A. CARY.

Machine for Barbing Fence-Wire.

No. 217,667. Patented July 15, 1879.

Fig. 1.

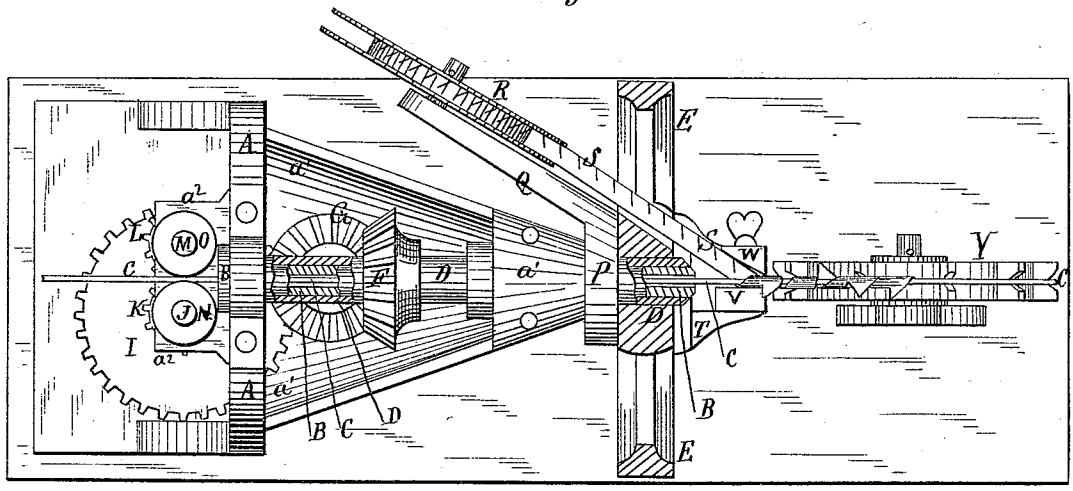


Fig. 2.

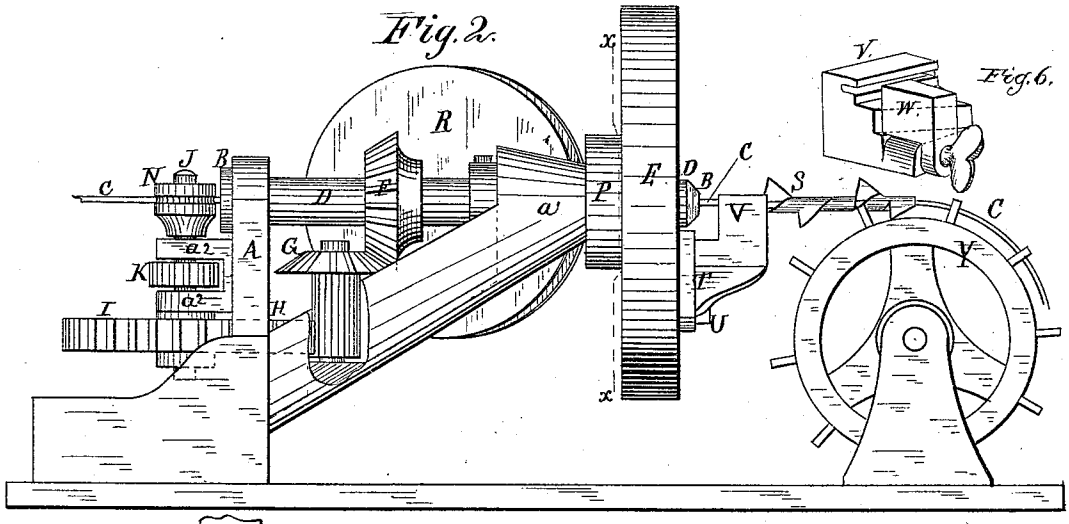


Fig. 6.

Fig. 3.

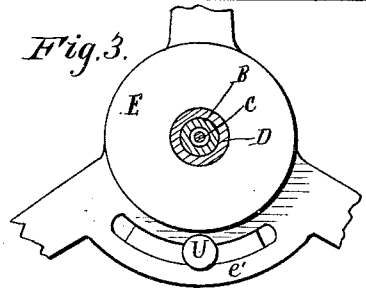


Fig. 4.

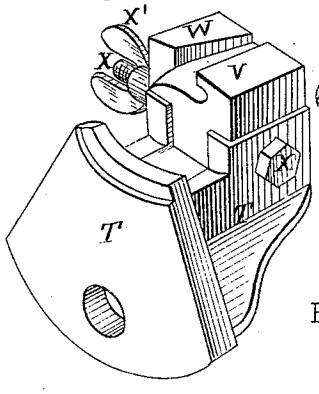
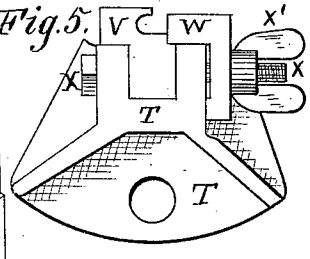


Fig. 5.



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IMPROVEMENT IN MACHINES FOR BARBING FENCE-WIRES.

Specification forming part of Letters Patent No. **217,667**, dated July 15, 1879; application filed May 21, 1879.

To all whom it may concern:

Be it known that I, ALANSON CARY, of the city, county, and State of New York, have invented a new and useful Improvement in Machines for Manufacturing Barbed Fence-Wire, of which the following is a specification.

