Oct. 3, 1967 W. A. ENGSTROM ETAL 3,344,773

FLAG POLE PAINTER

Filed Oct. 28, 1963 4 Sheets-Sheet 1

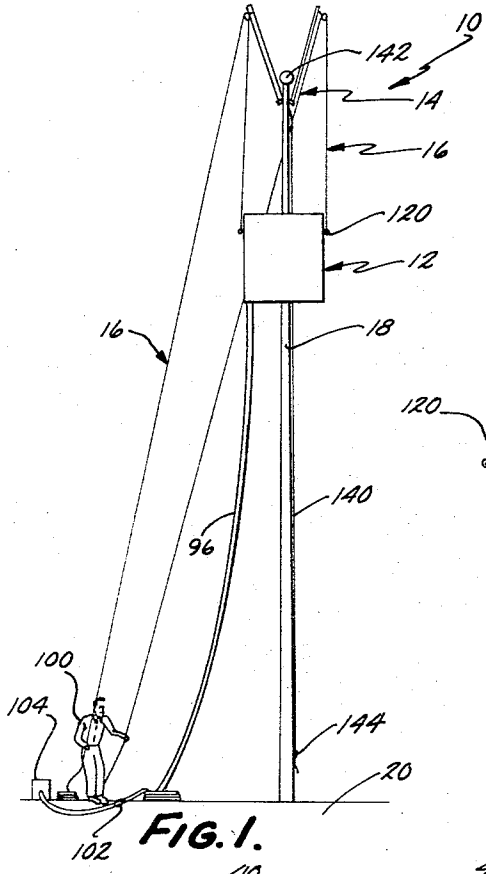

FIG. 1.

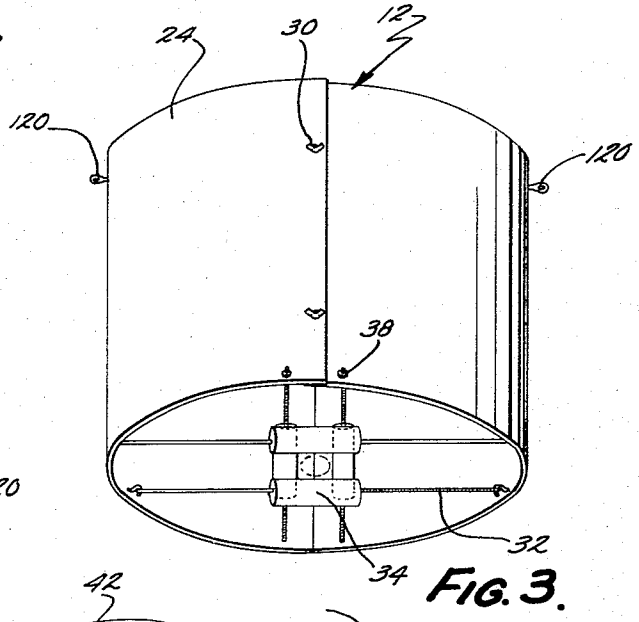

FIG. 3.

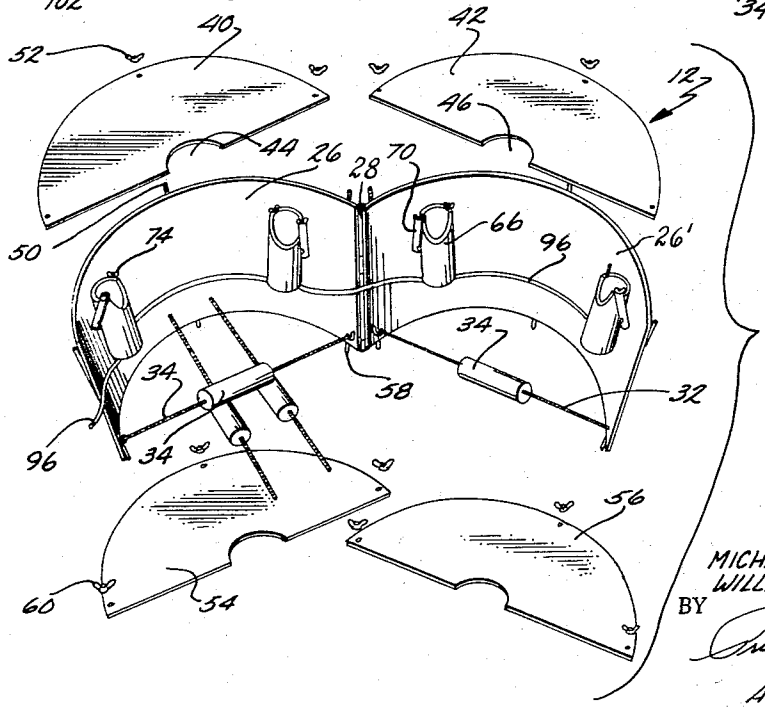

FIG. 2.

