

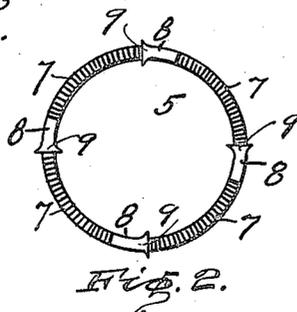
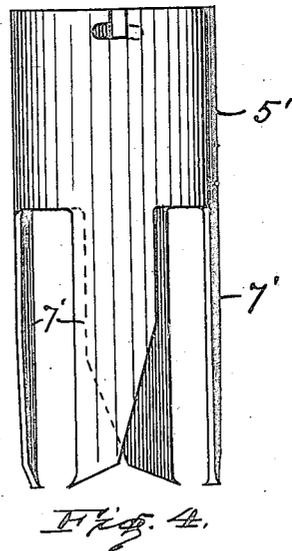
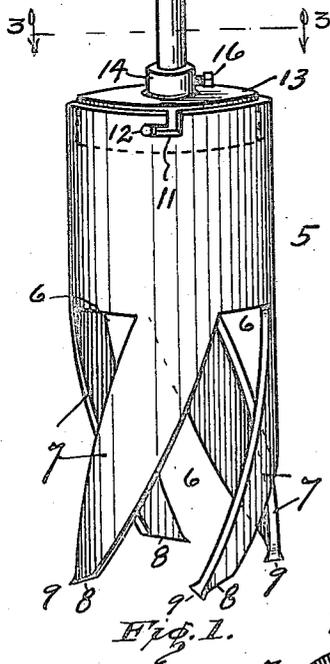
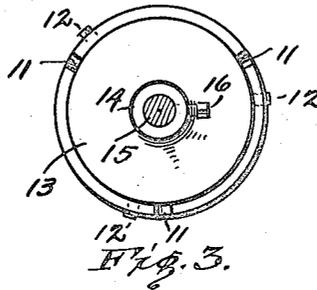
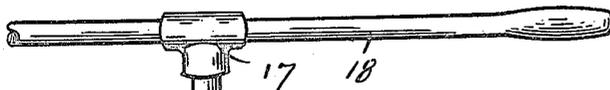
May 22, 1923.

1,456,153

H. L. SEEGER

DRILLING TOOL

Filed Aug. 29, 1921



INVENTOR.

Herman L. Seeger

BY Joseph A. Mintura

ATTORNEY.

UNITED STATES PATENT OFFICE.

HERMAN L. SEEGER, OF INDIANAPOLIS, INDIANA.

DRILLING TOOL.

Application filed August 29, 1921. Serial No. 496,252.

To all whom it may concern:

Be it known that I, HERMAN L. SEEGER, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented new and useful Improvements in Drilling Tools, of which the following is a specification.

The object of this invention is to provide a tool in the nature of a drill for cleaning out drain tiles which have become clogged, for digging fence post holes, and for similar work where cutting points are desired to loosen the packed material to be removed, and wherein means are provided for moving the loosened material out of the way of the cutting points, and for receiving it in a convenient holder in which it will be removed at suitable intervals.

I accomplish the above, and other objects which will become apparent hereafter, and which will be pointed out in the appended claims, by the mechanism illustrated in the drawing forming a part hereof, and wherein like characters of reference will refer to like parts.

In the drawing above referred to, Fig. 1 is a perspective view of the preferred form of my drill as assembled for use. Fig. 2 is an end view of the drill looking up from the bottom of the drill, and Fig. 3 is a top plan view and partial cross section on the line 3—3 of Fig. 1. Fig. 4 is a side elevation of a modified form of my drill.

The drill member 5 of my invention is here shown as formed out of tubular steel approximately twice the length of its outside diameter, but these dimensions are not fixed or arbitrary. The lower half of the tube, as here shown has four spiral slots 6 extending upwardly from its lower end, equidistantly from each other and of a size to leave tongues 7 of approximately the same size between the slots. The ends 8 of the tongues are beveled and the adjacent portion for approximately half the length of the tongues are tapered to cause the tongues to enter the material to be operated on by the tool, more freely and to receive the compacted earth cuttings and thereby support the earthen core in the tool during withdrawal from the hole. The extreme lower points of the members 7 are broadened as shown at 9 to make the cut little wider than the thickness of the members 7 to give clearance for the latter and prevent binding in the operation of the tool. The upper end of

the cylinder 5 is provided with a plurality of angular slots 11 which receive pins 12 seated radially in a plug 13 which is fitted in the bore of the tube 5 and which is retained by the bayonet joints formed by the members 11 and 12.

The plug 13 has a hollow boss 14 in which a bar 15 is seated and is retained by a set screw 16. A T-head 17 on the opposite end of the bar 15 receives and holds a handle bar 18 by which the tool as a whole is manually operated, first by pressing the cutting member against the material to be removed and rotating it, and then by withdrawing the device for the removal of the loosened contents after it is full.

The material loosened by the cutting points 9 is carried up and compacted in the upper ends of the slots of the tube 5, and thereby the core of earth cut loose by the teeth is supported by the oblique edges of the members 7, and the construction of the bayonet joints afford easy means for the removal of plug 13 and thereupon the accumulation of loosened material in the tube is readily dislodged.

In the modification shown in Fig. 4 the members 7' are straight instead of spiral.

Having this fully described my invention, what I claim as new and wish to secure by Letters Patent of the United States, is—

1. In a tool for the purposes specified, a substantially cylindrical member having a plurality of spaced apart slots extending in from one end of said member first obliquely and then nearer at right angles with said end forming tongues to retain the earthen core which tongues are sharpened at their outer ends to form cutters, and means for manually operating said member.

2. In a tool for the purposes specified, a substantially cylindrical member having a plurality of spaced apart slots extending in from one end of said member first obliquely and then nearer at right angles with said end forming tongues to retain the earthen core which tongues are sharpened at their outer ends to form cutters, a removable plug closure for the opposite end of said member, and a handle for operating the tool attached to the plug.

3. In a tool for the purposes specified, a cylindrical member having a plurality of spaced apart slots at one end forming tongues, said slots being first spirally oblique from the end and then substantially

parallel with the axis of the cylinder to retain the earthen core cut out by the tool, and means for manually operating said member.

5 4. In a tool for the purposes specified, a cylindrical member having a plurality of spaced apart slots at one end forming tongues, said slots being first spirally oblique from the end and then substantially
10 parallel with the axis of the cylinder to retain the earthen core, said tongues being not less than the diameter of the cylinder in length, and means for manually operating
15 said member.

5. In a tool for the purposes specified, a

cylindrical member having a plurality of spiral spaced apart end slots forming spiral tongues and axially parallel slot-extensions from the spiral slots, said tongues being tapered toward their outer ends and broadened at their points to form cutting ends wider than the thickness of the cylindrical wall, a plug in the opposite end of the cylindrical member, bayonet joints removably connecting the plug with the cylindrical member, and a handle attached to the plug for manipulating the tool.

Signed at Indianapolis, Indiana, this the 27th day of August, 1921.

HERMAN L. SEEGER.