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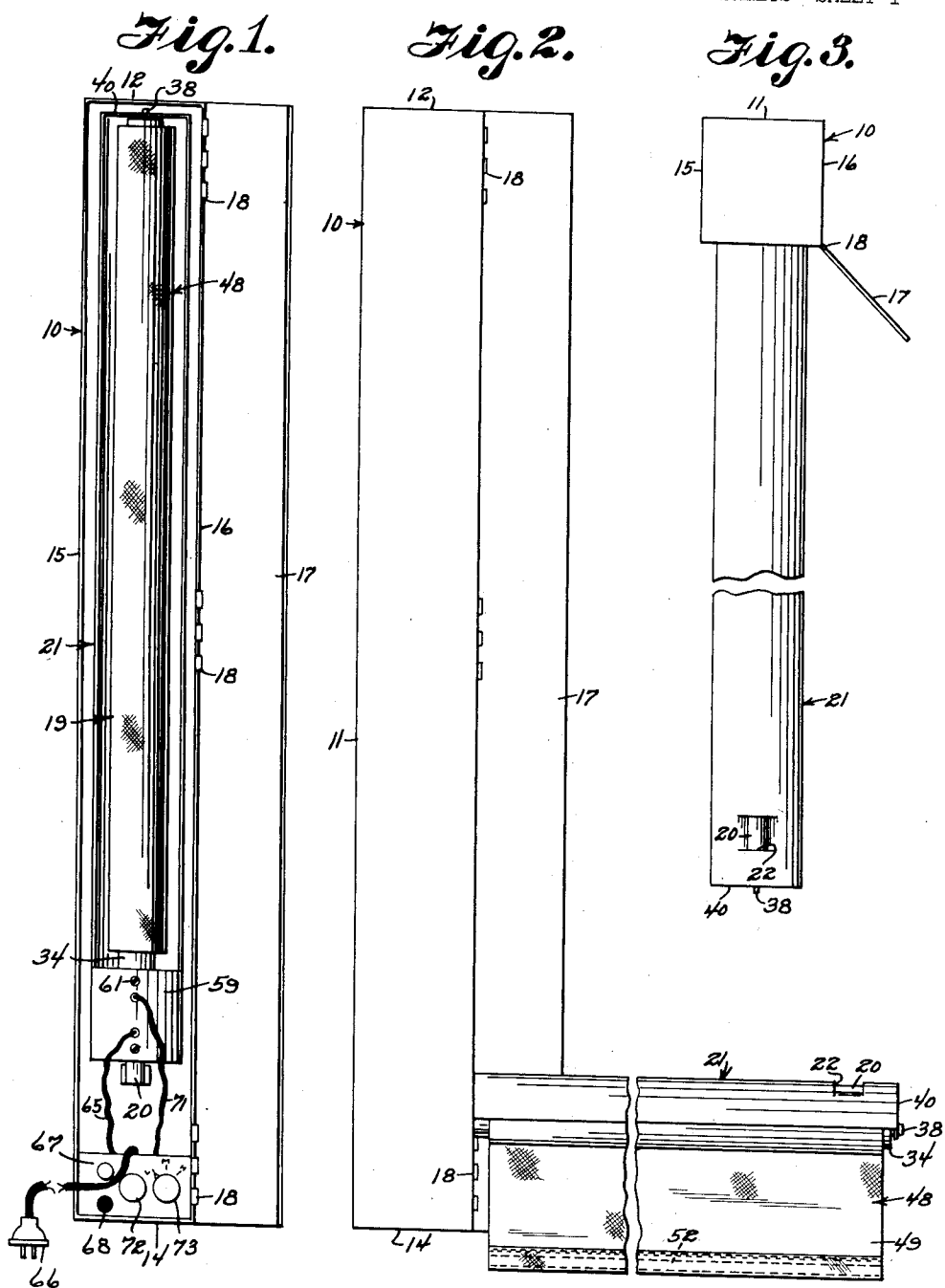
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2,571,918

APPARATUS FOR DRYING ARTICLES OF CLOTHING OR WEARING APPAREL

Filed Sept. 7, 1950

2 SHEETS—SHEET 1



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2 SHEETS--SHEET 2

Fig. 6.

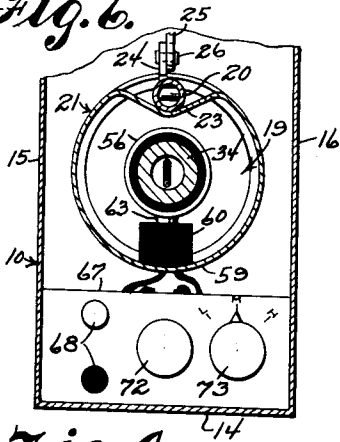


Fig. 4.

