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G. W. BROOKS ET AL

1,878,104

CLEANSING ARTICLE AND METHOD OF MAKING SAME

Filed July 30, 1928

Fig. 1.

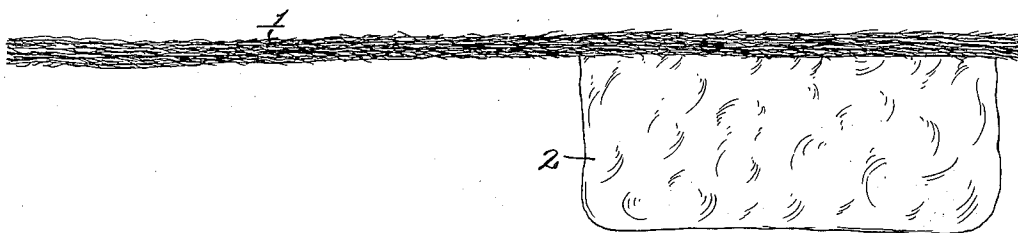


Fig. 2.

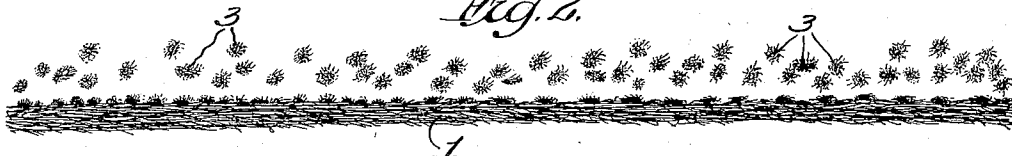


Fig. 3.

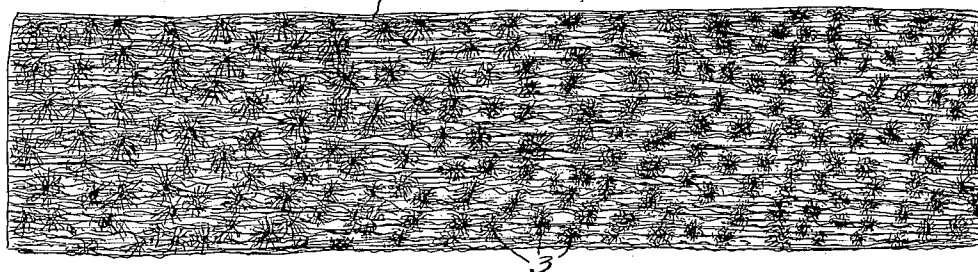


Fig. 4.

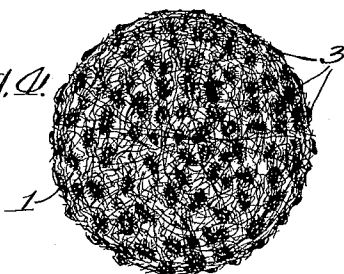
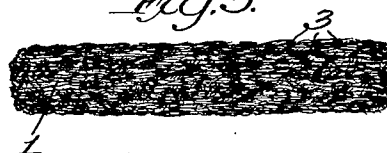


Fig. 5.



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UNITED STATES PATENT OFFICE

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CLEANSING ARTICLE AND METHOD OF MAKING SAME

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The present invention relates to cleansing articles such as of the metal wool and soap type, and a method of making the same.

Among the objects of the invention are to provide a novel cleansing article and a novel method of making it.

In the usual cleanser, when the article soaks in the water too long, or allowed to remain wet, as on a sink shelf or the like, the soap rapidly softens and loosens from the metal fibres, and disappears before the fibres have served their possible use or purpose.

The present invention has for an object the provision of means to maintain the soap or other cleansing compound from becoming rapidly used up or dissipated. To accomplish this in an illustrative specimen, soft fibrous material, such as animal or vegetable fibres, are included in the metal fibres, preferably with the animal or vegetable fibres distributed or mixed with the metal fibres, throughout the mass of the articles, and the cleansing compound, such as soap or other saponaceous substances, impregnates the interstices of the fibre.

The animal or vegetable fibres may be loose fibres such as of wool, cotton, silk and other like materials, or may be threads, yarns, rovings or the like thereof, and said fibers will be hereinafter referred to as "organic fibers." In addition to these fibres acting to retard the release of the soap or like cleansing compound from the article or pad, whereby longer life, utility and value are had, they will also have a polishing value, these fibres being so distributed that when the surface of an object is rubbed by the articles, they will act as polishing elements against such surface. Also, these fibres will also help in preventing the metal fibres from pricking the fingers and hands of the user.

Other objects, capabilities, advantages and process steps are comprehended by the invention as will later appear and are inherently possessed thereby.

