

(No Model.)

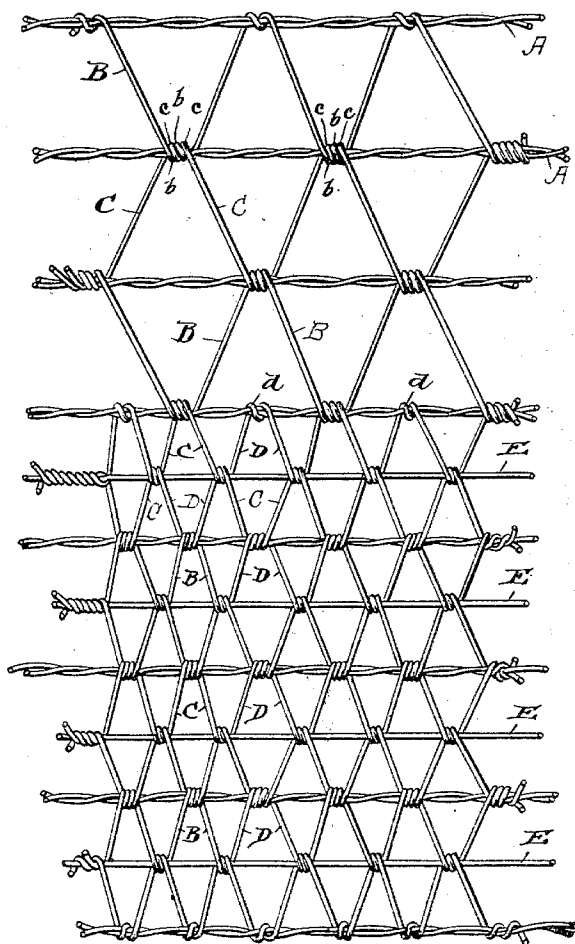
2 Sheets—Sheet 1.

I. L. ELLWOOD.
WOVEN WIRE FENCE.

No. 566,567.

Patented Aug. 25, 1896.

Fig. 1.



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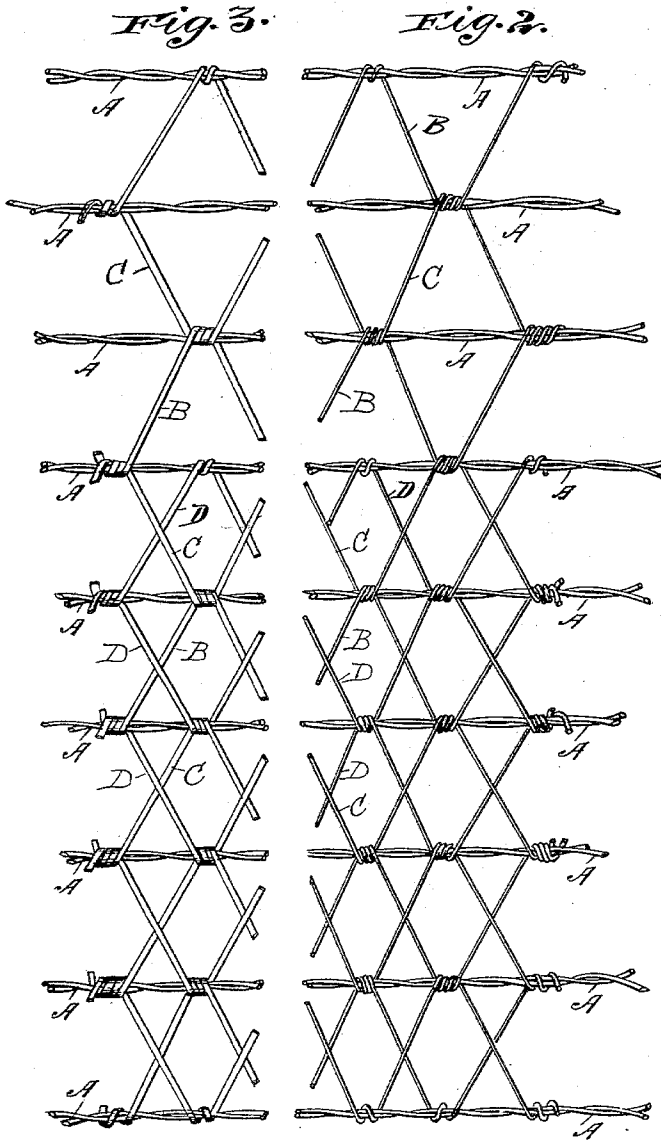
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UNITED STATES PATENT OFFICE.

ISAAC L. ELLWOOD, OF DE KALB, ILLINOIS.

WOVEN-WIRE FENCE.

SPECIFICATION forming part of Letters Patent No. 566,567, dated August 25, 1896.

