

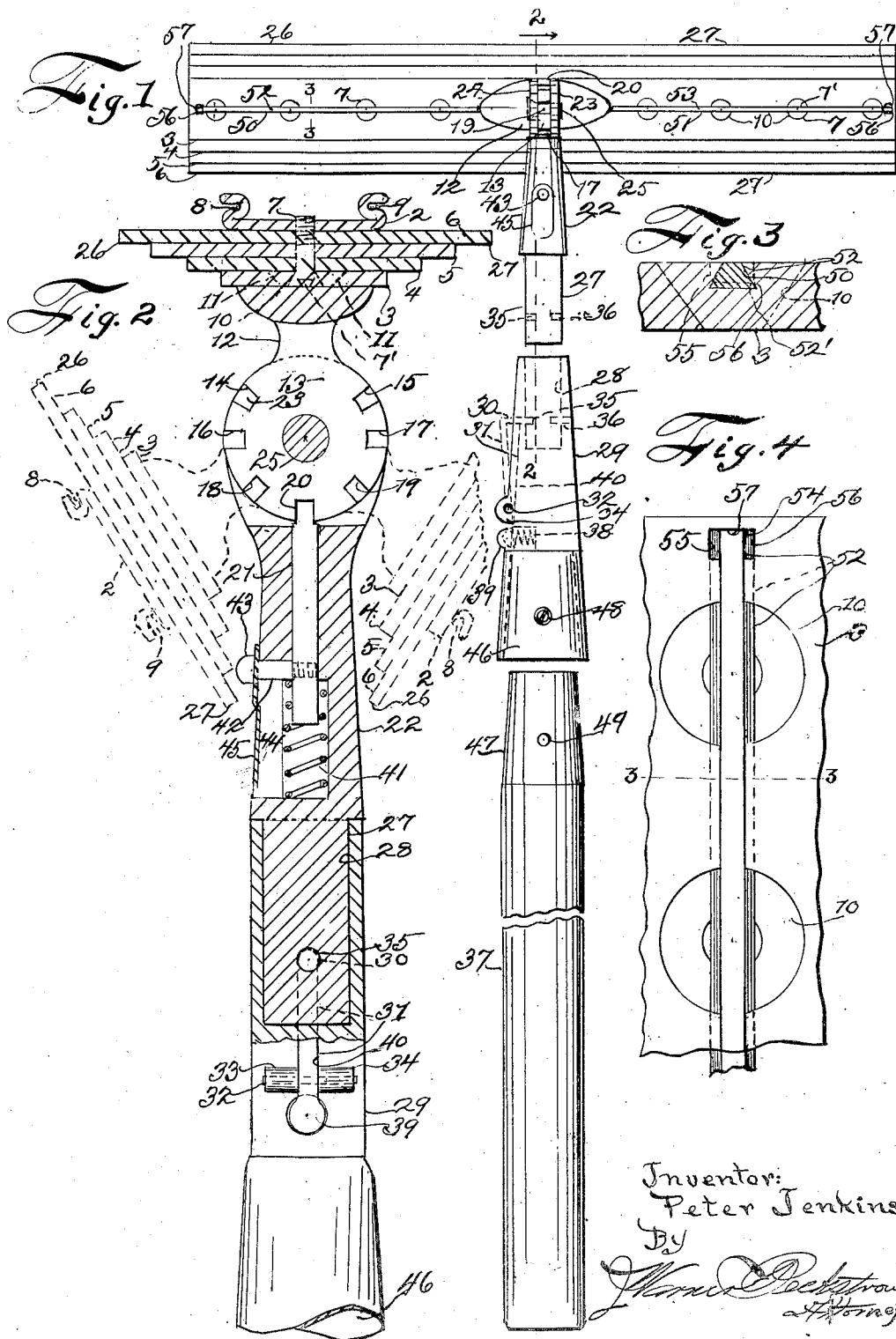
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SQUEEGEE MOUNTING

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SQUEEGEE MOUNTING.

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To all whom it may concern:

Be it known that I, PETER JENKINS, a citizen of the Republic of Lithuania, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Squeegee Mountings, of which the following is a specification.

This invention relates to the mounting and adjustment of squeegees on their handles, and has particular reference to the short and long handle combinations. The objects of this invention are to provide in the pivotally adjustable squeegee-head type an angular adjustability of the head with reference to the handle wherein said head is completely reversible so that either edge of the squeegee may be held in the same angular adjustment as the opposite edge, and to provide a mechanism for such adjustment that is instantaneously operable, and which is substantially contained within the handle of usual exterior configuration and obviates the exteriorly projecting parts of other forms of adjustable heads which are in the way and make the ordinary plain squeegee awkward for the ordinary window cleaning operations.

