July 12, 1932. T. PRINCIPESSA ET AL 1,866,987

HOT OR COLD AIR HOME CLOTHES DRYING MACHINE

Filed March 3, 1931

Fig. 1.

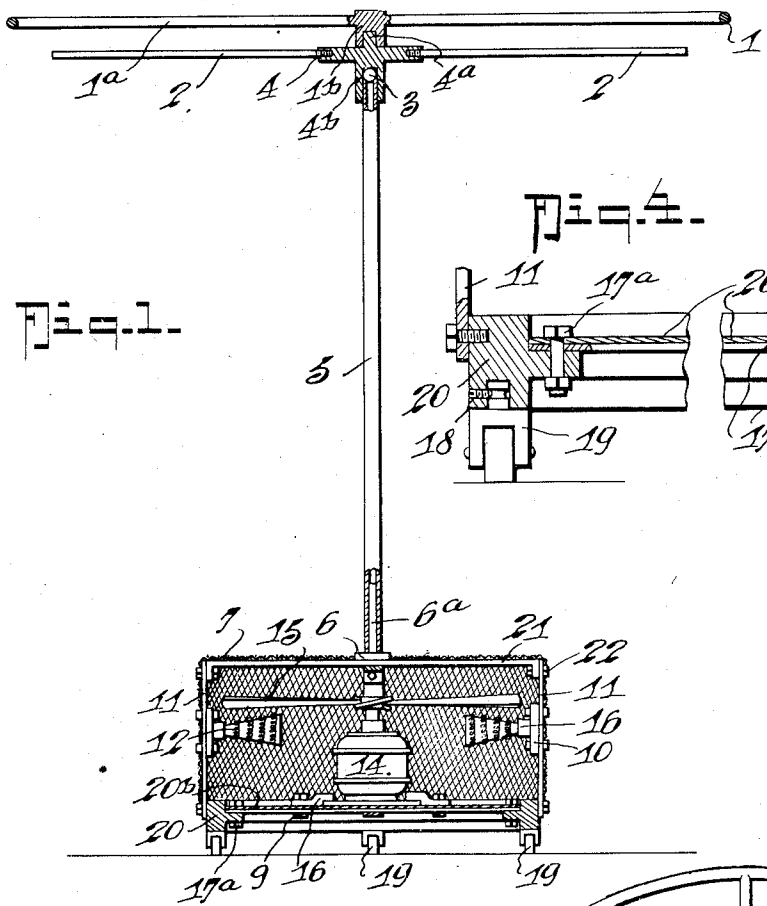


Fig. 4.

Fig. 2.

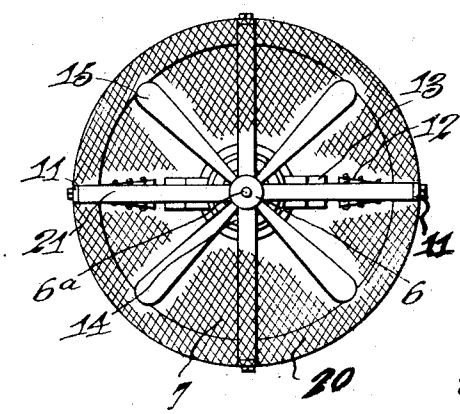
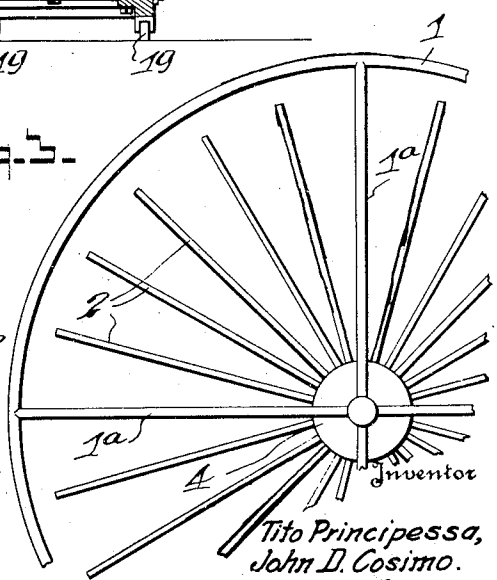


Fig. 3.