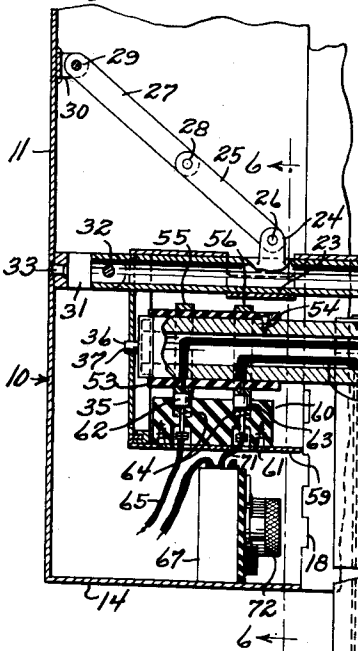


Fig. 7.

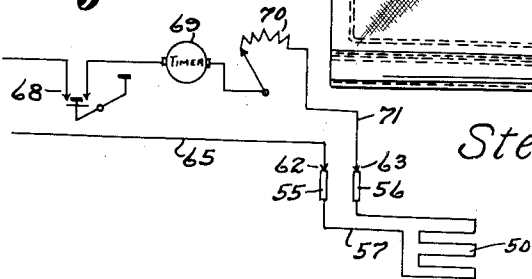
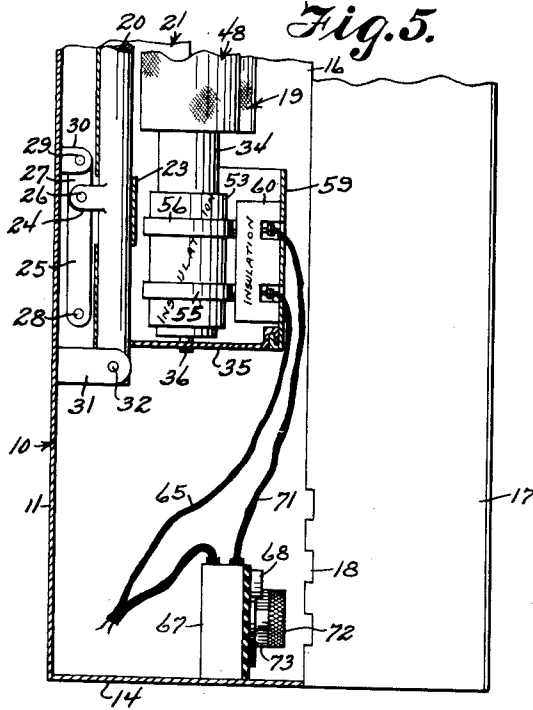


Fig. 5.



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APPARATUS FOR DRYING ARTICLES OF CLOTHING OR WEARING APPAREL

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6 Claims. (Cl. 219—19)

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This invention relates to a drier, and more particularly to an apparatus for drying articles of clothing or wearing apparel.

The object of the invention is to provide a garment drier which can be readily attached to a wall or other support in the user's home or apartment, the drying apparatus including a heating element which can be moved to an operative position when it is to be used, or can be moved out of the way when not needed.

Another object of the invention is to provide a clothes drier which includes an electrically operable heating element that can be controlled or regulated by the user, the heating element being adjustable as to length, the drier being equipped with automatic controls for preventing overheating of the apparatus.

A further object of the invention is to provide a clothes drier which is extremely simple and inexpensive to manufacture.

Other objects and advantages will be apparent during the course of the following description. In the accompanying drawings forming a part of this application, and in which like numerals are used to designate like parts throughout the same:

Figure 1 is a front elevational view of the clothes drier of the present invention, with the cabinet door open and with the heating element positioned in an out-of-the-way position in the cabinet;

Figure 2 is a side elevational view of the clothes drier, showing the heating element in horizontal, operative position;

Figure 3 is a top plan view of the clothes drier with the parts in the position of Figure 2;

Figure 4 is a fragmentary, vertical, sectional view showing certain constructional details of the clothes drier;

Figure 5 is a fragmentary side elevational view, with parts broken away and in section, showing the heating element positioned in the cabinet;

Figure 6 is a sectional view taken on the line 6—6 of Figure 4;

Figure 7 is a view showing the electrical circuit for the clothes drier.

