H. WONDERLICH.

SAD IRON.

APPLICATION FILED FEB. 13, 1907.

912,222. Patented Feb. 9, 1909.

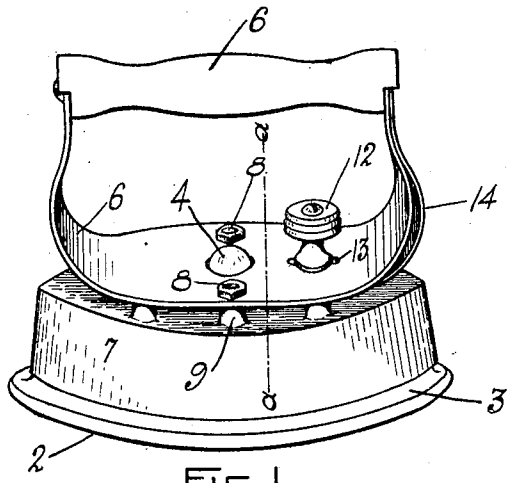


FIG. 1.

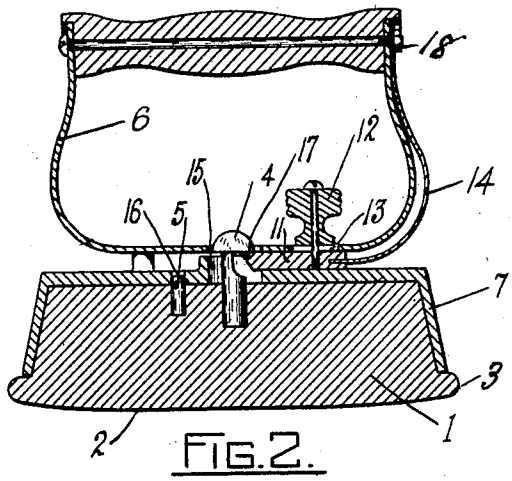


FIG. 2.

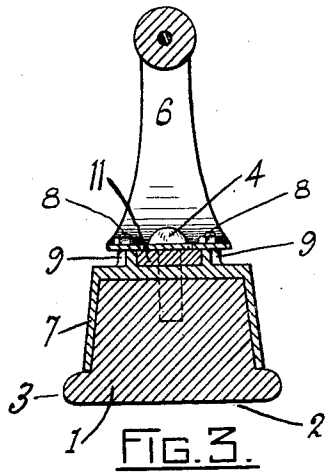


FIG. 3.

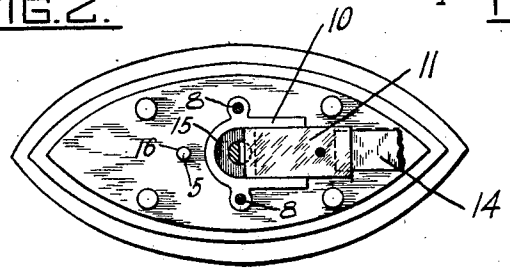


FIG. 4.

WITNESSES

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SAD-IRON.

No. 912,222. Specification of Letters Patent. Patented Feb. 9, 1909.

Application filed February 13, 1907. Serial No. 357,149.

To all whom it may concern:

Be it known that I, HERMAN WONDERLICH, a citizen of the United States, residing in the city of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Sad-Irons, of which the following, with the accompanying drawings, is a description.

My invention relates to that class of sad irons in which the handle is removable from and interchangeable with a number of cores or bodies and has for its object an improved and simple means of detachably connecting the handle with the core body.

In the preferred form of my invention the handle and connecting device are attached to a shell fitting over the sides of the core or body, but such a shell is not absolutely essential, as hereinafter more fully explained.

In the accompanying drawings Figure 1 represents the sad iron with the shell or cover having the handle attached to the body or core ready for use; Fig. 2 is a medial longitudinal section of Fig. 1; Fig. 3 is a cross section through the iron on substantially the line *a*—*a* of Fig. 1; and Fig. 4 is a top view of the shell or cover with the handle removed.

