

(No Model.)

T. McC. KERNS.
WIRE FENCE TIGHTENER.

No. 567,142.

Patented Sept. 8, 1896.

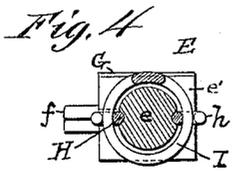
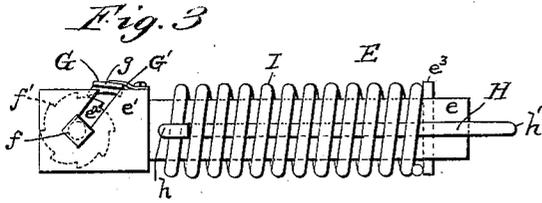
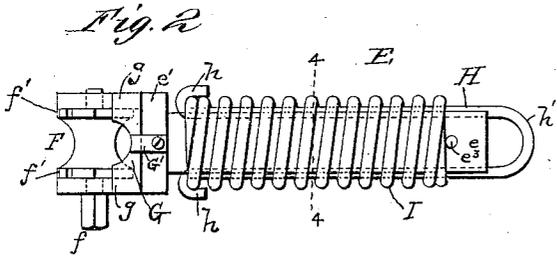
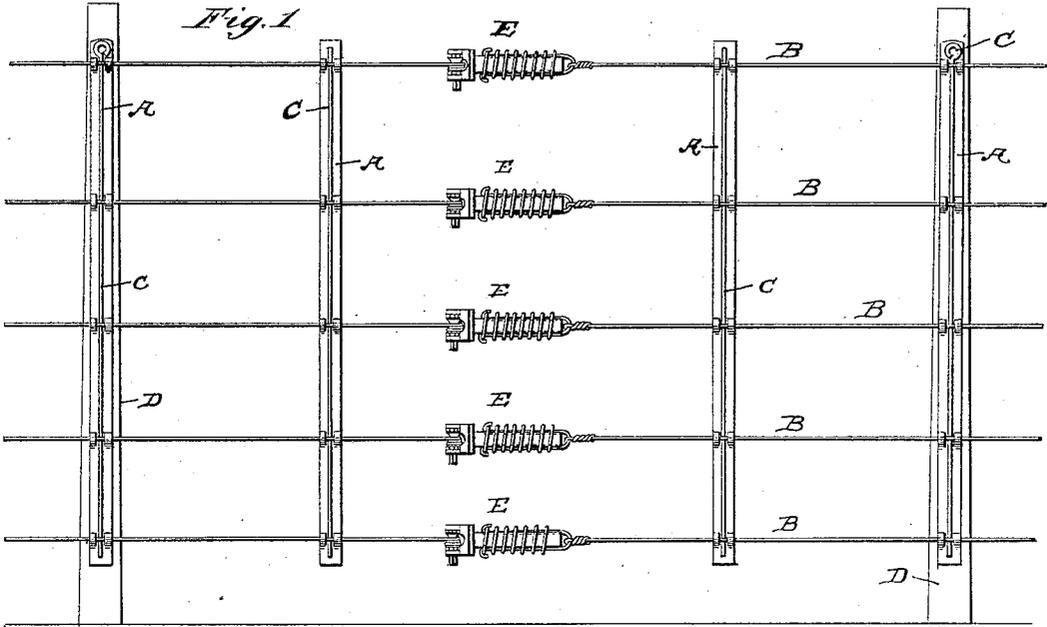
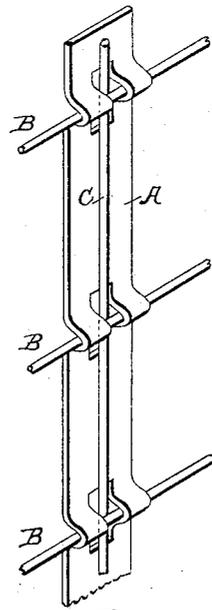


Fig. 5



Witnesses

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WIRE-FENCE TIGHTENER.

SPECIFICATION forming part of Letters Patent No. 567,142, dated September 8, 1896.

Application filed September 10, 1895. Serial No. 562,084. (No model.)

To all whom it may concern:

Be it known that I, THOMAS McCHORD KERNS, a citizen of the United States, residing at Greason, in the county of Cumberland and State of Pennsylvania, have invented certain new and useful Improvements in Wire-Fence Tighteners; 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.

My invention relates to tighteners for wire fences; and it consists in a simple device which can be inserted at any point in the fence, and serves not only to tighten the wire, but take up all slack and compensate for change in the length of the wire due to changes in temperature. My tightener comprises a shank having a head in which is journaled a windlass and a stout bail straddling the shank and held yieldingly thereto by a strong helical spring encircling the shank.

In the drawings, Figure 1 is an elevation of a portion of a wire fence equipped with my tightener. Fig. 2 is a top plan, and Fig. 3 is a side elevation, of the tightener on an enlarged scale. Fig. 4 is a cross-section on the line 4 4, Fig. 2. Fig. 5 is a perspective view of one of the fence-pickets.

I have shown the tightener applied to a fence of my own invention, for which I have obtained Letters Patent No. 544,001. This fence need not be described herein further than to say that the pickets A are struck up out of heavy sheet metal and have corrugations *a* for the line-wires B to pass through, each corrugation being cut away at the middle to permit a vertical locking-rod C to be passed down behind the line-wires to hold them in the corrugations *a*. These pickets can be fastened to the posts D, and can also be used between the posts to preserve the alinement of the line-wires. At any suitable point in each line-wire B is inserted a tightener E. This consists of a shank *e*, carrying at one end a bifurcated head *e'*, in the arms of which are notches *e²* or other suitable bearings for the journals of

windlass is grooved to receive the line-wire B, which is wound thereon. Each end of the drum is provided with ratchet-teeth *f'*, which engages a double detent-pawl G, which has flanges *g* to rest on the top of the head *e'* and is cut away at its middle to avoid interfering with the wire on the drum. A spring-finger G' is fastened to the head *e'* and bears upon the detent to hold it in alinement with the ratchet-teeth *f'*. The shank *e* has a groove along each side to receive a long U-shaped bail or yoke H, the ends of which are bent over, forming hooks *h*. Between these hooks *h* and a transverse pin *e³*, projecting on each side of the shank near the end opposite the head *e'*, lies a strong helical spring I, encircling the shank and the bail and keeping the latter in place in the grooves in the shank. The end of the adjoining line-wire B is attached to the bight *h'* of the bail, and any tensional strain on these line-wires tends to compress the spring I. In setting up the fence, the windlass is wound up until the spring is put under considerable tension, sufficient to keep the line-wire taut and to take up all slack due to settling of the posts or changes in temperature. The bail slides in the grooves in the shank, being guided thereby and thus prevented from tilting or turning under the strain. The entire device is simple, strong, and easily manipulated.

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

A tightener for wire fences, comprising a shank having grooves in opposite sides, and a bifurcated head at one end, a windlass journaled in said head, a detent-pawl to lock the windlass, a U-shaped bail straddling the shank and received in the grooves therein, said bail having turned-up ends, a transverse pin in the end of the shank, and a helical spring encircling the shank and the bail, and held between the ends of the bail and the pin, substantially as described.

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

THOMAS McCHORD KERNS.

Witnesses:

S. L. EPPLEY,
D. B. STEVICK.