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3,304,635

PRESSING APPARATUS

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Fig. 1

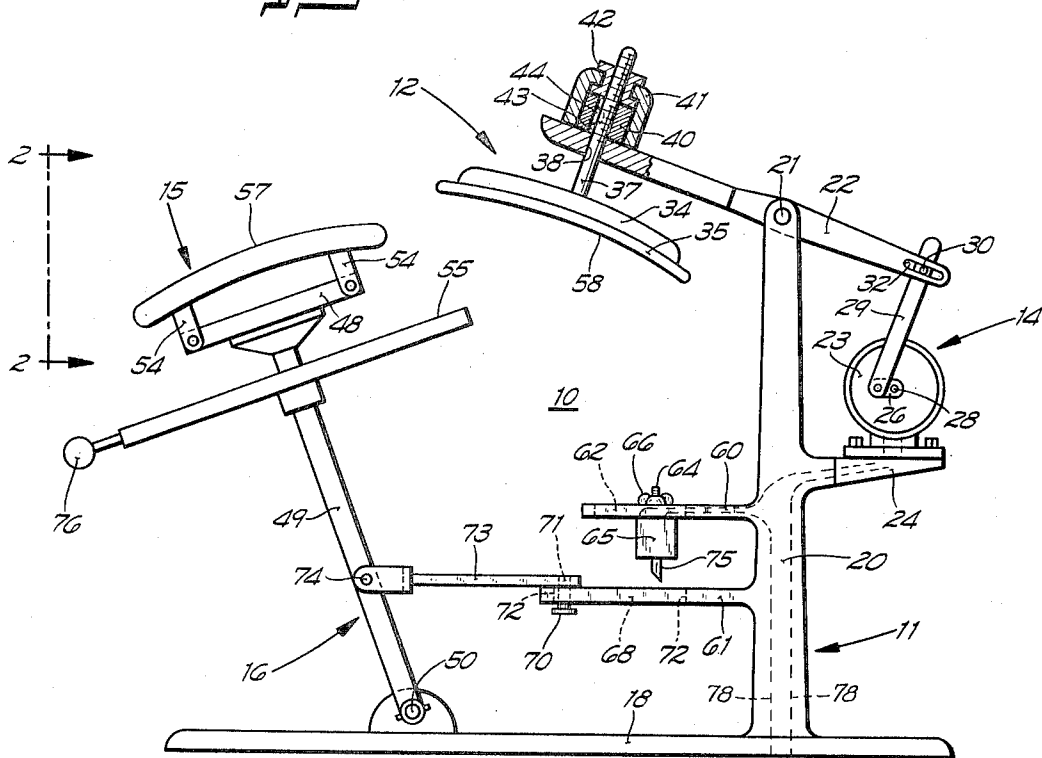


Fig. 2

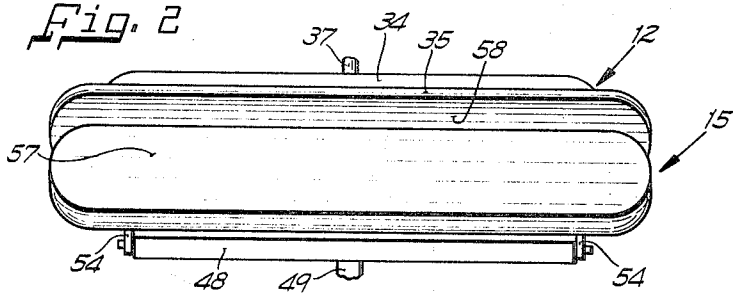


Fig. 3

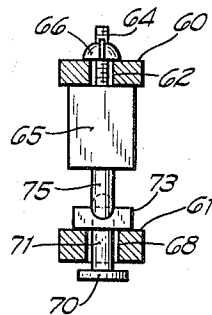
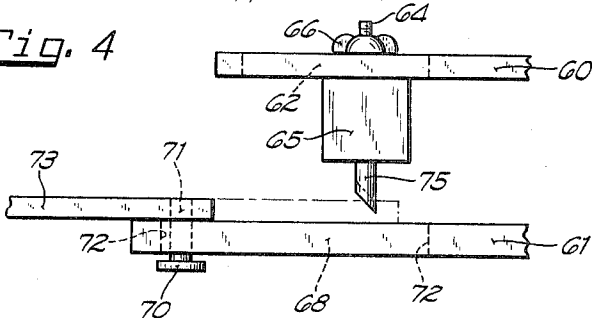


Fig. 4



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PRESSING APPARATUS

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5 Claims. (Cl. 38—25)

This invention relates to apparatus for pressing laundry, dry cleaning and the like, and, more particularly, for pressing wearing apparel.

