March 17, 1942. R. I. HUFFMAN 2,276,726

SADIRON SHELL STRUCTURE

Filed March 24, 1941

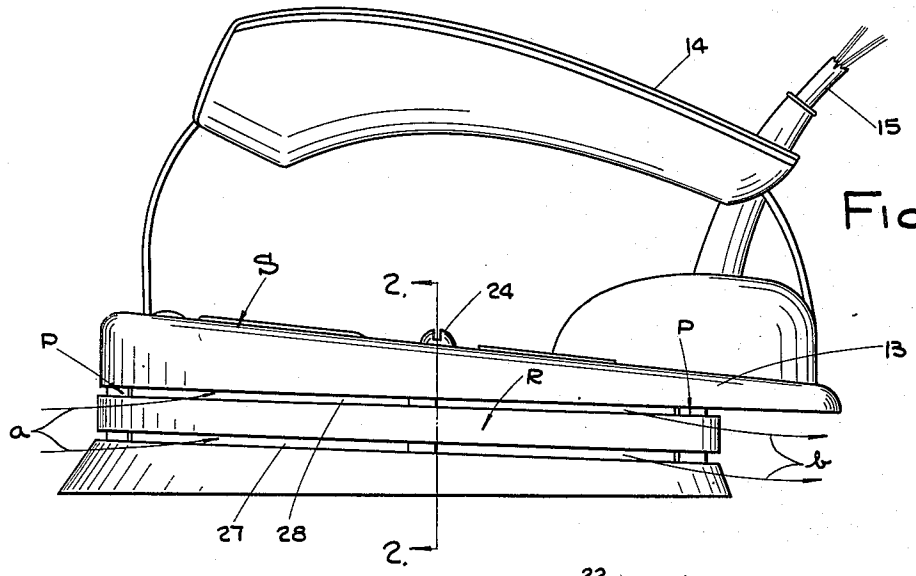


Fig. 1.

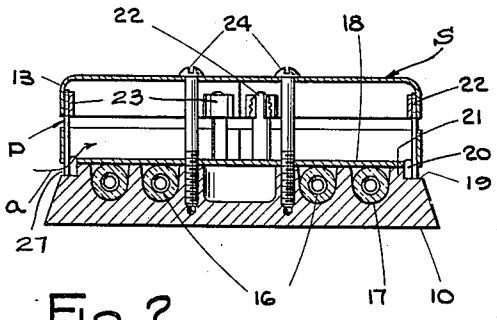


Fig. 2.

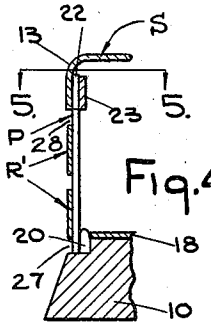


Fig. 4.

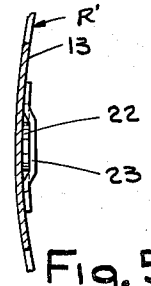


Fig. 5.

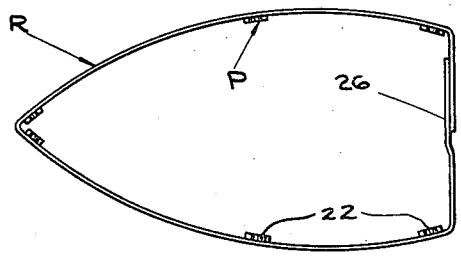


Fig. 3.

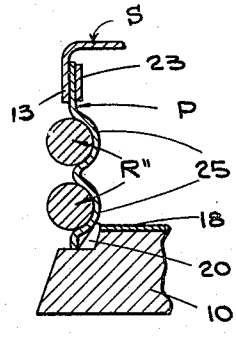


Fig. 6.

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UNITED STATES PATENT OFFICE

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SADIRON SHELL STRUCTURE

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Application March 24, 1941, Serial No. 384,923

7 Claims. (Cl. 38—89)

My present invention relates to a shell structure for sadirons wherein a comparatively shallow shell is supported in spaced relation above a sole plate of a sadiron by a system of rails and posts which permits air circulation between the shell and the sole plate.

One object of my invention is to provide an inexpensive structure for supporting a shell above a sole plate of a sadiron, consisting of rails of flat sheet metal or round material and vertical posts secured thereto.

Another object is to provide means inside the shell to receive the upper ends of the posts and means on the sole plate to position the lower ends thereof so that when the shell is secured in position it will retain the assembly of rails and posts in proper position.

With these and other objects in view, my invention with respect to its features which I believe to be novel and patentable will be pointed out in the claims appended hereto. For a better detailed understanding of the invention, and further objects relating to details of economy of my invention, reference is made to the following description and to the accompanying drawing wherein such further objects will definitely appear, and in which—

Figure 1 is a side elevation of a sadiron including by shell structure;

Figure 2 is a vertical section view on the line 2—2 of Figure 1;

Figure 3 is a plan view of the rail and post assembly per se;

Figure 4 is an enlarged sectional view similar to the left side of Figure 2, showing a modified construction;

Figure 5 is a horizontal sectional view on the line 5—5 of Figure 4, and

Figure 6 is a sectional view similar to Figure 4 showing another modification.

