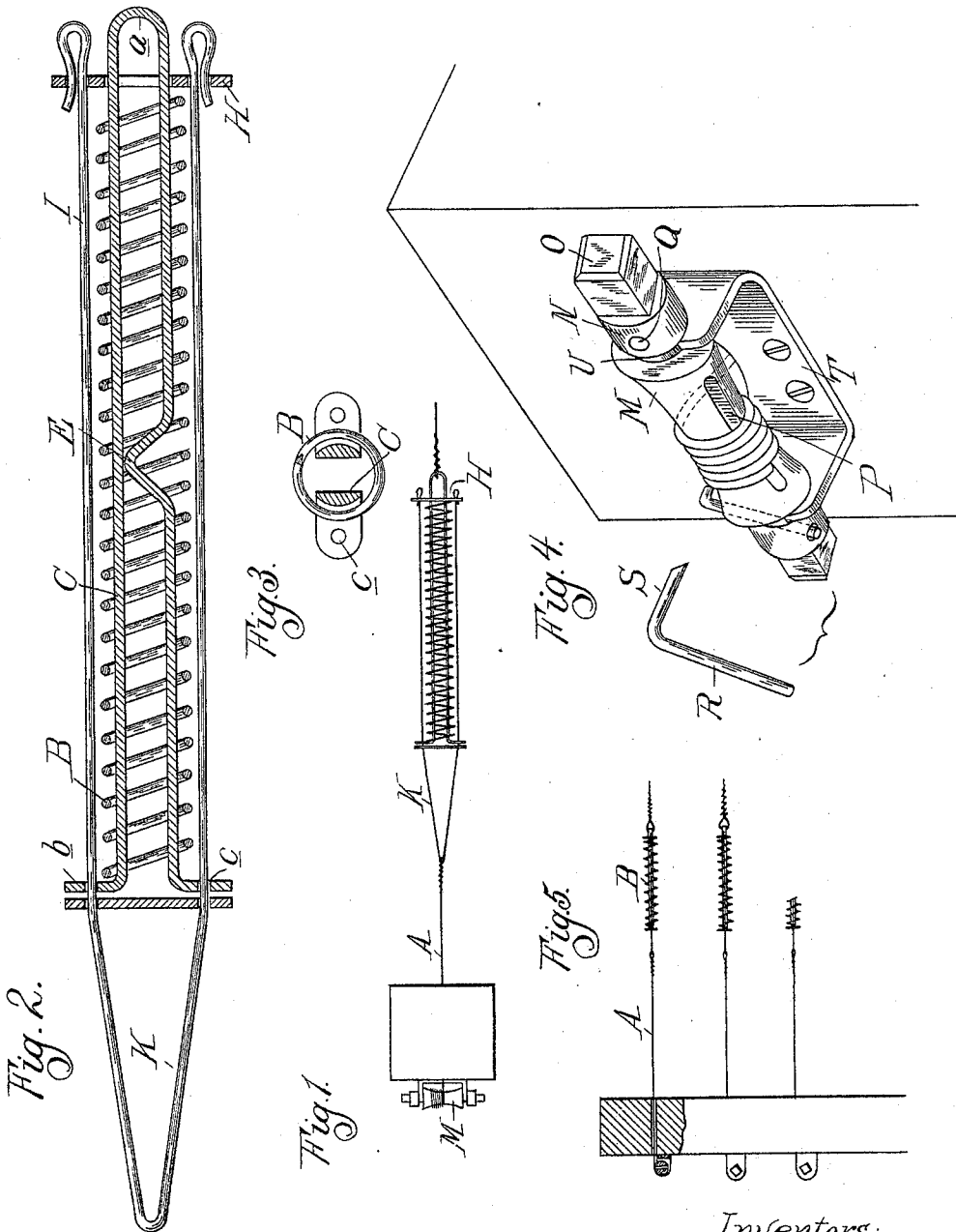


(No Model.)

E. H. STOWELL & G. W. TERRY.  
TENSION DEVICE FOR WIRE FENCES.

No. 585,241.

Patented June 29, 1897.



Witnesses;

Witnesses:  
Otto F. Barthel  
Mrs. S. S. Barthel

*Inventors:*

Elmer H. Stowell,  
George W. Terry.

By *Wm. E. Spockett & Son*  
Attorneys.

# UNITED STATES PATENT OFFICE.

ELMER H. STOWELL, OF DRAYTON PLAINS, AND GEORGE W. TERRY, OF  
PONTIAC, MICHIGAN.

## TENSION DEVICE FOR WIRE FENCES.

SPECIFICATION forming part of Letters Patent No. 585,241, dated June 29, 1897.

Application filed February 16, 1897. Serial No. 623,739. (No model.)

*To all whom it may concern:*

Be it known that we, ELMER H. STOWELL, of Drayton Plains, and GEORGE W. TERRY, residing at Pontiac, in the county of Oakland and State of Michigan, citizens of the United States, have invented certain new and useful Improvements in Tension Devices for Wire Fences, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention consists in the construction of a tension device for the fence-wires of wire fences, and particularly in the construction of a spring by which a substantially uniform tension is maintained upon the wires regardless of the expansion and contraction, and whereby the said spring is constructed in a substantial, simple, and economical manner; further, in the construction of a spool-bracket by which the slack in the wire may be taken up and the tension applied to the fence-wire.

