

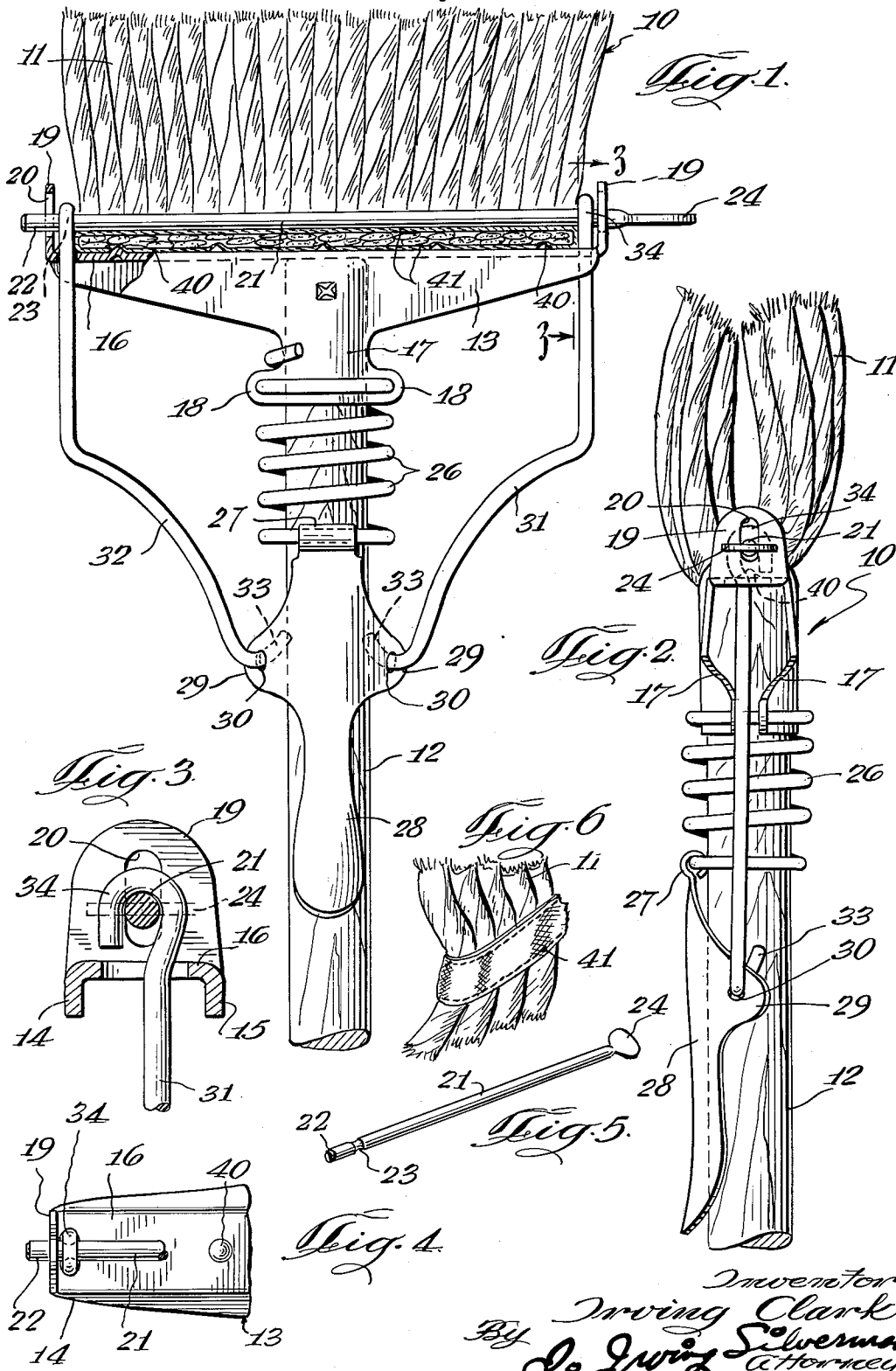
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MOP STICK CLAMP

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## MOP STICK CLAMP

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1 Claim. (Cl. 15—152)

This invention relates generally to mops and more specifically is concerned with a novel clamp construction for a mop stick.