Referring in detail to the drawings, the numeral 10 designates a cabinet or housing which may be made of any suitable material, and the cabinet 10 includes a vertically disposed back wall 11 which may be secured to a wall in a user's apartment house or home by screws or other securing elements. The cabinet 10 further includes a top wall 12 and a bottom wall 14, there being spaced, parallel, side walls 15 and

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16 extending between the top and bottom walls of the cabinet and being secured thereto. A door 17, Figure 1, is hingedly connected to the side wall 16 of the cabinet 10 by suitable hinges 18, so that when the heating element is positioned in the cabinet 10, as shown in Figure 1, the door 17 can be closed to thereby prevent damage to the heating element and also provide a neat and attractive assembly.

The heating element is designated generally by the numeral 19, and includes a rod 20, Figure 4. Connected to the rod 20 is a canopy or casing 21, and the canopy 21 is provided with a pair of struck-out brackets 22 and 23 which snugly engage the rod 20 whereby the rod 20 and canopy 21 will be maintained connected together.

For pivotally connecting the rod 20 and canopy 21 to the cabinet 10, an ear 24 projects from the bracket 23, and the ear 24 is pivotally connected to a link 25 by a pin 26. The link 25 is pivotally connected to a second link 27, Figure 4, by a pin 28, and the link 27 is pivotally connected to lugs 30 by a pin 29, the lugs 30 being secured, as by welding, to the back wall 11 of the cabinet 10. The inner end of the rod 20 is pivotally connected by a pin 32 to ears 31, and the ears 31 are secured to the back wall 11 by a rivet 33.

Rotatably supported by the canopy 21 is a roller 34 which has a structure similar to the ordinary window shade roller. Thus, the roller 34 includes a cylindrical trunnion 36 that rotatably projects through an opening 37 in an end wall 35 of the canopy 21. A flat trunnion 38 projects from the other end of the roller 34, and the trunnion 38 projects into a slot or opening 39 in the other end wall 40 of the canopy 21, Figure 4. A cap 41 is arranged over the end of the roller 34, and a pair of body pieces 43 and 44 are arranged in end-to-end relation in a socket 42, the socket 42 being formed in the roller 34. A pin 46 interconnects the body pieces 43 and 44 together, and a coil spring 45 is circumposed about the body pieces 43 and 44 and has its ends connected thereto. A notched fitting 47 connects the body piece 43 to the roller 34.

The heating element 19 further includes a flexible body member 48 which comprises a pair of fiber glass sheets 49 that are secured together in any suitable manner. Interposed between the fiber glass sheets 49 are suitable filaments or conductor wires 50, so that when electrical energy is supplied to the filaments 50, clothing which is draped over the canopy 21 and over the

body member 48 will be dried by the electrically actuated filaments 50. The sheets 49, or flexible body member 48, can be adjusted in length in the same manner that a window shade can be adjusted in length, so as to accommodate garments of different sizes or lengths. The body member 48 has one of its ends secured to the roller 34 by suitable securing elements, such as rivets or nails 51. A weighted bar 52 is arranged in the other end of the body member 48, so as to help maintain the body member 48 immobile in its adjusted positions.

Arranged on the other end of the roller 34 is an insulated, annular sleeve 53, the insulated sleeve 53 being secured to the exterior of the roller 34 by screws 54. A pair of spaced, metal collector rings 55 and 56 snugly embrace the sleeve 53 for a purpose to be later described. A wire 57 electrically connects one end of the filament 50 to the collector ring 55, while a second wire 58 electrically connects the other end of the filament or heating wire 50 to the other collector ring 56.

Projecting from the end wall 35 of the canopy 21 is a shelf 59, and an insulated block 60 is secured to the shelf 59 by screws 61. A pair of spaced brushes 62 and 63 are movably mounted in the block 60, and the brushes 62 and 63 are adapted to engage the revolving collector rings 55 and 56, respectively. Coil springs 64 normally urge the brushes 62 and 63 into engagement with the proper collector rings. A wire 65 electrically connects the other end of the brush 62 to a suitable source of electrical energy, and a conventional wall plug 66 may be provided for supplying this electrical energy from a conventional outlet box.

Supported by the bottom wall 14 of the cabinet 10 is a control unit 67, the control unit 67 enabling the user to regulate the heat supplied by the filament 50 and the control unit also serves to prevent overheating of the heating element. Thus, the control unit includes an on-and-off switch 68, whereby the flow of electrical energy through the filament 50 can be completely prevented when desired, and arranged or connected in series with the on-and-off switch is a timing mechanism 69. The timing mechanism 69 is conventional and serves to prevent overheating of the filament 50. Arranged in series with the timing mechanism 69 is a rheostat 70, whereby the user can regulate the amount of electrical energy supplied to the filament 50. A wire 71 electrically connects the rheostat 70 to the other brush 63, Figure 7. A manually operable knob 72 is provided for adjusting the timing mechanism 69, while a similar knob 73 is provided for adjusting the rheostat 70.

