

(No Model.)

2 Sheets—Sheet 1.

A. L. THOMPSON.
TIGHTENER AND FASTENER FOR WIRES.

No. 381,295.

Patented Apr. 17, 1888.

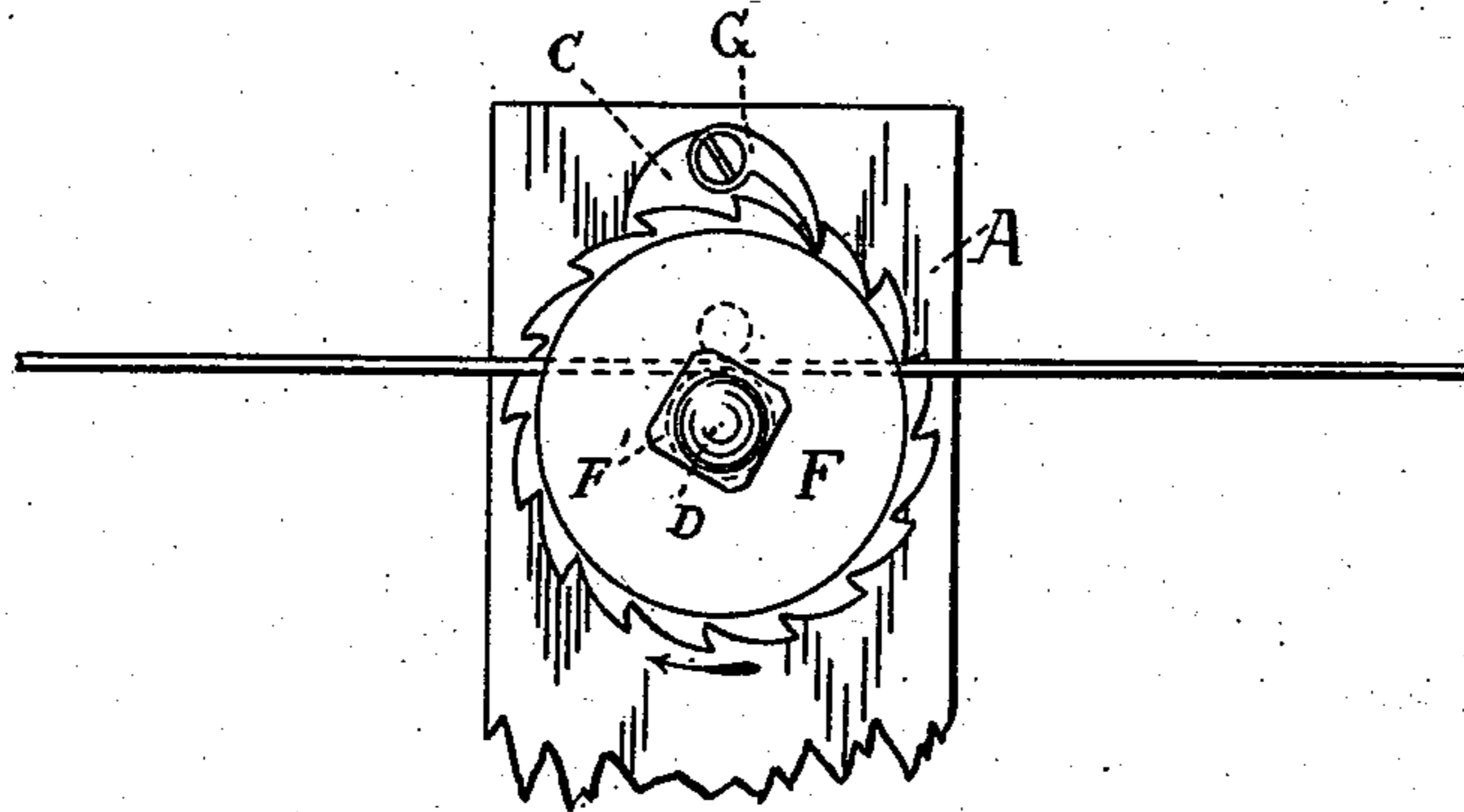


FIG. 1.

