

[54] **METHOD AND APPARATUS FOR DRYING LAUNDRY**

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[58] Field of Search **34/10, 57, 151, 163, 220, 219**

[56]

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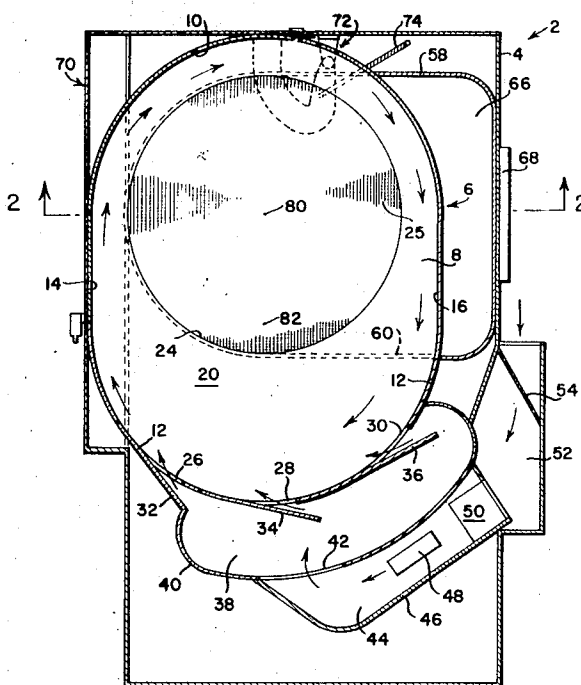
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[57]

ABSTRACT

A laundry drying method and apparatus wherein a continuous flow of warm relatively dry air is forced tangentially into the curved lower portion of a stationary drying chamber adapted to contain wet laundry to form an air flow following the contours of the chamber and which separates and carries the laundry along the flow path for full exposure to the warm air and rapid drying of the laundry.