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UNITED STATES PATENT OFFICE

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HOT OR COLD AIR HOME CLOTHES DRYING MACHINE

Application filed March 3, 1931. Serial No. 519,782.

The invention primarily has for its object to provide a simple, inexpensive clothes dryer which is portable, will occupy but little space when not in use, and one which may take a large spread of clothes to be dried.

Further, it is an object to provide such a clothes dryer as is electrically operated to cause a blast of air, either hot or cold, to flow against the clothes whereby they are dried and by which blast they are rotated, the construction being such as to effect an equal distribution of air to all of the garments.

Further, it is an object to provide an apparatus of the character stated of a height and construction so that the clothes may be hung up from a single standing point.

Further, it is an object to provide a drying machine which will afford facilities for quickly drying the washing within a limited space inside the house regardless of outside weather conditions.

Further, it is an object of the invention to provide a drying machine, the clothes carrier of which may be taken down and the whole apparatus stored in a closet or other out of the way place when not being used.

Further, it is an object of the invention to provide a drying rack of such construction that the large pieces of clothes may be hung in a circle to embrace the smaller garments hung within the confines of the circle, the larger pieces serving to partially enclose the air stream and prevent its spread before it has acted upon the garments.

Other objects will in part be obvious and in part be pointed out hereinafter.

To the attainment of the aforesaid objects and ends, the invention still further resides in the novel details of construction, combination and arrangement of parts, all of which will be first fully described in the following detailed description, then be particularly pointed out in the appended claims, reference being had to the accompanying drawing, in which:—

Figure 1 is an elevation, parts being broken away and shown in section illustrating the machine ready to use.

Figure 2 is a plan view of the base unit, parts being broken away.

Figure 3 is a plan of the rotating rods and ring.

Figure 4 is an enlarged detail sectional view of a portion of the apparatus.

In the drawing, in which like numerals and letters of reference indicate like parts in all of the figures, 1 represents a ring or rim having suitable spokes 1*a* which are secured to a central hub 1*b* that is socketed to fit the upward projection 4*a* of a disk 4, the latter having threaded apertures in its periphery to receive the clothes hanging rods 2 which radiate from the disk. These rods are readily removable and only such number need be used at a time as may be required by the number of garments to be dried at the time.

The disk 4 has a recessed bearing socket 4*b* so designed as to fit over the upper end of the center post 5, and in order that it may turn freely on the post a bearing ball 3 is located within the socket 4*b* on the end of the post as shown in Figure 1.

The post 5 is preferably tubular at least at its lower end to fit onto a spindle 6*a* which projects up from a flange plate 6 that is centrally located on the top of the drum-like base unit.

The base unit is a drum-like structure composed of a bottom including a T-iron hoop 20, a pair of substantially parallel diametrically crossed straps 17—17 bolted to the hoop 20 as at 17*a*, there being a plate, preferably of sheet iron, provided as a floor. Casters 19 have their shanks held in sockets in the T-iron rim 20 by screw bolts 18 and serve to support the unit portably.

Centered on the plate 20*b* and secured to the crossed straps 17 by removable clamps 13 and bolts 9 is an electric motor 14 whose shaft is mounted vertically, and carries a fan 15 to create an upward blast of air around the post 5.

Secured to the hoop 20 are uprights 11 to which the crossed strips 21 are bolted as at 9. Fastened at 10 to certain of the uprights 11 are electric sockets 16 fitted with heating units 12 which are wired to a suitable source of electric energy (not shown) in a separate sub-circuit from that containing the motor so that the heaters may be used

independently of the motor, i. e. may be turned on or off while the motor is in action as desired.

