D. B. ANDERSON.

CENTRIFUGAL DISH DRIER.

APPLICATION FILED DEC. 13, 1916.

1,260,122. Patented Mar. 19, 1918.

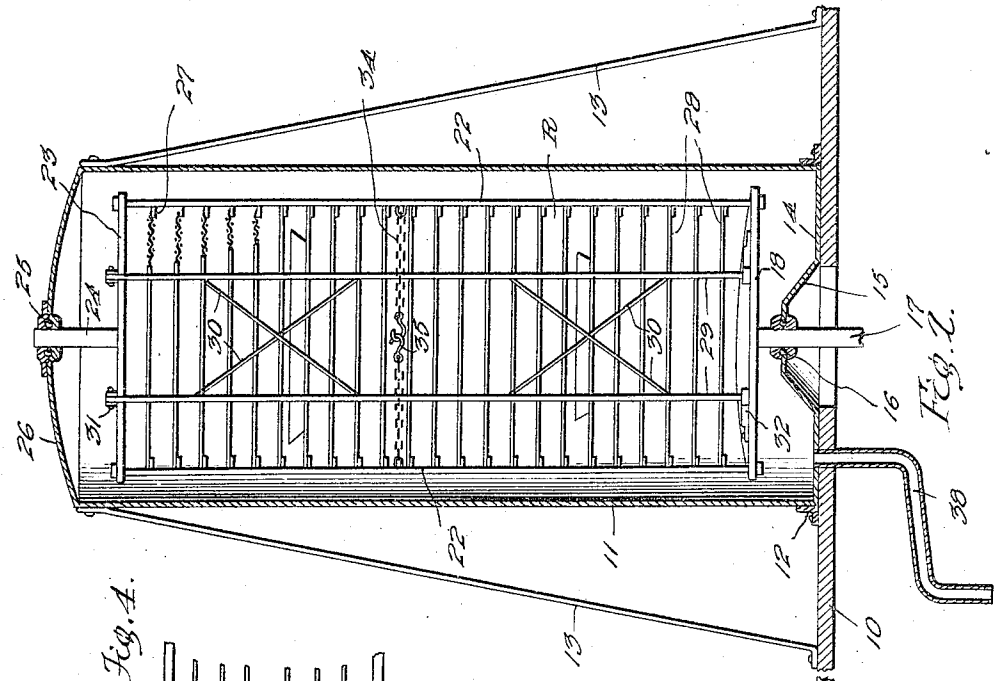


Fig. 1.

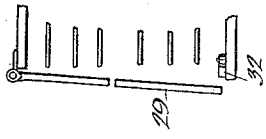


Fig. 4.



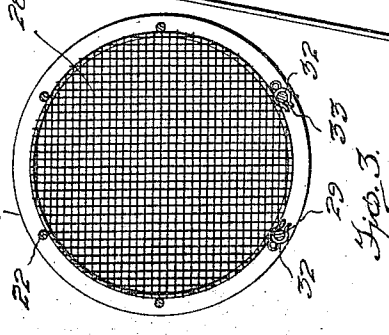


Fig. 3.

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# UNITED STATES PATENT OFFICE.

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## CENTRIFUGAL DISH-DRIER.

1,260,122. Specification of Letters Patent. Patented Mar. 19, 1918.

Application filed December 13, 1916. Serial No. 136,732.

*To all whom it may concern:*

Be it known that I, DONALD B. ANDERSON, a citizen of the United States, residing at Muskegon, in the county of Muskegon and State of Michigan, have invented certain new and useful Improvements in Centrifugal Dish-Driers, of which the following is a specification.

The present invention relates to the art of driers and has particular reference to new and useful improvements in centrifugal dish drying machines.

An object of my invention is to provide in a novel and inexpensive structure a strong and durable, effectively operable, and improved type of centrifugal dish drier which may be cheaply manufactured and placed on the market.

Another object of my invention is to provide a device of the class described having a novel and improved supporting rack, said rack being revoluble at a high rate of speed whereby to dry the contents thereof.

A further object of my invention is to provide a novel arrangement of supporting shelves whereby dishes or other articles of various sizes may be placed within the drier.

Other objects and advantages to be derived from the use of my improved centrifugal drier will appear from the following detailed description and the claims, taken with an inspection of the accompanying drawing, in which:

Figure 1 is a side elevational view of a drier embodying the improvements of my invention;

Fig. 2 is a vertical sectional view of the same; and

Fig. 3 is a transverse sectional view of the drier rack.