21 Claims, 7 Drawing Figures



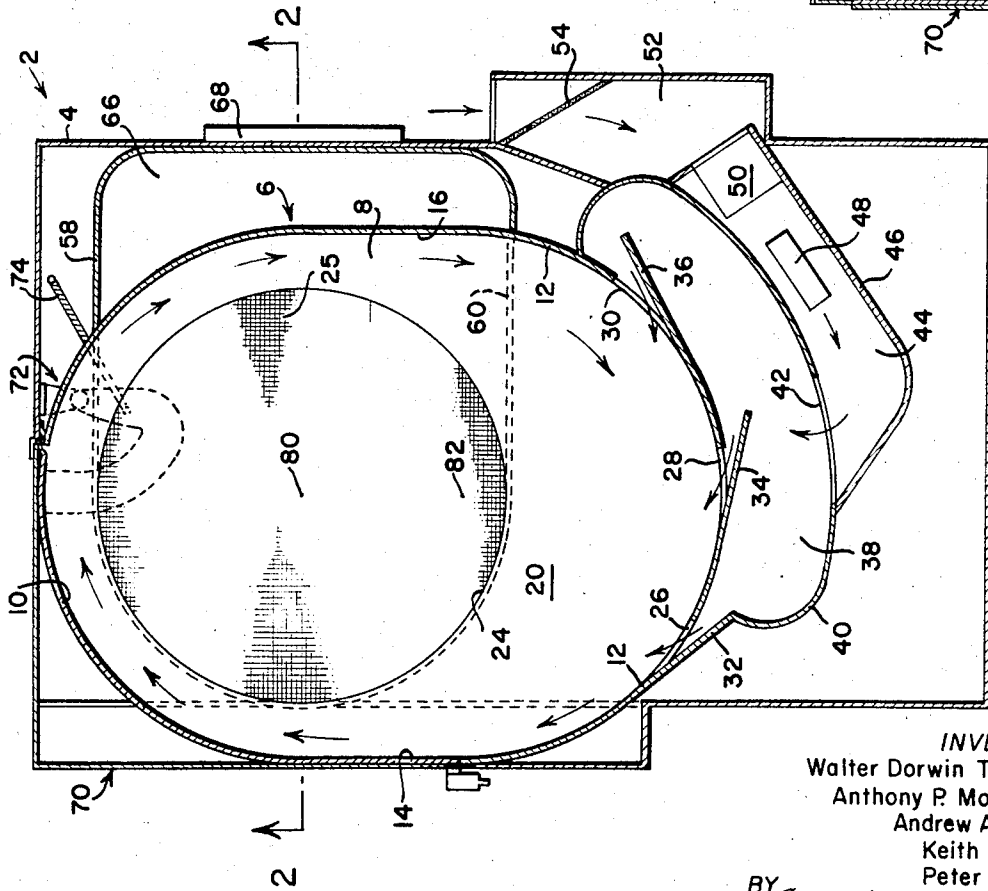


Fig. 1

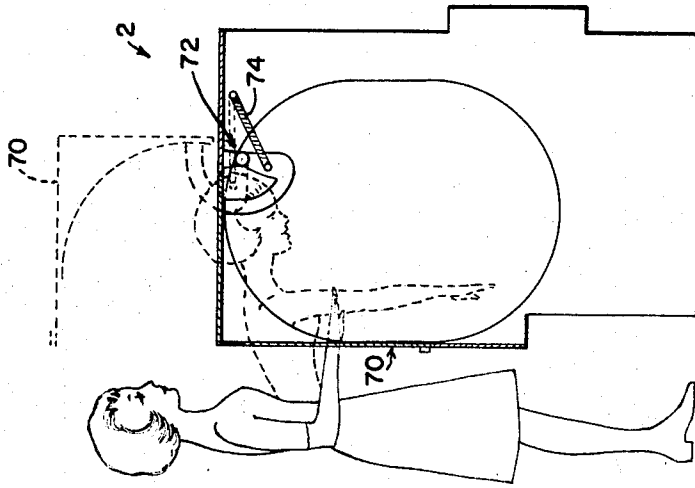


Fig. 2

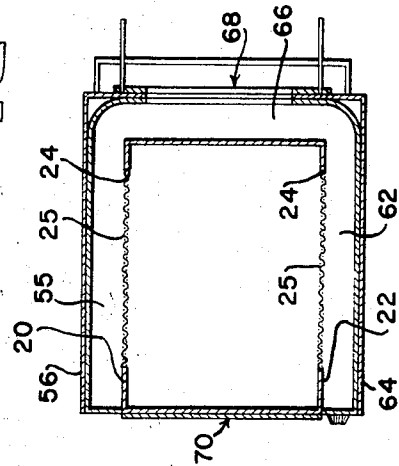


Fig. 3

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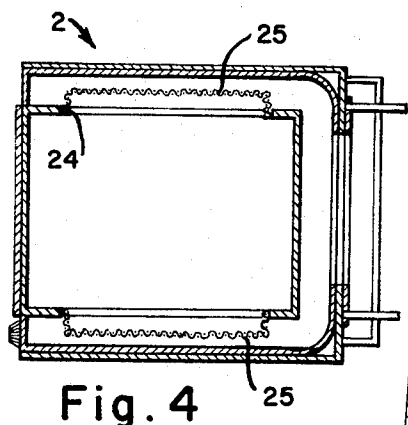


