March 13, 1934. E. J. LEHNEN ET AL 1,950,498

PORTABLE PRESSING DEVICE

Filed July 20, 1933 2 Sheets-Sheet 1

Fig. 1

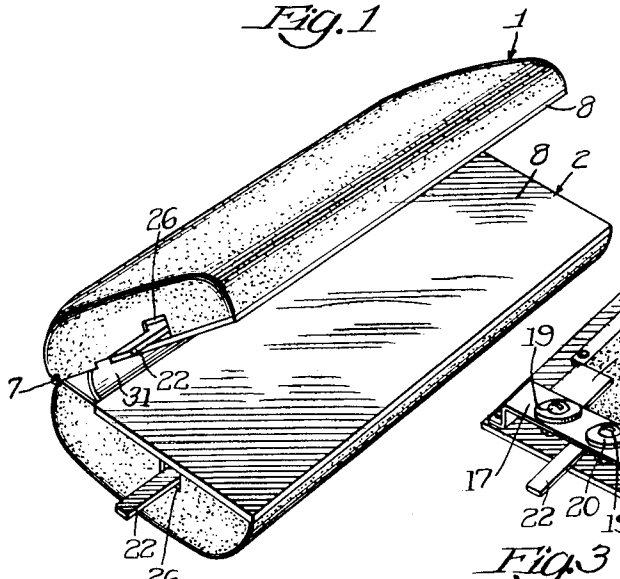


Fig. 2

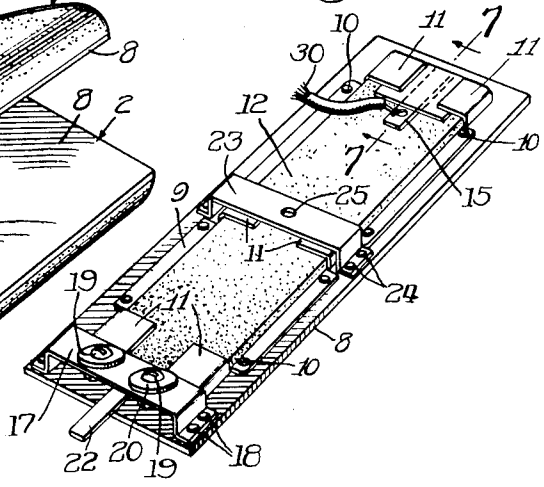


Fig. 3

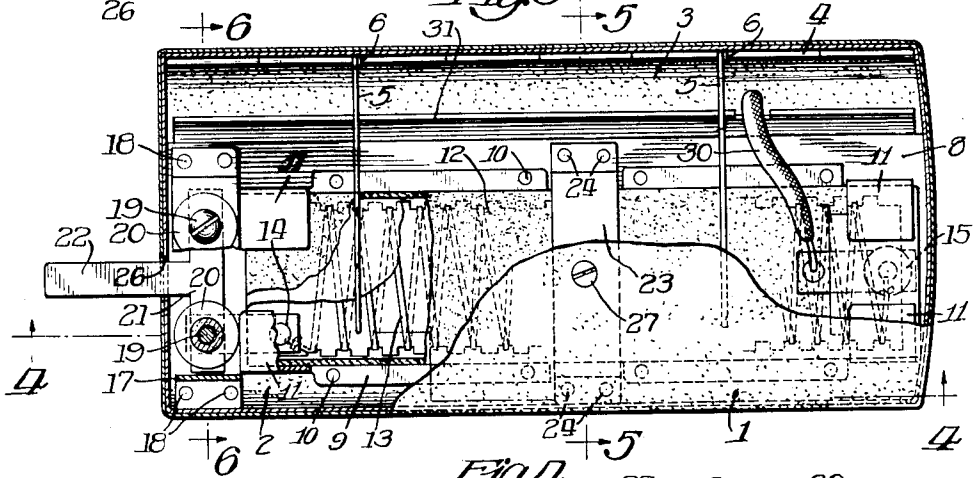
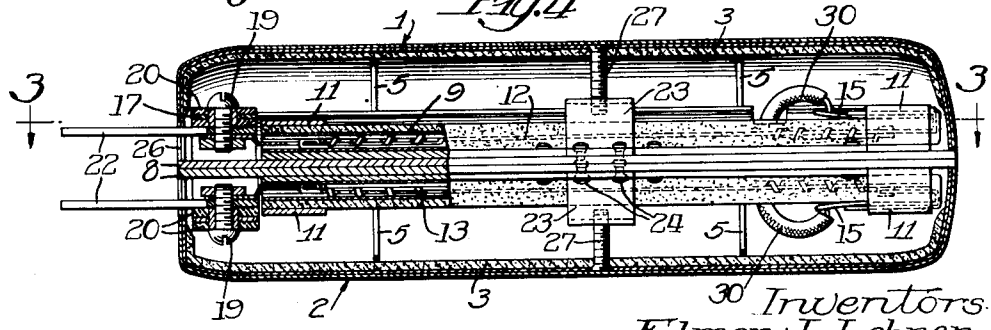


