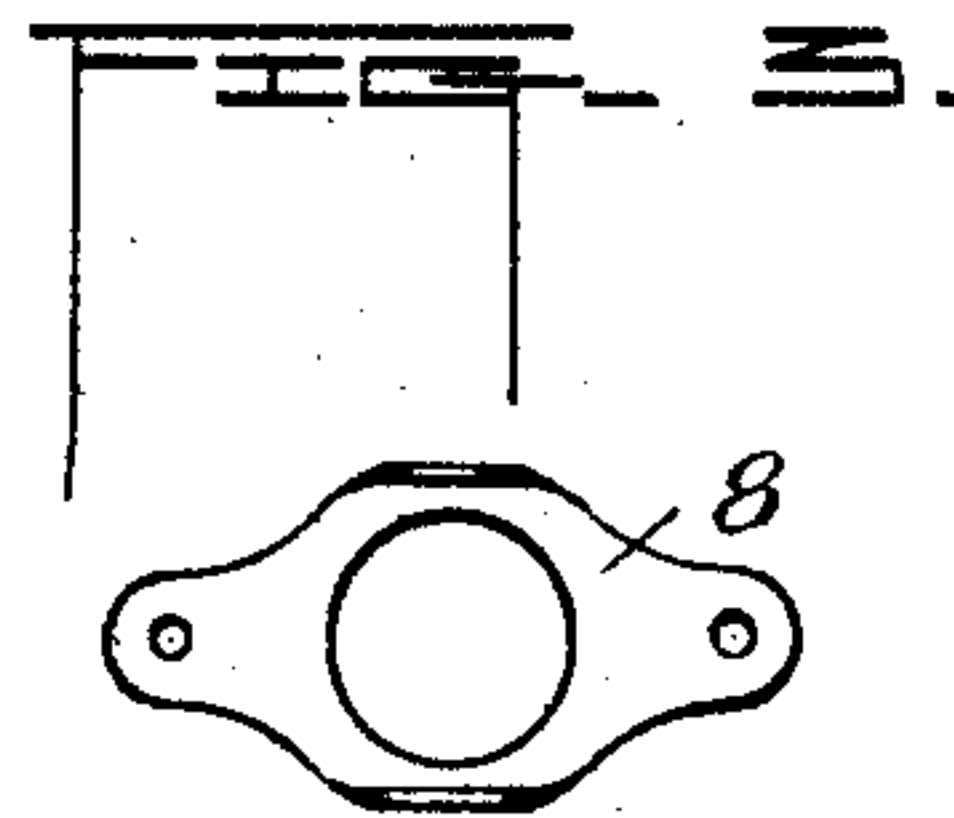
