March 19, 1935. A. E. STOKER 1,994,795

SCOURING DEVICE

Filed Jan. 18, 1932

Fig. 1.

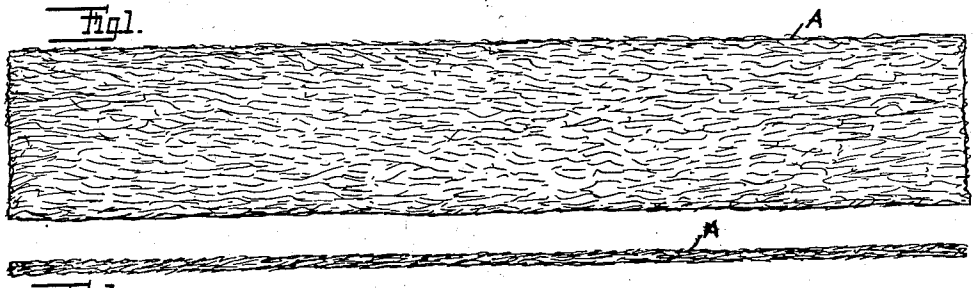


Fig. 2.

Fig. 3.

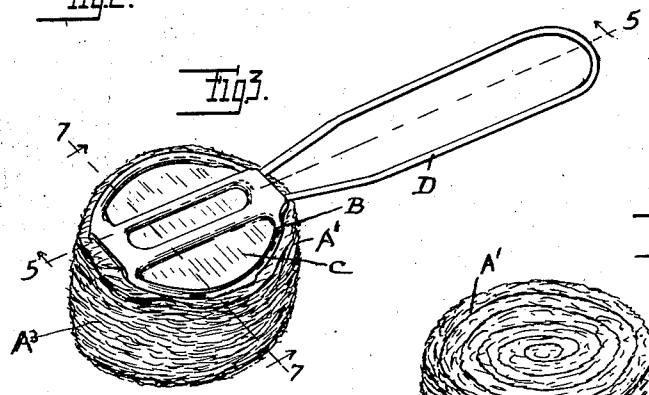


Fig. 4.

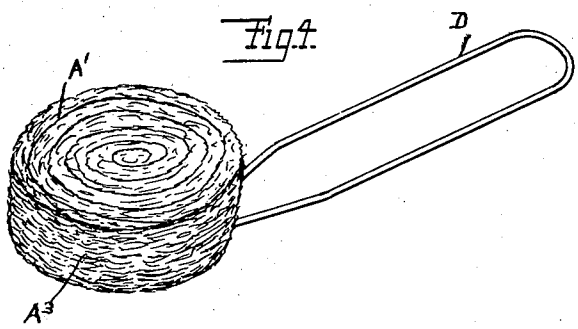


Fig. 5.

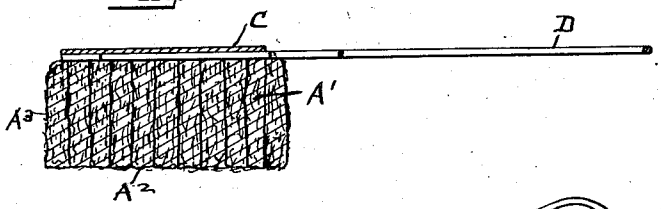
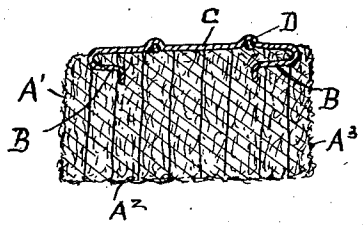


Fig. 7.



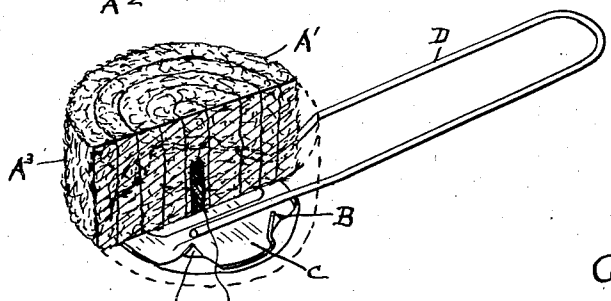


Fig. 6. B G

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SCOURING DEVICE

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Application January 18, 1932, Serial No. 587,298

2 Claims. (Cl. 15—209)

This invention relates to an abrasive implement adapted particularly for the scouring of pots or pans, and has for its object an improved organization of parts by means of which the well known abrasive qualities of steel wool may be employed without involving the danger of metal particles therefrom working their way under the skin of the user's hand, and without involving the rapid, as well as annoying, disintegration of the component steel wool pad, such as has been found to be the case if a mere wad or compacted mass of such material be employed either alone or in association with a handle. To a degree of course this disintegration of even a more or less compacted mass of the steel wool could be avoided by its enclosure within more or less of a cage composed of suitably spaced confining wires or rods, but in such an event most of the abrasive duty would fall upon these enclosing wires rather than upon the steel wool itself, resulting both in the diminished efficacy of the article as a cleansing or wiping medium and in an undue scraping of the metal surfaces because of the primary exposure of these parts rather than the steel wool itself against the surface whose cleansing is desired.

