

(No Model.)

2 Sheets—Sheet 1.

C. DAVIS.  
WIRE WORKING TOOL.

No. 435,580.

Patented Sept. 2, 1890.

Fig. 1.

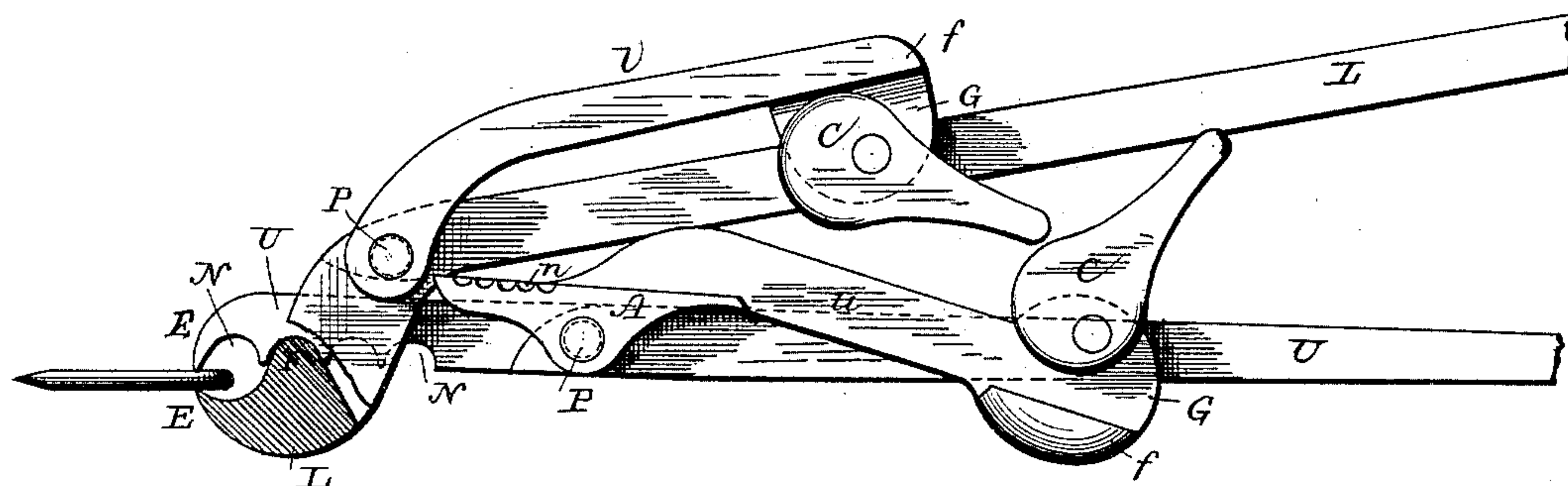


Fig. 2.

