L. E. EVANS.

BARBED FENCE-WIRE.

No. 183,552. Patented Oct. 24, 1876.

Fig: 1.

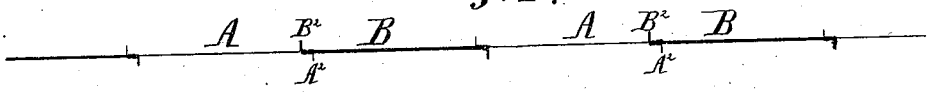
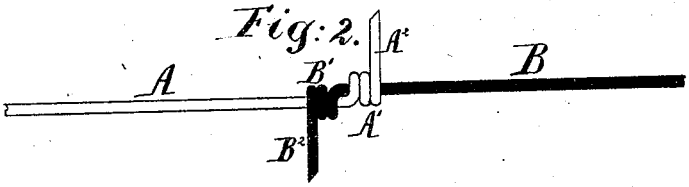


Fig: 2.



Witnesses:

Henry Gentner

Chas C. Stetson.

Inventor:

L. E. Evans

by his attorneys

Thomas L. Stetson

New York

UNITED STATES PATENT OFFICE.

LEMUEL E. EVANS, OF NEW YORK, N. Y.

IMPROVEMENT IN BARBED FENCE-WIRES.

Specification forming part of Letters Patent No. **183,552**, dated October 24, 1876; application filed July 20, 1876.

To all whom it may concern:

Be it known that I, LEMUEL E. EVANS, of New York city, in the State of New York, have invented certain new and useful Improvements relating to Barbed-Wire Fence, of which the following is a specification:

I make a strong fence-wire of one strand, with joints stiff and strong, yet allowing of free twisting within considerable limits, and make it of short lengths, with the ends sharpened and turned outward to serve as efficient thorns.

The importance of freedom to twist can be readily appreciated when it is considered that the posts are liable to come opposite the thorns, and in such cases the twist of the wire necessary to accommodate the thorns by turning them flatwise to the post can be more readily imparted, and without subjecting the metal to any strain.

The following is a description of what I consider the best means of carrying out the invention.

The accompanying drawings form a part of this specification.

Figure 1 is a general view of a short length of my fence-wire, embracing several of the junctions with their thorns; and Fig. 2 is a view on a larger scale, showing the joint and thorns more clearly.

In Fig. 2 the two wires are made of different shades, and in Fig. 1 each alternate length is of a different size, to aid in distinguishing them. It will be understood that in practice the several lengths will be usually of the same size and the same shade.

I prefer hard-iron or semi-steel wire.

Similar letters of reference indicate like parts in both the figures.

A B A B are the several short lengths of wire, say about No. 8 Birmingham gage. Each is formed with a couple of coils, A^1 B^1, near each end, the size of the coils being just that required to embrace a wire of similar size. Beyond the coils A^1 B^1 the wires extend a half inch, more or less, are pointed, and are turned at right angles to the main body, as indicated by A^2 B^2.

The bending of the wire is effected by machinery, (not represented,) and in such manner that when each wire A is coiled to form the coils A^1 a wire, B, is embraced within such coils, and similarly, when B is bent to form B^1, a wire, A, is embraced. On giving a proper tensile strain the joints are slid upon each other, provided they are not already so extended, until the coils A^1 and B^1 come into contact. The completed joint now appears with each wire strongly coiled around the straight portion of the adjacent length, forming a splice analogous to that commonly known as a telegraph-splice, but differing therefrom in having the ends pointed and turned outward. I also prefer to have the coils less tight than in a telegraph-wire splice, so that with little force the several short lengths may be turned or twisted a little relatively to each other without twisting the material of the wires, but only turning each length upon the next at the splice.

If desired in any case, the coils A^1 and B^1 may be more than two complete convolutions of one wire around the straight portion of its neighbor, or in some cases less than two may serve. I think one and a half such turns may suffice.

It is important to so arrange and form the coils that the thorns or projecting ends shall tend to stand in different directions.

I wish the fence, when completed, to have the thorns standing some one way and some another.

This fence-wire may be coiled and uncoiled with freedom. The joints are stiff—a little stiffer than other portions of the wire; but this difference will work no particular harm. The whole can be turned a little, one part upon another, by the slipping of the coils A^1 around upon the straight part of B, and the corresponding slipping of the coils B^1 around upon the straight part of A, whenever desired, to allow the thorns to lie well against a post.

My single-wire material for fences may be stretched and secured to posts, may be coiled and uncoiled, and be treated in all respects

like ordinary barbed fence material. I propose to japan it with a suitable coating to defend it from the weather.

I claim as my invention—

The barbed fence-wire constructed, as described, of the short lengths A A^1 A^2, the portions A^1 A^1 of each being coiled around, and the parts A^2 A^2 projecting, all substantially as and for the purposes herein specified.

In testimony whereof I have hereunto set my hand this 17th day of July, 1876, in the presence of two subscribing witnesses.

L. E. EVANS.

Witnesses:
A. HENRY GENTNER,
M. A. CAYPLESS.