(No Model.)

G. W. FIELD.

SPRING TENSION RATCHET FOR WIRE FENCES.

No. 576,958. Patented Feb. 9, 1897.

Fig. 1.

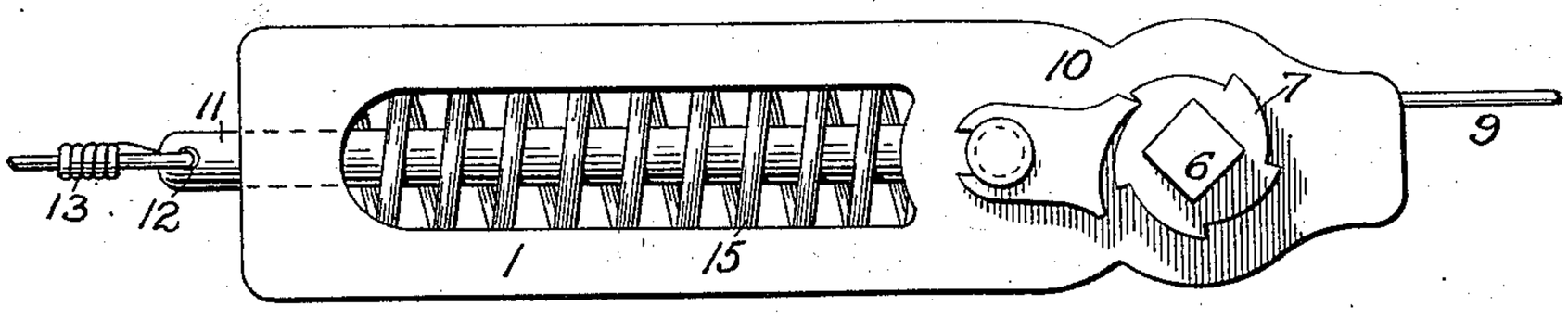


Fig. 2.

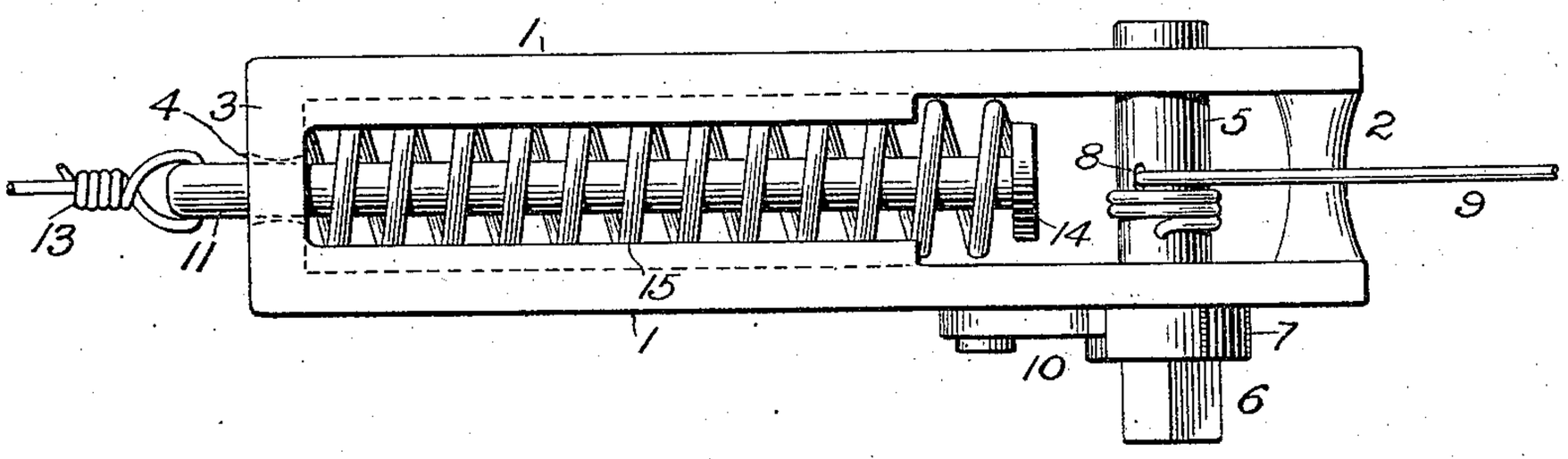
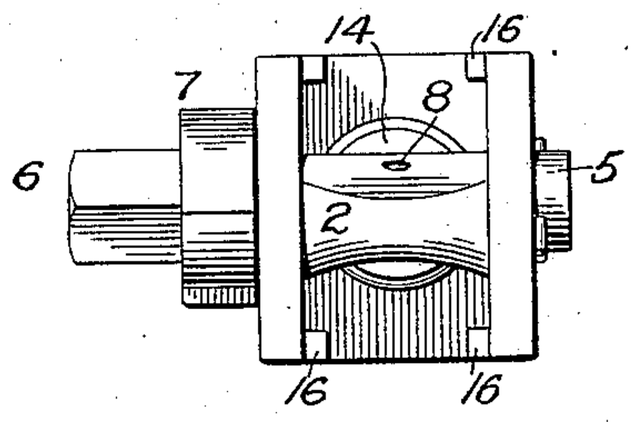


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE W. FIELD, OF NORTH BRANCH, NEW JERSEY.

