

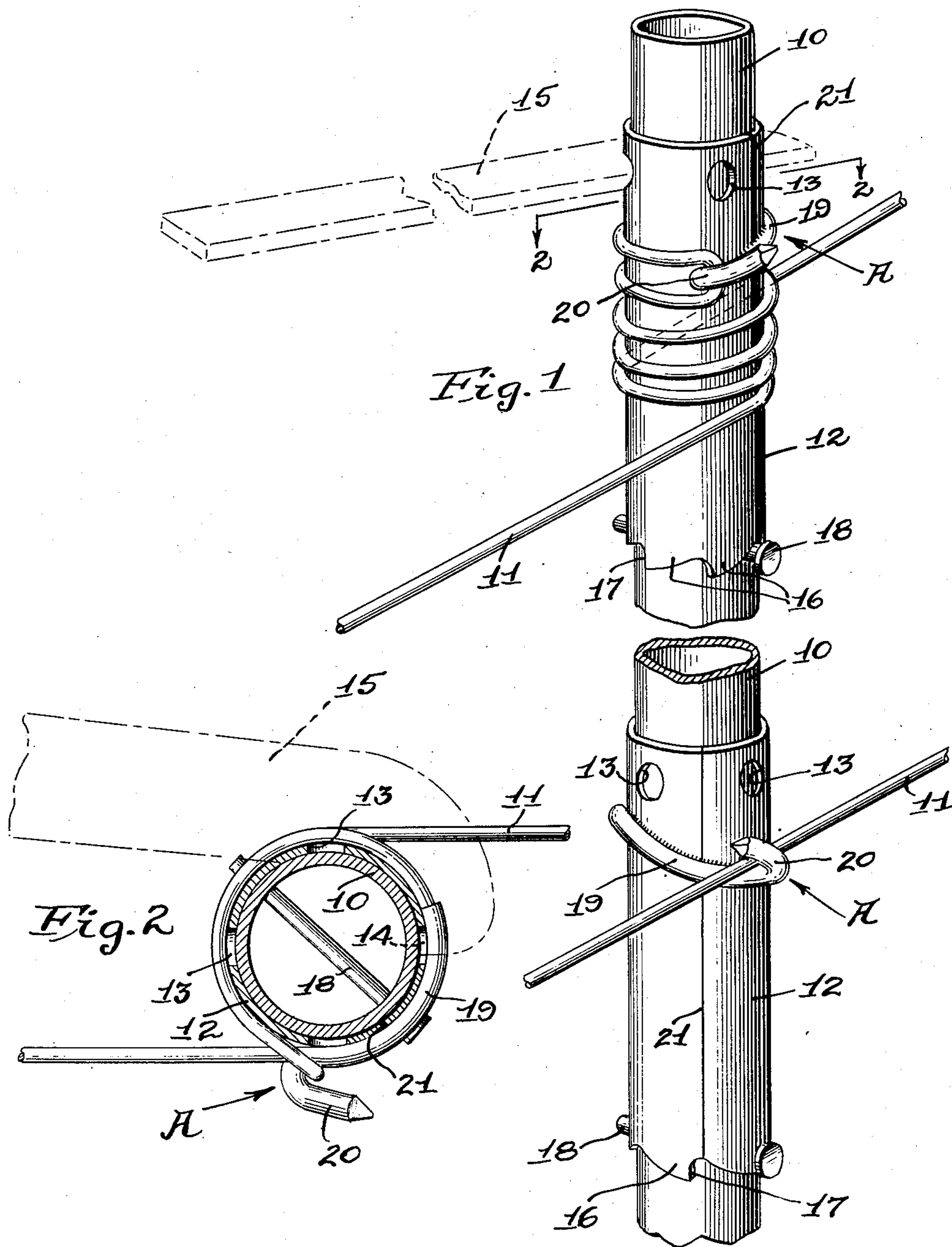
Oct. 31, 1950

M. H. DOCKEN

2,527,877

WIRE FENCE ADJUSTING DEVICE

Filed July 30, 1947



INVENTOR  
MELFORD H. DOCKEN

BY

*Carwell & Lagaard*  
ATTORNEYS



## UNITED STATES PATENT OFFICE

2,527,877

## WIRE FENCE ADJUSTING DEVICE

Melford H. Docken, Northfield, Minn.

