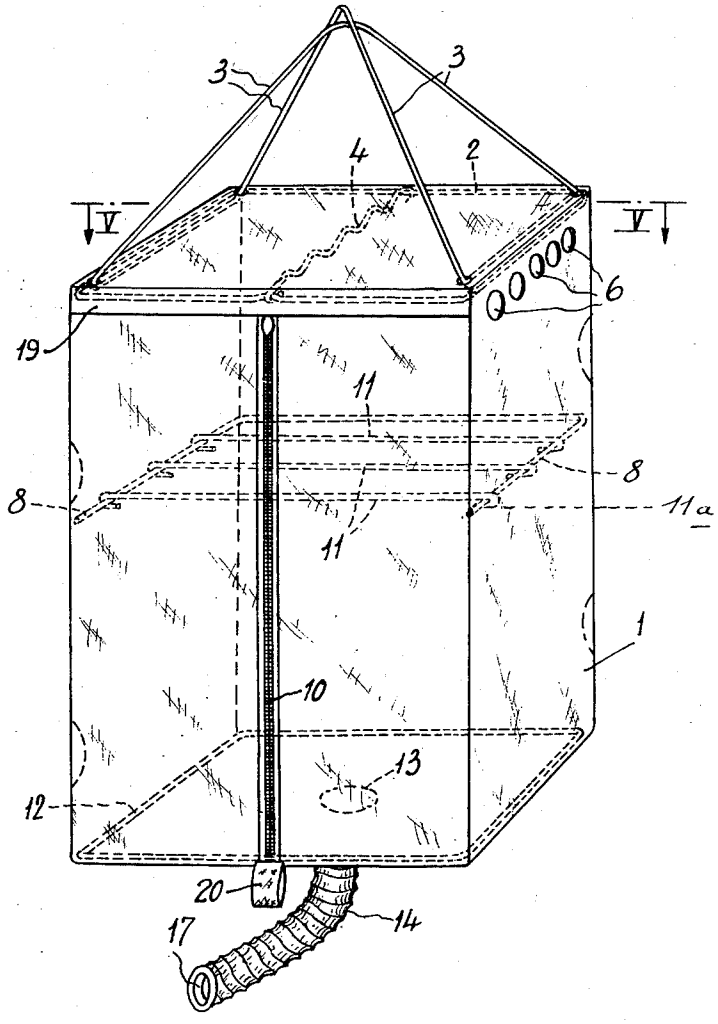
March 21, 1961 H. WEBER 2,975,529

ARRANGEMENT FOR THE SPEEDY DRYING OF SMALL AMOUNTS OF LINEN

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Fig. 1



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Fig. 2

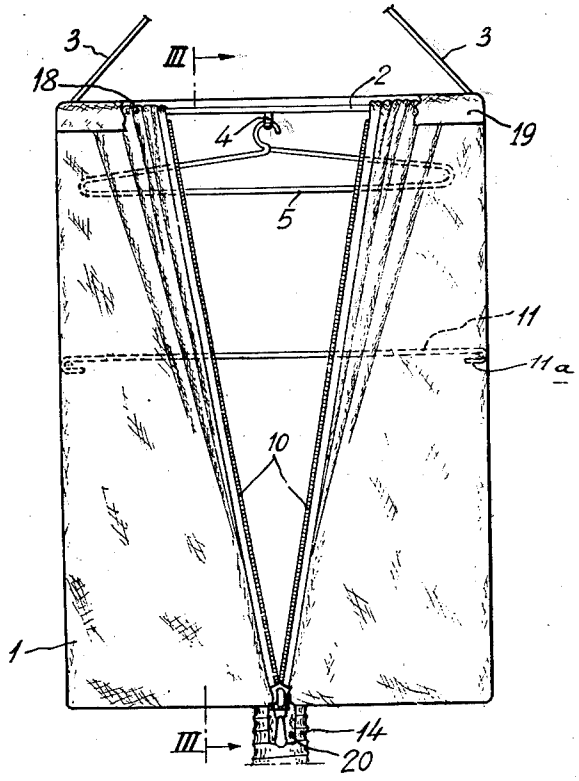
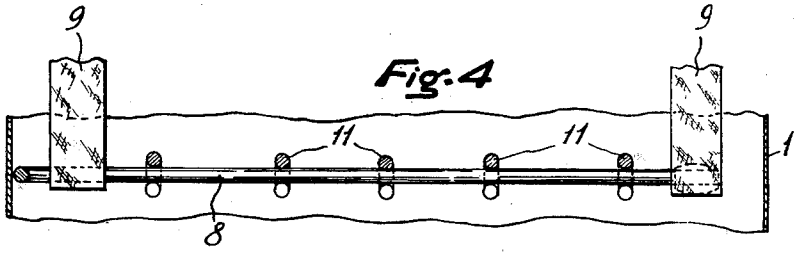


