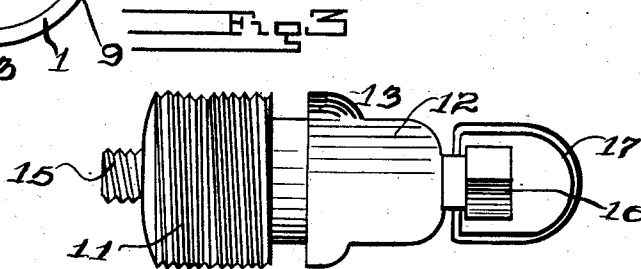
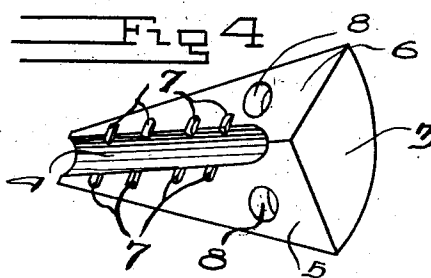
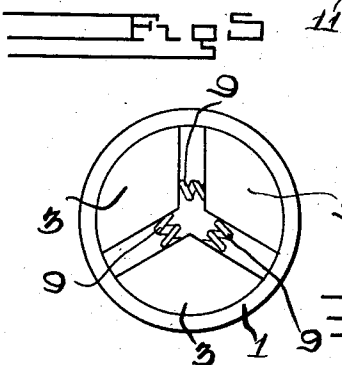
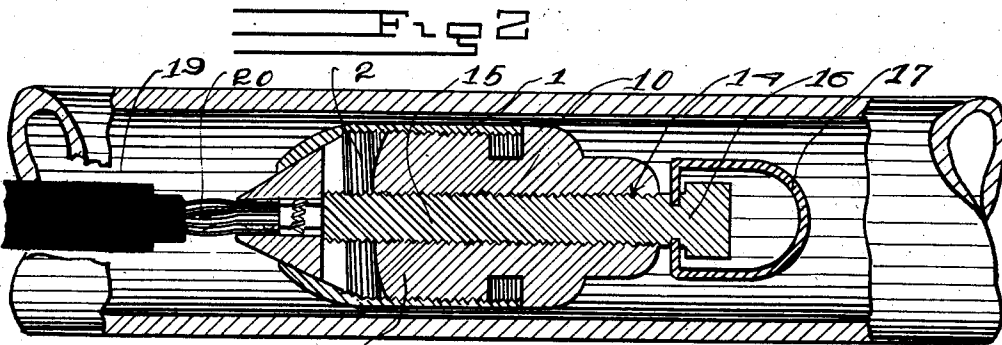
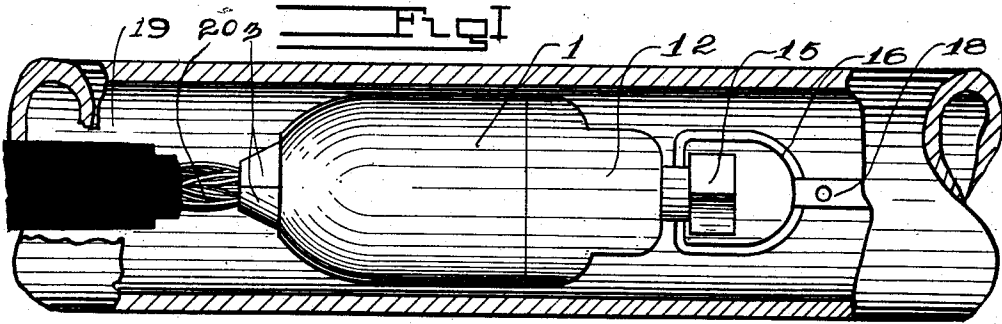


O. F. DUBRUIEL.
WIRE PULLER.

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1,009,492.

Patented Nov. 21, 1911.



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WIRE-PULLER.

1,009,492.

Specification of Letters Patent.

Patented Nov. 21, 1911.

Application filed December 8, 1910. Serial No. 596,346.

