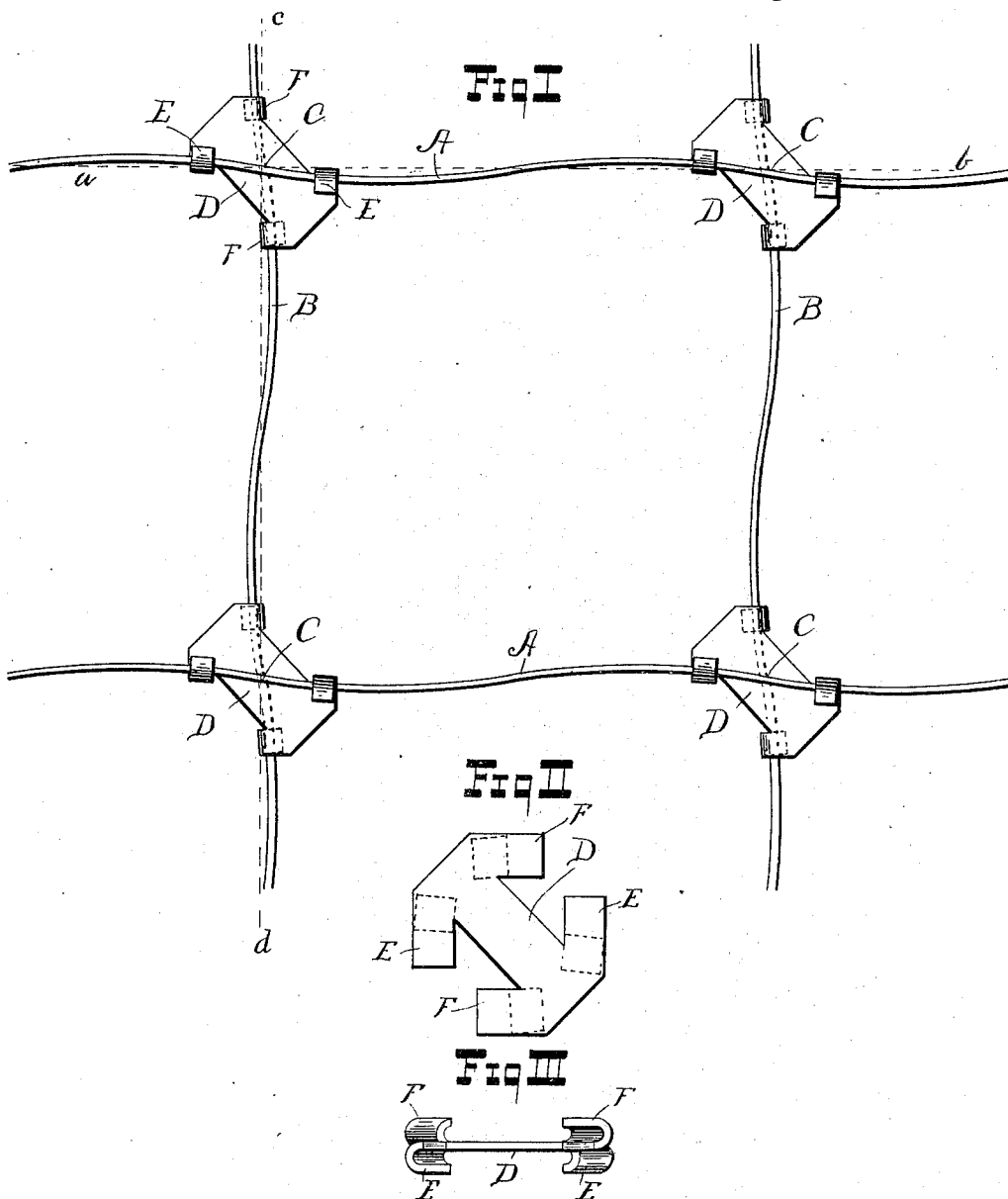


(No Model.)

A. H. RUSSELL.
WIRE FENCE.

No. 566,474.

Patented Aug. 25, 1896.



Witnesses.
W. E. House
W. E. House

Albert H. Russell.

Inventor.

By

House and Hadley,

His Attorneys.

UNITED STATES PATENT OFFICE.

ALBERT H. RUSSELL, OF MOUNT WASHINGTON, MISSOURI.

WIRE FENCE.

SPECIFICATION forming part of Letters Patent No. 566,474, dated August 25, 1896.

Application filed November 4, 1895. Serial No. 567,783. (No model.)

To all whom it may concern:

Be it known that I, ALBERT H. RUSSELL, a citizen of the United States, residing at Mount Washington, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Wire Fences, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in wire fences.

It relates more particularly to the class of wire fences in which the line-wires are tied together at regular intervals with transverse wires.

