(No Model.)

M. M. SHELLABERGER.

WIRE FENCE.

No. 452,620. Patented May 19, 1891.

Fig. 1.

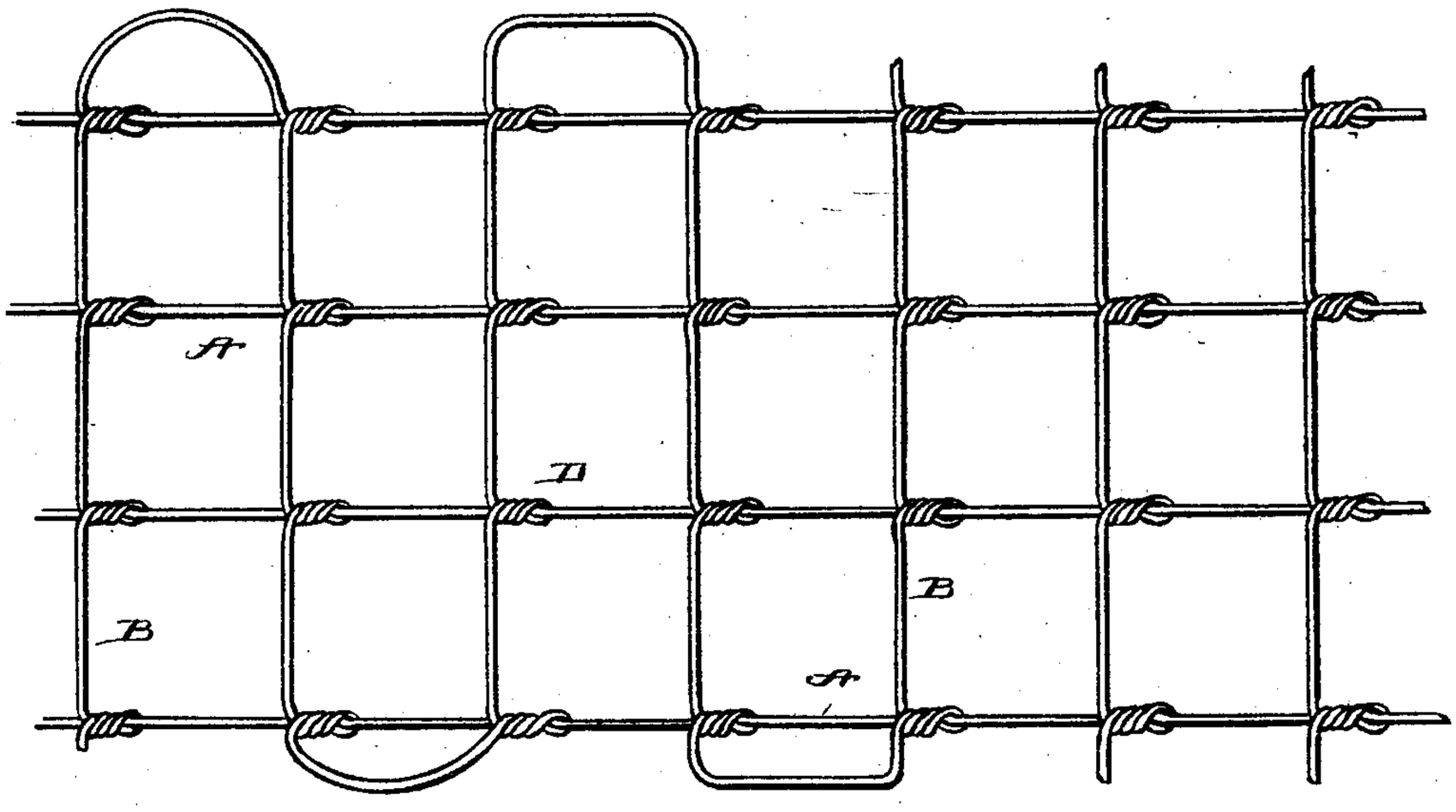


Fig. 2.

