Sept. 22, 1959 G. R. SCHLEICHER 2,904,813

PAINT APPLYING DEVICES

Filed June 16, 1955 2 Sheets-Sheet 1

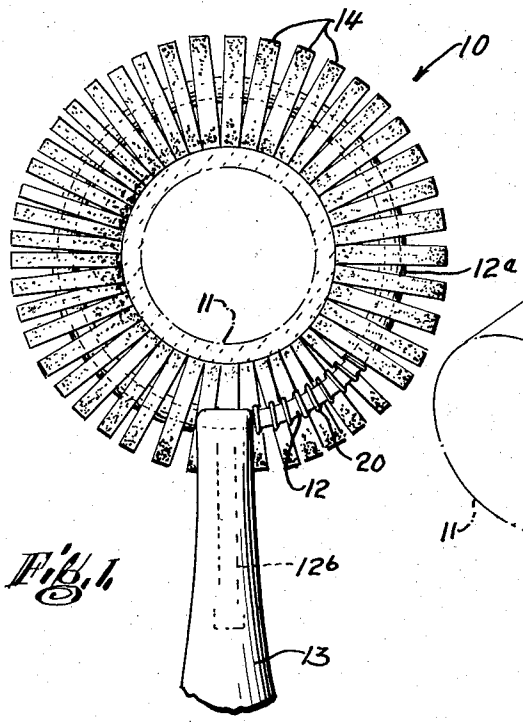


Fig. 1.

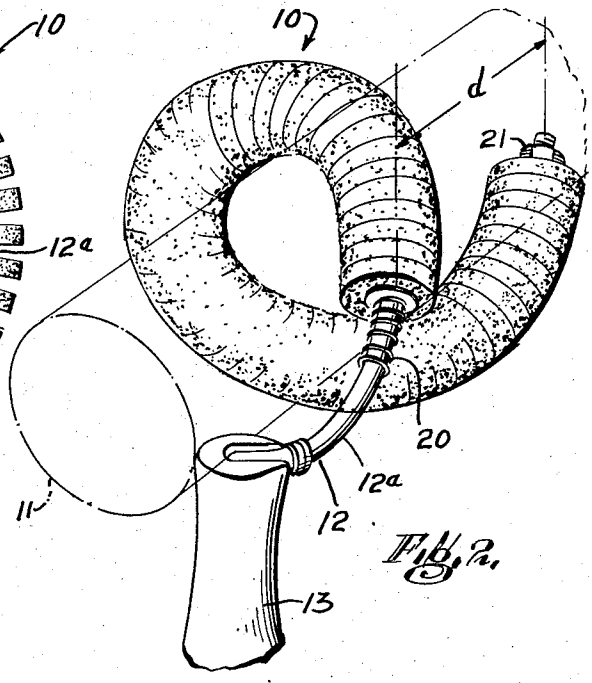


Fig. 2.

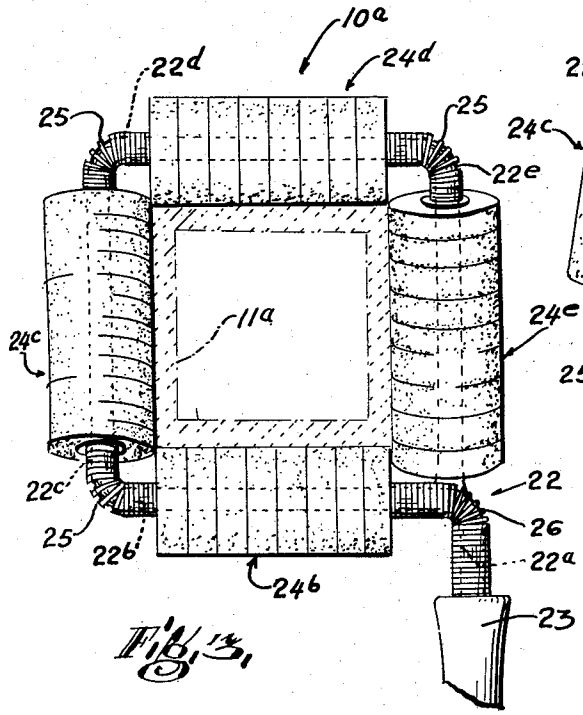


Fig. 3.

