June 8, 1943. J. W. STEELE 2,321,261

ACCESSORIES FOR IRONING APPARATUS

Filed Dec. 22, 1941

Fig. 1.

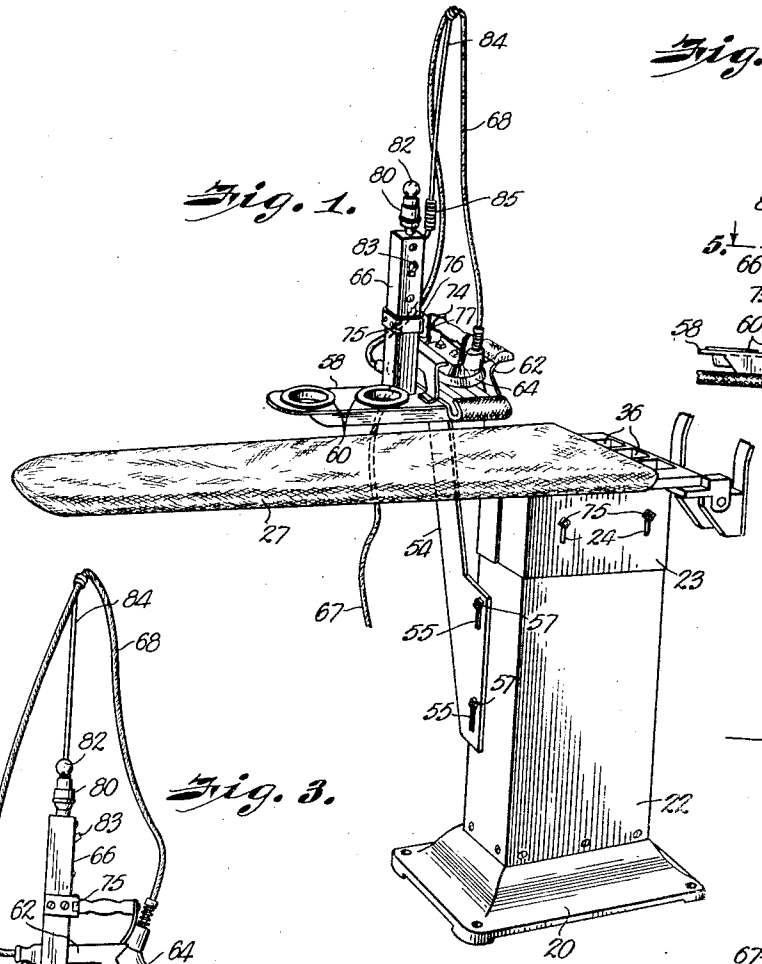


Fig. 4.

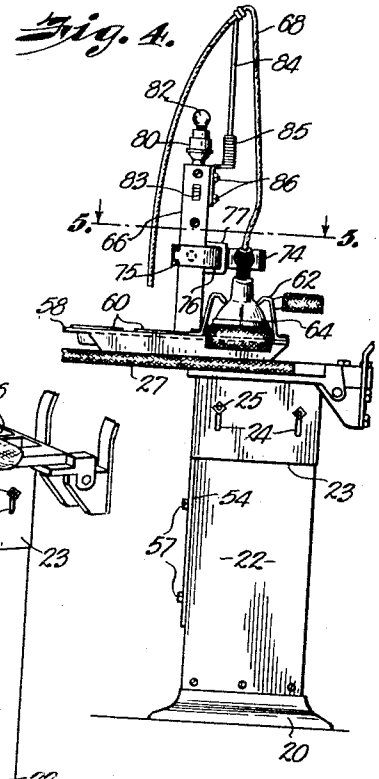


Fig. 3.

