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A. C. JOHNSON

1,897,981

POLISHING AND CLEANING DEVICE

Filed Aug. 26, 1932

Fig. 1

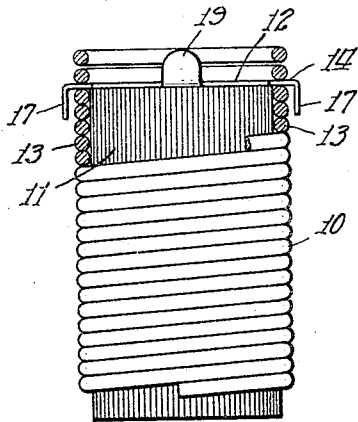


Fig. 2

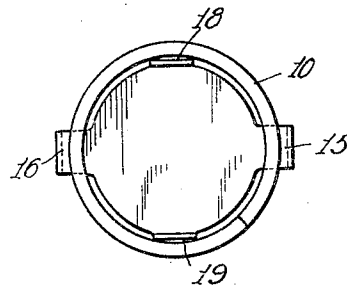


Fig. 3

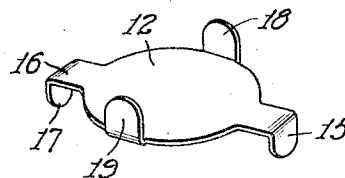
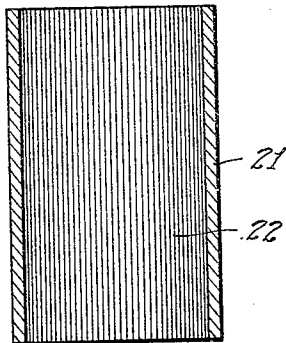


Fig. 4



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## UNITED STATES PATENT OFFICE

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## POLISHING AND CLEANING DEVICE

Application filed August 26, 1932. Serial No. 630,526.

The invention relates to scouring and polishing devices, one embodiment of which is adapted to be employed for scouring pots, pans, kettles or any other utensil or similar articles, however, the size of the device may be varied so as to adapt same for purposes other than those referred to.

The invention has among its principal objects the utilization of a tubular container for the scouring element, having combined therewith a member operable in said container adapted to engage the scouring element, and cooperate with the container to effect movement of the scouring element longitudinally of the container upon relative rotation of said member and container.

The invention has as a further object the provision of a container which will grip the scouring element and hold it against accidental longitudinal displacement relatively to the container, having means combined therewith for causing longitudinal movement of a member operable to advance the scouring element in one direction and prevent movement thereof in the opposite direction.

It is a further object of the invention to construct a container of a piece of material capable of being fashioned to provide a coil and to combine with a construction such as this, means for engaging a scouring element located within the circumference of the coils and to employ the coils to cause movement of the member provided to engage and advance the scouring element relatively to the container upon relative rotation of the last mentioned member or container.

It is a further object to provide means preventing lateral displacement of the member which advances the scouring element with respect to the container and to provide this member with finger pieces whereby same may be grasped and either held or rotated with respect to the container to cause adjustment of the scouring element longitudinally of the container to compensate for wear.

The invention has these and other objects all of which will be explained in detail and more readily understood when read in conjunction with the accompanying drawing which illustrates one embodiment of which the invention is susceptible, it being manifest that changes and modifications may be resorted to without departing from the spirit of the appended claims forming a part hereof.

In the drawing,—

Fig. 1 is an elevation partially in section of a scouring device constructed according to one embodiment of the invention;

Fig. 2 is a plan view of the device shown in Fig. 1;

Fig. 3 is a perspective view of one of the elements shown in Figs. 1 and 2; and

Fig. 4 is a sectional view of the cartridge containing the scouring element which is adapted to be arranged relatively to an end of the device shown in Fig. 1, so that said device may be refilled when this is found necessary or desirable.

The embodiment of the invention illustrated in the drawing is of a size convenient to be readily handled by the user, however the size thereof may be such as to make it capable for use with power driven machines, such as employed by painters or janitors for scrubbing or polishing floors, etc. In either event the invention contemplates the utilization of a container generally designated 10, a scouring element generally designated 11 and a push plate or follower element 12, the latter being provided to engage the adjacent end of the scouring element and move the scouring element in a longitudinal direction relatively to the container to expose a portion of the scouring element so that the same may be arranged for use. It may be here stated that the member 12 will resist movement of the scouring element in a direction toward said member and thus hold the scouring element so that the opposite end thereof will extend a desired predetermined distance from

the adjacent extremity or end of the container 10. The container generally designated 10 is formed of a piece of material wound in a manner to provide coils 13 which will grip 5 the side of the scouring element and tend to frictionally hold this portion of the structure against endwise displacement relatively to the container. By fashioning the container 10 in the manner just referred to, a 10 container which is more or less resilient is provided which will automatically tend to assume its normal position when the force applied during the scouring action is released.

