(No Model.)

I. K. HOLLINGER.

WIRE FENCE.

No. 559,849. Patented May 12, 1896

Fig. 1.

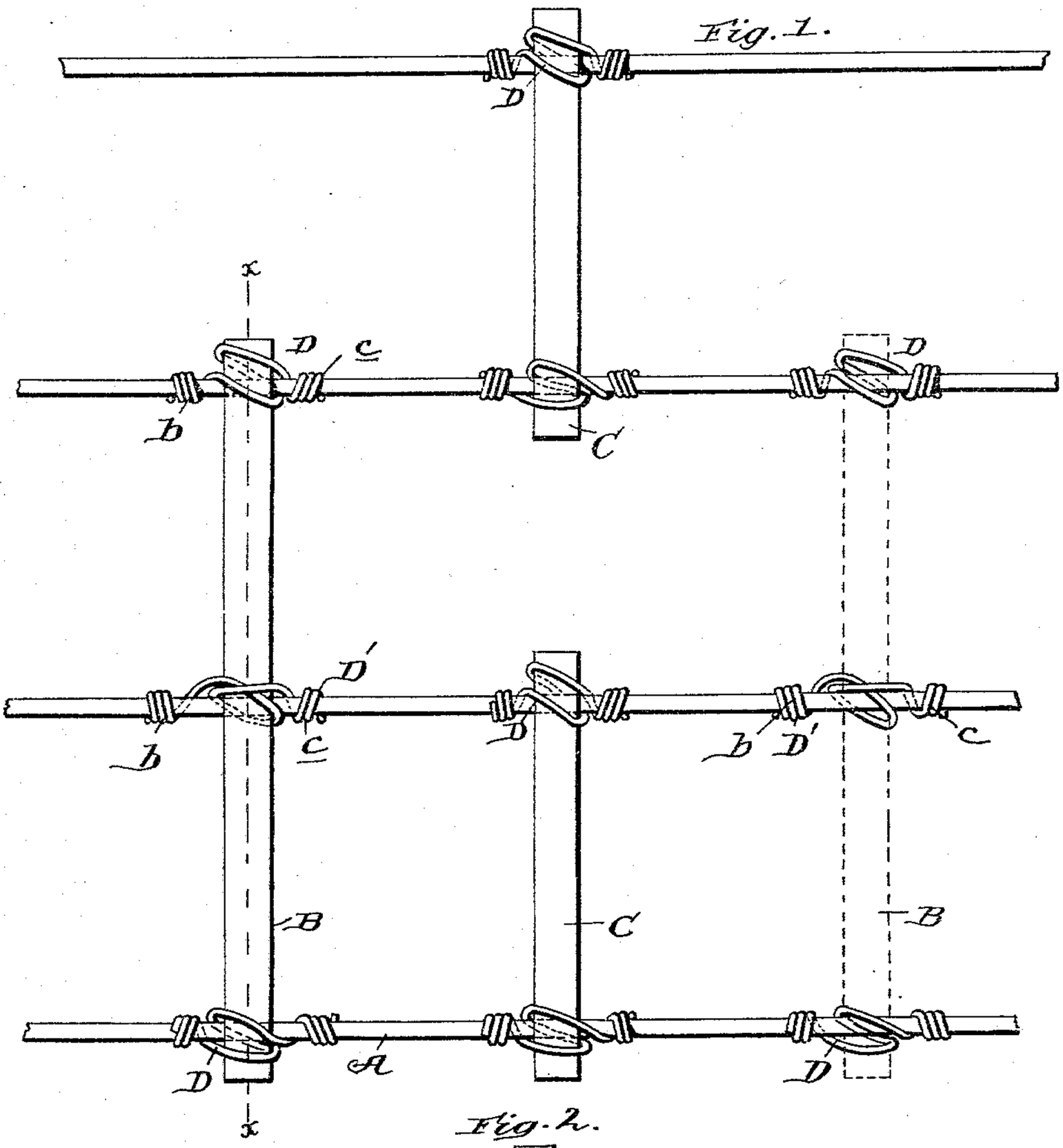


Fig. 2.

