

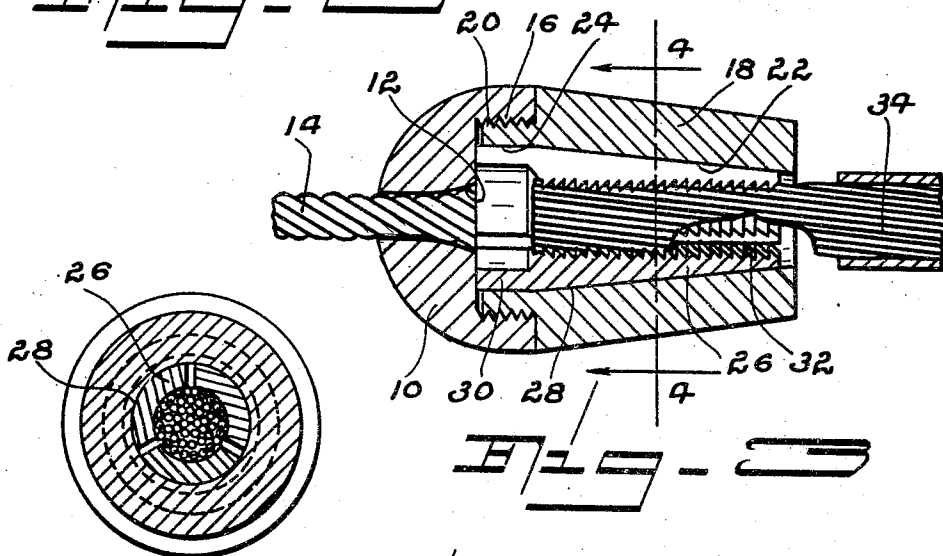
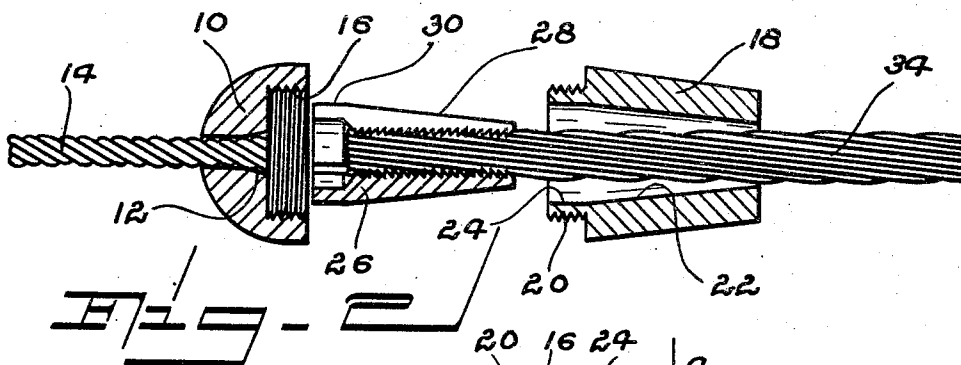
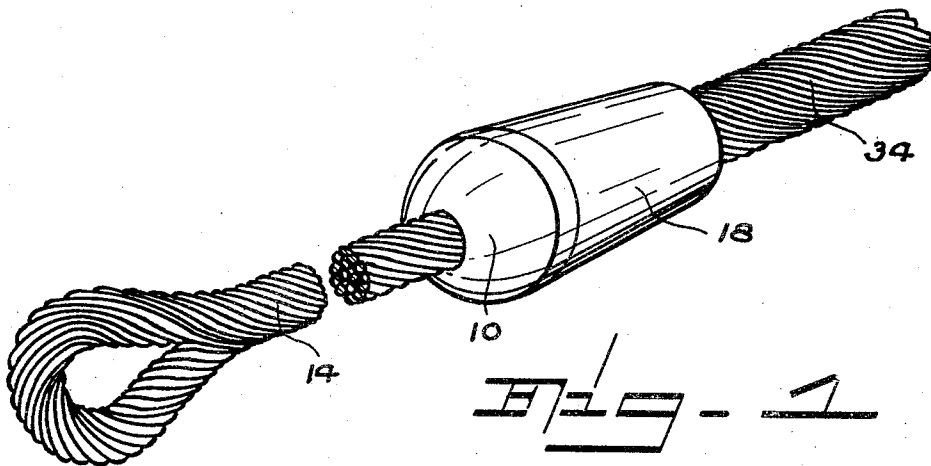
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WIRE PULLER

Filed July 11, 1931



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WIRE PULLER

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My present invention relates to the art of cable or wire handling devices and more particularly to that general class of devices known as wire pullers.

