Aug. 2, 1955 G. A. McCUSKER 2,714,478

APPARATUS FOR PLEATING SKIRTS

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Fig. 1

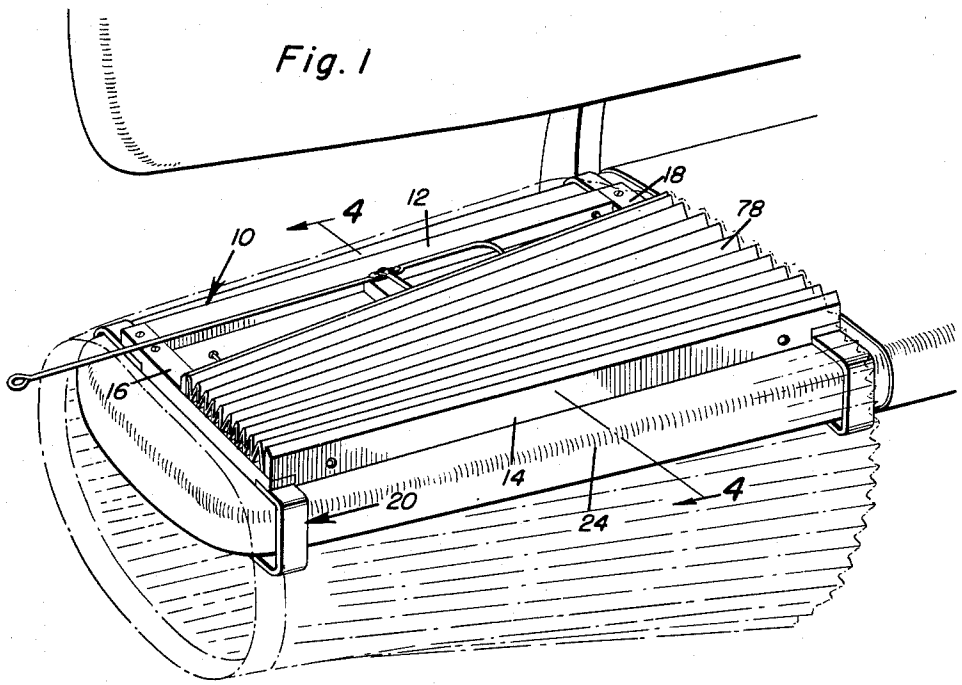


Fig. 2

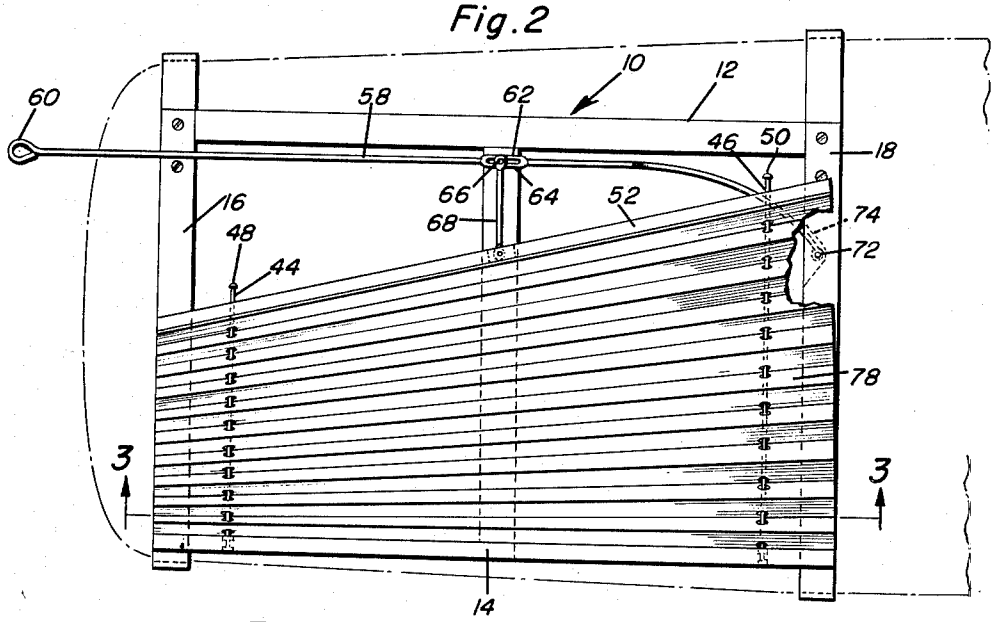
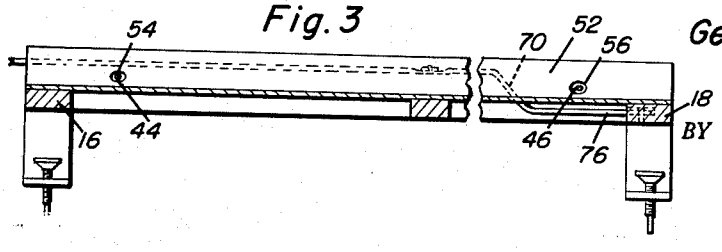


