

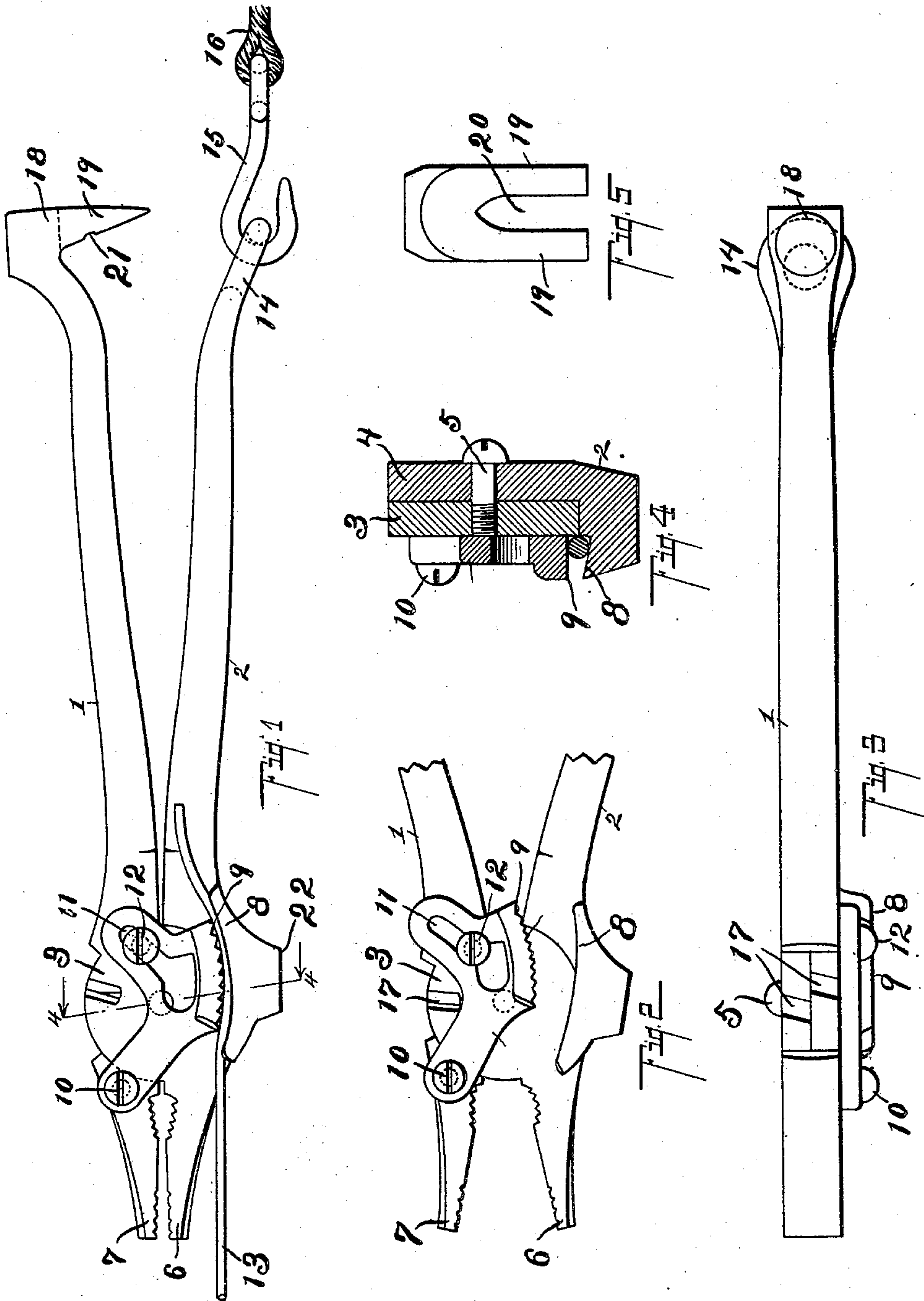
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PATENTED APR. 28, 1908.

C. W. BAKER.

PLIERS.

APPLICATION FILED SEPT. 9, 1907.



Witnesses:

*Lucas Greenfield*  
*Attest. J. A. Smith*

Inventor,

*Charles W. Baker*  
By *Chapman & Earl*  
Att'ys.



