

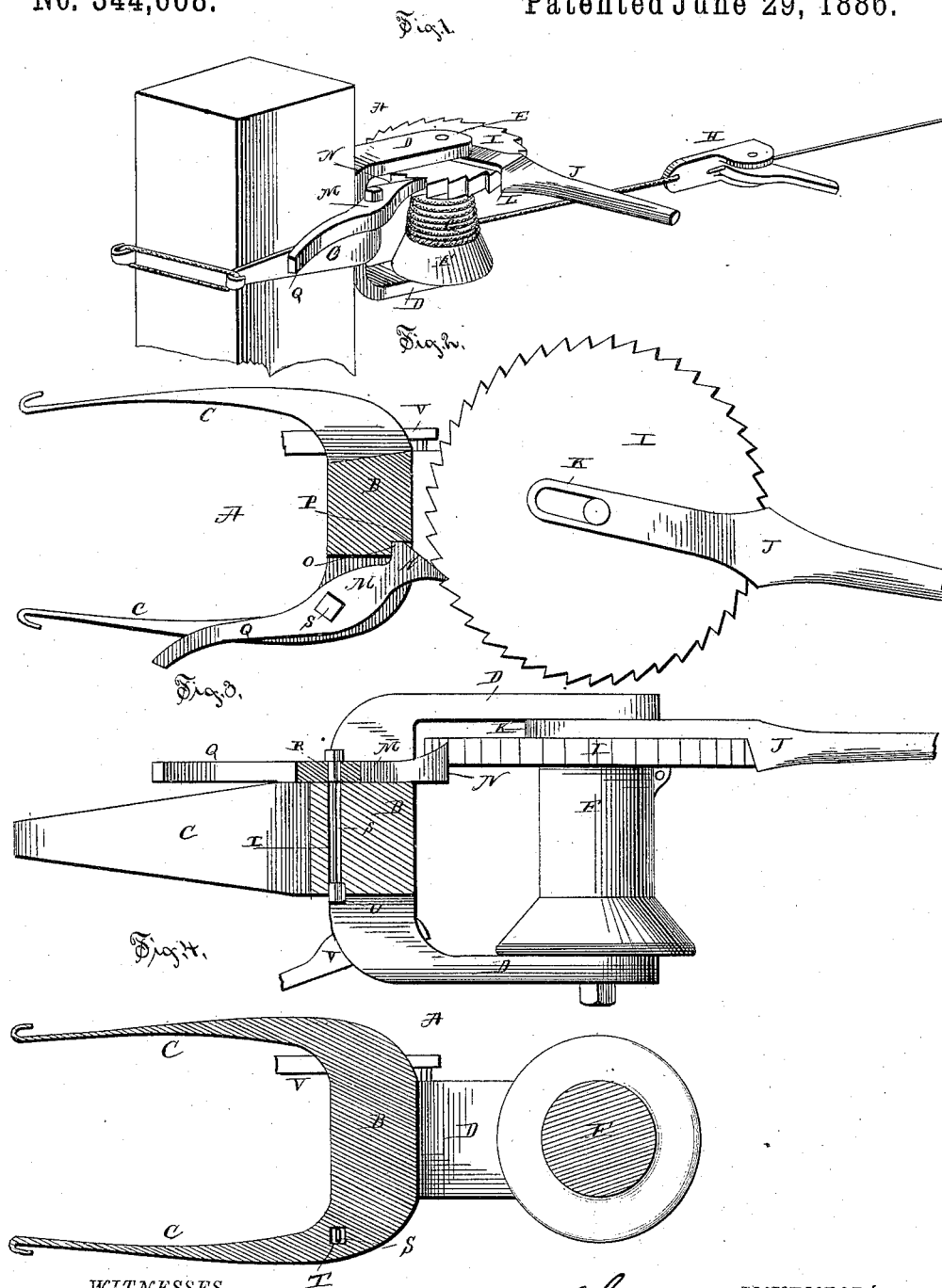
(No Model.)

S. A. MENEFEE & E. S. MULLINAX.

WIRE STRETCHER.

No. 344,668.

Patented June 29, 1886.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

STEPHEN AUSTIN MENEFEE AND ELI STEPHENS MULLINAX, OF GANADO, TEXAS.

## WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 344,668, dated June 29, 1886.

Application filed March 29, 1886. Serial No. 197,029. (No model.)

### *To all whom it may concern:*

Be it known that we, STEPHEN AUSTIN MENEFEE and ELI STEPHENS MULLINAX, both residents of Ganado, in the county of Jackson and State of Texas, have invented certain new and useful Improvements in Wire-Stretchers; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view showing our improved wire-stretcher in operation. Fig. 2 is a plan view of the device with one side removed. Fig. 3 is a longitudinal sectional view through the inner end of one of the rear arms, illustrating the torsion-spring for the pawl engaging the ratchet-wheel; and Fig. 4 is a longitudinal sectional view taken at the inner side of the ratchet-wheel.

Similar letters of reference indicate corresponding parts in all the figures.

