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Wentzell

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[54] **REMOTE SPRAY DEVICE**

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[52] **U.S. Cl.** **222/174,** 239/280

[51] **Int. Cl.** **A62c 31/24**

[58] **Field of Search** 222/174, 191, 180, 469, 222/470, 472, 473, 465, 164, 167; 239/280, 239/280.5, 281, 375, 532

[56] **References Cited**

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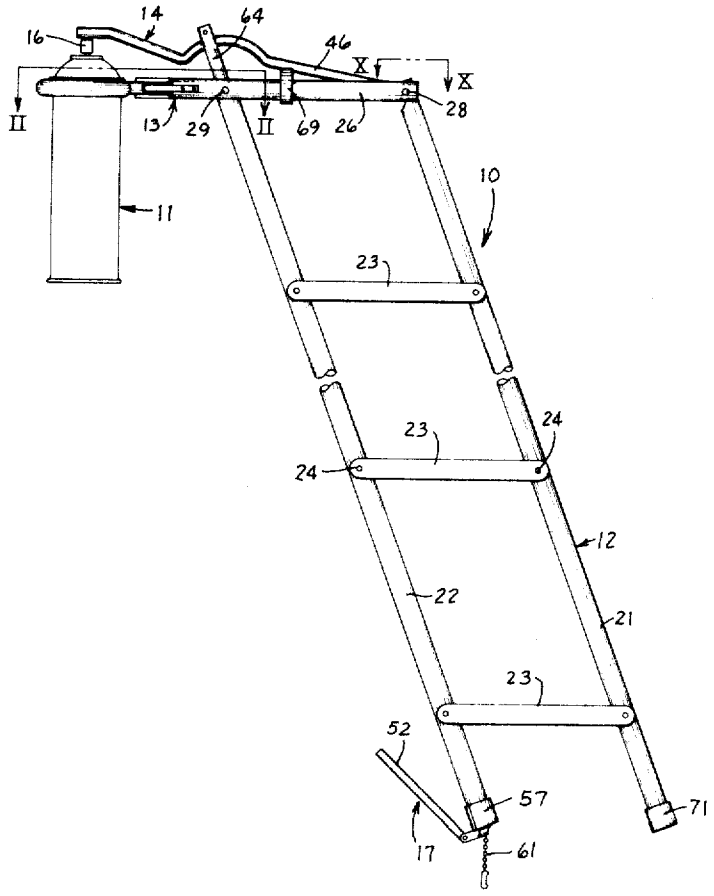
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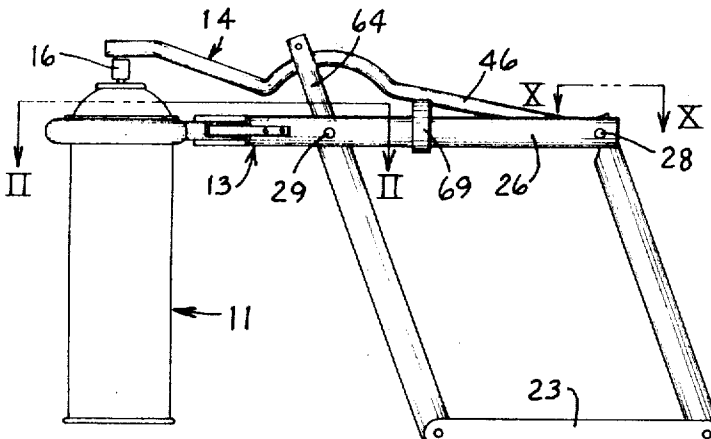
Primary Examiner—Robert B. Reeves
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[57] **ABSTRACT**

A device for remotely holding and actuating an aerosol container, said device including a frame provided with a container support structure adjacent the upper end thereof and an actuating mechanism disposed for coaction with the movable valve control element of the container. A manually-actuated control mechanism is disposed adjacent the lower end of the frame and is interconnected to the actuating mechanism for permitting selected movement of the control element. The frame is preferably constructed as a pivotably connected parallelogram linkage for permitting a controlled swinging or oscillation of the container independent of the actuating mechanism.