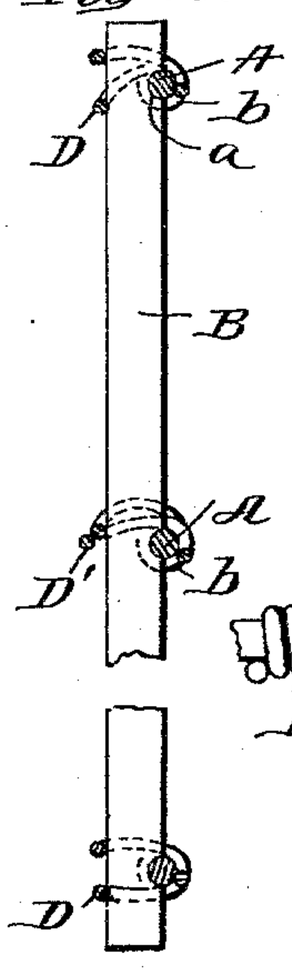


Fig. 3.

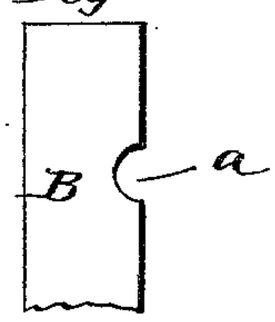


Fig. 4.

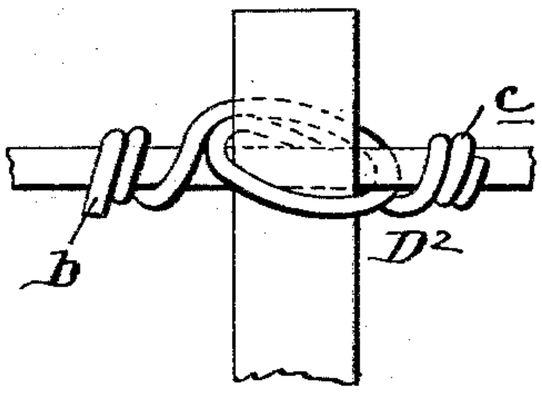
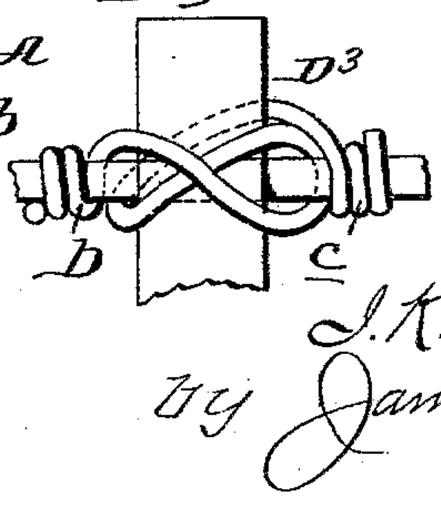


Fig. 5.



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ISAAC K. HOLLINGER, OF GREENVILLE, OHIO.

WIRE FENCE.

SPECIFICATION forming part of Letters Patent No. 559,849, dated May 12, 1896.

Application filed November 26, 1894. Serial No. 529,937. (No model.)

To all whom it may concern:

Be it known that I, ISAAC K. HOLLINGER, a citizen of the United States, residing at Greenville, in the county of Darke and State of Ohio, have invented certain new and useful Improvements in Wire Fences; and I do 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.

My invention relates to improvements in that class of wire fences which comprise runner-wires and stays therefor; and it has for its general object to provide such a fence comprising runner-wires, stays having notches to receive the runner-wires, and cheap, simple, and easily-formed wire-ties adapted to effect a strong and durable connection of the stays to the runner-wires.

With the foregoing end in view the invention will be fully understood from the following description and claim when taken in connection with the annexed drawings, in which—

Figure 1 is an elevation of a section of fence embodying my invention. Fig. 2 is a detail vertical section, taken in the plane indicated by the line *x x* of Fig. 1, with the stay in elevation. Fig. 3 is a detail view of a portion of one of the stays. Fig. 4 is a detail elevation illustrating a modified form of tie, and Fig. 5 is a similar view illustrating another modified form of tie.