The invention is characterized by the provision of an improved mop stick clamp construction which includes a clamping frame which may be mounted on one end of the stick and a clamping bar adapted to cooperate with the frame for releasably securing a mop to said frame. An important feature of the invention resides in the clamping bar being removable completely from the said frame whereby to permit easy and rapid removal of the mop for cleaning same or replacing with a new one.

Another important object of the invention is to provide a mop stick clamp of the character described in which the clamping bar may be slidden out of engagement with the mop and the frame in a direction substantially perpendicular to the longitudinal axis of the mop stick whereby any portions of the mop entangled with clamping bar will not prevent removal of said mop without cutting or ripping of said entangled portions.

Another object of the invention is to provide a novel mop stick clamp having projecting teeth adapted to cooperate with the clamping bar for holding the mop on the said frame and preventing said mop from slipping.

These and other objects of the invention will become apparent as the description thereof proceeds, in connection with which a preferred embodiment of the invention has been set forth in the accompanying drawings. Minor changes in the size, form, proportion and arrangement of parts may occur to the artisan skilled in the field of endeavor to which the invention appertains, however, such minor changes may be had without departing from the spirit or sacrificing any of the scope of the invention as set forth in the appended claim.

In the drawings wherein like characters of reference are employed to designate corresponding parts in the drawings:

Fig. 1 is a front-on elevational view of a mop of the character herewith concerned, and having the clamp construction embodying invention for securing a mop on the end of the mop stick, there being an end of said construction in section to show structural details.

Fig. 2 is a side elevational view of the mop shown in Fig. 1.

Fig. 3 is a sectional view taken through the clamp construction embodying the invention along the line 3—3 of Fig. 1 and in the direction indicated.

Fig. 4 is a plan view of an end portion of said clamp construction.

Fig. 5 is a perspective view of the clamping bar of the invention.

Fig. 6 is a perspective view of a mop rag adapted to be used on the mop shown in Fig. 1.

Referring now to the drawings, the reference character 10 indicates a mop of the type adapted to have a mop rag 11 removably secured thereon. The mop 10 includes a stick 12 having one end thereof received in a frame member 13 which is a part of the clamp con-

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struction embodying the invention. The frame 13 preferably may be made of metal and includes a pair of side walls 14 and 15 spaced apart a distance sufficient to accommodate therebetween the said end of the stick 12. A wall 16 connects the side walls at the top ends thereof. Each side wall has an extension 17 depending from the bottom edge thereof and each extension has an ear 18 protruding from the side edges thereof. An upturned flange 19 having a longitudinal slot 20 is formed on each end of the top wall 16.

The flanges 19, 19 are arranged to support between them in said slots 20, 20 a clamping bar 21. Adjacent one end 22 of said clamping bar is an annular groove 23 and the opposite end of said bar 21 has an enlarged flat head 24 by means of which the bar may be grasped. As shown in Fig. 1, the rag 11 is positioned between the top wall 16 and the clamping bar 21 and fixedly secured by means of the cooperating clamping action of the said bar and top wall.

To effectuate clamping of the mop rag 11, there is provided a contractile spring mechanism which includes a coil spring 26 engaged over the stick 12, one end of the said spring being passed through the ears 18 while the opposite end of said spring is threaded through an eye 27 formed on one end of an actuating lever member 28. The lever member 28 may be curved to conform with the curvature of the stick 12 and is provided with a pair of oppositely extending ears 29 each having an opening 30 therein. A pair of rods 31 and 32 are each bent at one end thereof to provide a hook 33 adapted to be engaged through an opening 30. The opposite end of each said rod has an open loop 34 and the rods each are curved so as to dispose the loop 34 perpendicular to the hook 33 at the opposite end of said rod. With the rods 31 and 32 each having a hook 33 engaged in an opening 30 and having the stick 12 disposed between them, the loop ends 34 are arranged respectively to be passed through openings 35 and 36 at opposite ends of top wall 16 inside of an adjacent flange 19. The bar 21 is passed through loops 34, 34 and the loop of rod 32 will be received in the annular groove 22.

