

J. JUDELSON.
CLOTHES DRIER.
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Patented June 24, 1913.
2 SHEETS—SHEET 1.

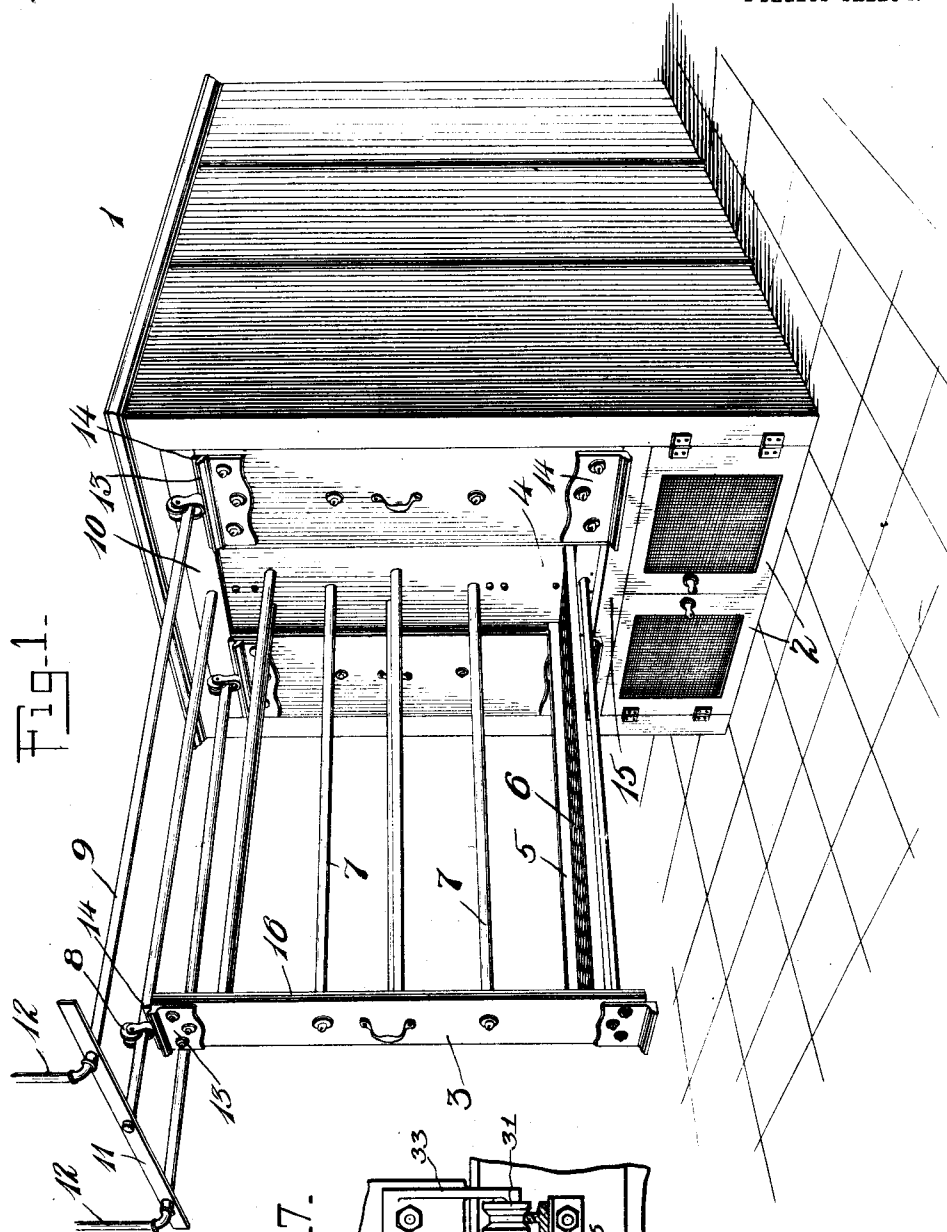
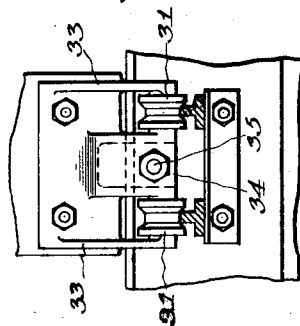


Fig. 1-

Fig. 7.



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CLOTHES-DRIER.

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To all whom it may concern:

Be it known that I, JULIUS JUDELSON, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Clothes-Driers, of which the following is a full, clear, and exact description.

My invention relates to improvements in driers, and is particularly, though not exclusively, concerned with apparatus of this character for laundry use in the drying of clothes.

The particular form of drier herein selected for illustration is what is known as the overhead type, that is to say, one in which the forward ends of the drier sections are supported and guided upon guide-ways extending outwardly from the upper portion of the drier chamber, although it is to be understood that several features of the invention are equally adapted for driers of other constructions. In driers of this general type heretofore constructed, difficulty has been experienced in so constructing not only the drier sections, but also the framework of the drier chamber, as to enable the drier chamber to be effectually closed against the escape of heat, when one or more of the sections are drawn out to their full extent. A further difficulty has resided in so constructing and mounting the drier sections in driers of this type that they may be so supported as to prevent side movements, which would cause interference with the drier sections while at the same time the sections will run smoothly and may be moved in and out with the least possible effort.