To the desired end of avoiding these objections and of producing an article of corresponding efficiency and yet of relatively inexpensive character this disclosure is directed. A preferred form thereof is shown in the accompanying drawing, wherein:—

Figure 1 is a plan view of a strip of prepared steel wool before it is wound up in the form employed in the completed article.

Figure 2 is an edge view thereof.

Figure 3 is a perspective of the device from above and to one side.

Figure 4 is a perspective from beneath and also slightly to one side.

Figure 5 is a central partly sectional view of the device as completed, being taken along the line 5—5 of Figure 3, and looking in the direction of the arrows here shown.

Figure 6 is a partly broken-away perspective of the device with the abrasive pad partly cut away, designed to bring out through the medium of somewhat exaggerated bounding lines of the constituent layers, the character of the pad as completed.

Figure 7 is a central sectional view of the pad alone, somewhat similar to the showing in Figure 5, but designed to bring out particularly the correlating action of the prongs on the metal cap or disc relatively to the stranded steel wool layers.

By a method and through the medium of mechanism which is reserved for the subject matter of another application, I first impart a stranded or more or less fabricated character to an initially fluffy mass of steel wool to a degree that, while not possessing any such tensile strength as a ribbon or tape, is yet susceptible of being drawn upon lengthwise to a degree sufficient to enable the initially flat strip A, shown in Figures 1 and 2, to be wound about a central axis until it assumes the form A', shown in Figures 3 to 7 inclusive, the cross-sectional spiral contouring of the completed pad being therein clearly brought out. This leaves that part of the fabricated strip constituting the lower edge of the spirally wound pad in a relatively compacted mass, each layer portion of which has only its exposed edge available for abrasive purposes with the more or less fabricated interior part of the corresponding portion of the now spirally wound strip integrated therewith as regards any tearing tendency due to the abrasive action of this exposed edge upon a surface to be cleaned. I then attach thereto, as by means of the entering and inwardly bent claws B, a metallic disc or cap C to which any suitable or desired form of handle, as D, may be attached. It has been my experience that the remarked upon inbent character of the points B after they enter the fabricated and rolled mass tend to clamp together more closely than ever the upper edge portions of the several convolutions of the strip A, thus making a quite compact mass of the mineral wool at the upper edge of the roll, and yet, due to the fabricated character of the latter, firmly integrated with the remaining parts thereof to such a degree that even the lower or abrasive edge portion thereof, as A^2, is held compactly in relation though, as brought out particularly in Figures 3, 4, and 5, with even the exposed side layers thereof, as A^3, projecting sufficiently beyond the peripheral edge of the cap C so that these exposed sides of the fabricated roll, as well as the bottom edge, may be relied upon for abrasive action of the steel wool itself against the surface to be cleaned. Due to the fluffy character of the steel wool, even when fabricated as described, all parts thereof not positively seized by the inbending points B of the cap C tend to bulge outwardly and roundingly, so that the desired curving surface of an abrasive mass is maintained in contour without the necessity of relying upon enclosing wires or traversing threads.

It will be obvious that my improved utensil can be employed as a scouring abradant either by it-

self or with an assisting cleaning medium, such as liquefied or semi-liquefied soap, which latter may either be applied through repeated dipping or daubing into a convenient supply thereof, or through the medium of impregnation of the entire mineral wool mass. I have also shown at G in Figure 6 a further possible modification of this idea, involving the positioning of a lump of relatively hard soap in about the center of the spirally wound mass of steel wool.

What I claim is:

1. In combination with an abrasive pad formed of spirally wound laminations of a relatively narrow strip of loosely fabricated metal wool whose component fibres extend preponderantly lengthwise of the strip, a handle therefor having a head provided with inturned prongs applied to one of the axially terminal ends of the spirally arranged mass, said prongs entering and traversing the adjacent edge portions of a plurality of the laminations of the spirally wound strip, thereby effecting the firm assemblage of the metal wool mass as a whole while leaving the opposite end of the spirally assembled mass free for unobstructed abrasive action upon a selected surface, and a mass of dissoluble detergent material initially positioned within the mass of spirally wound pad in position to be acted upon by a fluid to which the pad is exposed for thereafter contributing to the scouring effect of the pad on a surface to be cleansed.

2. An abrasive pad formed of a ribbon of loosely fabricated metal wool spirally wound into roughly cylindrical form, that edge of the ribbon which as assembled forms one of the ends of the cylindrical mass being plurally traversed by projecting prongs of an attached handle, whereby the spiral arrangement of the mass is held from the disintegrative effect resulting from the service of the other end of the mass as an abrasive upon a surface whose cleansing is desired.

ALBERT E. STOKER.