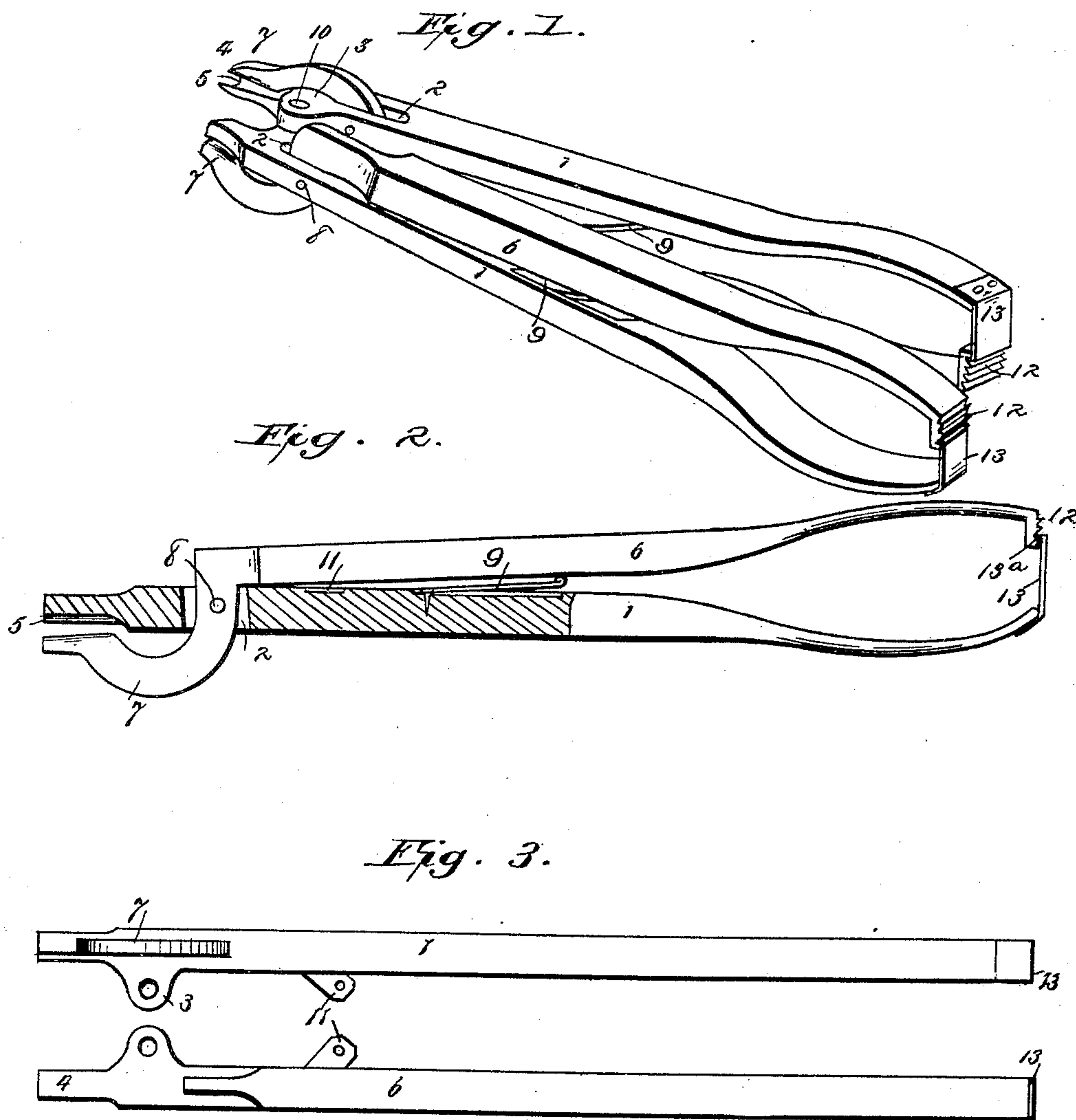


(No Model.)

F. NEWITT.  
COMPOUND PLIERS.

No. 468,005.

Patented Feb. 2, 1892.



Witnesses  
A. J. Schwartz  
C. S. Page

F. Newitt, Inventor;  
W. D. Fitzgerald & Co.,  
Attorneys.

# UNITED STATES PATENT OFFICE.

FREDERICK NEWITT, OF KANSAS CITY, MISSOURI.

