June 15, 1965 R. D. KANE 3,188,671

CONVERTIBLE DUST AND FLOOR MOP

Filed Feb. 26, 1962 3 Sheets-Sheet 1

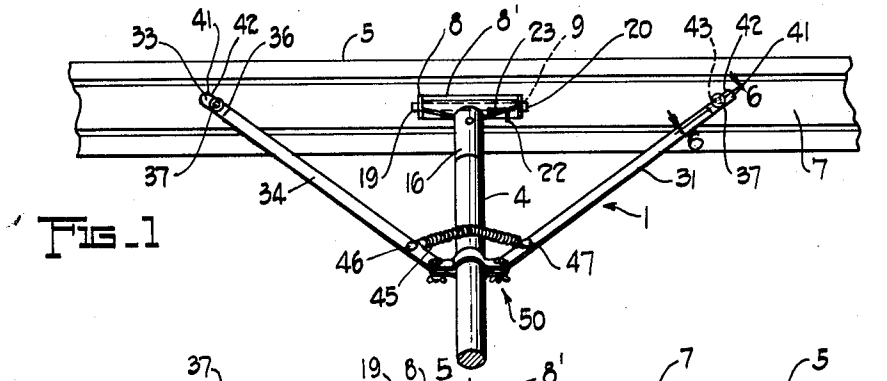


Fig. 1

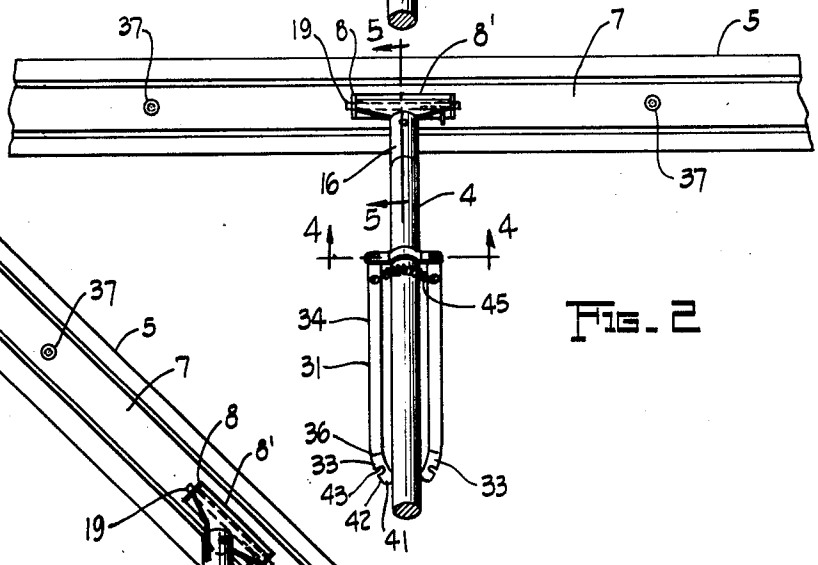


Fig. 2

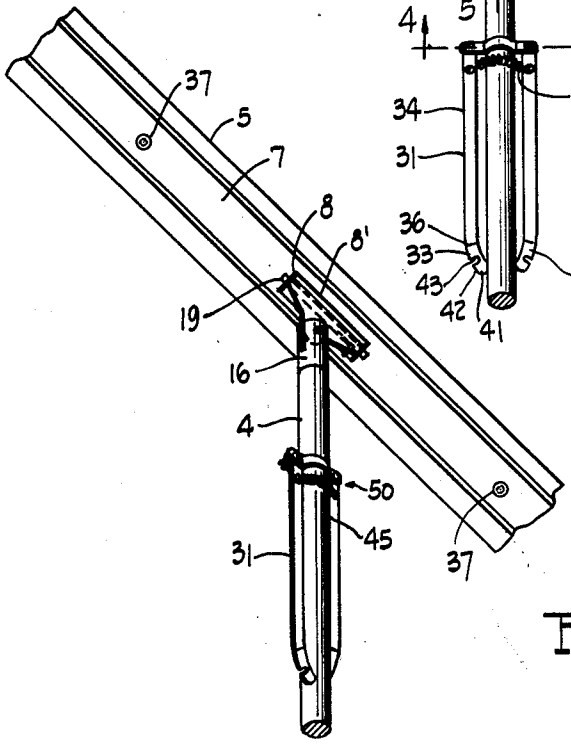


Fig. 3

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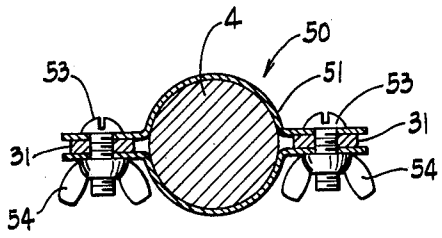