One type of prior art pressing apparatus consists of a relatively stationary buck and a head member of substantially the same size and which is pivotally mounted for movement into and out of engagement with the pad's upper surface. After the garment has been arranged on the buck of such prior art presses, it is necessary as a safety precaution, for the operator to press two spaced apart buttons, one for each hand, in order to actuate the head member which then pivots onto the garment. It is also necessary for both buttons to be pressed a second time to initiate return movement of the ironing member to its open position.

It is an object of the invention to provide a new and improved pressing device.

Another object of the invention is to provide a pressing device which is actuated automatically.

A still further object of the invention is to provide a pressing device which is not inherently dangerous to the operator.

These and other objects and advantages of the instant invention will become more apparent from the detailed description thereof taken with the accompanying drawings, in which:

FIG. 1 is a side elevational view illustrating the preferred embodiment of the instant invention;

FIG. 2 is a view taken along lines 2—2 of FIG. 1; and

FIGS. 3 and 4 are fragmentary views showing a portion of the pressing apparatus illustrated in FIG. 1.

In general terms, the invention comprises the combination of a head member and a buck member mounted for relative movement into and out of registry with said head member, and means for imparting rapid vibratory movement to the head member, characterized in that said buck member and said ironing member are of substantially equal size.

Referring now to the drawings in greater detail, FIG. 1 shows the pressing device 10 according to the instant invention to include a stand 11 for supporting a head assembly 12 and a vibratory assembly 14. In addition, a buck 15 of any suitable material well known in the art, such as a metal member covered by a suitable pad, is mounted on a buck support assembly 16 which, in turn, is pivotally mounted on stand 11.

More specifically, the stand 11 includes a base 18 and a vertical post 20 which pivotally supports a relatively long rod 22 at its upper end. The rod 22 is pivotally connected intermediate its ends to the post 20 by a suitable bearing 21 and is coupled at one end to the vibratory mechanism 14 and supports the head assembly 12 at its other end.

The vibratory assembly 14 includes a motor 23 mounted on a platform 24 suitably affixed to the post 20 below the rod 22 and extending generally horizontally away from the head assembly 12. A short arm 26 is affixed to the motor 23 output shaft 28 for rotation therewith. The other end of the arm 28 is pivotally connected to one end of a link 29, the other end of which is coupled by a pin 30 and a slot 32 to one end of the rod 22. It will be appreciated by those skilled in the art that while one particular type of vibratory mechanism 14 has been illustrated and described, this is merely intended to be illustrative

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and any well-known type of mechanism for producing this result may also be employed.

The head assembly 12 includes a head 34 having a sole plate 35 which is heated in any suitable manner well-known in the art, such as, electrically or by steam. The head 34 is carried at the lower end of a rod 37 which extends upwardly through an opening 38 formed adjacent the other end of lever 22 and through a sleeve 40 disposed in a head 41 suitably affixed to the lever 22. The upper end of rod 37 is externally threaded for engagement with the internal threads of a nut 42 rotatably mounted adjacent the upper end of the head 41. It will be appreciated that rotation of the nut 42 will vary the pressing pressure between the head sole plate 35 and the buck 15. A key 44 affixed to the shaft 40 and which engages a keyway 45 formed in the shaft 37 prevents rotation of the head 34 when the nut 42 is rotated.

It will also be appreciated by those skilled in the art, that while only one means for adjusting the head pressure has been illustrated and described, any device capable of producing this result may also be employed.

The buck support assembly 16 includes a table 48 mounted atop an upwardly extending arm 49 which is pivoted at its lower end to the base 18 by a pin 50. A pair of downwardly extending bracket members 54 are affixed to each side of the buck 15 and each is suitably affixed to one corner of the table 48. It can, therefore, be seen with respect to FIG. 1 that the buck 15 and the arm 49 can be pivoted around the pin 50 into and out of alignment below the iron 34. A board 55 may also be provided below the pad 15 to support surplus portions of the garment during a pressing operation.

As seen in FIGS. 1 and 2, the upper surface area 57 of the pad 15 and the lower surface area 58 of the head 34 are substantially equal. Also, in order to insure that the pressure between the head 34 and the buck 15 will be uniform regardless of the position of the arm 49, the upper surface 57 of the buck 15 is transversely arcuate with its center of curvature coincident with the pin 50. In a similar manner, the lower surface 58 of the sole plate 35 also has a transverse curvature complementary to that of the surface 57.