## COMPOUND PLIERS.

SPECIFICATION forming part of Letters Patent No. 468,005, dated February 2, 1892.

Application filed May 22, 1891. Serial No. 393,733. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK NEWITT, a subject of the Queen of Great Britain, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Compound Pliers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention consists in a new and improved compound pliers, which is especially designed to be used in seizing and twisting together the ends of a wire loop or the ends of two wire strands, all of which may be done with one hand by the use of this new and improved tool, and my invention will be hereinafter fully described and claimed.

Referring to the accompanying drawings, Figure 1 is a perspective view of the compound pliers. Fig. 2 is a longitudinal sectional view of Fig. 1. Fig. 3 shows the two parts of the compound pliers separated.

Referring to the several parts by their designating-numerals, these compound pliers are formed of two parts, which are precisely alike in construction, each of the said parts constituting a single pair of pliers. Each single pair of pliers is formed of a main arm 1, formed near its end with a longitudinal slot 2, with a side extension 3, and with a clamping-jaw 4, having a curved longitudinal groove 5 formed in it. The other arm 6 of each single pair has at its end a curved clamping-jaw 7, the free end of which is curved outward or convex in cross-section. It will be seen that by forming the jaw 4 with a concave face 5, with which the convex end of the clamping-jaw 7 registers, the round wire seized between these two jaws will be held with a far greater firmness and security than if the two jaws were flat. The curved clamping-jaw 7 of the arm 6 passes through the longitudinal slot 2 of the arm 1 and is pivoted at the point 8, and a spring 9, secured in a recess in the inner side of the arm, will serve to press the two arms normally apart, separating their clamping ends.

The two single pliers are pivoted together by means of a pivot-bolt 10, passing through

their apertured extensions 3, the same being brought together, as shown in Fig. 1, and to prevent the two pliers from being separated too far apart I employ the flat links 11, pivoted together at their inner ends and pivoted together at their outer ends to the arms 1.

It will now be seen that when a box is to be secured by means of a wire passed around it the ends of the wire are caught between the clamping-jaws of the two single pairs of pliers, which are then closed firmly upon them, and by giving the entire tool one or two turns with the hand the ends of the wire will be firmly twisted together and can then be neatly secured against the side of the box by means of a small metal plate having prongs struck up out of it, which are driven into the wood of the box, this plate forming no part of my present invention. The outer end of each arm 6 is formed with a series of corrugations or inclined teeth 12, and a spring locking-plate 13 is secured on the outer end of each arm 1, having a projection 13<sup>a</sup> adapted to engage with the inclined teeth 12. The object of this construction is to lock the handles in a closed position when they have been clamped on the ends of the wires, and the object of forming several teeth or corrugations 12 is to allow for the pliers being used on wires of different diameters.

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages of my novel and useful invention will be readily understood. It will be seen that my compound pliers can be used not only for the purpose above specified, but also for twisting together the ends of a fence-wire or of a telegraph or any other wire.

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

1. The compound pliers consisting of the arms 1, having the clamping-jaws 4 and the side extensions 3, which are pivotally secured together, and the arms 6, pivoted to the arms 1 and having the curved clamping-jaws 7, substantially as set forth.

2. The combination of the arms 1, formed with the clamping-jaws 4, having the concave clamping-face, and the arms 6, pivoted to the



arms 1 and having the curved clamping-jaws 7 formed with the convex clamping ends, substantially as set forth.

3. The combination of the arms 1, formed  
5 with the longitudinal slots 2, the clamping-jaws 4, and the extensions 3, which are pivoted together, the arms 6, having the curved clamping-jaws 8 extending through and pivoted in the slots 2, the pivoted connecting-  
10 links 11, and the separating-springs 9, substantially as set forth.

4. The combination of the arms 1, formed with the clamping-jaws 4 and the side extensions 3, which are pivoted together, the arms  
15 6, pivoted to the arms 1 and having the curved

clamping-jaws 7 and the series of inclined teeth 12 at their outer ends, the pivoted connecting-links 11, the separating-springs 9, arranged as specified, and the spring locking-plates 13, secured on the outer ends of the  
20 arms 1 and adapted to engage with the inclined teeth 12 of the arms 6, substantially as set forth.

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

FREDERICK NEWITT.

Witnesses:

WILLIAM COOPER,  
J. A. NORK.