

C. O. PERRINE.

FILLING PACKAGES WITH COMB HONEY.

No. 176,347.

Patented April 18, 1876.

Fig. 1.

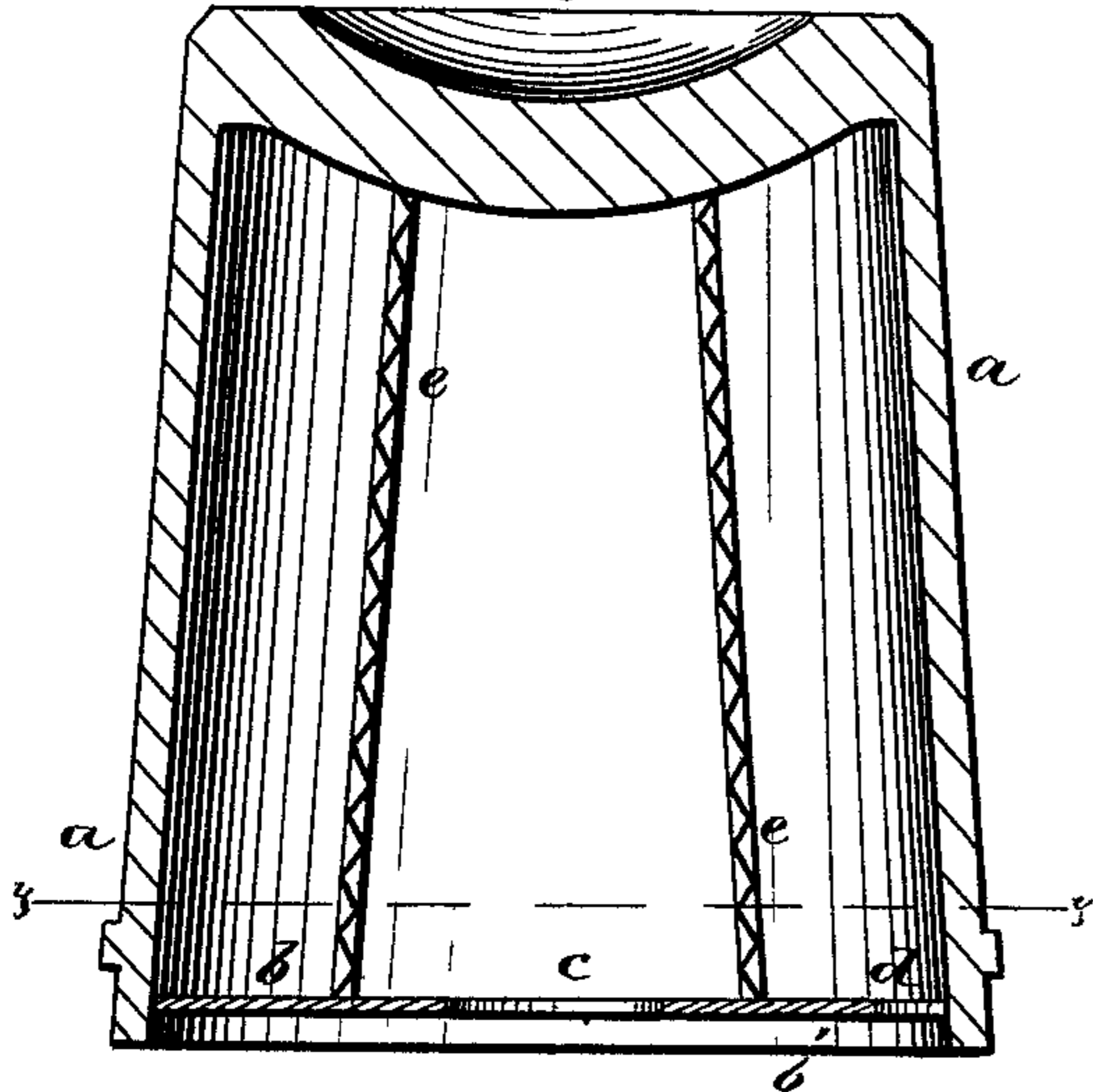


Fig. 2.

