

(No Model.)

W. T. LOOMIS.

COMBINED WIRE TENSION DEVICE, SPLICER, AND STRETCHER.

No. 512,728.

Patented Jan. 16, 1894.

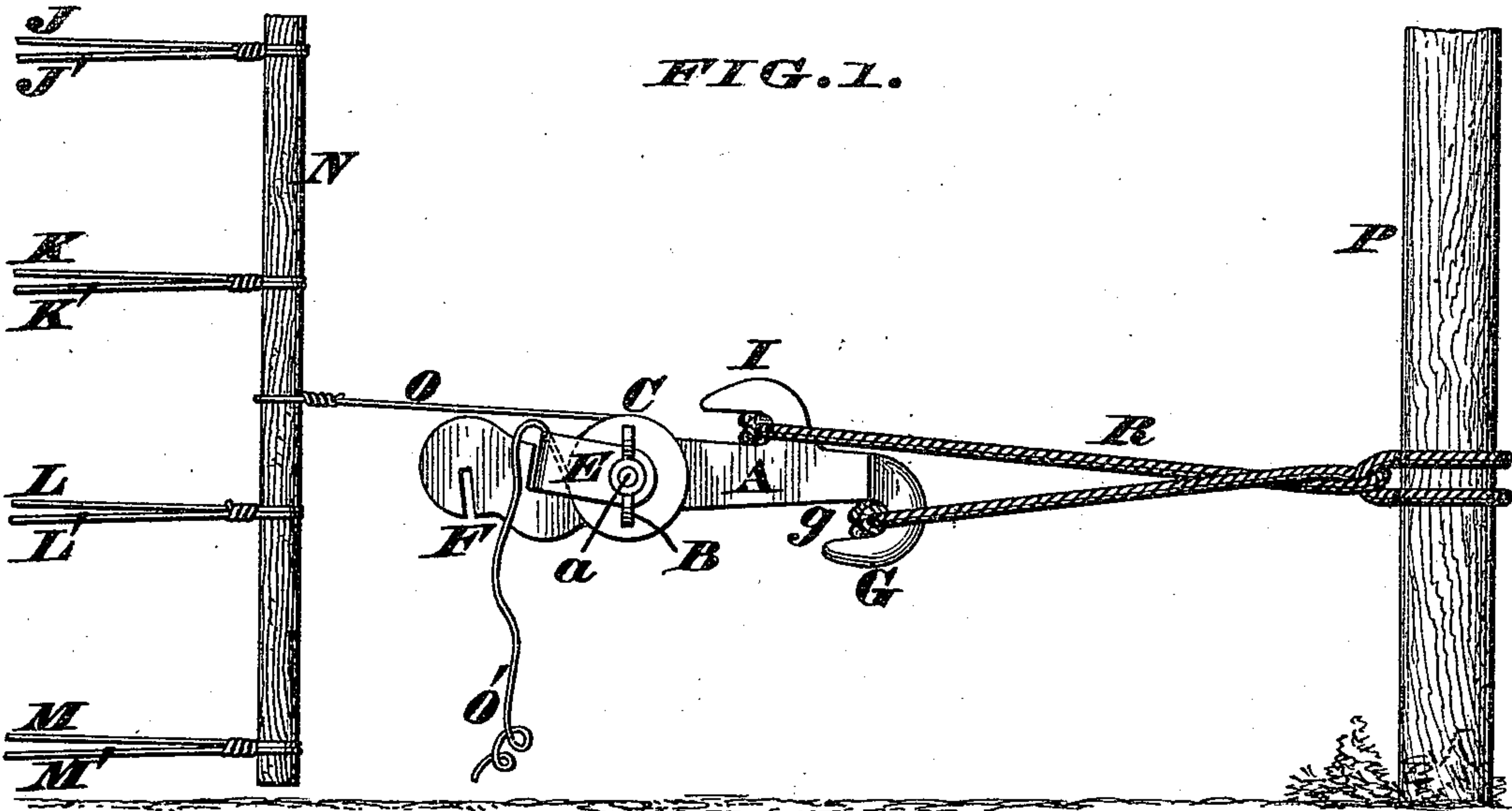


FIG. 2.