Fig. 4

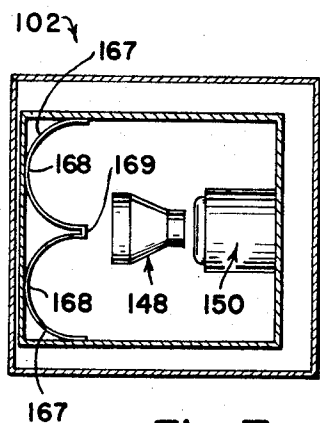


Fig. 7

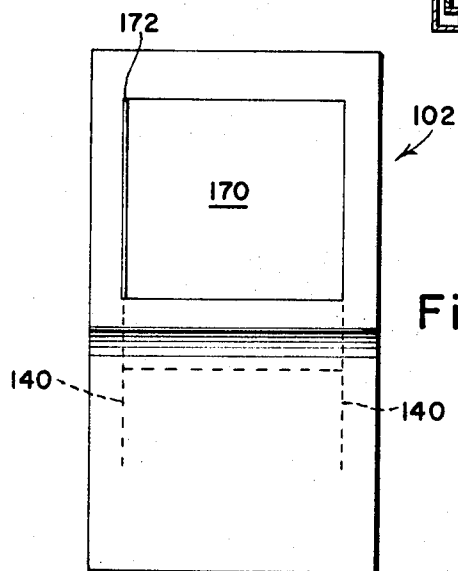


Fig. 6

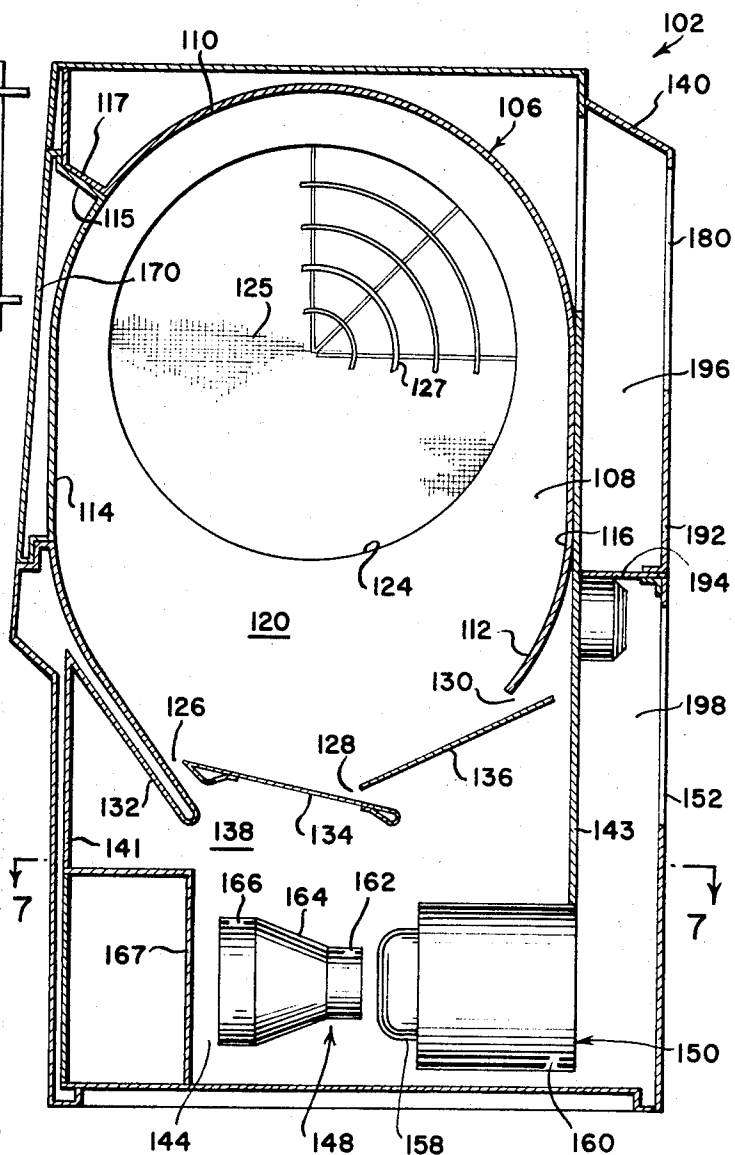


Fig. 5

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METHOD AND APPARATUS FOR DRYING LAUNDRY

This invention relates to laundry dryers, particularly domestic or commercial laundry dryers used in conjunction with conventional contemporary clothes washing machines of the household type.

The prevalent type of household laundry dryer presently in use utilizes a cylindrical drum having a peripheral wall provided with a plurality of openings to admit heated air to the interior of the drum. A motor and connecting belts are provided to rotate the drum to tumble laundry placed within while a blower forces warmed air through the openings in the drum's peripheral wall to dry the laundry. The drying efficiency of this type of laundry dryer is limited since the volume of hot air supplied is relatively low. This air is supplied at right angles to the direction of rotation of the drum and laundry and thus is not impinged for maximum effectiveness directly on the laundry. In addition, the wet laundry has a tendency to remain bunched in the lower portion of the drum even as the drum rotates and thus is not fully exposed to the stream of hot air entering the drum. This is so because when the laundry is wet, it is heavy and rotation of the drum merely causes the laundry to tumble over itself in the lowermost portion of the drum. It is only after the laundry dryer of the rotating drum type has operated for a period of time to cause initial drying of the laundry that the laundry becomes light enough to be tumbled more freely that the bulk of the laundry is effectively exposed to the hot air being admitted to the drum. Thus, drying time is unnecessarily long and the laundry is often considerably wrinkled due to the initial limited tumbling action and exposure to the hot air for a long period.

Additionally, because moving parts are used, i.e., the rotating drum, motor, belt connections and suitable bearings, there is the chance of mechanical failure of the laundry dryer and replacement of damaged parts.

An object of the present invention is to provide improved methods and apparatus for drying laundry. Another object is to provide drying methods and apparatus which produce improved results in the sense that laundry is dried without damage and is left in substantially wrinkle-free condition. A further object is to provide for the above in such a manner as to provide maximum use of the heating effect. A further object is to provide for the above in a simple and dependable manner with an apparatus which is sturdy, simple and compact. A further object is to provide apparatus of the above type which is adaptable to a wide variety of conditions and demands of use. These and other objects will be in part obvious and in part pointed out below.

In the drawings:

FIG. 1 is a cross-sectional view of one embodiment of the invention with certain of the components shown somewhat schematically;

FIG. 2 is a cross-sectional view on line 2—2 of FIG. 1;

FIG. 3 is a schematic representation of the mode of dryer operation;

FIG. 4 is a cross sectional view similar to FIG. 2 of another embodiment of the invention as shown in FIG. 1;

FIG. 5 is a cross sectional view similar to FIG. 1 of another embodiment of the invention;

FIG. 6 is a front elevation view of the dryer of FIG. 4; and

FIG. 7 is a sectional view taken on line 7—7 of FIG. 6.