The periphery and top of the drum-shaped base unit is formed by wire mesh 7 constituting an enclosure as shown, the fan, motor and heaters being located within the enclosure.

In using the apparatus the clothes to be dried are suspended on the ring 1. The fan is turned on and an upward current of air is established, either hot or cold, accordingly as the heating units are energized or not. This causes the disk 4 and rods 2 and ring 1 with the clothes to rotate through the action of the air current, carrying the clothes around the axis of the post 5 on the ball bearing 3. The air current further causes the clothes to flutter, thus driving the moisture out of the clothes at the top.

The larger clothes, such as sheets, being hung on the ring 1 form an annular wall around the clothes on the rod 2 and in a measure confine the air stream to action as a more or less dense current, preventing its spreading laterally until it has acted effectively on all of the clothes on the dryer.

From the foregoing description, taken in connection with the accompanying drawing, it is thought the complete construction, operation, and advantages of my invention will be clear to those skilled in the art to which it relates.

What we claim is:

1. In clothes dryers, a drum-like base unit having foraminous peripheral and top walls, a post mounted on the top of the base unit and extending vertically upwardly therefrom, an electric motor driven fan within the drum-like base for causing movement of an air stream upwardly around said post, a disk having radial arms rotatably mounted on the upper end of said post, and a ring with spokes and hub mounted on said disk.

2. In a clothes dryer, a drum like base unit, having foraminous peripheral and top walls, a post mounted on the top of the base unit and extending vertically upwardly therefrom, an electric motor driven fan within the drum-like base for causing movement of an air stream upwardly around said post, a disk having radial arms rotatably mounted on the upper end of said post, and a ring with spokes and hub rotatably mounted on said disk.

3. In clothes dryers, a drum-like base unit having a foraminous peripheral and top walls, a post mounted on the top of the base unit and extending vertically upwardly therefrom, an electric motor driven fan within the drum-like base for causing movement of an air stream upwardly around said post, a disk having radial arms rotatably mounted on the upper end of said post, and a ring with spokes and hub mounted on said disk, said ring being of greater radius than the length of said arms.

4. In clothes dryers, a drum-like base unit having foraminous peripheral and top walls, a post mounted on the top of the base unit and extending vertically upwardly therefrom, an electric motor driven fan within the drum-like base for causing movement of an air stream upwardly around said post, a disk having radial arms rotatably mounted on the upper end of said post, and a ring with spokes and hub mounted on said disk, and means within the drum-like base for heating the air delivered to the fan.

5. In clothes dryers, a drum-like base unit having foraminous peripheral and top walls, a post mounted on the top of the base unit and extending vertically upwardly therefrom, an electric motor driven fan within the drum-like base for causing movement of an air stream upwardly around said post, a disk having radial arms rotatably mounted on the upper end of said post, and a ring with spokes and hub rotatably mounted on said disk, and means within the drum-like base for heating the air delivered to the fan.

6. In clothes dryers, a drum-like base unit having foraminous peripheral and top walls, a post mounted on the top of the base unit and extending vertically upwardly therefrom, an electric motor driven fan within the drum-like base for causing movement of an air stream upwardly around said post, a disk having radial arms rotatably mounted on the upper end of said post, and a ring with spokes and hub mounted on said disk, said ring being of greater radius than the length of said arms, and means within the drum-like base for heating the air delivered to the fan.

7. In clothes dryers, a drum-like base unit having foraminous peripheral and top walls, a post mounted on the top of the base unit and extending vertically upwardly therefrom, an electric motor driven fan within the drum-like base for causing movement of an air stream upwardly around said post, a disk having radial arms rotatably mounted on the upper end of said post, and a ring with spokes and hub mounted on said disk, said post being mounted on said drum-like base by a quick detachable joint and said disk and said hub being freely detachable from one another and from said post.

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