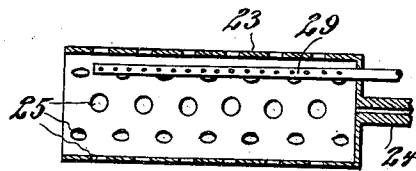
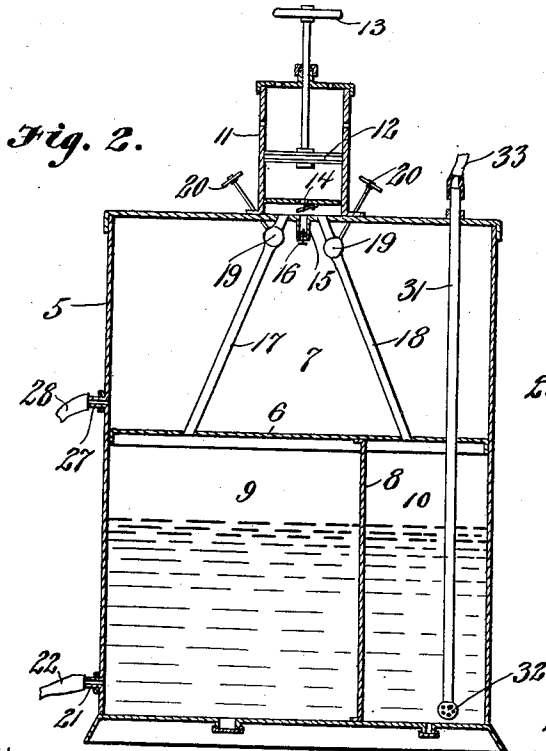
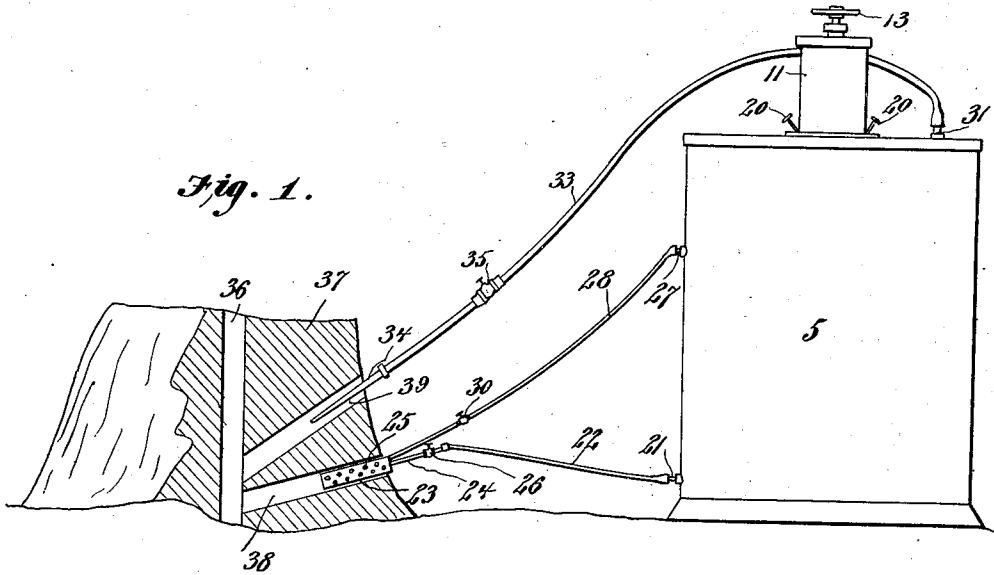


W. E. WHITE.
METHOD OF DESTROYING STUMPS.
APPLICATION FILED JAN. 27, 1912.

1,024,540.

Patented Apr. 30, 1912.



Warren E. White Inventor

Witnesses

A. R. Walton,
L. L. Heidman.

By Max A. Schmidt
Attorney

UNITED STATES PATENT OFFICE.

WARREN E. WHITE, OF SPOKANE, WASHINGTON.

METHOD OF DESTROYING STUMPS.

1,024,540.

Specification of Letters Patent.

Patented Apr. 30, 1912.

Application filed January 27, 1912. Serial No. 673,757.

To all whom it may concern:

Be it known that I, WARREN E. WHITE, a citizen of the United States, residing at Spokane, in the county of Spokane and State of Washington, have invented certain new and useful Improvements in Methods of Destroying Stumps, of which the following is a specification.

This invention has for its object to provide a novel and improved method for destroying tree-stumps by burning.