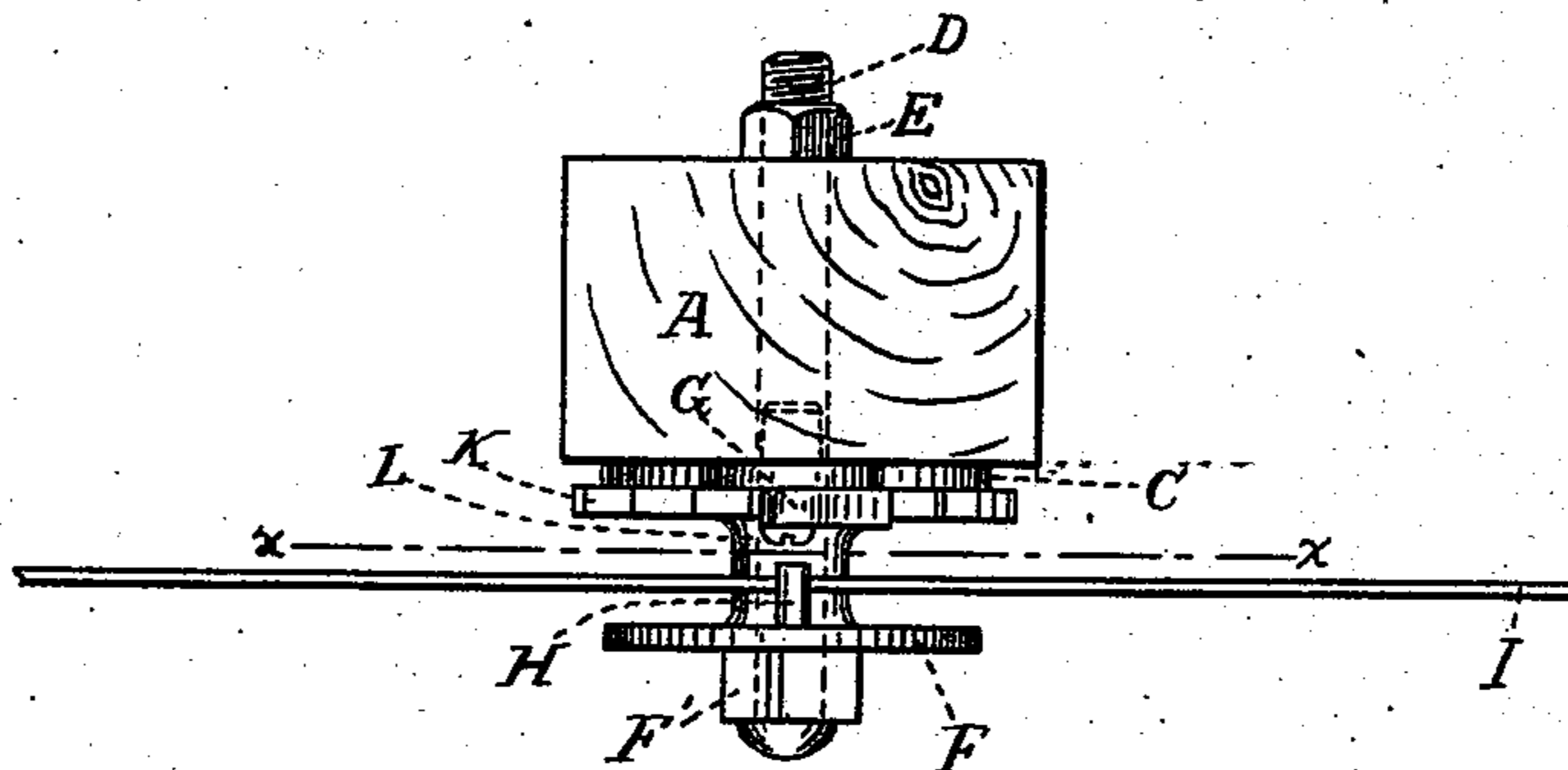


FIG. 2.

