

(No Model.)

C. LA GRANGE.  
GRIPPER FOR WIRE STRETCHERS.

No. 436,832.

Patented Sept. 23, 1890.

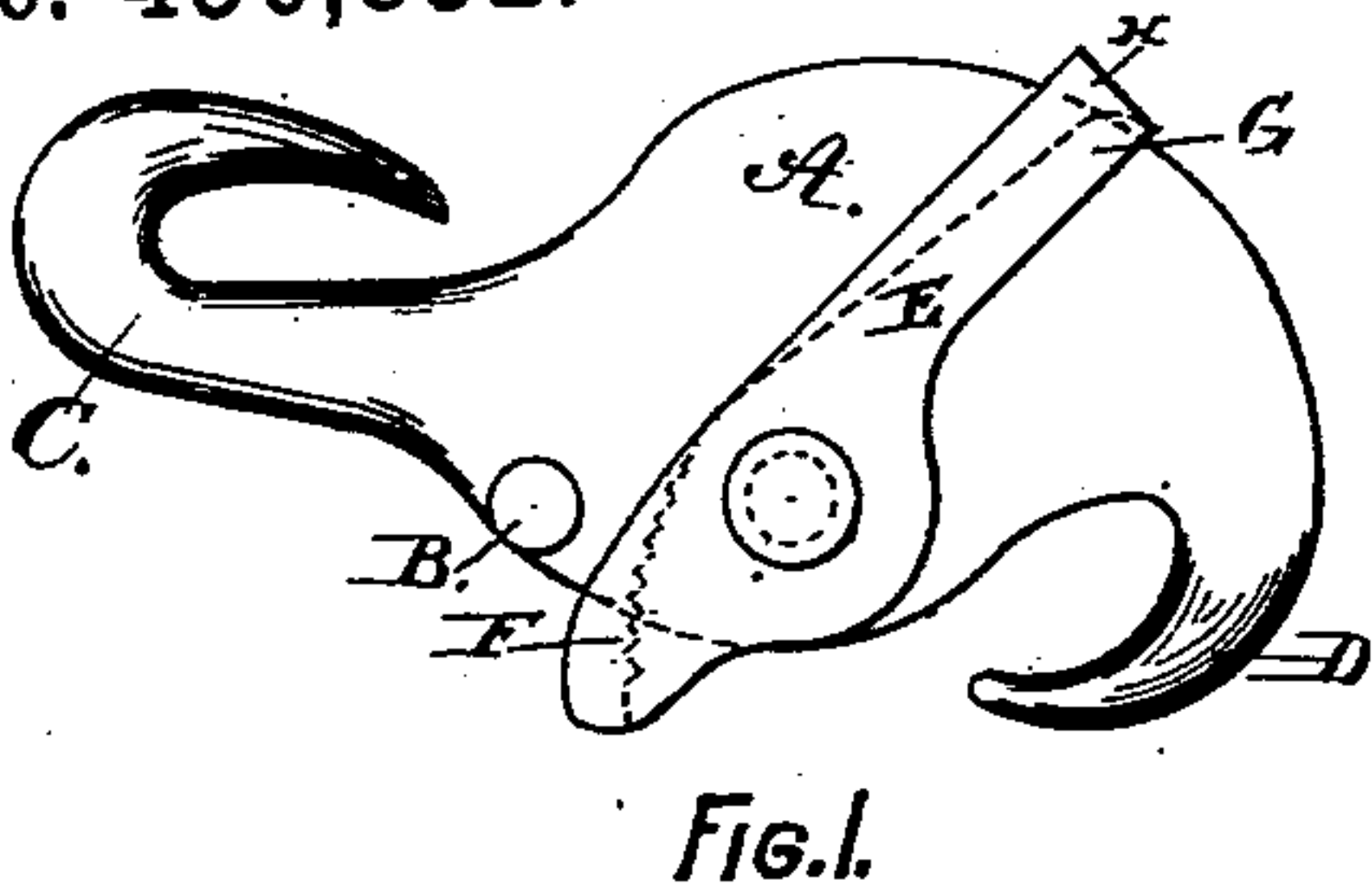


Fig. 1.