Referring to FIG. 1, a dryer unit 2 has a housing 4 of heavy sheet metal. Enclosed within housing 4 is a liner 6 which forms the clothes dryer chamber 8. Liner 6 has semicylindrical top and bottom walls 10 and 12, respectively, which are interconnected at the front and rear (the left and right in FIG. 1) by vertical walls 14 and 16, respectively. Referring to FIG. 2, liner 6 has side walls 20 and 22, each of which (see also FIG. 1) has a circular opening 24 which is covered by a lint screen 25. Bottom wall 12 is cut away to provide three rectangular air inlet slots or openings, 26, 28 and 30. Extending tangentially from the left-hand edge of these inlet openings are three baffles 32, 34 and 36, respectively. Below the three openings 26, 28 and 30 is a plenum chamber 38, formed by a sheet metal

wall 40 which is attached at its left-hand edge to the end of baffle 32, and at the right to wall 12. Side walls 20 and 22 extend down to the bottom of housing 4 and close the sides of plenum chamber 38. Wall 40 has an opening 42 through which air flows into the plenum chamber from a hot air supply chamber 44. Chamber 44 is formed by a sheet metal wall 46 which is attached to wall 40 as shown in FIG. 1.

Mounted in chamber 44 (at the right of the center in FIG. 1) is a gas burner 48 and at the extreme rear (right-hand end) of the chamber there is a blower 50. Blower 50 draws air from the rear of the dryer downwardly through a filter screen 54, into an air inlet chamber 52. Hence, a supply of clean air passes from chamber 52 by the action of blower 50, past burner 48. The air is heated and with the products of combustion flows through opening 42 into the plenum chamber 38. In then flows along the tangential baffles 32, 34 and 36 and enters chamber 8 through openings 26, 28 and 30. The stream of air entering through each of these openings flows along the inner surface of wall 12 so as to produce a clockwise air movement along this wall.

As will be explained more fully below, the direction of air movement induces a very active air circulation upwardly along wall 10 across the top of the chamber and downwardly along wall 16. Air discharges from the chamber through openings 24 at the two sides of the chamber. Referring to FIG. 2, air discharged through the opening 24 at the left of the dryer (top side in FIG. 2) flows toward the rear of the unit through a horizontal passageway 55 formed between wall 20 and the housing side wall 56 and (see FIG. 1) closed at the top and bottom by walls 58 and 60. Similarly, on the opposite side of the dryer there is a passageway 62 between wall 22 and housing side wall 64 having the same top and bottom walls 58 and 60. At the rear of the unit there is a vertical passageway 66 through which the air passes from passageways 55 and 62 to a discharge opening 68.

Access to chamber 8 is through a door 70 at the top of the front wall (see FIG. 3). Door 70 is formed by a portion of liner 6 comprising side wall 14 and a portion of top wall 10 integrally connected to the coextensive portion of housing 4. Door 70 is hinged at the top of housing 4 by a pair of hinge assemblies 72 of the hidden-hinge type. Each hinge has a spring 74 which cooperates to hold the door in either the closed position (shown in full lines) or the open position (shown in broken lines). In between these two positions the spring will either open the door to its maximum open position or will close the door to its sealed position. The blower 50 draws a large volume of clean fresh air which flows past gas burner 48 and is intimately mixed with the products of combustion. Burner 48 also heats the air flowing past it and it is of sufficient size to produce a stream of heated gases and air (hereinafter called air) of the desired temperature for drying the clothes. The rise in temperature also reduces the relative humidity. Therefore, the jets of air entering chamber 8 are heated and also have low relative humidity. Hence, the moisture in the laundry is heated and evaporated while the clothes are being moved, separated and tumbled. The large volume of low relative humidity air readily takes on the evaporated moisture. The large discharge opening 24 ensure the discharge of the air from chamber 8 before the air temperature drops below the dew point. Hence, the moisture is carried from the unit as vapor.

As indicated above, both the top wall 10 and the bottom wall 12 are half cylinders. The axis of wall 10 is at 80 which is also the center of the air discharge openings 24. The axis of wall 12 is at 82 and is vertically below axis 80. Hence, liner 6 presents a surface between the side walls 20 and 22 which is semicylindrical at the top and bottom with vertical portions formed by wall portions 14 and 16. Therefore, air entering through openings 26, 28 and 30 creates a continuous clockwise movement of air which is vertical along wall portions 14 and 16, and circular along wall portions 10 and 12. Centrifugal forces are created at the top and bottom so that there is a tendency for the stream of air to hug the shell sur-

faces. However, along the vertical wall portions 14 and 16 those centrifugal forces are not present. When wet laundry is placed in the bottom of the cavity, it is impelled from right to left along wall 12 and then carried upwardly along wall portion 14 and finally impelled left to right along wall 10.