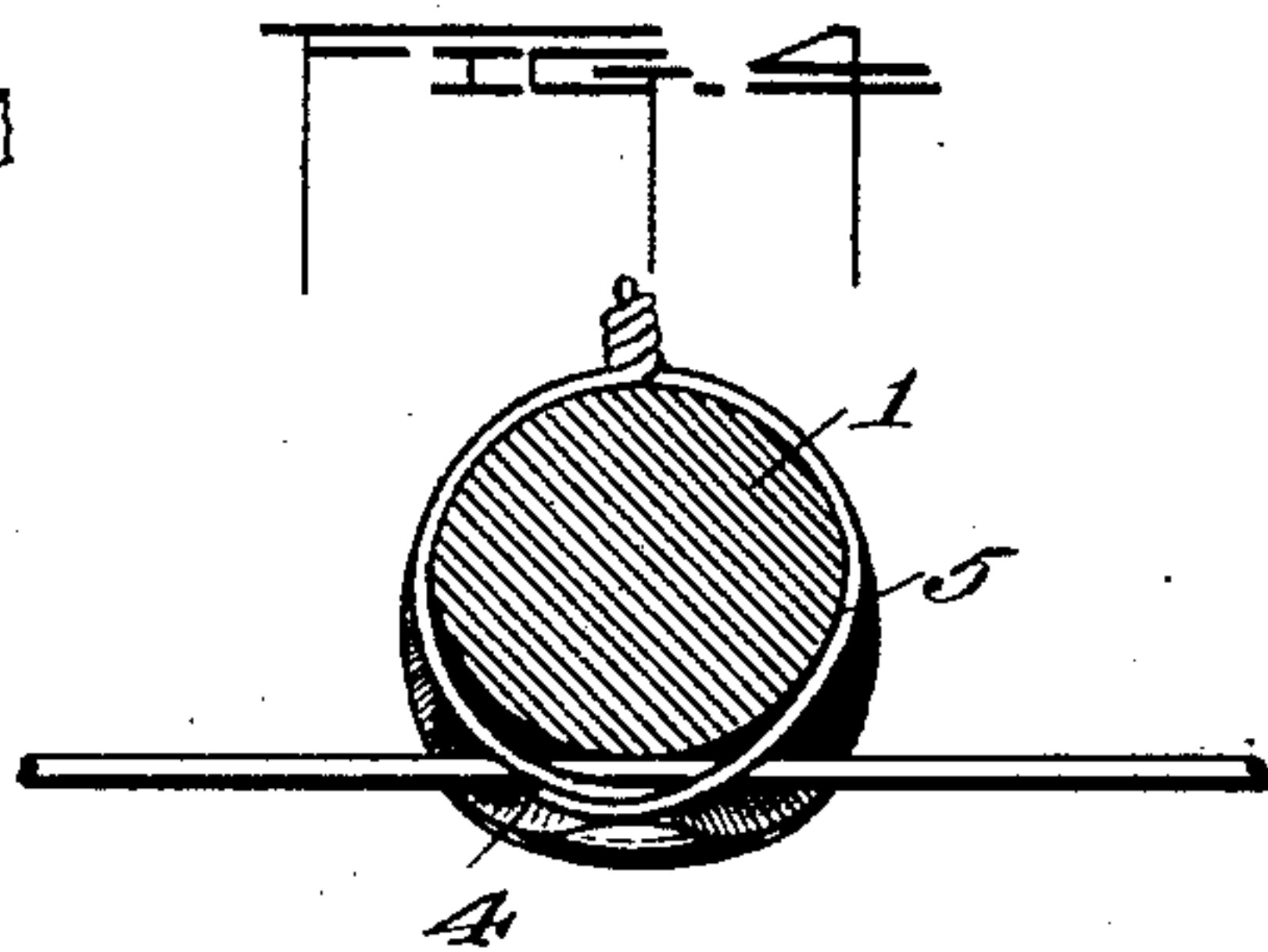
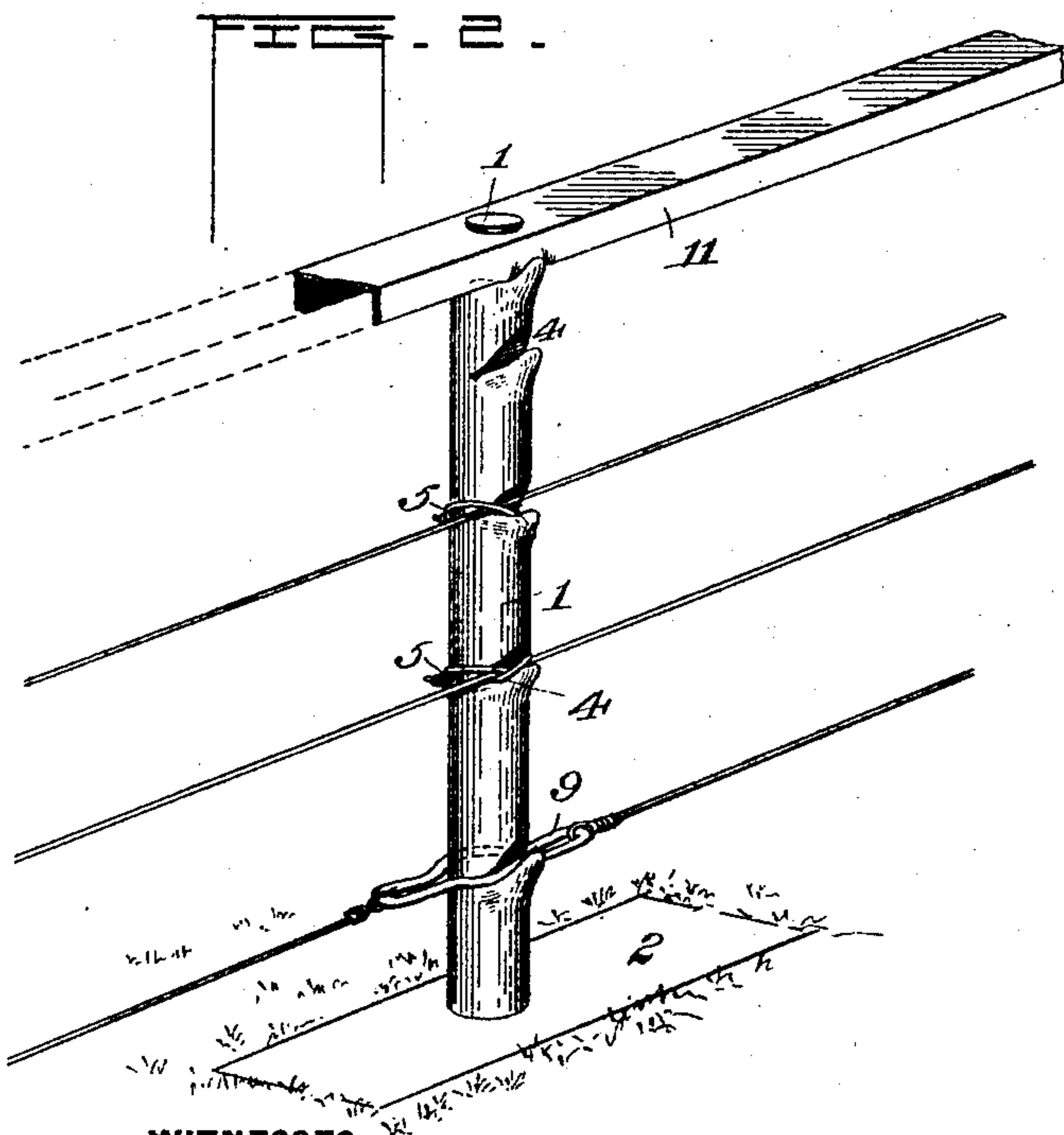
