Jan. 18, 1927. 1,614,534

A. P. NORTON

WRENCH

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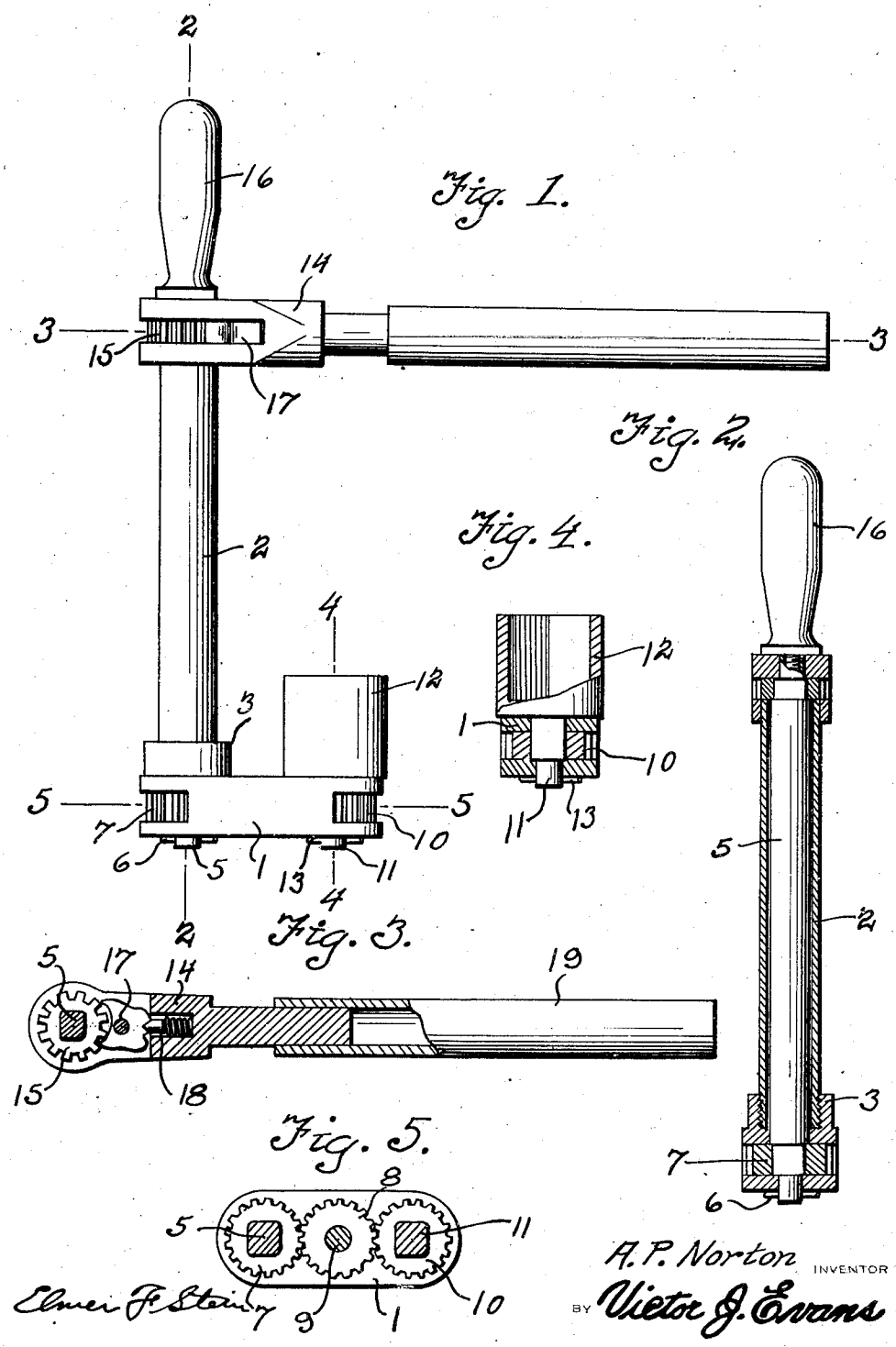


Fig. 1.

