

(No Model.)

C. A. SVENSSON.
LINEMAN'S WIRE GRIP.

No. 496,104.

Patented Apr. 25, 1893.

Fig. 1.

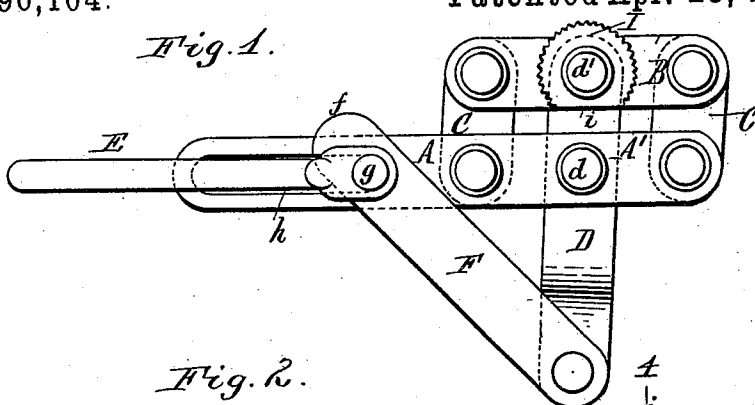


Fig. 2.

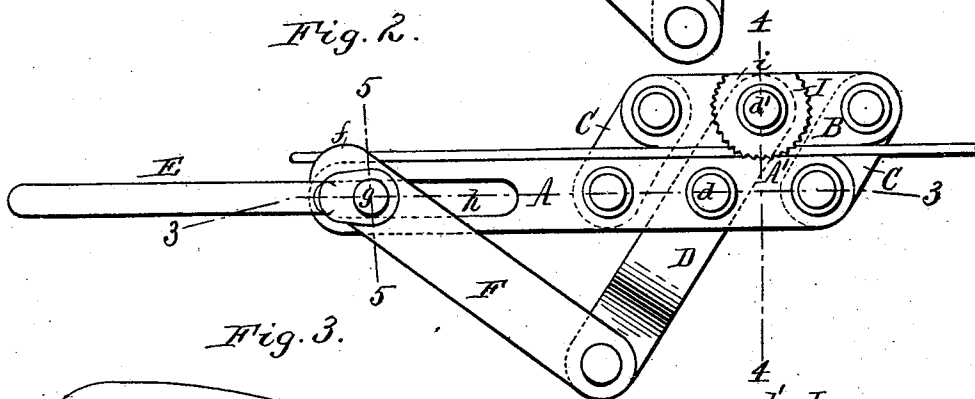


Fig. 3.

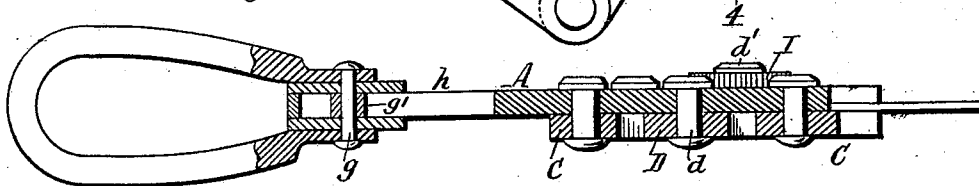


Fig. 4.

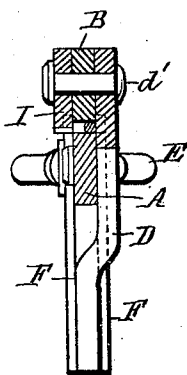
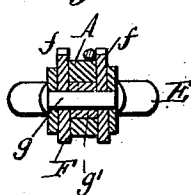


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

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LINEMAN'S WIRE-GRIP.

SPECIFICATION forming part of Letters Patent No. 496,104, dated April 25, 1893.

Application filed October 28, 1892. Serial No. 450,263. (No model.)

To all whom it may concern:

Be it known that I, CLAES A. SVENSSON, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Linemen's Wire-Grips, of which the following is a specification.

My invention relates more particularly to the class of clamps or grippers known as "come alongs" and which are used by linemen for stretching telephone and telegraph wires.

The object of my invention is the production of a powerful and convenient device of this character which affords an extensive bearing surface to the wire and which exerts a uniform pressure upon the same from end to end of the jaws, thus preventing marring or bending of the clamped wire.

In the accompanying drawings:—Figure 1 is a side elevation of my improved grip showing the position of the parts when the jaws are open. Fig. 2 is a similar view, showing the position of the parts when the jaws are closed. Fig. 3 is a longitudinal section of the device in line 3—3, Fig. 2. Fig. 4 is a cross section of the same in line 4—4, Fig. 2. Fig. 5 is a similar section in line 5—5, Fig. 2.

