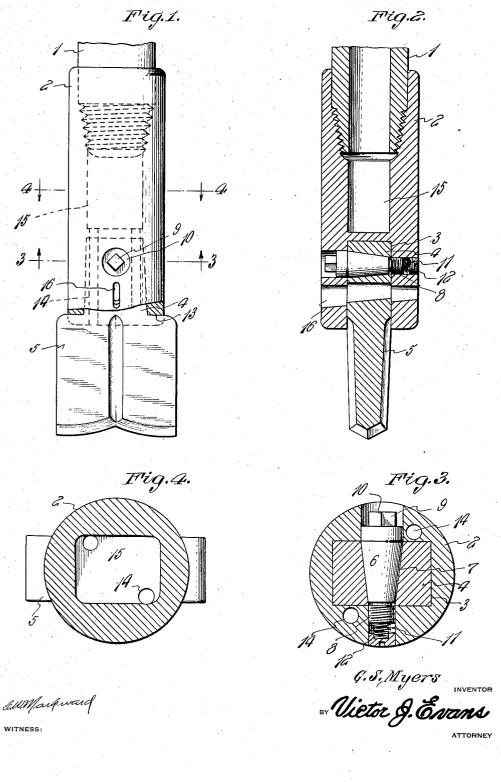
G. S. MYERS

DRILL COLLAR

Filed Oct. 16, 1923



## UNITED STATES PATENT OFFICE.

GEORGE S. MYERS, OF ELECTRA, TEXAS.

DRILL COLLAR.

Application filed October 16, 1923. Serial No. 668,921.

To all whom it may concern:

Be it known that I, George S. Myers, a citizen of the United States, residing at Electra, in the county of Wichita and State 5 of Texas, have invented new and useful Improvements in Drill Collars, of which the following is a specification.

This invention relates to improvements in drills, the general object of the invention 10 being to provide improved means for connecting the bit with the drill pipe.

Another object of the invention is to provide means whereby water is supplied to the edges of the bit a distance from the center 15 thereof so as to wash the bit.

This invention also consists in certain other features of construction and in the combination and arrangement of the sev-eral parts, to be hereinafter fully described, 20 illustrated in the accompanying drawings and specifically pointed out in the appended is relieved of some of the strain. claim.

In describing my invention in detail, reference will be had to the accompanying 25 drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:-

Figure 1 is an elevation of the invention,

with parts broken away.

Figure 2 is a longitudinal sectional view. Figure 3 is a section on line 3-3 of Figure 1.

Figure 4 is a section on line 4-4 of Fig-

In these views, 1 indicates the drill pipe which is hollow so that the flushing water can be passed down the same. 2 indicates a collar which is threadedly connected with the lower end of the pipe and which is provided with a socket 3 to receive the shank 4 of the bit 5. The shank is held in place by means of a tapered pin 6 which passes through a tapered hole 7 in the shank and has its small end screw threaded to engage a threaded hole 8 in the collar. The other or head end is of cylindrical shape to engage a round hole 9 in the collar. Said pin is provided with a wrench receiving part 10

on its head and it is locked in place by means of a spring 11 engaging the screw 50 threaded end thereof and a plug 12 for holding the spring in place. The lower end of the collar is provided with a groove 13 for receiving the upper part of the bit head so that the bit is firmly connected with the col- 55 lar. Passages 14 are arranged in the collar for conducting the water from the space 15, which receives it from the pipe 1, to the bit head at each side of the center thereof so that the bit is kept clean by the force of the 60 water engaging the sides of the cutting edge. Elongated holes 16 are formed in the collar and in the shank of the bit so that a drift tool can be used to knock the bit from the collar.

By having the groove 13 in the collar for receiving a part of the bit head, the collar has more leverage on the bit and the shank

It is thought from the foregoing descrip- 70 tion 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 75 parts, provided that such changes fall within the scope of the appended claim.

What I claim is:-

In combination with a drill bit and collar, said collar having a socket in its lower end, 80 for receiving the shank of the bit, said shank having a tapered hole therein and the collar having a threaded small hole and a large hole for registering with the tapered hole, a pin having a tapered part engaging the 85 tapered hole in the shank with its head of cylindrical shape for engaging the large hole and having its small end threaded to engage the threaded hole, a spring in said threaded hole engaging the threaded end of the pin, a 90 plug closing the threaded hole and also engaging the spring and a wrench receiving part on the head of the pin arranged in the large hole.

In testimony whereof I affix my signature GEORGE S. MYERS,