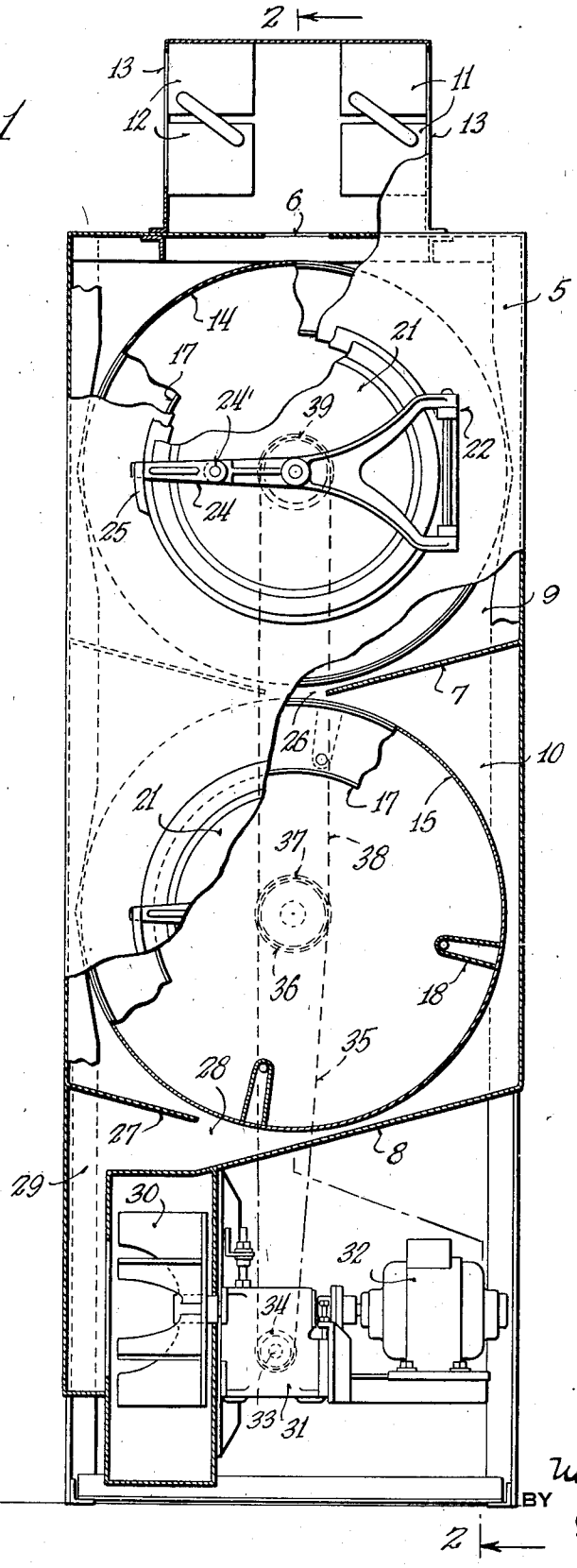
June 13, 1944. M. F. HUEBSCH 2,351,429

DRYING APPARATUS

Filed Sept. 21, 1942 2 Sheets-Sheet 1

Fig. 1



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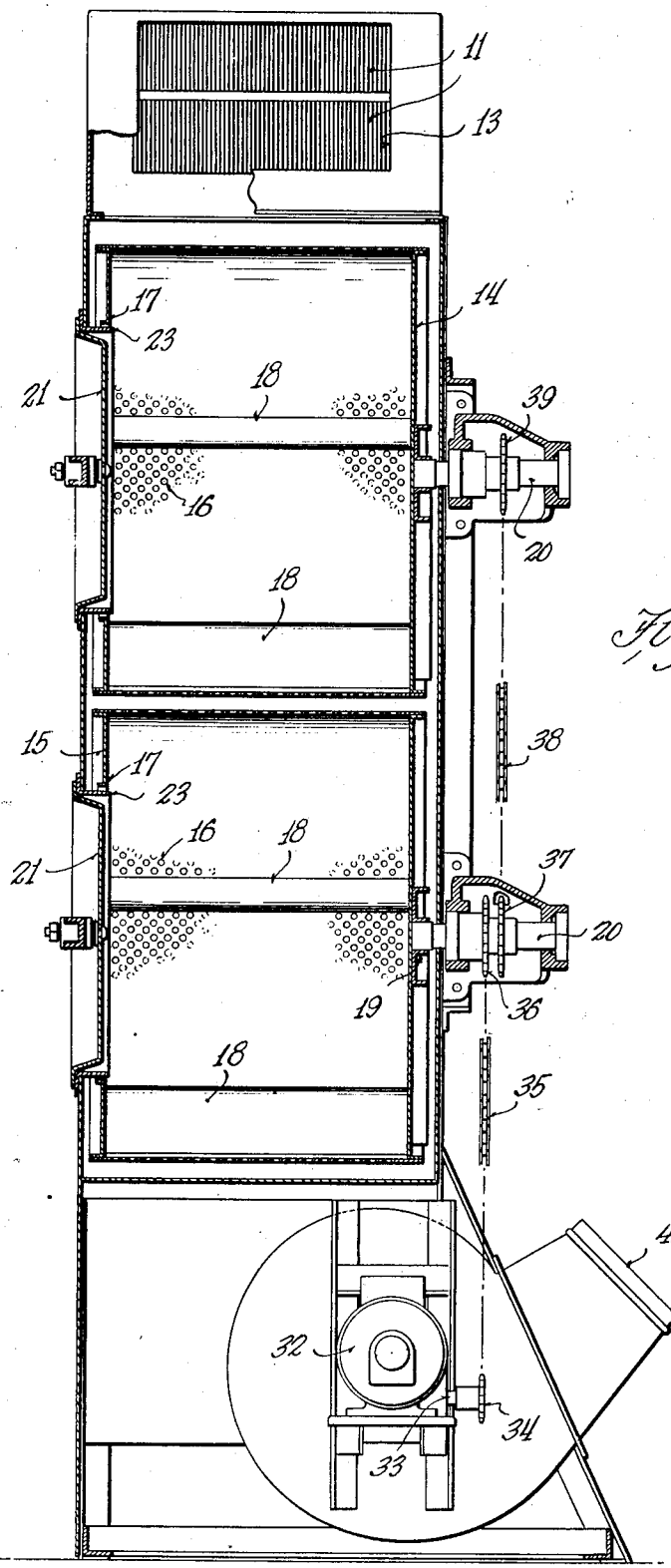


