

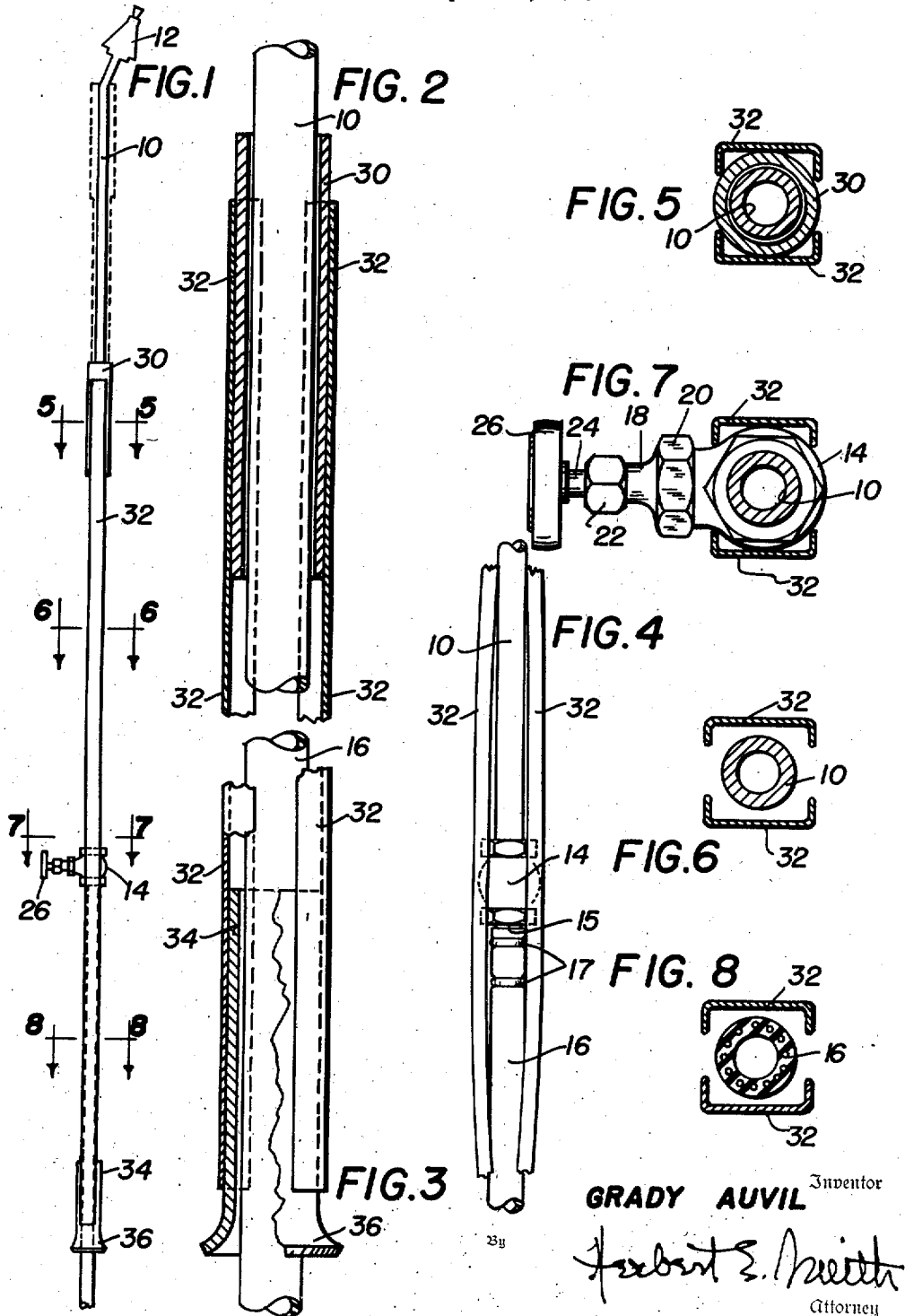
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TELESCOPIC HANDLE EXTENSION

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TELESCOPIC HANDLE EXTENSION

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4 Claims. (Cl. 299-111)

My present invention relates to a telescopic handle extension for spray guns and the like.

