

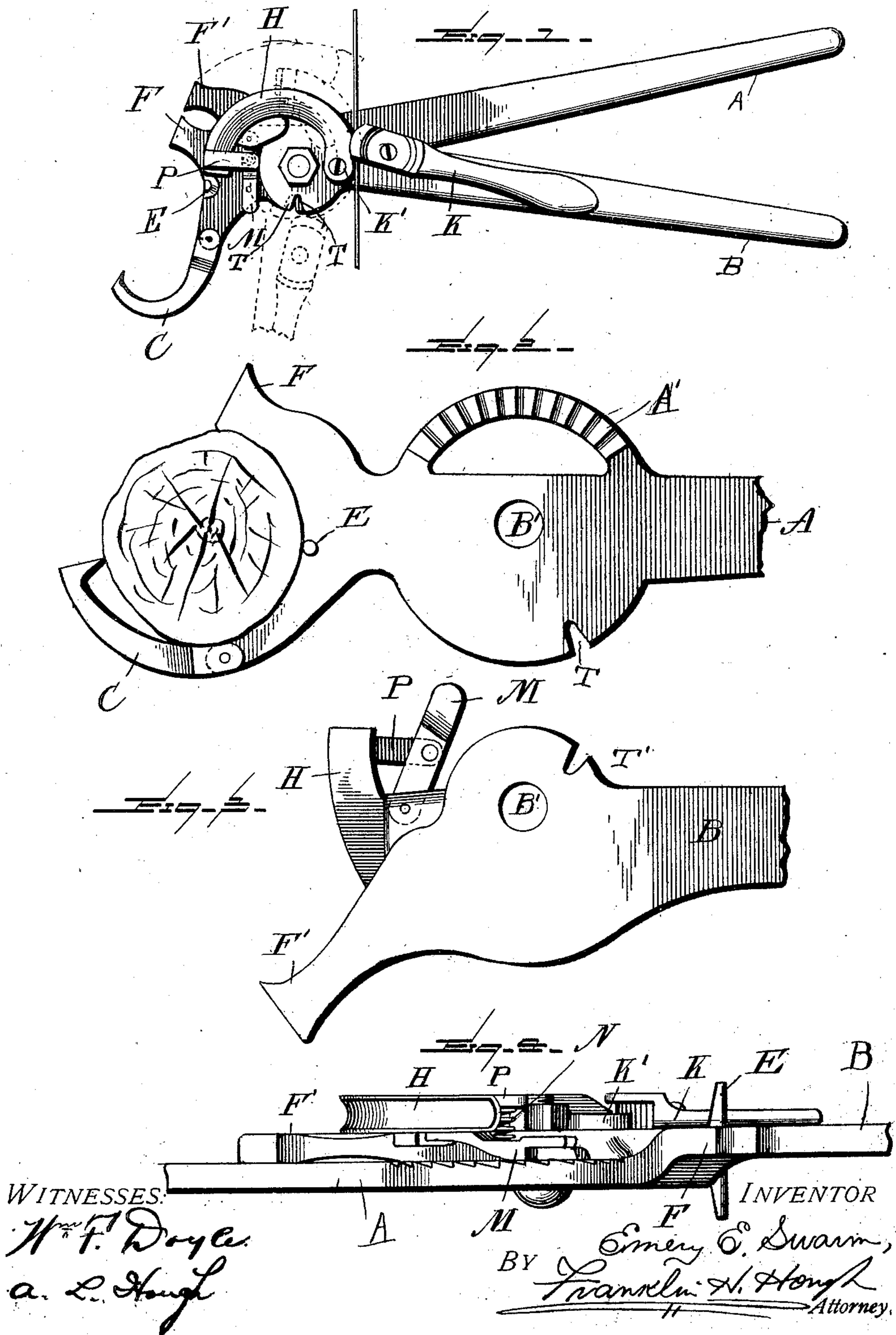
No. 707,732.

Patented Aug. 26, 1902.

E. E. SWARM.
WIRE STRETCHER.

(Application filed Dec. 12, 1901.)

(No Model.)



UNITED STATES PATENT OFFICE.

EMERY E. SWARM, OF CALAMUS, IOWA, ASSIGNOR TO THE SWARM FENCE
BUILDER TOOL COMPANY, OF DAVENPORT, IOWA.

WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 707,732, dated August 26, 1902.

