This invention relates to paint applying devices and in particular to such devices of the paint roller type. Even more particularly the invention relates to an improved method of constructing a paint roller whereby the roller may be rigidly held either in a perpendicular or in a parallel position with respect to the handle of the paint roller.

Paint rolling devices are well known in the art. These devices have gained increasing popularity over the conventional paint brush because of the speed with which they can be used and ease with which they can ordinarily be handled. In many instances, however, painters prefer to use a paint brush. One example of such an instance is where it is desired to paint the wall space close to the point where it joins the ceiling. This is true because the paint roller cannot be used for applying paint to such a surface without using a ladder. When a ladder is used, a small portion is painted, and then it is necessary for the painter to get off the ladder, move the ladder, climb the ladder again and paint another strip. This, of course, is tiring and time-consuming.

Various attempts have heretofore been made to modify the construction of the paint roller whereby it could be used to paint ceilings and also whereby the roller could be adjusted to various positions in respect to the handle. To the best of my knowledge none of these modifications have been entirely satisfactory. As for example those devices using an extension handle were rather cumbersome. As another example, those devices wherein the roller was adjustable to various positions in respect to the handle were rather expensive to manufacture and furthermore the roller was not rigidly held in the various positions.

It is, therefore, a principal object of the present invention to provide a paint roller which obviates the disadvantages of the prior art devices of this character.

It is another object of my invention to provide a paint roller which is versatile, and which can be used to paint difficult places without additional equipment such as a ladder.

It is another object of the present invention to provide such a paint roller which is simple in construction and which can be manufactured and sold at relatively low cost.

Yet another object of this invention is to provide a paint roller wherein the roller may be held securely in a perpendicular position with respect to the handle.

Yet another object of my invention is to provide a paint roller wherein the roller may be held securely in a parallel position with respect to the handle.

Other objects and advantages of the present invention will become apparent as the following description proceeds.

To the accomplishment of the foregoing and related ends, said invention, then, comprises the features herein-after fully described and particularly pointed out in the claims, the following description and the annexed drawings in which like numerals are employed to designate like parts throughout setting forth in detail certain illustrative embodiments of the invention, these being indicative, however, of but a few of the various ways in which the principle of the invention may be employed.

In said annexed drawings:

FIGURE 1 is a side elevation of the paint roller constructed in accordance to one aspect of the invention wherein the roller is securely held or locked in a position that is perpendicular to the handle;

FIGURE 2 is a front elevation of the paint roller shown in FIGURE 1;

FIGURE 3 is a front elevation of the paint roller reduced in size wherein the roller is securely held or locked in a position that is parallel to the handle; and,

FIGURE 4 is a view on an enlarged scale of the locking device.

Referring to the drawings, in detail, FIGURES 1 or 2 show an axle frame 2 pivotally mounted on a handle portion 4 by means of the hinge 3 and held in position by means of the locking devices 5. The roller 1 is mounted on the axle portion of the axle frame 2 and held in position by the retaining collar 7 and a similar retaining collar not shown at the opposite end of the roller. The method of mounting the roller on the axle portion is well understood by those skilled in the art and forms no part of this invention. If desired a hollow roller having a paint reservoir therein may be used. Such hollow reservoir paint rollers are available on the open market.

As illustrated in FIGURE 2 one end of the axle frame 2 is bent upwardly at a right angle so that the roller is held in position by the locking device 5. As illustrated in FIGURE 2 the opposite end of the axle frame 2 is bent downwardly at a right angle so that that portion will lie in parallel and adjacent to handle portion 4. When so adjusted as illustrated in FIGURE 2 that portion of axle frame 2 which lies parallel to handle portion 4 will be securely held in that position by the locking device 5. These locking devices are used in pairs as illustrated in FIGURE 1 and are so spaced that a rather considerable force is needed to force that portion of axle frame coming in contact with locking devices 5 over the shoulder of 5 until the frame rests at least partially in the concave portion of 5. After forcing the axle frame into such a position it is held there by means of friction and a rather considerable force is required to overcome that friction. In a preferred embodiment of the invention the locking devices 5 are inserted into handle portion 4 in pairs not parallel with each other but so that they toe-in slightly. This toe-in is very slight and is difficult to see except by precise measurements. The advantage of utilizing the locking devices in this manner is that if as a result of wear they fail to hold the axle frame 2 securely it is only necessary to screw each device of the pair in slightly to restore proper holding force.

