June 5, 1928. 1,672,274

C. F. NOFTZGER

LAUNDRY DRIER

Filed Jan. 8, 1927

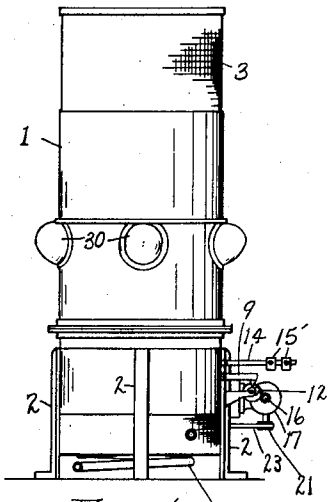


Fig. 1.

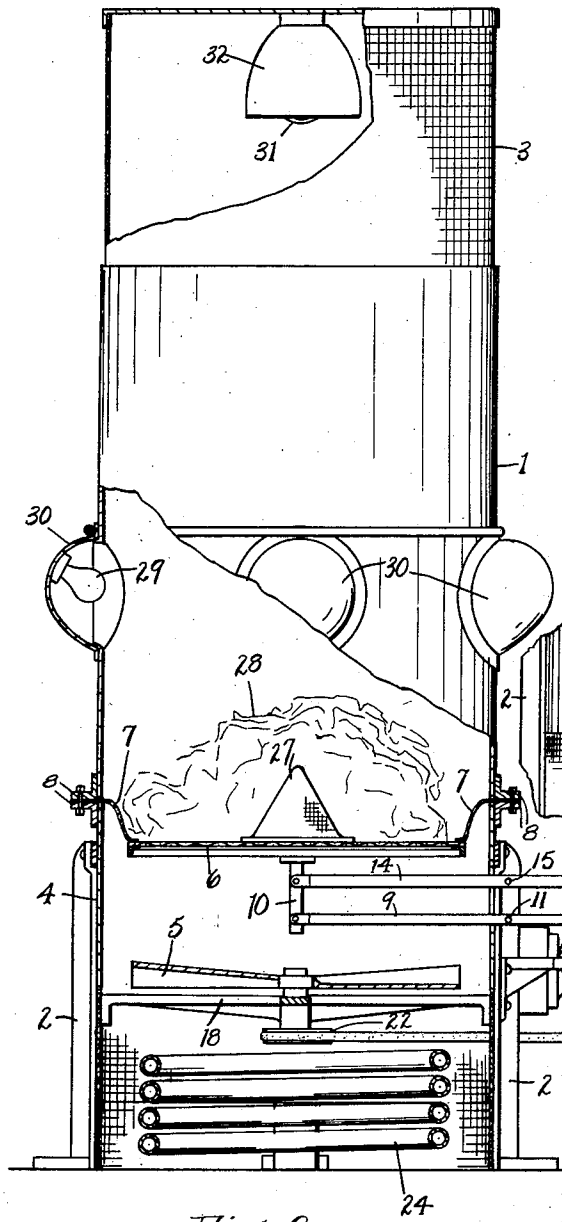


Fig. 2.

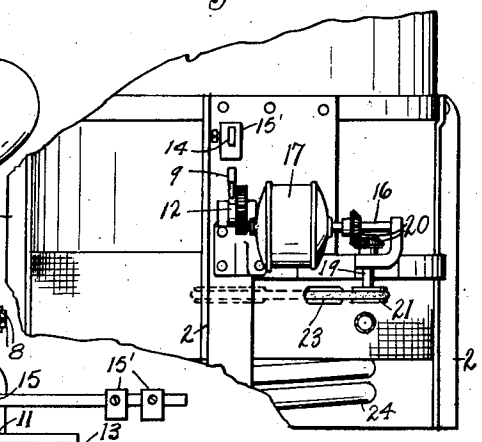


Fig. 3.

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UNITED STATES PATENT OFFICE.

