

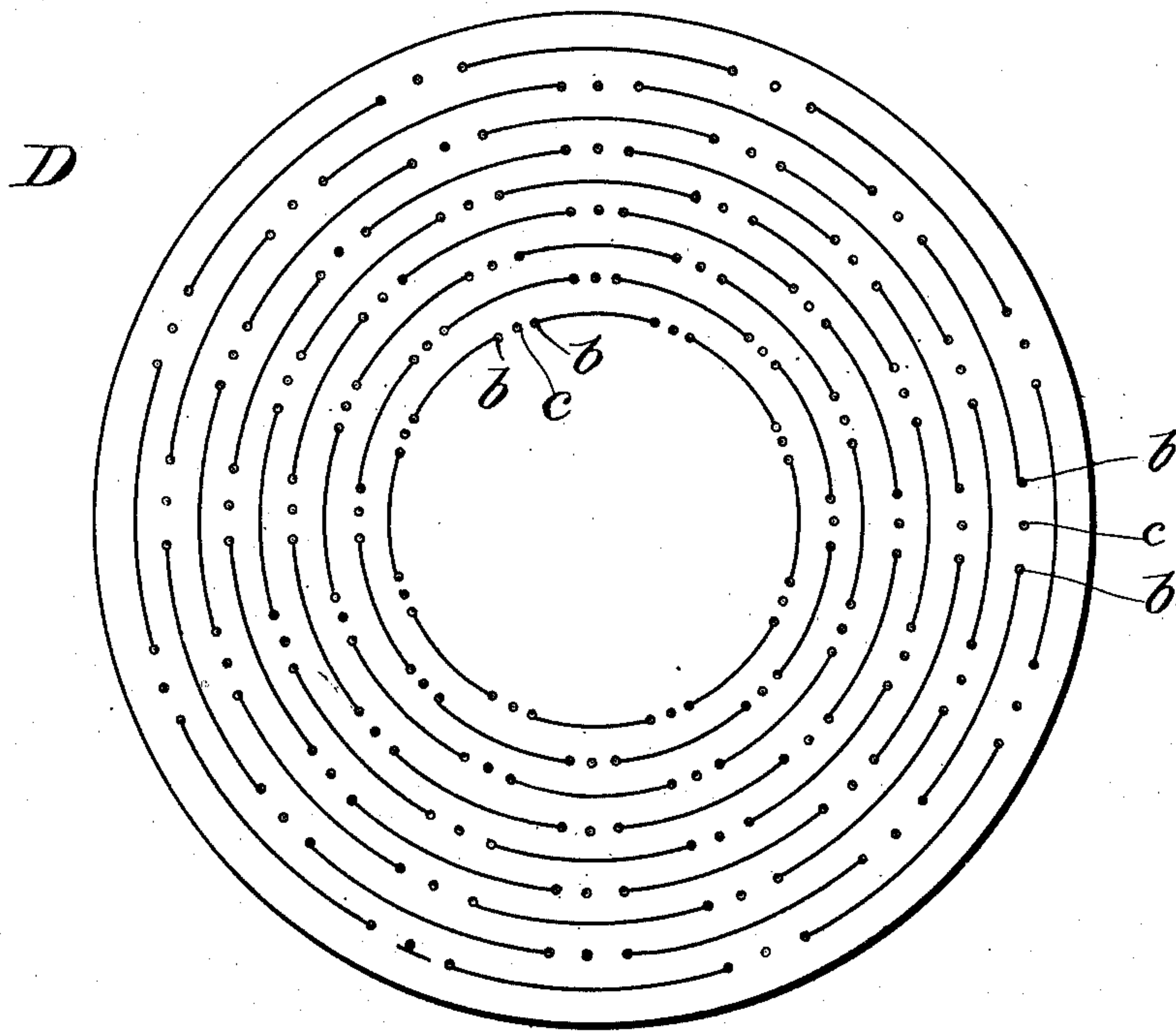
No. 865,173.

PATENTED SEPT. 3, 1907.

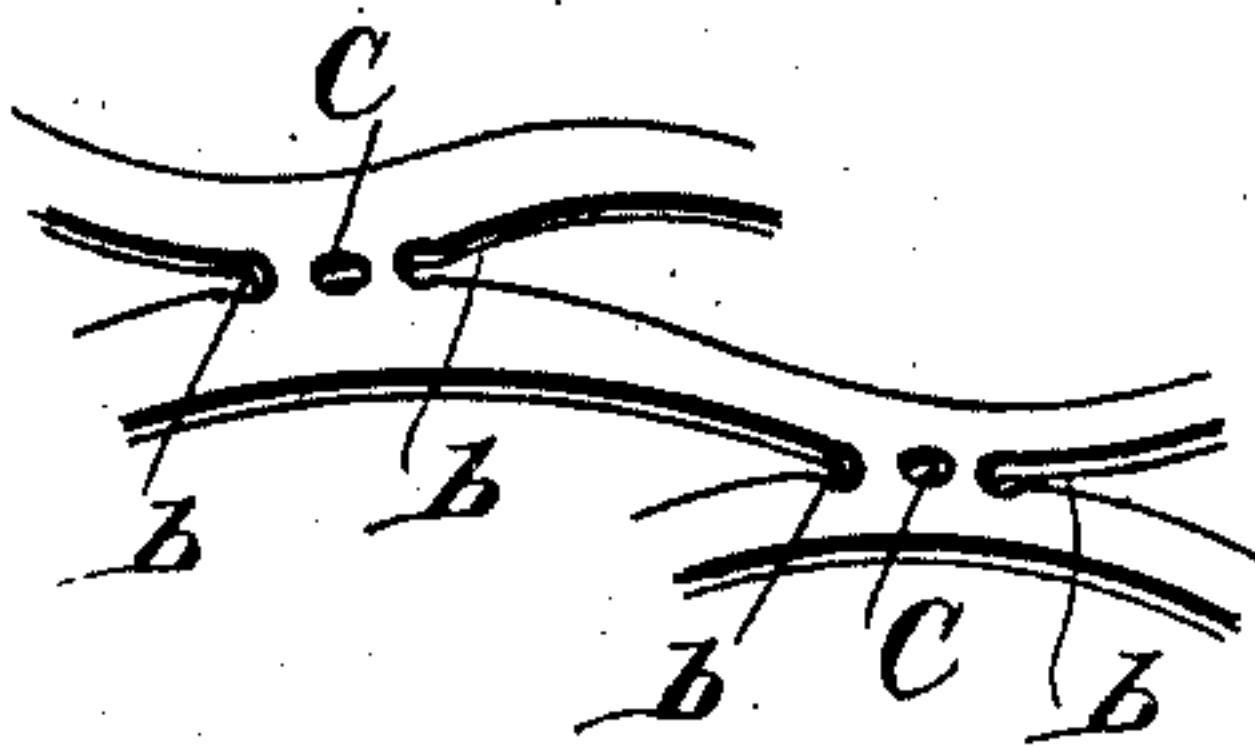
O. F. EICHBERG.  
EXPANDED RECEPTACLE.  
APPLICATION FILED SEPT. 12, 1906.

