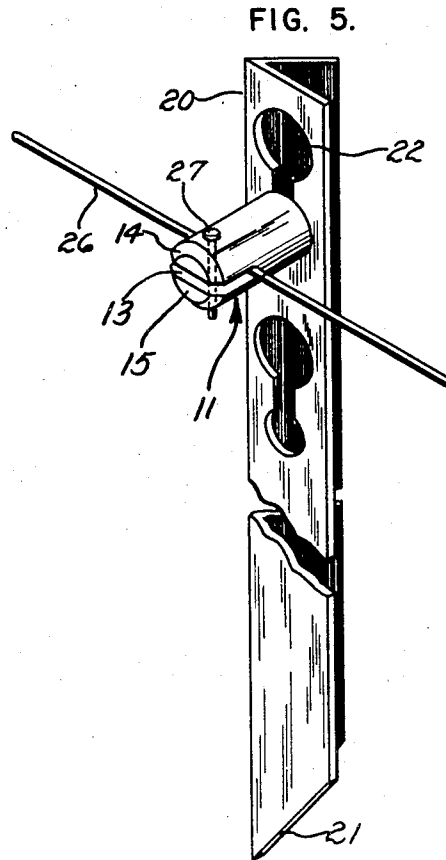
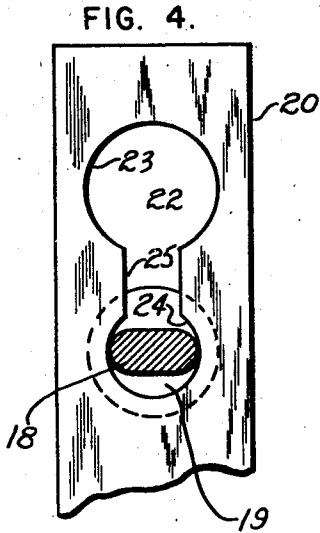
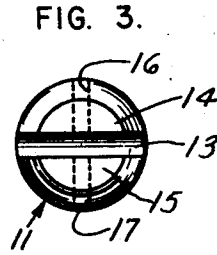
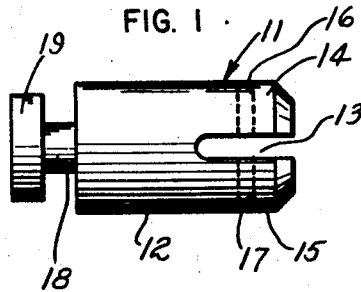
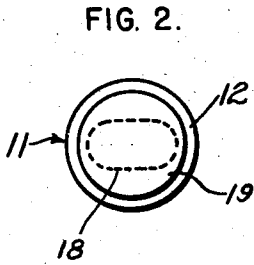


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H. E. STRAUSS ET AL
ELECTRIC FENCE POST AND INSULATOR

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ELECTRIC FENCE POST AND INSULATOR

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5 Claims. (Cl. 174-45)

1

This invention relates broadly to fastening devices, and more particularly to fastening means for insulators.

A main object of the invention is to provide a novel and improved structure for fastening two members together, said structure being very simple to manipulate and providing a reliable connection.

A further object of the invention is to provide an improved fastening structure particularly adapted for connecting an insulator to a fence post, as in electric fences, or the like.

A further object of the invention is to provide a novel and improved fence post and insulator to be used therewith for employment in electric fences, the insulator being readily attachable to the post and providing an effective securing means for the fence wire.

A further object of the invention is to provide an improved post and insulator structure for an electric fence, said structure being very inexpensive to manufacture, easy to install and efficient in performance.

Further objects and advantages of the invention will become apparent from the following description and claims and from the accompanying drawing, wherein:

Figure 1 is a side elevational view of an insulator according to the present invention.

Figure 2 is a rear end view of the insulator of Figure 1.

Figure 3 is a front end view of the insulator of Figure 1.

Figure 4 is a detail view, partly in cross-section illustrating the method of locking the insulator of Figure 1 to a fence post according to this invention.

Figure 5 is a perspective view showing an electric fence wire secured to an insulator and fence post in accordance with the present invention.

By way of example, an illustrative embodiment is disclosed wherein the fastening means of the present invention is employed to connect an insulator to a fence post in an electric fence installation.

Referring to the drawing, and more particularly to Figures 1 to 3, 11 designates an insulator comprising a generally cylindrical body portion 12 formed at its forward end with a horizontal transverse open-ended slot 13 defining upper and lower parallel projections 14 and 15 at said forward end. Extending vertically through upper projection 14 intermediate its length is a bore 16. A similar bore 17, aligned with bore 16, if formed in lower projection 15.

