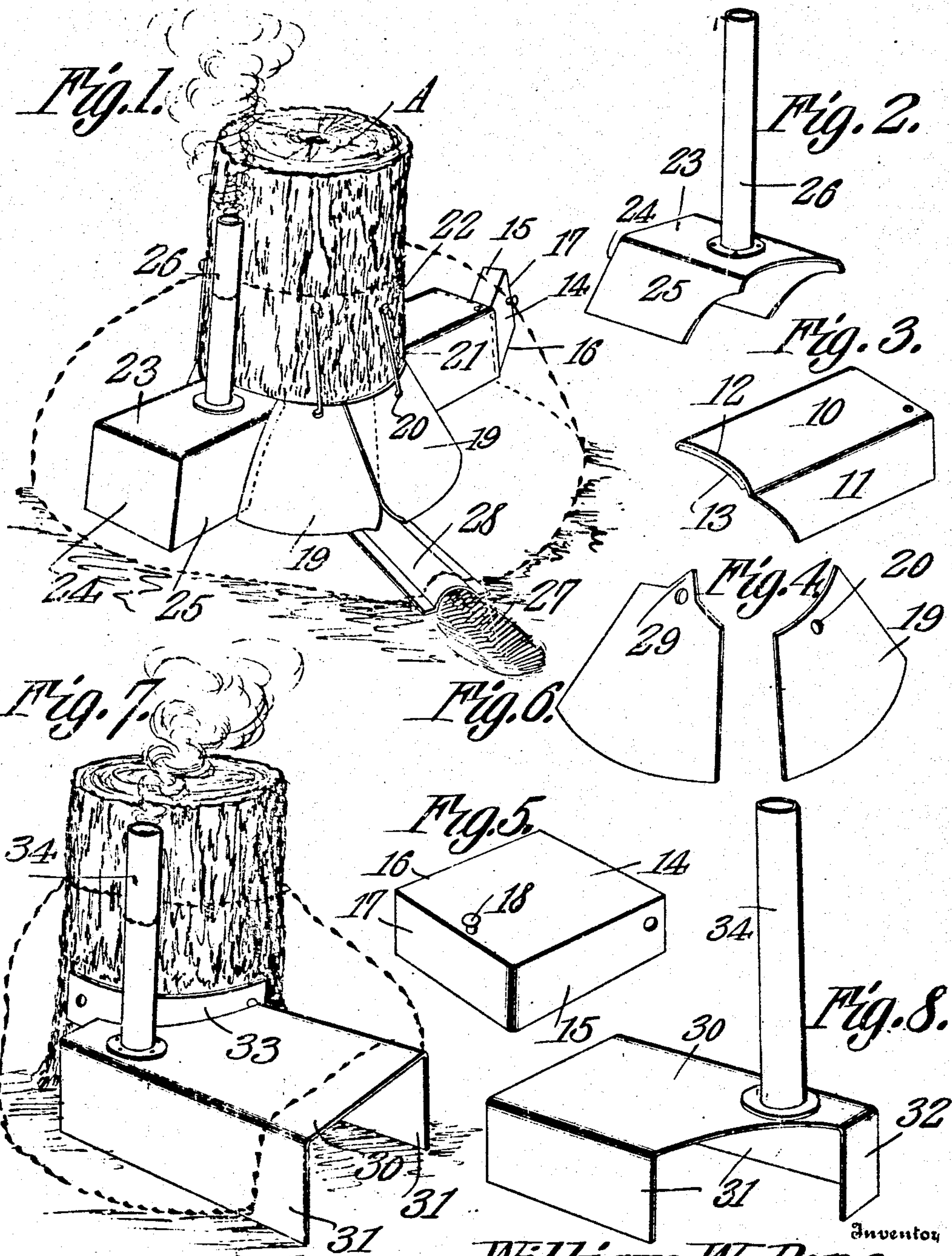


W. W. POPE.
STUMP BURNER.
APPLICATION FILED APR. 9, 1909.

932,573.