3 SHEETS—SHEET 1.

*Fig. 1*



*Fig. 2*



WITNESSES

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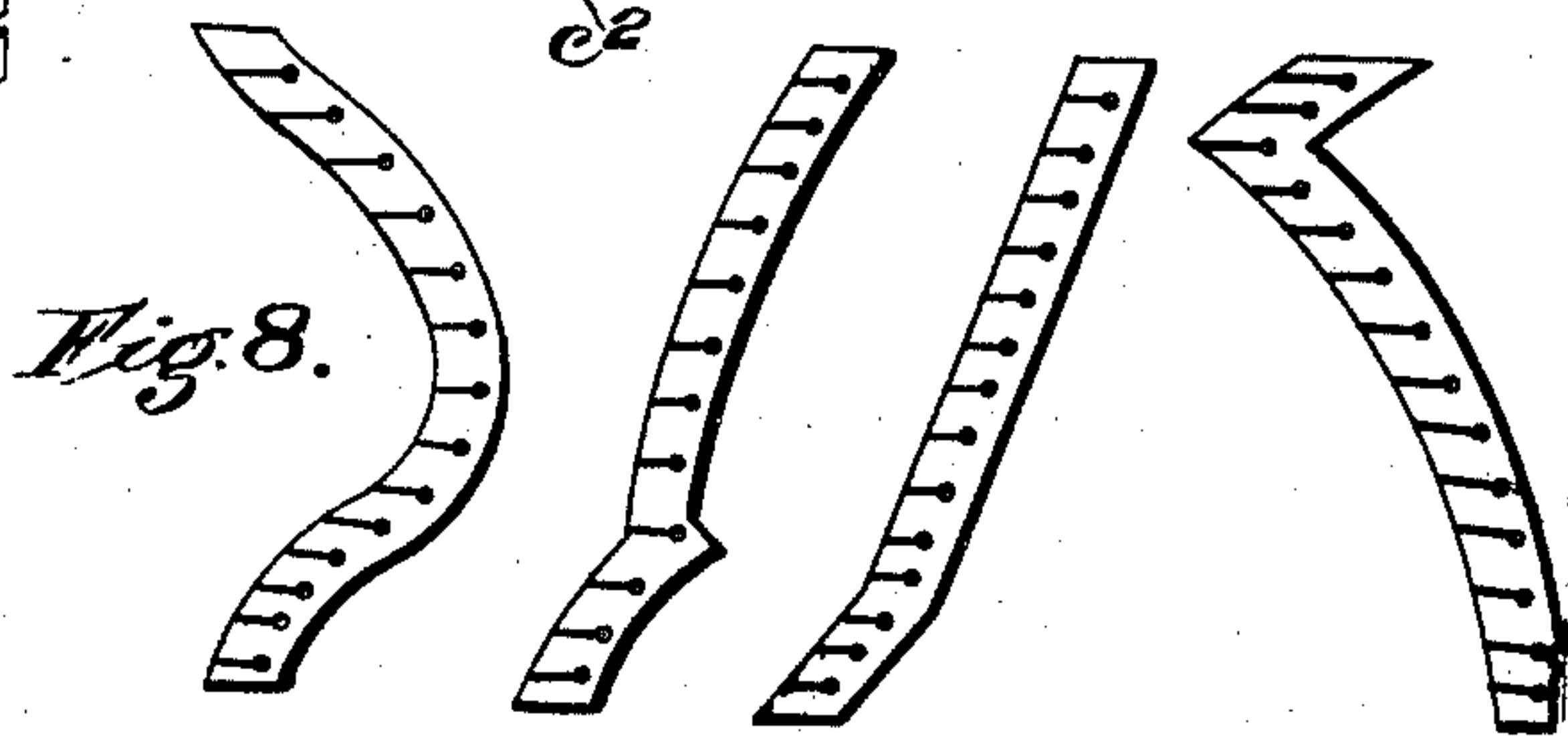
