N. F. HOWARD.

FENCE TIGHTENING POST.

APPLICATION FILED APR. 12, 1917.

1,287,319.

Patented Dec. 10, 1918.

2 SHEETS—SHEET 1.

Fig. 1.

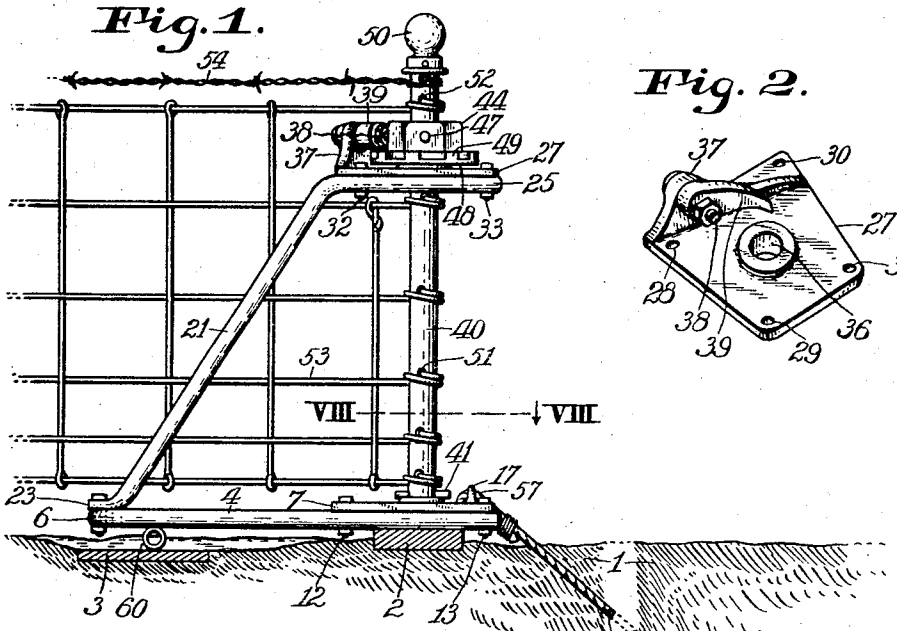


Fig. 2.

Fig. 3.

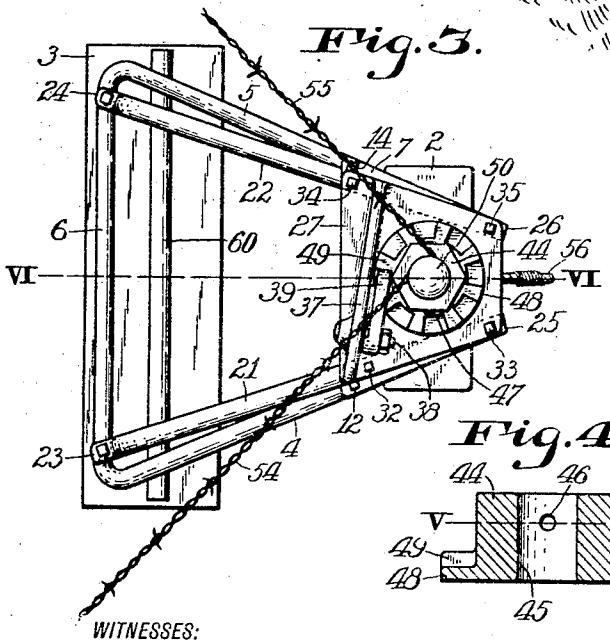
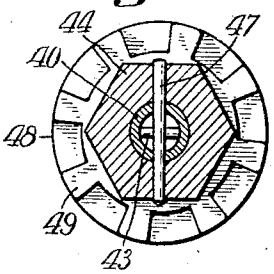


Fig. 4.

Fig. 5.



WITNESSES:

J. A. Gardner.

Myrtle Dyer Coy.

INVENTOR:

Nelson F. Howard,

BY

E. D. Silvius,

ATTORNEY.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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2 SHEETS—SHEET 2.

Fig. 6.

