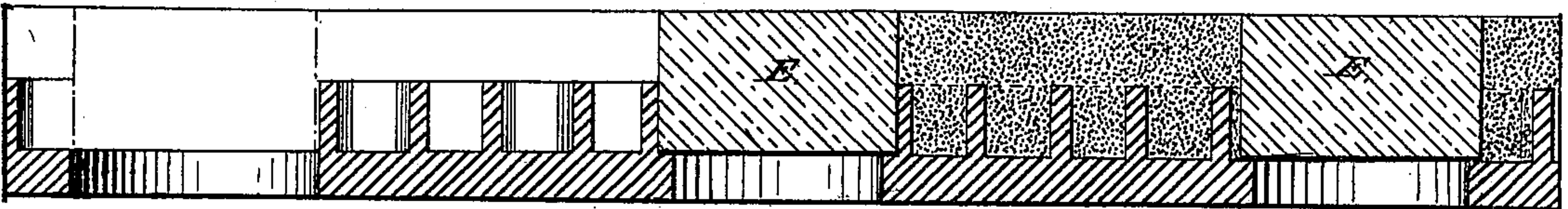
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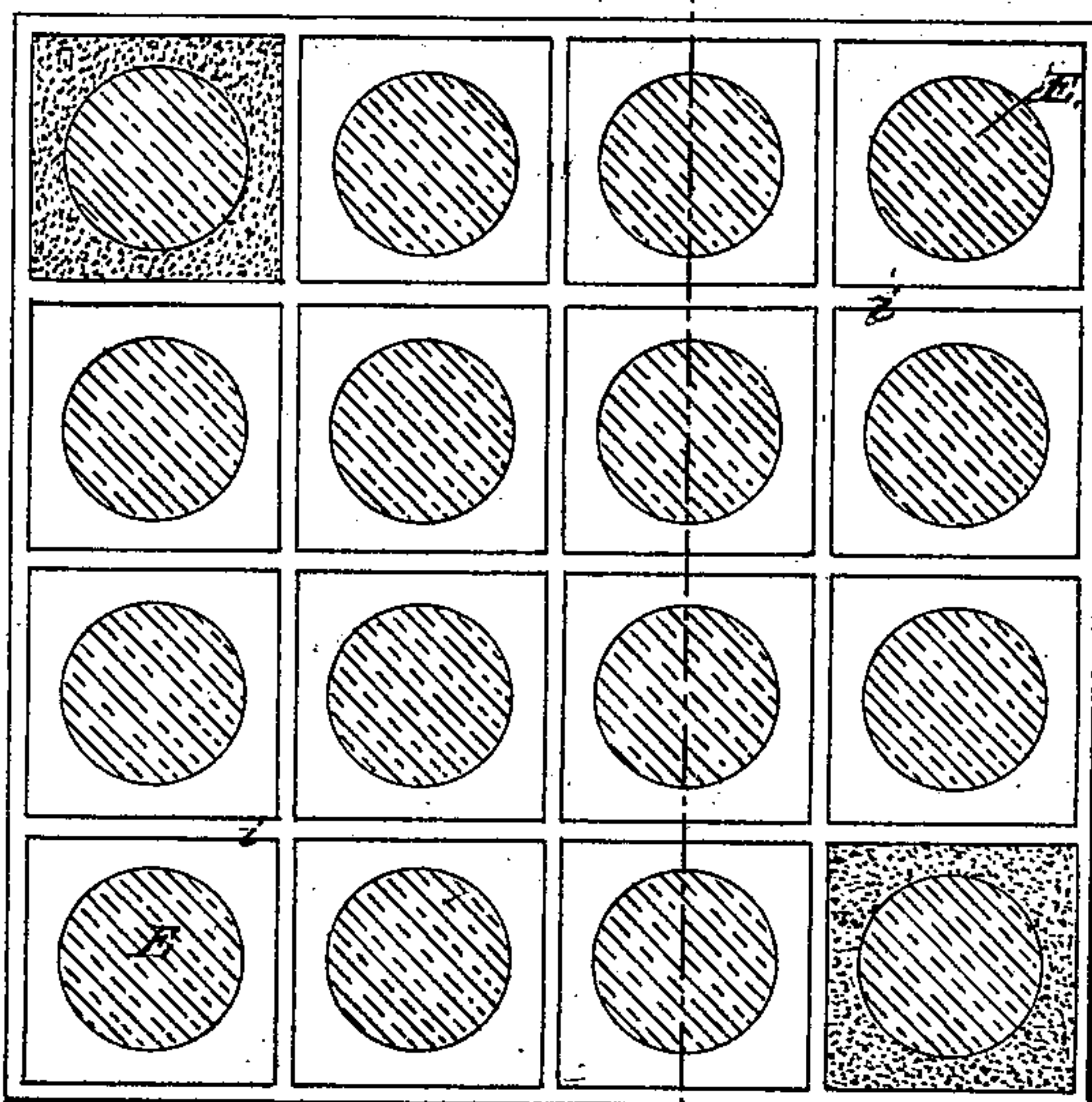
*Fig. 7.*



