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F. G. KONSTANDT

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CLOTHES DRIER

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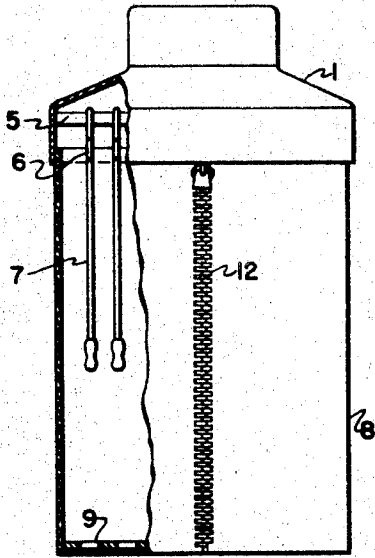


FIG. 1

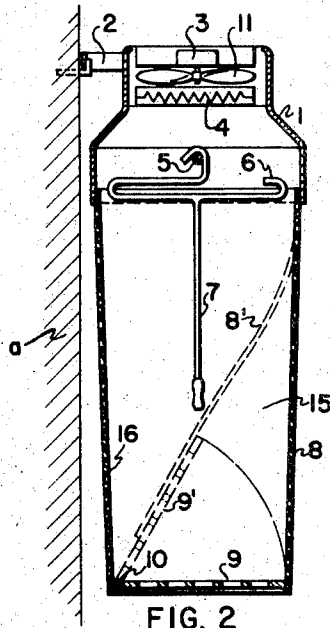


FIG. 2

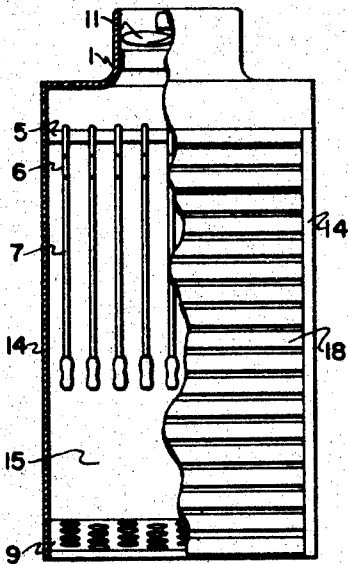


FIG. 3

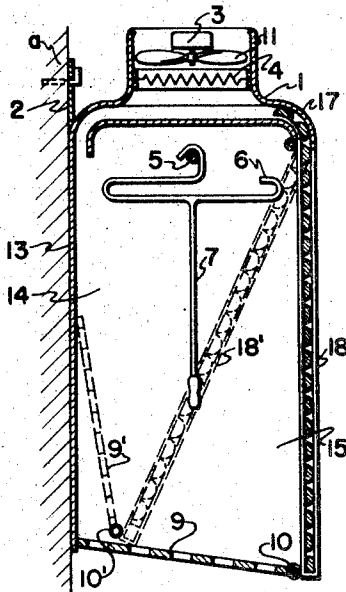


FIG. 4

Francisco Goldberger Konstandt Inventor

By *L. F. Meant*

Attorney

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Francisco Goldberger Konstandt, Buenos Aires, Argentina

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11 Claims. (Cl. 34-163)

The invention relates to a drying device for clothes which may be suspended at a wall or put thereto at a convenient height so as to be out of way in the rooms where it will be used. It furthermore may be folded upon the wall increasing thus still further the free space when out of use.

The invention refers to a drying device suspended to a wall which may be charged and emptied from beneath.

For shortening the drying-process preferably an electric fan and an airheater will be used and these elements will act within a cover or hood disposed at the upper part of the apparatus.

Another object of the invention is to provide means to fold the lower part of the apparatus against the wall when out of use.

Still another object of the invention resides in the provision of means for retaining the heated air for a longer period inside of the apparatus.

These and other objects of the invention will be pointed out in the following description and claims and illustrated in the accompanying drawings which disclose, by way of example, the principle of the invention. In the drawing:

Figs. 1 and 2 show a drying device with a drying-chamber formed by a curtain; Fig. 1 being a vertical front view partially in section. Fig. 2 is a vertical section, at right angle, of Figure 1.

