May 26, 1959 P. S. VOSBIKIAN ET AL 2,887,712

STRAND TYPE MOPS WITH REVOLUBLE HEADS

Filed Aug. 13, 1957

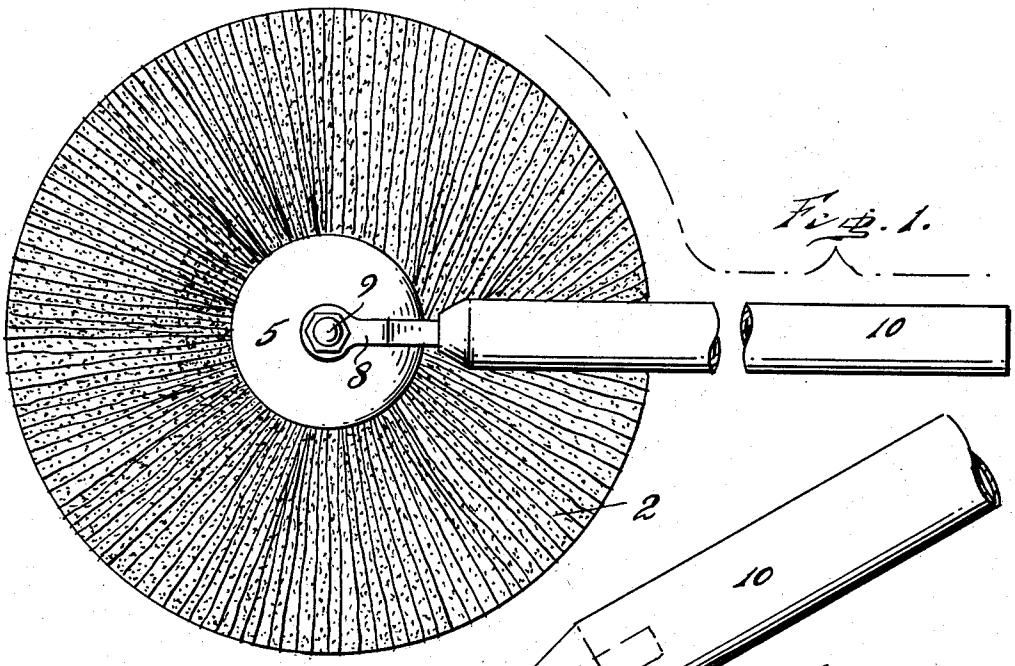


Fig. 1.

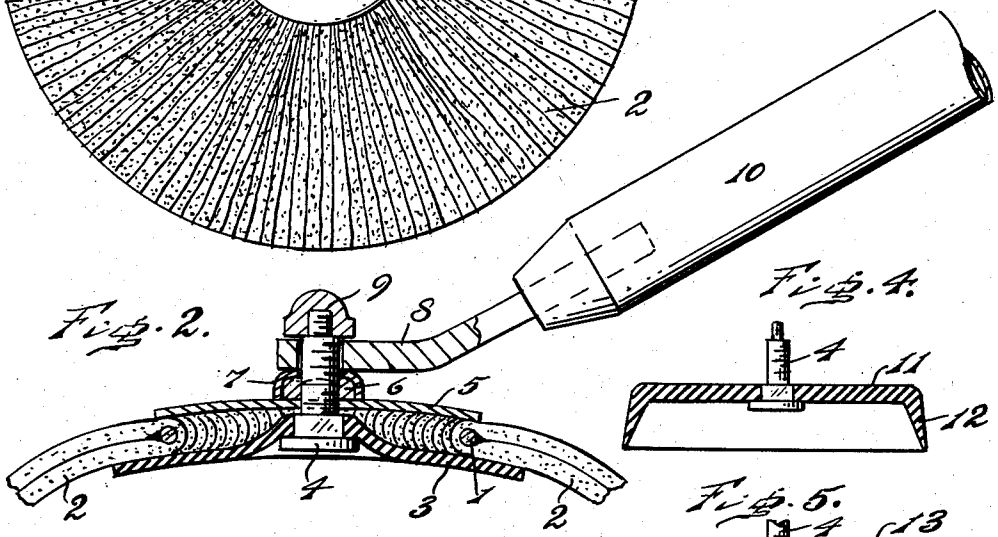


Fig. 2.

