

(No Model.)

B. J. LESLIE.

FENCE.

No. 367,005.

Patented July 19, 1887.

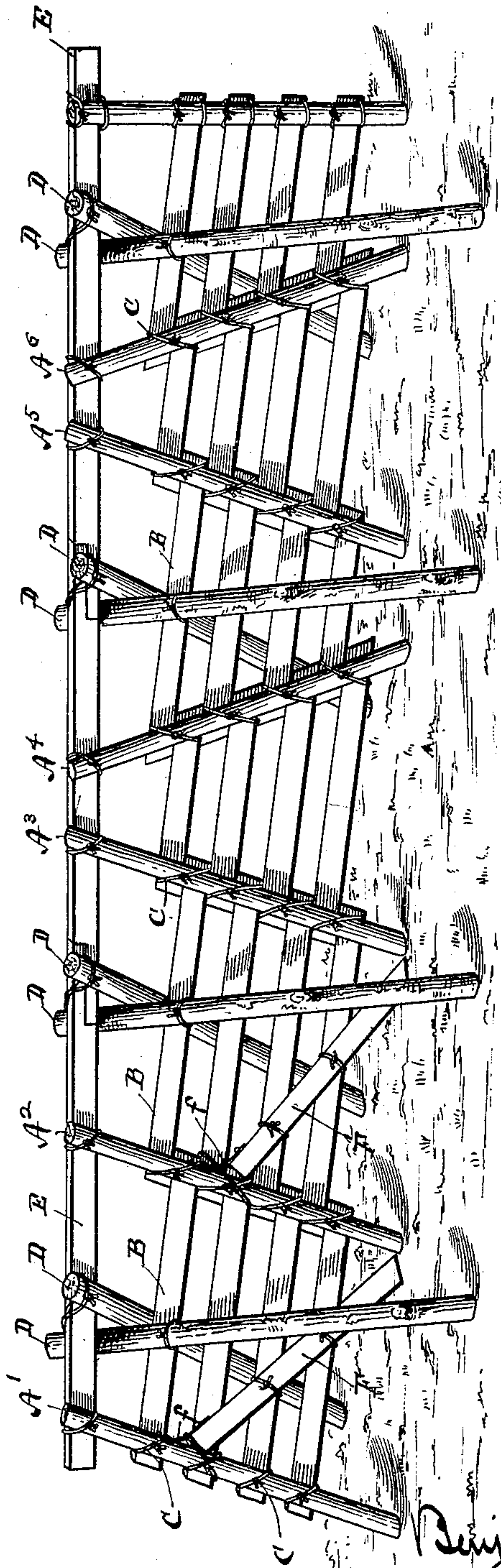


Fig. 1.

Attest.

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UNITED STATES PATENT OFFICE.

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FENCE.

SPECIFICATION forming part of Letters Patent No. 367,005, dated July 19, 1887.

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To all whom it may concern:

Be it known that I, BENJAMIN J. LESLIE, a citizen of the United States, residing at Butler, Pendleton county, Kentucky, have invented
5 new and useful Improvements in Fences, of which the following is a specification.

My invention relates to fences for farms, &c., of the class in which rails are lashed together with wire to form panels of convenient
10 length. As heretofore constructed such fences, while convenient and economical to construct, have been subject to certain disadvantages which it is the object of my invention to remedy. These fences have usually been
15 formed by lashing rails in approximately horizontal relation to vertical posts, forming substantially rectangular panels. As these fences are usually built wholly on the surface of the ground and maintained by lateral struts or
20 props similarly lashed to the fence rails or posts, they are more or less subject to strains in various directions by winds, climbing of persons, and rubbing of animals, &c., which the mode of structure above indicated is ill
25 adapted to resist. The fence-rails being approximately horizontal, the posts vertical, and the retaining-wire being looped diagonally around each rail and its supporting-post, the
30 "end motion" of the fence strains the loops, and the rails gradually work downward by slipping of the wire loops on the vertical posts. Another disadvantage of this construction is that the rails between the vertical posts must all be of a given length for each panel. Consequently short rails can be utilized only
35 by setting the posts closer together, which multiplies the posts without contributing thereby to the strength of the fence or economizing the cost.

40 In my improvement I place the supporting-posts in a slanting or inclined position in the vertical plane of the fence, which brings the wire loops binding the rails and posts together more nearly at right angles to the axis of the
45 post, so that any intermovement of rail and post tends to bed the wire more firmly into the wood, instead of causing it to slip upon the surface.

