Nov. 16, 1926. 1,607,418

W. A. WHEELER

DRYING APPARATUS

Filed April 19, 1926 2 Sheets-Sheet 1

FIG. 1.

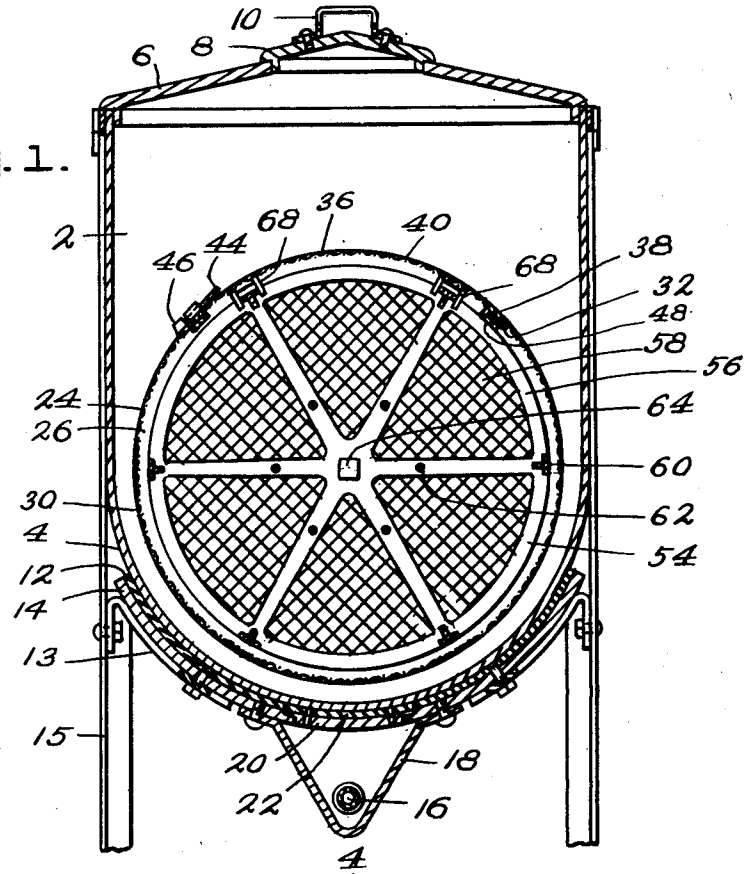
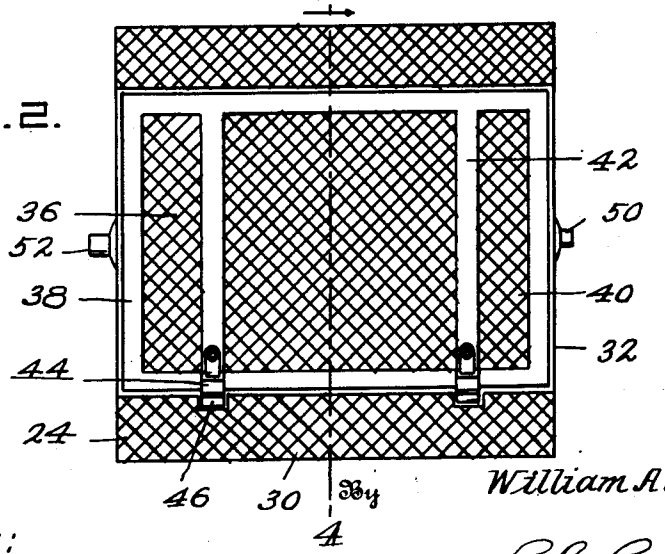


FIG. 2.



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FIG. 3.

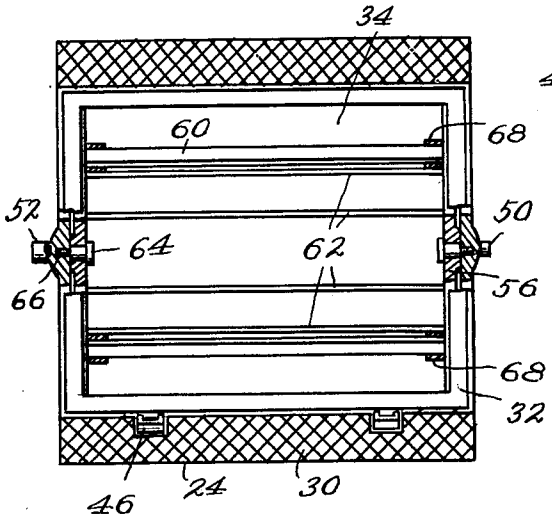


FIG. 4.

