Aug. 7, 1928. 1,679,392

S. APPLIN

SCOURING DEVICE

Filed May 4, 1925

Fig. 1.

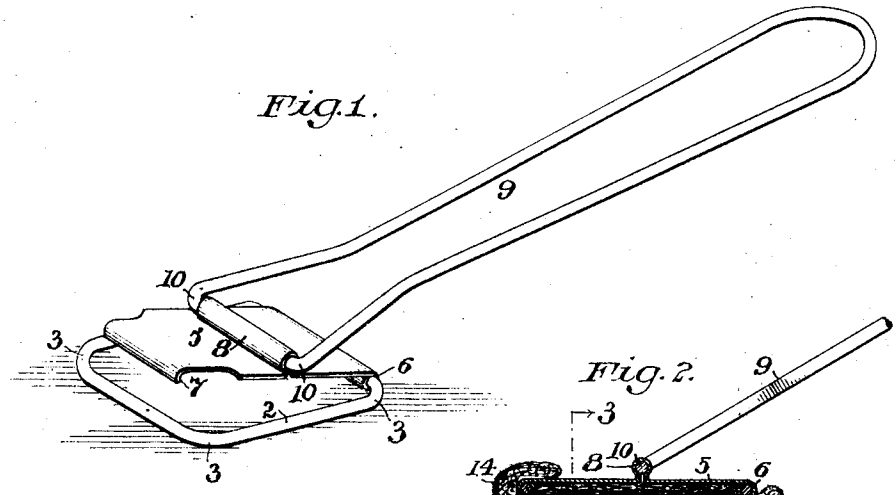


Fig. 2.

Fig. 3.

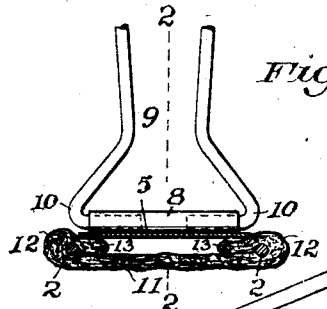


Fig. 4.

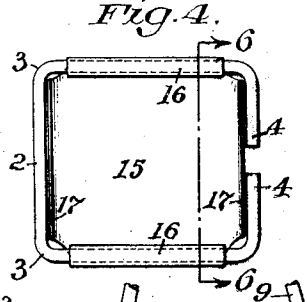


Fig. 8

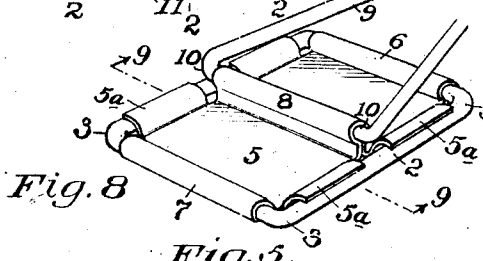


Fig. 9

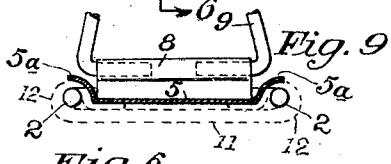


Fig. 5.



Fig. 6.

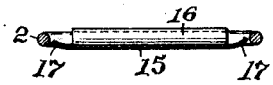
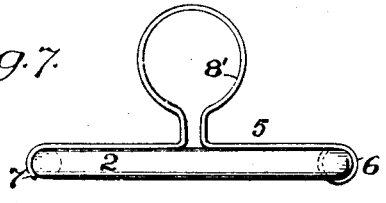


Fig. 7.



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By

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UNITED STATES PATENT OFFICE.

SAMUEL APPLIN, OF PHILADELPHIA, PENNSYLVANIA.

SCOURING DEVICE.

Application filed May 4, 1925. Serial No. 27,669.

My invention has for its object the provision of a simple and inexpensive scouring device and, more particularly, a metallic holder for a scouring pad (desirably "steel wool") which shall provide means for clamping the pad to the handle in such a manner as to protect the utensil being scoured against abrasion and at the same time permit the adjustment of the pad with respect to the handle whereby it is adapted to be brought into scouring operation with articles of different shapes.

The purpose of my invention is to provide handle devices by which pads of "steel wool" may be detachably clamped to the handle in such a manner that its abrading capacity may be effectually applied to the object and avoiding the necessity of the hand to be brought into direct contact with the scouring pad or with the soap or lye solutions which may be employed in connection with it as a cleaning compound.