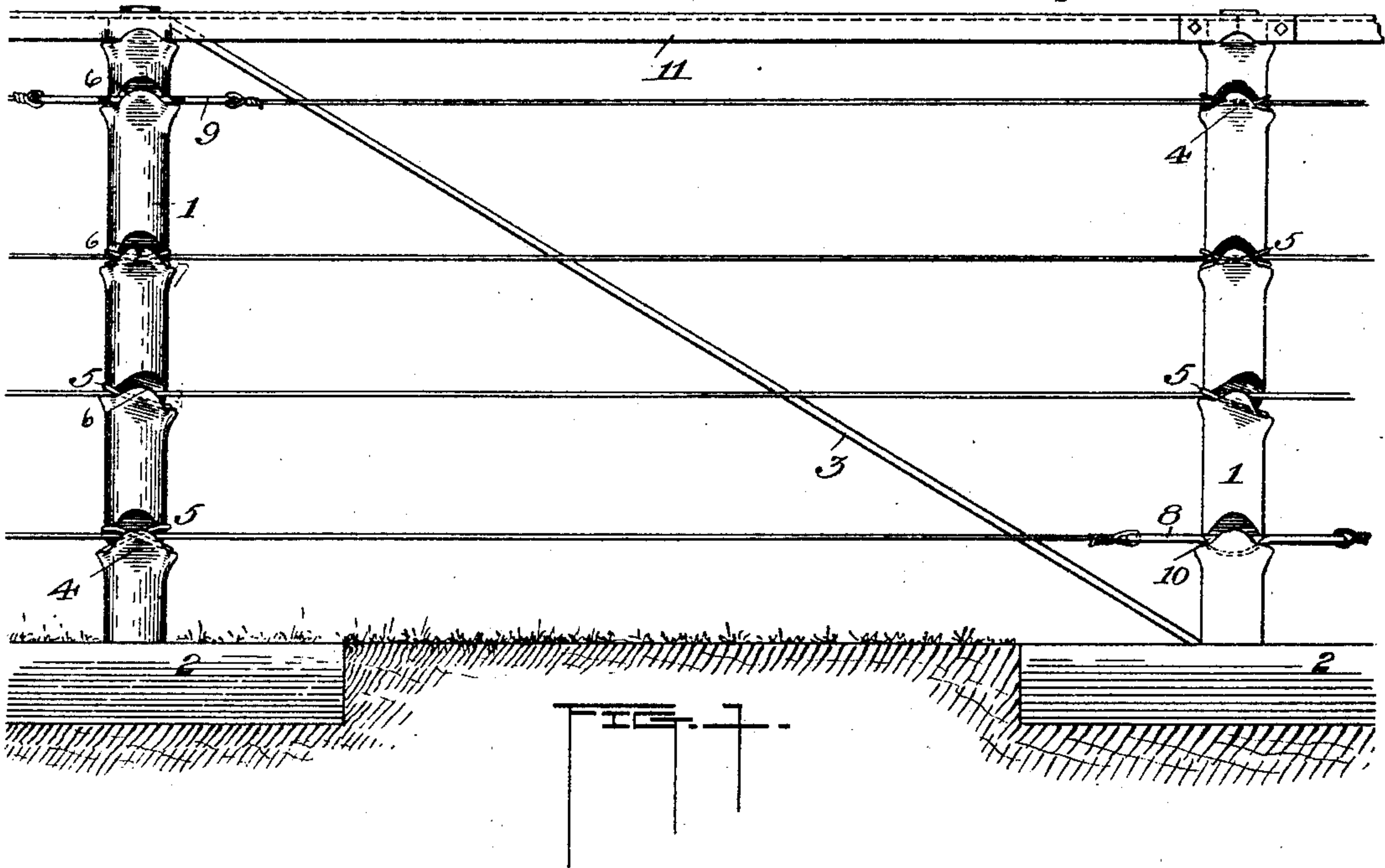


