Nov. 5, 1957 A. C. DE ANGELIS 2,811,794

TRAVEL IRON

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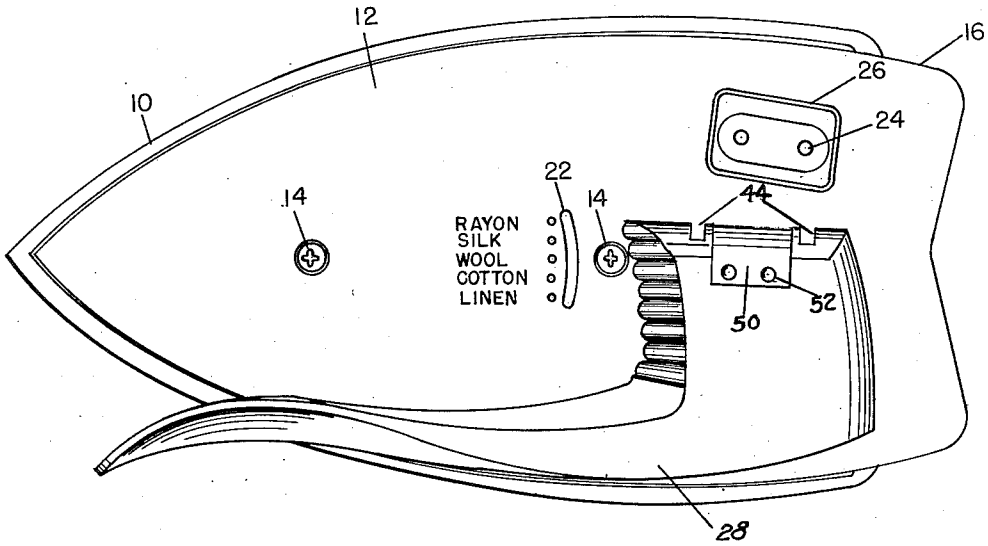


Fig. 1.

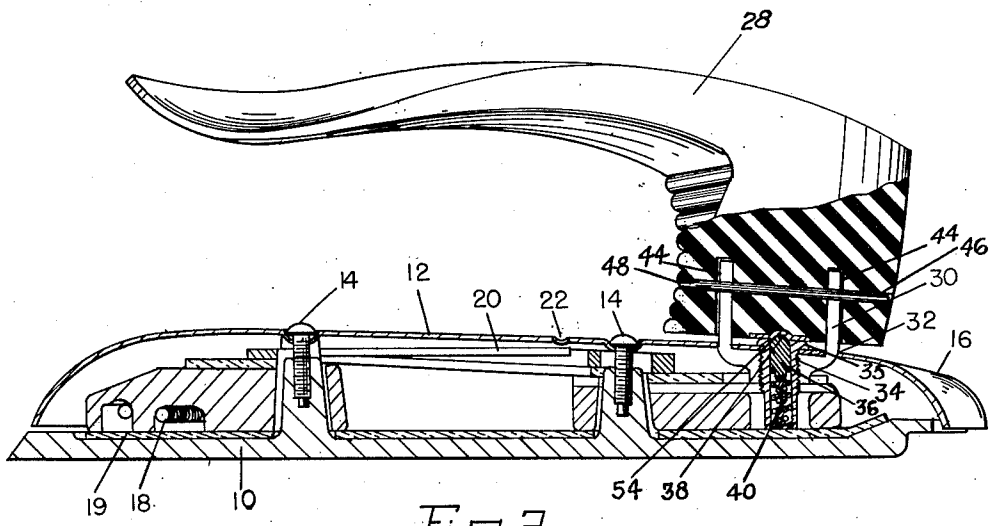


Fig. 2.

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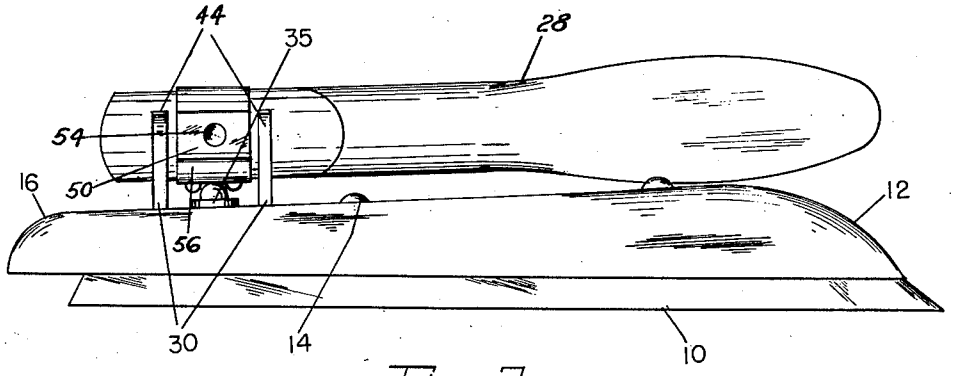


Fig. 3.

