

C. W. & W. SCARLETT.

BARBED WIRE FENCE.

No. 190,081.

Patented April 24, 1877.

Fig. 1

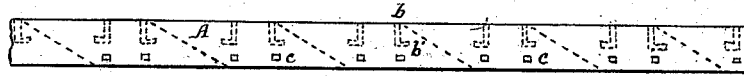


Fig. 2

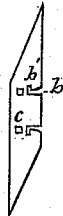


Fig. 3

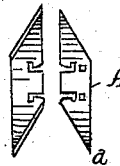


Fig. 4

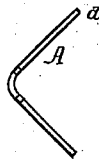


Fig. 5

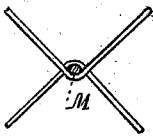


Fig. 6

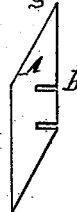


Fig. 7

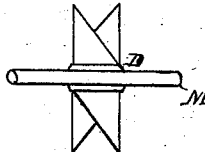


Fig. 8

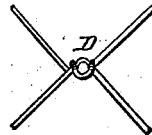
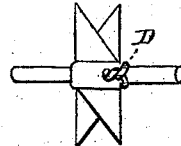


Fig. 9



WITNESSES

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# UNITED STATES PATENT OFFICE.

CHARLES W. SCARLETT AND WILLIAM SCARLETT, OF AURORA, ILLINOIS.

## IMPROVEMENT IN BARBED-WIRE FENCES.

Specification forming part of Letters Patent No. 190,081, dated April 24, 1877; application filed August 17, 1876.

*To all whom it may concern:*

Be it known that we, CHARLES W. SCARLETT and WILLIAM SCARLETT, of Aurora, Kane county, in the State of Illinois, have invented certain new and useful Improvements relating to Barbed-Wire Fences, of which the following is a specification:

We make barbs which are self-locking and are adapted to be attached without puncturing, compressing, or otherwise treating the main wire, and may be applied either to new wire in the process of manufacture, or to wire already in use in a fence.

In the accompanying drawings, Figure 1 represents the material of the thorns, with dotted lines indicating the places where the same is to be divided, clipped, and recessed. Fig. 2 is a face view of the material for a thorn after being completely cut and prepared, but before it is bent. Fig. 3 shows the thorns bent and in position to be applied together. Fig. 4 is an edge view of a thorn after bending. Fig. 5 shows the thorns locked together around the wire. Figs. 6, 7, 8, and 9 represent a modification, showing the thorns more firmly secured by means of a binding-wire.

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

We take strips of sheet metal, preferably sheet-iron, and cut it into short lengths *A a*, by oblique cuts, clip deep narrow notches *b* in the pieces, of such form as to leave a projection, *b'*, from the outer edge of each slot, and also make a recess or depression, *c*, adapted to receive the projection *b'* when the thorns are placed together. The cutting off, notching, and punching described produces pieces *A a b b' c* of plain metal, which are, by suitable tools or machinery, bent in the form shown in Fig. 4. The radius of the curvature of the curved portion near the middle corresponds with that of the wire *M*, to which it is to be applied, and around which it is to be securely locked.

The wire *M* is the main wire of the fence, and may be about No. 8 Birmingham gage. The thorn may be about No. 20 hard sheet-iron, or steel. The bent pieces are, either by hand or by machinery, applied upon the wire *M*, being presented together in positions re-

verse to each other, so that they engage with each other by means of the notches *b*, and are securely locked together by means of the projections *b'* engaging in the recess *c*.

We have represented both parts of the thorn as formed with such projections, and both as provided with the recesses, and prefer that mode of construction. The metal will usually be sufficiently springy to allow these parts to be sprung into place, and, by merely forcing the parts together, as described, to engage and hold very firmly by their elasticity when thus properly presented.

Some of the advantages of our invention may be obtained from the modification shown in Figs. 6, 7, 8, and 9, where the projection *b'* and recess *c* are dispensed with, the simple slot *b* in the piece *A* serving as mediums for attachment. With such construction, the parts may lock together with sufficient force by friction, to serve with success; but in the completed form of this modification they are further and very firmly held together and to the wire *M* by means of a smaller wire, *D*, which may be annealed wire, about No. 18. This wire may be previously cut in short lengths, and bent in a form approximating to that of a lady's hair-pin, but of less length. Such bent wire *D* being applied on the main wire, as shown, is forcibly bent around and the ends twisted together by common pliers or other suitable means.

It is possible, by sufficient force, to move our compound thorn endwise on the wire; also to turn it around; but such manipulation will rarely be required in practice to any considerable extent, but it may be of advantage in avoiding a post or in places where persons frequently climb over, or pass a fence to have fewer thorns or none at all.

When properly applied together and secured by either the projections *b'* or the binding-wire *D*, or both, it is not possible to separate our compound thorn entirely from the wire, or to separate the parts from each other without breaking and destroying a strong portion.

To insure more effectively against rusting, we propose, in some instances, to tar the thorns, or to coat with molten zinc or tin, after they are completely shaped and, perhaps,

after they are attached. This will protect them from rust, and avoids exposure of raw iron.

We claim as our invention—

1. The thorns described, matched together in pair, formed with points *a a* and slots *b b*, and bent, as shown, to embrace and be secured to a main wire, as specified.

2. In the thorn formed of two parts applied together, as shown, the locking projection *b'*, and the recess *c*, adapted to engage together

and confine the whole firmly to the wire *M*, as herein specified.

In testimony whereof we have hereunto set our hands this 11th day of August, 1876, in the presence of two subscribing witnesses.

CHARLES W. SCARLETT.  
WILLIAM SCARLETT.

Witnesses:

WARREN TYLER,  
W. H. WATSON.