No. 864,953. PATENTED SEPT. 3, 1907.

D. CRAIG.

HORTICULTURAL IMPLEMENT.

APPLICATION FILED DEC. 31, 1906.

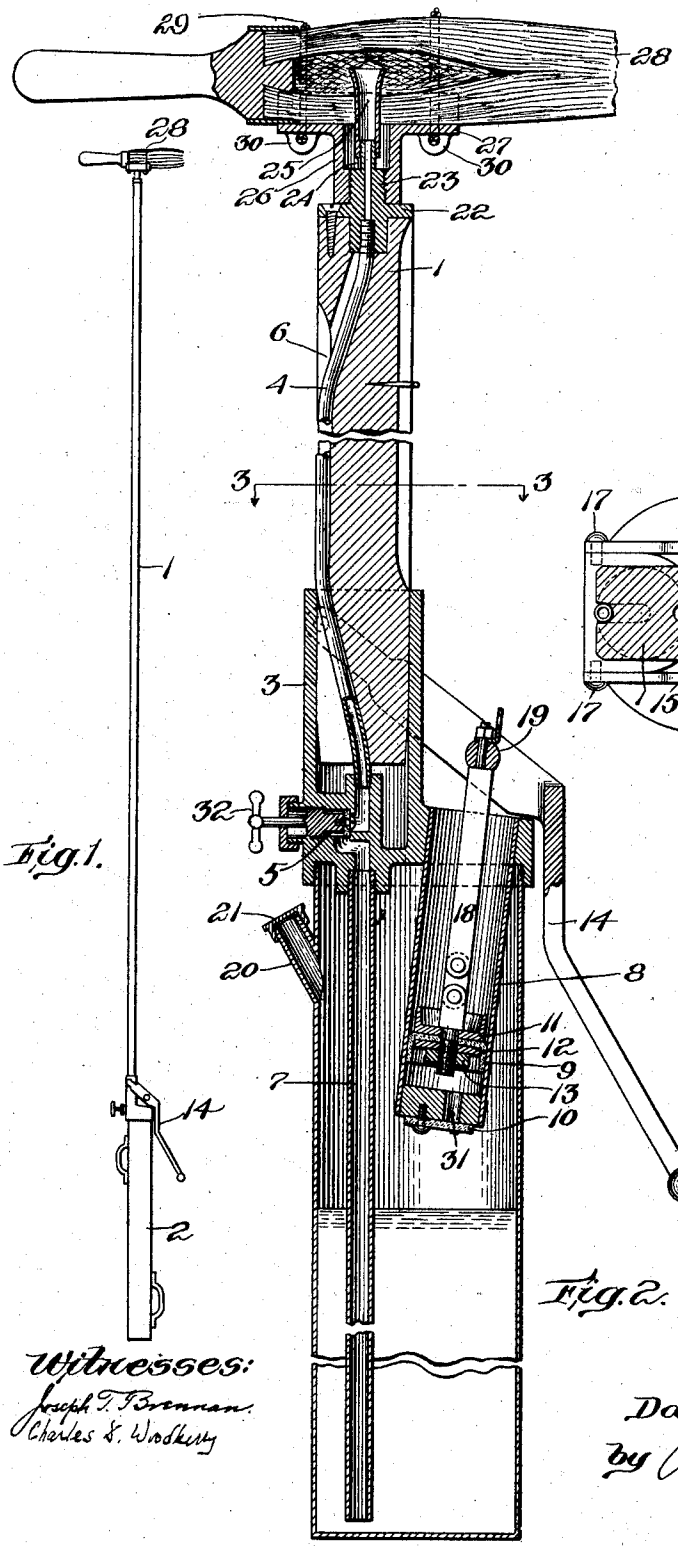


Fig. 1.

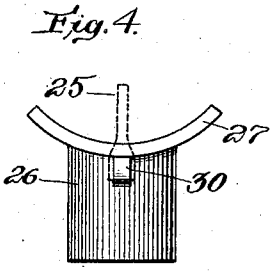


Fig. 4.

