

(No Model.)

3 Sheets—Sheet 1.

M. F. CONNETT.
PICKET WIRING FENCE MACHINE.

No. 494,537.

Patented Mar. 28, 1893.

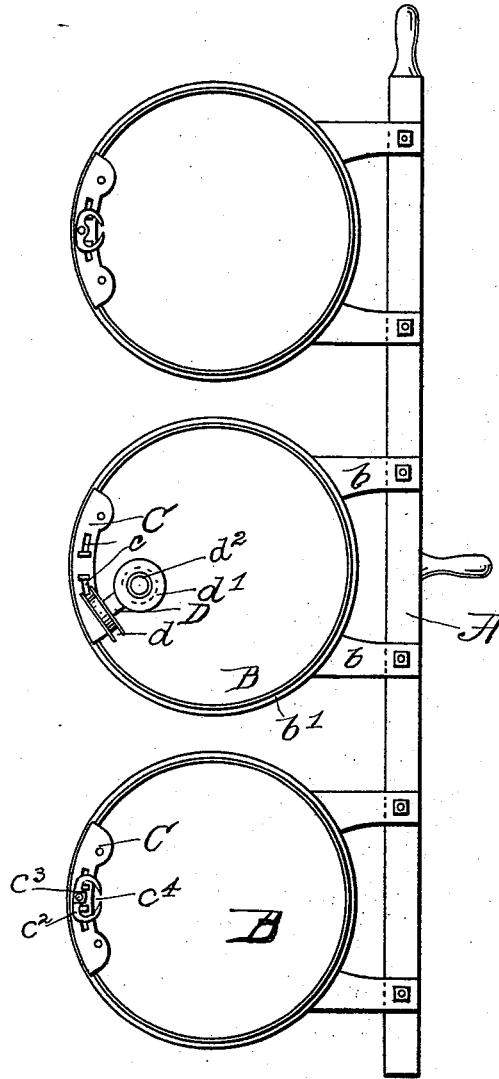


Fig. 1.

Witnesses
L. F. Hayden.
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Matthew F. Connett
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A. Woodruff

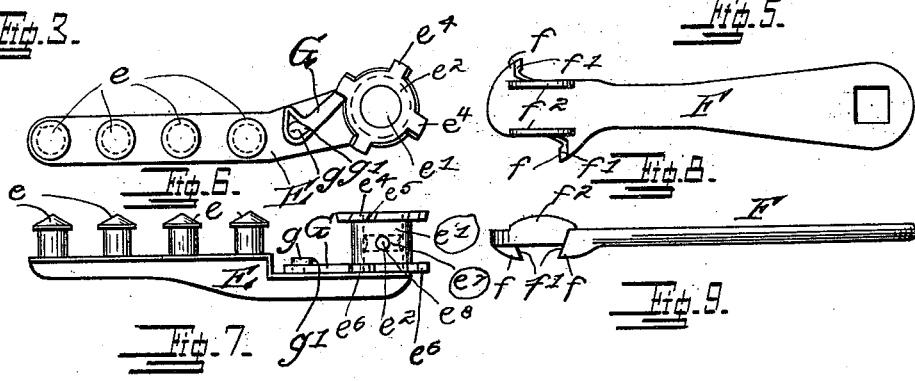
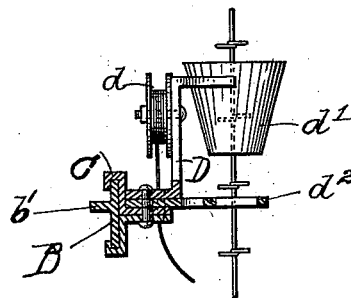
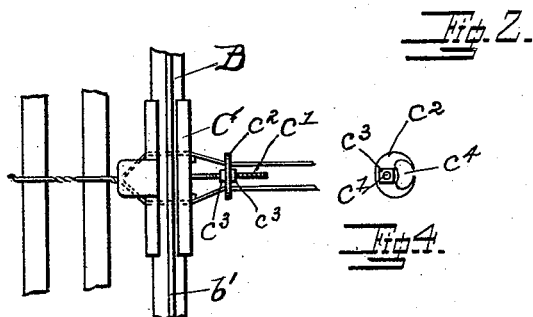
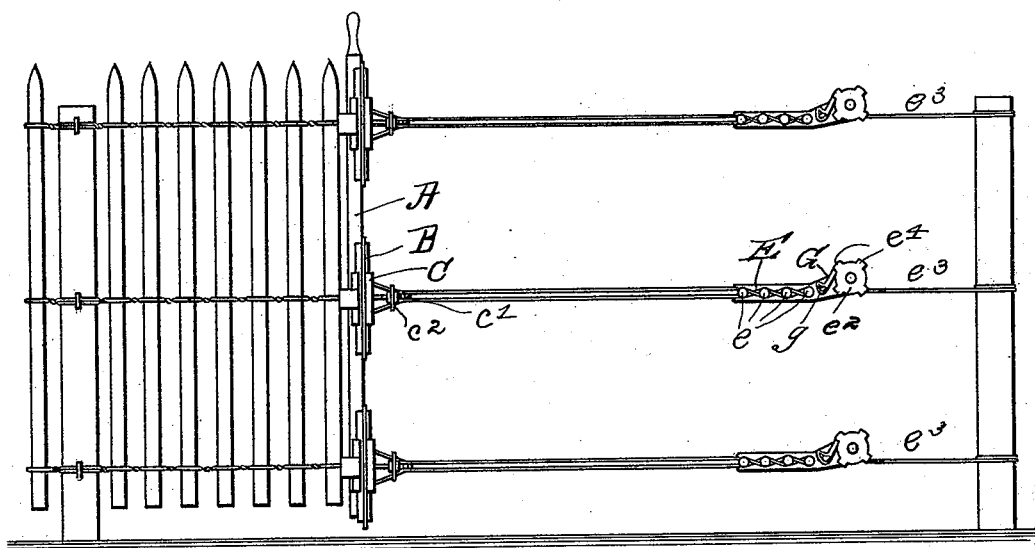
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3 Sheets—Sheet 2.

