Sept. 20, 1932. A. L. PRIMEAU 1,878,250

CLEANER

Filed Nov. 10, 1928

Fig: 1.

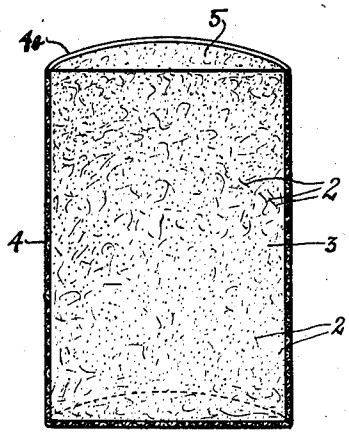
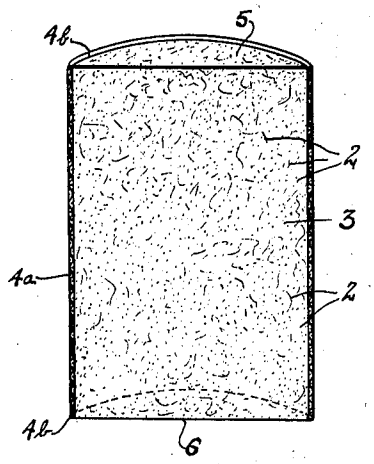


Fig: 2.



INVENTOR

A. L. Primeau

BY Sypniewski & Lechner

ATTORNEYS

Patented Sept. 20, 1932 1,878,250

UNITED STATES PATENT OFFICE

ARTHUR L. PRIMEAU, OF PHILADELPHIA, PENNSYLVANIA

CLEANER

Application filed November 10, 1928. Serial No. 318,375.

This invention relates to cleaners and polishers used for cleaning, rubbing and polishing purposes.

Certain of the objects of my invention will be best understood from a consideration of the device when made up for domestic use in the cleaning and polishing of pans, for example.

I am aware that cleaning and polishing material such as impregnated metal wool or interwoven metal and fibrous material have been used. These are relatively unsatisfactory because they are unsanitary, become odorous and are liable to injure the hands, producing infection. There is also a heavy wastage and loss of material. All of these characteristic features tend toward short life.

It is an object of my invention to provide a device of the character described which overcomes these difficulties.

Insofar as the use of my invention for rubbing and polishing is concerned, it is an object of my invention to provide a superior article for this purpose.

More specifically it is an object of the invention to provide a cleaning, rubbing or polishing article comprising a porous body having abrasive or rubbing qualities, such as metal wool, sponge or fibrous material, with the pores or interstices filled or impregnated with a compound of a cleaning or polishing nature, or one suited to both clean and polish, such as a somewhat plastic composition containing soap, alkali, oils, alcohol, fuller's earth, tripoli, crocus, pumice or rottenstone, or a combination of two or more of them enclosed with a protecting and retaining covering of the character hereinafter more particularly described.

How I attain the foregoing, together with such other objects and advantages as are incident to the invention, or will occur to those skilled in the art, will appear hereinafter, reference being had to the accompanying drawing, in which—

Fig. 1 is a semi-perspective longitudinal sectional view of a device embodying my invention, and

Fig. 2 is a similar view of a modification thereof.

In the drawing I have illustrated a cleaner and polisher of suitable shape having a base or body of steel or copper wool 2 or the like, the interstices or voids of which are filled or impregnated with a flexible or semi-plastic cleaning, polishing, or cleaning and polishing, compound 3.

The device includes a covering 4 which may extend around the body and over one end, leaving the other end 5 open for intimate contact with the surface being treated. This covering should preferably be of a substance or material which is not porous or absorbent, particularly with respect to liquids, as this prevents dissolving and wastage and soaking and softening of the compound. Nothing comes off on the hand and the article remains in a sanitary condition and does not become odorous. At the same time, it prevents, in large measure, the evaporation of the moisture and oils originally present whereby the initial softness of condition is retained so that, for a long period of time, the article is kept in the condition most suitable to perform the particular work for which it was intended. It should also shed water freely and not become slippery, should be capable of withstanding immersion for substantial periods of time; and should be capable of withstanding heat. The covering also should not crack readily, and should have sufficient body and strength to prevent metal ends from working through. The covering should also be such that as the surface 5 wears, the edge 4b of the covering wears off also.

As one suitable substance or material for the covering I prefer to use viscose (cellulose treated with caustic soda and carbon-bisulphide). It is a material which has been used for example, for capping the cork or stopper of glass bottles and similar containers. This material can be obtained in sheet form or in tubes or cups of suitable length for the purpose. Similarly, I may use a fabric cover which is rendered substantially impervious by applying thereto any suitable waterproof coating such, for example, as is used on aeroplane wings.

In the form of the device shown in Fig. 2 the retaining and protective covering 4*a* extends only around the body, leaving one or both ends 5 and 6 free for working surfaces.

The cleaning or polishing compound 3 for general domestic use is preferably composed of soap, about 66%, fuller's earth about 16%, pumice about 7%, oil, and some suitable binding agent. I may however, alter these amounts and, for some purposes, I prefer to add alcohol and one or more of the other materials hereinbefore mentioned.

The proportion of the above compound to the metal wool or other porous material is varied according to the degree of abrasive action required, and I prefer to employ from 20% to 90% of porous material and from 80% to 10% of cleaning and polishing compound, which gives a wide range and yet ensures the full impregnation of the porous material.

It will be obvious that the device obviates the waste usual to handling and using the several ingredients in bulk, does away with scratching or injury to the hands, provides a convenient means for gripping the cleaner, prevents oxidation incident to the use of loose mineral wool where water and air come in contact therewith, and provides, in one article, a variety of cleaning and polishing qualities. The invention also secures the other advantages hereinbefore noted.

I claim:

1. A cleaning or polishing device of the character described including an impregnated interstitial body portion having a working face, and an abradable, impervious retaining cover around the body having an edge adjacent said face adapted to wear down as said face wears.

2. A cleaning or polishing device of the character described including a body portion of mineral wool the interstices of which are impregnated with cleaning and polishing material together with an abradable, impervious, non-absorbent cover therefor.

3. A cleaning or polishing device of the character described including an interstitial body impregnated with cleaning or polishing material embodying an oleaginous substance together with an abradable, impervious, non-absorbent cover therefor.

4. A cleaning or polishing device of the character described including an impregnated interstitial body portion and an abradable, impervious, non-absorbent cover therefor.

5. A cleaning or polishing device of the character described including a semi-plastic interstitial body portion impregnated with cleaning or polishing material embodying an oleaginous substance and an abradable, impervious, non-absorbant cover therefor.

In testimony whereof I have hereunto signed my name.

ARTHUR L. PRIMEAU.