My paint roller when the roller is clamped in the position as illustrated in FIGURES 1 and 2 is used in a manner similarly to that employed for using a conventional paint roller. If it is desired to paint a ceiling or other high surface an extension handle 6 may be attached to handle portion 4. Extension handle 6 may be of any length desired by the painter. When it is desired to paint a surface such as a wall close to a point where the wall joins the ceiling best results are obtained if the roller is clamped so that it will be parallel to handle portion 4 as illustrated in FIGURE 3. Again an extension handle 6 of any length desired by the painter may be attached to item 4.

Items 4 and 6 may be constructed of almost any type of material such as wood, plastic, metal or other suitable material. Generally I prefer to construct both item 4 and item 6 of wood. If lightness combined with strength
is desired both of those items may be constructed of a metal alloy or aluminum tubing. When item 4 is constructed of wood, locking device 5 is fitted with a wood screw. On the other hand if item 4 is constructed of metal, locking device 5 is provided with machine threads. In some instances under the latter condition locking device 5 may be provided with a sheet metal screw.

A preferred method of attaching item 6 to item 4 is as illustrated wherein item 4 is provided with internal threads and item 6 with external threads adapted to fit said internal threads. Other means of attaching item 6 to item 4 will be apparent to those skilled in the art.

The locking devices 5 as illustrated are preferred but if desired other types of spring retaining clamps may be used. It is also considered to be within the scope of the invention to employ positive locking screw clamps such as for example, those which are illustrated in U.S. Patent 2,845,647 dated August 5, 1958.

While particular embodiments of the invention have been described, it will be understood, of course, that the invention is not limited thereto since many modifications may be made, and it is, therefore, contemplated to cover by the appended claims any such modifications as fall within the true spirit and scope of the invention.

The invention having thus been described, what is claimed and desired to be secured by Letters Patent is:

1. A paint roller comprising: a handle, a bracket hingedly affixed at a point adjacent one end of said handle, an elongated axle frame member attached to and extending in both directions from said bracket and one end thereof having an axle portion thereon, a paint applying roller rotatably disposed on said axle portion, means consisting of a first pair of locking devices mounted on said handle and so spaced apart that said axle frame member fits tightly between said first pair of locking devices and is releasably held therein by friction for rigidly holding said roller perpendicularly with respect to said handle and means consisting of a second pair of locking devices mounted on said handle and so spaced apart that said axle frame member fits tightly between said second pair of locking devices and is releasably held therein by friction for rigidly holding said roller in a parallel position with respect to said handle.

2. The paint roller of claim 1 wherein the locking device pairs are so mounted that when each of the individual locking devices is turned clockwise the distance between the pair is reduced.

3. A paint roller comprising: a handle, a bracket hingedly affixed to said handle adjacent one end thereof, an elongated axle frame member attached to said bracket the point of attachment with respect to said axle frame member being remote from either end thereof, one end of said axle frame member having an axle portion thereon, a paint applying roller rotatably disposed on said axle portion, said paint applying roller normally being substantially perpendicular to said handle, the other end of said axle frame member being bent downwardly and lying closely adjacent and substantially parallel to said handle in the normal position, means consisting of a first pair of locking devices mounted on said handle and so spaced apart that the end of said axle frame member extending downwardly fits tightly between said first pair of locking devices and is releasably held therein by friction for rigidly holding said roller perpendicularly with respect to said handle and means consisting of a second pair of locking devices mounted on said handle and so spaced apart that the first mentioned portion of said axle frame member is adapted to fit tightly between said second pair of locking devices and is releasably held therein by friction for rigidly holding said roller in a parallel position with respect to said handle.

4. A paint roller comprising: a handle, a bracket hingedly affixed to said handle adjacent one end thereof, an elongated axle frame member attached to said bracket the point of attachment with respect to said axle frame member being remote from either end thereof, one end of said axle frame member extending in one direction from the point of attachment being U-shaped having an axle portion thereon, a paint applying roller rotatably disposed on said axle portion, the paint applying roller normally being substantially perpendicular to said handle, the other end of said axle frame member extending in the other direction from the point of attachment, being shaped and lying closely adjacent and substantially parallel to said handle in the normal position, first locking means mounted on said handle, said first locking means including a pair of spaced apart members frictionally engageable with said downwardly extending shaped portion whereby the downwardly extending shaped portion may be releasably held closely adjacent and substantially parallel to said handle by friction, and second locking means mounted on said handle diametrically opposite said first locking means, said second locking means including a pair of spaced apart members frictionally engageable with said U-shaped portion whereby the U-shaped portion may be releasably held closely adjacent and substantially parallel to said handle by friction whereby said roller is held substantially parallel to said handle.

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