

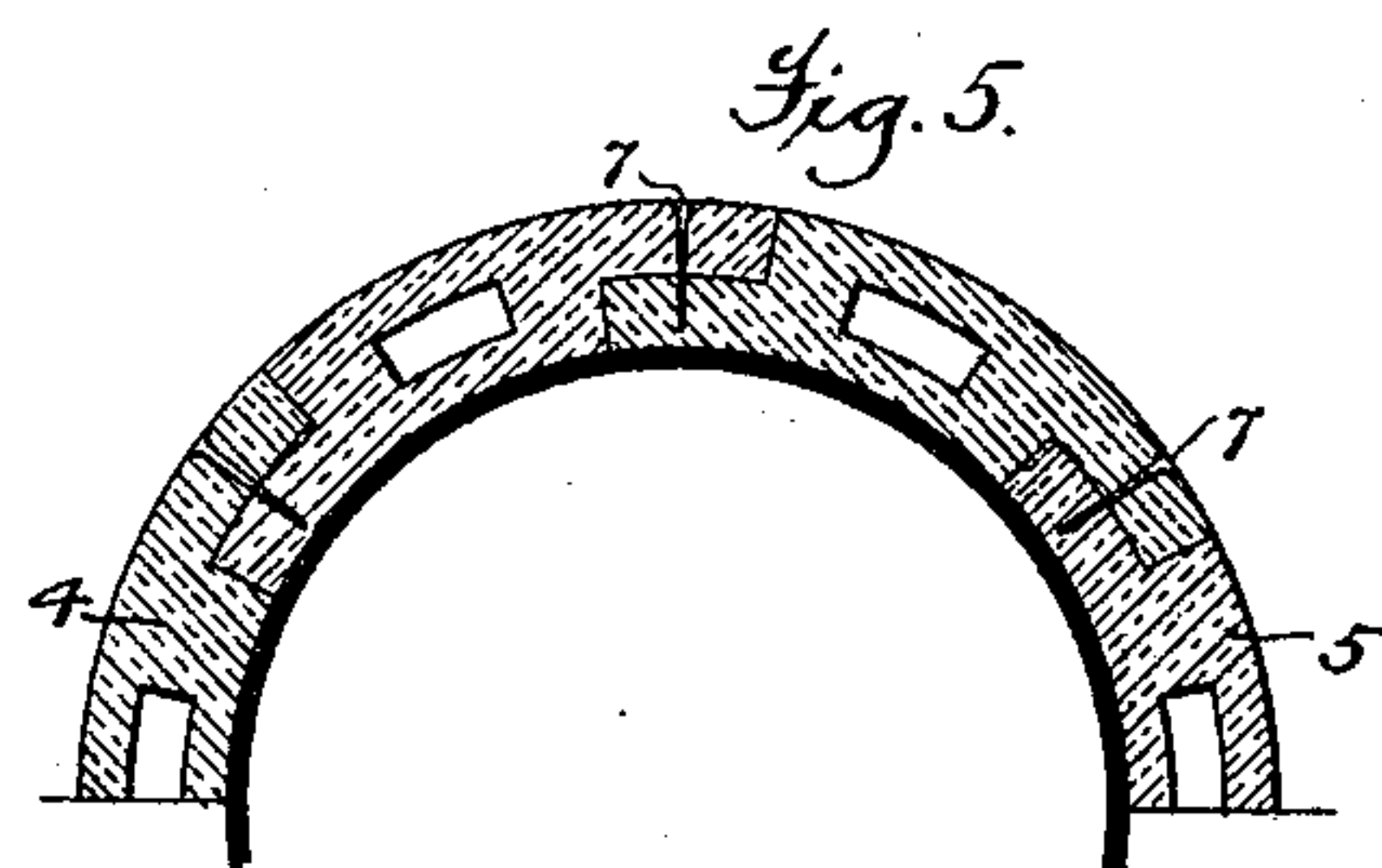