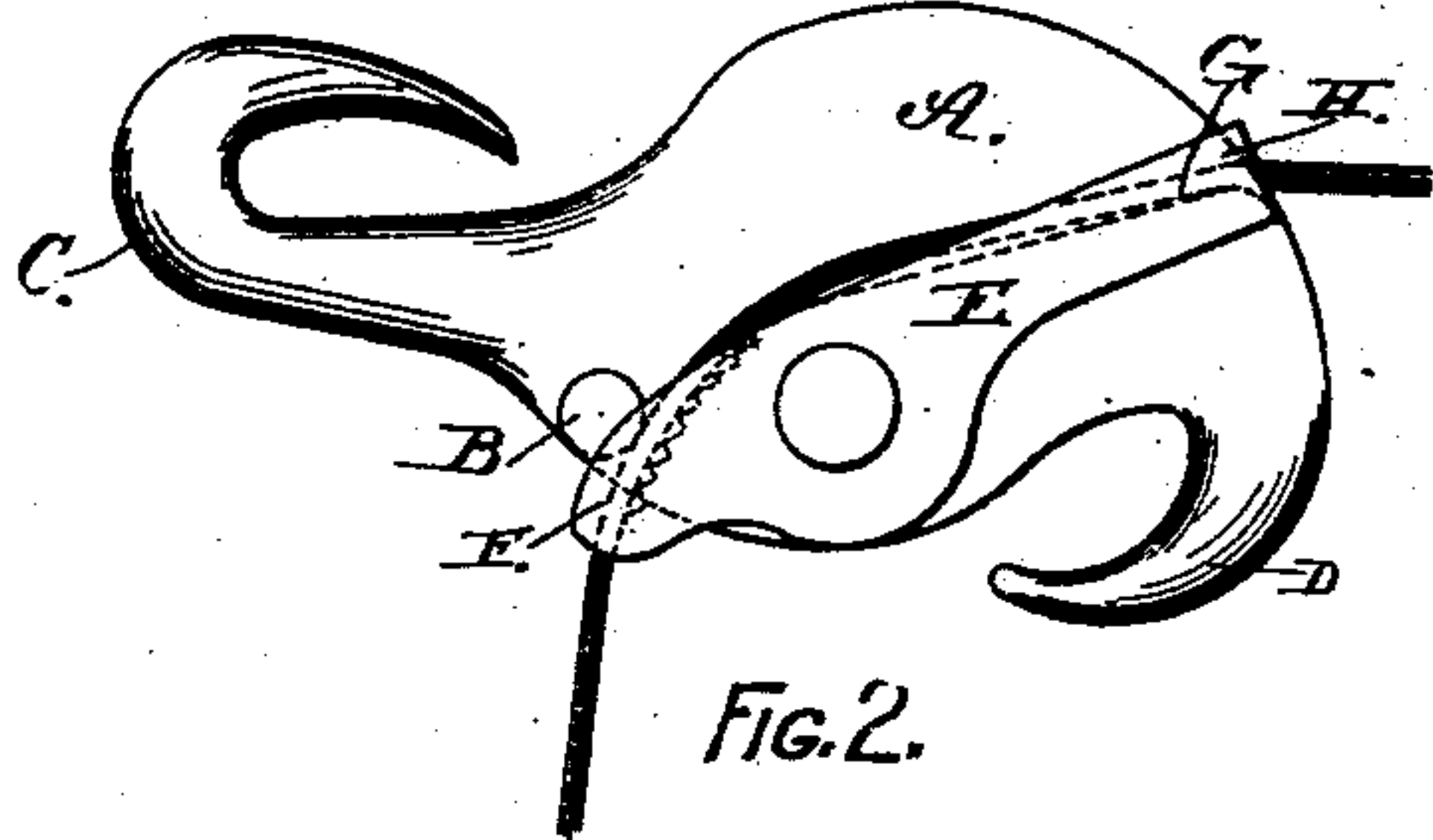


Fig. 2.