Fig. 4



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Fig.5

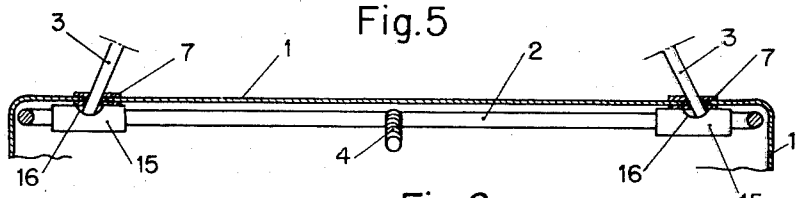


Fig.7



Fig.6

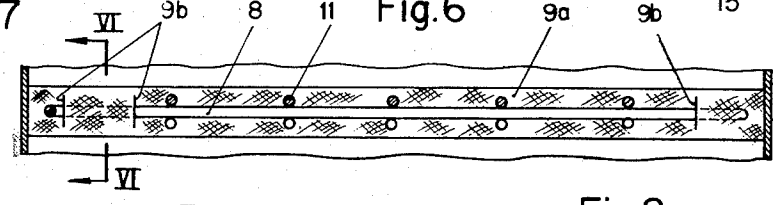


Fig.3

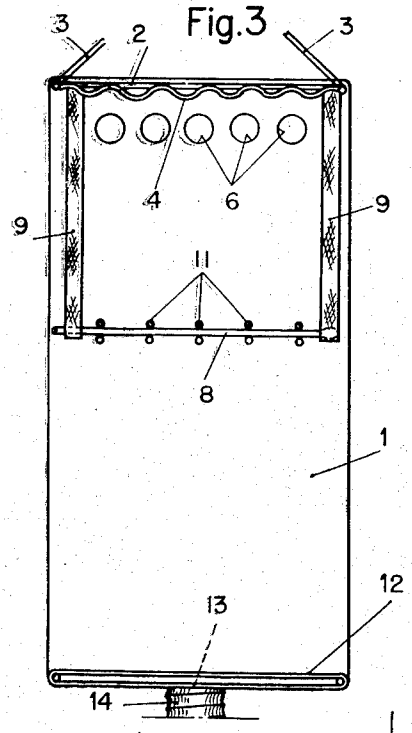


Fig.8

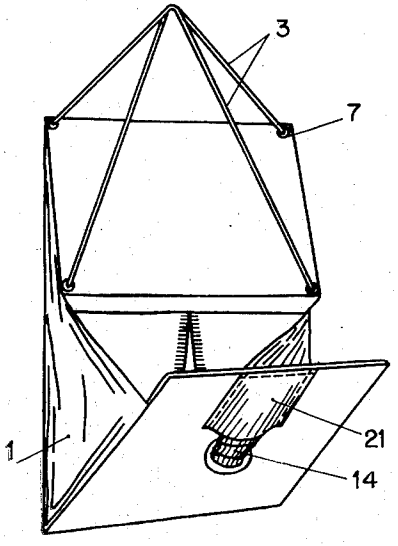


Fig.9

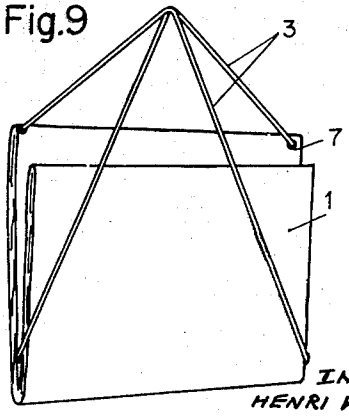
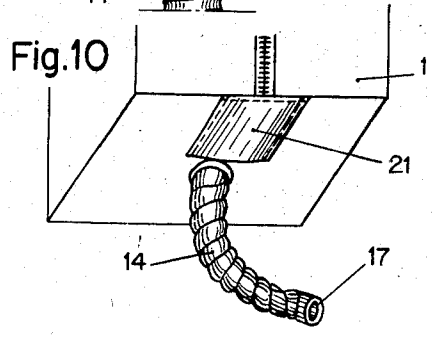


Fig.10



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2,975,529

ARRANGEMENT FOR THE SPEEDY DRYING OF SMALL AMOUNTS OF LINEN

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Filed Mar. 5, 1958, Ser. No. 719,415

Claims priority, application France Mar. 8, 1957

3 Claims. (Cl. 34—151)

My invention has for its object an arrangement for the speedy drying of linen, which allows the housewife and also the traveller to rapidly dry small amounts of linen, chiefly fine linen when required, for instance, whenever it is impossible to otherwise dry the linen because of inclement weather, or again when travelling.

Arrangements for this object are already known which consist of suspended casings through which hot air is caused to pass and which are made of an airtight material. These known arrangements have however found no application in practice, because they are exceedingly bulky and are expensive and intricate by reason of the apparatus such as a motor driving a fan incorporated therewith for the production of a stream of hot air.

Now, my invention contemplates using a casing through which hot air is caused to pass for rapidly drying small amounts of linen, chiefly fine linen and which does not require its own supply of heat and which may be connected with any suitable outer supply of hot air. Further, it may be folded into a structure the bulk of which is extremely small when it is not in use, so that it may readily be carried by travellers in their luggage.

