No. 824,013. PATENTED JUNE 19, 1906.

F. S. HARRISON.

SCRUBBING SPONGE.

APPLICATION FILED APR. 12, 1905.

FIG. 1.

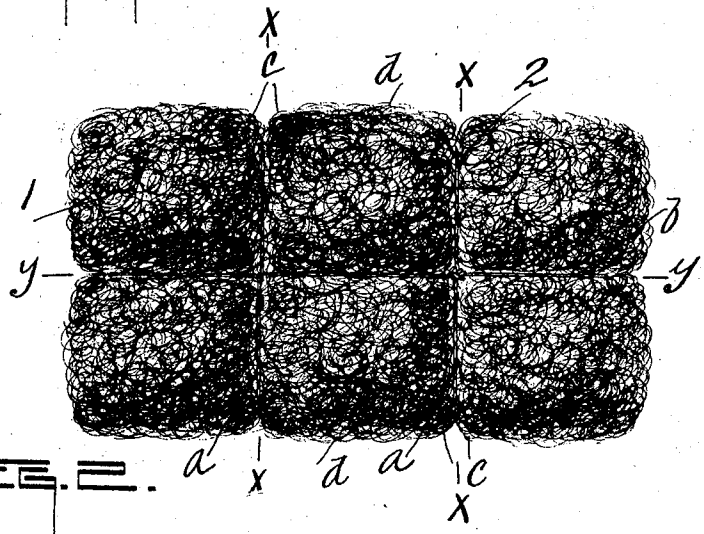


FIG. 2.

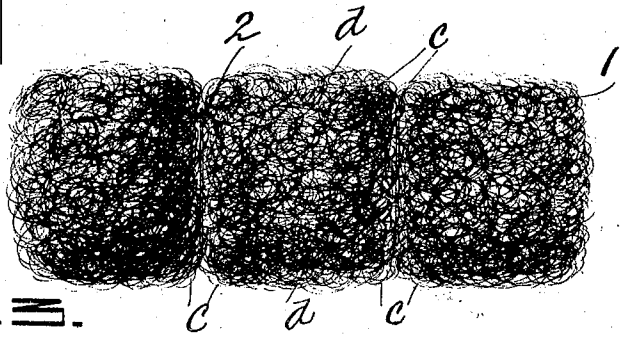
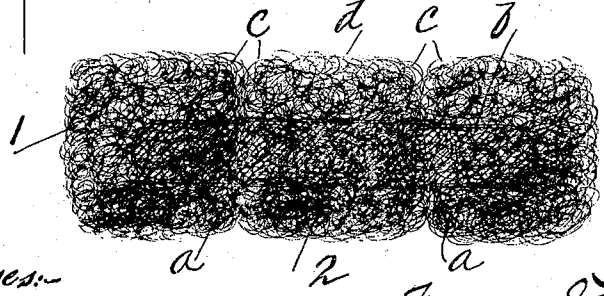


FIG. 3.



Witnesses:-
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Inventor.
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By Chas. N. LaPorte Atty.

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UNITED STATES PATENT OFFICE.

FRANK S. HARRISON, OF PEORIA, ILLINOIS.

SCRUBBING-SPONGE.

No. 824,013. Specification of Letters Patent. Patented June 19, 1906.

Application filed April 12, 1905. Serial No. 255,098.

To all whom it may concern:

Be it known that I, FRANK S. HARRISON, a citizen of the United States, residing at Peoria, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in Scrubbing-Sponges; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has reference to improvements in scrubbing sponges or brushes, and has for its object a sponge made of curled hair or other fibrous or stringy material.

A further object of the invention is a scrubbing-sponge made of curled hair or other stringy material, being first wadded together by suitable means and in a suitable shape and a binder for the said sponge consisting of a cord wrapped longitudinally and transversely about the sponge and being interlocked with itself at intersecting points, the said binder being of some suitable shrinkable material adapted in the use of the sponge to automatically embed itself into the material of the sponge out of reach of friction and destruction.