With a view to accomplishing the objects specified and overcoming the objections mentioned, my invention consists in a construction and arrangement of parts, one embodiment of which is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of an overhead drier embodying my improvements. Fig. 2 is a fragmentary view in section, of details of construction of the lower rear end of a drier section. Fig. 3 is a view similar to Fig. 2 of the lower forward end of a drier section. Fig. 4 is a view similar to Fig. 2 of the upper rear end of a drier section. Fig. 5 is a fragmentary view, part in section, of the manner of mounting the lower rear end of the drier section. Fig. 6 is a view similar to Fig. 5, of a modified form of mounting the rear end of a drier section.

Fig. 7 is a view similar to Fig. 6 showing a further modification.

In the embodiment of my invention illustrated in Figs. 1 to 5 inclusive, 1 indicates the drier chamber which may be formed as usual of sheet metal, in the lower portion of which suitable heating apparatus is mounted, which is accessible through doors 2 in the lower portion of the front of the chamber. Above the heating chamber are mounted a plurality of reciprocable drier sections or racks, each comprising a front panel 3 and a rear panel 4, a bottom section 5, the floor of which may consist of a strong wire net 6, through which the drippings from the articles suspended upon the drier bars 7 may fall to the floor of the drier chamber.

The drier here selected for illustration is of the overhead type, namely, that type in which the forward end of each drier section is supported by means of a suitable anti-friction roller 8 upon overhead guide-bars 9, the rear ends of which are secured in the upper part of the front frame 10 of the drier chamber above the section openings and the outer ends of said guide-rails are mounted in a suitable bracket 11 supported from the ceiling by arms 12—12. The front panel of the section may, if desired, be provided with an ornamental molding 13, or merely a plate 13, having a lip 14, which bears against the cap 10 of the drier front, and the lower portion of the front panel may be provided with a similar molding or plate 14, which overlies the sill 15 at the bottom of the drier opening when the sections or racks are closed. These front panels are preferably made of sheet metal with side flanges 16 and corresponding top and bottom flanges such as 17, Fig. 3. The bottom flange overlies a horizontal portion 18 of the sill 15, and the top flange lies within a corresponding horizontal portion 19 of the cap 10 when the sections are closed. The sill 15, furthermore, has mounted at the inner side thereof an angle-piece comprising the vertical member 19 and the horizontal member 20, the latter projecting back into the heating chamber. From an inspection of Figs. 2 and 3, it will be seen that the front panels 3 of the sections are long enough to abut against this vertical member 19 when the sections are closed, whereby the section when closed effectually prevents escape of heat from the chamber. The rear panel 4 of each section is provided

with side flanges 21 and the top flange 22, the rear end of the bottom section 5 being held between the lower ends of the side flanges 21, as seen in Fig. 2. Upon the lower rear end of each section is mounted a bracket 23 offset from the rear end of the section to clear the horizontal member 20 of the angle-piece of the sill when the section is drawn out to its full extent, so that the side flanges 21 of the rear panel of the section may be drawn well in between and overlap the side flanges 16 of the adjacent front panels 3. The overlapping of these side panels 21 with the side panels 16, and the overlapping of the top flange 22 of the rear panels with the horizontal portion 19 of the cap, enable the rear panel to as effectually close the chamber against the escape of heat as the front panel does when the section is pushed into closed position. The bracket 23 has a portion 24 extending below the horizontal member 20, and mounted in this extension is a guide-bar 25, the forward end of which is carried by that portion of the front panel which extends below the bottom section 5. This guide-bar moves freely within an aperture 26 of the vertical sill portion 19, and, if desired, an antifriction roller 27 may be mounted adjacent this opening to maintain the guide-bar 25 out of contact with the edge of the aperture 26, so that the section may be guided accurately and moved with the slightest possible friction. The rear end of each section is supported and guided from a guide-rail 28 mounted within the upper portion of the drying chamber and the roller 30 traveling on said guide-rail. It is to be understood that the weight of the rear end of each section is taken mainly by the roller 30 and guide-rail 28, while the roller 27 acts more as a guide for the lower guide-rail 25 to keep it out of contact with the opening 26 rather than as a supporting roller.

It will be seen from the above described construction that both ends of the upper portion of each section are supported by antifriction members on separate guide-rails, one the usual overhead rail outside of the heating chamber, the other a guide rail entirely within the upper portion of the chamber. It will also be seen that the lower guide-rail 25 of each section is dropped below the upper edge of the sill of the opening in the front of the chamber for the section, so that the bottom of the rear end of each section may lie closely adjacent the sill when the section is drawn out to its full extent. Thus there is nothing to interfere with the drawing of the rear panel well within the edges of the adjacent closed front panels and within the horizontal portions 19 of the cap and the horizontal portion 20 of the sill. This construction therefore constitutes a distinct improvement over the

construction illustrated in my prior Patent No. 924,164, where there is no provision for overlapping of the front and rear panels when a section is drawn out and wherein the lower guide-rail stands entirely above the sill. This construction has the further advantages that the entire rack or section may be so completely drawn out that all parts of the drier bars 7 are easily accessible, and, further, by having the lower guide-bar 25 dropped below the bottom of the section, it will not in any manner interfere or contact with articles suspended from the drier bars.