FIG. 7.

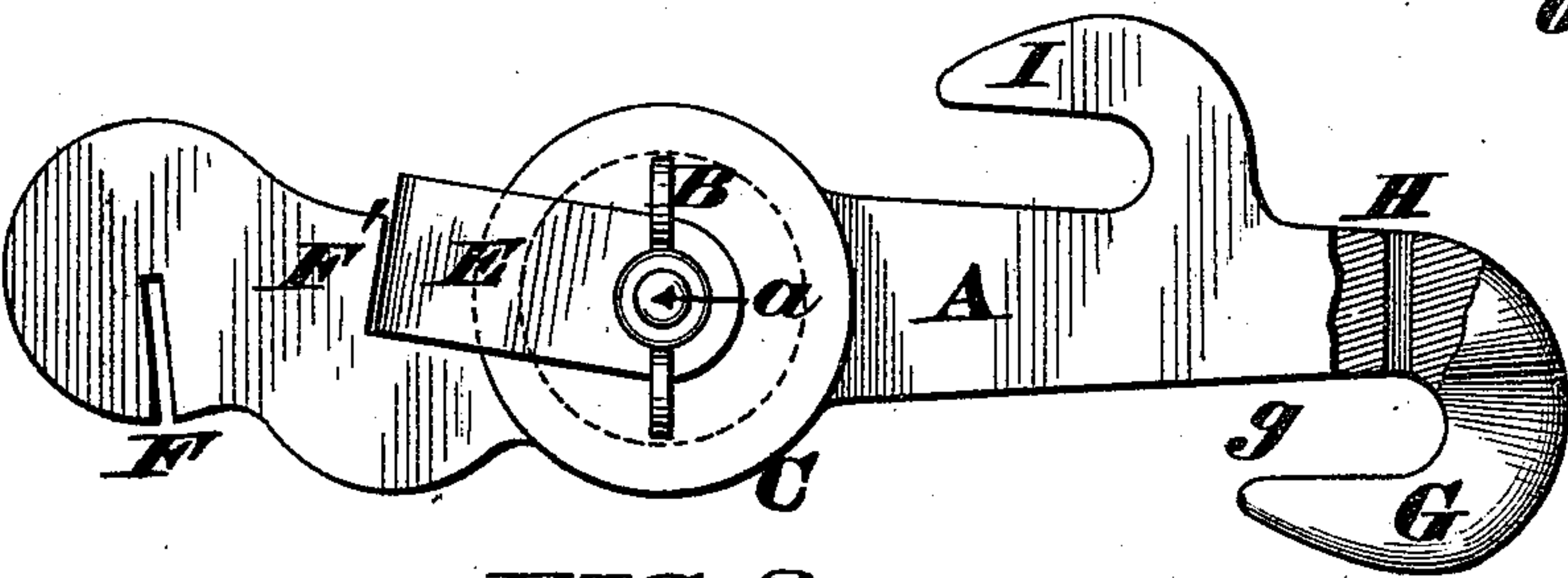


FIG. 3.