On the accompanying drawing, I have used the reference numeral 10 to indicate a sole plate and the reference character S to indicate a shell spaced thereabove. The shell S has a top 12, the peripheral edge of which terminates in a downturned flange 13. The usual handle 14 and supply cord 15 are associated with the shell S, the supply cord of course supplying current to a heating element 16 wound in the sole plate 10 in the usual manner. The heating element 16 may be retained in a groove 17 of the sole plate 10 as by a cover plate 18.

For supporting the shell S relative to the sole plate 10, I provide an assembly consisting of the rail R and posts P. The rail R, as shown in Figure 3, substantially conforms to the outline of the sole plate 10 and is secured by spot welding to the posts P with the posts spaced around the outline of the sole plate. The lower ends of the posts are positioned with respect to the sole plate 10 by engaging shoulders 19 thereof. Bosses 20 are formed on the sole plate adjacent each post position to space the posts outwardly from a rib 21 surrounding the heating element in the sole plate.

The upper ends of the posts P are reduced to form shoulders as indicated at 22 and enter clips 23 which are spot welded or otherwise suitably secured to the flange 13 of the shell S. Thus both the lower ends and the upper ends of the post are properly positioned during assembly and the assembly of rail and posts may then be retained in position by one or more screws 24 through the top 12 of the shell S and threaded into the sole plate 10.

As shown in Figure 4, a plurality of rails R' may be used instead of the single rail R. As shown in Figure 6, the rails may be formed of round or tubular metal, and are indicated in this figure as R''. The posts P' in this figure have seats 25 to receive the rails R''.

The rail or rails may be made in single strips of material or single lengths of wire and then spot welded together, such as at the rear of the iron, as shown at 26 in Figure 3. The spaces provided below and above the rail R, and indicated at 27 and 28 in Figure 1, permit air to enter between the sole plate and the shell, as indicated by the arrows *a*, and leave the iron as indicated by the arrows *b* in Figure 1. Thus undesirable heat transmission from the sole plate to the shell is prevented by the dissipation of this heat through the permission of the air to enter and leave the iron, as indicated by the arrows *a* and *b*.

The assembly of rail and posts may be quickly and inexpensively fabricated and readily assembled in position with respect to the sole plate and the shell. An inexpensive shell construction is thereby provided with ample space for air circulation.

While I have shown a particular embodiment of my invention, it will be understood of course that I do not wish to be limited thereto since many modifications may be made, and I therefore contemplate by the claims appended hereto to cover any such modifications or substitutions of mechanical equivalents as fall within the true spirit and scope of my invention without sacrificing any of its advantages.

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

1. In a sadiron shell structure, a shell member having a top and downturned peripheral edges, a unit for supporting said shell member spaced above a sole plate comprising a horizontally arranged rail shaped to substantially conform to the outline of the sole plate, and posts secured to said rail in spaced relation therealong and interposed between said sole plate and said shell member, said shell member having positioning clips secured inside the downturned edge thereof to receive the upper ends of said posts.

2. A sadiron shell structure comprising a shell member having a top and downturned peripheral edges, a unit for supporting said shell member spaced above a sole plate comprising a horizontally arranged rail shaped to substantially conform to the outline of the sole plate, and posts secured to said rail in spaced relation therealong and interposed between said sole plate and said shell member, said rail being narrower than the space between said downturned peripheral edges of said shell and said sole plate to permit air circulation, and said posts having shouldered upper ends, said shell member having clips secured inside the downturned edge thereof to receive the shoulders on the upper ends of said posts.

3. A sadiron shell structure comprising a shell, a unit for supporting said shell spaced above a sole plate comprising a plurality of vertically spaced horizontally arranged rails shaped to substantially conform to the outline of the sole plate, and posts secured to said rails in spaced relation therealong and interposed between said sole plate and said shell.

4. A sadiron structure comprising a shell, a unit for supporting said shell spaced above a sole plate comprising a horizontal rail arranged to substantially conform to the outline of the sole plate, upright posts secured to said rail in spaced relation therealong and interposed between said sole plate and said shell, and tie means to connect said shell with said sole plate and confine said unit in the interposed position of the posts.

5. A sadiron structure comprising a relatively shallow shell, means for supporting said shell spaced above a sole plate comprising a plurality of vertically arranged posts adjacent the periphery of said sole plate and interposed between said sole plate and said shell, and a rail intermediate said shell and sole plate for connecting said posts together.

6. A sadiron structure comprising a relatively shallow shell, means for supporting said shell spaced above a sole plate comprising a plurality of vertically arranged posts adjacent the periphery of said sole plate and interposed between said sole plate and said shell, and a flat band-like member for connecting said posts together, said member having its upper edge spaced below the lower edge of said shell and its lower edge spaced above the upper edge of said sole plate to permit air circulation.

7. In a sadiron, a relatively shallow shell, a unit for supporting said shell spaced above a sole plate comprising a rail shaped to substantially conform to the outline of the shell, and posts secured to said rail and interposed between said sole plate and said shell to retain said rail spaced above said sole plate and said shell spaced above said rail, thereby providing air circulation spaces above and below said rail.

RUSSELL I. HUFFMAN.