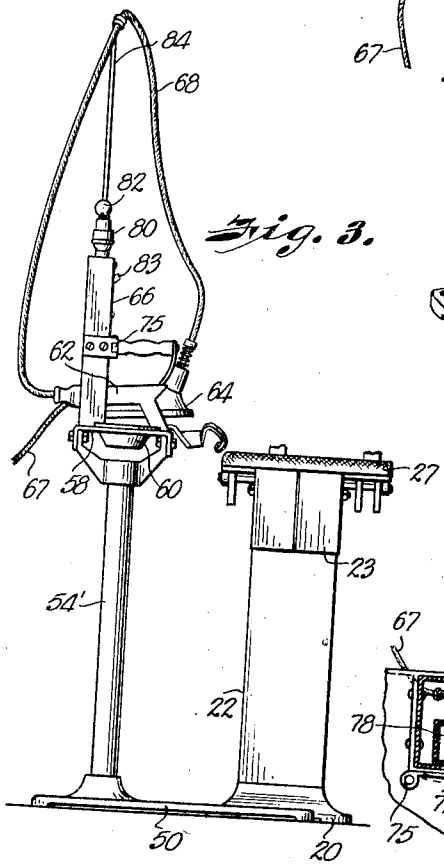


Fig. 2.

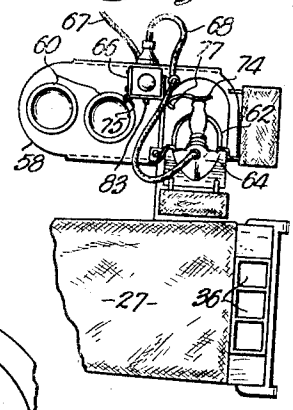
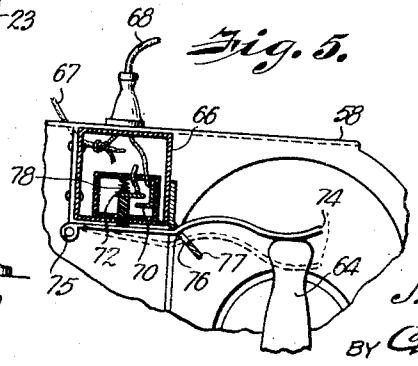


Fig. 5.



INVENTOR.
J. W. Steele,
BY Chas. W. Gerard
ATTORNEY.

Patented June 8, 1943 2,321,261

UNITED STATES PATENT OFFICE

2,321,261

ACCESSORIES FOR IRONING APPARATUS

James W. Steele, North Kansas City, Mo.

Application December 22, 1941, Serial No. 423,923

1 Claim. (Cl. 38—107)

This invention consists in certain improvements in ironing equipment, particularly such apparatus as is employed in laundry operation.

An important object of the invention is to consolidate the parts comprising the ironing equipment used by a single operator into as limited space as possible in order to minimize the movements necessary to be made by the operator, and also to locate the iron and other accessories in such a way as to standardize the movements executed by the operator in the use of those devices.

For carrying out these primary purposes of the invention, I provided a main ironing board which is equipped with either an arm or separate standard for supporting the iron and other accessories in such relation as to be conveniently accessible to the operator, and also in entirely spaced relation to the main ironing board so as not to obstruct or limit the use of the ironing surface thereon in any way for ironing purposes, and thereby enable a main ironing board of shorter length than the conventional design to fulfill all the essential requirements of such portion of the equipment. Where an auxiliary supporting arm is provided for carrying the accessory equipment, this arm as well as the ironing board are both made adjustable with reference to the main supporting structure.

In adapting the equipment for use with an electric iron, the invention further provides electric heating connections having means for automatically shutting off the current from the iron so long as the latter is not in use, as well as means for independently cutting off the current through the supply connection and also indicating whether or not the supply connections are connected with the service outlet.

Other objects or purposes of the invention will appear in the course of the detailed specification.

With the foregoing objects in view, the invention will now be described by reference to the accompanying drawing illustrating apparatus found especially adapted for the embodiment of the proposed improvements, after which those features and combinations deemed to be novel and patentable will be particularly set forth and claimed.

In the drawing—

Figure 1 is a perspective view showing an ironing board construction embodying the present features of improvement;

Figure 2 is a plan view of the same on a slightly smaller scale;

Figure 3 is an end elevation of apparatus similar to that shown in Figure 1, but employing a separate supporting standard for carrying the accessory devices;

Figure 4 is a front elevation of the construction illustrated in Figure 2; and

Figure 5 is a horizontal sectional view representing a section taken on a line 5—5 of Figure 4.

This is a continuation-in-part of my application Ser. No. 244,972 filed December 10, 1938.