FIG. 4

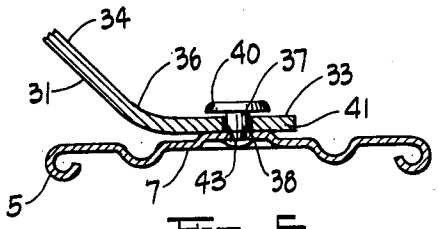


FIG. 6

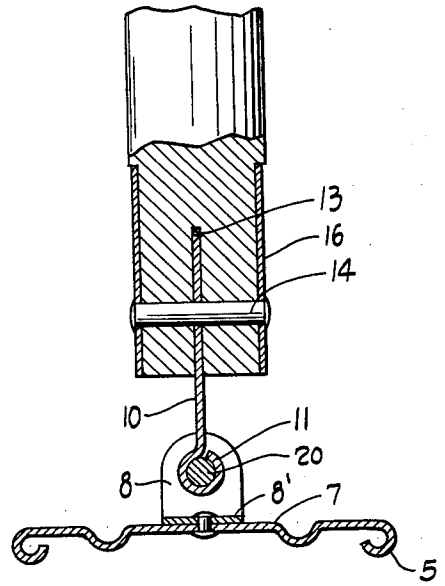


FIG. 5

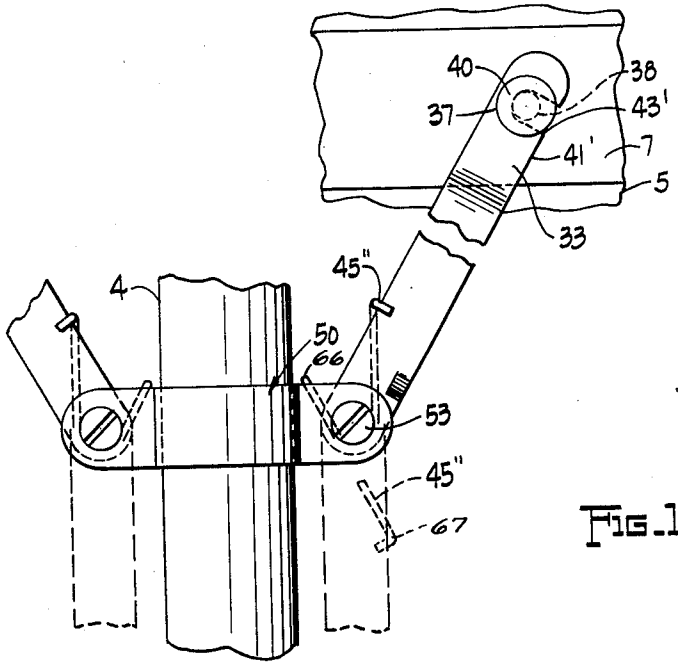


FIG. 10

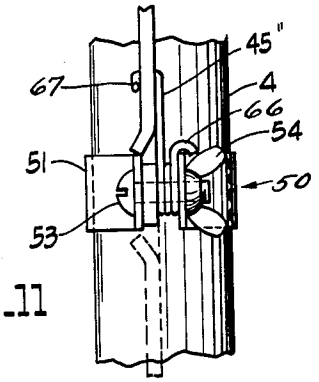


FIG. 11

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CONVERTIBLE DUST AND FLOOR MOP

