S. PRESTWICH & A. J. SPELLER.

CURTAIN DRIER.

APPLICATION FILED JAN. 20, 1917.

1,285,373.

Patented Nov. 19, 1918.

2 SHEETS—SHEET 1.

Fig. 1

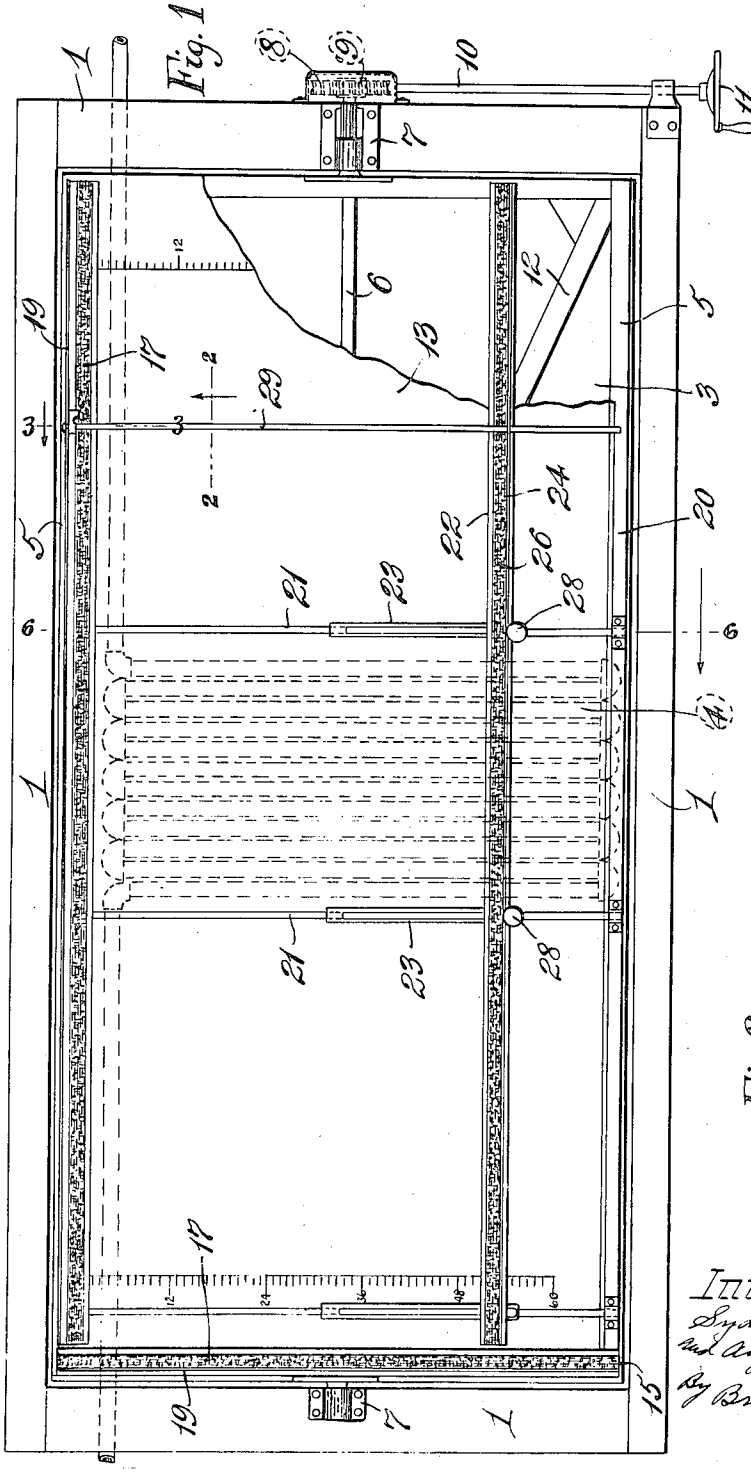


Fig. 3

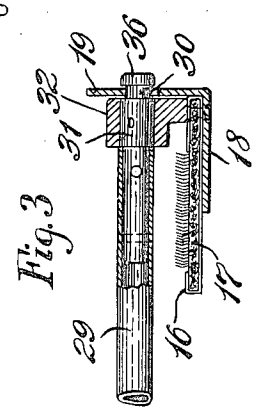
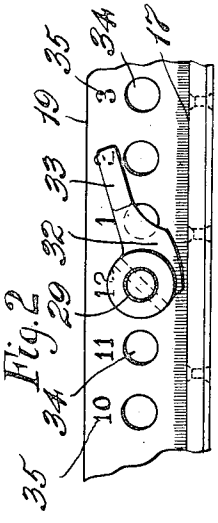


