United States Patent [19]

Pryor

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[45] **June 5, 1973**

[54] **ANGULARLY CONTROLLED EXTENSION FOR HOUSE PAINTER'S BRUSH**

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[21] Appl. No.: **156,958**

Related U.S. Application Data

[63] Continuation of Ser. No. 889,561, Dec. 31, 1969, abandoned.

[52] **U.S. Cl.** .....**294/19 R,** 15/144 R

[51] **Int. Cl.**.....**A47f 13/06**

[58] **Field of Search**.....294/19, 1 R; 306/21-23, 42, 43, 7; 15/144, 146

[56] **References Cited**

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[57] **ABSTRACT**

A light weight extension rod terminating in an angularly adjustable mount for the handle of a conventional house painter's brush to facilitate high overhead house painting with the brush held optionally at any of a variety of angular attitudes with respect to said rod.

4 Claims, 7 Drawing Figures

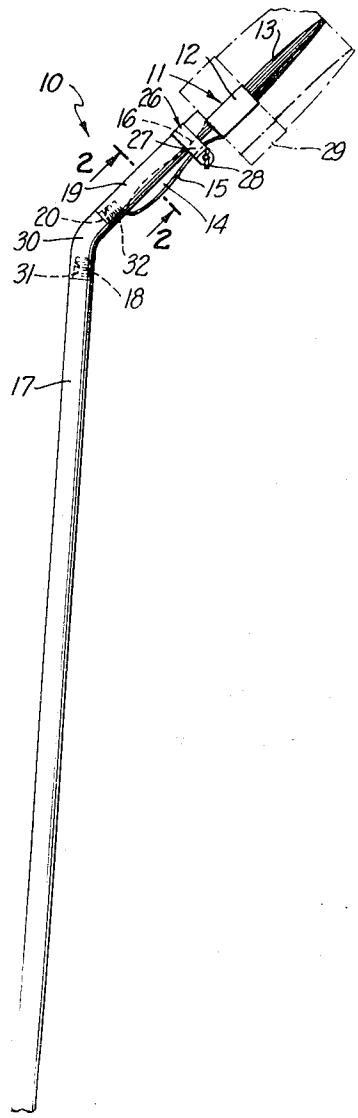


FIG. 1.

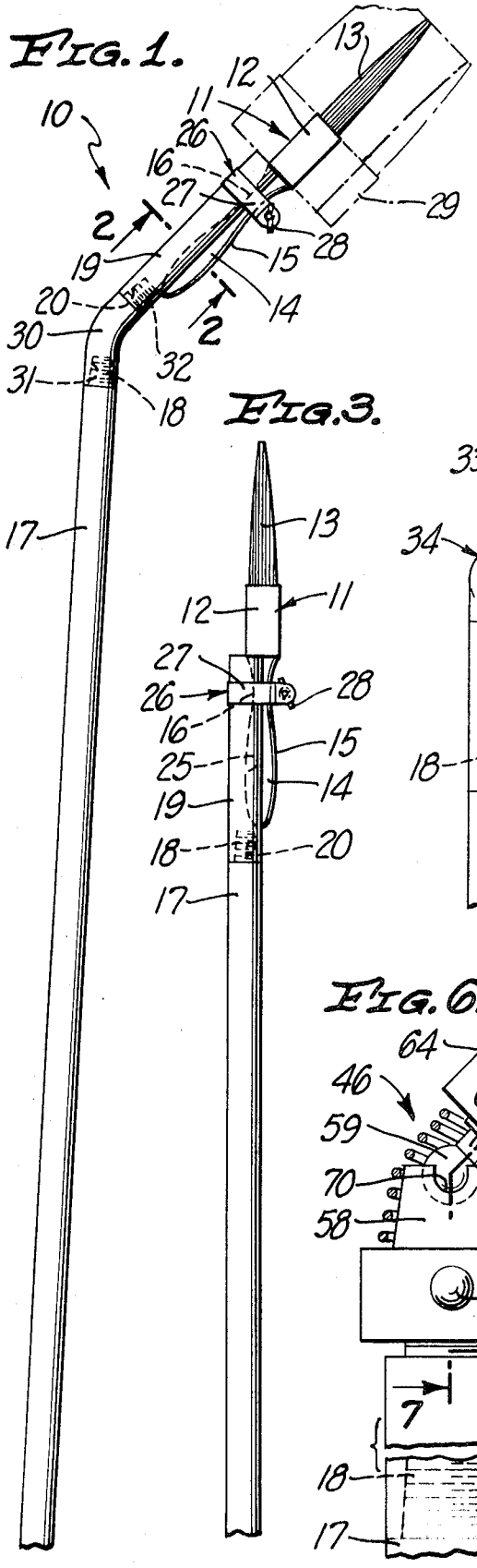


FIG. 2.

