

E. E. QUIMBY.
Centrifugal Liquoring Apparatus.
No. 221,896. Patented Nov. 18, 1879.

Figure 1.

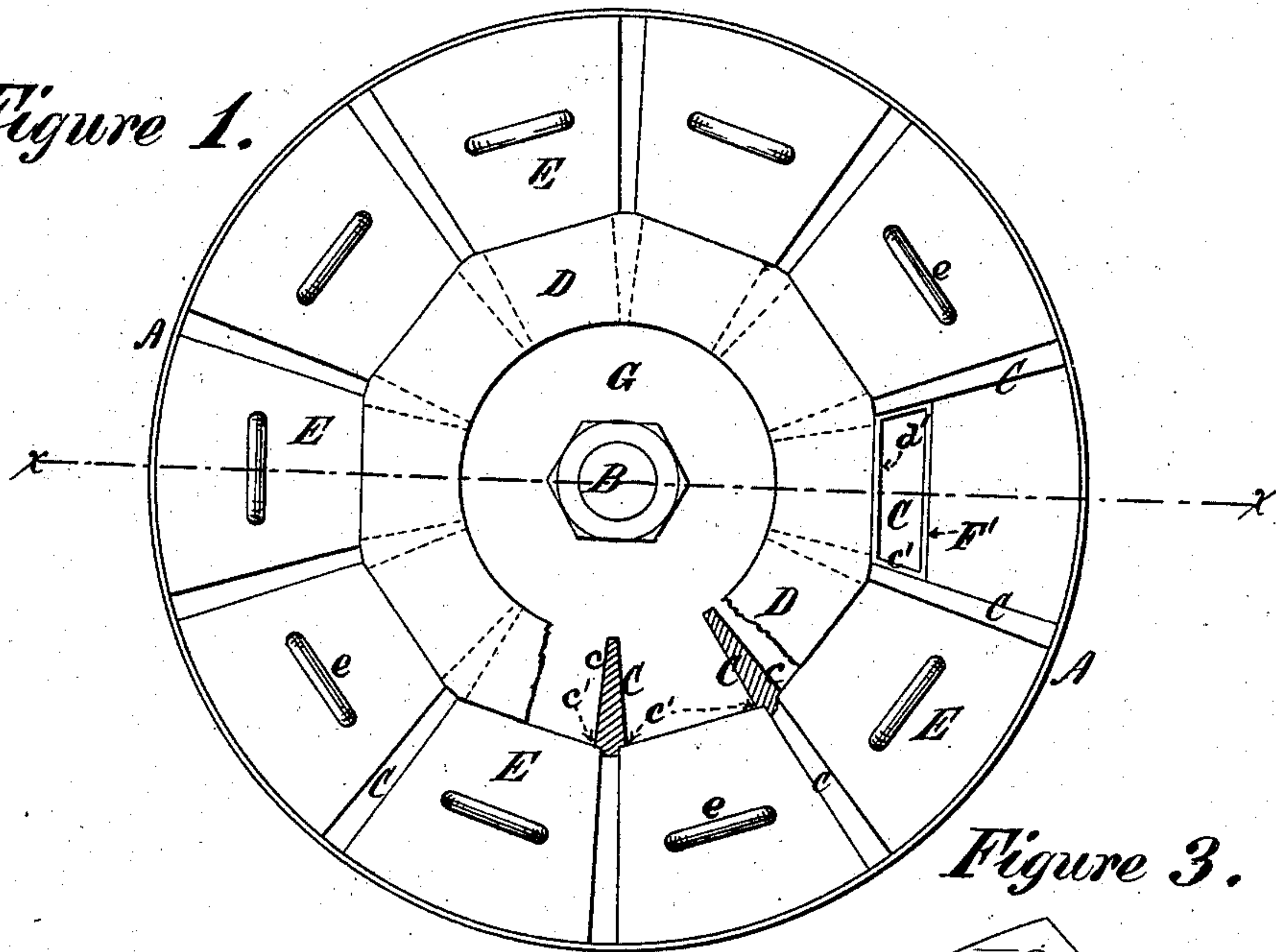


Figure 3.

