

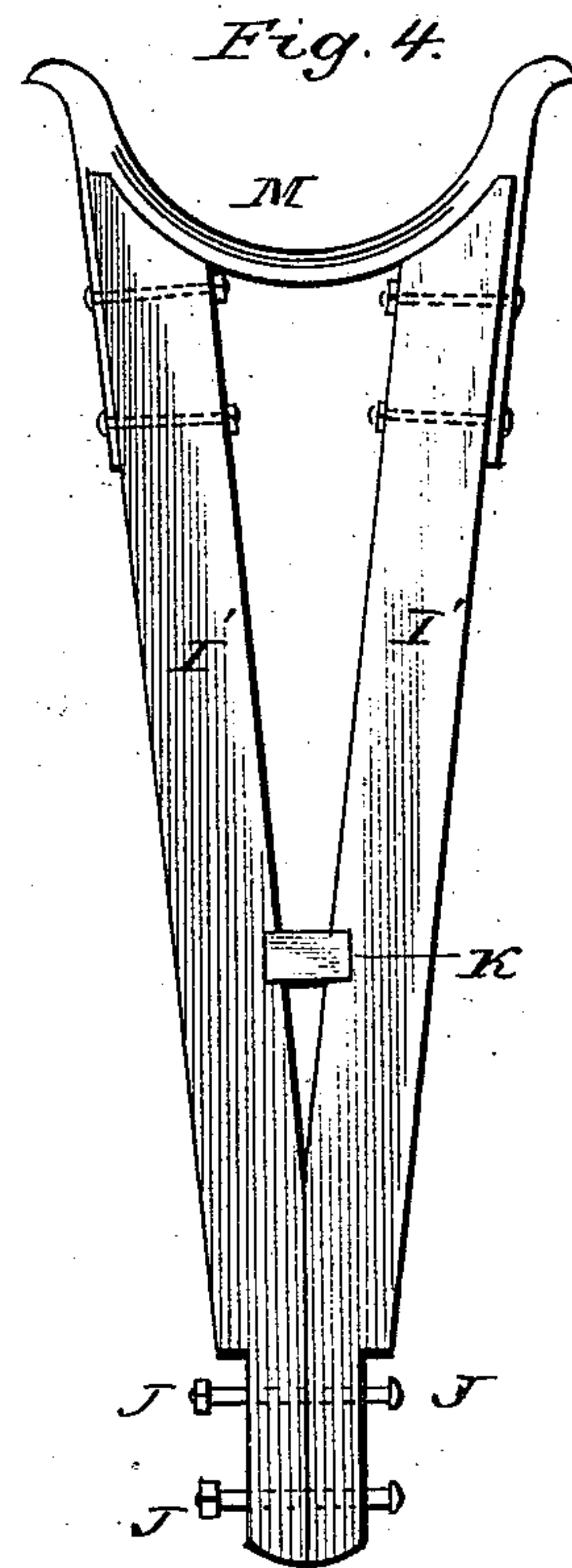