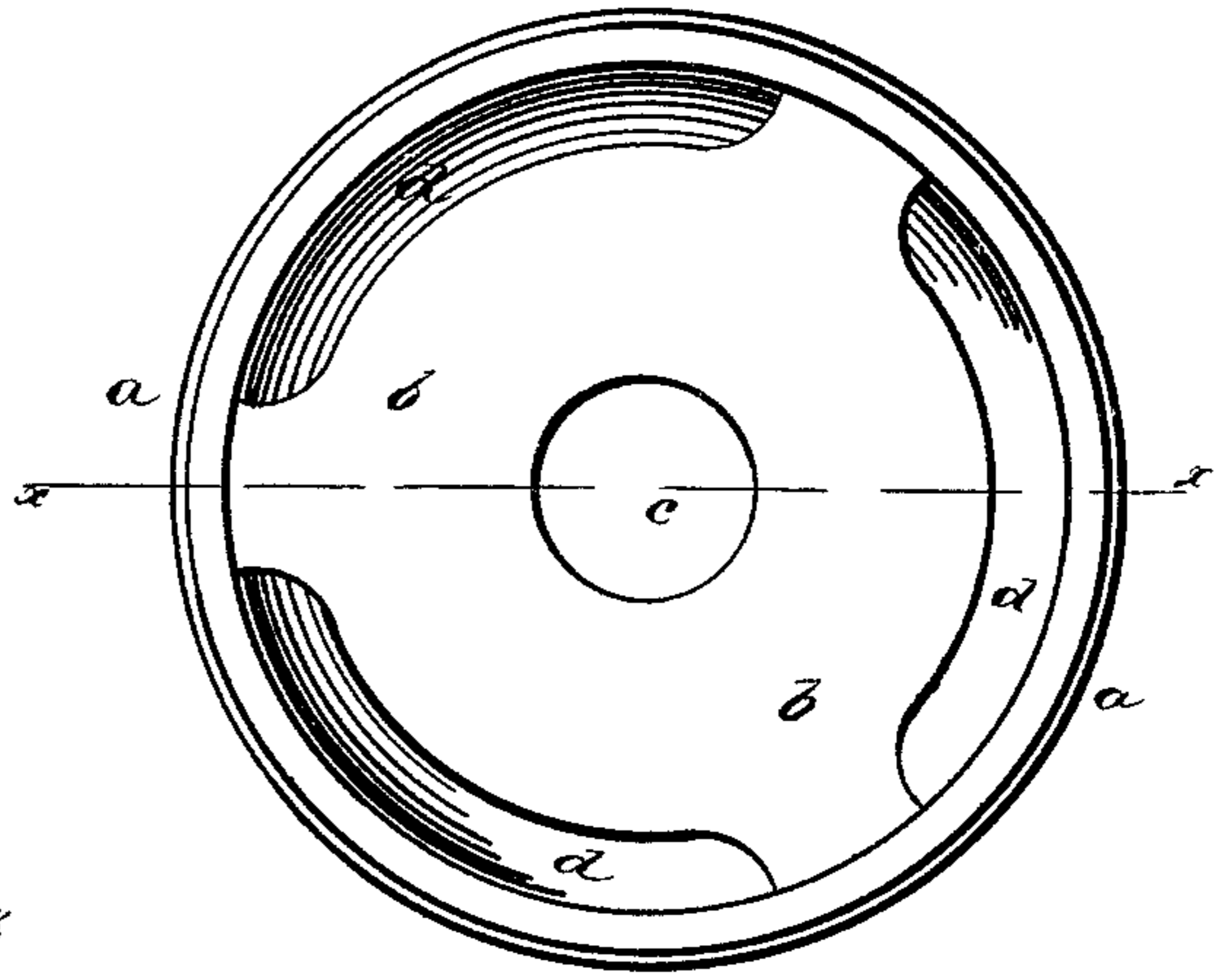


Fig. 3.