The object of providing an angular adjustment mechanism wherein the adjusted head of the squeegee looks and operates the same on either of two opposite sides of the handle, for which purpose the adjusting mechanism is substantially within the handle instead of being exteriorly of it, is to make my improvement do the work of what has heretofore required two squeegees, namely, one for wiping windows and the other for wiping up the drippings from window washing. This plurality of squeegees has been necessary because the rough floor work would so roughen the edge of the window-wiping squeegee that it would become unfit for that purpose. With my improvement one side or edge of the head is used exclusively for wiping the glass of windows, or similarly smooth work, while the opposite side or edge is reserved exclusively for wiping up the floor after the window cleaning operation.

Another object of this invention is to provide a convenient and quickly operable coupling between the short handle of the squeegee and its long pole extension that must

be added to the more directly operable squeegee head with a short handle in order to reach the high places to be wiped. In the usual or simple form of squeegee long and short handle combination, the long pole handle extension has a tapered end which is frictionally engaged with the socket which forms substantially the whole handle of the squeegee adjacent to its head. In the present improvement this socket is made a separate member with socket openings at both of its ends to receive, respectively, said tapered portion of the long pole and a shank, or short handle, on the squeegee head. In each instance the members engaging said sockets are positively held whereby the common annoyance of the squeegee head coming loose and dropping off the pole, is obviated. This separate double socket portion is, further, adapted to be retained on the short handle as a part thereof, or to remain on the long pole as a fixed portion thereof, the latter being ordinarily the preferred way.

A still further object of this invention is to overcome the common annoyance, loss of time and inconvenience due to the screws which hold the squeegee rubber or fiber strips between metallic backs on opposite sides of said strips, becoming loose and causing the active cleaning elements to fall apart. In my improvement all the screws at each side of the handle are yoked together against rotation of their threads, by a lock-member, or strip, or bar common to all of said screws. In the present embodiment of my invention the screw driver slots are alined to be engaged by said bar and heads with tapered sides adapted to engage countersinks in the clamping plates, and the plate itself having a groove with undercut sides alined with the slots in the screws. This form of lock member is shown because, unlike screws with concentric eyes projecting from the plate and to be engaged by such locking bar, the locking means are even with the surface of the plate and makes my improvement as smooth and free from protruding parts as the ordinary plain squeegee and just as easily cleaned, or wiped off.

And with the above named objects in view my invention consists in the novel construction, combination and arrangement of parts hereinafter described in detail, illustrated in the accompanying drawing and

more particularly pointed out in the appended claims.

In the drawing—

Figure 1 is a view of the complete device with its normal short handle, its pole extension and the coupling member between the two separated to more clearly show the relation of the parts, part of the pole being broken away and the squeegee head being shown in one of the dotted line positions shown in Figure 2.

Figure 2 is a longitudinal section of the same parts assembled and drawn to a greatly enlarged scale, the sectioned portion of Figure 2 embracing substantially the parts on the line 2—2 of Figure 1, the dotted portions of the squeegee head showing the extreme adjustments of inclinations to the opposite sides of the handle and the pole socket being partly broken away.

Figure 3 is a cross section on a still further enlarged scale, of a fragment of one of the clamping plates holding therebetween the flexible wiping strips, said clamping plate being the inner one, or the one engaged by the heads of the screws and showing a section of the screw-locking strip flush with its outer surface.

Figure 4 is a similarly enlarged fragment of said plate and a face view thereof and of the screw holding bar, the screws being omitted and only the countersinks for their heads shown.

In the several views 2 and 3 represent the usual strips of metal, backs, or clamping plates for the flexible or wiping portion of a squeegee, the latter being rubber or fiber strips 4, 5 and 6 held together between said plates by means of screws 7 in the usual manner. The curved edges on the plate 2 are the usual troughs to catch the drippings and drain them to the ends of the squeegee head and are designated as 8 and 9. Said plate 3 is the one with which my improved means for preventing loosening of the screws 7 is identified, and is shown provided with countersinks 10 for the heads of the screws 7. The latter are in Figure 2 shown with an undercut screw-driver slot 7' to correspond with the cross section of the undercut groove in the plate 3 and its engaging bar shown on an enlarged scale in Figures 3 and 4, but the screw driver slots need not be undercut, but merely made wide enough to receive the locking bar passing through them, hereinafter more fully explained. The plate 3 is secured in any usual or convenient manner to the revoluble portion of the short handle attachment to the squeegee head, as, for instance, by an integral rivet lug 11, the position of which is indicated by dotted lines 11 in Figure 2. But its mode of fastening is no part of the present invention the improvements in which are designed to be encompassed within the usual and

simple outlines of the ordinary extension handle squeegee of this type. 12 represents the revolubly adjustable portion of the short handle and includes a circular disk portion 13 with notches 14, 15, 16, 17, 18, 19 and 20 in its edge, for which alone no novelty is claimed. Either one of said notches is engageable with a pawl or detent 21 which is mounted within the relatively immovable short handle portion for the necessary longitudinal movement to engage it with or disengage it from one of said notches, it being engaged with the notch 20 in the full line position of parts in Figure 2, while in Figure 1, where the squeegee head is shown in one of the dotted line positions in Figure 2, said detent 21 is engaged with the notch 15. The stationary portion of the short or stub handle has a forked upper end to engage the disk 13 which together with said disk forms a compass joint with stationary disks 23 and 24 engaging the opposite sides of said disk or wheel, as shown in Figures 1 and 2. The axis of the notched wheel or disk 13 is a screw or pivot 25 which has threaded engagement with the portion 23.