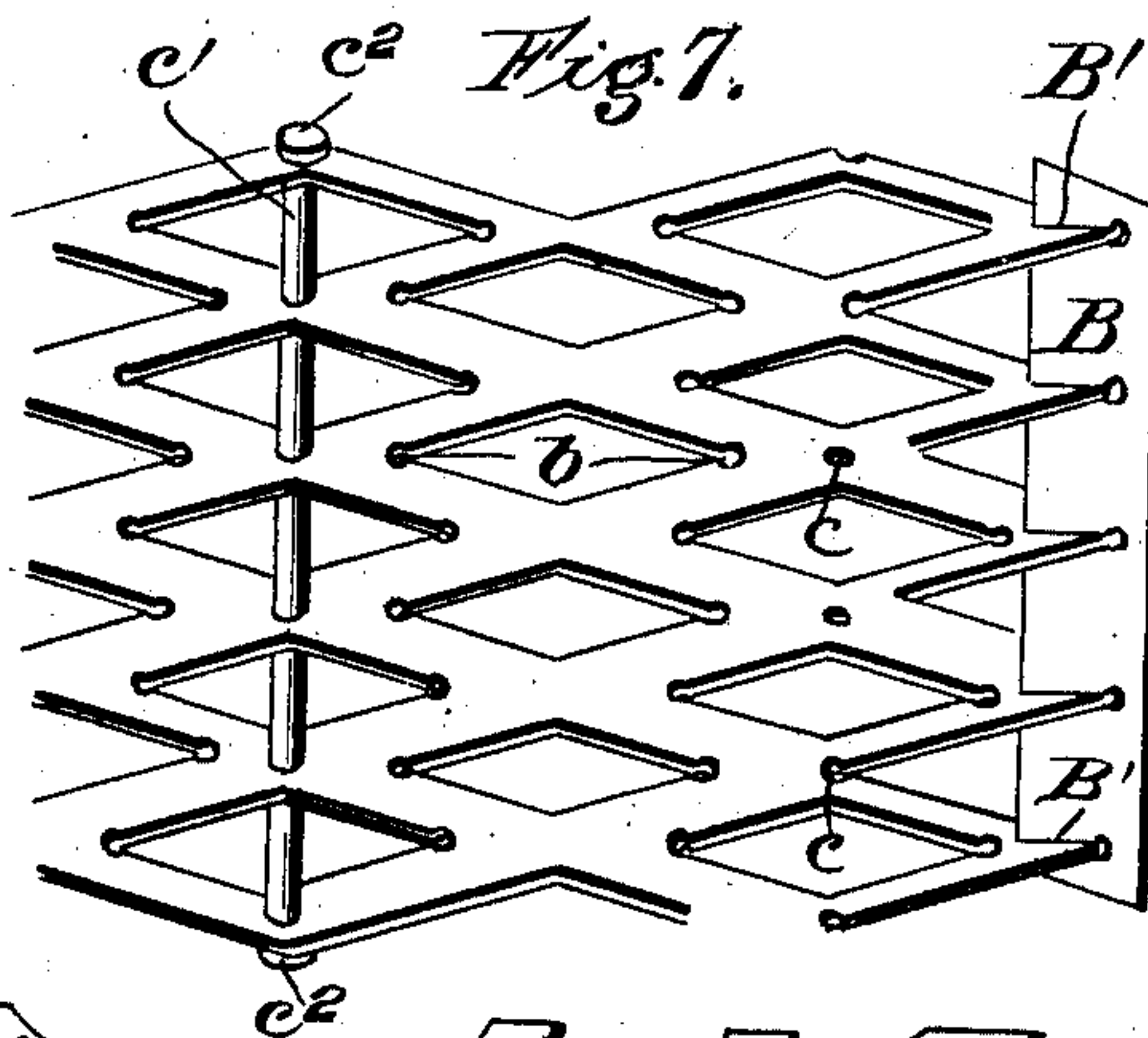
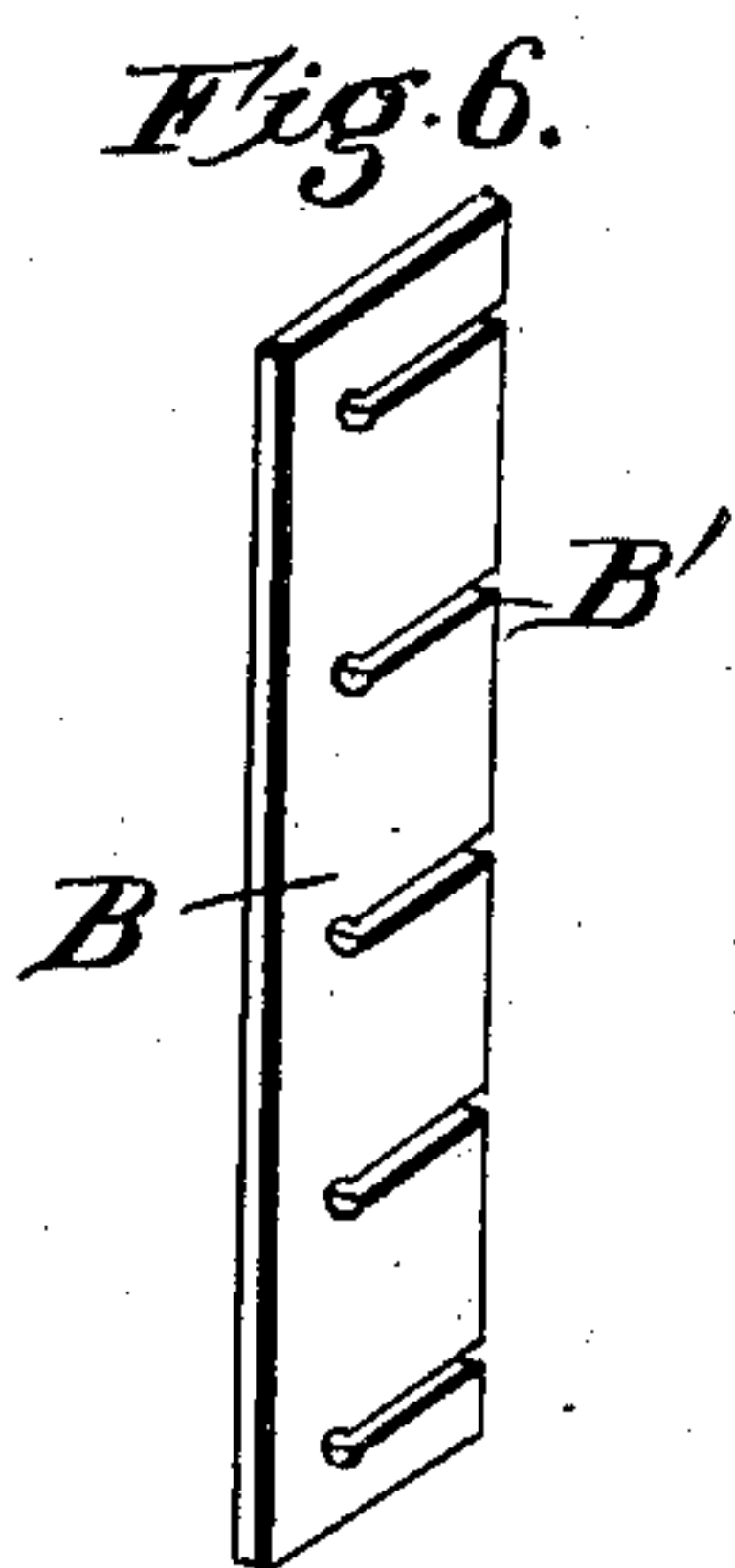
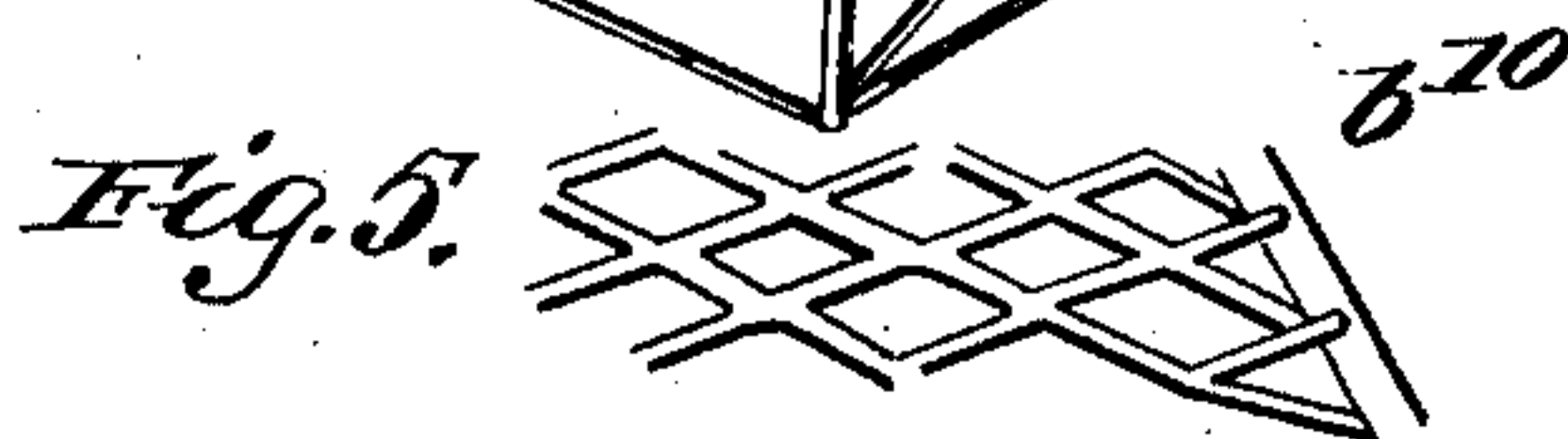