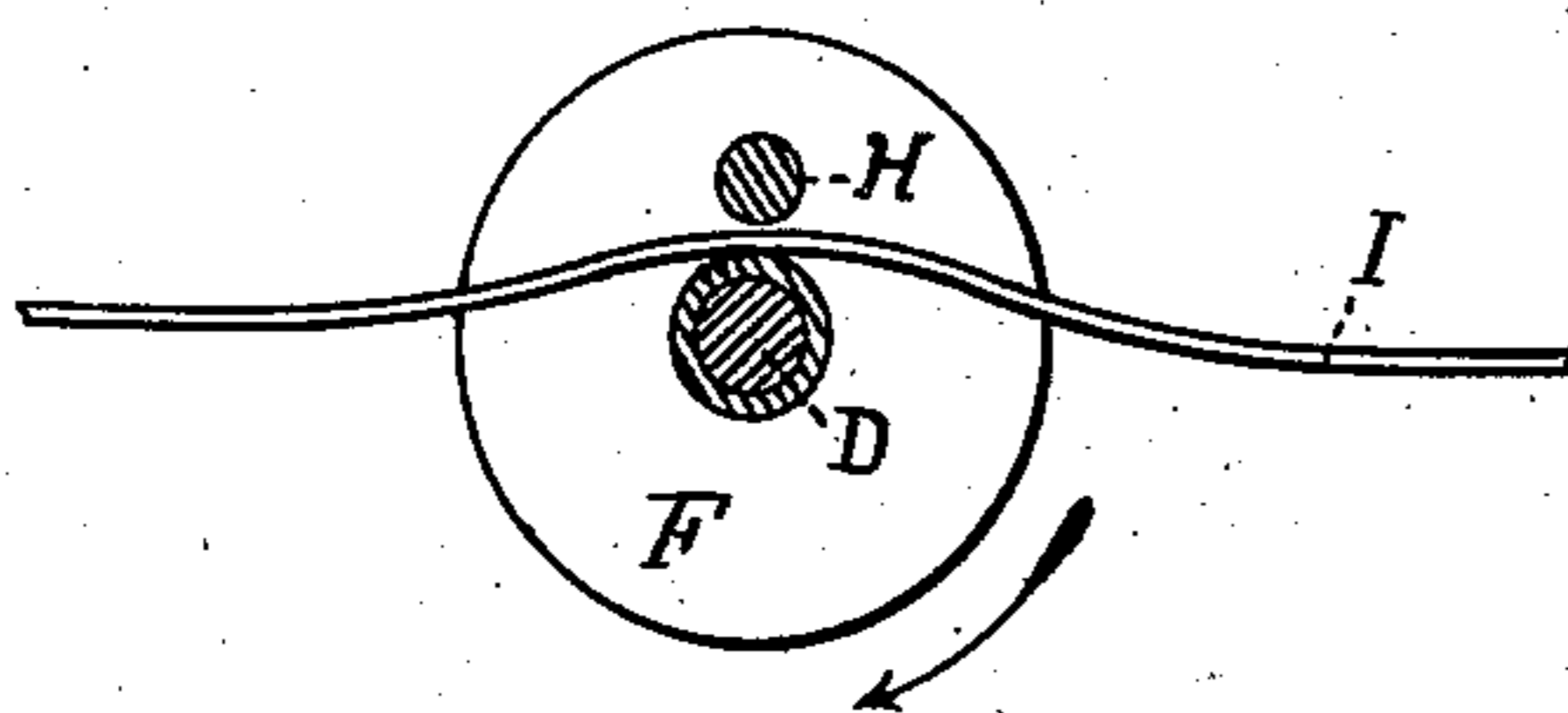


FIG. 3.