SPRING-TENSION RATCHET FOR WIRE FENCES.

SPECIFICATION forming part of Letters Patent No. 576,958, dated February 9, 1897.

Application filed May 22, 1896. Serial No. 592,647. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. FIELD, a citizen of the United States, residing at North Branch, in the county of Somerset and State of New Jersey, have invented certain new and useful Improvements in Spring-Tension Ratchets for Wire Fences; and I do hereby 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.

My invention relates to improvements in tension devices for wire fences, the object of the same being to provide a simple and cheaply-constructed device whereby the expansion and contraction of the wire, due to climatic changes, will be readily taken up.

The invention consists of a frame made up of two side bars, a cross-bar at one end thereof, a roller pivotally mounted at a point adjacent to said cross-bar to which one end of the wire is adapted to be attached, a ratchet-wheel upon the outer end of said roller adapted to be engaged by a spring-actuated pawl on the side of said frame, means for turning said roller, a bolt or rod extending through an opening in the cross-head of said frame to which the opposite end of the wire is connected, a head on the rear end of said bolt, and a spring between said bolt and said cross-head.

The invention also consists in other details of construction and combinations of parts which will be hereinafter more fully described and claimed.

In the drawings forming part of this specification, Figure 1 represents a side elevation of my improved tension device complete. Fig. 2 is a similar view at right angles thereto. Fig. 3 is an end view.

Like reference-numerals indicate like parts in the different views.

The frame of my improved tension device is made up of the side bars 1 1, having a cross-bar 2, connecting them at one end, and a cross-head 3, having an opening 4 therein, connecting them at the opposite end. Mounted to rotate in the frame 1, at a point near one end thereof, is a roller 5, having a squared extension 6 and a ratchet-wheel 7 upon its outer end. It is also perforated, as shown at 8, through which one end of the line-wire 9 is adapted to be passed and secured for the purpose of winding the same upon said roller. The ratchet-wheel 7 is adapted to be engaged by a spring-actuated pawl 10, pivoted upon the side bar 1 adjacent to said ratchet-wheel. Projecting through the opening 4 in the cross-head 3 is a bolt or rod 11, having an opening 12 in its outer end, through which the other end of the line-wire 13 is adapted to be secured. The inner end of the bolt or rod 11 is formed with a head 14, between which and the cross-head 3 fits a spiral spring 15, which is held in place between the side bars 1 of the frame by flanges 16 16 upon the inner surface of said side bars.

As thus constructed, the operation of my device is as follows: One end of the line-wire 13 is connected to the outer end of the bolt or rod 11 and the other end thereof is connected to the roller 5, passing above the cross-bar 2 in the outer end of the frame 1. A wrench may then be inserted upon the outer squared extension 6 of the roller 5 and turned to wind up the wire 9 upon said roller. Backward movement of the roller is prevented by the engagement of the pawl 10 with the notches of the ratchet-wheel 7. Any subsequent variation in the tension of the line-wires of the fence, due to changes of temperature, will be taken up by the spiral spring 15.

In case barbed wire is used the strand 9 will be passed below the cross-bar 2 instead of above it, as described with reference to smooth wire.

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

The herein-described tension device for wire fences, made up of a frame composed of a pair of parallel longitudinal bars having flanges upon the inner surface thereof, a perforated cross-head at one end of said bars, a cross-bar acting as a guide for the line-wires at the opposite end of said bars, a roller rotatably mounted in said longitudinal bars adjacent to said cross-bar, the said roller being formed with a rectangular extension for the application of a wrench, a ratchet-wheel on said roller, a pawl engaging said ratchet-wheel pivoted to one side of said frame, a headed bolt passing through the opening in said cross-head to which the other end of the

line-wire is attached, and a spiral spring surrounding said rod or bolt engaging the head thereon and the cross-head of said frame and held in place between the side bars and said frame by the flanges thereon, substantially as and for the purpose described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

GEORGE W. FIELD.

Witnesses:
EDMUND C. FIELD,
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