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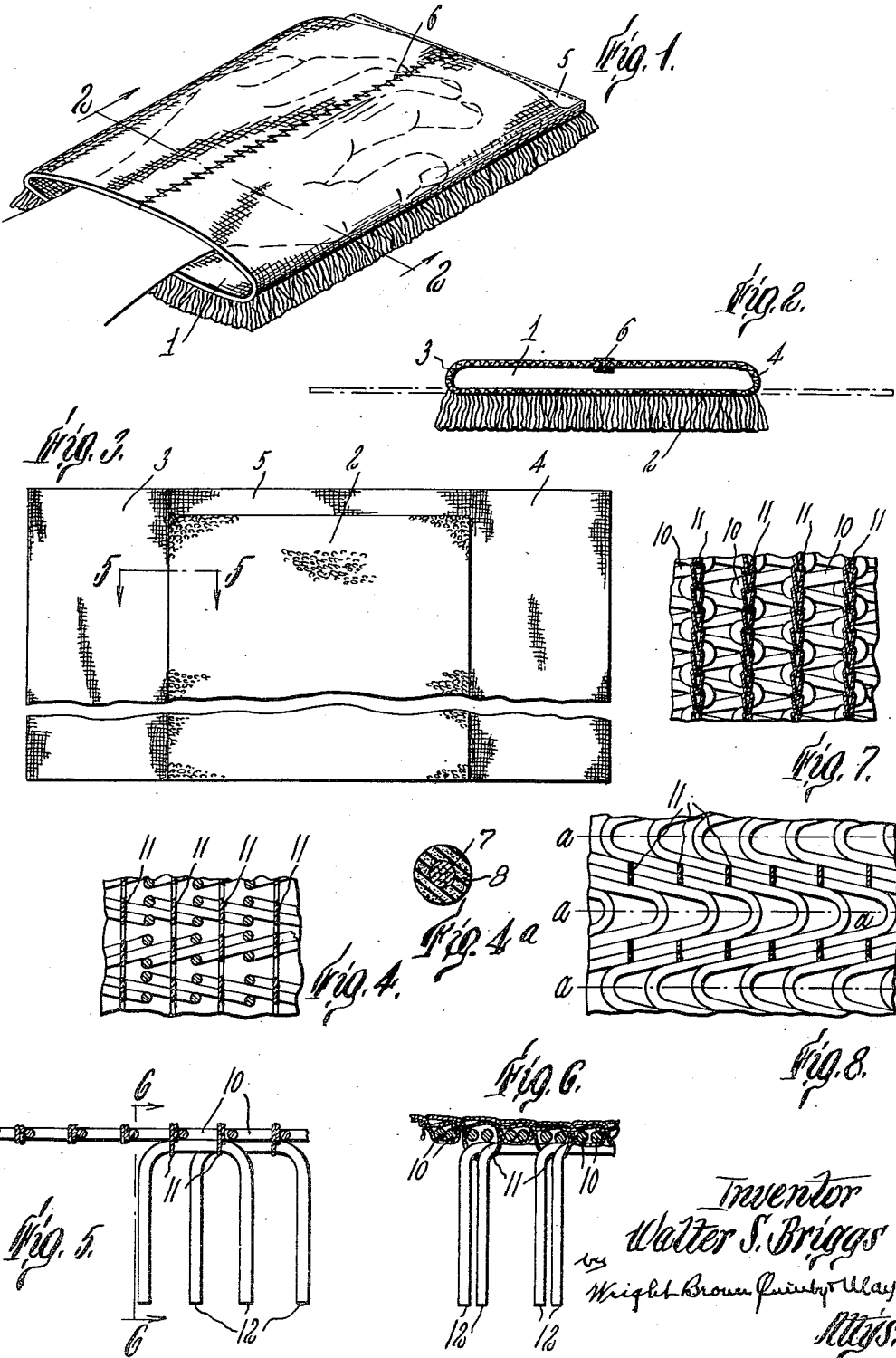
W. S. BRIGGS

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SCRUBBING AND POLISHING DEVICE AND FABRIC THEREFOR

Filed Jan. 25, 1952

2 Sheets-Sheet 1



Inventor
Walter S. Briggs
by Wright Brown Quintz Uday,
Atty.