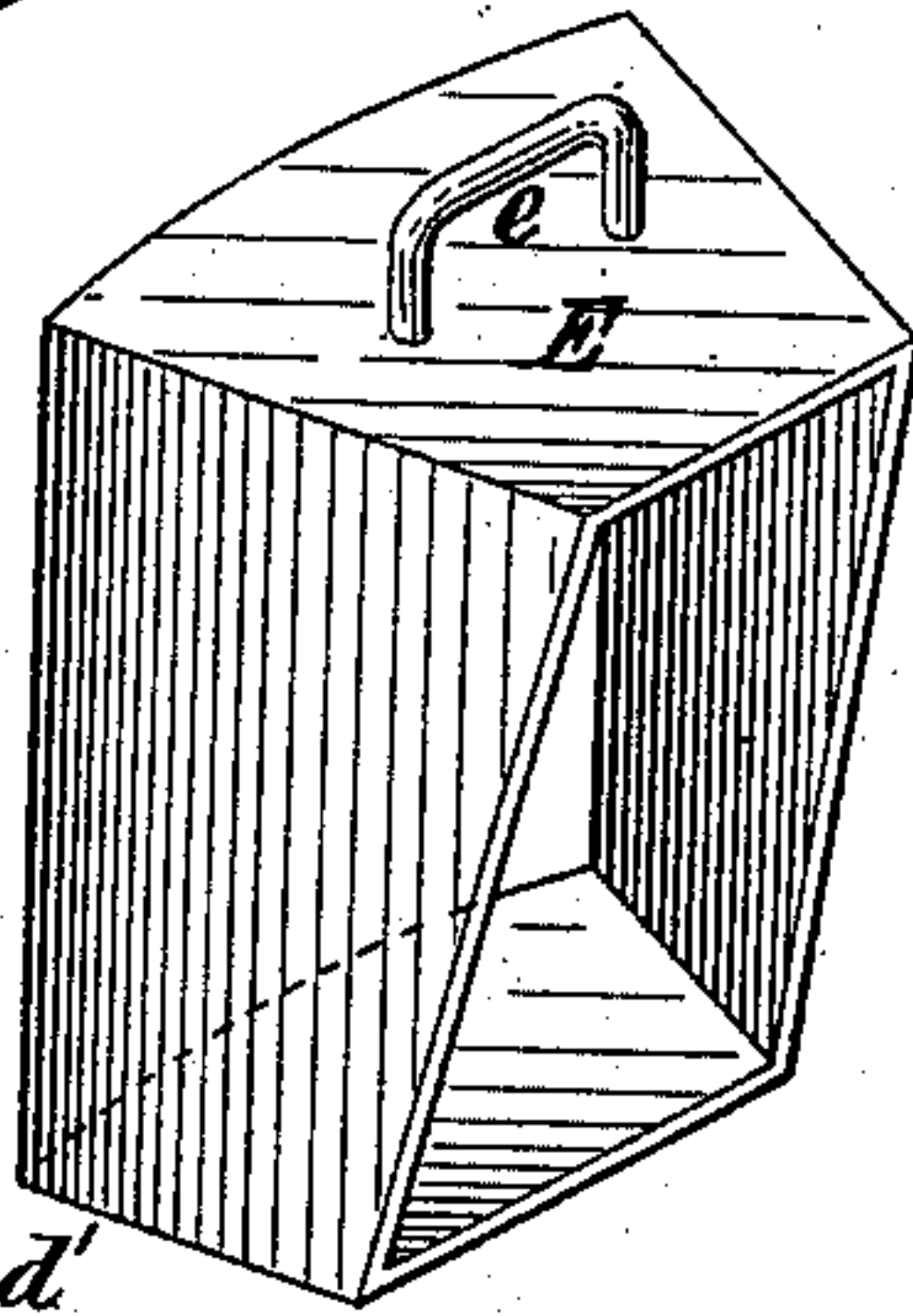
