P. J. HINDMARSH.

FENCE.

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FIG. 1.

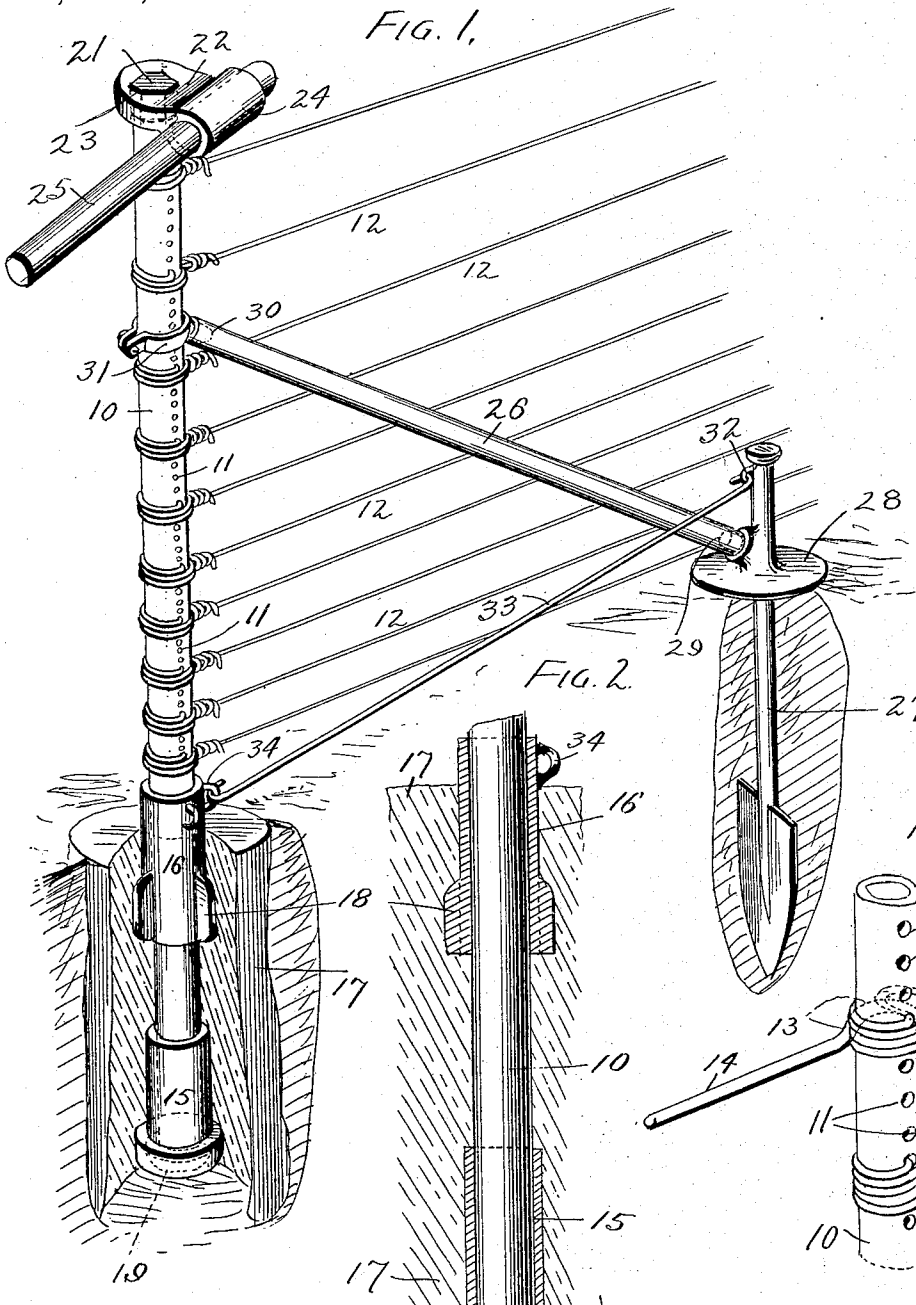


FIG. 2.