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FLAG POLE PAINTER

Filed Oct. 28, 1963 4 Sheets-Sheet 2

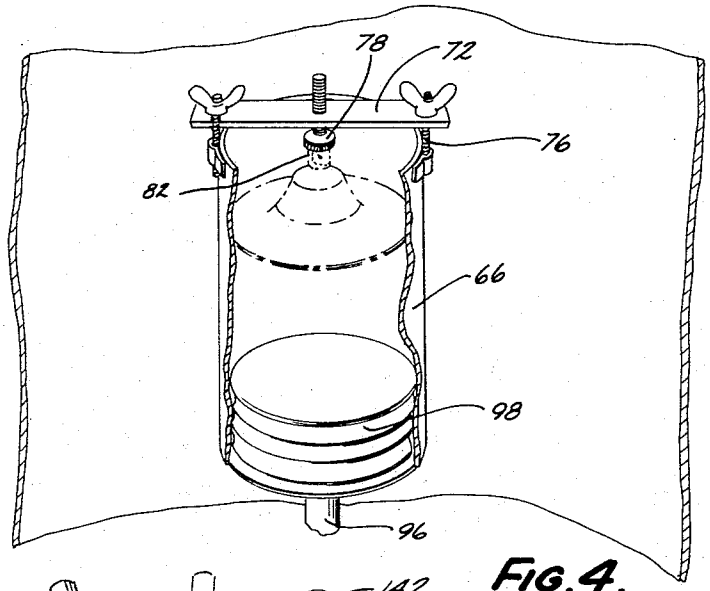

FIG. 4.

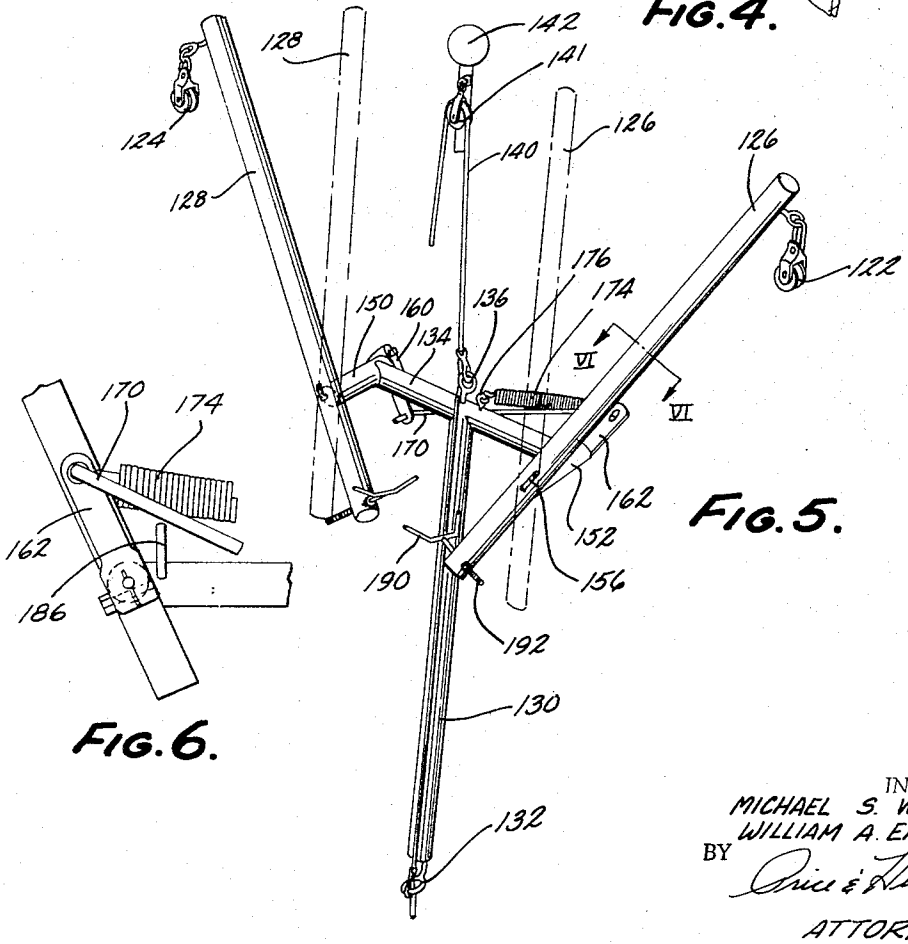

FIG. 5.

FIG. 6.

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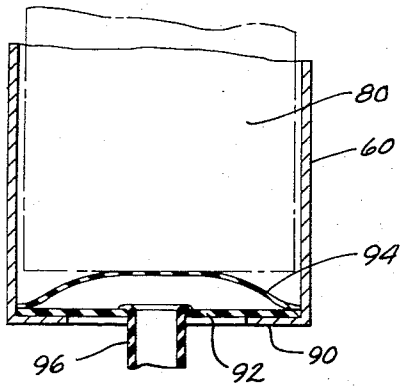

FIG. 7.

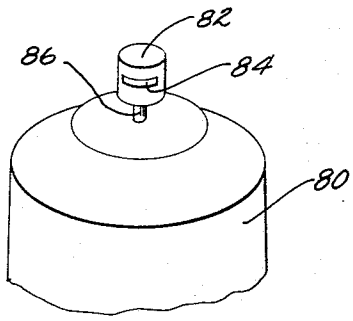

FIG. 8.

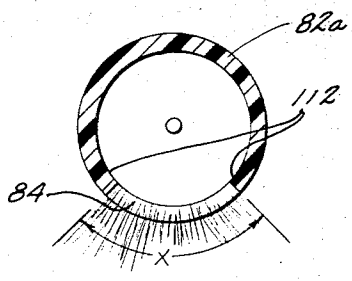

FIG. 9.