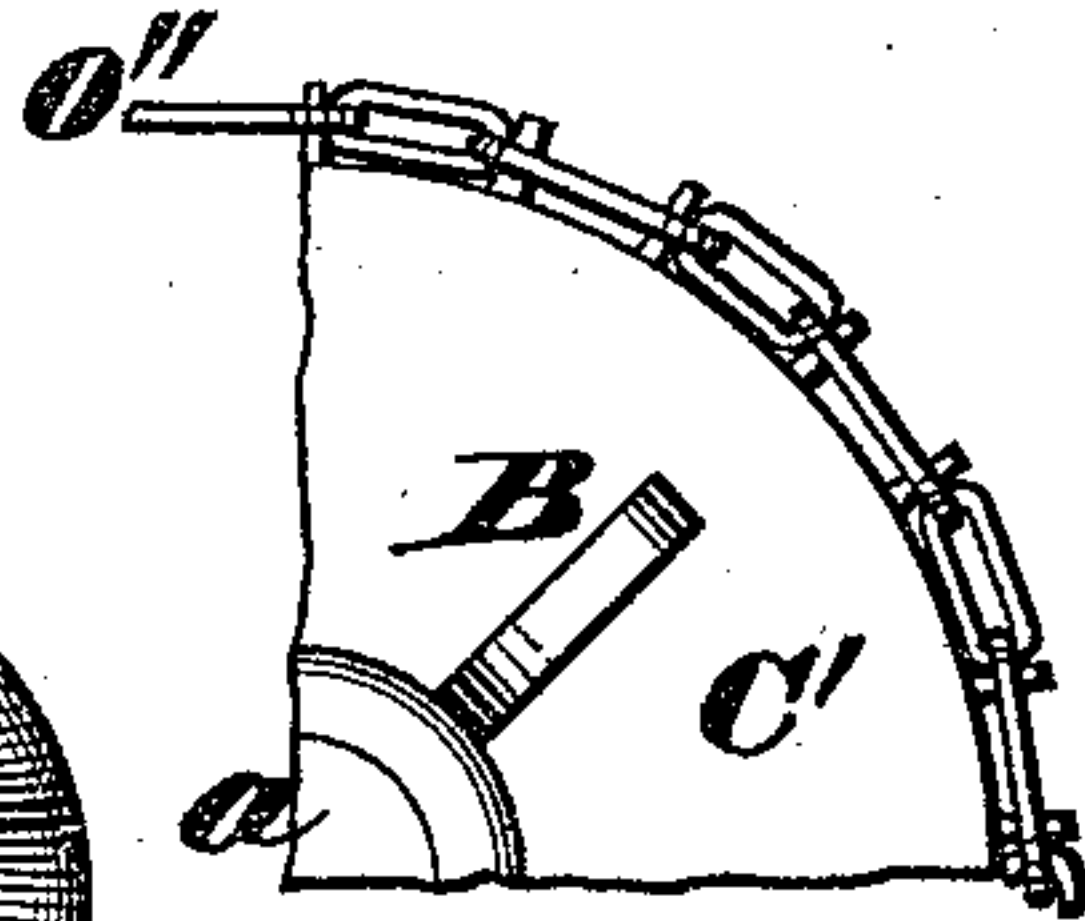


FIG. 8.

