(No Model.)

F. R. CONNER.

FENCE WIRE TIGHTENER.

No. 529,709. Patented Nov. 27, 1894.

Fig. 1.

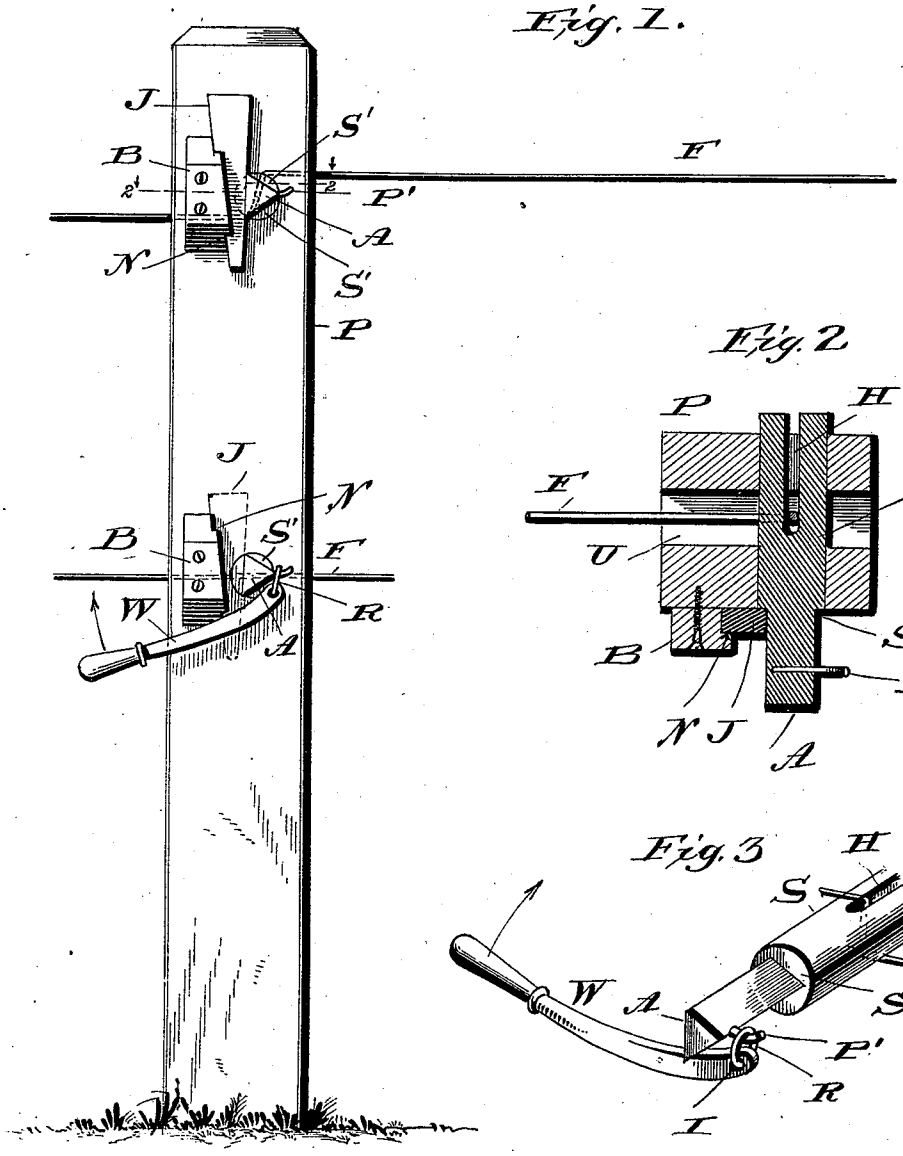

Fig. 2

Fig. 3

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UNITED STATES PATENT OFFICE.

FRANCIS ROY CONNER, OF BUFFINGTON, KENTUCKY.

FENCE-WIRE TIGHTENER.

SPECIFICATION forming part of Letters Patent No. 529,709, dated November 27, 1894.

Application filed February 19, 1894. Serial No. 500,651. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS ROY CONNER, a citizen of the United States, and a resident of Buffington, Kenton county, State of Kentucky, have invented certain new and useful Improvements in Fence-Wire Tighteners; and my preferred manner of carrying out the invention is set forth in the following full, clear, and exact description, terminating with claims particularly specifying the novelty.

This invention relates to wire fences, and more especially to the devices used in connection therewith for taking up the looseness of the fence wires; and the object of the same is to produce improvements in the details of construction of devices of this character.

To this end the invention consists in the arrangement of parts set forth below and illustrated in the accompanying drawings, wherein—

Figure 1 is a side elevation of a post at the center of a stretch of wire, said post being provided with two of my improved devices, one being shown as locked and the other unlocked. Fig. 2 is a horizontal section on the line 2—2 of Fig. 1. Fig. 3 is an enlarged detail of the wrench showing its manner of application to the windlass.