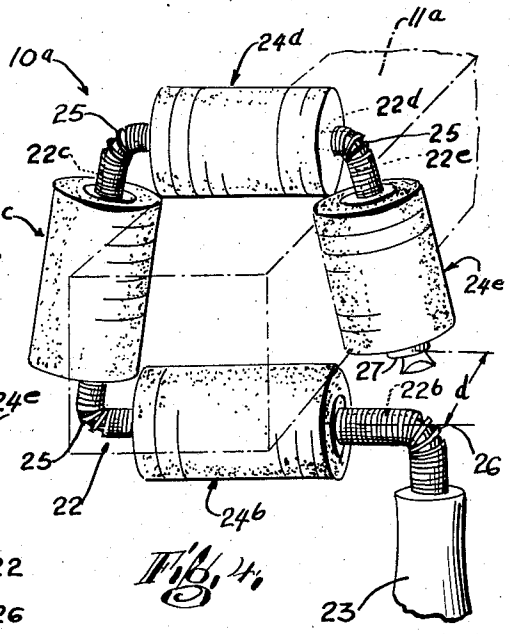


Fig. 4.

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Filed June 16, 1955 2 Sheets-Sheet 2

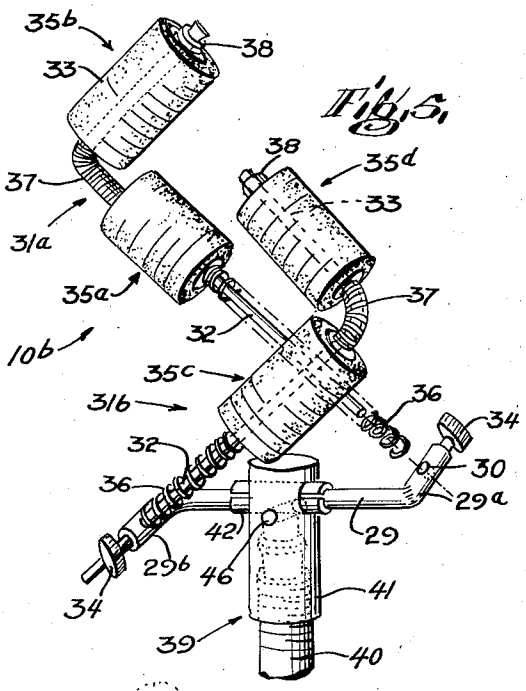


Fig. 5.

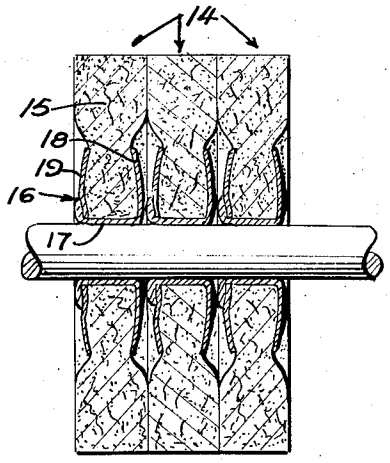


Fig. 6.

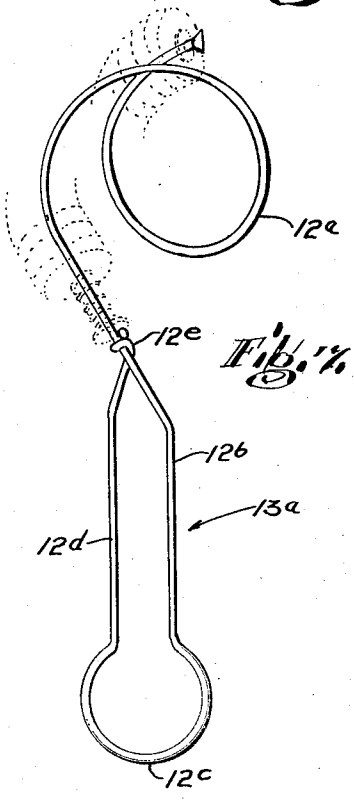


Fig. 7.

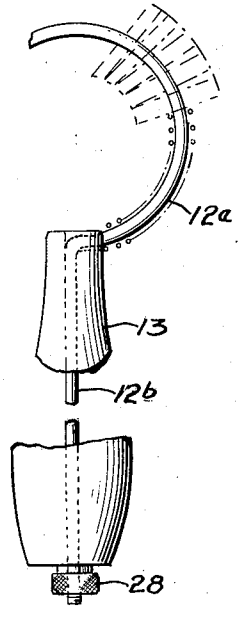


Fig. 8.

