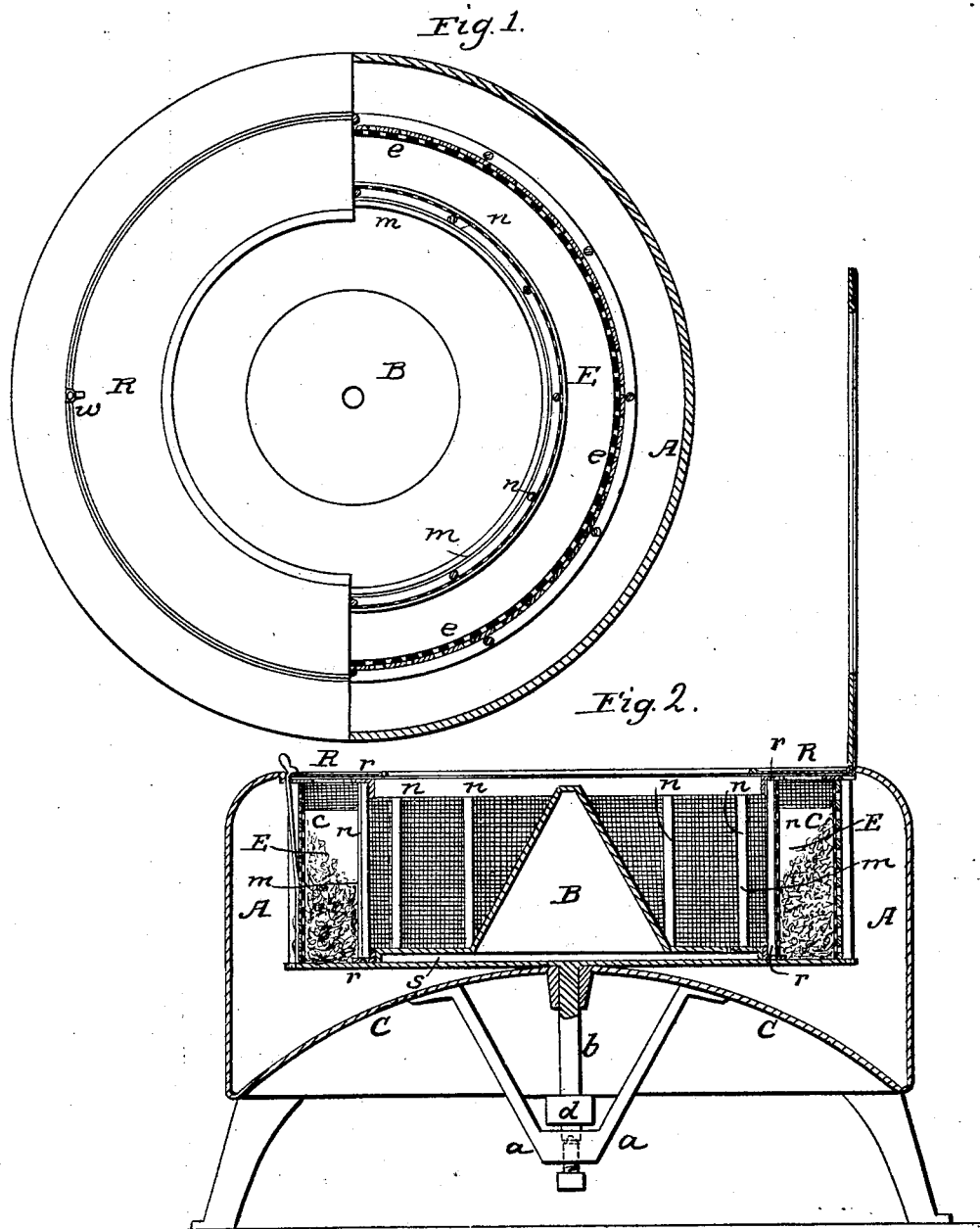


MACKEY & MULLER.
Centrifugal Sugar Machine.