(No Model.)

D. W. WEISER.
WIRE FENCE.

No. 436,279.

Patented Sept. 9, 1890.



WITNESSES

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WIRE FENCE.

SPECIFICATION forming part of Letters Patent No. 436,279, dated September 9, 1890.

Application filed December 10, 1889. Serial No. 333,256. (No model.)

To all whom it may concern:

Be it known that I, DAVID WM. WEISER, a citizen of the United States, residing at Dupont, in the county of Putnam and State of Ohio, have invented certain new and useful Improvements in 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.

The object of my invention is to produce a cheap, secure, and durable wire fence; and it consists in the matters hereinafter described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of several panels of my improved fence, the diameter of the post being exaggerated with respect to its height for clearness of illustration. Fig. 2 is a perspective of a single post-supporting section of wire and the wire fastenings therefor. Fig. 3 is a detail of one form of fastening. Fig. 4 is a horizontal section of a post on an enlarged scale.

I make the posts 1 of iron rods about one-half inch in diameter and set them in blocks 2, of wood or stone, about one and a half feet wide, three feet long, and seven inches thick, the length of the blocks being placed crosswise of the fence. These blocks can also be made each partly of iron and the rest of wood, or they may be made of concrete or any suitable material. Four and a half to five feet is a suitable length for the posts if the blocks are placed with their upper surfaces on a level with the top of the ground, as I generally prefer. The posts may be set about eight feet apart and braced, as indicated at 3, once in forty-eight feet, or oftener.

The body or intermediate part of each line-wire is secured to the posts by inserting it in a crescent-shaped cut or kerf 4, and then twisting transversely about the post and line-wire at their junction one or more binding-wires 5, said wires also resting in the cut or groove. After the binding-wire is passed about the post and line-wire its ends are brought together and tightly twisted, thereby drawing all parts of it in close contact with the parts to be bound.

Bands for analogous uses are not new, but

heretofore they have not been applied in a manner to prevent them from becoming loose or from being moved on the posts by the weight of wires, or by the rubbing of animals, or in other ways.

In my construction each line-wire rests upon a shoulder at the bottom of the cut near its deepest point and has thereon a vertical support, and it is securely held upon this seat by the binding-wires, both wires being solidly held by the clinch of a lip 6, formed when the groove is made, which lip is forced down upon them. Thus bound and held, the wires are not liable to be moved out of place, the cut or groove formed in the post being of peculiar shape and especially adapted to form a bed or seat for both wires. This groove is produced by an approximately crescent-shaped tool, which is forced upon and into the surface of the post in a downward direction, thereby producing a cut substantially as indicated in the drawings. As will be seen, it extends around the post in a downward direction, so that the line-wire may rest in it at its center or deepest part, and the binding-wire at or near its extremity 7. The groove is therefore adapted to receive both wires, and its form is such that it does not unnecessarily weaken the post, as would an ordinary cut, or such as would be made by a straight-edged tool.