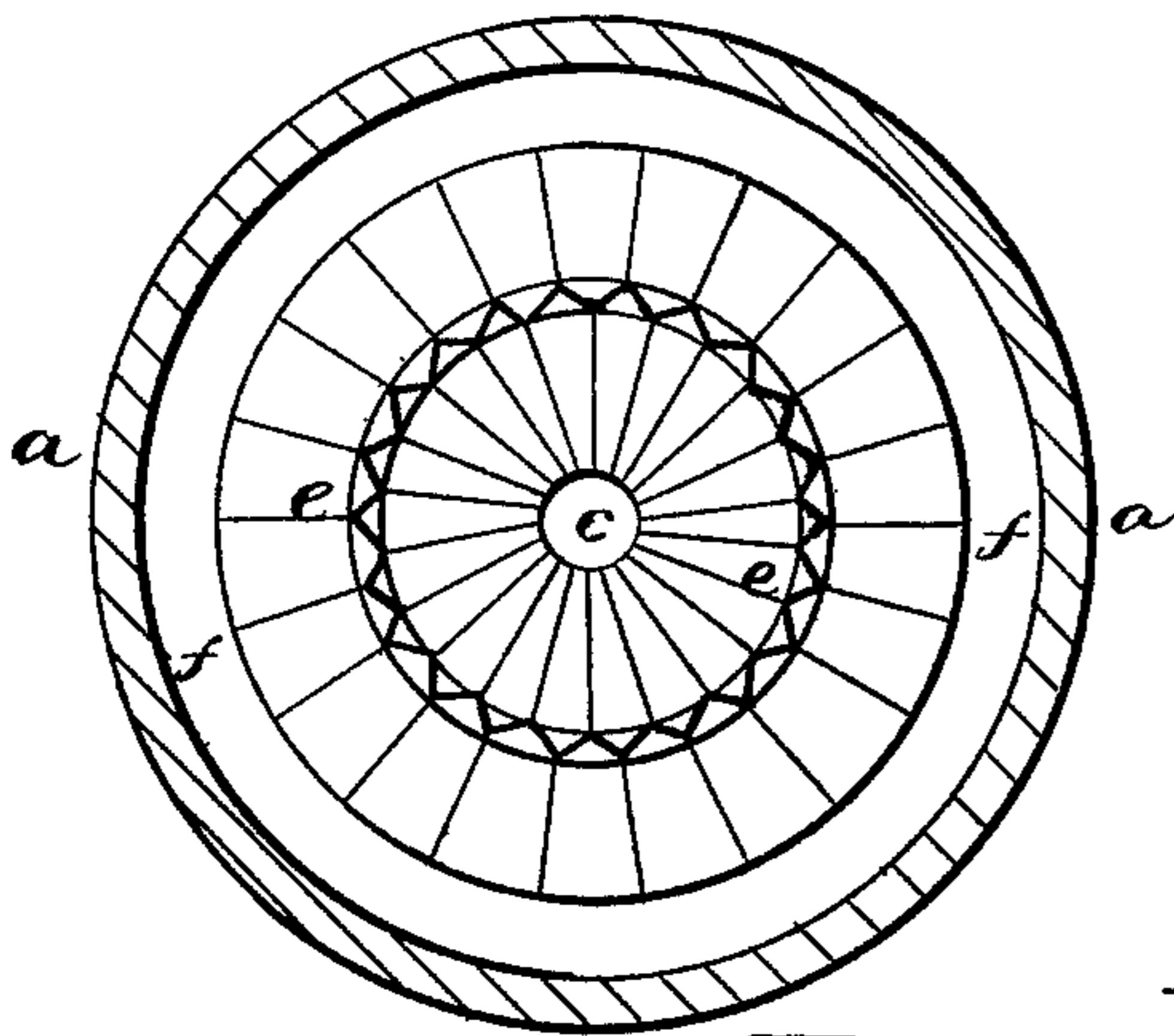


Fig. 4.