In the modified form of my invention illustrated in Fig. 6, the rear end of each section may be supported by a pair of rollers 31-31, traveling upon guide-rails 32-32 spaced as far apart as the width of the section will permit, and without interference with the adjacent sections, so that the section may be so stably supported at these points as to dispense, if desired, with the upper guide-rail 28, whereby the apparatus may be considerably more simply and economically manufactured. The inner bracket arms 33 in which the rollers 31 are journaled may be joined by a web 34 (Fig. 7) which may form a support for the rear end of a lower guide bar 35 similar to the guide bar 25 shown in the other figures, if it is found desirable to use one.

While I have herein described and shown a certain embodiment of my invention, it should be understood that it may be altered in details within the scope of the appended claims.

What I claim is:

1. A clothes drier comprising a heating chamber, the front frame of which has a rack receiving opening, a plurality of racks mounted in said opening, said front frame having a sill at the bottom of said opening having apertures therein, each of said sections comprising front and rear panels, the front panel extending below said sill, the rear panel of said section being shorter than the front panel and adapted to close the portion of the opening occupied by said section when the section is entirely drawn out, means for supporting the forward panel, a guide bar exterior of the chamber, means for supporting the rear panel within said chamber, said section having a guide bar extending from the front to the rear at the bottom, said guide bar extending through one of the apertures in said sill.

2. A clothes drier comprising a heating chamber including a front frame having an opening for the reception of a plurality of drier sections, supporting means therefor, a sill at the bottom of said opening, each of said drier sections comprising a front panel adapted to close the portion of said opening occupied by said section and to extend be-

low said sill and a rear panel adapted to close the space between adjacent sections, the walls of said chamber, said rear panel and said supporting means being so constructed and relatively arranged as to permit said rear panel to be drawn between the front panels of adjacent sections on either side and overlie said sill to completely close the opening between adjacent sections when said section is drawn out to its full extent.

3. A clothes drier comprising a heating chamber including a front frame having an opening to receive a plurality of drier sections, said front frame having a cap at the top of said opening and a sill at the bottom thereof, each section comprising a front panel of a length to extend below said sill, a guide-bar exterior of the chamber for supporting said panel, and a rear panel of a length to close the opening between said cap and sill and of a width to close the opening between adjacent sections, means within said chamber for supporting and guiding said rear panel, said means and the walls of said chamber being constructed and relatively arranged to permit said rear panel to be drawn between adjacent sections and between said cap and sill when the section is drawn out to its full extent to completely close the opening occupied by said rack.

4. A clothes drier comprising a heating chamber including a front frame having an opening for the reception of a plurality of drier sections, each of said sections comprising a front panel adapted to close said opening when the sections are pushed in to their fullest extent, and a rear panel adapted to completely close said opening when said sections are drawn out to their fullest extent, overhead guide rails for supporting and guiding said forward panels exterior of the heating chamber, and guide rails within the heating chamber for supporting the rear panels of said sections, a guide bar extending from front to rear of each section and located below the sill of said frame opening, said guide bar and supporting means being so constructed and relatively arranged that the rear panel of each section may be drawn out between the front panels of adjacent sections and between the cap and sill

of said opening to completely close the chamber when the section is drawn out to its fullest extent.

5. A clothes drier comprising a heating chamber including a front frame having an opening for the reception of a plurality of drier sections, said frame comprising a cap and a sill, each section comprising a front panel, the lower end of said panel extending below said sill, and overhead guide-bars exterior of said chamber for supporting said panels and a rear panel of a length to extend between said sill and cap when said section is drawn out to its fullest extent, a guide bar extending longitudinally of the lower end of said section and passing through said sill, means within said chamber for supporting and guiding the rear panel, the frame of said chamber, said guide bar, panel and supporting means being so constructed and relatively arranged that said rear panel may be drawn out between the front panels of adjacent sections and between said cap and sill to close the opening occupied by said section when said section is drawn out to its fullest extent.

6. A clothes drier comprising a heating chamber including a front frame having an opening for the reception of a plurality of drier sections, a cap at the top of said opening and a sill at the bottom thereof, each drier section comprising a front panel, supporting and guiding means for said panel, a rear panel, supporting and guiding means for said rear panel including a pair of guide bars within the chamber and guide rollers carried by said rear panel adapted to travel upon said guide bars, the frame of said chamber, said rear panel and said supporting and guiding means therefor being so constructed and relatively arranged as to permit said rear panel to be drawn between the front panels of adjacent sections to completely close the opening occupied by said section when said section is drawn out to its fullest extent.

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Witnesses:

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