March 10, 1953 A. ALVAREZ 2,630,634

HEATING APPLIANCE

Filed Oct. 17, 1951 2 SHEETS—SHEET 1

Fig. 2.

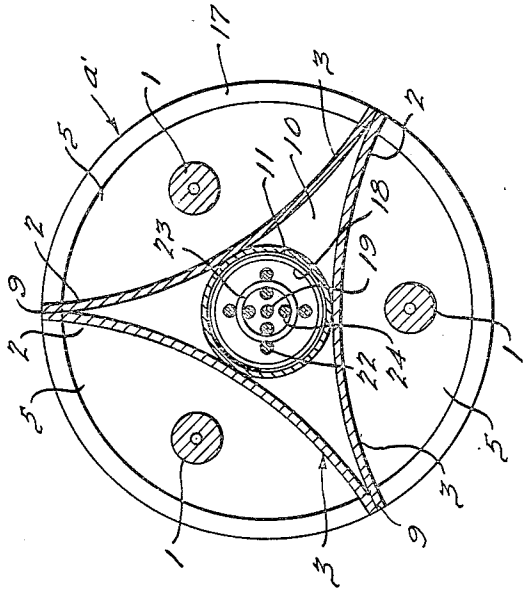
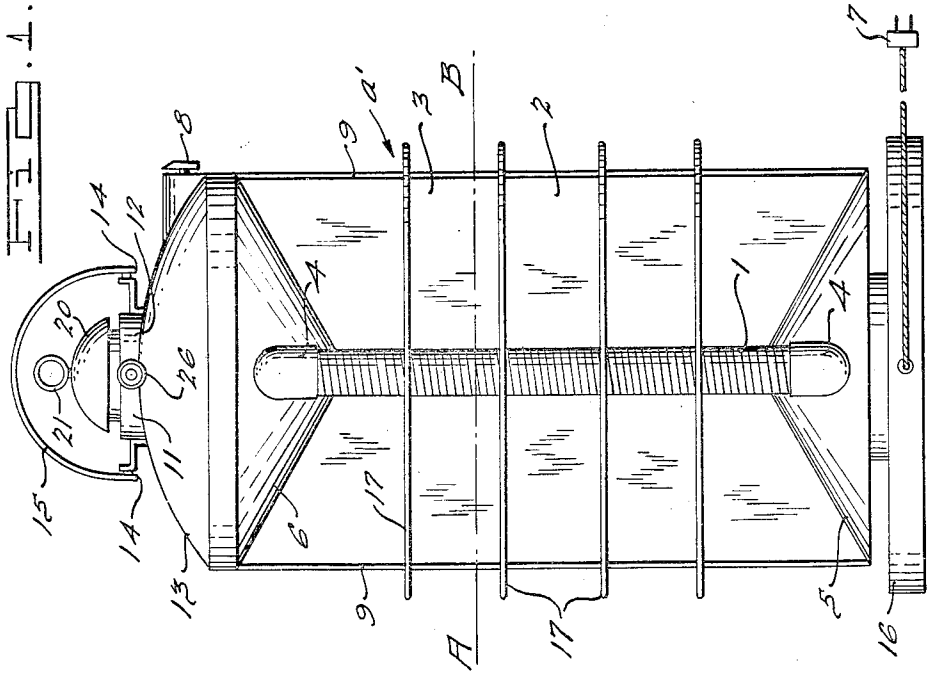


Fig. 4.



