April 16, 1940. E. J. DOWNES 2,197,100

LAUNDRY DRIER

Filed April 6, 1939

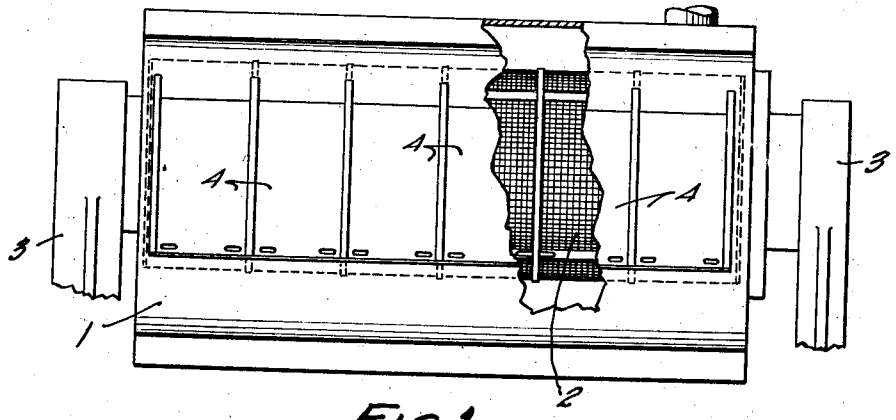


FIG. 1

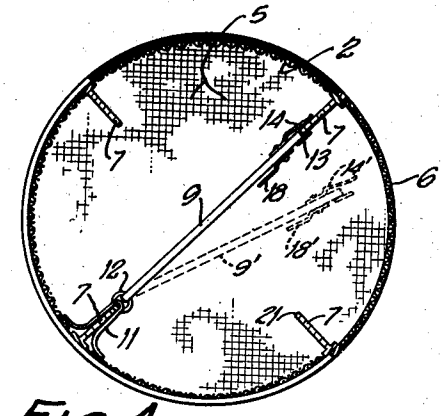


FIG. 4

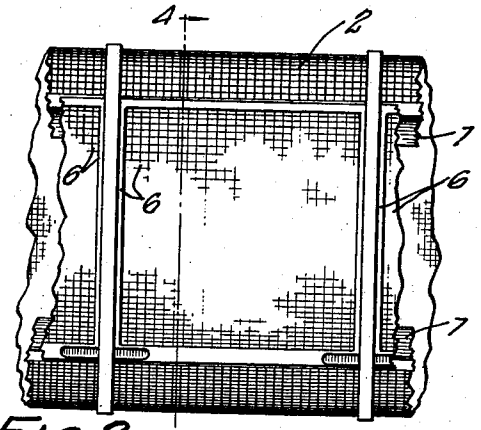


FIG. 2

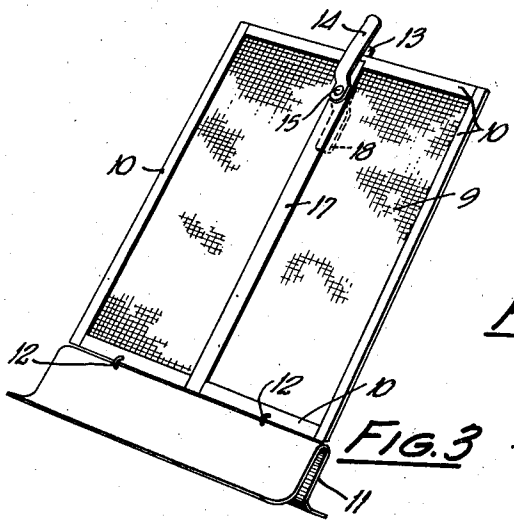


FIG. 3

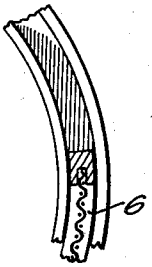


FIG. 6

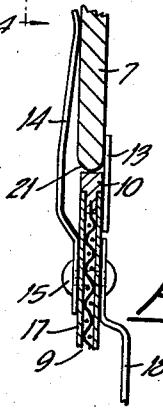


FIG. 5

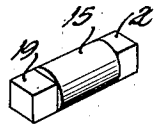


FIG. 7

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UNITED STATES PATENT OFFICE

2,197,100

LAUNDRY DRIER

Edward J. Downes, Albany, N. Y.

Application April 6, 1939, Serial No. 266,429

2 Claims. (Cl. 34—5)

My invention relates to improvements in laundry driers and particularly to improvements whereby the capacity of such driers may be substantially increased.

One of the widely used types of drier comprises a foraminous cylinder of wire screen or the like which is rotatably mounted with its axis horizontal, and the interior of which is divided into a plurality of separate compartments by means of transverse screen partitions. The cylinder is enclosed in a stationary housing and the interior is heated by circulating hot air, or otherwise, whereby the moisture is evaporated from the parcels of washings placed in the compartments. In order to tumble the wet goods about in the drier the cylinder is provided with a plurality of baffles which extend radially inward for a comparatively short distance and serve to carry the wet goods upwardly from the bottom of the cylinder as it rotates and drop them again to the bottom from a point usually above the axis of the cylinder.