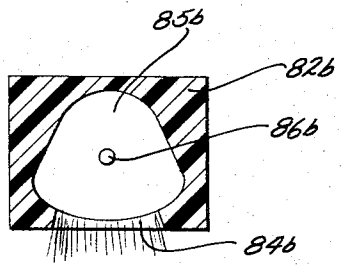

FIG. 10.

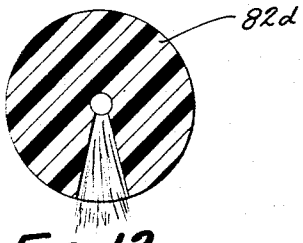

FIG. 12.

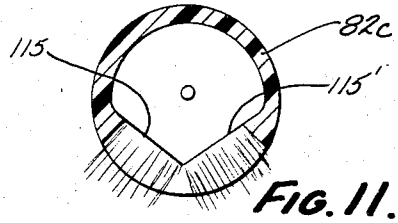

FIG. 11.

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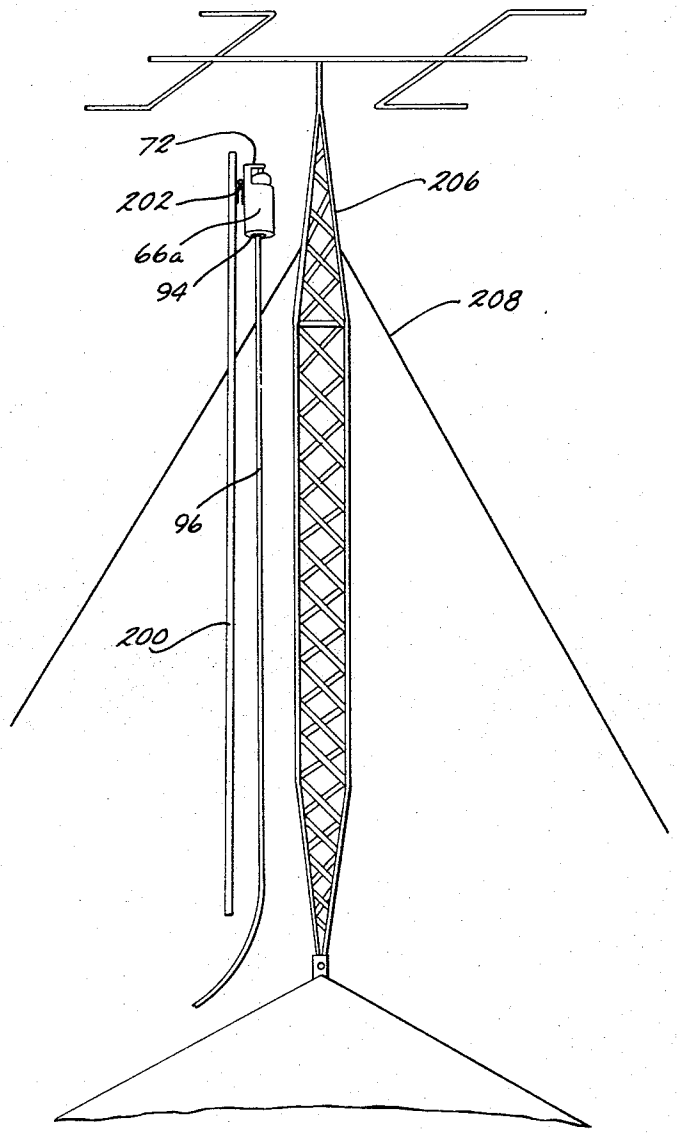

FIG. 13.

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FLAG POLE PAINTER

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Filed Oct. 28, 1963, Ser. No. 319,215
18 Claims. (Cl. 118—307)

This invention relates to paint spraying equipment, and more particularly to a unique flag pole painting apparatus, and also to painting apparatus for related items such as guy wires and television antennas. It also relates to an improved nozzle and output pattern, particularly when employed with pressurized paint spraying equipment.

Painting of high flag poles ordinarily requires the services of a high-priced steeplejack. The cost of repainting flag poles every year or so amounts to a substantial sum, often up to and over one hundred dollars per year. Yet, the time required and the skill needed for this job are small, the pay being mainly for the assumed risk. This annual expense is considerable for lodges, schools, courthouses, etc. Furthermore, some flag poles are so slim that they cannot be painted without a special hoist or derrick. Items such as TV antennas, guy wires and the like often cannot be painted at all in a practical manner.

Various attempts have been made heretofore to devise an apparatus that would permit painting of flag poles and related items while enabling the operator to remain on the ground. These have never gained significant commercial acceptance because of several factors, including their high cost, their complexity, and their independability in operation. These prior devices utilize the small flag pole pulley at the top of the pole to hoist the equipment. However, heavy painting equipment overtaxes the small pulley intended only for raising and lowering a relatively light-weight flag. Further, these pulleys are usually rusty, thereby even further weakening them. Consequently, any system depending on this action is dangerous and impractical.