Floor space in the ironing and finishing departments of all up-to-date laundry establishments is always at a premium, due not only to the necessity of providing room for all the accessory equipment for each ironing station, but also on account of the space taken up by the appliances used for carrying and transporting the garments as these are being handled or treated in their course through the ironing and finishing department. While it is desirable to save floor space, from the standpoint of that consideration alone, it is obviously much more important to design the ironing equipment in such a way as not only to save floor space but also to reduce as much as possible the necessity on the part of the operator for moving from one point to another about the apparatus, for unnecessary movements of the sort waste both time and labor, not to mention the expense of maintaining unduly large pieces of equipment.

Where apparatus of this character is equipped with electrically heated irons, some disadvantages have arisen due to overheating of the iron and other faults, according to the type of iron used. In the case of irons having a heat control switch, this requires constant attention on the part of the operator, who may neglect to manipulate the switch properly or even forget it altogether, thus overheating the iron or underheating the iron. One particular disadvantage of underheating the iron, for example, is that it slows down the work compared to working with a properly heated iron, for it is the hot iron which speeds up the operation by requiring rapid ironing strokes on the part of the operator.

A type of electric iron, called the cordless iron, requires the operator to place it back upon a stand for reheating, and while it has some advantages it is still subject to the objection that regardless of the fact that the iron is hot to begin with, it nevertheless is gradually cooling off during the time it is in use.

One important purpose of the present improvement therefore is to provide for maximum efficiency of the ironing device throughout its ac-

tual operation, doing this by reversing the principleof the so-called cordless iron, i. e., by maintaining the electric heating current in circuit through the iron during all the time it is in use, and automatically cutting off the heating current when the iron is not in use by causing said circuit to be broken automatically and simultaneously with the setting of the iron on its stand, in inoperative position. The loss of heat by the iron in this position, on its stand, is less rapid and of course much less serious than during the ironing operation, and as soon as the iron is lifted off the stand the heating current is restored to the iron and maintained throughout the period of operation until the iron is again placed on its stand.

Referring now to the drawing in detail, the improved construction is illustrated as comprising a pedestal structure consisting of a base portion **20** carrying an upright member **22** upon which is adjustably mounted a top portion **23** having slots **24** for adjustably securing said top portion to the upright member **22** by means of clamping screws **25**. This top pedestal portion carries the main ironing board member **27**.

The top pedestal member **23** is provided with a plurality of tray receptacles **36** extending across the corresponding end of the main ironing board **27**, for spools, pins, or other supplies.

To the rear side of the pedestal is secured an accessory supporting arm **54** extending in upward rearwardly inclined position and having slots **55** for accommodating securing bolts **27** whereby the upper end portion of the arm **54** may be secured at varying levels as well as in spaced relation to the rear side of the main ironing board **27**, thus leaving the latter free and unobstructed for the ironing operation throughout its full length, as clearly illustrated in Figures 1–3. The upper end of the arm **54** is provided with a horizontal shelf **58** accommodating a series of removable trays **60** for accessory purposes (such as water, brushes, moistening devices, etc.); it also provides a support for an iron holder such as a stand **62** for an electric iron **64** of the character shown in my Patent No. 2,227,916, dated Jan. 7, 1941, and adapted to support the iron in a somewhat tilted position, as illustrated in Figure 3.

Associated with the arm **54** and platform **58** is an upright member **66** provided with a safety switch device for the electric iron **64**, as particularly shown in Figure 5. An electric cord **67** is connected with the source of electric current supply and also with the ironing cord **68**, and both cord **67** and **68** are connected with switch or cut-out contacts comprising a fixed contact **70** and a movable contact **72** carried by a movable arm **74** pivoted at **75** and projecting through an opening **76** in a keeper **77** into position for engagement by the iron when the latter is thrust into the stand **62**. The arm **74** is normally actuated by a spring **78** in a direction to engage the contacts **70** and **72** and thus close the heating circuit through the iron as long as the same is in use in the ironing operation, but is actuated in the opposite direction (by pushing action of the iron) to interrupt or cut off the heating current whenever the iron is thrust into the stand **62** (i. e., is not in use for ironing), as represented in Figure 5. As a further safety measure the upright member **66** carries a socket **80** for a signal light bulb **82** together with connections including the said light in the circuit with the iron cord **68**, as controlled by the manual switch **83** and in advance of said cord **68**, so that the operator not only is provided with a positive control for the circuit to the iron by means of said switch **83** but may always observe whether the current has or has not been turned on through said switch, ready for use by the iron. The cord **68** for the iron is shown as attached to the upper end of a rod or wire **84** having a helical coil **85** intermediate its ends, the lower end of said member **84** being attached by screws **86** to the upper portion of the upright **66** (see Figure 4). This construction provides a flexible supporting means for the iron cord and is adapted to permit all operative movements as well as to maintain the cord in an entirely out-of-the-way position, when the iron is not in use, as represented in Figures 1–4.