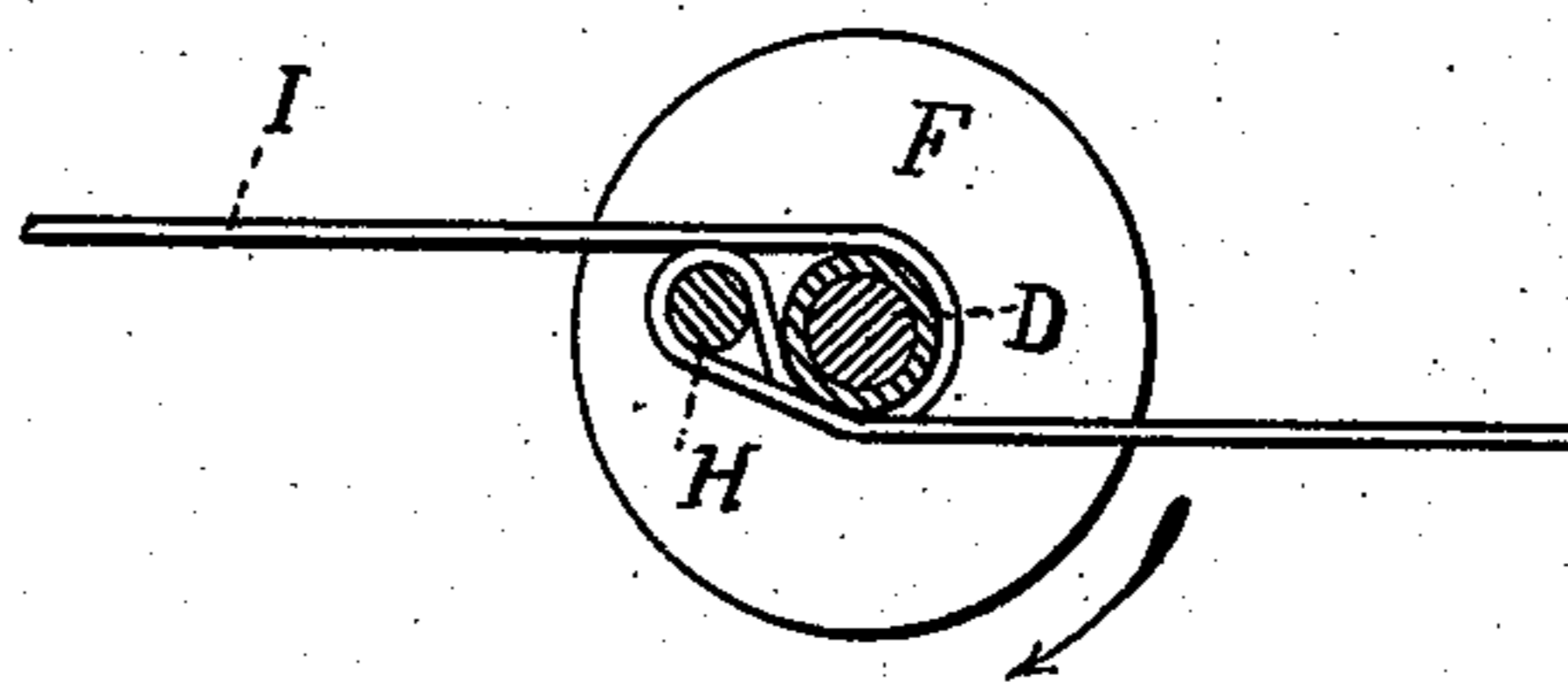


FIG. 4.

Witnesses:
Henry R. Brendel.
James L. Strong.

Inventor.
Adelbert L. Thompson

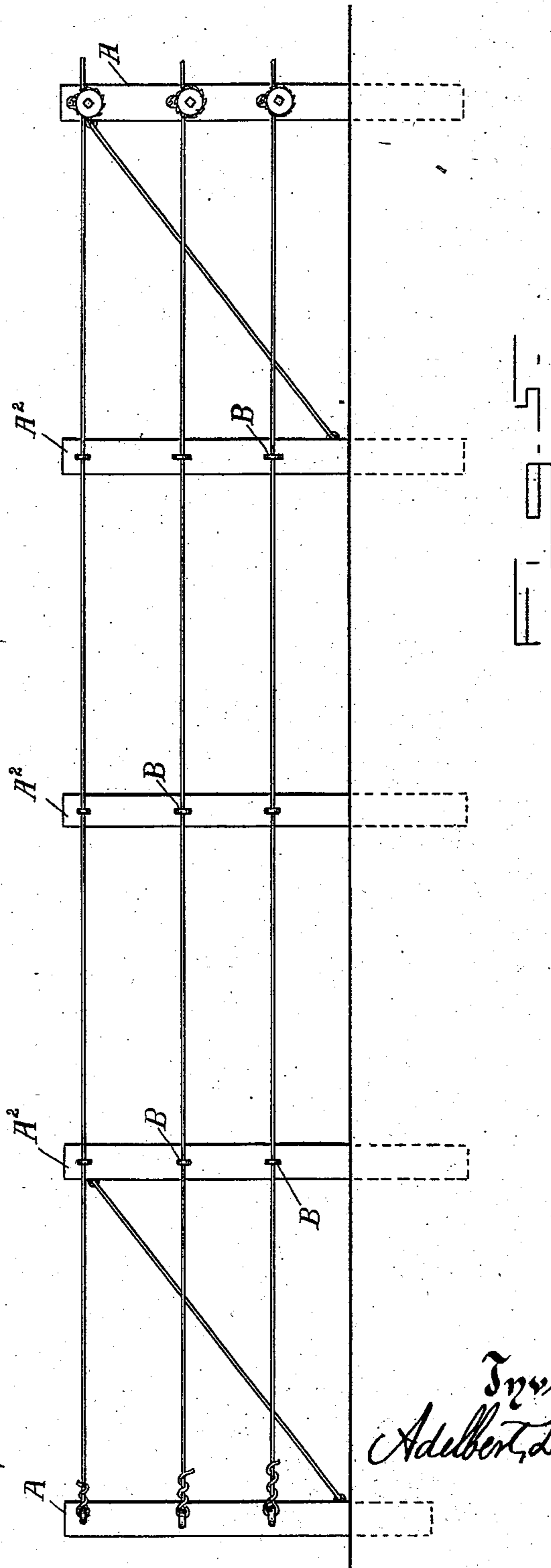
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Henry B. Brundel
Charles B. Strong.