Moreover, with prior attempted devices, the painting mechanism cannot be hoisted clear to the top of the pole to permit the very top, including the customary ball to be painted. When the mechanism abuts the flag pole pulley, it stops. Thus, the top is left to rust unless a steeplejack is called in. If the steeplejack is paid to go to the top and paint the tip of the pole, he might as well paint the whole pole for practically the same expense is involved due to the assumed risk.

Another serious deficiency exists with units proposed heretofore. This results from the tendency of all known prior units to tilt or "cock" on the pole during elevation and/or lowering. This cocking is largely because of the suspension of the unit from one side of the pole, usually on the flag pole pulley. Consequently, complex mechanism has been suggested in trying to balance the hoisting tension on the mechanism. These have been largely ineffective.

Because of these and other disadvantages not specifically mentioned, these prior attempts have never been successful, commercially, in filling the very definite need for an inexpensive spraying apparatus enabling the unskilled person to purchase the unit and paint his own pole as often as necessary. In fact, prior devices have not had sufficient practicality to enable even a professional to purchase the unit and paint poles less expensively than the steeplejack.

It is therefore an object of this invention to provide such a flag pole painting apparatus, of an inexpensive nature, enabling lodges, churches, schools, banks, etc. to purchase a unit and recoup the expense of the unit with one or two paintings.

It is another object of this invention to provide a pole painting apparatus that does not rely on the tiny flag raising rope pulley on the pole for hoisting the main painting apparatus.

It is another object of this invention to provide a pole painting unit that enables the lifting stresses of the painting mechanism to be applied to rigid elements and the pole itself.

It is another object of this invention to provide a pole painting apparatus wherein the painting mechanism including the paint supply and the spray means is symmetrically suspended in completely balanced condition from the pole so that no cocking or tilting tendency exists whatever.

Still a further object of this invention is to provide a remotely controlled paint spraying apparatus for flag poles and the like, enabling the use of conventional available pressurized spray cans of paint. The cans can be inserted and removed in seconds to effect the desired color. Moreover, one part of the pole can be painted one color, and another part another color very readily.

An additional object of this invention is to provide a pole paint spraying apparatus that effects uniform spraying around the entire surface of the pole.

A further object of this invention is to provide a novel spray nozzle construction and method to achieve accurately controlled and uniform spray fan configurations, especially for painting.

Still a further object of this invention is to provide a pole spraying apparatus capable of use on poles of different cross-sectional configuration.

Another object of this invention is to provide a remotely controlled pole paint spraying apparatus that can be employed on breezy days as well as calm days.

Still another object of this invention is to provide a flag pole spraying apparatus that can actually be hoisted above the top of the pole, enabling complete coverage from top to bottom, including the customary ball.

Another object of this invention is to provide a remotely controlled spraying unit capable of spraying guy wires and radio and television antennas, as well as poles, from the ground, without danger to the operator.

These and several other objects of this invention will be apparent upon studying the following specification in conjunction with the drawings in which:

FIG. 1 is an elevational view showing the novel flag pole painting apparatus in use;

FIG. 2 is a perspective exploded view of the paint spray means of the novel apparatus;

FIG. 3 is a perspective view of the bottom of the paint spray means housing in FIG. 2;

FIG. 4 is a fragmentary enlarged perspective view of one of the paint can receptacles of the paint spray means showing one form of can elevating means;

FIG. 5 is a perspective enlarged view of a novel bracket means forming part of the suspension means for the spray means;

FIG. 6 is an enlarged fragmentary elevational view of a portion of the bracket means taken on plane VI—VI of FIG. 5;

FIG. 7 is a side, elevational, fragmentary, sectional view of a modified can elevating means in the spray can receptacle;

FIG. 8 is a fragmentary perspective view of a pressurized spray can;

FIG. 9 is a sectional view through the nozzle of the can of FIG. 8 showing one particular nozzle outlet configuration;

FIG. 10 is a sectional view of a modified nozzle;

FIG. 11 is a sectional view of a further modified nozzle;

FIG. 12 is a sectional view of a further modified nozzle; and

FIG. 13 is an elevational view of a modified spray unit utilizing one of the can receptacles and especially suitable for guy wires, TV antennas and the like.

Referring now specifically to the drawings, the novel painting apparatus assembly **10** includes a spray means subassembly **12**, and a suspension means subassembly which includes bracket means **14** and a plurality of suspension elements **16**. These are shown in use, spraying a flag pole **18** mounted in the ground **20**.

The spray means illustrated in FIGS. 2 and 3, includes a peripheral housing **24** of cylindrical configuration. It is separable into two semi-cylindrical sections **26** and **26'** hinged together on two adjacent edges by hinges **28**. The opposite edges are releasably connected together by suitable bolts and wing nuts **30** (FIG. 3).

Extending across the housing shell is a plurality of guide roller elements (FIGS. 2 and 3). Each of these elements comprises an elongated tie element, preferably a tension spring **32** connected to hooks or eyes on both ends to the housing shell. A roller element **34** is attached to the central portion of each spring. Two of the rollers overlap the other two to define a central opening therebetween for receiving and contacting the pole on four sides (indicated by the phantom line in FIG. 3). Two of these elements are attached between the edges of each half shell. The opposite two are attached on one end to the central portion of one shell, and when the housing is enclosed, attached on the opposite end to the central portion of the second half shell. The hooks retaining these elements are secured to the housing by suitable nuts **38** (FIG. 3).