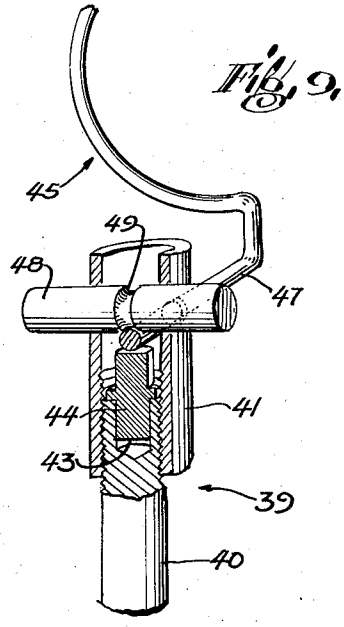


Fig. 9.

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PAINT APPLYING DEVICES

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Application June 16, 1955, Serial No. 515,946

9 Claims. (Cl. 15—230)

This invention relates generally to paint applying devices, and more particularly is directed to improvements in rollers for applying paint, calcimine and other coating materials.

Although rollers for applying paint and the like are now widely used and it is recognized that, with respect to the speed of application, the coverage achieved with a given quantity of paint and the uniformity of the coating, amateurs or relatively unskilled painters are able to achieve practically professional results with rollers, the use of rollers has, for the most part, been limited to the application of paint to large, flat surfaces, and it has been necessary to employ conventional brushes for applying paint to other, less accessible areas. Heretofore, special rollers have been developed for use in corners, for example, where wall surfaces, or a wall surface and ceiling surface intersect, but such special rollers are of no use in simultaneously applying paint and the like to all sides, or the complete outer periphery, of elongated elements, such as, pipes, ducts, posts, columns and the like.

Accordingly, it is an object of this invention to provide a device for applying paint to the complete periphery of an element which is elongated or has a longitudinally extending axis, for example, a pipe, duct, post, column and the like.

Another object is to provide a paint applying device having a plurality of rollers which may be arranged to completely embrace an elongated element for simultaneously applying paint to all sides of the embraced element during the movement of the device along the latter.

Another object is to provide a paint applying device capable of operation, as aforesaid, to apply paint to all sides of an elongated element embraced by the device and along which the latter is moved, and wherein the rollers may be positionally adjusted relative to each other to adapt the device for paint application at other inaccessible locations, such as, in corners and along decorative mouldings and the like, whereby a single device may be employed in place of several specialized devices of limited application.

Still another object is to provide a handle construction for a paint applying device of the described character and which is adapted to receive several different types of roller supports embodying this invention, so that the roller arrangement is best adapted for a particular problem or situation.

A further object is to provide an improved paint applying roller of simple and inexpensive construction, and which is particularly adapted for use in paint applying devices embodying this invention where several rollers are arranged in series but no lines of division are to appear on the painted surface where the successive rollers contact each other.

In an aspect of this invention, a device for applying paint to an elongated element along which the device is moved comprises several rollers, and a support for the rollers having one portion, adapted to form at least part of a handle by which the device can be manipulated, and

at least one other portion carrying the rollers and defining at least three axes of rotation for the rollers. The axes of rotation for the rollers are arranged so that, when such axes are projected into a plane normal to the direction of movement of the device, the axes are angularly displaced relative to each other and intersect, by twos, in a number of points equal to the number of axes so that the rollers on the axes are adapted to embrace an elongated element and apply paint simultaneously to all sides, or the complete periphery, of the embraced element.

Further, in the above aspect of the invention, at least one of the axes about which the rollers rotate is spaced, in the direction of movement of the device, from another of the roller axes which it intersects, when projected as above, so that a gap is provided between the related rollers through which the element to be painted may pass during the manipulation of the device to and from the operative position of the device where the rollers completely embrace the element to be painted.

One form that the invention may take is characterized by a support having a roller carrying portion defined by an elongated member, for example, of rigid wire, which is bent, or otherwise manipulated, to form at least one full turn of a helix. The word "helix" is here employed in its broadest sense and refers to the curve formed on any cylinder, whether it has circular, rectangular or other polygonal cross-sections, by a straight line that is wrapped around the cylinder and disposed at an acute angle with respect to the axis of the cylinder. Thus, the roller carrying portion of the support may be curved so that the rollers that are evenly distributed therealong are adapted to embrace and completely paint the surface of a pipe, duct, post, column and the like having the configuration of a right circular cylinder, or the roller carrying portion of the support may include successive straight parts so that the rollers rotatably mounted on such straight parts are adapted to engage the related side surfaces forming the complete periphery of an elongated element to be painted, for example, an element of square, rectangular, triangular or other polygonal cross-sections.