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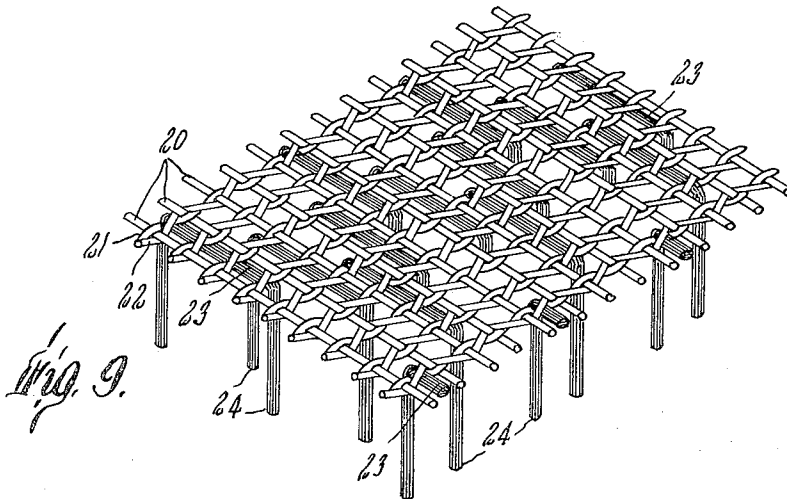
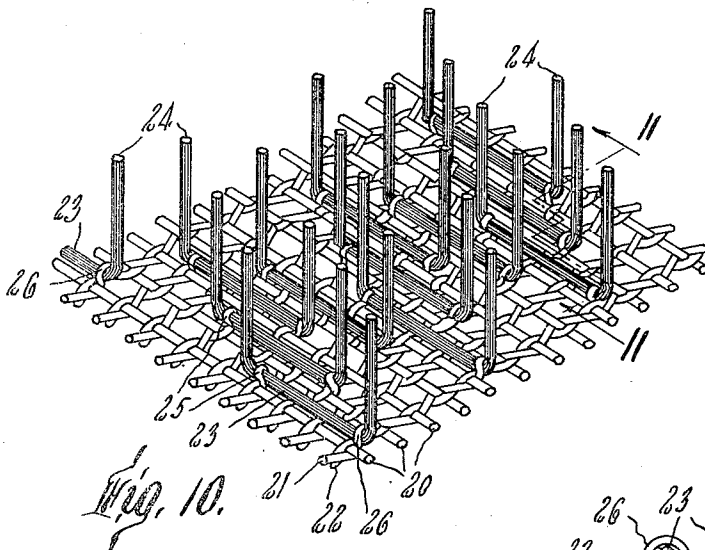
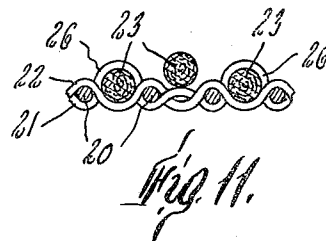
W. S. BRIGGS

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SCRUBBING AND POLISHING DEVICE AND FABRIC THEREFOR

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2 Sheets-Sheet 2



Inventor
Walter S. Briggs
by *Wright Brown Quincy Polley*
Atty.

UNITED STATES PATENT OFFICE

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SCRUBBING AND POLISHING DEVICE AND
FABRIC THEREFOR

Walter S. Briggs, Needham, Mass.

Application January 25, 1952, Serial No. 268,173

10 Claims. (Cl. 66—191)

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This invention relates to devices for scrubbing and polishing and to a fabric therefor, and has for an object to utilize the highly absorptive properties of cellulose sponge, while at the same time employing a structure having substantial strength and softness when moistened, capable of hard usage and offering adequate protection to the hand when the device is worn thereon. To these ends the scrubbing or polishing surfaces comprise a thick mass of strands presenting loose ends and carried by a fabric backing, each strand comprising a reinforcing core of relatively strong textile material such as cotton surrounded by a layer of cellulose sponge intimately bonded to the core, and each strand secured intermediate its ends to the fabric. The strands comprising the cellulose sponge may be omitted about certain margins of the fabric so that these margins may be brought together to form a bag or pouch having the scrubbing or polishing surface on one side only. The fabric is preferably of a thick and soft nature so that when the bag is worn on the hand, the back face free from the sponge material is sufficiently thick and soft to protect the hand of the wearer from injury through accidental contact with other objects.