7 Claims, 12 Drawing Figures





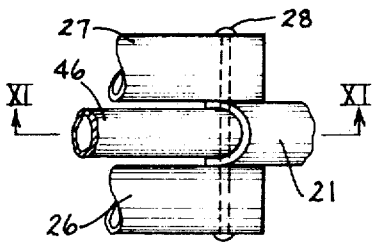


Fig. 10

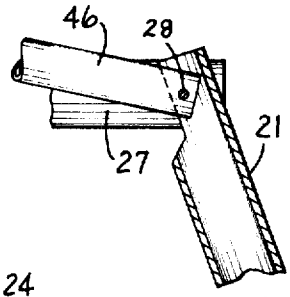


Fig. 11

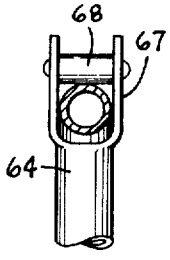


Fig. 12

Fig. 1

Fig. 9

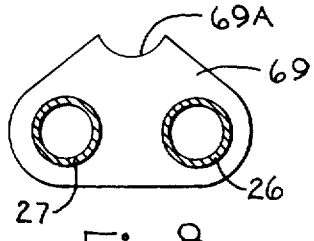


Fig. 8

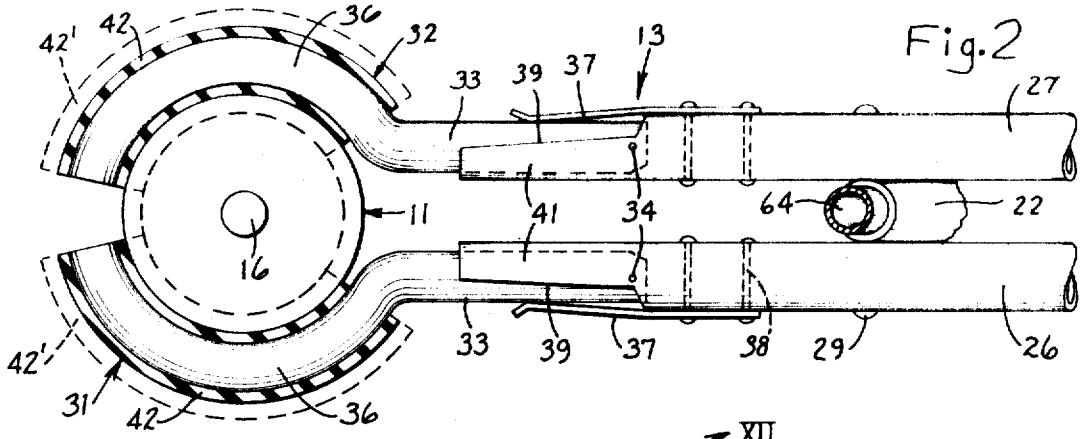


Fig.2

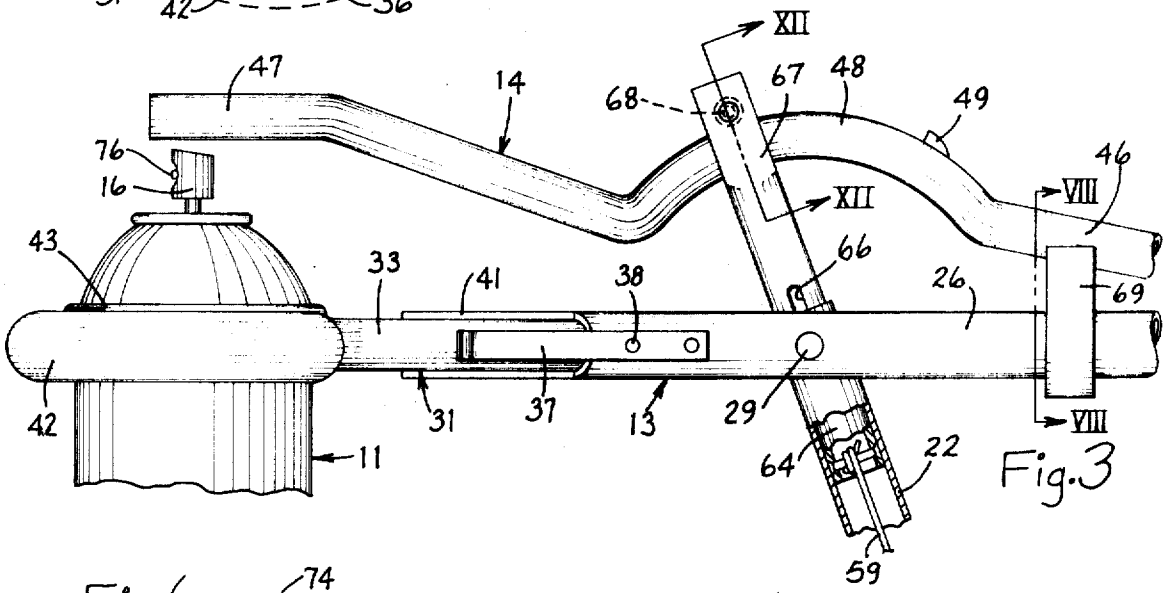


Fig.3

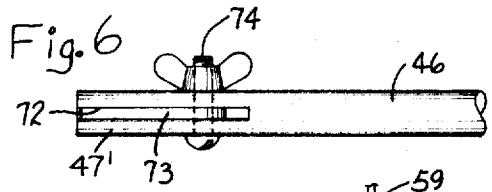


Fig.6

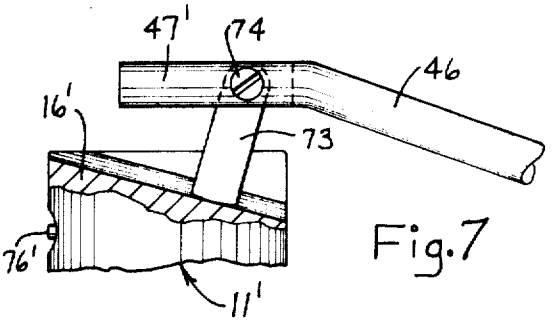


Fig.7

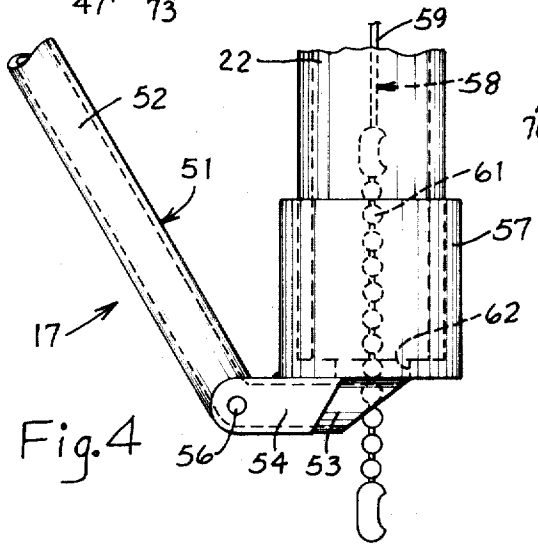


Fig.4

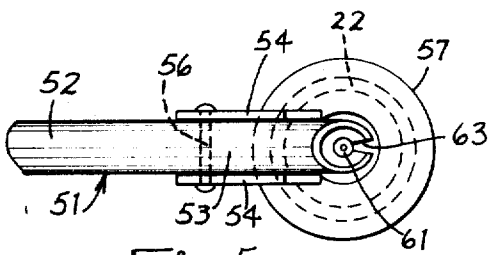


Fig.5

REMOTE SPRAY DEVICE

FIELD OF THE INVENTION

This invention relates to a device for remotely supporting and actuating a conventional aerosol container and, in particular, to an improved device which permits the container to be moved with a sweeping-type motion through a large angular extent while simultaneously permitting the discharge of the contents of the container to be controlled independently of the motion of the container.

BACKGROUND OF THE INVENTION

Aerosol containers utilizing a pressurized gas for permitting dispensing of various types of products are extensively utilized so that many different types of products are now available in this form. For example, paints, insecticides and many other products are commonly packaged within so-called "spray cans." However, inasmuch as the pressure capacity of conventional spray cans is limited, the spray as discharged from the can is necessarily of limited force so that the stream of discharged product can be discharged only through a limited distance. This thus necessarily requires that the user of the can, which is normally manually held, be positioned relatively close to the article or object which is to be sprayed. This is obviously undersirable and sometimes difficult when the object to be sprayed is disposed at a rather high or remote location. The user thus often has to utilize ladders or the like in order to permit positioning of the spray can in the immediate vicinity of the selected area to effectively spray same.

Further, in some situations it is undesirable for the user to be positioned in the immediate vicinity of the sprayed area. For example, in the case of a nest or hive of insects, it is obviously undesirable for the user to hold the can of insecticide in the immediate vicinity of the nest since this places the user in jeopardy of being stung or bitten by the aroused insects. In this situation, usage of a spray can for the spraying of insects can more desirably be carried out by use of an immediate device which permits the user to be located at a rather remote distance from the spray can.