Inventor.
Adelbert L. Thompson

UNITED STATES PATENT OFFICE.

ADELBERT L. THOMPSON, OF EAST AVON, NEW YORK.

TIGHTENER AND FASTENER FOR WIRES.

SPECIFICATION forming part of Letters Patent No. 381,295, dated April 17, 1888.

Application filed November 19, 1887. Serial No. 265,647. (No model.)

To all whom it may concern:

Be it known that I, ADELBERT L. THOMPSON, a citizen of the United States, residing at East Avon, in the county of Livingston, in the State of New York, have invented a new and useful Improvement in Tighteners and Fasteners for Wires, of which the following is a specification.

I am not aware that my invention has been patented or used in any country.

My invention relates more particularly to an apparatus for tightening wires when used for making fences or for trellises in vineyards, or other like purposes.

It is a well-known fact that wire fences, trellises, &c., are more or less subject to expansion and contraction by the elements, which invariably results in leaving the fence in a loose and hanging condition, and that the weight of fruit upon the grape-vines frequently causes the wire to sag and loosen, so as to huddle and crowd the fruit, to its great detriment.

The object of my invention is to obviate these difficulties, for by the use of my invention the wires on a fence can be loosened in the fall and tightened again in the spring by a few moments' labor, thus avoiding all breaking of wires and all loosening of posts by the contraction and expansion of the wires, and the wires on trellises can be tightened while loaded with vines and fruit without injury to either.

I will now proceed to describe my invention, reference being had to the annexed drawings.

Like figures and letters represent like parts.

Figure 1 is a side elevation of my improved tightening device. Fig. 2 is a top plan view of the same. Fig. 3 is a section taken through the line *x x*, Fig. 2, looking at the inner face of the front plate and showing the wire in a loose position. Fig. 4 is a similar view showing the wire in its tightened position. Fig. 5 shows my improved tightener applied to a fence.

In the drawings, A represents a post to which my improved tightener is fastened (see Figs. 1 and 2) by the bolt D, which is held in

position by the nut E. The ratchet-wheel K, drum or hollow shaft L, and front plate, F, are integral with each other. Between the ratchet-wheel K and post A is a washer, C, having an extension on its upper end, to which the pawl G is loosely pivoted, and opposite such pivot is a small projection integral with the washer and sunk into the post A (see Fig. 2) to prevent displacement of the washer C. On the inner face of the front plate, F, and slightly above the hollow center shaft, L, is the projecting pin, stud, or bolt H. On the outer surface of the plate F is the hollow projection F', through which the bolt D passes, its outer surface being square for the reception of a key, crank, or wrench.

The operation of my invention is as follows: In Fig. 5 I have shown a three-wire fence having a tightener for each wire secured to the post A. It is intended that these tighteners remain permanently upon the post—one tightener for each wire. The wires are to be firmly fastened to the end posts, which are securely braced, and to pass loosely through eyes or staples B on all intermediate posts, A² A² A², to near the center of the fence. The tighteners (corresponding in number with the number of wires used upon the fence) are permanently bolted to one of the posts near the center of the fence. (The drawings represent but one-half the length of the fence.) When it is desired to tighten the wire, it is laid on the top of the drum or hollow shaft L and under the pin, stud, or bolt H, as seen in Fig. 3. A key, crank, or wrench is applied to the square projection F', and the whole reel turned on the bolt D in the direction of the arrow, thereby tightening the wire in both directions at the same time, as seen in Fig. 4, and the wire is rigidly held in its tightened position by the pawl G, which is loosely pivoted to the rigid washer C.

I am aware that prior to my invention wire tighteners and fasteners have been made; but my invention is distinguished from them all by being a tightener consisting of a hollow shaft, L, having a projecting square end, F', a ratchet-plate, K, and a front plate, F, provided with the pin, bolt, or stud H, integral

with each other and in combination with the post-bolt D, washer C, and pawl G.

What I claim as my invention, for which I desire to secure Letters Patent, is—

- 5 A tightener or fastener consisting of a hollow shaft, L, having a projecting square end, F', a ratchet-plate, K, and a front plate, F,

provided with the pin, bolt, or stud H, integral with each other, in combination with the post-bolt D, washer C, and pawl G.

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Witnesses:

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HENRY W. BRENDL.