

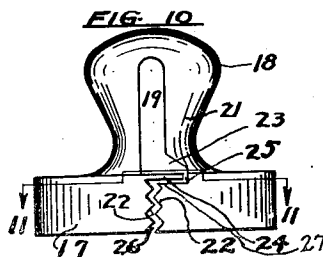
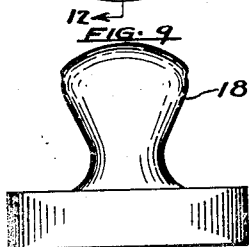
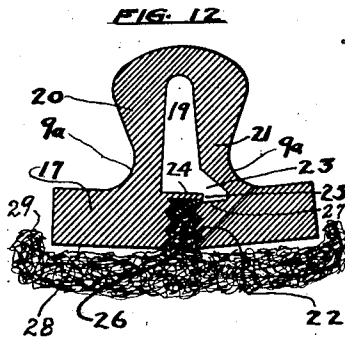
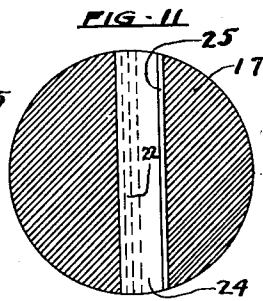
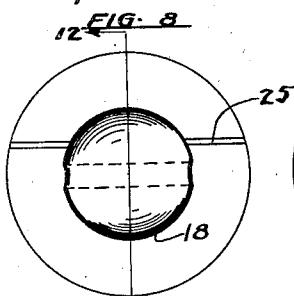
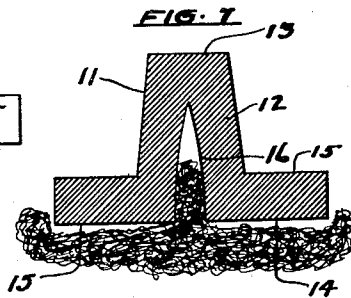
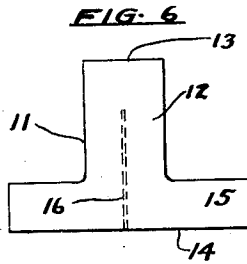
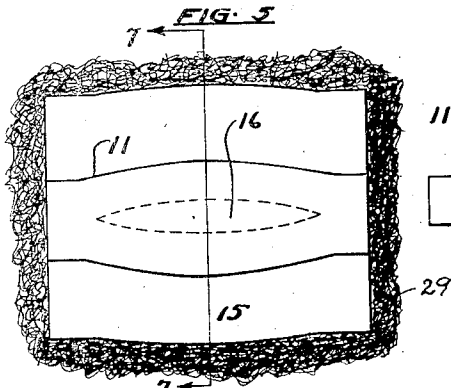
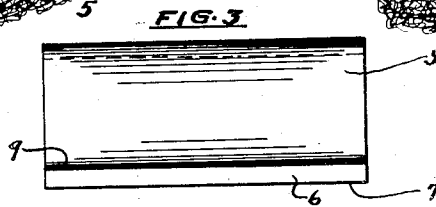
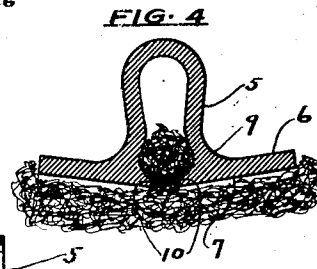
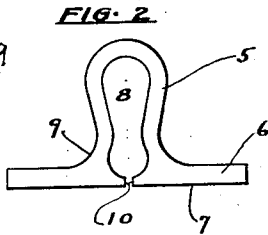
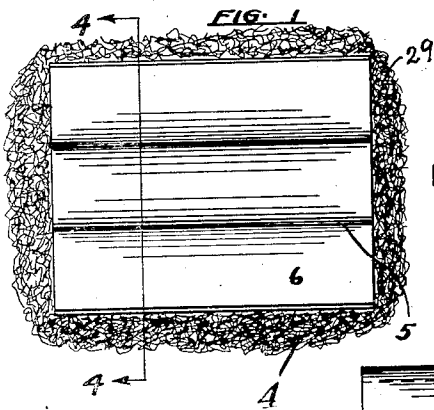
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1,958,408

FLEXIBLE HOLDER FOR SCOURING MATERIAL

Filed Dec. 13, 1930



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# UNITED STATES PATENT OFFICE

1,958,408

## FLEXIBLE HOLDER FOR SCOURING MATERIAL

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1 Claim. (Cl. 15—209)

This invention relates to flexible holders for supporting scouring material while used in cleaning and scrubbing various articles, such as kitchen utensils including household receptacles, and the object of our invention is to provide a detachable holder that may be readily secured to a mass of a very efficient scouring element such as steel wool or the like, whereby the scouring element may be very effectively rubbed over the surface to be cleansed, and yet the user's hand protected from injury by contact with the scouring material.

