

(No Model.)

G. A. WARREN.
Wire Grasping Tool.

No. 239,356.

Patented March 29, 1881.

Fig. 2.

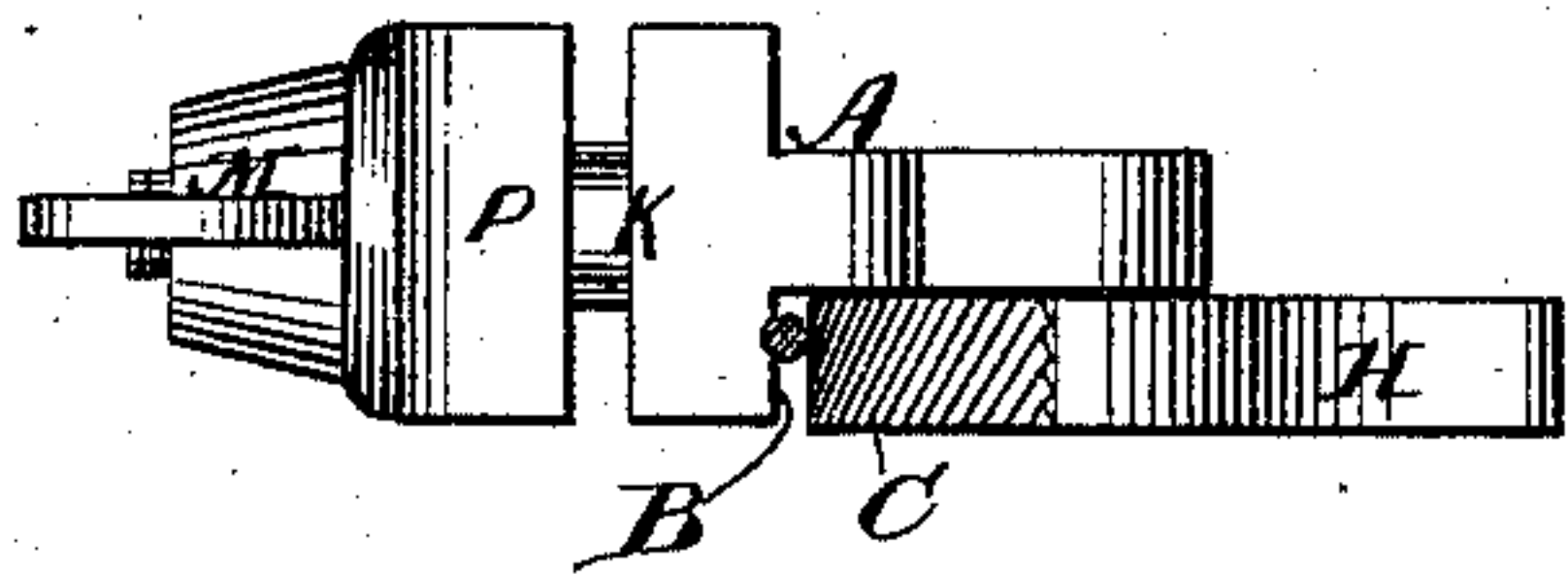


Fig. 1.

