March 14, 1961 K. R. KEYDEL 2,974,339

DUST MOP

Filed April 25, 1958

FIG. 1

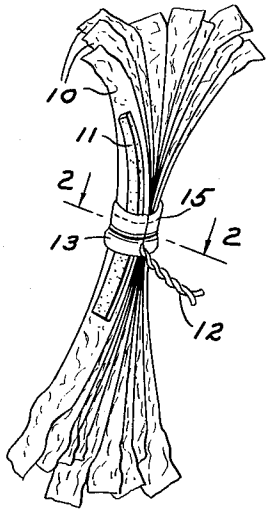


FIG. 4

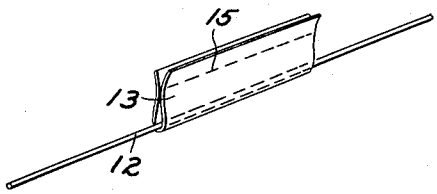


FIG. 3

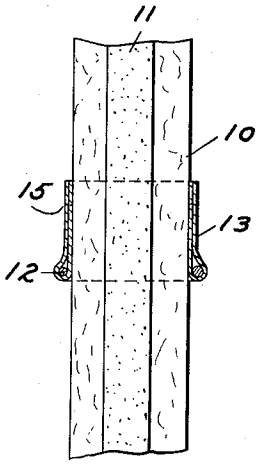


FIG. 2

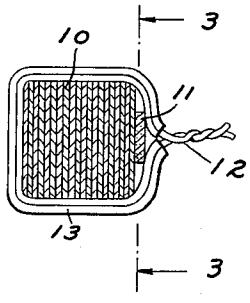


FIG. 5

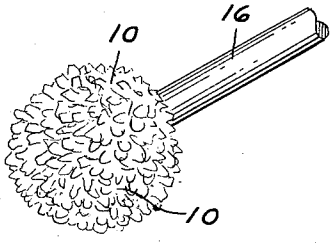
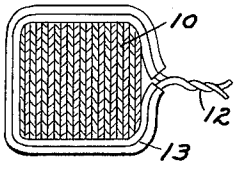


FIG. 6



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United States Patent Office 2,974,339 Patented Mar. 14, 1961

2,974,339

DUST MOP

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Filed Apr. 25, 1958, Ser. No. 730,950

7 Claims. (Cl. 15—229)

This invention relates to dust mops and particularly to a dust mop head which is attached to a handle.

In my prior Patent 2,174,633 there is disclosed a mop head and handle wherein the mop head is made of oil impregnated-strips of paper held together by a wire which has its ends twisted together to form a shank which is inserted in the handle.

It is an object of this invention to provide an improved mop head of this type.

It is a further object of this invention to provide such a mop head including novel means for maintaining the paper strips in oil-impregnated condition.

It is a further object of this invention to provide such a mop head which more effectively retains dust.

In the drawings:

Fig. 1 is a fragmentary perspective view of the mop head embodying the invention.

Fig. 2 is a sectional view on an enlarged scale taken along the line 2—2 in Fig. 1.

Fig. 3 is a fragmentary sectional view taken along the line 3—3 in Fig. 2.

Fig. 4 is a perspective view of the wire which is used to bind the paper strips.

Fig. 5 is a fragmentary perspective view of the mop head in position in a handle.

Fig. 6 is a fragmentary perspective view similar to Fig. 1 showing a modified form of the invention.

Referring to Fig. 1, the mop head embodying the invention comprises a plurality of paper strands **10**, a piece of felt **11**, and a wire **12** encircling the strands **10** and felt **11** and having its ends uniformly twisted to bind the strands of paper and felt together. Prior to encircling the strands **10** with the wire **12**, a sleeve **13** is slipped over the wire so that the sleeve is adjacent the portion of the wire which encircles the strips. This sleeve serves as a protective device to prevent marring of the floors by contact of the wire **12** therewith.

The strands **10** of paper are made of a long-fibered high-bulk porous type of paper which is crinkled by water creping to give it a stretchability of preferably 25%. The long fibers in the paper give strength to the strands and the high bulk and porosity provide softness and absorbancy.

The sleeve **13** is preferably formed from a piece of porous absorbant cloth which has its ends sewed as at **15** to form the sleeve. The material of the sleeve should have thickness and porosity such as obtained in a woven cotton candlewicking or in a knitted cotton stocking material.