It is well understood that steel wool is a very effective abrading material, and we have provided an especially effective and detachable holder for this abrasive material which latter is exceedingly flexible and conforms readily to the gripping portions of our holder as the gripping force of the user's hand is increased. We do not regard it as an effective expedient to mold or otherwise shape the scouring material into a particular form to fit particular shaped grippers of a holder. It is rather our purpose to provide a holder having grippers that are normally in contact, and which may be separated to receive therebetween a mass of the abrasive scouring material which may have no particular conformation except as it is held between the grippers.

Furthermore, we have made provision for a vertically elongated central chamber between these grippers that is reduced while the holder is being used, since the pressure of the hand of the user against the walls of this chamber is utilized to not only hold the mass of cleansing material between the gripping jaws but also to more securely hold the utensil in the hand while pressure is exerted upon it.

With these and other objects in view the nature of our invention will be best understood and explained from the following specification having reference therein to the accompanying drawing in which,

Figure 1 is a plan view of the preferred form of our invention;

Figure 2 is an end elevation of the form shown in Fig. 1;

Figure 3 is a side elevation of the device;

Figure 4 is a transverse sectional view taken on the line 4—4 of Fig. 1;

Figure 5 is a plan view of a modified form of an elongated holder having an inner chamber closed at its ends;

Figure 6 is an end elevation of the form shown in Fig. 5;

Figure 7 is a transverse sectional view shown

in the plane indicated by the line 7—7 of Fig. 5; Figure 8 is a plan view of a circular form of our device;

Figure 9 is a side elevation of the form shown in Fig. 8;

Figure 10 is a side elevation shown in a horizontal direction at right angles to that in which Fig. 9 is viewed;

Figure 11 is a transverse sectional view taken in a horizontal plane indicated by the broken line 11—11 of Fig. 10, and

Figure 12 is a transverse vertical section taken in the plane indicated by the line 12—12 of Fig. 8.

Referring to the drawing the numeral 5 represents the chambered handle portion of the preferred form of our device shown in Figs. 1 to 4. This portion will preferably be made of rubber, and will be elongated in one direction, thereby providing rectangular shaped and substantially flat flanges 6 each of which is integral with the edges of the handle 5. The resiliency of such rubber will permit separation of the flanges against the normal tendency of the stock as shown in Fig. 2, to resist such separation.

The flat surface of the flanges 6 is designated by the numeral 7 and will hereinafter be referred to as the lower surface of the holder, though it is apparent that the utensil may be readily used upon surfaces to be cleaned in any plane. The inner chamber 8 of the holder has its largest cavity at the upper portion of the handle, and the lower portion of said chamber will be gradually reduced in a direction toward the plane of the surface 7. It is our special purpose in this construction to form elongated grooves or sockets 9 extending the whole length of the holder, and providing ready gripping pressure upon the walls of the holder 5 by the hand, when positioning the base of the thumb on one side and all the fingers on the opposite side, thereby effectively gripping the holder as a unit.

But while the reduced base of the handle 5 at the grooves 9 affords a very effective hold for the hand, it also affords a very effective means for gripping the mass of abrasive material 4 such as steel wool, between the edges 10 at the lower portion of the chamber 8. This double function is therefore well attained by the manual gripping force which will be applied at the grooves 9. It is evident that while this abrasive material is held in position by the above described gripping force, such material will serve in its abrasive action over the entire surfaces 7 of the flanges 6.

In our modified form shown in Figs. 5, 6 and

7, the handle 11 is not normally chambered, but is formed of elongated walls 12 integral at their upper portion 13, but separated in a vertical plane extending to the plane of the surface 14 of the flanges 15. This structure affords sufficient separation of the walls 12 to receive the mass material 4 for the abrasive function, as shown in Fig. 7. The gripping hold upon the unit as a whole in this modification, as well as upon the mass material used will be exerted much the same as in the preferred form, and at the right angled connection between the walls and flanges.

