F. CAREW.

Wire Cutter.

No. 107,334. Patented Sept. 13, 1870.

Fig. 1.

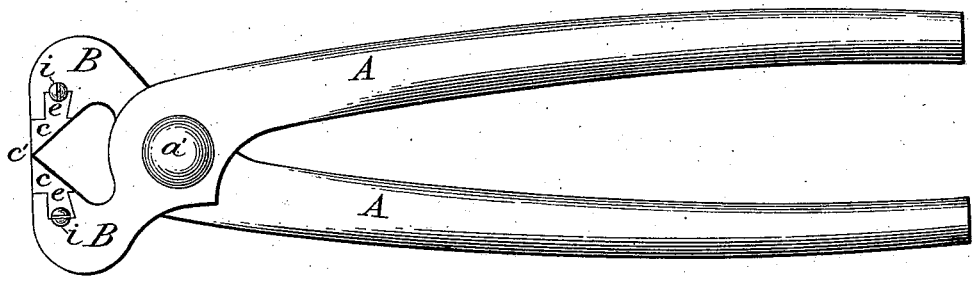


Fig. 2.

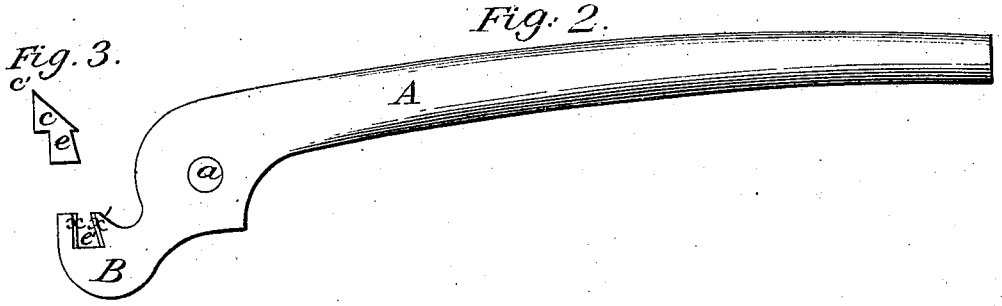
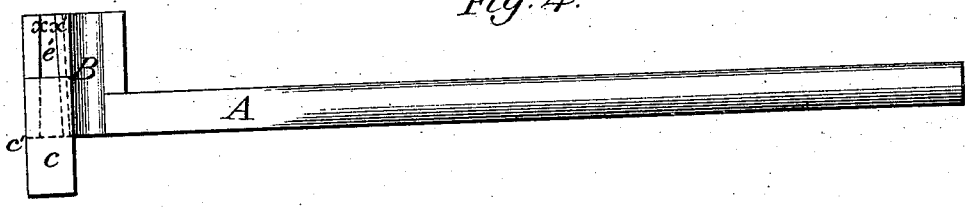


Fig. 3.

Fig. 4.



Witnesses:

J. H. Curtis
C. E. Buckland

Inventor.

Frank Carew

United States Patent Office.

FRANK CAREW, OF SOUTH HADLEY FALLS, MASSACHUSETTS.

Letters Patent No. 107,334, *dated September* 13, 1870.

IMPROVED WIRE-CUTTER.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, FRANK CAREW, of South Hadley Falls, in the county of Hampshire and State of Massachusetts, have invented a new and useful improved Wire-Cutter; and I do hereby declare the following, when taken in connection with the accompanying drawing and the letters of reference marked thereon, to be a full, clear, and exact description thereof, and which said drawing constitutes part of this specification, and represents in—

Figure 1, a side elevation of a wire-cutter with my invention applied.

Figure 2 is a side elevation of one handle and jaw, showing the cutter removed from the jaw.

Figure 3 is an end view of the cutter alone.

Figure 4 is a front or plan view of the handle and one jaw, showing the cutter partially removed from the jaw.

My invention consists of an improvement in the construction of wire-cutters, having movable cutting jaws, as hereinafter explained and described.

The cutting parts may be retained in place by a small screw, the head of which impinges against the ends of the parts after being inserted in place.

That others may be able to make and use my invention, I will proceed to describe its construction and operation.

In the drawing—

A A represent the handles of the device, which are pivoted together by means of the pivot *a'* passing through the hole *a*, and

B B represent the jaws, in each of which is made a channel or groove, which is dovetailed in form *x* and *x'*, representing the sides of said channels, which sides are nearer to each other at one end than at the other, which gives to the channel a tapered form longitudinally.

The handle A and jaw B may be made of any common suitable metal.

The cutting piece *c*, shown in fig. 3, has a piece, *e*, upon the back side, which is of a corresponding form to the dovetail channel *e'*, and is made to fit properly therein, and has the same taper longitudinally as has the said channel *e'*.

The opposite side of the piece *c* has a sharp cutting-edge, *c'*, along its entire length.

The cutting part *c* is inserted in place by inserting the small end of the part *e* in the large end of the dovetailed channel *e'*, and sliding it in longitudinally, until the ends of said part *c* are upon the same plane with the sides of the jaw B, when, if properly made and fitted, the cutting part *c* will be firm and secure in place. They may be retained in position by making a small threaded hole at any convenient place near the cutting part, and inserting a small screw, *i*, therein, so that the shoulder at the head of the screw shall impinge against the end of the cutting part, or against the widest end of the part *e*, thus operating to retain it in its proper position.

The device might be equally operative if the dovetailed channel was cut but partially across the jaw B, or, if made entirely across, a stop might be placed at one end of the channel, against which the cutting part should impinge when in place, the small screw *i*, above described, operating at the other end to retain the cutting part in place as before. In this case the sides of the channel *e'* might be made parallel, instead of tapered. I prefer, however, the form and construction shown in the drawing, and as hereinbefore described, as being the best in practical operation.

It will be seen that in my device the dovetail cavity *e'* is made with its depth extending in a direction nearly perpendicular to a line passing through the center of the pivot *a'* and the point where the cutting-edges meet at *c'*, so that, when used in cutting, the force is exerted in a direction nearly perpendicular to the inner face of the part B, and the movable jaw or part *e* is not so liable to be wrenched out of its socket *e'*, as the part B more nearly surrounds said socket *e'*, and gives a greater mass of metal to strengthen it.

I am aware that wire-cutters have heretofore been made having movable jaws, as shown in Letters Patent granted to Nathan Thompson July 14, 1868, and I do not claim the same, nor any part thereof irrespective of my particular construction of the device to gain strength of the jaw and cutters; and

Having therefore described my invention,

What I do claim as new, as an improvement in said cutters, and desire to secure by Letters Patent, is—

The insertion of the dovetailed shanks of the removable cutters *c*, in the dovetailed recesses *e*, in the approximate surfaces of the jaws B, and the confinement of said cutters in said recesses by screws applied from the lateral surfaces of the jaws, substantially as described.

FRANK CAREW.

Witnesses:

T. A. CURTIS,

C. E. BUCKLAND.