

C. L. PAYNE.
WIRE FENCE MACHINE.
APPLICATION FILED JAN. 22, 1910.

966,590.

Patented Aug. 9, 1910.

3 SHEETS—SHEET 1.

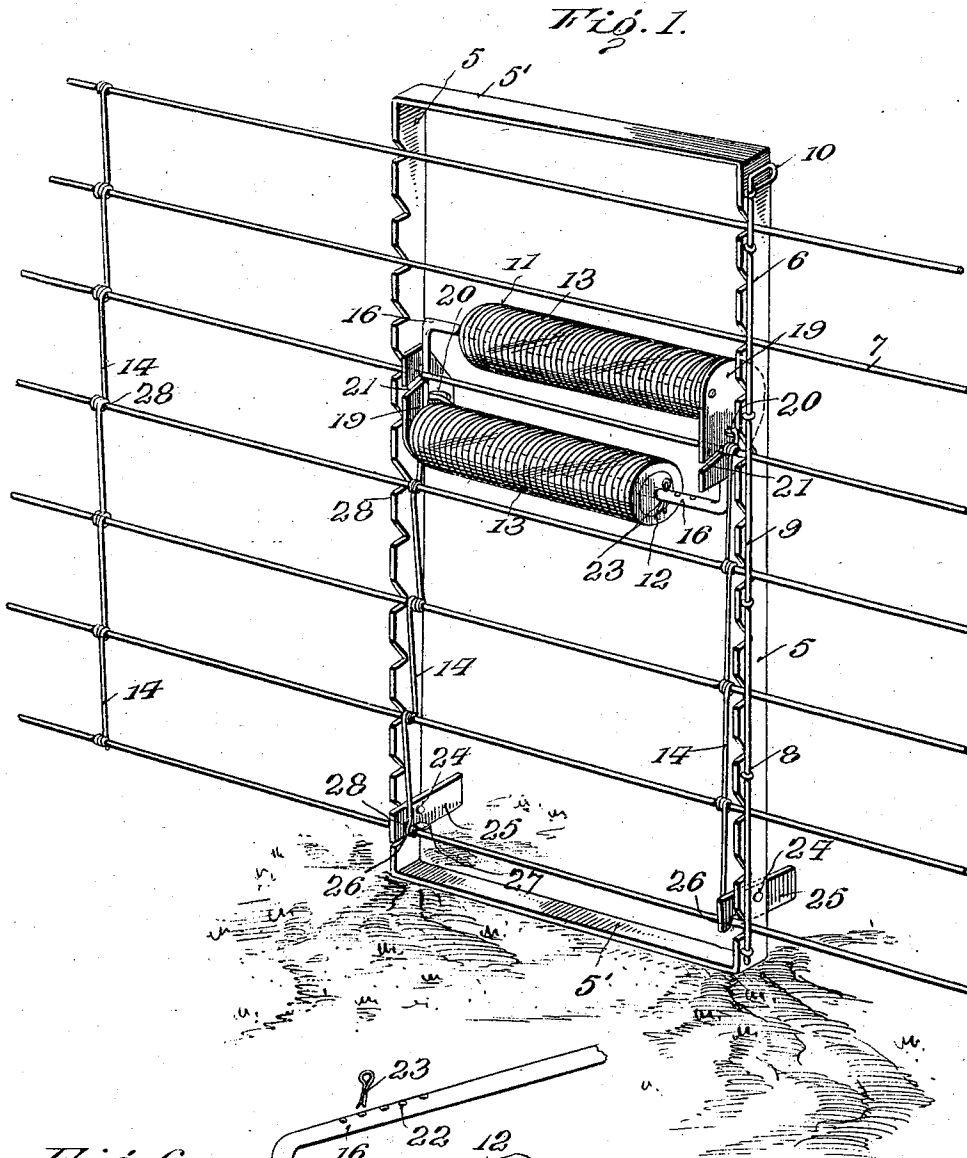
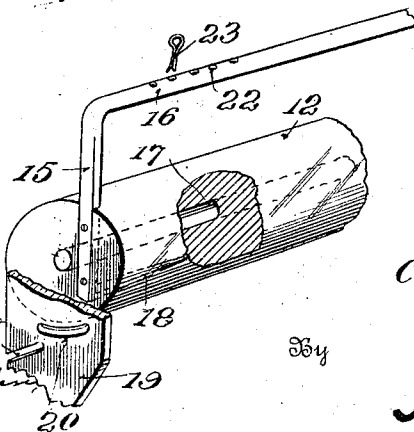


Fig. 6.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 2.