An additional feature in the structure of this form consists in the provision of the cavity 16 being reduced in length relative to the length of the entire holder, so that the ends of the cavity fail to extend throughout the length of the handle 11, as shown in Fig. 5. We have also found that this form of our invention above described lends itself very readily to the use of sponge rubber for the material of which the unit 11 is to be formed, and we specify this material as an element of our patentable discovery for use in this utensil.

Figs. 8 to 12 serve to illustrate a modified form of our invention wherein the flanges 17 together normally function as a circular base integral with the chambered handle portion 18 within which the vertical chamber 19 is protected by the walls 20 and 21 having the grooves 9a corresponding to the grooves 9 of the preferred form and functioning in the same way. The flanges 17 of the base in this form are separated by serrated edges 22 fitting neatly together in an articulated manner, as shown in Figs. 10 and 12. The wall 21 of the handle 18 has an inner cavity 23 into which an over-lapping tongue 24 extending inward from the wall 20, is adapted to enter when the edges 22 are normally in contact, this tongue serving to guide the flanges 17 into and out of normal position.

The tongue 24 overlaps the base 27 of the cavity 23 in the wall 21, even when the edges 22 are separated for filling, and leaves a space 25 between the end of the tongue and the farther wall of the cavity 23. Between the serrated edges 22 of the flanges 17, is the elongated space 26 which is adapted to be filled with the scouring material 4 when the parts are separated to widen the space which extends across such flanges to their outer edges, but is covered by the tongue 24 beneath the outline of the handle 18, so that adjacent the convex edges of the flanges 17, the space 25 between the tongue 24 and the opposing edge of the opposite flange beneath the wall 21, extends across these flanges 17, as indicated in Fig. 8.

This last described structure has the advantage in gripping the scrubbing material 4 between the flanges by the pinching action of the hand exerted against the opposing grooves 9a, but also affords the gripping action between the over-lapping tongue 24 and the underlying surface 27 of the opposite flange member so well shown in Fig. 12. This modified structure has a decided advantage arising from the articulated edges 22 as the latter meet with the scouring material between them, the structure 22 and 24 affording an efficient guide for such edges.

It is to be understood that the abrasive material 4 is not only secured between the edges 22 of the

flanges, but that such material is also held by the downwardly pressing force of the tongue 24 upon the base 27, whereby such base and the over-lapping tongue grips the scrubbing material 4 therebetween and in addition, opposes excessive movement of this material upward into the cavity 23 and therefrom to the main cavity 19. This latter relative position of the gripping members and chamber protects the portions of the hand forced against the grooves 9a by the over-lapping function tongue 24, as above stated.

*Operation.*—In the three forms of the structure that we have illustrated, the flanges 6, 15 and 17 are provided in pairs and integrally connected at their upper portion 5, 13, or 18, respectively. The handle portion of all these forms is chambered, and the base portion normally urged together by the resilient material of the handle. Separation of the flanges provides for insertion of an adequate amount of the abrasive material 4 which is thereby held by the pinching action of the hand exerted at the grooves 9 or 9a, so that such material will be held at the base 7, 14 or 28, respectively, the scrubbing material 4 covering such base surface and permitting the edges of the material to rise about the outlined edges of the flanges, as at 29 in the various views.

It is evident from the above description that the action of the human hand as applied at the grooves 9 or 9a, tends to press downward upon the flanges of the utensil and thereby forcing the material 4 against the surface to be cleansed and so affording a very effective means of guiding the holder over such surface, the pinching action of the jaws by such pressure against the grooves adequately gripping the material between edges of the flanges. And downward pressure of the hand upon the flanges tends to force the latter together.

The forms shown in Figs. 4 and 12 afford a very advantageous gripping means for the abrasive material, in part because of the full length of the gripping edges; the form in Fig. 5 is effective in retaining the gripped portion of the abrasive material in a limited length of the gripping edges; while in the form shown in Figs. 12 and 10, the protecting function of the over-lapping element 24 is quite positive and certain.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is:—

An elongated holder comprising a unitary handle portion of circular cross section having a cavity extending laterally through said portion and a circular and flat pad portion integral with the base of the vertical handle and comprising separable portions normally urged together by the resilient material of the unitary handle portion, there being a lower opening between the pad portions transverse thereof and opening into said cavity and in substantially the said plane as the said cavity, one of said pad portions having an integral inner and over-lapping lip portion extending transversely across the lower portion of said cavity and over the transverse opening between the inner edges of said pad portions and above the upper surface of the opposite pad portions whereby to guide the movement of the pad portions toward and from each other to hold fibrous abrasive material in said opening.

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