Preferably, the top and the bottom of the shell are enclosed by two pairs of cover elements. Each pair, when attached, forms a circular member with a central opening to receive the pole. Thus, referring to FIG. 2, the upper pair **40** and **42** comprise two semi-circular shaped elements with small semi-circular openings **44** and **46**, respectively, cooperative to form a central opening to receive the flag pole. These cover elements fit down on suitable studs **50** attached to the end of the housing shells and are secured by wing nuts **52** or the equivalent. Likewise, the lower pair of semi-circular elements **54** and **56** is retained on studs **58** on the bottom of the housing shell and secured by wing nuts **60**. These cover units prevent outside air gusts or breezes from interfering with the effective spraying action during operation.

Mounted to the inner peripheral wall of the housing shell is a plurality of receptacles **66**, equally spaced around the housing. Each of these receptacles is capable of receiving and retaining a pressurized paint spray can **80** as in FIG. 8. A conventional paint spray can be utilized. Preferably, the nozzle outlet configuration is modified from the conventional as described hereinafter. This is achieved merely by the substitution of a new nozzle cap **82** with the novel outlet orifice configuration **84** on outlet tube **86**. Actuation of the pressurized spray is had in the usual manner by depressing the nozzle cap toward the pressurized can or vice versa.

One of these cans fits in each of the receptacles **66** by inserting it through the open top when the retaining element or bar **70** is swung back out of the way as illustrated in FIG. 2. This bar is retained on top of the can by a suitable pair of wing nuts **74** (FIG. 4) fastened to studs **76**. The studs are mounted to the periphery of the retaining receptacle **66**. The element **72** extends over the central portion of the top of the receptacle to coincide with the nozzle cap **82** on the pressurized paint spray can (shown in phantom in FIG. 4).

Bar **72** also includes a threaded adjustable stud **78** which has its head extending downwardly adjacent nozzle cap **82**. Adjustment up and down of the stud can be made to accommodate the particular can height for optimum actuating conditions when the can is elevated in a manner to be described. The bottom of receptacle **66** includes an annular floor **90** which supports elevating means. This may take different forms. The elevating means preferably employed is an inflatable chamber connected by conduit means to a source of pressure. Thus, in the most preferred form of the invention illustrated in FIG. 7, the pressure chamber is formed between a lower resilient disc **92** having vulcanized thereto a thin upper membrane **94** which rises when the chamber between these two is inflated. It is inflated by the entry of pressurized air through conduit **96** sealingly attached thereto. This inflation elevates can **80** to raise the nozzle cap **82** against adjustable stud **78** to cause actuation of the spray.

In the modified form of the elevating means shown in FIG. 4, the chamber is formed within a bellows **98**. It again forms the can support floor of the housing. It communicates with a pressurized conduit **96** extending to a source of pressure.

This conduit, as illustrated in FIG. 2, is interconnected between the elevating chambers of each of the receptacles **66**, and then extends out of the housing as illustrated in FIG. 1 to the ground where operator **100** is standing. This hose may be wound on a reel so that sufficient supply is had for reaching to the top of the flag pole as necessary. The hose is connected through a suitable control valve **102** to a source of pressurized air **104**. Actuation of the valve, as by the foot of the operator, causes pressurized air from the source to communicate with the elevating chambers in the receptacles to hoist the several cans around the pole periphery, causing the spray to be actuated.

Alternatively, foot valve **102** may be a bellows or the equivalent, which, when depressed, exerts a pressure through the hose to the elevating chambers. It will be noticed that this pressurized air or other gas or fluid is not continuously flowing, but merely causes an over-all increase in internal pressure of the system while held active. When released, it enables the cans to deflate the elevating means by their weight.

It is also conceivable that in the broader concepts of this invention, other principles of can shifting may be utilized. An electrical solenoid is one example. However, the illustrated form is preferred due to its simplicity, inexpensiveness and usefulness at outdoor sites.

It will be observed that cans can be readily inserted and removed quickly and easily merely by loosening the wing nuts, swinging the retaining bar back out of the way and inserting and/or removing the particular can into and out of place.

It has been found that effective painting of the pole surfaces is achieved when an elongated, horizontally oriented oblong slot nozzle outlet **84** is employed. It has a width from end to end greater on the outer periphery of the nozzle cap than at any other portion of the slot. Various modifications of the novel nozzle are illustrated in FIGS. 9, 10, 11 and 12. It has been found that the criteria for determining the output fan-shaped spray is the elongated nature of the slot and the interior surface configuration of the nozzle bore adjacent the edges of the outlet slot port.

Referring to FIG. 9, the arcuate curvature of inner surface **112** of the nozzle bore adjacent the elongated outlet slot **84** causes the spray pattern to be in an arc with an angle of "X," and uniform spray density. It was determined by experimentation that by controlling the inner bore surface configuration with respect to the slot, the output spray fan could actually be accurately controlled. Variations are achieved in the spray fan by employing modifications as nozzles **82***b*, **82***c*, and **82***d* in FIGS. 10, 11, and 12. The output spray is composed of suspended particles traveling in a straight line which is perpendicular to the bore surface integral adjacent the portion of the exit slot from which the particle emerged. Thus, by controlling each integral of the bore surface to provide a composite surface of predetermined shape, the thousands of paint particles are controlled in their re-

spective exit paths. This results in accurate control of the spray fan configuration and density of each portion thereof.