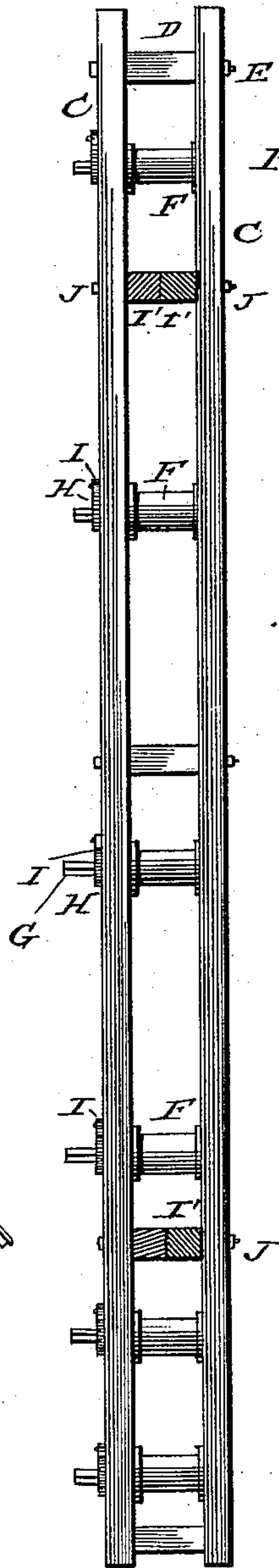
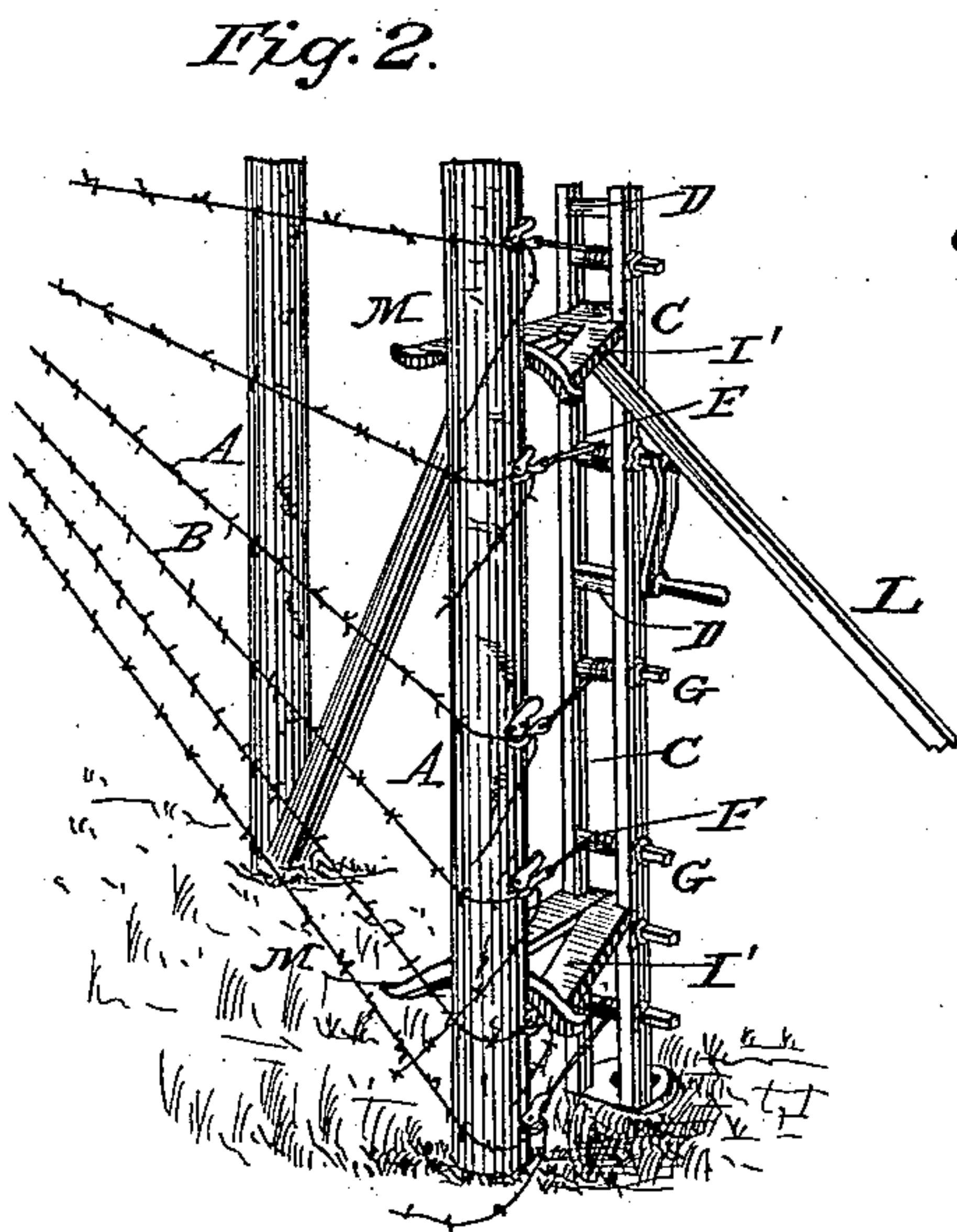
