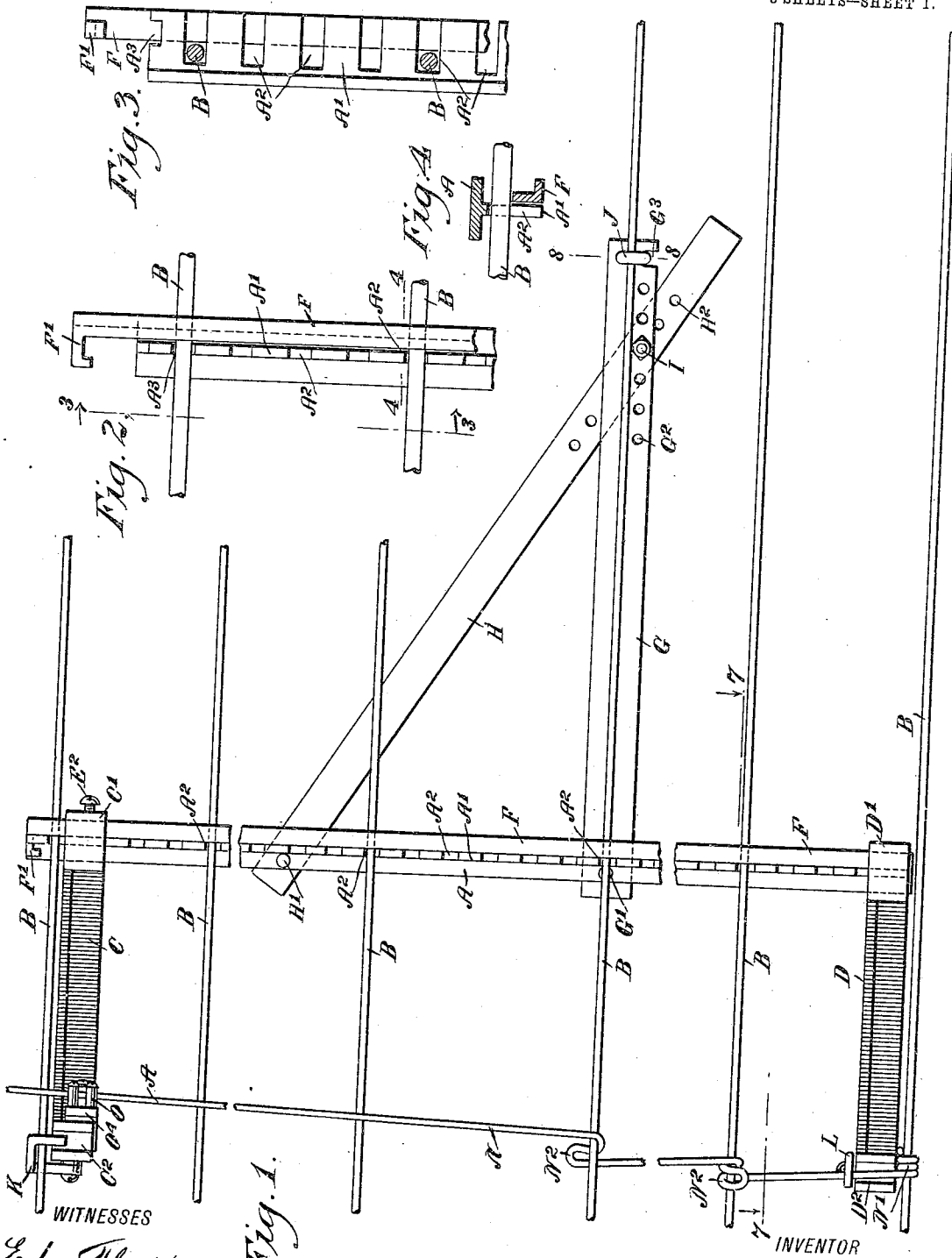


953,517.

Patented Mar. 29, 1910.

3 SHEETS—SHEET 1.



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953,517.

D. A. CLAWSON.
WIRE FENCE MACHINE.
APPLICATION FILED JUNE 5, 1909.

Patented Mar. 29, 1910.
3 SHEETS—SHEET 2.