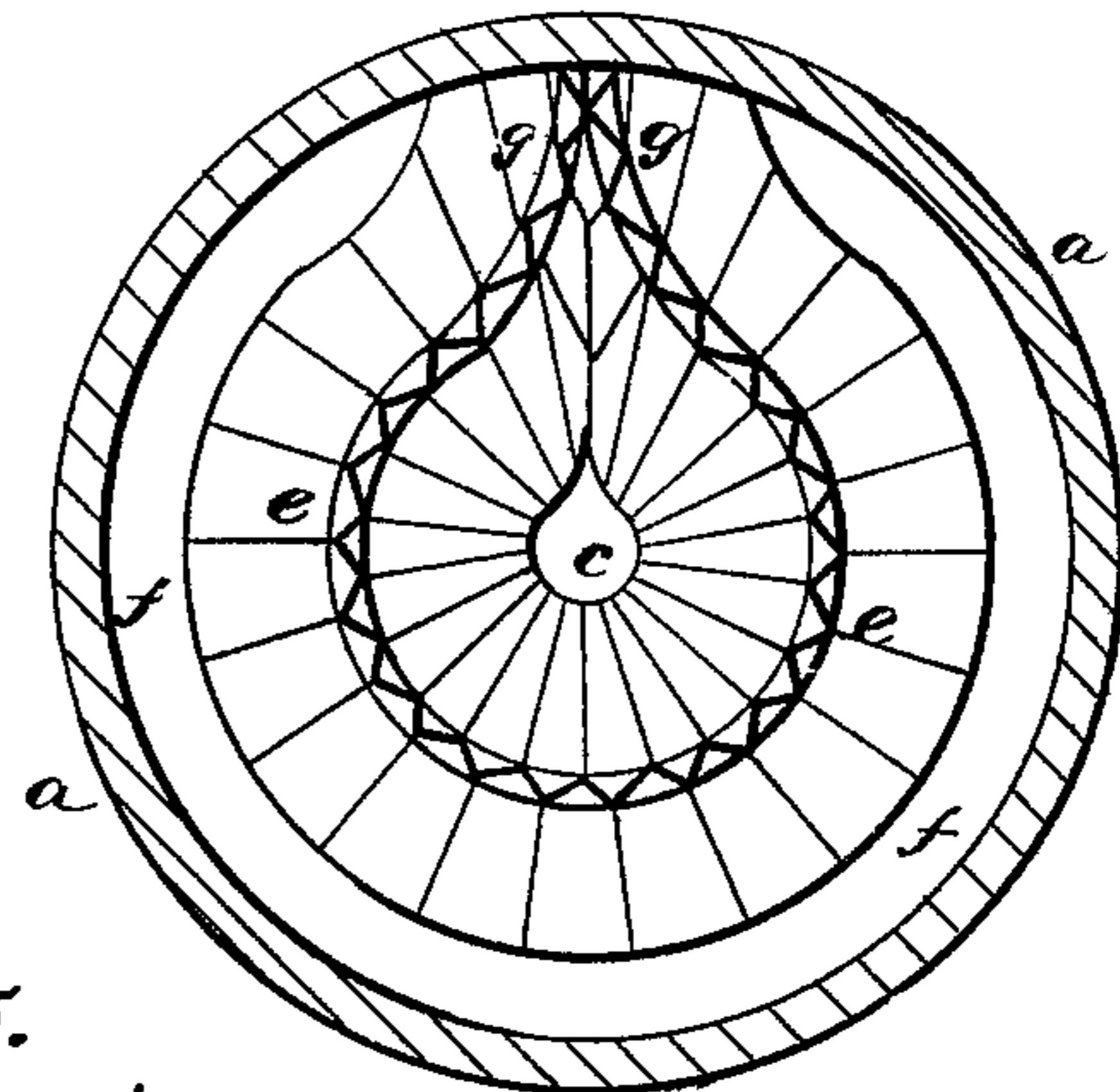