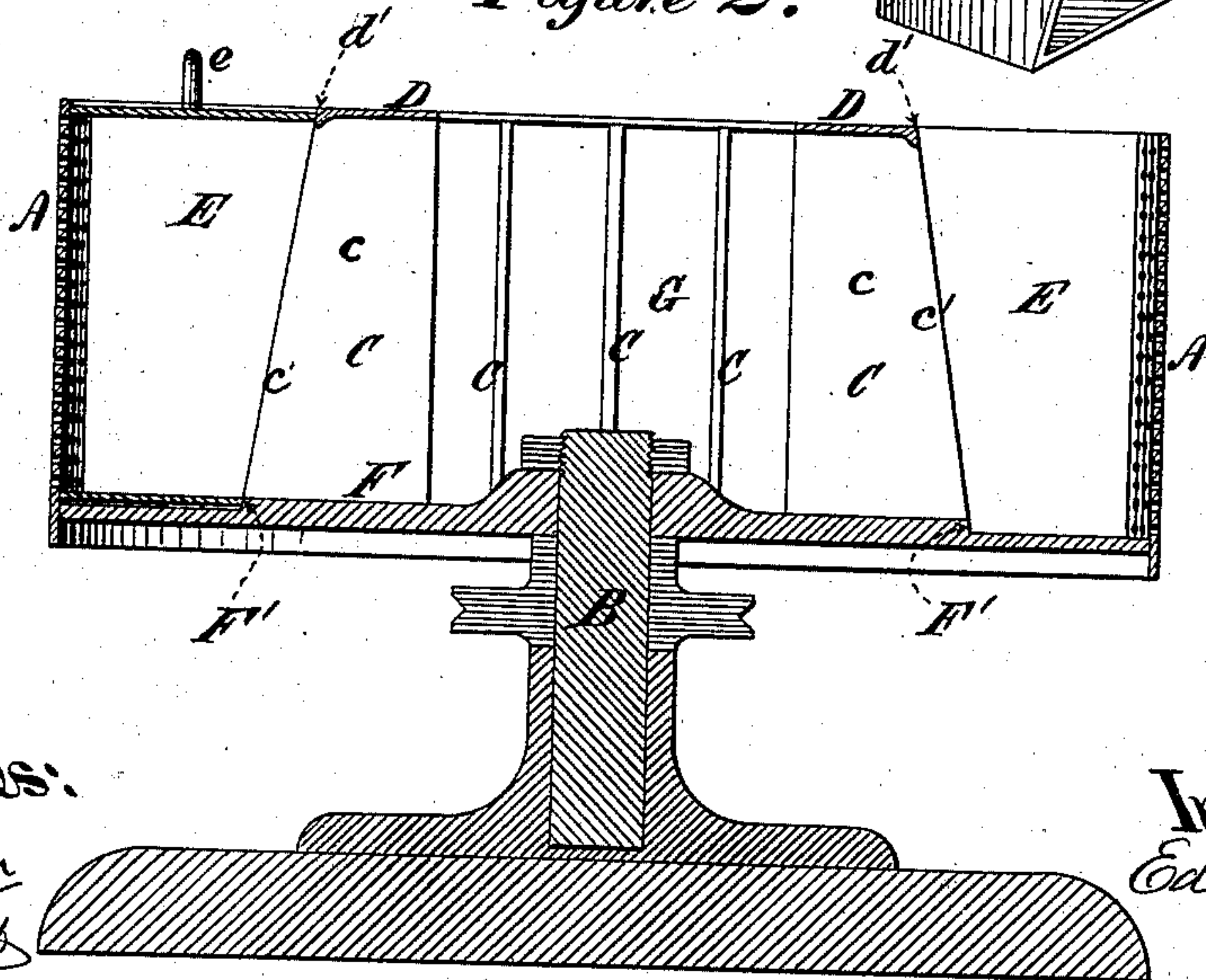


