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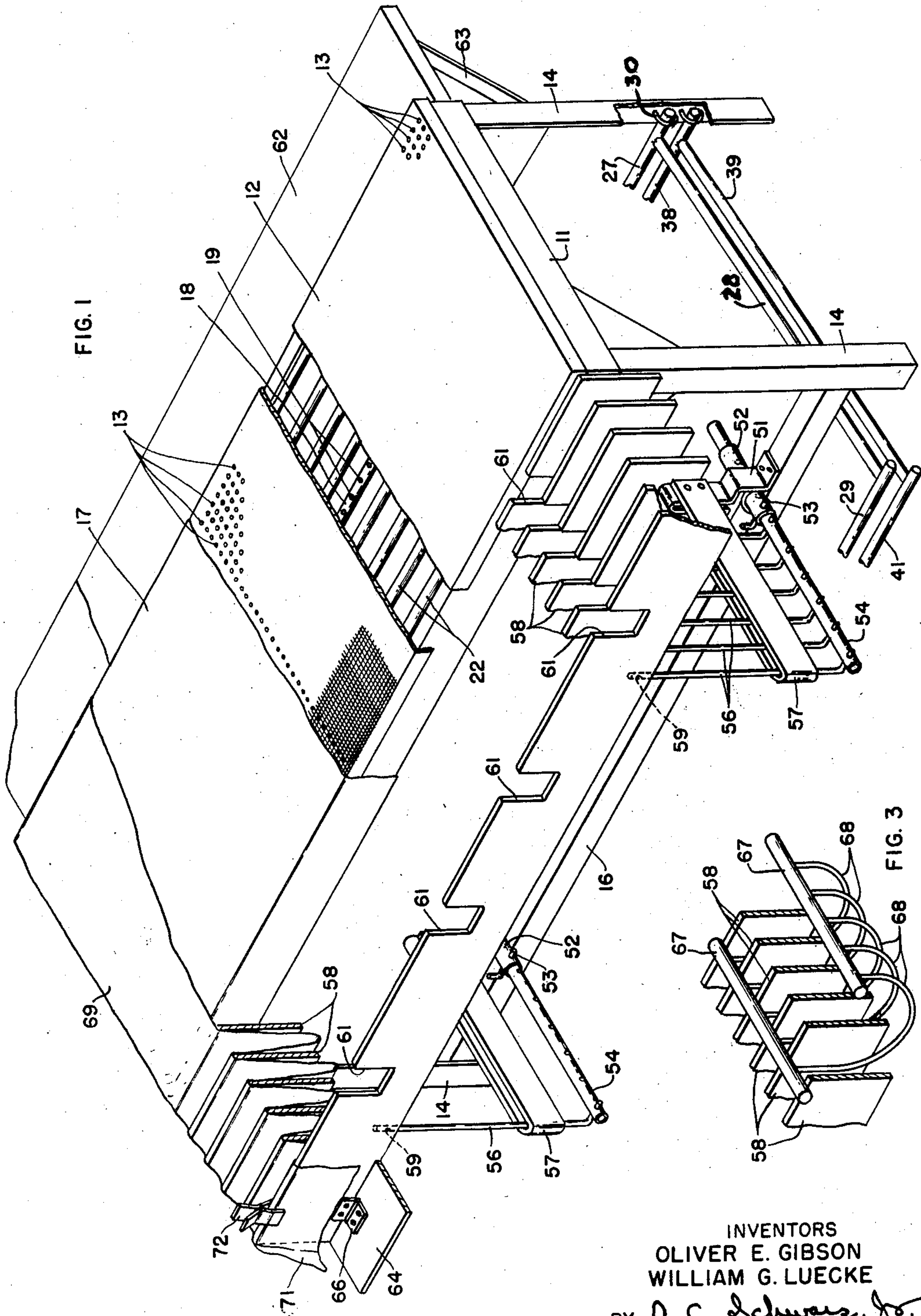
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APPARATUS FOR PRESSING AND FOLDING MATERIALS

