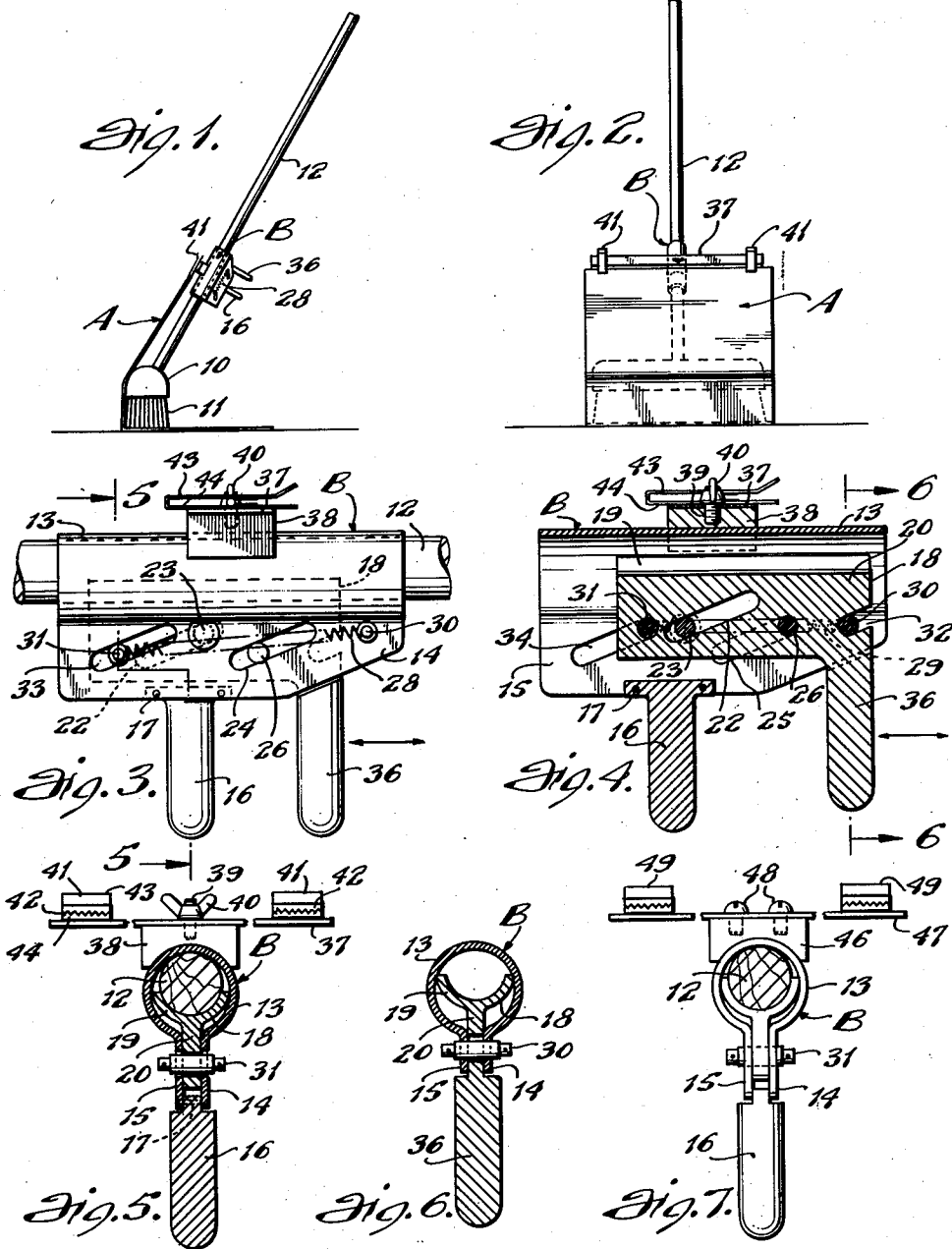


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ATTACHMENT FOR FASTENING ARTICLES TO
BRUSHES, BROOMS, AND THE LIKE
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ATTACHMENT FOR FASTENING ARTICLES
TO BRUSHES, BROOMS, AND THE LIKE

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3 Claims. (Cl. 15-247)

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This invention relates to an attachment for fastening an article to the handle of a brush, broom and the like for use in connection therewith and which is for a use similar to the invention set forth in applicant's copending application Serial No. 94,298.

An object of the invention is to provide an attachment of said character which grippingly engages the handle and which is adapted to be readily released and shifted longitudinally of the handle to any desired set position thereon.

Another object of the invention is to provide an attachment having depending hand engaging elements for releasing and shifting the attachment longitudinally of the handle.

More specifically the invention resides in an attachment for fastening a wiping cloth to the handle of a brush, broom and the like so as to train the wiping cloth over the forward face of the brush head and under the bristles thereof to produce a wiping action when moved over the floor for picking up dust, lint and the like.

A further object of the invention is to provide an attachment having a split tubular member adapted to slidably engage the handle of the brush and a clamping member arranged within said tubular member and longitudinally tensioned against the handle for holding the attachment in set position thereon.

With the foregoing and other objects in view reference is now made to the following specification and accompanying drawings in which the preferred embodiment of the invention is illustrated.

