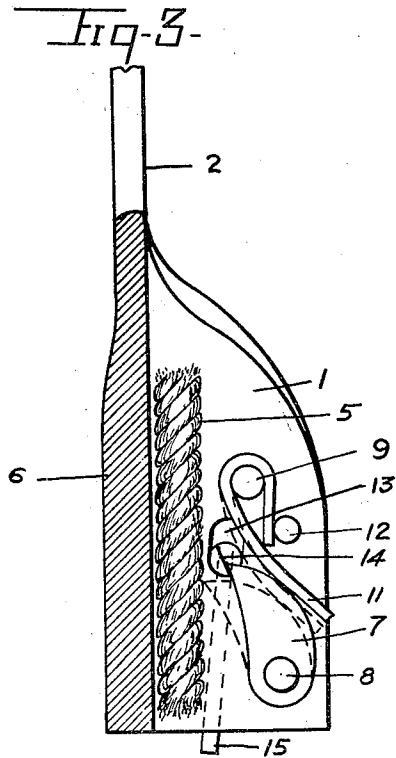
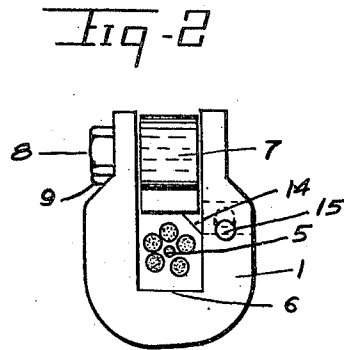
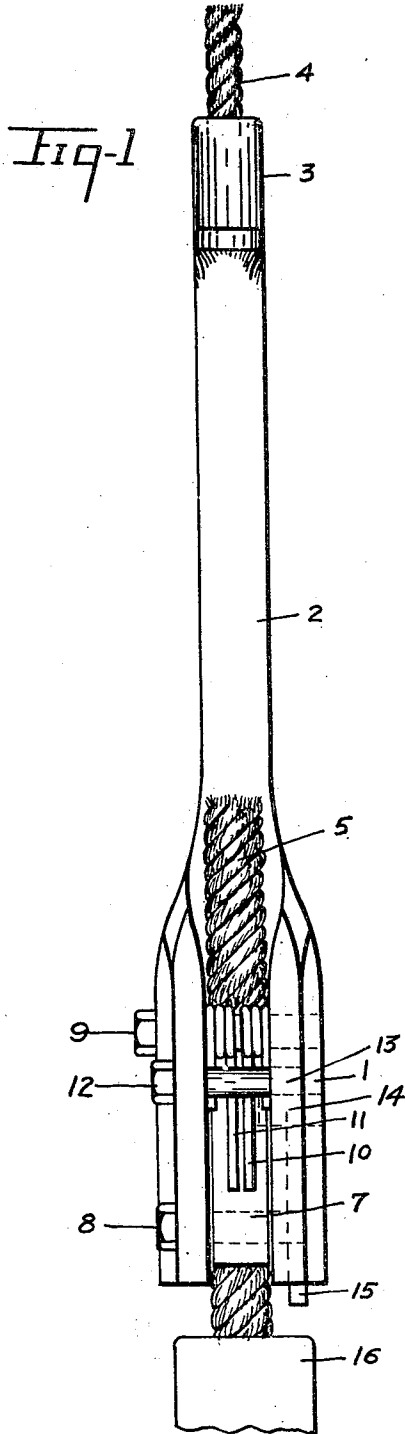


C. R. SAMUELSON.  
CABLE CUTTER.  
APPLICATION FILED NOV. 17, 1920.

1,381,019.

Patented June 7, 1921.



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# UNITED STATES PATENT OFFICE.

CARL R. SAMUELSON, OF PORTLAND, OREGON.

## CABLE-CUTTER.

1,381,019.

Specification of Letters Patent.

Patented June 7, 1921.

Application filed November 17, 1920. Serial No. 424,597.

