





# UNITED STATES PATENT OFFICE.

HERMAN MARTIN, OF VERMILION, OHIO, ASSIGNOR TO D. L. NIELSEN.

## WIRE-FENCE MACHINE.

SPECIFICATION forming part of Letters Patent No. 694,768, dated March 4, 1902.

Application filed November 27, 1901. Serial No. 83,841. (No model.)

*To all whom it may concern:*

Be it known that I, HERMAN MARTIN, a citizen of the United States, residing at Vermilion, in the county of Erie and State of Ohio, have  
5 invented certain new and useful Improvements in Wire-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  
10 appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

15 This invention relates to wire-fence machines; and its purpose is to provide means for making a wire fence of line or running wires and cross-wires or stays, said wires being bound or woven together where they  
20 cross.

The machine is particularly useful in the construction of the fence for which I have obtained United States Letters Patent No. 637,632, dated November 21, 1899.

25 In the drawings, Figure 1 is a perspective view of a fence in course of construction with my machine. Fig. 2 is a detail view showing the crimping-tool used in crimping the line-wires. Fig. 3 is a perspective view of the  
30 bending and twisting tool for interlocking the stay and line wires. Fig. 4 is a view of a clamping device to hold the lower end of the stay, and Fig. 5 is a view of a peg to support the wires while they are being twisted  
35 together.

The line-wires are indicated at 6 and the cross-wires or stays at 7. At 8 is indicated a post, having therein a series of holes 9, which are spaced apart the distance at which  
40 the line-wires are desired to be held. At or near the top of the post a cross-piece 10 is slidably secured by a clip 11, permitting the cross-piece to move up or down on the post, according to the height of the top wire of the  
45 fence, to which the cross-piece is hung by hooks 12. The foot of the post rests on the ground, and it is thus supported vertically beside the line-wires at the place where the stay is to be located. As each stay is secured the  
50 post is moved along the line-wires to a new position, as will be understood. At the bottom of the post is fixed a clamp to hold the

lower end of the stay, consisting of a pin 13, having a longitudinal threaded bore to receive an eyebolt 14 and a lateral perforation 15, 55 into which the end of the stay-wire is placed and where it may be clamped by the end of the bolt. Any other suitable form of clamp would do as well. The peg 16 is stuck in one of the holes 9 and forms a support for the  
60 wires while they are being twisted together.

The crimper for the line-wires is indicated at 17, having two studs 18 projecting therefrom. The line-wires are caught between the studs and crimped by turning the tool in an  
65 obvious manner.

The bending and twisting tool for the stay comprises a handle 19, at one end of which is an offset shank 20 and body 21, having a longitudinal bore or passage 22 therethrough 70 and a lug 23 projecting at the side of the body. At the other end of the handle is a laterally-extending portion 24, which serves to give leverage in twisting the wire, the lug 23 assisting as a fulcrum against the line-wire. 75

In operation the line-wires are first stretched and fastened. The post 8 is placed beside the wires and hung to the top wire by the hooks 12. The line-wires are then crimped by the crimping-tool, as shown and described. A  
80 stay-wire is then inserted through the bore 22 of the bending and twisting tool, and the lower end of the wire is clamped in the device at the bottom of the post. The peg 16 is stuck in the lowest hole in the post, with  
85 the lowest line-wire resting thereon. The stay-wire is then brought up against the peg and bent around the line-wire by means of the bending and twisting tool engaging said wire at the crimp previously formed therein, 90 as shown in Fig. 1. At the same time the stay-wire is twisted by the tool and brought up in front to a vertical position, forming a kink, which interlocks with the crimp of the  
95 line-wire. The peg is then moved up another hole and the operation repeated. When the stay is interlocked with all the intersecting line-wires, it may be bent into an eye at the top or left extending, as desired. It is then unclamped at the bottom and the post moved  
100 along to the place of the next stay.

By means of the machine thus described a strong and light fence may be rapidly formed. The stay is woven on from a straight piece of



wire, and the twisting and bending tool is so narrow that it will weave between line-wires as near as two inches apart. The stay-wires can be put on from one inch to any space  
5 apart, because the weaving-tool passes between the line-wires on the "open" side of the stay-wire only. The stays may be placed on any kind of wire—plain, cable, or barbed.

Having thus described the invention, what  
10 is claimed as new, and desired to be secured by Letters Patent, is—

A bending and twisting tool for a wire-fence

machine comprising a handle, an offset shank and tubular body at one end thereof, said body having a lug projecting therefrom, and a lat- 15  
erally-extending portion at the other end of the handle.

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

HERMAN MARTIN.

Witnesses:

H. R. WILLIAMS,  
R. F. QUIGDEY.