Application July 30, 1947, Serial No. 764,669

6 Claims. (Cl. 256—37)

1

My invention relates to improvements in wire fence adjusting devices and has for an object thereof to provide a simple, durable and relatively inexpensive device readily adapted to be located in the line of a fence and conveniently operated to tighten or slacken, individually, the various fence wires between fence posts to which the ends of such wires are fastened.

Another object of the invention is to provide a device, as above, including a post, and a drum supported thereby for rotative adjustment thereon and provided with wire-engaging means for catching a wire and causing it to wrap helically on said drum as it is turned in one direction.

A further object of the invention is to provide a drum, as above, of tubular formation formed from sheet material with a slit remaining between unjoined edges of the material and, in conjunction therewith, to provide wire-engaging means in the form of an element a portion of which is employed to tie together the adjacent marginal portions of the drum at opposite sides of said slit.

Other objects of the invention reside in the novel combination and arrangement of parts and in the details of construction hereinafter illustrated and/or described.

In the drawing, Fig. 1 is a perspective view of a device constructed in accordance with my invention, the same showing fragmentarily a post and two wire-winding drums thereon, and Fig. 2 is a detail sectional view taken as on the line 2—2 of Fig. 1.

Reference being had to the drawing, it will be seen that the illustrated embodiment of my invention includes a post 10. This post is preferably, though not necessarily, of tubular formation and is adapted to be planted in the ground in the line of a wire fence intermediately of the conventional end fence posts to which the extremities of the horizontal wire or wires of the fence are anchored. The lower end of the post 10 is preferably fitted with an anchoring member (not shown) of usual construction to keep said post in the ground and to prevent it from turning about its own axis.

For each of the horizontal wires of the fence to which my improved adjusting device is applied, such device will include a drum for winding in or paying out portions of the wire from the reaches thereof at opposite sides of the device, whereby such reaches of wire may be tightened or slackened as may be desired. In the drawing, two fence wires 11 are shown, one above

2

the other, and for each of said wires 11, the illustrated device includes a drum 12.

Each of the drums 12 is of tubular formation, circular in transverse cross-section, having an axial bore of a diameter slightly greater than the outside diameter of the post 10 to enable the drum 12 to encircle the post 10 and to be rotated thereon and shifted therealong. Formed about the upper marginal portion of such drum 12 are a number of spaced holes 13 adapted, selectively, to receive the usual engaging lug 14 of a conventional spanner wrench such as that indicated at 15. The lower marginal portion of such drum 12 is serrated to form ratchet teeth 16 having upright shoulders 17. For each such drum 12, a bottom thrust member is provided, the same comprising a pintle 18 extending horizontally through the post 10 diametrically thereof and lodged therein with the terminal portions of such pintle projecting from opposite sides of the post. The lower edge of the drum 12 rests upon said projecting terminal portions of the pintle 18, and the ratchet teeth 16 of the drum are so formed that each shoulder 17 of diametrically opposed ratchet teeth 16 on the drum engages one of said terminal portions of said pintle 18. Thus, while the drum 12 is free to be turned by the wrench 15 in one direction, ratcheting over the pintle 18, it is releasably held by said ratchet teeth 16 and pintle 18 against turning in the opposite direction.

Each drum 12 is supplied with a wire-engaging element A embodying a guide and a wire-catching member. The illustrated wire-engaging element A comprises a length of material such as a short piece of heavy wire, the same including a body or guide portion 19 and a recurved or crooked terminal portion 20 forming a wire-catching hook. The body or guide portion 19 of the wire-engaging element A is welded or otherwise suitably fastened to the drum 12 near its upper end, partially encompassing said drum along a line helically thereof, with the hook 20 lowermost and turned back in opposition to the shoulders 17 of the ratchet teeth 16.