The volume and force of the stream of air supplied through openings 26, 28 and 30 is substantially higher than that provided in the conventional drum dryers previously discussed, and this stream of air is sufficient to separate the layers of clothes in the laundry and impel individual portions upwardly, even at the initial stages of the drying cycle, when the laundry contains a substantial amount of water and is thus heavy. The warm air thus supplied impinges directly on the clothing at right angles to the surfaces to be dried and thus has maximum drying effectiveness. During the course of the laundry cycle the warm air evaporates the water in the laundry so that there is a progressive reduction in the weight of the laundry and an increase in clothing separation and movement. By separating the laundry in this manner large areas of the individual articles are exposed to direct impingement by the relatively large volume of warm air and are carried along the flow path in this exposed and separated configuration with little tendency to roll or become entangled. Accordingly, the time required for drying and the total amount of heat required for drying a load of laundry is substantially decreased, as compared to the conventional drum type laundry dryers previously discussed.

Maximum drying effectiveness of the warm air is assured by the geometry and configuration of the dryer since almost all of the tangential velocity of the air stream is utilized in raising and separating the laundry for maximum exposure. Separation occurs as wet cloths are initially impelled towards and thence upwardly, along wall 14 and is aided substantially by the exit of air, horizontally through the openings 24. The velocity of the air is substantially decreased during levitation of the laundry and it has been found that the exit openings 24 must be somewhat smaller than the diameter of chamber 8, (as seen in FIG. 1) so that a well defined stream of air flows along wall 14 in substantially closed air flow path about the periphery of the chamber to maintain a sufficiently high velocity air flow for raising and separating the laundry. Openings 24 are large enough, however, that no strong draft of air is created which would tend to hold the clothes against lint screens 25 therein.

As mentioned above, the velocity of the air stream supplied through openings 26, 28 and 30 is substantially lower at the top of the cavity as compared to its initial velocity at the bottom since most of the energy of the stream is utilized in raising the clothes, hence at the top, the clothes are impelled around the axis of opening 24 at a reduced rate and fall downwardly somewhat freely through substantially the entire right-hand portion of the cavity. Therefore, in the lower portion of the cavity, the laundry is impelled rapidly to the left and upwardly by the jet action of the entering air, whereas the upper and right-hand portions of the cavity act as areas through which the laundry tend to fall freely. It should be noted that the specific movement depends upon the particular type of laundry or clothing material and the amount of clothing wetness. However, the jet action is sufficient to tumble and separate the clothes while producing the upward movement. Hence, the laundry is separated when it reaches the top of the cavity where the air continues to contact and pass through the material. In this way, moisture is rapidly evaporated and at the same time the clothes are pulled apart and subjected to "balloon effects," thus straightening out wrinkles. This is particularly important with "wash and wear" garments which are thoroughly dried in a rapid and wrinkle-free manner.

In the illustrative embodiment shown in FIGS. 2 and 3, each of the lint screens 25 is a generally flat member situated in its openings 24. A screen of this type is satisfactory since, as mentioned, the velocity of the discharged air is not large enough to hold clothes against the screens and prevent air discharge. However, the lint screens for the dryer may be constructed in a somewhat different manner, as shown in FIG. 4, to prevent inadvertent damage to the screen and to enhance lint collec-

tion. As seen therein, openings 24 are provided with generally dish-shaped lint screens 80 having a generally circular base portion 82 and a peripheral flange portion 84 fixed to side walls 20. Base portion 82 may be formed with radially extending ribs or grooves formed therein which provide structural stability to the screen. Each of openings 24 may also be provided with a metal grill, e.g., a spiral guard member, to protect the relatively thin screen from damage by contact with the laundry. Such a guard is partially shown at 127 in the embodiment illustrated in FIG. 5.

The air discharged through openings 24 contains substantially all of the lint from the drying garments and it has been found that due to the air flow through the openings this lint collects in peripheral flange portion 84 from which it is readily removed. Accordingly, the major portions of screen 80 remains lint free and flow of air therethrough is not impeded. In addition, the clothing within the drying cavity is maintained substantially lint free.

It is foreseen that the laundry dryer as described may be provided with an automatic control mechanism to decrease the volume of air, which is supplied to the laundry dryer in the later stages of the drying cycle since less force will be required to maintain the desired levitation and circulation of clothing within the cavity as the clothing becomes lighter due to the evaporation of water. In addition, control may be provided to automatically shut the burner off at the end of the cycle and maintain the blower in operation for a short period of time to cool the laundry and more specifically to avoid setting of wrinkles in "wash and wear" garments in the event they are not immediately removed from the dryer.

