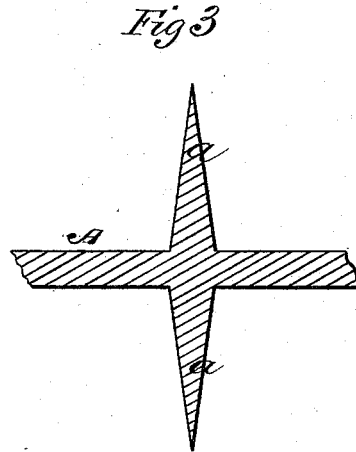
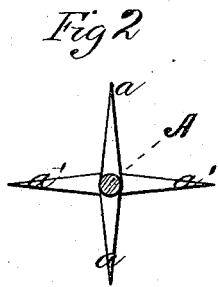
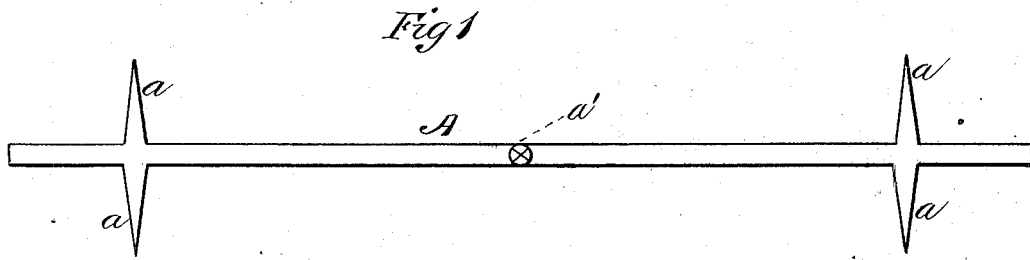


R. ELLWOOD.
Fence-Wire.

No. 163,169.

Patented May 11, 1875.



WITNESSES

Mary J. Wiley.
E. H. Bates

INVENTOR

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UNITED STATES PATENT OFFICE.

REUBEN ELLWOOD, OF SYCAMORE, ILLINOIS.

IMPROVEMENT IN FENCE-WIRES.

Specification forming part of Letters Patent No. **163,169**, dated May 11, 1875; application filed February 20, 1875.

To all whom it may concern:

Be it known that I, REUBEN ELLWOOD, of Sycamore, in the county of De Kalb and State of Illinois, have invented a new and valuable Improvement in Fence-Wires; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a plan view of my fence-wire. Fig. 2 is a transverse sectional view of the same, and Fig. 3 is a longitudinal sectional view.

This invention has relation to improvements in wire-fences wherein are employed barbs for preventing the fences from being broken down by cattle coming in contact therewith. To this end, the nature of the invention consists in a fence-wire having barbs forming a component part of the said wire, which is done by suitable mechanism, whereby their movement on the wire is rendered impossible, and the cost of fixing them to the wire by hand is effectually done away with, as will be hereinafter more fully explained.

In the annexed drawings, A designates a metallic wire of the usual well-known form and dimensions, having barbs *a*, as shown in Fig. 1. These barbs, unlike those in common use, are not detachable from the wire, nor are they originally made separately, and then permanently attached thereto by twisting or welding. They form a component part of the wire, and are formed out of the body of the same. They are thus endowed with a degree of rigidity which is in proportion to the diameter of the wire, and their rotation is rendered impossible.

By this means of forming the bars out of the body of the wire, the subsequent labor attendant upon placing the barbs in position on the wire is dispensed with, the barbed wires

being ready for use, and need only be attached to the posts.

In practice I propose, as one method of manufacturing the barbed wire, the employment of grooved rolls, provided at intervals with side depressions for lumping the wire, which is introduced between the rolls in the grooves, and is reduced in thickness, a portion of the metal of the wire being forced into the side depressions, forming protuberances on the wire, which protuberances may be afterward pointed at their ends, by passing the wire through a second set of rolls having suitable side depressions in their grooves, or by other suitable mechanism.

I am now experimenting on the construction of appropriate mechanism for forming the barbs from the metal of the wire, which mechanism, when completed, I intend shall form the subject-matter of a separate application for Letters Patent.

I am aware that a fence made of hoop or band iron, in which the edges are cut and formed into projecting spurs, has heretofore been employed, and I, therefore, lay no claim to such invention, which is objectionable, because of its weight, the liability of the band iron becoming detached from the post, and principally on account of the difficulty in tightening the band-iron when made continuous.

What I claim as new, and desire to secure by Letters Patent, is—

A fence-wire, having barbs formed out of the metal of its body, and forming an integral part thereof, substantially as described, and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

REUBEN ELLWOOD.

Witnesses:

A. C. JOHNSON,
G. B. WISEMAN.