Fig. 4



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PORTABLE PRESSING DEVICE

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Fig. 6

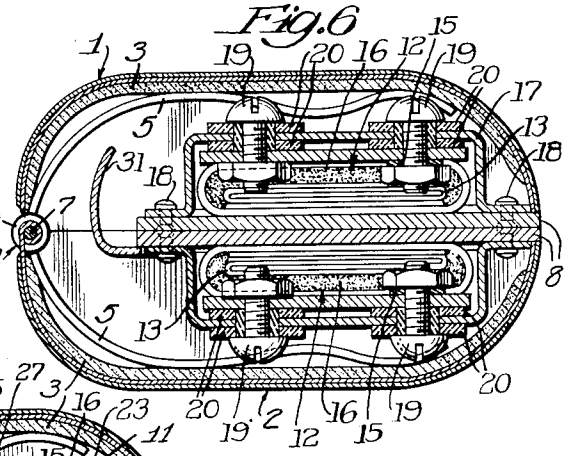


Fig. 5

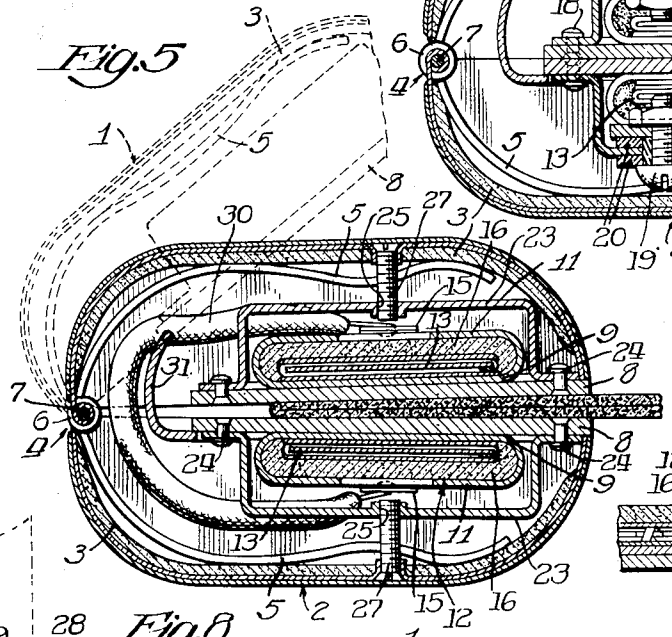


Fig. 7

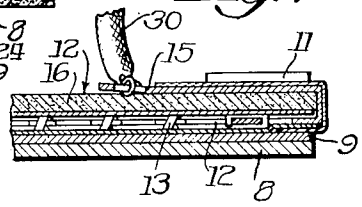


Fig. 8

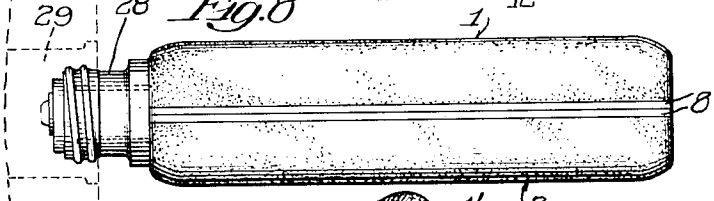


Fig. 9

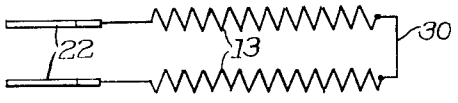


Fig. 10

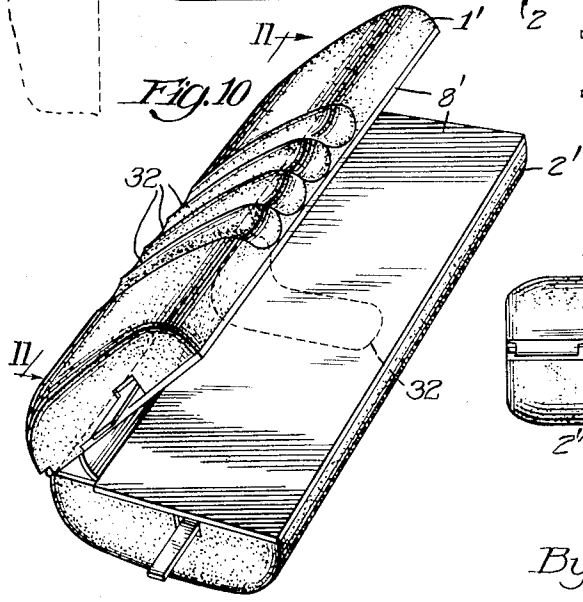
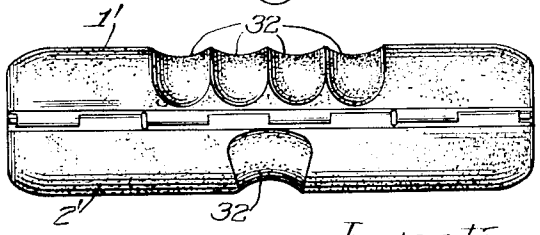


Fig. 11



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Patented Mar. 13, 1934 1,950,498

UNITED STATES PATENT OFFICE

1,950,498

PORTABLE PRESSING DEVICE

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Milwaukee, Wis.

Application July 20, 1933, Serial No. 681,235

4 Claims. (Cl. 68—9)

This invention relates to improvements in portable creasing and pressing devices having for an object to provide a device of the character mentioned which will be particularly advantageous for use in creasing and pressing portions of wearing apparel, such for example, as trousers and the cuffs thereof, coat sleeves, lapels and other elements capable of engagement by the device, the forming of pleats in women's wearing apparel, and in general, for usage in minor pressing operations wherein the character and nature of the materials to be pressed are such that they may be properly engaged by the device.

It is an equally important object of the invention to provide a portable creasing and pressing device, operable in such a manner that the same may be utilized to prime or improve the appearance of the wearing apparel of a person by forming or reforming creases therein and by pressing certain portions of the apparel according to conventional dictates, without the necessity of removing such apparel from the body of a person.

Yet another object of the invention is to provide a pressing device so constructed and designed that it may be conveniently packed and carried as an article of apparel apparatus.

Among other aims and objects of the invention there may be recited the provision of a device of the character stated embodying a simple, yet durable construction, capable of being manufactured and sold well within a minimum price range; a device whose operation eliminates the necessity of electrical extension conductors or cords and like inconvenient accessories, and a device which, when not in use, may be retained in such compact form that it can be conveniently packed or stored in a limited space.

Other objects of the invention will be in part obvious and in part pointed out hereinafter.

In order that the invention and its mode of operation may be readily understood by those skilled in the art to which it appertains, we have in the accompanying drawings and in the detailed description based thereupon, set out several embodiments of our invention.