The sleeve is of sufficient length and diameter so that when the wire is twisted about the paper strands the sleeve bunches up to give adequate protection to the wire and at the same time form an efficient reservoir for an additional quantity of oil. A measured quantity of furniture oil is provided to the strands by tumbling the strands in the oil just prior to twisting the strands into the mop head. In addition, a measured quantity of a special liquid ingredient is introduced directly into the

sleeve. This ingredient is intended first to provide additional and gradual impregnation of the paper strands as the mop is used and second to serve as a concentrated dust pick-up area wherein the dust will be retained and not readily shaken off.

The special ingredient comprises an anastatic agent which attracts dirt and dust particles. Such ingredients are often called cationic materials and are effective on cotton and paper to promote pick-up of dirt and lint. Such ingredients are usually applied in aqueous solution or dispersion. The materials may include simple amides and glyoxalidine derivatives of the higher ethylene amines and stearic acid, stearate, esters of triethanolamine, and amides and glyoxalidine derivatives of stearic acid and aminoethylethanolamine.

The anastatic material is preferably applied in an amount of about approximately one-tenth of an ounce.

By placing the anastatic liquid ingredient in the approximate center of the mop, the ingredient is maintained in a concentrated point and gradually dissipated by capillary action throughout the paper strands in the mop head as it is needed without being subject to deterioration because of excessive exposure to air, as might occur if the material were distributed uniformly throughout the paper strands. In addition, by placing the material at the center of the mop head the dust and dirt tend to collect in the center of the mop head and are more readily retained therein with a lesser possibility of their being scattered off the mop head.

The felt **11** may be impregnated with an additional amount of furniture oil to serve as an additional source for oil to the paper strands. The felt may be omitted as shown in Fig. 6.

The mop head is provided for ready insertion in a mop handle **16** in any suitable manner, for example, that shown in my aforementioned Patent 2,174,633.

It can thus be seen that I have provided an improved mop head wherein a special anastatic material is included to provide a more efficient retention of the dust and dirt, the material being located at the center of the mop head in order to further enhance the dust retention characteristics of the mop head.

I claim:

1. A mop head comprising a plurality of strips of paper, a wire looped around said strips and having its ends twisted together to fasten said strips in a bundle, a porous member held in position in said bundle by said wire and engaging at least some of said strips, said porous member being impregnated with an anastatic liquid, whereby said liquid is dissipated by capillary action throughout the strips of paper as required without deterioration because of exposure to air and said liquid tends to collect and retain dust and dirt at said porous member.

2. The combination set forth in claim 1 wherein said strips of paper are impregnated with oil.

3. A mop head comprising a plurality of strips of paper, a wire looped around said strips and having its ends twisted together to fasten said strips in a bundle, a sleeve of porous absorbent material on the portion of said wire encircling said strips, said sleeve being impregnated with an anastatic liquid, whereby said liquid is dissipated by capillary action throughout the strips of paper as required without deterioration because of exposure to air and said liquid tends to collect and retain dust and dirt at said porous member.

4. The combination set forth in claim 3 wherein said strips of paper are impregnated with oil.

5. A mop head comprising a plurality of strips of paper, means for fastening said strips in a bundle intermediate the ends of said strips, a porous member held in position in said bundle by said latter means and engaging

at least some of said strips, said porous member being impregnated with an anastatic liquid, whereby said liquid is dissipated by capillary action throughout the strips of paper as required without deterioration because of exposure to air and said liquid tends to collect and retain dust and dirt at said porous member.

6. A mop head comprising oil impregnated strips of paper, said paper being long fibered, high in bulk, porous and crinkled, means for fastening said strips in a bundle intermediate the ends of said strips, a porous member held in position in said bundle by said latter means and engaging at least some of said strips, said porous member being impregnated with an anastatic liquid, whereby said liquid is dissipated by capillary action throughout the strips of paper as required without deterioration because of exposure to air and said liquid tends to collect and retain dust and dirt at said porous member.

7. A mop head comprising a plurality of strips of paper, means for fastening said strips in a bundle intermediate the ends of said strips, a porous member held in position in said bundle by said latter means and engaging at least some of said strips, said porous member being impregnated with an anastatic liquid, said anastatic liquid being applied from aqueous solution, whereby said liquid is dissipated by capillary action throughout the strips of paper as required without deterioration because of exposure to air and said liquid tends to collect and retain dust and dirt at said porous member.

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