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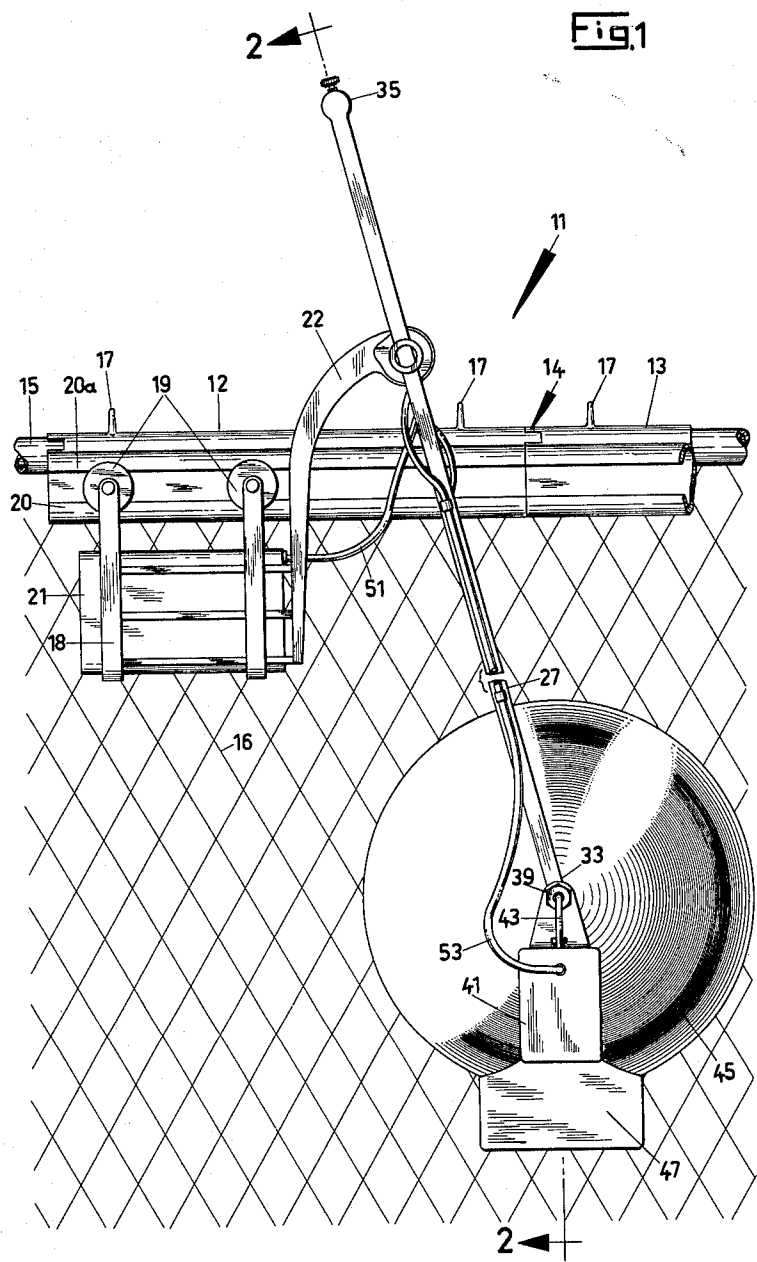
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APPARATUS FOR PAINTING FENCES AND THE LIKE