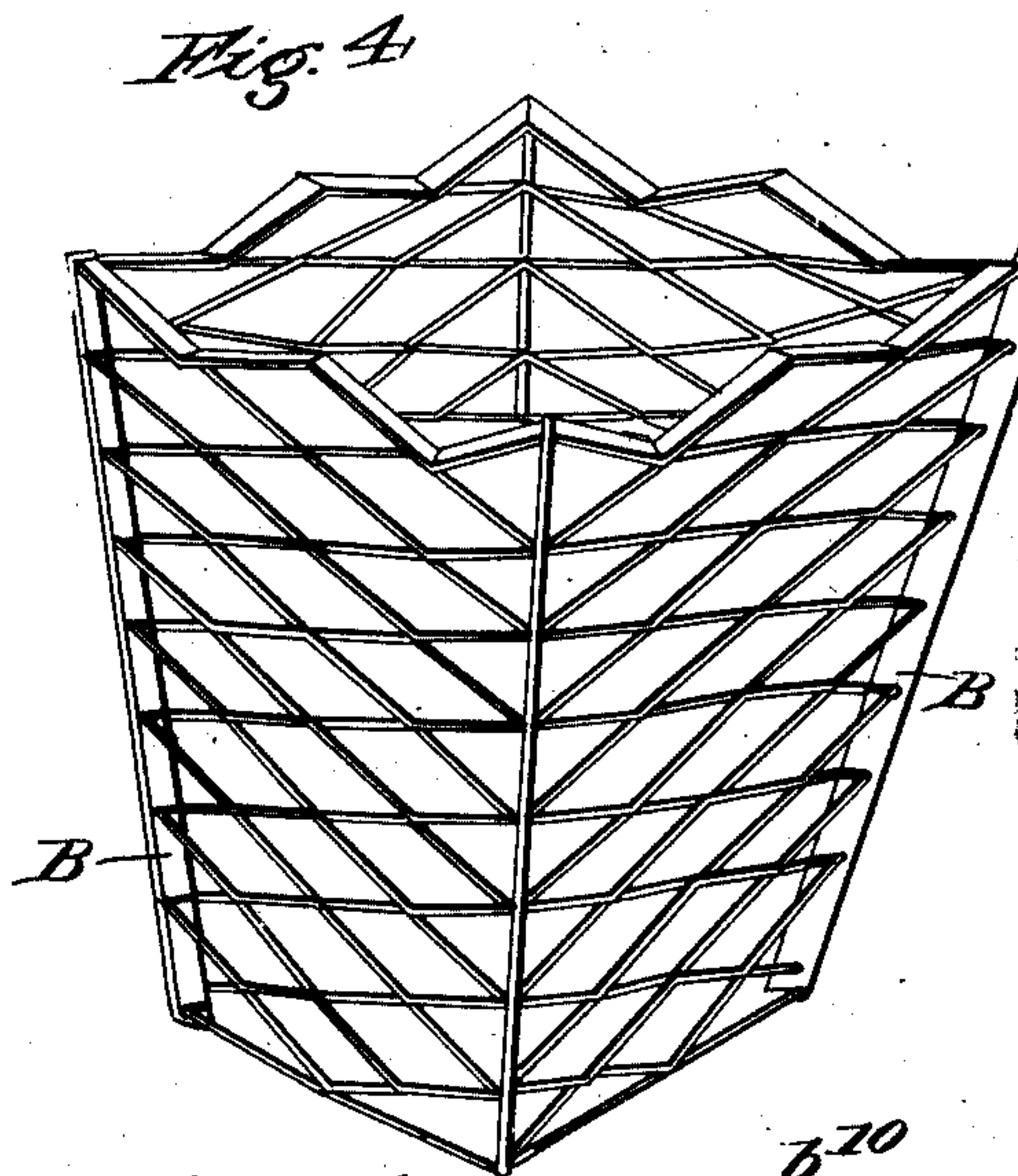
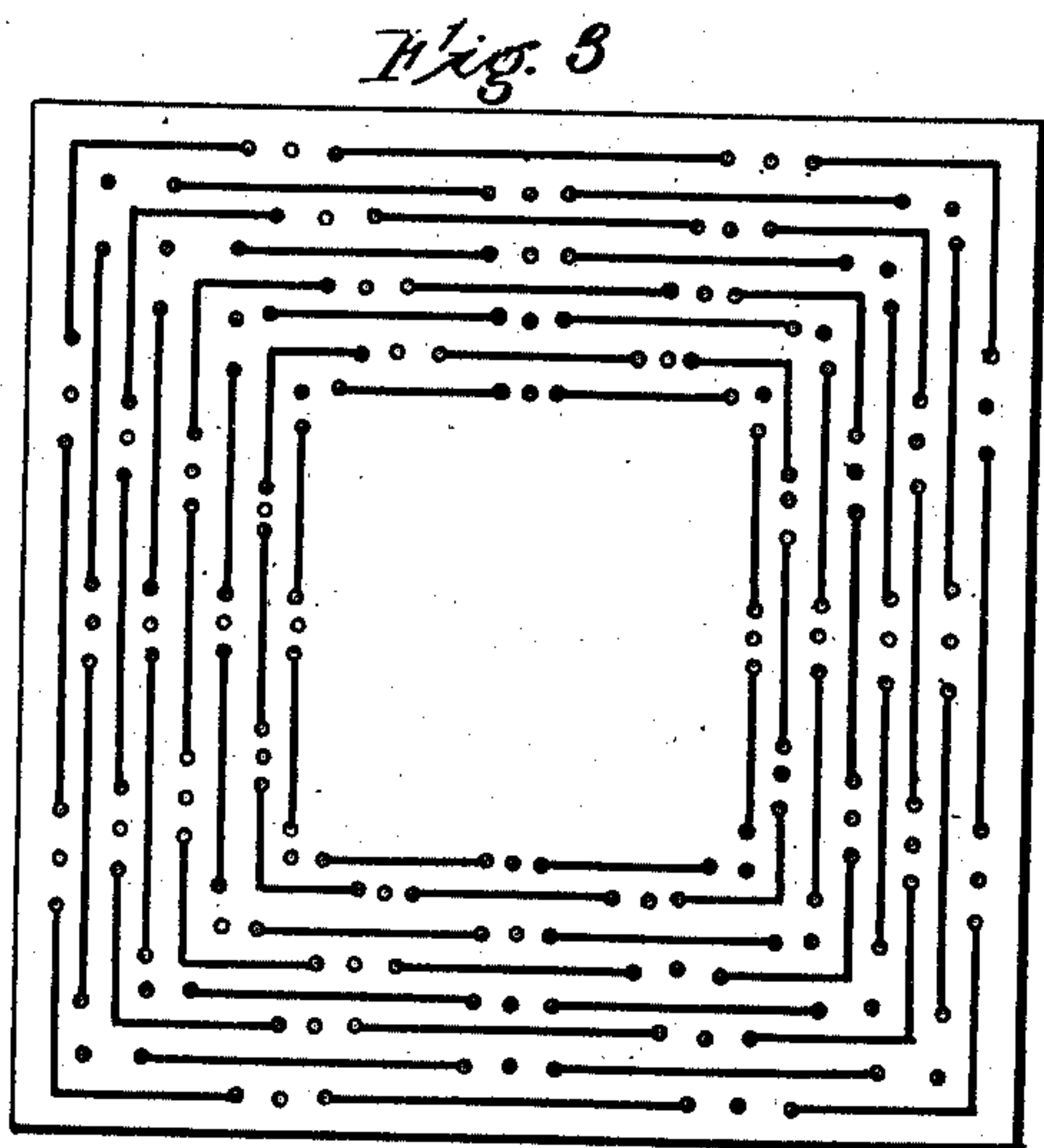
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3 SHEETS—SHEET 2.