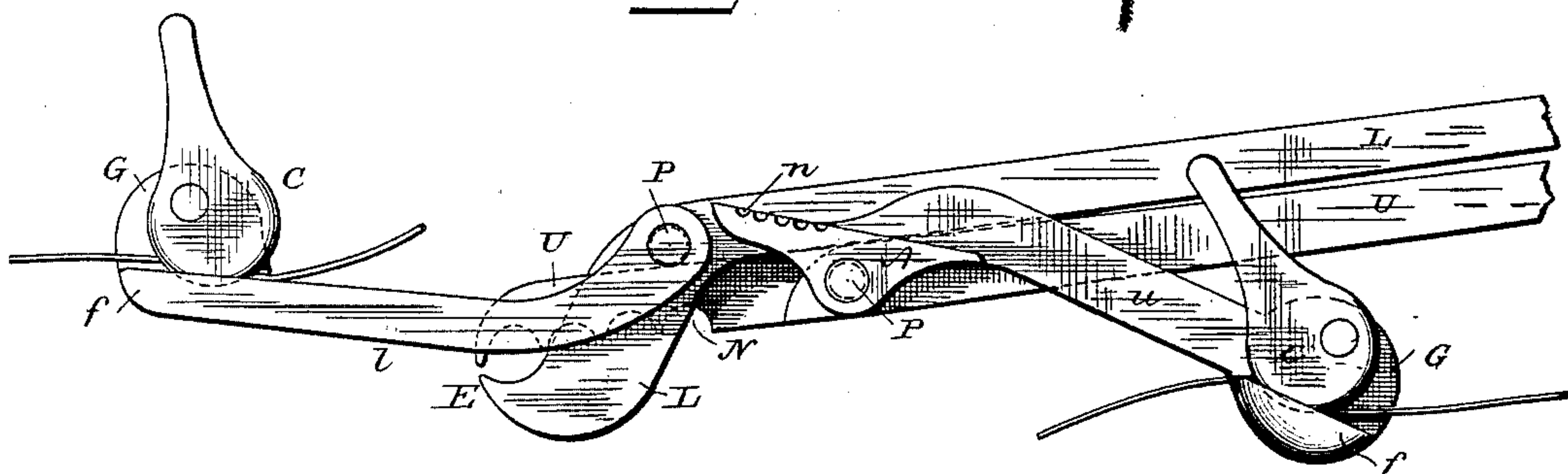
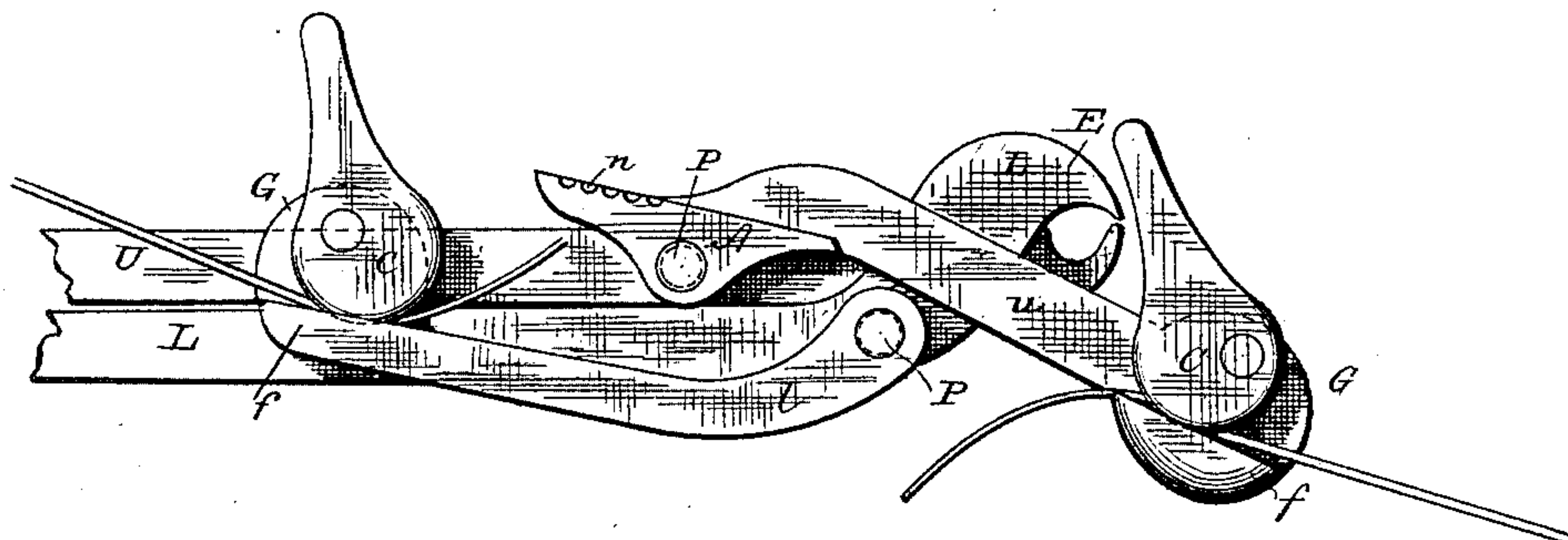


Fig. 3.



Witnesses

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By his Attorneys,

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Fig. 4.