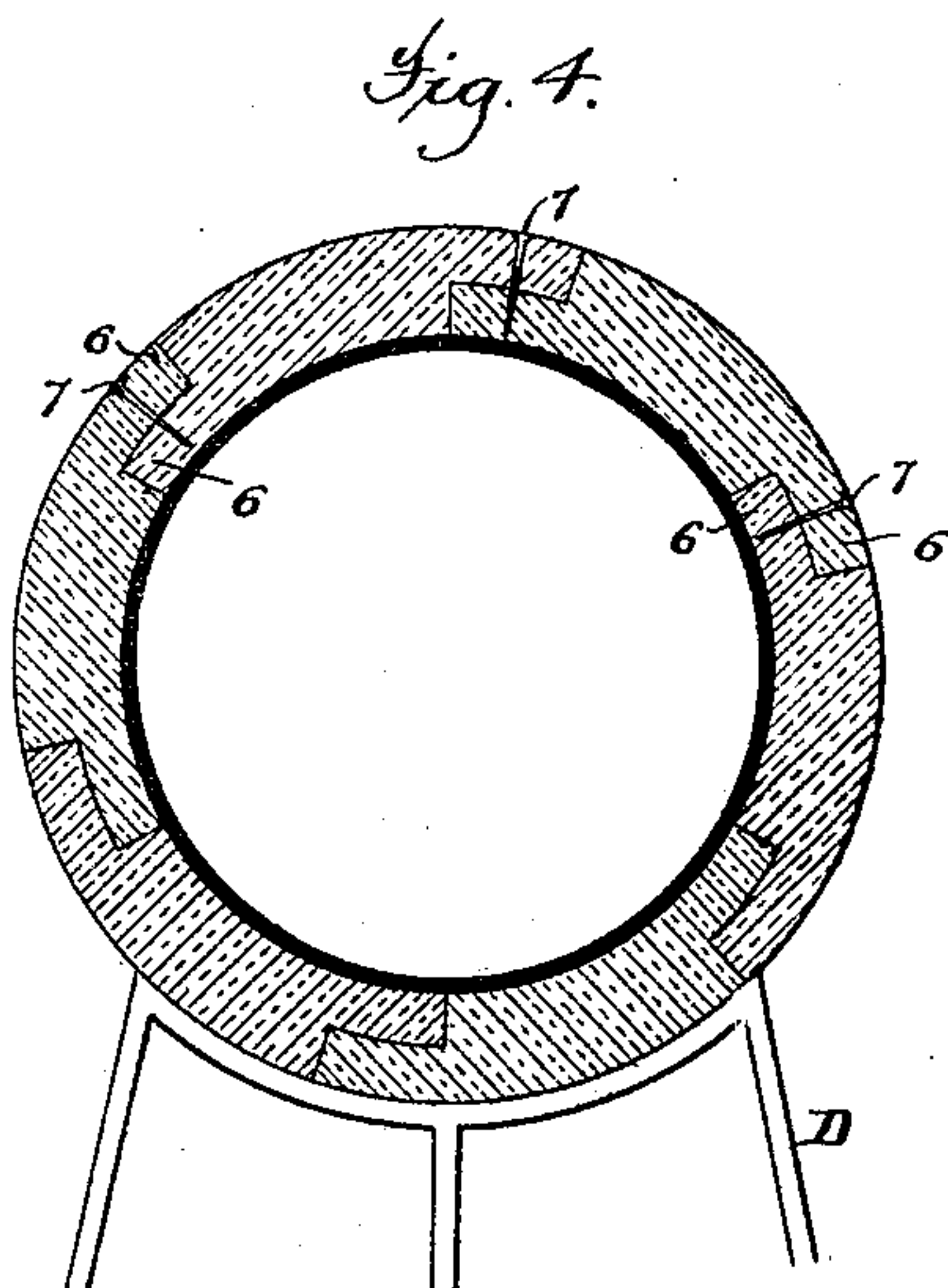
