

June 17, 1969

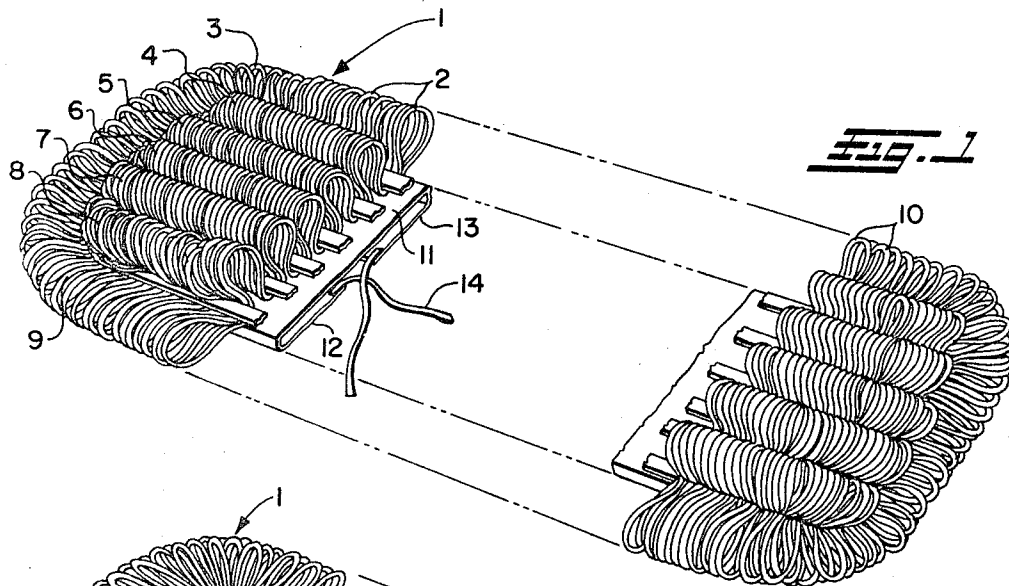
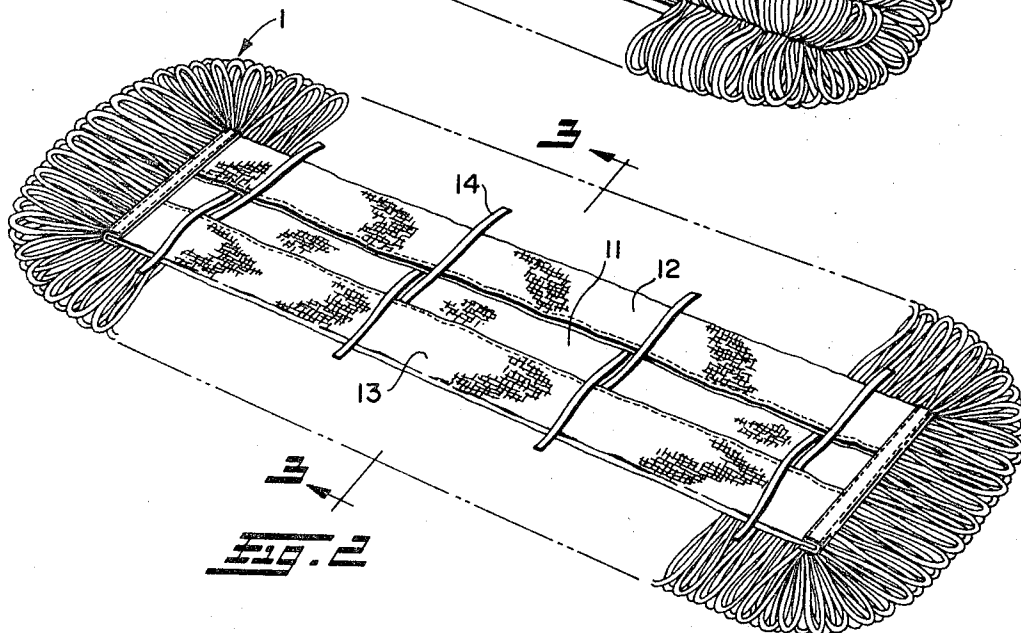
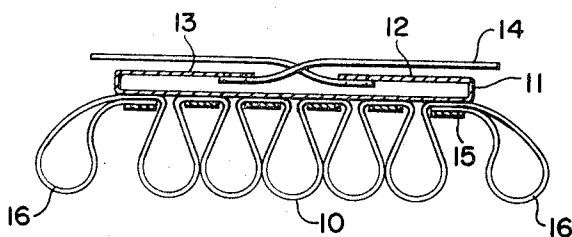
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3,449,784

