

March 12, 1957

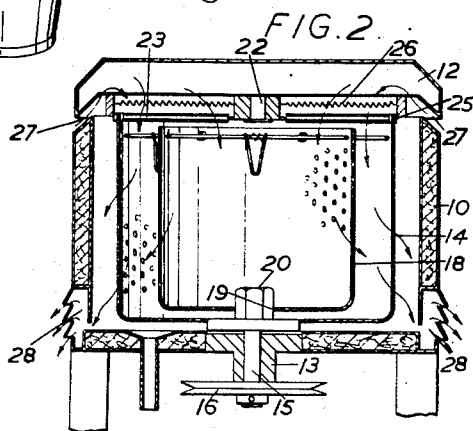
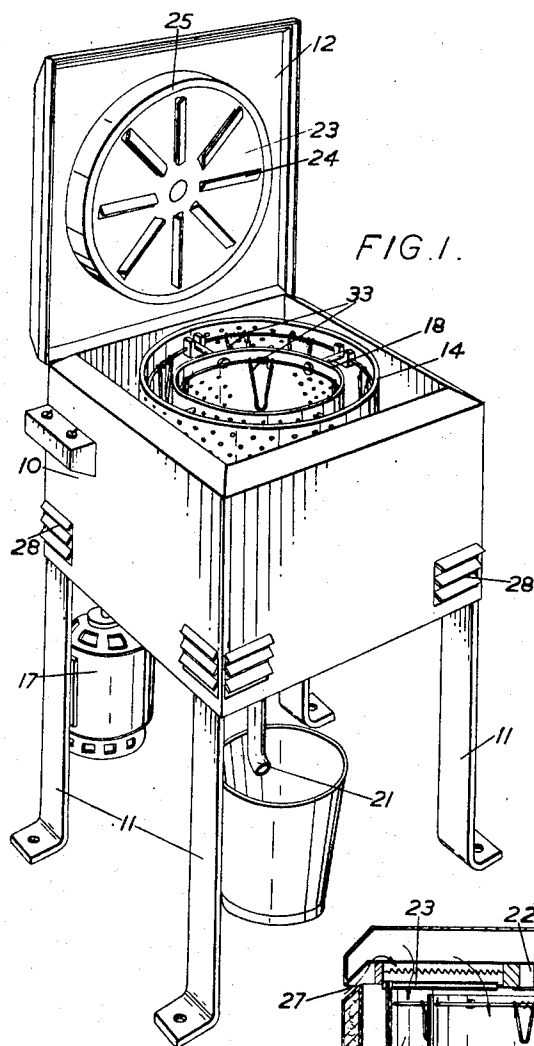
J. V. BEAUMONT

2,784,500

MACHINE FOR DRYING FABRICS AND THE LIKE

Filed Nov. 24, 1953

3 Sheets-Sheet 1



Inventor
JOSEPH V. BEAUMONT

By
Harry S. Edmunds
Attorney

March 12, 1957

J. V. BEAUMONT

2,784,500

MACHINE FOR DRYING FABRICS AND THE LIKE

Filed Nov. 24, 1953

3 Sheets-Sheet 2

FIG. 3.

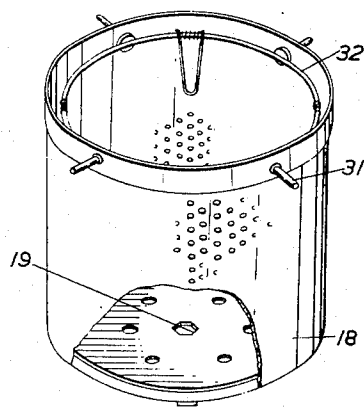


FIG. 5.

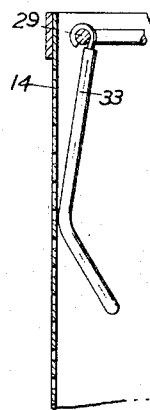
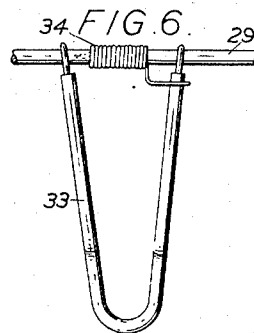
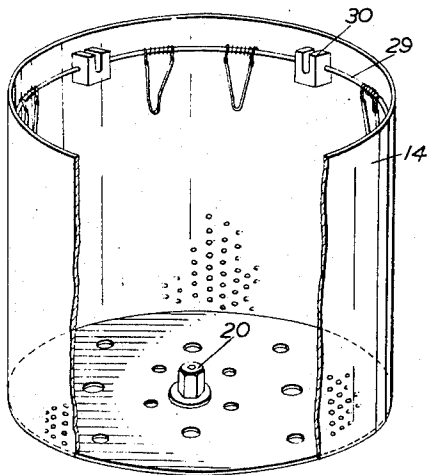


FIG. 4.