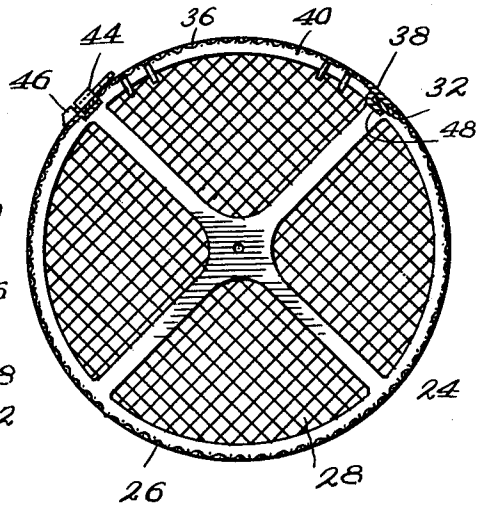


FIG. 5.

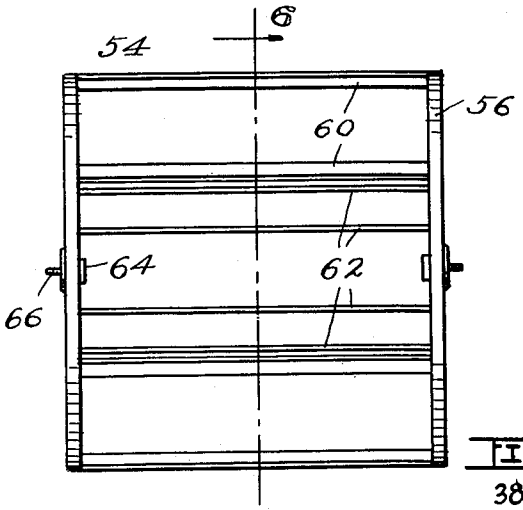


FIG. 6.

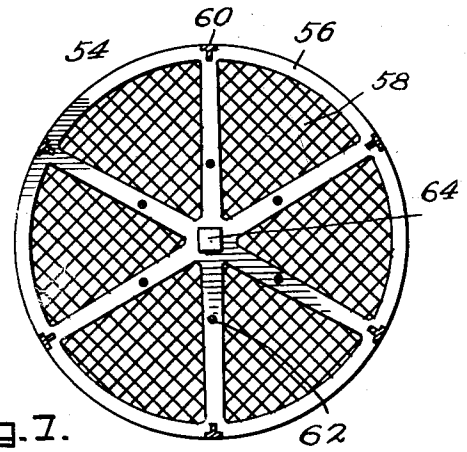


FIG. 7.

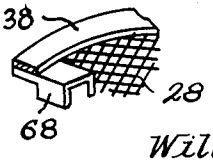
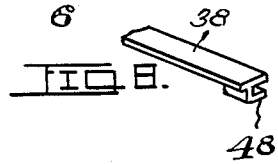


FIG. 8.



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Patented Nov. 16, 1926. 1,607,418

UNITED STATES PATENT OFFICE.

WILLIAM A. WHEELER, OF KANSAS CITY, MISSOURI.

DRYING APPARATUS.

Application filed April 19, 1926. Serial No. 102,976.

My invention relates to dryers for use in connection with washing machines, and one object is to provide a drying cylinder and a rack of novel construction which can be readily substituted for the usual cylinder in which the washing process is performed.

A further object is to provide means for preventing overheating of the washing machine while the drying process is being carried out, so as to avoid scorching the garments or other articles being dried.

In order that the invention may be fully understood, reference will now be had to the accompanying drawings, in which:

Fig. 1 is a broken vertical section of a washing machine equipped with my drying apparatus.

Fig. 2 is a plan view of a cylinder forming part of the drying apparatus.

Fig. 3 is a plan view of the cylinder with the lid removed to show an interior rack.

Fig. 4 is a cross section of the cylinder on line 4—4 of Fig. 2.

Fig. 5 is a plan view of the rack.

Fig. 6 is a cross section of the rack on line 6—6 of Fig. 5.

Figs. 7 and 8 are fragmentary details of certain portions of the cylinder.

Referring in detail to the various parts, 2 designates the casing of the washing machine which has a bottom 4 and a removable main cover 6. The main cover 6 has a central opening for the escape of steam during the drying process, but during the washing operation said opening is closed by a supplemental cover 8 provided with a handle 10. The exterior of the casing bottom 4 is covered with asbestos or other nonheat conducting material 12 and a metallic shield 14, beneath which latter a gas or other suitable burner 16 is arranged within a housing 18 secured to said shield 14. Metallic straps 13 are secured to the casing legs 15 and the shield 14 to support the latter. The asbestos 12 and the shield 14 have registering openings immediately above the housing 18, so that heat from the burner 16 may impinge directly against the bottom 4 and heat the water in the casing 2 during the washing operation, but during the drying process said openings are closed by a slide-plate 20 having its upper surface covered with asbestos 22 to prevent the bottom 4 and the interior of the casing 2 from reaching a temperature likely to scorch the clothes of other articles being dried.