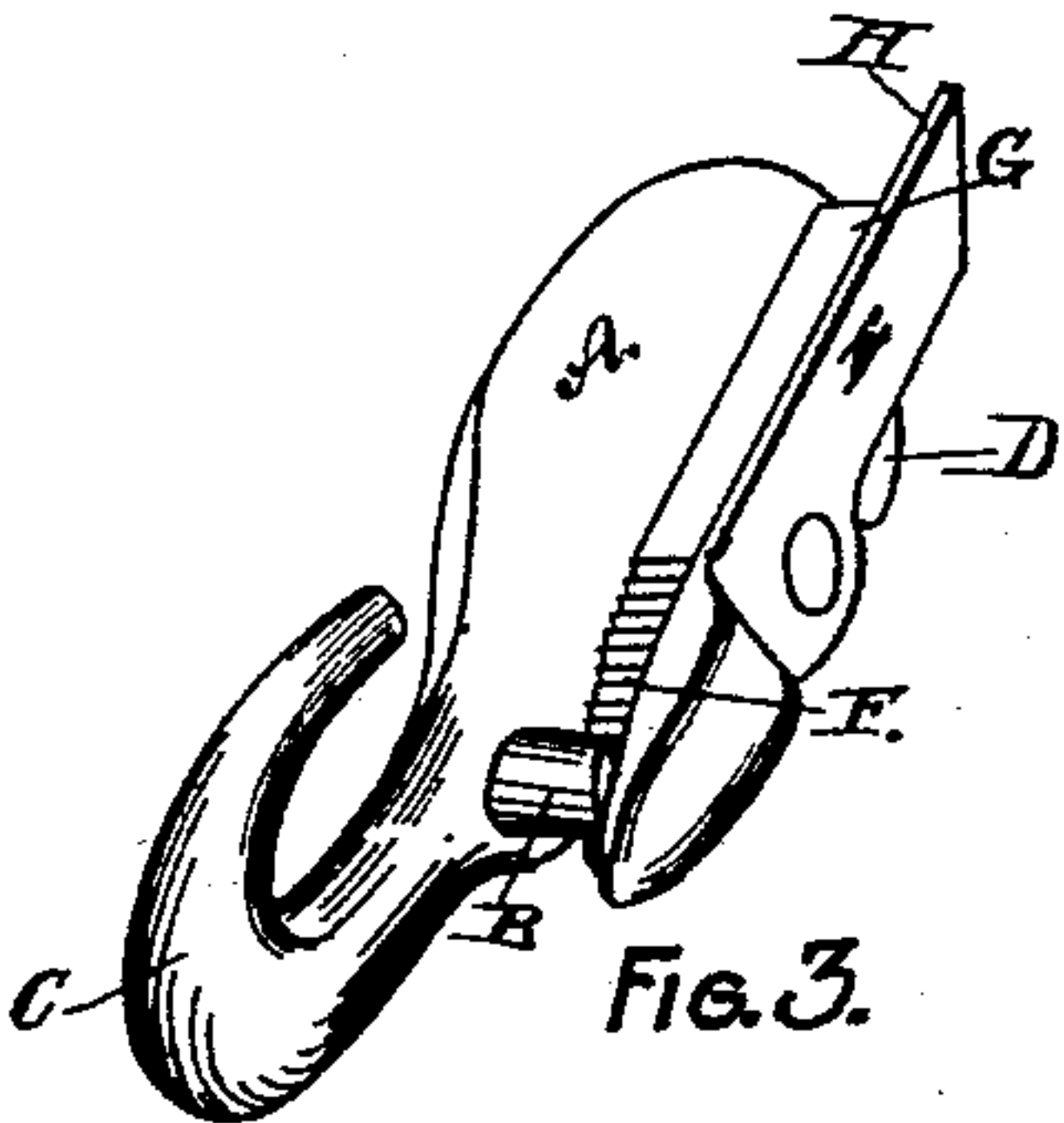


Fig. 3.