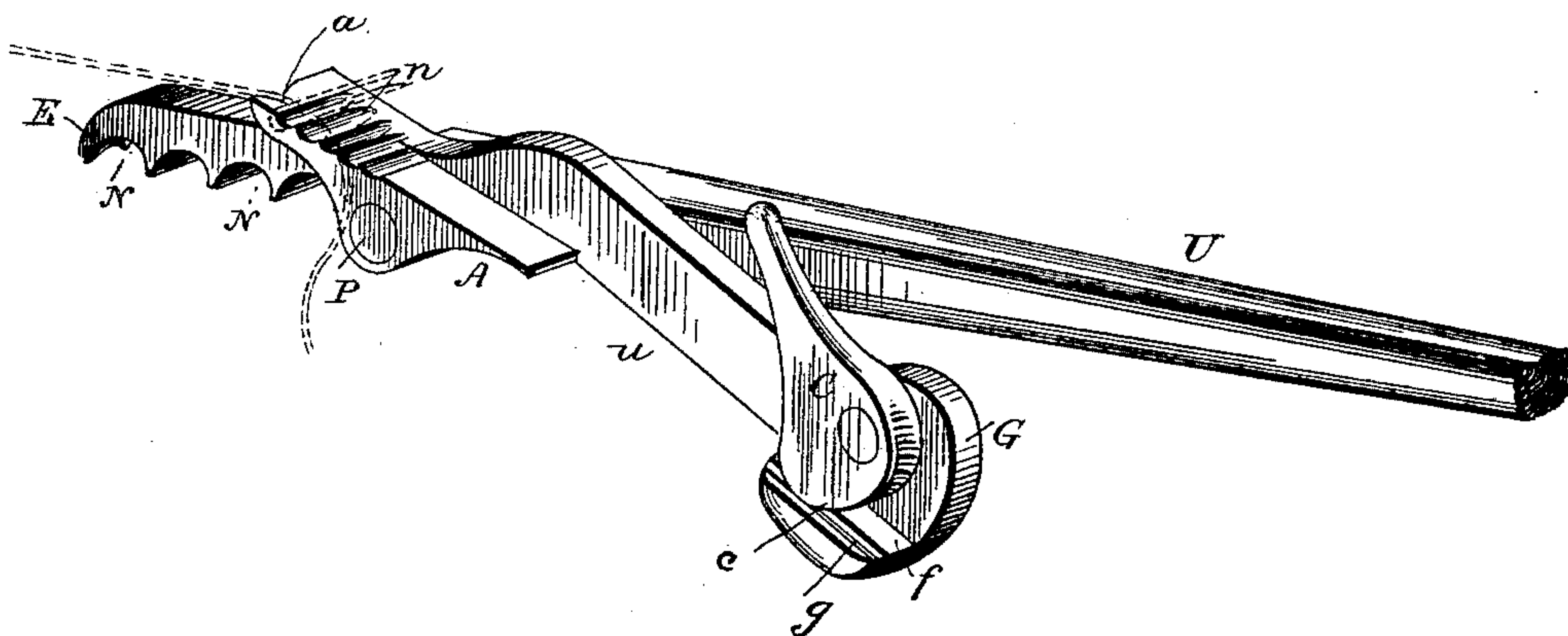


Fig. 5.