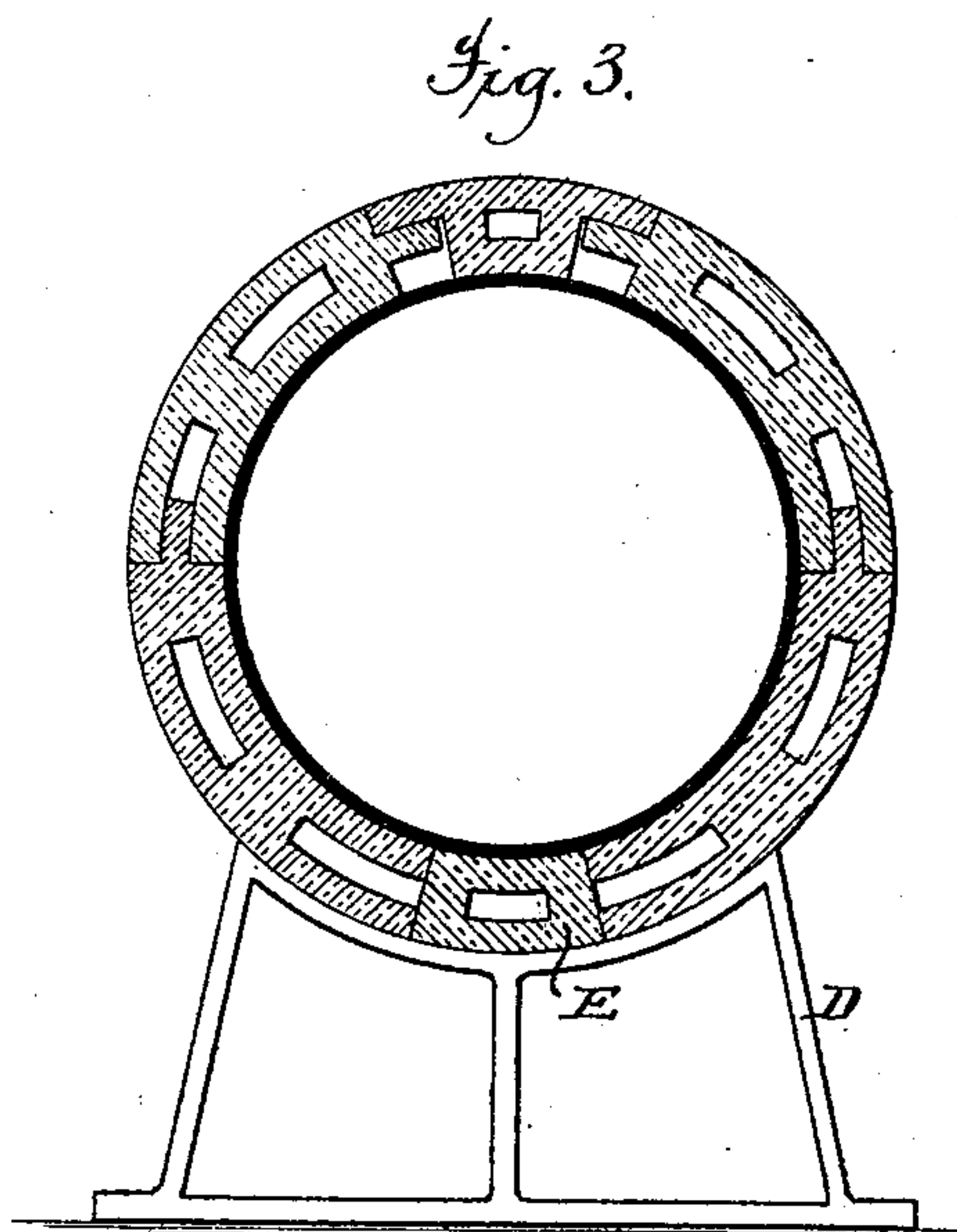
