

(No Model.)

F. WILLIAMS.  
CENTRIFUGAL HONEY EXTRACTOR.

No. 486,151.

Patented Nov. 15, 1892.

Fig. 1.

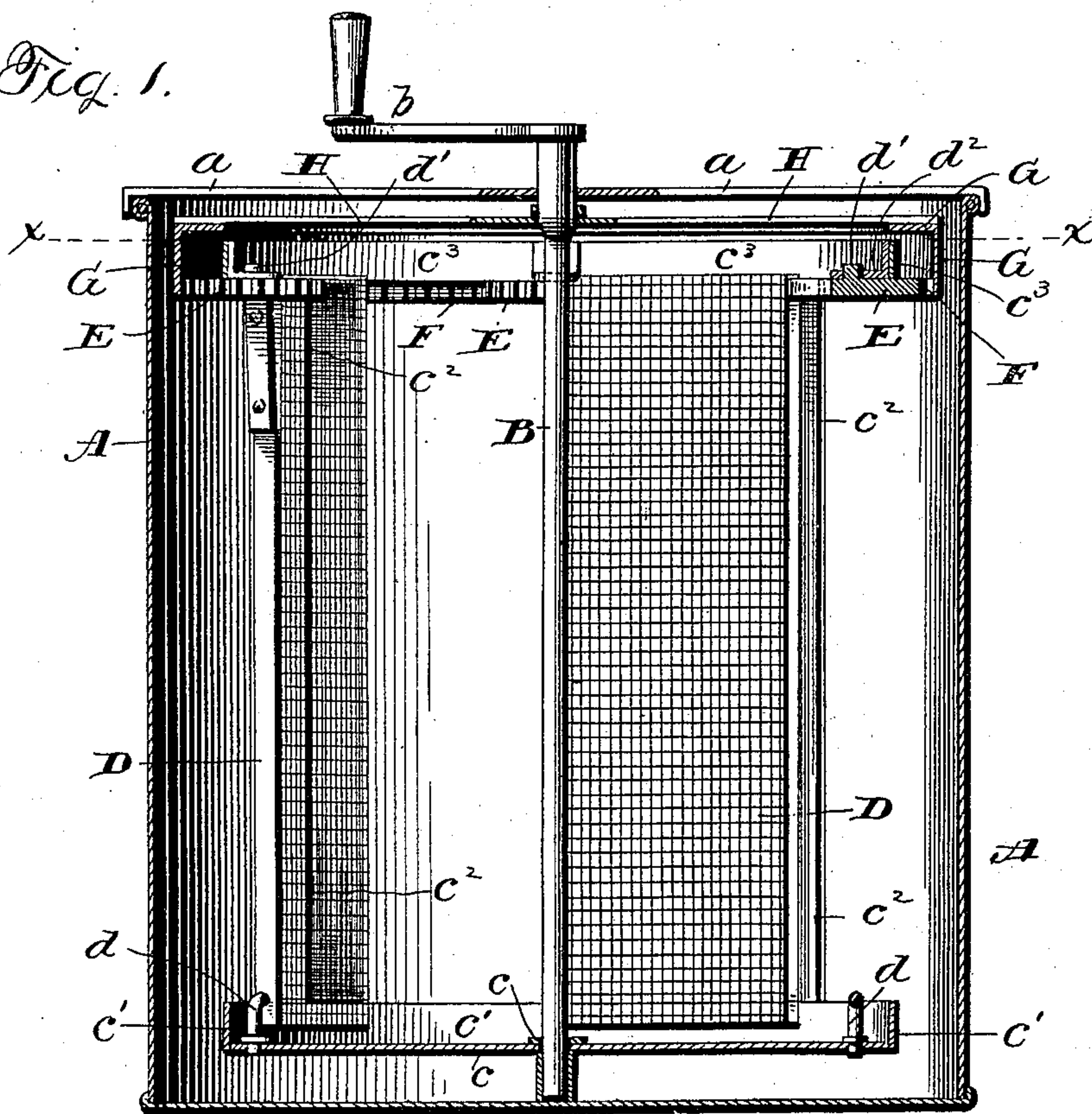
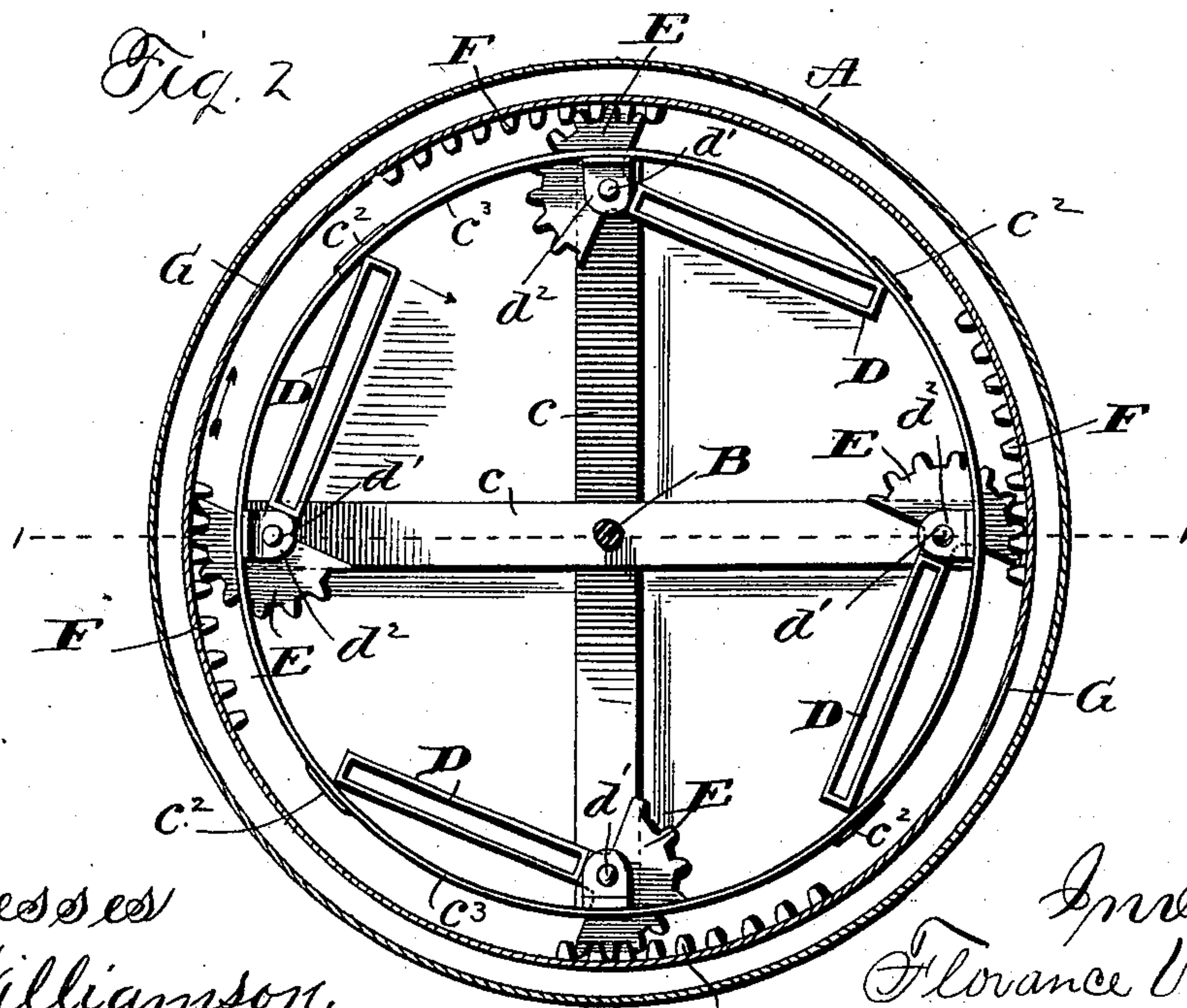