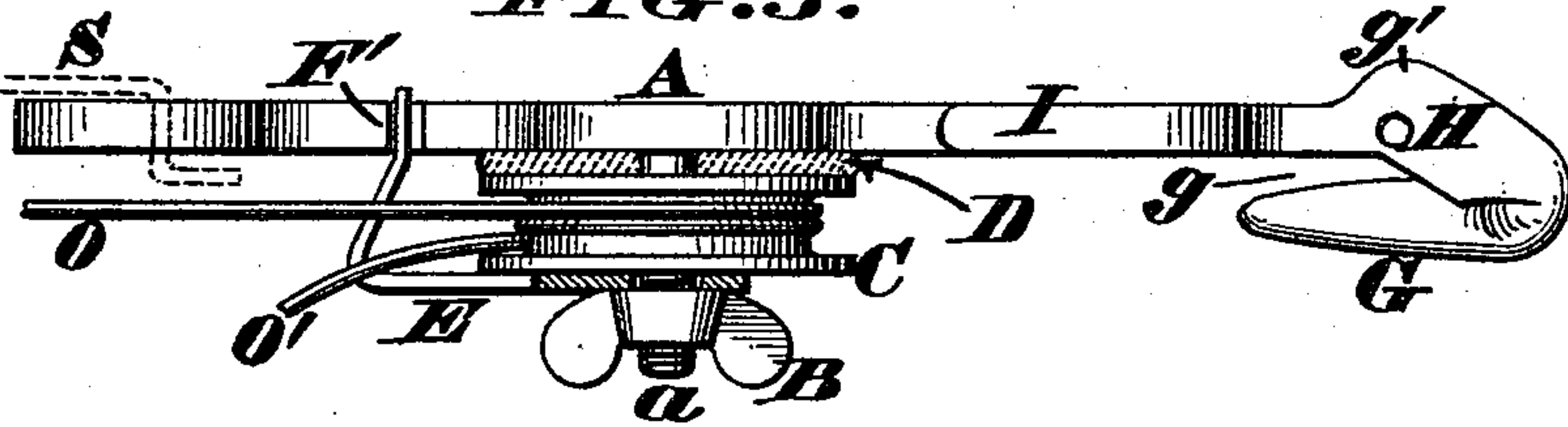
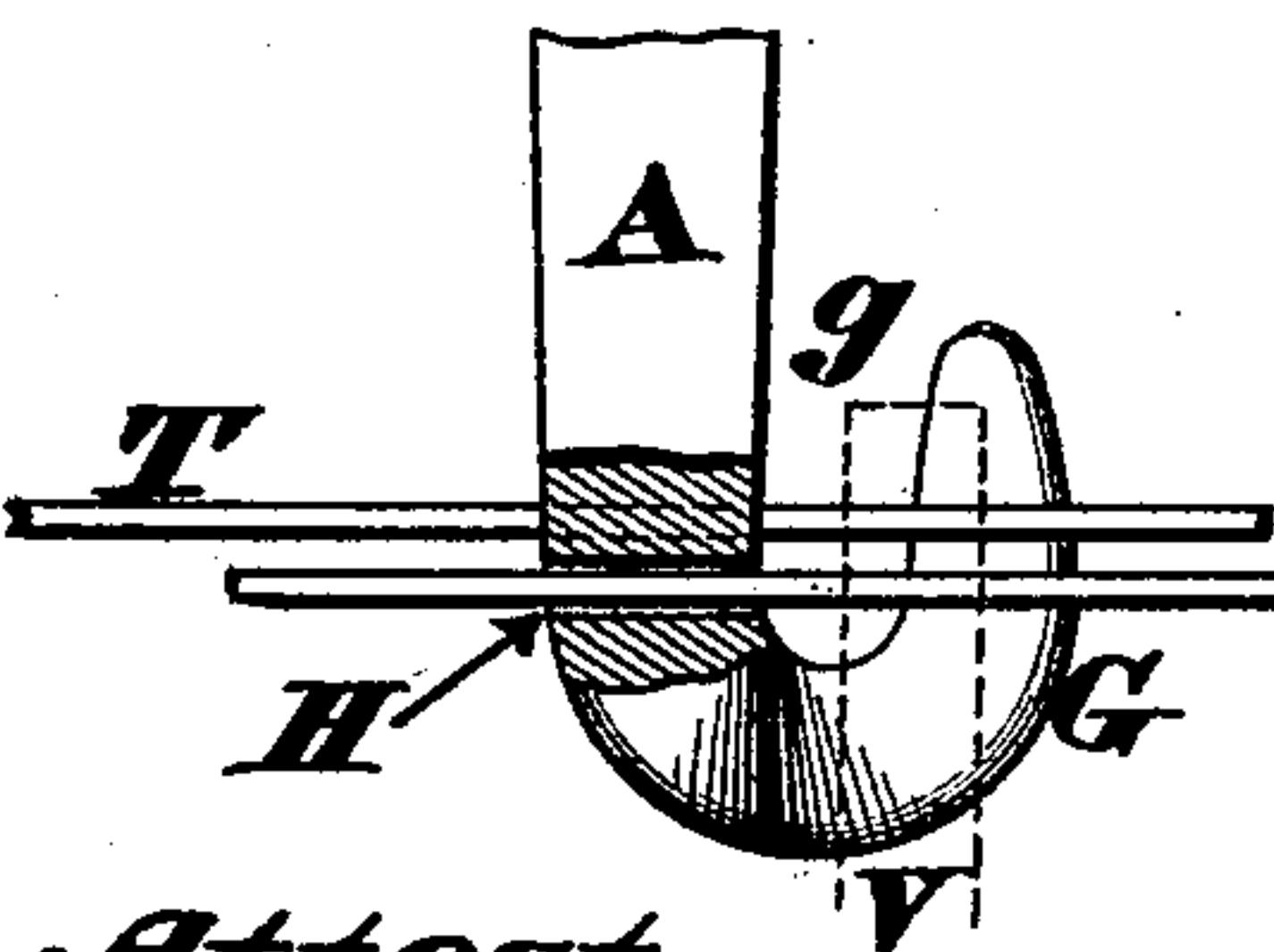


FIG. 4.