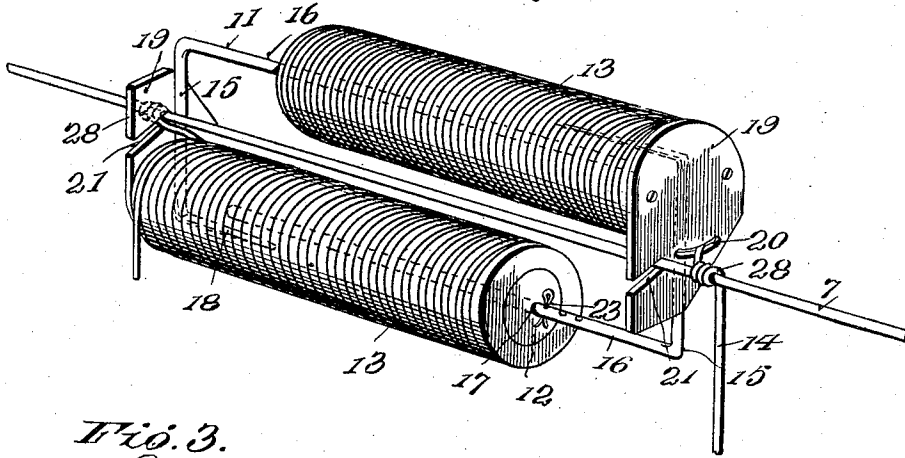


Fig. 3.

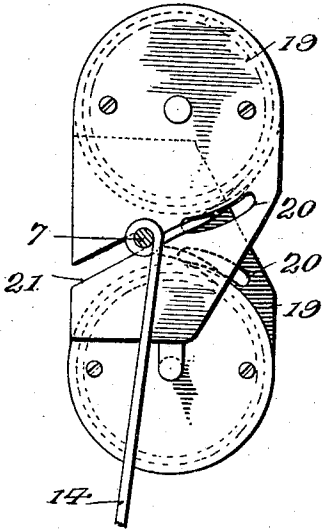


Fig. 5.

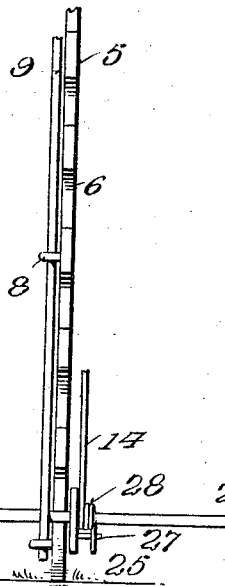
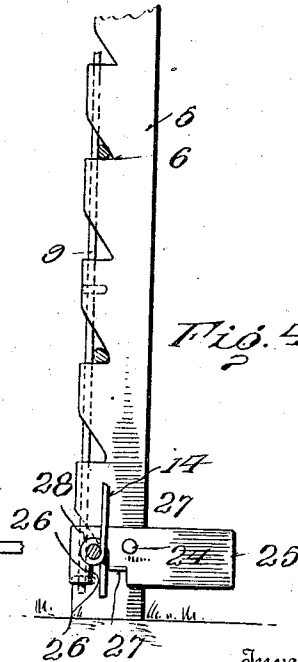


Fig. 4.



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UNITED STATES PATENT OFFICE.

CLAUDE L. PAYNE, OF SALEM, INDIANA.

WIRE-FENCE MACHINE.

966,590.

Specification of Letters Patent.

Patented Aug. 9, 1910.

Application filed January 22, 1910. Serial No. 539,528.

To all whom it may concern:

Be it known that I, CLAUDE L. PAYNE, citizen of the United States, residing at Salem, in the county of Washington and State of Indiana, have invented certain new and useful Improvements in Wire-Fence Machines, of which the following is a specification.

This invention relates to wire fence machines and more particularly to a machine for connecting the stay wires to the longitudinal or stringer wires in a line of fencing.

The object of the invention is to provide a thoroughly practical and efficient machine of the character described by means of which a plurality of stay wires may be simultaneously coiled or wrapped around the adjacent line wires at each operation of the machine.

A further object is to provide a wire weaving machine including a spacer and twisting tool, the latter being formed of mating sections adjustable in the direction of their length so as to vary the distance between the stay wires.

A further object is to provide improved means for retaining the parallel bars of the spacer in position on the line wires, and means for preventing accidental displacement of the lower ends of the stay wires when twisting or coiling the intermediate portions thereof around said line wires.

A still further object of the invention is generally to improve this class of machines so as to increase their utility, durability and efficiency.