In the drawings, Figure 1 is a top plan view of our device, showing it as in use. Fig. 2 is an enlarged section through the spring tension device. Fig. 3 is a cross-section thereof. Fig. 4 is an enlarged perspective view of the spool and bracket as in use upon posts. Fig. 5 is an elevation of an end post of a fence, showing the fence-wires with spring therein and the tension-spools on the post.

A represents the longitudinal wire of an ordinary wire fence of any desired construction.

B are coiled springs of desired length and power to maintain the desired tension on a fence-wire to which it is to be applied. Inside of this spring is placed a rigid tension-bar. This rigid tension-bar we form by taking a piece of steel bar or other suitable band or bar metal and bending it upon itself to form an elongated U-shaped frame C. This frame is of such length as to project through the spring at both ends, and is preferably made of half or quarter round metal bars, as shown in cross-section in Fig. 3, the bar being bent with its convex face outward, so as to form a concentric bearing-face for the inner faces of the coils of the spring. At the bent end of this frame an eye *a* projects out and forms a means for securing one end of the fence-wire thereto, as plainly shown in

Fig. 1. At the opposite end are the offsets or shoulders *b*, which extend across the end of the spring and bear thereon.

Centrally or near the open end of the frame we form a bend *E* in one leg of the frame, which projects across and contacts with the other leg thereof, thereby spacing the two legs of the frame the desired distance apart and preventing them from drawing together when the tension is applied on the wire.

It is evident that a block might be fastened between the members of the U-shaped frame to effect the same result or that a small bend might be made in both legs of the frame, but the construction shown we consider the desirable one, as it is the simplest to make and has no loose parts and forms no cracks or crevices for the holding of moisture, which would rust it out quickly. In the offsets *b* are the apertures *c*.

At the opposite end of the spring is a washer *H*, bearing against that end of the spring. Secured to this washer are the wires *I*, which pass through the apertures *c* in the offsets *b*, the ends being connected together to form a loop *K*, or the loop may be formed by forming these wires of a single piece bent in the middle, as shown in Fig. 2. The tension-spring thus formed is applied to the fence-wire at any desired point of its length by connecting one end of the wire to the eye *a* and the other end to the loop *K*, so that when tension is applied to the fence-wire the spring will be compressed to maintain a substantially uniform tension on the wire regardless of the expansion or contraction. This construction is very light and strong, is open at all times, so that moisture will not accumulate in it to rust it out, and in practice it has proven to be a very satisfactory article.

At the present time a take-up spool for the slack of fence-wire and for applying tension thereto usually comprises a cast bracket and a cast spool oftentimes with ratchet-and-pawl devices for holding the spool from unwinding. These devices as in use are usually heavy and quite expensive proportionately. Our object is to so construct such a device, which would be very light, simple, and cheap, that it would not add materially to the cost of a fence, such spool being quite an item of expense in a

high fence of ten or twelve wires and in convenient to carry about if heavy and cumbersome. To this end we have constructed our take-up spool as follows: The spool comprises the body portion M and the spindle N, extending at each end therefrom and having at one or both ends the square portion O. The body portion of the spool is provided with a suitable slot or aperture P, in which the end of the wire may be engaged.

The spindles N are provided with apertures Q, through which a nail may be engaged to act as a stop against the fence. Instead of a nail, however, we prefer to use a pin R, having an offset portion S at substantially right angles to the body of the pin, which may be driven into the face of the post to securely lock the spindle against accidental rotation and to prevent tampering with it by simply withdrawing the nail or bending it.

The bracket we preferably make substantially a U-shaped bracket T, of sheet metal, having outwardly-projecting ends from the body portion, each provided with a semicircular seat in which a recessed journal U, formed in the spindles, is adapted to bear. By having the recessed journals as shown in Fig. 4 we may use comparatively thin sheet metal for the bracket, as the sides of the recessed journal prevent the bending over of the end plates of the bracket.

What we claim as our invention is—

1. A tension device for wires comprising a spiral spring an interior tension member comprising a piece of metal bent on itself to form the elongated U-shaped frame C, projecting beyond the spring at both ends, lateral offsets at one end against which one end of the spring bears, a washer at the other end, and a tension-wire connected to the washer passing through apertures in the offsets, the ends

of the fence-wires being adapted to connect to the end of the frame and to said tension-wire respectively.

2. In a tension device for wires, the combination of a tension member formed of a single piece bent on itself to form the elongated U-shaped frame C, the apertured lateral offsets *b* at one end against which one end of the spring bears, the shoulder or bend E in the frame, serving to separate the legs of the frame C, the spring and a tension member connected to the opposite end of the spring passing through the apertures in the offsets.

3. In a tension device for wires, the combination of a tension member formed of a single piece of rounded metal, bent on itself with its rounded face out, to form an elongated U-shaped frame C, the apertured offsets *b* at one end, the eye *a* at the opposite end, the intermediate shoulder or bend E, the spring sleeved on the frame, the wires I, a washer embracing the end of the frame, to which the ends of the wires are secured, the wires passing through the apertures in the offsets *b*, substantially as described.

4. In a tension device for wire fence, the combination of the wire bracket and its spool having apertures therethrough, a holding device for the spool comprising a pin R adapted to be inserted in the aperture in the spool and an offset S at substantially right angles to the pin adapted to be driven into the post on which the bracket is attached for the purpose described.

In testimony whereof we affix our signatures in presence of two witnesses.

ELMER H. STOWELL.  
GEORGE W. TERRY.

Witnesses:

L. D. VAN KHEEK,  
HARRY L. JACOBS.