

No. 888,320.

PATENTED MAY 19, 1908.

C. DUEMER.
CENTRIFUGAL MACHINE.
APPLICATION FILED JULY 13, 1907.

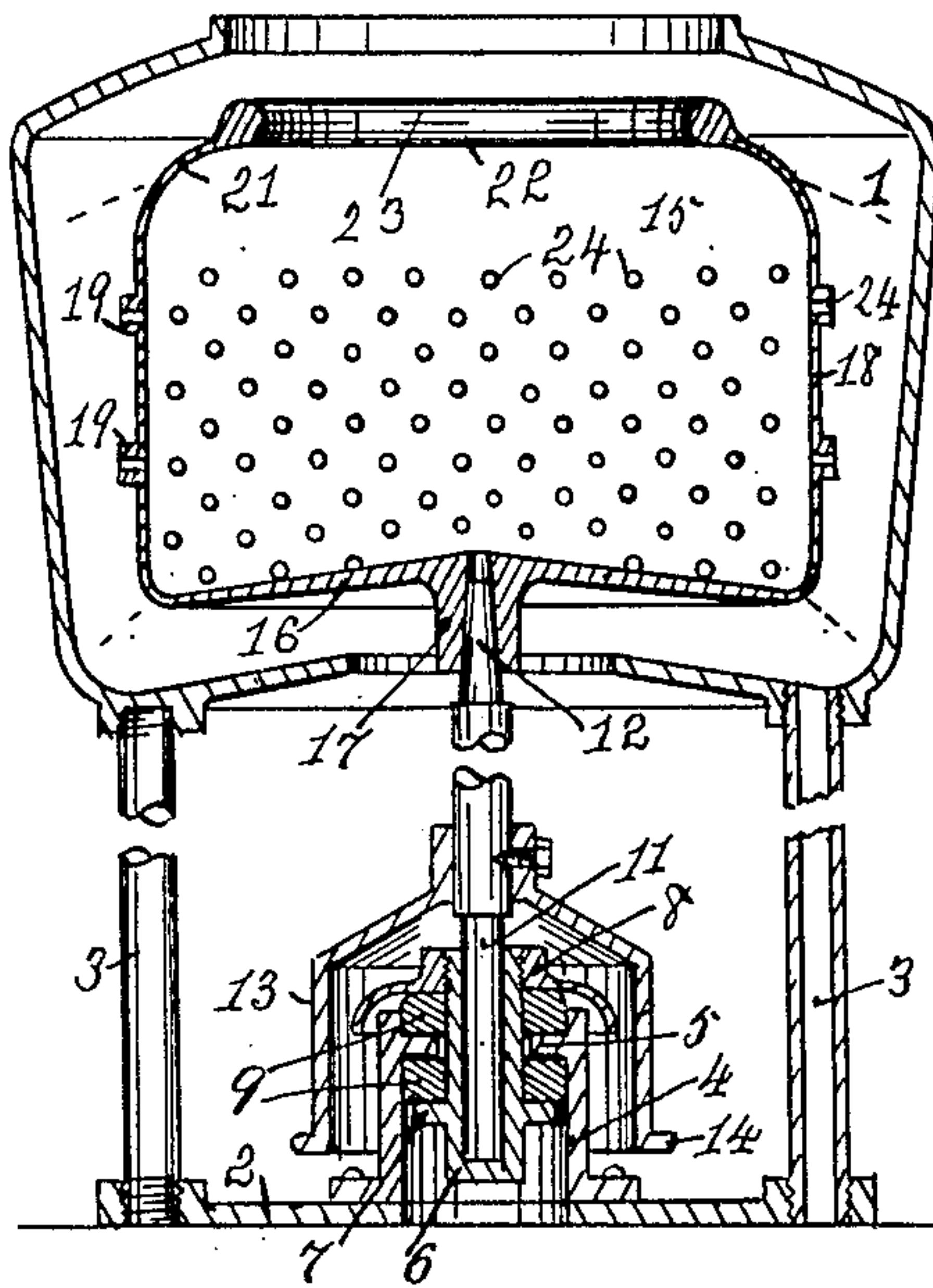


Fig. 1.

