(No Model.)

J. B. CLINE.

BARBED FENCE WIRE.

No. 290,974. Patented Dec. 25, 1883.

Fig. 1.

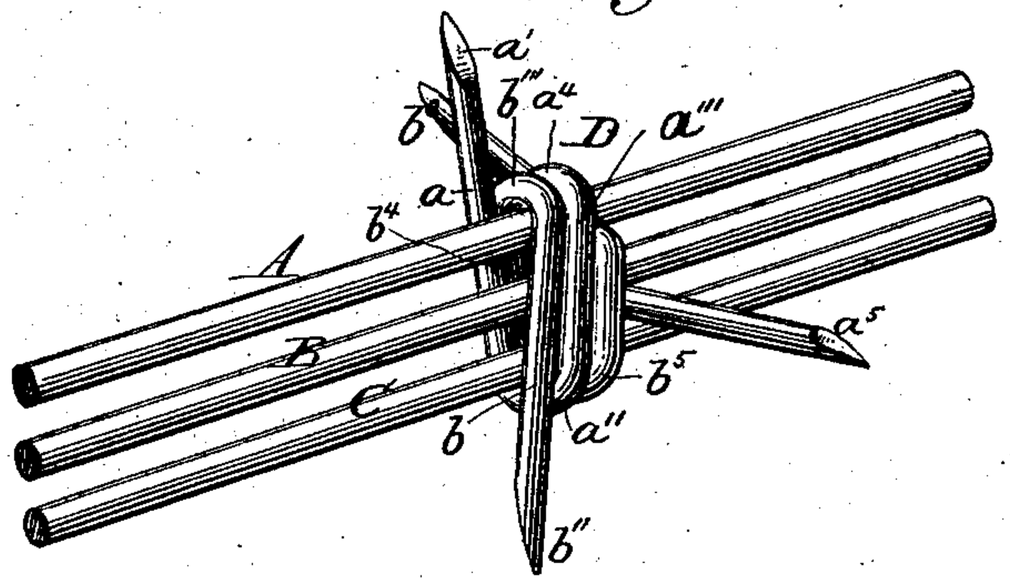


Fig. 2.

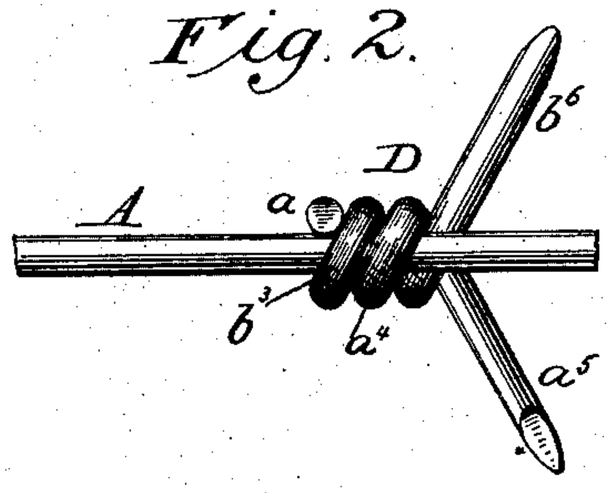


Fig. 3.

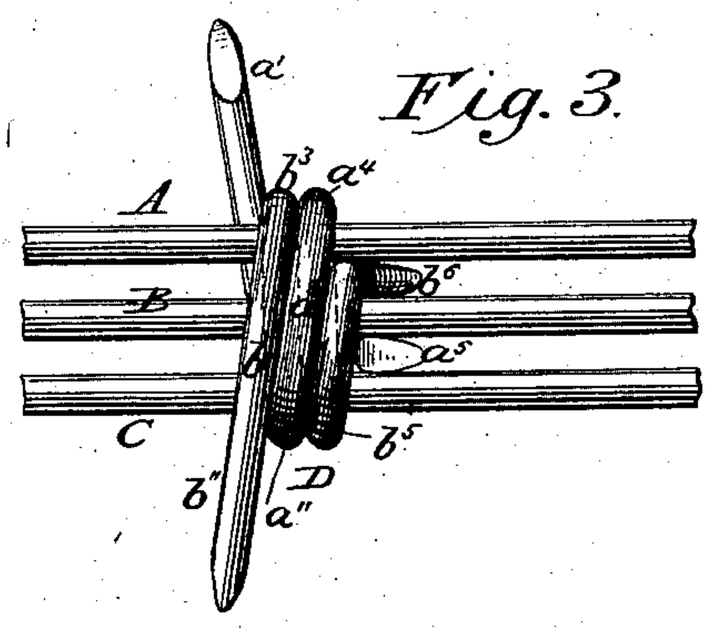


Fig. 4.