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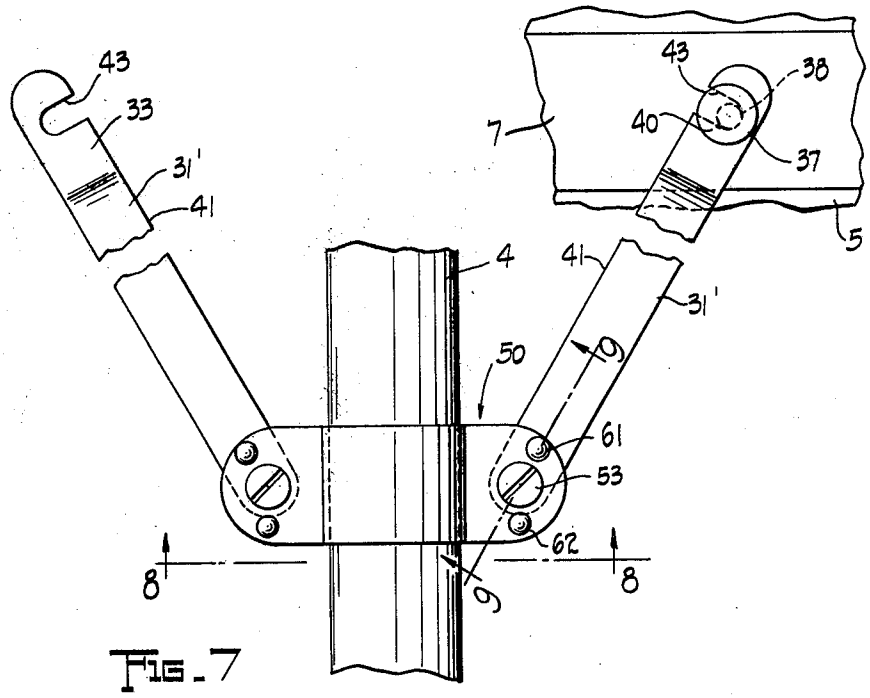


FIG. 7

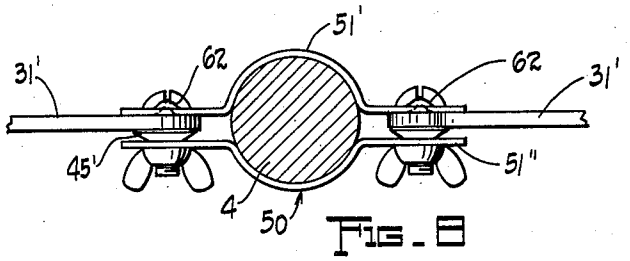


FIG. 8

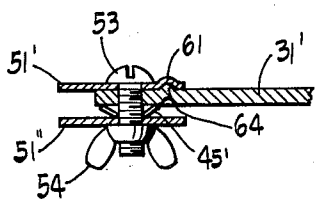


FIG. 9

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3,188,671

CONVERTIBLE DUST AND FLOOR MOP

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Filed Feb. 26, 1962, Ser. No. 175,850
12 Claims. (Cl. 15—147)

This invention relates to dust or floor mops and more particularly to an improved brace for dust or floor mops having a swivel connection between the mop head and handle, whereby said mops are readily converted from swivel to rigid head and vice versa.

Dust or floor mops having a swivel head are well known in the art. In one well known form, such mops comprise a narrow, elongated head and a handle joined together with a swivel connection of such construction that the operator, by merely twisting the handle about its axis, causes the mop head to rotate about a vertical axis to extend either transversely to, parallel with or any intermediate direction, relative to the direction of travel of the mop. Such mops are generally provided with heads conveniently having a length up to 36 inches and more but a width of only about three to five inches. It is contemplated that such mops be used with the head extending transversely of the direction of travel, when large or long, relatively narrow, open areas such as the center of rooms, halls and the like are being cleaned, and with the head extending parallel or at an acute angle to the direction of travel when areas under chairs, desks, tables and other furniture or obstacles are being cleaned. It has been found, however, that the ease with which the head swivels, or is swiveled, is such that the operator has difficulty maintaining the head transverse to the direction of travel when pushing the same in a single direction for a relatively extended distance or period of time—as when cleaning a hall or other unobstructed area. On the other hand, it is desirable and necessary that the head be easily, rapidly and repeatedly swiveled when cleaning a relatively small and/or obstructed area or under furniture and the like.

It has been proposed to provide such mops with removable braces, which the operator can attach and remove, to change the head from a swivel to a non-swivel type in order to provide a mop suitable for each of the cleaning conditions noted above. Such braces have not proved effective, however, because of the difficulty experienced and time consumed in attaching and removing them. Thus the gain in efficient use of the mop while cleaning has been lost to the time and difficulty experienced in frequently attaching and detaching the braces as the mop is repeatedly, during normal use, converted from a swivel to a non-swivel mop and vice versa.

The general object of this invention is, therefore, to provide a new and improved brace structure for detachably interconnecting the head and handle on swivel head dust or floor mops.

A further object of this invention is to provide a quick detachable, self-storing brace for detachably interconnecting the head and handle on swivel head dust and floor mops.