In the illustrative embodiment, chamber 8 has a volume of the order of 11.2 cubic feet and it is 21 inches wide, i.e., between the side walls 20 and 22. The radius of walls 10 and 12 and is 14½ inches so that the horizontal distance between walls 14 and 16 is 29 inches. The vertical dimension of walls 14 and 16 is 9 inches which is the distance between axes 80 and 82 of the top and bottom walls. The air outlet openings 24 are 23 inches in diameter. The air gap between the right-hand edge of each of slots 26, 28 and 30 and its baffle (32, 34, 36) is 1 inch. Hence, the air which enters chamber 8 at each of openings 26, 28 and 30 passes through a jet opening which is 1 inch wide and 21 inches long and the jet of air is delivered tangentially to the inner surface of wall 12 at the left-hand edge of the baffle. It should be noted that the total of the cross sections of the jet streams of air entering chamber 8 is 3 × 21 inches × 1 inch, or 63 square inches, while air exhausts from chamber 8 through two openings of 23 inches diameter having a total exhaust area of 830 square inches. Therefore, the average velocity of the air flowing from the chamber is of the order of one tenth the velocity at which the air enters the chamber. That velocity through openings 24 is not sufficient to hold clothes against the screen 25 or the baffle of the embodiment of FIG. 4, and the screen or baffle merely deflects the clothes and prevents them from leaving the chamber.

In the embodiment of FIG. 5, a dryer unit 102 has a housing 104 and a liner 106 which forms the laundry drying chamber 108. Liner 106 is similar to liner 6 of the embodiment of FIGS. 1 to 3, and includes semicylindrical top and bottom walls 110 and 112 interconnected at the front and rear by vertical walls 114 and 116, respectively.

Unit 102 has a rectangular front door 170 (FIG. 6) which is mounted at its left-hand edges upon a vertical axis 172. Door 170 is a hollow structure (FIG. 4) formed by the rectangular door panel and the adjacent portion of liner 106 formed by portions 114 and the edges of the adjacent curved walls at the top and bottom and there is a peripheral wall 115 which interconnects the outer panel and the portion of liner 106. There is also a wall 117 which surrounds the door opening and interconnects the outer housing with the liner. The door 170 is provided with a latch (not shown) and a normally open switch (not shown) which is closed when the latch is positioned to hold the door closed. The switch is connected in the electrical control circuit for burner 148 and the motor for blower 150 so

that the burner and blower cannot be operated except when the door is closed and latched. Hence, when laundry has been placed in the drying chamber 108 and the door has been closed and latched, the burner and blower may be started by manual controls (not shown), but the blower and burner are turned off whenever the door is unlatched.

Liner 96 has side walls 120 and 122, each of which has a circular opening 124 covered by a lint screen 125. Bottom wall 112 is provided with three air inlet slots or openings 126, 128 and 130 and the tangentially extending baffles 132, 134 and 136 cooperate to form a portion of the bottom wall 112 and the slots 126, 128 and 130.

Below drying chamber 108 is a plenum chamber 138, formed by the walls 140 which depend from the chamber side walls 120 and 122 and extend between the front and rear walls 141 and 143 within the housing 104. Chamber 138 is open at its base 142 to permit air flow into the plenum chamber from a warm air supply chamber 144 therebelow formed by the base and side walls of the housing 104.

Mounted within the chamber 144 is a gas burner unit 148 and a blower unit 150 which operate to supply warm air to the plenum chamber 138 and the drying chamber 108.

Housing 104 includes a rear wall 192 which is spaced from the rear wall 143 and the liner 106. A horizontal wall member 194 cooperates with wall 192 to form an air discharge chamber 196 and an air inlet chamber 198. The lower portion of the wall 192 which provides the chamber 198 is formed as a door means so that access is provided to the blower and burner units.

Air is drawn into the chamber 198 through an opening 152 by blower unit 150 which includes a motor 158 mounted concentrically within an annular shell 160. Air is thus drawn from the chamber 158 through the shell 160 and discharged in an annular stream between the casing of the motor and the shell. The burner unit 148 includes a gas burner which directs a gas flame to the left (as viewed in FIG. 5) along the axis of the unit which is concentric with the axis of the unit 158. The casing of unit 148 is formed by a cylindrical shell 162, a center frusto-conical shell 164, and a larger cylindrical shell 166 at the left. The stream of air is sufficient to provide an adequate supply of air for the burner with that stream entering the cylindrical shell 162. The main stream of air envelops the shell of the burner unit 148 and, at the left of the unit, completely surrounds the stream of the products of combustion. The stream of the fresh air mixes immediately with the products of combustion so as to prevent air at an excessive temperature from contacting the plenum chamber wall. This combined stream is deflected upwardly by the baffle 167 and that causes a further mixing of the hot and cold air.

As seen in FIG. 7, baffle 167 is formed by a pair of semicylindrical wall members 168 which are joined along a common edge 169 to form a generally "gull" shaped configuration in plan view. The curved walls 168 serve to deflect the blast of air from burner 148 in a smooth manner and thus avoids the heat and dynamic losses which would occur if a flat baffle or deflection plate were used and the air were imparted directly against it. It is noted that the top edge portion 170 of baffle 167 may be bent to extend inwardly so as to deflect the air stream to the right in plenum chamber 138. Thus, the plenum chamber 138 is under pressure and air is discharged through the three slots or rectangular nozzles 126, 128 and 130. Hence, from the zone at the left of the burner unit, the air is mixed and flows toward the right in the plenum chamber.