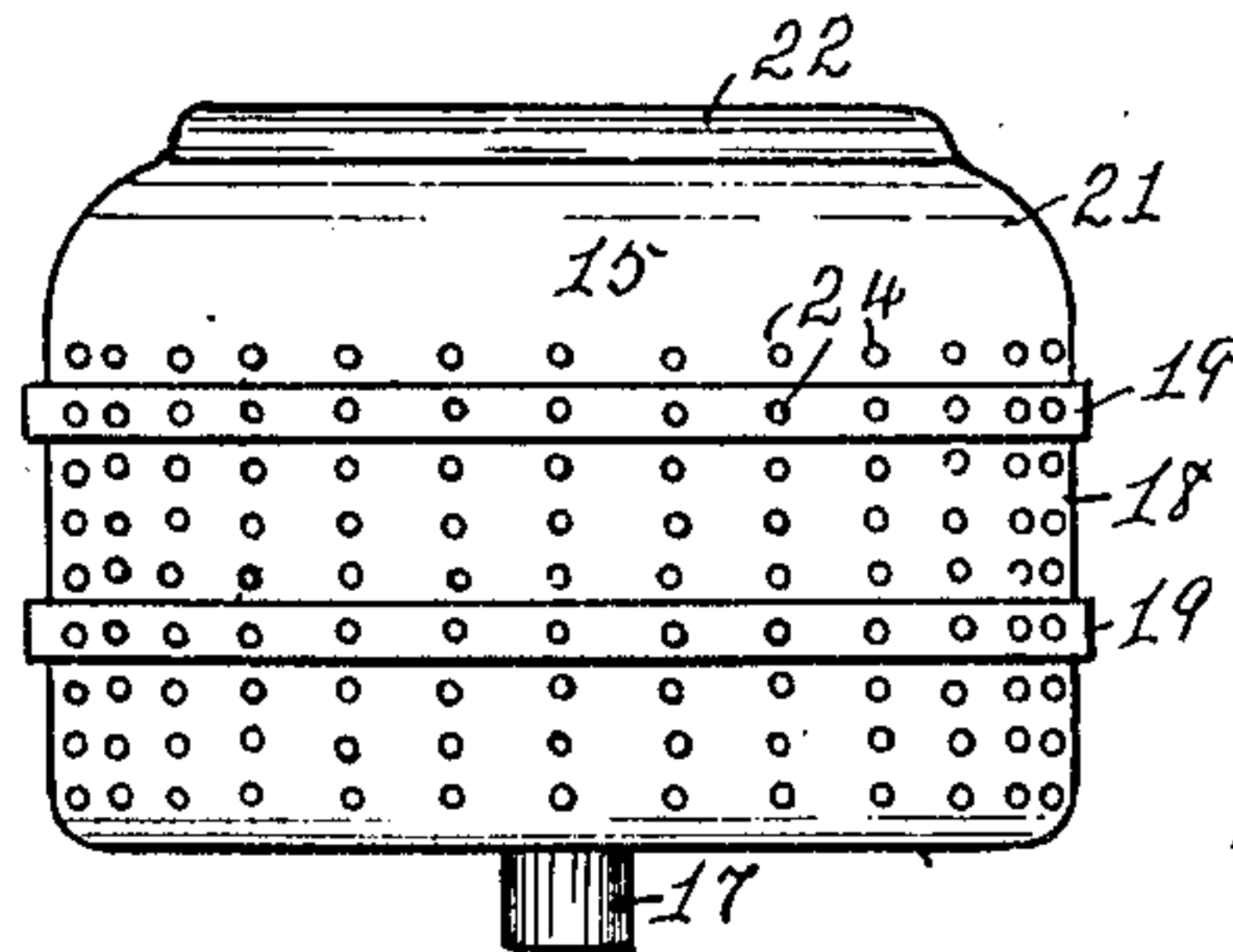


Fig. 2.