Two binding-wires may be employed, as shown in Fig. 1. In such case the groove or cut is formed to be symmetrically disposed about the post, its extremities 7 both being directed as shown in Fig. 1. Each binding-wire in such construction rests in an extremity 7 of the groove at the side of the post and both are supported and fastened therein. If but one binding-wire were employed, it would of course lie in it on one side only of the post. To give a single binding-wire a seat in the groove on both sides of the post, it may be cut, as indicated in Fig. 2, obliquely with one extremity above the line-wire and with the other on the opposite side of the post below the same. In such construction the binding-wire will be provided with a depressed seat on both sides of the post, one above and one below the seat of the line-wire. When the wires have been bound in place by twist-

ing the binding-wire or binding-wires, the raised lip of the groove is forced or swaged down upon them substantially as shown, thereby effectually obviating all danger of the wires slipping on the post. Such slipping is highly objectionable, and is very liable to occur unless thoroughly guarded against, as by my improvement, which, as before stated, obviates the evil and without the necessity of weakening the post excessively, as would be the case by a single straight cut sufficient to form a seat both for the line and binding wires.

8 indicates a coupling-plate perforated to receive the ends of line-wires which are to be secured therein, and 9 indicates wire couplings for a similar purpose, and either form can be employed, though the plate is preferred, except at a fence-corner. A cut, substantially as above set forth, except that it is made horizontal, or nearly so, is formed at a proper point on the post. The plate is then slipped over the top of the post and moved down, so as to rest in the seat thereby formed.

In Fig. 1 is shown a means of securing it firmly in a seat. Downward cuts are formed on one or both sides of the post adapted to receive the downturned edges 10 of the plate, and such edges are firmly secured by forcing or swaging the lips of the cut down upon the flanges. The wire couplings are secured in similar manner. When the lower plate has been thus secured, suitable cuts or grooves for each higher coupling can be made and the plate or wire couplings similarly secured therein. 11 indicates a rail which is placed on the upper end of the posts, the ends of the rails being fitted to the posts and the ends to each other and spliced, substantially as represented. This rail is made with a downturned flange, or with two such flanges, as represented, one or both of which may be supported by a lip raised by cutting the post, which lip, if desired, can be swaged down upon the flange. The head of the post will ordinarily be upset sufficiently to prevent the rail from being lifted off the post, and the above-described lip prevents its descent thereon.

A fence can be cheaply constructed as above described which will withstand the action of winds and frosts and the ordinary rubbing of cattle without vertical displacement of the wires, and which will be very suitable for most of the uses of such structure.

Heretofore fence-wires have been secured to angular posts by swaging, and such construction is not broadly of my invention. The present improvement applies to cylindrical posts in which it is difficult to produce a sufficient kerf or slot to securely hold a wire without unduly weakening the post. If the kerf or cut be made sufficiently large to embrace the whole wire with certainty at every point of contact, a small or moderate-sized

post of cylindrical cross-section is impracticable. On the other hand, if a fastening-wire alone be used, it, together with the line-wire, is liable to slip down and also be rubbed or borne up or down on such post. My improvement utilizes both the kerf (or swaging) and the wire, the former serving as a vertical support for both the line and binding wires. The binding-wire serves to prevent the displacing of the line-wire, even though the swaging is in some instances insufficient or defective, and as it also enters the kerf or notch it is thereby securely held from being moved either up or down by the rubbing of stock or the thrusting of heads or bodies between the wires or the climbing of persons. My slot, of approximately crescent shape or some equivalent, is required to prevent the displacement of the binding-wire. As in effect stated, the slot or swaging alone is not sufficient, and particularly in the case of posts made of comparatively small cylindrical rods, because of the liability of the line-wires to be lifted out of the same by force when it is accidentally defective in manufacture or when the force applied is sufficient in the absence of such defect; and the binding-wire alone is insufficient, particularly on posts such as described, from its liability to slip; and, furthermore, it would not act efficiently to prevent slip in case of the failure of the swaging, unless it was entered into a slot or notch in the post, as by my improvement.

Having thus described my invention, what I desire to secure by Letters Patent is—

1. In a fence, the posts made of rods and provided with lips near their tops, in combination with rails having downturned flanges embracing the sides of the post and resting on lips formed by cuts in the post, said lips being swaged upon the flanges, substantially as set forth.

2. In a fence, a cylindrical post provided with a crescent-shaped groove, a line-wire resting on a seat midway between the ends of the groove, and bound by wires that also rest in the same groove at its ends and on each side of the post, the several wires being held by the lip of the groove compressed upon them, substantially as set forth.

3. In a fence, a line-wire resting in a seat formed by an oblique groove, the extremities of which are one above and the other below said line-wire, and bound by a wire resting in said groove on two sides of the post, both above and below the line-wire, substantially as set forth.

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

DAVID WM. WEISER.

Witnesses:

SAMUEL SPITTSVALE,
J. C. MYERS.