Figs. 3 and 4 illustrate another type which in front is closed by means of a roller-curtain; Figure 3 being a front elevation and Figure 4 a vertical section, at right angle, of Figure 3.

In the different illustrations the same reference numbers refer to identical parts. Referring now more particularly to the drawings, there is shown in Fig. 1 the cover or hood 1, containing the electric motor 3 with fan 11 and the electric resistance 4 for heating the air. The hood also contains a transverse rod 5 for supporting the hangers 6-7. Furthermore the hood contains a device to fasten the apparatus against the wall 2.

Fastened to the hood 1 a curtain 8 (Figs. 1 and 2) hangs down all around, forming the drying-chamber 15. This curtain is closed in the front with a zipper 12.

In Figs. 3 and 4 the chamber 15 is formed by a back-sheet 13, two pliable sidesheets 14 and a curtain 18 in form of a roller-curtain.

The wet clothes are placed on the hangers 6-7. In order to distribute the air-flow uniformly around the hangers 6-7 and to keep the air for a longer time in chamber 15, the bottom of the chamber is partially closed.

This can be obtained by closing the bottom with a perforated plate 9 as seen in the different drawings. This perforated plate 9 in the Figs. 1 and 2 is fastened to the backside 16 of the curtain 8 on the lower end, the curtain being made of textile or plastic. When the apparatus is not in use, the perforated plate 9 can be lifted upwards to the position 9' to fold the curtain 8 where it may be held by any conventional means such as a cord or the like against the wall to the position 8', or plate 9 can be dropped downwardly around axis 10 as indicated by the dotted double line extending downwardly from axis 10, in order to permit free access to chamber 15 from below.

In Figs. 3 and 4 one can see a roller-curtain 18 which may be folded back along the axis 17 to the position 18' draw in dotted lines in Fig. 4. The perforated plate 9 goes into position 9' turning around axis 10 which moves to 10'.

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The hangers 6-7 according to this invention have one opened arm in the part 6 so towels or similar objects f. i. can be put on easily. Furthermore the hangers have an extended handle 7 as a grasping means. Preferably these hangers can be made of plastic, strong wire or profiled metal.

While the description and drawings are directed to electric heating means gas or any liquid fuel may be used as well without departing from the characteristics of the invention.

Performance of the device is as follows:

The drying-chamber 15 being opened permits to withdraw the hangers 6-7 from the transverse rod 5 using the handles provided at the lower end of the rods 7. The clothes to be dried are placed upon these hangers, giving to these clothes an opened, extended position, which makes drying easier. Afterwards the hangers are put back upon rod 5 and the curtain 8 (Figs. 1 and 2) or the roller-curtain 18 (Figs. 3 and 4) is closed. Thus filled from beneath, operation of the drying device is started by connecting the current to the motor 3 with its fan 11 and the resistance 4. A hot air-current will be produced which flows downwardly, carrying away the water vapor, whereby the clothes will be dried. Uniform distribution of warm air in the lower portion of chamber 15 is caused by perforated plate 9 partially obstructing the discharge of air from chamber 15.

When the apparatus is not in use the curtain or roller-curtain is folded back as has been shown in dotted lines in Figs. 2 and 4. The apparatus then will not cause any trouble wherever it will be placed as it will remain folded against the wall and at a height which is equal or superior to the height of any person.

Having described several examples of the invention it is obvious that the same is not to be restricted thereto, but is broad enough to cover all structures coming within the scope of the annexed claims and what is claimed as new and desired to be secured by Letter Patent, is:

1. A clothes drier comprising, in combination, an essentially rigid substantially horizontal hood covering a substantial cross-sectional area, said hood having a lower portion defining said area and an aperture in the top of smaller cross-section, a motor-driven fan mounted on said hood in said aperture, for forcing a blast of air downwardly through said aperture, heating means arranged in the path of said blast to heat said blast, means attached to said hood for supporting clothes hanging downwardly from said supporting means, a flexible and collapsible sheet member forming a casing attached to and depending from said lower portion over a substantial vertical distance, said casing embracing said first-named area and being open at the bottom, and means mounted on said casing adjacent said bottom for holding said casing open, said means including spaced perforations for partially obstructing and evenly distributing the flow of air through said casing.