Inventor
JOSEPH V. BEAUMONT

By
Harry S. Smar
Attorney

March 12, 1957

J. V. BEAUMONT

2,784,500

MACHINE FOR DRYING FABRICS AND THE LIKE

Filed Nov. 24, 1953

3 Sheets-Sheet 3

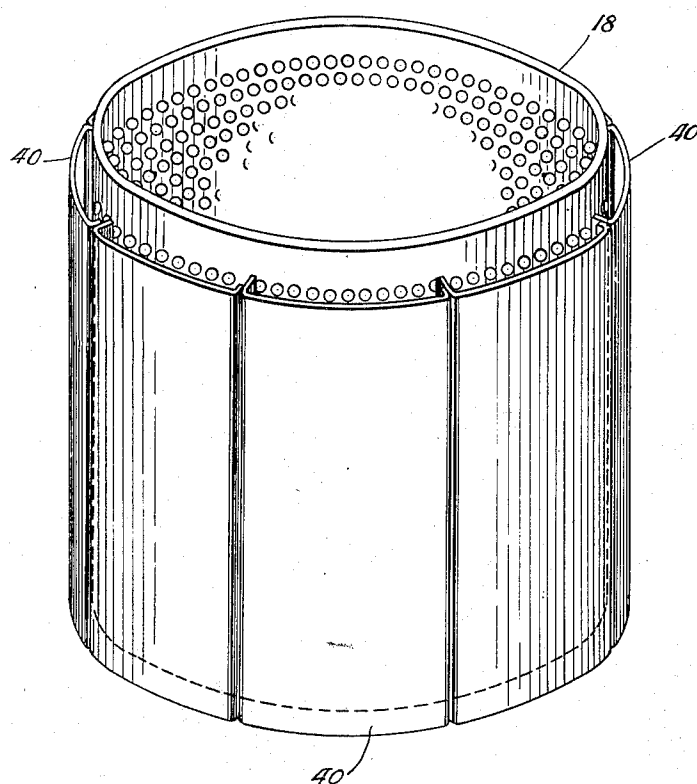


FIG. 7

1

2,784,500

MACHINE FOR DRYING FABRICS AND THE LIKE

Joseph Vincent Beaumont, Potters Bar, England, assignor, by mesne assignments, to The Hoover Company, North Canton, Ohio, a corporation of Ohio

Application November 24, 1953, Serial No. 394,030

Claims priority, application Great Britain
November 24, 1952

5 Claims. (Cl. 34—58)

This invention relates to clothes drying machines for drying clothes and other fabrics after they have been washed, for example in a domestic clothes-washing machine. An object of the invention is to provide a compact and efficient drying machine suitable in particular for domestic use.

According to the present invention a clothes-drying machine comprises an outer casing, an outer centrifuging basket mounted to rotate within the outer casing about a substantially vertical axis, one or more inner baskets mounted in the outer basket so as to rotate with it, means for supporting clothes to be dried so as to be distributed over the inner walls of the baskets, and means for producing a current of heated air over the clothes when so supported in the baskets. Preferably at least one of the inner baskets is removably mounted within the outer basket.

Conveniently the circulation of heated air is produced by a fan arranged to rotate with the baskets. Thus the outer basket may be provided with a lid incorporating fan blades serving to produce the circulation of heated air.

In one form of the invention an electric heater is mounted above the lid of the baskets so that the air will be circulated through or past it to be heated by it.

Preferably means are provided outside each inner basket for intercepting liquid centrifuged from the clothes in it to prevent such liquid from reaching the clothes in a surrounding basket.

Each basket may be provided with spring clips or other clamping means for clamping the clothes near its upper edge so that they hang down within it.

The invention may be carried into practice in various ways but one specific embodiment will be described by way of example with reference to the accompanying drawings in which:

Figure 1 is a perspective view of a clothes-drying machine incorporating the invention, with the lid open,

Figure 2 is a sectional elevation of the upper part of the machine.