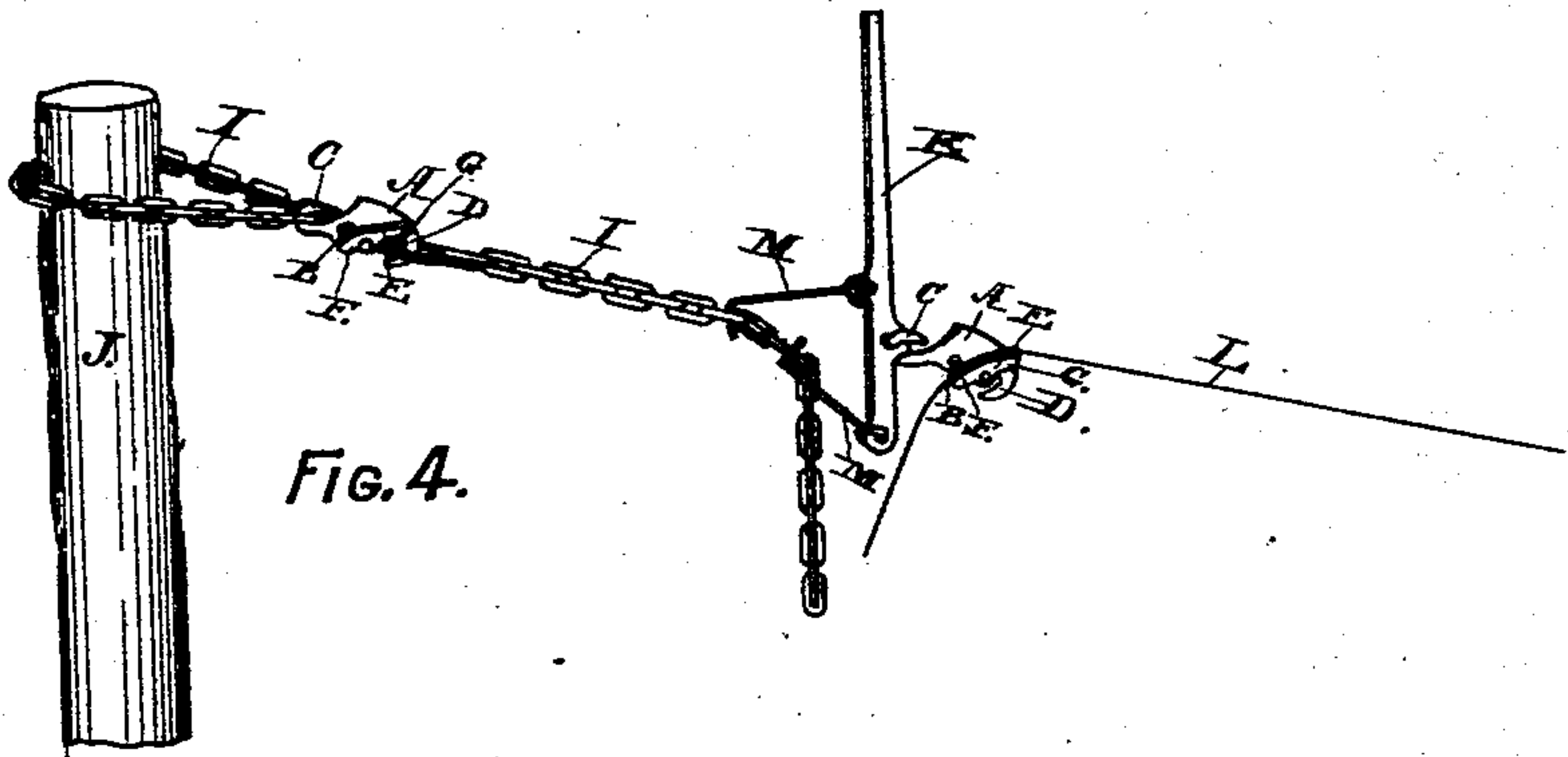


Fig. 4.

WITNESSES:

S. B. Brewster,  
Thos. H. Gibbon

INVENTOR:

CLINTON LA GRANGE,

by

William W. Low,  
attorney.



# UNITED STATES PATENT OFFICE.

CLINTON LA GRANGE, OF VOORHEESVILLE, NEW YORK.

## GRIPPER FOR WIRE-STRETCHERS.

SPECIFICATION forming part of Letters Patent No. 436,832, dated September 23, 1890.

Application filed April 28, 1890. Serial No. 349,741. (No model.)

*To all whom it may concern:*

Be it known that I, CLINTON LA GRANGE, of Voorheesville, in the county of Albany and State of New York, have invented new and  
5 useful Improvements in Grippers for Wire-Stretchers, of which the following is a specification.

