J. L. MARTIN.

INSULATING COUPLING FOR FENCE WIRES.

APPLICATION FILED JUNE 22, 1917.

1,304,342.

Patented May 20, 1919.

Fig. 1.

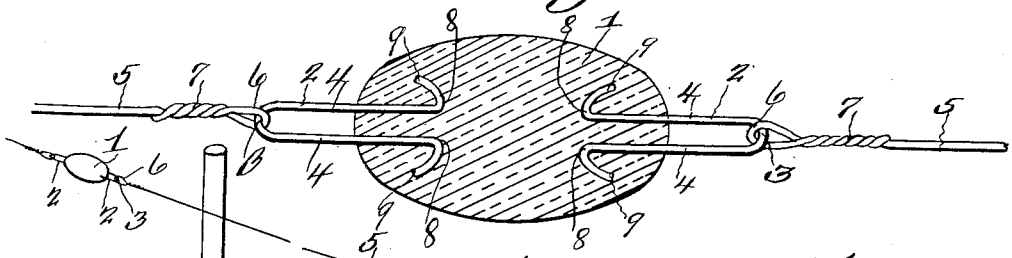


Fig. 2.

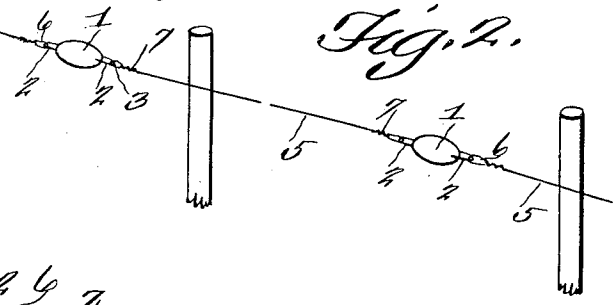


Fig. 3.

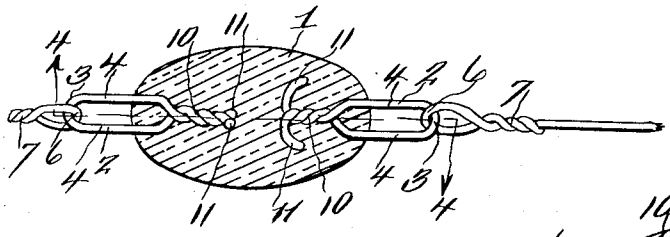


Fig. 4.

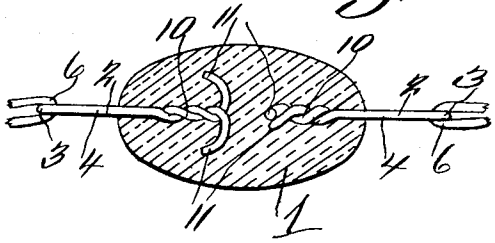


Fig. 5.

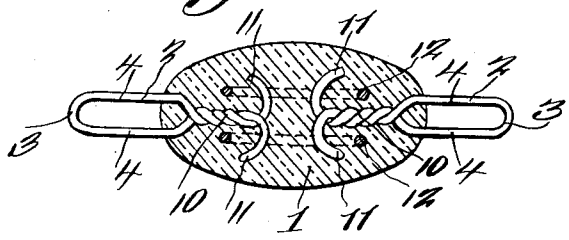
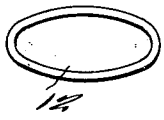


Fig. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

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INSULATING-COUPLING FOR FENCE-WIRES.

1,304,342. Specification of Letters Patent. Patented May 20, 1919.

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To all whom it may concern:

Be it known that I, JAMES L. MARTIN, a citizen of the United States, residing at Yates Center, in the county of Woodson, State of Kansas, have invented a new and useful Insulating-Coupling for Fence-Wires; 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.

This invention relates to an improved insulating coupling for fence wires, and an object of the invention is to provide a simple and efficient and practical device of this kind, which is exceedingly inexpensive to manufacture, and may be sold at a reasonable profit.

It has been found that large numbers of live stock, such as cattle and the like, have been killed or electrocuted for the past years by the lightning discharges that are conducted along the wires of a fence. It has been further noticed that such live stock have encountered the discharge and been killed at considerable distance from where the lightning first struck the wires. Furthermore, owing to such conditions, live stock insurance is quite expensive.

Therefore, one of the objects of the present invention is the provision of an insulating coupling or a plurality thereof arranged at intervals, and connecting medium short sections of the fence wire, thereby acting as means for permanently interrupting electrical discharges from lightning, whereby the live stock is guarded and prevented from being killed from such discharges.

A further object of the invention is to provide a device of this kind, the employment of which, at intervals, in fence wires, will save several times the cost of the installation thereof, by lessening the destruction to the live stock.