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2 Sheets-Sheet 1



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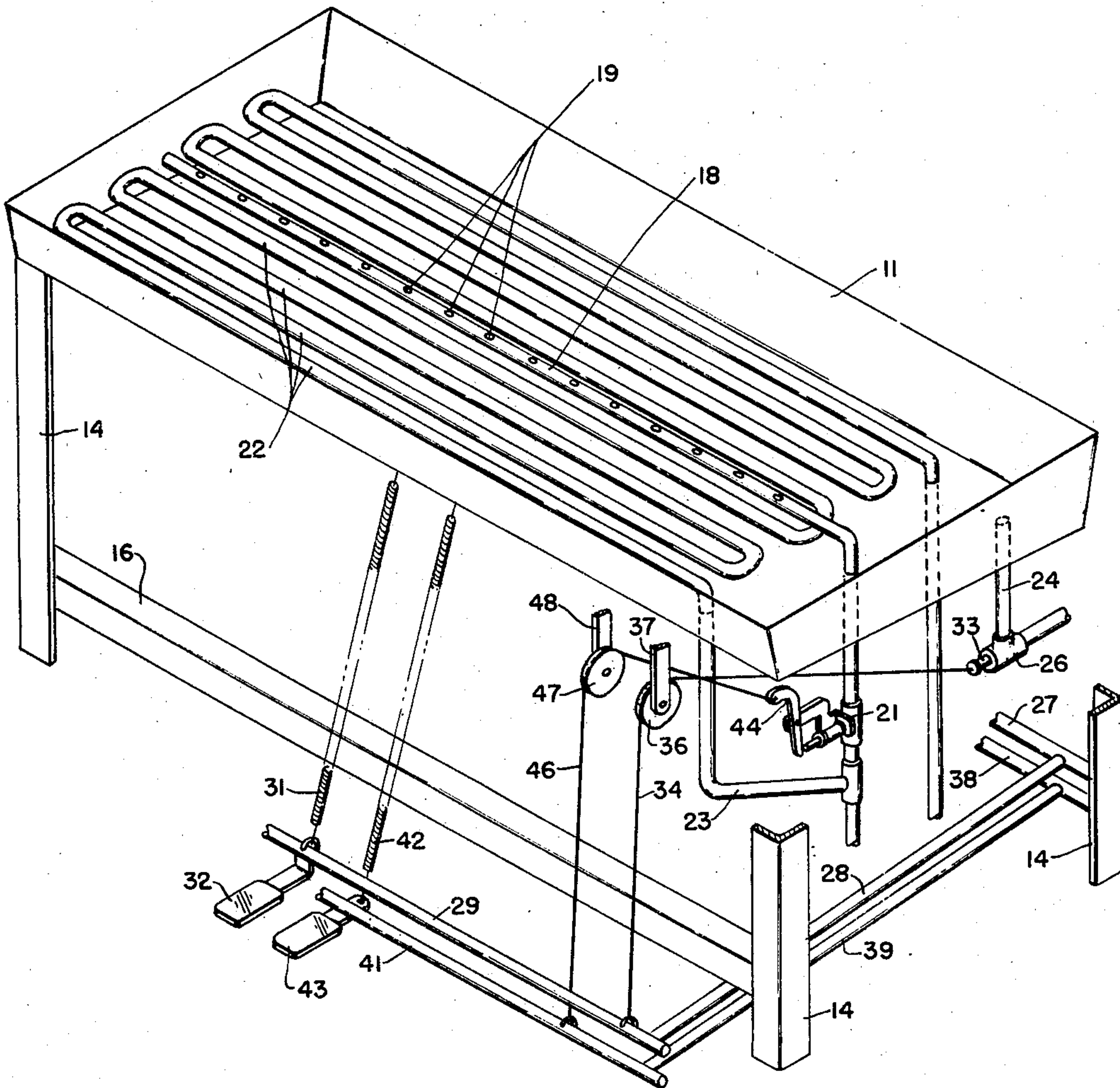


FIG. 2

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APPARATUS FOR PRESSING AND FOLDING MATERIALS

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7 Claims. (Cl. 223—30)

The present invention relates to apparatus for processing materials, and more particularly to apparatus for pressing and folding materials such as draperies.

In the past in the processing of draperies, it has been necessary after dry cleaning to hand or machine iron the drapery on a flat surface and then manually fold individual pleats in the drapery, usually by operators working from opposite ends thereof. It is customary to utilize pleats or folds which are of a width to fit on drapery hangers. This has been an inefficient and expensive manner of processing the drapery.

Accordingly, an object of the present invention is to provide an improved apparatus for pressing and folding draperies.

It is a further object of the present invention to provide combined apparatus for pressing and folding draperies.

Generally, the apparatus utilizes a receptacle on which the drapery is positioned and through which steam is applied to the drapery and a vacuum is created, a plurality of slats adjustably secured to the receptacle-supporting means and positioned in parallel spaced relationship to each other adjacent to the receptacle for receiving the draperies thereover for forming folds or pleats therein, and means for controlling the application of steam and vacuum.

