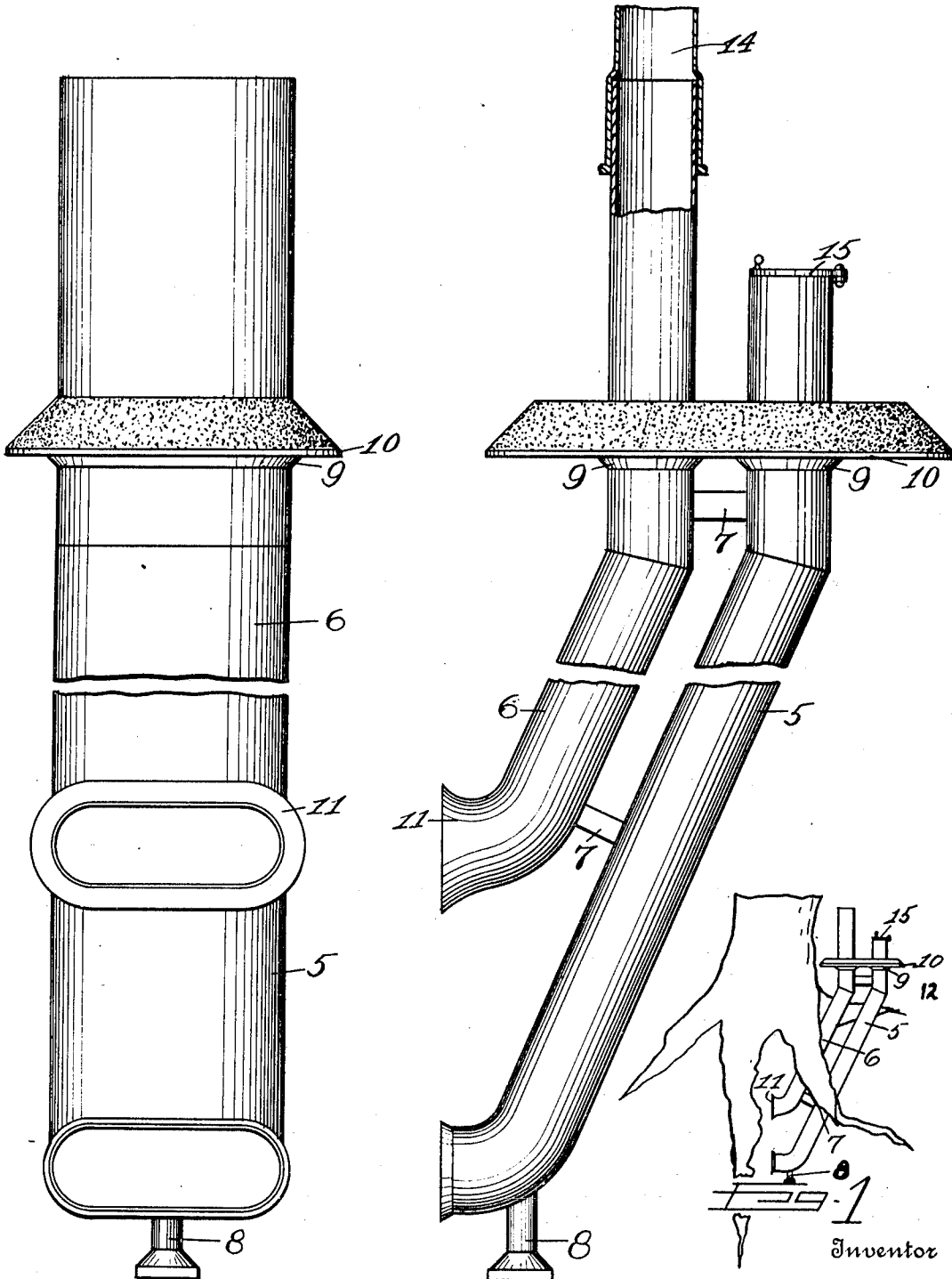


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STUMP BURNER.
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1,040,402.

Patented Oct. 8, 1912.



Witnesses

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VALENTINE H. PICKENS, OF FLORALA, ALABAMA.

STUMP-BURNER.

1,040,402.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, VALENTINE H. PICKENS, a citizen of the United States of America, residing at Florala, in the county of Covington and State of Alabama, have invented certain new and useful Improvements in Stump-Burners, of which the following is a specification.

This invention relates to stump burners, and its object is to provide a very simple and inexpensive device of this character adapted to maintain a hot fire at the base of a stump and beneath the ground, without the employment of any kind of combustible oil, such as kerosene, gasolene or the like.

Further objects and advantages of the invention will be set forth in the detailed description which now follows.

In the accompanying drawing Figure 1 is a sectional view through the ground adjacent a stump to be removed, with the device in position. Fig. 2 is an enlarged side elevation of the device, and Fig. 3 is a front elevation thereof.