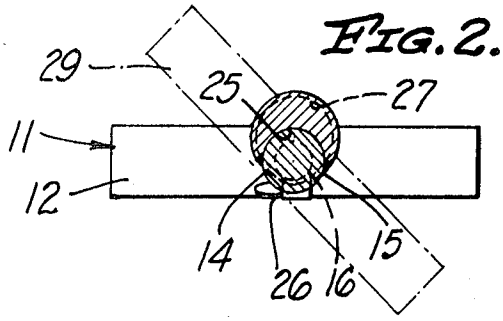


FIG. 3.

FIG. 4.

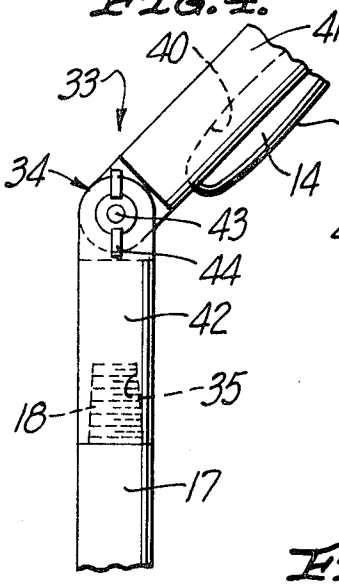


FIG. 5.

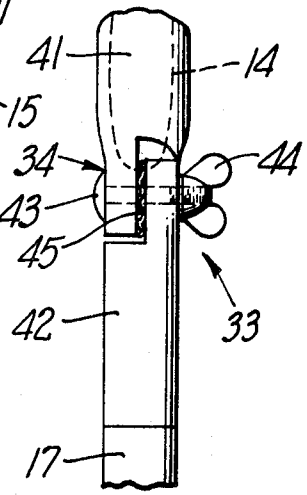
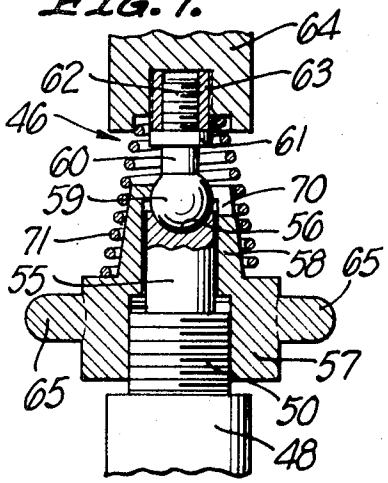


FIG. 6.

FIG. 7.



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ANGULARLY CONTROLLED EXTENSION FOR HOUSE PAINTER'S BRUSH

This is a continuation of application Ser. No. 889,561, filed Dec. 31, 1969, now abandoned.

SUMMARY OF THE INVENTION

Much of a house painter's work lies overhead just out of his reach and three-fourths of it is within nine feet of the floor level. A great part of the labor involved in professional house painting is thus consumed in providing ladders and scaffolding to stand on while painting.

It is an object of the present invention to eliminate the need for much of this impedimenta by providing a tool for extending the reach of a house painter whereby most of the painting work located otherwise beyond his reach and within, say, nine feet from the floor, may be done while he is standing on the floor and even more effectively and much quicker than it is presently done with the aid of ladders and scaffolding.

A more specific object is to provide a light weight extension rod having on its upper end a clamp means for affixing thereto the handle of a conventional house painter's brush, said clamp means embodying a facility for adjusting said brush to present the same to the work at any of a variety of working attitudes.