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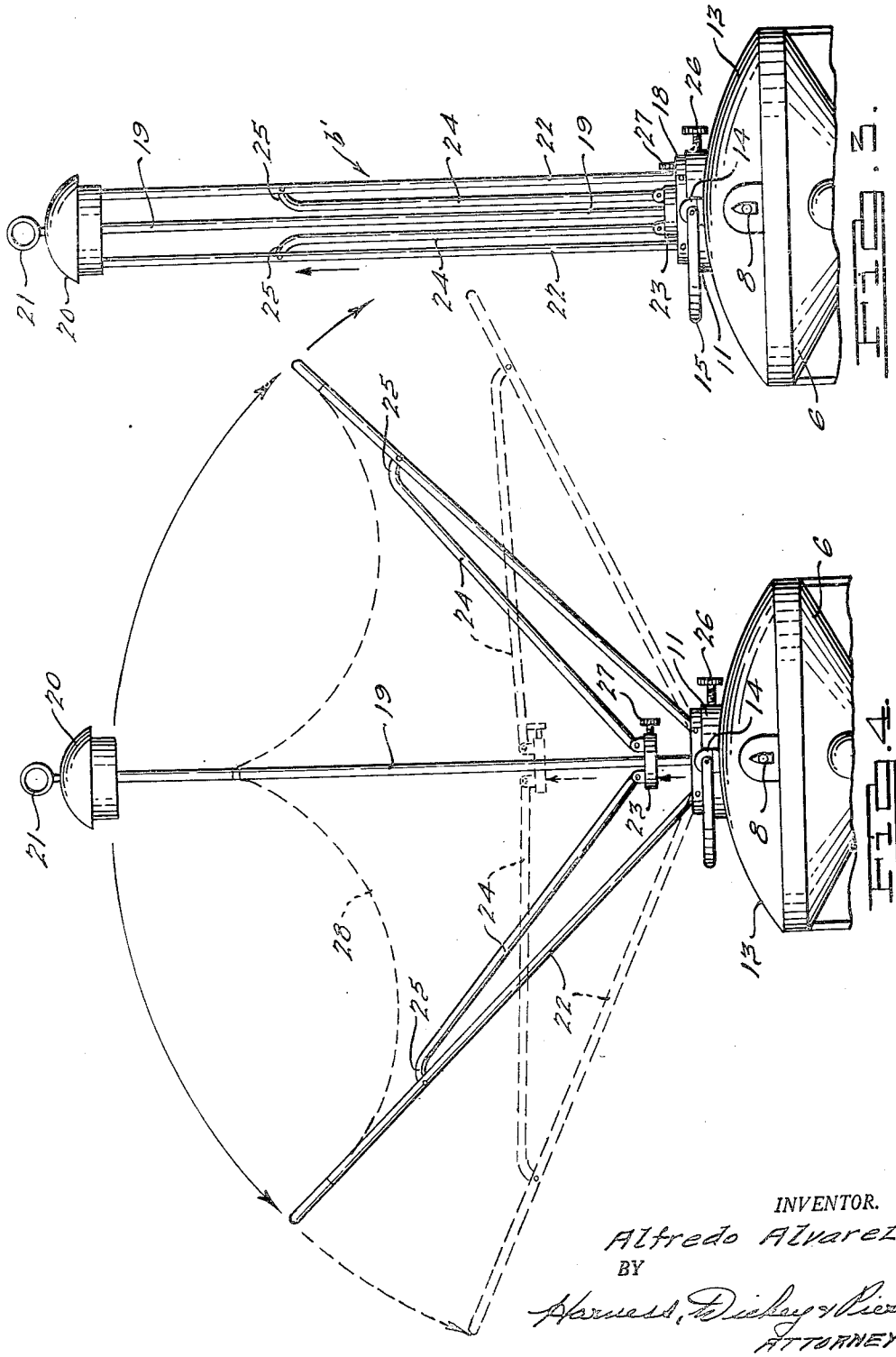


FIG. 3.

FIG. 4.

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HEATING APPLIANCE

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3 Claims. (Cl. 34—151)

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This invention relates to improvements in heating appliances, the main object being that of providing said heaters with suitable means whereby they may be used as clothes-drying apparatus when required, without affecting the appearance of the heating appliance or the parts thereof.

A serious problem is found in most homes during the rainy season, since it is not possible to hang the clothes in open spaces and it is therefore necessary to dry the clothes by adopting very inconvenient, non-sanitary and sometimes dangerous methods. Under such circumstances, the clothes are frequently hung in bathrooms, kitchens or other sheltered spaces. The drying of the clothes in such cases is obviously slow and often insanitary due to occasional dropping of the clothes onto a floor which may not always be clean, and dangerous when the clothes are put to dry over a kitchen stove, which is sometimes done in order to obtain a quicker drying of clothes which are needed urgently, since they may be easily burned due to the presence of fire spots generally existing in such stoves.

Several clothes-drying equipments are known, based on different principles and, while they are generally satisfactory, due to the high cost thereof they are not within the reach of relatively modest homes.