When cables such as are used for carrying electrical current, telephone communication lines, and the like, are placed underground, it is necessary to have some means of securing a draft line to the cable to pull it through the underground pipe or conduit. Now, normally there is but little more room in the conduit or pipe than is required by the cable. This precludes the possibility of knotting a drable through the end of the power or telephone cable. Many devices have been produced in the past using toggle clamp means and U-shaped clamps and the like, but they have been found to be very bulky and not suitable for conduit work. It is to provide a satisfactory means for wire pulling which will overcome the above deficiencies that I have created my device. Therefore

The principal object of my invention is to provide a wire puller arrangement that is very compact and yet which will securely hold the end of a cable it is desired to drag through a conduit.

A further object is to provide a wire puller which is so constructed that additional strain on the cable serves to tighten the wire puller's grip on the cable.

A still further object is to provide a wire puller which by the interchanging of certain small parts is readily adaptable to cables of varying sizes.

Other and more specific objects will be apparent from the following description taken in connection with the accompanying drawing, wherein

Figure 1 is a perspective view showing my device as used on a cable.

Figure 2 is a longitudinal sectional view through my device showing it in the initial step of applying it to a cable.

Figure 3 is a longitudinal sectional view showing my device as locked upon a cable.

Figure 4 is a cross sectional view along the line 4-4 of Figure 3.

Referring to the drawing throughout which like reference characters indicate like

parts, numeral 10 designates the draft head. This member is provided with means, as, for instance, the taper seat at 12, so that a draft cable as 14 may be securely anchored therein. Disposed coaxially with cable 14 is a thread portion 16. I have shown this as an internal thread. However, it would be easily possible to use an external thread at this point if the balance of the device were arranged for it. Adapted to engage thread 16 in a manner which will place the sleeve co-axially with cable 14 is the clamp sleeve 18. As shown in my drawing this member is provided with an external or male thread 20 which is adapted to engage the internal threads 16 of member 10. Sleeve 18 is provided with a central bore 22 which is tapered, having its largest end adjacent the threaded portion. It has also been found desirable to have a small portion as 24 which is a straight cylinder bore. Adapted to be engaged by the tapered surface 22 is a plurality of jaw members 26. I have found it convenient to use three such members, although I would not care to be limited to this number. These members are machined on their outer surfaces 28 with a taper of the same degree as taper 22 of member 18 and I have further provided a cylinder portion 30 of the same length substantially as cylinder bore 24 of member 17.

The inner surface of the jaw members I prefer to provide with teeth. Screw threads have been used by me in a number of instances, but I prefer the construction shown in greater detail in Figure 3 in which the teeth 32 are arranged to permit the easy insertion of a cable and disposed to prevent its removal; in other words a saw-toothed arrangement with the points pointing inwardly towards the draft head.

Method of operation

In using my device, for instance, with lead or rubber covered cable, as 34, it has been found most desirable usually to strip off the covering and insert the cable through the small end of member 18 after the showing of Figure 2. The jaw members 26 are then grouped around the exposed end of the cable.

The next operation is to slide sleeve 18 up over the compressed jaw members and finally to engage threads 20 into threads 16 of the draft head and tighten the member after the showing of Figure 3. In this position the teeth 32 of the jaw members are forced firmly into the cable; in other words, setting themselves in the cable and when a draft strain is placed on cable 14 there is a tendency to move the jaw members 26 rearwardly. This is prevented, however, by the sloping bore of member 18 and the only effect accomplished is that of more securely grasping the end of the cable.

The foregoing description and the accompanying drawing are believed to clearly disclose a preferred embodiment of my invention but it will be understood that this disclosure is merely illustrative and that such changes in the invention may be made as are fairly within the scope and spirit of the following claims.

What I claim is:

1. A wire puller consisting of a draft head, having a tapered seat adapted to engage a pulling cable; a clamp sleeve, adapted to engage said draft head, having a tapered bore; and a plurality of jaw members adapted to cooperate with the tapered bore of the clamp sleeve to clamp a cable end positioned in said sleeve.

2. A wire puller consisting of a threaded draft head; a pulling cable secured to said draft head; a clamp sleeve having a threaded portion, adapted to engage the threaded portion of the draft head, and a tapered bore; and a plurality of jaw members adapted to cooperate with the tapered bore of the clamp sleeve to clamp a cable end positioned in said sleeve.

3. A wire puller consisting of an internally threaded draft head, a pulling cable secured to said draft head; a clamp sleeve having an external threaded portion, adapted to engage the threaded portion of the draft head, and a tapered bore; and a plurality of toothed jaw members having a combined outer surface tapered to match the taper of the clamp sleeve, adapted to cooperate with the tapered bore of the clamp sleeve to clamp a cable end positioned in said sleeve.

In witness whereof, I hereunto subscribe my name this 11 day of June A. D. 1931.

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LOUIS P. SEIFNER.

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