A. L. SANDIN.

COTTER PIN PULLER.

APPLICATION FILED JAN. 2, 1919.

1,338,043. **Patented Apr. 27, 1920.**

Fig. 1.

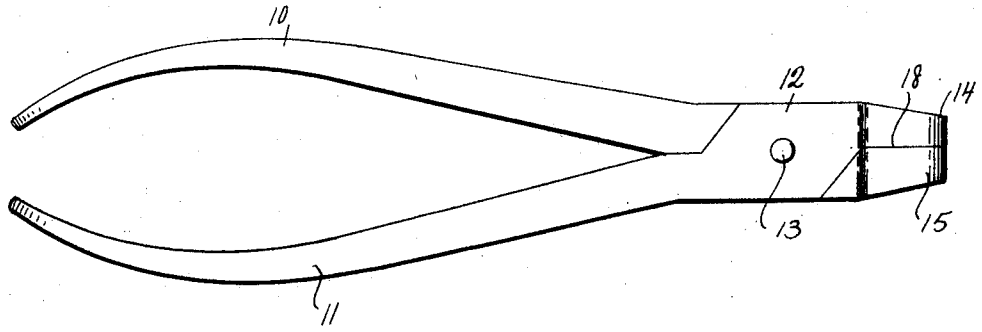


Fig. 2.

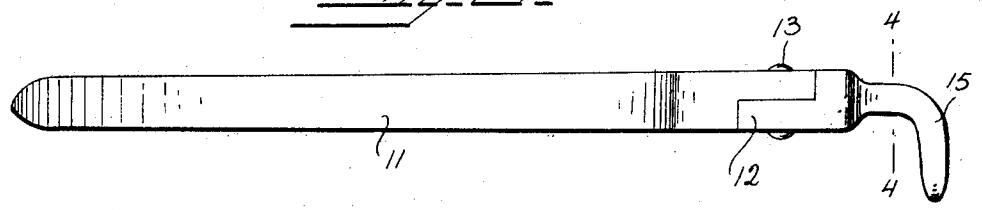


Fig. 3.

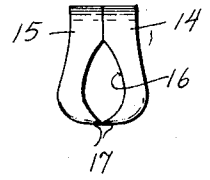
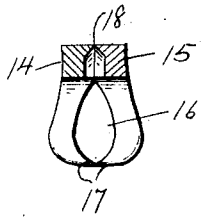


Fig. 4.



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UNITED STATES PATENT OFFICE.

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COTTER-PIN PULLER.

1,338,043. Specification of Letters Patent. Patented Apr. 27, 1920.

Application filed January 2, 1919. Serial No. 269,280.

To all whom it may concern:

Be it known that I, ARTHUR L. SANDIN, a citizen of the United States, residing at Bismarck, in the county of Burleigh and State of North Dakota, have invented certain new and useful Improvements in Cotter-Pin Pullers, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to tools on the order of pliers or pincers, and particularly to tools having crossed handles and coacting operating jaws.

The general object of this invention is to provide a tool whereby cotter pins may be removed and in this connection to provide a tool so constructed that cotter pins may be removed from castellated nuts. Cotter pins are very largely used with castellated nuts and inasmuch as in most cases the head of the cotter pin is set in flush with the surface of the nut, an implement for removing these cotter pins must be so formed that it may get in close to the head of the pin.

Another requirement for a tool of this character is that while it shall engage firmly with the cotter pin it shall not cut it.

Still another requirement is that the tool shall maintain a hold upon the cotter pin so as to prevent the cotter pin from dropping as without this feature the cotter pin is liable to be lost or to allow the cotter pin to drop into electrical appliances where it will short circuit the current and cause trouble.

With these requirements in view I have devised the cotter pin illustrated in the drawings, wherein:—

Figure 1 is a top plan view of a puller constructed in accordance with my invention;

Fig. 2 is a side elevation of the same;

Fig. 3 is a front elevation, that is looking toward the jaws; and

Fig. 4 is a section on the line 4—4 of Fig. 2.

As illustrated in the drawings, the implement comprises two crossed handles 10 and 11 having relatively wide portions 12 which lie flat against each other and which are pivoted to each other by means of a pin 13. The handle 11 is formed with an angularly bent jaw 14, while the handle 10 is formed with a coacting angularly bent jaw 15. When the handles are closed, these jaws lie against each other. The inner faces of the angularly bent terminal portions of the jaws are concavely cut away as at 16, the extremities of the jaws being reduced in thickness and coming down to a point as at 17. When the jaws 14 and 15 are disposed in abutting relation to each other, the recesses 16 together form a somewhat ovoidal opening. These portions of the jaws which are disposed parallel to the handles 10 and 11 are provided with coacting cutting edges 18 whereby wire may be cut.

In the use of this invention the head of the cotter pin is gripped between the jaw points 17 and the angular shape of these jaws permits the cotter pin to be withdrawn very readily. It is possible also to insert the extremity 17 of one of the jaws into the eye at the head of the cotter pin and then close the jaws and fulcruming the puller upon any suitable part of the machine withdraw the cotter pin without first loosening the cotter pin. If ordinary pliers are used for the purpose of removing a cotter pin, or if any device is used in which the jaws will grip upon the cotter pin, they will be liable to mash the head of the pin or cut it off, whereas with my construction because of the coacting recesses 16 the jaws if closed upon the head of a cotter pin will not mash it or cut through it and cut the head off. In my cotter pin puller the extremities of the jaws are round pointed so that the jaws may be inserted within the recess of a castellated nut and be in a position to engage the cotter pin and furthermore in pulling cotter pins by the use of my implement the jaws may be made to meet through the eye of the cotter pin to thus permit the retraction of the cotter pin without any danger of its loss.

In actual use this implement has been found to be extremely convenient and effective as it will pull cotter pins without bending them, flattening the heads, cutting through the pins, or straightening them.

I claim:

A cotter pin puller comprising crossed handles pivoted to each other at their points of intersection and extended to form confronting jaws, said jaws being parallel and when closed approximately contacting with each other for a portion of their length

and then being gradually curved into a plane at right angles to the plane of pivotal movement of the handles, those portions of the jaws extending at right angles to the handles having their inner faces outwardly divergent, the extremities of the jaws being pointed and said extremities being directed toward each other, the angular jaws providing a fulcrum upon which the puller may be rocked against the work in order to remove a cotter pin.

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

ARTHUR L. SANDIN

Witnesses:
A. S. BOLSTER,
MAGDALENE HOENER.