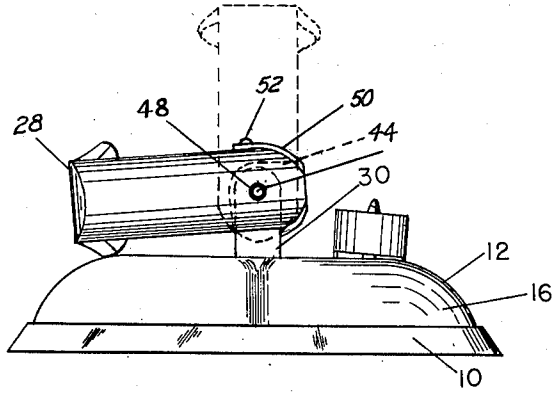


Fig. 4.

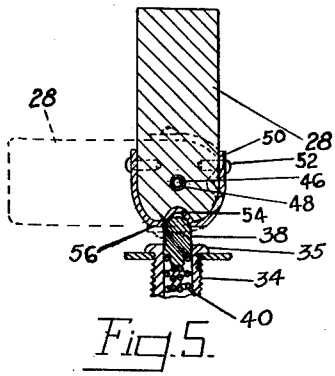


Fig. 5.

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United States Patent Office 2,811,794 Patented Nov. 5, 1957

2,811,794

TRAVEL IRON

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Application January 10, 1955, Serial No. 480,849

4 Claims. (Cl. 38—90)

This invention relates to improvements in sadirons, such as electric irons, and is concerned more particularly with folding handles for such irons popularly known as travel irons.

It is an object of the present invention to provide a sadiron having a pivotally mounted handle which may be compactly folded when the iron is not in use for convenient storage or transportation and which may be readily and securely locked in upright position when the iron is in use.

Another object is to provide an improved pivotal mounting means for an iron handle including locking means for securely and rigidly maintaining the handle in upright operative position without any tendency to wobble so that complete control over the iron is effected at all times.

It is also an object of the invention to provide an iron handle locking construction wherein the handle may be moved from its upright locked position or its folded lateral position merely by side pressure upon the handle without the necessity of manually manipulating any latches, clamps or other unlocking means.

A further object is to provide spring actuated means so associated with a folding iron handle as to tend to rotate the handle into upright operative position or to tend to retain the handle in folded inoperative position.

Still other objects of the invention are to provide a folding handle iron which is extremely simple in construction, economical in cost of manufacture and durable and efficient in use. In conjunction with these advantages the travel iron of my invention possesses the further advantages of pleasing and attractive appearance and a minimum of exposed operating parts.

Other objects and advantages of the invention will be apparent from the following detailed explanation taken in conjunction with the accompanying drawings wherein a preferred embodiment of the principles of the invention has been selected for exemplification.

In the drawings:

Fig. 1 is a plan view of an electric sadiron constructed in accordance with the present invention;

Fig. 2 is a side elevational view partly in longitudinal section of the device shown in Fig. 1;

Fig. 3 is a side elevational view showing the handle in folded or storage position;

Fig. 4 is a rear end view showing the handle in folded position in solid lines and upright position in broken lines; and

Fig. 5 is a detail fragmentary vertical sectional view taken substantially centrally of the handle pivotal connection and showing the handle in upright position in solid lines and in folded inoperative position in broken lines.

Referring more particularly to the drawings wherein like numerals refer to like parts, the iron, as shown, may comprise a sole plate **10**, a cover plate **12** which may be secured to the sole plate by the screws **14** and which may, if desired, be provided with a tail plate or the like **16**. The numerals **18** and **19** represent any suitable electrical heating element and holder and pad assembly and there may be provided a temperature indicator assembly **20** including a pointer of which is visible through a slot **22** in the cover plate **12** preferably having temperature gradation markings in the form of names of types of materials likely to be operated upon by the iron. If desired, the iron may be provided with any suitable thermostatic control means. A terminal bridge assembly having terminal pins **24** is secured to the cover plate **12** by any suitable means and for protecting the terminal pins a surrounding guard **26** is preferably provided.

The various elements thus far described are more or less of conventional character and form no particular part of the present invention.

Coming now to the features of novelty with which the present invention is particularly concerned, a handle **28** of any suitable configuration is provided with a cooperating pivotal mounting and locking means as will now be described.

For supporting the handle **28**, a handle bracket may be provided in the form of a pair of parallel upright apertured ears **30** projecting upwardly through the cover plate **12** and an integral connecting base member **32** centrally threaded to receive a threaded tubular element **34** having an enlarged transversely grooved head **35** which upon rotation is adapted securely to clamp the bracket base **32** to the adjacent underside portion of the cover plate **12**. A plunger **36** is inserted within the tubular element **34** and the spherical extremity **38** thereof is urged upwardly through the apertured head **35** of the tubular element by suitable spring means, preferably in the form of a pair of coil springs **40**, compressed between the shoulder of the plunger **36** and the adjacent inner face of the sole plate **10**.

