(No Model.)

# E. S. LENOX.

## APPARATUS FOR THE MANUFACTURE OF BARBED FENCING.

No. 264,174. Patented Sept. 12, 1882.

Fig. 2.

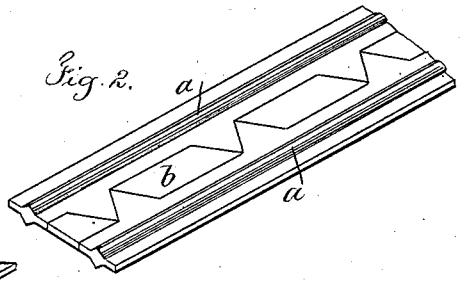



Fig. 1.

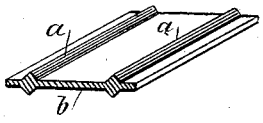



Fig. 3.

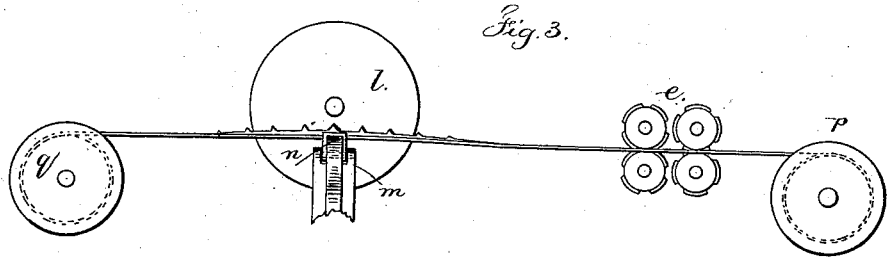
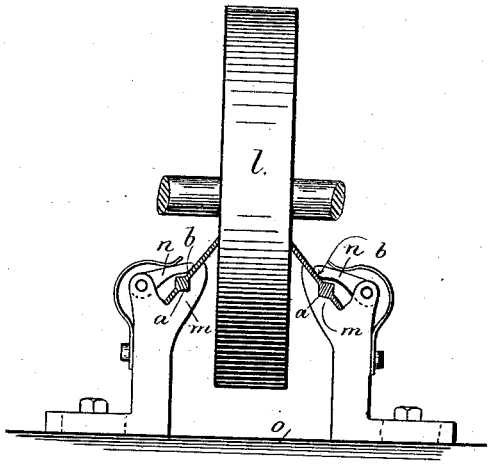



Fig. 4.




Witnesses

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# UNITED STATES PATENT OFFICE.

EDWIN S. LENOX, OF WORCESTER, MASSACHUSETTS.

## APPARATUS FOR THE MANUFACTURE OF BARBED FENCING.

SPECIFICATION forming part of Letters Patent No. 264,174, dated September 12, 1882.

Application filed December 19, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, EDWIN S. LENOX, of Worcester, in the State of Massachusetts, have invented an Improvement in Apparatus for the Manufacture of Barbed Fencing, of which the following is a specification.

Barbed fencing has been made of strips of metal with and without a rib or ribs to strengthen the same and having points cut from the metal strip; but these points usually are not sufficiently sharp to keep cattle from pressing against the wires and breaking the same.

My present invention is made for rendering the barbs sufficiently sharp to accomplish the desired object.

In the drawings, Figure 1 is a perspective view of the strip as it is usually rolled. Fig. 2 shows the strip after the blank has been divided into two pieces by suitable cutters that produce triangular projecting teeth or barbs. Fig. 3 represents the relative positions of the winding, cutting, and grinding devices; and Fig. 4 is an elevation of the grinding mechanism.

The material shown in Fig. 1 is rolled with strengthening ribs or wires *a a* and a thin web, *b*, between them, and the strip is cut into two, and barbs formed by slitting the web *b* in a zigzag form and leaving the alternately-projecting points on the respective strips. This operation is performed by dies or separating-tools, which are well-known. Their position to the other parts is represented at *e e*, Fig. 3. After the strip or ribbon of iron is slit up into two fence-wires it is either wound upon reels or else it is passed directly to the pointing mechanism and then wound upon reels. It is usual to wind the thin iron strip upon a reel, *p*, then pay it out to the slitting-machine *e*, and afterward point it, and then wind up such wire, and when the barbed fence-wire is to be galvanized, this is performed after the pointing.

The grinding-wheel *l* is of emery or other suitable material, or it may be in the form of a file. I prefer to grind the points on both strips simultaneously, and for this purpose I open or separate the strips one from the other a sufficient distance for them to pass at opposite sides of the grinding-wheel *l*, and I provide an adjustable inclined jaw, *m*, that has a spring-tongue, *n*, to press against one side of the strip and hold the points of the barbs in contact with the grinder, so that the metal is removed and the point brought to a sharp pyramidal form. The base of the jaw is adjustable upon its bed *o*, so that the proper position can be obtained for holding the strip to the grinder.

The paying-out mechanism is represented by the reel *p* and the winding-up mechanism by the reel *q*. It is to be understood that a frictional brake will detain the reel *p* sufficiently to keep the strips tight, and that any suitable mechanism is to be employed for working the wheel *q* and drawing the strips along at the required speed.

The mechanism *e* for cutting up the strip into two wires may be placed between the reel *p* and the grinding mechanism.

I claim as my invention—

1. The combination, with a grinding mechanism and means for paying out and winding up barbed fence-wire, of a holder through which the wire is drawn and a yielding presser acting to keep the wire and grinder in contact, substantially as specified.

2. In combination with a revolving grinder, two adjustable jaws, a yielding tongue or presser on each jaw, adapted to support and hold into contact with the grinder the barbs of fence-wire, and mechanism for drawing the said wire along through the jaws, substantially as set forth.

3. The improvement herein specified in apparatus for the manufacture of barbed fence-wire, consisting in the combination, with mechanism for moving along and for slitting up a ribbon of metal and forming two fence-wires with barbs or points thereon, of a grinding mechanism for sharpening the points of the barbs of both fence-wires, substantially as set forth.

Signed by me this 10th day of December, A. D. 1881.

EDWIN S. LENOX.

Witnesses:

JOSEPH K. GREENE,

GEORGE H. BALL.