Referring to the drawings,

Figure 1 is a perspective view showing one form of the device and shown as worn on the hand of the user.

Figure 2 is a sectional view of the device of Figure 1 on line 2—2 of Figure 1.

Figure 3 is a plan view of fabric with its side margins free from the cellulose sponge and in condition to be made up into the article of Figure 1.

Figure 4 is a fragmentary sectional view to a larger scale showing the fabric at the sponge side, the showing of the filler strands being omitted for the sake of clarity.

Figure 4a is a cross sectional view to a larger scale showing the cellulose sponge strand.

Figure 5 is a detail sectional view to a larger scale on line 5—5 of Figure 3.

Figure 6 is a detail sectional view on line 6—6 of Figure 5.

Figure 7 is a plan view of the back face of the fabric.

Figure 8 is a view of the front face of the fabric before the loops of cellulose sponge strand are cut.

Figure 9 is a fragmentary back perspective view showing a fabric of modified construction.

Figure 10 is a view similar to Figure 9, but showing the sponge or front face of the fabric of Figure 9.

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Figure 11 is a detail sectional view on line 11—11 of Figure 10.

Referring first to Figures 1, 2 and 3, the scrubbing and polishing device as shown comprises a bag of textile fabric having an open end at 1 for the insertion of the hand of the user. This bag may be folded up from a fabric having a portion 2 intermediate to its margins 3, 4 and 5 provided with a surfacing of cellulose sponge strand material, the margins 3, 4 and 5 being free from such surfacing. The cellulose sponge strand material may be formed with a textile core 7 (see Figure 4a) reinforced and firmly bonded to a cellulose sponge covering 8, as described in my Patent No. 2,409,660, dated October 22, 1946, for Mop Yarn and Mop Made Therefrom. The margins 3, 4 and 5 are brought together and suitably secured as by stitching 6 to form the flat bag portion having its forward face surfaced with the sponge strand material.

A fabric particularly suitable for this purpose is illustrated more in detail in Figures 4 to 8. As shown best in Figure 7, this fabric may comprise rows of relatively soft strands of cotton or the like, the strand of each row being folded alternatively in opposite directions to form a plurality of folded portions 10 along opposite margins. These folded portions 10 may be interposed between similar folded portions of strands of adjacent rows and these folded portions may be secured together in interlocking relation as by rows of chain stitching at 11. Over that area of the fabric where the cellulose sponge is desired, the cellulose sponge may be secured at one or more points, each being shown herein as secured at two spaced points by portions of the chain stitching 11.

As shown in Figure 8, the strands of cellulose sponge, each preferably reinforced by a core of textile material, such as cotton, to the outer face of which the cellulose sponge is firmly bonded, are arranged in nested loop form, as shown, upon one face of the rows of strands 10, so that they are caught by the chain stitching when this is applied. One branch of each loop of the chain of stitching passes around two adjacent branches of the folded cellulose strand material as shown in Figure 8, so that each branch of the cellulose strand material is secured by two adjacent sets of chain stitching as shown in Figure 8. The cellulose sponge strands are then cut at their bends as shown by the dotted lines a—a in Figure 8, leaving relatively short strands of the sponge material secured intermediate to their ends to one face of the base fabric and leaving their ends 12

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free. When the sponge material is in somewhat moist condition, these free ends present a heavy mass of relatively soft cellulose sponge of high absorbency and which can be used for scrubbing when used with water and a detergent, or when moistened by a relatively small amount of water so as to be soft, it may be used for polishing. When dried out this cellulose sponge material becomes stiff.