Filed Jan. 20, 1964

2 Sheets-Sheet 1



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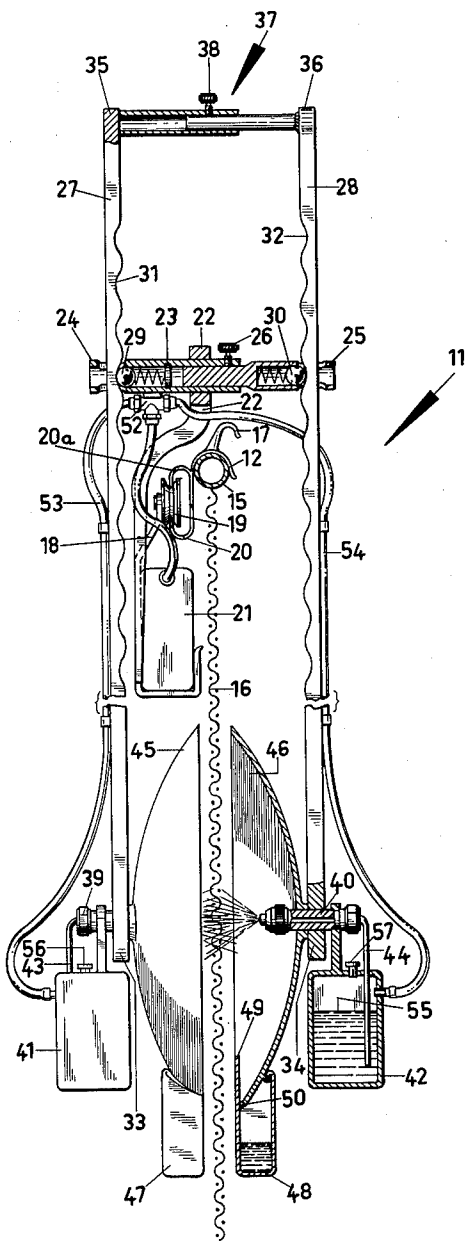
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Fig. 2



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APPARATUS FOR PAINTING FENCES AND THE LIKE

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This invention relates to improvements in apparatus for painting wire fencing, trelliswork, wooden fencing and the like, and relates to apparatus which provides means for spray painting such fencing with a minimum amount of time and paint.

It is common practice when painting wire fencing or the like to do so by the use of brushes since the use of conventional spray painting apparatus is wasteful of paint. It will be appreciated that the use of brushes is a difficult procedure and is quite time consuming. This is particularly true in the case of extremely long or high wire fencing since it is difficult for one man to paint both sides of the fence and thus requires the use of two men, very often employing ladders or other scaffold means to reach the entire area of the fence.

The present invention seeks to overcome these difficulties by providing apparatus which is adapted to move along a track positioned on the fence carrying with it spray nozzles for painting both sides of the fence at once and including paint guards which surround the nozzles and prevent the escape of the sprayed paint.

It is also an object of the invention to provide a spraying apparatus where the spraying nozzles are located on a pair of adjustable booms which may be swung upwardly and downwardly to cover the entire area of the fence.

It is a still further object of the present invention to provide a spraying apparatus which includes means for collecting the unused portion of the sprayed paint whereby this paint may be reused.

The invention also contemplates the use of a gas or air pressure supply included with the travelling portion of the apparatus whereby the spraying apparatus may be self-contained, the pressure being derived from a prepressurized vessel or by a motor driven pump and reservoir, the motor being either gas, or electric as desired.

It is intended by the use of the present invention as herein disclosed that one person may quickly paint an entire fence with a minimum amount of effort and without undue waste of paint and that both sides of the fence may be painted simultaneously. Thus by resort to the present invention substantial savings in the cost of painting a fence can be realized, this being particularly true in the case where an extremely long and high fence is to be painted, such as is the case with wire fencing being used to divide large tracts of land or about large institutions.

These and other objects and features of the invention will be apparent from the following detailed description and accompanying drawings in which like numerals refer to like parts throughout the various views.

In the drawings:

FIG. 1 is a side elevation of a presently preferred embodiment of the invention and illustrates the apparatus installed on a wire fence; and

FIG. 2 is a section along the line 2—2 of FIG. 1, a portion of the apparatus not being in section as indicated.

Having reference to FIG. 1 and FIG. 2 a spraying apparatus indicated generally as 11 is illustrated and comprises a track section 12 and a track section 13 fitted together at the inter-lock indicated as 14, tracks 12 and 13 being supported on the rail 15 of the fencing 16. Each track 12 and 13 is also provided with the hooks 17

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whereby the track may be hooked onto the fencing 16 if so desired.

A cradle 18 is provided with a pair of rollers 19 which engage with the track 12 on the lips 20 and 20a for forward and backward movement of the cradle 18. An air pressure supply unit 21 is also supported on the cradle 18, this supply unit either being a precharged container full of compressed gas or a motor driven compressor, the motor being either a gasoline type or an electric motor as desired. It will be understood that this air pressure supply unit may be of conventional design and the use of the unit is merely to supply pressure for the paint spraying portion of the apparatus. It will be further understood that a separate air pressure supply line from a pressurizing unit located on the ground may also be utilized, the present embodiment of the pressure unit being movable with the cradle however, being desirable.