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3 SHEETS—SHEET 3.

Fig. 9

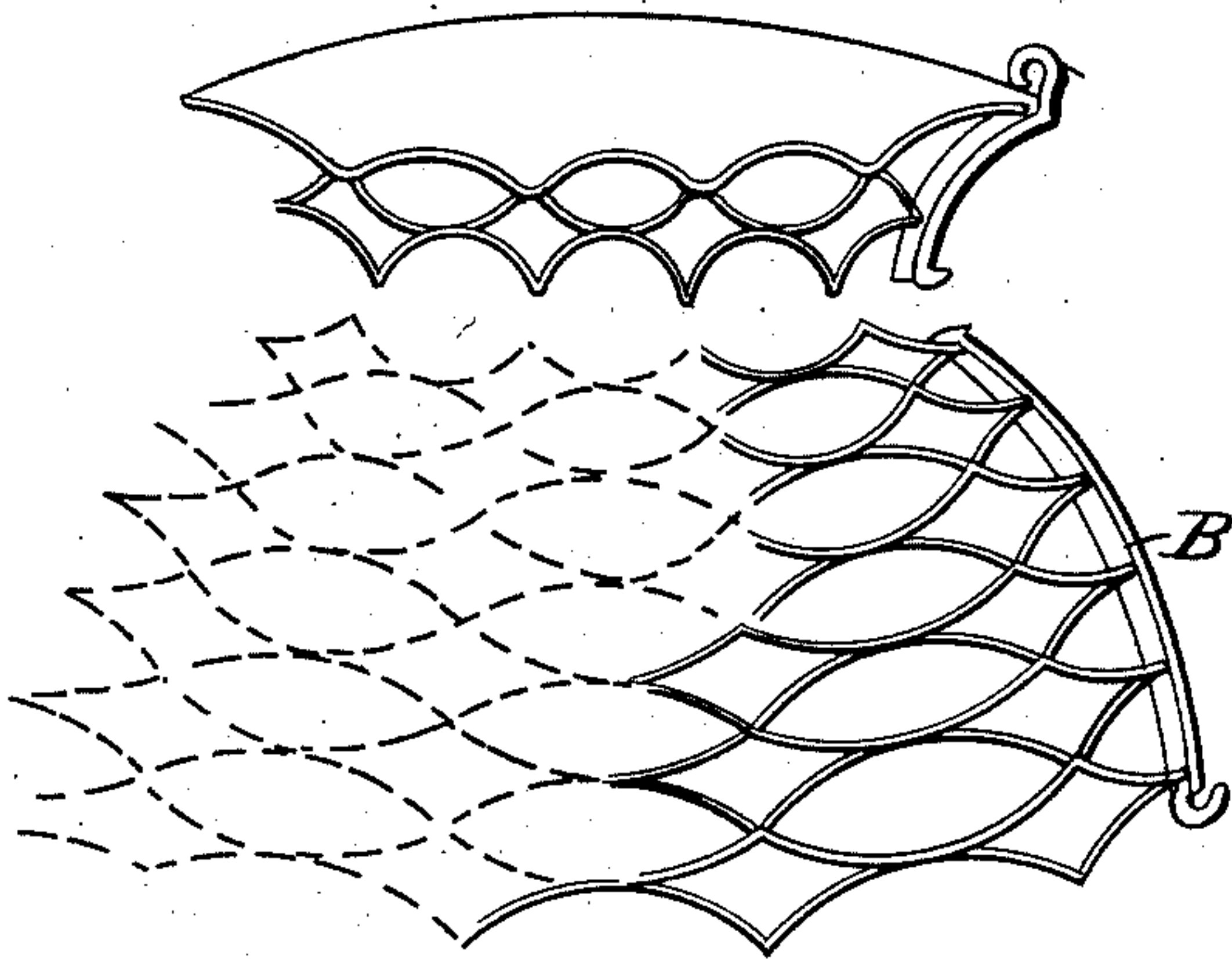


Fig. 10

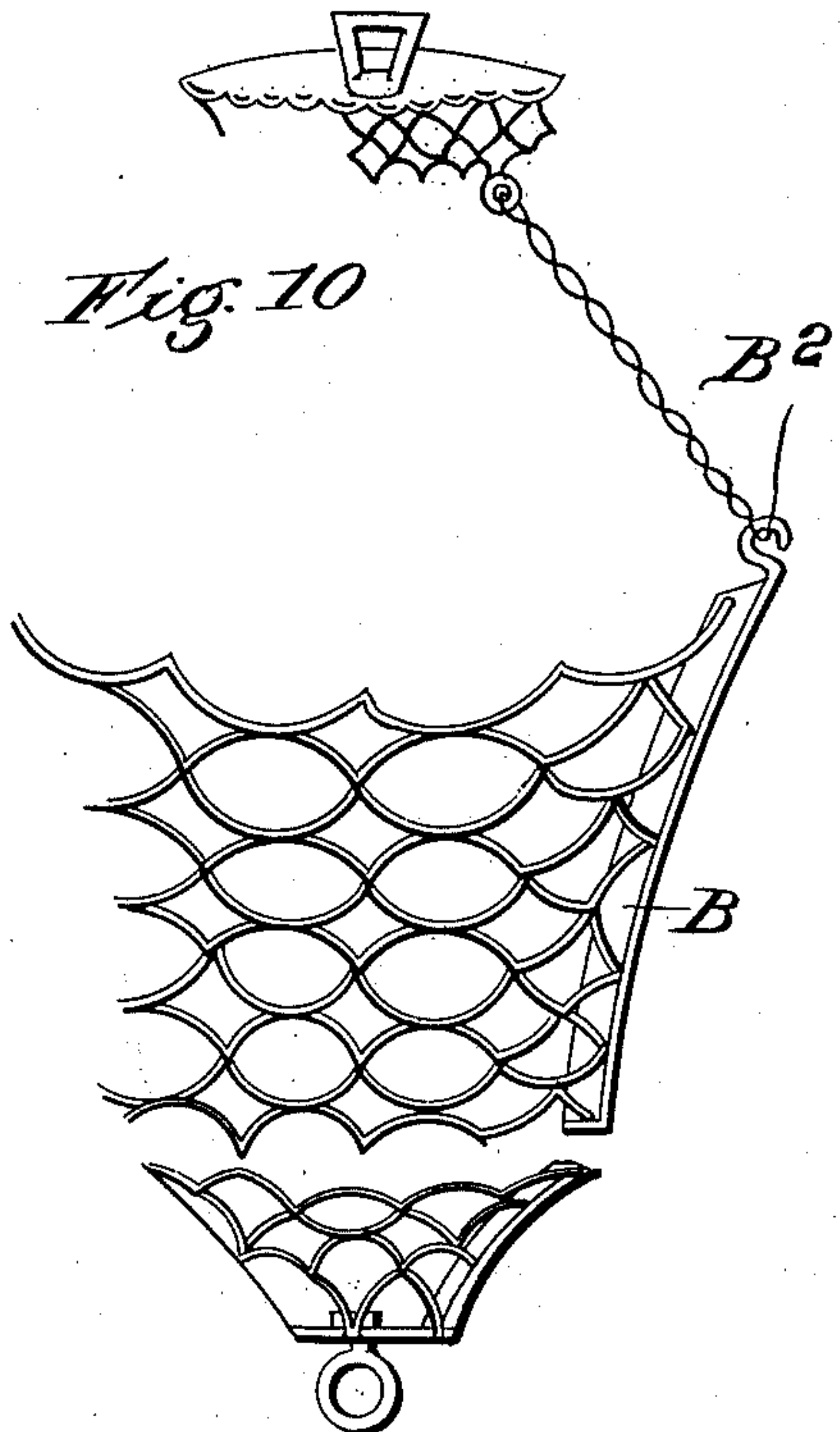


Fig. 11

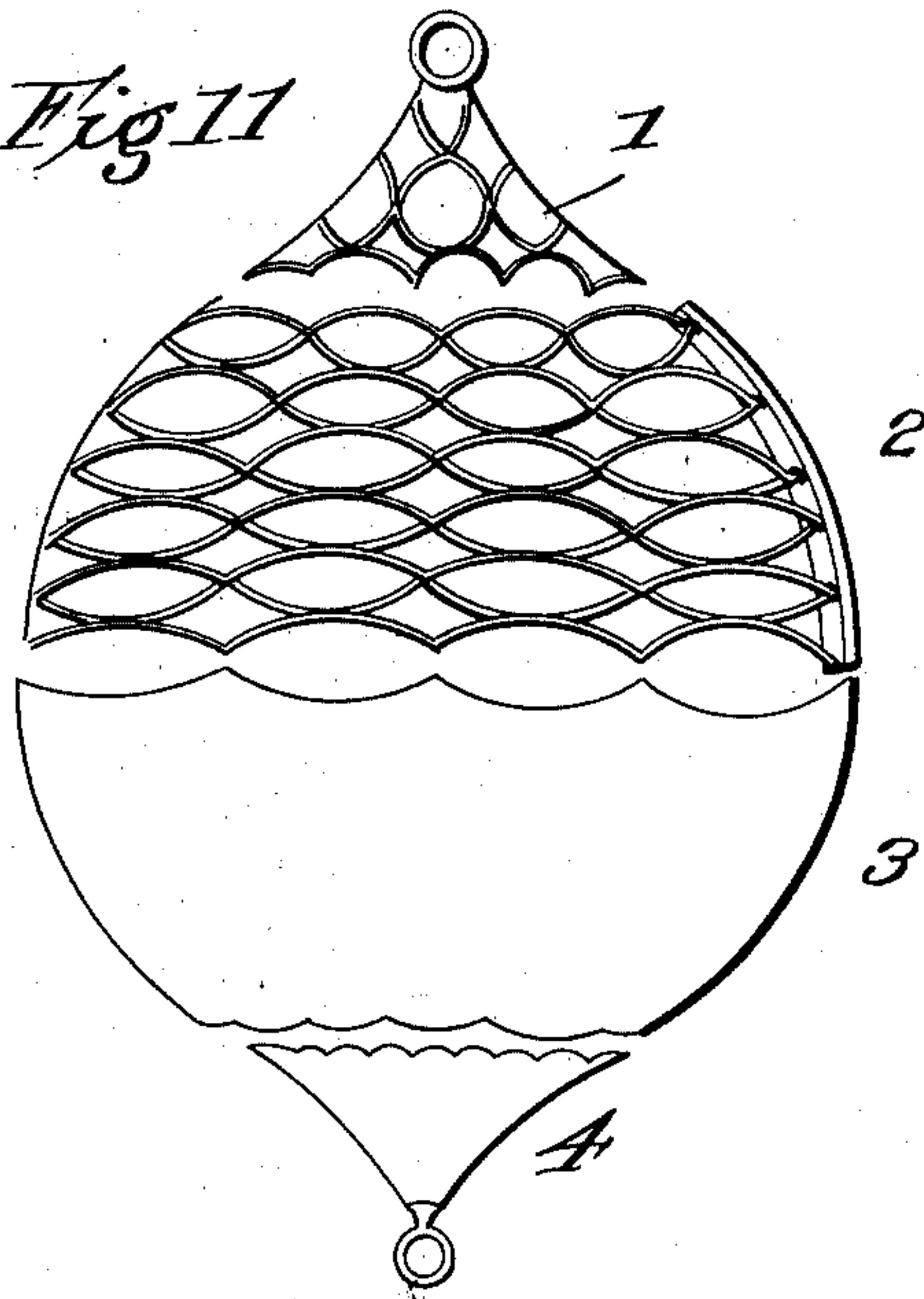
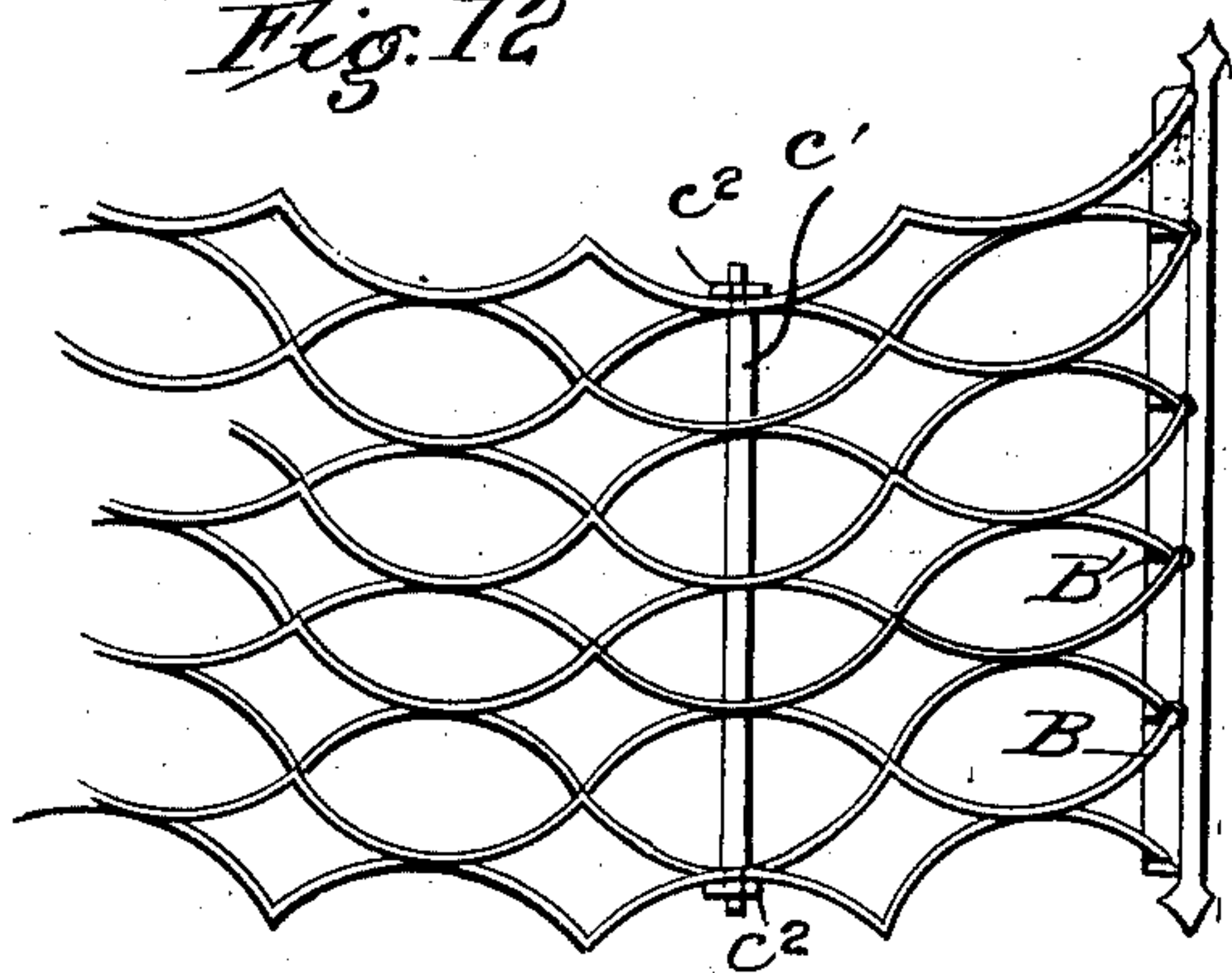


Fig. 12



WITNESSES

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# UNITED STATES PATENT OFFICE.

OTTO FREDERICK EICHBERG, OF NEW YORK, N. Y.

## EXPANDED RECEPTACLE.

No. 865,173.

Specification of Letters Patent.

Patented Sept. 3, 1907.

Application filed September 12, 1906. Serial No. 334,319.

*To all whom it may concern:*

Be it known that I, OTTO FREDERICK EICHBERG, a citizen of the United States, residing at No. 532 Chauncey street, in the borough of Brooklyn, county of