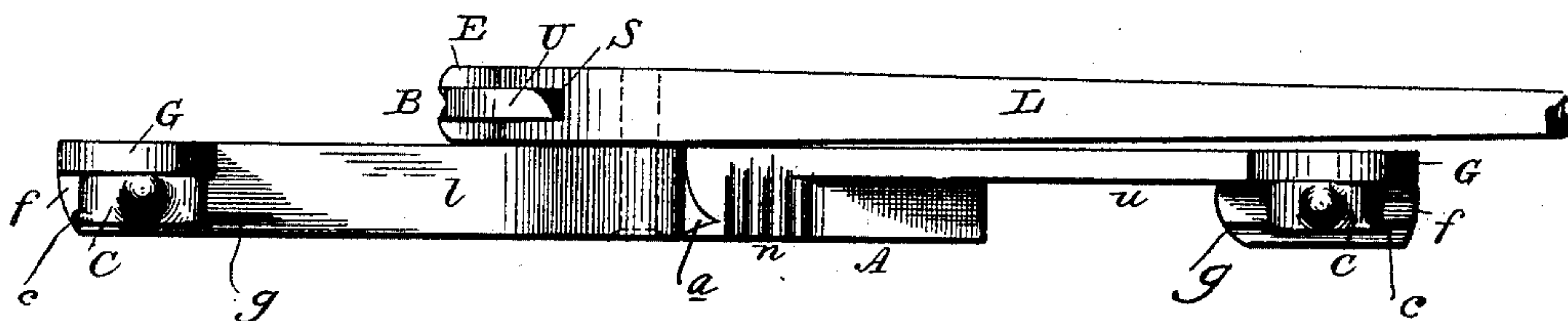
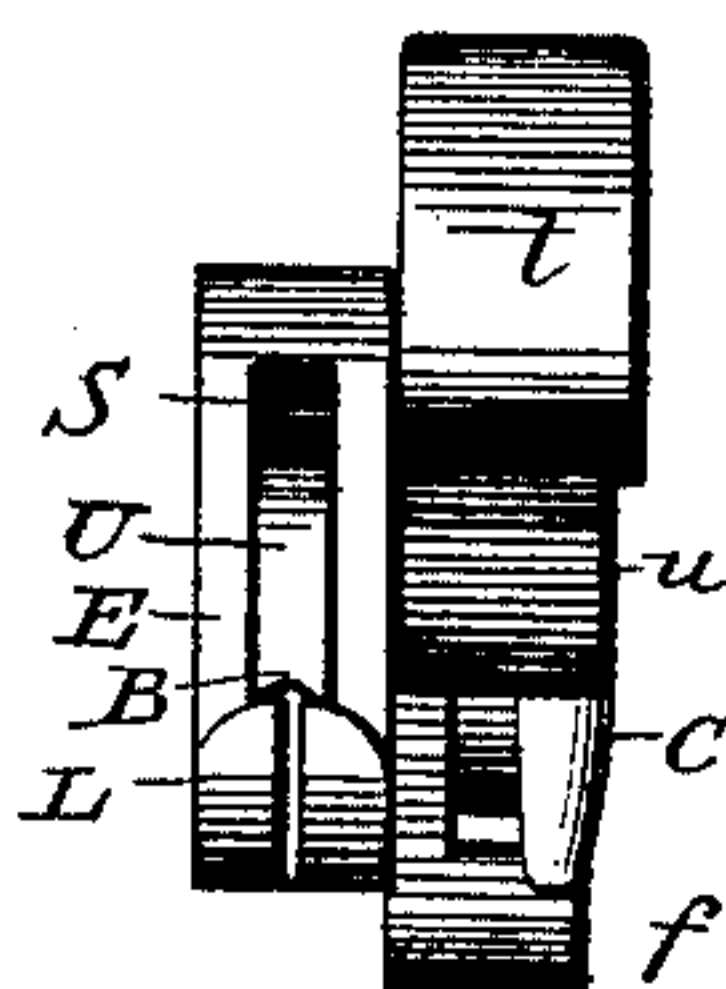


Fig. 6.



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# UNITED STATES PATENT OFFICE.

CLYDE DAVIS, OF LURAY, MISSOURI.

## WIRE-WORKING TOOL.

SPECIFICATION forming part of Letters Patent No. 435,580, dated September 2, 1890.

Application filed May 1, 1890. Serial No. 350,207. (No model.)

*To all whom it may concern:*

Be it known that I, CLYDE DAVIS, a citizen of the United States, residing at Luray, in the county of Clark and State of Missouri, have  
5 invented a new and useful Wire-Working Tool, of which the following is a specification.

This invention relates to wire-working, and more especially to the tools employed therein; and the object of the invention is to combine in one implement several tools adapted for the various uses to which it is to be put.

To this end the invention consists in the specific construction of devices hereinafter  
15 more fully described, and illustrated in the drawings, in which—

Figure 1 is a side elevation of this improved tool, showing it slightly open and in position to be used for the purpose of drawing staples. Figs. 2 and 3 are similar views showing it used as a wire-tightener before and after the wire is tightened. Fig. 4 is a detail perspective of the upper jaw of the tool detached. Fig. 5 is a plan view of the complete tool in the same position as shown in  
25 Fig. 2. Fig. 6 is an end view of the tool in the position shown in Fig. 1.

Referring to the said drawings, the letter L designates the lower, and U the upper, jaw  
30 of this tool. The lower jaw has a slot S through its curved forward end, within which hole is a fulcrum F, and forward of which hole the extremities of the jaws are provided with claws E, adapted to grasp a fence-staple, as will be understood. The upper jaw is provided on its under side near its front end with a number of notches N, for a purpose to appear hereinafter.