# UNITED STATES PATENT OFFICE.

CHARLES W. BAKER, OF WAVERLY TOWNSHIP, VAN BUREN COUNTY, MICHIGAN.

## PLIERS.

No. 885,969.

Specification of Letters Patent.

Patented April 28, 1908.

Application filed September 9, 1907. Serial No. 392,015.

*To all whom it may concern:*

Be it known that I, CHARLES W. BAKER, a citizen of the United States, residing in the township of Waverly, county of Van Buren, State of Michigan, have invented certain new and useful Improvements in Pliers, of which the following is a specification.

This invention relates to improvements in tools.

The main object of this invention is to provide an improved tool for use in handling wire, such as in the construction or repair of telephone or telegraph lines, fences, trellises and the like, which is very convenient and efficient in use.

A further object is to provide an improved tool adapted for use in grasping wire when it is desired to hold or tighten the same, which may be quickly gripped upon the wire, has a very secure hold thereon, and one which may at the same time be very quickly released.

Further objects, and objects relating to structural details, will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification.

The invention is clearly defined and pointed out in the claims.

A structure embodying the features of my invention is clearly illustrated in the accompanying drawing, forming a part of this specification, in which,

Figure 1 is a side elevation of a structure embodying the features of my invention, a piece of wire being shown gripped thereby and a rope being shown connected thereto; Fig. 2 is a detail side elevation with the wire gripping jaws open; Fig. 3 is a plan view of the structure shown in Fig. 1; Fig. 4 is a cross section taken on a line corresponding to line 4—4 of Fig. 1; and Fig. 5 is an end elevation of the handle 1, showing the staple puller at the outer end thereof.

In the drawing, the sectional view is taken looking in the direction of the little arrows at the ends of the section line, and similar numerals of reference refer to similar parts throughout the several views.

Referring to the drawing, my improved tool consists of a pair of lever-like handles 1 and 2, which are provided with heads 3 and 4, respectively. These heads are connected by a pivot, as 5, arranged transversely there-through; (see Fig. 4). The heads are preferably provided with forwardly projecting plier

jaws 6 and 7, which are formed integrally therewith, each jaw preferably corresponding in width to the thickness of the two heads. On the head 4 is a fixed wire gripping jaw 8, which projects under and outwardly beyond the outer face of the head 3, as clearly appears from the drawing.

A movable wire gripping jaw 9, adapted to coact with the fixed jaw in gripping a wire, is provided. This movable jaw is preferably V-shaped and is pivotally secured to the head 4 by means of the pivot 10 arranged through the forward arm of the jaw, as clearly appears from the drawing. The rear arm of the movable jaw is provided with a slot 11 in which the pin 12 carried by the head 3 is arranged, so that, as the handles are opened or closed, the wire gripping jaws are opened or closed, the same being shown in their closed position in Fig. 1 and in their open position in Fig. 2. The movable jaw may be gripped upon the wire, as 13, by closing the handles, in which position a pull on the wire or handles tends to draw the jaws tighter upon the wire, so that the same is gripped in a manner which renders slipping almost impossible.

To facilitate the gripping action, the jaw 8 is preferably longitudinally curved and is inclined inwardly to assist in retaining the same upon the wire while the jaws are being closed. The movable jaw is also curved longitudinally and its face is preferably transversely serrated, as clearly appears from the drawing.

To provide a convenient means for connecting power to the handle 2, when tightening the wire, I preferably provide the handle with an eye 14 adapted to receive the attaching hook, as 15, for the rope 16. This enables the use of the pliers as a connecting means for a wire to a windlass rope or other source of power. The heads are preferably provided with wire cutters 17, formed in their upper edges, so that the wire cutters are located between the arms of the movable jaw.

The handle 1 is preferably provided with a head 18 having inwardly projecting prongs 19 thereon, which adapts the structure for a staple puller. These prongs are separated by a slot 20 adapted to straddle a staple, and with a transverse groove 21 on their inner faces adapted to receive the wire held by the staple. In use, the prongs are placed astride the staple and by blows on the back of the head is driven down behind the wire held by



the staple until the wire engages the groove 21. The staple may then be pulled by a downward or an upward movement of the tool.