Fig. 4.

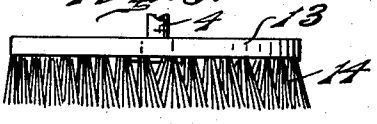


Fig. 5.

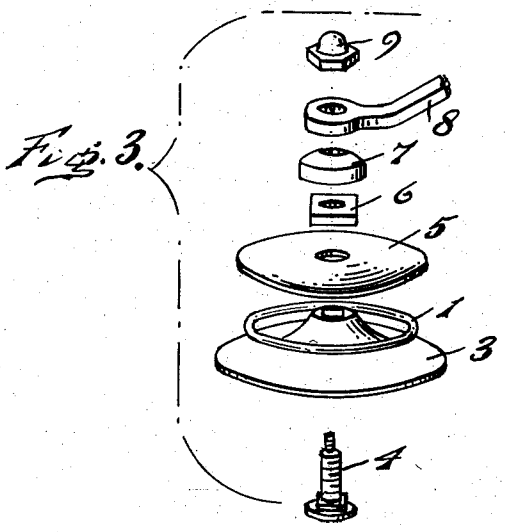


Fig. 3.

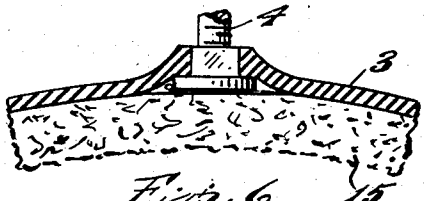


Fig. 6.

INVENTORS.
Peter S. Vosbikian
Thomas S. Vosbikian
BY
Herbert S. Fairbanks
ATTORNEY

United States Patent Office 2,887,712 Patented May 26, 1959

2,887,712

STRAND TYPE MOPS WITH REVOLUBLE HEADS

Peter S. Vosbikian and Thomas S. Vosbikian, Melrose, Pa.

Application August 13, 1957, Serial No. 677,966

1 Claim. (Cl. 15—230)

The object of this invention is to devise a novel mop of the strand type wherein the mop head is free to partially revolve relatively to the handle during a cleaning operation.

A further object of the invention is to devise a novel construction and arrangement of the component parts, and novel means for assembling them with respect to a manually actuated handle.

With the foregoing and other objects in view as will hereinafter clearly appear, our invention comprehends a novel mop of the strand type, the strands being preferably of the spaghetti type wherein an absorbent strand is contained within an outer sheath.

A further object of the invention is to secure the strands in a novel manner to the mop head, and to mount the mop head on the handle so that it will be free to turn relatively thereto with a rotary motion.

With the foregoing in view and for the purpose of illustrating the invention, we have shown in the accompanying drawings preferred embodiments of the invention which we have found in practice to give satisfactory and reliable results. It is, however, to be understood that the various instrumentalities of which the invention consists can be variously arranged and organized, and the invention is not limited, except by the scope of the appended claim, to the exact arrangement and organization of these instrumentalities as herein set forth.

Figure 1 is a top plan view of a strand type mop, having a rotatable mop head, embodying our invention.

Figure 2 is a side elevation partly broken away and partly in section.

Figure 3 is an exploded view of certain parts of the mop head.

Figure 4 is a sectional elevation of another embodiment which can be substituted for the bottom clamping member of Figures 1 and 2.

Figure 5 is a side elevation of another embodiment which can be substituted for or used with the bottom clamping member shown in Figure 2.

Figure 6 is a sectional elevation of another embodiment in which an absorbent sponge material is employed with the bottom clamping plate.

Similar numerals of reference indicate corresponding parts.

Referring to the drawings:

A ring 1 of any desired material such as metal plastic, textile or other material has the individual strands 2 looped over it to form an absorbent cleaning portion.