The linen-drying arrangement according to my invention has for its chief feature that the closed casing adapted to be suspended and made of a yielding airtight material forms a bag which is not provided with any vertical reinforcements and includes merely an upper frame which serves simultaneously for securing the means suspending the casing and for carrying the clothes-hangers provided in the casing, and a lower frame cooperating with the upper frame to hold the bag open while means are provided for connection with an outer supply of heat in association with openings for the exhaust of the air which has served for the drying. The casing which is suspended in any desired manner is held open in a tensioned condition merely by the weight of the lower frame.

According to a preferred embodiment of the invention, the two frames holding the bag open are square, the length of the side of the square being equal to one half the spacing between the upper and the lower frames holding the bag open, i.e. one half the length of the casing. These proportions permit collapsing of the two frames and the subsequent folding of the latter over the intermediate material constituting the casing so as to form therewith a bag which may be carried by the crossed strings or the like serving for the suspension of the casing.

For the connection of the casing with an outer supply of hot, air, it is of advantage, according to a further feature of my invention, to use a tubular projection provided preferably in the bottom of the casing and made of a thin yielding material, said projection being fitted with an inner coil adapted to keep it in its open position. Said tubular projection may also be folded in an axial direction after which it is fitted in a pocket provided for this purpose by the partly double-walled structure of the casing bottom.

The nozzle forming the outer end of the tubular projection is formed, according to a further feature of the invention, by an elastic expansible ring made for instance of sponge rubber adapted to engage connections of different diameters in various conventional hot air generators such as the hot air supplies which are available everywhere for the drying of one's hair.