Each drum 12 is disposed in elevation on the post 10 in correspondence with the elevation of the particular wire 11 to be wound thereon and each wire is laid over the hook 20 of the wire-engaging element A of its respective drum 12, as shown in the lower portion of Fig. 1, the drum 12, of course, first having been angularly adjusted on the post 10 to bring said hook 20 on the side of the post occupied by the wire. With the wire 11 caught in the hook 20, the drum 12



is turned by the wrench 15 in a direction causing said drum to ratchet upon the pintle 18. Thus, turned, the hook 20 catches the wire, doubling it and wrapping it about the drum. Such rotative adjustment of the drum 12 is continued until the reaches of the wire 11 at either side of the post 10 are tightened as desired. After approximately the first one-half turn of the drum 12 the upper reach of the doubled wire 11 wraps beneath the elevated butt of the guide portion 19 of the wire-engaging element A, and continuing to wrap beneath said guide portion 19, said reach of wire is guided in the wrapping thereof helically downward so that upon completing its initial convolution it will pass beneath the hook 20 and not overwrap it. The upper reach of the doubled wire 11 being initially guided helically about the drum 12 by the wire-engaging element A, it will so continue to wrap about said drum, and in turn, will correspondingly guide the lower reach of said wire. In loosening the wire 11, the wrench 15 is employed to control the counter rotation of the drum 12, after it has been shifted upwardly out of ratcheting engagement with the pintle 18, thereby to regulate the slack to be imparted to the wire preparatory to the re-engagement of the said ratchet teeth 16 with said pintle 18.

Preferably, adjacent drums 12 will have their respective ratchet teeth 16 oppositely arranged as shown in Fig. 1 and, correspondingly, the wire-engaging elements A will be likewise oppositely arranged. This provision, in effect, neutralizes the torque imparted to the post 10 through the tightened wires 11, thereby relieving the anchoring means for the post from strains which otherwise would occur.

To render the instant device relatively inexpensive in construction, I have found that the drums 12 may be struck from sheet metal and cylindrically formed in tubular fashion leaving a slit 21 between unjoined edges of the adjacent marginal portions of the split structure. These marginal portions of the split tubular structure are tied together by the guide portion 19 of the wire-engaging element A, such guide portion 19 being disposed cross-wise of the slit 21 and welded, brazed or otherwise suitably secured to said marginal portions of the drum 12 at either side of said slit 21. Thus secured to the drum 12, said guide portion 19 of said wire-engaging element A preserves the cylindrical form of the drum holding it against being spread open under stresses tending so to do in the use of the device, as in the application of the wrench 15 to the openings 13 in the drum 12, and as attends the coercion of the ratchet teeth 16 of the drum with a pintle 18.

Changes in the specific form of my invention, as herein described, may be made within the scope of what is claimed without departing from the spirit of my invention.

Having described my invention, what I claim as new and desire to protect by Letters Patent is:

1. An adjusting device for a fence including a horizontally disposed length of wire anchored at its ends, said device comprising a post adapted to be planted adjacent the line of the fence immediately of said wire, a tubular drum encircling said post for rotation thereon and formed from sheet material with a slit remaining between unjoined edges of the material longitudinally of the drum, said drum having spaced openings in the upper marginal portion thereof to receive the lug of a spanner wrench for turning the drum in one direction, said drum having ratchet teeth in

its lower marginal portion, means on the post cooperating with said teeth for holding the drum against rotation reversely in respect to said first direction, an elongated wire-engaging element having a body portion partially encircling the outer face of the drum helically thereof and extending across said slit, said body portion of said element being secured to adjacent portions of said drum at opposite sides of said slit and constituting a tie between the same, said wire-engaging element having a terminal portion at its lower end recurved relative to the body portion to form a hook adapted to catch the fence wire at the site of said post and cause it to be wound in upon said drum as the drum is rotated by said wrench, said body portion of said wire-engaging element further constituting a guide cooperating with the wire as it winds upon the drum to feed said wire downwardly along the drum to a level beneath said hook.