Fig. 2



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Fig. 4

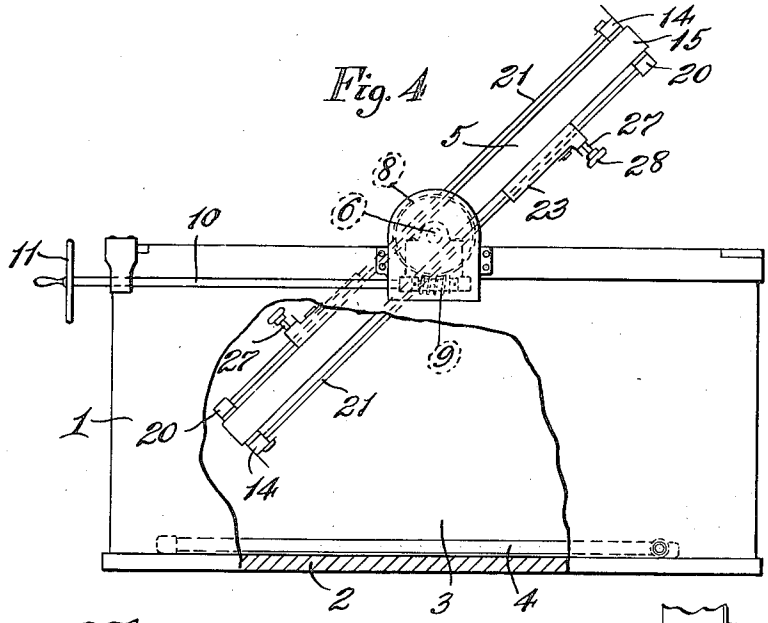


Fig. 5

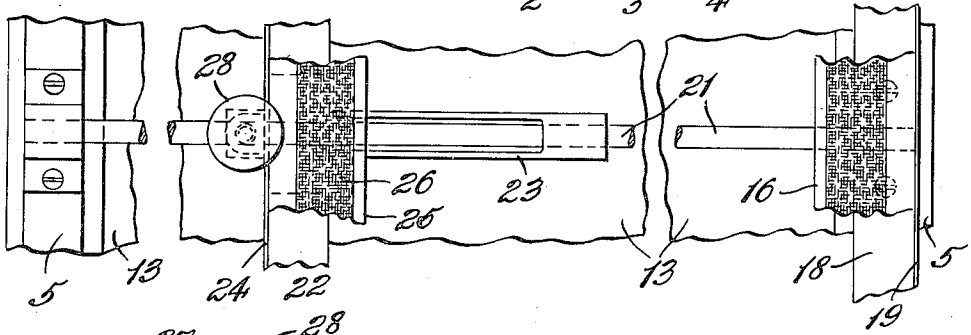
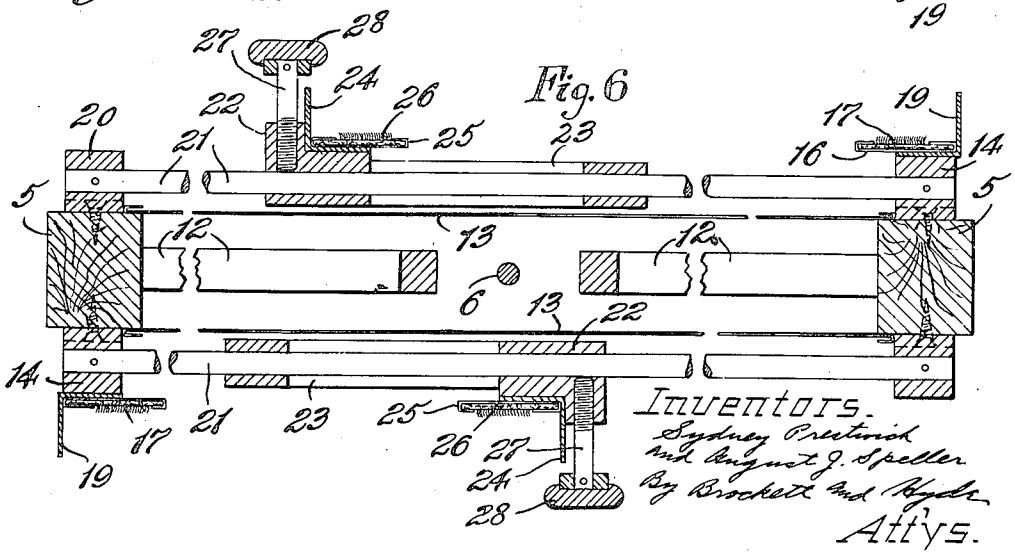