A study of the problem disclosed that generally the garments which are most urgently needed are the smaller garments or babies' clothes which could be dried on a device forming part of a heating appliance, thereby giving the latter a double use without affecting the appearance thereof when the device is used as a stove, and therefore it was possible to devise the improvements of this invention.

A heating appliance has been devised, circular in horizontal section, formed with a central conduit having slidably mounted therein a cylindrical member, said member carrying pivoted thereto a plurality of arms which in their inoperative position are housed vertically in said conduit; an actuating means fixed to said cylindrical member and a plurality of cords depending from the free ends of the arms, the latter being capable of assuming different planes in view of the fact that they are pivoted to said cylindrical member slidable in the above-mentioned conduit. Completing the assembly, the appliance has means for fixing the cylindrical member in its operative position and means for graduating the different positions capable of being assumed by said arms, whereby the cords on which the garments are to be hung may be stretched in the same manner as an ordinary clothesline. The assembly of arms and cords will remain located over the heating appliance, whereby the clothes hung on the lines will receive a current of air heated by the sources of heat. When it is desired to use the device as an ordinary heater, it will be sufficient to collapse the arms so that they are postioned vertically, whereupon the assembly is enclosed in the conduit, where it will remain concealed.

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In order that the invention may be more clearly understood and readily carried out, a preferred embodiment thereof has been illustrated by way of example in the accompanying drawings, in which:

Fig. 1 is an elevational view of the heating appliance, with the clothes-hanging assembly concealed in the corresponding housing.

Fig. 2 is a cross-sectional view taken along the lines A—B in Fig. 1 and showing the position of the collapsed arms in the conduit.

Fig. 3 is a view illustrating the arms drawn out of the housing, together with the actuating means, and showing the adjusting screw holding the assembly in such position, the arms being shown in collapsed vertical position.

Fig. 4 shows the same devices of Fig. 3, but with the arms extended, the dotted lines indicating the cords on which the clothes are to be hung and the different positions capable of being assumed by said arms.

The same reference characters are used to indicate like or corresponding parts or elements throughout the drawings.

With reference to the drawings, the equipment comprises a heating element *a'* constituted in this instance by electrical heaters 1. These heaters 1 are located at the focal points of respective parabolic reflectors 2, the surfaces 3 of which are highly polished for a better reflection of the heat rays emitted by the resistors 1.

The resistors 1 are vertically positioned and held by respective supports 4 provided on the base 5 and head 6 also parabolic in shape and

having reflecting properties. The resistors are supplied with electricity by connecting same to the main line through the terminals 7, the circuit thereof comprising a regulating and cut-off switch 8.

The parabolic reflectors 2 are joined together by their sides 9 and through the respective bases 5 and the parts constituting the heads 6.

Due to the shape of the reflectors 2, when they are joined together by their sides they will form a cavity 10 which is used for including therein a cylindrical tube 11 (Fig. 2) communicating with the exterior through an orifice 12 formed in a cover piece 13. Said tube 11 extends beyond said orifice 12 and near the end thereof it is provided with supports 14 on which there is pivoted a handle 15. This assembly is supported by a base 16. The resistors 1 are protected by means of a plurality of rings 17 which are firmly attached to the sides of the reflectors 2.

An assembly *b'* is inserted in the bore of tube 11, said assembly being constituted by a cylindrical member 18 coinciding with the cross-sectional area of said tube. A rod 19, preferably cylindrical, emerges from the center thereof, said rod terminating in a cap 20 provided with a finger-ring 21. A plurality of rods 22 are pivoted to said cylindrical member 18. Slidably mounted and surrounding the rod 19 there is provided a further cylindrical member 23, substantially smaller in diameter than the cylinder 18 and on which there are pivoted a like number of rods 24, the ends 25 of which are pivoted to the respective rods 22, at a point between the ends thereof.

On the portion of the tube 11 projecting through the orifice 12 in cover 13, there is provided a threaded perforation adapted to receive a screw 26 capable of firmly engaging the cylinder 18 and holding the tube 18 in its operative position. Also, the cylindrical member 23 is traversed by a screw 27 constituting the means for fixing the arm assembly in given positions.

Depending from the arms or rods 22 there is provided a plurality of cords 28 (shown in dotted lines in Fig. 4) on which the garments to be dried may be hung.