In either case, the roller carrying portion of the support is connected, at one end, to a portion of the support which forms at least part of a handle, while the other end of the roller carrying portion is spaced from the first mentioned end, in the direction of the axis of a helix, by a distance which is sufficiently large to provide a gap between the related rollers through which the element to be painted can pass.

Another form that the invention may take is characterized by a support having a roller carrying portion which includes adjustably mounted, angled arms spaced from each other in the direction of movement of the paint applying device and capable of being selectively positioned relative to each other so that the rollers thereon will simultaneously contact all sides of an elongated element to be painted, or so that the rollers on one of the other of the angled arms will be available for painting in corners or other similarly relatively inaccessible places.

Further, in accordance with this invention a roller for inclusion in a paint applying device comprises a porous disc, for example, of felt or sponge rubber, having a central aperture therethrough for receiving the roller carrying portion of the support, and a metal eyelet type grommet inserted through the aperture of the porous disc.

In order that the invention may be fully understood, several illustrative embodiments thereof are hereinafter described in detail with reference to the accompanying drawings forming a part hereof, and wherein:

Fig. 1 is an elevational view of a paint applying device embodying this invention;

Fig. 2 is a perspective view of the device of Fig. 1 shown in its operative position in relation to an element to be painted, and with such element represented by broken lines;

Fig. 3 is a view similar to that of Fig. 1, but showing another embodiment of the invention;

Fig. 4 is a view similar to that of Fig. 2, but showing the embodiment of Fig. 3;

Fig. 5 is a perspective view of still another embodiment of this invention, with some of the parts thereof shown in exploded relation to each other;

Fig. 6 is an enlarged, axial sectional view of several rollers constructed in accordance with this invention and particularly adapted for use in any of the devices illustrated in Figs. 1, 3 and 5, respectively;

Fig. 7 is an elevational view of one form of handle structure that may be included in paint applying devices embodying this invention;

Fig. 8 is a fragmentary elevational view, partly broken away, of another form of handle structure that may be included in paint applying devices embodying this invention; and

Fig. 9 is a fragmentary perspective view, partly broken away and in section, of a structural arrangement for coupling a handle to a selected one of a number of roller supports embodying this invention so that an assembly can be erected that is best adapted to perform any particular painting task.

Referring to the drawings in detail, and initially to Figs. 1 and 2 thereof, it will be seen that a paint applying device embodying this invention and there generally identified by the reference numeral **10** may be adapted particularly for applying paint and the like to the complete periphery of an elongated element of circular cross-section, for example, a pipe, duct, post, column and the like, the element to be painted being shown in broken lines and identified by the reference numeral **11**. The device **10** includes a support **12** which may be formed of a single piece of suitably rigid, heavy gauge wire or the like, and has a roller carrying portion **12***a* bent, or otherwise manipulated, so that it has the configuration of slightly more than one full turn of a helix lying upon the surface of a right circular cylinder. The support **10** further has a straight mounting portion **12***b*, shown in broken lines on Fig. 1, which extends from one end of the roller carrying portion **12***a* and is adapted to be connected to, or form part of, a handle. In the embodiment of Figs. 1 and 2, the mounting portion **12***b* of the support extends axially into a handle **13** of wood or other suitable material and is secured within the handle in a conventional manner.

The paint applying device **10** further includes a series of rollers **14** rotatably carried by the portion **12***a* of support **12**. As seen in Fig. 6, each of the rollers **14** preferably includes a disc **15** of porous material, for example, felt or foam rubber, adapted to absorb and retain a quantity of paint or other liquid coating material and to dispense the paint at its periphery as the roller rolls along the surface to be painted. The disc **15** has a central aperture therethrough which receives a metal eyelet type grommet generally identified by the reference numeral **16**. The grommet **16** includes a tubular bushing **17** extended through the central aperture of disc **15** and having a radial, outwardly directed flange **18** at one end adapted to bear against a side surface of the disc, and a washer-like element **19** fitting over the other end of the bushing **17** so that the central portion of the porous disc **15** is confined between the flange **18** and element **19**. The grommet **16** is permanently assembled on the related disc **15** by swaging the free end of the bushing **17** so that the element **19** is displaced toward the flange **18** thereby to compress the central portion of the disc and ensure that the axial dimension of the roller **14** at its periphery will be substantially greater than the axial dimension at the hub or grommet. Such reduction of the thickness of the roller at its hub or grommet makes it possible for the successive rollers **14** to be urged axially into intimate contact with each other at their peripheries without contact occurring between their grommets, even when the successive rollers rotate about aligned axes, as in Fig. 6, so that no gaps can occur between the portions of the peripheries in contact with the surface being painted and lines or marks on the painted surface, at the divisions between, the rollers are avoided.