Fig. 5,

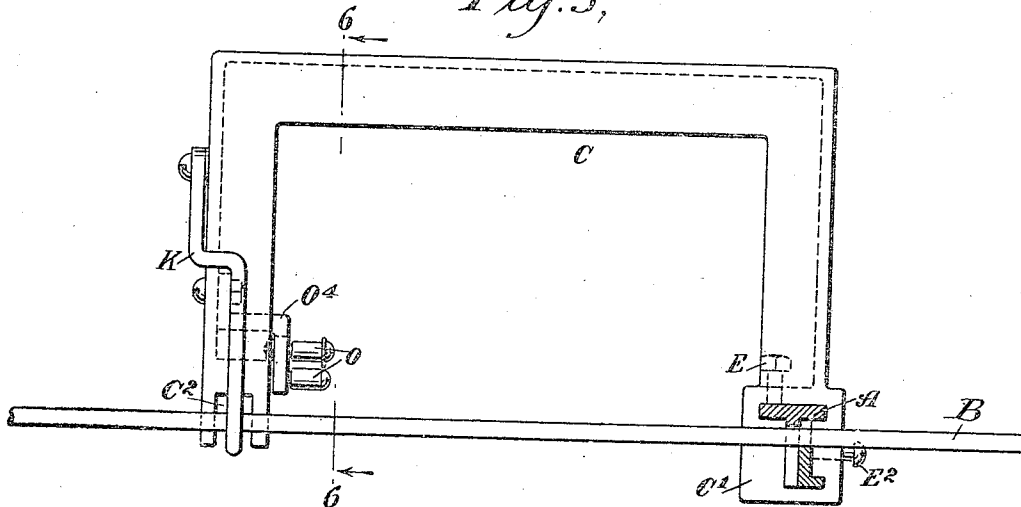


Fig. 6,

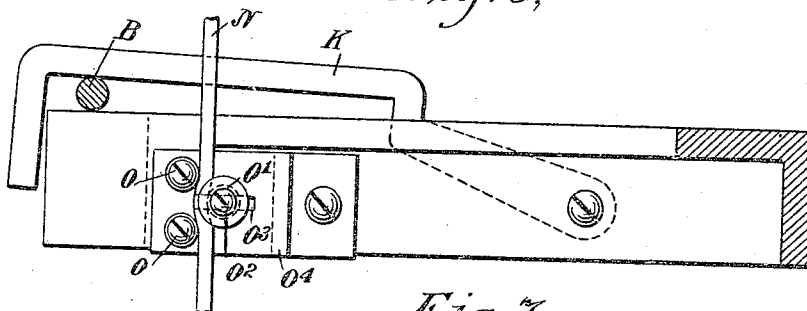
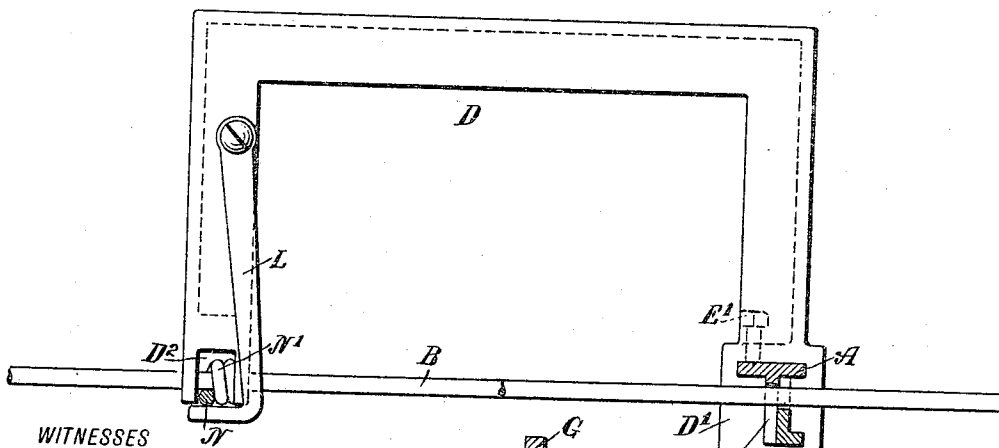