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Witnesses
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(No Model.)

3 Sheets—Sheet 3.

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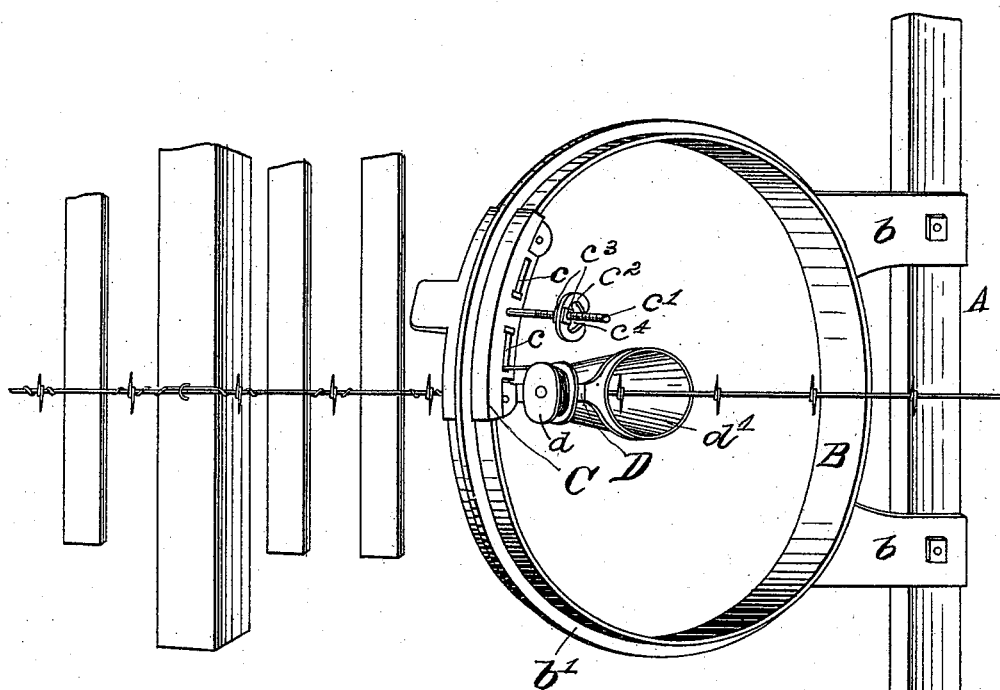


Fig. 10.

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UNITED STATES PATENT OFFICE.

MATTHEW F. CONNETT, OF ATLANTA, GEORGIA.

PICKET-WIRING FENCE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 494,537, dated March 28, 1893.

Application filed February 17, 1892. Serial No. 421,895. (No model.)

To all whom it may concern:

Be it known that I, MATTHEW F. CONNETT, of Atlanta, in the county of Fulton and State of Georgia, have invented certain new and useful Improvements in Fence-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to fence machines of the class, wherein two wires, either both plain, or one barbed are interwisted or one is twisted around the other, for the purpose of properly retaining pickets at intervals, a twist being made of any number of convolutions, between each picket, the invention consisting of certain improvements in the art hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of the device, triplicate twisting rings being shown attached to a hand-bar. Fig. 2 is an elevation of a fence partly completed showing the twister and the tightener in place. Fig. 3 is an edge view of the twisting ring, showing the wire holder in operation. Fig. 4 is a detail, being an end view of the wire holder. Fig. 5 is a detail of the attachment to incorporate one or more strands of barbed wire in a fence. Fig. 6 is a plan view of the wire-tightener showing its peculiar construction. Fig. 7 is a side elevation thereof further showing the details. Fig. 8 is a plan of the wrench used, and Fig. 9 is an edge view thereof. Fig. 10 is a perspective view of one of the rings, a portion of the holder and fence showing the device as employed in making a barbed-wire-and-picket fence.

In the figures like reference characters are employed in the designation of corresponding elements of construction in all the views.

A is a rigid bar to which are secured as many sets of twisting rings as is desired to have wire-members of the fence, three being shown as being a sufficiency to the proper construction of a good fence. The description of only one of the said rings will be en-

tered into as they are alike in construction in every particular.