A further object is to provide such an extension rod, the clamp means of which engages the handle of a conventional house painter's brush to frictionally hold said handle in co-axial alignment with an end section of said rod to permit optional rotation of the brush about the axis of said handle, said rod end section being itself angled relative to the balance of said rod.

Yet another object of the invention is to provide such an extension rod in which said angled end section of said rod is adjustably connected to the balance thereof whereby said angle may be optionally altered to modify the attitude with which the brush is presented to the work.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a fragmentary side elevational view of a preferred embodiment of the extension rod of the invention in which the upper brush mounting end section of said rod is connected to the balance of the rod through an elbow of approximately 135° and with said brush frictionally clamped to said rod end section with the body of said brush disclosed edgewise to the viewer. The position of said brush body with the latter rotated approximately 45° counterclockwise about the handle axis shown in broken lines.

FIG. 2 is an enlarged cross sectional view taken on the line 2—2 of FIG. 1, and illustrates the recess formed in said rod end section into which the brush handle fits to facilitate the precise co-axial mounting of said brush handle on said rod end section by merely clamping said brush handle against said rod end section with said handle fitting into said recess.

FIG. 3 is a view similar to FIG. 1 showing a brush handle holding upper end section of said rod being connected directly to the main section of the rod so as to comprise a co-axial extension of the upper end of the latter.

FIG. 4 is an enlarged fragmentary detailed view of a modified form of the invention similar to the form shown in FIG. 3 with the exception that the short upper section of the rod on which the brush handle is mounted is provided with a wing nut controlled knuckle joint by which the brush mounted on the upper element of said knuckle joint may be set at any desired angle relative to the main body of said rod.

FIG. 5 is a side elevational view of FIG. 4.

FIG. 6 is an enlarged fragmentary side elevational view of a modified form of knuckle joint suitable for use in the invention and with a spring embodied therein shown in section.

FIG. 7 is a sectional view taken on the line 7—7 of FIG. 6 and illustrating inner details of the structure of said modified form of knuckle joint.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring specifically to the drawings, the preferred embodiment of the invention **10** shown in FIGS. **1, 2** and **3** comprises an angularly controlled extension for a house painter's brush **11** which brush has a flat body **12** mounting a body of bristles **13** of equal length and extending from the upper end of the body **12** in parallel relation with each other and with the axis of a handle **14** formed centrally on said body to extend in the opposite direction therefrom. The brush handle **14** is formed by a surface of rotation **15** so as to be several times longer than its maximum thickness and so as to have a narrowed neck like portion **16** which is spaced a short distance from the body **12.**

The controlled extension **10** embodies a long straight main extension rod **17** which is preferably about 1'' in diameter and made of light wood or aluminum tubing and terminates at its upper end in a threaded plug **18.** The invention **10** also includes a short brush-handle-mounting rod section **19** which may be cast of aluminum or any other suitable light material and is provided with a threaded socket **20** at its lower end, into which the plug **18** is adapted to be screwed, as shown in FIG. **3.** The short rod section **19** is provided with a recess **25** the surface of which is a concave duplicate of a corresponding convex portion of the surface of rotation **15** of the brush handle **14** so that the brush handle rotatably fits within the recess **25** with said handle disposed parallel with short rod section **19.**

A clamp means **26** is provided on short rod section **19** opposite the narrow neck of brush handle **14** for frictionally holding the brush handle **14** in the recess **25.** This means preferably comprises a metal strap **27** which is apertured at its opposite ends to receive a wing nut operated bolt **28.** By actuating the bolt **28** to tighten the clamp means **26** with various degrees of pressure, the brush **11** may be secured to the short rod section **19** with varying degrees of resistance to the turning of the brush handle **14** in the recess **25.** In general, a pressure will be applied so as to hold the brush in the position in which it has been placed with reference to short rod secton **19** until it is desired by the painter to change the attitude of the brush to said rod section by rotating the brush to a different attitude as suggested by broken lines **29** in FIG. **1.**

The device **10** also includes an elbow rod section **30** which may be molded of aluminum or plastic material so as to have an internally threaded socket **31** at its lower end and a threaded plug **32** at its upper end. The elbow rod section **30** is adapted to be used in the device **10** when it is desired to connect the short rod section **19** to the main section **17** at a fixed angle which, in the preferred embodiment illustrated, is 135°. To accomplish this, the short rod section **19** is unscrewed from

the main section 17 and the socket 31 of elbow section 30 is screwed downwardly on threaded plug 18 and the threaded plug 32 of said elbow section is screwed upwardly into the internally threaded socket 20 of short rod section 19 as shown in FIG. 1.