Accordingly, in order to overcome the above-mentioned problems, several devices have been devised which permit a spray can to be located at a remote distance from the user, with the spray can then being remotely actuatable to permit the desired spraying operation to be performed. However, these known devices have not possessed the versatility and adaptability to enable the can to be selectively moved into the desired orientation, such as by permitting the can to be angularly tilted into an optimum spraying angle, in a manner which is independent of the actuation of the spray nozzle. Further, these known devices have not possessed any structure permitting the can to be moved, such as with a sweeping motion, while at the same time permitting the spray nozzle of the can to be independently controlled.

Accordingly, it is an object of the present invention to provide an improved device for holding and actuating a pressurized spray container at a location remote from the user, which improved device overcomes the above-mentioned disadvantages. Specifically, it is an object of the present invention to provide:

1. An extension device, as aforesaid, which permits a conventional pressurized spray container to be supported in a location which is remote from the user while at the same time enabling the user to selectively control the discharge of the container contents.
2. A device, as aforesaid, which permits the user to selectively orient the container when in said remote location in any one of several different positions to provide for optimum spraying, which angular orientation of the container is accomplished independently of the actuation of the spray nozzle.
3. A device, as aforesaid, which permits the angular orientation of the container to be continuously varied, if desired, such as by permitting the container to be continuously moved with an oscillatory motion, while at the same time permitting the spray nozzle to be selectively controlled independently of the oscillatory motion of the container.
4. A device, as aforesaid, which utilizes a parallelogram linkage of substantial length to enable the container to be located a substantial distance from the user.
5. A device, as aforesaid, which permits a plurality of extension sections to be readily coupled together to increase the overall length of the device to thus enable the container to be positioned and actuated at a location which is a substantial distance from the user.
6. A device, as aforesaid, which can be manufactured in a simple and economical manner by utilizing conventional structural elements, such as aluminum tubing, which is extremely durable in operation, which is light in weight to facilitate handling and usage of same, and which is relatively small and compact to facilitate storage.