Therefore, the nozzle **82***a* in FIG. 9 provides a uniform fan spray density. The nozzle in FIG. 10 provides a uniform density, but at a different over-all angle of application. The nozzle in FIG. 11 has two zones, each of uniform spray density, but spaced by an angular area of no spray due to the V juncture of the two flat bore surfaces **115** and **115'**. Nozzle **82***d* in FIG. 12 illustrates the applicability of the principles to a smaller bore.

The spray means **12** is elevated by a unique supplemental bracket and hoist lines **16**. These line elements, ropes or wires are attached to the opposite sides of the housing shell to eyes **120**. The lines pass upwardly around the two guide pulleys **122** and **124** which are rotatably attached to the outer upper ends of the two pivotal arms **126** and **128** of bracket **14**. This bracket includes a T-shaped central body. The downward leg **130** of the T includes a loop **132** on the bottom end thereof. The cross piece **134** of the T includes a central loop **136** on the top center thereof. These loops are for receiving the conventional flag pole rope **140** (FIG. 1). The flag pole rope, as usual, extends from the conventional small pulley **141** immediately below the ball **142** at the top of the pole, down to the windup bar **144** at the bottom of the pole to retain the flag pole rope in position. A knot or clip on the rope (normally used to elevate the flag) hooks to the upper eye or loop **136**. The rope passes through the lower loop **132** to vertically stabilize the bracket during its elevation and lowering.

Mounted to the ends of the cross member **134**, and normal with respect thereto, is a pair of horizontal sleeves **150** and **152**. A pair of pins **154** and **156** extend through these. One end of each pin is attached to one of the respective pivotal arms to allow the arm to rotate with respect to its sleeve. The opposite ends of the two pins have brackets **160** and **162** mounted thereto (FIGS. 5 and 6). These brackets are interconnected by a link **170**, and extend in opposite directions so that pivotal movement of the arms occur simultaneously, with similar ends moving toward or away from each other.

The upper ends of the arms are normally biased toward each other (to the position shown in phantom lines in FIG. 5) by a tension spring **174**. This extends between one of the brackets, for example **162**, and an eyelet **176** attached to the body and preferably the cross member **134**. This biased inward movement is purposely limited by a special stop **186** (FIG. 6) attached to cross member **134** so that the arms will never quite be vertically upright, but will always tilt slightly outwardly with the upper ends slightly divergent. Thereby, the arms are always subject to being spread to the clamping position as illustrated in solid lines in FIG. 5 when weight is applied to pulleys **122** and **124** supported on the upper outer ends of the arms. Thus, the arms move from a position of slight upward divergence to a second position of wide upward divergence.

Since the pivotal connection is intermediate the ends of the arms, the lower inner ends move toward each other or converge when the upper ends move away from each other in divergent fashion. Attached to these lower inner ends is a cooperative clamping means. Each portion of the clamping means includes a jaw **190**, generally U-shaped in configuration, having divergent legs to clamp against and around the pole. Each jaw is attached to a threaded stud **192** which extends through the lower end of the respective arm for adjustment with respect thereto. The pair of jaws together form a clamping means when forced against the flag pole.

OPERATION

To paint a flag pole with this novel apparatus, the bracket **14** must first be elevated to the top of the pole as illustrated in FIG. 1. This is achieved by attaching the conventional flag pole rope to the top eyelet **136** on the bracket and then passing it down through the lower eyelet **132** to maintain the bracket upright. Ropes **16** are placed around pulleys **122** and **124**, and attached with considerable slack to loops **120** on the housing shell. The bracket is near the lower end of the pole, and arms **126** and **128** are in the central unclamped position illustrated in phantom in FIG. 5. The operator then pulls on the conventional flag pole rope **140** to elevate the bracket to the top of the pole beneath ball **142** as in FIG. 1. When the bracket is at the top of the pole, the flag pole rope is wound around wing **144** in conventional fashion to maintain it in position. At this position, it will be noted that the arms of the bracket extend considerably above the top of the pole. The bracket itself is very lightweight, being only a matter of a pound or so at most so that no real stress is placed on the flag pole pulley at the top of the pole.

Next, the heavier painting equipment including the housing and paint cans are ready to be hoisted. The spray means **12** is readied by inserting the conventional paint spray cans preferably with the modified nozzle as shown in FIG. 8 in each of the receptacles. The cover elements **70** are pivoted over the top of the cans and tightened by the wing nuts shown. The two half shells are then placed around the pole so that the pole is between rollers **34**. The tie elements **32** are attached to the shells as necessary. Also, if desired, the cover elements **40**, **42**, **54** and **56** are attached on the top and bottom of this housing. The unit is then ready to be hoisted.