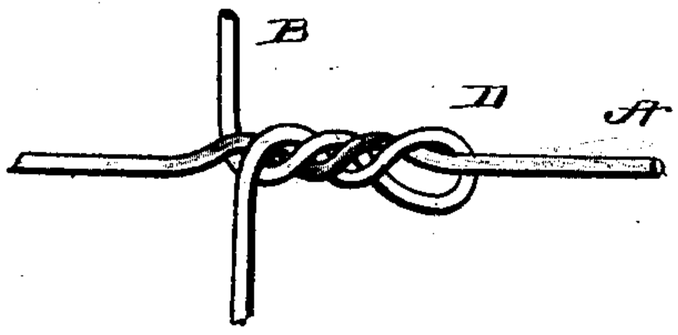


Fig. 3.

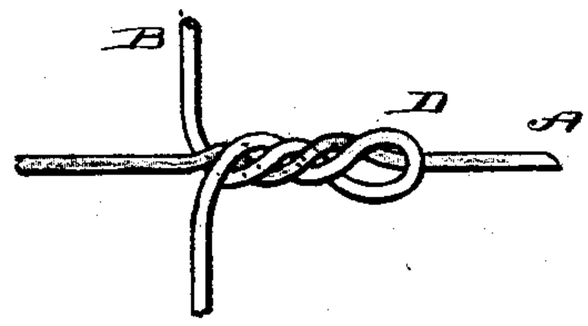


Fig. 4.

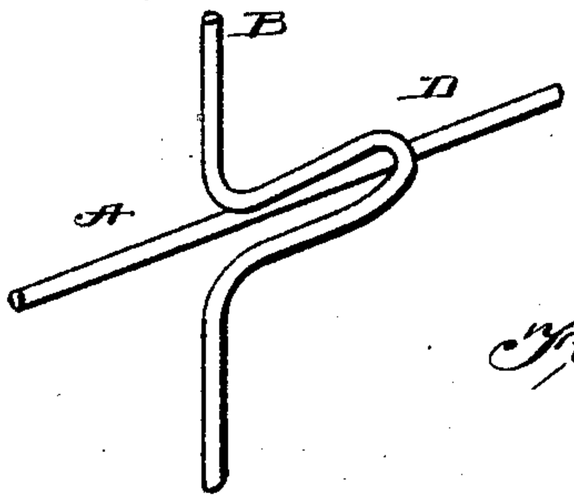


Fig. 5.

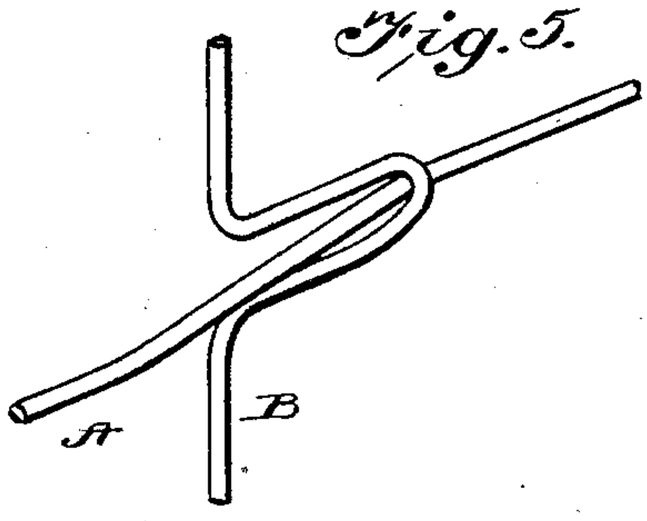
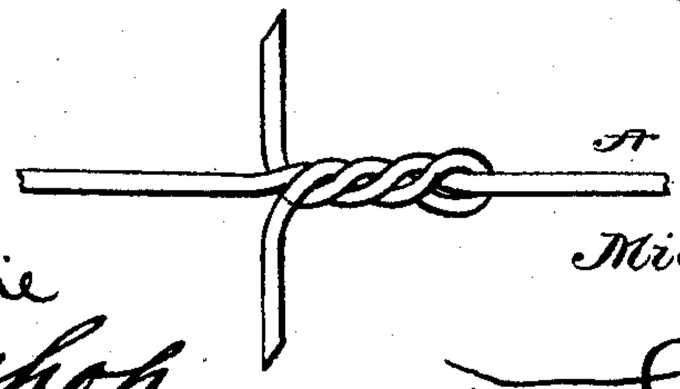


Fig. 6.