Still further objects of this invention include the provision of an improved, convertible brace for detachably interconnecting the head and handle of swivel head dust or floor mops which is easily and quickly attached and detached by unskilled operators; which is carried out of the way on the mop handle when detached from the head; which is attached and detached from the mop head without the need of tightening or loosening thumb screws and the like, yet is held in functional engagement with and against accidental disengagement from the mop head;

which includes spring means for maintaining the brace members in functional engagement with the mop head when the brace attached to the mop head for maintaining the brace members in a raised position against the mop handle when the brace is detached from the mop head; which is adjustable on the mop handle for use with mop heads of different lengths; which is economically manufactured, which is easily installed on the mop and provides for ready exchange or replacement of mop heads and handles; and, which maintains the mop head in a rigid position, extending transversely of the direction of travel when attached thereto and permits full swiveling of the mop, without interfering therewith, when detached from the mop head.

Still further objects of this invention include the provision of an improved brace for detachably interconnecting the head and handle on swivel head dust and floor mops obtaining one or more of the above advantages as well as the provision of such a brace in combination with the mop with which it is used.

These and other objects and advantages of a brace and brace and mop embodying this invention will appear from the following description of preferred and modified forms thereof, reference being had to the accompanying drawings in which:

FIGURE 1 is a top view of a brace and mop embodying a preferred form of this invention showing the brace attached to the mop head;

FIGURE 2 is a view similar to FIGURE 1, showing the brace detached and the mop head extending transversely of the direction of travel;

FIGURE 3 is a view similar to FIGURE 2, showing the mop head extending at an acute angle to the direction of travel;

FIGURE 4 is a section viewed along the lines 4—4 of FIGURE 2;

FIGURE 5 is a section, with the handle upright, viewed along the lines 5—5 of FIGURE 2;

FIGURE 6 is a section viewed along the lines 6—6 of FIGURE 1;

FIGURE 7 is a broken top view showing a modified form of this invention;

FIGURE 8 is a section viewed along the lines 8—8 of FIGURE 7;

FIGURE 9 is a section viewed along the lines 9—9 of FIGURE 7;

FIGURE 10 is a broken top view of another modified form of this invention, showing the brace member in the attached position in full lines and in the detached position in broken lines; and,

FIGURE 11 is a broken side view of the brace shown in FIGURE 10.

A mop and brace embodying a preferred form of this invention are indicated generally at 1 in FIGURE 1.

The mop includes a handle 4 and a head 5 having a considerably greater length than width. A mop cover (not shown) of material suitable for cleaning is fitted over the edges and removably mounted on the mop head 5 when the same is in use. The mop cover is adapted to engage and sweep, dust or otherwise clean the floor, or other surface being cleaned, as the mop is pushed thereover.

Handle 4 has a swivel connection with mop head 5 and is also conveniently detachably connected with mop head 5 so that heads of different lengths, sizes or types may be selectively interchanged on the handle at the discretion of the user.

To this end, as best seen in FIGURES 1 and 5, the back 7 of mop head 5 is provided with parallel, opposed upright ears 8, which are spaced apart substantially symmetrical with the axis of the mop handle and may be formed as part of a bracket 8'. Each ear 8 has an aperture 9 and

the apertures 9 have their centers on a common axis. Further handle 2 is provided with a tongue 10 which is pivotally supported thereon on an axis extending perpendicular to the axis of the handle. The lower end of tongue 10 is bent and shaped or otherwise provided with a barrel or tube 11, which extends transversely of the handle and is adapted to fit between the ears 8 of head 5. Tongue 10 is conveniently mounted on handle 2 by disposing the end of the tongue within a slot 13 provided in the handle and inserting a pin 14 which fits loosely in the tongue through the handle and tongue. Pin 14 may also be used to mount a ferrule 16 on the end of the handle. Barrel 11 is provided with a fixed pin 19 extending from one end, and a sliding bolt 20, disposed within the barrel and biased to extend from the opposite end by a spring (not shown). A bolt operating handle 22 is mounted on and extends laterally from bolt 20 through a suitable slot 23 in barrel 11. Handle 4 is connected to head 5 by inserting pin 19 in one of the apertures 9, exerting a pressure on bolt operating handle 22 to retract bolt 20 against the force of the spring, positioning bolt 20 in axial alignment with the other aperture 9 and releasing handle 22, whereupon the spring forces bolt 22 outwardly and the end thereof enters the other aperture 9 to hold the head 5 on the handle 4. Handle 4 is raised and lowered relative to the head by pivoting the same about the axis of pin 19 and bolt 20. Head 5 is rotated about an axis substantially perpendicular to the surface upon which the head rests to change the mop head from a position extending transversely of the direction of travel to one extending parallel therewith or to any intermediate position and/or back again, selectively as desired, by operator simply twisting the handle 2 about its own longitudinal axis. The above is old in the art and per se forms no part of the instant invention.