Figure 1 is a top view of the machine, partly in section to show the construction. Fig. 2 is a side view of the same. Fig. 3 is a detail sectional view taken through the line *x x*, Fig. 2. Fig. 4 is a rear perspective view of the wrapping-jaws and bracket. Fig. 5 is a front view of the same. Fig. 6 is a detail perspective view of bracket and jaw.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish a machine for manufacturing barbed fence-wire of that kind in which the barbs are formed by wrapping a strip of sheet metal having inclined slits formed in its edge or edges around a wire spirally, which shall be simple in construction, convenient and reliable in use, doing its work rapidly and accurately.

The invention consists in the stationary jaw made with a straight grooved face, the movable jaw made with an inclined face, and the jaw-bracket with the pulley for wrapping the strip of sheet metal around a wire, and in the combination of the stationary hollow spindle, the rotary sleeve, the grooved feed-rollers and their driving-gearing, the pulley, the jaw-bracket and jaws, and the reel with each other, as hereinafter fully described.

A represents an upright frame, standard, or plate, which is firmly secured to the bench or other suitable support. To the upper part of the frame A is secured the end of a stationary hollow spindle, B, the cavity of which is made of such a size that the wire C can be drawn through it freely. Upon the spindle B is placed a sleeve, D, which revolves upon the said spindle B, and in bearings in the upper part of the frame A and of the inclined arm a^1, formed upon or attached to the said frame A.

To the forward end of the sleeve D is attached a large pulley, E, to receive a belt for revolving the said sleeve D. To the middle part of the sleeve D is attached a bevel-gear wheel, F, the teeth of which mesh into the teeth of a bevel-gear wheel, G. The bevel-gear wheel G revolves upon a pivot attached to or formed upon the arm a^1 or frame A, and with the said wheel G is rigidly connected a small gear-wheel, H, the teeth of which mesh into the teeth of a large gear-wheel, I. The gear-wheel I projects through a slot in the frame A, and is attached to the lower end of a shaft, J, which revolves in bearings in a projection or hanger, a^2, formed upon or attached to the outer side of the frame A.

To the shaft J is attached a small gear-wheel, K, the teeth of which mesh into the teeth of the small gear-wheel L, attached to the shaft M. The shaft M is parallel with the shaft J, and revolves in bearings in the bracket a^2.

To the upper ends of the shafts J M are attached two rollers, N O, which are grooved to receive the wire C and feed it forward through the spindle B at a uniform speed. The bearings of one or both the shafts J M should be movable, so that they can be adjusted to the size of the wire to be used.

To the rear end of the hub of the pulley E, or to the sleeve D at the rear end of the said hub, is attached a hub, P, upon which is formed, or to which is attached, a rearwardly-inclined arm, Q, to the outer end of which is pivoted a reel, R. Upon the reel R is wound the strip S of sheet metal, which has inclined slits formed in its edge or edges, as shown in Fig. 1, and which is to be wound upon the wire C to form the barbs.

T is a bracket, which has a flange formed upon the lower edge of its inner end to receive the bolt U, by which it is secured to the pulley E. The bolt U passes through a curved slot in a web, *e'*, formed in the space between two of the arms and the hub of the said pulley E, so that the said bracket can be adjusted to bring its jaws into proper position to receive the strip S from the reel R.

Upon the upper side of the bracket T is formed, or to it is attached, a stationary jaw, V, the face of which is in line with the spindle B, and is grooved to receive the wire C as it passes from the said spindle.

W is the movable jaw, the shank of which is clamped to the side of the bracket T by a

bolt, X, and hand-nut X′. The jaw W is made with a shoulder, which projects over the top of the adjacent part of the bracket T and rests against a shoulder of the jaw V. The corner of the bracket T beneath the shoulder of the jaw W may be rounded off, so that the movable jaw W, when drawn outward a little, can be swung forward out of the way. The face of the jaw W and the shoulder of the jaw V, against which the said face rests, are inclined, to bring the space between the jaws V W into proper shape to receive the strip S of sheet metal. With this construction, as the pulley E, the sleeve D, the reel R, and the jaws V W are revolved around the spindle B and the wire C, the strip S of sheet metal will be wound around the said wire C spirally, leaving the points of sheet metal formed by the edge slits projecting to serve as barbs, as shown in Figs. 1 and 2. As the barbed wire passes from the jaws V W it is received upon the notched spurs of the spur-wheel Y, which is pivoted to suitable supports, and should be placed as near as possible to the jaw-bracket T, to prevent any vibration of the said barbed wire as it passes from the jaws V W.

The wire is fed to the machine from a reel, and is received from the spur-wheel Y upon a reel, which reels are not shown in the drawings, as there is nothing new in their construction.

The hub of the pulley E is notched when necessary, to allow the sheet-metal strip S to pass in a straight line, or nearly so, from the reel R to the jaws V W.

The barbed wire thus prepared may be galvanized, japanned, or painted to close the seams and prevent corrosion.

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

1. The stationary jaw V, made with a straight grooved face, the movable jaw W, made with an inclined face, and the bracket T, with the pulley E, having a hollow hub for wrapping a slitted strip, S, of sheet metal around a wire, C, substantially as herein shown and described.

2. The combination of the stationary hollow spindle B, the rotary sleeve D, the grooved feed-rollers N O and their driving-gearing, the pulley E, the jaw-bracket and jaws T V W, and the reel R with each other, substantially as herein shown and described.

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