2. Clothes drier according to claim 1 in which said clothes-supporting means comprises at least one substantially horizontal rod attached with at least one of its ends to said portion so as to clear said portion and the top of said hood over at least a major portion of the length of said rod, and a clothes hanger removably supported by, and depending from, said rod.

3. A clothes drier comprising, in combination, an essentially rigid substantially horizontal hood covering a substantial cross-sectional area, said hood having a lower portion defining said area and an aperture in the top of smaller cross-section, a motor-driven fan mounted on said hood in said aperture, for forcing a blast of air downwardly through said aperture, heating means arranged in the path of said blast to heat said blast, means attached to said hood for supporting clothes hanging downwardly from said supporting means, a flexible and collapsible sheet member forming a casing attached to and depending from said lower portion over a substantial vertical distance, said casing embracing said first-named area and being open at the bottom, and a perforated plate of substantially said first-named area mounted on said casing adjacent said bottom for holding said casing open and for partially obstructing and evenly distributing the flow of air through said bottom, said plate being hingedly

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supported on one side of said casing and detachably supported on the opposite side of said casing.

4. A clothes drier comprising means creating a blast of hot air, said means comprising a hood open at both ends, a flexible and collapsible sheet member attached at its top edge to said hood and extending downwardly to form a clothes enclosing casing, and rigid means mounted at the bottom edge of said member for holding said casing in open position, said means including spaced perforations for partially obstructing and evenly distributing the flow of air through said casing.

5. A drier in accordance with claim 4 which comprises means for opening and closing said member over a substantial portion of its length.

6. A drier in accordance with claim 4 in which said rigid means comprises a perforated plate substantially of the cross-section of said casing.

7. A drier in accordance with claim 6 in which said plate is in a substantially horizontal position.

8. A drier in accordance with claim 7 in which said plate is in a substantially vertical position, said plate pressing the lower portion of one side of said member against the lower portion of the opposite side of said member so as substantially to reduce the cross-section of said casing in said lower portion.

9. A clothes drier comprising a substantially horizontal, essentially rigid hood having an opening in its top, an electric fan arranged in said hood below said opening, said fan taking suction from said opening and blowing air in a downward direction, heating means arranged in said hood below said fan in the path of said downwardly blown air, clothes supporting means arranged in said hood below said heating means and in said path, a substantially vertical flexible and collapsible curtain forming a casing depending from the lower rim of said hood over a substantial distance and enclosing said path, said curtain having a substantially vertical slot extending over at least a major portion of the length of said curtain, means for opening and closing said slot, a perforated plate mounted at the bottom edge of said curtain, a portion of the rim of said plate being pivotally supported by said curtain leaving the unsupported portion of said plate free to swing upwardly and downwardly above and below its point of pivotal support through a substantially horizontal position and means for holding said plate in said position.

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10. A clothes drier comprising a substantially horizontal, essentially rigid hood having an opening in its top, an electric fan arranged in said hood below said opening, said fan taking suction from said opening and blowing air in a downward direction, heating means arranged in said hood below said fan in the path of said downwardly blown air, clothes supporting means arranged in said hood below said heating means and in said path, a substantially vertical casing of substantially rectangular horizontal cross-section depending from the lower rim of said hood and enclosing said path, two essentially rigid sheet members forming two opposite vertical sides of said casing, two essentially flexible sheet members forming the two other vertical sides of said casing, at least one of said rigid members being pivotally supported by said rim, a door arranged in one of said rigid members, means arranged adjacent the lower end of one of said rigid members for releasably holding the lower end of the other rigid member, and a perforated plate mounted on the lower edge of said casing, a portion of the rim of said plate being pivotally supported by said casing leaving the unsupported portion of said plate free to swing upwardly and downwardly above and below its point of pivotal support through a substantially horizontal position and means for holding said plate in said position.

11. The drier of claim 9 in which said clothes supporting means comprises a removable substantially horizontal clothes hanger and a vertical bar rigidly attached to and depending from said hanger over a substantial distance.

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