Like letters of reference refer to like parts in the several figures.

A represents the body or main member of the grip. The inner edge A' of the front portion of the body A forms the stationary jaw of the grip.

B is a movable jaw arranged opposite the stationary jaw A' and connected to the body A by parallel links or arms C, so as to maintain a position parallel with the face of the stationary jaw. The connecting links C are preferably arranged at or near opposite ends of the movable jaw, as shown, and are pivoted at their lower ends to the body A and at their opposite ends to the movable jaw by transverse pins or rivets.

D is an actuating lever fulcrumed between its ends upon the body A, as shown at *d*, and pivoted with its short arm to the movable jaw, as shown at *d'*, so that upon swinging the lever in one or the other direction, the movable jaw is moved toward or from the stationary jaw, thus closing or opening the jaws.

E is a draft loop or attachment arranged to slide lengthwise upon the rear portion of the body member A, and F is a coupling bar or link connecting the long arm of the actuating lever with the draft loop, so as to transmit the movement of the loop to the lever. This draft loop is provided with a transverse pin *g* which passes through and is guided in a longitudinal slot *h* formed in the rear portion of the body member A, the pin *g* being preferably provided with a roller *g'*, as shown in Figs. 3 and 5, to reduce friction. To the draft loop is attached the usual tension or stretching strap, which latter is not shown in the drawings. The long arm of the actuating lever is preferably offset or raised to the plane of the body member A, as shown in Fig. 4, and the connecting bar is composed of two members arranged on opposite sides of the body member A and the actuating lever.

In order to open the jaws of the grip for inserting the wire, the draft loop is pushed forward on the body A, toward the jaws, as shown in Fig. 1, which causes the actuating lever to be swung on its pivot in the proper direction to move the movable jaw away from the stationary jaw. Upon inserting the wire, the draft or rearward pull on the loop causes the long arm of the actuating lever to swing rearward through the medium of the connecting bar and its short arm forward, thereby closing the movable jaw against the interposed wire, as shown in Fig. 2. As the movable jaw is pivotally connected with the body member A by parallel links, its face is always compelled to stand parallel with the face of the stationary jaw, no matter whether a large or a small-sized wire is gripped, thus exerting an even pressure upon the wire throughout the length of the jaws and avoiding cutting or bending of the wire.

I is a retaining plate arranged on one of the jaws of the grip and adapted to be extended across the space between the jaws after the wire has been inserted, so as to hold the same in place, preparatory to stretching it. This retaining plate consists of a rotary disk preferably journaled upon the outer pivot *d'* of the lever and which is cut away on one side, flush with the face of the movable jaw, as shown at *i*, so that upon turning the disk into

the position shown in Fig. 1, the wire can be inserted between the jaws, while upon turning it out of this position, as shown in Fig. 2, it bridges the space between the jaws and overlaps the wire, thereby preventing the wire from leaving the jaws when adjusted between the same. The edge of the rotary retaining disk is preferably milled to facilitate turning it.

As an additional means of holding the inserted wire in position between the jaws, the rear portions of the double connecting bar F are extended laterally beyond that side of the body member A on which the movable jaw is arranged, as shown at f, so as to form stops or projections between which is confined the portion of the wire extending rearwardly from the jaws.

I claim as my invention—

1. The combination with the body or main member of the grip carrying a stationary jaw, of a movable jaw arranged opposite the stationary jaw, links connecting the movable jaw with the body or stationary jaw, an actuating lever fulcrumed upon the body and pivoted to the movable jaw, a draft loop or attachment movable lengthwise on the body, and a coupling bar connecting the lever with said loop, substantially as set forth.

2. The combination with the body or main member of the grip provided at its front portion with a stationary jaw and in its rear portion with a longitudinal slot, of a movable jaw arranged opposite the stationary jaw and pivotally connected with the latter by parallel links, an actuating lever fulcrumed upon the body and pivoted with one of its arms to the movable jaw, a draft loop having a pin guided in the slot of the body, and a bar connecting the other arm of the actuating lever with the draft loop, substantially as set forth.

3. The combination with the body member of the grip having a stationary jaw, and the movable jaw co-operating with the stationary jaw, of the actuating lever of the movable jaw, the longitudinally movable draft loop, and a coupling bar connecting the actuating lever with the draft loop and having its rear ends extended laterally beyond said body member, forming a stop or projection which confines the adjacent portion of the wire placed in the grip, substantially as set forth.

Witness my hand this 24th day of October, 1892.

CLAES A. SVENSSON.

Witnesses:

JNO. J. BONNER,
FRED. C. GEYER.