5 The fixed jaw is preferably provided with a hammer face 22, so that the tool may be used as a hammer, if desired. As the fixed jaw projects down under the heads, it may be adapted for use as a hammer without adding  
10 materially to the weight or cost of the tool.

My improved tool is particularly advantageous for use in repairing fences, trellises, such as grape-vine trellises, where it is desirable to free the wire from the posts and  
15 stretch them, as the staples can be readily drawn and the wire quickly grasped for stretching with the aid of my improved tool. It is, however, a very convenient and desirable tool for use in handling wires in any  
20 relation, as will be apparent.

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

1. A tool comprising a pair of lever-like  
25 handles; heads for said handles having forwardly-projecting plier jaws thereon; a fixed wire gripping jaw on one of said heads projecting laterally under and outwardly beyond the other head; a V-shaped movable  
30 jaw pivoted by its forward arm to said head having said fixed jaw, said movable jaw having a slot in its rear arm; a pin on the other head arranged to engage said slot whereby the wire gripping jaw may be opened or  
35 closed by said handles; and an eye in the outer end of said handle having said wire gripping jaws thereon.

2. A tool comprising a pair of lever-like  
40 handles; heads for said handles having forwardly-projecting plier jaws thereon; a fixed wire gripping jaw on one of said heads projecting laterally under and outwardly beyond the other head; a V-shaped movable jaw pivoted by its forward arm to said head having  
45 said fixed jaw, said movable jaw having a slot in its rear arm; a pin on the other head arranged to engage said slot whereby the wire gripping jaw may be opened or closed by said handles; and a wire cutter formed in the  
50 upper edges of said heads between the arms of said movable jaws.

3. A tool comprising a pair of lever-like  
handles; heads for said handles having forwardly-projecting plier jaws thereon; a fixed  
55 wire gripping jaw on one of said heads projecting laterally under and outwardly beyond the other head; a V-shaped movable jaw pivoted by its forward arm to said head having said fixed jaw, said movable jaw having a slot

in its rear arm; and a pin on the other head 60 arranged to engage said slot whereby the wire gripping jaw may be opened or closed by said handles.

4. A tool comprising a pair of lever-like  
handles; heads for said handles having forwardly-projecting plier jaws thereon; a fixed  
65 wire gripping jaw on one of said heads projecting under and outwardly beyond the other head; a movable jaw pivoted at its forward end upon said head having said fixed  
70 jaw thereon; and a sliding connection for said movable jaw to the other head whereby said wire gripping jaws may be opened or closed by said handles.

5. A tool comprising a pair of lever-like  
75 handles; heads for said handles having forwardly-projecting plier jaws thereon; a fixed wire gripping jaw on one of said heads projecting under and outwardly beyond the other head; a movable jaw pivoted at its forward  
80 end upon said head having said fixed jaw thereon; a sliding connection for said movable jaw to the other head whereby said wire gripping jaws may be opened or closed by said handles; and an eye in the outer end  
85 of said handle having said wire gripping jaws thereon.

6. A tool comprising a pair of pivotally  
connected lever-like members; a fixed wire  
90 gripping jaw on one of said members projecting under and outwardly beyond the other, the gripping face of said jaw being curved longitudinally and inclined inwardly; a movable jaw pivoted at its forward end upon said  
95 member having said fixed jaw, said movable jaw having a longitudinally-curved transversely-serrated gripping face; and a sliding connection for said movable jaw to the other member whereby said wire gripping jaws  
100 may be positively opened or closed by manipulation of said members.

7. A tool comprising a pair of pivotally  
connected lever-like members; a fixed wire  
gripping jaw on one of said members projecting  
105 under and outwardly beyond the other; a movable jaw pivoted at its forward end upon said member having said fixed jaw; and a sliding connection for said movable jaw to the other member whereby said wire gripping  
110 jaws may be positively opened or closed by manipulation of said member.

In witness whereof, I have hereunto set my hand and seal in the presence of two witnesses.

CHARLES W. BAKER. [L. s.]

Witnesses:

LULU G. GREENFIELD,  
GERTRUDE TALLMAN.