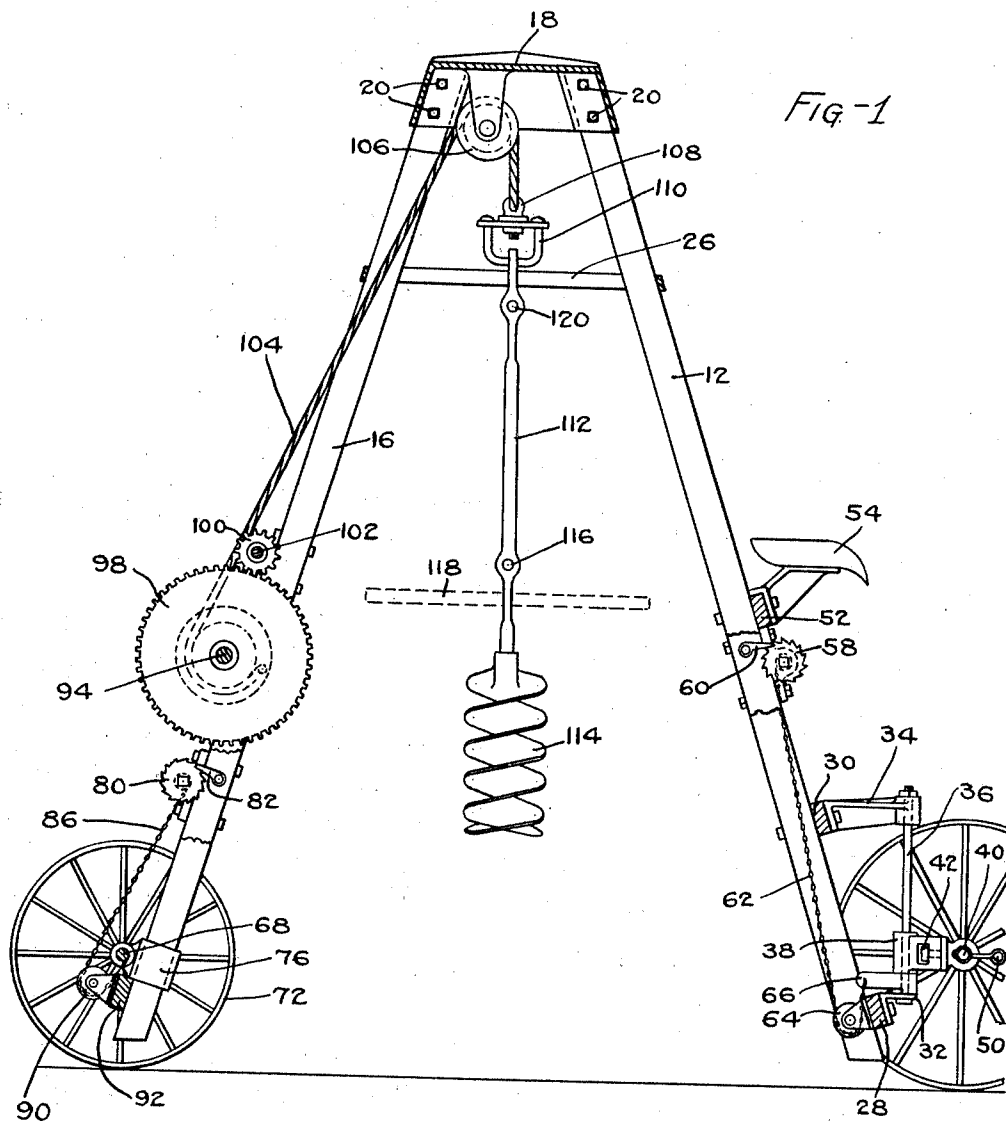


1,360,193.

V. J. DAVIDSON,
POSTHOLE DIGGING MACHINE.
APPLICATION FILED JULY 19, 1920.

Patented Nov. 23, 1920.
3 SHEETS—SHEET 1.



INVENTOR:
VICTOR J. DAVIDSON.
By Whiteley and Ruckman
ATTORNEYS.

1,360,193.

V. J. DAVIDSON.
POSTHOLE DIGGING MACHINE.
APPLICATION FILED JULY 19, 1920.

Patented Nov. 23, 1920.
3 SHEETS—SHEET 2.

