(No Model.)

# J. B. CLEAVELAND.

## BRAIDED FENCE WIRE.

No. 486,824. Patented Nov. 22, 1892.

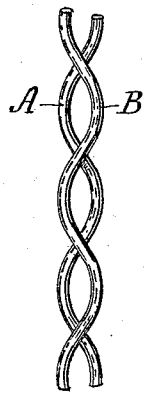


Fig. 1

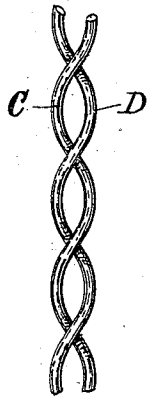


Fig. 2.

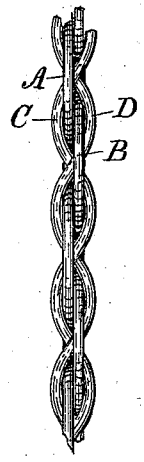


Fig. 3.

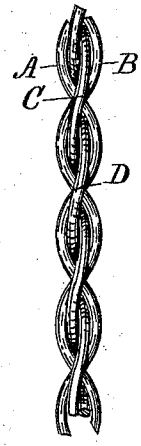


Fig. 4

Witnesses:
C. M. Hood.
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

JOHN B. CLEAVELAND, OF INDIANAPOLIS, INDIANA, ASSIGNOR TO MARY E. CLEAVELAND, OF SAME PLACE.

## BRAIDED FENCE-WIRE.

SPECIFICATION forming part of Letters Patent No. 486,824, dated November 22, 1892

Application filed August 20, 1892. Serial No. 443,553. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN B. CLEAVELAND, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Improvement in Braided Fencing-Wire, of which the following is a specification.

My invention relates to an improved braided fencing-wire, the product of the machine shown and described in my pending application, Serial No. 442,581.

The object of my improvement is to provide a braided wire for fencing purposes which shall be easily visible and shall present substantially the same appearance from all points of view, which shall be sufficiently stiff to hold its shape under lateral strain, and which shall be sufficiently elastic to prevent breakage from contraction in cold weather, but at the same time shall not be liable to become permanently stretched under tension. To this end the four wire strands composing the fencing-wire are disposed in the following manner: Two of the strands are bent into serpentine form and are laid side by side in parallel planes without being twisted together, but crossing each other to form a series of loops. The two strands thus arranged are bound together by two other wire strands, which are interwoven with said loops and twisted together, passing alternately over and under the first wires at their points of intersection, thus forming a second series of loops in a plane substantially at right angles to the plane of the loops formed by the first-mentioned wires, the whole being so closely interwoven that all of the four wires composing the strand are in contact at their several points of intersection, thus preventing the collapsing of the loops and preventing the permanent stretching of the strand under tension.

The accompanying drawings illustrate my invention.

Figure 1 represents a plan of the first pair of wire strands laid one upon the other. Fig. 2 is a plan of the second pair of wire strands, which are twisted together. Fig. 3 is a plan of the completed wire, showing an edge view of the pair of wires shown in Fig. 1. Fig. 4 is a plan of the completed wire at right angles to the view shown in Fig. 3, showing an edge view of the pair of strands shown in Fig. 2.

In the drawings, A and B indicate a pair of strands, which in the formation of the braided wire are simply bent alternately in opposite directions and laid side by side in parallel planes, as shown in Fig. 3.

C and D indicate the other pair of strands forming the complete braided wire, which strands pass alternately in opposite directions over and under the strands A and B at their points of intersection, being at the same time given a half-turn, and thus binding the several strands firmly together at their points of intersection. By this method of forming braided wire the particles forming the strands A and B are but little disturbed and the full strength of the strands is preserved.

I am aware that braided fencing-wire consisting of a pair of serpentine wires crossed alternately over and under each other and forming loops, said wires being still further bound together by a pair of wires twisted together and binding said loops at their intersection, have before been made; but it has been found in practice that in straining such wire fencing they continue to stretch until the sides of the loops are drawn together, and I do not claim such a construction. I am aware, also, that fencing-wires have been made having three or more wires braided together to form a flat fencing-wire, and I do not claim, broadly, a fencing-wire consisting of four strands braided together in the ordinary manner; but

I claim as my invention—

The above-described braided fencing-wire, consisting of two strands of wire bent into serpentine form and laid side by side in parallel planes without being twisted together, but crossing each other to form a series of loops, said pair of strands being bound together by two other wire strands, which are interwoven with said loops and twisted to-

gether, passing, respectively, alternately over and under the first wires at their points of intersection, thus forming a second series of loops in a plane substantially at right angles to the plane of the loops formed by the first-mentioned wires, the whole being so closely interwoven that all of the four wires composing the strand are in contact at their several points of intersection, all substantially as set forth.

JOHN B. CLEAVELAND.

Witnesses:
H. P. HOOD,
A. M. HOOD.