Fig. 2.

Fig. 4.

Fig. 3.

Fig. 5.

A. P. Norton INVENTOR

BY Victor J. Evans

ATTORNEY

WITNESS:

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ARTHUR PRESTON NORTON, OF CRAIGMONT, IDAHO.

WRENCH.

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This invention relates to a wrench for use in thrashing machine cylinders and other places difficult for access with an ordinary wrench, the general object of the invention being to provide a chuck, with a handle for holding the chuck carrying member and means associated at the far end of the handle for turning the chuck.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claim.

In describing my invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is an elevation of the complete wrench.

Figure 2 is a section on line 2—2 of Figure 1.

Figure 3 is a section on line 3—3 of Figure 1.

Figure 4 is a section on line 4—4 of Figure 1.

Figure 5 is a section on line 5—5 of Figure 1.

In these views, 1 indicates a hollow block which has its ends rounded and open and 2 indicates a hollow handle which is threaded in a boss 3 formed on the upper face of the block adjacent one end thereof. A shaft 5 is rotatably mounted in the handle 2 and has one reduced end passing through the block, the parts being held together by a cotter pin 6 which passes through a hole in the projecting end of the shaft. A portion of this reduced end is of square shape in cross section and a pinion 7 is inserted in the end of the block and has its square bore engaged by this square part so that the pinion will rotate with the shaft. A second pinion 8 is rotatably mounted in the central part of the block through means of the pivot pin 9, and this pinion 8 meshes with a third pinion 10 which has a square bore engaging a squared part of a stem 11 of a chuck 12 which is seated on the inner face of the block. The stem 11 passes entirely through the block and is held in place by a cotter pin 13 passing through a hole therein. Thus it will be seen that when the shaft 5 is turned, its motion will be communicated to the chuck through means of the three pinions in the block.

A forked head or block 14 rests upon the handle 2 and the reduced upper end of the shaft 5 passes through holes in the prongs of this member. A portion of this reduced part is squared and passes through the squared bore of a ratchet wheel 15 which is placed between the prongs. A hand grip 16 is screwed to the threaded end of the shaft 5 which projects above the member 14 and thus holds the parts assembled. A double pawl 17 is pivoted between the prongs and is adapted to engage the ratchet wheel 15 and a spring pressed plunger 18 is carried by the member 14 and holds the pawl 17 with either one of its points in engagement with the wheel 15. This arrangement of parts will enable the chuck to be driven in either direction by properly setting the pawl 17. A handle 19 is slipped over the reduced end of the part 14 so as to give proper leverage to the wrench.

From the foregoing, it will be seen that I have provided means whereby the chuck can be placed in engagement with an object to rotate the object from the handle 19 in places where said object would be impossible or difficult to reach by an ordinary wrench. By making the chuck removable, different sized chucks can be used and it can be reversed, if desired. The handles 16 and 12 provide various hand grips for holding the device to the work.

It is thought from the foregoing description that the advantages and novel features of my invention will be readily apparent.

I desire it to be understood that I may make changes in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claim.

What I claim is:

A wrench of the class described comprising a hollow block having its ends open, a threaded bushing on one side adjacent one end of the block, a tubular handle having one end threaded in the bushing, a handle having a forked part fitting against the other end of the handle member, a shaft

passing through the handle member, the block and the forked part, a hand grip connected with the upper end of the shaft and holding the forked part in place, ratchet means connecting the forked part with the shaft, a chuck rotatably carried by the block, a gear in the block connected with the chuck, a second gear in the block connected with the shaft and a third gear in the block and meshing with the other gears for communicating the movement of the shaft to the chuck.

In testimony whereof I affix my signature.

ARTHUR PRESTON NORTON.