In order that the invention may be better understood, reference is had to the accompanying drawing forming a part of this specification in which—

Figure 1 is an elevation, partly in section, illustrating the method and the apparatus employed for carrying out the same. Fig. 2 is a sectional view of the liquid fuel reservoir. Fig. 3 is a longitudinal section of the burner.

Referring specifically to the drawing, 5 denotes a tank containing the liquid fuel employed in the operation of the apparatus. The tank is divided by a horizontal partition 6 into upper and lower compartments, the former being indicated at 7. The lower compartments has a vertical partition 8 whereby it is divided into compartments 9 and 10, respectively, the former being designed to hold a supply of gasoline or other liquid fuel, and the latter a supply of coal-oil or other inflammable liquid. In the bottom of the respective fuel compartments are filling apparatus provided with suitable closures.

On the top of the tank 5 is mounted an air pump, the cylinder of which is indicated at 11, and the plunger at 12, the latter being hand-operated, its stem having a handle 13 for this purpose. The pump cylinder has an outlet valve 14 of any suitable construction, and is connected by a short pipe 15 to the compartment 7, said pipe having a suitable check-valve 16. From the pump cylinder also extend pipes 17 and 18 which pass through the compartment 7 and the partition 6, and open, respectively, into the compartments 9 and 10. In the pipes 17 and 18 are suitable valves 19 to control the flow of air therethrough, said valves being operated from the outside of the tank by handles 20 extending through the top of the tank.

It will be evident from the foregoing that when the air pump is operated, air under pressure will be stored up in the compart-

ment 7, and a pressure is also placed on the liquid contents of the compartments 9 and 10 for the purpose of forcing said contents out of the respective compartments.

To the compartment 9 is connected a nipple 21 for attachment of a flexible tube 22 which conveys the gasoline to a burner 23, the latter being a cylindrical casing open at one of its ends and having connected at its other end a short pipe 24 to which latter the tube 22 is connected. The burner casing is perforated as indicated at 25, and the pipe 24 has a valve 26.

To the compartment 7 is connected a nipple 27 for attachment of a flexible tube 28 having a nozzle 29 which extends into the casing of the burner 23. The tube 28 is fitted with a valve 30.

Extending down into the tank 5 through the top thereof is a pipe 31, said pipe passing through the compartment 7 and extending through the partition 6 into the compartment 10, the lower end of said pipe terminating near the bottom of said compartment and having perforations 32 through which the coal-oil enters. To the pipe 31, on the outside of the tank, is connected a flexible tube 33 fitted with a nozzle 34 and a valve 35.

The operation of the apparatus is as follows: A vertical hole 36 is made in the center of the stump 37, said hole extending from the top of the stump and passing down to the roots thereof. In one side of the stump are made holes 38 and 39, respectively, which communicate at their inner ends with the central hole 36. A sufficient pressure having been pumped into the tank 5, the burner 23 is inserted into the hole 38 and after opening the valve 26 the burner is ignited. The valve 30 is also opened, whereupon the burning gasoline is blown through the opening 38 down into the stump. The burner obtains an additional supply of air to support combustion, through the perforations 25, the burner casing being spaced a sufficient distance from the wall of the opening 38 so that the perforations are not obstructed thereby. A fire is thus started in the center of the stump which will in a short time entirely destroy the same. The holes 36 and 39 serve as vents. The nozzle 34 will be inserted into the hole 39, whereupon, after opening the valve 35, a supply of coal-oil is injected into the stump. Some stumps are very readily

ignited and do not require coal-oil, whereas others, especially when wet and soggy, are difficult to ignite, this difficulty, however, being overcome by injecting the coal-oil which will set the stump afire immediately.

The apparatus can be readily controlled by the several valves and it is efficient and reliable in operation, the stumps and roots being entirely destroyed in a short time. The apparatus is also devoid of complicated parts to get out of order, and it is light and portable, and can be easily carried. The gasolene, coal-oil and air tubes will be of sufficient length so that the tank can be set far enough from the stump.

I claim:

1. The process of burning tree-stumps which consists in making holes in the stump and a vent therefor, injecting into the

stump, through one of the holes, burning liquid fuel and air under pressure, and injecting into the stump, through the other hole, an inflammable liquid.

2. The process of burning tree-stumps which consists in making a central downward hole in the stump and side holes extending to the bottom of the central hole, injecting into the stump, through one of the side holes, burning liquid fuel and air under pressure, and injecting into the stump, through the other side hole, an inflammable liquid.

In testimony whereof I affix my signature in presence of two witnesses.

WARREN E. WHITE.

Witnesses:

NELLIE STAFFORD,
JOHN PATTISON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."