The core or body 1 is made substantially in the form heretofore in common use including the smoothing surface at the bottom 2 and preferably provided with an extended edge or bead 3 around its lower edge. This core is provided with a pin 4 with an enlarged head inserted and rigidly fastened preferably in the middle of its upper surface, and the head of this pin 4 is preferably either rounded in a vertical plane on top as shown in the drawings or has its top otherwise tapered in order to make it easier to place the shell or plate attached to the handle over it as hereinafter explained. The core or body 1 is also preferably provided with another pin or dowel 5 (see Fig. 2) extending upwardly from its upper surface to enter a hole or recess in the shell or plate of the handle.

The handle 6 is attached to a shell or plate 7 by means of pins and screw nuts 8—8 (see Figs. 1 and 3) the pins extending through the bottom member of the handle and into or through the upward extensions 9—9 of the shell or plate 7. It will be observed that the handle is thus raised somewhat above the shell or plate. The shell 7 is preferably made to fit down over the core or body 1 as tightly as is consistent with making it interchangeable with other cores and providing some slight space for the expansion incident to heating the core without making it impossible to remove the shell from the core. But the shell or plate 7 need not extend as far over the core as shown in the drawings and might be reduced to a plate extending over a greater or less portion of the top surface only of the core or body without departing from my present invention. Upon the top of the shell or plate 7 there is provided a slide or guide-way 10 (Fig. 4) in which slides a latch 11 between the shell 7 below it and the lower member of the handle 6 above it. A knob or button 12 is attached to the latch 11 by means of a screw or pin extending upward through a slot 13 (Fig. 2) in the lower member of the handle; and a flat curved spring 14 is attached at one end to the back of the handle and at its other or lower end engages the back of the latch 11 to push it forward and under the head of the pin 4 when the handle is to be attached to the core.

The plate or shell 7 is provided with a hole 15 (Fig. 2) to pass over the head of the pin 4 and also preferably with a second hole 16 to fit over the pin or dowel 5. It is also deemed advisable to provide a hole in the bottom member of the handle so that the head of the pin 4 may extend into or through it. Such an arrangement causes the parts to go together better and more rigidly.

One practical advantage in the construction of my improved device is my particular arrangement of the long flat spring 14, one end of which is connected to the sliding latch to hold it normally in its forward or engaging position, the opposite end being carried upward and secured at 18 by the end of the handle retaining bolt. The essential feature of advantage being that the spring is so long and extends up so far from the core that it never becomes heated so as to affect its temper. It has been found in practice, that by the use of the ordinary coil spring located close to the core, that the same soon becomes heated and after a time loses its temper completely destroying its resiliency. This difficulty is entirely obviated by the use of a spring of my improved construction.

The method of using my invention is as follows: When it is desired to use the core or body portion for smoothing or ironing, the shell 7 with the handle 6 attached

thereto is placed over the core 1 which automatically brings the head of the pin 4 in line with the holes through the shell and lower member of the handle and permits it to enter these holes. As the handle is pushed down the rounded head of the pin 4 engages the wedged surface 17 (Fig. 2) on the under side of the latch 11 and thereby pushes back the latch against the tension of the spring 14. As soon as the head of the pin 4 has passed above the upper surface of the latch 11 the spring 14 will push the latch forward under the head, and the whole being properly proportioned will attach the handle rigidly to the core. When it is desired to separate them, the knob or button 12 is pulled back with the finger thus withdrawing the latch from under the head of the pin 4 and permitting the shell and handle to be again separated from the core.

It is evident that the shape of the pin 4 may be changed if desired to an upwardly extending pin or projection with a notch on one side only to engage the latch 11, and such a notch has been shown under the pin head in the drawings, (see Fig. 2). When a notch of this kind on one side only is used it is necessary to have some means for indicating how the handle is to be placed on the core, and the dowel pin 5 extending upwardly into the hole 16 serves this purpose and makes it impossible to attach the shell and handle in the wrong way by preventing the shell from fitting sufficiently over the core when it is turned end for end to enable the latch to catch.

I claim as my invention:

In a sad iron, the combination of a body provided with a smoothing surface, a headed pin extending upward from said body, a detachable shell adapted to fit over said body and pin, a curved plate secured to the shell and spaced from the upper surface thereof, a handle secured between the ends of said curved plate, a longitudinally sliding latch adapted to engage the underside of said pin head located in and adapted to slide in the space between said shell and said curved plate to lock the shell to the body, a flat spring connected to one end of said latch to hold it normally in its engaging position, the opposite end of said spring extending upward and attached to said handle, and means whereby the latch may be withdrawn.

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