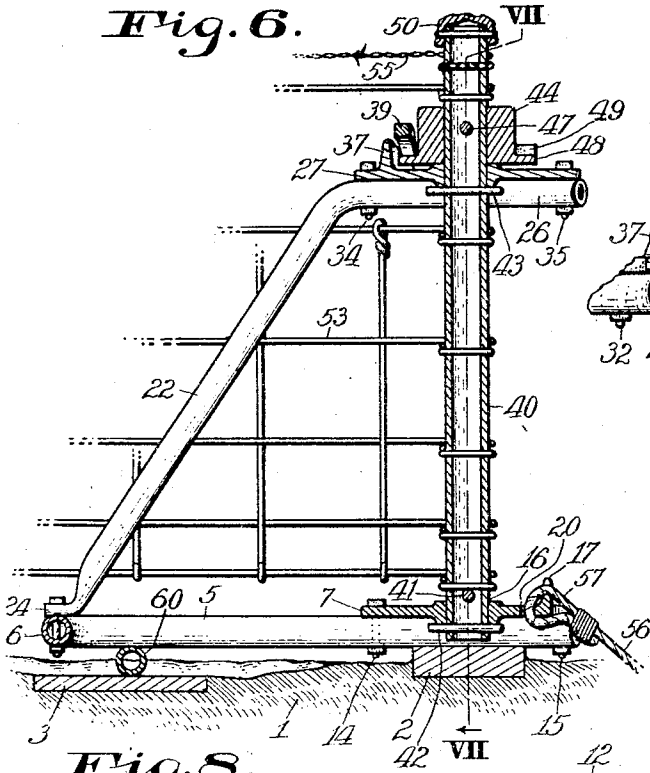


Fig. 7.

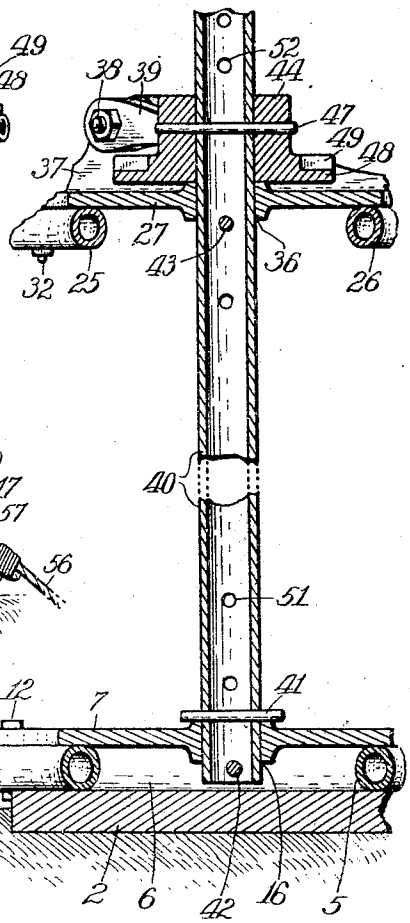


Fig. 8.

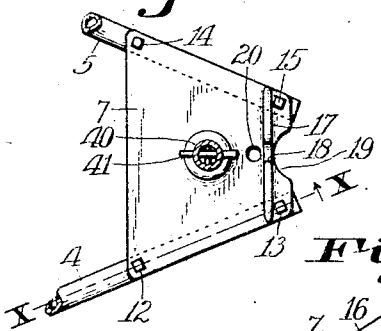


Fig. 9.

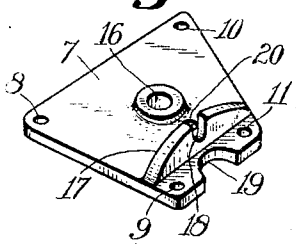
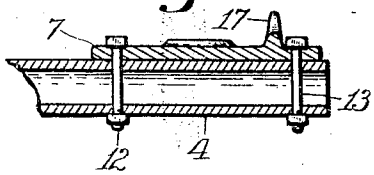


Fig. 10.



WITNESSES:

J. H. Gardner.

Myrtle M. Coy.

INVENTOR:

Nelson F. Howard,

BY

E. T. Silvius,

ATTORNEY.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

NELSON F. HOWARD, OF FAIRFIELD TOWNSHIP, TIPPECANOE COUNTY, INDIANA.

FENCE-TIGHTENING POST.

1,287,319. Specification of Letters Patent. **Patented Dec. 10, 1918.**

Application filed April 12, 1917. Serial No. 161,496.

To all whom it may concern:

Be it known that I, NELSON F. HOWARD, a citizen of the United States, residing in Fairfield township, in the county of Tippecanoe and State of Indiana, have invented a new and useful Fence-Tightening Post, of which the following is a specification, reference being had to the accompanying drawings and to the letters and figures of reference marked thereon.