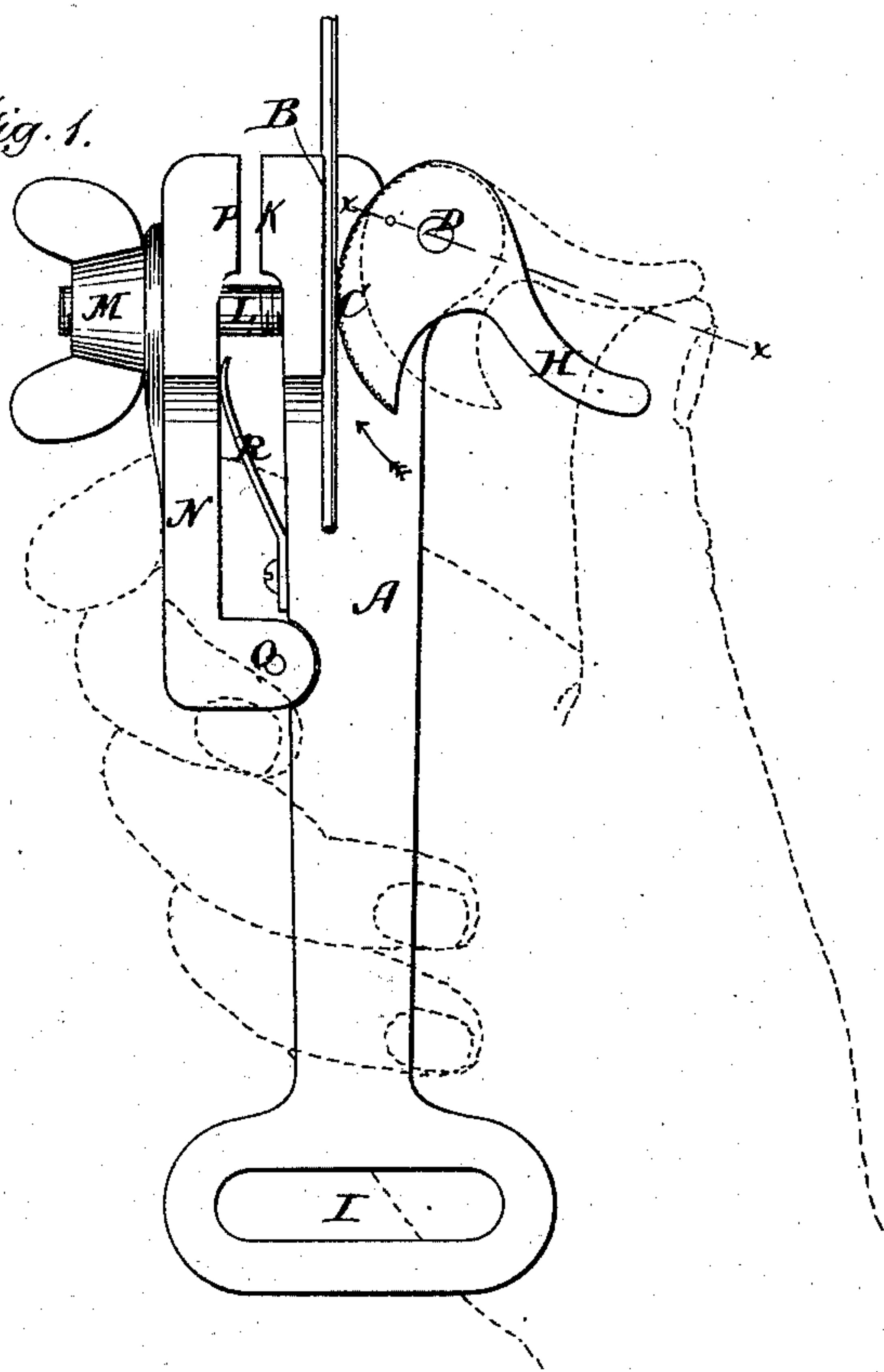


Fig. 3.