The advantages of an ironing apparatus having the foregoing construction may be set forth as follows. The provision of the adjustable pedestal structure obviously enables the operating level of the ironing board surfaces to be conveniently varied to suit the particular preference of the operator, and the level of the accessories carried by the arm **54** may likewise be adjusted by manipulation of the adjusting screws **57**, as will be readily understood. The accessories, including the electric iron, which are carried on the supporting arm **54**, are thus all maintained at a convenient point and level at one end of the main ironing board **27**; and since all the accessories carried by the platform **58** on said arm **54** are spaced sufficiently away from the board **27** so as to leave the sides of the board entirely unobstructed throughout its length, the length of the main board may be kept at a minimum, i.e ., is not required to be any longer than the principal dimension of the garment being ironed.

By thus limiting and reducing the area or space within which the necessary ironing operations may be performed, so that the main board **27** may be likewise of minimum length for the purpose, it is apparent that the foot movements of the operator are likewise kept down to a practical minimum, and very much below that required for the standard ironing board or apparatus used in laundry operations.

A modification of the accessory supporting structure is illustrated in Figure 3, in which modified form the supporting arm **54** is replaced by a movable standard **54'** having a base member **50** adapted to rest upon the floor. With such a separate and movable type of support it is apparent that the accessories can readily be shifted to any desired position alongside the ironing board **27**, and thereby achieve this desirable purpose and advantage of the present improvements.

The provision for supporting the iron and its connections in the most efficient working relation to the board as well as for regulating the heating of the iron to conform exactly with the working requirements, is also deemed to constitute a very valuable and useful improvement in this type of apparatus. The iron is accommodated in its most advantageous and convenient relation for the operator and the heating cord maintained continuously in an out-of-the-way position; and moreover, the iron heating current is in circuit with the iron all the time during the periods that the iron is in operation, i. e., off the stand, for as soon as the iron is returned to the stand the current is automatically shut off by the automatic switching device above de-

scribed. In consequence of the sloping character of the support afforded by the iron supporting stand, the iron is prevented from becoming casually displaced from supported position, and hence maintains a firm and substantially uniform pressure against the arm **74** for insuring that the circuit will remain interrupted or broken as long as the iron is on the stand. In addition the provision of a signal light **82**, which always glows as long as the current remains available for the iron cord connection by way of the switch **83**, provides a safeguard against the operator inadvertently shutting down the apparatus without either throwing said switch **83** or disconnecting the supply cord **67** from the current supply outlet.

It will therefore be seen that I have devised a very practical and efficient construction for carrying out the aforesaid objects of my invention, and while I have illustrated and described what appears to represent preferred forms of embodiment of the improved features I desire to be understood as reserving the right to make such changes or modifications as may fairly be deemed to fall within the spirit and scope of my invention as defined by the following claim.

What I claim and desire to secure by Letters Patent is:

In apparatus of the character described, an ironing board, an iron support located separate from the ironing board, an electric iron having a cord for conducting an electric heating current to the iron, electric swich operating means associated with said support and tending normally to close said heating current through the iron, said switch operating means comprising an arm mounted on a vertical axis for horizontal swinging movement above the support and across the path of movement of the iron horizontally onto said support and actuated by the iron in its horizontal movement for shutting said heating current off from the iron as long as the latter is carried on said support, said iron support having sloping supporting means carrying said iron in tilted position for pushing against said arm while the iron is in supported position to maintain constancy of the current controlling action.

JAMES W. STEELE.