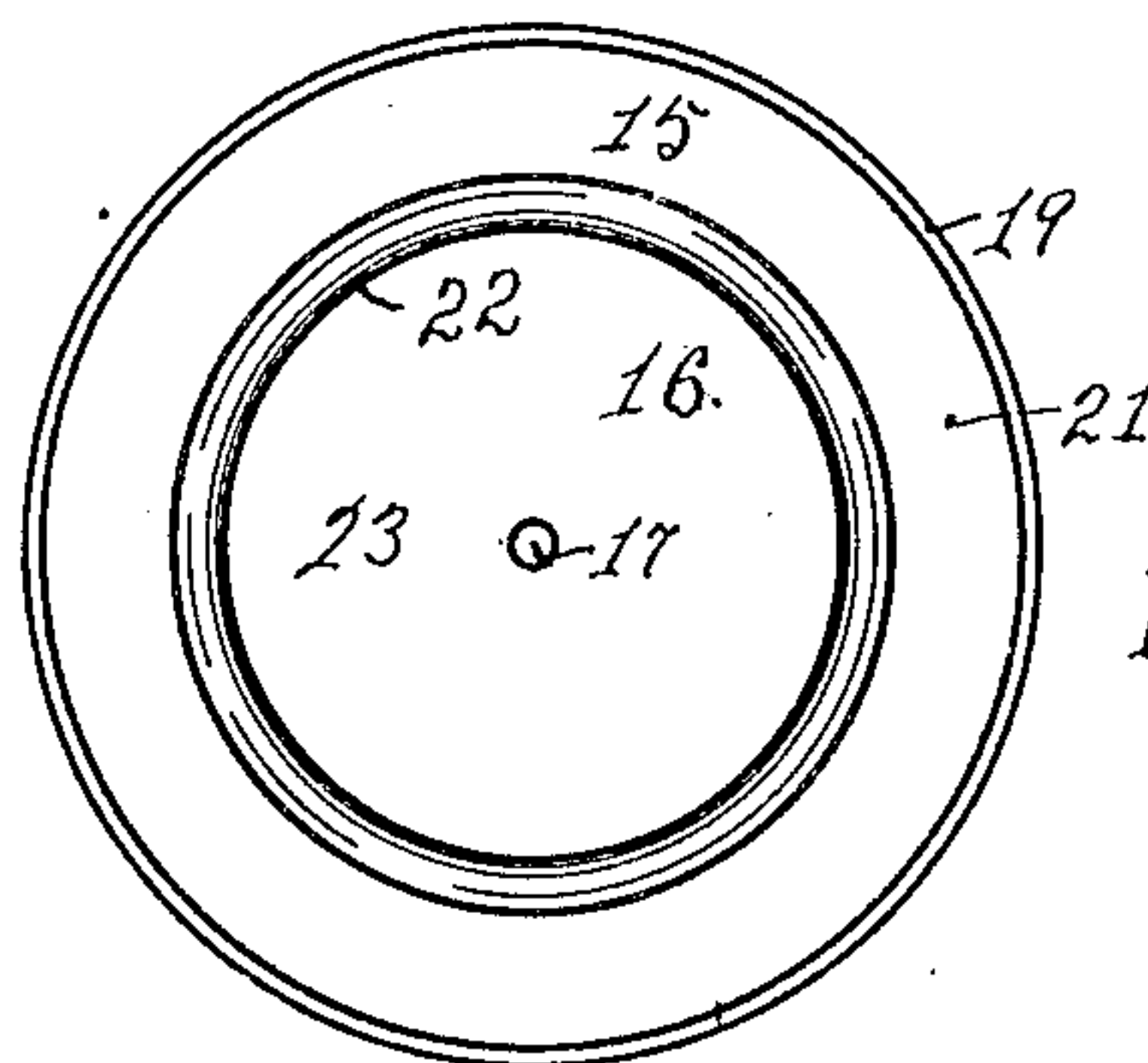


Fig. 3.

Witnesses,
Edward Miller
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Att'y.

