May 6, 1941. S. SCHULMAN 2,240,628

DUSTING MOP

Filed Dec. 18, 1936

Fig:1.

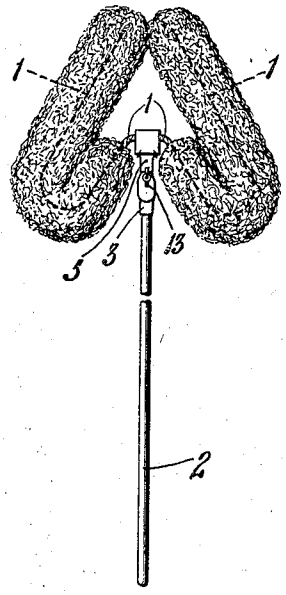


Fig:2.

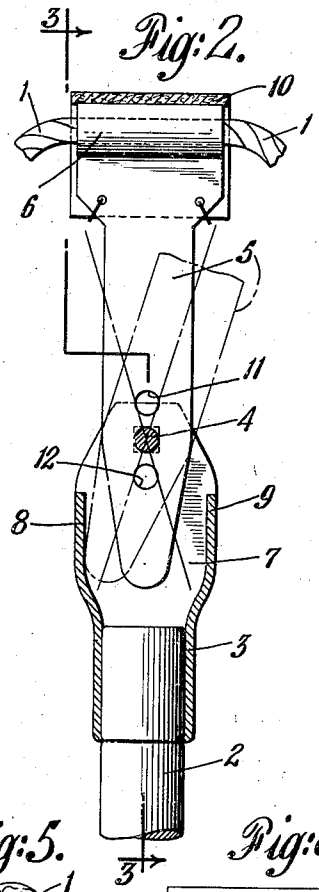


Fig:3.

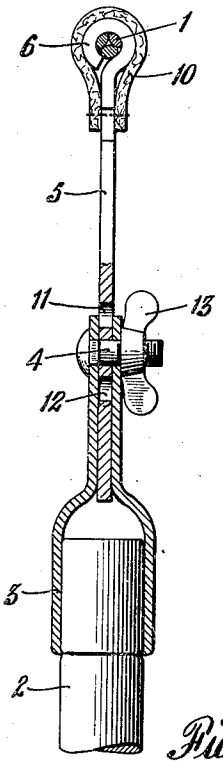


Fig:4.

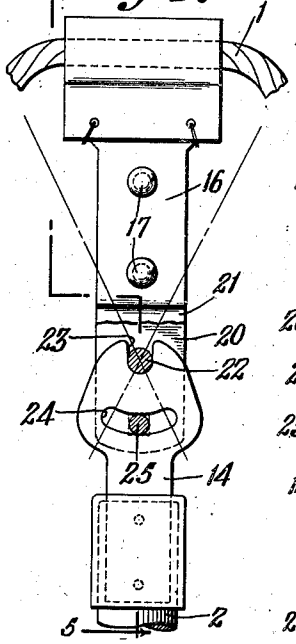


Fig:5.

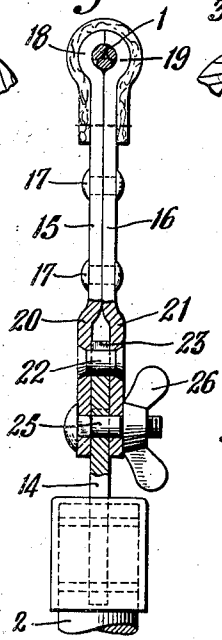


Fig:6.

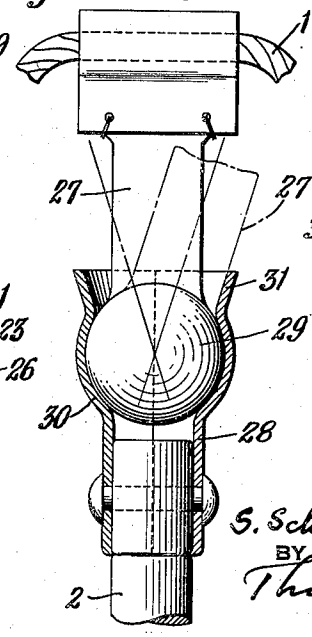
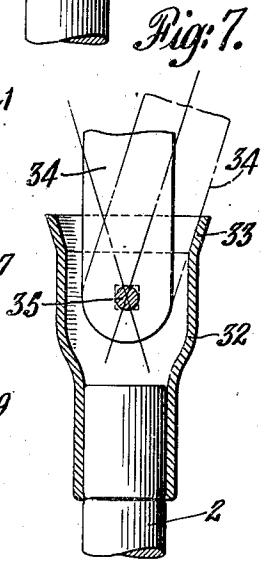


Fig:7.