A bottom clamping member 3, shown in the form of a rubber disc or plate, is upwardly deflected at its central portion and provided with a non-circular opening to receive a non-circular shoulder of a clamping, shouldered bolt 4 which also passes through an apertured top clamping member 5, preferably in the form of a disc or plate, and a nut 6 for the bolt causes the strands on the ring to be firmly clamped between the top and bottom clamping members.

An inverted cup shaped bearing ring 7 surrounds the nut and forms a bearing for the front end of a handle connection 8 which is retained in position by a cap nut 9 for the bolt which engages a threaded portion of reduced diameter, thereby forming a shoulder against which the nut 9 abuts.

It will thus be clear that the mop head consisting of elements 1 to 7 are free to turn on the front end of the handle socket.

In some cases, it is advantageous to employ with or instead of the clamping plate 3 a member which will have a greater abrasive action than the strands, and certain embodiments shown in Figures 4, 5 and 6 have been found to give satisfactory results. Ordinarily, spots of dirt and foreign material adhering to a floor cover only a small area so that only a small portion and preferably a central portion of the mop head is provided with abrasive characteristics greater than that of the absorbent strands whose main function is cleaning and polishing.

In Figure 4, a bottom, central member 11 of flexible resilient material such as rubber having a desired degree of hardness is shown with an annular, downwardly tapered flange 12 terminating in a sharp edge. The back of this member 11 may be of such rigidity that it can be substituted for the bottom clamping member 3 shown in Figure 2.

In Figure 5, the bottom abrasive member is in the form of a brush having a back 13 apertured to receive the clamping bolt and provided with bristles 14 of any desired length.

In Figure 6, we have shown the bottom clamping member 3 as having fixed to its bottom face a block of absorbent material 15 such as for example cellulose sponge or plastic sponge material having a desired degree of abrasive action.

In the operation, as the mop head is moved over the floor, such mop head is free to turn with a rotary motion. This rotary movement of the mop head provides a better cleaning and polishing action and also provides for the removal of spots.

The absorbent strands radiate outwardly from their support to form a substantially flat disc shaped cleaning and polishing portion.

The clamping plate at the bottom may have its bottom face provided in any desired manner with material of greater abrasive characteristics than the absorbent strands.

The absorbent strands are clamped only at their central portions so that the portions outwardly of the clamping members have free floating movement on the surface being cleaned.

While we prefer to employ absorbent strands of the spaghetti type, it will be apparent that other types of absorbent strands may be employed, for example different types of textile strands, singly or in combination with each other.

The cup shaped bearing ring or member is preferably employed but can be omitted in which case the handle bears on the nut which maintains the mop head in assembled condition.

It will be apparent that when the person using the mop desires to have a more effective abrasive action for the removal of spots on the surface being cleaned all that he has to do is to press downwardly on the mop handle to cause the central portion of the mop assembly to more firmly contact the surface being cleaned.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is:

In a mop, an annular ring, mop strands looped around the ring at their central portions, a bottom clamping disc having its central portion upwardly directed into said ring and provided with a non-circular opening, a bolt ex-

tending upwardly through said opening and having a non-circular shoulder interlocking with the wall of said opening and having a threaded portion of reduced diameter at its end forming a stop wall, a top clamping disc through which said bolt passes, a nut on the bolt clamping the discs against the loop portions of the strands to maintain mop head assembly of the clamping discs and strands, an inverted cup shaped bearing enclosing the nut, a handle having an end aperture to receive said bolt and riding on said bearing, and a cap nut at the end of the bolt and contacting said stop wall, whereby said mop head assembly is free to revolve relatively to the handle.

References Cited in the file of this patent

UNITED STATES PATENTS

1,169,958	Hurt	Feb. 1, 1916
1,737,366	Ewing	Nov. 26, 1929
2,123,947	Hertzberg	July 19, 1938
2,482,163	Finnel	Sept. 20, 1949
2,610,346	Pugh	Sept. 16, 1952

FOREIGN PATENTS

9,194	Great Britain	Apr. 14, 1914
149,807	Great Britain	Aug. 26, 1920