The reinforcing textile strand material provides the desired physical strength preventing the cellulose sponge from disintegrating when subjected to rubbing stresses.

Referring to Figures 9 and 10, a different type of fabric is shown which comprises sets of strands 20, 21, and 22, the strands 21 and 22 being arranged in pairs and extending in one direction, and the strands 20 being single and arranged transversely to the strands 21 and 22. The strands 21 and 22 engage alternately opposite sides of the transverse strands 20, thus interlocking them into a fabric. These strands may be formed of cotton or other suitable textile material. The pair of strands 21 and 22 also engage between them intermediate spaced portions of lengths 23 of strand material, such material comprising cellulose sponge reinforced by a central textile core, as has been previously described in connection with the structure of Figures 1 to 8, inclusive. As in the structure shown in Figures 1 to 8, inclusive, these reinforced cellulose sponge strands are arranged on one face only of the fabric, being secured thereto, as shown, by loop portions 25 and 26 of the strands 21 or 22. These cellulose sponge strands are cut intermediate pairs of points of attachment, their ends being brought out from the face of the supporting fabric material as shown in Figure 10, and form a cellulose sponge covering for one face of the fabric material, the end portions 24 projecting away therefrom. This form of fabric has the advantage over the form shown, for example in Figure 8, in that the cellulose sponge strands may be laid flat instead of being bent as shown in Figure 8, but when cut intermediate to the pairs of fastening loops 25 and 26, they form the projecting cellulose sponge elements which are effective in cleaning and polishing.

From the foregoing description of certain embodiments of this invention it should be evident to those skilled in the art that various changes and modifications may be made therein without departing from its spirit or scope.

I claim:

1. A cleaning and polishing material comprising a fabric having strands of cellulose sponge each secured between its ends and to one face only by integral parts of said fabric and projecting from said face.

2. A cleaning and polishing material comprising a fabric having strands of cellulose sponge each reinforced with a central textile core and secured between its ends and to one face only by integral parts of said fabric and projecting from said face.

3. A cleaning and polishing material comprising a fabric formed of strands secured together by spaced rows of chain stitching, and strands of cellulose sponge secured intermediate to their ends to one face only of said fabric by said chain stitching.

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4. A cleaning and polishing material comprising a fabric formed of strands secured together by spaced rows of chain stitching, and strands of cellulose sponge each reinforced with a central textile core and secured intermediate to their ends to one face only of said fabric by said chain stitching.

5. A fabric comprising rows each comprising strands of textile material folded alternately in opposite directions, the folds of the strands of one row being interposed between the folds of the strands of the adjacent rows, chain stitching securing said strands together adjacent to the folds, and strands comprising cellulose sponge secured intermediate to their ends to one face of said fabric by said chain stitching.

6. A fabric comprising rows each comprising strands of textile material folded alternately in opposite directions, the folds of the strands of one row being interposed between the folds of the strands of the adjacent rows, chain stitching securing said strands together adjacent to the folds, and strands comprising cellulose sponge each reinforced with a textile core secured intermediate to their ends to one face of said fabric by said chain stitching.

7. A cleaning and polishing material comprising a fabric having interlocking strands extending in directions transverse to each other, and strands of cellulose sponge on one face of said fabric and each secured intermediate to its ends by certain of said interlocking strands.

8. A fabric comprising interlocking strands extending in directions transverse to each other, and strands of cellulose sponge on one face only of said fabric and secured intermediate to their ends at a plurality of spaced positions by certain of said interlocking strands.

9. A fabric comprising strands extending in directions transverse to each other, the strands extending in one direction being arranged in pairs with the strands of each pair engaging alternately opposite sides of the transverse strands, and strands of cellulose sponge having portions intermediate to their ends engaged at lengthwise spaced portions between certain of said pairs of strands.

10. A fabric comprising interlocking strands extending in directions transverse to each other, the strands in one direction being arranged in pairs with the strands of each pair engaging alternately opposite sides of the transverse strands, and strands of cellulose sponge each reinforced by a central textile core and on one face only of said fabric and having portions intermediate to their ends engaged at lengthwise spaced portions between certain of said pairs of strands.

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