(No Model.)

C. M. DANIELSON.

WIRE STRETCHER.

No. 390,211. Patented Oct. 2, 1888.

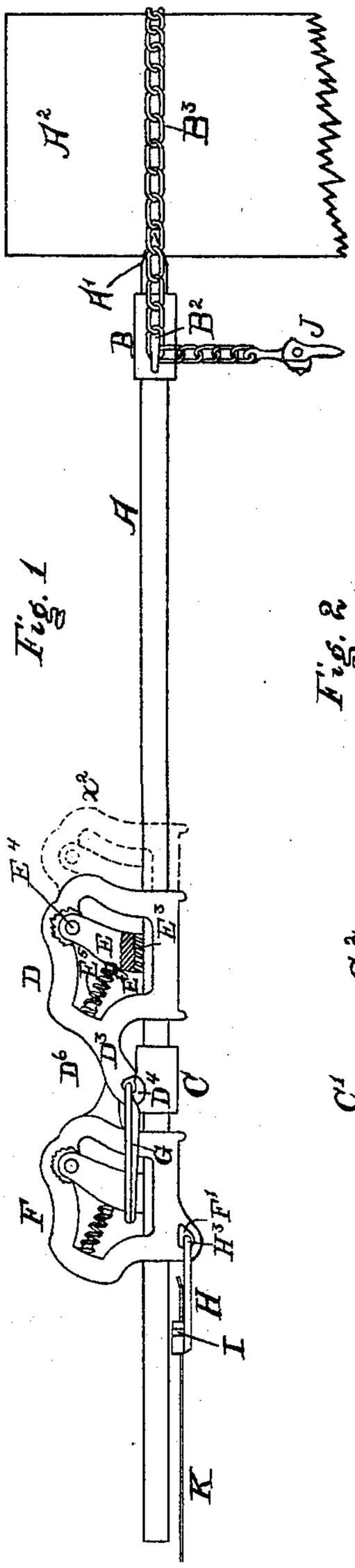

Fig. 1

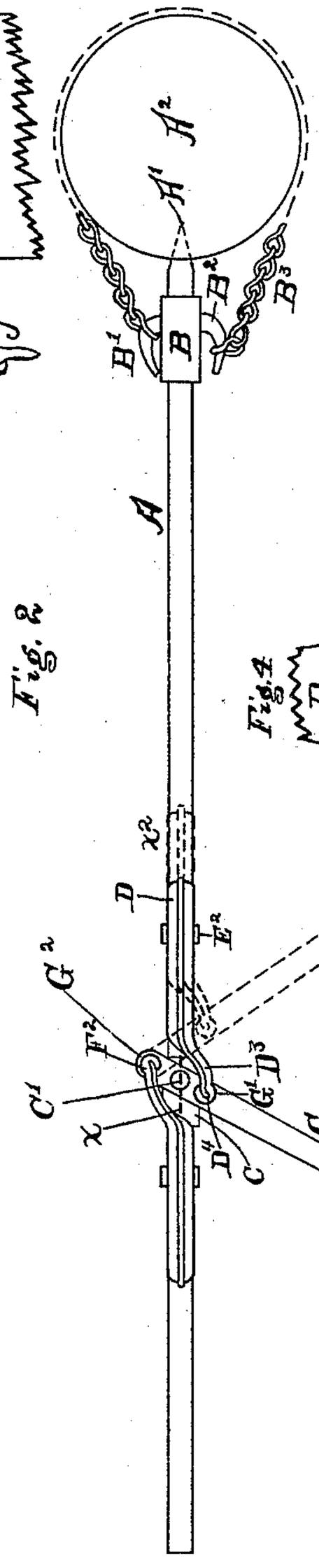

Fig. 2

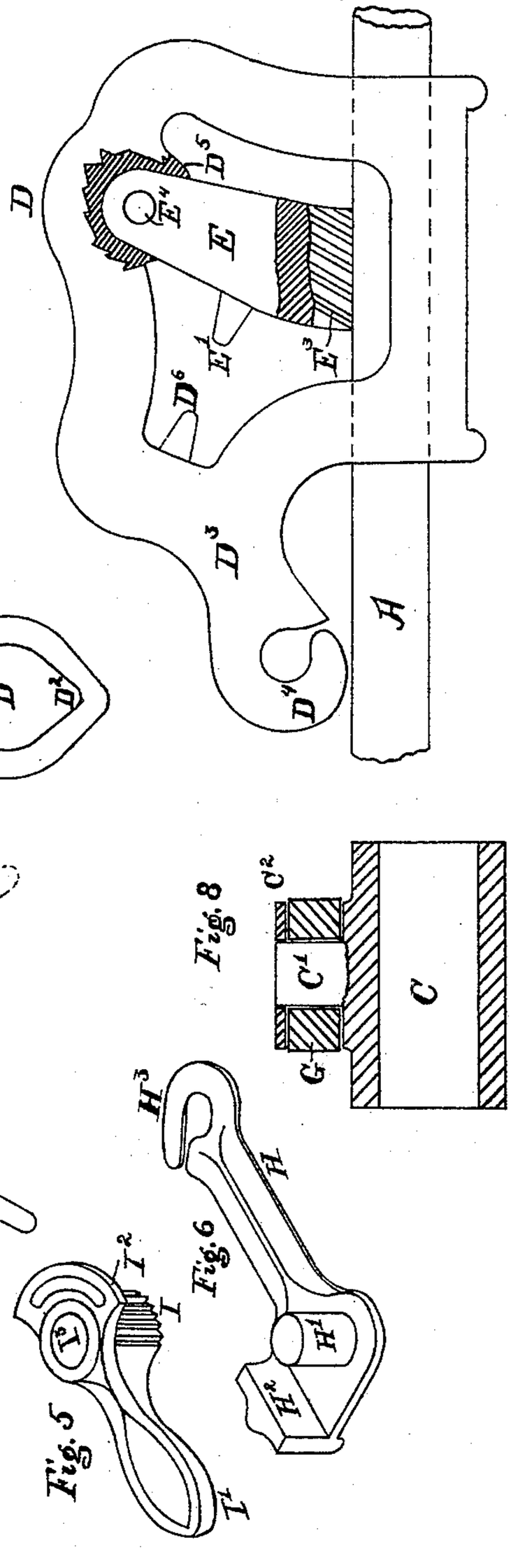

Fig. 3

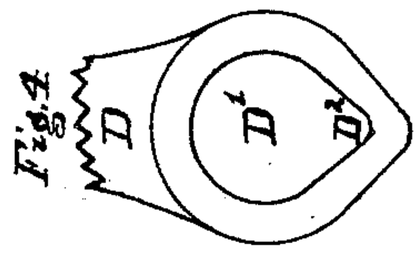

Fig. 4

Fig. 5

Fig. 6

Fig. 8

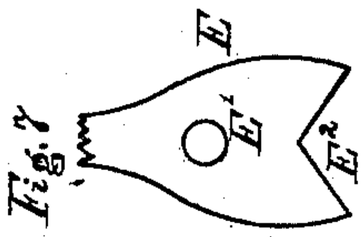

Fig. 7

WITNESSES:

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CARL M. DANIELSON, OF ROCKFORD, ILLINOIS.

WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 390,211, dated October 2, 1888.

Application filed May 1, 1888. Serial No. 272,503. (No model.)

To all whom it may concern:

Be it known that I, CARL M. DANIELSON, a subject of the King of Sweden and Norway, residing at Rockford, in the county of Winnebago and State of Illinois, have invented a certain new and useful Improvement in Wire-Stretchers, of which the following is a specification.

My invention has for its object to produce a portable wire-stretcher adapted for use in putting the various kinds of fencing-wire now in general use upon posts to form field-fences and the like.

This invention consists of certain new and useful constructions and combinations of parts hereinafter described, and pointed out in the claim.

Referring to the accompanying drawings, which form a part of this specification, Figure 1 is a view of a side elevation of my improved wire-stretcher. Fig. 2 is a plan view of the same. Figs. 3 to 7, inclusive, are enlarged views in detail of portions of the stretcher. Fig. 8 is a view of a vertical partial section, through the dotted line *x* of Fig. 2, of parts of the stretcher shown in the last-mentioned figure.