Further features and details of the invention will appear in the reading of the following description of a preferred embodiment of my novel linen drier, reference being made to the accompanying drawings wherein:

Fig. 1 is a perspective illustration of the novel linen drier in its operative drying condition.

Fig. 2 is a front view of the drier with one wall in its open condition.

Fig. 3 is a vertical sectional view taken through line III—III of Fig. 2.

Fig. 4 illustrates a detail of Fig. 3 on an enlarged scale.

Fig. 5 is a cross-sectional view taken through line V—V of Fig. 1.

Fig. 6 illustrates a modification of the detail shown in Fig. 4.

Fig. 7 is a cross-sectional view taken through line VII—VII of Fig. 6.

Fig. 8 is a perspective view of the casing during its folding after use.

Fig. 9 shows the linen drier in its final folded pocket-shaped condition.

Fig. 10 shows a detail of the arrangement including the tubular projection and the possibility also illustrated in Fig. 8 of its fitting inside a pocket formed in the bottom of the casing.

As apparent from Fig. 1, my improved high-speed linen drier is constituted by a casing or envelope **1** of a material such as a sheet of synthetic material which is yielding and airtight, and having advantageously a prismatic shape.

This casing is held in its open condition during operation of the drier through the two stiffening frames **2** and **12** arranged at its upper and lower ends respectively for holding the casing open. To the upper frame **2** are secured suspension strings **3** crossing each other diagonally as illustrated, said strings passing through the eyelets **7** provided in the upper part of a side wall of the casing.

A sliding of the strings passing underneath the upper frame member **2** is prevented by elastic fittings **15** made for instance of rubber (see Figs. 5 and 6), the fittings **15** being provided each with a transverse cut through which the suspension strings are drawn. These fittings may be replaced by wire loops inserted in the corners of the frame **2** and engaging the suspension strings **3**.

The suspension strings may also be made of a single part as illustrated in Figs. 1, 8 and 9, so as to form two loops whereby it is possible to suspend the arrangement in any suitable manner to the ceiling or along a wall. These loops form also carrier means for the flat bag formed in periods of non use by the entire arrangement, as described hereinafter with further detail.

To the bottom of the elastically closed casing is connected at **13** a tubular projection **14** made for instance of a sheet of synthetic material inside which is fitted an inner helical member adapted to keep the tubular projection in its expanded condition, said helical member forming an elastic nozzle **17** adapted to expand so as to allow the connection of the projection with pipes and tubes of varying diameters, such for instance as those fed by a hair-drying apparatus forming the supply of hot air.

The hot air passes, in the example described, through the openings **6** provided in the upper portion of a side wall or at the like suitable location so that said air

sweeps upwardly from the tubular projection through the casing and out of it through said openings.

No other rigid reinforcing members are provided between the frame members 2 and 12.

The frame 2 carries a transverse member across its middle and said member is given a conventional undulating shape and serves for the carrying of a clothes-hanger 5 with the linen to be suspended for drying.

Furthermore, it is possible as shown clearly in Figs. 1, 3 and 4, to fit in a central section of the casing a U-shaped intermediate frame 8 which is constituted advantageously of synthetic material in the same manner as the frames 2 and 12, said intermediate frame being suspended to the upper frame 2 by means of straps 9. The straps 9 extend along the inner lateral walls of the casing. In this case, the arms of the intermediate frame 8 engage loops formed at the ends of the straps.

In the embodiment according to Figs. 6 and 7, the straps 9*a* are secured to the inner surface of the side walls of the casing in a manner such that they form gaps with said side walls. In this case, the arms of the intermediate frame engage corresponding slots 9*b* in the straps.

It is also possible to execute the upper sections of the side walls of the casing as a double-walled section and, in this case, the straps may be cut out and the intermediate frame would be secured in a similar manner to the inner part of the double wall.