Fig. 6



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UNITED STATES PATENT OFFICE.

SYDNEY PRESTWICH AND AUGUST J. SPELLER, OF CINCINNATI, OHIO, ASSIGNORS TO THE AMERICAN LAUNDRY MACHINERY COMPANY, OF CINCINNATI, OHIO, A CORPORATION OF OHIO.

CURTAIN-DRIER.

1,285,373. Specification of Letters Patent. Patented Nov. 19, 1918.

Application filed January 20, 1917. Serial No. 143,488.

To all whom it may concern:

Be it known that we, SYDNEY PRESTWICH and AUGUST J. SPELLER, citizens of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Curtain-Driers, of which the following is a specification.

This invention relates to apparatus for drying and stretching curtains or other similar fabrics or articles. The object of the invention is to provide improved apparatus which is of simple form and may be easily manipulated; which enables one set of curtains to be applied to or removed from the device while another set is drying therein; which prevents the formation of small wrinkles, gaps or openings such as are usually formed along the edges of the curtain by the common stretchers in use, and instead, leaves the curtain with a true even edge; and finally apparatus which enables the curtain to be stretched to a definite predetermined length.

Further objects of the invention are in part obvious and in part will appear more in detail hereinafter.

The invention comprises the apparatus hereinafter described and claimed.

In the drawings, which illustrate one preferred embodiment of the invention, Figure 1 is a plan view; Fig. 2 is a detail section, on a larger scale, on the line 2—2, Fig. 1; Fig. 3 is a similar section on the line 3—3, Fig. 1; Fig. 4 is an end view, partly broken out, and showing the frame partly turned; Fig. 5 is a detail plan view of the parts shown in Fig. 6; and Fig. 6 is a sectional view, on a larger scale, on the line 6—6, Fig. 1.

The apparatus shown in the drawings comprises a suitable support shown as a casing or chest having end and side walls 1 and a bottom 2 inclosing a chamber 3 in which is located heating means, such as the pipe coils 4 through which steam or any other heating medium may be circulated. The end walls 1 form supports for the curtain carrying frame 5 which is provided with a longitudinal shaft 6 whose ends form trunnions journaled in bearings 7 on said walls, one of said trunnions being provided with suitable means for turning over the frame to expose either of its faces. As shown, one trunnion is provided with a worm gear 8 actuated by a worm 9 on a shaft 10 having a hand wheel 11 for operating it. This mechanism does away with any necessity for special locking means for holding the frame, as the latter will remain in any position to which it is turned. In its horizontal position the frame 5 substantially closes the open top of the casing, and a curtain carried by its lower face is exposed to the full effect of the heat in chamber 3. By reversing the frame articles on either of its faces may be dried and while drying one set on the lower face another set may be applied to the upper face, as will be readily understood.

The frame 5 comprises side and end bars connected by diagonal braces 12, said braces and the shaft 6 being inclosed by two oppositely disposed metal plates 13 which form table surfaces on opposite faces of the frame to support the work while arranging it thereon. The stretching devices on both faces of the frame are identical so that description of one thereof will be sufficient for the purposes of this application.

Along one side and one end of the frame are two bars 14 and 15 to which are attached metal holders 16 for strips of card cloth 17. These holders lie in metal angles 18 whose outer vertical flanges 19 form guides for the edges of the articles being stretched. On the opposite side of the frame is a longitudinal fixed bar 20 connected to bar 14 by several transverse rods 21 forming supports and guides for a movable curtain holding bar 22 which is provided with extended sleeves or boxes 23 sliding on the rods 21 to prevent tilting movement of the curtain holding bar on said rods. Bar 22 is provided with an angle member 24 supporting a holder 25 for the card cloth strip 26, in the same manner as bar 14. It is also provided with one or more (two being shown) clamping screws 27, whose heads 28 serve as handles for adjusting the bar back and forth on the rods and which can be turned down against the rods to hold the bar in adjusted position.