Fig. 3



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Fig. 4

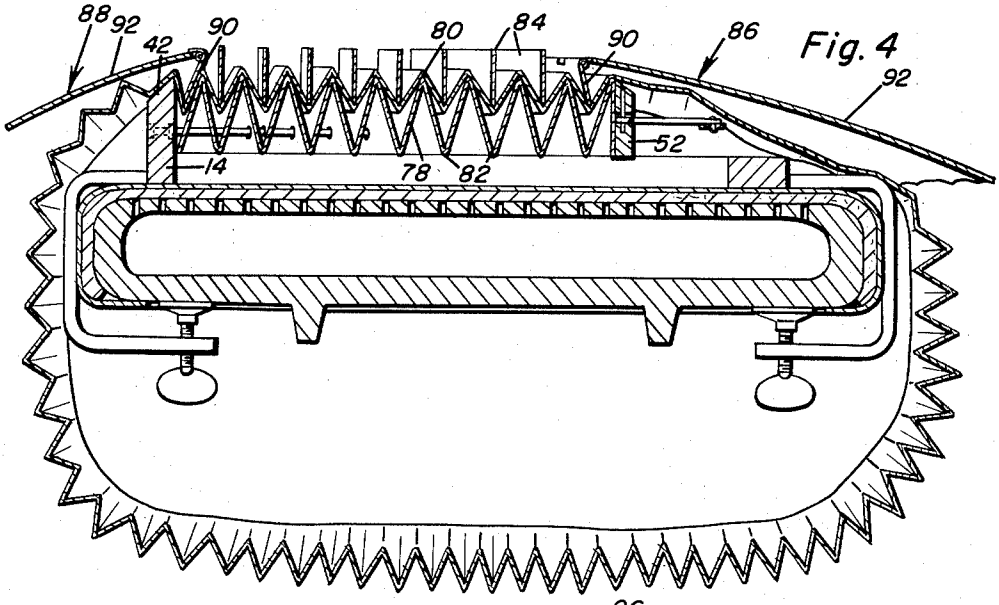


Fig. 5

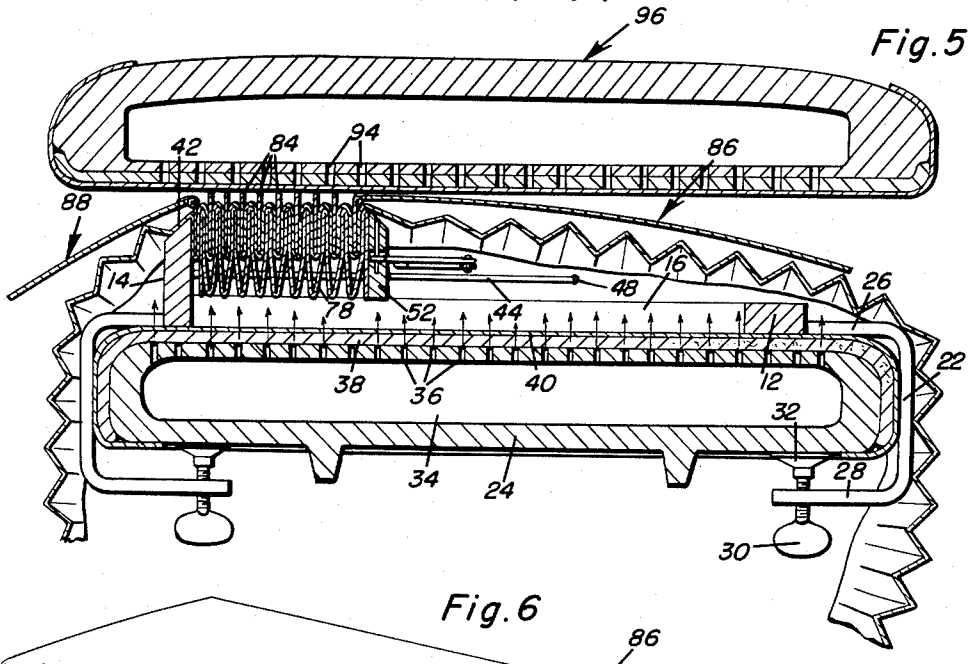
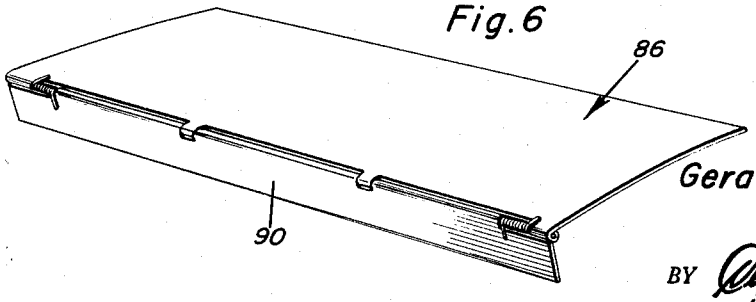