A more complete understanding of the invention may be had by reference to the accompanying drawings, wherein:

Fig. 1 is a perspective view, partly broken away, disclosing the apparatus embodying the invention;

Fig. 2 is a perspective view of a portion of the apparatus disclosed in Fig. 1, and

Fig. 3 is a partial view showing one embodiment for performing one step of the method.

By referring to Fig. 1, it may be seen that the apparatus comprises a tray or receptacle 11 which is provided with a tight fitting top 12 having a plurality of minute apertures 13 in the surface thereof, only some of such apertures being illustrated. The receptacle is supported by suitable means, such as legs 14 having a reinforcing member 16 across the front thereof. There is a cloth covering 17 over the top 12, which may be secured tightly thereover by snaps or springs (not shown) extending under the receptacle 11.

Supported within the receptacle 11 is a steam pipe 18 having a plurality of apertures 19 therein. The pipe 18 is connected through a manually operable valve 21 to a source of steam (not shown). Also supported within the receptacle 11 is a steam coil 22 which is connected to the steam source (not shown) by a pipe 23 which enters the steam line so as to by-pass the valve 21. A pipe 24 is connected to the bottom of the receptacle 11 and leads to a vacuum pump (not shown) through a manually operable valve 26.

A rod 27 extends transversely across the back of the apparatus and is rotatably mounted to the rear legs 14 by any suitable means, such as U-bolts 30. The rod 27

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is provided near each extremity thereof with a rod 28 which extends toward the front of the apparatus and which are connected by a rod 29 extending across the front of the apparatus. A spring 31, connected between the rod 29 and the underside of the receptacle 11, normally urges the rod 27 in a clockwise direction so as to maintain the rod 29 in its upward position. A foot pedal 32 is secured to the rod 29, whereby the rod 29 may be urged downwardly against the action of the spring 31. The valve 26, which is normally closed, has an operating lever 33 which is connected for actuation by a rope, wire or chain 34 which passes over a freely rotatable roller 36 and has its opposite extremity secured to the rod 29. The roller 36 may be secured to the receptacle 11 by a suitable support 37.

A second rod 38 extends parallel to the rod 27 and is similarly rotatably secured to the rearward legs 14. A pair of rods 39 are connected near the extremities of the rod 38, extend forwardly, and are connected by a rod 41 extending across the front of the apparatus. The rod 41 is provided with a spring 42 and a foot pedal 43, which operate similarly and for the same purpose as the spring 31 and the foot pedal 32, respectively. The steam valve 21, which is normally closed, has an operating lever 44 which is connected for actuation by a rope, wire or chain 46 which passes over a freely rotatable roller 47 and has its opposite extremity secured to the rod 41. The roller 47 is supported by a support 48 to the receptacle 11.

Secured near opposite extremities of the member 16 are a pair of brackets 51, only one of which is shown. The brackets 51 each support a pipe 52 which has an aperture to receive a pin 53. The pipes 52 extend in a direction parallel to the sides of the receptacle 11. The pipes 52 each receive a pipe or rod 54, which are provided with a plurality of apertures extending transversely of the pipes. The pipes 54 are further provided with apertures similar to those illustrated but which are within the pipes 52.

A plurality of L-shaped rods 56 are provided which have the short legs thereof extending through the apertures in the rods 54 and the long legs extending upwardly through a guide 57 which extends outwardly from the top of the brackets 51. It should be noted that a plurality of the rods 56 and one of the guides 57 are provided for each of the rods 54.

A plurality of slats 58 are positioned in parallel, spaced relationship and extend transversely across the front of the receptacle 11, the tops of the slats being in the same horizontal plane as the receptacle top 12. The slats 58 are mounted near opposite extremities by apertures 59 extending from the bottom thereof which receive the top of one of the rods 56. Thus, each slat 58 is supported by two rods 56, one near each extremity. Each slat 58 is provided with a plurality of apertures 61 at the upper surface thereof.

A shelf or table 62 is secured to and across the rear of the receptacle 11, and is supported by supports 63 extending to the rearward legs 14. A shelf 64 extends across the front of the apparatus, and is secured to the forward slat 58 by suitable brackets 66 (one of which is shown).

In Fig. 3 is disclosed a device which may be used in conjunction with the present apparatus, and consists of a pair of handles 67 which are joined by a plurality of spaced, U-shaped rods or members 68.

In utilizing the present invention, a drapery 69, which has been dry cleaned or otherwise requires pressing, is placed on the cloth 17 overlying the top 12 of the receptacle 11, with the top buckram-backed portion 71 extending over one side of the receptacle 11. In the event that the drapery being processed is wider than the depth of the receptacle 11, the excess material may be temporarily stored on the shelf 62.

