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2,376,783

SCOURING IMPLEMENT

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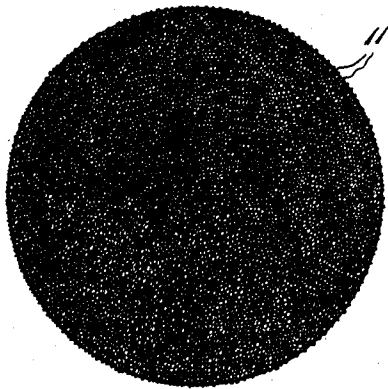


Fig. 1



Fig. 2

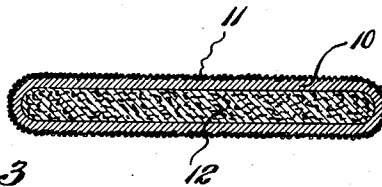


Fig. 3

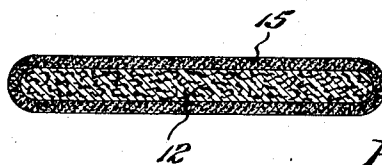


Fig. 4

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SCOURING IMPLEMENT

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6 Claims. (Cl. 51—185)

This invention relates, generally, to improvements in scouring implements; and the invention has reference, more particularly, to a novel hand implement for cleaning, scouring and polishing kitchen utensils, metal and other surfaces which require the application of abrasive action to effect the best results.

This invention has for an object to provide a novel scouring implement comprising a scouring body formed by tough, flexible and somewhat resilient, liquid impervious or non-absorbent material with at least the external face portions of which abrasive grain material or grit is incorporated; whereby when in use the implement is pressed against and moved over a surface to be scoured, the abrasive surface of said body will readily conform to and efficiently abrade said surface with scouring effect; and whereby when the implement is used with water or other cleaning liquid, the latter cannot penetrate the substance of the body and consequently said body may be easily cleaned after use merely by rinsing the same in clean water, and thus may be readily kept in a sanitary condition.

The invention has for another object to provide a resiliently compressible scouring implement comprising an internally cushioned hollow seamless body, said body being made of a tough, flexible and somewhat resilient and liquid impervious or non-absorbent material which also serves as a matrix for securely holding particles of pulverized abrasive material with which the same is charged.

The invention has for a more specific object to provide a hollow, seamless body containing a cushioning means or core of dry, fibrous material, said body, in a preferred embodiment thereof, being made from a composition consisting of co-polymers of both vinyl chloride and vinyl acetate in relative proportions whereby the co-polymers of vinyl chloride predominate, so that the resultant body mass is not only tough, flexible and somewhat resilient and well adapted to serve as a matrix for securely holding a pulverized abrasive material incorporated therewith, but is also impervious to liquid or non-absorbent, whereby to prevent water or other cleaning fluid from gaining access to the internal fibrous cushion means or core so that the latter not only remains dry and springy, and free from tendency to become soggy matted down, as would be the case if saturation thereof with water or other cleaning fluid were permitted, but also remains free from accumulation of dirt, grease or the like,

which would otherwise be likely to invite rancidity and other unsanitary conditions.

Other objects of this invention, not at this time more particularly enumerated, will be understood from the following detailed description of the same.

Illustrative embodiments of the invention are shown in the accompanying drawing, in which—

Fig. 1 is a face view of the scouring implement according to the invention; Fig. 2 is an edge elevational view thereof; and Fig. 3 is a transverse vertical sectional view thereof.

Fig. 4 is a transverse vertical sectional view of a somewhat modified form of the scouring implement according to this invention.

Similar characters of reference are employed in the above-described views to indicate corresponding parts.

The novel scouring device according to this invention is formed by a hollow seamless body 10 of any desired external shape, but which is illustratively shown in the drawing as of a circular or disk-like form having substantial thickness. Said hollow seamless body is made of a plastic material of such nature as to be characterized by the qualities of toughness and somewhat resilient flexibility, while at the same time being impervious to liquid or non-absorbent. The plastic material also provides a matrix for strongly gripping and holding, especially at the external surfaces thereof, the pulverized abrasive material or grit 11 desired to be incorporated therewith. The internal cushioning of said hollow seamless body 10, whereby the latter is yieldable supported and backed, may be variously accomplished. Preferably, however, the hollow interior of said seamless body 10 is filled with a mass of dry and springy fibrous material adapted to provide a resilient cushioning core 12. Said fibrous material may be of any desired or suitable kind, such as a mass of vegetable, animal or mineral fibres, cellulose or the like.

I have found a satisfactory plastic material from which the hollow seamless body 10 may be formed is afforded by a composition comprising a mixture of the co-polymers of both vinyl chloride and vinyl acetate, wherein the former preferably constitutes from 75 to 85 per cent, more or less, of the total mixture. This composition may be initially conditioned by a suitable solvent so as to provide a substantially liquid mass of somewhat viscous consistency, which when dried, so as to be substantially freed of the solvent by evaporation thereof, preferably in the open air, becomes cured to a tough yet resiliently flexible

homogeneous body texture, which is free from pores, and which is impervious to penetration by liquid, while at the same time being adapted to form a strong holding matrix for binding to itself and to external surfaces thereof the pulverized abrasive or grit particles 11 with which it is charged for the purposes of this invention.