FIG. 3.

Witnesses

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FENCE.

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To all whom it may concern:

Be it known that I, PERCY J. HINDMARSH, a citizen of the United States, residing at Lincoln, in the county of Lancaster and State of Nebraska, have invented certain new and useful Improvements in Fences, and do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

My invention relates to the construction of wire fence, and in particular has to do with that type of construction wherein the tightening of the wires is accomplished by the rotation of the fence post, and the object of my invention, generally stated, is to provide such a construction as will be thoroughly practical in its ability to effect the desired tightening of the wires, efficient in maintaining the wires in a stretched condition and adaptable without change of structure to fences of different height, and for the attainment of this object and the securing of other objects which will appear on the full disclosure of my invention, the latter consists in the construction substantially as hereinafter specified and claimed.

In the drawings—

Figure 1 is a perspective view of a portion of a fence embodying my invention; Fig. 2 is a vertical section through the lower portion of the post; Fig. 3 is a detail view in perspective of a portion of the post illustrating the means by which I effect the securing of the wires to the post after the wires have been stretched.

My post 10 is round in cross section, and if desired may consist of a length of iron pipe having a vertical row of transverse holes 11 in that portion which is, or may be above the surface of the ground through certain ones of which the end portions of the fence wires 12 are passed, or threaded. The outer ends of the holes are preferably beveled, or countersunk so as to avoid sharp edges which might cut the wire, or cause such abrupt bending thereof as to weaken the wire and render likely its breakage. The wires being passed diametrically through the post it will be seen that by revolving the post, the wires will be wrapped, or coiled around the post and thereby the wires stretched. A sufficient amount of each wire at the end is carried beyond the post when threaded through an opening therein so as to provide a length of free wire, which, after the wire has been tightened, or stretched to the desired extent may be wrapped, or tied around the horizontal portion of the stretched wire contiguous to the post and thereby the wire tightly secured in its stretched condition. The wire when thus tied is not allowed to extend tangentially of the post, but radially therefrom so as to remove the tendency of the stretched wire to revolve the post under its pull and thereby result in slacking the wire. By having the wire, when finally tied, or secured, as described, extend radially from the post and as the wire is wrapped around the post, it will be seen that the tendency of the stretched wire to rotate the post is eliminated, and, hence, by this very simple device the great twisting, or torsional strains on the post from the numerous highly stretched wires is avoided, and at the same time an extra holding device, such as ratchet and pawl (which experience has shown to be insufficient) is rendered unnecessary. To change the position of the wire from one tangential to the post to one radial to it preliminary to tying the wire, I use such a tool as is shown in Fig. 3 of the drawings, which consists of a semicircular member 13 having at one extremity a hook 13^a to catch over the wire when the semi-circular portion is placed around the post and having a handle 14 by which it may be partially turned around the post so as to draw the wire from the tangential to the radial position and hold it while the free end of the wire is being tied, or wrapped. This operation, as will be evident, increases, or tends to increase the tension of the wire, as its straight condition is changed to a slightly bent one.

To provide a bearing for the post in which it may be revolved to tighten the wires, I employ two sleeves, one 15 at the lower end of the post and the other 16 higher up whose top is at, or just a little above the ground line, and both of which are embedded in a slug, or block 17 of concrete. The upper sleeve has radial wings, or fins 18 for interlocking it in the body of cement, and if desired the lower sleeve may be similarly equipped. The lower sleeve 15 has its

bottom end enlarged to form an annular cap to house a stop nut 19 which is secured on the bottom of the post and acts to prevent the lifting of the post, the cap, or housing protecting the nut from the concrete and thus assuring that the nut will revolve when the post is revolved.