Other objects and purposes of the present invention will be apparent to persons acquainted with devices of this type upon reading the following specification and inspecting the accompanying drawing.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side elevational view of a remote spray device constructed according to the present invention.

FIG. 2 is an enlarged fragmentary view of the jaw structure taken substantially along the line II—II of FIG. 1.

FIG. 3 is an enlarged, fragmentary side elevational view illustrating the jaw structure containing an aerosol container therein and the coaction of same with the actuating mechanism.

FIG. 4 is an enlarged, fragmentary side elevational view illustrating the manual control mechanism disposed adjacent the lower end of the device.

FIG. 5 is a bottom view of the structure as appearing in FIG. 4.

FIG. 6 is a fragmentary top view illustrating a modified construction of the forward end of the actuating lever.

FIG. 7 is a side elevational view of the structure illustrated in FIG. 6 and illustrating the manner in which the device coacts with an aerosol container of the type having a recessed valve control button.

FIG. 8 is a view taken along the line VIII—VIII of FIG. 3.

FIG. 9 is a side elevational view of an extension section which can be coupled to the device illustrated in FIG. 1 for increasing the length thereof.

FIG. 10 is an enlarged, fragmentary top view taken substantially along the line X—X of FIG. 1.

FIG. 11 is a sectional view taken along the line XI—XI of FIG. 10.

FIG. 12 is a fragmentary sectional view taken along the line XII—XII of FIG. 3.

SUMMARY OF THE INVENTION

The objects and purposes of the present invention are met by providing a remote spray device which includes an elongated frame which is adapted to be manually gripped at one end thereof and is provided with a jaw support structure at the other end thereof for releasably supporting a conventional pressurized spray container. The other end of the frame is also provided with an actuating device in the form of an actuating lever which is disposed for engaging the valve control element on the container. The actuating lever is in turn connected to a manually actuated control member which is disposed adjacent one end of the frame for permitting the contents of the container to be selectively discharged. The frame preferably comprises an elongated parallelogram linkage which is of pivoted construction to enable the opposite parallel frame members to be linearly displaced relative to one another for causing a corresponding angular oscillation of the jaw structure and of the spray container, which angular osoillation of the container occurs in a manner which is independent of the actuating lever so that the discharge of the container contents is controlled independently of the angular displacement of the container.

DETAILED DESCRIPTION

FIG. 1 illustrates therein an extension device 10 for remotely holding and actuating a conventional aerosol spray container 11. The device 10 includes a movable frame 12 which is constructed substantially as a parallelogram linkage, same being provided with container support structure 13 adjacent the upper end thereof. Actuating mechanism 14 is disposed in the vicinity of the support structure 13 for permitting the valve control element 16, such as a spray head, to be moved when desired for permitting the contents of the container 11 to be selectively discharged. The device 10 further includes a manual control assembly 17 disposed adjacent the lower end of the frame 12 and interconnected to the actuating mechanism 14 for controlling the movement of the control element 16.

The frame 12 includes a pair of elongated substantially parallel tubular frame members 21 and 22 interconnected by one or more intermediate connecting links 23, three such links being illustrated in FIG. 1. The links 23 are disposed substantially parallel to one another and each have their opposite ends pivotably connected to the frame elements 21 and 22, such as by hinge pins or rivets 24.

The container support structure 13 is pivotably connected to the upper end of the frame 12 and includes a pair of substantially identical jaw support members 26 and 27 (FIG. 2) extending between and disposed on opposite sides of the frame elements 21 and 22. The rearward ends of the jaw support members 26 and 27 are positioned adjacent and on opposite sides of the upper end of the frame element 21 and are pivotably connected thereto as by a rivet 28. The jaw support members 26 and 27 are also pivotably connected to the upper end of the frame element 22, as by a further rivet 29. The jaw support members 26 and 27, due to the pivotal connections 28 and 29, are substantially parallel to the intermediate links 23.

The jaw support members 26 and 27 each extend outwardly beyond the frame element 22 and are provided with jaws 31 and 32, respectively. The jaws 31 and 32 are disposed in opposed relationship to one another to enable the jaws to partially surround a conventional cylindrical container 11, substantially as illustrated in FIGS. 2 and 3. The jaws 31 and 32, except for being disposed in opposed relationship to one another, are otherwise identical and thus only the jaw 31 will be described in detail.