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DUSTING MOP

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4 Claims. (Cl. 15—147)

This invention relates to dust mops.

The main object of the invention is to provide a device of the character described wherein the mop may be given a sudden shock or blow whereby to dislodge from it dust or other articles by simply waving the handle with the mop to and fro and without the necessity of knocking the mop upon window sills, furniture or other objectionable places.

A further object of the invention is to provide a mop the construction of which shall provide for the knocking of the mop as described in a combination such that the angle of the handle with the floor may be varied as circumstances may require.

A further object of the invention is to provide a simplified mop structure whereby the objects as described may be efficiently attained but the cost of manufacture will be low.

Other and ancillary objects of the invention will appear hereinafter.

In the accompanying drawing which illustrates the invention—

Fig. 1 is a top plan view of a mop embodying the invention with the handle partly broken away;

Fig. 2 is a longitudinal section, on an enlarged scale, of the connections of the mop head with the handle, certain of the parts being broken away;

Fig. 3 is a section on the line 3—3 of Fig. 2;

Fig. 4 is a top plan view, on an enlarged scale, of a modified form of connection of the mop head with the handle;

Fig. 5 is a section on the line 5—5 of Fig. 4;

Fig. 6 is a longitudinal section of a modified form of connection of the mop head with the handle; and

Fig. 7 is a similar view of a still further modified form of connection of the mop with the handle.

Referring to the drawing and first to Figs. 1 to 3 inclusive, the mop head comprises a wire core 1 composed of metal strands twisted together, there being gripped between the twisted strands, cotton yarn or other suitable material adapted to be pushed over the floor for taking up the dust or other particles lying upon it. This construction of mop head is well known and requires no further description.

The usual wooden handle 2 has the metal portion 3 secured to it. Pivoted to the portion 3 at 4 is a flat metal member 5 having its end 6 curled about the wire mop core so that it is hinged or pivoted thereon to permit the handle to be moved to different angles with the floor while the mop is in its flat and stable position thereon.

The metal portion 3 has a recess 7 within which projects the end of the member 5 below its pivot 4. The sides 8 and 9 of the recess operate as abutments or stops for the lower end of the member 5 as it turns about its pivot, the stops respectively limiting the swinging of the member 5 (and the mop with it) about the pivot 4 in opposite directions. By swinging the handle 2 in reverse directions, that is reciprocating or vibrating it, the mop and member 5 will be caused to turn first in one direction and then in the other about the pivot 4, and the lower end of the member 5 alternately coming against the abutments 8 and 9 will be abruptly stopped thereby giving a knocking or shocking effect to the mop whereby particles of dust or other substances may be dislodged from the mop.

A covering 10 of leather or other suitable material may be wrapped about the part 6 and secured in position for the purpose of preventing scraping or marring of furniture or other objects which otherwise might come against the harder, sharper metal parts. The amplitude of the vibration of the mop and member 5 about the pivot 4 may be varied by providing additional holes as 11 and 12 in the member 5, the pivot pin 4 being thrust through the hole 11 when it is desired to decrease the amplification of the movement or throw of the mop, and is thrust through the hole 12 when it is desired to increase the throw or movement of the mop.

The pivoting of the mop head whereby it is given a knocking or shocking as described may not be desirable when the mop is in use in wiping the floor. In order to provide for clamping the mop against pivoting therefore, a thumb not 13 may be provided upon the pivot pin 4. When this thumb nut is screwed up tightly it will clamp the parts 5 and 3 together so that there can be no relative pivotal movement about the pin 4, but when such pivotal movement is desired for the purpose of knocking the mop, or for any other reason, the thumb nut 13 may be loosened when the pivoting can take place. In order to prevent the thumb nut from losing off the pin 4, one or more of the threads at the outer extremity of the pin may be mashed or bruised so that the nut will not pass over them.

