J. C. MERRILL.

WIRE FENCE-BARBS.

No. 185,688. Patented Dec. 26, 1876.

Fig. 1

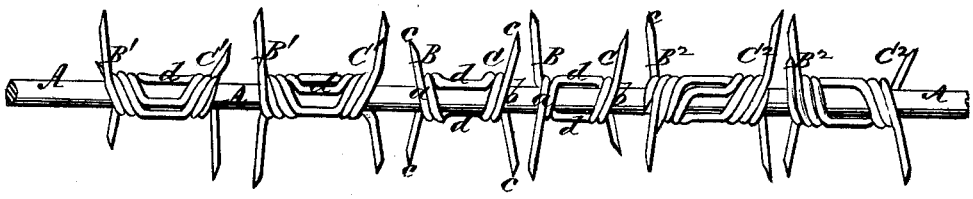


Fig. 3.

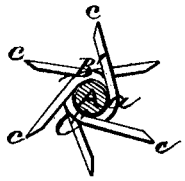


Fig. 2.

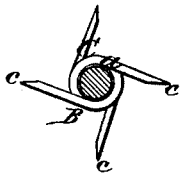
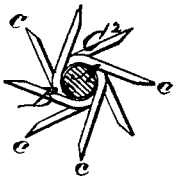


Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

JOHN C. MERRILL, OF TURKEY RIVER, IOWA.

IMPROVEMENT IN WIRE-FENCE BARBS.

Specification forming part of Letters Patent No. **185,688**, dated December 26, 1876; application filed October 21, 1876.

To all whom it may concern:

Be it known that I, JOHN C. MERRILL, of Turkey River, in the county of Clayton and State of Iowa, have invented a new and useful Improvement in Wire-Coil Barbs for Wire Fences; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of a piece of wire fencing, and six of my improved barbs strung upon it, the barbs shown having, respectively, four, six, and eight points or spurs, and some being made by intercoiling the wires, or by winding all the wires in one direction, and others being made by winding one portion of the wires in one direction and the other portion in an opposite direction. Figs. 2, 3, and 4 show end views of the four, six, and eight pointed bars.

The object of my invention is to make intercoiled wire barbs with a long and effective bearing or friction surface between their spurs or pricking-points, and at the same time save expense for wire in their manufacture. And, to this end, the nature of my invention consists in constructing the barbs with short spirally-wound tubular portions at each end, and having these portions united by intermediate skeleton portions, as will be hereinafter described.

By my invention a barb of nearly double the usual length can be produced from given lengths of wire, and this barb is nearly, if not quite, as strong and stiff as the continuous closed spirally-wound wire-tube barbs, and the character of their friction-surface for holding upon the fence-wires is so changed that there is very little tendency or liability of the barbs turning or slipping on the wires of the fence when the fence is set up for use, and animals come in contact with the barbs.

In the accompanying drawings, A is a piece of wire fencing, and B B^1 B^2 barbs of different descriptions placed upon the same. The four-pointed barbs B are made by taking two wires, placing them side by side, and winding them upon a round mandrel. The two pieces of wire are wound together near one end, so as to have a single coil or spiral eye in each piece, as at *a*. From these coils the wires are extended a proper distance straight along the mandrel in a direction diagonal to or parallel with the axis of the mandrel, and then again coiled together around the mandrel, as at *b*, the four ends of which make the points or spurs *c* of the barb, and are turned out from the mandrel in the manner shown in the drawings, Fig. 2. The barb thus constructed is of skeleton form between the coils or eyes *a* and *b*, there being only two long stays, *d d*, between the completed encircling eyes *a b*, and these stays keep the barbs rigid longitudinally, and produce great friction upon the fence-wires.

If the wire-tube barbs were made by winding the wire in spirals or coils from end to end of the tube a larger amount of wire would be used for each barb, and no better, if as good, results secured.

Where large quantities of these barbs are manufactured the saving in the wire from making the barbs of skeleton form in the manner described will be found to be very great.

To make the six or eight pointed wire-tube barbs, three or four wires (as the style of barb being made may require) are first intercoiled and formed by winding them spirally near one end, extending them in straight or diagonal lines a proper distance, and then again winding spirally, and then turning out the ends, which make the points or spurs, in the same manner as in the manufacture of the four-pointed barbs.

The barbs B B^1 B^2 may be made by winding the wires near one end in a right-hand direction, and near the other end in a left-hand direction, as shown at C C^1 C^2.

In describing the invention I have referred to a mandrel, but it will be understood that the wire of which the fence is made will answer as such mandrel, and generally the wire barbs will be manufactured upon and sold with the wire.

Any desired number of points may be secured by increasing the number of pieces of wire intercoiled to form the barb. The ends of the pieces of wire forming the barbs are beveled off or sharpened, as usual, and if it should be found necessary to secure the barbs to the wire in a more permanent manner than

by frictional contact, aided by the corrosion of the metals, such additional fastening may be adopted, and this may consist of depressions or elevations, or of solder on the fence-wires, all of which modes of fastening are well known, and form no part of my present invention.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The skeleton coiled wire barbs for wire fences formed of two or more pieces of wire, and having four or more points or spurs, substantially as described.

Witness my hand in the matter of my application for a patent for an improved wire barb for wire fences this 18th day of October, 1876.

JOHN C. MERRILL.

Witnesses:

W. C. CHAMBERLAIN,

C. F. LECKIE.