UNITED STATES PATENT OFFICE.

CHARLES DUEMER, OF HAMILTON, OHIO.

CENTRIFUGAL MACHINE.

No. 888,320

Specification of Letters Patent.

Patented May 19, 1908.

Application filed July 13, 1907. Serial No. 383,584.

To all whom it may concern:

Be it known that I, CHARLES DUEMER, a citizen of the United States, residing at Hamilton, Ohio, have invented a new and useful
5 Improvement in Centrifugal Hydro-Extractors, of which the following is a specification.

My invention relates to centrifugal hydro extractors of the class adapted to the use of
10 laundries, paper mills, sugar refineries and elsewhere, and the objects of my improvements are to form the basket or cage of a single casting of aluminium bronze, or other suitable non-corrosive metal alloy; to reinforce its walls with one or more integral
15 bands; to provide its walls and bands with perforations; to provide a conical bottom which is gradually increased in thickness toward the center; to provide it with an integral taper bearing and to provide cheap
20 and durable construction combined with facility of operation and efficiency of action. These objects are attained in the following described manner as illustrated in the accompanying drawings, in which:—

Figure 1 is a vertical diametrical section of a centrifugal hydro extractor embodying my improvements; Fig. 2, an elevation and Fig. 3; a plan of the perforated basket.

30 In the drawings, 1 represents the preferably cylindrical curb of the usual construction and supported on base 2 by means of tubular discharge columns 3. A cylindrical support 4 provided with an interior annular
35 flange 5 is secured on the base concentric with the vertical axis of the curb.

A quill 6 is provided with an annular flange 7 near its lower end and with a hooded or flanged nut 8 adjustably threaded on its
40 upper end. Elastic rings 9 interposed between flange 7 and nut 8 and within the support on the respective opposite sides of flange 5 therein serve to yieldingly maintain the quill in its normal vertical position. A
45 spindle 11 formed with a tapered top end 12 is journaled within the quill and provided with a pulley 13 which is provided with an annular bottom flange 14 and overhangs the support 4 with the center of its face in the
50 plane of flange 5.

The cylindrical basket or cage 15 consists of a single casting of aluminium bronze or other suitable non-corrosive alloy. It is formed with a conical bottom 16 which is
55 gradually thickened in cross section toward

the center where it is provided with a vertically depending tapered bearing 17 adapted to detachably engage with the tapered spindle 11, whereby the basket may be rotatively supported within the curb as shown
60 in Fig. 1.

The thin side wall 18 of the basket is formed with one or more exterior reinforcing rings 19 and the top wall 21 is gracefully
65 curved toward the center and terminates in a thickened edge or smooth ring 22 which encircles the top opening 23. The side wall and also the rings 19 are foraminated or provided with a multiplicity of small perforations 24.
70

In operation, the mounting of the quill between the elastic rings provides for a gyratory motion of the rotating basket that it may conform to the center of gravity of its contents in the usual manner. The integral
75 construction of the basket obviates the usual difficulty of assembling the bottom, the top ring and the reinforcing rings with the foraminous side wall and with sufficient accuracy to secure the proper balance necessary for its most efficient action.
80

The single piece basket may be turned and finished both inside and outside and the uniform density of the metal to be obtained by casting it in an inverted position will result
85 in its accurate balance when properly finished. In the use of aluminium-bronze the surface tinning required for copper may be omitted.

What I claim and desire to secure by Letters Patent of the United States is:—

In a centrifugal hydro extractor, an extracting basket consisting of a single casting from a non-corrosive metal formed with a thin lateral wall reinforced circumferentially
95 by rings or ribs integral therewith and foraminated throughout and through the ribs as well, the upper end of the basket tapering spherically to the opening about which is a reinforcing roll formed integral with the basket, and the bottom of the basket thickened
100 gradually from the outer edge towards the middle and there provided with a depending integral lug having a tapering seat for the rotating spindle, substantially as and for the
105 purpose set forth.

CHARLES DUEMER.

Witnesses:

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