A. A. BRAUNER.

DRIER AND DISHWASHER.

APPLICATION FILED JUNE 30, 1920.

1,405,394. Patented Feb. 7, 1922.

Fig. 1.

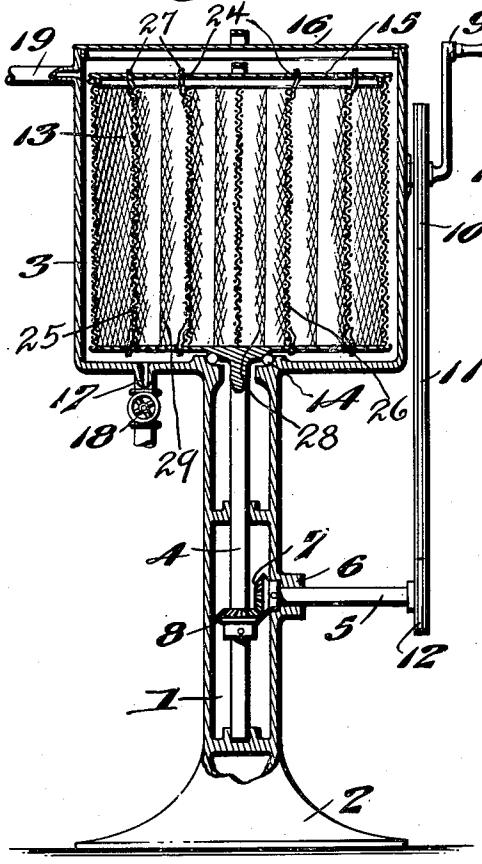



Fig. 2.

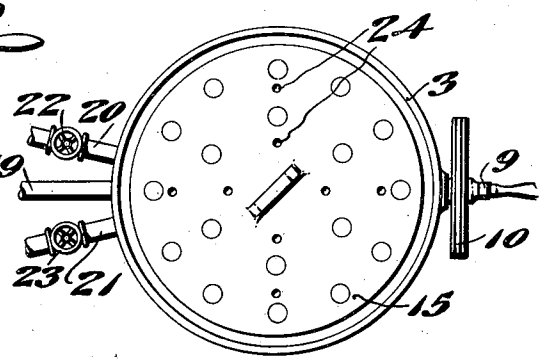



Fig. 4.

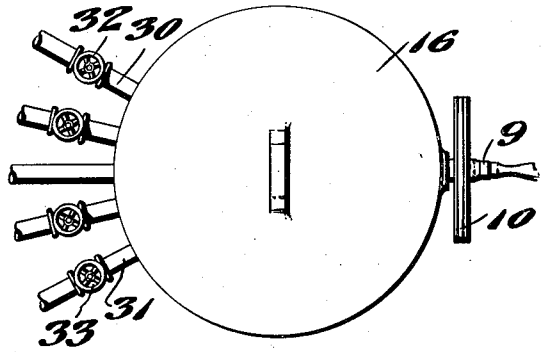



Fig. 5.

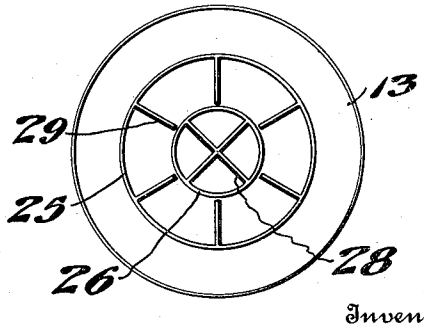
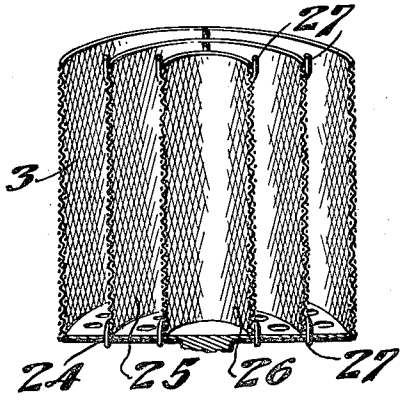



Fig. 3.




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## DRIER AND DISHWASHER.

1,405,394. Specification of Letters Patent. Patented Feb. 7, 1922.

Application filed June 30, 1920. Serial No. 393,040.

*To all whom it may concern:*

Be it known that I, ADA A. BRAUNER, a citizen of the United States, residing at Nampa, in the county of Canyon and State of Idaho, have invented certain new and useful Improvements in a Drier and Dishwasher, of which the following is a specification.

My invention relates to a drier and dishwasher, and particularly to a device of this character operating by centrifugal and revolving action.

An object is to provide a structure which may be used for drying and washing dishes, clothes, and the like, and which is so constructed that it can be manufactured in compact and readily portable form for home use.

A further object resides in constructing the parts to secure a maximum efficiency with minimum effort, and in providing for connections for the supply and discharge of water, cleaning fluids, and the like.