Referring now to FIGS. 4 and 5, a modified form 33 of the short rod section 19 of the invention is there illustrated which is slightly longer than short rod section 19 and has a knuckle joint 34 formed therein between an internally threaded socket 35 at the lower end of rod section 33 and a brush handle fitting recess 40, this joint dividing short rod section 33 into two parts 41 and 42 contiguous ends of which are shaped to overlap as shown in FIGS. 4 and 5, these end portions being apertured to receive a bolt 43 and clamped together by application of a wing nut 44 thereto. An annular wavy spring 45, or other suitable frictional resistance element, is interposed between parts 41 and 42 to facilitate frictionally binding these parts together by operation of the wing nut 44 with these parts disposed in any desired angular relationship within the limits imposed by the shapes given overlapping end portions of these parts as shown in the drawings.

Referring now to FIGS. 6 and 7, a modified form of knuckle joint 46 is here illustrated. This joint includes a rod section 48 which may be made of any desired length and has at its lower end an internally threaded socket 49 which is adapted to screw onto the threaded plug 18 of main rod section 17. The upper end of rod section 48 has fixed thereon a threaded mandrel 50 having an upward extension 55 of reduced diameter, the upper end of which has formed therein a semispherical cup 56. Screwed downwardly on the threaded mandrel 50 is a nut 57 having an upwardly extending shell 58 which surrounds the extension 55 and has an apertured upper end which overlies said extension to confine a ball 59 with the latter resting in cup 56. Said ball has integral therewith a stem 60 having a shoulder 61 and a threaded upper end 62 which screws into an internally threaded sleeve 63 which is embedded in the lower end of a short rod section 64 which is otherwise similar in construction to the short rod section 19 in that it is provided with recess and clamp means (not shown) by which the handle 14 of the brush 11 may be rotatably clamped to the short rod section 64.

The nut 57 is provided with short opposed knobs 65 for assistance in gripping said nut for tightening or loosening the same on the threaded mandrel 50 so that the ball 59 may be gripped to tightly fix the short rod section 64 with the same disposed in any selected angular attitude desired relative to the rod section 48. The upper end of shell 58 has a notch 70 formed therein which is adapted to receive the stem 60 to permit the short rod section 64 to be turned at an angle of 90° with respect to the rod section 48.

Surrounding the modified form of knuckle joint 46 and exerting expansive pressure downwardly against nut 57 and upwardly against short rod section 64 is a coil wire spring 71 which tends to return the knuckle joint to the position in which this is shown in FIG. 7 when the nut 57 is relaxed from compressing the ball 19 thereby automatically re-aligning the short rod section 64 with the rod section 48.

I claim:

1. In a device for adjustably holding the handle of a paint brush and mountable on the upper end of a straight rod for effectively extending the reach of a house painter, the combination of:

a connection fitting adapted to connect with the upper end of said rod when co-axially aligned with the latter;

a brush handle mount provided on said fitting and diverging at a substantial angle from the axis of said fitting;

a rounded, open trough-like recess comprising substantially a surface of rotation being provided in said handle mount in which recess said brush handle may rest while being readily rotatable therein, said recess being approximately parallel with said mount and terminating at the upper extremity of said mount; and

readily manually adjustable clamp means located near the upper end of said brush handle mount for holding said handle securely in place in said recess with the brush in any selected rotational attitude about its own axis, said clamp means, when only sightly relaxed manually, freeing said brush for rotational adjustment in said recess to modify the rotational attitude of said brush.

2. A device as recited in claim 1 wherein:

said recess is narrowed to form a restricted throat near its upper end approximately at the point of application of said clamp means.

3. A device as recited in claim 1 wherein:

said mount is connected to said fitting by a threaded joint coaxial with said mount.

4. A device as recited in claim 1 wherein:

said mount is connected to said fitting by an articulate means for adjustably modifying the angular relation between said mount and said fitting.

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