Kings, city of New York, State of New York, have invented a new and useful Improvement in Hollow Bodies or Vessels, of which the following is a specification.

My invention is an improvement in vessels or receptacles formed by expanding from a slitted sheet; and the invention consists in certain novel constructions and combinations of parts as will be hereinafter described and claimed.

In the drawings Figure 1 is a plan view of the blank from which the vessel is formed. Fig. 2 is a detail perspective view of a portion of the expanded vessel. Fig. 3 is a plan view of a rectangular blank. Fig. 4 is a detail view of the angular vessel formed from the blank shown in Fig. 3. Fig. 5 illustrates in detail a base portion for the vessel shown in Fig. 4. Fig. 6 is a detail perspective view of a slotted brace plate for engaging with the several strips of the vessel. Fig. 7 shows a form of post brace extending through the several strips of the side walls of the vessel, and also the application of the brace illustrated in Fig. 6. Fig. 8 illustrates in detail different forms of slotted braces to conform to vessels of different shapes. Fig. 9 is a detail view illustrating the embodiment of the invention in a lamp shade, and Fig. 10 is a side view illustrating the embodiment of the invention in a hanging basket. Fig. 11 is a side view illustrating the invention embodied in a bird-cage structure, and Fig. 12 illustrates the post brace, and the slotted brace engaged with a fragment of the wall of a vessel.

