May 16, 1944. W. K. GRAY 2,348,972

ARTICULATED PAINT BRUSH

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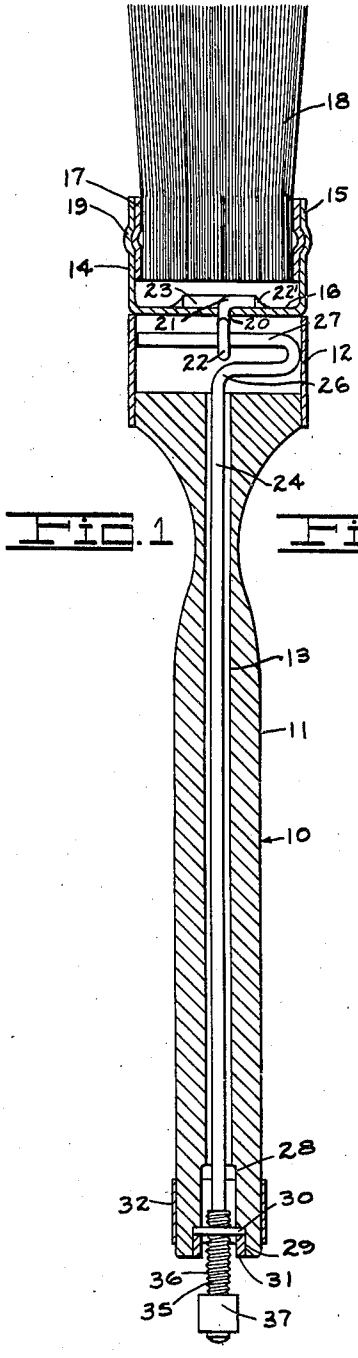