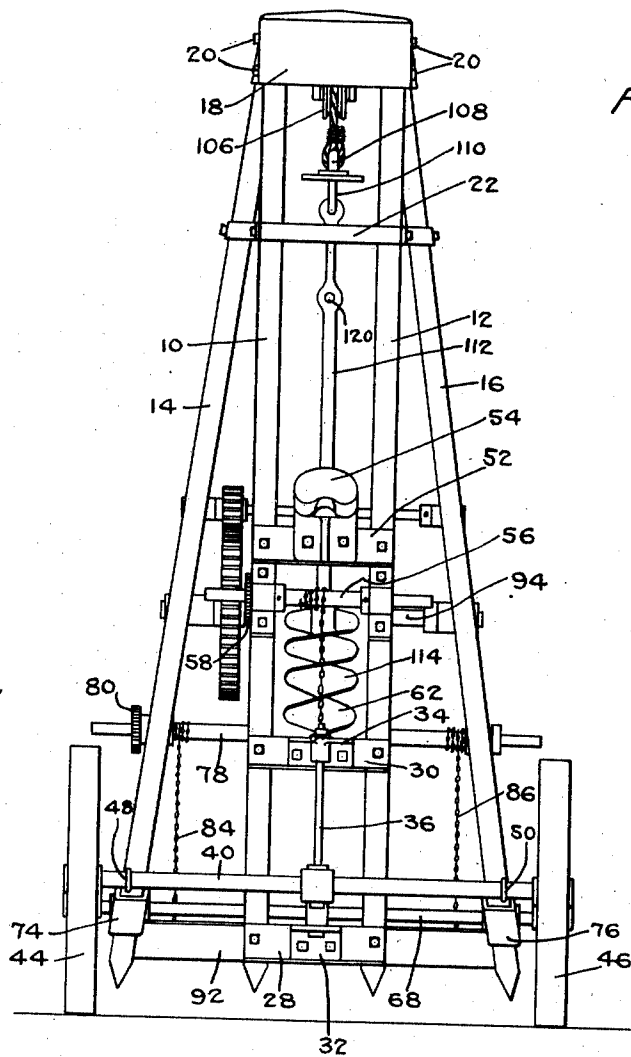


FIG-2.

INVENTOR:
VICTOR J. DAVIDSON.
By Whiteley and Ruckman
ATTORNEYS.

1,360,193.

V. J. DAVIDSON.
POSTHOLE DIGGING MACHINE.
APPLICATION FILED JULY 19, 1920.

Patented Nov. 23, 1920.
3 SHEETS—SHEET 3.