Fig. 4 is a fragmental vertical section taken at right angles to Fig. 1.

Referring more particularly to the drawing, wherein similar characters of reference designate like and corresponding parts throughout the various views, 10 designates a base upon which my improved drier is mounted, the latter embodying a cylindrical casing 11, a circular angle-iron 12 embracing the lower end of said casing and connecting the same to the base 10. A plurality of guy rods or braces 13 extend from the base to points adjacent the upper end of the casing 11 for maintaining the stability of the same.

The bottom 14 of the casing is provided with a raised portion 15 carrying a ball-bearing 16 intended to support a trunnion shaft 17 carried by the lower end wall 18 of the rack R. A detachable connection 19 is afforded between the trunnion shaft 17 and an electric motor 20, or some similar prime mover. The motor is supported on brackets 21 beneath the base 10.

The rack R embodies, together with the base 18 a plurality of vertical rods 22 serving to support the top plate 23 of said rack, a trunnion bearing shaft 24 extending from said top plate 23 and being mounted in a ball-bearing 25 carried by the concavo-convex roof or upper end 26 of the casing 11.

The rods 22 are mounted to form a cylindrical body, said rods being provided with a plurality of lugs 27, said lugs serving to support a plurality of screen shelves 28. The bottom 18 of the rack R is preferably concavo-convex so as to more readily drain moisture.

To permit insertion of the shelves into the rack and also to permit disposition of articles upon said shelves a pair of the rods 22 are removably mounted, said removable rods being designated 29 and connected by a plurality of diagonal braces 30 so as to form a removable frame. The upper ends of the rods are hingedly connected as at 31 to the top plate 23 of the rack R, the lower ends of said rods being maintained detachably in engagement with the base plate 18 by means of a pair of spring clips 32, seats 33 being provided for the lower ends of the rods. To further obviate any danger of the rods becoming loosened during operation of the drier I provide a pair of safety chains 34 connected to certain of the rods 22, the free ends of said chains carrying hooks 35 for engagement.

A hinged door 36 is provided on the casing 11, said door being maintained in closed position during operation by means of a hasp fastener or the like 37. A drain pipe 38 extends from the bottom 14 for an obvious purpose.

To place the dishes or the like to be dried within the rack access is obtained to said rack by opening the door 36. The hinged rods 29 are now swung outwardly through the door to permit insertion of the shelves and the articles to be carried thereby. The rods 29 are now permitted to return to normal position and are secured against displacement by the spring clip 32 and the

safety chains 34. The door 36 is closed and the electric motor started. After a sufficient length of time has elapsed to insure thorough drying of the contents of the rack the motor is stopped and the articles to be dried removed. I desire to lay particular stress upon the extreme simplicity of the drier as well as its capacity. When in operation the device requires no attention until it is desired to remove the articles being dried.

From the above description taken in connection with the accompanying drawing, it is thought that a clear and comprehensive understanding of the construction, operation and advantages of my invention may be had, and while I have shown and described the device as embodying a specific structure, I desire that it be understood that such changes may be made in said structure as do not depart from the spirit and scope of the invention as claimed.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. In a centrifugal drier, the combination with a base having a casing mounted thereon, of a rotatable rack within said casing comprising top and bottom plates and vertical rods, shelves carried thereby, certain of the rods being removable to permit of insertion and removal of said shelves.

2. In a centrifugal drier, the combination with a base having a casing mounted thereon, of a rotatably mounted rack within said casing comprising top and bottom plates and vertical rods, certain of the rods being removable to permit of access to the interior of the rack, a plurality of lugs carried by said rods, and a plurality of shelves adapted to be supported by said lugs.

3. In a centrifugal drier, the combination with a base having a casing mounted thereon, of a rotatably mounted rack within said casing comprising top and bottom plates and vertical rods, certain of the rods being hinged to the top plates and removable to permit access to the rack, and a plurality of spring clips carried by the bottom plate of said rack to engage the lower ends of said rods and maintain the same against displacement.

4. A rack for centrifugal driers, including top and bottom plates, bearing shafts extending therefrom, said top and bottom plates being connected by vertical rods arranged to form a cylindrical body, certain of the rods being hingedly connected to the top plates and connected by braces to form a removable frame, spring clips carried by the bottom plate to engage the lower ends of said removable rods, and a pair of safety chains carried by certain of the rods to engage the removable rods and prevent accidental displacement of the same.

In testimony whereof, I affix my signature hereto.

DONALD B. ANDERSON.

**Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."**