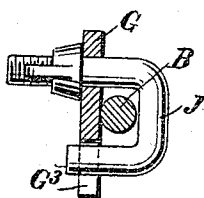
Fig. 7,



WITNESSES

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Fig. 8,



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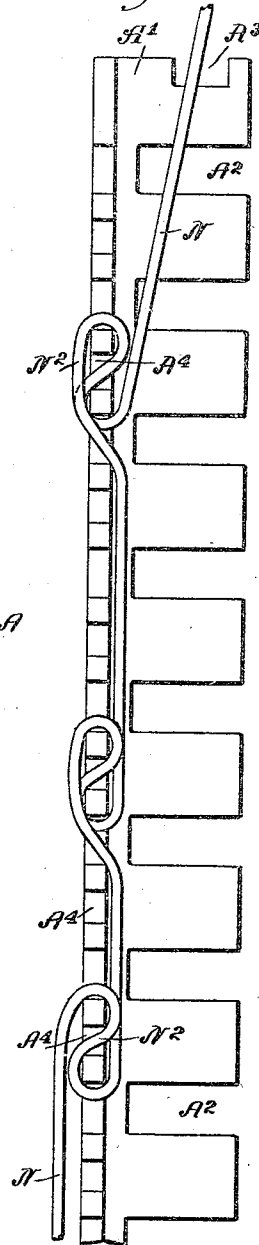
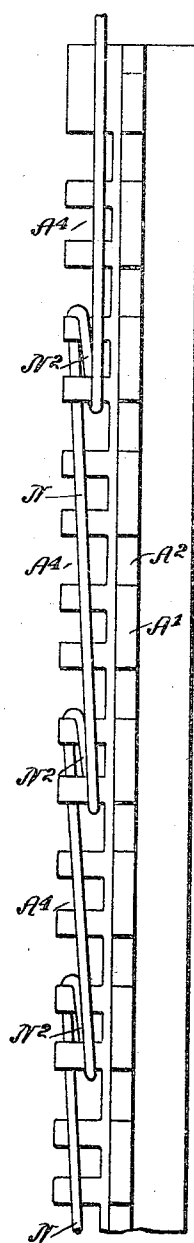
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

DANIAL AARON CLAWSON, OF WAYNESVILLE, ILLINOIS.

WIRE-FENCE MACHINE.

953,517.

Specification of Letters Patent.

Patented Mar. 29, 1910.

Application filed June 5, 1909. Serial No. 500,448.

To all whom it may concern:

Be it known that I, DANIAL A. CLAWSON, a citizen of the United States, and a resident of Waynesville, in the county of De Witt and State of Illinois, have invented a new and Improved Wire-Fence Machine, of which the following is a full, clear, and exact description.

The invention relates to machines for making wire fences composed of line wires and stays secured thereto, the line wires being stretched between and secured to fence posts.

The object of the invention is to provide a new and improved machine for making wire fences in the field, and arranged for ready attachment to the line wires of the fence, to properly guide or hold the stays while attaching the same to the line wires, and to permit ready attachment of the machine to the line wires to allow the operator to accurately fasten the stays in proper vertical position to the line wires.

For the purpose mentioned, a single standard is provided having means for attaching the standard to the line wires at any desired point thereof, and for holding the stays in place while attaching the same to the line wires.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the wire fence machine as applied to a wire fence, such as more fully shown and described in the application for Letters Patent of the United States, Serial No. 500,449, filed by me under even date herewith; Fig. 2 is a side elevation of the standard and the retaining bar for holding the standard in position on the line wires; Fig. 3 is a cross section of the same on the line 3—3 of Fig. 2; Fig. 4 is a sectional plan view of the same on the line 4—4 of Fig. 2; Fig. 5 is a plan view of the fence machine as applied, the standard and its retaining bar being shown in section; Fig. 6 is an enlarged cross section of the same on the line 6—6 of Fig. 5; Fig. 7 is an enlarged sectional plan view of the same on the line 7—7 of Fig. 1; Fig. 8 is an enlarged cross section of the means for clamping the standard adjusting device to one of the intermediate line wires, the section being on the line 8—8 of Fig. 1;

Fig. 9 is a side elevation of the wire fence machine as applied to a fence having ordinary twisted stays; Fig. 10 is a side elevation of a standard provided with means for forming the loops on the stays of my improved fence above referred to; and Fig. 11 is an edge view of the same.

The upright or standard A is preferably made T-shape in cross section, and the front middle member A' of the standard A is provided with spaced notches A² for the passage of the line wires B of the fence, and the upper and lower ends of the said standard A are slidably engaged by the heads C' and D' of horizontally-disposed cross heads C and D, secured in place on the standard A by set screws E, E', screwing in the heads C', D' against the back of the standard A, as plainly indicated in dotted lines in Figs. 5 and 7.