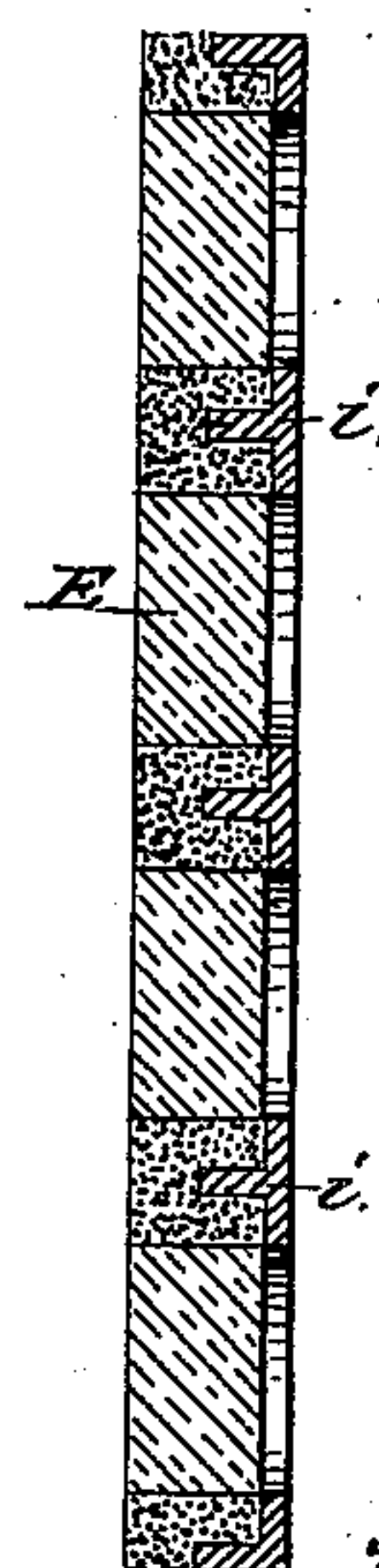
*Fig. 8.*



*Fig. 9.*



*Fig. 10.*



Witnesses:

*J. C. Brecht.*  
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Inventor:

*Thaddeus Hyatt*



# UNITED STATES PATENT OFFICE.

THADDEUS HYATT, OF NEW YORK, N. Y.

IMPROVEMENT IN MODES OF COVERING, LIGHTING, AND VENTILATING AREAS, VAULTS, &c.

Specification forming part of Letters Patent No. **206,571**, dated July 30, 1878; application filed July 22, 1878; patented in England, October 2, 1869.

*To all whom it may concern:*

Be it known that I, THADDEUS HYATT, of the city, county, and State of New York, am the inventor of an Improved Mode of Covering, Lighting, and Ventilating Areas, Vaults, and similar underground spaces, applicable also as a footway, which invention was patented by me in England on the 2d day of October, 1869, No. 2,869, but, as to the parts hereinafter described, illustrated, and claimed, has not as yet been used in the United States.