As the operator pulls on the two ropes forming the tie elements **16**, the weight of the paint spray means **12** is applied to pulleys **122** and **124** at the top ends of the bracket arms **126** and **128**. This weight causes the arms to pivot around their pins **154** and **156** and sleeves **150** and **152** against the bias of spring **174**. The outer ends of the arms move downwardly and outwardly in upward divergent fashion. This causes the lower inner ends of the arms to move inwardly toward each other. Consequently, the clamping elements **190** grip against the pole. The more weight that is applied to the pulleys **122** and **124** by the spray means, the greater the gripping action. Consequently, the entire weight of the paint spray means is applied directly to the pole itself, in balanced fashion, through this special bracket.

Normally, the pole is painted from top to bottom. Therefore, initially, the spray means is hoisted completely to the top of the pole. Since the bracket arms extend above the ball, the housing can be elevated to a position easily adjacent or even slightly above the ball. As the operator begins to lower the spray means, he actuates valve **102** to cause pressurized air through conduit **96** to elevate each of the spray cans by inflating the elevating means **94**. This causes the nozzles on the cans to be depressed, thereby spraying the paint toward the center of the housing and thus onto the pole. As the spray means is lowered gradually at the desired rate, the pole is completely sprayed by the spray cans by maintaining the cans elevated. The roller elements **34** guide the structure down. There is practically no tendency whatever for the device to tilt due to the balanced suspension with proper control of lines **16**.

If desired, the top part of the pole may be painted one color as the unit is lowered part way. Then, the spray can be stopped, the unit lowered to the ground, and different colored paint spray cans inserted in the receptacles. Then by raising the unit to the same position and actuating the spray, the lower part of the pole can be painted a different color. Variations on this are obvious.

In the very broad aspects of the inventive concept set forth, it is conceivable that one of the receptacles **66** as shown at **66***a* in FIG. 13, can be employed independently. It is useful for painting such items as TV antennas, guy wires and the like. This receptacle includes all of the essential components illustrated in FIG. 4 or FIG. 7, includ-

ing the elevating inflatable floor member **94** or **98** in the bottom of the receptacle, and a pressure conduit **96** leading therefrom. The top of the receptacle includes a bar **72** as previously. It receives the pressurized paint spray can as in FIGURE 8. The front of the receptacle is cut away at the top as previously to allow the paint to spray out.

It is mounted to one end of a telescoping pole **200** of interfitting sections, or the equivalent. This is attached to the can preferably by a hinge connection at **202** to enable the operator to stand a few feet away from the pole while still keeping the can and receptacle in a vertical position. The pressurized conduit **96** is connected either to a manually operable bellows to cause a pressure pulse sufficient to elevate the can, or through a valve to a source of pressure as illustrated in FIG. 1. With this apparatus, an operator can merely hoist the receptacle and spray can along an antenna **206**, or a guy wire **208**, or any other like equipment to paint it. It is realized that this simplified apparatus does not have many of the unique features of the complete flag pole painting apparatus previously described. However, this sub-combination of the complete combination is believed to be unique in itself and fills a definite need in the field.

It is conceivable that certain additional advantages not specifically recited will occur to those in the art upon studying the foregoing form of the invention and the particular preferred construction illustrated. Also, it is conceivable that certain minor structural modifications can be made to achieve the same results with equivalent structures while not employing the exact structural details illustrated. Consequently, this invention is to be limited not by the particular preferred structure illustrated, but only by the scope of the appended claims and the reasonably equivalent structures to those defined.

We claim:

1. Pole spraying apparatus comprising: hoistable suspension bracket means adapted to be hoisted up a flag pole, and including clamping means shiftable from a first unclamped position to a second pole clamping position to anchor it on the pole and thereby enable it to support spray means therebeneath; spray means configurated to be movable up and down a pole, and separate from said bracket means to be movable independently thereof; manually actuable suspension elements depending from said bracket means and suspendably supporting said spray means at selected vertical positions on a pole, and said suspension elements extending down from said bracket means to allow manual raising and lowering of said spray means from said bracket means by a person at the base of the pole.

2. The apparatus in claim **1** wherein said suspension elements comprise a plurality of tension elements extending from opposite sides of said spray means up to opposite sides of said bracket means and then depending therefrom to extend to the base of the pole for manual activation thereof.

3. The apparatus in claim **1** wherein said bracket means includes rope attachment means for attachment to a conventional flag pole rope, and includes oppositely positioned stabilizing arms projecting outwardly and vertically upwardly to be spaced from said attachment means to receive the suspension elements and maintain said bracket means upright on the pole.

4. Apparatus for using pressurized spray cans for spraying vertical poles, comprising: suspension bracket means hoistable on a pole, including clamping means shiftable from a first unclamped position to a second pole clamping position to anchor it on the pole; spray means including a peripheral housing configurated to surround a pole, a plurality of spray can-receiving receptacles mounted around the inner periphery of said housing and directed toward the center thereof to receive pressurized spray cans therein, spray activating means adjacent each of said receptacles, and spray control means extending from said activating means to the ground for controlled remote actuation of the spray cans; a plurality of suspension elements depending from said bracket means and suspendably supporting said spray means; and said suspension element extending to the ground to allow raising and lowering of said spray means from said bracket means, whereby said spray means is firmly supported in balanced condition during spraying of a pole while moved vertically.

5. The apparatus in claim **4** wherein a plurality of spray cans are in respective ones of said receptacles, and each has an elongated nozzle with an external periphery, an internal bore, a liquid inlet to said bore and an outlet port from said bore to said periphery; said outlet port being an oblong slot extending along a segment of said periphery to form an angle of determined amount; and said bore having an internal surface configuration adjacent said slot normal to the desired area of spray pattern.

