(Model.)

C. E. WOODRUFF & W. J. HUTCHINS.

BARBED WIRE FOR FENCES.

No. 308,451.

Patented Nov. 25, 1884.

Fig. I,

awiha"

c c'
-a'

Witnesses.

Tho 26. 2butchinos Milleaguria

Luventous.

William Hutching Charles E. Woodruff.

## United States Patent Office.

CHARLES E. WOODRUFF AND WILLIAM J. HUTCHINS, OF JOLIET, ILLINOIS.

## BARBED WIRE FOR FENCES.

SPECIFICATION forming part of Letters Patent No. 308,451, dated November 25, 1884.

Application filed April 19, 1884. (Model.)

To all whom it may concern:

Be it known that we, CHARLES E. WOOD-RUFF and WILLIAM J. HUTCHINS, citizens of the United States of America, residing at Joliet, in the county of Will and State of Illinois, have invented certain new and useful Improvements in Barbed Wire for Fences, of which the following is a specification, reference being had therein to the accompanying drawing.

The figure is a perspective view.

This invention relates to certain improvements in barbed wire for fences in that class where a single-strand wire is used having crimps at which the barb, consisting of a short piece of wire pointed at each end, is attached, which improvements are fully set forth in the following specification and claim.

Referring to the drawing, W represents the strand-wire, having crimps W' formed in it at suitable intervals along its length. These crimps are so formed as to be quite prominent, and about U-shaped to project high enough to extend out beyond the body of the barb, so that the body of the barb will impinge against it, should the barb rotate on the strand-wire, and thus prevent the revolution of the barb.

A represents the barb, formed of a short piece of wire pointed at each end, and when 30 applied to the strand-wire has its center or body portion lie parallel with the strand-wire and on one side of a crimp, W', of the strandwire in such manner as to entirely cross the crimp. Its prods are then each coiled around 35 the strand-wire, one on either side of the crimp, causing a portion of its body to lie in the hollows of the strand-wire on either side of the crimp, as shown at C C', leaving the prods a' a''to project in opposite directions, one on either 40 side of the strand-wire W. The prods a'a''are both coiled on the strand-wire W in the same direction, the prod a' being coiled more than the other prod, causing it to point in the opposite direction and from the opposite side 45 of the strand-wire. The manner in which the barb is thus applied ties the shoulders of the crimp in the strand-wire together, so that tension on the strand-wire cannot straighten it l

out, but permits some little degree of elasticity to the strand-wire. In all this class of single-strand crimped wires, where the crimp is used to prevent rotation of the barb and lateral movement of the barb on the strand-wire, no provision is made for preventing tension on the strand-wire from straightening out the crimps, and hence the wire is rendered quite useless for fence purposes as soon as the crimps are straightened out, and the barbs permitted to rotate in consequence. All this defect is cured by applying the barb as shown.

We are aware that barbed wires have been made wherein the single-strand wire is crimped slightly and the barbs applied by coiling them on the strand-wire in such manner that the body of the barb lies diagonally across the 65 strand-wire in the hollow of the crimp. Such construction we do not claim. But we are not aware that a barbed wire has ever been made where the body of the barb is placed on one side only of the crimp, and so arranged as to 70 permit a slight degree of elasticity to each crimp, and yet prevent the crimps from being straightened out by a tension on the strandwire, and also permitting the prods to project in opposite directions, one from either side of 75 the strand-wire. These features form the substance of this invention and produce a barb of great efficacy and durability for use as a fence.

Having thus described our invention, what we claim as new and useful, and desire to se- 80 cure by Letters Patent, is as follows, to wit:

In combination with wire W, having crimps W', the herein-described barb, having prods a' a", which are respectively coiled around the wire closely adjacent to the shoulders of the 85 crimp, and project in opposite directions, and having a straight body portion, a, extending entirely across one side of the crimp on a line parallel to the strand-wire, substantially as set forth.

CHARLES E. WOODRUFF. WILLIAM J. HUTCHINS.

Witnesses:

H. F. CAGWIN, THOS. H. HUTCHINS.