No. 825,848. PATENTED JULY 10, 1906.

T. LITWILLER.

WIRE FENCE FABRIC.

APPLICATION FILED OCT. 19, 1904.

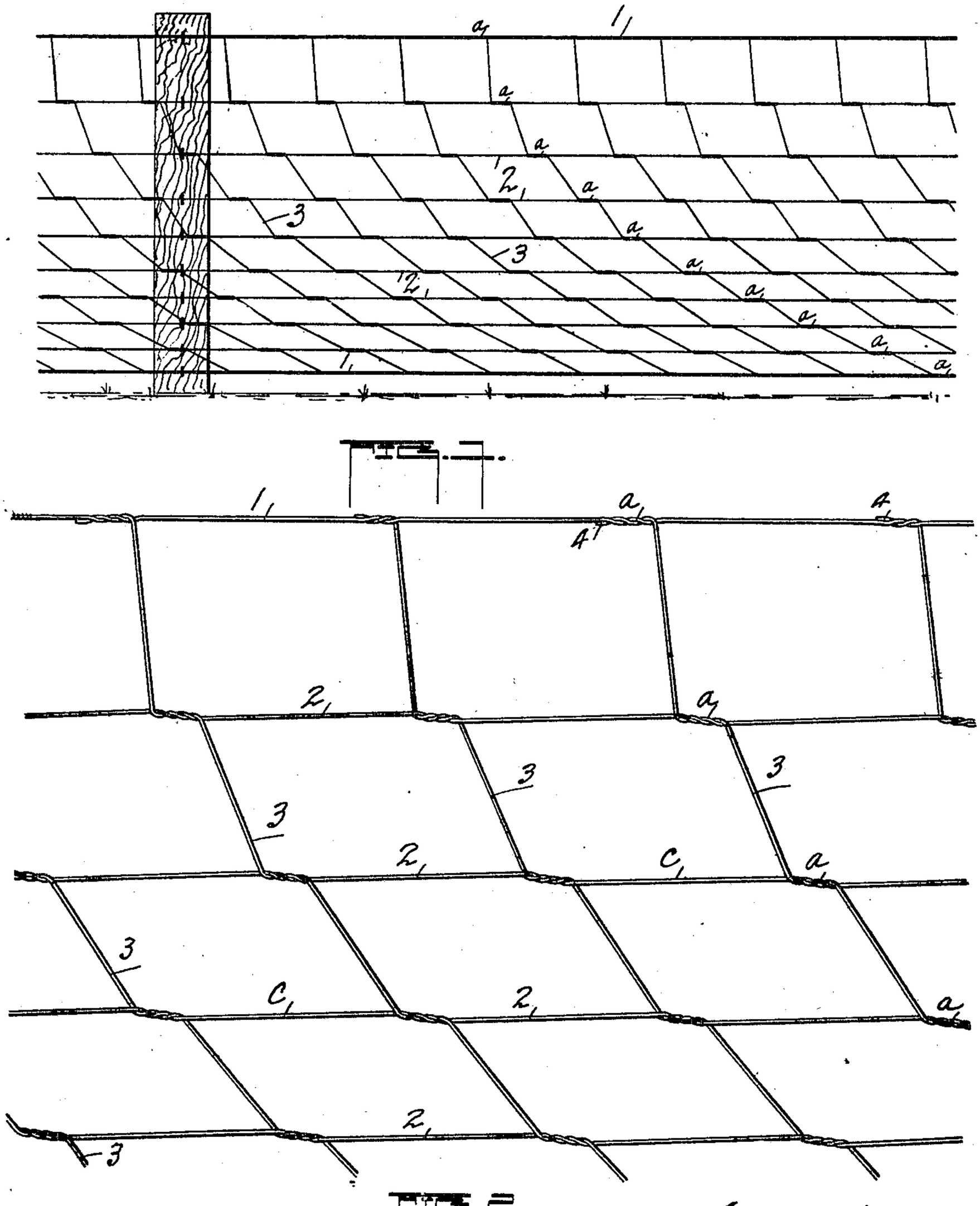

FIG. 2.

Witnesses:
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UNITED STATES PATENT OFFICE.

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WIRE-FENCE FABRIC.

No. 825,848. Specification of Letters Patent. Patented July 10, 1906.

Application filed October 19, 1904. Serial No. 229,136.

To all whom it may concern:

Be it known that I, THOMAS LITWILLER, a citizen of the United States, residing at Tremont, in the county of Tazewell and State of Illinois, have invented certain new and useful Improvements in Wire-Fence Fabrics; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has reference to wire-fence fabrics.