In the art of spraying fruit trees and other types of vegetation as well as building structures and the like, it is customary to use a tubular handle having at its outer end a spray nozzle and at its inner end a valve mechanism from which extends a flexible hose customarily used to convey the spray fluid from pressure supply means to the valve. Ordinarily the tubular handle member is of a sufficient length so that a person standing on the ground can, by extending his arms, reach the height of about ten or 12 feet.

It is extremely desirable that simple means be provided whereby an operator using such a device can not only spray such vegetation or structures in this relatively low zone, but at the same time and without the necessity of mounting a ladder or raised platform, be able to raise the nozzle of his spray gun to a considerable height so that taller trees can be sprayed or taller buildings treated.

Such a means should be extremely compact and so associated with the standard spray equipment as to substantially form an integral part thereof. Such a means should be at all times readily accessible to the operator without in any way interfering with his efficient use of his spray gun equipment.

It is, therefore, an important object of my invention to provide a simple, rugged, compact handle extension device for association with the spray gun which will be of extremely light weight and always ready for use for the purpose intended.

Another object of my invention has been to provide a telescopic handle extension for a spray gun which device will be simple of manufacture and consequently well within the means of the users of such equipment.

Other and important objects of the invention will be apparent during the course of the following description.

In the drawing forming a part of this specification, wherein like numerals refer to like parts throughout the same,

Figure 1 is a view in elevation of a spray gun with the device of my invention illustrated thereon,

Figure 2 is a medial-sectional view through the forward handle ferrule and the side bars,

Figure 3 is a view partially in section and partially in elevation of the hose ferrule used at the rear end of the device having a flared end,

Figure 4 is a plan view illustrating the manner

in which the side bars pass the valve body of the conventional spray gun,

Figure 5 is a cross-sectional view taken on lines 5-5 of Figure 1,

Figure 6 is a cross-sectional view taken on lines 6-6 of Figure 1,

Figure 7 is a cross-sectional view taken on lines 7-7 of Figure 1, and

Figure 8 is a cross-sectional view taken on lines 8-8 of Figure 1.

Referring now to Figure 1, the numeral 10 indicates the tubular handle of a conventional spray gun, to the outer end of which is attached a spray nozzle indicated here as being disposed at a slight angle to the longitudinal axis of the handle 10. At the rear end of the tubular handle 10 is customarily provided a valve 14, herein illustrated as a Globe valve, which usually has a nipple 15 over which is fitted a hose 16 that is secured in place by the clamp members 17.

The foregoing description of the spray gun is intended primarily for the purposes of illustration and forms no essential part of the invention herein. The description is not intended as limitative for the reason that the device, it is believed obvious, is useable on other types of structures.

The valve 14 is better illustrated in Figure 7 wherein it will be apparent that the valve body has a bonnet 18 secured by means of the bonnet nut 20, and a packing nut 22 encircling the valve stem 24 compresses packing material, not shown, around the stem 24 to prevent leaks at this point. A valve wheel 26 on the end of the stem 24 assists in the opening and closing of the valve element (not shown) in the interior of the body 14.

The telescopic handle extension member itself consists of the handle ferrule 30 which encircles the tubular handle 10. In opposition to each other, side bars 32, 32 are secured at their forward ends to the ferrule 30 and extend rearwardly on either side of the valve body 14 and join with the hose ferrule 34, which has the rear flared end 36. The hose ferrule 34 is similar in many respects to the ferrule 30 with the exception that it is of a size sufficient to accommodate the usual spray hose, which is quite often larger than the tubular handle. It is flared at 36 in order that no undue wear is exerted on the hose 16, nor is it possible to kink a hose as sharply over the edge of such a flared ferrule.

The side bars 32 are shown in all the views to be substantially U-shaped channel-like members in cross-section, but it is pointed out that this showing is not intended to be limitative, as any side bar capable of performing the same

service as those shown in the drawing will be within the scope of my invention. I have very successfully used side bars that are curved so that, in cross section, they are substantially crescent-shaped.