The air movement and action within the central drying chamber 108 is as described above in the first embodiment and it is discharged from the sides of the chamber through the openings 124. Air, thus discharged, moves toward the rear of the unit through passageways similar to passageways 55 and 62 in the embodiment of FIGS. 1 to 3 to the rear of the unit whereas the air enters the chamber 196 and is discharged through opening 180 in the upper portion of rear wall 192.

In operating the illustrative embodiment, it has been found that a quantity of laundry having a weight of the order of 18

pounds when in the wet condition, and of the order of 8 to 9 pounds when dry, can be dried very efficiently and in a time of the order of 11 minutes. For such operation, the burners 48 and 148 produce heat at the rate of 200,000 BTU'S per hour and blower 50 delivers air to chamber 44 at the rate of the order of 700 to 2,100 cubic feet per minute. When passing the burners, the air is heated and when thoroughly mixed with the products of combustion it is at a temperature of the order of 180° F. when it enters chambers 38 or 138. The air is exhausted from chambers 20 and 120 at a temperature which varies during the drying cycle but has a maximum temperature of the order of 160° F.

During tests of the illustrative embodiments of the present invention, it has been observed that neither the clothes nor the dryer possess a static electric charge during the drying process or when the clothes are fully dried. In contrast to that, static electricity has been a very serious problem with common prior types of clothes dryers. It is recognized that static electric potential must be kept at a low level with all domestic appliances. However, with clothes dryers, any static electric charge tends to cause the lint to adhere to the clothes and to remain with the clean dry clothes when they are removed from the dryer. The lint particles then tend to drop when the clothes are being handled. However, with the illustrative embodiment of the present invention, it has been found that substantially all of the lint is removed from the clothes by the air and it is collected in the lint screen.

In addition, since heat and air are supplied to the dryer at a relatively high rate the time required for the drying process is substantially decreased. Typically the drying time for a normal laundry load will be one-fourth to one-third the amount of time for a like load in a conventional dryer. Moreover, since this heat is supplied at a lower temperature it is foreseen that plastic, rubber and synthetic fabrics, which cannot now be dried in the dryers of the prior art, may be safely dried by the dryers of the present invention.

What is claimed is:

1. The method of drying laundry comprising, the steps of impelling the laundry to be dried in a generally vertical direction by means of a continuous flow of warm dry air whereby the laundry is separated and exposed to the air, directing the laundry and the air flow in a generally lateral direction, whereby the laundry is further separated to facilitate evaporation of moisture therefrom, confining substantially the entire air flow within a drying chamber along said vertical and lateral directions to prevent escape thereof from said chamber in said directions, continuously removing a substantial portion of the air flow from the drying process through a zone below said lateral direction along a discharge path extending generally transversely thereto, and returning the laundry to a point where it will be again impelled vertically by the air flow.

2. The method of drying laundry comprising, the steps of, impelling the laundry to be dried along a closed circuit path by means of a continuous flow of warm dry air, said path being defined and enclosed by imperforate surfaces, continuously removing a substantial portion of the air flow from the drying process through a zone defined within the confines of said closed path and along a discharge path generally perpendicular to said closed path, whereby laundry impelled along said closed path is separated and exposed for drying and caused to return to a point along said closed path where it is again impelled.

3. The method of drying laundry comprising, the steps of, providing a closed air flow path defining an interior zone and having generally curved upper and lower portions interconnected by generally vertically extending reaches, said upper portion being formed by an imperforate surface, supplying a continuous flow of warm dry air into into said path whereby laundry within said path is impelled vertically along one of said reaches and laterally along said imperforate upper portion, and thence downwardly, whereby the air in said stream is confined to flow along said imperforate surface, and continu-

ously discharging air and moisture through said zone laterally of said flow path, whereby laundry impelled along said flow path is separated, exposed to the warm dry air, and returned along the other vertical reach to a point along said path wherein it is again impelled by the flow of air.

4. The method of drying wet laundry by the circulation of the laundry within a drying chamber means comprising, the steps of; supplying a continuous generally lateral flow of warm dry air into the chamber whereby laundry within said chamber is impelled by the air flow and carried with it, directing the air flow in a generally vertical direction, thereby separating layers of laundry to enhance evaporation, deflecting the air flow from its vertical direction to a generally lateral direction opposed to the lateral direction of the air supply flow, whereby the laundry is further separated and exposed to warm air, confining substantially the entire air flow along said vertical and lateral directions, and continuously discharging air and moisture from the chamber along a path below said laterally directed air and extending transversely thereof.

5. The method of claim 4 including the step of, returning the laundry to a position within the chamber means wherein it is again under the influence of the lateral air supply flow and impelled thereby to repeat the drying cycle.