As shown in FIGS. 2 and 3, the jaw 31 includes a substantially straight shank portion 33 which at its rearward end is pivotably connected at 34 to the associated jaw support member 26. The other end of the shank portion 33 is fixedly, here integrally connected to an arcuate jaw portion 36 which extends through a substantial angle which approaches but is less than 180°. The arcuate configuration of the jaw portion 36 readily accomodates the conventional cylindrical configuration of a standard spray container. To enable the jaw portion 36 to be moved into gripping engagement with the container 11, there is provided a platelike leaf spring 37 fixedly anchored to the jaw support member 26, as by means of rivets 38. The leaf spring 37 bears against the shank portion 33 and normally urges the jaw 31 to pivotally swing about the pivot 34 in a direction toward the periphery of the container 11 (clockwise in FIG. 2). The other jaw 32 is similarly resiliently urged by a spring 37 inwardly toward the container. The springs 37 thus resiliently urge the jaws 31 and 32 inwardly toward one another to permit the container 11 to be snuggly gripped therebetween. To limit the inward swinging movement of the jaws 31 and 32 while at the same time permitting the jaws 31 and 32 to be swung outwardly away from one another, the forward ends of the jaw support members 26 and 27 are each recessed at 39, thereby forming a substantially semicircular stop 41. The stop 41 projects outwardly beyond the pivot 34 and engages the straight shank portion 33 for limiting the inward swinging movement of the jaws 31 and 32. However, the recesses 39 enable the jaws 31 and 32 to be freely pivotally moved outwardly away from one another about their respective pivots 34.

To increase the gripping effect of the jaws on the spray container 11, the arcuate jaw portions 36 are preferably provided with gripping sleeves 42 disposed in surrounding relation thereto, which sleeves are preferably constructed from a rubberlike material, such as rubber, plastic or the like, to enable the frictional engagement of the jaws with the container 11 to be increased. Further, the sleeves 42 are preferably slidably removable from the arcuate jaw portions 36 and, if desired, can be replaced by sleeves having a different wall thickness, such as illustrated by the sleeves 42' in FIG. 2, thereby permitting the jaw structure to more readily accommodate containers 11 of different external diameters.

Considering now the actuating mechanism 14 (FIGS. 1 and 3), same includes an elongated actuating lever 46 which has its rearward end positioned within and pivot-

ally connected to the notched upper end of the frame element **21** (FIGS. **10** and **11**), as by the rivet or pivot **28**. The free end of the actuating lever **46** is provided with a button engaging portion **47** positioned so that same is disposed substantially directly over the valve control element **16**. The actuating lever **46** still further includes an arcuate cam portion **48** formed intermediate its ends, which cam portion is disposed in the immediate vicinity of the upper end of the frame element **22** and is generated about a center defined approximately by the pivot **29**. The cam portion **48** is further provided with an abuttment or stop **49** adjacent the rearward end thereof.

The actuating lever **46** illustrated in FIG. **3** is preferably formed from an elongated tubular member and is thus particularly suitable for use with containers **11** which utilize a valve button or control element **16** which is readily accessible, such as in those types of containers which utilize a valve button which extends upwardly above the upper end of the can and is pressible downwardly for permitting discharge of the container contents. However, some conventional aerosol containers do not utilize this type of valve control element, but rather utilize a protected nozzle structure so that the control button is recessed within the cap structure of the container, as illustrated by the recessed button **16'** on the container **11'** (FIG. **7**). In this embodiment, the actuating lever **46** is preferably provided with a modified button engaging portion **47'** on the free end thereof which, as illustrated in FIGS. **6** and **7**, is of a bifurcated construction in that the portion **47'** has an elongated recess **72** extending inwardly from the free end thereof, which recess receives therein a platelike actuating finger **73**. The actuating finger **73** is fixedly but swingably connected to the actuating lever **46** by means of a releasable fastening device **74**, which fastening device **74** in the illustrated embodiment comprises a threaded bolt having a wing nut thereon. Utilization of the button engaging portion **47'** thus enables the actuating lever **46** to be usable with containers of the type disclosed in both FIGS. **3** and **7** since, when the device is usable with the container illustrated in FIG. **3**, then the finger **73** is swung upwardly into the recess **72** and fixedly held in position by the fastening device **74**.

Considering now the control assembly **17**, and particularly the structure as illustrated in FIGS. **4** and **5**, same includes a substantially L-shaped control member or trigger **51** having a pair of fixedly, hereintegrally, connected arm portion **52** and **53**. The arm portion **53** is disposed between a pair of substantially parallel flanges **54**, which flanges in turn pivotally support the trigger **51** by means of a hinge pin or rivet **56** located at the junction of the arm portions **52** and **53**. The flanges **54** in turn are fixedly secured to the axial end face of a cup-shaped cap or cover **57** which is removably mounted on the lower end of the tubular frame element **22**. The cap **57** is preferably snuggly engaged with the frame element **22** so as to be frictionally held thereon, while at the same time enabling the cap **57** to be removed from the frame element **22** when desired.