This invention relates to a fence post that is designed to be used either at a corner or at an end of a line of fencing, the invention having reference more particularly to a post that is capable of supporting and stretching or tightening wire fencing whether composed of horizontal wires only or of horizontal and vertical wires.

An object of the invention is to provide an improved fence tightening post which shall be so constructed as to be fire proof, very strong and yet not objectionably costly. Another object is to provide a fence-tightening post that shall be of such construction as to be enabled to stand upon the ground and anchored in place without subjecting the main structure of the post to deteriorating action of the elements at the ground surface. A further object is to provide a metallic fence-tightening post which may be largely constructed in many cases of relatively inexpensive discarded pipes or tubing, and which post shall be reliable, durable and economical in use.

Referring to the drawings,—Figure 1 is an elevation of the improved post and a single line of fencing connected thereto; Fig. 2 is a perspective view of a frame plate comprised in the invention; Fig. 3 is a top plan of the post to which two lines of fencing are connected; Fig. 4 is a central section of a ratchet nut comprising one of the parts of the structure; Fig. 5 is a horizontal section of connected parts of the structure as on the line V—V on Fig. 4; Fig. 6 is a section on the line VI—VI on Fig. 3; Fig. 7 is a fragmentary section on the line VII—VII on Fig. 6; Fig. 8 is a section on the line VIII—VIII on Fig. 1; Fig. 9 is a perspective view of the base plate comprised in the base structure; and, Fig. 10 is a section on the line X—X on Fig. 8.

Similar reference characters on the different figures of the drawings indicate like parts or features of construction hereinafter referred to in detail.

In the drawings the numeral 1 indicates a portion of the earth or ground on which the improved post is arranged on suitable foundation slabs 2 and 3 bedded so as to be level on the ground. The post comprises a frame having a base structure which is composed of hollow metallic side sills 4 and 5 that are connected at one end to an end sill 6, the sills being formed of a single piece of pipe bent to form the three sills, the side sills extending from the end sill so as to be convergent. The structure comprises also a base plate 7 which is approximately triangular in plan and has bolt holes 8 and 9 near one edge thereof and other bolt holes 10 and 11 near the opposite edge, the bolt holes 9 and 11 being arranged relatively closer together than the remaining two bolt holes. The bolt holes are adapted to receive bolts 12 and 13 which extend through the sill 4 and other bolts 14 and 15 which extend through the sill 5, the base plate being arranged upon the sills and fixedly secured in place by the bolts. The base plate has a journal-bearing 16 centrally arranged therein and the top of the base plate has a transverse rib 17 arranged between the bolt holes 9 and 11 and the journal-bearing 16, the middle portion of the rib having a recess 18 therein. The base plate has a recess 19 in its edge that is between the bolt holes 9 and 11 and adjacent to the recess 18. Between the rib and the journal-bearing 16 the base plate has an aperture 20 therein which is adjacent to the recess 18.

The frame of the post comprises also two frame braces 21 and 22 that are arranged upon the base structure and fixedly secured thereto, one brace having a foot 23 which is secured preferably to the sill 6 adjacent to the sill 4, the remaining brace having a foot 24 which is secured to the sill 6 adjacent to the sill 5, the braces extending upwardly at an inclination and convergently each to the other, the tops of the braces being provided respectively with horizontal arms 25 and 26 that are supported above the base plate 7. A frame plate 27 is provided which has bolt holes 28, 29, 30 and 31 therein to receive securing bolts, the plate being arranged upon the arms 25 and 26 and rigidly secured thereto by bolts 32 and 33 extending through the arm 25 and other bolts 34 and 35 extending through the arm 26. The plate 27 has a journal-bearing 36 therein that is in alinement with the jour-

nal-bearing 16. The top of the frame plate has a rib or projection 37 fixed thereon that supports a pivot 38 to which a pawl 39 is connected. A hollow winding-shaft 40 is provided which is rotatively arranged in the journal-bearings 16 and 36 and extends upward beyond the frame plate. A supporting pin 41 is secured in the winding-shaft immediately on the top of the base plate 7, a retaining pin 42 being secured in the winding-shaft beneath the base plate. A supporting pin 43 is secured in the winding-shaft beneath the frame plate 27 to assist in supporting the frame plate.