A is a grip-rod, upon which the stretching mechanism is operated, provided with a point, A′, in order that it may be readily inserted into a fence-post, A^2.

B is a collar secured to the grip-rod A and furnished with hooks B′ B^2, adapted to engage with the chain B^3.

C is a sleeve of suitable size and form to slide freely upon the grip-rod A.

D is a front grip having a tubular passage, D′, extending longitudinally therethrough, of sufficient diameter to readily admit the grip-rod A, whereon the former may be slid backward and forward. The lower portion, D^2, of the tubular passage D′ is depressed or slightly V-shaped, in order to secure ample frictional contact between the grip-rod A and the front and rear grips.

The grip D has a curved shank, D^3, extending backward therefrom and terminating in a hinge-hook, D^4, and is provided with depending hinge-lugs D^5 and a spring-retaining spur, D^6.

E is a presser-cam, furnished with a spring-retaining spur, E′, and having the lower end thereof provided with a preferably V-shaped channel, E^2, which is roughened or furnished with corrugations E^3, to adapt the same to readily engage with the grip-rod A. The presser-cam E is hinge-jointed to and between the hinge-lugs D^5 by means of the bolt E^4.

E^5 is an actuating-spring mounted upon the retaining spurs D^6 and E′, for holding the corrugated channeled portion of the presser-cam E in close contact with the grip-rod A.

F is a rear grip, of essentially the same elements and construction as the front grip, D, hereinbefore described, provided with a draft-eye, F′, and hinge-hook F^2.

G is a lever for operating the grips D F, and is connected with the same by means of hinge-hooks D^4 and F^2, which are inserted through the holes G′ G^2 therein to form joints therewith. The lever G is also jointed to the sleeve C by means of the vertical pivot C′, which passes through an opening in the former.

C^2 is a washer for retaining the lever G upon its bearing, the pivot C′.

H is a draft-hook, having a vertical axis, H′, and flange H^2, integral therewith, the curved end H^3 being inserted through the draft-eye F′.

I is a corrugated cam-head, provided with a handle, I′, a retaining-flange, I^2, and a circular passage, I^3, of sufficient diameter to readily admit the axis H′, whereon it turns.

J is a draft-hook and attachments identical with the hook H and the attachments thereof.

In order to operate my wire-stretcher most advantageously, I drive the point A′ of the grip-rod A into a fence-post, A^2, sufficiently to maintain the same in a substantially horizontal position and pass the chain B^3 around the post A^2 tightly, securing the ends thereof to the collar B by means of the hooks B′ B^2. I next pass the wire, K, to be tightened between the flange H^2 of the hook H and the cam-head I, and by means of the handle I′ secure the wire between the corrugated cam-head I and the flange H^2. I afterward carry the free end of the lever G toward the post A^2, as indicated by the dotted lines *x*′, and the front grip, D, will be thereby advanced in the same direction, as indicated by the dotted lines x^2. I then press the lever from the post, whereupon the rear grip, F, will advance in the direction of the post, carrying with it the

hook H and its wire K. Obviously the alternate movements of the lever G just described, if continued, will cause the wire K to become tight.

To splice a wire, dispense with the post and pass a wire through the draft-hook J, then draw the free ends of the two wires together in the same manner as above described for stretching a single wire until sufficiently taut, and then splice them together.

I claim—

In combination, the grip-rod, the front and rear grips, each having a tubular passage extending longitudinally therethrough of sufficient diameter to readily admit said grip-rod, and provided with presser-cams hinge-jointed to said grips, and having roughened or corrugated V-shaped channels in the free ends of said cams to adapt the same to engage with said grip-rod, and furnished with actuating-springs for holding the corrugated channeled portions of said presser-cams in close contact with said grip-rod, the sleeve adapted to slide on said grip-rod between said grips, and the lever pivoted to the outside of said sleeve and jointed to said grips in such a manner as to admit of alternate forward and backward movements on said pivot to propel said grips along said grip-rod, substantially as described, and for the purpose specified.

CARL M. DANIELSON.

Witnesses:

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