A still further object is to arrange the parts in a manner that when used for dishwashing the dish container will hold the dishes in position for most efficient action of the washer and will confine the same against movement which might cause chipping or breakage.

With these and other objects in view, which will be apparent from the drawings, specification, and claims, this invention includes certain novel features of construction and combinations of parts which will now be set forth.

In the drawings:

Figure 1 is a vertical sectional view through a machine constructed after the manner of my invention.

Fig. 2 is a top plan view with the cover of the outer receptacle removed.

Fig. 3 is a vertical sectional view through the inner revolving drum showing the parts as they will be arranged for dishwashing and drying.

Fig. 4 is a top plan view of the device illustrating a slight modification which might be resorted to therein.

Fig. 5 is a plan view of the revolving drum showing a modification which might be resorted to therein.

A supporting standard 1 has a base 2 adapted to stand upon a floor, and this standard carries a receptacle or bowl 3. The standard, base, and receptacle are of cast iron or other suitable material, and the bowl is open at its top.

A shaft 4 is journaled in suitable bearings provided in standard 1 and has its upper end extending into receptacle 3. A drive shaft 5 is mounted in bearing 6 of standard 1 and has a bevel gear thereon meshing with bevel gear 8 on vertical shaft 4.

To impart motion to shaft 5, an operating crank handle 9 is mounted on receptacle 3 at a height convenient for manual manipulation. This crank 9 has a sprocket 10 associated therewith and a chain 11 is received over sprocket 10 and a sprocket 12 on shaft 5.

A drum 13, of perforated metal, wire mesh, or other suitable material, is mounted on the upper end of shaft 4 within receptacle 3 and suitable ball bearings are provided at 14 to support the same. A perforated cover 15 is provided for drum 13 and a cover 16 closes the top of receptacle 3.

A draw off or drain pipe 17 is connected with the bottom of receptacle 3 and controlled by valve 18, and near the top of receptacle 13 an overflow pipe 19 is connected. Hot and cold water supply pipes 20 and 21, controlled by valves 22 and 23, are connected with receptacle 3 at substantially the same level as the overflow pipe, and in this way back pressure to these supply pipes is avoided.

With the structure as described, clothes or the like will be placed in drum 13 and covers 15 and 16 will be fitted in place. If the clothes are wet and are to be dried, the handle 9 is turned to cause drum 13 to be revolved and through centrifugal force the water will be extracted. Operation of the machine is continued until the clothes have been sufficiently dried.

Where the machine is used as a dishwasher, it is preferable that drum 13 be divided into a plurality of compartments, the dividing walls of which will confine the dishes against shifting within the drum to become broken or chipped. To accomplish this purpose I form openings 24 through the cover and bottom of the revolving drum, and provide the drums or sleeves 25 and 26, shown in Fig. 3, with studs or pins 27 adapted to fit these openings. By this arrangement the drums or sleeves 25 and 26 are mounted concentrically within revolving drum 13 and are maintained in fixed mount-

ings during use. With this arrangement flat silver ware, such as knives, forks, and the like can be placed within drum 26; cups and saucers and other small dishes will be received between the wall of drum 26 and that of drum 25; and plates and larger dishes can be placed outside of drum 25 within revolving drum 13.

Still closer confinement of the dishes may be desired, and this can be accomplished as shown in Fig. 5, where the drum or sleeve 26 has radial partitions or arms 28. Radial partition walls 29 are provided within cylinder or sleeve 25 and the space between this cylinder and cylinder 26 is thus divided.

In some conditions of operation it may be found desirable to introduce a washing fluid, and to introduce steam, and this may be accomplished through the addition of supply pipes 30 and 31 for the fluid and steam respectively, control valves 32 and 33 being provided in these pipes, as shown in Fig. 4. It is preferable that the pipes 19, 20, 21, 30, and 31 be all on the same level.

While, in the foregoing, I have described specific embodiments, and have mentioned only certain possible modifications, it will be appreciated that in practice I do not limit myself to such specific details as herein set forth, but may resort to any practical modifications falling within the scope of the invention as defined in the appended claims.

I claim:

1. A dishwasher including with a receptacle adapted to contain water, a perforated drum revolubly mounted in said receptacle, a cover for said drum, said cover and the bottom of the drum having concentric rows of openings therein, and sleeve-like perforated drums to be received in said revoluble drum provided with pins on the upper and lower ends thereof received through the openings of the cover and bottom to hold the inner drums in fixed mounting.

2. A dishwasher including with a receptacle adapted to contain water, a perforated drum revolubly mounted in said receptacle, a cover for said drum, said cover and the bottom of the drum having concentric rows of openings therein, and sleeve-like perforated drums to be received in said revoluble drum provided with pins on the upper and lower ends thereof received through the openings of the cover and bottom to hold the inner drums in fixed mounting, said inner drums being provided with radial partition walls by which the spaces within the same are divided up.

In testimony whereof I affix my signature.

ADA A. BRAUNER.