In these drawings:

Figure 1 is a perspective view of the improved device;

Figure 2 is a perspective view of one of the electrical heating and pressing elements employed by the device;

Figure 3 is an enlarged longitudinal section through the device;

Figure 4 is a similar section taken at substantially right-angles to the section illustrated in the Figure 3, and along the line 4—4 thereof;

Figure 5 is a transverse section through the device taken on line 5—5 of Figure 3, looking in the direction in which the arrows point;

Figure 6 is a like section taken on the line 6—6 of Figure 3, looking in the direction in which the arrows point;

Figure 7 is an enlarged fragmentary detail in longitudinal section taken on the line 7—7 of Figure 2, looking in the direction in which the arrows point;

Figure 8 is a side elevation of the device showing it engaged with a suitable electrical connection or outlet whereby the electrical heating elements thereof will be energized;

Figure 9 is a schematic view showing the connecting of the electrical heating elements of the device in series;

Figure 10 is a perspective view of a slightly modified form of the device wherein the movable or hingedly connected casings are provided with finger and thumb engaging portions to facilitate handling thereof, and,

Figure 11 is a side elevation of a modified form of the device.

Having more particular reference to the drawings in connection with which like characters of reference will designate corresponding parts throughout, the invention may be stated to comprise a pair of complementally shaped and sized shell-like casings designated by the numerals 1 and 2, the outer surfaces of which are covered with a suitable finishing material, and if desired, ornamented in any suitable manner. The inner sides of the shell-like casings 1 and 2 are lined with asbestos sheeting or other suitable heat resistant material such as indicated by the numeral 3; said sections being hingedly interconnected adjacent certain of their marginal portions as at 4, and having the opposed fingers 5, of coil springs 6 bearing upon opposite portions of the inner sides of said casings; coil springs 6, of course, being secured in relatively fixed position with respect to the casings by engaging the same over the pintle 7 of the hinged connection 4.

Each of the shell-like casings 1 and 2 are provided with electrical heating elements and pressing and smoothing panels. The constructions of said elements and panels are identical, and therefore, in the description hereinafter following, reference will be made to but one of said heating elements and panels, it being

understood that such description will suffice for both thereof.

A rectangularly shaped piece of sheet metal of suitable gauge designated by the numeral 8 is provided. The size and shape of this metal piece or panel 8 is such that it will have resting or bearing engagement upon certain portions of the marginal portions of its particular shell-like casing, as is well shown in the Figures 1, 5 and 6. A sheet metal piece 9 is arranged adjacent one side of the panel 8 and is fixedly secured thereto by rivets 10 or other suitable means. Relatively opposed and inwardly extending clamping ears 11 are integrally formed with the opposite ends and intermediate portion of the piece 9. Directly engaging the sheet metal piece 9 and disposed longitudinally thereof is an electrical heating element consisting of a body of mica or other suitable insulating material 12, having a suitable character of electrical conductor or electrical resistance element 13 wrapped thereabout in substantially spiral fashion. One end of the resistance element 13 is electrically connected to a contact terminal 14, while the opposite end thereof is electrically connected to a contact terminal 15, which, as illustrated in the Figures 2 and 4 is bent inwardly upon itself and has the free end thereof longitudinally disposed with respect to the outer side of the resistance element in spaced relation thereto. Disposed entirely over the electrical heating element is a sheet of asbestos or other suitable heat insulating material 16. This heat insulating sheet 16 is securely connected to the inner side of the panel 8 and to the metal piece 9 by engaging portions thereof under the inwardly disposed clamping ears 11, which, as will be noted, are forced into binding engagement with adjacent portions of said sheet, and hence, serve to securely anchor it to the inner side of the panel 8, and likewise, shield the normally outer side of the electrical heating element, thereby causing the heat radiated therefrom, upon its energization, to be directly transmitted to the metal pressing or smoothing panel 8.

A substantially inverted U-shaped metal bracket 17 is fixedly connected, as at 18 to the inner side of one end of the panel 8, as is well shown in the Figure 2. Connecting or anchoring bolts 19 are passed through openings formed in the bracket 17, being insulated from said bracket by means of insulating pieces or washers, generally indicated by the numeral 20, and serving to fixedly connect the cross-head 21 of a rigid contact arm 22 thereto. One of the bolts 19 is engaged through and electrically connected to the outer end of the electrical contact terminal 14. It will be here noted that the contact arm 22 longitudinally extends for a distance beyond the panel 8, the purpose of which will be subsequently apparent.

