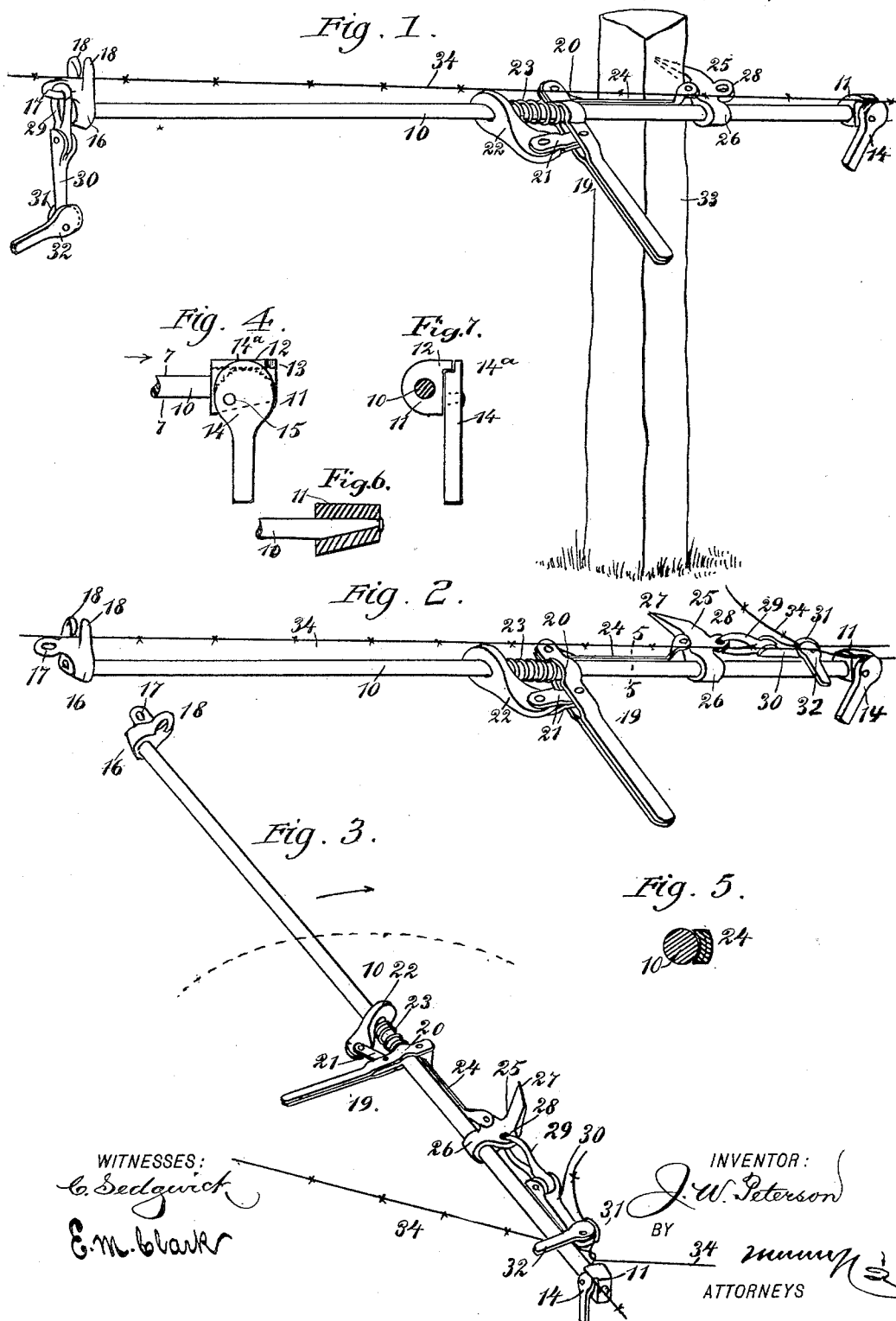


(No Model.)

J. W. PETERSON.
WIRE STRETCHER.

No. 460,885.

Patented Oct. 6, 1891.



UNITED STATES PATENT OFFICE.

JOHN W. PETERSON, OF SLATER, IOWA.

WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 460,885, dated October 6, 1891.

Application filed March 19, 1891. Serial No. 385,632. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. PETERSON, of Slater, in the county of Story and State of Iowa, have invented a new and Improved Wire-Stretcher, of which the following is a full, clear, and exact description.

My invention relates to improvements in that class of wire-stretchers which are used in stretching barbed or other wire so that it may be properly fastened to fence-posts; and the object of the invention is to produce a simple, cheap, and convenient device by means of which the wire may be quickly and thoroughly stretched, which will carry the wire beyond the post to which it is to be attached, and which is also adapted for splicing wire.

To this end my invention consists in a wire-stretcher, constructed substantially as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view showing the wire-stretcher as applied to a fence-post and wire. Fig. 2 is a perspective view showing the manner in which a wire is stretched and spliced. Fig. 3 is a perspective view showing another method of splicing wire. Fig. 4 is a broken enlarged detail view of one of the clamping devices which holds the wire. Fig. 5 is a cross-section through the main bar and the rod connecting the hand-lever and hook, the section being taken on the line 5 5 in Fig. 2. Fig. 6 is a broken detail sectional view showing the manner in which the end castings are secured to the main bar, and Fig. 7 is a cross-section on the line 7 7 in Fig. 4.