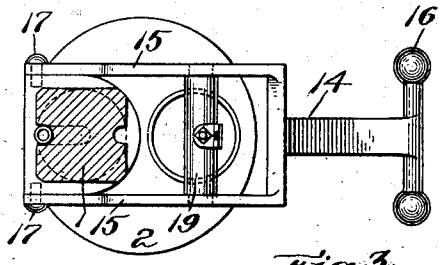


Fig. 3.

Fig. 2.

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HORTICULTURAL IMPLEMENT.

No. 864,953. Specification of Letters Patent. Patented Sept. 3, 1907.

Application filed December 31, 1906. Serial No. 350,218.

To all whom it may concern:

Be it known that I, DAVID CRAIG, a citizen of the United States, and a resident of Melrose, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Horticultural Implements, of which the following is a specification.

My invention relates to a horticultural implement designed to apply an insecticide, such as creosote, in liquid form or in solution, to trees, shrubs and vines.

In the accompanying drawings which illustrate an embodiment of my invention,—Figure 1 is an elevation of the implement; Fig. 2 is a longitudinal central section of the implement, enlarged; Fig. 3 is a cross section on line 3—3 of Fig. 2; and Fig. 4 is an elevation of the top head presently to be described.

Referring to the drawings, 1 represents a pole. At the bottom of the pole is a reservoir 2 to contain an insecticide in liquid form. This reservoir is preferably cylindrical as shown, and has at its top the sleeve 3 into which the lower end of pole 1 fits and by which pole 1 is supported. Extending throughout the length of the pole is a duct 4 for conveying the liquid from the reservoir to the top of the pole. This duct is controlled by a valve 5. The duct 4 is preferably made of metal piping, and for convenience and economy of manufacture, preferably lies along the outside of the pole 1 as shown in a slot or groove 6 provided therefor, excepting at its two extremities, where the pole is cut away so that the two ends of the duct may by being turned inwardly be located centrally of the pole as shown. An extension 7 of the duct 4 is provided leading down into the lower part of the reservoir 2.

Secured within the upper wall of the reservoir at the side not occupied by the sleeve 3 is an air pump comprising the cylinder 8, piston 9 and check valve 10, all being contained within the reservoir. The piston 9 is preferably made of leather and is held between the metal cup 11 and washer 12 by means of the nut 13. The pump is operated by the pump lever 14 which is forked as shown at 15, 15, and provided at its outer end with the handle 16. The forked ends of the lever are pivotally connected with the sleeve 3 supporting the pole as shown at 17, 17. The piston rod 18 is pivotally connected at its lower end with the piston and at its upper end is provided with the cross bar 19, which is journaled at either end in the forks 15, 15 of the lever 14. An inlet port 20 is provided in the reservoir through which the reservoir may be filled. The port 20 is securely closed by a screw cap 21.

At the upper end of the pole, a top piece 22 is secured in any suitable way, as by screws, and has the projection 23 provided with a screw thread. A smaller projection 24, also provided with a screw thread, extends above projection 23. The nozzle 25 having an internal screw thread at its lower end, corresponding with the thread of the projection 24, is screwed on to the projection 24. The nozzle 25 is flattened, as best shown in Fig. 4, in order that it may be readily passed between the bristles of the brush presently to be described.

Screwed on to projection 23 is the top head 26 which consists of a ferrule provided with the extended or flaring brush support 27. The brush support 27 is preferably curved upwardly at either side as shown in Fig. 4, the curve being transverse to the lines in which the bristles of the brush lie. It will be understood, however, that such curve is not essential. 28 represents a brush mounted upon said top head and brush support with the nozzle 25 extending into the midst of the bristles of the brush, the brush being removably secured in place by cords or like fastenings 29 which pass around the brush and through the eyelets 30 provided for that purpose upon the bottom of the brush support 27.