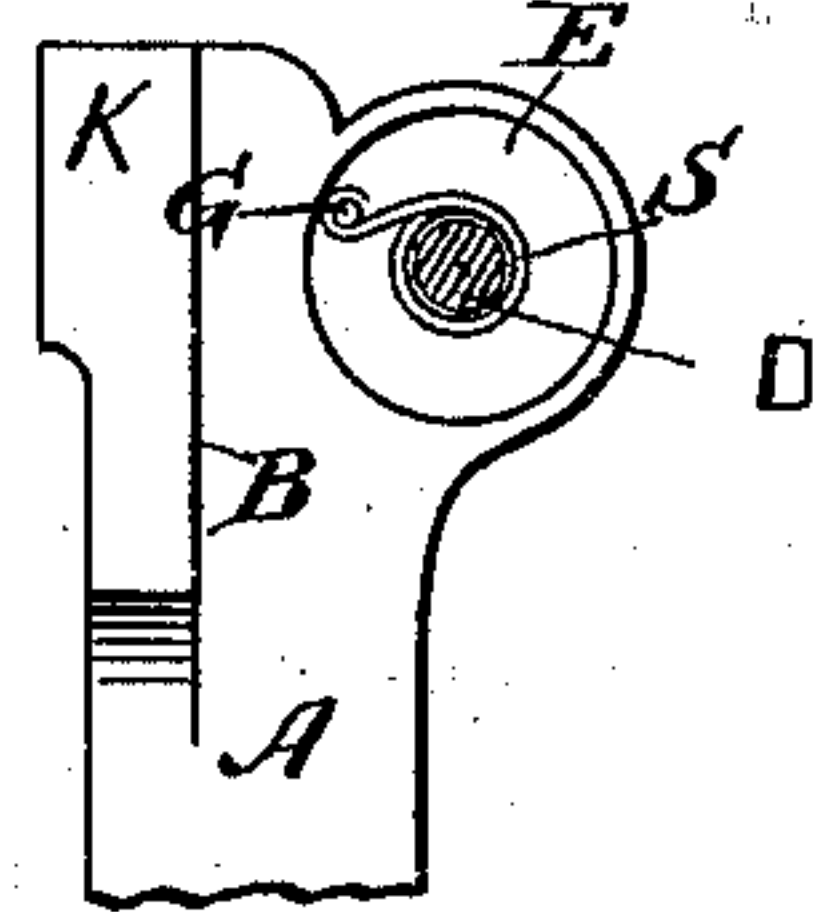


Fig. 4.