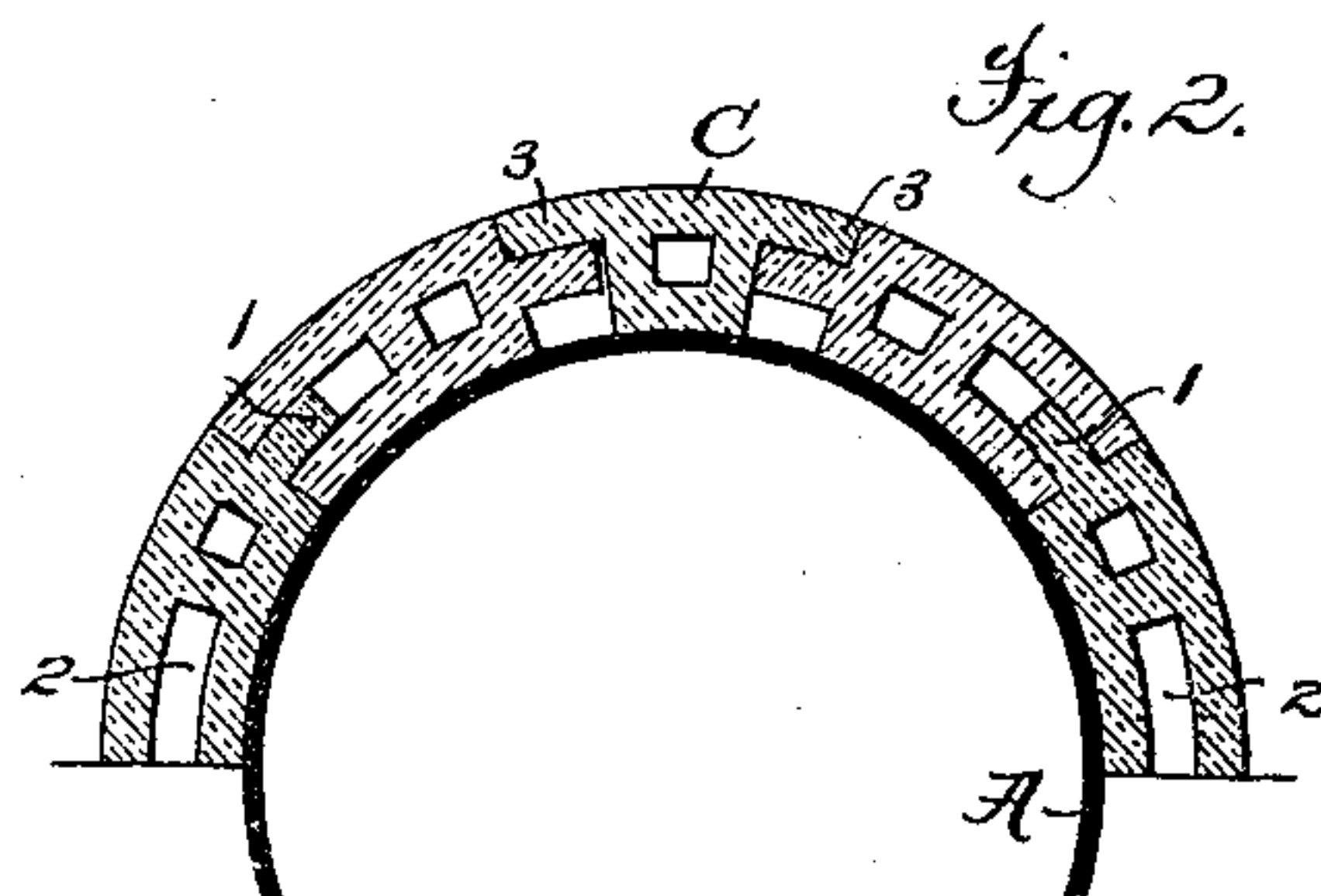