Referring to the drawing:

Fig. 1 shows a view in side elevation of one way of applying the textile fibres to the metal fibres.

Fig. 2 shows a similar view showing an-

other method of applying the textile fibres to the metal fibres.

Fig. 3 is a top plan view of the metal fibres showing distribution of the textile fibres.

Fig. 4 is a view of the fibres after being formed into a ball by a balling machine.

Fig. 5 is a view of the ball compressed into a pad either before or after impregnation with the saponaceous substance or soap and ready for use.

Referring more in detail to the drawing, the embodiment selected to illustrate the invention comprises a number of fine unspun metal fibres 1 which may be drawn from a spool or from a spreading machine designed for spreading the fibres, whereby these fibres are disposed more or less in parallelism and in the form of a sheet. For the purpose of including and distributing soft organic fibres, the sheet may be passed over a quantity of such fibrous material 2 and in contact with it, so as to engage with and pick up a certain amount of the organic fibrous material whereby the surface of the sheet may have distributed thereover a more or less even amount or layer of such fibrous material. On the other hand, if it be desired, instead of passing the sheet over the organic fibrous material, as shown in Fig. 1, portions of said organic fibrous material, such as the portions 3 shown in Fig. 2 may be sprinkled or scattered over the surface of the sheet of metal fibres 1 as shown in Figs. 2 and 3. The amount of the distribution of the soft organic fibres and expanse of dispersion may be regulated as desired. This mixture of the two fibres may be formed into the shape of a ball as that shown in Fig. 4. Preferably, this is performed in a balling machine whereby the fibres may be produced in a form of a porous or spongy mass. The ball is then compressed in a suitable compressing device or machine so as to form a pad such as that shown in Fig. 5. The soft organic fibrous material will be distributed throughout the mass in a more or less homogeneous arrangement. The pad is then impregnated with saponaceous or soap compound which is permitted to harden when impregnated in the fibres. The pad is then ready for use.

The soft fibres will act as liaison elements or connectors in such a way as to prevent the soap from taking a granular or like form and to retard the softening or dissolving of the soap. The soft fibrous material may be in the form of piths, and when impregnated with the soap will form a more or less solid formation such as a cake of soap although small in size. On the theory that when a cake of soap is cut into flakes, the whole mass will dissolve more rapidly than the cake itself, it will be apparent from the above, that when the soft fibres maintain the soap compound in a more or less cake form, rather than in granular or flaky form as often occurs when the soft fibres are not present, that the life of the article is much increased.

The presence of the soft fibres in practically all parts of the mass, will also present certain fibres to the surface of the mass so that when the same is used to rub over the surface of an object, these soft fibres will act as a polishing medium, thus giving a better polished appearance than has heretofore been possible. Likewise, these fibres will aid in preventing the metal fibres from injuring the hand or fingers of the user.

While we have herein described and upon the drawing shown an illustrative form of the invention and a method of making the same, it is to be understood that the invention is not limited thereto, but may comprehend other arrangements of parts, details, features and process steps without departing from the spirit thereof.

Having thus disclosed the invention,

We claim:

1. A cleansing article comprising a spongy mass of abrasive metal wool, piths of textile fibres distributing throughout said mass, and soap filling the interstices of said wool and fibres.

2. A method of making cleansing articles, comprising scattering textile fibres upon a sheet of metal fibres, forming the fibres into a porous pad, and impregnating the fibres with soap.

3. The method of making a cleansing article comprising forming metal fibers into approximately sheet-like form, distributing non-metallic fibers over the surface of the sheet of metal fibers, and providing said fibers with hardened coatings of soap by impregnating the mass with soap and allowing it to harden.

4. A method of making a cleansing article comprising imparting a travelling movement to a sheet of metallic fibrous material and causing the travelling sheet to engage non-metallic fibrous material, so that portions of the non-metallic fibrous material will be presented to the surface of the completed article, and impregnating the mass with soap and allowing said soap to harden.

5. A method of forming a cleansing article

comprising forming metal fibers into a sheet, causing non-metal fibers to adhere thereto, balling and compressing the mass and so arranging it that portions of the non-metal fibers are presented to the surface of the mass, and impregnating the compressed mass of fibers with soap and allowing said soap to harden.

6. A cleansing article comprising a compressed pad of heterogeneously arranged loose and unspun metal fibers, loose unspun organic fibers scattered through the pad with portions of the last mentioned fibers presented to the surface of the mass, and soap filling the interstices of all of said fibers.

7. A cleansing article of the character described comprising a compressed homogeneous mass of loose unspun metal fibers interspersed with loose, soft unspun organic fibers, said mass being impregnated with hardened soap, with portions of the unspun organic fibers presented to the surface of the mass.

In witness whereof, we hereunto subscribe our names to this specification.

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