*To all whom it may concern:*

Be it known that I, CARL R. SAMUELSON, a citizen of the United States, residing at Portland, in the county of Multnomah and State of Oregon, have invented new and useful Improvements in Cable-Cutters, of which the following is the specification.

My invention relates to and is generally used to cut the cable employed in the use of well drilling.

The purpose of my invention is to provide a simple and efficient device for cutting the drill operating cable, when the drill socket which carries the drill has become wedged in the well bore.

I attain these objects by the mechanism illustrated in the accompanying drawing, in which:

Figure 1 is an elevational view of the cable cutter showing how it is arranged with respect to the drill cable. Fig. 2 is a plan view of the cable cutter from the lower end. Fig. 3 is a vertical sectional view of the cutter partly in section, and showing the position of the cable cutter, cutter spring and cutter dog.

Similar numbers refer to similar parts through the several views.

In Fig. 1 the lower end of the device will be known as the body, and having attached thereto at the upper end, the stem 2 which is part thereof and built all in one piece. On the upper end of the stem 2, the cable socket 3 is fastened, and holding the cable 4 which is independent from the drill cable, and can be operated without interference therewith.

The stem 2 is offset from the center line of the body 1 as shown by the side view in Fig. 3. Along the center line plan of the body is built a groove, large enough to admit the drill cable 5 and move freely, said cable being in a position between the solid part 6 of the body, and the cutting mechanism, as shown by Fig. 3 of the drawing.

From the drawing in Figs. 1 and 3 it will be seen that the cutter 7 is held in position by the bolt 8 with the cutting edge of said cutter curved toward the drill cable 5. It will be seen in Fig. 1 that the cutter

is wide enough to cover the thickness of the cable 5.

Coiled about the bolt 9 are two springs, one right hand, and one left hand, as pointed out by the numbers 10 and 11 in the drawing. Parallel to the bolt 9 is the bolt 12 which also passes through the body 1 and is screwed into the opposite side thereof, said bolt holding the springs 10 and 11 in tension with the cutter 7, as seen from the side in Fig. 3 of the drawing.

In the elongated opening 13 and at a lateral position is the cutter dog 14, which is round in section and cut away to half section at the point where the cutter 7 is engaged therewith. Through the side of the body and parallel to the cable groove, is a pin 15, said pin being long enough to project from the lower face of the body, and screw into the side of the cutter dog on the opposite end. The pin above mentioned is to govern the mechanical operation of the cable cutter, as will be described below.

Assuming that the drill is wedged in the well bore, and it is desired to cut the cable off close to the cable socket of the drill. In Fig. 1 the drill cable socket is shown by the number 16 which is in line with the cable cutter. The cable cutter being operated by an independent cable, can be dropped, and the pin 15 will come in contact with the drill cable socket and force the cutter dog upward, releasing the cutter which will be forced to take the position shown by the dotted line, since said cutter is in tension by the springs 10 and 11, as shown by Fig. 3 in the accompanying drawing. With the above part of the operation complete the cable cutter can be raised by the cable 4, thus the drill cable 5 will be against the inside of the body wall 6 and the drill cable will be parted by the cutter at that point.

Having fully described my invention, I claim and desire to protect by Letters Patent:

A cable cutting tool comprising a body member, a stem offset from the center line of said member, a vertical drill cable groove in the body member of said tool, right and left handed coil springs to force the cutter toward the opposite side of said body member, a cutter dog in one side of the body

member which is brought into engagement with said cutter to prevent the same from interfering with the drill cable when in use, and a plunger passing through the same side 5 of the body member carrying the cutter dog and fastened to said cutter dog at one end, so that the cable cutting tool can be op-

erated after said tool is dropped and the plunger is brought in contact with the top of the drill below, thus releasing the cutter, 10 which engages with the drill cable and the tool is raised and the cable is cut at the desired point substantially as shown.

CARL R. SAMUELSON.