DRY MOP

Filed March 31, 1966

Sheet 1 of 2



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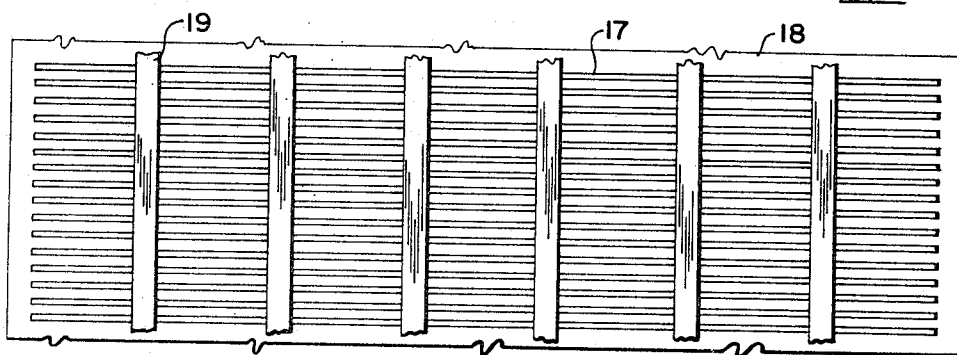


FIG. 4

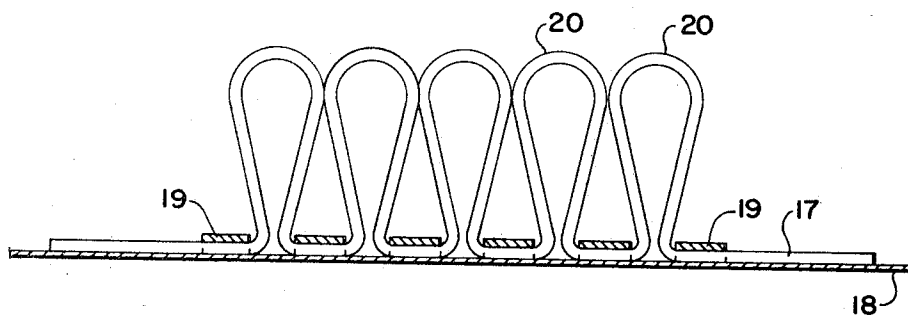


FIG. 5

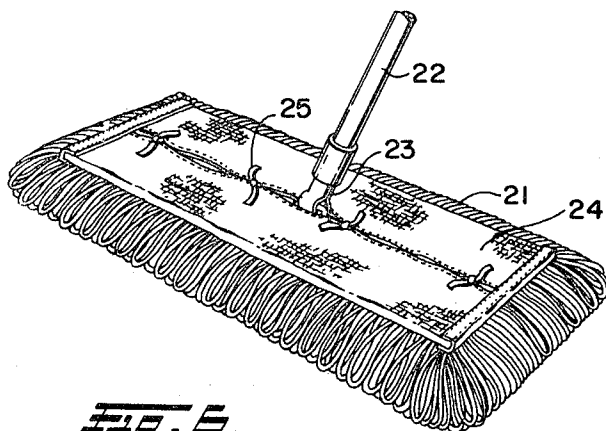


FIG. 6

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3,449,784
DRY MOP

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9 Claims

ABSTRACT OF THE DISCLOSURE

A dry mop comprising a plurality of substantially parallel rows of looped yarns which extend longitudinally of the mop. The looped yarns are formed from continuous yarns extending across the width of the mop. The rows are separated one from another by means such as adhesive tapes which extend therebetween. Such mop is made by forming an array of continuous substantially parallel yarns and securing the array together transversely thereof at spaced intervals along its length. The array is severed at desired intervals and the yarns are brought into a close parallel relationship at the transversely secured places to form rows of yarn loops therebetween. The rows of loops are secured in the indicated parallel relationship.

This invention relates generally as indicated to a dry mop and more particularly to such a mop in which the component cords are arranged in such a manner as to enhance its usefulness and durability.

