May 5, 1931 U. S. G. WELSH 1,804,240

POT AND PAN CLEANER

Filed Aug. 16, 1928

FIG. 1.

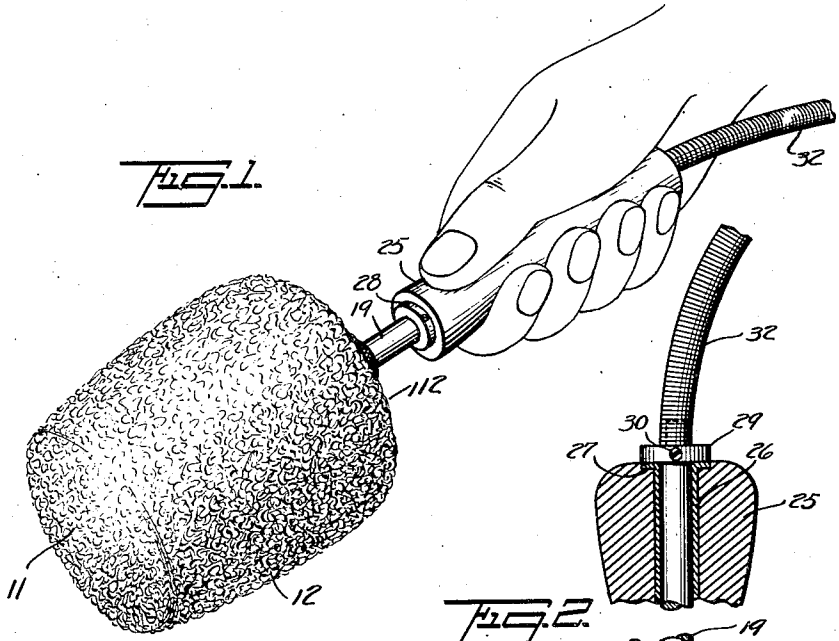
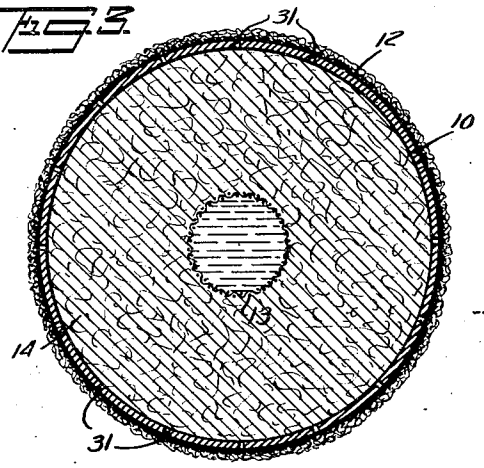


FIG. 2.

FIG. 3.



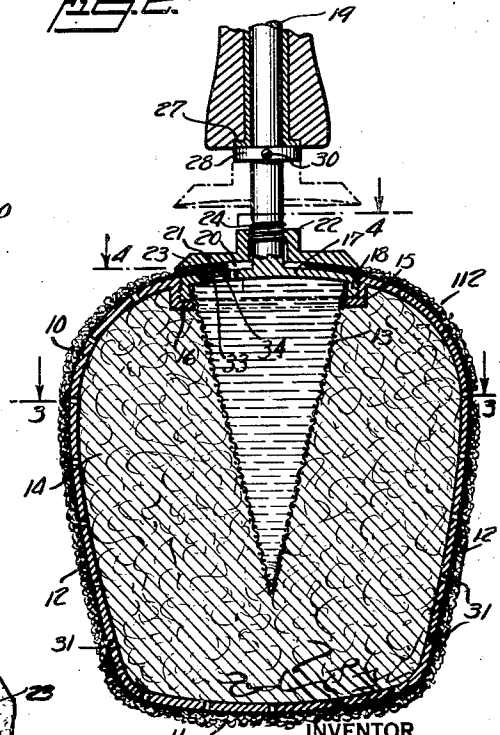
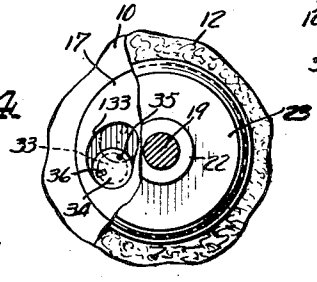


FIG. 4.



WITNESSES

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POT AND PAN CLEANER

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My invention relates to a cleaning device for pots and pans of a form to be operated and controlled while held in the hand of the user.

The general object of my invention is to provide a hand-controlled device for the indicated purpose of novel form and arrangement, and characterized by an external shell having a surface formed of cleaning material such as metal wool, for example, and having an internal container for liquid soap or equivalent detergent, and adapted to be revolved when being used to cause the detergent to exude to the external cleaning surface under centrifugal force.

The nature of my invention and the distinguishing features in which the invention resides, as well as their advantages, will clearly appear as the description proceeds.

Reference is to be had to the accompanying drawings forming a part of this specification, it being understood that the drawings are merely illustrative of one example of the invention.

Figure 1 is a perspective view of a pot and pan cleaner embodying my invention;

Figure 2 is an enlarged longitudinal section of the pot and pan cleaner;

Figure 3 is a transverse section on the line 3—3 of Figure 2;

Figure 4 is a detail in section as indicated by the line 4—4 of Figure 2.

My invention comprises a cleaning head and a handle with driving means to give revoluble movement to the cleaning head while held in the hand and while being manipulated in the operation of cleaning pots and pans.

In the illustrated example showing a practical embodiment of the invention, I provide a substantially rigid shell 10 the forward end of which is in the form of a truncated cone to provide a broad front cleaning end surface 11, as well as a tapered body round in cross section as indicated at 12 in Figure 1.