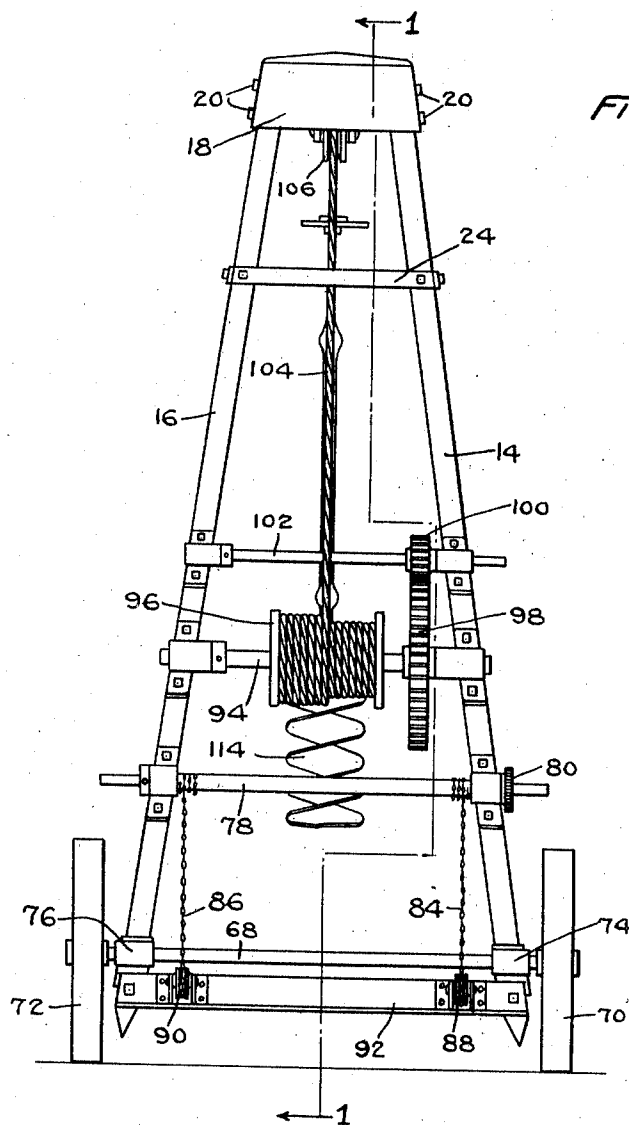


FIG. 3

INVENTOR:
VICTOR J. DAVIDSON.
By *Whiteley and Ruckman*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

VICTOR J. DAVIDSON, OF TINTAH, MINNESOTA.

POSTHOLE-DIGGING MACHINE.

1,360,193.

Specification of Letters Patent. Patented Nov. 23, 1920.

Application filed July 19, 1920. Serial No. 397,343.

To all whom it may concern:

Be it known that I, VICTOR J. DAVIDSON, a citizen of the United States, residing at Tintah, in the county of Traverse and State of Minnesota, have invented certain new and useful Improvements in Posthole-Digging Machines, of which the following is a specification.

My invention relates to post-hole digging machines, and an object is to provide a machine which can be used very expeditiously for digging post-holes or similar holes in the ground and which can be readily moved from place to place for digging successive holes.

The full objects and advantages of my invention will appear in connection with the detailed description thereof, and the novel features embodied in the inventive idea will be particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in vertical section on the line 1—1 of Fig. 3; Fig. 2 is a front elevational view; Fig. 3 is a rear elevational view.

Referring to the construction shown in the accompanying drawings, the frame of the machine includes two front standards 10 and 12 and two rear standards 14 and 16. The front and rear standards converge toward each other upwardly, as shown in Fig. 1, the two front standards 10 and 12 being parallel with each other, as shown in Fig. 2, while the two rear standards 14 and 16 are spaced farther apart at the bottom and converge toward each other, as shown in Figs. 2 and 3. All of the standards at their upper ends are secured to a cap 18 by bolts 20 passing through the standards and through the turned-down flange of the cap. A horizontally disposed bar 22 connects the two front standards, a horizontal bar 24 connects the rear standards, and two horizontal bars 26 connect the front and rear standards with each other, all of these bars being located toward the top of the framework. The two front standards are connected at their bottom by a horizontal member 28 and they are also connected by a horizontal member 30 spaced above the member 28. Secured to the member 28 is a forward extension 32 and secured to the member 30 is a forward extension 34, the two extensions being connected by a vertical bolt 36. A member 38 is provided with a vertical opening through which the bolt 36 extends loosely, and this member is provided with

a forward extension to which a front axle 40 is swivelly attached by a bolt 42. Wheels 44 and 46 are mounted on the ends of the front axle and eyebolts 48 and 50 secured to the axle serve for the attachment of whiffletrees for hauling the machine. A horizontal bar 52 connecting the front standards about midway of their length serves for the attachment of a seat 54. Rotatably mounted in bearings secured to the front standards is a shaft 56 to which is secured a ratchet wheel 58 engageable by a dog 60 pivoted to one of the front standards. The shaft 56 has a square end by means of which it can be turned to wind up a chain 62, the upper end of which is secured to the shaft. The other end of this chain passes under a roller 64 attached to the lower portion of the front frame members, and this chain is then secured to a member 66 having a hole through which the bolt 36 passes, the member 66 being positioned between the extension 32 and the attaching member 38. When the chain 62 is wound upon the shaft 56, as shown in Figs. 1 and 2, the front frame members will be lifted from the ground. Upon raising the dog 60, the front frame members will move downwardly so as to rest upon the ground, the bolt 36 sliding through the members 38 and 66. A rear axle 68 has wheels 70 and 72 mounted upon its ends and to this shaft hollow members 74 and 76 are secured. Through these hollow members, the rear standards 14 and 16 extend slidably. Mounted in bearings on the rear standards is a shaft 78 to which is secured a ratchet wheel 80 engageable by a dog 82 pivoted to one of the rear standards. The shaft 78 has a square end by means of which it can be turned to wind up a pair of chains 84 and 86, the upper ends of which are secured to the shaft. The other ends of the chains pass under rollers 88 and 90 attached to a cross-bar 92 secured to the frame members and the ends of the chains are then attached to the axle 68.