A pair of parallel, vertically spaced track members 60 and 61 extend horizontally away from the post 21 and toward the arm 49. The upper track member 60 has a longitudinal slot 62 formed therethrough for receiving a screw 64 extending upwardly from a switch 65. A wing nut 66 fixes the switch 65 in the desired position on the track member 60.

The lower track member 61 also has a longitudinal slot 63 formed therethrough which receives the head part 70 of the pin 71 which extends downwardly from one end of a link 73, the other end of which is pivotally connected to the arm 49 by a pin 74.

While the switch 65 may be of any well-known type, in the illustrated embodiment it is of the plunger operated type and has an operating button 75 extending downwardly therefrom. When the switch button 75 is in its position shown by full lines in FIG. 4, the switch 65 is open. Those skilled in the art will appreciate that the switch 65 is connected into the motor energizing circuit represented by the conductors 78 disposed within the stand 11 and connected to a suitable source of electrical energy (not shown).

When it is desired to perform a pressing operation, the garment is arranged on the buck 15 and the operator then grasps a handle 76 affixed to the board 55 and the table 48 is then pivoted on the arm 49 in a clockwise direction as viewed in FIG. 1. When the end of the link 73 moves below the switch 65, it engages the bevelled lower surface of the button 75 forcing the button upward to its phantom position shown in FIG. 4, whereupon the switch 65 is closed to energize the motor 23.

It will be appreciated that when the motor 23 is energized, the short arm 26 will rotate to cause eccentric movement of the lower link 29 so that the lever 22 is made to oscillate rapidly thereby imparting vibratory motion to the head 34. These vibrations move the surface 58 of head 34 into and out of pressing contact with the surface 57 of buck 15 at a rate suitable for performing the pressing operation.

After the garment has been pressed to the extent desired, the operator pivots the buck 15 in a counterclockwise direction as viewed in FIG. 1 to withdraw the buck from beneath the ironer 34. As the link 73 moves toward the left as viewed in FIG. 1 its end moves from beneath the button 75 whereupon the button is spring actuated to return to its open position shown by full lines in FIG. 1 to de-energize the motor 23.

The ends 72 of the slot 68 in track member 61 act as stops for the pin 71 to limit pivotal movement of the buck 15.

It will be appreciated that the motor 23 is automatically actuated and deactuated as the buck 15 is moved beneath the head 34 and removed therefrom. For this reason, it is not required that the operator press a plurality of buttons after the garment has been arranged on the buck 15 as required by prior art devices. In addition, because the head 34 vibrates on the buck 15 and is not held thereagainst by high pressure engagement as in prior art devices, it is not required that the operator use both hands to actuate the device as in prior art apparatus.

While only a single embodiment of the instant invention has been shown and described, it is not intended to be limited thereby but only by the scope of the appended claims.

I claim:

1. In a pressing device, the combination of, a generally elongate buck having a relatively large upper pressing area, a generally elongate head disposed generally above said buck and having a relatively large lower pressing area generally coextensive with the pressing area of said buck, a support base, first means for supporting said buck on said support base for generally transverse movement into and out of registry with said head, second means for supporting said head above said buck, cyclic drive means coupled to said second means and operative to move said head in rapid oscillatory motion for cyclically moving said head into and out of pressing contact with said buck, and third means to initiate the operation of said drive

means when said buck is moved into registry with said head and to terminate the operation thereof when said buck is moved out of registry with said head.

2. The pressing device set forth in claim 1 wherein said drive means is electro-responsive, and said third means comprises switch means is mounted on one of said base means and said support means and switch actuating means is mounted on the other of said base means and said support means, said switch actuating means being operative to engage said switch means as said buck moves into alignment below said head to close said switch means and initiate the operation of said drive means, said switch means being opened to terminate the operation of said drive means upon movement of said buck out of alignment below said head.

3. The pressing device set forth in claim 2 wherein said first means comprises an elongate member pivotally mounted at its lower end on said base means for movement transversely of said head and wherein said buck is mounted on the upper end thereof, and wherein stop means are provided for limiting the degree of pivotal movement of said elongate member.

4. The pressing device set forth in claim 3 wherein said electro-responsive means includes electric motor means supported on said base and eccentric means coupling said electric motor means to said second support means.

5. The pressing device set forth in claim 4 wherein the upper surface of said buck is transversely arcuate about a center of curvature coincident with said pivotal axis and wherein said head has a lower arcuate surface complementary to the upper surface of said buck.

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