It is desirable, under certain conditions and exigencies of use to "lock" the mop head 5 in a position transverse of the direction of travel. This makes cleaning of large unobstructed areas, hallways and the like easier by preventing accidental twisting of the handle causing rotation of the mop head, because of swivel connection between the head and handle, and ensuring that the path covered by each pass of the mop head has a width substantially equal to the full length of the mop head. However, under normal conditions, periods of use when such rigidity is desired frequently, quickly and shortly are followed by and follow periods of use when it is desired that the mop head be fully and easily pivoted by merely twisting the handle 4.

The instant invention provides brace means by which the mop is quickly and easily "converted" from a rigid to a swivel mop. The means of this invention is easily and readily manipulated by unskilled operators and remains fixedly attached to the mop during repeated cycles of ordinary use, although in its preferred form it is adjustable on the mop handle so that it may be used with mop heads of different lengths and is selectively removable from the mop handle so that the mop handle may be replaced or interchanged if desired or necessary.

Preferably, a brace embodying a preferred form of this invention includes two struts or brace members 31 which are pivotally mounted on the opposite sides of handle 4. Struts 31 are adapted to engage the mop head 5 laterally outwardly on both sides of the ears 8, to maintain the handle and mop head in fixed relative position, see FIGURE 1, or to be released easily from the mop head and swung upwardly against and substantially parallel with the mop handle and to be maintained in said raised, out of the way position, without further effort by the operator, so that the head and handle are swivelly connected.

To this end, struts 31, as viewed in FIGURES 1 and 6 extend downwardly and outwardly from handle 4 and have an end portion 33, which is flat and parallel with the back 7 of mop head 5, and an upright portion 34, which is angularly related with portion 33 as at 36. The

angle 36 is such that the handle 4 is maintained at a desired and convenient angle with the head 5 considering the length of the handle and the height, arm length, etc. of the user or average potential user to the end that the remote end of the handle (not shown) is at convenient height for use when the struts 31 are attached to the mop head.

In order to provide for ready and easy attachment and detachment of the struts to and from the mop head, studs 37 are mounted, by welding or other suitable means, on the mop head back 7 and extend upwardly therefrom. Studs 37 have a shank 38 and an enlarged head 40, which is preferably formed integrally with the shank 38 so as to obviate the need for tightening and/or loosening thumb screws, wing nuts or the like in order to attach and release the struts to and from the mop head. Further, to this end, the portion 33 of each strut 31 is provided near its free end 41 and on its edge 42, nearest the handle 4, as with a notch 43.

Notch 43 is of sufficiently large diameter to encircle, partially, the shank 38 of stud 37, but has a smaller diameter than stud head 40 so that the strut cannot be lifted vertically off of the stud 37. Thus, in order to attach each strut 31 to the mop head 5, end 42 must be moved outwardly of the respective stud 37, rested upon or adjacent the back 7 of mop head 5 and then moved inwardly to slide notch 43 around shank 38 and beneath stud head 40. The struts are biased and urged into engagement with the respective studs (towards each other) and prevented from accidentally disengaging from the studs by suitable spring means, such as tension spring 45 which has one end pivotally secured to each strut 31, as at 46 and 47, respectively, and urges the struts together or toward each other. Spring 45 is preferably secured to the struts near or adjacent the pivotal connection between the respective struts and the handle 4 and functions not only to urge the struts to maintain engagement with the studs, when the brace is in the position and use condition shown in FIGURE 1, but also to hold the struts up out of the way and against the handle 4, as shown in FIGURE 2, after the struts have been disengaged from the respective studs and swung upwardly about their pivots.

Further, in order, as noted above, to provide for replacing or interchanging handle 4 and/or using mop heads 5 in which studs 37 are spaced different distances apart, struts 31 are preferably connected to handle 4 by means of clamp 50, see FIGURES 1 and 4. Clamp 50 conveniently comprises two similar halves 51, which engage around the handle and are releasably held in a predetermined position by means of screws 53 and wing nuts 54, or other suitable means. The struts are, in turn, pivotally connected to clamp 50 as by being positioned between the clamp halves 51 so that screws 53 also pass therethrough, or by other suitable means.