The grommets **16** of the several rollers **14** are rotatable on the portion **12***a* of the support and provide firm and precise foundations for the respective porous discs **15**. Since the roller carrying portion **12***a* of the support in device **10** is in the form of a turn of a helix developed by a right circular cylinder, it is apparent that the axes of rotation of the successive rollers **14** are angularly displaced from each other and intersect, by twos, when viewed in the direction of movement of the device, that is, along the axis of the elongated element **11** to be painted, so that the rollers rotate in radial planes which are angularly spaced apart. Thus, when the rollers **14** are compacted along the roller carrying portion **12***a* of the support, for example, between a compression spring **20** bearing against the roller at one end of the series of rollers and a stop **21**, which may be in the form of a nut threaded on the free end of the support, the peripheries of the successive rollers contact each other at the parts of their adjacent edges which face inwardly toward the axis of the helix, that is, where the peripheries of the rollers contact the surface of the element **11**.

As seen in Figs. 1 and 2, a sufficient number of rollers **14** are provided on the support **12** so that the opposite ends of the series of rollers will overlap when viewed in the direction of the axis of the helix or of the movement of the device **10** along the element **11**. Thus, the rollers **14** are adapted to apply paint to the complete periphery of the element **11** embraced by the series of rollers on the helical roller carrying portion **12***a* of the support as the device **10** is manually, or otherwise, moved along the element to be painted.

In order to permit the device **10** to embrace an element to be painted which is supported at its opposite ends, or otherwise arranged, so that the paint applying device cannot be slipped axially onto the element, the free end of the roller carrying portion **12***a* of the support **12** is spaced, in the direction of the axis of the helix, from the initial portion of the helical turn by a distance *d* (Fig. 2), which represents the pitch of the helix and is sufficiently large to provide a gap between the rollers **14** at the opposite ends of the series of rollers through which the elongated element **11** can pass during the positioning of the device **10** on the latter preparatory to painting and during the removal of the device **10** from the painted element.

Although the roller carrying portion **12***a* of the support in the device **10** is in the form of a turn of a helix developed by a right circular cylinder and adapts the device for the painting of the complete periphery of a similarly shaped element, that is, an element having an outer configuration in the form of a right circular cylinder, it is apparent that the shape of the roller carrying portion of the support **12** can be varied in order to adapt the device for the painting of elongated elements having different external configurations.

Figs. 3 and 4 show one of the many possible variations or modifications of the above described device and represent a paint applying device which is generally identified by the reference numeral **10***a* and particularly adapted for use in connection with the painting of an element **11***a* having square, or other rectangular, cross-sections. The device **10***a* includes a support, generally identified by the numeral **22**, which, as in the case of the support

12, may be formed of rigid, heavy gauge wire, and includes a roller carrying portion, hereinafter described in detail, and a portion 22*a* extending from one end of the roller carrying portion and adapted to be mounted in, or form part of, a handle 23.

The roller carrying portion of support 22 is in the form of at least one complete turn of a helix developed on a cylinder of rectangular, specifically square, cross-sections and includes straight parts 22*b*, 22*c*, 22*d* and 22*e* defining axes of rotation for related groups of rollers which are individually the same as the rollers 14 described with reference to Fig. 6. It is apparent that each of the straight parts of the roller carrying portion of support 22 defines the axis of rotation for several rollers, and that the several axes, when projected into a plane normal to the direction of movement of the device 10*a* along the element 11*a*, that is, when viewed as in Fig. 3, are angularly spaced from each other and intersect, by twos, in a number of points equal to the number of straight parts or roller axes.

Groups of rollers 24*b*, 24*c*, 24*d* and 24*e*, each made up of several rollers 14 so that the length of each group is at least as great as the width of the side surface of the element 11*a* to be painted by that group, are rotatably mounted on the straight parts 22*b*, 22*c*, 22*d* and 22*e* of the support 22. The several groups of rollers are held in spaced apart relationship along the roller carrying portion of support 22 by relatively tightly wound or rigid helical springs 25 and the support between the adjacent ends of the successive groups of rollers, and a helical spring 26 is provided on the support 22 between the handle 23 and the adjacent end of roller group 24*b* to yieldably urge the spaced apart roller groups along the support in the direction toward the free end of the latter where a suitable stop 27 (Fig. 4) is provided. Thus, the springs 25 ensure that the roller groups 24*b*, 24*c*, 24*d* and 24*e* will be properly positioned along the straight parts of the support 22 to extend across and apply paint to the full width of the related side surfaces of element 11*a*, while the spring 26, which may be relatively loosely wound, serves to axially compact the rollers in each group so that no gaps will appear between the peripheries of the successive rollers in the group to leave corresponding marks or lines on the painted surface.

