(No Model.)

C. C. HILL.

BARBED FENCE WIRE.

No. 330,893. Patented Nov. 24, 1885.

Fig. 1.

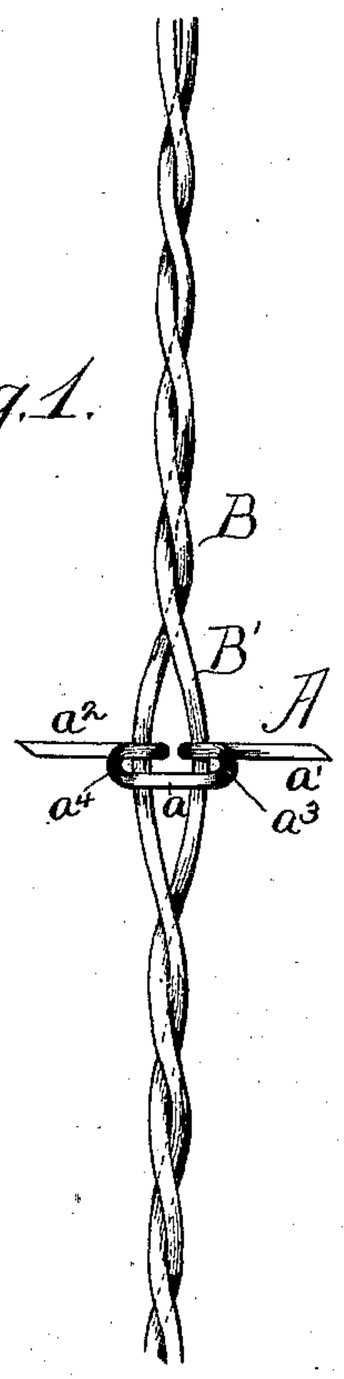


Fig. 2.

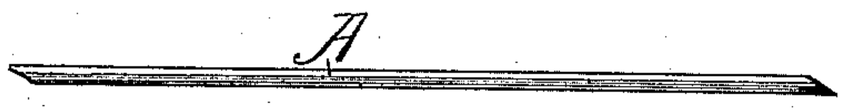


Fig. 3.

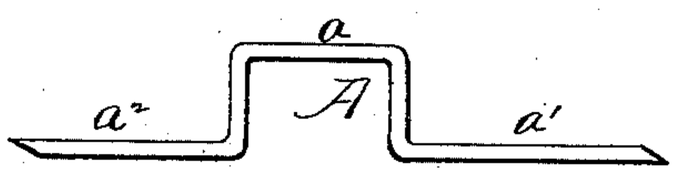


Fig. 4.

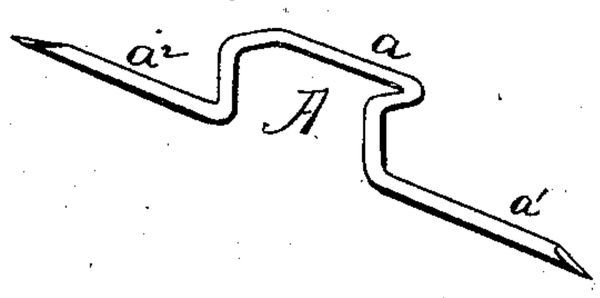


Fig. 5.

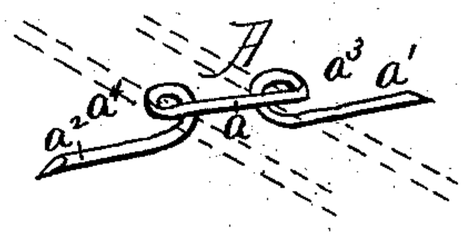
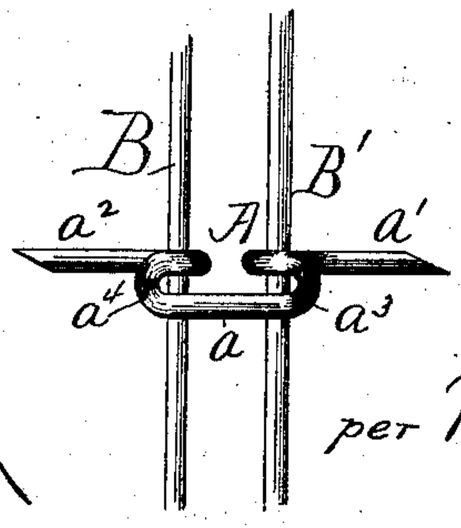


Fig. 6.



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UNITED STATES PATENT OFFICE.

CHRISTIAN C. HILL, OF CHICAGO, ASSIGNOR TO GEORGE MONROE FISH, OF OAK PARK, ILLINOIS.

BARBED FENCE-WIRE.

SPECIFICATION forming part of Letters Patent No. 330,893, dated November 24, 1885.

Application filed June 18, 1883. Serial No. 98,397. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIAN C. HILL, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvements in Barbed Fence-Wires, of which the following is a specification.