Although the portion of the post between the two sleeves is inclosed by concrete, yet the grip of the concrete is so slight that the post may be freely turned. A very important advantage results from using the two sleeves as the journals, or bearings for the post instead of a single sleeve, in that the cost is materially reduced, since much less metal is required, the amount of metal saved being equal to the distance between the two sleeves and the extent of projection of the post above the ground may be varied to suit the height of the fence, the portion of the post below the ground varying obviously according to the amount above the ground, and it being necessary merely to space the two sleeves according to the length of the portion of the post within the ground. Should a single sleeve be used it is obvious an assortment of sleeves would be required according to the extent of the post below the ground. For revolving the post I form its upper end into an angular head 21, preferably hexagonal, and I apply to it a wrench consisting of a plate 22 having a hole 23 to fit the angular head of the post and a horizontal socket 24 to receive a lever 25 by which it may be revolved. Experience has shown that a mere threaded connection between the post-turning lever and the post, is impracticable because the great strain resulting from turning the post to tighten the wires strips off the thread, or twists off the top of the post which happens in consequence of the weakening of the post by the depth of the thread, but by my angular head and wrench construction the post may be readily revolved without any breaking, or giving away. Moreover, the integral angular head permits the post to be turned in either direction, whereas, with a threaded device it can be turned only in the one direction for a threaded device turned in one direction would unscrew.

I provide a brace to support the post against the pull of the stretched wires, said brace consisting of a bar 26 which may consist of a length of pipe that inclines from a point of contact with the post a suitable distance above the ground downward to an anchor 27 driven into the ground and having at the surface thereof a horizontal flange 28 to form an extended bearing to sustain the thrust transmitted thereto from the lower end of the brace, the anchor having above the flange a lug 29 to receive the lower end of the brace. The upper post-engaging end of the brace engages a lug 30 on a split ring, or collar 31 which encircles the post and which is left in a loose condition on the post while the wires are being tightened, but is afterward tightly clamped to the post. While in its loose condition and during tightening of the wires, the collar is prevented moving upward on the post by a spike, or nail passed above the same through one of the post holes 11. The brace anchor is extended a short distance above the flange and the bearing point of the brace rod and at its upper end has an eye 32 to receive one hooked end of a tension rod 33 whose other hooked end is engaged in an eye 34 at, or near the top of the upper sleeve 16. The tension rod supports the brace anchor against the outward thrust of the brace and by lifting the point of connection of the tension rod with the anchor above the point of application of thrust of the brace, the strain on the tension rod is reduced. The brace anchor, of course, takes care of both the horizontal, or lateral and vertical components of the thrust of the brace.

Having thus described my invention what I claim is—

1. In a fence structure, the combination of a post adapted for rotation on its longitudinal axis, the lower end of which is circular in cross section, and a plurality of sleeves adapted to coöperate with and act as bearings for said circular lower end portion, said sleeves being located below the ground-line and being spaced apart vertically, substantially as described.

2. In a fence structure, the combination of a post adapted for rotation on its longitudinal axis, the lower end of which is circular in cross section, and a plurality of sleeves adapted to coöperate with and act as bearings for said circular lower end portion, said sleeves being located below the ground-line and being spaced apart vertically, said sleeves and the portion of the post contiguous thereto being embedded in a body of concrete, substantially as described.

3. A wire fence post that is rotatably supported in bearings consisting of separate sleeves applied to different portions of the post below the ground line, said sleeves and the portion of the post contiguous thereto being embedded in a body of concrete, the post having below the lower sleeve a stop consisting of an enlargement of the lower end of the post, and the lower sleeve having a housing for said enlargement.

4. A wire fence post that is rotatably supported in bearings consisting of separate sleeves applied to different portions of the post below the ground line, said sleeves and the portion of the post contiguous thereto being embedded in a body of concrete, the post having below the lower sleeve a stop consisting of an enlargement of the lower end of the post, and the lower sleeve having

a housing for said enlargement, the post above the ground having an angular turning head adapted to receive a turning wrench.

5. The combination of a rotatable fence post having spaced wire-receiving openings, and wires in said openings, said wires having portions wound around the post and extending in radial lines from the post, the free ends of the wires being wrapped around the same contiguous to the post.

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

PERCY J. HINDMARSH.

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