That the invention may be more fully understood, reference is had to the accompanying drawings, in which—

Figure 1 represents in a plan a scrubbing-sponge embodying my improvements. Fig. 2 is an edge view of the same, and Fig. 3 is a vertical longitudinal section of a sponge, showing the extent of the contraction or shrinkage of the binder and the manner in which it embeds itself into the mass of hair by constant use.

The advantages of a sponge of the character herein shown will be better understood from the following explanation and description of the same. Curled hair or other fibrous stringy material wadded into a mass as a scrubbing contrivance it is already well known makes a better, less injurious, more durable, and less costly means of gently or vigorously scouring the flesh in connection with soap and water to remove foreign matter than bristle ends or brushes of a similar character.

In order to make a practical and economical application of curled hair or similar material as a sponge or brush, the invention is composed of curled hair or similar stringy material, which is indicated as 1 in the drawings, so wadded or padded and bound together that the mass of material will remain intact and retain its usefulness until it loses its usefulness by being worn out. To bind the mass or to retain the same in a wad or pad, I employ a cord 2, bound in transverse and longitudinal directions exteriorly of the said wad, the same being of some suitable shrinkable material, either of twisted hemp, cotton, gut, or any material possessing the property of shrinkage. As a binder for a wad or pad of curled hair or similar material the same must needs be of shrinkable nature to adapt the material of the sponge to expand and release itself when drying to permit the same to become thoroughly aired or cleansed after its use in soap and water.

The binder as here shown is in the form of an ordinary bundle-tie, being a single cord carried transversely about the wad of hair, as at *a a*, and longitudinally thereof, as at *b*, and where *a* and *b* intersect interlocked or crossed, drawing down the hair and embedding itself into the same, which prevents the cord from shifting to right or left or backward or forward and invisibly retain the sponge in a practical shape. The binder being drawn tightly about the material or upon the shrinkage of the same by use, the surface of the sponge becomes firmer at points of contact, such as at *c*, and soft at intermediate points *d*, thus producing alternate hard and soft surfaces, giving a varied, but effective friction. When the binder is wet or moist, it shortens from *x* to *x* and *y* to *y*, drawing the material down in all directions toward the intersecting points of the binder, producing the resisting surface above referred to and automatically embeds itself out of reach of friction and destruction and finally disappears into the body of the sponge. After using, the sponge should be rinsed or have several holdings of clear clean water squeezed through it, then laid by. As it dries the binder will to a more or less extent relax and expand, giving the bound-up material a chance to relax, air, and freshen before use at another time. Curled hair or other similar stringy material as it begins to dry has a peculiar property of untwisting or retwisting itself and changing surface to air and light. Thus any loosening up of the binder puts the article in a more sanitary condition and presents a new scrubbing-surface.

Attention is called to the fact that my sponge is retained in a compact mass without

the use of a hard-block backing or hard inner reinforcement, also that the individual fibers of the material are neither fastened to or cemented in any way to a binder. Thus when the binder which I here employ dries and the material expands the material is free to shift about according to its natural tendency, producing a sponge especially adapted for use in the toilet and bath.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. As a new article of manufacture, a scrubbing-sponge comprising a body composed of curled hair, and a binder of shrinkable material comprising a cord wrapped transversely and longitudinally of the body for holding same in a compact form.

2. As a new article of manufacture, a scrubbing-sponge comprising a body of stringy material held compact and compressed by a binder of shrinkable material in the form of a cord wrapped tautly on the body to be out of reach of friction on the rubbing-surfaces of the body.

3. As a new article of manufacture a scrubbing-sponge comprising a rubbing-body composed of curled hair wadded into a block of substantially rectangular form, each face of which has a rubbing-surface, and a shrinkable binder in the form of a cord wrapped longitudinally and transversely of the body with the longitudinal and transverse wraps of said binder-cord intertwisted at the points of crossing, said binder-cord being wrapped tightly on the body so as to be out of reach of friction on the rubbing-surfaces of the body.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK S. HARRISON.

Witnesses:
CHAS. W. LA PORTE,
ROBT. N. MCCORMICK.