The principal object of the present improvement is to provide a barbed wire of such form or construction that the barbs, made of ordinary round wire, may be rigidly and securely applied to the fence-wires with great facility and rapidity and by simple machinery or devices, so as to lessen the cost of manufacture, and thus cheapen the article produced; and to this end my invention consists in a wire barb having a C-shaped loop near the middle of the barb, in combination with the two fence-wires to which it is secured, the fence-wires lying in the two opposite notches or saddles formed between the extremities of the loop and the ends of the barb, the barb being rigidly fixed to the wires by pressing the C-shaped loop down flat upon the fence-wires. This C-shaped loop, by which the barb is secured to the fence-wires, may be formed by a few very simple steps or operations—that is to say, by first bending a bit-stock-shaped loop in the middle of the barb and then bending the loop near its middle at right angles to its plane, and then pressing the sides of the loop together to form the shoulders or saddles therein for the fence-wires, and finally pressing the C-shaped loop thus formed down flat upon the fence-wires. By twisting the fence-wires together into a cable the barb is more firmly secured and forced on the fence-wires. I have invented, also, a machine for performing these several steps by a continuous operation while the fence-wires and the barb-wire are all fed rapidly and continuously through the machine, and have made the same the subject of a separate application for Letters Patent.

In the accompanying drawings, which form a part of this specification, and in which similar letters of reference indicate like parts, Figure 1 shows a short piece of barbed wire illlustrating or embodying my invention; and Figs. 2, 3, 4, 5, and 6 show the several successive steps of forming and applying the barb to the fence-wires from the time it is cut off from the barb-wire until the completed barb is securely fixed to the fence-wires.

In the drawings, A represents the barb, which is made of ordinary round wire, and B and B′ are the fence-wires. The middle portion of the barb is bent into a C-shaped loop, *a*, which, projecting between the fence-wires, lies on one side of them, while the two ends a' a^2 of the barb lie on the opposite side thereof, thus forming saddles or notches a^3 a^4, for the reception of the fence-wires. The C-shaped loop *a* is pressed down flat upon the fence-wires, so as to securely affix the barb to the wires. The fence-wires B and B′ are twisted into a cable, the barb bracing the two wires apart at the point where it is applied, so that the twist of the wires tends to lock or hold the barb securely in position. By making the notches or saddles a^3 a^4 deep enough so that the extremities of the C-shaped loop will project over the wires slightly, so that it may be made to hook over them, the barb may be firmly fixed in position without twisting the fence-wires together; but I deem it preferable to twist them into a cable.

The process of forming and applying the barb is as follows: A piece of wire, being cut off of suitable length to form a barb, as shown in Fig. 2, is first bent at its middle portion into a bit-stock shape, as shown in Fig. 3, and the bend or loop thus formed is next bent near its middle at right angles to its plane, as shown in Fig. 4, and inserted between the fence-wires. The sides of the loop are then pressed together, giving it a C shape, as shown in Fig. 5, and forming notches or saddles for the reception of the two fence-wires, and the loop is then finally pressed down flat upon the fence-wires, thus securing the barb in position, as shown in Fig. 6, when the wires may be twisted into a cable, as shown in Fig. 1.

It will of course be understood that the barb-pieces are severed from the barb-wire by a diagonal cut, so as to point the ends of the barb.

The perspective view Fig. 5 is intended to illustrate the form of the barb after the vertical sides of the right-angle bend shown in Fig. 4 have been crowded together or toward

each other, so as to form the saddles or notches a^3 a^4, in which the fence-wires rest. The points a' a^2 of the barb project in opposite directions from the same side of the cable, and the bend or loop *a*, near the middle of the barb, lies on the opposite side of the cable and in a plane about parallel to the cable. This bend *a* approximates the letter **C** in shape, as will be seen from Figs. 1 and 6, by turning the drawing on its side with its top to the right, and for this reason I have in this specification called it a "**C**-shaped loop," as a convenient means of distinguishing it. The bends in the barb forming the saddles a^3 a^4, in which the fence-wire rests, are in a plane at right angles to the plane of the **C**-shaped loop. The points or ends a' a^2 of the barb do not cross between the fence-wires, but are bent back upon themselves, so as to form the saddles a^3 a^4, which secure the barb to the fence-wires. The final step of the process is to press the **C**-shaped loop down flat upon the fence-wires, so that the same will be firmly clasped between the opposite branches of the saddles a^3 a^4—that is to say, so that each fence-wire will be clasped between the point or end of the barb and the extremity of the **C**-shaped loop.

I hereby expressly disclaim the barb-wire shown and described in Letters Patent No. 267,067, granted November 7, 1882, to L. E. Evans, as the same forms no part of my invention. In said Evans's barb the points are crossed between the fence-wires. In my invention the points of the barb do not cross each other, but are bent in opposite directions, forming opposite saddles a^3 a^4, in which the two fence-wires lie and by which the same are separated or held apart. This construction of the barb not only enables me to produce it by the simple and exceedingly-rapid process above described, but also requires materially less stock to form it than the Evans barb, and the separation of the fence-wires at the point where the barb is applied also renders the fence-wire conspicuous to animals, and therefore less dangerous.

I claim—

The barbed fence-wire consisting of the combination, with two fence-wires, of the barb A, provided with a **C**-shaped loop, *a*, near its middle, lying on one side of the fence-wires and in a plane parallel thereto, and having barb points or ends a' a^2 passed between the fence-wires and bent back upon themselves, so as to form saddles a^3 a^4 for the fence-wires, said saddles being at right angles to said **C**-shaped loop, substantially as specified.

CHRISTIAN C. HILL.

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