24 designates a cylinder forming a portion of the drying apparatus. Said cylinder 24 may be of any suitable open construction for the free passage of the heated air and in the present instance consists of skeleton heads 26 covered with woven wire 28 and connected by woven wire 30. The heads 26 are also connected by a rectangular frame 32 having an opening 34 through which articles to be dried may be placed within the cylinder 24 and removed therefrom.

36 designates a lid for closing the opening 34. Said lid 36 consists of a skeleton frame 38 covered with woven wire 40 and adapted to fit within the frame 32. The frame 38 is reinforced by ribs 42 provided at one end with spring latches 44 adapted to interengage keepers 46 fixed to the adjacent portion of the frame 32. The side of the lid 36 opposite from that upon which the latches 44 are mounted has lugs 48 for engaging under the adjacent member of the frame 32 and coacting with the latches 44 and keepers 46 in reliably holding said lid 36 in position upon the frame 32.

The skeleton heads 28 of the cylinder 24 have stub shafts 50 and 52, adapted to be journaled in the usual cylinder bearings (not shown), carried by the casing 2, the stub shaft 52 affording means for connection with the customary gearing employed for driving the cylinder of the washing machine.

54 designates a rack for carrying the clothes and other articles to be dried. Said rack 54 is installed within the cylinder 24 before both heads 26 are secured in place. The rack 54 comprises a pair of skeleton heads 56, woven wire 58 covering said heads, and parallel bars 60 connecting said heads and which are spaced equal distances apart. The heads 56 are further connected by parallel rods or wire strands 62 spaced equal distances apart. The bars 60 are connected to the heads at the peripheries thereof and the strands 62 are connected to said heads intermediate their axes and said bars 60. The heads 56 are mounted upon suitable axes 64 having threaded ends 66 adapted to be screwed into the central portion of the cylinder heads 26.

In practice the water used in washing the articles is drained from the casing 2 and my cylinder 24, containing the rack 54, is substituted for the regular washing machine cylinder. The washed articles are run

through a wringer and then hung over the uppermost bars 60 of the rack 54, after which the latter is rotated on its axes 64 to carry two other bars 60 to the cylinder opening 34 for the reception of other articles. The operation is repeated until all of the bars 60 have been draped with articles to be dried, after which the lid 36 is placed in position upon the cylinder 24, care being taken to have the forked elements 68 secured to the underside of said lid 36 to straddle two of the bars 60, so that when the cylinder 24 is rotated the rack 54 will rotate therewith. The plate 20 which was removed during the washing operation to allow the heat from the burner 16 to impinge directly against the bottom 4 is now replaced with its cover 22 to protect said bottom 4 from intense heat, and the supplemental cover 8 is removed to permit the escape of steam from the articles being dried in the cylinder 24. The cylinder 24 is slowly rotated, together with the rack 54 so that the heated air may come into direct contact with all portions of the garments or other articles being dried, said articles being prevented from piling upon each other by the bars 60 and the rods 62.

From the foregoing description it is apparent that I have provided a machine embodying the advantages above pointed out, and while I have shown and described the preferred construction, combination and arrangement of parts, I reserve the right to all such changes as properly fall within the spirit and scope of the invention as claimed.

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

1. In an apparatus of the character described, a casing having a bottom portion, means for heating said bottom portion, a shield arranged beneath said bottom portion and having an opening, and removable means for closing said opening.

2. In an apparatus of the character described, a casing having a bottom portion, means for heating said bottom portion, non-heat conducting material secured to said bottom portion and having an opening, a metallic shield arranged beneath the material and having an opening registering with the opening in said material, and a slidable plate for closing said openings.

3. In an apparatus of the character described, a casing, a rotary cylinder of open construction mounted within said casing, a rectangular skeleton frame secured to the cylinder and having an opening through which access can be had to the interior of said cylinder, a lid adapted to fit upon said skeleton frame and having lugs at one side for engaging the underside of the adjacent portion of the skeleton frame, and fastening devices for securing the opposite side of said lid to the skeleton frame.

4. In an apparatus of the character described, a casing, a rotary cylinder mounted within said casing and having an opening, a lid to said opening, a rotary rack mounted within said cylinder, and means on the lid for engaging and causing said rack to rotate with the cylinder.

5. In an apparatus of the character described, a rotary rack consisting of two skeleton heads, open mesh covering for said heads, bars connected to said heads near the peripheries thereof, and wire strands connected to the heads intermediate the axes thereof and said bars.

In testimony whereof I affix my signature.

WILLIAM A. WHEELER.