The coils 13 of the container 10 are unattached with respect to each other to thus 15 provide, when spread a space such as 14 for the reception of a portion of the element or member 12 which manifestly will cause this member 12 to be moved longitudinally of the 20 container upon relative rotation of the container and said element. This element 12 is of a disk-like formation and is provided with the laterally extending projections 15 and 16 which extend between the coils of the 25 container 10 and are bent with relation to the disk portion so as to provide finger pieces 17. The disk-like member 12 is further provided with upwardly extending projections 30 18 and 19 which engage the inner circumference 20 of the coils and assist in preventing lateral displacement of the member 12 relatively to the container.

From the foregoing description it is believed evident that upon relative rotation 35 of the member 12 and the container 10 that the member 12 will be advanced longitudinally of the container, causing the scouring element to be moved in the same direction and thereby cause the end of the scouring element 40 to be projected a suitable distance beyond the end of the container, it being understood that the member 12 may be moved towards said last mentioned end of the container until it has become entirely separated 45 from the container, which will naturally cause the scouring element to be ejected from the container.

To refill the container with a scouring element, the structure shown in Fig. 4 is employed, which contemplates the utilization of 50 a cartridge generally designated 21 which is filled with the scouring element 22. During the filling operation, the cartridge 21 is arranged at one end of the container 10 and the 55 scouring element is slid through the cartridge 21 into the container 10, which as before stated, will grip the scouring element and hold same against endwise displacement relatively to the container. The push plate 60 or element 12 is then arranged at an end of the container between the extremity of the uppermost coil and the adjacent coil. The container and element 12 are then rotated relatively to each other. This causes the element 65 12 to be advanced between the coils

and along the coiled container bringing the projections 18 and 19 into engagement with the interior of the container and the projections 15 and 16 into engagement with the exterior thereof, and thus prevent lateral displacement of the push plate, yet will allow 70 same to be rotated and advanced lengthwise of the container to force the scouring element toward one end of the container.

Having thus described the invention, what I claim and desire to cover by Letters Patent 75 is:

1. In a device of the kind described, the combination of a container for a scouring element, said container being formed of a 80 piece of resilient material fashioned to provide a helically formed element, a member operable in said container adapted to engage a scouring element, said member having means extending between the coils of said 85 container to thereby move said member longitudinally of the container upon relative rotation of said member and container and having means providing finger pieces to effect relative rotation of said member and 90 container.

2. In a device of the kind described, a helically formed resilient member providing a 95 container for a scouring element, means for propelling a scouring element longitudinally in the container, said means comprising a follower member having lateral projections extending between adjacent coils of the container and having a thickness greater than 100 the normal spacing of said coils.

3. In a device of the kind described, a helically formed resilient member providing a 105 handle and a container for a scouring element, means for propelling a scouring element longitudinally in the container, said means comprising a follower member having lateral projections extending between adjacent coils of the container, said projections terminating outside of the container and 110 having a thickness greater than the normal spacing of said coils, the outer ends of said projections providing means for manually rotating and thereby moving the follower member longitudinally of the container.

4. In a device of the kind described, a helically formed resilient member having adjacent coils normally in contact and providing 115 a handle and a container, for a scouring element, means for propelling a scouring element longitudinally of the container, said means comprising a follower member having lateral projections extending between and spreading adjacent coils of the container, 120 said projections terminating outside of the container and providing means for manually rotating and thereby moving the follower means longitudinally of the container.

5. In a device of the kind described, the combination of a helically formed resilient member providing a container for a scouring 130

element, a follower member for feeding a  
scouring material, said member comprising  
a disk shaped element with lateral projec-  
tions engaging between the coils of said con-  
tainer and lips disposed at the edge of said  
5 follower and bent sufficiently to engage the  
walls of said container to prevent lateral dis-  
placement of said follower.

In witness whereof, I hereunto subscribe  
10 my name this 15th day of August, A. D. 1932.  
AUSTIN C. JOHNSON.

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