Patented Aug. 31, 1909.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM W. POPE, OF TYLERTOWN, MISSISSIPPI.

STUMP-BURNER.

932,573.

Specification of Letters Patent. Patented Aug. 31, 1909.

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To all whom it may concern:

Be it known that I, WILLIAM W. POPE, a citizen of the United States, residing at Tylertown, in the county of Pike and State of Mississippi, have invented a new and useful Stump-Burner, of which the following is a specification.

It is the object of the present invention to provide an improved construction of stump burning furnace and more particularly to provide one which may be readily transported from place to place in knock-down condition and set up in proper position with respect to a stump of any ordinary size.

The invention further aims to provide a stump burning furnace so constructed and adapted for disposal against a stump as to burn the stump below its upper end and near the ground.

It is a further object of the invention to provide a stump burning furnace which may be disposed against a stump in such manner as to completely surround the same and further to provide for a complete circulation of air or draft around the stump whereby the stump will be completely surrounded by the flames of the fuel in the furnace and will be evenly burned around its circumference.

In the accompanying drawings, Figure 1 is a perspective view showing one form of the stump burning furnace in position for use. Fig. 2 is a detail perspective view of the smoke-box and draft flue of the furnace shown in Fig. 1. Fig. 3 is a view similar to Fig. 2 showing the fire-box of the furnace. Fig. 4 is a perspective view of one of the sections constituting the fire-box extension. Fig. 5 is a perspective view of the fire-box door. Fig. 6 is a view similar to Fig. 4 but showing a slightly modified form of section. Fig. 7 is a view similar to Fig. 1 showing a slight modification in the structure of the furnace, and Fig. 8 is a perspective view of the form of furnace shown in Fig. 7 viewed from another direction.

In the drawings, the stump is indicated by the reference character A and as heretofore stated, the stump burning furnace which is adapted for disposal against a stump, is made of a plurality of sections which are to be disposed against the stump and properly positioned one with respect to the other to form the complete furnace, and of the sections, the fire-box is shown in Fig. 3 of the drawings as comprising a top 10 and de-

pending sides 11, the said fire-box being open at its bottom and at that end which is adapted for disposal against a stump, the edge of the top 10 at this end being cut away in a curve as at 12 whereby to fit snug against the stump to be burned and the side walls 11 of the fire-box at the said end being under-cut as at 13 for a purpose which will presently be explained. At its opposite end, the fire-box is provided with a hinged door which is shown specifically in Fig. 5 of the drawings as being of box-like structure, including side walls 14, a top wall 15, a bottom wall 16, and end walls 17, the said door being, as will be readily understood, of box-like structure and being hinged at one end within the said end of the fire-box and of a size to close the said end thereof when swung to proper position. A handle is provided at the outer end of the door and is indicated by the numeral 18. It is preferable, in practice, that this fire-box door be filled with earth so that it will be non-conductive of heat and will not be liable to burn through as will be the case if formed of sheet metal.

As heretofore stated, to provide for a more complete burning of the stump, there are provided, in combination with the fire-box, multi-section extensions or continuations thereof and the sections forming these continuations are indicated each by the numeral 19 and are shown specifically in Figs. 1 and 4 of the drawings, they being in the nature of transversely convex plates wider at their lower ends than at their upper ends and formed each adjacent its upper end edge with an opening 20 in which is engaged the lower hooked end of a supporting rod or wire 21 the upper end of this wire being hooked and engaged with a supporting nail 22 which is to be driven into the stump prior to assembling the furnace.

As is clearly shown in Fig. 1 of the drawings, the sections 19 are disposed against the stump in a series one overlapping the other and by reason of the manner of disposal of the sections, they may be so assembled as to surround an irregular stump, as will be readily understood.

It will further be understood that by undercutting the end edges of the side walls of the fire-box, a complete circulation is provided for.