An arm 22 secured to the cradle 18 projects upwardly and supports a cross bar 23 thereon. Cross bar 23 is rotatably supported at the end of the arm 22 and is positioned substantially at right angles to the fence 16 and has ends 24 and 25 extending to either side of the fence 16. The ends 24 and 25 are adjustable one within the other and fixed by the set screw 26 whereby the length of the cross bar 23 may be varied as desired.

A pair of booms 27 and 28 are slidably positioned within the ends 24 and 25, the spring loaded balls 29 and 30 engaging within the indentations 31 and 32 in the bars 27 and 28 respectively to adjustably position the booms 27 and 28 to the desired position. In this manner the free ends 33 and 34 of the booms 27 and 28 may be adjustably extended from the pivot at 22 to accommodate for the height of the fencing 16. The upper ends 35 and 36 of the booms 27 and 28 respectively are secured together by the handle device indicated as 37 which is provided with a set screw 38 whereby the adjusted position of the booms 27 and 28 one to the other may be secured in a manner similar to that for the cross bar 23 and that the handle means 37 provides convenient means for swinging the booms 27 and 28.

A pair of spray nozzles 39 and 40 are secured to the free ends 33 and 34 of the booms 27 and 28 and are adapted to point inwardly towards the fencing 16. A pair of paint cannisters 41 and 42 are pivotally supported on an extension of the nozzles 39 and 40 or alternatively on the free ends 33 and 34 and are adapted by weight thereof to hang downwardly at all times as the booms 27 and 28 are swung. A fluid pressure line 43 and 44 provides communication from the cannisters 41 and 42 to the nozzles 39 and 40 respectively. A pair of saucer shaped paint guards 45 and 46 are secured to the free ends 33 and 34 respectively and have a concave surface thereof facing inwardly towards the fence 16.

It is preferable to provide guards 45 and 46 with the paint collecting containers 47 and 48 whereby the unused portion of the paint emanating from the nozzles 39 and 40 may be collected within the containers 47 and 48. The guard 46 being shown in section, it will be seen that a small plate 49 is placed along the lower edge of the guard 46 on the inner surface thereof and a small hole 50 is provided through the guard whereby the paint flowing down the inner surface of the guard 46 will be collected in the container 48.

A pressure supply line 51 is connected to a T 52 and divides into a pair of pressure supply lines 53 and 54 which are connected to the cannisters 41 and 42 respectively to supply pressure for spraying the paint 55 located within the cannisters. It will be further understood that the paint supply and the air pressure supply may be located remote from the spraying apparatus such as for instance on the ground beside the operator, and that the paint may be

supplied under pressure directly to the nozzles 39 and 40 if so desired.

In use, the track 12 may be placed on the rail 15 or may be hung by means of the hooks 17 on the fencing 16 whereafter the cradle rollers 19 may be placed between the lips 20 and 20a to be moved therealong. The booms 27 and 28 can then be slidably positioned in the ends 24 and 25 of the cross bar 23 until the desired extended length of the booms is obtained. The position of the booms is maintained by the balls 29 and 30 bearing in the indentations 31 and 32 respectively. Upon the booms being placed over the fencing 16, the guards 45 and 46 may be brought up closely adjacent to the fencing 16 by suitably adjusting the cross bar 23 and the handle means 37, these positions being locked by the set screws 26 and 38 respectively. The pressure supply unit 21 may then be turned on and the paint 55 will be sprayed from the nozzles 39 and 40 onto the fencing 16. As spraying progresses, the cradle 18 may be moved along the track 12 and the handle 37 may be used to move the booms 27 and 28 in a swinging motion to entirely cover the surface of the fencing 16.

As spraying progresses the paint 55 not adhering to the fencing 16 will be caught within the guards 45 and 46 and flow downwardly into the containers 47 and 48 where it may be retrieved later and reused if desired. Also from time to time the paint within the cannisters 41 and 42 may be replenished by means of the filler caps 56 and 57 respectively.