6. A device for drying laundry comprising, means for impelling the laundry to be dried in a generally vertical direction whereby the laundry is separated and exposed to a flow of warm air, means for confining substantially the entire air flow within a drying chamber, means for deflecting the laundry and the air flow in a generally lateral direction whereby the laundry is further separated to facilitate evaporation of moisture therefrom, said confining means having an air opening therein for discharge of air from said drying chamber only along a flow path extending generally transversely of said lateral direction whereby the laundry is returned by gravity to a point where it will be again impelled vertically.

7. A laundry drying machine including, chamber means forming a drying chamber adapted to receive wet laundry, said chamber means including an air impervious peripheral wall defining a closed air flow path and having opposed bottom and top wall portions, means for supplying a flow of warm air into said chamber generally tangentially to said bottom wall whereby the flow of air will follow said path, said flow of air impelling laundry within the chamber along said path and effecting evaporation of moisture in the laundry, and said chamber means including opposed end walls interconnected by said peripheral wall, each of said end walls being provided with an air opening for the lateral discharge of air from the chamber along a second flow path which is generally parallel to the axis of said top wall whereby moist air is discharged laterally of said closed air flow path.

8. The laundry drying machine as defined in claim 7 wherein said top and bottom peripheral wall portions are substantially coextensive in their horizontal dimensions and are interconnected at each of their respective ends by vertically extending wall means.

9. The laundry drying machine as defined in claim 8 wherein the top and bottom walls present substantially semicylindrical concave surfaces in opposed facing relation.

10. The laundry drying machine as defined in claim 7 wherein said means for supplying a flow of warm air into said chamber includes an air blower having a discharge end communicating with said chamber and a gas burner adjacent said discharge end for heating the air discharge from said blower whereby warm dry air is supplied to said chamber.

11. The laundry drying machine as defined in claim 9 wherein laundry adjacent the top wall portion of the chamber is returned to the bottom wall portion adjacent said means for supplying air, under the influence of gravity and again impelled along said flow path.

12. The laundry drying machine as defined in claim 9 wherein said top wall portion includes a pivoted door means

for exposing the interior of the chamber to permit insertion of laundry therein.

13. A machine for drying laundry comprising, drying chamber means having an air impervious peripheral wall providing a closed air flow path and a pair of opposed end walls interconnecting said peripheral wall, said path defining interiorly thereof an air discharge zone, and means for supplying a flow of warm dry air to said path whereby laundry in said path is intercepted by the air flow and impelled along the path, said end walls having air discharge openings therein for lateral discharge of air from said flow path through said zone whereby laundry impelled along said path is separated and exposed to the warm dry air to effect evaporation of moisture within the laundry.

14. The machine for drying laundry as defined in claim 13, wherein said air flow path includes first and second vertically extending portions and curved top and bottom portions, said means for supplying air to said path tangentially of said bottom portion whereby laundry in the bottom portion is impelled upwardly along said first vertically extending portion and laterally along said top portion and said air discharge openings being effective to reduce air flow along a portion of said flow path whereby laundry moving along said path is further separated and exposed to warm air to evaporate moisture therein and returned to the bottom portion of the path along said second vertically extending portion substantially under the influence of gravity.

15. The machine for drying laundry as defined in claim 14, wherein said peripheral wall includes semicylindrical top and bottom wall portions interconnected by means of opposed vertically extending wall portions.

16. The machine for drying laundry as defined in claim 15, wherein said bottom wall portion includes a plurality of air inlet openings and said means for supplying air to the air flow path includes an air blower, a heating element for heating air discharged from the blower and an air plenum adapted to receive warm air from the blower and heating element and communicating with the bottom portion of said flow path, through the air inlet openings in the bottom wall portion of said chamber means whereby warm air is introduced into the flow path.

17. The machine for drying laundry as defined in claim 16, wherein said air plenum includes means associated with said air inlet openings for increasing the speed of air flowing through said openings from said blower and for directing said flow tangentially of the bottom wall whereby laundry along said bottom wall is impelled along said flow path.

18. The machine for drying laundry as defined in claim 16, wherein said means for increasing the speed of air flow comprises, a baffle means within said plenum adjacent said air inlet openings and forming a jet nozzle through said openings.

19. The machine for drying clothes as defined in claim 13, wherein the drying chamber means is enclosed in an outer casing which receives the air discharged from said chamber and includes an air vent for discharging the air to the atmosphere, said outer casing and said chamber means each including a pivoted door means, whereby the interior of said chamber may be exposed and laundry inserted therein.

20. The machine for drying laundry as defined in claim 15 wherein said bottom wall portion includes a plurality of air inlet openings and said means for supplying air to the air flow path includes an air blower and a heating element mounted below said chamber, said heating element being adapted to heat air discharged from said blower, and a baffle member positioned adjacent said blower to receive said heated air and deflect said air upwardly towards said openings.

21. The machine as defined in claim 20 wherein said baffle member comprises a pair of generally semicylindrical vertically extending plates joined in a generally gull-shaped configuration.

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