From the foregoing it is apparent that a drying apparatus has been provided which is especially suitable for drying articles of clothing inside a person's home or apartment. When the drying apparatus of the present invention is not being used, the heating element 19 is in the position shown in Figure 1. When the apparatus is to be used for drying clothes, then the heating element 19 is moved to the position shown in Figures 2, 3 or 4. Thus, clothes to be dried can be draped or hung over the canopy 21, and these clothes will be dried by means of the electrically heated element 50 in the body member 48. The body member 48 can, of course, be adjusted to any length desired merely by manually pulling the body member 48 in the same manner that a window shade is adjusted. The brushes and collector rings previously described will insure that the

electrical circuit is at all times completed to the filament 50, regardless of which position the roller 34 is rotated to. Also, the timing mechanism 69 will insure that the filament 50 is not overheated, and the rheostat 70 can be adjusted by means of the knob 73 to control the amount of electrical energy supplied to the filament 50 in the body member 48.

The control unit 67 is positioned within the cabinet 10, so that the door 17 will close the entire assembly when the drying apparatus is not being used. The cabinet can be painted or coated with enamel in order to blend with kitchen or other equipment in the home. The cabinet 10 can be screwed or otherwise secured to a kitchen cabinet or wall. The sheets 49 of the body member 48 may be made of fiber glass cloth which is fire-proof and shock-proof. By adjusting the body member 48, different lengths and quantities of clothing can be dried. Each piece of wash to be dried is placed on top of the preceding piece, and the timing mechanism can be either electrically or mechanically operated. The wash to be dried hangs on both sides of the body member 48. The drying apparatus of the present invention is extremely simple and inexpensive to manufacture and requires a minimum of space in the home or apartment. It can be quickly moved to an operative position or folded away when not needed.

I claim:

1. In a drying apparatus, a vertically disposed cabinet, a canopy pivotally connected to said cabinet and mounted for movement into and out of the latter, a roller rotatably supported by said canopy, a flexible body member including a pair of sheets secured to said roller, and conductor filaments positioned between said sheets and adapted to be connected to a source of electrical energy.
2. In a drying apparatus, a vertically disposed cabinet, a canopy pivotally connected to said cabinet and mounted for movement into and out of the latter, a roller rotatably supported by said canopy, a flexible body member including a pair of sheets secured to said roller, conductor filaments positioned between said sheets and adapted to be connected to a source of electrical energy, and a door hingedly connected to said cabinet.
3. The apparatus as described in claim 2, and further including a rheostat for controlling the flow of electrical energy to said filaments.
4. The apparatus as described in claim 2, and further including a timing mechanism for preventing overheating of said filaments.
5. In a clothes drier, a cabinet, a door hingedly connected to said cabinet, a rod hingedly connected to said cabinet, a canopy connected to said rod and mounted for movement into and out of said cabinet, a roller rotatably carried by said canopy, a body member embodying a pair of flexible fiber glass sheets secured to said roller, a weighted bar connected to the free end of said body member, an insulated sleeve mounted on an end of said roller, a pair of spaced conductor rings arranged on said sleeve, an insulated block supported in said canopy, a pair of spring pressed brushes for engagement with said rings, a wire electrically connecting one of said brushes to a source of electrical energy, conductor filaments arranged between sheets of said body member and electrically connected to said rings, and a control unit electrically connected to the other of said brushes.
6. In a clothes drier, a cabinet, a door hingedly

connected to said cabinet, a rod hingedly con-

5 nected to said cabinet, a canopy connected to said rod and mounted for movement into and out of said cabinet, a roller rotatably carried by said canopy, a body member embodying a pair of flexible fiber glass sheets secured to said roller, a weighted bar connected to the free end of said body member, an insulated sleeve mounted on an end of said roller, a pair of spaced conductor rings arranged on said sleeve, an insulated block supported in said canopy, a pair of spring pressed brushes for engagement with said rings, a wire electrically connecting one of said brushes to a source of electrical energy, conductor filaments arranged between the sheets of said body member and electrically connected to said rings, a control unit electrically connected to the other of said brushes, said control unit comprising a timing mechanism, an on-and-off switch and a rheostat.

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