Within the shell 10 and preferably coaxial therewith is a holder 13 for liquid soap or the like, said holder 13 tapering toward the forward end thereof. The soap holder 13 is formed of wire mesh or otherwise is made to present open walls at all sides for the escape outwardly of the contents of said holder 13. Within the shell 10 and surrounding the holder 13 is suitable absorbent material, preferably sponge, 14.

The shell 10 is made separate from the holder 13, but means is provided when the shell is in place and with the holder therein to hold both in fixed relation so that the cleaning head turns with the turning of the shell and in unison with the holder 13. For the stated purpose use is made of the following supporting means for the holder 13 and securing means for the shell 10. Thus the shell 10 has a central opening at the rear or upper end and extending about the opening is a forwardly directed annular flange 15 which terminates in an inwardly directed annular bearing flange 16. In the opening of the shell 10 as referred to is fitted a closure cap or plug 17 having a forwardly directed flange 18 which has external threads engaging internal threads on the forwardly directed annular flange 15.

A closure 17 is formed rigid with the forward end of a shaft 19 for giving revoluble movement to the cleaning head. The arrangement is such that shell 10 may be screwed onto the flange 18 of closure 17 until the forward end of said flange 18 comes to a bearing against the flange 16 on the shell. The soap holder 13 is made fast at its rear or largest end to the flange 18 to be emplaced and removed with the placing and removal of the closure 17. The assemblage as described provides for the convenient insertion and removal of the absorbent material 14.

The external cleaning material designated generally by the numeral 112 is preferably separate from the shell 10 and comprising the front end surface 11 as well as the lateral cleaning surface 12 on the body is made removable looking toward renewal thereof when worn out and the placing of new material thereon. The cleaning material may be formed of a felted substance, such as steel wool. The invention, however, is not confined to such material, as a fabric may be utilized. The material is in the form of a shell and conforms to the shell 10 to form covering therefor is formed with a hole 20,

so that said material 112 presents an annular edge portion 21 which overlaps the plug 17. It will be understood that the material, either felted or fabric, may be stretched over the shell and retained by the disk or flange 23, and when released therefrom may be readily removed over the shell, due to the stretching characteristics of the material, as will be hereinafter pointed out. To clamp the material 112 firmly in place on the shell (see Figure 2) I provide a nut or internally threaded boss 22 on a clamp disc or flange 23 by means of which the edge portion 21 of the material 112 is clamped between flange 23 and the surface of the closure 17. The threads of the nut 22 engage threads 24 on shaft 19 adjacent to the closure 17, so that by turning back or loosening the nut 22 the closure disc 23 will free the edge portion 21 of the material 112 and permit the removal and renewal of the cleaning material.

A handle 25 is provided on the shaft 19, and said handle is provided with a bushing 26 flanged at the ends as at 27. Front and rear collars 28 and 29 are held by set screws 30 to the shaft 19 for holding the handle 25 against longitudinal displacement while permitting the turning of shaft 19 with the handle 25 while said handle is held in the hand of the user.

The shell 10 is formed wth perforations 31 at the sides and front through which the soap in the holder 13 finds outlet to the surface material 112. The shaft 19 is driven by any suitable means, there being shown for the purposes of illustration a flexible shaft 32 connected with the rear end of said shaft 19.

A device constructed substantially as described when in use is manipulated by the user grasping the handle 25 and causing the flexible shaft 32 to be driven from any convenient source of power (not shown). With the driving of the flexible shaft 32 and with it the rigid shaft section 19 held by the surrounding handle 25, the closure plug 17 will also turn and with it the clamp disc 23. The arrangement is such that the complete cleaning head includes the shell 10, the soap holder 13, the closure plug 17, the cleaning material 112 and the clamp disc 21 all revolving as a unit.

The revolving of the cleaning head causes the soap or other detergent in the holder 13 to move outwardly by centrifugal force to and through the absorbent material 14, and thence through outlet perforations 31 to the cleaning material 112, so that the blunt front end 11 and tapering sides 12 of the cleaning material 112 will be kept supplied with soap. The sides of the head and front thereof are brought against the bottom of a pot or pan and against the sides thereof, the material serving by the application of the detergent and by abrasion to thoroughly clean the pot or pan.

The soap holder 13 is filled through an opening 33 in the closure 17 which inlet opening 33 is closed by a disc 34. The opening 33 has a broad countersink complementary thereto, as indicated at 133, so that the closure 34 will lie flush with the surface of the plug 17. The closure 33 is pivoted as at 35 to disc 17 and has an operating finger notch 36 in the illustrated example. After the disc 23 has been lifted following the turning of nut 22, and when the closure 34 is swung on its pivot 35 away from the inlet 33 soap may be supplied to holder 13.

I would state furthermore that while the illustrated example constitutes a practical embodiment of my invention, I do not limit myself strictly to the exact details herein illustrated, since, manifestly, the same can be considerably varied without departure from the spirit of the invention as defined in the appended claims.

I claim:

1. A pot and pan cleaner, including a substantially rigid perforated shell, separate abrasive material removably carried upon the surface of said shell, a pervious detergent holder arranged within and spaced from said shell and coaxial therewith, absorbent material between said shell and detergent holder; and means for rotating said shell and detergent holder.

2. In a pot and pan cleaner, a hollow perforated shell, a shaft for rotating said shell, separate abrasive material removably carried by said shell and secured thereto by a securing flange associated with said shaft, a conical detergent holder removably positioned through said shell, said detergent holder being formed of mesh material whereby a detergent therein may flow through said shell to said abrasive material, and absorbent material within said shell between said holder and said shell to retard the flow of detergent from said holder.

Signed at New York in the county of New York and State of New York this 15th day of August, A. D. 1928.

ULYSSES S. G. WELSH.