In operating the device the bar A is grasped by the hands by the proper part and the whole is thereby moved in the plane of the ring in about a circle—preserving therein its vertical position.

In Fig. 10 in perspective, assembled, and Figs. 3, 4 and 5, in detail, is shown the twisting ring B which by means of its arms *b* is secured to the bar A. This ring in the construction shown is of cast iron, and has a bead *b'* thereon, for the sake of strength. A carriage C loosely fits upon this ring projecting inwardly in the construction shown and is provided with holes *c* therein through which are inserted and run the wires to be twisted when only plain wire is used. In experiments with other devices of this class I find, as will be readily understood, upon reference to Fig. 3, that the carriage C and hence the entire device is inclined to slip back upon the wires making twists of varying length and pitch. To obviate this objection and to make the said pitch adjustable, the following construction has been devised. A stud *c'* screw-threaded for a considerable length is set in the carriage between the holes *c* projecting about parallel with the sides of the said holes. A piece *c²* is placed upon said stud, a nut *c³* on each side thereof holding same rigidly in place thereon. A hole *c⁴* is cut in the said piece *c²*, leaving it bifurcated, the arms so formed converging to leave between them just sufficient room to introduce the wires into the larger portion of the hole. This hole *c⁴* is considerably smaller in diameter than the distance between the holes *c* and hence it is obvious that the wires will be caused to bind upon the adjacent sides of said opening in a degree proportionate to the closeness of the piece *c²* to the carriage.

In order to twist fine wire around barbed-wire and so fasten pickets to said barbed-wire, I have devised the construction as follows—A suitable arm D is secured to the carriage C projected in the direction opposite the side on which is the finished fence, and having a reel *d* thereon suitable for holding fine wire and in such a position that the wire will readily pass from the said reel through

one of the holes *c*. A guide funnel *d'* is also carried on this arm in such a position that it will guide a barbed-wire centrally into the ring *d*² also secured to the carriage as shown in Fig. 5 which acts to hold the barbed-wire steady relatively to said carriage, its hole being considerably smaller than the one in the funnel as shown in Fig. 1.

I employ a tightener which consists of a frame *E* carrying a multiplicity of short "snubbing-posts" *e* thereon and also carries mounted upon a suitable stud *e'* a drum *e*² upon which a wire *e*³ attached at its free end to a suitable anchor may be wound by means of a wrench. The drum *e*² is held on the lug by means of a circumferential groove *e'* in the lug and the entry of the wire *e*³ through the hole *e*³ in the drum and its engagement of the groove *e'*, said wire passing partially around the said lug in so doing. Said wrench *F* engages the said drum in a very secure manner as follows, on the top end of the drum are several short radially extending arms *e*⁴ each of which has an inclined side *e*⁵, Fig. 7. The wrench *F* is made so as to engage said arms by their beveled faces *e*⁵ by means of lugs *f* projecting downwardly from its face, their engaging faces overhanging or being inclined correlatively to the faces *e*⁵ of the arms. The flanges *f*² are applied merely to strengthen the wrench. Arms *e*⁶ also project radially from the other end of the drum *E* and are engaged by the pawl *G* which is pivoted on the lug *g*. In order that an accidental disengagement of the pawl and drum may be impossible, said lug *g* has a sidewise extension *g'* near its top and the pawl has a correspondingly shaped hole so arranged as to have its long diameter at an angle to the long diameter of the lug when in operative position.

The operation of this device is as follows: A number of wires arranged in pairs and properly spaced vertically, the number of said pairs being usually three, are connected to the proper terminal post and said wires are then passed through the holes in the carriage on the corresponding ring and the wire-stretching device applied in the usual manner. Each pair of wires is then inserted in the proper converging guide and the device giving the rotary motion hereinbefore de-

scribed. This makes the initial twist; after which the machine is slipped back a sufficient distance and a picket is inserted and held between the wires in the proper position and a twist of the proper number of convolutions made in the wire between said picket and the machine. This operation is repeated until the fence is completed to the desired number of panels, staples or other fasteners being driven into each post as passed, said staples surrounding the wire and securing it to the posts. The converging-guides should be so set, as to distance from the carriage, that the angle of convergence of the wire on each side of the said carriage will be practically the same in which case the twist of the wire will be of uniform and mean closeness. The closeness may be varied by so adjusting the said guide as to make the angle of convergence on that side of the carriage greater or less than the corresponding angle on the other side, for the reason that this angle governs the amount of pressure required to move the machine backwardly as the wires are intertwisted.

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

1. In a device of the class specified, an annular track, a carriage seated and movable thereon having holes for the insertion of the wires to be twisted, a stud carried on the side thereof, and a guide consisting of a split ring carried thereon adapted to converge the wires passing through said holes, substantially as and for the purpose specified.

2. In a device of the class specified, a ring, a carriage seated and movable thereon having holes for the introduction of the wires to be twisted, a stud carried on the side thereon, and a guide carried thereon adjustable to and from said carriage and adapted to hold the wires closer together at that point than where they pass through the said holes, substantially as and for the purpose specified.

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

MATTHEW F. CONNETT.

Witnesses:

A. P. WOOD,
E. T. SHULVICK.