Referring to the dotted line positions of the squeegee head in Figure 2, as well as to its full line position in Figure 1, which is substantially that of the dotted lines to the right in Figure 2, one wiping edge of the active flexible strip is indicated by the numeral 26, and is the active one in Figure 1, while the opposite, or inactive, edge is indicated at 27. Assuming that the edge 26 is used for wiping window panes and the like, that edge will be turned under and in the protected position in which it is shown by dotted lines at the right in Figure 2, when the opposite edge 27 is turned up or into active position to be used on the drippings on the floor. The short handle portion 22 instead of terminating in the pole socket, as usual, is in the present invention in the form of a squared shank 27, or elongated lug, which in Figure 2 is shown engaged with a socket 28 from which it is disengaged in Figure 1. Said socket 28 is in the upper end of a coupling member 29, and is securely, or against accidental displacement, held in engagement with the shank 27 by a pin or bent out lug portion 30 on a lever 31 fulcrumed at 32 to and between lugs 33 and 34, 32 being a pivot pin held in said lugs. The lug 30 is engaged in Figure 2 with a lug recess or bore 35 in the part 27 all sides of which may be provided with a similar bore, such as the bore 36 shown by dotted lines in Figure 1, whereby the head with its short handle may be axially adjustable relative to the pole or long handle—37 or the coupling member 29. The lever 31 is in its normal position preferably sunk into a trough made for it in the member 29 as suggested in Figure 2 and shown by dotted

lines in Figure 1, and is held in its normal or engaged position by a spring 38 (Fig. 1) bearing against the power end of the lever shown provided with a press button, or slight projection 39 whereby it may be disengaged or swung to its disengaged or dotted line position in Figure 1; which, as suggested, is normally seated in a groove which is indicated at 40 in Figure 1. The longitudinally movable detent 21 in the short handle portion 22, is likewise held in normal or engaged position by a spring—41 bearing against a pin 42 that is secured to and projects at right angles from the member 21 and, like the lever 31, has an exterior button 43 that is manually operable. The spring 44 is seated in and the member 42 movable in a recess 44, and the latter is provided with a cover 45 (Figs. 1 and 2) which has in its upper end a bore engaged by the pin 42 on which said cover may be swung to open or close the recess 44. For the lower portion of said cover, to the extent of its thickness, a recess is provided in the member 22 into and out of which said cover may be sprung and in which it will be held against accidental swinging or opening movement.

The coupling member 29 has a socket 46 on its lower end for reception of a tapered socket portion 47, to which the socket may be permanently, or securely held against accidental separation, by a screw 48 passing through a screw hole in the socket and engaging a screw hole 49 in the pole 37 or its tapered socket portion 47. This obviates the frequent annoyances of the pole, held only by frictional engagement with the socket 46, coming out of the socket. As in actual use the squeegee head must be frequently mounted on and removed from the long pole in the course of work, said pole cannot, under prevailing practices, be fastened by a screw to the socket. In the present improvement it may be so fastened and the part 27 quickly removed from the

long handle and the coupler by simply pressing on the button 39 and pulling 27 out of 28.

Referring, now, to the means for preventing the screws 7 from turning on their threads in the plate 2. In line with the screw holes, as indicated in Figures 1 and 4, the plate 3 is formed with undercut grooves 50 and 51 in its outer surface, a cross section of one of said grooves being shown on a large scale in Figure 3. The screw driver slots 7' are alined with this groove at each side of the handle, and said slots and the groove are engaged by a small or thin flexible strip of the same cross section as the groove, or, if very thin, of the width of the bottom or widest portion of said groove. In Figures 1, 3 and 4 the groove is shown filled by the strip shown in Figure 1 in two sections 52 and 53. To enable the operator to insert such a strip in such a groove one end of the latter must be left "open" or with parallel sides, as at 54 in Figures 1 and 4. In the latter figure 55 and 56 represent the parallel, as distinguished from the undercut, sides. The outer ends 57, 57 of these insert openings 54 provide stops against longitudinal movement of the strips. While these insert openings are shown short and adapted for freely flexible strips, they may, obviously be made of the dimensions necessary for the degree of size or rigidity of strip that may be employed.

I claim as my invention—

A squeegee head comprising clamping plates and flexible wiper strips clamped therebetween, said plates being held together by headed screws passing through the plates and strips and having threaded engagement with the other one of said plates, and means common to a plurality of said screws for binding them together against rotation on their threads.

In testimony whereof I have affixed my signature.

PETER JENKINS.