More particularly, my invention comprises a rectangular frame, preferably of wire, to one side of which is hinged a clamping plate and the edge most distant from the hinge is formed for locking engagement with the frame, the same being adapted to clamp a pad of "steel wool" or other material to the sides of the frame whereby it may extend transversely across the bottom thereof and be moved with the frame during manipulation of the device in the act of cleansing the article to be cleaned.

My invention also includes the clamping plate when formed with a transverse bend constituting a socket in which the ends of a handle may be hinged for more convenient manipulation of the device.

My invention also consists of other features of construction which, together with those above stated, are fully described hereinafter and pointed out in the claims.

Referring to the drawings: Fig. 1 is a perspective view of the handle and clamping member of the scouring device embodying my invention; Fig. 2 is a vertical section on line 2—2 of Fig. 3, showing my improved device with a pad applied thereto; Fig. 3 is a transverse vertical section on line 3—3 of Fig. 2; Fig. 4 is a plan view of the rectangular frame when provided with a base plate; Fig. 5 is a side elevation of the rectangular frame when provided with the base plate and also the hinged clamping plate; Fig. 6 is a transverse section taken on line 6—6 of Fig. 4; Fig. 7 is a side view of my improved device when the loop on the clamping plate is made sufficiently large to be employed as a handle; Fig. 8 is a perspective view of a modified form of my invention; and Fig. 9 is a cross section of the same, taken on line 9—9 of Fig. 8.

The complete article in use comprises the metallic handle and clamping structure illustrated in Fig. 1 when associated with the cleansing scouring pad clamped in position thereon as indicated in Figs. 2 and 3, and while this pad is preferably and usually of "steel wool", I do not restrict myself in this respect.

The body frame 2 is formed from a heavy wire bent into rectangular shape, with the two ends 4, 4, directed toward each other at one side portion of the frame and with rounded corners 3, as shown in Fig. 4. Hinged at 6 upon these abutting ends of the body frame wire is the clamp plate 5 whose free end, opposite to the hinge, is curved as at 7 and adapted to snap over the body frame wire to lock itself in close clamping relation when forced down upon said body frame, as shown in Fig. 2. This curved snap lock end 7 of the clamping plate 5 is of less width than the width of the said plate and body frame 2, so as to leave a space on each side of the snap lock whereby its function will not be interfered with by the pad 11 when folded over the side bars of the body frame, as at 12, and clamped by the clamping plate 5 as in Fig. 3. The total width of the clamping plate 5 is a little less than the width of the body frame so as not to extend over the pad to an extent sufficient to scrape or scratch the utensil being scoured; and preferably, as shown in Fig. 3, it is approximately of a width equal to the open space between the side bars of the body frame, or slightly wider (Fig. 9).

A further feature of the clamping plate 5 resides in the looped portion 8 arranged transversely of the plate intermediate of its hinge 6 and snap lock end 7, and substantially parallel to the hinge. This looped portion provides spring action for the snap lock part 7, permitting a strong engagement with the body to retain the plate in position when tightly clamped upon the pad. A further function of this looped portion 8 is to provide a socket to receive the inwardly di-

rected ends 10 of a wire handle 9 and whereby said handle is hingedly attached to the clamping plate and indirectly connected with the body frame. The handle 9 is preferably formed of heavy wire, whose elasticity permits of assemblage with the looped portion 8 and further provides a friction upon the ends thereof whereby the body and its plate (with associated pad) will retain any position upon the handle in which they are placed. In other words, the body frame and pad is not free to dangle or flop about the handle end, but, on the contrary, will retain any position assumed until, by pressure, they are shifted to another position or angle relatively to the handle. This enables the pad to be quickly and positively positioned upon the utensil being scoured. It is preferable that the length of this looped part 8 is somewhat less than the width of the plate 5 so that the sides of the handle 9 will not project beyond the sides of the body and come into contact with the utensil being cleaned.