Application filed December 12, 1901. Serial No. 85,664. (No model.)

To all whom it may concern:

Be it known that I, EMERY E. SWARM, a citizen of the United States, residing at Calamus, in the county of Clinton and State of Iowa, have invented certain new and useful Improvements in Wire-Stretchers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in wire-stretching tools for making fences, &c.; and it consists in the provision of means for securely holding the tool to a post while the wire is being stretched and means for holding the wire in a taut relation while it is being secured to the post.

More specifically, the invention consists in a tool of the character described, comprising two levers pivoted together, having ratchet-and-pawl means whereby the levers may be held with the wire clamped to one of the same, while the other lever securely grips and is held securely to the post to which the wire is to be fastened.

The invention further consists in various details of construction and combination of parts, &c., which will be hereinafter more fully described, and then specifically defined in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this application, and in which drawings similar letters of reference indicate like parts of the several views, in which—

Figure 1 is a plan view showing the tool engaging a wire to be stretched and in dotted lines the positions of parts when the wire is drawn taut. Fig. 2 is a detail view of one of the levers, having ratchet-teeth thereon. Fig. 3 is a detail view of the second lever, showing the spring-actuated pawl carried thereby. Fig. 4 is an end view of the head of the device, showing the jaws wide open.

Reference now being had to the details of the drawings by letter, A designates one of

the levers of the tool, having a curved toothed segment A', and B the second lever, which are connected together by means of a pin B'. Lever A has a hook C pivoted to its head, said head being concaved and adapted to fit against the circumference of a post, as shown in Fig. 1 of the drawings, while the end of the hook pivoted thereto is adapted to engage said post to hold the lever stationary while the second lever B is stretching the wire. Projecting laterally from the head of said lever A are the pins E, which are adapted to hold the lever at right angles to the post, said pins being adapted to contact with the portions of the post above and below the location engaged by the head of the lever. A projection F on said head forms one jaw of a staple-puller, the other complementary jaw F' being integral with the lever B.

Fastened to or integral with the lever B is a segment H, which has its outer curved face grooved, and pivoted adjacent to one end of said segment is a lever K, having a serrated cam-jaw adjacent to its pivotal end, which operates with one end of said segment to retain the wire in the groove of said segment while the lever B is being turned upon its pivotal point to stretch the wire.

M designates a pawl which is held normally in engagement with the ratchet-teeth on the head of the lever A when the tool is used in the stretching of the wire. A spring N, bearing between said pawl and a projection P on said curved segment, serves to normally hold the pawl in engagement with said ratchet-teeth.

Suitable wire-cutting means is provided by notching the two heads of the levers A and B, as at T and T', causing the two faces of the heads to shear with each other.

In operation when the device is used for stretching wire the hook C is caught into and securely anchored to the post in the manner illustrated in Fig. 1 and the wire which is to be stretched is placed in the groove in the segment on lever B, and by means of the pivotal clamping-jaw K the wire is held to said segment, and by swinging the lever B into the position illustrated in dotted lines in Fig. 1 the wire may be stretched and held in taut relation while being secured to the post by means

of a spring-actuated pawl carried by the jaw B, which engages and securely holds the levers from closing until the pawl is disengaged from the ratchet-teeth.

5 Having thus described my invention, what I claim to be new, and desire to secure by Letters Patent, is—

1. A wire-stretching tool, comprising a lever A, a hook pivoted to the head of said lever, ratchet-teeth on the face of the lever adjacent to its pivotal point, a second lever pivoted to the hook-carrying lever, having a face in contact with said ratchet-teeth, clamping means for holding the wire to be stretched, a
10 pawl carried by said second lever and adapted to engage the ratchet-teeth of the hook-carrying lever, as set forth.

2. A wire-stretching tool, comprising two levers pivoted together, one of said levers having ratchet-teeth on its face, which is in contact with the face of the second lever, a spring-actuated pawl pivoted to the second lever, and engaging said ratchet-teeth, a curved and grooved segment, secured to, or integral with the pawl-carrying lever, and a pivoted lever, having serrated jaw and adapted to cooperate with the curved end of said segment, to hold a wire while being stretched, as set forth. 20 25

In testimony whereof I hereunto affix my signature in presence of two witnesses.

EMERY E. SWARM.

Witnesses:

EMMA WAYLAND,
SAMUEL B. WALKER.