To all whom it may concern:

Be it known that I, OMER F. DUBRUIEL, citizen of the United States, residing at Bovey, in the county of Itasca and State of Minnesota, have invented certain new and useful Improvements in Wire-Pullers, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to wire pullers and the principal object of the same is to provide a device which is attached to the pulling wire so that a cable may be drawn through a conduit, without any of the cable being wasted by making a joint as is necessary in the devices now used.

This invention is illustrated in the accompanying drawings wherein:—

Figure 1 is a perspective view of the improved device as it would appear within a conduit. Fig. 2 is a longitudinal sectional view through the improved puller. Fig. 3 is an enlarged perspective view of the core which fits within the puller. Fig. 4 is an enlarged view of one of the gripping jaws. Fig. 5 is a view looking through the rear end of the puller the core being removed.

Referring to the accompanying drawings by numerals it will be seen that the improved puller comprises a hollow casing 1 which is preferably cylindrical and has one end tapered so that the opening at the tapered end is smaller than the opening at the opposite end. The major portion of the casing is provided with internal threads 2, but the tapered portion of the casing is not provided with threads. A number of gripping jaws 3 are placed within the casing from the large end, and rest upon the tapered portion. In the preferred form there are provided three of these jaws which are made triangular in cross sections and taper toward their outer end but of course, the number of these jaws may be increased if desired. Each of the jaws 3 is provided with a longitudinal groove 4 at the junction of its inner faces 5 and 6 and is provided along the edges of the groove 4 with a plurality of notches 7 and with a socket 8 near the inner end of each of the inner faces. The jaws 3 are held in spaced relation by means of coil springs 9 which cause them to have a tendency to spring apart. These jaws are placed within the large end of the casing, and their outer tapered ends project through the opening in the small tapered portion in the casing. The

outer faces of the jaws contact with the sloping inner faces of the tapered inner portion of the casing, and the springs 9 cause the jaws to have a frictional engagement with the tapered portion of the casing.

The metallic core 10 having a threaded lower portion 11 is threaded into the threaded portion of the casing, and terminates in an outwardly extending head 12 provided with a collar 13 which contacts with the end of the casing 1 and prevents the core being inserted too far within the casing. The core is provided with a longitudinally extending threaded opening 14 through which there is passed a threaded bolt 15 which is provided at its upper end with a rectangular head 16 and an attaching loop 17 by means of which the pulling wire 18 is secured to the puller.

In the operation the puller is secured to the end of the pulling wire 18 and the cable 19 which is to be drawn through the conduit has a small portion of the insulation cut away from the near end so as to expose the wires 20. The wires are inserted between the jaws 3 and the threaded bolt 15 is screwed within the casing by means of a pair of pliers placed around the head 16 so that the inner end comes in contact with the inner ends of the jaws 3 and pushes the jaws outward. When the jaws are pushed outward the tapered portion of the casing causes them to come closer together so that the wire is tightly gripped between them, the notches 17 causing the wire to be more tightly gripped between the jaws. The pulling wire is now drawn through the conduit and the cable is thus carried through. When the cable reaches the other end of the conduit the bolt 15 is unscrewed and the cable and jaws 3 are thrust within the casing. When the jaws 3 come within the casing the springs 9 cause the jaws to separate and the cable can then be withdrawn from the puller. It should also be noted that when the core is screwed into the casing and the bolt turned that the inner end of the bolt comes in contact with the jaws and moves them outwardly so that they will grip the wire. When the jaws have moved outwardly as far as possible and the turning of the bolt is continued the turning causes the core to move outwardly thus causing the teeth of the core to jam with the teeth of the casing and bolt and lock the core and bolt against accidental release. This

permits the pulling rope to twist in the conduit without danger of the cable being released by the bolt or core unscrewing and permitting the cable to slip from the jaws.

5 What I claim is:—

A wire puller comprising a casing having a tapered end portion, gripping jaws slidably mounted in the tapered end portion of said casing, said casing being provided with
10 internal threads, a threaded core screwed into said casing and provided with a longitudinally extending threaded opening, a

threaded bolt passing through said longitudinally extending threaded opening and contacting with said jaws to move the same 15 outwardly, and attaching means carried by the end of said bolt.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

OMER F. DUBRUIEL.

Witnesses:

N. C. GOODWIN,
NOP MORISSETTE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