The pad, which I prefer to employ with the clamping holder formed of the parts already described, consists of a rectangularly shaped flat body of "steel wool" which is wrapped over the body frame and detachably clamped in position by the clamping plate. This pad is shown at 11 with its side portions 12 folded over the side bars of the body frame 2 and clamped thereto by the side portions of the clamping plate 5, the said side portions of the pad being held under the plate and between it and the main portion of the pad 11 below the body frame as shown at 13 in Fig. 3. The end portion 14 of the pad is allowed to extend beyond the body 2 and is folded backward over the snap lock end 7 of the plate and body frame shielding these parts from contacting with the utensil being scoured, as will be understood from Fig. 2. It will also be understood that the snap lock portion 7 being of less width than the plate 5 itself, enables the pad portions 12 and 14 to be folded over the body frame at the corners 3 without interfering with the locking function of the snap lock portion.

To provide further support for the pad 11 at the central portion of the body frame, I may employ a bottom plate 15 of sheet metal having its side edges bent around the side bars of the body frame, as at 16, and its end edges curved upward slightly, as at 17, toward the end portions of the body frame, whereby all abrading edges are avoided (Figs. 4, 5 and 6). This particular construction or addition, while not essential, is useful where especially hard pressure is required to be applied to the pad and where the unbacked pad might be subjected to excessive strain.

It will be understood that I do not restrict myself to the size of the pad or holder, as they may be made of any size suitable for the duty to be performed.

While the benefits to be derived by providing a plate surface on a plane substantially coincident with the plane of the under surface of the wire frame 2, as in Figs. 4, 5 and 6, to sustain the pressure of the pad is desirable, such plate surface may be an integral part of the plate 5, as in Figs. 8 and 9, wherein the plate is depressed as it were and having side flanges 5^a curved upward and projecting outwardly over the side bars of the wire frame 2 whereby it may clamp the pad 11 and, at the same time, provide a solid metal pad supporting backing, as shown in Fig. 9, the pad being indicated in dotted lines. It is manifest that, if desired, the side edges 5^a may be omitted as in Figs. 1 and 3.

I have found that in the case of larger sizes of the scouring pad holders, the handle 9 may be dispensed with and the looped portion 8 made sufficiently large to be grasped by the hand and directly manipulated. Such a utilization of my invention is indicated in Fig. 7.

It will now be apparent that I have devised a novel and useful construction which embodies the features of advantage enumerated as desirable, and while I have in the present instance shown and described the preferred embodiment thereof which has been found in practice to give satisfactory and reliable results, it is to be understood that I do not restrict myself to the details, as the same are susceptible of modification in various particulars without departing from the spirit or scope of the invention.

Having now described my invention, what I desire to secure by Letters Patent is:

1. In a device of the character stated, a frame formed of wire in rectangular form, combined with a clamping plate having one end hinged to the frame and its other end shaped to form a snap lock upon the frame at its end opposite to the hinged connection of the plate, said plate being of widths less than said frame whereby it cooperates with the side portions of the frame to form a clamping means for a scouring pad to be used, said plate having on its outer side a looped portion to provide elasticity to the snap lock.

3. The invention according to claim 1, wherein a handle is hinged to the looped portion of the clamping plate.

3. The invention according to claim 11, wherein a handle provided with spring pressed engaging portions is pivoted in the looped portion of the clamping plate and adapted to frictionally hold the plate and frame in various adjusted portions on the handle.

4. In a device of the character stated, a

frame of rectangular form, combined with a sheet metal clamping plate having one end hinged to an end of the frame and its other or free end shaped to form a snap lock for engaging the frame at its end most distant from the hinged connection of the plate, said clamping plate having a transverse looped portion to provide elasticity.

5. In a device of the character stated, a frame of rectangular form, combined with a clamping plate having one end hinged to the frame and shaped to cooperate with the side portions of the frame to form a clamping means for a scouring pad and also having intermediate of its length a transverse looped portion, and a handle hinged to the transverse looped portion of the plate, and wherein further, said clamping plate and frame are provided with engaging means whereby the plate is locked in clamping position upon the frame.

6. The invention according to claim 1, wherein further, the main surface of the clamping plate is positioned within the bounding sides of the wire frame and on a level substantially with the plane of the bottom surface of the said frame, and said clamping plate having side edges curved upward and over the sides of the wire frame.

7. The invention according to claim 1, wherein further, the main frame is provided with a bottom plate, and the clamping plate is positioned to cooperate with the bottom plate to constitute a clamping means between them.

In testimony of which invention, I hereunto set my hand.

SAMUEL APPLIN.