In modern laundries each customer's wash is dried separately and the volume of work received from different customers varies widely. In some cases the volume is extremely small and in others extremely large. The drying cylinder must be of substantial diameter in order to accommodate a large volume of work and hence when only a small bundle is being dried in one of the compartments there is a considerable waste space.

The principal object of my invention is to provide a simple, readily insertable and removable means whereby one or more of the cylindrical compartments in the drier may be subdivided into two separate compartments which may be used simultaneously for drying small parcels of work.

I accomplish this end by means of the novel elements and the combinations and arrangements thereof described below and illustrated in the accompanying drawing in which—

Fig. 1 is a side elevation view of a laundry drier partly broken away to show the drier cylinder;

Fig. 2 is a fragmentary side elevation view of the foraminous cylinder;

Fig. 3 is a perspective view of my quick detachable partition;

Fig. 4 is a transverse cross section view of the foraminous cylinder showing my partition in place;

Fig. 5 is a fragmentary sectional view of the latch end of my partition;

Fig. 6 is a fragmentary elevation view showing a portion of the sliding gate in the drying cylinder and the guide in which it slides; and

Fig. 7 is a perspective view of the rivet used to secure the handle and clamping portion of the latch together.

In the drawing, 1 generally represents the drier having the horizontal screen cylinder 2 rotatably mounted therein in suitable bearings 3. The drier housing is provided with a plurality of doors or gates 4 which may be raised to permit access to the cylinder adjacent any one of the several compartments which are formed in the cylinder by transverse screen partitions 5, and each compartment in the cylinder is also provided with an arcuate sliding gate 6 which may be raised to permit access to the compartment. Extending longitudinally of the cylinder are a plurality of diametrically opposite metal baffles 7, four of which are shown in Fig. 4, and which project radially into the interior of the cylinder.

In order to divide any one of the compartments into two smaller compartments, I provide a removable screen partition represented generally by the numeral 9 and which is shown in perspective in Fig. 3. These removable partitions comprise an appropriate rectangular frame 10 having a width substantially equal to the axial length of one of the compartments in the cylinder and a length slightly less than the clear distance between two diametrically opposed baffles 7. A bifurcated sheet metal member 11 is hingedly secured to the bottom of the frame as, for example, by rings 12. At the other end of the frame are two, baffle-engaging members 13 and 14. The member 13 is rigidly secured to the frame 10 and extends slightly beyond the top thereof so that it engages the baffle 7 as shown in Figs. 4 and 5. The member 14 is pivotally secured to the partition 9 by means of a bolt or rivet 15 which extends through the central rib or element 17 and also through a handle element 18 on the other side of the screen 9. In order that the latch 14 may be rotated by means of the handle 18, the rivet 15 is provided with a central, cylindrical, bearing portion and two square end portions 19 and 20 which pass through square holes in the latch member 16 and the handle 18. Thus, when the handle 18 is turned it rotates the rivet, and the rivet, in turn, rotates the latch member 14.

In order to position the partition 9 in one of the compartments, the sliding gate 6 is raised and the bifurcated element 11 is positioned over one of the baffles as shown in Fig. 4. This can conveniently be done by disposing the main por-

tion of the partition 9 in angular relation to the bifurcated element portion as shown by the dotted lines 9' in Fig. 4.

The handle 18' is then turned sufficiently to permit the member 14' to clear the baffle diametrically opposite the baffle engaged by the bifurcated element 11 and the partition is pushed forwardly to the position 9 shown in Fig. 4 until the element 13 engages the baffle 7 whereupon the handle 18 and the connected baffle-engaging element 14 are turned to the position shown in Figs. 4 and 5 to secure the partition 9 in place. The edges 21 of the baffles 7 are rounded and the member 14 is made of yielding material, such as spring steel, so as tightly to engage the baffle 7 when the partition 9 is in place.

The partition serves as a closure element or gate which may be unlatched and swung about its hinged connection with the bifurcated element to provide access to the half compartment on the side thereof which is remote from the sliding gate 6 in the cylinder.

While I have described my invention in its preferred embodiment and have referred to it as a laundry drier, it is to be understood that the words which I have used are words of description rather than of limitation and that the device may be used in the dry-cleaning and other arts for drying purposes. Hence, changes within the purview of the appended claims may be made without departing from the true scope and spirit of my invention in its broader aspects.

What I claim is:

1. A removable partition for the cylinder of a laundry drier having a plurality of circumferentially-spaced, radially-disposed baffles therein, said partition comprising a screen, a channel member adapted to fit over one of said baffles, a hinged connection between said member and one end of said screen, whereby said member and screen may be angularly disposed to each other to facilitate positioning said member over a baffle, and a latch secured to the opposite end of said screen and adapted to engage a baffle substantially opposite said first mentioned baffle.

2. A removable partition for the cylinder of a laundry drier having a plurality of circumferentially-spaced baffles therein extending radially inward a substantial distance from the interior surface of said cylinder, said partition comprising a bifurcated portion adapted to fit over and tightly engage one of said baffles, a second portion, a flexible connection between said portions, whereby they may be angularly disposed to each other to facilitate positioning the bifurcated portion over one of said baffles, and a latch on said second portion adapted to engage the baffle diametrically opposite the baffle engaged by the bifurcated portion.

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