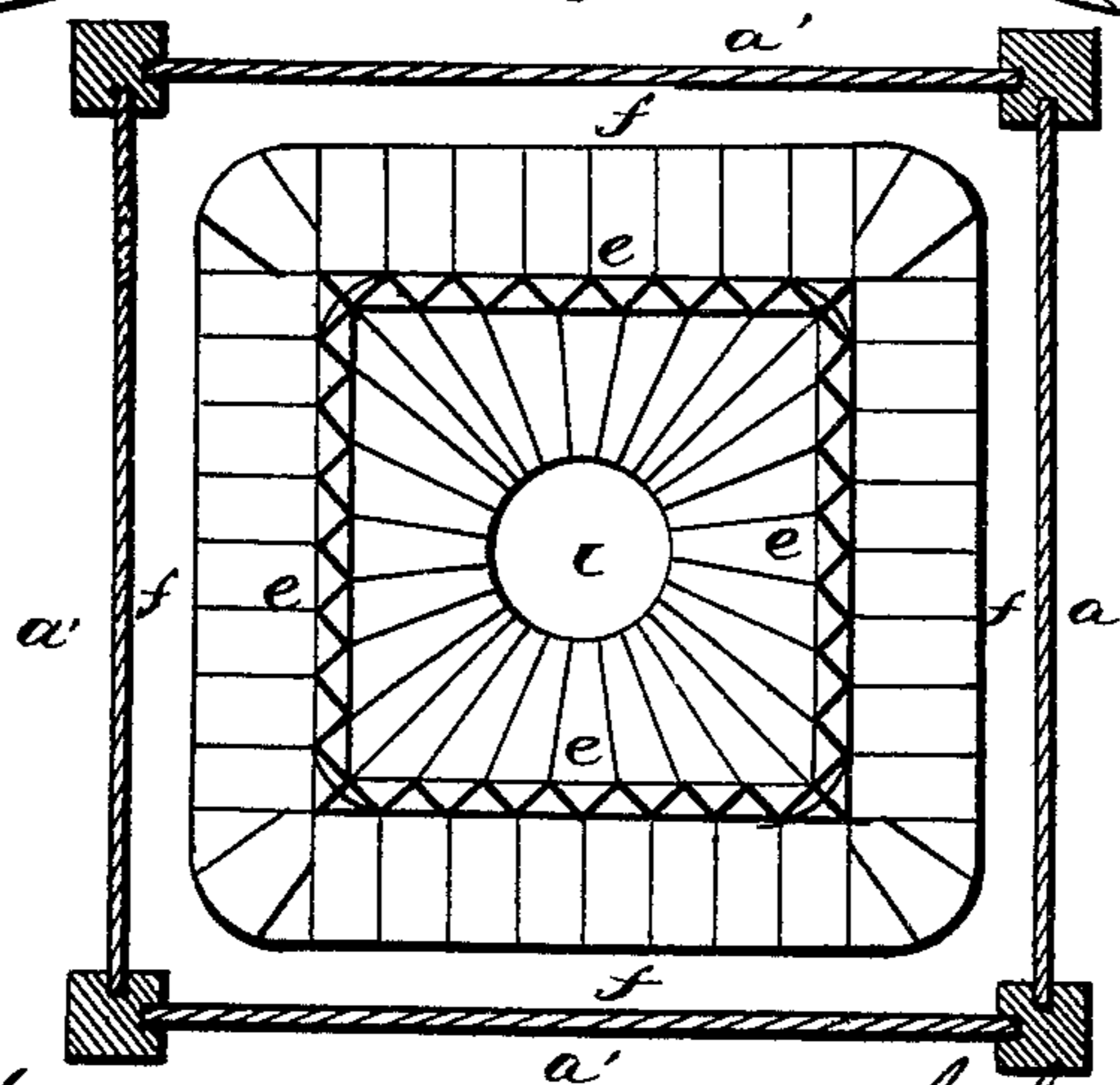