Over the arms of the intermediate frame are arranged, in parallelism with the rear wall of the casing, a plurality of transverse rods 11 adapted to be shifted over or lifted off the said arms of the intermediate frame. When all these transverse rods are shifted towards the rear wall of the casing, or are removed, the entire space inside the casing is free to receive the longer pieces of linen carried by the clothes-hangers 5. Due to the fact that the intermediate frame is in the shape of a U, i.e. that it is open towards the front, the inside of the casing is easily accessible when it is opened through operation of the slide or Zip fastener 10 provided for this purpose and which is advantageously made of synthetic material, said fastener subdividing the front wall of the casing along its vertical line of symmetry.

After operation of the slide fastener through the usual lug 20, the lateral wall sections are easily separated from each other after the manner of a curtain as illustrated in Fig. 2, so that the inside of the casing is readily accessible. A flap 19 of the upper cover of the casing conceals the upper edge of said curtain wall.

As illustrated in Figs. 8 to 10, the tubular projection 14 is inserted, when the linen drier is in its inoperative folded condition, inside a pocket 21 formed by a double-walled section of the bottom of the casing.

Figs. 8 and 9 show how the linen drier according to the invention may be advantageously folded so as to form a bag-shaped package the size of which is no larger than that of a brief-case, while obviously after the preliminary removal of the intermediate frame, if any, the upper and the lower frames are first folded over the adjacent part of the casing and the two frames are then folded directly over each other so that after obtaining the position according to Fig. 8, a bag, according to Fig. 9, is formed and may be carried through the agency of the suspension strings 3.

The invention allows obtaining, as disclosed hereinafter, an arrangement for the speedy drying of small amounts of linen and, in particular, ladies' linen, stockings, diapers and the like, and also and chiefly so-called nylon shirts and the like now preferred by men, said drier being easily carried with one's luggage without requiring its own supply of heat and being readily connected with any desired external supply of heat such as a hot air jet producer.

Obviously, my invention is by no means limited to the embodiments disclosed and many modifications may be proposed within the scope of the accompanying claims. Thus, the arrangement of the input and output ports for the hot air may be different from that disclosed and illustrated by way of example.

What I claim is:

1. A linen drier for the speedy drying of small amounts of linen, comprising a casing of yielding airtight material including a top, a partly double-walled bottom provided with an outer slot to form an outwardly opening pocket and sidewalls between the top and the bottom, one of said sidewalls being provided with aeration ports in its upper part, two similar rigid flat frames fitted respectively across the upper ends and across the lower ends of the sidewalls of the casing to hold it in its open condition, means attached to the upper frame for suspending the casing to an outer point, a tubular projection carried on the outside of the bottom of the casing adapted to be fed with hot air and including a thin cylindrical wall of yielding material opening inside said casing bottom and a rigid helical axially collapsible member fitted inside said thin wall, said tubular projection and helical member contained therein being collapsible within the pocket in the bottom of the casing.

2. A linen drier in accordance with claim 1, including a U-shaped intermediate frame including a bottom and two lateral arms adapted to be fitted inside said casing in contact with the walls thereof at a location between said two frames, and transverse bars shiftable over the arms of said intermediate frame and adapted to carry linen to be dried.

3. A linen drier for the speedy drying of small amounts of linen, comprising a casing of yielding airtight material including a top, a bottom and double sidewalls therebetween provided with cuts in their inner surface, two similar rigid flat frames fitted respectively across the upper ends and across the lower ends of the sidewalls of the casing to hold it in its open condition, means attached to the upper frame for suspending the casing to an outer point, a U-shaped intermediate frame including a bottom and two lateral arms adapted to be fitted inside the casing in contact with the walls thereof at a location between said two frames, the said arms of the intermediate frame engaging the cuts in the inner surface of the double sidewall of the casing, transverse bars shiftable over the arms of said intermediate frame and adapted to carry linen to be dried, means operatively connecting the inside of the casing with an external supply of hot air and means for exhausting the hot air out of the upper end of the casing.

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