For securing the handle **28** to the supporting bracket, a pair of elongated recesses **44** are provided in an end or base portion of the handle for receiving the upstanding ears **30** and the handle is pivotally attached to such ears by a rollpin and sleeving **46** fitted in the transverse bore **48** and extending through the aligned apertured portions of the ears **30**. The handle recesses **44**, as shown, preferably extend only partially through the thickness of the handle **28** and terminate in flat upright interior wall portions against which the adjacent sidewall portions of the ears may abut when the handle is turned in upright operative position to provide a vertical stop to its upright pivotal movement.

For locking the handle **28** in upright operative position, a socket strap **50** extends around a base portion of the handle preferably between the recesses **44** and is secured to opposed sidewall portions of the handle by any suitable means such as the screws **52**, as shown. A central indentation **54** is provided in the bottom of this socket strap against which the projected spherical end **38** of the spring pressed plunger **36** seats when the handle is in its vertical operative position. The force exerted by the plunger spring means **40** and the cooperation between the plunger tip **38** and the receiving recess **54** are such that the handle **28** is securely held in rigid vertical position without tendency to wobble so that complete control is retained over the iron at all operative times. It will be apparent that the locking of the handle in upright operative position and the unlocking thereof for return to folded position are accomplished automatically by the seating and unseating, respectively, of the plunger tip **38** in the strap recess **54** upon appropriate pivotal movement of the handle. This simple action which requires only a single hand of the user when the iron is resting upon an ironing board or table is in desirable contrast with the usually separate manual manipulation of latches, clamps, hooks and other prior art locking means which characteristically require both hands of the user.

In addition to a locking function, the socket strap **50** and plunger **36** are preferably so constructed and arranged as to serve other useful functions. For example, the coaction of these members tends to rotate the handle into its final operative vertical position. To this end, as shown best in Fig. 5, the bottom curvature of the strap **50** presents a peripheral high point **56** slightly forward of the sloping indentation **54** which depresses the plunger **36** against the full effective force of the spring means **40**. When the plunger tip **38** passes this high point **56**, its upward thrust against the adjoining concave sidewall of the recess **54** tends abruptly to rotate the handle into final operative position in vertical alignment with the plunger without the necessity of further manual pressure upon the handle. As a further function, as indicated by the broken line showing in Fig. 5, the plunger **36** tends to retain the handle in folded position by its spring pressure upon the side of the strap **50**, it being apparent that any pivotal movement of the handle toward upright position will be against such spring pressure.

It is to be understood that the present invention is not confined to the particular construction and arrangement of parts as herein illustrated and described but embraces all such modifications thereof as come within the scope of the following claims.

I claim as my invention:

1. In a sadiron having a body composed of a sole plate and a cover plate secured thereon, a folding handle therefor having a base portion and means for pivotally supporting said handle on the cover plate, the said means comprising, a pair of upright posts secured within the body of the sadiron and projecting upwardly through the cover plate, said base portion of the handle having recesses opening from its bottom side for receiving the upper ends of said posts, said posts having aligned apertures adjacent their upper ends, said base portion of the handle having a transverse bore therethrough in alignment with said post apertures, a pin extending through said handle bore and through said post apertures whereby to secure said handle to said posts and to serve as an axis about which the handle may pivotally swing, an upright spring pressed plunger mounted in said sadiron body beneath the base portion of said handle and the said base portion carrying an indentation adapted to receive the upright end of said plunger whereby to hold said handle in an upright position when it has been moved to this position for ironing operations.

2. In a sadiron having a body composed of a sole plate and a cover plate secured thereon, a folding handle therefor having a base portion and means for pivotally supporting said handle on the cover plate, the said means comprising, upright post means extending upwardly of the cover plate, said base portion of the handle being provided with a recessed portion extending up through one side and its bottom recessed to receive said upright post means, means pivotally securing said handle to said upright post means and serving as an axis about which the handle may pivotally swing, an upright spring pressed plunger mounted in said sadiron body beneath the base portion of said handle and the said base portion carrying an indentation adapted to receive the upright end of said plunger whereby to hold said handle in an upright position when it has been moved to this position for ironing operations.

3. The device of claim 2 wherein the base portion of the handle has an outwardly arcuate bottom surface and the upright end of the plunger bears against said arcuate bottom surface during pivotal swinging of the handle.

4. The device of claim 2 wherein the base portion of the handle carries an outwardly arcuate bottom plate, the indentation being provided in said bottom plate, and wherein the upright end of the plunger bears against said bottom plate during pivotal swinging of the handle.

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