In carrying out my invention I may employ a circular blank shown in Fig. 1 or the blank may be otherwise shaped according to the design of the vessel to be produced, and in Fig. 3, I have illustrated a rectangular brace. The body of the vessel is thus cut out of a single plate of material and is then expanded to the desired shape and after it is shaped it is reinforced and supported by braces which may be applied in the manner presently described.

As shown in Fig. 1 the plate D has a circular imperforate portion which may constitute the bottom of the vessel shown in Fig. 2 and surrounding this imperforate portion are provided rows of concentric circumjacent alternating slits *a* whose ends terminate in enlarged apertures at *b* and between the adjacent apertures perforations *c* are provided alternating in each row with the slits in the next row and the several openings *c* of each row are formed on radial lines so that when the recep-

tacle is expanded to produce the body of the vessel and the several strips formed by the material of the flexible sheet between the slits *a*, the openings *c* will be provided in rows alined so that a rod *c'* may be inserted through the several alined openings to reinforce the walls of the vessel at intervals, as will be understood from Figs. 7 and 12 of the drawings, in such manner as may be required to insure strength to the body of the receptacle and to maintain its shape or form.

When the vessel is expanded as shown in Figs. 4 and 5, its walls incline outwardly toward their upper ends and the rods *c'* are applied to such inclined walls and secured at their upper and lower ends by screw-nuts or washers *c''*, as will be understood from Fig. 7 of the drawings. When so applied the rods *c'* extending through the alined holes *c* of the strips forming the walls of the receptacle tend to brace the said walls firmly from the upper to the lower end of the wall and strengthen the receptacle as desired.

The form of brace shown in Fig. 6 comprises a plate B whose edge is slotted at B' to fit edgewise over the strips of the side walls of the receptacle, as shown in Figs. 4 and 7 so that it may be fitted tightly or wedged or snapped into connection with the connecting links of the loops or meshes of the hoop body and fastened at its opposite ends by either sewing or pasting, soldering or clenching, as may be found desirable, and which form of fastening may also be used in connection with the brace plate B with each of the strips of the wall which it engages the said plate forming a firm support for the partition and may if desired be shaped at its upper end into hook form as shown at B<sup>2</sup> in Fig. 10 in order to facilitate suspending the receptacle as will be understood from the said Fig. 10. I also may utilize brace plates B in connecting the several sections of a vessel embodying my invention in order to firmly connect the several sections or it may be desired to connect the brace with the body of a basket, as will be understood from Fig. 10 or the several sections 1, 2, 3 and 4 of a bird-cage, when the latter is formed out of the several sections, as will be understood from Fig. 11 of the drawings. In carrying out this feature of my invention it will be understood that the edge brace plates may be formed in the shape shown in Fig. 8 or otherwise to conform to the shape in which the walls of the vessel may be expanded.

Manifestly the receptacles may be made of any suitable material having the necessary flexibility to permit this expansion in the manner illustrated to produce the vessel or hollow receptacle desired, and various forms of vessels may be constructed. Thus in Fig. 4 I illustrate a form that will be useful in making



waste, or work-baskets and if desired I may use a part of the body for the base in addition to the main body and I have illustrated at  $b^{10}$  in Fig. 5 a part designed to form the base of a work-basket. In forming a vase I may use the construction shown in Fig. 10 in which upper and lower sections are provided above and below the main body in forming a base and canopy, respectively; and for a lamp shade I may employ the construction shown in Fig. 9 in which the body of the device is surmounted by a top or crown, and for a bird-cage I may use the two intermediate portions and the upper and lower portions, as illustrated in Fig. 11, while for a screen or a wall pocket the expanded construction may be suitably shaped and braced, as illustrated in Fig. 12.

It may be stated that I am aware that paper baskets have been cut out with shears from folded paper and expanded by weights and suspended but by my invention I provide means for securely bracing the walls of the vessel so as to maintain the same in the desired shape, the braces operating to stay the walls both longitudinally and laterally and prevent displacement or derangement of the walls, while in use. It may be stated also that the enlarged apertures at the ends of the slits in the blank facilitate the expansion of the device in the desired form by increasing the pliability of the blank.

In the practice of the invention I find it desirable after slitting the blank plate which may be effected by any suitable instrument or tool, such as a knife, saw, chisel or die, to expand the vessel by means of force into the desired shape and the walls of the vessel may be composed of a series of integral strips connected in such manner as to form open meshes and present a good appearance in the completed article. In thus shaping the vessel it may be brought into form of the completed article or into the form to serve as parts of

an article built up of several sections, as best illustrated in Figs. 9, 10 and 11.

I claim—

1. A vessel or receptacle having its walls composed of spaced apart strips formed from a slitted expanded sheet and supported by stays or braces which engage the several strips of the walls of the vessel whereby to hold them in expanded position.

2. A vessel or receptacle having its walls formed in spaced apart strips from a slitted sheet, and means combined with said walls and in connection with the several strips thereof, whereby to hold the same expanded out of the plane of the base.

3. A collapsible vessel having a body expanded from a central sheet and forming side walls composed of spaced apart strips, and means whereby to hold the walls expanded out of the plane of the base and exerting a direct bracing action upon the several strips of the side walls.

4. A vessel or receptacle having its walls expanded from a slitted sheet forming integral strips connected in the form of a mesh, and a brace for the said walls in the form of a plate slotted from one edge and fitted to the walls with the strips thereof entering the slots of the brace plate.

5. An expanded body composed of strips spaced apart and a brace plate conforming longitudinally to the shape of the body and having edge slots receiving the several strips of said body whereby to brace the latter in expanded position.

6. A vessel or receptacle formed from a slitted sheet and expanded to produce a wall composed of integral connected strips and a brace plate having slots receiving the individual strips whereby it is engaged with said walls to stay the same in expanded position.

7. The combination with a wall expanded from a slitted sheet and comprising integral strips in open mesh form, of a brace or stay engaged at intervals throughout its length with the several integral strips of said wall whereby to hold the same in expanded position.

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Witnesses:

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GRACE M. EICHBERG.