The principle of operation of the clamping construction described is well known. When the lever member 28 is pressed into a position against the stick 12 as shown in Fig. 2, the spring 26 is expanded and the rods 31 and 32 are caused to move longitudinally in a direction away from the frame 13 thereby causing the clamping bar 21 to press against the mop rag 11 clamping same on the top wall 16. When the lever 28 is raised, the spring 26 is contracted and the rods 31 and 32 will be moved upwardly releasing the clamping bar 21. However, during normal use of the mop 10 is it common for the strands of the mop rag 11 to become entangled with the clamping bar 21. Thus, although the clamping bar 21 is released when the lever member 28 is raised, it often is impossible to remove the mop rag 11 without cutting the strands where, as in prior art constructions, the clamping bar thereof is fixedly joined to the clamping frame 13. In the invention above described, it never becomes necessary to cut or rip the rag 11 in order to remove same from the mop 10.

This is accomplished by means of the removable clamping bar 21. When the lever member 28 is in raised position, the clamping bar 21 may be moved in the slots 20 away from the top wall 16. Then, the bar 21 may be grasped by the head 24 and slidden in direction to the right as viewed in Fig. 1 and away from the flanges 19 to remove same from loops 34, 34 and the slots 20, 20. It will be apparent that even where the strands of the mop rag 11 are strongly entangled with the bar 21, it still will be possible to slide and move the said bar out of the

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slots 20, 20 thereby eliminating the need to cut or rip the mop rag 11.

Referring to Fig. 1, I have shown the top wall 16 provided with sharp teeth 40 which may be formed by pushing outwardly portions of the top wall 16. As shown in Fig. 6, the conventional mop rag 11 has a tape 41 bound around the strands thereof midway between opposite ends of the mop rag. The mop rag is placed over the top wall 16 with the tape 41 disposed on the said top wall. When the clamping bar 21 is in its clamping position when the lever 28 is in position shown in Fig. 2, the teeth 40 will engage the tape 41 and cooperate with said bar to prevent the rag from slipping during use of the mop.

It is believed that the invention and the mode in which same operates will be clearly understood from the foregoing description. It is not intended to be limited to the exact construction and combination of parts shown and described and minor changes in the said construction and arrangement of parts may be had without departing from the scope of the invention as defined in the claim appended hereto.

I claim:

A mop adapted to have a mop rag removably secured thereon and including a stick, a clamping frame having an elongate top wall mounted on one end of the stick, said top wall having an aperture therethrough adjacent each end thereof and a slotted upturned flange on the upper surface of said top wall at each extremity thereof, a retractile coil spring mechanism engaged on the stick with the coil spring connected to the frame, said mechanism including a pair of rod members each connected at an end thereof to said coil spring on opposite sides of the stick, the opposite end of each rod having an open

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loop formation disposed beyond said top wall with each rod extending through one of the apertures, each loop arranged adjacent and inwardly of a said flange and opening toward the top wall, an elongate clamping bar having an annular groove adjacent one end thereof and an enlarged head on the opposite end, said bar adapted to be seated in said slots with the head disposed outwardly of a said flange and the loops engaged respectively around the bar, one of said loops engaging the groove in said bar inwardly of one of said flanges and the other loop adjacent the enlarged head engaging said bar inwardly of the other flange, the mechanism adapted to be contracted to bias the loops into engagement with the bar for moving the bar in a direction toward said top wall to clamp the mop rag between the bar and said top wall and selectively released to free the loops from engagement with the clamping bar, said clamping bar thereafter being movable in a direction substantially perpendicular to the longitudinal axis of the stick for removing same completely from engagement with the loops and the flanges.

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