Mounted in bearings on the rear standards is a shaft 94 to which is secured a winding drum 96. A gear 98 secured to the shaft 94 meshes with a gear 100 secured to a shaft 102 mounted in bearings secured to the rear standards, this shaft having a square end by means of which it can be turned to rotate the drum 96 upon which is wound a cable 104. This cable passes over a pulley 106 secured to the under side of the cap 18. The

end of the cable is secured to an eye-bolt 108 to which a clevis 110 is swiveled. This clevis passes through an opening in the upper end of the bar 112 to the lower end of which is secured an earth auger 114. The bar 112 above the auger is provided with holes such as 116 at right angles to each other through which rods such as 118 may be inserted for turning the auger. By using two of these rods, a number of men may turn the auger for boring holes into the ground. The bar 112 near its upper end is also provided with holes such as 120 at right angles to each other through which rods such as 118 may be inserted for turning the auger after it has bored for some distance into the earth.

The operations and advantages of my invention will be obvious from the foregoing description. When it is desired to move the machine from one place to another, the framework is held in raised position as shown in the drawings, and by attaching whiffletrees to the eye-bolts 48 and 50 the machine may be readily hauled over the ground and positioned at the place where a hole is to be dug. Upon lifting the dogs 60 and 82, the framework descends so as to be firmly positioned upon the ground. If desired, the standards of the framework may be sharpened at their lower ends so that they will not slip over the ground. Upon allowing the drum 36 to rotate, the auger descends to the ground and upon passing the rods 118 through the holes 116 in the bar 112 power may be applied to the auger to bore into the earth. Since the holes 116 are only a short distance above the auger, the latter may be readily maintained in a vertical position and as the boring progresses the rods are shifted up to the holes 120 and the boring continued until the hole in the ground is of sufficient depth. Upon applying a suitable handle to the shaft 102, the auger may be lifted out of the hole which has been dug. Upon applying power to turn the shafts 56 and 78, the framework is lifted from the ground and supported only upon the wheels and the machine is then ready for being moved into position for digging another hole.

I claim:

1. A post-hole digging machine comprising a frame including a pair of front standards and a pair of rear standards, a vertical bolt supported near the bottom of said front standards, a member slidably and rotatably mounted on said bolt, a front axle swivelly attached to said member, wheels

mounted on said axle, means whereby said front standards can be raised and lowered relatively to said wheels, a rear axle to which said rear standards are slidably attached, wheels mounted on said axle, means whereby said rear standards can be raised and lowered relatively to said wheels, and an earth auger supported from said frame.

2. A post-hole digging machine comprising a frame including a pair of front standards and a pair of rear standards, a vertical bolt supported near the bottom of said front standards, a member slidably and rotatably mounted on said bolt, a front axle swivelly attached to said member, wheels mounted on said axle, means whereby said front standards can be raised and lowered relatively to said wheels, a rear axle to which said rear standards are slidably attached, wheels mounted on said axle, means whereby said rear standards can be raised and lowered relatively to said wheels, an earth auger, means whereby said auger can be turned for boring a hole into the earth, a drum mounted on said frame, a cable wound on said drum and having its outer end attached to said auger, and means for rotating said drum to lift said auger from the hole which it has bored.

3. A post-hole digging machine comprising a frame including a pair of front standards and a pair of rear standards, said pair of front standards and said pair of rear standards converging upwardly toward each other, said pair of front standards being parallel with each other and said pair of rear standards converging upwardly toward each other, a pair of forward extensions secured to said front standards and spaced vertically from each other, a vertical bolt connecting said extensions, a member slidably and rotatably mounted on said bolt, a front axle swivelly attached to said member, wheels mounted on said axle, means whereby said front standards can be raised and lowered relatively to said wheels, a rear axle to which said rear standards are slidably attached, wheels mounted on said axle, means whereby said rear standards can be raised and lowered relatively to said wheels, an earth auger, means whereby said auger can be turned for boring a hole into the earth, a drum mounted on said frame, a cable wound on said drum and having its outer end attached to said auger, and means for rotating said drum to lift said auger from the hole which it has bored.

In testimony whereof I hereunto affix my signature.

VICTOR J. DAVIDSON.