June 16, 1942. R. I. HUFFMAN 2,286,487

SADIRON

Filed March 5, 1941

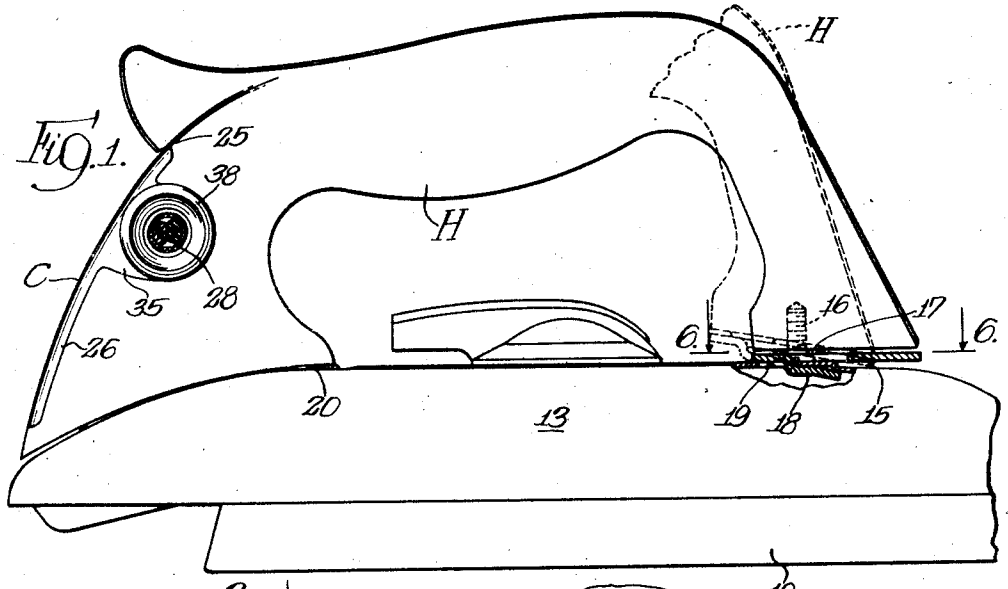


Fig. 1.

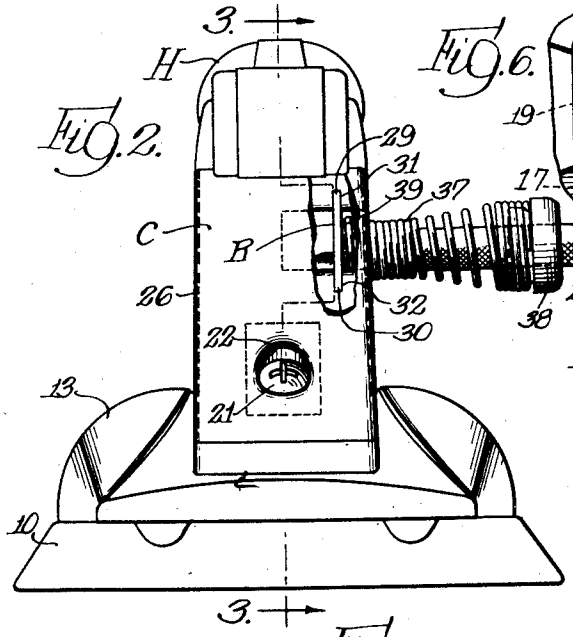


Fig. 2.

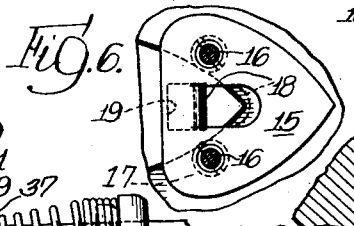


Fig. 6.

Fig. 3.

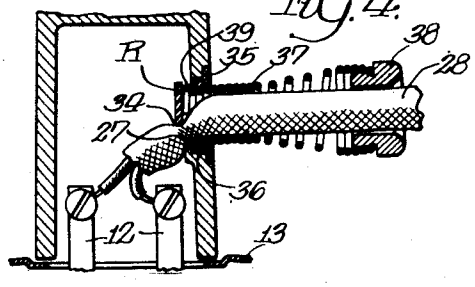


Fig. 4.

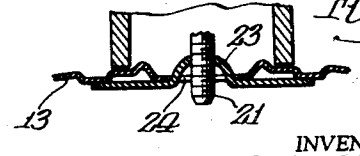


Fig. 5.