As the apparatus is moved along the track 12, the track 13 may be put in place, the inter-locking at 14 assuring a smooth transition of the rollers 19. It will be seen that as the apparatus moves across the track 13 the track 12 may be removed and placed ahead of the track 13 and this method may be carried on throughout the length of the whole fencing rail 15. In this manner only two tracks 12 and 13 are required in order to do any length of fencing.

From the foregoing it will be seen that the present invention provides a spraying apparatus for painting fencing, said fencing including a horizontal rail, said apparatus comprising: at least one section of a track adapted to be supported on said rail of fencing; a pair of booms pivotally supported and adjustably positioned along the length of the rail, whereby movement of the upper ends of the booms will cause the lower ends to swing about a pivotal support; a saucer shaped paint guard secured to the free end of each of the booms, the guards having a concave face thereof facing inwardly towards the fence; a spray nozzle located within each of the guards; means for supplying paint under pressure to each of the spray nozzles; and handle means for swinging the booms and moving them forwardly, thereby to cause the nozzles to spray the entire surface of the fence on both sides simultaneously.

Even though the above description refers by way of example to wire fencing, it is not meant to limit my invention to such wire fencing, the same principle being equally advantageous in use on trelliswork, wooden fencing and the like.

It will be further understood that although specific embodiments of the invention have herein been described and illustrated, the invention also contemplates such variations as may fall within the scope of the appended claims. The embodiments of this invention in which an exclusive property or privilege is claimed are defined as follows:

1. A spraying apparatus for painting fencing, said fencing including a horizontal rail, said apparatus comprising: at least one section of a track adapted to be supported on said rail; support means coupled to said track for movement longitudinally of the rail, a pair of booms pivotally mounted on said support means, whereby movement of the upper ends of said booms will cause the lower ends to swing about said pivotal mount; a saucer shaped paint guard secured to the free end of each said boom, each said guard having the concave side thereof facing inwardly towards said fence; a spray nozzle located within

each said guard; means for supplying paint under pressure to each said spray nozzle; and handle means for swinging said booms and moving them forwardly, thereby to cause said nozzles to spray the entire surface of said fence on both sides simultaneously.

2. A spraying apparatus for painting fencing, said fencing including a horizontal rail, said apparatus comprising: at least one section of a track adapted to be supported on said rail; support means coupled to said track for movement longitudinally of the rail, a pair of booms pivotally mounted on said support means, whereby movement of the upper ends of said booms will cause the lower ends to swing about said pivotal mount; a saucer shaped paint guard secured to the free end of each said boom, each said guard having the concave side thereof facing inwardly towards the fence; a paint cannister pivotally secured to said free end of each said boom; a spray nozzle located centrally of each said paint guard and in communication with said cannister; means for supplying fluid pressure to each said cannister; and handle means for swinging said booms and moving them forwardly, thereby to cause said nozzles to spray the entire surface of said fence on both sides simultaneously.

3. A spraying apparatus for painting fencing, said fencing including a horizontal rail, said apparatus comprising: at least one section of a track adapted to be supported on said rail; support means coupled to said track for movement longitudinally of the rail, a pair of booms pivotally mounted on said support means, whereby movement of the upper ends of said booms will cause the lower ends to swing about said pivotal mount; a saucer shaped paint guard secured to the free end of each said boom, each said guard having the concave side thereof facing inwardly towards said fence; a paint cannister pivotally secured to said free end of each said boom; a spray nozzle located centrally of each said paint guard and in communication with said cannister; a paint collecting container secured to each guard for collecting paint draining therefrom; an air pressure supply unit movable along said track with said booms; a pressure supply line in communication with said pressure supply unit and each said cannister; and handle means for swinging said booms and moving them forwardly, thereby to cause said nozzles to spray the entire surface of said fence on both sides simultaneously.