2. An adjusting device for a fence including a horizontally disposed length of wire anchored at its ends, said device comprising a post adapted to be planted adjacent the line of the fence immediately of said wire, a tubular drum encircling said post for rotation thereon and formed from sheet material with a slit remaining between unjoined edges of the material longitudinally of the drum, means for turning the drum in one direction, means for releasably holding the drum against rotation in the reverse direction, an elongated wire-engaging element having a body portion partially encircling the outer face of the drum helically thereof and extending across said slit, said body portion of said element being secured to adjacent portions of said drum at opposite sides of said slit and constituting a tie between the same, said wire-engaging element having a terminal portion at its lower end recurved relative to the body portion to form a hook adapted to catch the fence wire at the site of said post and cause it to be wound in upon said drum as the drum is rotated by said drum-turning means, said body portion of said element further constituting a guide cooperating with the wire as it winds upon the drum to feed said wire downwardly along the drum to a level beneath said hook.

3. An adjusting device for a fence including a horizontally disposed length of wire anchored at its ends, said device comprising a post adapted to be planted adjacent the line of the fence immediately of said wire, a longitudinally slit sleeve-like drum revolubly supported by said post, means for turning the drum in one direction, means releasably holding the drum against rotation in the reverse direction, a wire-engaging element secured to the drum and tying together the opposed marginal portions thereof along said slit, said element being adapted to catch the fence wire and cause it to be wrapped about said drum upon the rotation thereof by said drum-turning means, whereby the reaches of said wire at either side of the adjusting device are drawn taut, said element being further adapted initially to guide the wrapping of the wire helically of the drum thereby to prevent the over-wrapping of said element by said wire and the over-wrapping of the wire by itself.

4. An adjusting device for a fence including a horizontally disposed length of wire anchored at its ends, said device comprising a post adapted to be planted adjacent the line of the fence immediately of said wire, a drum revolubly supported on said post, means for turning the drum in one



5

direction, means for releasably holding the drum against rotation in the reverse direction, an elongated wire-engaging element on the drum having a body portion partially encircling said drum helically thereof, said element having a terminal portion recurved relative to said body portion to form a hook adapted to catch the fence wire and cause the same to be wrapped upon said drum as it is rotated by said drum-turning means, said body portion of said element serving initially to guide the wrapping of the wire on the drum helically thereof, thereby to prevent the over-wrapping of said hook by said wire and the over-wrapping of the wire by itself.

5. An adjusting device for a fence including a horizontally disposed length of wire anchored at its ends, said device comprising a post adapted to be planted adjacent the line of the fence immediately of said wire, a drum revolvably supported on said post, means for turning the drum in one direction, means for releasably holding the drum against rotation in the reverse direction, a guide on the drum partially encircling the same helically thereof, and a wire-catching member carried by said drum adjacent one end of said guide, said wire-catching member being adapted to catch said wire and cause it to be wrapped upon said drum when the drum is turned by said drum-turning means, said guide cooperating with the wrapping wire to feed it helically along the drum out of the path of said wire-catching member.

6. An adjusting device for a fence including a horizontally disposed length of wire anchored at

6

its ends, said device comprising a post adapted to be planted adjacent the line of the fence immediately of said wire, a sleeve-like drum encircling said post for rotation thereon, means for turning the drum in one direction, means releasably holding the drum against rotation in the reverse direction, said drum consisting of a piece of sheet metal cylindrically formed and having adjacent marginal portions with contiguous ununited edges defining a longitudinal slit in the drum, a wire-engaging element having a body portion and a terminal portion, said body portion extending about the drum cross-wise of said slit and overlying said marginal portions of the drum at either side of said slit, said body portion of said element being secured to said marginal portions of the drum rigidly tying the same together, the terminal portion of said member being adapted to catch the fence wire and cause it to be wrapped about said drum upon the rotation thereof by said drum-turning means, whereby the reaches of said wire at either side of the adjusting device are drawn taut.

MELFORD H. DOCKEN.

#### REFERENCES CITED

The following references are of record in the file of this patent:

#### UNITED STATES PATENTS

Number	Name	Date
1,998,185	Broderick	Apr. 16, 1935
2,426,284	Peterson	Aug. 26, 1947