As a means for turning the winding-shaft to tighten the fencing and to hold the winding-shaft against turning backward, a ratchet nut 44 which has a bore 45 therein is arranged on the winding-shaft above the frame plate 27 and it has a pin hole 46 therein that receives a securing pin 47 which is secured in the winding-shaft. The lower portion of the nut has a flange 48 thereon that is provided on its top with teeth 49, so as to form a ratchet wheel beneath the end of the pawl 39 which is permitted to engage the teeth to prevent the winding-shaft from being turned backward. The top of the winding-shaft is provided with a cap 50, and has a suitable number of holes 51 therein between the base plate 7 and the frame plate 27 and also other holes 52 above the frame plate. Horizontal fence wires 53 are secured in the holes 51 and other wires 54, 55, are secured in the upper holes. The upper wires of the fencing being farther apart than the lower wires afford space for operation of the nut 44 between the two wires.

The post structure is set up so that the winding-shaft shall be above the foundation slab 2, the side sills 4 and 5 extending over the foundation slab 3. An anchor cable 56 is connected with the base plate 7 by means of a loop 57 formed of a portion of the cable and so as to extend through the aperture 20 and rest in the recesses 18 and 19, the cable being anchored in the ground by means of an anchor 58 or "dead man" which may be composed of a log buried in the ground, the cable having a loop or coil 59 embracing the anchor. Preferably a roller 60 is placed upon the foundation slab 3 and directly supports the sills 4 and 5 to permit free movement of the bracing portions of the frame when slight changes of position of the post occur as a result of freezing or thawing of the ground, or of expansion or contraction of the fencing or the cable 56.

In practical use a powerful wrench or lever is applied to the nut 44, and the latter being turned the rotary motion is imparted to the winding-shaft which winds the fencing wires thereon, and when the fencing is sufficiently tightened the pawl 39 is permitted to drop behind one of the teeth 49 and lock the nut against reverse movement. In case the fencing becomes slightly slack it is only necessary to repeat the tightening operations.

Having thus described the invention, what is claimed as new is—

1. A fence-tightening post including a frame having a base plate and an upper frame plate, a winding-shaft mounted in the base plate and the frame plate and having a stop pin therein beneath the frame plate, and a cable connected to the base plate to be anchored for holding the post in place.

2. A fence-tightening post including a frame having a broad skeleton base portion to bodily support the frame in upright position, a winding-shaft vertically supported by the frame, and a cable connected to the base portion of the frame adjacent to the bottom of the winding-shaft to be anchored for holding the frame in place.

3. A fence-tightening post including a foundation, a roller on the foundation, a frame having a base plate and an upper frame plate, the frame being bodily supported on the foundation and the roller, a winding-shaft rotatably supported in the base plate and the frame plate, and a cable connected to the base plate adjacent to the winding-shaft to be anchored for holding the post in place.

4. A fence-tightening post including a base structure, two hollow frame braces secured to the structure and standing at an inclination thereto, each brace having a horizontal arm on the top thereof, a frame plate secured upon the arms, a winding-shaft rotatably mounted in the base structure and the frame plate, a stop pin secured to the winding-shaft beneath the frame plate, and a cable connected to the base structure to be anchored for holding the base structure down to the ground.

5. In a fence-tightening post, the combination of a plurality of hollow supporting base sills, a base plate secured upon a plurality of the sills and having a journal-bearing and also an aperture therein, a plurality of hollow inclined frame braces supported by the sills, a frame plate secured to the braces, a winding-shaft rotatably mounted in the journal-bearing of the base plate and in the frame plate, a stop pin secured to the winding-shaft beneath the frame plate, and an anchor cable extending through the aperture in the base plate.

6. In a fence-tightening post, the combination of two foundation plates, a roller on one of said plates, a base structure supported upon the roller and also slidingly supported upon the remaining one of the foundation plates, braces secured to the base structure in proximity to the roller, a frame plate secured to the braces, a winding-shaft mounted in the base structure and the frame plate,

and an anchor cable connected to base structure adjacent to the bottom of the winding-shaft.

7. In a fence-tightening post, the combination of an end sill, two side sills integral with the end sill and extending convergently therefrom, a base plate secured upon the side sills adjacent to the ends thereof and having a journal-bearing and also an aperture therein, the top of the base plate having a rib thereon adjacent to the aperture, an anchor cable having a loop embracing said rib and extending through said aperture, two inclined frame braces secured to said end sill, each brace having a horizontal arm thereon, a frame plate supported on the arms of the braces and having a journal-bearing therein, and a winding-shaft rotatably mounted in said journal-bearings.

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

NELSON F. HOWARD.

Witnesses:
CHRIST HELD,
COLONEL HOWARD.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."