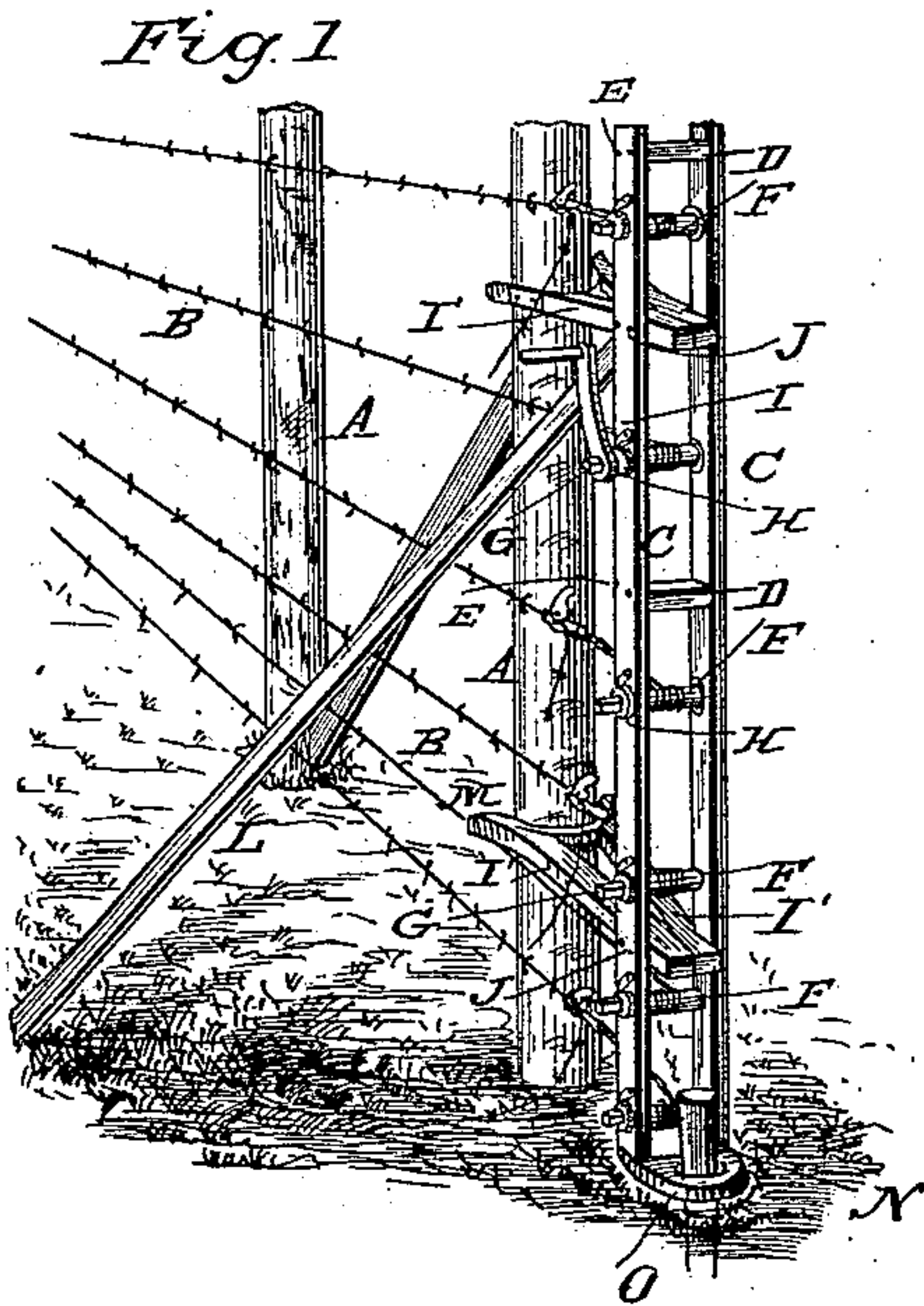
(No Model.)