4. A spraying apparatus for painting wire fencing, said fencing including a horizontal rail, said apparatus comprising: at least one section of a track adapted to be supported on said rail; a cradle including rollers slidably positioned along said track; a cross bar of adjustable length pivotally secured to said cradle above said fence, and positioned to extend to either side of said fence at substantially right angles thereto; a pair of booms slidably adjustable in the ends of said cross bar and extending downwardly to either side of said fence, said booms being swung arcuately over said fence by pivoting said cross bar; a saucer shaped paint guard secured to the free end of each said boom, each said guard having the concave side thereof facing inwardly towards said fence; a paint cannister pivotally secured to said free end of each said boom; a spray nozzle located centrally of each said paint guard and in communication with said cannister; means for supplying fluid pressure to each said cannister; and a handle across the upper ends of said booms extending beyond said cross bar, whereby upon movement of said cradle along said track, said booms can be swung about said pivot, thereby to cover said fence with paint spraying from both said nozzles, said guards preventing escape of said paint.

5. A spraying apparatus for painting wire fencing, said fencing including a horizontal rail, said apparatus comprising: at least one section of a track adapted to be supported on said rail; a cradle including rollers slidably positioned along said track; an air pressure supply unit secured to said cradle; a cross bar of adjustable length pivotally secured to said cradle above said fence, and po-

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sitioned to extend to either side of said fence at substantially right angles thereto; a pair of booms slidably adjustable in the ends of said cross bar and extending downwardly to either side of said fence, said booms being swung arcuately over said fence by pivoting said cross bar; a saucer shaped paint guard secured to the free end of each said boom, each said guard having the concave side thereof facing inwardly towards said fence; a paint collecting container secured to each guard for collecting paint draining therefrom; a paint cannister pivotally secured to said free end of each said boom; a spray nozzle located centrally of each said paint guard and in communication with said cannister; a pressure supply line in communication with said pressure supply unit and each said cannister; and a handle across the upper ends of said booms extending beyond said cross bar, whereby upon movement of said cradle along said track, said booms can be swung about said pivot, thereby to cover said fence with paint spraying from both said nozzles, said guards preventing escape of said paint.

6. A spraying apparatus for painting wire fencing, said fencing including a horizontal rail, said apparatus comprising: at least one section of a track adapted to be supported on said rail; a cradle including rollers slidably positioned along said track; an air pressure supply unit secured to said cradle; a cross bar of adjustable length pivotally secured to said cradle above said fence, and positioned to extend to either side of said fence at substantially right angles thereto; a pair of booms slidably adjustable in the ends of said cross bar and extending downwardly to either side of said fence, said booms being swung arcuately over said fence by pivoting said cross bar; a spring loaded ball in each end of said cross bar to releasably engage in indentations along the inner edge of each boom, thereby to vary the distance from the lower ends of the booms to the crossbar; a saucer shaped paint guard secured to the free end of each said boom, each said guard having the concave side thereof facing inwardly towards said fence; a paint cannister pivotally secured to said free end of each said boom; a spray nozzle located centrally of each said paint guard and in communication with said cannister; a pressure supply line in communication with said pressure supply unit and each

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said cannister; and a handle across the upper ends of said booms extending beyond said cross bar, whereby upon movement of said cradle along said track, said booms can be swung about said pivot, thereby to cover said fence with paint spraying from both said nozzles, said guards preventing escape of said paint.

7. A spraying apparatus for painting wire fencing, said fencing including a horizontal rail, said apparatus comprising: at least one section of a track adapted to be supported on said rail; hooks on said track for securing same to said fence; a cradle including rollers slidably positioned along said track; an air pressure supply unit secured to said cradle; a cross bar of adjustable length pivotally secured to said cradle above said fence, and positioned to extend to either side of said fence at substantially right angles thereto; a pair of booms slidably adjustable in the ends of said cross bar and extending downwardly to either side of said fence, said booms being swung arcuately over said fence by pivoting said cross bar; a spring loaded ball in each end of said cross bar to releasably engage in indentations along the inner edge of each boom, thereby to vary the distance from the lower ends of the booms to the crossbar; a saucer shaped paint guard secured to the free end of each said boom, each said guard having the concave side thereof facing inwardly towards said fence; a paint collecting container secured to each guard for collecting paint draining therefrom; a paint cannister pivotally secured to said free end of each said boom; a spray nozzle located centrally of each said paint guard and in communication with said cannister; a pressure supply line in communication with said pressure supply unit and each said cannister; and a handle across the upper ends of said booms extending beyond said cross bar, whereby upon movement of said cradle along said track, said booms can be swung about said pivot, thereby to cover said fence with paint spraying from both said nozzles, said guards preventing escape of said paint.

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