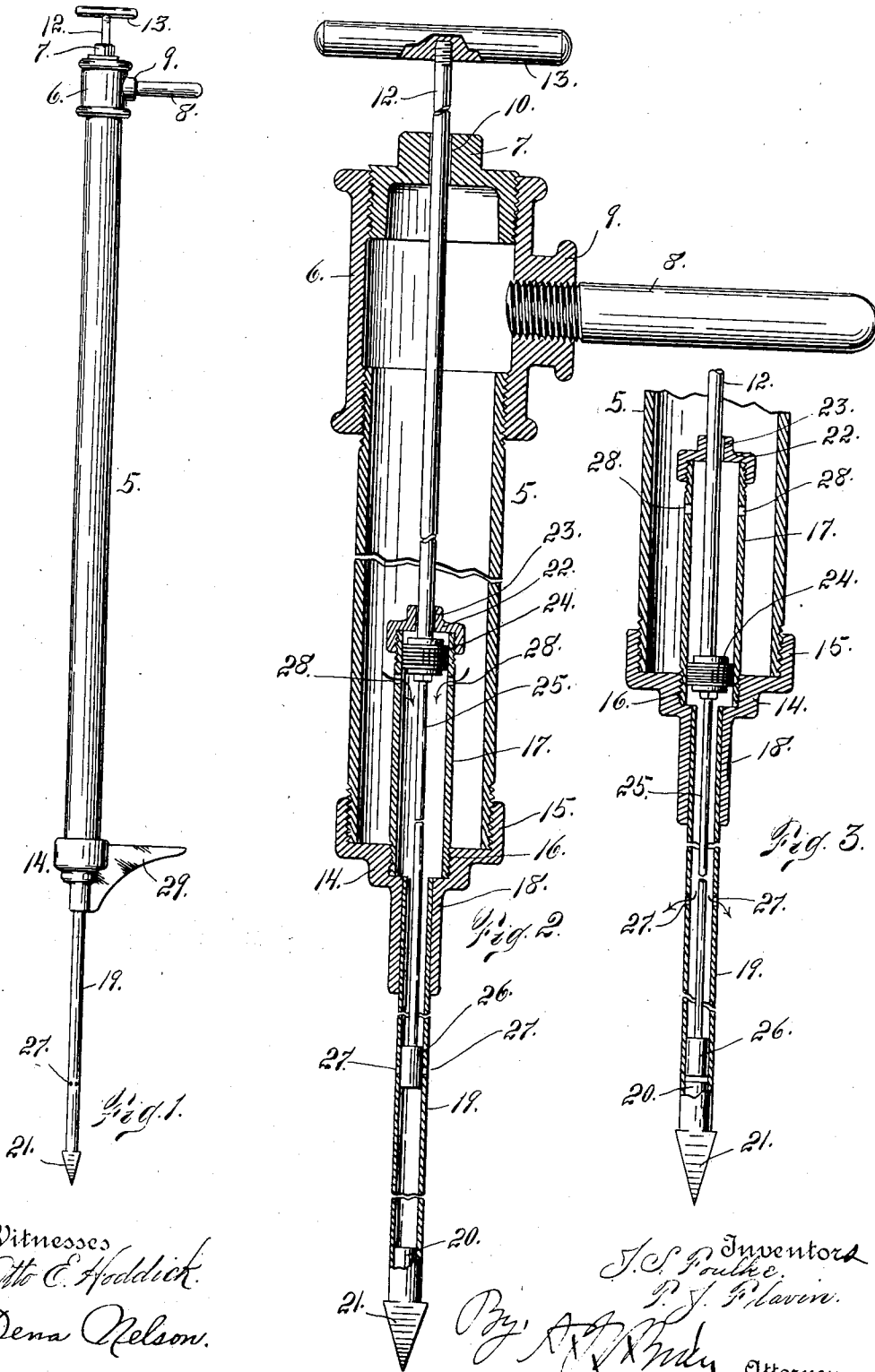


J. S. FOULKE & T. J. FLAVIN.
 DANDELION KILLER.
 APPLICATION FILED DEC. 18, 1907.

951,760.

Patented Mar. 8, 1910.



Witnesses
Otto E. Hoddick.
Dena Nelson.

Inventors
J. S. Foulke.
T. J. Flavin.
By, A. J. Flavin Attorney

UNITED STATES PATENT OFFICE.

JOSEPH S. FOULKE AND THOMAS J. FLAVIN, OF GUNNISON, COLORADO.

DANDELION-KILLER.

951,760.

Specification of Letters Patent.

Patented Mar. 8, 1910.

Application filed December 18, 1907. Serial No. 407,085.

To all whom it may concern:

Be it known that we, JOSEPH S. FOULKE and THOMAS J. FLAVIN, both citizens of the United States, residing at Gunnison, in the county of Gunnison and State of Colorado, have invented certain new and useful Improvements in Dandelion-Killers; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

Our invention relates to improvements in what we term dandelion killers being a device adapted for the destruction of noxious weeds or vegetable growths of all kinds, where it is desirable to kill the root of the plant. In the case of dandelions their destruction is more especially desirable in lawns and it is also necessary that they be destroyed without seriously injuring the grass.

The object of our invention is to introduce a liquid into the earth in such a manner that it is brought in contact with the roots of the dandelions, whereby the latter are destroyed without injuring the lawn.

Our present invention is an improvement over the construction disclosed in our previous application, Serial No. 385,074 filed July 22nd, 1907.