CHARLES F. NOFTZGER, OF CHICAGO, ILLINOIS.

LAUNDRY DRIER.

Application filed January 8, 1927. Serial No. 159,913.

The main objects of this invention are:

First, to provide an improved laundry drier by means of which laundry may be quickly dried and at the same time subjected to light rays.

Second, to provide an improved laundry drier which is highly efficient, drying the laundry with a minimum of wear and tear thereon.

Third, to provide an improved laundry drier which is of large capacity and one in which the clothes are left in a fluffy unwrinkled condition suitable for ironing or completely dried as may be desired.

Objects pertaining to details and economies of my invention will definitely appear from the detailed description to follow. The invention is clearly defined and pointed out in the claims.

A structure embodying the features of my invention is clearly illustrated in the accompanying drawing forming a part of this application, in which:

Fig. 1 is a side elevation of my improved drier.

Fig. 2 is a detail view partially in vertical section of a drier embodying the features of my invention, certain parts being shown mainly in conventional form.

Fig. 3 is a fragmentary view looking from the right of Fig. 2.

Referring to the drawing, my improved laundry drier in the embodiment illustrated comprises a cylindrical housing or drying chamber 1 supported in a vertical elevated position by legs 2. The drying chamber has a screen or foraminate top section 3 and a bottom section 4, the bottom section housing the fan or blower 5.

The foraminate bottom 6 of the drying chamber is provided with a flexible extension 7, the edges of which are clamped between the casing section coupling flanges 8. The bottom is thus supported to permit vertical reciprocation thereof.

The bottom is reciprocatingly supported on a lever 9 on which the downwardly projecting standard 10 of the bottom is pivotally mounted. The lever is pivoted at 11 to one of the legs 2 and rides upon the cam 12, the cam having an abrupt drop at 13 which imparts to the bottom a rapid upward throw or stroke.

A counterbalancing lever 14 is pivoted at 15 and connected to the standard 10. This lever has counterweights 15′ thereon. The cam 12 is mounted directly on the motor shaft 16 of the motor 17.

The fan or blower 5 is supported on a spider 18 disposed horizontally below the casing, the fan being driven from the motor through the shaft 19 connected to the motor shaft 12 by the pinions 20, see Fig. 3. The shaft 19 is provided with a pulley 21 connected to the pulley 22 on the fan shaft by the belt 23.

A heating coil 24 is disposed below the fan. A screen 26 is provided so that dirt is not blown by the fan through the drying chamber.

The bottom is provided with a conical foraminate deflector 27 disposed centrally thereon and supporting the laundry as indicated at 28 so that the air is delivered into the center of the mass of laundry, thus assisting in keeping it uniformly distributed in the drying chamber.

As the bottom is reciprocated the laundry is tossed upwardly in the current of air so that the air acts effectively thereon, tumbling the same about in a more or less suspended condition in the air current.

In the embodiment illustrated I provide a plurality of lamps 29 which are arranged about the drying chamber and provided with inwardly facing reflectors 30 so that the light and heat rays from the lamps are directed upon the laundry during the drying operation. I also preferably provide a centrally disposed lamp 31 having a downwardly directed reflector 32 at the top of the drying chamber.

With this arrangement of parts I provide a drier which is not only highly efficient in the matter of rapidity of drying and capacity, but leaves the clothes in a fluffy wholesome condition.

I have not attempted to illustrate and describe various modifications and adaptions which I contemplate as I believe the dis-

closure made will enable those skilled in the art to embody or adapt my invention as may be desired.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a laundry drier, the combination of a cylindrical drying chamber open at the top for the discharge of air, a vertically reciprocating foraminated bottom for said drying chamber having a central conical foraminated deflector thereon, a flexible extension connecting the edges of said bottom to the walls of the drying chamber permitting its vertical movement, means for reciprocating said bottom permitting its quick return, and means for delivering a blast or current of air upwardly through said drying chamber.

