

W. B. HAYDEN.

Wire Stretcher.

No 81.367.

Patented Aug. 25, 1868.

Fig. 1

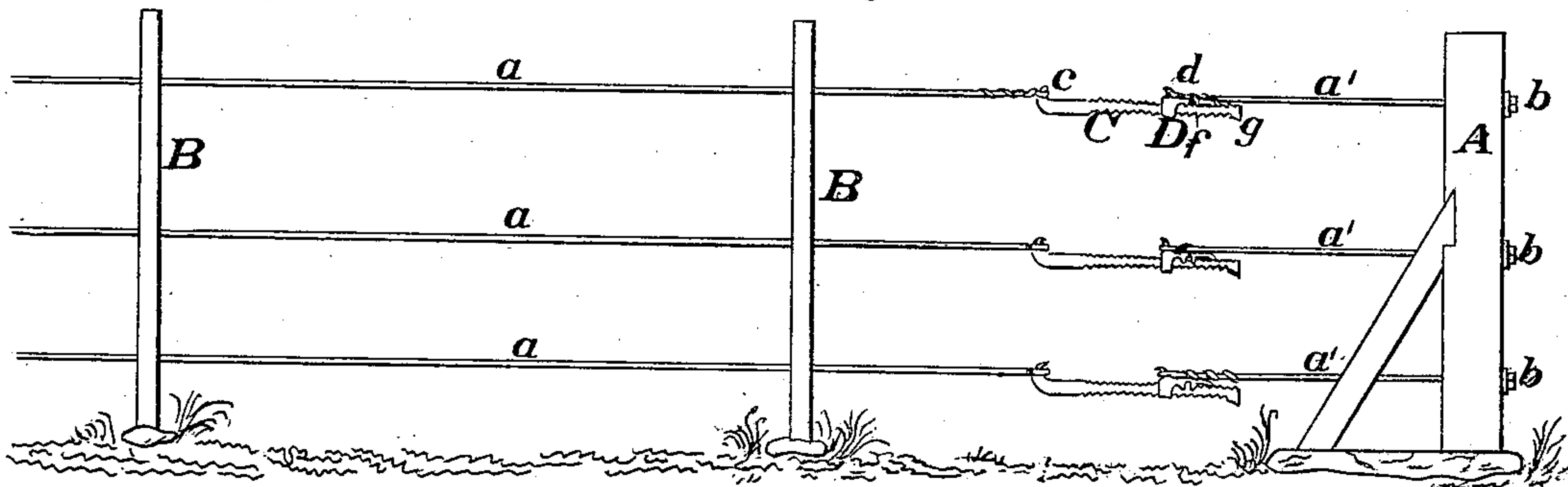


Fig. 2

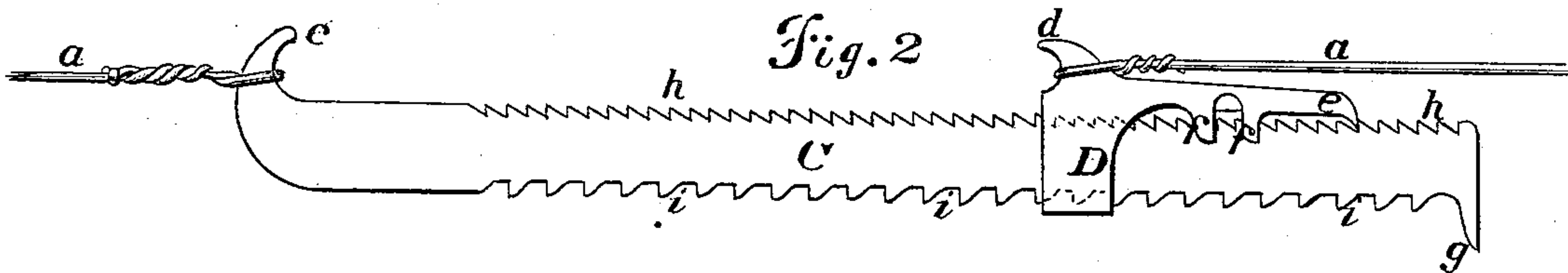


Fig. 3