In use, with the mop in the condition shown in FIGURE 1, the operator need only press outwardly on the respective struts 31 against the force of spring 45 to release the struts so that the mop head 5 and handle 4 have swivel relationship and then swing the struts upwardly about their respective pivots so that the spring 45 will hold them out of the way, but readily accessible, in a self-storing position against the handle, as shown in FIGURE 2. When it is desired to make the mop rigid again, the operator need only swing the struts down, catch the notches 43 about the respective stud shanks 38 and under the stud heads 40 in the manner described above, and the spring 45 biases the struts inwardly to maintain them in position. Thus the mop is converted from rigid to swivel and back without requiring tightening or loosening of nuts or the operation of any additional clamping or holding means.

The clamp 50 is shifted along or removed from the handle 4, as required in order that the notches 43 may engage the differently spaced studs of a different head or the handle be replaced by loosening the wing nuts 54 and

sliding the clamp **50** to the new position and retightening.

It is to be noted that some of the objects and advantages of this invention can be obtained, for example, by using screws and wing nuts (which may or may not be tightened and loosened as desired) instead of the preferred integral studs and/or by omitting the clamp **50** and pivoting the struts **31** directly to the handle.

A modified form of brace embodying this invention is shown in FIGURES 7, 8 and 9. In this instance one side **51'** of clamp **50** is provided with a series of notches or seats **61, 62** and each strut **31'** has a complementary projection or pin **64** which can have mating engagement therewith. The seats **61** are disposed so that, when the projection **64** is seated therein, the respective strut will extend downwardly as in FIGURE 1 and the seats **62** are disposed so that, when the projection **64** is seated therein, the respective struts will extend upwardly as in FIGURE 2.

Each projection **64** is biased toward clamp member **51'** and more particularly to seat in the seats **61, 62**, respectively, by means of a spring **45'**, which acts between the other clamp member **51''** and the adjacent strut **31'**. Strut **31'** is moved by exerting a pressure against spring **45'** to release the projection **64** from the particular seat **61, 62** in which it is then engaged and then swinging the strut to the desired new position and until the projection seats again. In this form of the invention the connection between the strut and the mop head is the same as with the preferred form of the invention and the struts are swung into engagement with the studs in substantially the same way except that the springs **45'** bias the strut projection to seat instead of biasing the struts toward each other. Alternatively, the notch **43** may be the same as in the form of the invention described below.

Another form of brace embodying this invention is shown in FIGURES 10 and 11. In this instance a torsion spring **45''** is disposed between the clamp members **51** and about the screw **53**. One end, **66** of the spring **45''** is anchored to the clamp **50** and the other end **67** of the spring **45''** engages the adjacent strut **31'** and spring **45''** is arranged to bias the strut toward and hold it in the raised position as shown in dotted lines in FIGURE 10. Also, in this form the notch **43'** in the portion **33** of the strut is in the opposite edge **41'** thereof. When it is desired to attach the brace to make the mop rigid, the operator merely swings the strut downwardly, against the force of spring **45''**, past the stud **37** and then with the notch **43'** opening toward the stud and aligned with the shank **38** the strut is moved outwardly so that the notch engages around the stud shank and beneath the stud head **40**. The strut is then maintained in operative engagement with the stud and in the position shown in full lines in FIGURE 10, by the action of spring **45''** as it seeks to urge the strut upwardly and into the dotted line position. To change the mop back to a swivel action type, the operator forces the street inwardly against the force of spring **45''** to disengage notch **43'** from the stud and then, making sure the notch is not aligned with the stud, releases the strut whereupon spring **45''** returns the strut up out of the way to the raised position, shown in dotted lines in FIGURE 10.

FIGURE 3 shows that with any form of the invention the mop head may swivel without interference from the brace when the struts are disengaged therefrom and held in their upward position.

Modifications, changes and improvements to the preferred and modified forms of the invention herein particularly disclosed and described may occur to those skilled in the art who come to understand the principles and precepts thereof. Accordingly, the scope of the patent issued hereon should not be limited to the specific forms of the inevntion herein particularly illustrated, disclosed and described but only consistent with the advance by which the invention has promoted the art.