Fig. 1

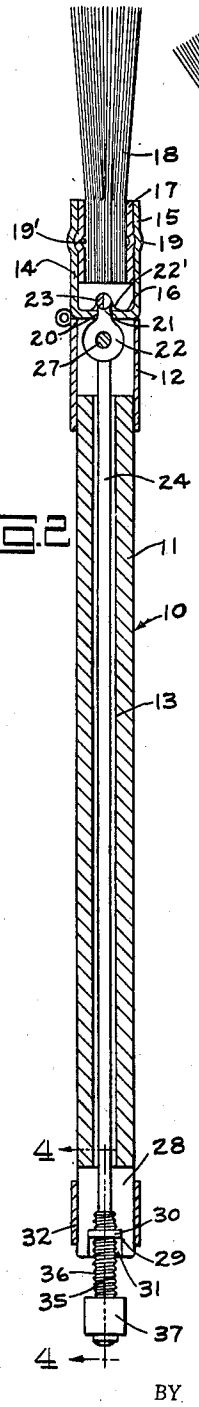


Fig. 2

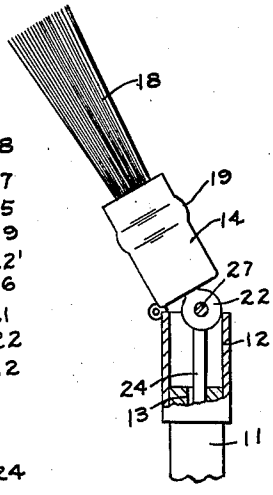


Fig. 3

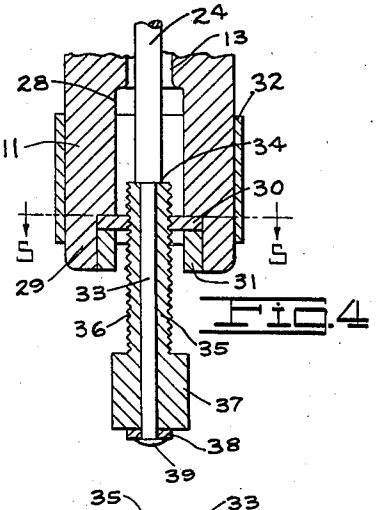


Fig. 4

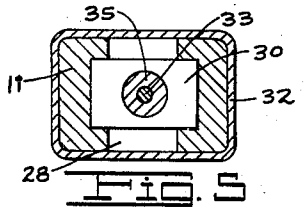


Fig. 5

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ARTICULATED PAINT BRUSH

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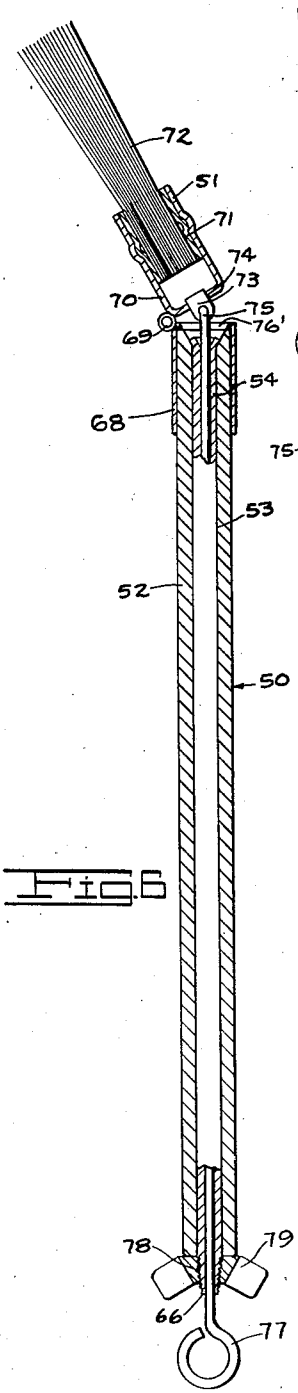


Fig. 6

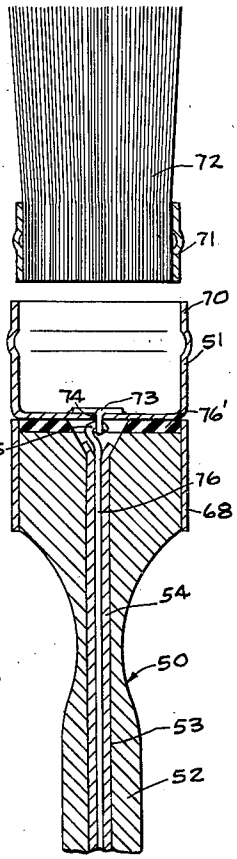


Fig. 7

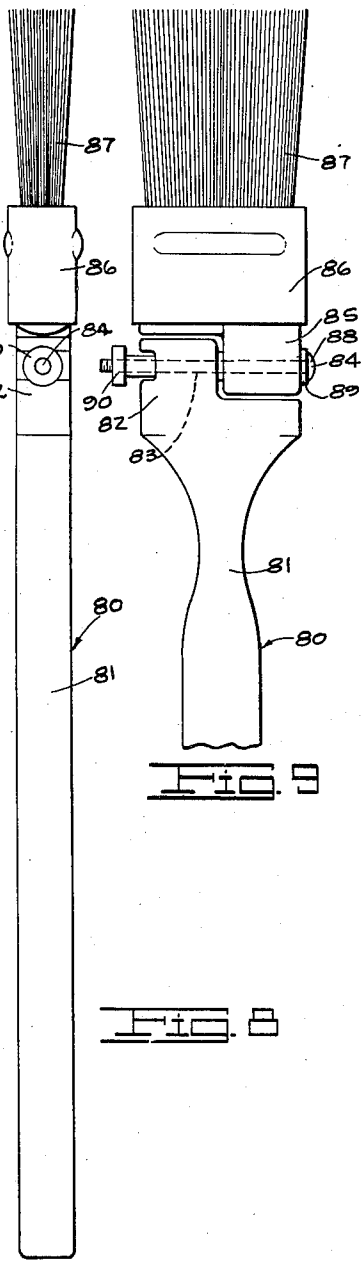


Fig. 8

Fig. 9

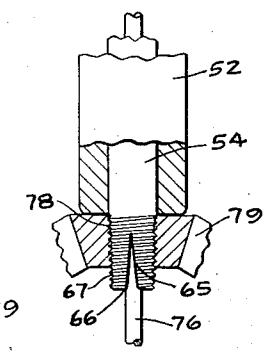


Fig. 6A

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ARTICULATED PAINTBRUSH

Walter K. Gray, Wilmington, Calif.

Application April 1, 1943, Serial No. 481,410

7 Claims. (Cl. 15—172)

This invention relates to an articulated paint brush.

The general object of the invention is to provide an improved paint brush in which the bristle holding portion and the handle portion are mounted for movement relative to each other.

A more specific object of the invention is to provide a paint brush which has a head mounted thereon in such manner that it may be shifted to a position inclined to the axis of the handle and may be held in that position.

A further object of the invention is to provide a paint brush including a handle with a bore therein and with a member slidable in the handle and with a brush supporting receptacle pivoted on the handle and shiftable by a member in the bore for adjusting the position of the brush relative to the handle.