The trigger **51** is operatively connected to the actuating lever **46** by means of an elongated force transmitting element **58** for permitting pivotal movement of the lever **46** in response to pivotal movement of the trigger **51**. The elongated force transmitting element **58** extends through the hollow interior of the frame element **22**. In the illustrated embodiment, the force transmitting element **58** includes an elongated flexible cord **59** extending through the frame element **22** and fixedly interconnected at its lower end to a conventional beaded cord or chain **61**. The lower end of the beaded cord **61** extends through an opening **62** formed in the cap **57**. The exposed end of the beaded cord **61** is in turn releasably connected to the arm portion **53** of the trigger **51**. For this purpose, the arm portion **53** is provided with a substantially V-shaped notch **63** formed in the free end thereof, which notch enables the beaded cord **61** to be moved laterally into the notch so that a pair of adjacent balls or beads on the cord **61** are thus held on opposite sides of the wall defining the arm portion **53**. This structure permits the cord **61** to be anchored to the trigger **51**, while at the same time the cord can be easily detached from the trigger **51** to permit the end cap **57** to be removed or to permit the tension in the force transmitting element **58** to be selectively adjusted.

The upper end of the force transmitting element **58** is anchored to a slide rod **64** which is slidably disposed within and projects outwardly from the upper end of the frame element **22**, as illustrated in FIG. **3**. The slide rod **64** has an elongated slot **66** formed therein and through which projects the body of the rivet **29**, whereby the slide rod **64** is thus connected to but is slidable relative to the frame element **22**. The upper end **67** of the slide rod **64** is provided with a forked or bifurcated construction so as to straddle the actuating lever **46**. A cam roller **68** is rotatably supported on the slide rod **64** adjacent the free end thereof, said cam roller **68** being disposed in rolling engagement with the upper outer periphery of the arcuate cam portion **48**.

To control the position of the actuating lever **46** relative to the valve control element **16**, there is additionally provided a resilient tension pad **69** (FIGS. **3** and **8**) supported on the jaw support members **26** and **27** and positioned for engagement with the actuating lever **46**. The pad **69** is positioned between the frame elements **21** and **22** and is preferably constructed of a rubberlike material so that same will snuggly engage the jaw support members **26** and **27** so as to remain in a selected position. However, the pad **69** can be manually slidably displaced axially of the jaw support members **26** and **27** so as to position same at a desired location between the pivots **28** and **29**. The pad **29** preferably has a recess **69A** formed in the upper edge thereof which is adapted to conform and receive therein the actuating lever **46**. The purpose and mode of operation of the pad **69** will be explained in greater detail hereinafter.

OPERATION

The operation of the device constructed according to the present invention will be briefly described to insure a complete understanding thereof.

Assuming that the device is in the condition illustrated in FIG. **1**, but that the container **11** has not yet been placed therein, then the user of the device manually spreads the jaws **31** and **32** outwardly away from one another in opposition to the urging of the springs **37**. A container **11** is then inserted between the jaws. Release of the jaws **31** and **32** permits the jaws to automatically swing inwardly towards one another so as to close around and grip the container, the container being positioned so that the jaws engage same directly below the upper flange **43**. The user then manually ro-

tates the container **11** so that the nozzle **76** associated with the control element **16** points outwardly away from the device (leftwardly in FIGS. **1–3**). The user then slidably moves the tension pad **69** along the jaw supports **26** and **27** until the actuating lever **46**, which lever bears against the pad **69**, is positioned so that the end portion **47** thereof is disposed directly above and almost in engagement with the valve control element **16**. The user then grips the lower end of the flexible element **58** and withdraws the excess length of same so as to impose a tension on the element **58**, whereupon the user then slips the beaded cord **61** into the V-shaped notch **63** so that the element **58** is maintained under a light tension. The device **10** is then ready for use.

The user can spray a desired remote area merely by gripping the lower end of the frame elements **21** and **22**, and positioning the device **10** so that the container **11** is directed towards the desired area. When it is desired to spray, the user then grips the trigger **51** and manually squeezes the arm portion **52** thereof inwardly toward the frame element **22**. This causes a downward displacement of the force transmitting element **58**, whereupon the slide rod **64** is slidably moved downwardly into the frame element **22**. The cam roller **68** thus engages the upper surface of the cam portion **49** and causes the actuating lever **46** to be cammed downwardly (counter-clockwise about the pivot **28** as illustrated in FIG. **1**) so that the end portion **47** of the lever **46** engages and depresses the valve control element **16**. This opens the valve of the container and permits the contents of the container to be discharged from the nozzle **76** thereof.

During the downward movement of the actuating lever **46**, the resilient pad **69** is slightly compressed so that when the spraying operation is completed and the manual force imposed on the trigger **51** is released, the resilient pad **69** will cause the actuating lever **46** to again swing upwardly, thereby releasing the valve control element **16** and permitting the valve of the container **11** to close due to the internal spring structure contained within the container. The return of the actuating lever **46** also causes the slide rod **64** and force transmitting element **58** to be pulled upwardly so that the trigger **51** is pivotally returned to its release position substantially as illustrated in FIG. **1**.