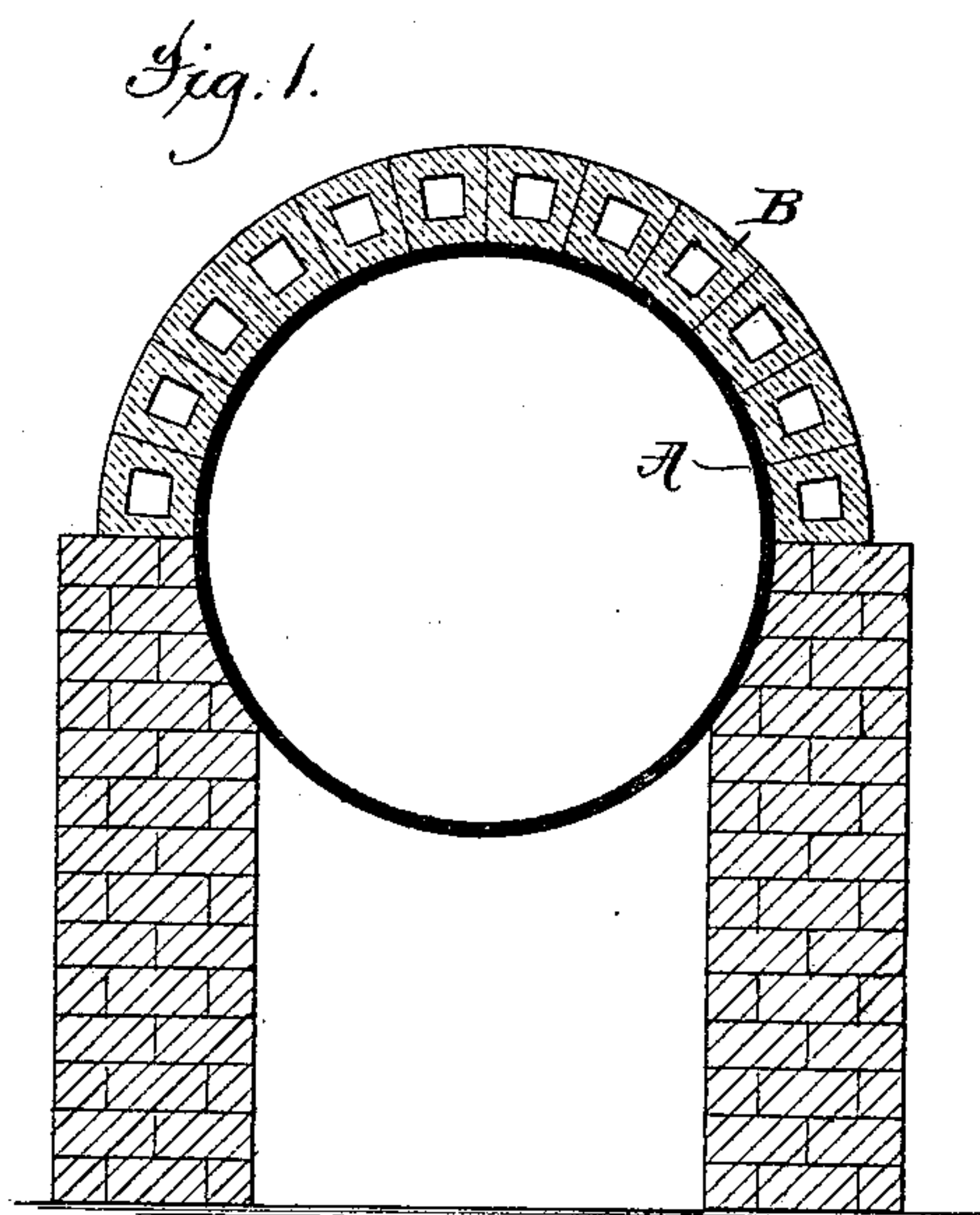
(No Model.)