Fig. 6



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APPARATUS FOR PLEATING SKIRTS

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Application October 9, 1953, Serial No. 385,241

3 Claims. (Cl. 223—33)

This invention relates generally to a pressing device, and pertains more particularly to improved apparatus for pleating skirts.

The primary object of this invention is to materially expedite the process of pleating skirts and render the same subject to semi-automatic operation.

Another object of this invention is to provide an improved machine for pleating skirts which obviate the laborious and time-consuming manual process now commonly in use.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a perspective view of the apparatus in position for use on a steam table, a skirt to be plated being shown in phantom lines;

Figure 2 is a plan view of the assembly shown in Figure 1;

Figure 3 is a longitudinal section taken substantially along the plane of section line 3—3 of Figure 2;

Figure 4 is a transverse sectional view taken substantially along the plane of section line 4—4 of Figure 1 showing details of the assembly on an enlarged scale;

Figure 5 is a view similar to Figure 4, but showing the device in pressing position; and

Figure 6 is a perspective view of one of the steam shields.

Referring now more particularly to Figure 1, reference numeral **10** indicates the framework of the apparatus generally, which incorporates a rear frame member **12** and a front frame member **14** which acts as a pressure bar, as will be presently apparent. These two members are interconnected by the end members **16** and **18**, respectively, the assemblage being secured together in any desired manner.

The framework **10** is generally rectangular in configuration and each of its corners is provided with a generally U-shaped bracket member indicated generally by the reference character **20**, the bight portions **22** of which are adapted to overlie opposite edges of a steam iron table, indicated by the reference character **24**, and with the leg portions **26** and **28**, respectively, disposed above and below the top and bottom edges thereof, respectively, the bottom leg **28** being provided with a thumb screw member **30** which has a swivel base member **32** thereon for gripping the undersurface of the steam table.

The steam table is of conventional construction and is provided with a hollow chamber **34** through which steam, under control of the operator, passes to be discharged through the vent openings **36** in the table top, and it will be noted that the table employs the usual resilient covering materials **38** and **40**.

From Figures 4 and 5, it will be noted that the pressure bar **14** extends vertically above the upper surfaces of the frame members **12**, **16** and **18**, and is provided with

a tapered outer surface, as indicated by the reference character **42**. A pair of guide bars **44** and **46** are rigidly secured at one end to the pressure bar **14** and extend transversely of the frame therefrom to terminate in the headed end portions **48** and **50**, respectively. As seen most clearly in Figure 3, a movable pressure bar member **52** has its opposite end portions resting upon the side frame members **16** and **18**, and is provided at intermediate portions with enlarged openings **54** and **56** through which the guide bars **44** and **46** extend for guidably receiving the movable pressure bar and constraining the movement thereof with respect to the frame. A handle member **58** extends longitudinally of the frame and projects from the forward end thereof and may be provided with a looped hand grip portion **60**, in the manner shown, with its intermediate portion **62** enlarged and provided with an elongated slot **64** pivotally receiving a pin **66** at one end of a connector link **68** whose opposite end is pivotally secured to the movable pressure bar **52**. The inner end portion of the handle member is deformed downwardly, as indicated by the reference character **70**, and its free end is pivotally connected by a suitable pin **72** to the frame member **18**, the inner side of this frame member being notched as indicated by the reference character **74** to receive this free end of the handle member such that the inner end portion **76** thereof is disposed below the lower surface of the movable pressure bar member **52**, in the manner shown most clearly in Figure 3.