I claim:

1. A floor or dust mop comprising a mop head, a handle, a swivel connection interconnecting said handle and mop head, and brace means for detachably holding said mop head and handle in fixed relative relationship, said brace means comprising a pair of upwardly extending studs secured to said mop head with one stud to each side of and spaced from said swivel connection, each said stud comprising a cylindrical shank portion and an integral head portion of greater diameter than said shank portion, a clamp mounted on said handle, said clamp comprising similar halves, a pair of fastening means extending through said clamp halves with one said fastening means to each side of said handle in the direction of the corresponding stud, a pair of bent and shaped struts, each said strut having an upper portion with an aperture therein and a lower portion adapted to extend parallel with said mop head, said upper portion of each said strut being disposed between said clamp halves, a said fastening means extending through said aperture in each said strut and pivotally connecting the said strut to said clamp, a laterally opening notch in said lower portion of each said strut, said notch having a width greater than the diameter of said stud shank and less than the diameter of said stud head, said notch opening toward the adjacent said stud when said strut is disposed outwardly thereof relative to said connection between said handle and mop head, a tension spring extending between said struts adjacent said upper portions thereof and biasing said struts toward each other, said struts having a first position with said spring biasing said struts into engagement with said studs with said stud shanks being disposed in said notches, respectively, and a second position with said struts extending susbtantially parallel with said handle in a direction away from said mop head and said spring biasing each said strut toward said handle.

2. In a floor or dust mop comprising a mop head, a handle and a swivel connection interconnecting said handle and mop head, and the improvement of brace means for detachably holding said mop head and handle in fixed relative relationship, said brace means comprising a pair of upwardly extending studs secured to said mop head with one stud to each side of and spaced from said swivel connection, each said stud comprising a shank portion and an integral head portion of greater diameter than said shank portion, clamp means mounted on said handle, a pair of bent and shaped struts, each said strut having an upper portion pivotally mounted on said clamp means with one said strut to each side of said handle in the direction of the corresponding strut and a lower portion adapted to extend parallel with said mop head, a laterally opening notch in said lower portion of each said strut, said notch having a width greater than the diameter of said stud shank and less than the diameter of said stud head, said notch opening toward the adjacent said stud when said strut is disposed outwardly thereof relative to said connection between said handle and mop head, a tension spring extending between said struts adjacent said upper portions thereof and biasing said struts toward each other, said struts having a first position in engagement with said studs with said stud shanks disposed in said notches, respectively, and a second position with said struts extending substantially parallel with said handle in a direction away from said mop head.

3. In a floor or dust mop comprising a mop head, a handle, and a swivel connection interconnecting said handle and mop head, the improvement of brace means for detachably holding said mop head and handle in fixed relative relationship, said brace means comprising a pair of stud means extending from said mop head with one stud means to each side of and spaced from said swivel connection, each said stud means comprising a shank portion and a head portion of greater diameter than said shank portion, clamp means mounted on said handle, a pair of bent and shaped struts, each said strut having an upper portion

pivotally mounted on said clamp means and a lower portion adapted to extend parallel with said mop head, a laterally opening notch in said lower portion of each said strut, said notch having a width greater than the diameter of said stud means shank and less than the diameter of said stud means head, said notch opening toward the adjacent said stud means when said strut is disposed outwardly thereof relative to said connection between said handle and mop head, spring means extending between said struts adjacent said upper portions thereof and biasing said struts toward each other, said struts having a first position in engagement with said stud means and said shanks disposed in said notches, respectively, and a second position with said struts extending substantially parallel with said handle in a direction away from said mop head and said spring means biasing each said strut toward said handle.

4. In a floor or dust mop comprising a mop head, a handle, and a swivel connection interconnecting said handle and mop head, the improvement of brace means for detachably holding said mop head and handle in fixed relative relationship, said brace means comprising stud means secured to said mop head and extending therefrom on each side of and spaced from said swivel connection, said stud means comprising a shank portion and an enlarged head portion, a pair of bent and shaped struts, each said strut having an upper portion and a lower portion adapted to extend parallel with said mop head, means pivotally mounting said upper portion of each said strut on said handle, a laterally opening notch in said lower portion of each said strut, said notch having a width greater than the diameter of said shank portion and less than the diameter of said head portion, said notch opening toward a said stud means when said strut is disposed outwardly thereof relative to said connection between said handle and mop head, tension spring means extending between said struts adjacent said upper portions thereof and biasing said struts toward each other, said struts having a first position with said spring means biasing said struts into engagement with said stud means and said shank portions disposed in said notches, respectively, and a second position with said struts extending substantially parallel with said handle in a direction away from said mop head and said spring means biasing each said strut toward said handle.