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UNITED STATES PATENT OFFICE

2,286,487

SADIRON

Russell I. Huffman, Dover, Ohio, assignor to Knapp-Monarch Company, St. Louis, Mo., a corporation of Missouri

Application March 5, 1941, Serial No. 381,872

6 Claims. (Cl. 219—25)

My present invention relates to a sadiron having improved features of construction whereby a supply cord for the heating element thereof and a handle for the iron are retained in position by a single screw.

One object of my invention is to provide a sadiron which may be inexpensively manufactured and which may be assembled in a minimum of time and with a minimum of connecting devices, such as screws.

Another object is to provide a sadiron wherein a handle has hooked connection at its forward end with the shell of the sadiron and a single screw may then be utilized to secure the rear end of the handle on the shell and retain the hook at the forward end of the handle engaged with the edge of a perforation in the shell of the sadiron.

Still another object is to provide a cord strain relief consisting of a supply cord retaining element coacting with the supply cord to secure it against pulling out of the handle of the iron, with the screw that retains the handle in position also retaining the cord retaining element in its assembled position.

A further object is to provide a cavity in the rear end of the handle wherein connection of the supply cord to the terminals of the heating element of the iron may be made, and a cover plate for this cavity which may also be secured in position by the single screw and which in turn serves as a means to hold the cord retaining element in position.

Other objects, purposes and characteristic features of the present invention will be in part obvious from the accompanying drawing and in part pointed out as the description of the invention progresses. In describing the invention in detail, reference will be made to the accompanying drawing in which like reference characters designate corresponding parts throughout the several views, and in which

Figure 1 is a side elevation of a sadiron structure embodying my invention;

Figure 2 is a rear elevation with a part thereof broken away to show internal construction details;

Figure 3 is a vertical sectional view on the line 3—3 of Figure 2 at the rear of the iron;

Figure 4 is a vertical sectional view on the line 4—4 of Figure 3, showing a supply cord retainer element coacting with a supply cord;

Figure 5 is a sectional view on the line 5—5 of Figure 3 showing a threaded bracket for a screw which retains parts of the iron assembled, and

Figure 6 is a horizontal sectional view on the line 6—6 of Figure 1 showing a connecting and heat dissipating plate for the front end of the handle.

On the accompanying drawing, I have used the reference numeral 10 to indicate a sole plate and 14 a heating element therein. The heating element 14 has a pair of terminals 12.

A shell 13 is mounted on the sole plate 10 and covers the heating element 14. The shell 13 may be secured in position by any suitable means (not shown).

A handle H is mounted on the shell 13 in the following described manner. A heat dissipating plate 15 is secured to the front end of the handle H in spaced relation thereto by a pair of screws 16. Bosses 17 surrounding the screws 16 may be formed on the lower surface of the handle H to effect such spacing. The plate 15 has a hook member 18 bent therefrom and this hook is adapted to be hooked through a perforation 19 in the shell 13, as shown by dotted lines in Figure 1. The final position of the hook 18 is shown by solid lines, and such position is assumed when the rear end of the handle is swung downwardly to rest on a bead 20 of the rear end of the shell 13.

For securing the rear end of the handle on the shell, I provide a single screw 21 passing through a countersunk socket 22 of a cover plate C and threaded into a bracket 23. The bracket 23 has its central threaded portion extending upwardly through a perforation 24 in the shell 13 (see Figure 5), and may be spot welded or otherwise suitably secured to the shell.

The cover plate C is adapted to cover a cavity C' in the handle H and the single screw 21 coacts with the cover plate in conjunction with the upper edge of the plate coacting with a transverse groove 25 in the handle H for securing the cover plate in position. The cover plate is also provided with side flanges 26 suitably countersunk in the handle H to prevent rotation of the cover plate about the screw 21.

The handle H adjacent the cavity C' has a seat 27 for a supply cord 28. The cord 28 is connected with the terminals 12, as shown in Figures 3 and 4, and is retained on the seat by a retainer element R. The retainer element R is preferably made of flat insulating material having a pair of corners 29 and 30 received in notches 31 and 32 of the handle H (see Figure 2). The inner end of the retainer element R, indi-

cated at 33, is adapted to contact with the bottom of the cavity C' when the retainer element is in assembled position. The retainer element in turn is retained in position by the cover C when it is in its installed position.

The retainer R has a pair of projections 34 (see Figure 3) adapted to coact with the cord 28 to effectively pinch it against the seat 27, thus preventing any possibility of the cord from being pulled out of the handle. The cover C has an extension 35 terminating in a hublike perforation 36 to receive the cord 28 and a spring 37 for protecting the cord. The outer end of the spring is provided with a ferrule 38 surrounding the cord. The inner end coil of the spring 37, as indicated at 39, is preferably enlarged to retain the spring against withdrawal from the hub 36.