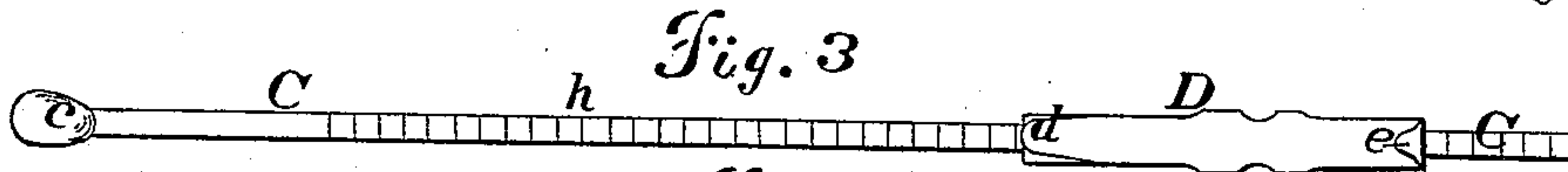
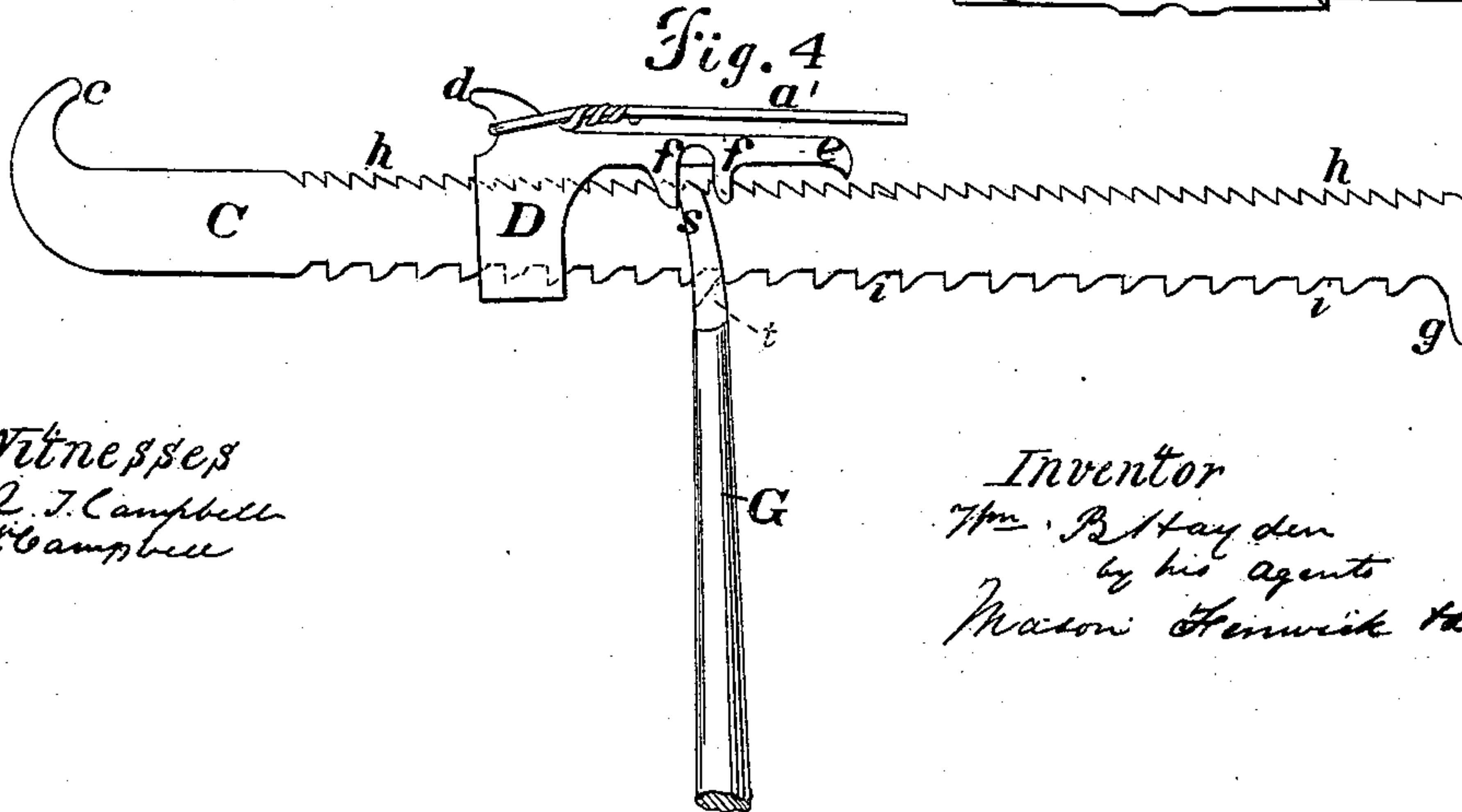


Fig. 4



Witnesses  
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# United States Patent Office.