In the drawings:

Fig. 1 is a view in side elevation of a brush with an attachment constructed in accordance with the invention arranged in fixed position thereon and to which a wiping cloth is secured.

Fig. 2 is a view in front elevation thereof.

Fig. 3 is an enlarged side view of the attachment with a fragmentary portion of the handle protruding therethrough.

Fig. 4 is a longitudinal sectional view through the attachment.

Fig. 5 is a transverse sectional view taken approximately on line 5-5 of Fig. 3.

Fig. 6 is a transverse sectional view taken approximately on line 6-6 of Fig. 4.

Fig. 7 is a transverse sectional view similar to Fig. 5 but illustrating a modified form of the invention.

Referring to the drawings by characters of reference, the invention is shown in its application to a brush of the type having a brush head

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10 provided with bristles 11 secured to the underside thereof and to which an elongated handle 12 is affixed.

In order to adjustably secure an article, such as a wiping cloth indicated by the reference character A, to the brush an attachment B is provided which is slidably arranged on the handle 12 for disposing the attachment in any desired set position thereon. The attachment B consists of an elongated split tubular member 13 of cylindrical formation in cross section having flanges 14 and 15 extending longitudinally thereof and projecting outwardly in parallel spaced relation from the split edges.

The flanges 14 and 15 are maintained in fixed spaced relation by means of a handle 16 having its inner end secured therebetween by rivets 17 or equivalent fastening means with the outer free end of the handle projecting outwardly therefrom. Arranged within the split tubular member 13 is a clamping member 18 consisting of a concavo-convex head 19 located within the cylindrical portion thereof and having a longitudinally extending web 20 affixed medially to the outer convex face thereof and projecting outwardly therefrom between the flanges 14 and 15. The clamping member 18 is mounted for reciprocatory movement in angular relation to the longitudinal axis of the cylindrical portion of the split tubular member so as to dispose the concavo-convex head into and out of clamping engagement with the handle 12 of the brush.

In order to limit the reciprocatory movement of the clamping member 18 and to guide the same into and out of engagement with the handle 12, an angularly disposed cam slot 22 is provided in the web 20 through which slidably extends a cross stud 23 secured at its ends in the flanges 14 and 15. Aligned cam slots 24 and 25 disposed in parallel relation with the cam slot 22 are also provided in the flanges 14 and 15 and are slidably engaged by a cross stud 26 secured in the web 20 and projecting outwardly therefrom through said aligned slots. The arrangement is such that when the concavo-convex head 19 of the clamping member 18 is disposed against the handle 12, the cross stud 23 is located adjacent the upper end of the cam slot 22 while the cross stud 26 is located adjacent the lower ends of the cam slots 24 and 25.

The clamping member 18 is tensioned to normally dispose the same in clamping engagement with the handle 12 by coil springs 28 and 29 secured to the outer ends of spaced cross studs 30 and 31 protruding through the flanges 14 and

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15 to dispose the coil springs parallel with and alongside said flanges. The cross stud 30 is anchored in the flanges 14 and 15 and slidably engages in a slot 32 in the web 20, while the cross stud 31 is anchored in the web 20 and slidably engages in slots 33 and 34 in the flanges 14 and 15 respectively. The slot 32 opens through the end of the web 20 and said slot together with the slots 33 and 34 are disposed parallel with the slots 22, 24 and 25.

The clamping member 18 is provided with a handle 36 integrally connected with the forward end of the web 20 and projecting outwardly from between the flanges 14 and 15 in parallel relation with the handle 16.

With the foregoing construction and arrangement the clamping member 18 is tensioned by the springs 28 and 29 to maintain the same in an inward position as illustrated in Figs. 4 and 6 of the drawings when the attachment is removed from the handle of the brush and to clampingly engage the concavo-convex head 19 against the handle 12 of the brush to tighten the handle within the cylindrical portion of the split tubular member 13 as illustrated in Figs. 3, 5 and 7 of the drawings. In order to release the attachment from the set position on the handle 12 the handles 16 and 36 are grasped by the operator and by pressure applied against the handle 36, the same is moved toward the handle 16, which also effects downward camming of the clamping member guided by the cam slot 22 engaging the cross stud 23 and by the cam slots 24 and 25 engaging the cross stud 26. The attachment may then be longitudinally shifted to a different position on the handle 12 and upon releasing of the handle 16 and 36 the springs 28 and 29 function to move the clamping member 18 into tension engagement against the handle 12 so as to retain the attachment in adjusted position on the handle.