In situations where it is desired to vary the angular orientation of the spray head **16** relative to the user, this can be simply done by the user moving the frame element **21** upwardly and downwardly relative to the frame element **22**. Specifically, the user will manually grip the frame element **21** and **22** adjacent the lower ends thereof. Accordingly, by moving the frame element **21** upwardly or downwardly relative to the frame element **22**, which movement is permitted due to the parallelogram linkage and the pivotal connections therebetween, the user can likewise angularly tilt the support structure **13** and the container **11** mounted thereon. For example, if it is desired to point the nozzle of the container **11** slightly downwardly, then the user will push the frame element **21** upwardly relative to the frame element **22**, which will thus cause all of the intermediate connecting members **23** and the container support structure **13** to be angularly displaced about the pivots associated with the frame element **22**. In this manner the angular orientation of the container **11** can thus be easily and selectively varied.

Further, if it is desired to move the can with a vertical sweeping motion of limited range, then this can be accomplished simply by continually moving the frame element **21** alternately up and down relative to the frame element **22**. This thus causes a corresponding vertical oscillation of the container **11** about the pivot **29**. Further, while this continual oscillation of the container is taking place, the user can continually discharge the contents of the container merely by depressing the trigger **51** so as to actuate the lever **46**, thereby permitting the contents of the container **11** to be continually sprayed while the container is simultaneously undergoing a vertical sweeping motion. In this regard, it should be noted that the actuation of the spray head **16** by the actuating lever **46** is independent of the oscillatory motion of the container since the actuating lever **46** and the container support structure **13** are both pivoted about the rivet **28** and, due to the cam portion **48** being generated about the pivot **29** as a center, the support structure **13** and the actuating device **14** both effectively pivot as a unit about the pivot **29**. Thus, the relative position of the actuating lever **46** and the support structure **13** is not effected by and is totally independent of the oscillatory motion caused by displacing the frame element **21** relative to the frame element **22**.

MODIFICATION

In the event that the basic extension device **10** illustrated in FIG. **1** is of insufficient length to enable the user to position the container **11** at the desired remote location, then the device **10** can be readily increased in length merely by adding one or more extension sections thereto. FIG. **9** illustrates therein an extension section **76** which is suitable for this purpose.

As illustrated in FIG. **9**, the extension section **76** comprises a substantially parallelogram frame which includes a pair of elongated, substantially parallel tubular frame elements **77** and **78** interconnected by a plurality of intermediate and substantially parallel connecting links **79**. The elements **79** are pivotally connected adjacent their opposite ends to the frame elements **77** and **78**, such as by the use of hinge pins or rivets **81**. The upper end of each frame element **77** and **78** is provided with a tapered or reduced neck portion **82** of a diameter suitable so as to be slidably received within the lower end of the frame elements **21** and **22**. The frame element **78** is also preferably provided with a length of flexible force transmitting element **83** extending therethrough, which element **83** in the illustrated embodiment comprises a conventional beaded chain.

When it is desired to add the extension section **76** to the device **10**, then the chain **61** is first released from the notch **63**, whereupon the end cap **57** is slidably removed from the lower end of the frame element **22**. The end cap **71** as provided on the lower end of the frame element **21** is similarly removed. The lower end of the chain element **61** is then connected in a conventional manner to the upper end of the beaded chain **83**, and the neck portion **82** of the frame elements **77** and **78** are then slidably inserted into the lower ends of the frame elements **21** and **22**, respectively. The cap **71** is then slidably positioned on the lower end of the frame element **77** and the cap **57** is similarly slidably positioned on the lower end of the frame element **78**. The device is then fully assembled and a container is again positioned between the jaws **31** and **32** and the pad **69**

is positioned to permit the free end **47** of the actuating lever **46** to be disposed closely adjacent the spray head **16** or **16'**. The lower end of the beaded chain **83** is then tensioned and suitably engaged within the notch **63** so as to place the device **10** with the extension **76** mounted thereon in condition for use.

While the description as set forth above relates to insertion of only a single extension device **76** therein, it will be readily apparent that a plurality of substantially identical extension sections **76** could be similarly attached one to the other and connected to the lower end of the device **10** in substantially the same manner as described above.

While the device of the present invention could obviously be constructed of any suitable material having any desired shape and/or cross section, nevertheless it is preferred to construct a majority of the structural elements from conventional rodlike aluminum tubes since such tubes can be readily formed into the desired shapes. Further, by constructing the device from aluminum, the device is thus of extremely light weight while at the same time it possesses substantial strength and rigidity. This greatly facilitates its manual use and manipulation, particularly when utilized with a plurality of extension sections. In the illustrated embodiment, the jaw support tubes **26** and **27**, the jaws **31** and **32**, the frame elements **21** and **22**, the frame elements **77** and **78**, and the actuating lever **46** are all preferably constructed from conventional tubular aluminum stock.

While the drawings illustrate the container **11** positioned so that the nozzle sprays forwardly, as illustrated by nozzle **76** in FIG. **3**, the device of the present invention can also have the container turned clockwise or counterclockwise relative to the jaws. This thus enables the user to spray at right angles to the device, such as for enabling spraying around a corner.