Dry mops customarily have generally consisted of strands of yarn secured to an elongated handle by a metallic holder. A certain amount of skill, however, is required to properly manipulate such mops for effective results, as mops of this type are cumbersome and unwieldy to use, particularly in cleaning certain areas as for example ledges and the like, since the mopping surfaces of such mops have little "body" or substance to effectively clean these areas. Moreover, the individual yarns of such mops have "cut" end portions which form the mopping surface, and these tend to easily unravel during use, thus causing the yarn to lose its strength, to become readily entangled and eventually to become matted together thus restricting the efficiency of the mops. Additionally, because of the metallic attachment means, furniture, baseboards, etc. can be easily damaged due to contact with the attachment means as the mop is used. It is accordingly a principal object of the present invention to provide a mop in which the yarns are arranged in such a manner as to provide a cushion or buffer zone about the circumference of the mop to prevent contact between the holder and articles contacted by the mop in use, thus protecting such articles from damage or scratches.

A further object is to provide a mop in which the yarns are maintained in a particular looped arrangement so that they will not become entangled in use or when the mop is laundered.

An additional object of this invention is to provide a mop in which the cords are restrained against unraveling and which will not produce excessive lint when used or washed.

Another object of this invention is to provide a mop which will have a longer useful life and which will present a full original quantity of yarn throughout its useful life.

Other objects, features and advantages of this invention will become apparent to those skilled in the art after a reading of the following more detailed description of the invention.

These and other objects are achieved by means of this invention in which a new and improved dry mop is pro-

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vided which comprises a plurality of substantially parallel rows of looped yarns formed from continuous individual yarns which extend across the width of the mop. The adjacent rows of the yarns are separated by adhesive tapes which extend therebetween and which are secured to the yarns, thus forming the looped yarns between the tapes.

To the accomplishment of the foregoing and related ends, the invention, then, comprises the features hereinafter fully described and particularly pointed out in the claims, the following description and the annexed drawings setting forth in detail certain illustrative embodiments of the invention, these being indicative, however, of but a few of the various ways in which the principle of the invention may be employed.

In said annexed drawings:

FIG. 1 is a plan perspective view of one side of the mop of this invention with the central portion omitted for clarity of illustration;

FIG. 2 is a perspective view of the opposite side of the mop of FIG. 1;

FIG. 3 is a cross-section of the mop taken on line 3—3 of FIG. 2;

FIGS. 4 and 5 are fragmentary views illustrating a method of making the mop; and

FIG. 6 is a fragmentary perspective view of the mop attached to a handle.

Referring now more particularly to the drawing and to FIGS. 1 and 2 thereof, a mop designated generally by the numeral 1 is illustrated which comprises a multiplicity of twisted stranded yarns 2 (the terminology "yarns" as used herein is generic to all similar materials such as cords, etc.). The yarns are arranged such that a plurality of substantially parallel rows 3, 4, 5, 6, 7, 8 and 9 are formed, each of which has a plurality of looped yarns 10. In FIG. 2, the bottom side of the mop is shown to which a canvas backing 11 is attached as by stitching, and the backing includes a pair of side flaps 12 and 13 and straps 14 for attachment of the mop to a holder and handle.

In FIG. 3, the construction of the mop is shown in more detail. The looped yarns of each adjacent row of such yarns are each formed from a continuous yarn which extends completely across the width of the mop. The individual rows are separated by adhesive tapes 15 which extend between adjacent rows and thus serve to form the looped yarns across the width of the mop. The adhesive tapes, which are preferably strips of masking tape, are preferably stitched to the yarns to insure that they will be retained in the proper position. The individual looped yarns 16 adjacent the sides of the mop are preferably of greater length than those in the central section of the mop so that a substantially flat mopping surface may be provided whereby the most efficient use of the mopping surface will be achieved. As can be seen in FIGS. 1 and 2, the looped yarns adjacent the two ends of the mop are also of greater length than those in the central section for this same purpose.

In FIGS. 4 and 5, the method of making the mop is illustrated. An array of substantially parallel continuous mop yarns 17 is placed onto any suitable support 18 such as, for example, a table, platform, conveyor, etc. to form an array of continuous substantially parallel mop yarns. A plurality of adhesive tapes 19 are then positioned transversely of the array spaced apart from one another a predetermined distance, as for example, approximately 8 or 9 inches apart, depending upon the size of the loops desired, to secure the yarns together transversely of the array. The array may then be severed to produce a mop of the desired width, after which it will be brought together so that the individual tapes are in a close parallel relationship (as shown in FIG. 5) to form the rows of yarn loops 20 across the width of the mop. The tapes

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and yarns are then stitched to a light canvas backing to secure the rows in the close parallel relationship. Although not illustrated in FIG. 5, the ends of the individual yarns 17 will, of course, be looped and secured as shown in FIG. 3.