WILLIAM B. HAYDEN, OF COLUMBUS, OHIO.

*Letters Patent No. 81,367, dated August 25, 1868.*

## IMPROVEMENT IN WIRE STRETCHER FOR FENCE.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, WILLIAM B. HAYDEN, of Columbus, in the county of Franklin, and State of Ohio, have invented a new and improved Wire Stretcher; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a view representing the improved wire stretchers applied to a wire fence.

Figure 2 is an enlarged view, showing the construction of the parts forming the stretcher in position for holding wire under tension.

Figure 3 is a top view of the stretcher.

Figure 4 shows the manner of applying a lever to the stretcher for tightening wires.

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

Owing to the expansion and construction of long lines of wire fences and vine-training frames, it is desirable to have some contrivance which will allow the wires to be readily tightened or slackened at pleasure, and which will not be subject to injury in consequence of exposure to the weather.

The nature of my invention consists in a hooked ratchet-bar, having teeth upon its opposite edges, and provided with a hooked slide and pawl, which can be adjusted forward or backward by means of a lever, and set at any desired point between the ends of the ratchet-bar, while the said hooks are holding wires under tension, as will be hereinafter explained.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

Fig. 1 of the accompanying drawings represents a portion of a fence, which is constructed chiefly of wires, *a a'*, which are secured to braced posts, A, and passed through intermediate posts, B B. The wires are secured fast in any suitable manner to posts A, which are arranged at proper distances apart, and which are strongly braced in upright positions, so as to resist considerable strain.

The supporting-posts B are constructed with holes through them, through which the fence-wires pass freely for the purpose of allowing the wires which are stretched between the braced posts to be tightened or loosened. In this figure three lines of wires are represented, with my improved stretcher applied to each line. In figs. 2, 3, and 4, the stretcher is represented enlarged, for the purpose of more fully showing its peculiarities.

C represents a flat bar of metal, which may be made of any desired length, and which is constructed with a hook, *c*, on one end, turned upward for receiving and having fastened to it a wire, *a*, as shown in figs. 1 and 2. The upper and lower edges of the bar C are notched, so as to form teeth somewhat resembling saw-teeth. The teeth *h*, upon the upper edge of the bar C, serve as ratchet-teeth for receiving a pawl, *e*, which is formed upon an extension of a slide, D, and holding the slide securely in position to plate C, at any desired point. The teeth *i*, upon the lower edge of bar C, are designed to serve as fulcrum for a forked lever, G, which is used for adjusting the slide and pawl upon the bar C in the act of stretching or slacking the fence-wire. The long tooth *g*, on the lower edge of bar C, at the end opposite hook *c*, serves as a stop to prevent the slide from becoming detached from its bar.

Upon the upper edge of slide D, a hook, *d*, is formed, which is bent in an opposite direction to the hook *c* on bar C, which hook *d* is designed for fastening the short wire *a'* to the slide, as shown in figs. 1, 2, and 4. Between the engaging-end of the pawl *e* and the slide D, two teeth, *f f*, are formed on each side of this pawl, so as to extend down and receive between them the upper edge of the bar C. These teeth are adapted for receiving between them the forked ends, *s*, of lever G, when this lever is adjusted so that the bevelled nose *t*, in its crotch, bears against one of the teeth *i* upon the lower edge of bar C, as shown in fig. 4.

When it is desired to tighten a wire applied to a fence, as shown in fig. 1, the lever G is adjusted so that its forked ends *s* engage with the teeth *f* on pawl *e*, and its nose, *t*, engages with one of the teeth *i*. When in this position, the pawl *e* can be lifted from its teeth, and, with the slide D, moved toward the hook *c* by simply drawing the lower end or long arm of lever G in an opposite direction.

The lever G will have to be moved along from tooth to tooth, according to the length of movement it is required to give the pawl-slide D.

To loosen the pawl-slide, and allow it to relax the wire, the lever G is adjusted with its forked end astride the upper edge of bar C, so as to lift the engaging-end of the pawl from its teeth, *i*.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A hooked ratchet-bar, C, constructed with teeth, *h* *l*, and a hook, *c*, in combination with a hooked sliding-pawl, said parts being adapted to operate substantially in the manner and for the purposes described.

2. A hooked ratchet-bar, C, and a hooked sliding-pawl adapted for receiving a lever, G, for effecting the tightening and loosening of wire in fences and vine-frames, substantially as described.

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Witnesses:

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