FIG. 5.

FIG. 6.



Attest.
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UNITED STATES PATENT OFFICE.

WALTER T. LOOMIS, OF STAFFORDSBURG, KENTUCKY.

COMBINED WIRE TENSION DEVICE, SPLICER, AND STRETCHER.

SPECIFICATION forming part of Letters Patent No. 512,728, dated January 16, 1894.

Application filed June 17, 1893. Serial No. 477,905. (No model.)

To all whom it may concern:

Be it known that I, WALTER T. LOOMIS, a citizen of the United States, residing at Staffordsburg, in the county of Kenton and State of Kentucky, have invented certain new and useful Improvements in a Combined Fence-Wire Stretcher, Splicer, and Tension Device; and I do hereby declare the following to be a full, clear, and exact description of the invention, reference being had to the annexed drawings, which form part of this specification.

My invention comprises a tool or implement whose use greatly facilitates the construction of those fences which consist of vertical pickets or palings inserted between stringer wires attached at suitable intervals to supporting posts. Said tool is a light, simple and handy contrivance, capable of performing the three-fold duty of a tension-device, stretcher and splicer, as hereinafter more fully described.

In the annexed drawings,—Figure 1 shows the method of using the tool as a tension-device. Fig. 2 is an enlarged side elevation of the tool, a portion of the hooked end of the same being sectioned. Fig. 3 is a plan of the tool, a friction washer thereof and portion of a guide being sectioned. Figs. 4, 5 and 6 show the method of using the implement as a wire-splicer. Figs. 7 and 8 are modifications of my invention.

The principal member of the tool is a flat, metallic-plate A, from which a stud-shaft *a* projects laterally, the outer end of said shaft being screw threaded to permit the ready engagement of a thumb-nut B. Journaled upon this shaft is a grooved disk or wheel or sheave C, between which, and the face of plate A, a friction-washer or pad D, is interposed.

E is a guide interposed between the thumb nut B, and disk C, one end of said guide being perforated to permit a free passage of shaft *a*, while the other end thereof is bent, in the manner shown; and inserted in the upper or wider one F' of a pair of slots F F', thus allowing the bent end of said guide to drop below a wire wherewith the tool is coupled to an equalizing bar, as will presently appear. By this arrangement the member E, prevents the nut B being turned by frictional contact with the disk C, and serves, also, as a guide that confines a wire in a proper path as it uncoils from said disk.

G is a hook formed at one end of the plate A, and bent down and so turned to one side as to leave a passage *g*, for a purpose that will presently appear. *g'* is a rounded shoulder formed where this hook joins the plate A, and H is an opening in said plate and near said shoulder.

I is another hook, located between the hole H and disk C, the two hooks G, I and shaft *a*, being, preferably, integral with the plate A.

J J', K K', L L', and M M', in Fig. 1, are four pairs of stringer wires whose ends are attached to an equalizing bar N, and O is a short piece of wire that connects this bar with the grooved disk C, of the tension-device.

P is a post, set in the ground, and R is a rope, passed around said post, and having its ends knotted and engaged with the hooks G, I, so as to hold the tool very securely, and in a proper position, although a chain may be employed for this purpose. When the tool is thus used, the wire O is passed several times around the single circumferential groove of disk C, the free end of said wire being carried up and over the guide E, and then permitted to hang therefrom, as shown at O', after which act, the thumb nut B is tightened, for the purpose of producing any degree of friction against said disk. Consequently, any pull on the bar N, caused by inserting the pickets between the stringer wires, is compensated for by the wire O, as it uncoils from the disk, the guide E serving to conduct said wire in a proper path, and prevent one coil riding over and interfering with another coil.