Fig. 5.



Witnesses:

L. L. Bond
A. W. Bond

Inventor:

Charles O. Perrine

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Fig. 6.

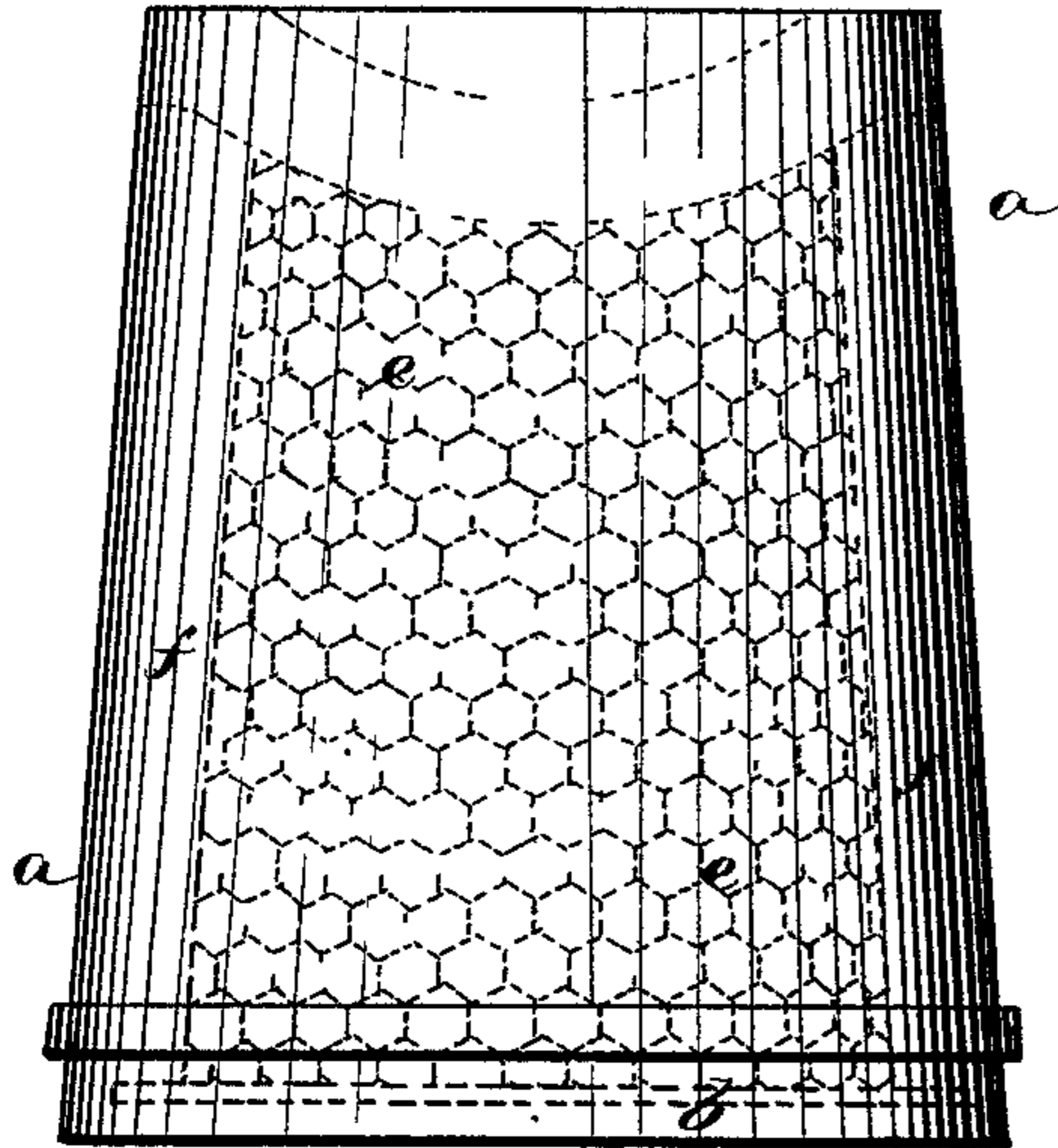
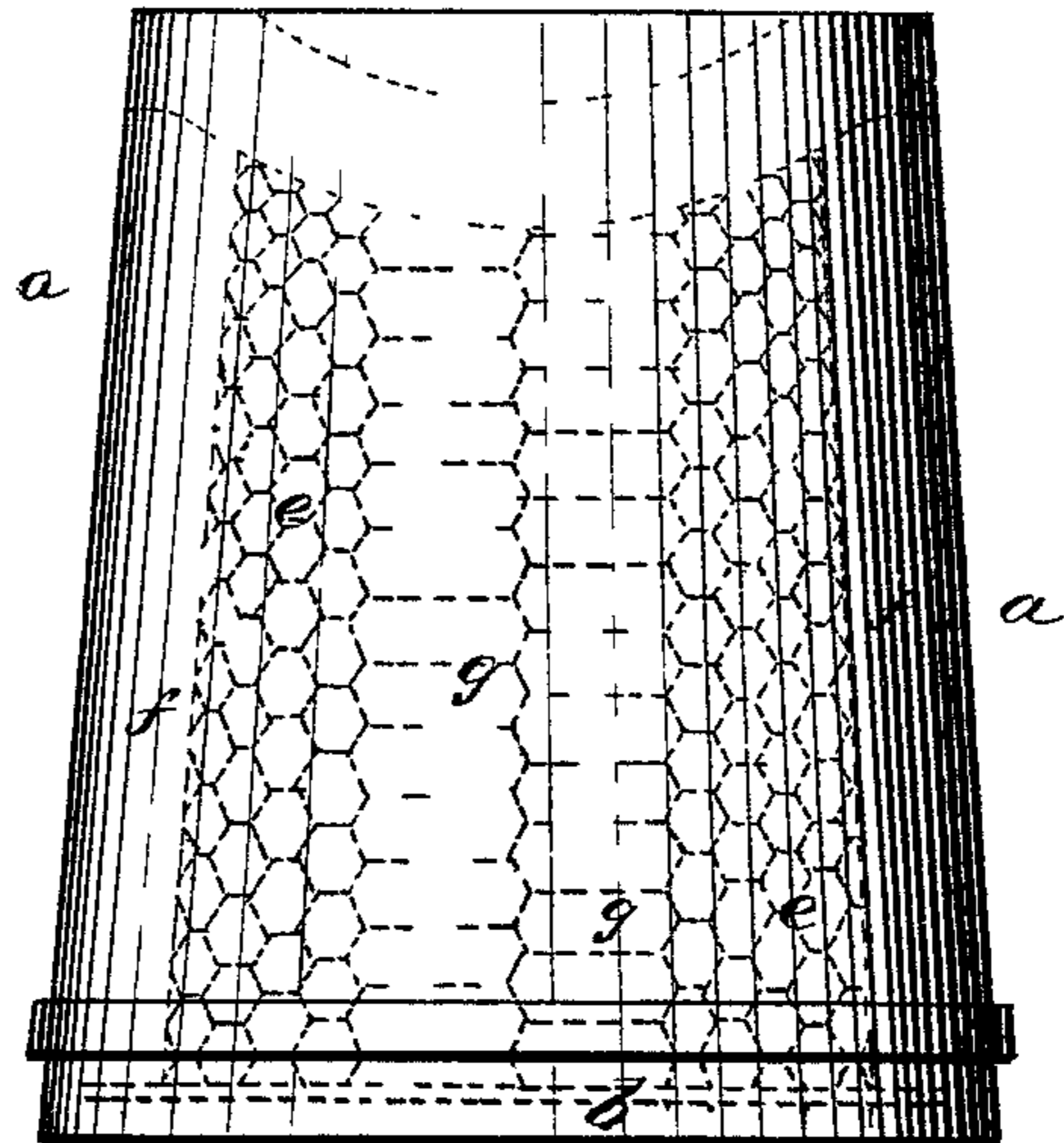