Although a particular preferred embodiment of the invention has been disclosed above for illustrative purposes, it will be understood that variations or modifications thereof which lie within the scope of the appended claims are fully contemplated.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. An extension device for remotely supporting and actuating a conventional aerosol container having a movable valve control element, comprising:

an elongated rodlike frame member;

an elongated rodlike control member laterally spaced from and substantially parallel with said frame member;

support means extending between and pivotally connected to said frame member and said control member, said support means including a support member extending between and pivotally connected to said frame member and said control member adjacent one end thereof, respectively;

an intermediate link member positioned substantially parallel to and laterally spaced from said support member, said link member extending between and having the opposite ends thereof pivotally connected to said frame member and said control member;

holding means mounted on said support means for holding a conventional aerosol container;

actuating means movably supported on said one end of said frame member and disposed adjacent said support means for permitting actuation of said valve control element for permitting actuation of same; and

triggering means disposed adjacent the other end of said frame member and operatively interconnected to said actuating means for permitting selective actuation thereof, said triggering means including a manually movable trigger member movably supported on said frame member adjacent said other end thereof.

2. A device according to claim **1**, wherein said actuating means includes an elongated actuator lever having one end thereof pivotally interconnected to said support member adjacent the point of pivotal interconnection between said support member and said control member, the other end of said actuator lever being free and disposed directly adjacent said valve control element, and said triggering means including elongated connecting means extending substantially longitudinally of said frame member and interconnected between said movable trigger member and said actuator lever at a point located between the ends thereof.

3. A device according to claim **2**, wherein the actuator lever includes an arcuate portion disposed intermediate the ends thereof, said arcuate portion being disposed in the vicinity of said one end of said frame member and being generated about a center located in the vicinity of the point of pivotal connection between said support member and said frame member, and said elongated connecting means having one end thereof disposed in slidable engagement with the arcuate portion of said actuator lever.

4. A device according to claim **3**, wherein said frame member comprises an elongated hollow rodlike element, said elongated connecting means extending internally of said rodlike element and including a slide portion on one end thereof slidably supported within and extending outwardly beyond said one end of said rodlike element, and resilient stop means coacting between said actuator lever and said support means for normally resiliently maintaining said actuator lever in a position wherein the free end thereof is disposed closely adjacent but slightly spaced from the valve control element, said resilient stop means being slidable toward and away from said free end of said actuator lever for permitting the position of said free end to be selectively adjusted relative to the container.

5. A manually operable extension device for remotely supporting and actuating a conventional aerosol container having a movable valve control element, said device comprising:

elongated frame means including an elongated rodlike frame member;

holding means mounted on said frame means adjacent one end thereof for supporting an aerosol container, said holding means including an elongated support member having jaw means associated with one end thereof for supporting said container, said elongated support member being pivotally interconnected intermediate its ends to said one end of said frame member;

actuating means movably disposed adjacent said one end of said frame means for permitting actuation of the valve control element of said container, said actuating means including an actuating member having an actuating portion disposed adjacent said valve control element, said actuating member

being movable from an inactive to an active position wherein it engages and displaces said valve control element for permitting discharge from said container, said actuating member comprising an elongated actuating lever having said actuating portion provided on the free end thereof, the other end of said actuating lever being pivotally interconnected to said elongated support member adjacent said other end thereof;

first control means operatively interconnected to said actuating means for permitting selective movement of said actuating member from said inactive to said active position, said first control means including a manually-actuated control member disposed adjacent the other end of said frame means and manually movable by one hand of an operator between an inactive and an active position, whereby movement of the control member from said inactive to said active position causes a corresponding movement of said actuating member from its inactive to its active position; and

second control means for selectively causing oscillation of said holding means and of said container mounted thereon about an axis substantially perpendicular to the longitudinal axis of said container, said second control means being independent of said first control means and including an elongated controlling member connected at one end thereof to said holding means, the other end of said controlling member being manually movable by the other hand of the operator in a reciprocating manner for causing oscillation of said holding means and said container while said one hand maintains said control member in its active position;

said controlling member comprising an elongated rodlike member spaced from but substantially parallel with said frame member, one end of said controlling member being pivotally connected to the other end of said elongated support member for causing swinging movement of said holding means relative to said frame member about an axis substantially transverse to the longitudinally extending direction of said frame member;

said second control means further including link means extending between and having the opposite ends thereof pivotally connected to said frame member and said controlling member, said link means being substantially parallel with said elongated support member.

6. A device according to claim **5**, wherein said jaw means includes a pair of relatively movable and opposed jaws, and spring means relatively urging said opposed jaws toward one another for enabling said jaws to clampingly engage said container therebetween.

7. A device according to claim **5**, wherein said actuating lever includes an arcuate portion disposed intermediate the ends thereof, said arcuate portion being positioned in the vicinity of said one end of said frame member and having a curvature generated approximately about a center defined by the pivotal connection between the support member and the frame member, and said first control means including an elongated connecting means extending between and interconnecting said control member and said acuating lever, said elongated connecting means extending substantially longitudinally of said frame member and having a slide portion slidably supported on said frame member adjacent said one end thereof, said slide portion having follower means associated therewith and disposed in sliding engagement with the arcuate portion of said actuating lever.

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