C. C. GILMAN.

BOILER COVERING.

No. 328,581.

Patented Oct. 20, 1885.



Attest:

Geo. H. Graham
Edmund Kent Jr.

Inventor:

Chas. C. Gilman,
per J. C. Behrens,
att'y.

UNITED STATES PATENT OFFICE.

CHARLES CARROLL GILMAN, OF ELDORA, IOWA.

BOILER-COVERING.

SPECIFICATION forming part of Letters Patent No. 328,581, dated October 20, 1885.

Application filed April 14, 1885. Serial No. 162,218. (No model.)

To all whom it may concern:

Be it known that I, CHARLES C. GILMAN, a citizen of the United States, and a resident of Eldora, Hardin county, Iowa, have invented a new and useful Improvement in Boiler Coverings or Sheathings, of which the following is a specification.

The object of my invention is to provide a boiler-covering which is cheap, durable, a good non-conductor of heat, and easily applied and removed; and to this end my invention consists in the combination, with a boiler, of a sectional sheathing of terra-cotta lumber or porous burned brick material, applied in manner as hereinafter fully described and claimed.

In the accompanying drawings, which form a part of this specification, Figure 1 represents a cross-section of a boiler covered with blocks of terra-cotta lumber according to my invention. Fig. 2 represents the application to a boiler of tongued and grooved sheathing-blocks. Fig. 3 illustrates the application of the terra-cotta lumber blocks to that part of a boiler beyond the fire-box, and Figs. 4 and 5 represent another form of sheathing-blocks with means for retaining the same in place.

The material I employ as a boiler-covering is known as "terra-cotta lumber," and is made in accordance with the specifications of United States Reissued Letters Patent Nos. 10,419 and 10,420, heretofore granted to me. I do not, however, desire to limit myself solely to the use of said material, as any porous burned brick material of substantially the same porosity as the terra-cotta lumber is within the scope of my invention. The cellular or sponge-like character of said material (due to the imprisoned sawdust being burned to ashes in the kiln) makes the same an excellent non-conductor, for the numerous air-cells in the body of the material serve as so many dead-air spaces to prevent the conduction of heat. The said material may be molded to the shape or form desired, or it may be sawed or cut with edged tools, and thus close-fitting joints secured.

In Fig. 1 of the drawings, A represents the boiler, to which the blocks B, solid or hollow, of terra-cotta lumber are directly applied, the same being laid up, as shown, in mortar of cement or of clay. In Fig. 2 the blocks or slabs

or terra-cotta lumber are constructed so as to overlap by means of tongues 1 and grooves 2, the said grooves being cut deeper than the length of the projecting tongues, so as to leave a dead-air space when two blocks are joined between the end of the tongue of one and the bottom of the groove of the other. In order that the blocks of this form may be readily applied and as readily removed, I employ the top or key block, C, which is provided with flanges or projections 3, to overlap the tongues of the adjacent blocks and to preserve the continuity of the outer surface. The said blocks may be cemented together, if desired.

In Fig. 3 the blocks on the under side of the boiler are held in place by a support or supports, D, the upper blocks resting on the boiler and on the lower ones.

The block E, instead of being wedge-shaped, as shown, may be provided with tongues for engagement with the adjacent blocks.

In Figs. 4 and 5 the blocks are constructed so as to overlap by means of an offset at each end on opposite sides, forming projections 6, by which construction all of the blocks surrounding a boiler are permitted to be of the same form.

In Fig. 5 the blocks 4 and 5 are half-blocks produced by cutting a whole block in two parts. The half-blocks may be molded in the form shown, if desired. These blocks are secured together by nails 7, applied at the places where they overlap each other. In Fig. 4 only the upper blocks need to be nailed together, as the lower ones are held up by the support D.

The blocks shown in the several figures may be shorter or longer than shown without involving a departure from my invention. All of the blocks illustrated are laid lengthwise of the boiler shown, so as to break joints with each other.

I am aware of United States Letters Patent No. 213,558, dated March 25, 1879, granted to Field and Howard, which describes a plastic material composed of sawdust mixed with clay applied to the surface of a steam-pipe, the said plastic material being covered by a shell or pipe formed of baked porous clay made by mixing twenty-five per cent. of clay with seventy-five per cent. of sawdust or coal-dust and burned in a kiln; but this differs materially

from my invention, and to it I lay no claim; but

What I do claim, and desire to secure by Letters Patent, is—

5 1. A boiler provided with a sectional covering of terra-cotta lumber, the sections of which are constructed and arranged to overlap for a distance sufficient to enable nails driven through the overlapping portions to
10 hold the sections together, substantially as described.

2. A boiler provided with a sectional covering of terra-cotta lumber, the sections of which are formed with an offset at each end
15 on opposite sides, and are arranged to overlap for a distance sufficient to enable nails driven

through the overlapping portions to hold the sections together, substantially as described.

3. A boiler provided with a sectional covering of terra-cotta lumber, the sections of 20 which are formed with tongues and with grooves of greater depth than the length of the tongues, so that when the sections are fitted together a dead-air space is provided, substantially as described. 25

In testimony whereof I have signed my name in the presence of two witnesses.

CHARLES CARROLL GILMAN.

Witnesses:

EDMUND RICE,

REUBEN B. GALUSHA.