June 11, 1935. R. J. BADGLEY 2,004,804

METHOD OF MAKING MOPS

Filed March 14, 1934

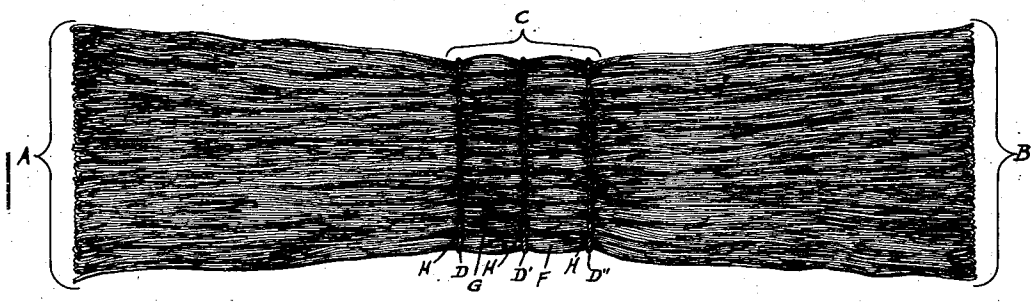


FIG. 1.

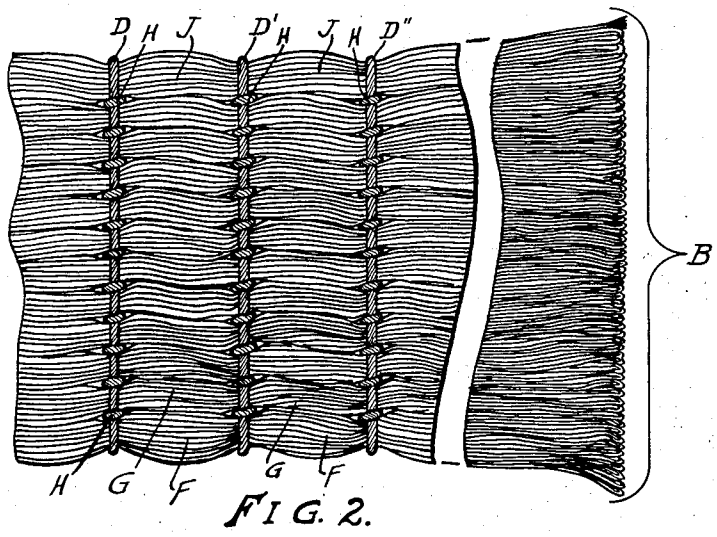


FIG. 2.

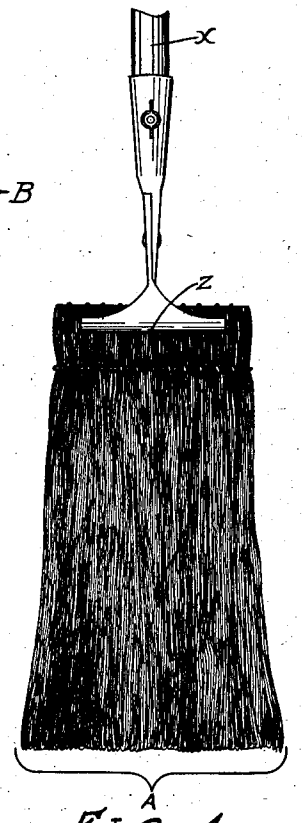


FIG. 4.

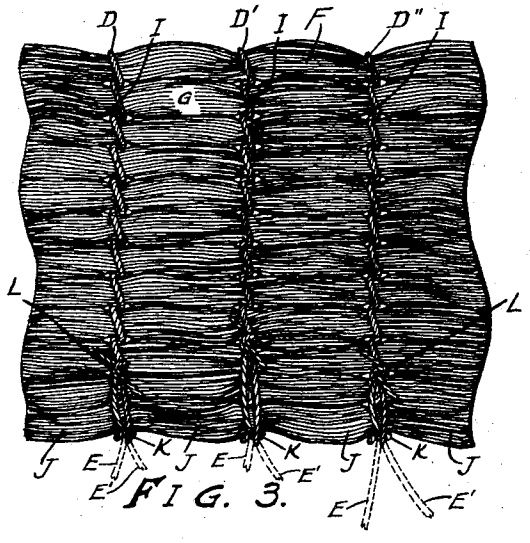


FIG. 3.

Inventor;
ROY J. BADGLEY:
By Robert W. Caudle,
Attorney.

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METHOD OF MAKING MOPS

Roy J. Badgley, Springfield, Ohio

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1 Claim. (Cl. 300—21)

This application relates to the manufacture of flocculent fibrous mops, and the predominant object thereof is to provide a mop composed of a multitude of strands, each formed by a plurality of threads, wherein the strands and all portions thereof are integral with relation to each other, that is to say: all of the strands in my mop may be of one, or more, continuous lengths of said fibrous material, whereby the lower and the upper portions of the body of my mop, as an entirety, will form a multitude of loops at each end of the mop. In other words, the entire mop may be formed of one continuous strand of material, and by which the lower, or outer, end of the mop will present no ends of the material of which the mop is formed, except, possibly, the two ends of the continuous length of the material of which they are formed, and even they may be made unobservable, by locating the ends of the material at the upper, or inner, part of the mop.

Another important feature of this invention resides in the manner of forming the heads of my mop, by the employment of cords formed preferably of sisal hemp for interlacing the strands together, other than by sewing, as is ordinarily done, by which the strands of the mop are bound into sheaves, connected together into a single unit.