When it is desired to use the appliance as a clothes-drying device, the handle 15 should be moved from the position shown in Fig. 1 to the position illustrated in Fig. 3. The assembly *b'* is pulled upwardly by means of ring 21 until the cylindrical member 18 is positioned at the mouth of the tube 11, where it is held by means of the adjusting screw 26, whereupon the arms 22 are extended to the desired position and fixed by means of the screw 27 on the slidable member 23. The device will then be ready for use and the clothes to be dried may be fastened on the cords 28. When it is desired to use the equipment as a stove or heater, the operations are reversed, i. e., the screw 27 is loosened, the arms 23 are collapsed until they remain vertical, the adjusting member 26 is unscrewed and the whole assembly *b'* is housed in the bore of tube 11, where it will remain concealed.

It is evident that in carrying out the invention, many changes, modifications and/or alterations will occur to those skilled in the art, without departing from the scope of the invention as clearly set forth in the following claims.

I claim:

1. Combined heating appliance and clothes drier comprising a heating device including a base, a cylindrical tube arranged normally on said base and defining a chamber, a plurality of heating elements arranged on said base outside said chamber, a drying assembly comprising a first cylindrical member mounted to slide heightwise of said chamber, a first plurality of rods articulated to said first cylindrical member, a rod extending centrally from said first cylindrical member, a second cylindrical member slidably mounted on said rod, a second plurality of rods, each articulated at one end to said second cylindrical member, and at the other end to a point intermediate the ends of respective ones of said first plurality of rods and said second plurality of rods being movable from a collapsed position in which said rods are compacted to fit into said cylindrical tube to a spread position, cord like means extending between the rods of said first plurality for supporting articles to be dried, means for moving said drying assembly heightwise of said chamber, and means for locking said first cylindrical member to said cylindrical tube.

2. Combined heating appliance and clothes drier comprising a heating device including a base, a cylindrical tube arranged normally on said base and defining a chamber, a plurality of heating elements arranged on said base outside said housing, a drying assembly comprising a first cylindrical member of cross-sectional area to fit slidingly in said cylindrical tube, a rod secured to said first cylindrical member and extending heightwise with respect to said chamber, a cover for said cylindrical tube mounted on said rod at the end thereof remote from said first cylindrical member, a second cylindrical member slidably mounted on said rod, a plurality of rod arms pivoted at one end to said first cylindrical member, a plurality of link rods each articulated at one end to said second cylindrical member and at the other end to one of said rod arms, locking means for locking said second cylindrical member at a desired position along said rod, cord like means extending between said rod and said rod arms for supporting articles to be dried, a finger ring on said cover, said rod arms being arranged to be moved from a collapsed position adjacent said rod, in which said rod, rod arms and link rods are compacted to fit into said housing to a spread position, and means on said housing for locking said first cylindrical member to said cylindrical tube in a desired position.

3. Combined heating appliance and clothes drier comprising a heating device including a base and a cover piece, a plurality of parabolic reflector plates mounted edge to edge between said base and said top member and having curved portions adjacent to and spaced from each other to define a hollow extending between said base and said cover piece, said cover piece being perforated to define an orifice communicating with said hollow, a cylindrical tube mounted in said hollow on said base and extending through said orifice, said cylindrical tube defining a chamber, a plurality of heating elements arranged on said base on the side of the reflector plates remote from said cylindrical tube and extending between said base and said cover piece, a drying assembly comprising a first cylindrical member of cross-sectional areas to fit slidingly in said cylindrical tube, a rod secured to said first cylindrical member and extending heightwise with respect to said chamber, a cap for said housing mounted on said rod at the end thereof remote from said first cylindrical member, a second cylindrical member slidably mounted on said rod, a plurality of rod

arms pivoted at one end to said first cylindrical member, a plurality of link rods each articulated at one end to said second cylindrical member and at the other end to one of said rod arms, locking means for locking said second cylindrical member at a desired position along said rod, cord like means extending between said rod and said rod arms for supporting articles to be dried, a finger ring on said cap, said rod arms being arranged to be moved from a collapsed position adjacent said rod, in which said rod, rod arms and link rods are compacted to fit into said cylindrical tube to a spread position, and means on said

cylindrical tube for locking said first cylindrical member to said cylindrical tube in a desired position.

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