In this manner, it will be manifest that movement of the lever member **58** will effect shifting of the movable pressure bar **52** towards the stationary pressure bar **14**. A sheet of flexible material **78** is corrugated to form the alternate peaks and valleys **80** and **82**, respectively, and its opposite sides are securely fastened to the movable and stationary pressure bar members, respectively.

It will be noted that the guide bar **44** is shorter than the guide bar **46** such that the normal position of the movable pressure bar **52** in its fully extended position will be angular with respect to the stationary pressure bar **14**. This, of course, conforms most nearly to the disposition of the material of a skirt, since the same will be normally relatively narrow at the waist and flare outwardly toward the bottom. In utilizing the apparatus, it will be manifest that the same is securely clamped to the table of a steam iron in the manner shown most clearly in Figure 1, and that the waist of the skirt is placed adjacent the outer end of the steam iron, in the manner shown. The skirt material is placed over the resilient material **78**, and porous presser strips **84** of substantially the same length as the material **78** are placed in the valleys **82** of the material **78** such as to position the skirt material therein. This, of course, is done in such a manner as to acquire the desired depth of the pleat. Steam shield members **86** and **88** have hinged side flaps **90** at one side thereof which are normally spring urged into generally right angular position with respect to the main body **92** of these shields and these flaps are disposed adjacent the pressure bar members **14** and **52**, respectively, and take the place of presser strips at these points, serving to offset the weight of that portion of the skirt not resting in the presser and preventing the same from disturbing or pulling out the skirt portion being pressed. The lever **58** is then manipulated to move the pressure bar **52** toward the pressure bar **14** in the manner shown in Figure 5 while the steam iron is simultaneously operated to force steam upwardly through the vent openings **36** and simultaneously downward through the vent openings **94** in the top portion **96** thereof such that the skirt material between the pressure bars is firmly pressed or pleated. This operation is repeated until the entire skirt is pleated throughout.

The steam shields will, of course, serve to retain the steam within the confines of the frame between the members **14** and **52** thereof, and will serve to prevent undue loss of steam from the iron during the pleating operation.

From the foregoing, the construction and operation of the device will be readily understood and further explanation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claims.

What is claimed as new is as follows:

1. In combination with a steam iron having a base portion provided with steam vent openings, an open, generally rectangular framework secured to said base portion and enclosing at least some of said vent openings, one element of said framework consisting of a fixed pressure bar, a movable pressure bar disposed in opposed relation to the fixed bar, means for urging the movable bar toward said fixed bar, a sheet of flexible porous material secured at opposite edges to said fixed and movable pressure bars respectively so as to be spaced above said base portion in covering relation to some of said vent openings, said material being corrugated to provide alternate peaks and valleys, and a plurality of forming strips disposed within said valleys to retain the material of a skirt therein for pleating the same when the said movable pressure bar is urged toward the fixed bar.

2. A device for pleating skirts comprising, a frame including a side member and a pair of opposite end members, a fixed pressure bar constituting a side of the frame opposite the said side member, said pressure bar extending vertically above said side and end frame members, a second pressure bar, said second bar having its opposite end portions resting on the opposite end members of the frame, a pair of spaced guide bars secured

to said fixed pressure bar and slidably received in the second guide bar, an operating lever carried by said frame and connected to said second bar for moving the same toward and away from the fixed pressure bar, a sheet of flexible material secured at opposite edges to said pressure bars, said material being corrugated to provide alternate peaks and valleys, and a plurality of forming strips disposed within said valleys to retain the material of a skirt therein for pleating the same when the said one pressure bar is moved towards the other.

3. A device for pleating skirts comprising, a frame including a side member and a pair of opposite end members, a fixed pressure bar constituting a side of the frame opposite the said side member, said pressure bar extending vertically above said side and end frame members, a second pressure bar, said second bar having its opposite end portions resting on the opposite end members of the frame, a pair of spaced guide bars secured to said fixed pressure bar and slidably received in the second guide bar, an operating lever carried by said frame and connected to said second bar for moving the same toward and away from the fixed pressure bar, a shield member disposed at opposite sides of the frame, each shield including a body portion projecting beyond its corresponding side of the frame and a hinged flap portion along one edge positioned adjacent the inner face of its corresponding pressure bar, a sheet of flexible material secured at opposite edges to said pressure bars, said material being corrugated to provide alternate peaks and valleys, and a plurality of forming strips disposed within said valleys to retain the material of a skirt therein for pleating the same when the said one pressure bar is moved towards the other.

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