The main bar 10 is provided at one end with a casting 11, which has one flat side, and over the flat side is a projecting rim 12, which is corrugated on the under side and which is beveled at one end, as shown at 13 in Fig. 4, to enable the barb of the wire to be easily released from it after a wire has been stretched, and pivoted on the flat side of the casting 11 is a lever 14, which is pivoted eccentrically on a pin 15 and which has corrugations on its upper side which correspond with the corrugations on the under side of the rim 12.

The enlarged upper end of the lever 14 terminates in a flange 14^a, which extends upward opposite the rim 12 and which serves to hold a wire in place. The bar 10 is beveled at the end, and the casting 11 is correspondingly beveled, as shown in Fig. 6, and when the casting is placed upon the bar the latter is headed to keep the casting on, and the bevels prevent the casting from slipping on too far. It will thus be seen that by moving the lever 14 in one direction a space will be opened between it and the rim 12, and that by closing the lever the corrugated end of the lever will be forced against the corrugated rim, so that the rim and lever will be capable of holding the wire securely between them. On the opposite end of the bar 10 is riveted a casting 16, which has on its outer end an eye 17 and which has on the upper side two inwardly-curved hooks 18, which are adapted to extend over and clasp a wire while it is being stretched, as shown in Figs. 1 and 2, and the wire will support and guide the stretcher. The casting 16 is attached in the same manner as the casting 11.

Mounted centrally on the bar 10, so as to slide thereon, is a handle-lever 19, which is composed of two similar members, and the members are spread, as shown at 20, to enable the lever to be clasped to the bar, and extending from the lever near the bar are links 21, between which is pivoted one end of a friction-arm 22, the opposite end of the arm being perforated and mounted to slide on the bar 10. The friction-arm and lever are normally pressed apart by a spiral spring 23, which is mounted on the bar between the lever and arm. The short end of the lever 19 is provided on the side opposite the arm 22 with an eye, in which is pivoted a connecting-rod 24, which is composed of two members which are curved, as shown in Fig. 5, so that they will lie close to the bar 10, and the opposite end of this connecting-rod is pivoted to a hook 25, one end 26 of which is held to slide upon the bar 10 and the outer end of which terminates in a sharp angular point 27, which is adapted to fit around or stick into a post. On the back side of the hook 25 is an eye 28, which is adapted to receive a snap-hook 29, which carries a casting 30, the cast-

ing being pivoted to the hook, and the outer end of the casting terminates in a rimmed clamp-section 31, on which is eccentrically pivoted a lever 32.

5 I have not shown the rimmed section of the casting 30 and the lever 32 in detail, as they are precisely like the casting 11 and lever 14, already described, and are adapted to hold a wire when it is to be stretched or spliced in
10 the manner hereinafter described, but they are hung together the reverse way from the casting 11 and lever 14, so that they will hold a wire when the pull is in the opposite direction.

The snap-hook 29, which carries the wire-clamping device described, is adapted to be
15 disengaged from the eye 28 and hooked into the eye 17 of the casting 16 when the stretcher is to be used for stretching a short wire which will not reach to the post to which the stretcher
20 is secured.

The stretcher is operated as follows: We will suppose that a wire 34 is to be fastened to a post 33, as shown in Fig. 1. The wire is drawn comparatively tight and made to extend through the hooks 18 and is clamped between the lever 14 and the rimmed casting 11.
25 The hook 25 is secured to the post 33, and by working the lever 19 backward and forward the bar 10 is forced ahead, so as to carry the
30 wire beyond the post 33, thus stretching it to the desired extent.

The operation of the lever 19 and the manner in which the bar is moved is as follows: The spring 23 normally presses the friction-arm away from the lever 19, and when the
35 lever is thrown ahead the friction-arm holds its place on the bar 10, and the tendency is for the inner end of the lever to travel toward the arm; but as the hook 25 and the connecting-rod 24 prevent this, the bar 10 moves in the
40 opposite direction through the lever and through the hook, thus tightening the wire. Upon moving the lever in the opposite direction the spring forces the friction-arm ahead,

and the operation is repeated step by step until the wire is sufficiently tightened. 45

To splice and stretch the wires one wire is held by the casting 11 and lever 14 in the manner already described, and the other is held in the casting 30 and lever 32, so as to pull in
50 the opposite direction, as shown in Fig. 2, and the two ends of the wire are then twisted together, or the wires may be held in the two clamping devices, as described, and the hooks
55 18 may be released from the main wire and the device turned over and under the wires, thus twisting them together, as shown in Fig. 3. When the wire to be stretched is not long enough to reach to the post, as shown in Fig. 1, the snap-hook 29 may be released from the
60 eye 28 of the hook 25 and hooked into the eye 17 of the casting 16, and then by securing the wire in the casting 30 by the lever 32 it may be tightened in the manner already described.

Having thus described my invention, I 65 claim as new and desire to secure by Letters Patent—

A wire-stretcher consisting in a bar having a fixed head at one end provided with a clamp and a fixed head 16 at its opposite end, provided with guide-hooks 18 and an eye 17, the
70 lever 19, sliding on the bar, the hook 25, sliding on the bar between the clamping head and lever, pivotally connected with the latter, and provided with an eye 28, a clamp working oppositely to the clamp of the said fixed head and provided with a snap-hook to engage
75 either of the eyes 28 17, a friction-arm 22, sliding on the bar between the guide-hooks and the lever and pivotally connected with the latter, and a spring coiled about the bar
80 between the lever and friction-arm, substantially as set forth.

JOHN W. PETERSON.

Witnesses:

OLE O. LEGVOLD,
E. PETERSON.