5. In a floor or dust mop comprising a mop head, a handle, and a swivel connection interconnecting said handle and mop head, the improvement of brace means for detachably holding said mop head and handle in fixed relative relationship, said brace means comprising a pair of stud means carried by said mop head and extending therefrom in spaced relationship with said swivel connection, each said stud means comprising a shank portion and an enlarged head portion, a pair of shaped struts, each said strut having an upper portion and a lower portion, a laterally opening notch in said lower portion of each said strut, said notch having a width greater than the diameter of said shank portion and less than the diameter of said head portion, means pivotally mounting said upper portion of each said strut on said handle, said struts having a first position with said struts in engagement with said studs and said shank portions in said notches, respectively, and a second position with said struts extending substantially parallel with said handle in a direction away from said mop head, and means releasably holding said strut means in a predetermined one or the other of said first and second positions, said means for mounting said struts on said handle comprising a clamp having two halves and fastening means for holding said halves together and pivotally supporting said struts, respectively, and said releasable holding means comprising complementary male and female portions on the upper portion of each strut and the adjacent said clamp half and spring means acting between the other said clamp half and each said strut and biasing said male and female portions into engagement, said adjacent clamp portion having a plurality of similar parts of said male and female portions for each said strut, and each said strut being in said first position when one said part is engaged by the complementary portion on said strut and in said second position when another said part is so engaged.

6. The mop according to claim 5, in which each said strut has an aperture in said upper portion, one said strut is to either side of said handle, said fastening means includes members extending through each said strut aperture, and said spring means comprises compression spring means disposed about each said fastening means member between a said strut and said other clamp half.

7. The mop according to claim 5 in which said male and female portions comprise a projection on each said strut and two complementary seats for said projections per strut on the said adjacent clamp half.

8. In a floor or dust mop comprising a mop head, a handle, and a swivel connection interconnecting said handle and mop head, the improvement of brace means for detachably holding said mop head and handle in fixed relative relationship, said brace means comprising stud means carried by said mop head and extending therefrom in spaced relationship with said swivel connection, said stud means comprising a shank portion and an enlarged head portion, strut means having an upper portion and a lower portion adapted to extend parallel with said mop head, means pivotally mounting said upper portion of strut means on said handle, a laterally opening notch in said lower portion of said strut means, said notch having a width greater than the diameter of said shank portion and less than the diameter of said head portion of said stud means, said strut means having a first position in engagement with said stud means with the shank portion thereat in said notch and a second position with said strut means extending substantially parallel with said handle in a direction away from said mop head, and means releasably holding said strut means in a predetermined one or the other of said first and second positions.

9. In a floor or dust mop comprising a mop head, a handle, and a swivel connection interconnecting said handle and mop head, the improvement of brace means for detachably holding said mop head and handle in fixed relative relationship, said brace means comprising a pair of stud means carried by said mop head and extending therefrom in spaced relationship with said swivel connection, each said stud means comprising a shank portion and an enlarged head portion, a pair of shaped struts, each said strut having an upper portion and a lower portion adapted to extend parallel with said mop head pivotally mounting said upper portion of each said strut on said handle, a laterally opening notch in said lower portion of each said strut, said notch in each strut opening towards the adjacent stud means when said strut is disposed inwardly thereof relative to said connection and having a width greater than the diameter of said shank portion and less than the diameter of said head portion, said struts having a first position with said struts in engagement with said studs and said shank portions in said notches, respectively, and a second position with said struts extending substantially parallel with said handle in a direction away from said mop head, and means releasably holding said struts in predetermined one or the other of said first and second positions, said last named means comprising spring means urging said struts, respectively, into said second position.

10. The mop according to claim 9 in which said spring means comprises a torsion spring for each said strut having one end anchored to said strut and the other end fixedly mounted relative to said handle.

11. In a floor or dust mop comprising a mop head, a handle, and a swivel connection interconnecting said handle and mop head, the improvement of brace means for detachably holding said mop head and handle in fixed relative relationship, said brace means comprising strut

means having an upper portion and a lower portion, means pivotally mounting said upper portion of said strut means on said handle, means detachably interconnecting said lower portion of said strut means and said mop head, said strut means having a first position with said strut means interconnected with said mop head and a second position with said strut means extending substantially parallel with said handle in a direction away from said mop head, and spring means releasably holding said strut means in said second position.

12. In a floor or dust mop comprising a mop head, a handle, and a swivel connection interconnecting said handle and mop head, the improvement of brace means for detachably holding said mop head and handle in fixed relative relationship, said brace means comprising strut means having an upper portion and a lower portion, means pivotally mounting said upper portion of said strut means on said handle, said lower portion of said strut means detachably engaging said mop head, said strut means having a first position with said strut means engaging said mop head and a second position with said strut means extending substantially parallel with said handle in a direction away from said mop head, and spring actuated means releasably holding said strut means in a predetermined one or the other of said first and second positions.

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