Having briefly outlined our improved construction, we will proceed to describe the same in detail reference being made to the accompanying drawing in which is illustrated an embodiment thereof.

In this drawing, Figure 1 is an elevation of our improved device in its completed form. Fig. 2 is a longitudinal section of the device shown on a larger scale and partly broken away intermediate its extremities, this being necessary on account of the limited length of the drawing paper. Fig. 3 is a similar view partly broken away showing the piston and plunger valve in a different relative position.

The same reference characters indicate the same parts in all the views.

Let the numeral 5 designate the casing or body of the instrument which forms a magazine for the liquid to be used in the performance of its function. The upper extremity of this barrel is provided with a

screw sleeve 6 in the upper extremity of which is inserted a cap 7. To one side of the sleeve 6 is attached a handle 8 which as shown in the drawing is threaded into a reinforced part 9. The cap 7 is provided with a central opening 10 through which passes a rod 12 which protrudes above the barrel, its upper extremity being provided with a hand piece 13.

The lower part of the barrel is provided with a tubular fitting 14 which contains bores of three diameters. The outer or larger portion 15 of the fitting is interiorly threaded and screwed upon the lower extremity of the barrel. The bore 16 is interiorly threaded to receive the lower extremity of the interior cylinder 17; while into the smallest bore 18 is inserted and made fast the small tube 19 whose lower extremity is closed as shown at 20 and provided with a wedge-shaped part 21 which is pointed at its lower end to facilitate its insertion into the ground for plant killing purposes.

The upper extremity of the cylinder 7 is provided with a screw cap 22 having an opening 23 through which the rod 12 passes. Within this cylinder and connected with the lower extremity of the rod 12 is a piston 24 which fits closely within the cylinder. Also connected with the piston 24 and leading downwardly therefrom is a smaller rod 25 which enters the tube 19, its lower extremity being provided with a plunger valve 26 which may be said to be normally in position to close orifices 27 formed in the tube 19 for the escape of the liquid when the device is in operation.

When the valve 26 is in the position to close the orifices 27, the piston 24 occupies a position in the upper extremity of the cylinder 17, just above ports 28 permitting the liquid in the barrel 5 to enter the cylinder 17 and pass downwardly into the tube 19 above the valve 26. When the parts are in this position, the liquid cannot escape from the device.

The fitting 14 attached to the lower extremity of the barrel 5 as heretofore explained, is provided with a lateral projection 29 having a flat upper surface whereby it is adapted to support the foot of the user, the object of this feature being to enable the operator to utilize his foot in inserting the lower part of the device into the ground.

Assuming now that it is desired to use the

instrument for the killing of noxious weeds or vegetable growths of any kind under circumstances requiring that a destructive liquid be brought into actual contact with the roots of the plants, the user grasps the handle 8 of the device with one hand, places one foot upon the projection 29 and forces the pointed extremity 21 into the earth a sufficient distance to bring the orifices 27 in suitable proximity to the root of the plant to be destroyed. He then grasps the hand piece 13 of the manipulating rod 12 and forces the latter downwardly whereby the piston 24 is caused to act upon the liquid in the cylinder 17 with a downward pressure. Simultaneously with the downward movement of the piston, the valve 26 is given a corresponding movement whereby the ports 27 are uncovered, the valve being below the said ports. Then as the descent of the piston continues, the liquid is injected from the tube 19 through the orifices 27 bringing it into direct contact with the root of the plant to be destroyed. This operation may be quickly and easily accomplished, only a short time being required to treat the dandelions upon a lawn of considerable size.

Attention is called to the fact that while using the device there is practically no disturbance of the earth since the insertion and removal of the small tube 19 is practically unnoticeable.

Having thus described our invention, what we claim is:

1. A killer for dandelions and other noxious weeds or plants, comprising a liquid-containing magazine, a relatively small tube at the lower extremity of the magazine, a cylinder located in the magazine and in communication with the tube, the cylinder being of greater diameter than the said tube, the cylinder being in communication with the magazine by suitable ports, a piston located in the cylinder, a valve located in the lower tube and controlling escape orifices formed in the latter, a suitable connection

between the piston and the said valve, and means for simultaneously reciprocating the piston and valve from the outside of the barrel, the relation of the piston and valve being such that when the piston is moved downwardly for the purpose of ejecting the liquid, the valve is given a corresponding movement whereby the ports of the lower tube are uncovered for the escape of the liquid, substantially as described.

2. The combination of a barrel, a cylinder therein in communication with the barrel, a tube at the lower extremity of the barrel and in communication with the cylinder, the cylinder being of greater diameter than the tube, the tube also having escape orifices, a valve for controlling said orifices, an ejecting piston located in the cylinder, and means for simultaneously actuating the piston and valve whereby the orifices of the tube are uncovered and the liquid ejected therefrom, substantially as described.

3. The combination with a liquid-containing magazine having an orificed earth-entering tube at its lower extremity, a cylinder located within the magazine and in communication with the latter and also with the lower tube, the cylinder being of greater diameter than the tube, an ejecting piston located in the cylinder, a valve located in the tube for controlling the escape of liquid from the orifice of the latter, the valve being below the liquid in the tube and forming a support therefor, a connection between the piston and the valve, and means for simultaneously actuating the last named elements from the outside of the barrel, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

JOSEPH S. FOULKE.
THOMAS J. FLAVIN.

Witnesses:

D. CANADAY,
RAY PROFFIT.