Aug. 25, 1931. J F. DARLING 1,820,183

SCOURING DEVICE

Filed Feb. 4, 1930

Fig. 1.

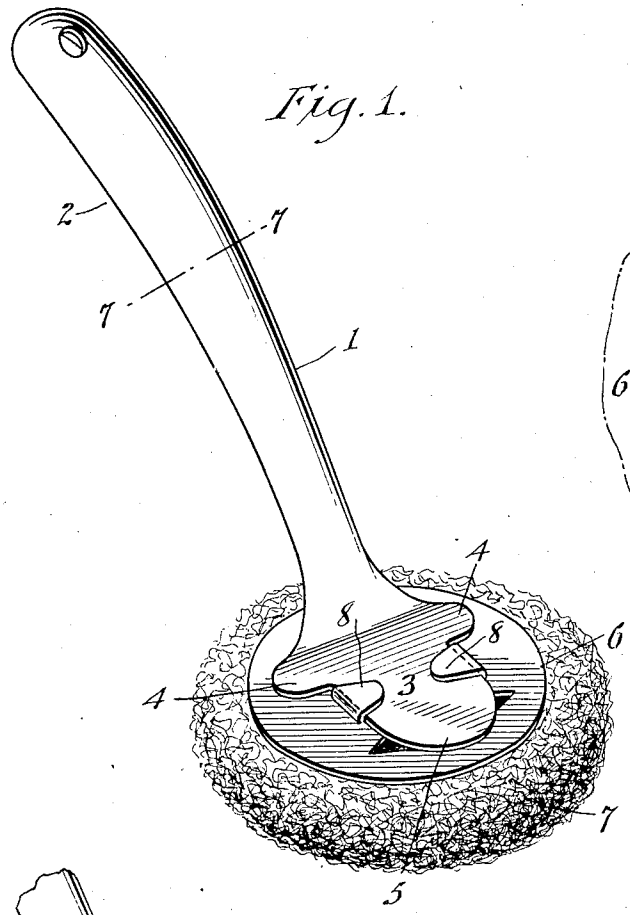


Fig. 2.

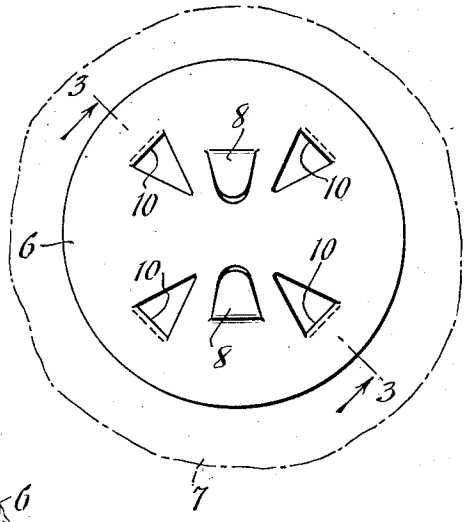


Fig. 6.

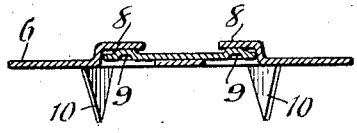


Fig. 5.

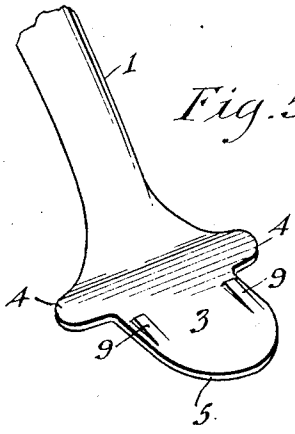


Fig. 3.

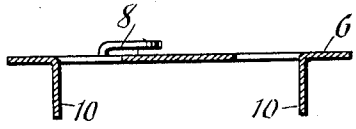
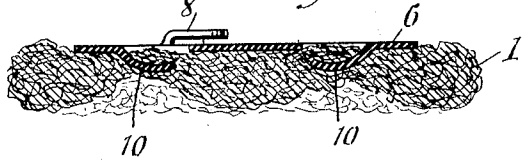


Fig. 7.



Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE

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SCOURING DEVICE

Application filed February 4, 1930. Serial No. 425,866.

The present invention relates to a scouring device in which a pad of steel wool is employed as an abrasive element. An object of the invention is to provide an improved scouring device which may be used without the necessity of handling the wool and causing injury to the hands.

The improved device contemplates a metal plate provided with means integral therewith for securing a pad of steel wool against one face of the plate and with means, also integral with the plate, for attaching a handle member to the opposite face of the plate, the handle member being so constructed that it provides a reinforcement for the plate.