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MICHAEL M. SHELLABERGER, OF BEAVER FALLS, PENNSYLVANIA.

WIRE FENCE.

SPECIFICATION forming part of Letters Patent No. 452,620, dated May 19, 1891.

Application filed January 24, 1891. Serial No. 378,997. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL M. SHELLABERGER, a citizen of the United States, residing at Beaver Falls, in the county of Beaver and State of Pennsylvania, have invented certain new and useful Improvements in Wire Fences; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to improvements in wire fences, and has special reference to the connection between two intersecting wires.

The object of the invention is to provide a lock or connection between the intersecting wires of a fence or between the barbs and the strands to which they are connected, which shall be strong and firm and prevent slipping, and which will be readily and quickly formed.

A further object of my invention is to provide a lock or connection which will require a minimum amount of material, and which will not present an unsightly appearance.

Referring to the drawings, Figure 1 is a view of a fence embodying my invention. Fig. 2 is a detail view of the lock or connection. Fig. 3 is a view of a slightly-modified form of the lock or connection, in which the strand passes outside the eye of the loop. Fig. 4 is a detail view showing the first step in the operation of forming the lock or connection. Fig. 5 shows the same with the strand passed through the end of the loop so as to cause it to pass through the eye of the latter when twisted. Fig. 6 is a view of a barb which is secured by my improved lock or connection to the strand.

A A represent the horizontal strands or cables arranged at suitable intervals, and B B represent the vertical cross-wires, which intersect the former and are connected thereto. The locks or connections between the strands and the cross-wires consist of loops D, which are formed in the cross-wires, extend longitudinally along the strands, and have their sides twisted with the latter.

In the manufacture of this fence the cross-wires are first placed upon the strands in the position which they are to have in the completed fence, and loops are formed in the cross-wires at the points of their intersection with the strands and parallel with the latter. The end of each loop is then grasped with the adjacent portion of the strand and twisted until the sides of the loop are firmly twisted with the adjacent portion of the strand. The sides of the loop and the contiguous portion of the strand being firmly intertwined and united to form a single strand, it is impossible for either the cross-wire or strand to slip or become displaced. During the operation of twisting the loop a small eye E is formed at its end, and the strand or cable may or may not pass through the eye, according to the manner in which the twist is made.

In Fig. 4 is shown the first step in the operation of forming the lock or connection, the loop being above or over the strand or cable. When the parts are twisted together the latter will not pass through the eye of the loop, but will pass outside the same, as shown in Fig. 3. If, on the other hand, the portion of the cable at the open end of the loop is raised slightly before the latter is twisted, as shown in Fig. 5, it will be caused to pass through the closed end of the loop, and therefore when twisted the cable will be inclosed in and will pass through the eye of the loop, as in Fig. 2. While not absolutely necessary, it is an advantage to have the strand pass through the eye, and therefore I prefer it.

The main advantages of the improved lock are simplicity, compactness, and strength. A minimum quantity of material is used in the formation of the lock, and the operation is such as to enable it to be accomplished by simple machinery.

I have shown my improvement on what is commonly called a "mesh fence;" but it will be understood that the shape of the meshes is of no importance, as the lock which I have shown may be used on any fence which is constructed of intersecting wires.

The drawings show the vertical cross-wires finished at their ends in a variety of ways. If desired, the cross-wires may be made in a single continuous piece, as with the improved lock this is possible.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. The combination of the strand having a twisted portion, and the cross-wire having a lateral twisted loop engaging the twisted portion of the strand so as to be interlocked therewith.

2. In a fence, the combination of strands or cables and cross-wires provided with loops which are twisted with the strands or cables, the end of the loop being provided with an eye through which the strand or cable passes, substantially as specified.

3. The combination, with horizontal strands or cables, of cross-wires having loops, the sides of which are twisted with the strands and the ends of which are spread to form eyes, substantially as and for the purpose specified.

In testimony whereof I affix my signature in the presence of two witnesses.

MICHAEL M. SHELLABERGER.

Attest:

J. F. MERRIMAN,

JOHN REEVES.