To the front side of the lower jaw at P is  
40 pivoted a curved arm *l*, and to the front side of the upper jaw U at P' is pivoted a similar curved arm *u*. The outer ends of these curved arms are provided with upwardly-projecting lugs G, having angular seats or faces  
45 *f* projecting forwardly therefrom, and to the upper ends of the lugs are pivoted eccentric-cams C, between the faces of which and of the seats *f* a wire may be clamped, as will be understood. The device in the position shown  
50 in Fig. 2 being applied to a fence-wire secured to a post in such manner that the two

cams C will grasp the wire on opposite sides of the post, the handles of the two jaws are turned over to the position shown in Fig. 3, whereby the cams will be drawn considerably  
55 toward each other and the wire will be tightened, as will be understood. If the staple has not been previously removed in a manner hereinafter described, the loop of slack wire thus formed can be attached to the post  
60 by extra staples in a well-known manner, and thus all looseness of the fence-wire will be taken up. In so driving the staples the wire is carried through the notch *a* in the end of and then over the face of the anvil A, as  
65 shown in Fig. 4, and the staples may be passed into the post through the notches or grooves *n* in the upper face of an anvil A, which is carried by the curved arm *u* near its  
70 pivoted end. This anvil will also be useful for various other purposes, as for pounding upon or in cutting or splicing the fence-wire.

In using this tool for drawing staples, as shown in Fig. 1, the jaws are opened slightly by separating the ends of the handles. The  
75 notch N next to the end notch is engaged over the fulcrum F, whereby the jaw tips or extremes are brought opposite each other. Said extremes are passed over the staple, and the same drawn out in a well-known manner.  
80 The end of the lower jaw L is bifurcated, as shown at B in Fig. 6, to facilitate this operation.

It will be seen from the construction above described that the fulcrum F is so located  
85 within the slot S, and the notches N are of such a depth that when the latter are engaged on the former and the two handles stand side by side or lie against each other, as shown in Figs. 2 and 3, the notches cannot be disengaged from the fulcrum. It follows, then, that  
90 if different notches are engaged with the fulcrum before the tool is applied to the wire, as shown in Fig. 2, the two eccentric-cams C can be set farther from or nearer to each other,  
95 whereby a greater or less stretching of the wire will respectively result when the handles are turned over to the position shown in Fig. 3. The bodies of the arms *u* and *l* have been described as curved, and this curvature is  
100 given them for the purpose of causing the tool to maintain automatically the position shown



in Fig. 3, because the pivotal points P of the two arms stand a little below the line of tension of the wire. The tool may then be left by the operator, and the staples which take up the slack or loop can therefore be driven by the same person who has tightened the wire.

Referring to Fig. 4, it will be seen that the seat *f* below each of the eccentric-cams C is provided with a longitudinal groove *g* near its outer edge, and into this groove is passed a small flange *c*, which projects slightly beyond the face of the cam C at its outer edge. It will thus be seen that when the cam is turned, so as to clamp the wire, this small flange enters the groove and prevents the wire from accidentally slipping out of engagement between the cam and the seat *f*.

What I claim is—

1. The herein-described tool, the same comprising a lower jaw having a longitudinal slot and a fulcrum therein, and an upper jaw, the forward end of which is adapted to pass through said slot and having a number of notches adapted to engage said fulcrum, the ends of said jaws having claws which register when the fulcrum is seated in one of said notches, the whole operating substantially as described.

2. In a tool of the character described, the combination, with the lower jaw having a longitudinal slot and a fulcrum therein, and the upper jaw, the forward end of which is adapted to pass through said slot and has several notches adapted to be moved over said fulcrum when the handles of said jaws

are separated, of arms pivoted to said jaws and cams at the free ends of said arms, all as and for the purpose set forth.

3. In a tool of the character described, the combination, with the handles and means for adjusting their relative position longitudinally to each other, of arms pivoted to said handles and cams at the free ends of said arms, all as and for the purpose set forth.

4. In a tool of the character described, the combination, with the handles, of arms pivoted to said handles and bent near their pivots out of a straight line between their ends, and cams at the free ends of said arms, all as and for the purpose set forth.

5. In a tool of the character described, the combination, with the handles, of arms pivoted to said handles, cams at the free ends of said arms, and an anvil at the inner end of the arm which stands uppermost when the device is in its contracted position, said anvil having transverse notches, as and for the purpose set forth.

6. In a tool of the character described, the anvil A, carried by one arm of a wire-stretching device, said anvil having transverse notches in its upper face, as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

CLYDE DAVIS.

Witnesses:

J. W. TINSMAN,  
J. C. STAUFFER.