No. 53,463.

Patented March 27, 1866.



Witnesses:
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A. Leese

Inventors:
Alexander Mackey
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UNITED STATES PATENT OFFICE.

ALEXANDER MACKEY, OF NEW YORK, AND EBERHARDT MÜLLER, OF
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IMPROVEMENT IN CENTRIFUGAL MACHINES.

Specification forming part of Letters Patent No. 53,463, dated March 27, 1866.

To all whom it may concern:

Be it known that we, ALEXANDER MACKEY, of the city, county, and State of New York, and EBERHARDT MÜLLER, of Williamsburg, in the county of Kings and State of New York, have invented certain new and useful Improvements in Centrifugal Sugar-Machines; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a plan view, with a portion of the top removed from the apparatus to show the arrangement of the internal parts. Fig. 2 is a vertical section of the apparatus, taken through the center of the same.

Similar letters of reference indicate similar parts in both drawings.

The object of this invention is to increase the efficiency of what is commonly known as the "centrifugal sugar-machine;" and it consists in the employment of a circular partition placed within and concentric with the revolving cylinder of the machine, and composed, like it, of wire-cloth or other foraminated material, by which means the sugar is kept near the periphery of the said cylinder in such a way as to insure the full benefit of the centrifugal force generated by the rapid rotation thereof; and also in the employment of a novel means of retaining the said partition in its place.

The machine as thus improved may be used either for purifying sugar by washing or for drying it after it has undergone the processes of boiling and granulating, as in the usual method of refining.

To enable those skilled in the art to understand the nature and operation of our invention, we will proceed to describe it with reference to the drawings.

A C is the cylindrical casing of the machine, which may be made of sheet metal, and the bottom C of which is hemispherical in shape, and has a hanger, *a*, which supports the spindle *b*, which projects downward from the bottom of the cylinder *c*. The said cylinder is of the ordinary construction, its sides being formed of wire-cloth and surrounded by a backing of perforated sheet metal to give it the proper stability and strength. It receives a rapid rotary motion by a belt acting upon the band-pulley *d* of its central spindle, *b*. The bottom of the said cylinder rests at its center upon the top of the hemispherical bot-

tom C of the casing A C, the depressed edges of which afford room within the said casing to receive the liquids expelled from the cylinder *c*. In the center of the said cylinder is the cone B, commonly provided.

Within the cylinder *c* is the circular partition *m*, which is formed of wire-cloth or other perforated or reticulated material strained upon two metallic hoops, *r*, one at the bottom and the other at the top thereof, and kept apart and in position by the upright braces *n*, which also strengthen the partition against pressure upon its outer side.

Situated upon the bottom of the cylinder *c*, and concentric with the same, is a circular platform, *s*, the periphery of which is at right angles to the bottom of the cylinder. The partition *m* has its lower edge slipped down around this platform, which thus retains the said partition in place by its close contact with the same. An annular chamber, *E*, is thus formed between the periphery of the cylinder *c* and the partition *m* for the reception of the sugar.

The lid R is hinged at one side and is annular in form. It covers the annular chamber *E*, and its inner edge, pressing down upon the top of the partition *m*, prevents the said partition from being displaced from its hold upon the platform *s*. This lid R is thrown up, as shown in red lines in Fig. 2, in order to allow the sugar to be placed in the chamber *E*, and to admit of the removal, when desired, of the partition *m*.

In the operation of the machine the partition *m* serves to keep the sugar spread against the inner surface of the cylinder *c*, by which means it is more effectively acted upon by the centrifugal action either in the process of washing the sugar or that of draining it after the usual process of refining.

What we claim as new, and desire to secure by Letters Patent, is—

1. The inner cylinder, *m*, applied to the main cylinder of a centrifugal machine, substantially as set forth, for the purpose specified.

2. The circular platform *s* and lid R, arranged with reference to the partition *m* substantially as set forth, for the purpose specified.

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