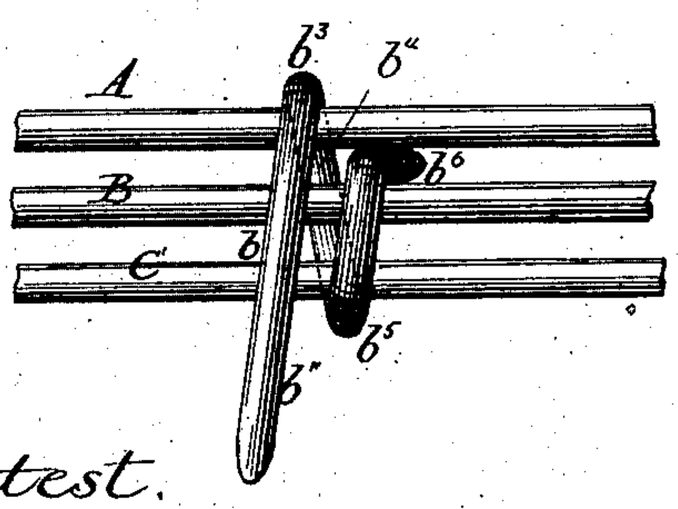
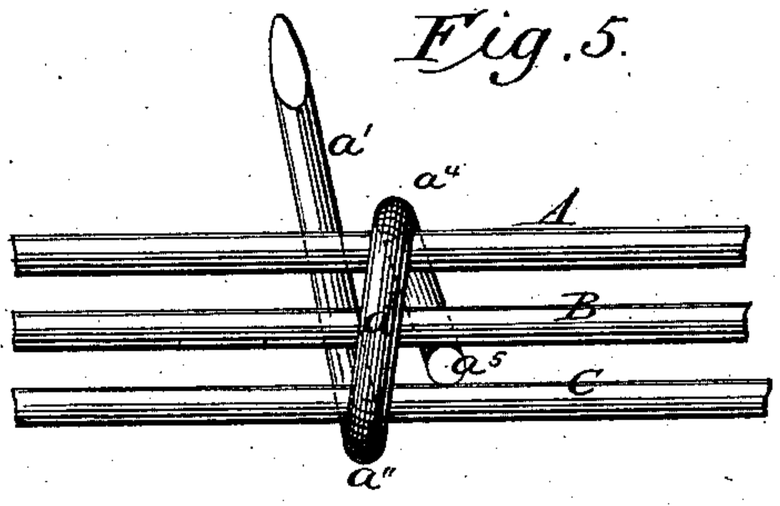


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOHN B. CLINE, OF JEFFERSON, IOWA, ASSIGNOR TO THE BOONE STEEL BARB WIRE COMPANY.

BARBED FENCE-WIRE.

SPECIFICATION forming part of Letters Patent No. 290,974, dated December 25, 1883.

Application filed April 4, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. CLINE, of Jefferson, in the county of Greene and State of Iowa, have invented certain Improvements in Barbed Fence-Wires, of which the following is a specification.