J. H. & E. L. COLE.

GANG WIRE STRETCHER.

No. 297,501.

Patented Apr. 22, 1884.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN H. COLE AND EDWARD L. COLE, OF MUSCATINE, IOWA.

GANG-WIRE STRETCHER.

SPECIFICATION forming part of Letters Patent No. 297,501, dated April 22, 1884.

Application filed September 26, 1883. (No model.)

To all whom it may concern:

Be it known that we, JOHN H. COLE and EDWARD L. COLE, citizens of the United States, and residents of Muscatine, in the county of Muscatine and State of Iowa, have invented certain new and useful Improvements in Gang-Wire Stretchers; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view, showing our improved gang-wire stretcher in its operative position. Fig. 2 is a similar view, showing the device in position after the several strands of wire have been stretched. Fig. 3 is a detail view of the stretching device with its spools and braces, and Fig. 4 is a detail view of one of the arms or extensions which are used in connection with and form a part of the device.

Similar letters of reference indicate corresponding parts in all the figures.

Our invention has relation to devices for stretching the wire of wire fences; and it consists in the construction and combination of parts, as hereinafter more fully described and claimed, of an apparatus or device whereby all the strands of wire of a wire fence may be stretched simultaneously and brought to an even tension, and also be held in such even tension by shifting the apparatus to one side of the post against which it is placed in operating it.

As distinguishing our device from wire-stretchers of that class in which the strands of wire are stretched or tightened separately, we therefore term our device a "gang-wire stretcher."

In the accompanying drawings, A denotes the fence-posts, and B the several strands of wire.

Our tightening device consists of two uprights, C C, connected by cross braces or blocks D, through which the bolts E are inserted. Between the uprights C C, and alternating with the brace-blocks D, are the wire-spools F, the shafts of which are journaled in the side pieces, C C, each shaft having a square projection, G, adapted to receive a key or handle for turning it, and each shaft is further provided with a ratchet-wheel, H, adapted to engage a pawl,

I, fastened upon the appropriate side of the machine.

The frame, the construction of which has just been described, is provided with two arms, each of which consists of two beams, I' I', the converging ends of which are connected by bolts J J, and reduced or tenoned, as shown in Fig. 4, to adapt them to fit between the sides C C of the upright frame, to which they are bolted by the bolts J. A block of iron, K, is fastened between arms I I, and forms a support for the upper end of the brace L, which is stepped against the part K, while its lower end rests upon the ground. The outer or diverging ends of arms I I are connected by a curved casting, M, adapted to fit the end post of the fence, as shown in Figs. 1 and 2 of the drawings, and these arms I I should be of such a length that there is sufficient room between the post against which the apparatus is placed and the upright frame of the latter to take up the slack in tightening the wires.

The operation of the device is as follows: The machine having been placed in the position shown in Fig. 1, and suitably braced by the brace L, a stake, N, is driven through a stake-iron, O, at the lower end of the machine, so as to hold it in its place and prevent it from swinging sidewise during the operation of stretching the wires. A rope or chain is fastened on and wound around each of the spools F, and the free ends of these ropes or chains are fastened, by a suitable grappling device or by any other desired means, to the ends of the wires, after these have been passed through the staples in post A, against which the machine is placed. The lever or handle Q is then placed successively upon each of the square projections G, and the wire is drawn taut by turning the handle, which is shifted from one spool to another until all the strands of wire have been tightened, the pawls I operating to prevent the spools from slipping by the tension of the wire. After in this manner all the strands of wire have been drawn to an even tension, the stake N is removed, and the apparatus is swung around in the arc of a circle, having the post for its center, into the position shown in Fig. 2, which operates to further draw the wires, all the strands being drawn or tightened simultaneously by the operation of swinging the ma-

chine to one side of the post. The machine is then held in the position shown in Fig. 2 by the stake N, which is reinserted through the stake-iron O at the lower end of the machine.

5 We are aware that gang-wire stretchers have been heretofore constructed comprising two uprights connected by suitable braces, spools, or shafts journaled in the said uprights, and provided at one end with ratchet-wheels adapted to receive the ends of pawls pivoted upon the sides of the uprights, one end of each shaft being squared for the reception of a key or handle, by means of which the spools are rotated in order to take up the slack of the wire, and
15 we do not therefore claim such construction, broadly; but

What we claim as our invention, and desire to secure by Letters Patent of the United States, is—

20 1. The machine for stretching wire, or gang-wire stretcher, herein shown and described, the same consisting of the upright frame C C, hav-

ing brace-blocks, spools F, ratchets H, pawls I, and arms or projections I' MI', substantially as and for the purpose shown and set forth. 25

2. The combination, in a machine for stretching wire, of the frame C D, having spools F, a removable handle for turning the spools, a pawl-and-ratchet mechanism for holding the spools, the arms or extensions I I, having curved bearings M at their outer ends, brace L, stake-iron O, and stake N, all constructed and combined to operate substantially in the manner and for the purpose shown and set forth. 35

In testimony that we claim the foregoing as our own we have hereunto affixed our signatures in presence of two witnesses.

JOHN H. COLE.
EDWARD L. COLE.

Witnesses:

JOHN KNOTT,
WILLIAM A. NEAVITT.