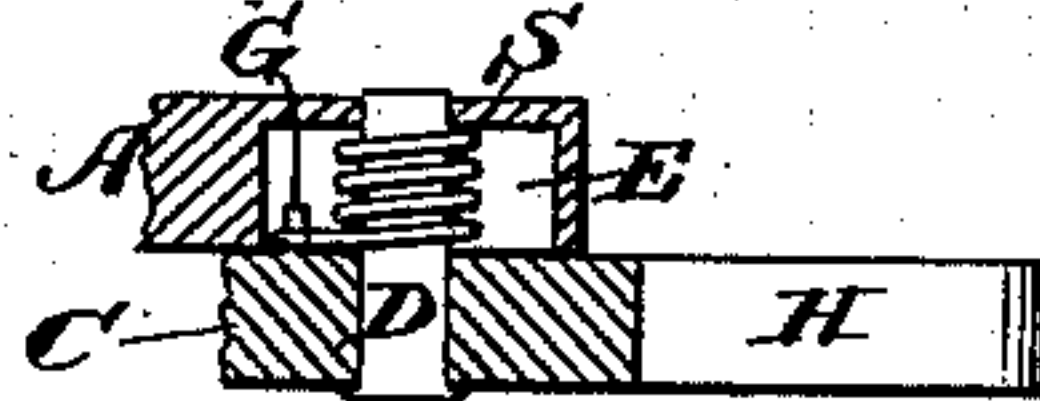
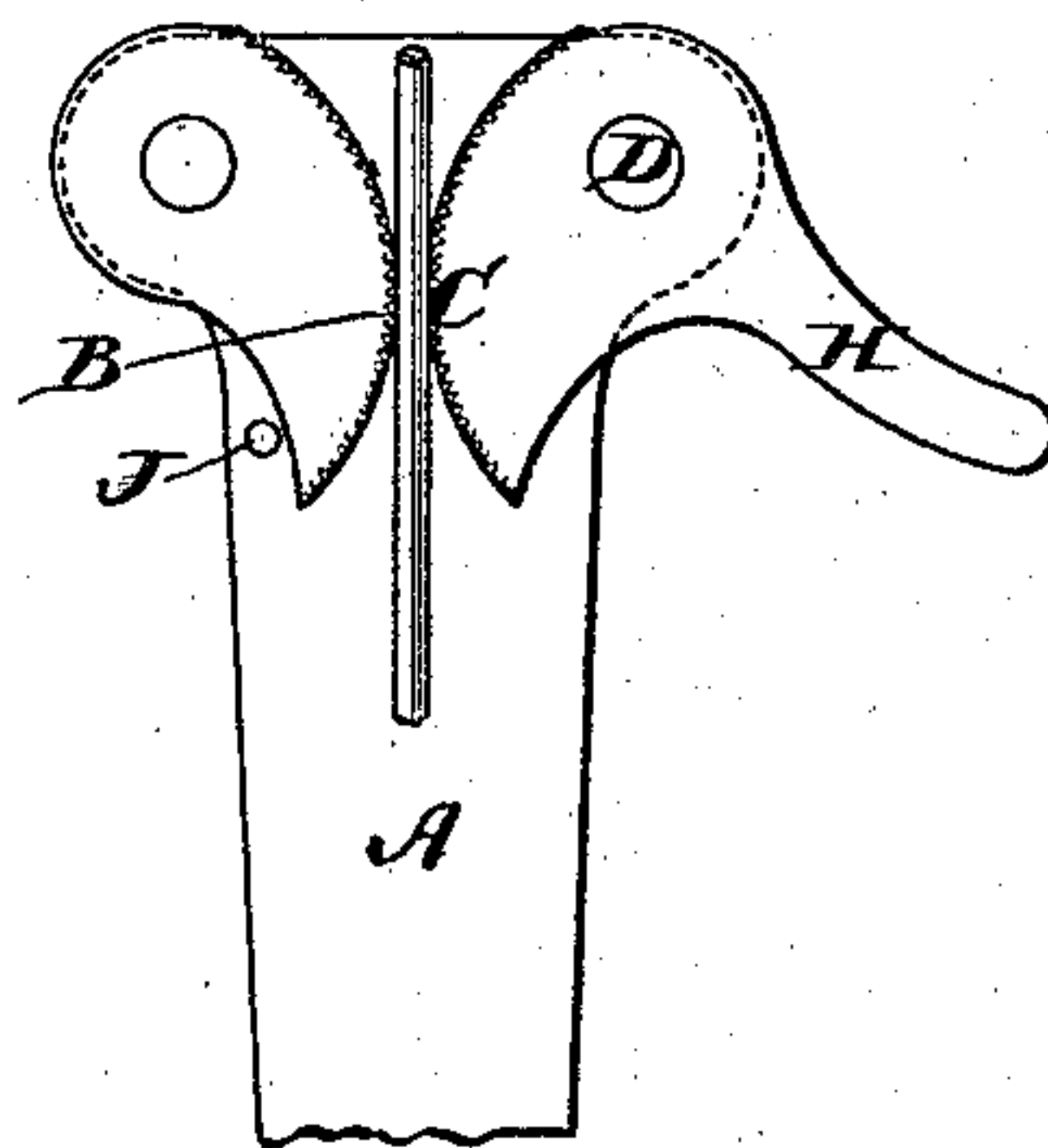


Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

GEORGE A. WARREN, OF BROCKTON, MASSACHUSETTS, ASSIGNOR TO
WILLIAM J. JENKS.

WIRE-GRASPING TOOL.

SPECIFICATION forming part of Letters Patent No. 239,356, dated March 29, 1881.

Application filed September 30, 1880. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. WARREN, of Brockton, in the county of Plymouth and State of Massachusetts, have invented certain
5 Improvements in Wire-Grasping and Compound Tools, of which the following is a specification.

This invention relates to an implement for the use of workmen engaged in putting up
10 telegraph and telephone line-wires. In fastening one of these wires to its successive points of support the workman is obliged to pull the wire with considerable force for the purpose of making it taut before fastening it, and
15 in pulling the wire he makes use of a pulling-tool which is comprised of a pair of clamping-jaws to grasp the wire and a stock supporting said jaws and serving as a handle for the workman to pull by or as a means for the application of a strap to be used by the workman in pulling.

My invention has for its object to provide a tool which the workman can apply to the wire by the use of but one hand, (leaving the other
25 to grasp a support,) and will hold the wire without liability of slipping.