Further objects and advantages will appear in the following description, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view of a machine constructed in accordance with my invention, showing the same in position on the line wires of a fence; Fig. 2 is a perspective view of the twisting tool or wire carrier removed from the spacer; Fig. 3 is an end elevation of the twisting tool, one of

the longitudinal or line wires being shown in section; Fig. 4 is a side elevation of a portion of one of the parallel bars of the spacer showing the manner of clamping the end of the stay wire in position on the lower line wire; Fig. 5 is a front elevation of Fig. 4; Fig. 6 is a detail perspective view partly in section of one of the members of the twisting tool or wire carrier detached.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The machine comprises a spacer including vertically disposed bars 5 connected by end pieces 5' and each having one longitudinal edge thereof provided with spaced notches or wire receiving seats 6 adapted to receive the adjacent line wires, indicated at 7.

Extending laterally from the side of one of the bars 5 are a plurality of guiding members or staples 8 in which is slidably mounted a locking member 9, the latter being preferably in the form of a rod having its upper end bent to produce an operating handle or finger piece 10.

The rod 9, by engagement with the line wires 7, serves to retain the latter within the seating recesses 6 and thus holds the spacer in position on said line wires during the twisting or coiling operation.

Disposed between the bars 5 of the spacer is a twisting tool 11, preferably formed in two sections, each comprising a cylinder 12 adapted to receive a spool of wire, indicated at 13, said wire serving to form the vertical stays, indicated at 14.

Secured to one end of each cylinder 12, is a bracket 15 having a longitudinally disposed arm 16 adapted to enter a correspondingly shaped bore 17 formed in the end of the adjacent cylinder, thus to retain the cylinders in proper spaced relation to each other.

Each bracket 15 is countersunk in the end of its cylinder and is provided with a terminal spur or finger 18 adapted to be driven or otherwise embedded in the cylinder, as shown.

Secured to the outer end of each spool or cylinder 12 is an end plate 19 having a segmental slot 20 formed therein to permit the passage of the wire constituting the stay 14 and also provided with an inclined slot 21 opening through one side of the plate 19 and

which receives the adjacent line wire 7, thus to retain the twisting tool in position on the line wire when the machine is in operation.

It will here be noted that the arm 16 of one member of the twisting tool is spaced from the cylinder 12 of the other member of said twisting tool so as to prevent the wires on the spools or cylinders 12 from coming in contact with each other.

One of the overhanging arms 16 is also preferably formed with a plurality of spaced transversely disposed recesses 22 adapted to receive a cotter pin or similar fastening device 23 so that by sliding the spools or cylinders 12 on the arms 16, the twisting tool may be adjusted to regulate the distance between the stay wires, the mating sections of the twisting tool being held in adjusted position by inserting the fastening device 23, as before stated.

The free ends of the end plates 19 project beyond the adjacent cylinders or spools 12 so that the inclined slots 21 will register with each other and thus permit the line wires to extend between the cylinders 12 when the twisting tool is in position on said line wire, as best shown in Fig. 2 of the drawings.

Pivotaly mounted at 24 on the inner face of each bar 5 is a gripping plate or clip 25 having a notch 26 formed in the lower face thereof and adapted to receive the lower line wire 7.

An incision is preferably formed in the lower edge of each gripping plate or clip and the metal at said incision pressed laterally to produce a shoulder 27 arranged at right angles to the plate and adapted to engage and prevent accidental displacement of the lower end of the stay wire during the twisting or coiling of the intermediate portion thereof.

In erecting a fence, the line wires are secured to the corner posts of the fence with the intermediate portions of the line wires bearing loosely against the intermediate fence posts. The bars 5 comprising the spacer are then positioned on the line wires 7 with said line wires seated in the notches 6, after which the locking rod 9 is inserted in the guiding members or staples 8 which holds the spacer in position on said line wires. The mating members comprising the twisting tool are then adjusted longitudinally to properly space the stay wires, and the coils of wire constituting the stay wires positioned on the cylinders or spools 12. After the spools of wires have been positioned on the cylinders 12, the twisting tool is placed between the bars 5 of the spacer with one of the line wires 7 seated in the inclined slots 21 of the end plates 19, after which the free ends of the wire on the spools are passed through the segmental slots 20 and drawn downwardly into engagement with the should-

ers 27, as best shown in Fig. 4 of the drawings.