Our invention has relation to that class of wire-stretchers in which a drum is journaled in a frame and is provided with a ratchet-wheel at one end, and in which a lever is pivoted in the frame, which engages the ratchet-wheel, serving to revolve it, and a pawl engages the ratchet-wheel, so as to prevent it from revolving backward, the frame being provided with a wire-clamp, and a rope or chain upon the drum being also provided with a wire-clamp, so that by revolving the drum one end of the wire may be drawn toward the end of another wire or toward a post; and it consists in the improved construction and combination of parts of such a wire-stretcher, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the frame of the device, which frame is of the same construction as the frame of the wire-stretcher for which Letters Patent No. 331,727 were granted to E. S. Mullinax on the 1st day of December, 1885, the said frame consisting of a cross-piece, B, provided with two rearwardly-projecting arms, C C, having their ends slightly hooked, and two forwardly-projecting arms, D D, having bearings E in

their ends, and placed in a plane at right angles to the plane of the rear arms. The shaft of the drum F is journaled in these bearings, and one end of the drum (upon which winds the rope or chain G, having the wire-clamp H at its outer end) is provided with the ratchet-wheel I. A lever, J, is pivoted and slides with its inner longitudinally-slotted end, K, upon the shaft of the drum at the outer side of the ratchet-wheel, and the inner side of this lever is formed with a shoulder, L, having ratchet-teeth corresponding to the teeth of the ratchet wheel or disk, which the said shoulder may engage when the lever is pushed inward upon the shaft. A pawl, M, is pivoted upon the side of the inner end of one of the rear arms, and the inner beveled end, N, of this pawl is provided with an inwardly-projecting and rearwardly-facing shoulder, O, which may bear against the rear wall of a recess, P, in the cross-piece of the frame, the shoulder bearing against the wall of the recess when its point is engaged by the ratchet-disk, so that the shoulder and the recess will take off the strain from the pivotal fastening of the pawl. The rear end of the pawl is formed into a handle, Q, and the pawl is secured with a square perforation, R, upon the square outer portion of a flat bolt or spring, S, which passes through a perforation, T, in the inner end of the rear arm. The other end of this spring is secured in the perforation by means of a key, U, and it will be seen that the torsional resistance of the spring will force the pawl back into its original position when the pawl has been tilted out of engagement with the ratchet-disk. The side of the inner end of one of the forward arms has a wire-clamp, V, pivoted upon it, bearing with its cam-head into a grooved shoulder in a manner similar to the clamp in the aforementioned patent.

It will be seen that when the frame has either been secured to the end of a wire by means of its clamp or to a post by means of wires or cords engaging the ends of the rear arms, the wire-clamp upon the rope or cord winding upon the drum may be secured to the end of a wire, and the rope or chain may be wound upon the drum by means of the lever having the toothed shoulder, the teeth of which may be brought to bear against the teeth of the disk

by forcing the lever inward, while they may pass over the teeth when the lever is drawn outward. The pawl upon the torsion-spring will retain the ratchet-disk and drum when the lever is disengaged, and the torsion-spring, being hidden within the perforation and covered at all sides, will be protected against any injury or obstruction from dirt. The spring of the pawl will be subjected to no strain whatever from the ratchet-disk, as the shoulder of the pawl bears against the recess in the frame, thus relieving the spring from all strain.

Having thus described our invention, we claim and desire to secure by Letters Patent of the United States—

1. In a wire-stretcher, the combination of a frame having a transverse perforation and having a drum and ratchet wheel or disk journaled parallel to the perforation, a flat spring secured at one end in the end of the perforation and having a square portion at its other end outside of the perforation, and a pawl fitting with a corresponding perforation upon the spring and engaging the ratchet-wheel with its end, said frame having a recess formed therein to receive a shoulder projecting from the inner end of said pawl, as and for the purpose shown and set forth.

2. In a wire-stretcher, the combination of a frame having a cross-piece and forwardly and rearwardly projecting arms in planes at right angles to each other, and formed with a trans-

verse perforation in the inner end of one of the rearwardly-projecting arms, and with a forwardly-facing recess in the cross-piece at the inner end of the said arm, a drum journaled with its shaft in the ends of the forward arms and having a ratchet-disk secured upon one end, a lever pivoted and sliding upon the drum-shaft at the ratchet-disk with its inner slotted end, and having upon its inner side a shoulder formed with inwardly-projecting ratchet-teeth for engaging the disk, a flat spring secured at one end in one end of the perforation of the frame and having a square end projecting beyond the end of the perforation at the other end, and a pawl fitting with a square perforation upon the spring, and having a rearwardly-projecting handle and a forwardly-projecting beveled end formed with an inwardly-projecting and rearwardly-facing shoulder bearing against the bottom of the recess in the frame when engaging the ratchet-disk, as and for the purpose shown and set forth.

In testimony that we claim the foregoing as our own we have hereunto affixed our signatures in presence of two witnesses.

STEPHEN AUSTIN MENEFEE.  
ELI STEPHENS MULLINAX.

Witnesses:

MOSES OPPENHEIMER,  
S. T. AKERS.