In order to permit the positioning of the device 10*a* on the element 11*a*, and its removal from the latter upon the completion of the painting thereof, the pitch *d* (Fig. 4) of the helical turn represented by the straight parts 22*b*, 22*c*, 22*d* and 22*e*, that is, the distance from the free end of part 22*e* to the end of part 22*b* connected to part 22*a* measured in the direction of movement of the device 10*a*, is large enough to provide a gap between the roller groups 24*b* and 24*e* through which the element 11*a* can pass.

Figs. 7 and 8 of the drawings illustrate two modifications of handle structures that may be used in connection with the devices described in connection with Figs. 1 and 2 and Figs. 3 and 4, although the roller carrying portions of the supports shown in Figs. 7 and 8 are both of the kind included in the device 10 and particularly adapted for applying paint to an element having circular cross-sections.

Referring to Fig. 7, it will be seen that the handle and roller carrying support portion 12*a* are formed of a single length of suitably bent wire. In order to form a handle 13*a*, the portion 12*b* of the support is lengthened and connected, at the end remote from the portion 12*a*, with a curved bend 12*c* which, in turn, extends into a portion 12*d* extending generally parallel to the portion 12*b* and having a hook 12*e* at its free end engageable in back of the base end of the roller carrying portion 12*a*. Normally, the curved bend 12*c* would urge the portion 12*d* to diverge away from the portion 12*b* so that the hook 12*e*, which holds the portions 12*b* and 12*d* in generally parallel relation, is always under load and cannot be inadvertently disengaged from the base of portion 12*a*. It is apparent that the portions 12*b* and 12*d* may be simultaneously grasped by the user and define a handle by which the paint applying device can be manipulated.

In Fig. 8, the handle 13, of wood or a suitable molded plastic material has a bore extending longitudinally therethrough to receive the extended portion 12*b* of the support 12, and the free end of portion 12*b* is threaded to receive a nut 28 which removably secures the support 12 to the handle 13.

Thus, each of the devices 10 and 10*a* may have a handle wherein a portion of the support is embedded, molded or otherwise permanently secured in a wooden or molded plastic body, as in Fig. 1, or handles of the kind illustrated in Figs. 7 and 8, respectively.

Referring now to Fig. 5 of the drawing, wherein a device constructed in accordance with still another embodiment of the invention is illustrated and generally identified by the reference numeral 10*b*, it will be seen that such device includes a supporting rod 29 having arms 29*a* and 29*b* extending radially from its ends in opposed directions. The arms 29*a* and 29*b* have diametric bores 30 extending therethrough, with the axes of such bores converging upwardly, as viewed in Fig. 5. Angled roller carrying members 31*a* and 31*b* each include an arm 32 and an arm 33, and the arms 32 thereof are adapted to be received, at their free ends, in the bores 30 of the support arms 29*a* and 29*b*, respectively. Set screws 34 extend into the arms 29*a* and 29*b* and are adapted to engage the arms 32 in the related bores 30 for adjustably securing the members 31*a* and 31*b* with respect to the supporting rod 29.

It is apparent that the members 31*a* and 31*b* may be disposed in parallel planes and arranged so that their arms 32 and 33, which define the axes of groups of rollers thereon, when viewed in a direction normal to the parallel planes containing the members 31*a* and 31*b*, will intersect at the corners of a rectangle, specifically a square. Groups of rollers 35*a* and 35*b* are rotatably mounted on the arms 32 and 33, respectively, of the member 31*a*, while groups of rollers 35*c* and 35*d* are rotatably mounted on the arms 32 and 33 of the member 31*b*. The rollers in each of the above identified groups preferably are constructed in the manner described in connection with the rollers 14 of Fig. 6, so that the rollers of each group can be axially compacted to eliminate any gaps between the peripheries of adjacent rollers in the group.