Figure 2.



Witnesses:

Edw. Rayson
Geo. W. Mott

Inventor:

Edw. E. Quimby

UNITED STATES PATENT OFFICE.

EDWARD E. QUIMBY, OF ORANGE, ASSIGNOR TO THE F. O. MATTHIESSEN
AND WIECHERS SUGAR REFINING COMPANY, OF JERSEY CITY, N. J.

IMPROVEMENT IN CENTRIFUGAL LIQUORING APPARATUS.

Specification forming part of Letters Patent No. **221,896**, dated November 18, 1879; application filed
June 4, 1879.

To all whom it may concern:

Be it known that I, EDWARD E. QUIMBY, of Orange, New Jersey, have invented certain Improvements in Centrifugal Liquoring Apparatus, of which the following is a specification.

My improvements relate to the class of devices used for packing the interstices between the molds in the centrifugal machine and the portions of the basket with which they are in proximity, for the purpose of preventing the escape, except through the sugar contained in the molds, of white liquor introduced into the interior portion of the basket; and my invention consists in forming the inner open faces of the molds upon an incline, the top of the mold being made deeper than the bottom; and in providing a series of stationary cells in the central portion of the basket corresponding in number with the number of molds, the open outer faces of the cells being outwardly and downwardly inclined upon an angle corresponding with that of the inner faces of the molds, and the two surfaces being ground, so as to make a tight joint when the mold is deposited in its seat in the basket.

If desired, the outer edges of the boxes may be faced with india-rubber or leather, or some other elastic material, in the ordinary manner; but the ground metallic joints will be usually found to answer the purpose.

The accompanying drawings, representing a centrifugal machine embodying my improvements, are as follows:

Figure 1 is a top view of the basket of a centrifugal machine, having a portion of the top of the walls removed to exhibit the side walls of the cells. Fig. 2 is a central vertical section through the line *x x* on Fig. 1; and Fig. 3 is an isometrical perspective of my sugar-mold with an inclined inner open face.

The drawings represent the basket A, of a centrifugal machine, mounted upon the usual spindle B, and provided with vertical division-walls C, extending radially inward from the periphery of the basket to the inner edge of

the annular plate D, which forms the top of the cells.

It will be seen that the outer edge of the annular plate D is polygonal, its planes being respectively parallel with the inner edges of the sugar-molds E.

On the opposed side walls *c* of each cell, I provide the inclined shoulders *c'*.

It will be seen that the floor F of the cell is slightly higher than the floor of the outer portion of the basket, and that it has a straight beveled edge, F', occupying the same plane as the inclined shoulders *c'*. The plane *d'* of the top of the cell is also beveled, so that the plane *d'*, the inclined shoulders *c'*, and the edge F' of the floor of the cell are inclined in the same plane, and they thus present an inclined seat for engaging the inner inclined edges of the top, bottom, and sides of the sugar-mold E. I grind this seat, and grind the inner inclined edge of the sugar-mold, and so proportion the depth of the sugar-mold that when deposited in the basket it wedges itself firmly between the periphery of the basket and the inclined seat.

The central portion G of the basket is, it will be seen, open, and forms a chamber into which the white liquor can be poured when all the molds have been deposited in their places.

The sugar-molds are provided with the usual handles *e*, by means of which they may be lifted.

I claim as my invention—

In centrifugal apparatus for liquoring hard sugar, an inner circle of cells, the outer edges of the top, bottom, and sides of which are downwardly and outwardly inclined, in combination with an outer circle of sugar-molds, the inner open faces of which are correspondingly inclined, substantially as and for the purpose set forth.

EDW. E. QUIMBY.

Witnesses:

M. L. ADAMS,
EDWD. PAYSON.