2

Extending axially from the rear end of body portion 12 is a horizontally flattened and laterally reduced neck element 18 carrying a circular head member 19 which is less in diameter than body portion 12 but greater in diameter than the width of neck element 18. All the parts of insulator 11 are preferably integral and are formed of insulating material.

Referring to Figures 4 and 5, 20 designates a fence post, which may be made of suitable rigid material such as steel angle iron. The bottom end of post 20 is tapered to a point 21 to facilitate driving the post into the ground.

One of the flanges of post 20 is formed with a plurality of openings 22, each opening comprising a large substantially circular upper portion 23 and a smaller substantially circular lower portion 24, said circular portions being connected by a vertical slot portion 25. Upper portion 23 is just large enough to receive head member 19 of the insulator 11. Slot portion 25 is just large enough to provide clearance for neck element 18 when said neck element is in a vertical position. Lower portion 24 is just large enough to accommodate neck element 18 and to support it in the horizontal position thereof shown in Figure 4.

In this position the insulator is restrained against either end-wise or vertical movement with respect to post 20.

In assembling the fence structure the insulator 11 is positioned in a selected opening 22 in the manner shown in Figures 4 and 5, the head member 19 being passed through the upper opening portion 23, the neck portion 18 being passed vertically through slot portion 25 and being rotated to horizontal position in lower opening portion 24. The fence wire 26 is positioned in slot 13 rearwardly of the aligned bores 16 and 17 and a headed pin 27 is passed through said aligned bores. Wire 26 is thus secured against removal from slot 13 and acts at the same time to prevent the insulator from being rotated to a disengaging position.

Although the fastening structure disclosed herein is shown specifically in connection with a fence post and insulator it may also be employed to secure various other parts together within the spirit of the present invention. Although a specific embodiment of a combination of an insulator and fence post for electric fences has been disclosed in the foregoing description, it will be understood that various modifications within the spirit of the invention may occur to those skilled in the art. Therefore it is intended that no lim-

3

itations be placed on the invention other than as defined by the scope of the appended claims.

What is claimed is:

1. An electric fence insulator comprising a cylindrical body member having a slot formed in one end thereof to define a pair of projections, means for retaining a wire in said slot, a flattened neck member projecting axially from the other end of said body member, the width of said neck member being less than the diameter of said body member, and a circular head carried at the end of said neck member, said head being larger in diameter than the width of said neck member.
2. An electric fence insulator comprising a cylindrical body member having a slot formed in one end thereof to define a pair of projections, means for retaining a wire in said slot, a flattened neck member projecting axially from the other end of said body member, the width of said neck member being less than the diameter of said body member, and a circular head carried at the end of said neck member, said head being larger in diameter than the width of said neck member but being smaller in diameter than the body member.
3. In combination, a fence post comprising an elongated rigid member having an opening formed therein, said opening comprising an upper substantially circular portion, a lower substantially circular portion of lesser diameter than said upper portion and a vertical slot portion connecting said upper and lower portions, an insulator having a flattened neck portion which is less in thickness than the width of said slot portion and approximately equal in width to the diameter of said lower portion, one end of said insulator being formed with a wire-receiving slot, said slot being substantially coplanar with said neck portion, said neck of said insulator being adapted to be seated in said lower circular portion of said opening with the width of said neck portion at right angles to said slot and means for securing a wire in said slot to prevent rotation of said insulator in said opening.
4. A fastening structure comprising the combination of a rigid member formed with an opening, said opening comprising an upper substantially circular portion, a lower substantially circular portion of lesser diameter than said upper portion and a vertical slot portion connecting said upper and lower portions, an element adapted to be secured to said rigid member, said ele-

4

ment having a body wider than the diameter of said upper circular portion, a flattened intermediate neck portion which is less in thickness than the width of said slot portion and approximately equal in width to the diameter of said lower portion, and a substantially circular head which is less in diameter than said upper circular portion but greater in diameter than said lower circular portion, said body being formed with a recess, said recess being substantially coplanar with said neck portion, said neck portion of said element being adapted to be seated in said lower portion of said opening with the width of said neck portion at right angles to said slot, and means for securing an elongated member in said recess to prevent rotation of said element.

5. A fastening structure comprising the combination of a rigid member formed with an opening, said opening comprising a substantially large portion, a spaced and substantially smaller portion and a slot portion connecting said large and smaller portions, an element adapted to be secured to said rigid member in said opening, said element having a body wider than the diameter of said larger portion of said opening, a flattened intermediate neck portion which is less in thickness than the width of said body and approximately equal in width to the diameter of said smaller portion of said opening, and an enlarged head which is less in diameter than said larger portion of said opening, but greater in diameter than said smaller portion of said opening, said element being adapted to be seated in said smaller portion with the width of said neck portion at right angles to said slot portion, and means for securing an elongated member to said body to prevent rotation of said element in said opening.

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