The operation of the implement is as follows: The reservoir 2 is filled with the solution to be used, through the port 20, up to a level which must be below the discharge orifice 31 of the pump. The screw cap 21 is then tightly secured and the valve 5 closed. The air pump is then operated by means of the handle 16 until an air pressure is created within the reservoir on top of the liquid sufficient to force the liquid upward through the duct 7 which extends nearly to the bottom of the reservoir and into the liquid, and through duct 4, and into the brush. The brush can then be supplied with the desired amount of liquid by operating the valve 5 by means of the valve handle 32. When the air pressure within the reservoir falls to such a degree that it will no longer force the liquid upward to the end of the duct, the air pressure may again be increased as above described by means of the pump.

The brush 28 is made removable in order that it may be interchanged with other brushes of other shapes or sizes, or in order that it may readily be replaced when it becomes worn out.

I claim:

1. An implement of the character described, comprising a pole, a reservoir at the bottom of the pole, a duct leading from the lower part of the reservoir to the top of the pole, means for compressing the air within the reservoir to force liquid contained within the reservoir upward through the duct, and a valve to control the duct.

2. An implement of the character described, comprising a pole, a reservoir at the bottom of the pole, a brush removably secured to the top of the pole, a duct leading from the lower part of the reservoir to the top of the pole and discharging into the midst of the bristles of the brush, means for compressing the air within the reservoir to force liquid contained within the reservoir upward through the duct, and a valve to control the duct.

3. An implement of the character described, comprising a pole, a reservoir at the bottom of the pole, a duct leading from the lower part of the reservoir to the top of the pole, a valve to control said duct, and means to compress the air within said reservoir, consisting of a pump having a cylinder, piston and check valve, all contained within the reservoir.

4. An implement of the character described, comprising a pole, a reservoir at the bottom of the pole, a duct leading from the lower part of the reservoir to the top of the pole, a valve to control said duct, a pump communicating with the upper part of the reservoir to compress the air within said reservoir, and a pump lever having a forked end embracing and being pivotally attached to the pole.

5. An implement of the character described, comprising a pole, a reservoir at the bottom of the pole, a duct leading from the lower part of the reservoir to the top of the pole, a valve to control said duct, an air pump secured within the top wall of the reservoir and having its cylinder, piston and check valve all contained within the reservoir, the pump lever having a forked end embracing the pole and pivotally connected therewith, and the piston rod having its outer end pivotally connected with said pump lever.

6. An implement of the character described, comprising a pole, a reservoir at the bottom of the pole, a duct leading from the lower part of the reservoir to the top of the pole, means to force liquid from the reservoir upward through the duct, and a nozzle at the upper end of the duct projecting beyond the end of the pole, flattened, and inserted between the bristles of a brush.

7. An implement of the character described, comprising a pole, a reservoir at the bottom of the pole, a duct leading from the lower part of the reservoir to the top of the pole, means to force liquid from the reservoir upward through the duct, a brush removably secured to the upper end of the pole transversely thereof, and a nozzle at the upper end of the duct projecting beyond the end of the pole and discharging among the bristles of the brush, said nozzle being flattened to facilitate inserting it between the bristles.

8. An implement of the character described, comprising a pole, a reservoir at the bottom of the pole, a duct leading from the reservoir to the top of the pole, means to force liquid from the reservoir upward through the duct, a top head comprising a ferrule and a flaring or extended brush support, and fastenings adapted removably to secure a brush to said brush support.

9. An implement of the character described, comprising a pole, a reservoir at the bottom of the pole, a duct leading from the reservoir to the top of the pole, means to force liquid from the reservoir upward through the duct, a top head mounted at the top of the pole having a flaring or extended brush support, and a brush removably secured to the brush support by cords passing underneath the brush support and over the brush.

Signed by me at Boston, Mass., this twenty-seventh day of December, 1906.

DAVID CRAIG.

Witnesses:
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