50 In building the fence I construct a few panels with the supporting-posts at the same relative inclination and place the terminal post

of the next succeeding panel at the opposite inclination. Thus the said terminal post acts as an end prop for all the panels before it, or, rather, there is constituted a triangular panel,
55 which, with its terminal posts and connecting-rails, forms a strong resting-support for the gravitating tendency of the inclined panels preceding. Moreover, by the gravitating tendency referred to, the wire loops of the entire
60 structure are held taut upon the rails and posts throughout, and any strain upon rails or posts tends to bed the wire more firmly in the wood, and the rails cannot possibly slip down their supporting-posts without actual breakage of
65 the loops, which of course occurs only in isolated instances, and is easily repaired.

The triangular supporting-panels may be inserted in the line of fencing as frequently as occasion demands, or a given number of panels
70 may be constructed beyond such triangular panel, with their end posts all slanting alike in a direction opposite to that of the first panels. The triangular panels also afford an opportunity to utilize pieces of different lengths,
75 thereby economizing the material used.

My invention will be more clearly understood by reference to the accompanying drawing, in which a short section of the fence complete is exhibited in perspective elevation.
80

Referring, now, to the drawing, $A^1 A^2 A^3 A^4 A^5 A^6$ represent the inclined supporting-posts of my improved fence, and B represents the rails placed between and secured to the same, constituting panels, as shown. The rails are secured to the posts by wire loops C, formed by
85 a short section of wire passed around the rail and post at the meeting-point, having its ends brought together and twisted until the loop is taut and holds the parts firmly together. The
90 supporting-posts, as will be observed, are inclined to the vertical, whereby the loops C cross the posts in a plane more nearly at right angles to the axis of the posts than would be the case were the posts themselves vertical. Consequently any strains upon the joint thus
95 formed tends to embed the wire more firmly in the wood. The first three supporting-posts, as shown in the drawing, are inclined in the same direction, and the two panels of fence thus
100 formed have therefore a gravitating tendency toward the right hand. This tendency is coun-

teracted by the inclination of the post A^4 , which thus constitutes an end support for the two preceding panels. Besides, the cross-rails between the uprights $A^3 A^4$, being of different lengths and firmly secured to the uprights, constitute with the same a supporting frame or truss of great strength and resistance against the movements of the fence from various accidental causes, as well as the gravitating tendencies before referred to. The fence is finished in the usual manner by side braces, D, crossed above the upper rails and carrying in the crotch at the top a stringer or line of rails, E, which is also secured to the upper ends of the posts, thus practically constituting what is known in common parlance as a "stake-and-rider" fence. It will be observed that between the uprights $A^3 A^4$ and $A^4 A^5$ are triangular panels in which the cross-rails are of various lengths. As these fences are intended to be used on farms and to be made up from the refuse timber, it will be seen that this arrangement enables the farmer to utilize both short and long pieces in the same structure, and in the same panels in many cases, the economy of which is obvious.

The general structure of the fence, as above described, is far more rigid and durable than those first referred to, for the reason, among others, that the strain upon the loops is always in the same direction. For example, the weight of a person crossing the fence simply adds to the gravitating tendency already existing and falls upon the loops already taut, whereas, were the posts vertical, the weight would tend to deflect them to one side or the other of the vertical, and in course of time to both sides, thus straining the loops in both directions.

Additional supports, F, may be provided as

required. I prefer to secure them, as indicated in the drawing, with a strip or cleat, f , of hoop-iron, nailed to the support F and to the post in such a position that one of the wire loops will cross and hold the said cleat at the line of junction between the support and the post in the angle there formed. The construction will be obvious in the drawing, and needs no further description.

I claim as my invention and desire to secure by Letters Patent of the United States—

1. In a wire and rail fence, a panel or series of panels composed of terminal supporting-posts similarly inclined at an angle to the vertical in the line of the fence, and horizontal rails secured thereto between said inclined terminal posts and held by wire loops uniting each rail to the posts, whereby the end-thrust of the panels, due to the inclination of the supporting-posts, strains the loops always in the same direction, substantially as set forth.

2. In a wire and rail fence of the character described, the combination of a panel or series of panels having terminal supporting-posts inclined at a similar angle to the vertical in the line of the fence, and having thereby an end-thrust in a certain direction, with a panel or series of panels having terminal supporting-posts inclined at an opposite angle to the vertical, giving an end-thrust in the opposite direction to that of the first panel or series, each panel or series forming an end support for the other, substantially as set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

BENJAMIN J. LESLIE.

Witnesses:

C. D. KERR,
E. L. KERR.