G. A. MILLER.

DRYING TUMBLER.

APPLICATION FILED DEC. 24, 1917.

1,288,110. Patented Dec. 17, 1918.

Fig. 1.

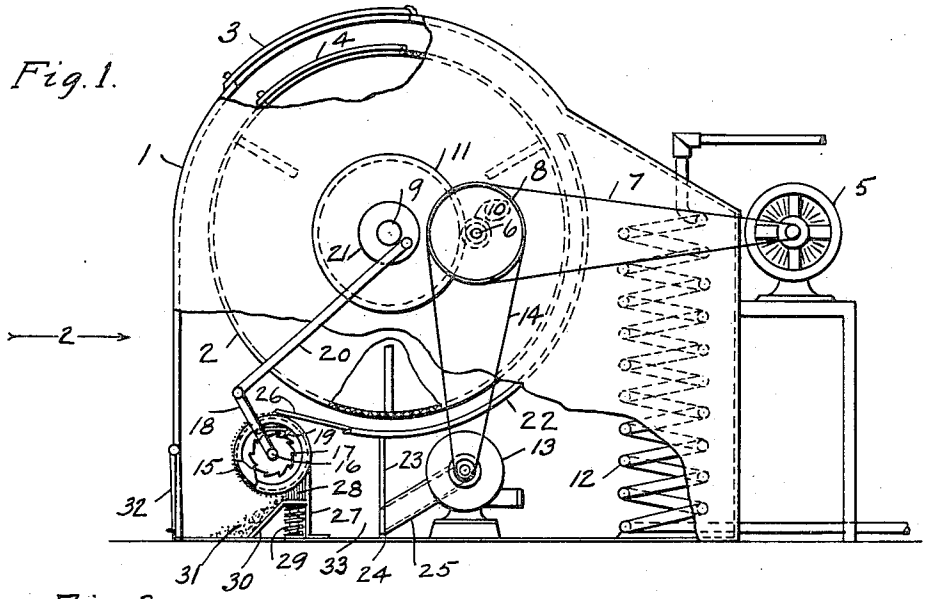
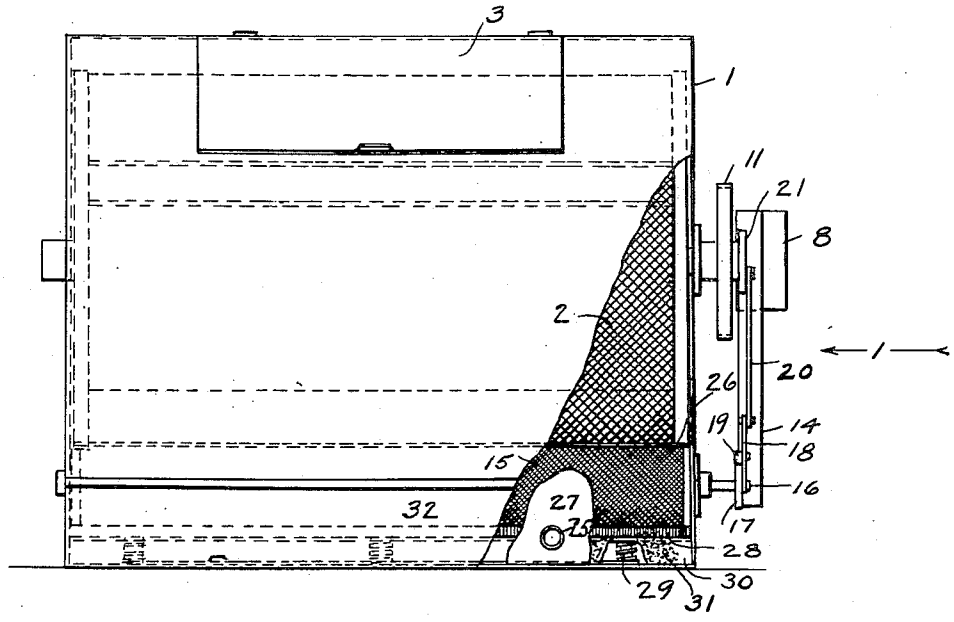


Fig. 2.



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UNITED STATES PATENT OFFICE.

GEORGE A. MILLER, OF LOS ANGELES, CALIFORNIA.

DRYING-TUMBLER.

1,288,110. Specification of Letters Patent. Patented Dec. 17, 1918.

Application filed December 24, 1917. Serial No. 208,686.

To all whom it may concern:

Be it known that I, GEORGE A. MILLER, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Drying-Tumblers, of which the following is a specification.