In the heads C' and D' of the cross heads C and D is slidably mounted a vertical retaining bar F, adjacent to one side of the front member A' of the standard A and in front of the line wires B, to hold the same in place in the notches A² and thus prevent the standard from accidental transverse disengagement of the line wires B, but to allow longitudinal sliding movement of the standard A on the said line wires B. The upper end of the retaining bar F is provided with a sidewise extending hook F', adapted to engage a notch A³ (see Fig. 3), formed in the top edge of the middle member A' of the standard A. A set screw E² screwing in the head C' (see Fig. 1) against the retaining bar F serves to lock the latter in place in the proper position, relative to the standard A and the line wires B.

On the back of the standard A are fulcrumed at G' and H', the longitudinally-extending bars G and H of an adjusting device, for adjusting the standard to vertical position irrespective of the horizontal or inclined position of the line wires B. The free ends of the bars G and H are provided with rows of apertures G², H², of which a pair of such apertures is engaged by a transverse bolt I, to fasten the bars G and H together, and on the outer end of the bar G is held a clamping bolt J, in staple form, for clamping one of the intermediate line wires B to the bar G, as plainly shown in Figs. 1 and 8. The free end of the bolt J extends into a notch G³, formed in the lower edge of the bar G, to hold the clamping bolt J against

accidental turning, as will be readily understood by reference to Figs. 1 and 8. By the use of the adjusting device just described the standard A can be readily set to vertical position and at the same time is temporarily held in place on the line wires B against longitudinal movement.

On the free ends of the cross heads C and D are mounted swinging hooks K and L, of which the hook K is adapted to swing down and up, to engage and disengage the uppermost line wire B, and the hook L is mounted to swing horizontally, to engage and disengage the stay end to be fastened to the line wires B. As shown in Fig. 1, the lower end N' of a stay N is twisted onto the bottom line wire B, and then the stay extends upward through a vertical notch D² formed in the front end of the cross head D.

The cross head C is located immediately below the uppermost line wire B, while the cross head D is located immediately above the bottom line wire B, and the upper portion of the stay N passes through a friction device mounted on the cross head C, so as to hold the stay in proper position while forming loops N² on the stays, around the line wires B, as indicated in the lower portion of Fig. 1. The friction device referred to consists preferably of the rollers O, O and O' (see Figs. 5 and 6), of which the rollers O are permanently journaled while the roller O' is mounted on a stud O², adjustably secured in the slot O³ of a bracket O⁴, screwed or otherwise fastened to the cross head C, it being understood that the rollers O are also journaled on the bracket O⁴. Now when the operator, by the use of a suitable tool, makes the loops N² and bends the same around the line wires B, then the stay wire is gradually drawn down through the friction device, which latter holds the stay wire sufficiently taut to permit convenient formation of the loops N².

In case the machine is used for making an ordinary twisted stay N³, as illustrated in Fig. 9, then the friction device is dispensed with. The stay N³ is formed of two wires, extending on opposite sides of the line wires B, and secured at their lower and upper ends N⁴ and N⁵ on the bottom and top line wires, as plainly shown in Fig. 9. The two wires pass through the notches D² and C² in the free ends of the cross heads D and C, and after the wires are in place the hooks K and L are swung in position, to hold the wires in place relative to the cross heads C and D, the hook K also engaging the uppermost line wire B. The operator now by the use of a suitable tool, can twist the stay wires between adjacent line wires, it being understood that sufficient slack is had in the stay wires to allow such twisting.

In case it is desired to provide the stays N, previously mentioned, with loops N²,

prior to applying the stays on the line wires B, the following arrangement is provided, special reference being had to Figs. 10 and 11.

The standard A has one side of its back member provided with spaced notches A⁴, to permit of bending the stay wire around a pair of adjacent lugs formed by the notches A⁴, as plainly indicated in Figs. 10 and 11.