The device also includes a hem holding bar 29 which is a small rod or tube with one end plain and the other provided with an annular groove 30 and a bearing portion 31 for an eccentric clamp or locking device 32 having an operating handle 33. The vertical flanges 19 of the two side bar angles are

provided with a series of holes 34 spaced at convenient regular intervals and alongside of which are numbers 35 indicating the distances of said holes from the end bar 15. The holes in the stationary side bar 14 are slightly larger than the head portion 36 of rod 29.

The apparatus is used as follows:

The operator threads the rod 29 through the hem at one end of the curtain or article to be stretched and after selecting the proper pair of oppositely disposed holes 34 to secure the desired predetermined length of curtain passes the plain end of said rod through the hole in the adjustable bar 22 and its opposite end through the corresponding hole in bar 14. The handle 33 is then pressed down to engage the edge of the opening through the flange with the groove in the rod, as in Fig. 3, which locks the rod against endwise movement. The curtain is then stretched lengthwise to pull its end down to the stationary end bar 15. One side edge of the curtain is then lined up with the vertical flange on side bar 14 and is secured to said bar by patting or striking it with a suitable device such as a brush, which presses the fabric down over the many projecting points of the card cloth. The hold of the card cloth on the fabric is therefore distributed over a material area an inch or more in width and extending the full length of the curtain. The other edge of the curtain is then secured in like manner to the said cloth on the adjustable bar 22 which is then pulled laterally away from the stationary bar to stretch the curtain cross wise. The end of the curtain is then secured to the card cloth on the stationary end member.

When the curtains are fully stretched the frame is reversed to subject them to the heat in chamber 3 and another set of curtains is then attached to the other face of the frame, and so on.

This arrangement enables the curtains to be handled rapidly by comparatively unskilled labor and, more important, in a manner to always secure an exact predetermined length for each curtain. The two curtains of a pair will therefore hang well together even though stretched at different times or on opposite faces of the frame. The adjustable side bar also enables the curtain to be first secured to the frame and then stretched laterally uniformly over its entire length. This arrangement produces more uniform and satisfactory results than when the curtain is stretched inch by inch and secured piece by piece to pins or hooks on a stationary bar and insures a perfectly rectangular curtain.

What we claim is:—

1. A curtain stretcher, comprising an end bar and two relatively adjustable side bars provided with curtain holding means, and a rod adapted to be passed through the curtain hem and detachably connected to said side bars and adjustable to different positions along the same.

2. A curtain stretcher, comprising relatively fixed side and end bars provided with curtain holding means, a hem holding bar, a second side bar adjustable relatively to the first and provided with curtain holding means, and means for maintaining said second bar parallel with the first throughout its range of adjustment.

3. A curtain stretcher, comprising relatively movable side and end bars provided with curtain holding means, a hem supporting bar, and means for locking said hem bar to the side bars.

4. A curtain stretcher, comprising relatively movable side and end bars provided with curtain holding means, a hem supporting bar, and means for locking said hem bar in various positions to the side bars.

5. A curtain stretcher and drier, comprising a hollow chest having one side open, and a reversible frame in said opening provided on opposite faces with curtain stretching means.

6. A curtain stretcher and drier, comprising a hollow chest having one side open, a reversible frame in said opening provided on opposite faces with curtain stretching means, and heating means in said chest.

7. A curtain stretcher and drier, comprising a hollow chest having one side open, a reversible frame in said opening provided on opposite faces with curtain stretching means, and means for rotating said frame.

8. A curtain stretcher and drier, comprising a hollow chest having one side open, a reversible frame in said opening provided on opposite faces with curtain stretching means, and means for rotating said frame, said means being adapted to hold the frame in any position to which it is adjusted.

9. A curtain stretcher and drier, comprising a hollow chest having one side open, a reversible frame in said opening provided on opposite faces with curtain stretching means, heating means in said chest, and means for rotating said frame.

In testimony whereof we affix our signatures.

SYDNEY PRESTWICH.
AUGUST J. SPELLER.

Witnesses:
Jos. H. Speller,
Fanny M. Sweeney.