Figures 3 and 4 are perspective views of the inner and outer baskets respectively,

Figures 5 and 6 are side and front detail elevations, showing one of the spring clips for holding the clothes, and

Figure 7 is a perspective view of the inner basket provided with water deflecting baffles.

The machine comprises a generally rectangular casing 10 mounted on legs 11 and closed by a hinged lid 12. The walls of the casing are of double thickness with the intervening space occupied by heat-insulating material. In the bottom of the casing is a bearing 13 for an outer centrifuging basket 14 mounted on a vertical shaft 15 received in the bearing 13 so as to be capable of rotating about its axis. The shaft carries at its lower end a pulley 16 driven by a belt from an electric motor 17.

Within the outer basket is an inner basket 18 having in its bottom a hole 19 of hexagonal or other non-circular

2

shape to receive a spigot 20 of corresponding form, carried by the shaft 15, so that the inner basket is readily removable from the outer basket but will rotate with it when it is in position within it.

Each basket is of cylindrical form having a perforated metal peripheral wall. The bottom of the casing has in it a drain pipe 21 for the escape of the water.

Within the lid of the casing is a bearing 22, preferably a self-aligning roller bearing, for a fan 23 which also forms the top of the outer basket. The fan comprises a sheet metal disc having a number of radial blades 24 punched out from it.

The edge of the fan is formed as a flange 25 to fit the basket so as to be rotated by it when the lid is closed.

Between the fan and the lid of the casing is interposed an electric heating element 26, and as shown in Figure 2 the lid is of double thickness and is provided at its edge with air inlet openings 27 between it and the casing. Similarly the casing is formed, near its lower edge, with a number of air outlet louvres 28. Thus as the baskets are rotated by the motor, air is drawn in through the inlet openings 27, past the heating element 26 and delivered downwards by the fan through the baskets and out through the outlet louvres 28.

Each of the baskets is provided with a number of spring clips to retain articles of clothing to be dried, which are hung up within it round its periphery. The outer basket has eight clips carried by a wire ring 29 fixed just inside the upper edge of the basket by means of a number of inwardly projecting lugs 30. The lugs 30 are slotted to receive pins 31 projecting outwards from the inner basket to locate the latter. The inner ends of the pins 31 carry heads which project from the inner surface of the inner basket and to which is secured a wire ring 32 which carries four spring clips for the inner basket. Each clip may comprise an arm 33 formed of bent wire covered with a plastic material and pivoted on the ring and urged by a coil spring 34 surrounding the ring, so that its free end is urged towards the inner surface of the basket to grip the clothes between them.

In use the clothes are hung inside the two baskets, the lid is closed, and the motor and heater are switched on for a suitable period. The loose drops of water are rapidly flung out of the clothes by centrifugal action, and thereafter further drying, to remove the moisture absorbed in the fibres of the clothes, is effected by the hot air circulating over the whole surfaces of the clothes.

In a modified arrangement there are secured on the outer surface of the inner basket 18, in line with the perforations, a number of vertical baffles or channels 40 to catch drops of water flung from clothes through the perforations, and prevent the collected water from impinging on and again wetting clothes in the outer basket.

What I claim as my invention and desire to secure by Letters Patent is:

1. A drying machine comprising an outer casing, an outer open topped centrifuging basket mounted to rotate within the outer casing about a substantially vertical axis, an inner open top basket mounted in the outer basket so as to rotate with it, and means for producing a current of heated air over clothes supported in the baskets, means carried by each basket for supporting clothes dried within it so as to be distributed over its inner surface, said inner basket being readily removable from said outer basket so that wet clothes can be loaded into each basket in turn and spread over its inner surface while it is in the casing and before another basket is placed within it.

2. A drying machine as claimed in claim 1 characterised in that the outer basket is provided with a lid incorporating fan blades serving to produce the circulation of heated air.

3. A drying machine as claimed in claim 2 character-

3

ised in that an electric heater is mounted above the lid of the basket so that the air will be circulated through or past it to be heated by it.

4. A drying machine as described in claim 1 characterised in that means is provided outside said inner basket for intercepting liquid centrifuged from the clothes in it to prevent such liquid from reaching clothes in the surrounding basket.

5. A drying machine as described in claim 1 characterised in that each basket is provided with spring clips or

4

other clamping means for clamping the clothes near its upper edge so that they hang down within it.

References Cited in the file of this patent**UNITED STATES PATENTS**

1,593,678	Statler	July 27, 1926
1,687,829	Clark	Oct. 16, 1928
2,556,153	Collins	June 5, 1951