In order to axially compact the rollers in each group and to properly position the latter along the related member 31*a* or 31*b*, a helical spring 36 under compression is provided on each arm 32 between the related group of rollers 35*a* or 35*c* and the related support arm 29*a* or 29*b*, and relatively tightly wound springs 37 are provided on the members 31*a* and 31*b* between the groups 35*a* and 35*d*, respectively, to space apart the related groups in exact relationship to the corners involved. A suitable stop 38 is provided on the free end of each arm 33 to limit the axial movement of the related roller group 35*b* or 35*d* toward the free end. Thus, the springs 36 urge the related roller groups along the members 31*a* and 31*b* toward the free ends of the latter, and the stops 38 and spacing springs 37 ensure that the axially compacted groups of rollers will be properly positioned on the related arms of the members 31*a* and 31*b*.

When the members 31*a* and 31*b* are adjustably arranged to define the sides of a square or rectangle, as previously described, the roller groups 35*a*, 35*b*, 35*c* and 35*d* will be adapted to simultaneously engage and apply paint to the four side surfaces of an elongated element (not shown) of square or rectangular cross-section. The arms 29*a* and 29*b* of support rod 29 are sufficiently long so that the planes containing the members 31*a* and 31*b* are spaced apart by a distance providing a gap between

the roller groups 35*b* and 35*d*, in the direction of normal movement of the device 10*b* along an element to be painted, which gap is large enough to permit the passage therethrough of the element during the displacement of the device 10*b* to and from its operative position embracing the element to be painted.

It is apparent that the assembly illustrated in Fig. 5 makes it possible to adjust the angular relationships between the axes of the rollers, and even to add or subtract rollers to, or from, the several groups so that the assembly can be adapted for the painting of elements of different sizes and shapes. The device of Fig. 5 also can be used to provide in corner painting of walls. Further, it is apparent that one of the members 31*a* and 31*b* can be removed from the assembly, or adjusted to a position remote from the other of said members, so that the other member can then be conveniently employed for the painting of outside corners or trim and the like.

A handle structure used in connection with the above described assembly of the device 10*b* is generally identified by the numeral 39 and includes a handle member 40 threaded at its upper end and received in an internally threaded sleeve 41. The sleeve 41 has diametrically opposed openings adjacent its upper end through which a split tube or collet 42 on the support rod 29 is adapted to extend. The handle member 40 has an axial, blind bore 43 (Fig. 9) at its upper end receiving a plug 44 so that, when the handle member 40 is turned relative to the sleeve 41 in the direction moving the plug 44 toward the collet 42, the latter is diametrically clamped in the sleeve 41 and prevents axial movement of the rod 29, while permitting the forceful turning of the rod 29 in the collet for adjustment of the positions of the members 31*a* and 31*b* relative to the handle member 40 to achieve the most convenient arrangement for painting in relatively inaccessible locations.

Further, with the handle construction 39, the support rod 29, members 31*a* and 31*b* and the related groups of rollers may be replaced by a roller support of the kind included in the device 10, so that a combination may be formed with the handle construction 39 that is particularly adapted, for example, for the painting of an element of circular cross-section. In order to combine a roller support 45 (Fig. 9), which is similar to that illustrated in Figs. 1 and 2, with the handle construction 39, the sleeve 41 further has two diametrically opposed openings 46 (Fig. 5) through which a straight portion 47 (Fig. 9) of the roller support extends at right angles to the axis of the openings receiving the collet 42 in the combination of Fig. 5, and the collet 42 is replaced by a pin 48 (Fig. 9) having a peripheral groove 49 to receive the portion 47 of the roller support. Preferably, the groove 49 has a width smaller than the diameter of support portion 47 so that, when the latter is gripped between the plug 44 and the pin or adapter 48, the edges of the groove 49 will bite into the portion 47 to resist turning of the latter in the openings 46.

From the foregoing, it is apparent that the handle construction 39 is adapted to be combined with various types of roller supports suited for particular painting situations, whereby a single handle construction can be used, instead of an individual handle for each different form of paint applying device, and a substantial saving results.

Although several illustrative embodiments of the invention have been described in detail herein and shown in the accompanying drawings, it is to be understood that the invention is not limited to these precise embodiments, and that various changes and modifications may be effected therein without departing from the scope or spirit of the invention, except as defined in the appended claims.

What is claimed is:

1. In a paint applying device; the combination of a helically extending support which, at one end, is adapted for mounting on a handle, and a plurality of rollers rotatably carried by said support at locations along the latter so that said rollers completely overlap the peripheral surface of an element to be painted when the element is encircled by said support.

2. In a paint applying device for painting the complete periphery of an element having a longitudinally extending axis; the combination including a rod support means for encircling the element to be painted and extending helically along the axis of the element, one end of said rod support means being adapted to be carried by a handle and the other end of said rod support means being axially spaced from said one end, and a plurality of rollers rotatably carried by said rod support means at locations along the latter so as to overlap the periphery of an element encircled by the rod support means, the axial spacing between the opposite ends of said rod support means being sufficiently large to provide a gap between the related rollers through which the element to be painted can pass.