With the several parts thus assembled, the coiling or twisting of the stay wires is effected by giving the twisting tool two or more turns which produces a coil 28 on the line wire at the inner face of each bar 5. After the stay wires have been coiled around one of the line wires, the twisting tool is removed from said line wire and positioned on another line wire and the operation repeated until the stay wires have been fastened to the line wires throughout the entire height of the fence. After two of the stay wires have been fastened to the line wires in the manner before stated, the clips 25 are released from engagement with the stay wires by striking the rear ends of said clips with a pair of pliers or other suitable tool, and the locking bar 9 removed, after which the left hand bar 5 is detached from the fence and the right hand bar adjusted longitudinally of the line wires and retained in position on said line wires by inserting the locking member 9 in the staples 8.

It will of course be understood that after one pair of stay wires is attached to the line wires of the fence, the upper ends thereof will be cut or severed and coiled or wrapped around the upper line wires in the usual manner.

It will also be noted that as the twisting or weaving of the stay wires with the line wires progresses, the woven mesh thus produced will be nailed or otherwise fastened to the intermediate posts in the line of fencing.

Having thus described the invention, what is claimed as new is:

1. In a wire fence machine, a spacer including a frame having seating recesses formed therein for the reception of the adjacent line wires, a locking rod slidably mounted on the frame for retaining the line wires within the adjacent seating recesses, a twisting tool free to rotate on one of the line wires and having means for supporting a plurality of spools of wire, and clamping members mounted on the frame and engaging the ends of the spool wires for preventing accidental displacement of said spool wires during the rotation of the twisting tool, said clamping members being provided with recesses adapted to receive the adjacent line wire.

2. In a wire fence machine, a spacer including a frame having seating recesses formed therein and adapted to receive the line wires, guiding members extending laterally from one side of the frame, a locking rod slidably mounted in said guiding members for retaining the line wires within the adjacent seating recesses, a twisting tool free to rotate on one of the line wires between the walls of the spacer and having means for supporting a plurality of spools of wire,

and clamping members pivotally mounted on the lower ends of the frame for engagement with the adjacent ends of the spool wires and having recesses formed therein for the reception of the lower line wire.

3. In a wire fence machine, a spacer including upright bars having spaced seating recesses formed therein and adapted to receive the adjacent line wires, means for locking the line wires within the seating recesses, a twisting tool free to rotate on the line wires between the bars and having means for supporting a plurality of spools of wire, clamping plates pivotally mounted on the inner faces of the bars and having seating recesses formed therein to receive the lower line wire, and shoulders formed on said plates at the seating recesses and adapted to engage and hold the ends of the spool wires during the rotation of the twisting tool.

4. In a wire fence machine, a spacer having means for engagement with the line wires, a twisting tool free to rotate on the line wires at said spacer and formed of mating members, each including a cylinder having an overhanging arm secured to one end thereof and adapted to enter the cylinder of the mating member, each cylinder being adapted to receive a spool of wire, end plates secured to the cylinders and having slots formed therein to permit the passage of the wire on the spools, and clamping members carried by the spacer and adapted to engage the ends of the spool wires for preventing accidental displacement thereof during the rotation of the twisting tool.

5. In a wire fence machine, a spacer having means for engagement with the line wires, a twisting tool free to rotate on the line wires and including mating members each comprising a cylinder having an overhanging arm secured to one end thereof and adapted to slidably engage the cylinder of the mating member, one of said arms being

provided with a series of transverse openings, a pin adapted to engage the openings for holding the mating sections in adjusted position, each cylinder forming a support for a spool of wire, end plates secured to the cylinders and having inclined slots formed therein for the reception of the line wires and formed with segmental slots to permit the passage of the wire of each spool, and means carried by the spacer for gripping the ends of the spool wires when the twisting tool is rotated.

6. In a wire fence machine, a spacer including upright bars having seating recesses formed therein for the reception of the adjacent line wires, a twisting tool free to rotate on one of the line wires between said bars and comprising mating members, each having a cylinder and an overhanging arm adapted to enter the cylinder of the mating member, each cylinder being adapted to receive and support a spool of wire, end plates secured to the outer ends of the cylinders and having their free ends overlapped and provided with transversely aligned inclined slots adapted to receive the adjacent line wire, there being a segmental slot formed in each end plate to permit the passage of the wire of each spool, a clamping plate pivotally mounted on the lower end of each bar of the spacer and having terminal recesses formed therein adapted to receive the lower line wire, and shoulders formed on each clamping plate and adapted to engage and hold the ends of the spool wires when the twisting tool is rotated to coil the intermediate portions of the said spool wires around the several line wires.

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

CLAUDE L. PAYNE. [L. s.]

Witnesses:

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V. E. THURMAN.