In order that the panel 8 with its electrical heating element may be secured and fixedly mounted with respect to the particular shell-like casing 1 or 2 to receive the same, a second inverted substantially U-shaped metal bracket 23 is secured to the intermediate portion of the inner side of the panel 8, as at 24, straddling said electrical heating element and the asbestos sheathing 16, as is clearly shown in the Figures 2, 3 and 5. A screw-threaded opening 25 is formed in the intermediate portion of the bracket 23. To arrange or operatively mount the panel 8 and its electrical heating element with respect to the shell-like casing 1 or 2, the assembly thus described is engaged with the inner and open side of one of said shell-like casings; the electrical contact arm 22 thereof extending through a recessed portion 26 formed in an appropriate portion of the adjacent end wall of the receiving shell-like casing. At this time, an anchoring or securing screw 27 is introduced through an opening formed in the receiving shell-like casing 1 or 2, the screw-threaded shank thereof being turned into engagement with the opening 25 formed in the metal bracket 23. Obviously, by turning the screw 27 following its engagement with the screw-threaded opening 25 of the bracket 23, said bracket 23 and by consequence, the panel 8 with its electrical equipment will be drawn into seating or binding engagement with the adjacent marginal portions of the inner side of said shell-like casing, and thus, a positive and fixed mounting of the panel with respect to said shell-like casing will be effected; the electrical heating element of the panel 8, of course, being effectually housed within the receiving shell-like casing.

Each of the shell-like casings 1 and 2, as hereinbefore stated, are provided with panels 8 and corresponding electrical equipment. The longitudinally disposed and outwardly extending contact arms 22, it will be noted, are so arranged that with positioning of the casings 1 and 2 in juxtaposed relation, as is shown in the Figures 4 and 8, they will be paired in such a manner as to permit of their introduction into and electrical contact with the terminals of an ordinary electrical connection plug 28 adapted to be engaged in a suitable electrical outlet connection, such as indicated by the numeral 29. Of course, if desired, the usage of the electrical connecting plug 28 in connection with the device may be omitted, and the paired contact arms 22 may be slidably introduced into and electrically engaged with contact terminals of an electrical wall or floor outlet fitting of well known construction. When, however, the contact arms 22 are engaged with the plug 28, it will be understood that the hingedly connected casings 1 and 2 of the device will be held in their closed or juxtaposed position, hence, facilitating packing or placing of the device in a suitable receiving space.

In order that the electrical heating elements 13 connected to the several panels 8 carried by the casings 1 and 2 may be electrically connected in series, we provide a short electrical conductor 30, extending said conductor from one casing to the other, adjacent the hinged connection 4 thereof, and electrically connecting it, at its opposite ends, to the electrical contact terminal 15 of each of the heating elements.

If desired, the hinged connection 4 and the straddling electrical conductor 30 may be concealed from view, when the casings 1 and 2 are in their normal open positions, as is shown in the Figure 1, by providing an outwardly extending flange 31 upon the rearward marginal portion of one of the panels 8, as is shown in the Figures 5 and 6. The flange 31 extends from the rearward portion of one of the casings outwardly into the adjacent portion of the opposite casing and rearwardly of the panel 8 of the latter. Thus, when the casings 1 and 2 are in relative normal positions, as shown in the Figure 1, said flange 31 will serve as a means for shielding the hinged connection 4 and the

straddling electrical conductor 30 from view; likewise, will give a neater finished appearance to the device.

In usage of our improved pressing device, and assuming that it is desired to heat the pressing or smoothing panels 8 thereof, the hinged casings 1 and 2 are swung to their closed or juxtaposed positions whereupon the contact arms 22 are engaged in and electrically connected with an electrical plug fitting such as indicated by the numeral 28. The plug fitting 28, in turn, may be engaged in a suitable type of electrical socket or electrical outlet fixture. When so connected, an electrical circuit will be established through the electrical heating elements 13, energizing the same and causing the heat produced thereby to be directly transmitted to the pressing or smoothing panels 8. When the panels 8 have been heated to the desired temperature, the device is disengaged from the plug 28. At such time, the casings 1 and 2 will be moved to their open positions, as indicated in the Figure 1, under influence of the coil springs 6 and their fingers 5 having bearing engagement upon the inner sides of the opposed casings 1 and 2. At such time, a portion of the apparel to be pressed by the device is introduced between the heated panels 8 of the casings 1 and 2, whereupon the device, which is engaged in the hand of a user, has pressure applied thereto from the user's hand in such a manner as to cause the hingedly connected casings 1 and 2, with their respective panels 8 to be brought into pressing engagement with said introduced portion of the apparel.