In addition to the sections of the furnace heretofore described, there is provided a smoke-box having a top 23, an end wall 24,

and side walls 25, these side walls and the top wall being cut away as in the case of the corresponding wall of the fire-box. A smoke-pipe or draft-flue 26 projects upwardly from the top wall 23 of the smoke-box just described and after all of the several sections heretofore described have been assembled in the relation stated, clay or soil is packed over the completed furnace as shown in dotted lines in Figs. 1 and 7 covering all portions thereof with the exception of the fire-box door and the upper end of the smoke-flue 26. It is desirable at times to provide additional drafts and when this is to be done, there is dug in the surface of the ground in a direction substantially radially from the stump, a trough 27 which is throughout a portion of its extent covered by a cover section 28 over which the clay or soil is packed, the inner end of this cover section projecting beneath one or more of the sections 19.

From the foregoing description of the invention it will be understood that the fire-box and its continuations comprised of the sections 17, is to be stuffed with fuel and that the fuel is to be ignited within the fire-box and the door thereof left open for at least a short period of time to permit of a draft entering through the door, around beneath the extension 19 to each side of the fire-box, and out through the smoke-box and smoke-flue 26, it being observed that in this manner a draft is formed entirely around the stump and as a consequence all of the fuel will be thoroughly ignited and the stump will be completely burned.

It is sometimes preferable, as shown in Fig. 6 of the drawings, to form each of the sections 19 at its upper edge with an apertured ear 29 instead of forming the opening 20, located inwardly of the upper edge of the members.

In the form of the invention shown in Figs. 7 and 8 of the drawings, there is provided a furnace consisting solely of a fire-box having an upper wall 30 and depending side walls 31, also a short end wall 32 located at that end of the fire-box which is disposed against the stump to be burned, the top wall 30 being cut away in a curve as in the case of the corresponding wall of the fire-box in the form of the invention shown in Fig. 1 of the drawings and being disposed with its said cut-away edge against the stump, there being preferably secured upon the stump, by nailing or otherwise, at the point of engagement of the said edge therewith, a plate 33 which prevents the flame from the burning fuel within the fire-box burning the stump

above the fire-box. In this form of the invention, there is also provided a smoke-flue 34 similar to the smoke-flue 26 and projecting, as in the case of the smoke-flue 26, upwardly from the top wall 30 of the fire-box. It is to be understood that when this form of fire-box is employed, a hole will be burned in the stump and the fire will eat down into the stump.

What is claimed is:—

1. In a stump burner, a fire-box having an open side adapted to be placed against a stump, the fire-box being of less height than the stump and having an outlet for the products of combustion, the said outlet being located adjacent to the open side of the fire box.

2. In a stump burner, a fire-box having an open side adapted to be placed against a stump and to partly surround the same, the fire-box being of less height than the stump, and a smoke-box adapted to communicate with the fire-box, and having also an open side adapted to be disposed against the stump.

3. In a stump burner, a multi-section fire-box having an open side adapted to be placed against a stump, the fire-box being of less height than the stump and having an outlet for the products of combustion, the outlet being located adjacent to the open side of the fire box.

4. In a stump burner, a fire-box having an open side adapted to be placed against a stump, the fire-box being of less height than the stump, sections adapted for disposal also against the stump whereby to form a continuation of the fire-box between the sides thereof around the stump, and a smoke-flue removed from the fire-box as regards position.

5. In a stump burner, a fire-box having an open side adapted for disposal against a stump, the fire-box being of less height than the stump, a plurality of sections adapted also for disposal against the stump and to form therearound a continuation of the fire-box, a smoke-box in communication with the flues afforded by said section and having an open side adapted also for disposal against the stump, and a smoke-flue leading from the said smoke-box, the smoke-box being removed from the fire-box as regards position.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIAM W. POPE.

Witnesses:

S. W. SIBLEY, Jr.

W. H. MORSE.