Like numerals designate corresponding parts in all of the figures of the drawing.

Referring to the drawing, 5 designates a blast pipe and 6 designates a draft pipe. These pipes are preferably connected by lugs 7, though clamps or any other equivalent structure may be employed for this purpose, if desired. The blast pipe is likewise preferably provided with a foot 8. Flanges 9 are formed upon the pipes and limit the downward movement of a ground plate 10. The pipes 5 and 6 are preferably substantially oval in cross section to adapt them to more readily enter a bored hole. In other words, the pipes are somewhat flattened to lie more closely together from front to rear to thereby adapt them to enter a smaller circular bored hole than would be possible if the pipes were round. The pipe 6 is preferably provided with a flaring or funnel like mouth 11. The structure so far described, and which structure comprises all of the essential features of the device, operates as follows.

A hole is formed adjacent the stump to be burned. This hole may be formed by digging, though it is of course apparent that it may be more readily formed by boring with any of the well known earth augers now on the market. At the bottom of the hole a fire is started with chips, or like combustible material. Then the stump burner is low-

ered into position with the foot 8 resting on the bottom of the hole. This brings the lower end of the blast pipe 5 adjacent the base of the fire. The ground plate 10 covers the hole and earth indicated at 12 is then piled upon the plate to prevent the entrance of air beneath the plate. It will, therefore, be apparent that at this time the only draft to the fire will be through pipe 5 and the only escape for the products of combustion will be through pipe 6. The heated air passes rapidly through pipe 6 and creates a down draft in blast pipe 5. This down draft blows the fire to such an extent as to keep it up and to cause the fire to eat its way rapidly into the stump. The plate 10 is slidably mounted on pipes 5 and 6 and this plate in conjunction with foot 8 maintains the structure in position while permitting downward movement of the pipes with relation to the plate if a slight caving of the earth upon which foot 8 rests should occur under the action of the fire.

If desired, I may employ an extension for the draft pipe, said extension being indicated at 14. This extension increases the draft, as will be readily understood. The invention also contemplates the employment of a damper 15 upon the blast pipe. These latter features, however, are merely auxiliaries and may or may not be employed, the essential features of the invention residing broadly in the employment of the draft and blast pipes. Since no fuel such as kerosene or like combustible oil is employed in connection with this device, and since the fire after it has once been started will continue to burn until the stump is consumed, it follows that one man can remove a large number of stumps by employing a number of these stump burners. These stump burners are so simply and cheaply made that it is possible for persons of moderate means to use a large number of them simultaneously. With this in mind, it will be seen that any one can go from stump to stump setting one of these stump burners at each stump and leaving them in place as long as may be necessary to complete the destruction of the stump. These stump burners are preferably made of cast iron and will last indefinitely. Where comparatively small stumps are to be removed, the stump burners set on one day can be taken up the next day and reset at other stumps.

A further advantage of this structure is

that rain has practically no effect upon the proper operation of the device since the fire is entirely under ground. It is possible to burn out stumps in a corn field without injuring the adjacent corn, since the products of combustion pass out through the draft pipe.

From the foregoing description it will be seen that simple means and efficient means are herein provided for accomplishing the objects of the invention, but while the elements shown and described are well adapted to serve the purposes for which they are intended, it is to be understood that the invention is not limited to the precise construction set forth, but includes within its purview such changes as may be made within the scope of the appended claims.

Having described my invention, what I claim is:—

1. In a device of the character described, the combination with a blast pipe, of a draft pipe, the lower end of said blast pipe being disposed below the lower end of the draft pipe, a dirt supporting plate through which said pipes pass, and flanges carried by said pipes for limiting the downward movement of said plate, said dirt supporting plate being adapted to cover and close a hole in the ground when said pipes are inserted therein.

2. In a stump burner, the combination with a blast pipe and a draft pipe, of means for securing said pipes directly and rigidly together, said pipes lying side by side

throughout the major portion of their length, the lower ends of said pipes being out-turned in the same direction and the lower end of the blast pipe lying in a substantially lower horizontal plane than the lower end of the draft pipe and the lower end of the blast pipe lying in substantially the same vertical plane as the lower end of the draft pipe, and a dirt supporting plate slidably mounted upon said pipes and adapted to cover the opening in the ground into which said pipes may be inserted.

3. In a device of the character described, the combination with a blast pipe, and a draft pipe, said pipes having outturned lower ends, the lower end of the blast pipe lying beneath the lower end of the draft pipe, of means for supporting said pipes in position in a hole formed in the ground, said means also sealing said hole.

4. A device of the character described comprising a blast pipe and a draft pipe, said pipes lying substantially parallel to each other and being secured directly and rigidly to each other, said pipes being substantially oval in cross section, and a dirt supporting plate through which said pipes pass.

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

VALENTINE H. PICKENS.

Witnesses:

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J. W. MILLER.