In Figure 4 it will be seen that the side bars 32 of necessity are spread to pass the valve body 14 and that they are separated to a width greater than is necessary to encompass the handle 10 or the hose 16. It should be obvious that with the U-shaped side bars, as may be seen in Figure 7, the flanges or upstanding members of the side bars will frictionally engage the valve body 14 and tend to resist endwise movement of the side bars and the forward and rear ferrules 32 and 34 respectively.

Ordinarily in use where no extension is required, the device of my invention is positioned on the spray gun in the position indicated in the dotted lines of Figure 1. When it is desired to extend the spray nozzle farther from the ferrule 32 than is shown in Figure 1, and thus effectively lengthen the handle for the operator, the side bars and the ferrules are slid rearwardly on the handle 10 and the hose 16. This rearward movement may continue until the rear edge of the ferrule 32 abuts against the front end of the valve body 14. From this it can be clearly seen that spray nozzle 12 can be extended approximately twice as far from the operator as is the case when he depends solely upon the tubular handle to grasp and support the spray gun.

In addition to the friction obtained by the contact of the side bars 32 with the valve body 14, an operator may grasp the side bars and the enclosed handle 10 or the hose 16 and, by squeezing, the light-weight resilient material of the side bars will be temporarily collapsed against the object between them. Additional friction is thus obtained between the extension and the spray gun. In the ordinary use of a spray gun both hands are employed and if the operator is a right-handed person, his right hand will normally grasp the rear end of the flared hose ferrule 34 and, by permitting his little finger to encircle the hose and the other three fingers and the thumb to grasp the ferrule, he can readily handle the device in its extended and adjusted position by the use of the right hand while simultaneously guiding it in the spraying operation with the left hand. If it is desired that the spray gun be returned to the retracted or telescope position within the extension, pressure will be removed from the side bars at the rear and the back pressure on the spray nozzle will cause the mechanism to collapse to its shortest unitary structure more or less automatically unless such action is retarded by the operator.

From the foregoing it will be seen that a simple, compact arrangement of parts results and that this invention is extremely useful and patently simple in operation, as well as in manufacture. It is to be understood that the form of my invention, herewith shown and described, is

to be taken as a preferred example of the same, and that various changes in the shape, size and arrangement of the parts may be resorted to, without departing from the spirit of my invention, or the scope of the subjoined claims.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A telescopic handle extension for spray guns of the type employing a nozzle, a tubular handle having a coupler, and a flexible supply hose joined to said coupler and extending from said tubular handle; said telescopic handle extension comprising a handle ferrule slidably encircling said tubular handle, a hose ferrule slidably encircling said supply hose, and a pair of side bars attached at their forward ends to said handle ferrule and at their rear ends to said hose ferrule and frictionally engageable with said coupler by flexing pressure on said side bars.

2. A telescopic handle extension for spray guns of the type employing a nozzle, a tubular handle having a coupler, and a flexible supply hose joined to said coupler and extending from said tubular handle; said telescopic handle extension comprising a handle ferrule slidably encircling said tubular handle, a hose ferrule slidably encircling said supply hose, and a pair of U-shaped side bars attached at their forward ends to said handle ferrule and at their rear ends to said hose ferrule so that the edge flanges of said side bars are inwardly faced in opposed relation to each other and frictionally engageable with said coupler by flexing pressure on said side bars.

3. A telescopic handle extension for spray guns of the type employing a nozzle, a tubular handle, valve means including a valve housing substantially larger in cross-section than said tubular handle, and a flexible supply hose extending from said valve means; said telescopic handle extension comprising a handle ferrule slidably encircling said tubular handle, a hose ferrule slidably encircling said supply hose, and a pair of side bars attached at their forward ends to said handle ferrule and at their rear ends to said hose ferrule, and passing on each side of said valve housing in close frictional contact therewith.

4. A telescopic handle extension for spray guns of the type employing a nozzle, a tubular handle, valve means including a valve housing substantially larger in cross-section than said tubular handle, and a flexible supply hose extending from said valve means; said telescopic handle extension comprising a handle ferrule slidably encircling said tubular handle, a hose ferrule slidably encircling said supply hose, and a pair of inwardly opposed U-shaped side bars attached at their forward ends to said handle ferrule and at their rear ends to said hose ferrule, and passing on each side of said valve housing with the flange-edges of each U-shaped side bar in close frictional contact therewith.

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