My invention relates to improvements in grippers for wire-stretching implements; and  
10 the object of my invention is to provide a gripping device that will maintain its hold on the smooth surface of hard wire and whose grip will increase proportionately to an increase of strain upon the wire which is being  
15 stretched. This object I attain by the mechanism illustrated in the accompanying drawings, which are herein referred to and form part of this specification, and in which—

Figure 1 is a front elevation of my gripper  
20 when opened to receive a wire. Fig. 2 is a like elevation showing a piece of wire fastened in the device. Fig. 3 is a perspective view of my gripper, and Fig. 4 is a side elevation of my gripper applied to a wire-stretching implement.

As represented in the drawings, A designates the body of my gripper, the same being made of metal and provided with a stud B, which forms a fixed abutment, against which  
30 the wire is pressed in the operation of stretching. Said body is provided with a hook C for the purpose of attaching the gripper in position to perform its functions, and when said gripper is designed for the use shown in  
35 Fig. 4, wherein it is applied to the anchor-chain of a wire-stretching implement, said body is also preferably provided at the end opposite to the hook C with hook D, which is fitted to engage in a link of said anchor-chain,  
40 so as to form a bight in said chain to engage on a post or other fixed object that will resist the strain applied to the wire. A biting-lever E is loosely pivoted to the body A, and is provided with a curved jaw F, which has a  
45 serrated surface on its upper side, as shown in Fig. 3, and said curved jaw is arranged to press the wire against the stud B of said body, the serrated surface of said jaw affording a tenacious hold on the wire and preventing  
50 the latter from slipping in the gripper. The tail G of said biting-lever is so arranged in

relation to the pivot of said lever that when a strain is applied to a wire to which the gripper is attached the wire will press upon the tail of the biting-lever, thereby forcing the  
55 curved jaw toward the stud B, so as to gripe the wire between said jaw and stud, and it will readily be seen that the hold of the gripper on the wire will be automatically varied in proportion to the strain thrown upon the  
60 wire. A standing flange H is formed upon the outer upper edge of the biting-lever E for the purpose of preventing the wire from slipping out of the gripper.

As shown in Fig. 4, wherein two of my grip-  
65 pers are shown in use for stretching a wire, an anchor-chain I is connected to a post J by forming a bight at one end of said chain, and a straining-lever K, to which a wire L is connected by means of one of my grippers, is  
70 provided with two hooks M, which are jointed to said lever about equidistantly from the point at which my gripper is jointed to said lever, and it will be seen that said gripper is arranged at the opposite side of said lever from  
75 said hooks. The latter are fitted to engage in different links of the anchor-chain by a step-by-step movement as the straining-lever K is moved alternately in opposite directions, and in making these movements the eyes of  
80 the hooks M alternately serve as a fulcrum for the straining-lever K. This operation is continued until the required degree of tension of the wire is obtained.

It should be understood that the straining-  
85 lever K, hooks M, and anchor-chain I form no part of my invention; and it should also be understood that when my gripper is only to be used on the straining-lever K as a means  
90 for attaching the wire to said lever the hook D may be dispensed with.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A gripper for wire-stretching apparatus, comprising a body provided with a hook for  
95 connecting said gripper to the wire-stretching mechanism, a fixed stud on the side of said body, and a biting-lever pivoted to the side of said body and provided with a jaw fitted to co-operate with said stud to effect the grip-  
100 ping of the wire, the pivot for said lever being fixed on said body in such relation to said

stud that the strain on the wire will exert a pressure on the tail of said lever to effect a gripping of the wire by said lever, as and for the purpose herein specified.

- 5 2. A gripper for wire-stretching apparatus, comprising a body provided with a hook for connecting said gripper to the wire-stretching mechanism, a fixed stud on the side of said body, and a biting-lever pivoted to the side  
10 of said body in proximity to said stud and provided with a jaw having a serrated upper surface which is fitted to co-operate with said

stud to effect the gripping of the wire, the pivot for said lever being fixed in such relation to said stud that the strain on the wire 15 will exert a pressure on the tail of said lever to effect the gripping of the wire by said jaw, and the tail of said lever having a standing flange on the outer edge of its upper face, as and for the purpose herein specified.

CLINTON LA GRANGE.

Witnesses:

WM. H. LOW,  
S. B. BREWER.