Referring now to Figs. 4 and 5 of the drawing, the mop core 1 is secured to the handle 2 by means of the metal handle part 14 and the connecting member, comprising the two similar

parts 15 and 16, secured together by rivets 17 having at their outer ends recessed portions 18 and 19 forming an opening through which the stranded core 1 passes.

The members 15 and 16 at their inner ends have the separated portions 20 and 21 within which is secured a pivot pin 22 which rests in a recess 23 in the outer end of the metal handle portion 14. This metal handle portion 14 extends in between the parts 20 and 21 and has a slot 24 through which passes the limit pin 25 secured in the parts 20 and 21 by means of the thumb nut 26. When the thumb nut is loosened the connecting member composed of the parts 15 and 16 and the mop head may swing on the pivot 22 as the handle is shaken back and forth, the connecting piece and mop being brought to an abrupt stop in each direction of its movement by reason of the pin 25 coming against the ends of the slot 24.

When it is desired that the mop shall not turn about its pivot 22 this movement may be prevented by tightening up the thumb nut 26 when the mop and its connecting member will be clamped in fixed relation to the metal handle part 14. It will be seen that at all times the handle may have its angle with the floor varied by turning or swinging the connecting member about the wire core.

Referring now to Fig. 6 the connecting member 27 connects core 1 to the metal part 28 and the usual wooden handle 2. The metal part is made cup-shaped as shown and the securing of the connecting member 27 to the part 28 is accomplished by a ball 29 cooperating with a suitable socket 30 whereby a ball and socket joint is formed permitting swinging of the mop and connecting member in any direction with relation to the handle and the swinging of the mop in any direction as the handle is shaken back and forth will be limited and suddenly stopped by connector 27 coming against the flared outer portion 31 of the metal handle portion 28.

Referring to Fig. 7 a modified form of joint of the connecting member with the mop handle is shown. In this a cup-shaped metal handle portion 32 is secured to the wooden handle portion 2. This metal portion 32 is cup-shaped similar to the part 28 of the device shown in Fig. 6, having the flaring portion 33 at its outer edge. Instead, however, of the ball and socket connection as in Fig. 6, the connecting member 34 is pivoted in the cup or recess of the part 32 by means of a pivot pin 35 passing through the sides of the cup and through the member 34.

It will now be seen that the member 34 and the mop connected thereto may be swung back and forth by shaking the handle and will be abruptly brought to a stop at the end of its movement in both directions by coming against the flared portion 33 of the metal handle portion 32.

While the invention has been illustrated in what are considered its best applications, it may have other embodiments without departing from its spirit and is not therefore limited to the structures shown in the drawing.

What I claim is:

1. In a dusting mop, the combination with a mop comprising wire strands and dusting filaments secured to said strands of a mop holding member comprising substantially flat material having means for embracing and supporting the said wire strands, a handle, pivoting means securing said member to said handle, and means on said handle for limiting the pivotal movement of said member, said pivoting means being adjustable to vary the degree of limited pivotal movement of said member.

2. In a dusting mop, the combination with a mop comprising wire strands and dusting filaments secured to said strands of a mop holding member comprising substantially flat material having a substantially T-shaped formation, means for embracing and supporting the said wire strands on the head part of said member, a handle, means for pivoting said member to said handle, and means on said handle adapted to limit the pivotal movement of said member, said pivoting means being adjustable for varying the degree of limited pivotal movement of said member.

3. In a dusting mop, the combination with a mop comprising wire strands and dusting filaments secured thereto of a mop handle, a supporting member on the mop handle and a mop holding member comprising substantially flat material having a substantially T-shaped formation, an embrasure at its head, embracing and supporting the said wire strands, means for pivoting said members together, means on said supporting member for limiting the pivotal movement of said members and means for clamping said members together to prevent relative pivotal movement.

4. In a dusting mop, the combination with a mop having wire strands and dusting filaments secured thereto of a mop handle, a supporting member on the mop handle and a mop holding member comprising substantially flat material having a substantially T-shaped formation, of which the head piece is bent to form an embrasure embracing and supporting the said wire strands, pivoting means for pivoting said members together, means on said supporting member for limiting the relative pivotal movement of said members, said pivoting means being adjustable to vary the degree of limited relative movement of said members, and means for clamping said members together to prevent relative pivotal movement.

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