Referring by letter to said drawings, and more particularly to Figs. 1 to 3 thereof, A indicates the runner-wires of my improved fence, of which there are preferably four employed. B indicates the long stays, which are connected to the three lower runner-wires, and C indicates the short stays, which are arranged one above the other and alternately with respect to the long stays, and are connected to the two upper and the two lower runner-wires, respectively, as shown. By reason of the arrangement just described of the long and short stays B C it will be seen that the fence is thoroughly stayed and rendered rigid and strong. It will also be seen that by reason of the peculiar arrangement of the long and short stays they are made to serve the additional function of pickets—that is to say, the alternate long and short lower stays divide the space between the two lower runner-wires into small spaces, so as to prevent the passage of small animals between said lower runners, the alternate long stays B divide the space between the two intermediate runner-wires into larger subspaces, and the upper short stays C divide the space between the two upper runner-wires into still larger subspaces. In this way the fence is rendered rigid and strong in an economical manner and at the same time is adapted to prevent the passage of small or large animals, and this without placing the runner-wires close together, which necessitates the employment of a large number of runners, which render a fence expensive, and without employing stays of a length sufficient to extend the full height of the fence. Again it will be noticed that the tying of the two lower runners to the stays B and lower stays C and the tying of the three lower runners to said stays B enables the upper stays C, which are fastened to the uppermost one of the three lower runners, to securely and rigidly hold the top runner of the fence. The stays B C are provided with a suitable number of notches *a*, which are designed and adapted to receive the runner-wires and prevent endwise movement of the stays, and said stays B C are connected to the runner-wires by the tie-wires D, and the stays B are also connected to one of the runner-wires by tie-wires D′, three of the tie-wires being employed to connect each of the long stays B, while only two are necessary to the connection of each of the short stays.

The tie-wires D, which are preferably employed at the upper and lower ends of all of the stays, are all similar in construction, and in forming each of them I take a piece of wire of sufficient length and first coil the same a number of times around the runner-wire on one side of the stay, as indicated by *b*. I then carry the wire across the front of the stay, under the runner-wire on the opposite side of the stay, up across the rear side of the stay and again across the front thereof, and then coil or wrap it around the runner-wire a number of times, as indicated by *c*. By thus arranging the tie-wires D and providing the stays with notches *a* to receive the runner-wires the stays will be strongly and securely fastened to the runner-wires and will not be liable to the slightest casual movement or

disconnection, which is an important desideratum.

The tie-wires D′, which are preferably employed to connect the intermediate portions of the long stays B to one of the runner-wires, are respectively formed by first coiling a piece of wire around the runner-wire on one side of the stay, as indicated by *b*, then carrying the wire across the front of the stay, under the runner-wire, across the rear side of the stay and over the runner and then carrying the wire across the front of the stay and finally twisting or coiling it around the runner-wire, as indicated by *c*. This tie-wire D′ is preferably employed for connecting the intermediate portions of the stays B to one of the runner-wires, but as is obvious the ties D might also be employed to connect the intermediate portion or middle of the stay to one of the runners.

In Fig. 4 I have illustrated a modified form of tie D^2, which is formed by wrapping or coiling a piece of wire a number of times around the runner-wire on one side of the stay, as indicated by *b*, then carrying said wire across the back of the stay, under the runner-wire on the opposite side of the stay, across the front of the stay and over the runner-wire, and again across the back of the stay and wrapping or coiling it a number of times around the runner-wire, as indicated by *c*, and in Fig. 5 of the drawings I have shown a tie D^3, which is formed by first wrapping or coiling the piece of wire a number of times around the runner-wire, as indicated by *b*, and then carrying the wire across the front of the stay under and over the runner-wire, back across the front of the stay, under the runner-wire, across the back of the stay, and finally wrapping or coiling the wire around the runner-wire, as indicated by *c*. All of the ties D, D′, D^2, and D^3 are cheap and simple and are adapted to effect a strong and durable connection of the stays to the runner-wires, and therefore any one of them may be employed to connect the stays to the runners.

A fence such as herein described may be very cheaply constructed in any locality, as all of the materials are easily obtainable, and inasmuch as the grooves *a* in the stays, by receiving the runner-wires, prevent endwise movement of the stays and the tie-wires hold the stays to the runner-wires it will be readily perceived that there is no danger of the stays being casually displaced or disconnected from the runners, which is a desideratum.

Having described my invention, what I claim is—

The wire-and-picket fence described consisting essentially of the four equidistant runner-wires A, arranged a considerable distance apart in the same vertical plane, the stays B, of a length slightly greater than the distance from the lower runner to the upper intermediate runner, and having three horizontal notches *a*, in one of their sides at intervals in their length receiving the three lower runner-wires A, the lower short stays C, of a length slightly greater than the distance between the two lower stays, arranged midway between the stays B, and having two horizontal notches in one of their sides adjacent to their ends receiving the two lower runner-wires A, the upper short stays C, of a length slightly greater than the distance between the two upper runners, arranged midway between the vertical planes of the stays B, and having two notches in one of their sides adjacent to their ends receiving the two upper runners A, the three fastening-wires, of smaller caliber than the runner-wires for connecting each of the stays B, to the three lower runners and the two fastening-wires, also of smaller caliber than the runner-wires for connecting each of the stays C, to the runner-wires, all as specified.

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

ISAAC K. HOLLINGER.

Witnesses:

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