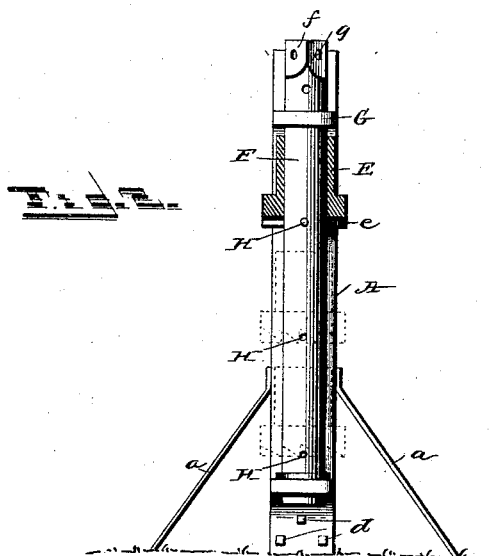
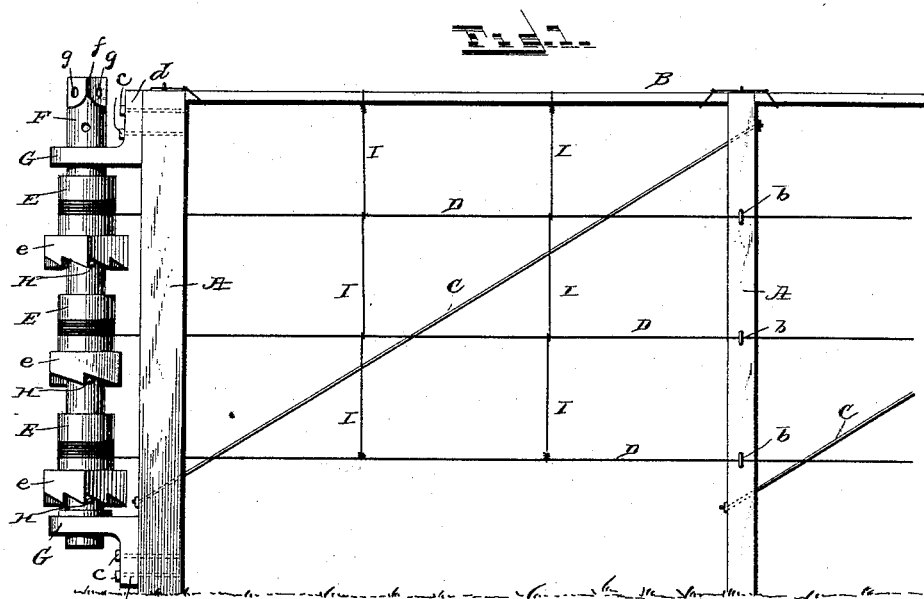


(No Model.)

B. DOUD.
WIRE TIGHTENER.

No. 417,993.

Patented Dec. 24, 1889.



Witnesses

L. S. Elliott,
E. H. Bond.

Inventor

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By his Attorneys

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UNITED STATES PATENT OFFICE.

BRENSON DOUD, OF CHILL, INDIANA.

WIRE-TIGHTENER.

SPECIFICATION forming part of Letters Patent No. 417,993, dated December 24, 1889.

Application filed March 23, 1889. Serial No. 304,484. (No model.)

To all whom it may concern:

Be it known that I, BRENSON DOUD, a citizen of the United States, residing at Chili, in the county of Miami and State of Indiana, have invented certain new and useful Improvements in Wire-Tighteners; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

This invention relates to certain new and useful improvements in fences, and more particularly to means for tightening the wires of the fence; and it has for its object to provide mechanism whereby any one of the wires may be tightened independent of the others, or all of the wires simultaneously, as may be desired.

The invention consists in the peculiarities of construction and the novel combinations, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then particularly pointed out in the appended claim.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a side elevation of a portion of a fence provided with my improved tightening device. Fig. 2 is an end view of Fig. 1 with parts in section and parts removed, their position being indicated by dotted lines.

Referring now to the details of the drawings by letter, A A designate the posts firmly set in the ground and preferably braced by the inclined metallic braces a.

B is the top rail secured to the posts, and C are inclined braces extending diagonally from post to post, as indicated, for the purpose of strengthening the same.

D are the wires of the fence, which are passed through the eyes or staples b and have their ends secured in any suitable manner to the spools E. Each spool has formed integral therewith at its lower end a ratchet e, the sides of the enlarged portion of the spool on which the ratchet-teeth are formed being made polygonal, as shown, to receive a wrench

or other suitable means, whereby the spools may be rotated when desired. These spools are sleeved on the vertical shaft F, which has suitable bearings in the brackets G, secured to the end post by means of the bolts c, which are passed through the flanges d of said brackets, as shown in Fig. 1. One end of this vertical shaft F is squared, as shown at f, or provided with holes g, or both, to receive a wrench or other suitable tool by which said shaft may be turned in its bearings.

H are pins removably inserted in suitable holes transversely of the shaft F and engaged by the ratchet-teeth of the spools, so that when the shaft F is turned all the spools will be turned with it, and consequently all the wires will be simultaneously tightened by the one operation.

Should any one of the wires alone require tightening or need to be tightened more than the others, the pin H, which holds the spool to which that wire is fastened, is removed, when by applying the wrench to the polygonal portion of said spool the same may be turned until the wire is sufficiently tightened. Then on inserting the pin it will engage the ratchet-teeth on the spool and hold the same to the shaft. Thus it will be seen that the wires can be tightened each independent of the other, or all tightened simultaneously, as occasion may require.

I are wires secured at one end to the top rail and embracing with a loose loop each of the wires D, and twisted about themselves at the lower end, as shown. These wires prevent sagging of the fence-wires and serve to keep them in true line with the spools, and yet by reason of the loose loop do not interfere with the tightening of the fence-wires.

Any suitable means may be provided for preventing the shaft from turning backward with the sleeves.

What I claim as new is—

The combination, with the post and the brackets G, secured thereto and formed with horizontal portions, of the vertical shaft supported in said horizontal portions and formed at its upper end with squared portion provided with holes, as shown, the spools E, formed with squared portion provided with

ratchet-teeth and vertically movable on the shaft independent of each other, and the removable pins passed transversely through openings in the shaft and adapted to engage
5 the ratchet-teeth on the spools, substantially as shown and described.

In testimony that I claim the above I have

hereunto subscribed my name in the presence of two witnesses.

BRENSON DOUD.

Witnesses:

JAMES M. BROWN,
NOTT N. ANTRIM.