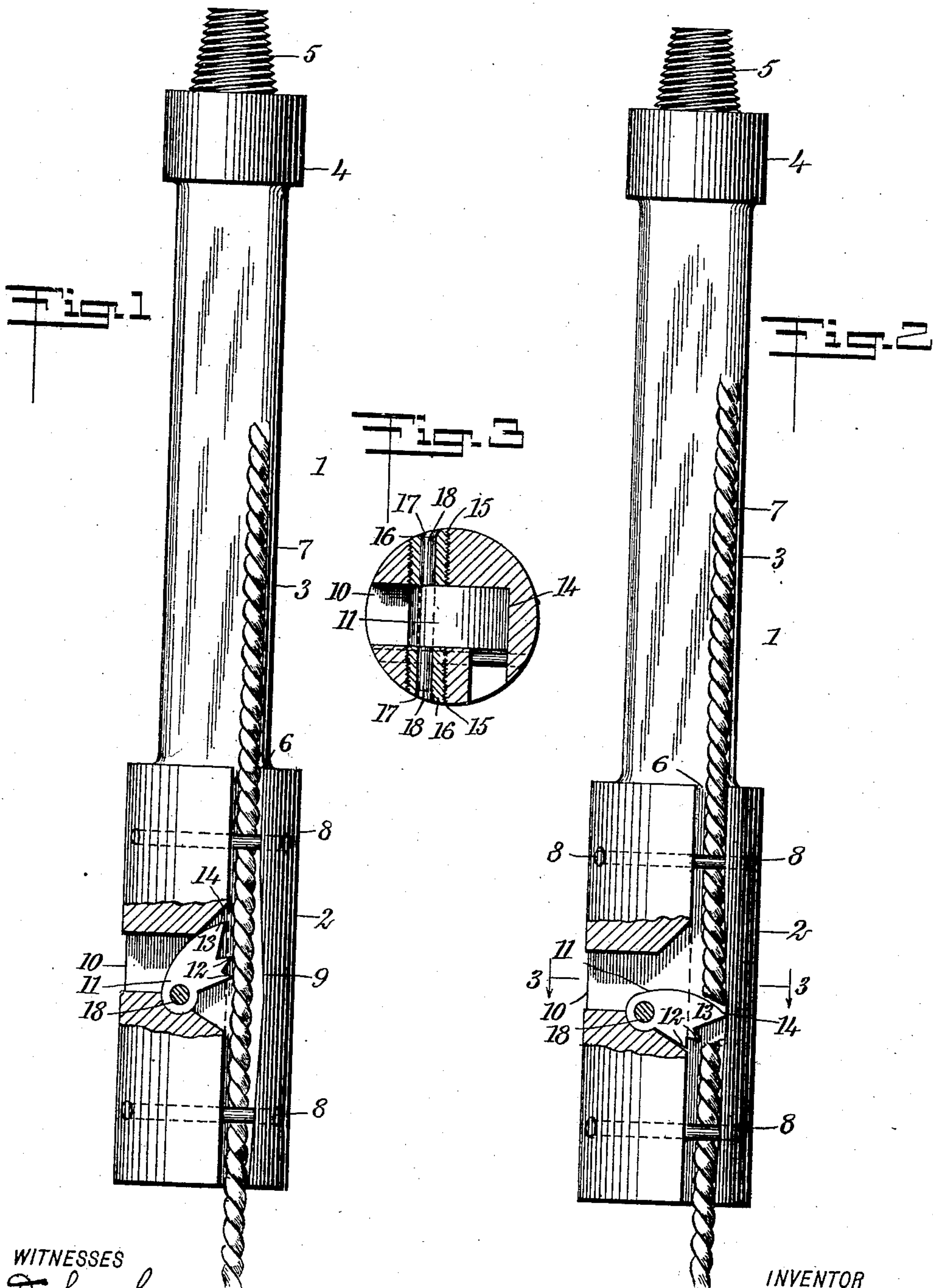


917,555.