My invention relates to that class of barb fence wires or cables which consist of two or more main wires or strands, and of barb wires thereon coiled at suitable intervals apart. Heretofore it has been the custom to unite the longitudinal strands or wires by twisting them together. This construction has been found open to various objections of a serious nature, among others, the fact that it was impossible or exceedingly difficult to coat the entire surface of the twisted strands with paint or other protective material; that their manufacture necessitated the employment of an expensive machinery, delicate in its nature, and requiring constant and expensive repairs; that the twisting of the wires resulted in a very great reduction in their tensile strength; that the operations of winding and unwinding the wire from the reel upon which it is shipped results in a displacement and bending of the strands, which is highly injurious; that by the twisting of the strands a loss in length resulted, amounting to about one and one-half foot per rod, the result being a corresponding increase in the cost of fencing, and that the surface presented by the twisted cable is so small as to escape the notice of the animals confined thereby, the result being that unless the cable is provided, as usual, with pendants or attachments presenting a large surface the live stock are liable to encounter the same and be injured thereby. To avoid these difficulties, I construct a wire or cable consisting of three or more strands, laid side by side, and united without being twisted by means of wire barbs coiled firmly thereon. I also form the cable by arranging its three strands side by side in the same or substantially the same plane, whereby they are caused to expose to the eye an extended surface which will readily attract attention. The barbs employed in connection with the strands I construct of two pieces of wire coiled upon each other and upon the strands in the peculiar manner hereinafter explained.

Referring to the accompanying drawings, Figure 1 is a perspective view, illustrating my improved fence wire or cable. Fig. 2 is a top plan view of the same. Fig. 3 is a face view of the same. Fig. 4 is a view of the strands with one of the pieces or sections of the barb thereon, the remaining portion being removed. Fig. 5 is a similar view, illustrating the second portion or section of the barb applied in like manner.

Referring to the drawings, A, B, and C represent the three longitudinal wires or strands constituting the cable, arranged, as shown in the drawings, side by side parallel with each other, in the same or substantially the same vertical plane.

D represents the barb applied to the cable with four points or ends projecting in different directions therefrom. This barb consists, as shown in the various figures, of two parts or wires, *a* and *b*. The wire *a*, presenting a vertical point, *a'*, extends thence downward on the rear side of the three main wires and beneath the bottom wire, as shown at *a''*, thence upward across the front of the three wires, as shown at a^3, over the top of the upper wire, as at a^4, downward on the rear side of the upper two wires, and finally forward in a horizontal direction between and beyond the lower wires B C, as shown at a^5. The second barb section or point, *b*, the point of which extends downward, as at *b''*, passes upward across the front face of the three main wires, over the upper wire, as shown at b^3, thence downward across the back of the three wires, as shown at b^4, forward beneath the bottom wire, as at b^5, thence upward across the front of the lower wires B and C, and backward in a horizontal direction between and beyond the upper wires A B, as shown at b^6. It will be seen that the two sections of the barbs thus applied interlock with each other and with the several main wires in such manner that when wound tightly in place they are held in place with great rigidity. Being thus applied, it is pratically impossible to move them out of position, and, on the other hand, they serve to tie

the main wires together with such a degree of firmness that the said wires, lying one above another, form a cable possessing a high degree of stiffness, and capable of sustaining itself in position between widely-separated posts without being subjected to tension, although a tension may of course be applied, if desired.

Aside from the other advantages heretofore named in connection with my barb, its peculiar form is advantageous, in that it may be applied by machinery of exceeding simplicity, cheapness, and rapidity of operation, a machine particularly adapted for the purpose being that represented in my application for Letters Patent filed on the 30th day of March, 1883.

I am aware that fence-cables have been composed of three wires or strands coiled or twisted together, also that wire barbs have been combined with one, two, or more strands in a great variety of forms, and I lay no claim to either of said features.

It is to be noted as a peculiarity of my fence that the main wires are all straight, or, in other words, without bend or twist therein, that they are arranged in the same vertical plane and bound firmly together by means of the barbs, so that the cable is given great stiffness in a vertical direction, whereby I am enabled to use it successfully upon posts separated a much greater distance than is admissible when cables of the ordinary styles are employed.

The fact that the three wires are arranged in the same plane and united firmly with each other is of the highest importance, in that the main wires are adapted to co-operate and give a mutual support, by which I attain a degree of stiffness which would not otherwise be secured.

The present invention is restricted to those matters and things which are hereinafter claimed, and as to all matters and things which may be described or shown, but which are not claimed, the right is reserved to make the same the subject-matter of a separate application.

Having thus described my invention, what I claim is—

In a fence-cable, three parallel straight wires in a common plane, combined with two wire barbs interlocked with each other and with the main wires, in the peculiar form and manner described and shown.

JOHN B. CLINE.

Witnesses:
JOHN T. ARMS,
CHARLES M. MCCOOK.