The object of my invention is to provide in a wire fence a sinusoidally-curved line-wire, a similarly-curved transverse tie-wire, and means for locking the wires together at their intersecting points.

My invention further consists in providing in a wire fence a series of line-wires normally straight, a series of transverse tie-wires also normally straight, and means for locking the line and tie wires at their intersecting points and at the same time sinusoidally curving the wires.

My invention further consists in novel features of construction hereinafter fully described, and set forth in the claims.

In the accompanying drawings, illustrative of my invention, Figure 1 represents an elevation view of a section of fence constructed in accordance with the principles of my invention. Fig. 2 represents a plan view of a blank from which the fastener is made. Fig. 3 represents an end view of the fastener bent into the shape in which it is applied to the wires.

Similar letters of reference indicate similar parts.

A indicates the line-wires, which are horizontal and parallel.

B indicates the vertical transverse tie-wires.

C indicates the points of intersection of the line and the tie wires.

D indicates a substantially rectangular plate located between the line and the tie wires, and having two oppositely-bent portions E upon one side of the plate adapted to engage the wire A and two oppositely-bent

portions F upon the opposite side of the plate adapted to engage the wire B.

A straight line connecting the portions E will be oblique to a straight line connecting the portions F, the bent portions being so disposed so as to bend the crossed wires A and B sinusoidally upon the application of the plate to the wires.

The line-wires are first stretched to a comparatively straight line, the transverse wires are then applied to their respective positions, after which the plates are placed between the wires at their intersecting points, and the hooked portions E are made to engage the wire A. The plate is then revolved to the right until the portions F engage the wire B. This revolving of the plate bends the wires into sinusoidal curves similar to what is shown in the drawings. The tension of the wires prevents displacement of the plate D, and the curving of the wires gives elasticity to the fence as well as allowing for contraction and expansion of the wires in all kinds of weather.

The dotted lines *a b* and *c d* show, respectively, the general direction of the wires A and B. The application of the fastening-plate serves to form the wires at their intersecting points into reversed curves, the arcs of which are equal, and the ends of the arcs being the nodal point C. This point is also the intersecting point of the wires and the intersecting point of the dotted lines *a b* and *c d*.

My invention may be variously modified while still remaining within its purview. For instance, the portions E and F may be formed upon the same side of the plate and both wires A and B lie upon the same side of the plate. If desired, the portions E and F may be bent toward the plate after the plate has been mounted in position, but ordinarily this is not necessary. The shape of the plate D may also be varied, and other forms of holders may be substituted for the portions E and F.

In operating my invention it is preferable to use spring-wire instead of soft wire, for with the use of spring-wire the wires are sprung into place without permanently bending them. Without the use of spring-wires the fence would have but little elasticity, and elasticity is the principal result that I wish to achieve.

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

1. In a wire fence, the combination with a series of normally straight line-wires, of a series of normally straight transverse wires, and a locking-plate located at each intersecting point of crossed wires, the said plate being provided with holders adapted to engage the wires, the holders being so disposed as to sinusoidally curve the wires near the points of intersection, substantially as described.

2. In a wire fence, the combination with a series of sinusoidally-curved line-wires, of a series of transverse tie-wires similarly curved, the line and tie wires intersecting at their nodal points, and a clamping-plate located at the points of intersection and provided with holders adapted to engage the crossed wires, means for preventing disengagement of the holders from the wires after engagement therewith, substantially as described.

3. In a wire fence, the combination with a series of sinusoidally-curved line-wires, of a series of similarly-curved transverse tie-wires, and a locking-plate located at intersecting points of crossed wires, the said plate being provided with bent portions for engaging the two crossed wires, substantially as described.

4. A wire-fastener consisting of a substantially rectangular plate provided near each corner with a wire-holder, the disposition of

the holders being such that straight lines joining diagonal corners will cross each other obliquely, substantially as described.

5. A wire-fastener consisting of a plate provided with four portions bent so as to engage wires to be held thereby, two portions being upon one side of the plate and the other two upon the other side of the plate the disposition of the bent portions being such that a straight line connecting two upon one side will cross a straight line connecting the other two obliquely, substantially as described.

6. In a wire fence, the combination with two crossed wires, of a plate located between the wires, the said plate being provided with bent portions for engaging each wire in two places, the disposition of the bent portions being such that both wires will be curved and held in sinusoidal form, substantially as described.

7. As an article of manufacture, the plate, D, having the oppositely-bent portions, E, upon one side of the plate and the oppositely-bent portions, F, upon the opposite side of the plate, substantially as described.

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

ALBERT H. RUSSELL.

Witnesses:

WARREN D. HOUSE,
D. W. C. HOUSE.