When the tool is used as a "stretcher," a stringer wire, or a pair of such wires, is inserted in the appropriate slot F, or F', and is given a right angle bend, as indicated by the dotted lines S, in Fig. 3, the provision of two slots, of different widths, enabling the implement to be used with every sized wire employed in building fences of the character described. After the wires have been engaged with the tool, any suitable power may be applied to the latter, so as to stretch the wires very tightly before they are temporarily fastened to the posts, while the other pairs or sets are being stretched, preparatory to attaching them to the equalizing bar N.

When the tool is used as a "splicer," or in

other words, for uniting the ends of a pair of wires, one of them, as T is first applied to the passage *g*, and the other wire U, is shoved through the hole H, as seen in Fig. 4. The wires are then grasped by a pair of pinchers, as indicated by the dotted lines V, and the tool is turned around to the position seen in Fig. 5, and so operated as to bend the wire U around the other wire T. During this operation, the shoulder *g'*, bears on the wire ahead, and firmly against the coils while they are being formed, the result being a close and compact bending of the wire, as seen in Fig. 6. After the end of wire U, has been thus coiled, the implement is applied to the end of wire T, and it is bent in a precisely similar manner. From the above description, it is apparent this small implement, which need not be more than eight inches long, combines all the advantages of the most complicated tension devices, stretchers and splicers, and being so simply constructed, it is not liable to get out of order.

In the modification of my invention, seen in Fig. 7, a sprocket or toothed wheel C', is substituted for the disk C, and a chain O'', takes the place of wire O. Another change is seen in Fig. 8, where a stone or other weight W, is attached to the wire O, which weight should drag on the ground and thus produce the desired friction without employing a tightening nut B, or any equivalent therefor.

I claim as my invention—

1. The combination, in a fence-builder's tool, of a plate having near its center a stud-shaft with a sheave journaled upon it, a device applied to said shaft for the purpose of producing friction against said sheave, means near one end of said plate for attaching a coupling wherewith the tool is temporarily fastened to a fixed object, and a slot near the opposite end of said plate, for the engagement of a wire to be stretched, substantially as herein described.

2. A fence-wire tension-device having means for securing it in place, and carrying a friction-wheel that is automatically turned by a connection acting against its periphery, for the purpose stated.

3. A fence-wire tension-device comprising a hand-tool formed of the plate A, having a single screw-threaded stud-shaft *a*, with which a nut B is engaged, a single grooved-wheel C,

journaled on said shaft, and a single detachable guide E, which guide has one end supported by said shaft, while its other end is inserted in a slot F', in the upper edge of said plate, all as herein described.

4. The combination, in a fence-wire tension-device, of a plate A provided with a screw-threaded stud-shaft *a*, a slot F', and a pair of hooks G and I, the grooved wheel or disk C, journaled upon said shaft, the guide E, having one end applied to said shaft, and its other end inserted within said slot F', and a nut B screwed to the shaft, for the purpose stated.

5. A wire-splicer consisting of the plate A having hooks G, I, projecting from opposite edges of the same, and a hole H passing through said plate near the hook G, which is in front of the other hook I, and is bent laterally near its point to afford a longitudinal passage *g*, all as herein described, and for the purpose stated.

6. A wire-splicer consisting of the plate A, having hooks G, I, projecting from opposite edges of the same, a hole passing through said plate near the hook G, which is in front of the other hook I, and is bent laterally near its point to form a longitudinal passage *g*, and a bearing *g'* near said hole H, all as herein described.

7. A fence-builder's tool comprising the plate A, having a hook near one end to permit a longitudinal pull, and edge slots of different widths near its other end, whereby a wire can be passed through either of said slots and be bent at right angles on the opposite sides of said plate to prevent the wire slipping, all as herein described.

8. A fence-wire tension-device comprising a hand-tool formed of a plate carrying a friction-wheel that is automatically turned by a connection acting against its periphery, said plate being provided with a readily-detachable guide over which the free end of said connection is suspended after it is coiled around said wheel, as herein described.

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

WALTER T. LOOMIS.

Witnesses:

JAMES H. LAYMAN,
SAMUEL M. QUINN.