The preferred manner of carrying out the principles of my invention is shown in the accompanying drawing, forming a part of this specification, in which Figure 1 is a plan view of the normally outside exposure of my mop, but as opened out to its full length.

Figure 2 is a plan view of the central or head portion of my mop, but as taken on an enlarged scale from that of Figure 1.

Figure 3 is a plan view of the head portion of my mop, showing the inner or reverse side thereof. And Figure 4 shows my mop as in operative condition, in connection with a clamp and the handle by which the mop may be manipulated manually.

Similar indices indicate like parts throughout the several views.

I will now take up a detailed explanation of my invention, in which I will set forth the same as comprehensively as I may.

In practice the main portion of my mop is usually composed of a single length of material formed into strands which are arranged in alternating parallel rows, as shown in Fig. 1, and only for clearness of explanation are to be considered as of three portions: The outer end portions A and B, and the central or head portion C, as in Fig. 1.

First the material is arranged in alternating the strands laterally, until the desired number of strands are assembled as in Fig. 1.

Next, the central portion C should be slightly compressed until the width desired is obtained. I next employ suitable material, such as sisal hemp formed in the nature of a rather heavy cord, for securing the strands into the nature of a suitable central portion C, which when the mop is completed consists of two sections, formed by three distinct lines of cord, spaced apart, as shown.

For clearness and brevity of explanation only, I will refer to certain portions of said cords by letters of reference different from the others, although in fact all of said cord sections collectively are formed by only one continuous cord; and in like manner, and for the same reason, I will designate certain of the strands of the mop by letters different from the other parts, but actually it is one continuous strand, or cord.

In actual practice I lay the cord in three separate sections D, D′ and D″, spaced apart parallel with each other and located under all of the mop strands, as shown in Fig. 2, leaving the first end portion E protruding free at one edge of the assembled strands, as shown in dotted lines. I next bring the main portion of each cord section, separately, up around the marginal strand F and insert it downwardly between the strands F and G, and then loop it on the cord member D, forming the loop H, and then bring it back between the strands F and G, forming the loop I over the strand G, and I then continue in like manner with all of the strands, until the opposite marginal strand J is reached at the opposite edge of the mop.

I then bring the two end portions, E and E′, of the cord together and form the knot K, in connection with the strand J, after which the two end portions, E and E′, are carried inwardly to any one of the intermediate strands where I loop one of them under the intermediate strand, after which the end portions, E and E′, are tied together, forming the knot L, and shown in Fig. 3. It is to be understood that each of the cord sections are treated in like manner, as that above described, thereby completing this operation.

The purpose of turning the end portions of the cords inwardly, and there securing them, is that they will thereby be entirely hidden when the mop is fully completed as in Fig. 4.

When assembled, as above described, the ob-

verse side of the mop will appear as shown in Figs. 1 and 2, while the reverse side thereof will appear as in Fig. 3.

In the next operation one half of the mop strands are, collectively, turned reversely to and over the other half thereof, causing the bend thereof to be at the central cord D', whereby the end portions of the mop will be even with each other, after which the jaws Z of the clamp may engage with the head portion of the mop, as shown in Fig. 4. With the engagement of the clamp upon the head of the mop and with the attachment of the handle X to the clamp, the mop will then be placed in operative condition, as shown in Fig. 4.

I have determined, by actual practice, that swelling of the material of the mop strands, caused by the application of moisture thereto, will in no way be detrimental or injurious to my mop, as is usual with mops of this general character, as the material of which the cords of my mop are formed will easily withstand the maximum swelling of the strands, and in fact such swelling will add materially to the durability and proper functioning of my mop, as an entirety, as it will reduce the wear upon the sides of the mop, and will prevent the members of the strands from being inadvertently withdrawn when the mop is in use. Also by reason of the comparative size of the cords and their ability to withstand friction, tension, and rough usage, without detriment thereto, the life of my mop will be greatly prolonged. Also the head portion of the strands of my mop will be fully protected and the danger of undue wear and severance will be eliminated, or at least practically nil, thereby adding greatly to the durability of my mop as an entirety.

It is apparent that my construction practically eliminates free raw ends at the outer terminus of my mop, and the substitution therefor of loops, which will not become frazzled, whereby much better service is attained, and the durability of the mop will be greatly augmented.

Also, I have found that my construction enables one to manufacture my mop at a considerable saving in cost, in time devoted thereto, and also avoiding the necessity of expensive machinery to be employed in the manufacture thereof.

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

The method of making mops, which consists in employing a single length of cord to form the entire body of one complete mop, arranging the cord into parallel strands of double the length of the completed mop, forming a reverse loop by each end of each two of said strands, securing the central portion of all of the strands together by laying one half of a plurality of spaced apart cord sections transversely across all of the strands of the mop body, bringing the other half of each of said transverse cords over and upon the upper surface of all of the strands of the body of the mop inserting each between each two or more of the strands, looping said transverse strand members around the first mentioned half of the cords and then inserting them back between two of the strands and so on until all the strands are connected by the plurality of single length of the transverse cords, then tying the two ends of each of the two transverse cords together at one of the edges of the body of the mop, then securing each of the two ends of the transverse cords where they can not be seen in the completed mop, and then folding one half of each of the strands of the body member upon the other half thereof whereby the parts of the strands which are secured together by the transverse cords will form the head portion of the body of the mop and the means by which the ends of the transverse cords which are secured together will be hidden, all substantially as shown and described.

ROY J. BADGLEY.