Fig. 7.



Witnesses:

L. L. Bond
O. W. Bond -

Inventor:

Charles O. Perrine

UNITED STATES PATENT OFFICE.

CHARLES O. PERRINE, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN FILLING PACKAGES WITH COMB-HONEY.

Specification forming part of Letters Patent No. **176,347**, dated April 18, 1876; application filed February 25, 1876.

To all whom it may concern:

Be it known that I, CHARLES O. PERRINE, of the city of Chicago, Cook county, State of Illinois, have invented a new and useful Improvement in the Method of Filling Packages with Comb-Honey, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical section on line *xx* of Fig. 2 of a tumbler or glass cylinder; Fig. 2, a bottom view; Fig. 3, a cross section; Fig. 4, a cross section, showing a modified form of the foundation-comb; Fig. 5, a cross-section of an angular package or vessel; Fig. 6, an elevation of a completed package like Fig. 3; Fig. 7, an elevation of a completed package like Fig. 4.

The object of my invention is to have the bees fill the package with comb-honey, and have the combs touching and fastened at the top, and show, through the glass sides of a box, jar, or other vessel, a continuous frontage of capped cells on every side, which may not be affected by the temperature of the package; and its nature consists in providing the tumbler or other package with a central comb-foundation to direct the course of the bees in forming the comb, so that they will build a cylinder, hollow square, or a similar form, which will not break loose as easily as the separate or single straight comb, and to have the lower part of the comb built on and secured to the comb-rest, so that there may be no leaking or broken parts of the comb.

Bees, in forming one or more honey-combs in a hollow space, make them nearly straight horizontally, fastening the vertical edges of the comb on two sides of the walls inclosing the space, so that when the package is of glass the two unfinished vertical edges of the comb may be seen through the glass, unlike the finished capped sides of the comb; and the honey in the unfinished cells against the glass is exposed to the action of the light, which causes it to granulate and become opaque; and the glass, in expanding and contracting with heat and cold, breaks the cells, and causes the honey to leak out of them; and where a vessel is placed on a hive

with the opening downward, the bees, in building and finishing the comb in the vessel, will fasten the comb to that part of the hive underlying the open space of the vessel; and in removing the vessel or package with the honey from the hive the comb attachment must be cut or broken, allowing the honey in the lower cells to run out, and leaving an unfinished broken part to view.

In the drawings, *a* represents a glass package in the shape or form of a tumbler inverted; *b*, the head or comb rest, upon which the comb may be finished when the package is filled by the bees; *c*, the central opening; *d*, the side opening; *e*, the comb foundation; *f*, the space between the finished comb and the walls of the package; *g*, the side attachment for the comb in the modified form shown at Fig. 4.

In preparing my packages, I insert in the cylindrical packages a cylindrical comb-foundation, *e*, as shown in Fig. 1. This foundation *e* may be prepared of wax, waxed paper, or other suitable material, and it is placed vertical, or nearly so, within the package, as shown at Fig. 1. The package, however, instead of being made cylindrical, may be made of any suitable hollow vessel made of glass, or partly of glass and partly of wood, as shown at Fig. 5, or of any other suitable material or shape. The head or bottom *b* may be made of paper, wood, or other suitable material, and is provided with an opening, *c*, to enable the bees to work in the center, and with side openings *d* to enable them to work upon and finish up the outer portion upon the comb-foundation. These openings *d* will be modified according to the form of the package. The bees will finish the cells from the foundation *e*, and by locating the foundation in any desired position the bees will finish from it in a cylindrical vessel, as shown at Fig. 6, without attaching the comb, except at the top and bottom. In the form shown at Figs. 4 and 7 it will be attached at the top and one side only, but at this place the attachment may be covered with a label, or otherwise, to hide from view the unfinished or attached portion.

In locating the foundation it should be placed in a cylindrical vessel concentric and

about equidistant from the center to the circumference, so as to give about an equal depth of cell on each side of the foundation.

In practice it will be preferable to make the foundation continuous from end to end, as shown; but the bees will continue the work if the foundation is not carried down to the bottom, or, if made in vertical strips, they will join them so as to perfect the circle. Packages are to be placed in the hives over suitable openings to allow the bees to enter, and the head or comb rest will prevent the bees from resting the comb on or attaching it to that part of the hive upon which it is placed, and the head is set up sufficiently far above the bottom edge to allow the bees to pass under to the openings *d*.

What I claim as new, and desire to secure by Letters Patent, is as follows:

1. A case, *a*, in combination with a foundation, *e*, and a suitable rest, whereby the case can be filled by the bees, and the case serve as a package for the honey, substantially as set forth.

2. The case *a*, in combination with a foundation, *e*, attached to the upper end of the case, substantially as and for the purpose specified.

3. The head or comb rest *b*, in combination with the case *a*, substantially as set forth.

CHARLES O. PERRINE.

Witnesses:

L. L. BOND,
O. W. BOND.