The pressing panels 8, under a predetermined pressure applied thereto from the user's hand will serve to effectually crease and press said engaged portion of the apparel, after which, the pressure exerted upon the casings 1 and 2 from the user's hand is released, allowing said casings 1 and 2 to be immediately returned to their normally open positions under urge of the coil springs 6. At such time a fresh or new portion of the apparel in process of being pressed or creased by the device is engaged thereby and the pressing operation just described is repeated. This mode of usage is continued until the apparel has been satisfactorily creased or pressed.

The temperature of the panels 8 following a heating of the same by the electrical heating elements 13 is such that the device can be used over a considerable period of time for successfully pressing garments or fabrics.

It will be noted that the shield or flange 31, hereinbefore described, serves not only to conceal the hinged joint 4 and the conductor 30 from view, but also that it serves to limit the extent of introduction of fabrics or garments to be pressed into and between the panel-equipped hingedly connected casings 1 and 2, thus, insuring proper relative positioning of such fabrics or garments with respect to the heated pressing or smoothing panels 8.

Whereas we have described the usage of our improved device in connection with an electrical plug or fitting identified at 28, it will, of course, be understood that usage of the plug may be dispensed with entirely; the paired electrical contact arms 22 being directly introduced into engagement with the electrical contact terminals of an ordinary electrical floor or wall outlet fitting.

In the Figures 10 and 11, we have shown a slightly modified form of casing construction for our improved device. In this modification, the hingedly connected casings 1' and 2' have their outer side walls provided with transversely disposed corrugations or channels, generally indicated by the numeral 32, thus, facilitating the engagement of the fingers and thumb of a user's hand with the opposite sides of said casing, and by consequence, enabling the user to more positively grasp the device in applying the required pressure to the pressing or smoothing panels 8'. Obviously, the formation of the finger and thumb engaging portion 32 may be varied.

Manifestly, the construction shown is capable of considerable modification, and such modification as is within the scope of our claims, we consider within the spirit of our invention.

We claim:

1. A device of the character described, comprising a pair of juxtaposed casings hingedly interconnected adjacent certain of their marginal portions, heat transmitting and pressing means carried by the opposed portions of the casings, heating means contacting said pressing means, said casings being handleless and adapted to be collectively engaged in the hand of a user and moved toward each other under pressure applied by the hand thereto.

2. A device of the character described, comprising a pair of hingedly interconnected heat insulating casings, means engaging the casings for normally retaining them in relative spaced relation, heat transmitting and pressing means carried by the adjacent sides of the casings, heating means within the casings contacting said pressing means, said casings being handleless and adapted to be collectively engaged in the hand of a user whereby to be moved toward each other to engage said heat transmitting and pressing means with an article positioned therebetween under a variable pressure.

3. A device of the character described, comprising a pair of juxtaposed pressing members connected for movement toward and away from one another, means urging the members apart, and heating means in heat transmitting relationship to said members, said members being handleless and adapted to be collectively engaged in the hand of a user and moved toward each other under pressure applied by the hand thereto.

4. A device of the character described, comprising a pair of juxtaposed heat insulating pressing members connected for movement toward and away from one another, means normally urging the members apart, electrical heating means in heat transmitting relationship to said members, said members being handleless and adapted to be collectively engaged in the hand of a user and moved toward each other under pressure applied by the hand thereto, and pronglike electrical contact means connected to said electrical heating means carried by and extending from corresponding portions of the pressing members, adapted to be collectively engaged with an electrical outlet and at such times, to retain said members in relatively closed position.

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