Other objects and the advantages of my invention will be apparent from the following description taken in connection with the accompanying drawings, wherein:

Fig. 1 is a central, sectional view, showing an articulated paint brush embodying the features of my invention;

Fig. 2 is a longitudinal sectional view taken at right angles to Fig. 1 showing the brush;

Fig. 3 is a fragmentary side elevation partly in section showing the brush inclined;

Fig. 4 is a fragmentary section taken on line 4—4, Fig. 2;

Fig. 5 is a section taken on line 5—5, Fig. 4;

Fig. 6 is a longitudinal sectional view showing a modified brush;

Fig. 6A is a fragmentary elevation showing the lower end of the tube;

Fig. 7 is a fragmentary enlarged sectional view showing the upper end of the modified brush;

Fig. 8 is a side elevation of a further modified brush, and

Fig. 9 is a fragmentary front elevation showing the further modified brush.

Referring to the drawings by reference characters, I have shown my invention as embodied in a brush which is indicated generally at 10.

As shown the brush includes a handle 11 made of wood, plastic or other suitable material. The handle has a ferrule 12 mounted upon the upper end thereof. The ferrule may be held in place by suitable means not shown. The handle 11 is provided with a central bore 13.

Mounted on the ferrule 12 I show a brush receptacle 14, preferably made of metal. This brush receptacle includes sides and ends 15 and a bottom 16. Within the brush receptacle I arrange a metal brush retaining collar 17 which slides in the receptacle. The collar 17 has bristles 18 suitably secured therein. The receptacle and collar are provided with aligning beads 19 and 19' which serve to hold the collar in the ferrule. In the bottom of the receptacle I arrange a hole 20 which is aligned with the bore 13. The shank 21 of an eye member 22 extends through the hole 20. The shank 21 is bent at its upper end as at 23 to form a head portion which is arranged upon the bottom 16 of the receptacle and is held in place as by welding at 22'.

Within the bore 13 I arrange an operating member 24 which at its upper end is bent as at 26 and then is reversely bent to form a portion 27 which is engaged in the aperture of the eye 22.

Remote from the portion 18 the handle end is provided with a slot 28 and with a larger slot 29 arranged outwardly from the slot 28. In the slot 29 I arrange a nut 30 which is shown as rectangle and as held in place by a sleeve 31. A ferrule 32 is arranged on the handle about the slot 28. The lower end of the operating member 24 is reduced as at 33 to provide a shoulder 34.

On the reduced portion 33 and engaging the shoulder 34 I arrange an actuating member 35 which is threaded as at 36 to engage the threads on the nut 30. Beyond the threads the operating member is provided with a finger grip portion 37. The operating member portion 33 receives a washer 38 and is riveted as at 39 to hold the parts assembled.

In operation when the brush is in position shown in Fig. 2 the operator rotates the portion 37 thus axially moving the member 24 and causing the portion 27 thereon to push the eye member upwardly as in Fig. 3 so that the brush is tilted. The brush will remain in the tilted position and in this position is particularly adapted for painting on the under sides of various structures. The applicant's brush is particularly useful in shipyard work where all exposed metal must be painted and wherein much of the painting is done in places which are quite inaccessible to a straight brush.

In Figs. 6 and 7 I show a modification of my invention wherein the brush is indicated generally at 50 and includes a brush portion 51 and a handle 52. The handle is provided with a central bore 53 in which I show a tube or sleeve 54. The lower end of the sleeve is provided with slits 65 which provide a pair of jaws 66. The portion adjacent to the slit 65 is provided with tapering threads 67.

The upper end of the brush is provided with

a ferrule 68 which extends beyond the end of the handle and supports a hinge 69. The hinge 69 engages a receptacle 70 which is similar to the receptacle 14 previously described. In the receptacle I mount collar 71 similar to the collar 17 and this collar supports bristles 72. An eye member 73 passes through a hole 74 in the bottom of the receptacle 70 and is engaged by a hook member 75 on a rod 76 which slides in the tube 54. A gasket 76' is arranged on the end of the handle and is engaged by the bottom of the receptacle when the brush and handle are in axial alignment.

The lower end of the rod is shown as provided with a finger grip portion 77. The threaded portion 67 is engaged by the tapered threads 78 on a thumb nut 79 and the construction is such that when the thumb nut is tightened the jaw 66 will engage the rod 76 and will hold the rod in adjusted position. The construction is such that when the finger grip portion is moved up or down it will cause the receptacle 70 carrying the brush to be shifted from one position to another. Tightening of the thumb nut 79 will hold the brush in the adjusted position.

In Figs. 8 and 9 I show a modification of my invention wherein the brush is indicated generally at 80. In this modification I provide a handle 81 which has an offset portion 82 at one end. This offset portion is provided with an aperture 83 through which a pintle pin 84 extends. The pintle pin 84 engages a projecting portion 85 which is mounted on a receptacle 86 similar to the receptacles previously described. The receptacle 86 supports brush 87. The pintle pin 84 is provided with a head 88 and washer 89 at one end and at the other end with a thumb screw 90. When the thumb screw is loosened the receptacle 86 may be turned about the axis of the pintle pin after which the thumb screw 90 may be tightened to hold the brush in the desired position.