3. In a paint applying device for painting the complete periphery of an element having a longitudinally extending axis; the combination including a rod support means having the configuration of at least one full turn of a helix developed by a cylinder with cross-sections similar to those of the element to be painted so that said rod support means can encircle the element, one end of said rod support means being adapted to be carried by a handle, and a plurality of rollers carried by said rod support means at locations along the latter so that said rollers contact and apply paint to the complete periphery of an element encircled by said rod support means as the latter is moved along the element in the direction of the axis of the latter.

4. In a paint applying device for painting the complete periphery of an element having a longitudinally extending axis; the combination including a rod support means having the configuration of at least one full turn of a helix developed by a cylinder with cross-sections similar to those of the element to be painted so that said rod support means can encircle the element, one end of said rod support means being adapted to be carried by a handle, the other end of said rod support means being free, and a plurality of rollers carried by said rod support means at locations along the latter so that said rollers contact and apply paint to the complete periphery of an element encircled by said rod support means as the latter is moved along the element with the axis of said helix concentric with the axis of the element being painted, the pitch of said helix being sufficiently large so that a gap exists between the rollers adjacent the opposite ends of the rod support means and through which the element can pass when the device is disposed with the axis of said helix angled with respect to the axis of the element.

5. In a paint applying device for painting the complete periphery of an elongated element having circular cross-sections; the combination including a rod support means having the configuration of at least one full turn of a helix developed by a right circular cylinder so that said rod support means can encircle the element and be uniformly spaced from the surface of the latter, one end of said rod support means being adapted to be carried by a handle, and a series of rollers carried by said rod support means along the latter and yieldably compacted together so that the peripheries of said rollers are in contact with each other at the inside of the helical turn to apply paint uniformly to the complete periphery of an element encircled by said rod support means as the latter is moved along the element with the axis of said helix concentric with the axis of the element being painted.

6. In a paint applying device for painting the complete periphery of an elongated element having polygonal cross-sections; the combination of a rod support means having the configuration of at least one full turn of a helix de-

veloped by a cylinder with polygonal cross-sections similar to those of the element to be painted so that said rod support means can encircle the element and be uniformly spaced from the surfaces of the latter, one end of said rod support means being adapted to be carried by a handle, and at least one roller carried by each of the straight parts of said rod support means for rolling contact with the related surface of the element across the entire width of that surface, whereby the rollers apply paint to the complete periphery of the element as the device is moved along the latter with the axis of said helix concentric with the axis of the element being painted.

7. In a paint applying device for painting the complete periphery of an elongated element having polygonal cross-sections; the combination of a rod support means having the configuration of at least one full turn of a helix developed by a cylinder with polygonal cross-sections similar to those of the element to be painted so that said rod support means can encircle the element and be uniformly spaced from the surfaces of the latter, one end of said rod support means being adapted to be carried by a handle, a group of axially aligned rollers carried by each of the straight parts of said rod support means for rolling contact with a related surface of the element across the entire width of that surface, spacing means between the groups of rollers on the successive straight parts of said rod support means so that said groups of rollers are maintained in predetermined positional relationship to the surfaces of an element encircled by said rod support means, and resilient means axially compacting the rollers of said groups so that the peripheries of the rollers in each group are in contact with each other and the groups of rollers uniformly apply paint to all of the related surfaces of the encircled element as said rod support means is moved along the latter with the axis of said helix concentric with the axis of the element being painted.

8. In a paint applying device according to claim 1, and further comprising a handle construction including a sleeve having a pair of opposed apertures therein, said one end of the helically extending support passing through said apertures and transversely across said sleeve, a handle member threaded at one end, into said sleeve, a plug member carried by said handle member within said sleeve to move axially with said handle member in response to turning of the latter relative to said sleeve, and clamping means engaging said one end of said helically extending support and securing the latter within said sleeve in response to axial movement of said plug toward said helically extending support.

9. In a device for painting the complete periphery of an element having a longitudinally extending axis; the combination according to claim 8, wherein said clamping means includes a pin extending diametrically across said sleeve at right angles to said one end of said helically extending support and having a peripheral groove receiving the latter, said plug being on the opposite side of said one end of the helically extending support from said pin and bearing against said one end of the helically extending support, thereby urging the latter into engagement with said grooved pin.

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