J. J. DAVIN.  
LINE CUTTER.  
APPLICATION FILED MAY 16, 1908.

Patented Apr. 6, 1909.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

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## LINE-CUTTER.

No. 917,555.

Specification of Letters Patent.

Patented April 6, 1909.

Application filed May 15, 1908. Serial No. 432,993.

*To all whom it may concern:*

Be it known that I, JAMES JOSEPH DAVIN, a citizen of the United States, and a resident of Washington, in the county of Washington and State of Pennsylvania, have invented a new and Improved Line-Cutter, of which the following is a full, clear, and exact description.

This invention relates to line cutters, and more particularly such as are adapted to be used in severing drill connections and the like, in wells or borings.

An object of this invention is to provide a line cutter adapted to be slidably arranged on a drill controlling line, and having cutting means for engaging a line at any desired point to sever it.

A further object of the invention is to provide a device of the class described adapted to be slidably arranged on a drill line and having cutting means for severing the line at any desired point, the cutting mechanism being operable by an upward pull on the cutter.

The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly set forth in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the device having a part broken away and showing the cutting mechanism in an inoperative position; Fig. 2 is a side elevation of the device having a part broken away, and showing the cutting mechanism after it has severed a line; and Fig. 3 is a cross section on the line 3—3 of Fig. 2.

Before proceeding to a more detailed description of my invention, it should be understood that in making wells or other borings, a drill suspended on a flexible cable is generally employed. It sometimes occurs that the drill becomes wedged in the well bore, and that it is impossible to remove it by drawing up on the cable, and that either a charge of explosive or other measures must be used to release it. Therefore, it is advisable that the flexible member which supports the drill, be severed at a point close to the drill. For this purpose, I have provided a line cutter adapted to be slidably arranged upon the flexible member which supports the drill, so that it can be lowered to any de-

sired point. When the cutter has reached the point at which the line is to be severed, an upward pull thereon forces the cutting member into engagement with the line and causes the latter to be severed at that point.

Referring more particularly to the drawings, 1 represents a line cutter having a body 2, a shank 3 and a head 4. The head and the body are of greater diameter than the shank. The head 4 has a tapered threaded extension 5 to which a controlling line or rod may be connected. The body has a groove 6 on one side thereof forming a guideway for a drill line 7. The latter may be of any flexible material such as wire, chain, or the like. Rivets 8 located in transverse openings in the body 2, extend over the guideway 6 and form keepers for retaining the line in the guideway. The latter has a V-shaped extension 9 near its center, for a purpose to be hereinafter described.

The body 2 has an opening 10 extending to the guideway 6, the opening being outwardly flared where it joins the guideway. Pivotally arranged within the opening 10 is a cutter 11 having teeth 12 for engaging the line which passes through the guideway. The nose 13 of the cutter is provided with a knife edge 14 for severing the line after the latter has been engaged by the teeth.

The body has threaded openings 15 extending from the inside of the opening 10, in which correspondingly threaded plugs 16 are located. The plugs have registering openings 17 in which a pivot pin 18 is arranged, which carries the cutter 11.

In the operation of the device, the cutter is lowered to the point at which the line is to be severed; then an upward pull is exerted, whereby the teeth are brought into engagement with the line to hold the latter against the V-shaped extension 9, and to force it to one side. The continued upward movement of the cutter causes the knife edge to sever the line.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. In a line cutter, a body having a shank integral therewith, means on said shank for removably connecting it to an operating member, said body having a guideway on one side thereof to receive a line, keepers for holding the line in position in said guideway, said guideway further having an extension at the center thereof, said body having an



opening extending to said guideway, and a cutter pivotally arranged within said opening and being provided with teeth for engaging said line and a knife edge for severing the same, said cutter being operable by an upward movement of said body longitudinally of said line.

2. A line cutter comprising a body having a guide-way for the line, said body having an opening extending to the guide-way and a

cutter pivotally arranged within the opening provided with teeth for engaging the line and a knife edge for severing the same.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES JOSEPH DAVIN.

Witnesses:

BOYD E. WARNE,  
WILLIAM FEENEY.