In producing the structural form of scouring implement shown in Figs. 1 to 3 inclusive from the composition above referred to, the cushioning core 12 is coated with the viscous mixture until said core is wholly enveloped thereby in the form of an integral seamless integument of suitable thickness; which thickness can be built up to a desired predetermined degree by successive coatings. Before the composition sets to final dry condition, i. e., before its external surface solidifies, the external surface portions are rolled in the pulverized abrasive material or grit 11, or said abrasive material or grit is otherwise suitably applied thereto, whereby to imbed the same in said outer surface portions of the formed integument or hollow seamless body 10. Alternatively, the abrasive material or grit 11 may be mixed with a modicum of the viscous composition, whereby to form a grit charged final and external coating for application to and amalgamation with the initial integument forming coating or coatings. In either case, the abrasive material or grit 11 is confined to the outer surface portions of the hollow seamless body, so that inner portions of the latter are substantially free from abrasive or grit content, and consequently a maximum of resilient flexibility of the integument or hollow seamless body is assured.

If desired, the abrasive material or grit 11 may be initially mixed with the composition, so that after the latter is applied to and around the cushioning core 12, the resultant integument or hollow seamless body is impregnated throughout its mass with the abrasive material or grit. This is shown in Fig. 4, wherein the abrasive impregnated integument or hollow seamless body is indicated by the reference character 15. Such form of the scouring implement is quite satisfactory, although the resultant integument or hollow seamless body thereof is somewhat stiffer and less flexible.

It will be obvious from the above that the novel implement of this invention provides a very convenient means for adequately performing the operation of thoroughly scouring and polishing a surface desired to be cleaned. The abrasive charged hollow seamless body of the device, being resiliently backed by the internal cushioning core 12, will be firmly and conformably pressed against the surface operated upon, so that, as the implement is rubbed back and forth over said surface, the abrasive will be brought into intimate contact therewith, and so as to exert a scraping effect well calculated to loosen and scrape away encrusted and caked dirt, grease and soil, and finally to efficiently polish the cleansed surface. In such operation, soap and water or other desired cleaning fluid may be used in assistance thereof, and yet the resultant dirty and greasy liquid cannot penetrate the scouring implement so as to gain access to the internal cushioning core. As a consequence, said internal cushioning core is maintained in dry and springy condition, without tendency to be matted and broken down into a soggy mass. Furthermore,

the core is thus protected against accumulation of dirt and grease, and therefore cannot become rancid and unsanitary. Since the external hollow seamless body is non-absorbent, any accumulation of dirt and grease adhering thereto after use may be quickly and easily removed by rinsing the implement in clean water. It therefore follows that the implement, while efficient for scouring operations, may nevertheless be easily maintained sweet, clean and sanitary for repeated use over a long life of service.

I am aware that various modifications of structure and form may be made with respect to the scouring implement of this invention without departing from the scope of the invention as defined by the here following claims. Hence, I do not limit myself to the exact arrangements and combinations of the materials and parts described in the foregoing specification, nor do I confine myself to the exact details of the construction of the device and its parts as illustrated in the accompanying drawing.

I claim:

1. A scouring implement comprising a body formation of suitable shape, said body formation being formed from a tough, flexible and somewhat resilient liquid impervious material, and at least external surface portions of said body having abrasive grit bound therein and thereto by the material of said body.

2. A scouring implement comprising a body formation of suitable shape, said body formation being formed from a cured composition of the co-polymers of vinyl chloride and vinyl acetate in which the former substantially predominates, and at least external surface portions of said body having abrasive grit bound therein and thereto by said material of the body.

3. A scouring implement comprising an internally cushioned hollow seamless body, said body being formed from a tough, flexible and somewhat resilient liquid impervious material, and at least external surface portions of said body having abrasive grit bound therein and thereto by the material of said body.

4. A scouring implement comprising an internally cushioned hollow seamless body, said body being formed from a cured composition of the co-polymers of vinyl chloride and vinyl acetate in which the former substantially predominates, and at least external surface portions of said body having abrasive grit bound therein and thereto by said material of the body.

5. A scouring implement comprising a hollow seamless body, said body being formed from a tough, flexible and somewhat resilient liquid impervious material, a resilient cushioning core of fibrous material filling the hollow interior of said body, and at least external surface portions of said body having abrasive grit bound therein and thereto by the material of said body.

6. A scouring implement comprising a hollow seamless body, said body being formed from a cured composition of the co-polymers of vinyl chloride and vinyl acetate in which the former substantially predominates, a resilient cushioning core of dry fibrous material filling the hollow interior of said body, and at least external surface portions of said body having abrasive grit bound therein and thereto by said material of the body.

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