Application filed August 17, 1894. Serial No. 520,549. (No model.)

To all whom it may concern:

Be it known that I, ISAAC L. ELLWOOD, of De Kalb, Illinois, have invented certain new and useful Improvements in Woven-Wire Fences, of which the following is a specification.

This invention relates to a woven-wire fabric intended for field-fences, and has for its object to furnish a woven-wire or mesh fence sufficiently rigid to prevent its distortion in stretching up or in use, and sufficiently strong to prevent the enlargement of its openings to permit the passage of stock or the breaking of the fence.

A feature of the invention relates to the provision of a fence fabric having a close mesh at one side thereof, with a wider or larger mesh at its opposite margin, so when erected on the posts the bottom of the fabric will be provided with a mesh sufficiently close to turn swine, sheep, and other small stock without waste of material or the addition of weight by making the fence of equal mesh throughout. The construction may be somewhat varied, but in the preferred form the fence fabric is composed of a series of cables arranged parallel to each other and constituting the longitudinal strands of the fence, these cables being equal distances apart and adjoining cables being connected by a mesh-wire extending diagonally across the space between adjacent cables and also intersecting and interwoven with an adjacent mesh-wire at the point of connection to the same cable, the mesh-wires thus forming diamond-shaped openings; and in order to reduce the size of the openings in the lower portion of the fence an additional mesh-wire is coiled about adjacent cables at points between the interlocking coils of the mesh-wires before described. In some cases plain strand-wires alternate with the cables and are supported by coiling the mesh-wires around them, thus again reducing the size of the openings one-half when spaced equidistant from the cable-wires. In this way the plain wires pass through the axis of the mesh-wire coils.

The modification consists in the omission of the plain wires and in the substitution for round mesh-wires of flat strips which form the mesh.

In the accompanying drawings, Figure 1 is

a section of the fence, showing the preferred form of construction. Figs. 2 and 3 are similar views showing modified constructions, Fig. 2 showing a fabric in which the plain wires are omitted and Fig. 3 showing the mesh formed of flat metal strips.

In the drawings, A represents a series of cables, each composed of two wires twisted together, and which cables constitute the longitudinal strands of the fabric.

B C represent mesh-wires which are interwoven with adjacent cables crossing back and forth diagonally between them and also intercoiled with each other at the points where they intersect the same cable, as indicated at *b c*. These mesh-wires which thus connect the series of cables and also cross each other form diamond-shaped openings and tend to brace the structure, rendering it rigid. Being coiled about the cables their coils will not slip along the cables as they would along a plain wire.

Instead of using round wires for the mesh, I may employ flat strips, as shown in Fig. 3, for these mesh-wires.

In order to reduce the size of the openings or to make the fabric of lighter mesh, I employ additional mesh-wires D, which are coiled about the cables A at one side of the fabric, as shown at *d*. For example, as shown in Fig. 1, the five cables at the bottom of the figure are connected by these additional mesh-wires, and there are also employed the plain strand-wires E, which are connected with the cables by means of the additional mesh-wires D, through the coils of which the plain wires pass, and also by engagement therewith of the mesh-wires B and C. There is thus produced a fabric having a small mesh at the bottom of the fence, which is therefore adapted to turn all kinds of small stock, while a very rigid, strong, and durable fence is provided. The mesh being small and a constituent part thereof wires twisted into cables its separation by stock is well-nigh impossible, and this rigidity is further increased by the angular bracing of the cable-wires by the mesh-wires. It will be observed that the principal mesh-wires and the additional mesh-wires D are intercoiled at the points where their strands cross each other, such points being coincident with the axis of the inter-

mediate plain wires E where such wires are used. This intercoiling of the mesh-wires at their points of crossing produces the required rigidity and the angular bracing above alluded to. This fabric may be woven of any desired width. The plain wires may be extended throughout the fabric, alternating with the cable-wires, the object of employing them being to reduce the size of the mesh without adding much weight. The size of the mesh will vary according to the purpose for which the fabric is to be used, and I do not, therefore, limit my invention to these exact details.

15 I claim—

1. A woven-wire fence fabric comprising in combination a series of cables forming the longitudinal strands of the fence and mesh-wires crossing the space between and connecting adjacent cables diagonally, said mesh-

wire strands being intercoiled with each other at their points of crossing and coiled about the cables at their points of intersection with the latter, substantially as described.

2. In a woven-wire fabric, the combination 25 with a series of longitudinal cable-strands, of two sets of mesh-wires crossing the space between and connecting adjacent cables diagonally, plain wires arranged between and alternating with the cables at one side of the fabric and the mesh-wire strands being intercoiled with each other at their points of crossing and also coiled about the plain wires and cable-strands at the points of intersection therewith, substantially as described. 30

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