From the foregoing description, it is obvious that I have provided a sadiron structure wherein a single screw serves to retain a hooked front end of the handle in position relative to the shell. Initially the cord retainer serves as an effective means to retain the supply cord in the seat 27 against any possibility of being pulled out of the handle and the plate 15, in addition to retaining the hook 18, serves as a means to dissipate some of the heat that would otherwise be transmitted from the shell 13 to the front end of the handle H.

Having described one specific embodiment of my invention together with the operation thereof, I desire it to be understood that this form is selected merely for the purpose of facilitating disclosure of the invention rather than for the purpose of limiting the number of forms which it may assume. It is to be further understood that various modifications, adaptations and alterations may be applied to the specific form disclosed to meet the requirements of practice without in any manner departing from the spirit and scope of the present invention except as set forth in the claims appended hereto.

I claim as my invention and desire to secure by Letters Patent of the United States:

1. In a sadiron, a sole plate, a shell thereon, a heating element for said sole plate, said heating element having terminals, a handle for said sadiron having hook engagement at its front end with a perforation in said shell, means at the rear end of said handle to retain said rear end connected with said shell and to retain said hook engagement with the shell, said means comprising a screw, a supply cord for said heating element, said handle adjacent the rear end thereof having a cavity for connection of said supply cord with said terminals and having a notch to receive said cord where it passes from the exterior to the interior of said cavity, and means locked in position by said screw to pinch said supply cord in said notch to retain it relative to said handle.

2. In a sadiron, a sole plate, a shell thereon, a heating element for said sole plate, said heating element having terminals, a handle for said sadiron having a hook at its front end for coaction with a perforation in said shell, means at the rear end of said handle to retain said rear end connected with said shell and said hook engaged with the edge of said perforation at the front end of the shell, a supply cord for said heating element, said handle adjacent the rear end thereof having a cavity for connection of said supply cord with said terminals, and a cover plate locked in position by said means, to secure said supply cord relative to said handle.

3. In a sadiron, a sole plate, a shell thereon, a heating element for said sole plate, said heating element having terminals, a handle for said sadiron, means at the front and rear ends of said handle to retain the handle connected with said shell, said means at the rear end of said handle comprising a screw, a supply cord for said heating element, said handle adjacent the rear end thereof having a cavity for connection of said supply cord with said terminals, said handle adjacent said cavity having a seat for said supply cord, a cord pinching element coacting with said supply cord to pinch it in said seat and retain it therein, and a cover plate for said cavity, said screw retaining said cover plate in position covering said cavity and retaining said cord retainer element in position coacting with said supply cord.

4. In a sadiron, a sole plate, a shell thereon, a heating element for said sole plate, a handle for said sadiron having a hooked connection at its front end with said shell, means at the rear end of said handle to retain said hooked connection engaged, said means comprising a screw, a supply cord for said heating element, said handle adjacent the rear end thereof having a cavity for receiving said supply cord, and a cover plate for said cavity, said screw retaining said cover plate in position covering said cavity in addition to retaining said handle in position on said shell.

5. In a sadiron, a handle having a cavity in the rear end thereof, a seat in one side of said cavity for a supply cord, a supply cord seated in said seat, a cord retainer element for said supply cord to retain it seated, said handle having notches to slidably receive and guide said retainer element to position with one portion of its edge substantially flush with the rear extremity of said handle and another portion of its edge pinching said supply cord against said seat, and a cover for said cavity which when in position retains said retainer element in its position.

6. A sadiron structure comprising a sole plate, a shell thereon having a perforation adjacent its front end, a handle for said sadiron, a plate secured to the front end of said handle in spaced relation thereto, a hook member formed from said plate for coaction with said perforation, said plate being spaced from said shell when said hook coacts therewith and providing a heat dissipating fin, the rear end of said handle having a cavity therein, a cover plate for said cavity, said handle having a groove adjacent the top of said cavity to receive the top of said cover plate, a single screw for retaining said cover plate in position over said cavity, said screw extending into said shell to also retain the rear end of said handle thereon and to retain said hook engaged with the edge of said perforation, said handle having a seat communicating with said cavity, a current supply cord seated therein, and a retainer element for retaining said cord in said seat, said cover plate coacting with said retainer element to secure it in assembled position.

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