A further object of the invention is the production of an improved device of this kind, which when universally employed, will greatly reduce the insurance rates on live stock, and hence, the amount of reduction on such rates may be used to offset the cost of the installation of the device.

A further object of the invention is the provision of a device of this kind consisting of a body constructed of glass or other material, and provided with connectors for joining the adjacent ends of the fence wire sections sequentially, whereby a substantially permanent interruption of the electrical discharges may be accomplished.

A further object of the invention is to provide means for anchoring the connectors in the body, so as to prevent their disconnection incident to the stretching of the fence wires, and which anchorage may be accomplished in several ways, as illustrated in the drawings clearly.

In practical fields, the details of construction may necessitate alterations falling within the scope of what is claimed.

The invention comprises further features and combination of parts, as hereinafter set forth, shown in the drawings and claimed.

In the drawings:—

Figure 1 is a view in section of the improved insulating coupling on an enlarged scale, connecting two wires, fence or electrical conductor wires, and constructed in accordance with the invention.

Fig. 2 is a view in perspective of fence wire sections, showing the sections sequentially joined by the insulating couplers arranged at intervals.

Fig. 3 is a sectional view through another form of insulating coupling.

Fig. 4 is a sectional view on line 4—4 of Fig. 3.

Fig. 5 is a sectional view through another modified form or coupling.

Fig. 6 is a detail perspective view of one of the rings 12.

Referring more especially to the drawings, 1 designates the body of the insulating coupling, and which may be any suitable size and shape, preferably elliptical or egg shaped, and may be constructed of any suitable insulating material, preferably glass or the like. At the time of constructing the body, in fact molding or otherwise constructing the same, the end parts of the connectors are embedded in the body, whereby the connectors may extend axially from opposite ends of the body.

Each connector 2 consists of a single length of wire bent upon itself, as shown at 3, thereby providing the side members or arms 4. Where each wire of a connector is bent upon itself, a loop is provided to which a section of a fence or other wire 5 is connected. The fence wire sections are joined sequentially, by passing the ends of the sections through the loops 3, bending the ends

of the sections forming loops 6, and twisting the extremities of the adjacent ends of the sections about the bodies of the sections, as shown at 7. The electrical discharges from lightning, as will be noted, are substantially permanently interrupted by the body 1, owing to there being no electrical connection between the embedded ends of the connectors. The end portions of the arms of each connector are provided with abrupt bends 8, whereby the extremities 9 of the ends extend in directions substantially toward the loop 3. These bends and the dispositions of the extremities 9, insure secure anchoring of the connectors.

In Fig. 3, the opposite arms or sides of the connectors, where they are embedded in the body 1, are twisted together several times, as shown at 10, and have their extremities 11 curving laterally and substantially toward the loops 3. Upon observing Figs. 3 and 4, it is to be noted that the extremities 11 of one connector are disposed at right angles to the corresponding extremities of the other connector. However, in Fig. 5, this right angle arrangement of the extremities is eliminated. Furthermore, in Fig. 5, when the body is molded or otherwise constructed, rings 12 are also embedded in the body, and in such wise that the extremities 11 of the sides of the connector extend therethrough, but out of contact with and insulated from the rings by the body. By the position of the rings, the connectors are prevented from entirely separating, should the glass or other body become broken, by reason of the fact that the extremities 11 will hook into engagement with the rings. Furthermore, the rings act as a reinforcement for the insulating body.

The invention having been set forth, what is claimed as new and useful is:—

1. In an insulating coupling for fence wire sections, an insulating body, looped connectors adapted for looped connections with the adjacent ends of fence wire sections, each connector comprising a single length of wire bent substantially midway upon itself to form a loop, the adjacent end portions of the wire being twisted together and having their twisted portions embedded in one end of said insulating body, the extremities of said end portions beyond their twisted unions being curved laterally in opposite directions forming hooks, and a pair of round rings spaced from each other on opposite sides of the twisted portions and embedded in said insulating body, corresponding hooks of said connectors extending through one of the rings in position, whereby should the insulating body become broken, the rings will hold the connectors joined and prevent the fence wire sections from sagging.

2. In a coupling of the kind set forth, the combination with a pair of looped connectors in spaced alinement and adapted for connection to the ends of fence wire sections respectively, the adjacent ends of said connectors, each having a pair of hooks curved laterally in opposite directions, the hooks of one pair corresponding in position with the hooks of the opposite pair, whereby a pair of parallel spaced rings may be positioned so that the hooks may extend therethrough spaced from the wall of the rings, with the shanks of the connectors between the rings; of an insulating body, in which the adjacent pairs of hooks and the shanks of the connectors are embedded, and a pair of spaced rings of like diameters embedded in the body on opposite sides of and spaced from the shanks of said connectors, whereby the oppositely extending lateral hooks are positioned through the rings.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES LUTHER MARTIN.

Witnesses:

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