In order to produce the rows in which the looped yarns adjacent the longitudinal edges of the mop and the two ends of the mop are of slightly greater length than those in the central section, the adhesive tapes 19 adjacent the two ends of the array may be spaced further apart than those in the central section thereof and the individual yarns 17 adjacent the longitudinal edges of the array may be of a slightly greater length than those in the central section. Consequently, when the array is subsequently brought into the described close parallel relationship, the loops thus formed in these portions of the mop will be of the desired greater length.

Although adhesive tapes have been described and illustrated in forming the rows of looped yarns, it will be appreciated that stitching or fabric tapes stitched to the yarns may alternatively be used without such adhesive tapes. Because of the ease of assembling the mop utilizing the adhesive tapes, however, it is generally preferred to use such tapes.

In FIG. 6, a complete mop 21 of the type herein described is illustrated attached to a handle 22 by a holder 23 in the form of a rectangular plate and canvas backing 24 which is secured to the mop by straps 25 which are tied together about the metallic holder.

Many materials are suitable for use in the mops of this invention, including cotton, rayon, blends of rayon and cotton and blends of rayon, cotton and nylon. Preferably, soft limp cord or yarn is used, with cotton or a blend of cotton and rayon being especially suitable. Bleached hemp cord with a small percentage of braided nylon or other synthetic plastic strands such as orlon or dacron may also be used if desired.

The mop of this invention possesses many advantages with one of the principal advantages being the fact that a cushioning area or buffer zone is provided adjacent the circumference of the mop by the looped yarns which give additional body and greater bulk or substance to the mop than possessed by the open or cut end mops and thus serve to prevent damage to articles which the mop may contact as it is used. Similarly, it will be appreciated that the mop may be produced by a relatively simple method and accordingly uniformity of the end product may be readily obtained. Moreover, the mop consists entirely of looped yarns which will not unravel as will cut ends, and this contributes to the production of a high quality product with a long useful life capable of withstanding repeated launderings and one in which the individual yarns will not become easily entangled or produce lint either as the mop is used or when laundered.

Other modes of applying the principle of the invention may be employed, change being made as regards the details described, provided the features stated in any of the following claims, or the equivalent of such, be employed.

I therefore particularly point out and distinctly claim as my invention:

1. A dry mop comprising a substantially flat support member having handle attachment means thereon, a plurality of substantially parallel rows of looped yarns ex-

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tending longitudinally of said mop and secured to said support member, each of said rows formed from continuous yarns extending across the width of said mop, and means secured to said yarns between said rows longitudinally of said mop securing said rows to said support member and separating said rows one from another.

2. The dry mop of claim 1 in which said support member is a canvas backing and has said handle attachment means thereon for securing said mop to a handle.

3. The mop of claim 2 in which a handle is secured to said mop.

4. The mop of claim 1 in which the looped yarns adjacent the circumference of said mop are of greater length than said looped yarns in the central section thereof.

5. A dry mop comprising a plurality of substantially parallel rows of looped yarns formed from continuous yarns extending across the width of said mop, and means separating said rows one from another extending therebetween and secured to said yarns, said means separating said parallel rows comprising adhesive tapes.

6. A method of making a mop comprising forming an array of continuous substantially parallel mop yarns, securing such array together transversely thereof at spaced intervals along the length thereof, severing such array at desired intervals, bringing such yarns into a close parallel relationship at such transversely secured places, thereby forming rows of yarn loops therebetween, and securing such rows of loops in such close parallel relationship.

7. The method of claim 6 in which a canvas backing is subsequently secured to one side of said mop.

8. The method of claim 6 in which adhesive tapes are positioned transversely of such array to secure the yarns together, and the adhesive tapes adjacent the ends of such array are spaced further apart, whereby the looped yarns formed adjacent such ends are of greater length than the looped yarns in the central section thereof.

9. The method of claim 6 in which the parallel yarns adjacent the longitudinal edges of such array are of greater length than the parallel yarns in the central section of such array, whereby the looped yarns formed adjacent such edges are of greater length than the looped yarns in the central section of such mop.

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DANIEL BLUM, *Primary Examiner.*

U.S. Cl. X.R.

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