6. Pole spraying apparatus comprising: suspension bracket means; spray means supported by said suspension bracket means but being structurally separate therefrom to move independently thereof; said spray means including a peripheral housing, a plurality of spray can-receiving receptacles mounted around the inner periphery of said housing and directed toward the center thereof to receive pressurized spray cans therein, spray activating means adjacent each of said receptacles, and control means extending from said actuating means to the ground for controlled remote actuation of the spray cans; a plurality of suspension elements depending from said suspension bracket means and suspendably supporting said spray means; said suspension elements extending to the ground to allow raising and lowering of said spray means from said suspension bracket means, each of said receptacles including a retention element extending over the central top thereof for contact with a nozzle of a conventional spray can in said receptacle, and said actuating means comprising can lifting means in the base of each receptacle to elevate the can and contact its nozzle with said retention elements for depression and actuation of the nozzle; said can lifting means being an inflatable chamber having pressure conduit means extending therefrom to the ground for controlled inflation thereof.

7. Pole spraying apparatus comprising: a suspension bracket, spray means suspended from said suspension bracket; said bracket including a plurality of shiftable arms having pole clamping means on one end and suspension line guide means on the opposite end; suspension lines extending from said spray means up through said guide means and down to the ground for hoisting control of said spray means; said arms being shifted by the weight of said spray means on said lines to move said clamping means into clamping engagement with a pole, enabling said spray means to be hoisted and lowered from said bracket.

8. The apparatus in claim **7** wherein said bracket includes attachment means enabling attachment and hoisting of said bracket by a flag pole rope.

9. The apparatus in claim **7** wherein said arms are pivotally attached to a cross member and are interconnected by a link to pivot together, causing said shift.

10. The apparatus in claim **9** wherein said arms are biased to a non-clamping position by biasing means on said cross member.

11. Apparatus for using pressurized spray cans for spraying vertical poles, comprising: suspension means including a suspension bracket and lines, and spray means suspended from said suspension means; said bracket including a plurality of shiftable arms each having pole clamping means on one end and suspension line guide means on the opposite end; said suspension lines extending from said spray means through said guide means and down to the ground for hoisting control of said spray means; said lines being symmetrically arranged with respect to said spray means and said bracket whereby said spray means is firmly supported in balanced condition dur-

ing spraying of a pole while moved vertically; said arms being shifted by the weight of said spray means on said lines to move said clamping means into clamping engagement with a pole, enabling said spray means to be hoisted and lowered from said bracket; said spray means including a peripheral housing, a plurality of spray can-receiving receptacles mounted around the inner periphery of said housing and directed toward the center thereof to receive pressurized spray cans therein, spray actuating means adjacent each of said receptacles, and control means extending from said actuating means to the ground for controlled remote actuation of the spray cans.

12. The apparatus in claim **11** wherein said receptacles have pressurized spray cans therein, and each of said cans includes a depressible top nozzle and each of said receptacles includes a retention element extending over the central top thereof for contact with the nozzle of a spray can in said receptacle, and said actuating means comprises can lifting means in the base of each receptacle to elevate the can and contact its nozzle with said retention element for depression and actuation of the nozzle.

13. The apparatus in claim **12** wherein said cam lifting means is an inflatable chamber having pressure conduit means extending therefrom to the ground for controlled inflation thereof.

14. Pole spraying apparatus comprising: suspension bracket means hoistable on a pole, and including clamping means shiftable from a first unclamped position to a second pole clamping position to anchor it on the pole; spray means including a peripheral housing, a plurality of spray can-receiving receptacles mounted around the inner periphery of said housing and directed toward the center thereof to receive pressurized spray cans therein, spray actuating means adjacent each of said receptacles, and control means extending from said actuating means to the ground for controlled remote actuation of the spray cans; each of said receptacles includes a retention element extending over the central top thereof for contact with the nozzle of a spray can in said receptacle, and said actuating means comprises can lifting means in the base of each receptacle to elevate the can and contact its nozzle with said retention element for depression and actuation of the nozzle; a pressurized spray can in each of said receptacles, including nozzles beneath said retention elements; the outlet opening in each of said nozzles being directed generally toward the center of said housing, each nozzle having a configuration to create a fan shaped spray.

15. The apparatus in claim **14** wherein said housing includes a plurality of stabilizing guide elements extending across the housing to contact the pole during vertical movement.

16. The apparatus in claim **15** wherein said elements include four rollers defining a central pole-receiving orifice.

17. A pressurized spray unit for poles, guy wires, antennas and the like comprising: a pressurized spray can receptacle; a pressurized spray can in said receptacle, can elevating means in the bottom of said receptacle; remote control means extending from said elevating means to allow actuation thereof from the ground; nozzle abutment means at the top of said receptacle for actuating the can nozzle when the can is elevated; and hoisting means operably associated with said receptacle for raising and lowering it while the can nozzle is remotely actuated; said elevating means being an inflatable chamber and said remote control means including pressurized conduit means extending from said chamber to the ground.

18. The unit in claim **17** wherein a source of pressure and a control valve are connected to said conduit means.

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