From the foregoing description it will be apparent that I have invented a novel articulated paint brush which is simple in construction, easy to adjust and efficient in its operation.

Having thus described my invention, I claim:

1. An articulated paint brush comprising an elongated handle having a bore therethrough, a ferrule mounted on said handle, a brush receptacle including side walls and a bottom, means to pivotally mount the brush receptacle on the ferrule, a brush retaining collar removably seated in the brush receptacle, bristle members in said collar, said receptacle having a hole in the bottom thereof and aligned with said handle bore, an eye member having a shank passing through said hole and having a head thereon secured upon the inner face of the said receptacle bottom, an operating member slidable within said bore, said operating member having an end portion thereon engaging said eye member, and means to hold said operating member in adjusted position.

2. An articulated paint brush comprising an elongated handle having a bore therethrough, a brush member, means to pivotally mount the brush member on the handle, an eye member, means to secure said eye member upon the brush member at one side of the axis of the pivotal mounting, an operating member slidable in said bore, said operating member having an end portion engaging said eye member, a threaded member rotatable relative to said operating member, means to prevent axial movement of the threaded member, said handle having a slot therein, and a fixed nut in said slot and engaging said threaded member.

3. An articulated paint brush comprising an elongated handle having a bore therethrough, a brush receptacle includiing side walls and a bottom, means to pivotally mount the brush receptacle on the handle, a brush retaining collar removably seated in the brush receptacle, bristle members in said collar, an eye member, means to secure said eye member upon the receptacle, an operating member slidable in said bore, said operating member having a looped end portion engaging said eye member, said operating member having a reduced cylindrical portion at the end of the handle remote from said ferrule, a threaded member rotatable on said cylindrical portion, means to hold the threaded member in place, said handle having a slot adjacent to the free end thereof and having a second larger slot beyond the first slot, said bore and slots being aligned, and a nut fixed in said second slot and engaging said threaded member.

4. An articulated paint brush comprising an elongated handle having a bore therethrough, a ferrule mounted on said handle and extending from one end thereof, a brush receptacle including side walls and a bottom, means to pivotally mount the brush receptacle on the ferrule, a brush retaining collar removably seated in the brush receptacle, bristle members in said collar, said receptacle having a hole in the bottom thereof and aligned with said handle bore, an eye member having a shank passing through said hole and having a head thereon, means to secure said head upon the inner face of the said receptacle bottom, an operating member slidable in said bore, said operating member having a looped end portion engaging said eye member, said operating member having a reduced cylindrical portion at the end of the handle remote from said ferrule, a threaded member rotatable on said cylindrical portion, means to hold the threaded member in place, said handle having a rectangular slot adjacent to the free end thereof and having a second larger rectangular slot beyond the first slot, said bore and slots being aligned, a rectangular nut in said second slot and engaging said threaded member, a sleeve in said second slot for holding said nut in place and a ferrule on the outer portion of said handle about said slots.

5. An articulated paint brush comprising an elongated handle having a bore therethrough, a brush member, means to pivotally support the brush member on the handle, an eye member secured upon the brush member, a tube in said bore, an operating member slidable in said tube, said operating member engaging said eye member, said operating member having a tapering threaded end portion at the end of the handle remote from said ferrule, said threaded end portion having slots therein, and a thumb nut on said threaded portion and engaging the end of said handle, said operating member projecting beyond the thumb nut.

6. An articulated paint brush comprising an elongated handle having a bore therethrough, a ferrule mounted on said handle, a brush receptacle including side walls and a bottom, means to pivotally mount the brush receptacle on the ferrule, a brush retaining collar removably seated in the brush receptacle, bristle members in said collar, said receptacle having a hole in the bot-

tom thereof and aligned with said handle bore, an eye member having a shank passing through said hole and having a head thereon secured upon the inner face of the said receptacle bottom, a tube in said bore, an operating member slidable in said tube, said operating member having a looped end portion engaging said eye member, said operating member having a tapering threaded end portion at the end of the handle remote from said ferrule, said threaded end portion having slots therein, and a thumb nut in said threaded portion and engaging the end of said handle, said operating member projecting beyond the thumb nut.

7. An articulated paint brush comprising an elongated handle having a bore therethrough, a ferrule mounted on said handle, a brush receptacle, means to pivotally mount the brush receptacle on the ferrule, a brush seated in the brush receptacle, an eye member secured to said receptacle, said eye member having a downwardly directed shank, an operating member slidable within said bore, said operating member having an end portion thereon engaging said eye member, and means to hold said operating member in adjusted position.

WALTER K. GRAY.