In order to secure the wiping cloth A to the attachment, a cross bar 37 is provided which is connected with a yoke 38 welded or otherwise secured to the outer face of the split tubular member 13 in diametrically opposite relation from the flanges 14 and 15. A stud 39 is secured in the yoke 38 and projects through a circular opening in the cross bar 37 and is threadingly engaged by a wing nut 40 for clamping the cross bar to the yoke. This permits of the release of the clamping bar by loosening of the wing nut 40 so that the bar may be shifted to any angular position with reference to the attachment. The said bar is substantially the same length as the brush head 10 and is provided with spring clamps 41 secured thereto adjacent the outer ends thereof which are provided with gripping teeth 42 in the forward ends of the clamping jaws 43 and 44 adapted to secure the upper end of the wiping cloth A between the clamping jaws with the upper portion of the cloth extending downwardly over the forward face of the brush head 10 and beneath the bristles 11 and with the free end of the cloth trailing at the rear of the brush head. The brush 10 may thus be used in the usual manner to sweep the surface of floors and the like, and when desired the wiping cloth A may be secured to the attachment B for picking up lint, dust and the like by moving of the broom in a forward direction over the floor surface. Preferably the wiping cloth is dampened so as to facilitate the picking up of lint, dust and the like. By the construction of the longitudinal split tubular member and the clamping member

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with the handle portions extending therefrom in substantially parallel and spaced relationship, it is possible for the user to adjust and manipulate the attachment by the use of one hand, as the handle portions can be grasped by the user and can be moved together to cause the clamping member to be released from its clamping position against the elongated handle of the brush and then when the grasping force is released, the spring structure will cause the clamping member to be again returned to the handle clamping position.

Instead of securing the cross bar 37 to the yoke 38 by means of the wing nut 40, the same may be secured thereto by screws as illustrated in Fig. 7 of the drawing. As illustrated therein the tubular member 13 is provided with a yoke 46 to which a cross bar 47 is secured by screws 48 to retain the same in fixed position thereon. The cross bar 47 is similar to cross bar 37 and is provided with spring clamps 49 similar to the spring clamps 41.

What is claimed is:

1. An attachment for securing an article adjustably on the handle of a sweeping broom including a longitudinally split tubular member of substantially cylindrical formation adapted to receive the handle of the sweeping broom for free longitudinal movement therethrough and having parallel spaced flanges projecting outwardly from the split edges and spaced apart, a clamping member including a concavo-convex head located within the cylindrical portion of the split tubular member and having a web projecting outwardly therefrom and slidably fitted between said flanges, said web and flanges having diagonal cam slots and cooperating cross studs for guiding the clamping member for movement in angular motion into and out of clamping engagement with the handle, coil spring means secured to a flange and the web for yieldably moving said head into engagement with said handle, a handle affixed to said flanges and extending radially outwardly adjacent to the outer end of a diagonal slot, and a handle affixed to said web and projecting radially outwardly from between said flanges in substantially parallel alignment with and spaced from the handle on the flanges and said handles being adapted to be grasped and clasped together for moving the handle affixed to said web toward the handle on the flanges to thereby free said head from tensioned engagement against the handle of the broom for adjusting the attachment to different locations on the said broom handle.

2. An attachment for securing an article to the elongated handle of a brush for adjustable movement thereon, including a longitudinally split tubular member of cylindrical formation adapted to loosely receive the handle of the brush therethrough for movement and having parallel spaced flanges projecting outwardly from the split edges, a clamping member including a concavo-convex head located within the cylindrical portion of said tubular member and having a web projecting outwardly therefrom and slidably fitted between said flanges, said flanges each having aligned diagonal slots therethrough in the area of movement of the web, pin means received through said slots and the web to guide movement of the clamping member, coil spring means connected between said longitudinal split tubular member and said clamping member normally resiliently urging said clamping member endwise toward the end of the diagonal slots

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nearest the axis of the tubular member to thus engage and grip upon a brush handle fitted through said split tubular member, a handle affixed to said flanges and extending laterally therefrom at a point adjacent to the outer end of the diagonal slots, a handle affixed to said web and projecting laterally from between said flanges in substantially parallel alignment with and spaced from the handle on the flanges whereby said handles can be grasped and forced together by the use of one hand of the operator against the resilient force of the spring means for releasing the clamping member from engagement with a brush handle for adjusting the attachment for different locations on said handle, a cross bar secured on said split tubular member extending transversely of the axis thereof and projecting on each side, and means at the ends of said cross bar for removably securing an article thereto.

3. An attachment for securing a wiping cloth to the handle of a sweeping brush having a transversely disposed sweeping head including a longitudinally split tubular member of cylindrical formation adapted to be fitted endwise movably upon the handle and having parallel spaced flanges projecting outwardly from the split edges, a clamping member including a concavo-convex head located within the cylindrical portion of the split tubular member and having a web projecting outwardly therefrom and slidably fitted between said flanges, said flanges having cam slots therethrough extending diagonally with respect to the axis of the cylindrical member, pin means carried by said web slidably re-

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ceived in said cam slots, spring means normally urging said clamping member toward the ends of the cam slots nearest the axis of the cylindrical portion, a handle secured to said flanges at a point beyond the outer end of the diagonal cam slots, a handle carried by said web in substantially parallel relation to and spaced from the handle on the flanges whereby a user can grasp both handles and move the same together to cause the clamping member to be drawn back and released against the force of the spring means, a cross bar swingably mounted transversely on the cylindrical portion of the tubular member, clasp means on the ends of the cross bar for securement of a wiping cloth, and means to secure said cross bar with the ends thereof outstanding laterally on opposite sides of the handle of the sweeping brush.

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