It is well known that where stretches of wire fence are tightened from one end only, the looseness of the wire—especially if there be angles or curves in the fence—is not taken up equally throughout the stretch; and it is therefore desirable to apply a mid-wire take-up which will tighten the wire from the center of the stretch toward both ends. Such take-up may be in the nature of a spool or other device hung on or connected to the wire, but in my construction I make it in the shape of a windlass journaled in one of the fence posts and forming a permanent part thereof. By this means it will be seen that if the wire for any reason should be looser at one end than at the other, the entire take-up device will not be drawn toward the tighter end when the slack is taken up, because the rigidity of the post will prevent. Although I have not so illustrated it, it will be understood that all the strands of the fence may be tightened at a single post which latter may therefore be purposely constructed to accommodate the tighteners. The parts of this device are of the desired sizes, shapes, materials, and proportions, and considerable change in the specific details of construction can be made from that set forth below without departing from the spirit of my invention.

In the said drawings, the letter P designates a post having an upright slot U in its body, and journaled horizontally and transversely through the post and across this slot is a shaft S whose forward end is reduced and made angular as at A—preferably triangular as shown, and a pin P′ is passed rigidly through this angular end and protrudes from one angle thereof. The cylindrical portion of the shaft is sufficiently long to pass completely through the post and to project slightly beyond the opposite or rear face thereof, and a horizontal slot H is formed in this portion and extends from the rear end inward a sufficient distance to be exposed within the slot U of the post when the shoulder S′ between the cylindrical part S and the angular part A stands flush with the face of the post—all as seen in Fig. 2. In connecting the fence wire F with this shaft, the latter is drawn forward until the open end of the slot H can be passed astride the wire F which stands within the slot U, and the shaft is then pressed back to the position shown in Fig. 2 whereby the wire is forced to the bottom of the notch or slot H.

The peculiar construction of the angular end A of the shaft prevents the same from being turned by an ordinary wrench, and hence mischievous persons cannot loosen or tighten the fence wires undesirably; but for the purpose of turning this shaft I provide the wrench W best seen in Fig. 3 and which comprises simply a handle of proper size and shape with a small ring R let loosely into an eye I in one end. This ring is passed over the pin P′ and the handle is then moved so as to bring it against one of the flat faces of the angular portion A, after which a continued movement will turn the shaft in either direction and will, of course, wind the fence wire on the cylindrical portion S within the slot U and draw it from both ends of the stretch toward the tightener. The wrench can then be readily removed and used on other tighteners, and can finally be carried to the house and reserved for future use. In

order to lock this tightener against a retrograde movement, I secure a block B to the face of the post alongside the angular end A, which block is provided with a notch N next the post and standing in its length at an angle to the vertical; and after the angular end has been turned as desired, a wedge J is passed down into this notch N and wedged tightly between the bottom thereof and one of the flat faces of the angular portion A. It will be obvious that this wedge and block can be used with a square end A which latter might be turned by an ordinary tool or wrench, and hence I consider this lock an important feature. In addition to locking the shaft against turning in either direction, the wedge where it projects over the shoulder S′ prevents the shaft from being drawn forward out of the post through any accident; although if it is desired to withdraw the shaft and hence remove its slot H from the wire F, it can easily be done as the wedge must be driven upward and removed before the shaft can be turned at all. While an ordinary pawl and ratchet could be employed in connection or in combination with this triangular end, its pin, and the wrench, I prefer this specific locking means for the reasons set forth above.

What is claimed as new is—

1. In a fence tightener, the combination with a post having an upright slot; of a shaft journaled through the post and across the slot and having a notch extending from its rear end inward to the center of the slot, means for locking the shaft against rotation, an angular end at the front of the shaft, a pin projecting radially from one of the angles thereof, and a tool comprising a handle with a ring in one end adapted to pass over said pin, as and for the purpose set forth.

2. In a fence tightener, the combination with a post having an upright slot; of a shaft journaled through the post and across the slot and having a notch extending from its rear end inward to the center of the slot, means for locking the shaft against rotation, a triangular end at the front of the shaft, a pin projecting radially from one of the angles thereof, and a tool having a ring loosely connected with one end thereof and adapted to take over said pin, as and for the purpose set forth.

3. In a fence tightener, the combination with a post having an upright slot; of a shaft journaled through the post and across the slot and having a notch extending from its rear end inward to the center of the slot, the other end of the shaft being reduced to form a shoulder and angular in front of said shoulder for the reception of a wrench, a block secured to the face of the post at an angle to a vertical, and a wedge removably inserted between the block and one of the flat faces of the angular portion, as and for the purpose set forth.

4. In a fence tightener, the combination with a post having an upright slot; of a shaft journaled through the post and across the slot and having a notch extending from its rear end inward to the center of the slot, the other end of the shaft being reduced to form a shoulder and angular in front of said shoulder for the reception of a wrench, a block secured to the face of the post and having a notch adjacent said face standing at an angle to a vertical, and a wedge removably inserted in the notch and standing against one of the flat faces of the angular portion and against said shoulder, as and for the purpose set forth.

5. In a fence tightener, the combination with a windlass journaled in and removable longitudinally from a suitable support, reduced at the front face of the support to form a shoulder, and angular in front of said shoulder, a fence wire, and means for connecting it with the windlass; of a block secured to and having a notch adjacent the face of the support and standing at an angle to a vertical, and a wedge removably inserted in said notch and between the block and one flat face of said angular portion and standing against said shoulder, as and for the purpose set forth.

In testimony whereof I have hereunto subscribed my signature on this the 13th day of February, A. D. 1894.

FRANCIS ROY CONNER.

Witnesses:
JOHN C. BUCKNER,
F. A. UTZ.