The English patent aforesaid describes a beam-platform or area-covering composed of a foundation or cast-iron frame, made to receive panels or plates of iron with an asphalted surface, these plates not only being asphalted, but the face of the iron frame containing them, especially when the external portions or borders of the frame were designed to form a coping in place of stone. In addition to the area-covering, the footway of the street, between the area and curb-stone, is also described as in some cases being formed after the area-covering model as a roof over the space below, as well as a footway for the public; and an asphalted iron slab, with a hole to receive the vault-cover, is described as a substitute for stone.

The object of the asphalt, as explained in the text, is to prevent slipping; and two kinds of asphalt are mentioned—viz., natural and artificial; natural asphalt, as is well known, being a bituminous concrete or limestone infiltrated with bitumen, and artificial asphalt being any combination of tar or bituminous materials with sand, gravel, and the like, the latter being adapted to an iron surface moderately rough, or even smooth, according to the thickness of the material, and the former being adaptable only to a surface formed to give or produce side adhesion or support upon lines vertical to the face of the iron plate, such, for example, as would be formed by casting the face of the plate in the form of cells of hexagon or other shape.

The face of the metal construction, when made to be asphalted, is described as thus made: The iron plates or panels, combined with the metal frame to form the area-covering, are described as of three kinds—one where the apertures are set with glass, another where

they are left open to let in air, and a third, which is solid.

Where set with glass, it is the metallic portion of the surface, not the glasses, that is covered over by the asphalt; and where the light-holes in the plate are not blocked with glass, but are left open to let in air for ventilation, it is still the metallic portion of the surface, not the air-holes, that is covered over by the asphalt; but where the plate is solid iron, there the invention is described as the asphaltting of iron plates employed as covers for areas, vaults, or other underground spaces, and as copings in foot-pavements, &c.

Figure 1 represents a section of a street footway, A being the footway, A' the curb-stone, and A'' the carriage-way of the street. B is an asphalted iron coal-hole-plate slab, made with a hole for taking in coal, and covered by the coal-hole plate or vault-cover C. *a a* is an annular gutter or channel formed in B to carry off water to the curb through the straight gutter *b*.

Fig. 2 is the same in cross-section. *c c* are the air-holes of the vault-cover. These holes are surrounded by the rings *d*, or curbs, to prevent surface-water from getting through them.

Fig. 6 is a view, in cross-section, of one of these curbed holes, where *e e* indicate the coating of artificial asphalt.

Fig. 3 represents an area-covering or beam-platform; D, the cast-iron frame, and numbers 1, 2, and 3 the iron plates or panels, number 1 being a glazed plate, *g g* being the glasses or bull's-eyes.

Fig. 5 is a cross-section of the same on the line *x x*. The portion shaded by dots represents asphalt. Number 2 represents a plate having no glasses, the holes being left open for ventilation, like the vault-cover C. Number 3 is a solid iron plate asphalted.

Fig. 4 is a cross-section of the whole platform on the line *y y*.

Fig. 7 is a plan, and Fig. 8 a cross-section, of the same on the line *z z*, and represent an illuminating-plate made with a cellular surface, through which light-holes are made, as indicated by the dotted circles *k k*. *E E* are the bull's-eyes or glasses that block the light-holes. The parts shaded by dots are the as-

phalted parts, this asphalt being natural, and, as seen in Fig. 8, rising to the level of the glasses, which are represented as flat-faced, but may be slightly convex.

Fig. 9 represents in plan, and Fig. 10 in cross-section, another form of cellular face, made by cross-ribs *ii*, the glasses *EE* being held by the asphalt filling, (shown by the dotted shaded parts,) and the asphalt being held by the metal cross-bars *ii*. A model of this invention was sent to the Patent Office at Washington, D. C., by me about the years 1850-52, and remained in the model-room until the first clearing-out sale of models. I also made illuminating-gratings of this kind, except that

the metal bars *ii* formed a portion of the walking-surface, in combination with the glasses and asphalt, and put them to use in the city of New York about that time.

Having thus fully set forth the nature of my invention, what I claim, and desire to secure by Letters Patent, is—

An illuminating-surface composed of glass and asphalt, substantially as and for the purposes described herein, and illustrated by my drawings.

THADDEUS HYATT.

Witnesses:

T. C. BRECHT,  
O. E. DUFFY.