Another object in view is the provision of means for associating a pad of steel wool with a handle for manipulating the same and which may be conveniently removed from the handle when the pad becomes worn and replaced with a fresh pad of steel wool.

The invention is shown in the accompanying drawings, in which

Figure 1 is a perspective view of the invention;

Figure 2 is a top plan view of the invention with the handle removed;

Figure 3 is a vertical sectional view of the retaining plate on line 3—3 of Figure 2 before the steel wool is applied thereto;

Figure 4 is a vertical sectional view similar to that shown in Figure 3, but with the steel wool applied thereto;

Figure 5 is a fragmentary prospective view of a modified form of handle;

Figure 6 is a vertical sectional view of the plate with the handle shown in Figure 5 in position thereon, and

Figure 7 is a sectional view on line 7—7 of Figure 1.

In the accompanying drawings in which is illustrated the preferred embodiment of the invention, the device includes a stamped metal handle 1 which is punched or cut in blank form from a thin metal sheet and stamped to the desired form, as shown in the drawings.

The upper or hand gripping portion 2 thereof is arcuate in cross section as shown in Figure 7 to resist bending when pressure is applied in the scouring operation. The lower end of the handle terminates in a flat portion 3 which is cut to provide outwardly extending shoulders 4 and a tongue 5 at the extreme end. This portion is positioned at an angle to the hand gripping portion 2 and is constructed to readily engage a replaceable unit consisting of a circular plate 6 and a pad of steel wool 7 secured to the said plate. The plate 6 is cut to form the oppositely arranged ears 8 which are rebent and spaced from the plate to lie parallel therewith. The tongue 5 is adapted to be thrust beneath the said ears to provide a clamping action whereby the flat portion 3 of the handle is caused to lie tightly against the plate 6, thereby reinforcing and strengthening the plate and preventing it from buckling if excessive pressure is applied thereto during the scouring operation. In order to provide an impinging action between the tongue 5 and the ears 8, the said tongue may be provided with the inclined surfaces 9 adjacent the side edges thereof, as shown in Figure 5. These surfaces engage the underside of the ears 8, thereby impinging the lower handle portion firmly against the plate 6.

To secure the pad of steel wool to the plate 6 the said plate is provided with a series of concentrically arranged downwardly extending triangular shaped prongs or tongues 10. These tongues are integral with the said plate, being cut therefrom on two sides and forced downwardly at right angles to the body of the plate as shown in Figure 3. It is understood that the steel wool is made of metallic threads which are intertwined and compressed to produce a substantially cylindrical pad. When the triangular shaped tongues 10 are forced into the steel wool and rebent as shown in Figure 4, the metal fibers forming the steel wool are firmly held by the said tongues against the underside of the plate 6 and certain of the threads of the steel wool are forced into the openings formed by the cutting away of the said tongue, thereby preventing disengagement of the steel wool from the plate.

When the steel wool becomes worn so that it is necessary to replace the same with a new

pad, the plate 6 is removed from the handle portion 3 and a new plate and wool pad are positioned on the handle in place of the discarded unit. The foregoing construction, which illustrates the preferred embodiment of the invention, is particularly simple and cheap to manufacture, which is essential in a device of this character. The arrangement of the handle and the means for securing the same to the said plate are particularly effective to produce the desired locking effect while permitting the ready removal of the replaceable unit.

Having described my invention I now claim:

1. A scouring device comprising an abrasive pad, a plate, means connecting the said pad to the plate, oppositely projecting ears arranged on the one side of said plate and having their free ends spaced above the plate, a handle, a tongue formed on one end of said handle arranged to fit in the space between the said ears and the plate and inclined surfaces on the said tongue adapted to engage the said ears to press the tongue against the plate.

2. A scouring device comprising an abrasive pad, a plate, means connecting the said pad to the plate, a handle for said device, a tongue formed on one end of said handle, means on said plate adapted to engage the said tongue to clamp the tongue against the plate whereby the plate is reinforced by the said tongue and the handle connected to the said plate.

3. A scouring device comprising an abrasive pad, a plate, means connecting the said pad to the plate, oppositely projecting ears arranged on the one side of said plate and having their free ends spaced above the plate, a handle, a tongue formed on the one end of said handle arranged to fit in the space between the said ears and the plate and upwardly extending surfaces on the said tongue engaging the said ears when the plate is positioned thereunder operating to press the tongue flatly against the plate to reinforce the plate and to connect the handle thereto.

J FRANK DARLING.