My object is to make a drying tumbler having automatically and continuously operating means for cleaning the lint from the screen, and my invention consists in the novel features herein shown, described, and claimed.

Figure 1 is an end elevation of a drying tumbler provided with my invention, the case being broken away and the view being taken looking in the direction indicated by the arrow 1 in Fig. 2.

Fig. 2 is a front elevation, as indicated by the arrow 2 in Fig. 1, with the case and other parts broken away.

A drying tumbler, as usually constructed, consists of a casing 1, and a screen cylinder 2 rotatably mounted in the casing; there being a removable door 3 in the casing to provide access to the cylinder, and a removable panel 4 to provide access into the cylinder. The cylinder is run from a motor 5 connected to a countershaft 6 by a belt 7 and pulley 8 and the countershaft 6 is connected to the axle 9 of the cylinder by a pinion 10 on the countershaft meshing with a large gear 11 upon the axle. A heating coil 12 is mounted in the casing 1 and a blower 13 is mounted in the casing in position to discharge toward the heating coil. The blower is operated by a belt 14 connected to the pulley 8, so as to blow the cooler air toward the heater, and the hot air will pass upwardly through and around the screen cylinder 2 and down and back to the blower.

A stationary screen has usually been placed in front of the blower 13 to collect the lint and this screen has given a great deal of trouble by becoming clogged with lint, and it is the object of my invention to overcome this trouble.

A fine screen cylinder 15 is mounted upon a shaft 16 and the shaft mounted in the casing 1. A ratchet wheel 17 is fixed upon the shaft outside of the casing. A pawl lever 18 is pivotally mounted upon the shaft and carries a pawl 19 to engage the ratchet wheel 17. A pitman rod 20 connects the outer end of the pawl lever 18 to the pitman 21, so that as the axle 9 rotates the lever 18 is vibrated to rotate the screen cylinder 15 step by step. A shield 22 is mounted concentric to the tumbling cylinder 2 and extends from near the screen cylinder 15 to a position above the heating coil 12. A partition 23 is inserted longitudinally between the lower end of the shield 22 and the floor 24 and a pipe 25 leads through the partition 23 to the receiving end of the blower 13. A flap 26 is pivotally connected to the lower forward end of the shield 22 and rests upon the screen cylinder 15 to shut off the passage of air between the partition 23, the lower end of the shield 22, and the screen cylinder. A partition 27 is mounted upon the floor 24 and extends upwardly to fit closely against the periphery of the screen cylinder 15. A brush 28 is mounted in front of the partition 27 and held yieldingly in contact with the screen cylinder 15 by springs 29, and an apron 30 is mounted in front of the springs to catch the lint 31, and access to the lint 31 is provided by a door 32.

The action of the blower draws air from the chamber 33 in front of the partition 23 through the pipe 25 and discharges the air toward the heating coil 12 and the hot air passes upwardly and forwardly around the screen cylinder 2 and through the cylinder and then downwardly and in this passage the air collects a large amount of lint from the clothes being dried in the cylinder 2. This air returns to the chamber 33 through the screen cylinder 15 and the mesh of the screen is fine enough to catch the lint upon the surface of the cylinder and this lint is removed from the surface of the cylinder by the brush 28 and falls upon the apron 30 from which it is removed through the door 32.

While I have shown the preferred construction of my drying tumbler, as now known to me, it will be understood by those skilled in the art that various changes in the combination, construction and arrangement of parts may be made without departing from the spirit of my invention as claimed.

I claim:

1. The combination with a drying tumbler, of a cylindrical screen rotatably mounted, a ratchet wheel fixed upon the shaft upon which the screen is mounted, a pawl lever pivotally mounted upon the shaft, a pawl carried by the pawl lever and engaging the ratchet wheel, a pitman rod

connecting the outer end of the pawl lever, a pitman connected to the pitman rod and adapted to be mounted upon the axle of the tumbler, a shield mounted concentric to the tumbler cylinder and extending from the screen cylinder, a partition extending from the shield to the floor, a second partition extending from the floor up to the screen cylinder, and a brush mounted in front of the second partition and held yieldingly in contact with the screen cylinder.

2. In a drying tumbler, a screen cylinder rotatably mounted, means for drawing air from the tumbler chamber through the screen cylinder, a brush yieldingly mounted against the screen cylinder and a connection between the screen cylinder and the main tumbler for operating the screen cylinder.

In testimony whereof I have signed my name to this specification.

GEORGE A. MILLER.