Fig. 2.



Witnesses  
G. Williamson,  
P. J. Rogers,

Inventor  
Florence Williams,  
By Franklin H. Hough,  
his Attorney



# UNITED STATES PATENT OFFICE.

FLORANCE WILLIAMS, OF SENECA, WISCONSIN, ASSIGNOR OF ONE-HALF TO  
L. S. HASKINS, OF SAME PLACE.

## CENTRIFUGAL HONEY-EXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 486,151, dated November 15, 1892.

Application filed August 29, 1892. Serial No. 444,357. (No model.)

*To all whom it may concern:*

Be it known that I, FLORANCE WILLIAMS, a citizen of the United States, residing at Seneca, in the county of Crawford and State of Wisconsin, have invented certain new and useful Improvements in Centrifugal Honey-Extractors; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to certain new and useful improvements in honey-extractors; and it has for its object to provide a simply-constructed automatically-reversible device of this character.

To this end and to such others as the invention may pertain the same consists in the extractor having the construction and combination of parts hereinafter specified, and shown in the accompanying drawings, in which—

Figure 1 is a vertical section of my extractor, and Fig. 2 is a horizontal section upon the line *xx* of Fig. 1.

Referring to the drawings by letter, A designates a cylindrical vessel across whose top extends diametrically a bar *a*. Passing through this bar *a* and journaled therein and journaled, also, at the bottom of the vessel A is a shaft B, located at the center of said vessel. The end of the shaft above the bar *a* is provided with a crank *b*, by which it may be revolved.

Mounted upon the shaft B at its lower end, so as to be capable of freely turning thereon, is the comb-holder-carrying frame, comprising two diametrically-extending bars *c c*, crossing each other at right angles, a ring *c'*, uniting the ends of said bars, four upright bars *c<sup>2</sup>*, rising from the ring *c'* at points midway of the ends of the bars *c*, and a second ring *c<sup>3</sup>*, attached to the upper ends of the bars *c<sup>2</sup>* and being located a short distance below the top of the vessel A.

The comb holders or baskets D may be of any preferred construction and, as shown, are four in number, being pivotally mounted

in the frame just described. At its lower end each of the holders is provided with a pintle *d*, which is journaled in a hole in one of the arms *c* near its junction with the ring *c'*, while at its upper end is a pintle *d'*, that enters an opening provided in an inwardly-projecting lug *d<sup>2</sup>* on the ring *c<sup>3</sup>*.

To automatically swing the holders D in one direction or the other, according to the direction of rotation of the shaft B, each carries near its upper end, concentric with its pintles, a gear-segment E, consisting of half a wheel, which is adapted to mesh with a rack-segment F, carried on the inner face of the ring G, that is rigidly attached to and carried by the shaft B, through the medium of a diametrically-arranged bar H. The ring G is capable of a certain degree of rotation independently of the holder-carrying frame, which is limited by the engagement of the outer ends of the holders with the rings *c'* and *c<sup>3</sup>*. It will therefore be seen that if the holders are not in engagement with the rings *c'* and *c<sup>3</sup>* the first effect of rotating the shaft B is to move said ring G and cause it, through the racks F and segments E, to swing said holders on their pivots until their free ends strike the rings *c'* and *c<sup>3</sup>* before any revolution of the holders upon the shaft B as an axis can take place. In order to reverse the holders, it is simply necessary to reverse the direction of rotation of the shaft B, whereupon, through the rack-carrying ring and the segments E, the holders will be instantly swung on their pintles from one side to the other. The reversal of the comb-holders is thus perfectly automatic and necessitates no handling of the same by the operator. The ring G preferably comprises a vertical portion carrying the racks F and a horizontal portion which extends out over the racks and the ring *c'*.

It will be seen that my device is exceedingly simple and thoroughly efficient in action. Of course the number of comb-holders may be varied and other structural changes made without departure from my invention.

Having thus described my invention, what I claim to be new, and desire to secure by Letters Patent, is—

In a centrifugal honey-extractor, the com-

5 bination, with the comb-holder frame comprising two or more bars at its lower end, a ring uniting the same, upright bars, and a ring uniting them at their upper ends, of comb-holders pivoted to said frame at points midway between the upright bars, a gear-segment carried by the pivot of each holder at its upper end, a ring having a rack for each segment, and a shaft carrying said ring and

journaled in said frame at its lower end, substantially as shown and described, and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

FLORANCE WILLIAMS.

Witnesses:

L. S. HASKINS,

W. G. PALMER.