The object of the invention is a wire-fence fabric composed of body-wires and selvage-wires, and connected or intertwisted with the body and selvage wires are stay-wires, alternate stays crossing the body and selvage wires upon the opposite side of the fence fabric, the twists of the adjacent stays with corresponding selvage or body wires being alternately over and under, while the twists of each stay with adjacent selvage and body wires are uniformly in the same direction.

The invention has for its further object a wire fence composed of a series of running-wires and stay-wires bearing obliquely across the running-wires and twisted with the running-wires where they intersect, the diagonal bearing of the wires producing an arc in the said stays from outside running-wire to outside running-wire, the twist of each stay as they bear diagonally across the fabric from left to right being uniformly in the same direction and having the twists alternately over and under in a line bearing diagonally across the fabric from right to left.

Figure 1, drawn to a small scale, shows a strip fencing embodying my improvement as it appears when placed in the field. Fig. 2, drawn to a larger scale, shows more clearly the detail construction of the fence.

Like characters of reference indicate corresponding features in both the figures.

The fence comprises what will be hereinafter known as the "selvage-wires" 1 and the "body-wires" 2, arranged at suitable intervals apart from each other to represent a uniform or graduated mesh, as desired, and 3 indicates stays, preferably of wire, spaced at suitable intervals apart and adapted, as shown, to be intertwisted with the selvage and body wires, which together comprise my improved fence fabric. The selvage-wires may each comprise a single wire of suitable strength in proportion to the heft of the body-wires or a cable of two or more wires, as may be desired.

As will be seen, the stays bear obliquely or diagonally to the selvage and body wires, with the twists of each stay appearing uniform with adjacent selvage and body wires, while the alternate stays have their twists with corresponding selvage and body wires in an opposite direction. Disposing the stays obliquely or diagonally to the selvage and body wires forms an arc in the body of the stays between their ends, presenting a rectangular mesh having substantially horizontal top and bottom wires and sloping or slanting wires. This is better understood by following the first complete stay-wire 3 to the right of Fig. 1, leading from the lower selvage-wire, the said stay being intertwisted with the selvage at *a* a portion of its length. It is then led diagonally to the adjacent body-wire 2 and intertwisted therewith also, as at *a*, the twist of the stay with the body-wire corresponding to the twist with the selvage-wire. The stay is continued to be so led across the body-wires until it coincides with the upper selvage-wire 1, and after being twisted therewith is cut, leaving the free ends of the stay directed longitudinally, as at 4. Attention is now directed to the second stay to the right of Fig. 1 or each alternate stay from the stay first mentioned, wherein the twists of the same with the adjacent wires will appear uniform, but in an opposite direction to the twists of adjacent stays with corresponding wires.

In Fig. 2 the manner of carrying and twisting the stays with the longitudinal wires is shown on a much larger scale, and wherein the adjacent or alternate stays are shown to extend across the selvage and body wires upon the opposite sides of the fabric. It will thus be seen that one stay bears across the selvage and body wires upon one side of the fabric and has its twists with the said wires uniform or all over, and the next adjacent or alternate strands therefrom bear across the selvage and body wires on the opposite side thereof, and the twists of the stays with said wires are uniform or all under or just opposite to the twists of adjacent stays with corresponding longitudinal wires. Attention is further called to the body-wires, which are slightly drawn out of horizontal line where the twist is made with the stay-wires, occasioned by the peculiar manner in which the stays are carried. The twists slant in one di-

rection, while that portion of the body-wires intermediate the twist, at as *c*, slant in an opposite direction.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. A wire fence composed of selvage-wires and body-wires, of stay-wires extending across the selvage-wires and body-wires and intertwisted therewith, adjacent stays bearing across the said selvage and body wires upon the opposite sides of the said fence, and intertwisted with corresponding selvage and body wires in opposite directions.

2. A wire fence composed of a series of running-wires of single strands, stay-wires extending obliquely across the said running-wires, adjacent stays intertwisted for a portion of their length with corresponding running-wires alternately over and under, while the succeeding twists of each stay with adjacent running-wires are uniformly in the same direction.

3. A wire fence composed of a series of running-wires, stay-wires extending obliquely across the running-wires with the twists of adjacent stays with corresponding running-wires being alternately in an opposite direction, and alternate stays of the series extending across the running-wires upon the opposite sides of the fence.

4. In a wire fence, the combination of a series of body-wires and selvage-wires, stay-wires twisted uniformly with adjacent selvage and body wires, and adjacent stays twisted with corresponding selvage and body wires alternately in opposite directions, and also carried across the said wires alternately upon opposite sides of the fence; that portion of the body-wires where they intertwist with the stay-wires inclined slightly out of horizontal while that portion of each body-wire intermediate each twist is inclined slightly out of horizontal but in an opposite direction to the incline of the twisted portion.

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

THOMAS LITWILLER.

Witnesses:
H. V. GIBSON,
CHAS. W. LA PORTE.