With the drapery in place, as described, the operator may depress the foot pedal 43, which will move the rod 41 downwardly against the urging of its spring 42, pivoting the rod 38 in its U-bolt connection 30 with the rear legs 14. At this time the rope 46 will be moved toward the front about its roller 47, causing the valve 21 to be opened to admit steam to the steam pipe 18, through its apertures 19, and through the apertures 13 in the top 12 to the covering 17 and the drapery 69.

After the admission of steam the foot pedal 32 may also be depressed by the operator, which will urge the rod 29 downwardly against the urging of its spring 31, pivoting the rod 27 in its U-bolt connection 30 with the rear legs 14. At this time the rope 34 will be moved toward the front about its roller 36, causing the valve 26 to be opened to draw a vacuum in the pipe 24 and within the receptacle 11.

The combination of the steam on the drapery 69 and the vacuum created within the receptacle 11, plus the application of a light weight hand pad over the drapery, will result in the drapery 69 being smoothed or pressed and any excess condensation being drained from the receptacle 11. If found desirable, the bottom of the receptacle 11 may be sloped toward its connection to the pipe 24 to facilitate drainage. If any severe creases exist in the drapery 69, a hand iron may be used to eliminate them. At such time as sufficient smoothing or pressing has occurred, the foot pedals 32 and 43 may be released. It should be noted that the foot pedals may be operated sequentially, steam and then vacuum. The steam makes the material pliable, the hand pad smooths it, and the vacuum "cures" or sets it.

The operator may then remove the drapery 69 from the covering 17 and place it over the tops of the slats 58. The drapery material may then be forced downwardly between adjacent slats, either by hand or by inserting the U-shaped rods 68 (Fig. 3). If the latter is used, the handles 67 may be used to force the material downwardly, and then moved longitudinally the length of the slats 58. The material should be so apportioned that the amount between the adjacent slats 58 is about the same and will form folds of a desired width. The material is properly positioned by means of spring or pressure clips 72 being placed over each drapery fold. The purpose of the clips 72 is to keep the drapery from sliding off the slats 58. The apertures 61 are used to facilitate removal of the drapery from the slats by finger pressure.

The operator may then urge the slats 58 toward each other at the top, the rods 56 pivoting in the apertures in the pipe 54, and moving within the guides 57. Thereafter the drapery 69 may be removed from the apparatus by grasping it at the position of the apertures 61.

In the event that the drapery is wider than the depth of the apparatus, the folded portion may be laid on the shelf 64 and the above operation repeated as often as possible to complete the entire drapery. It should be noted that the width of the pleats as made in the drapery should coincide with the width of the hanger on which the completed drapery is to be placed.

The pipes 54 are each provided with a plurality of apertures so that as many rods 56 and slats 58 may be utilized as pleats are desired. The pipes 54 are slid within the pipe 52 and the pin 53 positioned so as to pass through apertures in both of the pipes. If this is desired, the guides 57 may be made of telescoping portions and so adjustable. In the alternative, the number of slats 58 may be standardized, and the pipes 54 then need not be adjustable.

While a specific embodiment of the invention has been described and illustrated, it is to be understood that variations and modifications of the invention may be made without departing from the spirit and scope of the present invention.

What is claimed is:

1. Apparatus for pressing and folding draperies, comprising a closed receptacle having a plurality of apertures in the top thereof for receiving the draperies thereon, support means for said receptacle, means for introducing steam within said receptacle for passage through the apertures to the drapery, means for creating a vacuum within said receptacle and through the apertures to the drapery, whereby the steam and vacuum serve to press the drapery, mounting means secured to said support means, a plurality of slats secured to said mounting means in parallel spaced relation to each other and to the front of said receptacle for receiving the drapery therebetween to form folds therein, and separate means for actuating said steam-introducing means and said vacuum-creating means.

2. The apparatus as described in claim 1, wherein said slats terminate at the upper edges in the same horizontal plane as the top of said receptacle.

3. The apparatus as described in claim 1, wherein said mounting means are adjustable to accommodate a variable number of said slats in accordance with the number of folds desired in the drapery.

4. The apparatus as described in claim 1, wherein said slats are movably mounted to said mounting means to permit said slats to be moved to or away from each other.

5. The apparatus as described in claim 1, wherein heating means are provided within said receptacle to facilitate, in combination with the steam and vacuum, pressing of the drapery.

6. The apparatus as described in claim 1, wherein a shelf is supported by the foremost of said slats for receiving a folded portion of a drapery thereon.

7. The apparatus as described in claim 1, wherein said closed receptacle and said slats are so positioned with respect to each other that portions of a single drapery may be steamed and pleated simultaneously.

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