The operation is as follows: When using the machine illustrated in Figs. 1 to 8 the upright A is placed in position on the stretched line wires B at the time the retaining bar F is withdrawn, and when the standard A engages the several line wires B at the proper notches A², then the retaining bar F is placed in position and secured therein by the set screw E², as previously mentioned. The operator next fastens the adjusting bars G and H together and clamps the bar G to one of the line wires B by the use of the clamping bolt J, as previously explained, and after the standard A has been shifted to such position lengthwise of the line wires B that the free ends of the cross heads C and D are in position at the point where the stay N is to be applied to the line wires B. The wire for the stay N is now fastened at N' to the lower line wire B and is then extended upward through the notch D² and passed through the rollers O, O' of the friction device, after which the operator, with the use of a suitable tool, bends the stay wire into loops around the several line wires B, to form a stay.

In using the machine shown in Fig. 9 the standard A is set up and adjusted in the same manner as above described relative to Fig. 1, but in this case the two wires forming the stay are engaged by the notches D² and C² of the cross head C, after which the wires are twisted as before explained.

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

1. A wire fence machine, comprising a single standard having notches for the passage of the line wires, a retaining bar for holding the wires in the notches, upper and lower cross heads adjustably secured to the standard, the upper cross head having means for engaging the upper line wire and the stay and the lower cross head having means for engaging the stay, and means for adjusting the standard to vertical position.

2. A wire fence machine, comprising a single standard having notches for the passage of the line wires, a retaining bar for holding the wires in the notches of the standard, said bar preventing the wires from being disengaged from the standard but permitting the standard to be moved longitudinally on the wires, and upper and lower cross heads secured to the standard, the up-

per cross head having means for engaging the upper line wire and the stay and the lower cross head having means for engaging the stay.

5 3. A wire fence machine, comprising a single standard, means for attaching the standard to the line wires, and upper and lower cross heads on the said standard, the upper cross head having means for engaging the upper line wire and a friction device for engagement with the stay, and the lower cross head having means for engagement with the lower end of the stay.

10 4. A wire fence machine, comprising a single standard, means for attaching the standard to the line wires, and upper and lower cross heads on the said standard, the upper cross head having a friction device for engagement with the stay and having a hook for engagement with the top line wire, and the said lower cross head having a hook for engagement with the stay.

15 5. A wire fence machine, comprising a single standard, means for attaching the standard to the line wires, and upper and lower cross heads on the said standard and having notched ends, and hooks on the said cross heads, the hook on the upper cross head being adapted to engage the top line wire, and the hook on the lower cross head being adapted to engage the stay to hold the same in the notched end of the lower cross head.

20 6. A wire fence machine, comprising a single standard, means for attaching the standard to the line wires, upper and lower cross heads on the said standard and having notched ends, hooks on the said cross heads, the hook on the upper cross head being adapted to engage the top line wire, and the hook on the lower cross head being adapted to engage the lower stay to hold the same in the notched end of the lower cross head, and a friction device on the upper cross head for engagement with the stay wire.

25 7. A wire fence machine, comprising a single standard having spaced notches for the passage of the line wires, upper and lower cross heads on the said standard and having means for engagement with a stay to be attached to the line wires, a retaining

bar having interlocking engagement with the standard for holding the line wires in place in the notches, and an adjusting device on the said standard and having means for engagement with one of the line wires.

55 8. A wire fence machine, comprising a standard having notches for the passage of the line wires and a notch in its upper end, a retaining bar for holding the wires in the notches, said bar having a hook for engaging the notch in the end of the standard, and upper and lower cross heads secured to the standard and having means for holding the stays in position while attaching the same to the line wires.

60 9. A wire fence machine, comprising a standard having notches for the passage of the line wires, upper and lower cross heads having means for engaging the stays while attaching them to the line wires, adjusting bars pivoted to the standard and adjustably secured together, one of the bars being provided with a notch in its outer end, and a bolt in staple form for clamping a line wire to the said adjusting bar, one member of the bolt extending into the notch of the bar.

65 10. A wire fence machine, comprising a standard, means for removably attaching the standard to the line wires of the fence, upper and lower cross heads secured to the said standard, and hooks mounted to swing on the said cross heads, the hook on the upper cross head being adapted to engage the top line wire and being mounted to swing in an up and down direction, and the hook on the lower cross head being mounted to swing horizontally and being adapted to engage the stay to be fastened to the line wires.

70 11. A wire fence machine provided with a standard having angular members, of which one is notched for receiving the line wires of the fence, and the other member is notched for forming the loops on the stays of the fence.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

DANIAL AARON CLAWSON.

Witnesses:

JAMES POWERS,
LEONARD KING.