Fig. 2

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Patented June 13, 1944

2,351,429

UNITED STATES PATENT OFFICE

2,351,429

DRYING APPARATUS

Monte F. Huebsch, Milwaukee, Wis., assignor to Huebsch Manufacturing Company, Milwaukee, Wis., a corporation of Wisconsin

Application September 21, 1942, Serial No. 459,090

2 Claims. (Cl. 34—127)

The invention relates to drying apparatus.

The object of the invention is to provide a drying apparatus having a plurality of drying tumblers and a single heater and a single exhaust means, the drying air being led first through one drum and then through the other drum. The apparatus herein shown and described has the advantage of saving floor space in a laundry and permitting the use of drying drums which are smaller than the usual standard drying drums but are large enough to take care of the small batches of towels and the like of individual washings.

The invention further consists in the several features hereinafter set forth and more particularly defined by claims at the conclusion hereof.

In the drawings:

Fig. 1 is a front elevation view of a drying apparatus embodying the invention, parts being broken away and parts being shown in section;

Fig. 2 is a vertical sectional view taken on the line 2—2 of Fig. 1.

Referring to the drawings, the numeral 5 designates an upright casing having a centrally located opening 6 in its top and partitions 7 and 8 dividing the casing into drier compartments 9 and 10.

A heater 11 is mounted on the top of the casing and is of known form including steam heated coils 12 over which the drying air is drawn through openings 13 in the casing.

A drying drum 14 is mounted for rotation in the compartment 9 and a similar drum 15 is mounted for rotation in the compartment 10. These drums 14 and 15 and their mountings may be of any suitable form but are preferably similar to the drum and drum mounting of the prior U. S. Patent No. 2,048,743, dated July 28, 1936, to myself and P. M. Pearson. As shown, the drums are of sheet metal having a plurality of apertures 16, a flanged opening 17 in one end, lifting ribs 18 and a shaft mounting 19 at the other end to which a shaft 20 is secured. As in the above mentioned patent, access to each drum is through a door 21 hinged to the casing at 22 and normally covering a flanged opening 23 in the casing alined with but slightly smaller than the opening 17 in each drum. Each door is held in normally closed position by a latch 24 pivoted on the door at 24' and engageable with a keeper 25 on the casing.

The partition 7 has a centrally disposed opening 26 forming a restricted passageway between the compartments 9 and 10, and the partition 8 cooperates with a plate 27 to form an opening 28 for an exhaust air passage 29 through which the spent heated air is drawn by an exhaust fan 30 driven through a suitable gear drive connection 31 by an electric motor 32.

The drive connection also includes a shaft 33 having a sprocket 34 mounted thereon and connected by a chain 35 to a sprocket 36 on the shaft 20 for the lower drum which also carries a sprocket 37 connected by chain 38 with a sprocket 39 on the shaft 20 of the upper drum, the ratio of the gearing connections being such that both drum shafts are driven at the same speed.

With the above arrangement each of the drums 14 and 15 is charged with a separate family washing of towels or other articles to be dried, and then the door to each drum closed, and the motor 32 started to rotate the charged drums and rotate the fan 30 so as to draw air heated by the heater 11 through the opening 6 and into the compartment 9 where it may pass through the apertures 16 in the drum 14 and take up moisture from the material therein, and then pass through the opening 26 into the compartment 10 where it may pass through the apertures 16 in the drum 15 and take on more moisture from contact with the material therein and then pass out through the opening 28 and the exhaust passage 29 to be expelled by the fan 30 to atmosphere through the outlet 40 of the fan casing.

With the above arrangement a more efficient drying action is had than with the usual arrangements, since after the warm air's passage through the first drum, there is still enough heat left in it to take out more moisture from the materials in the second drum, and while the contents of the top drum dry a little faster than bottom drum, this effect may be offset by putting a larger load of material in the top drum than in the lower drum. The arrangement also conserves floor space, and heat and power for operation.

I desire it to be understood that this invention is not to be limited to any particular form or arrangement of parts except in so far as such limitations are included in the claims.

What I claim as my invention is:

1. In a laundry drying apparatus, the combination of a casing having upper and lower perforated drying drums revolubly mounted therein, an air heater communicating with the top of said casing and an apertured partition between said drums to supply said drums successively with heater air, and an exhaust fan communicating with the casing below the lower drying drum.

2. In a laundry drying apparatus, the combination of a casing having upper and lower compartments with a restricted opening therebetween, perforated drying drums revolubly mounted in said compartments, an air heater communicating with the upper compartment to supply the drying air for said drums, an exhaust fan communicating with the bottom portion of the lower compartment for removing the waste air from said casing, and a common means for driving said drums.

MONTE F. HUEBSCH.