2. In a laundry drier, the combination of a cylindrical drying chamber open at the top for the discharge of air, a vertically reciprocating foraminated bottom for said drying chamber having a central conical foraminated deflector thereon, a flexible extension connecting the edges of said bottom to the walls of the drying chamber permitting its vertical movement, means for reciprocating said bottom, and means for delivering a blast or current of air upwardly through said drying chamber.

3. In a laundry drier, the combination of a drying chamber open for circulation of air therethrough, a vertically reciprocating foraminated bottom provided with a centrally disposed foraminated conical deflector, means for vertically reciprocating said bottom with a quick upward movement, and means for delivering a blast or current of air upwardly through said drying chamber.

4. In a laundry drier, the combination of a drying chamber open for circulation of air therethrough, a vertically reciprocating foraminated bottom provided with a centrally disposed foraminated conical deflector, means for reciprocating said bottom, and means for delivering a blast or current of air through said bottom.

5. In a laundry drier, the combination of a drying chamber open for circulation of air therethrough, a vertically reciprocating foraminated bottom provided with a centrally disposed deflector, means for reciprocating said bottom, and means for delivering a blast or current of air through said bottom.

6. In a laundry drier, the combination of a drying chamber open for the discharge of air, a vertically reciprocating foraminated bottom for said drying chamber, means for vertically reciprocating said bottom, means for delivering a blast or current of air upwardly through said drying chamber, a plurality of lamps having inwardly directed reflectors grouped about said drying chamber above but adjacent to said bottom, and a centrally disposed lamp having a downwardly directed reflector at the top of said drying chamber.

7. In a laundry drier, the combination of a drying chamber open for the discharge of air, means for delivering a blast or current of air upwardly through said drying chamber, means for repeatedly tossing the laundry upwardly in the current of air, a plurality of lamps having inwardly directed reflectors grouped about said drying chamber above but adjacent to said bottom, and a centrally disposed lamp having a downwardly directed reflector at the top of said drying chamber.

8. In a laundry drier, the combination of a drying chamber open for the circulation of air therethrough, means for delivering a blast or current of air upwardly through said drying chamber, a vertically reciprocating laundry supporting and tossing member open for the passage of the air therethrough and operatively associated with the walls of the chamber to compel the passage of air through said member, means for vertically reciprocating said member, and a plurality of lamps disposed above and at the sides of the path of the laundry as it is tossed or tumbled under the combined tossing or tumbling action of said bottom member and air current.

9. In a laundry drier, the combination of a drying chamber open for the circulation of air therethrough, means for delivering a blast or current of air upwardly through said drying chamber, a vertically reciprocating laundry supporting and tossing member open for the passage of the air therethrough and operatively associated with the walls of the chamber to compel the passage of air through said member, means for vertically reciprocating said member, and lamps disposed to direct their rays across the path of the laundry as it is tossed or tumbled under the combined tossing or tumbling action of said bottom member and air current.

10. In a laundry drier, the combination of a drying chamber open for the passage of air therethrough, means for tossing the laundry upwardly within said chamber including an upwardly directed blast of air delivered from below the articles, and electric lamps disposed above and at the sides of said drying chamber so that their rays are directed across the path of the laundry as it is tumbled or tossed within the chamber.

11. In a laundry drier, the combination of a drying chamber open for the passage of air therethrough, means for tossing the laundry upwardly within said chamber including an upwardly directed blast of air delivered from below the articles, and electric lamps disposed within said drying chamber so that their rays are directed across the

path of the laundry as it is tumbled or tossed within the chamber.

12. In a laundry drier, the combination of a drying chamber open for the passage of air therethrough, means for tossing the articles upwardly within said chamber subject to the tossing action of an upwardly directed blast of air delivered from below the articles, and an electric lamp disposed so that its rays are directed across the path of the laundry as it is tumbled or tossed within the chamber.

In witness whereof I have hereunto set my hand.

CHARLES F. NOFTZGER.