My invention also has for its object to provide an improved compound tool embodying a wire grasping and pulling device and a vise
30 for various purposes.

To these ends my invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents
35 a side view of a tool embodying my improvements. Fig. 2 represents an end view of the same. Fig. 3 represents a side view of a portion of the stock with the eccentric-jaw removed, showing the recess and spring. Fig. 4 represents a section on line *xx*, Fig. 1; and
40 Fig. 5 represents a side view of a modification.

The same letters of reference indicate the same parts in all the figures.

45 In carrying out my invention I provide a stout metallic stock, A, having at or near one end a jaw or bearing, B, which is preferably the surface of a lip formed on the stock.

C represents an eccentric-jaw, which is pivoted, at D, to the stock A, and is milled or

roughened on its surface. The jaw C is adapted to bear against the jaw or bearing B, or against a wire interposed between the jaw C and bearing B.

S represents a spiral spring, which presses
55 the eccentric-jaw C toward the bearing B, in the direction indicated by the arrow. This spring is located in a recess, E, formed in the stock A, and one end of the spring is suitably secured to the stock A, (or to the pivot D,
60 which is rigidly attached to the stock, and is practically a part thereof,) and the other end is secured to a pin, G, on the inner side of the eccentric-jaw C.

H represents a short lever or handle on the
65 jaw C, which is so arranged that it can be pressed by the thumb of the workman to turn the eccentric away from the bearing B.

At one end of the stock A is a slot, I, to receive the strap commonly used in connection
70 with tools of this class.

The tool is operated as follows: Suppose the workman to be on a telegraph-pole with the wire from an adjacent pole or support in his possession. He grasps the stock in one hand
75 and presses the thumb of the same hand against the lever H to separate the jaw C from the bearing B, inserts the wire between said jaw and bearing, and then, holding the lever H with the thumb and using one hand to secure himself to the support, he reaches out
80 the hand holding the stock as far as he can conveniently, sliding the jaws along the wire, and then releases the lever H. The eccentric-jaw is immediately pressed by its spring against
85 the wire, so that the latter is clamped between the jaw C and bearing B. The form of the eccentric-jaw is such that its pressure against the wire is increased when the workman pulls the tool toward him to tighten the wire. Hence
90 there is no liability of the slipping of the tool on the wire. After the wire has been tightened and secured, the tool may be released after loosening the strap, by a slight pressure of the thumb upon the lever H.

95 It will be seen that by this simple device the danger to the workman incurred by the tool as formerly constructed is entirely obviated.

I do not limit myself to making the bearing 100

B rigid. A modification is shown in Fig. 5, in which said bearing is in the form of an eccentric, pivoted to the stock, and capable of swinging toward and from the eccentric-jaw C. In this case a stop, J, should be provided to limit the movement of the bearing away from the jaw.

I combine with the grasping-tool described a vise or clamp capable of use in holding two wires while they are being spliced and for other purposes. To this end I provide the stock A with a vise-jaw, K, and with a rod, L, threaded at its outer end and provided with a nut, M. A shank, N, is pivoted, at O, to the stock, and this shank has a jaw, P, adapted to co-operate with the jaw K, and provided with a slot, through which the rod L passes. The nut M bears against the back of the shank N, and, when properly turned, forces the jaw P toward the jaw K. A spring, R, is interposed between the shank and stock to force back the jaw P.

I claim as my invention—

1. In combination with the stock A, having the jaw for automatically grasping a wire, and the vise-jaw K, formed on one of its sides, the shank N, pivoted to the stock and provided with a vise-jaw, P, the threaded rod L, projecting from the stock through a slot in the shank, a nut, M, on the rod to force the shank toward the stock, and a spring, R, to force the shank in the opposite direction.

2. The stock A, having the bearing portion B, formed with a fixed vise-jaw, K, the pivoted adjustable vise-jaw P, and a movable jaw, C, operating in conjunction with the bearing portion B, substantially as and for the purpose described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 25th day of September, A. D. 1880.

GEO. A. WARREN.

Witnesses:

CHARLES W. SUMNER,
W. F. CLEVELAND.