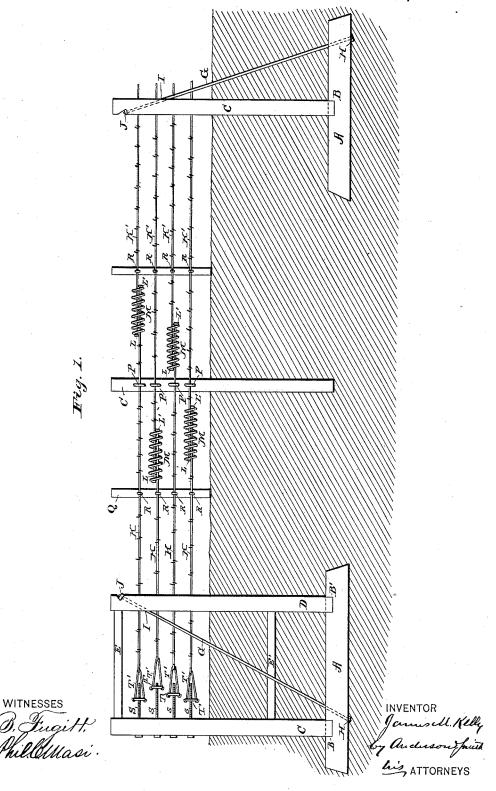
# J. M. KELLY. FENCE.

No. 344,660.

Patented June 29, 1886.



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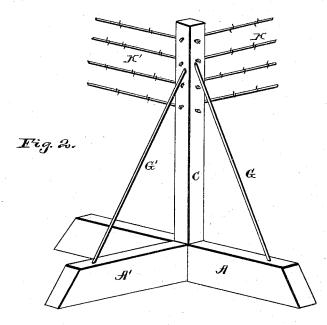


Fig. 3.

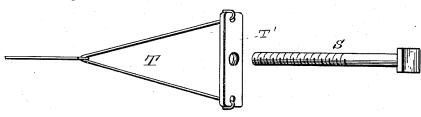


Fig. 4.



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## United States Patent Office.

### JAMES MADISON KELLY, OF KINGSTON, INDIANA.

### FENCE.

SPECIFICATION forming part of Letters Patent No. 344,660, dated June 29, 1886.

Application filed February 19, 1886. Serial No. 192,587. (No model.)

To all whom it may concern:

Be it known that I, JAMES MADISON KELLY, a citizen of the United States, residing at Kingston, in the county of Decatur and State of In-5 diana, bave invented certain new and useful Improvements in Fences; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of a section of my improved fence. Fig. 2 is a view of a corner-post. Fig. 3 is a view of the tapering nut and headed bolt. Fig. 4 is a

view of the spiral spring.

My invention has relation to fences; and it 26 consists in the construction and novel combination of parts, as will be hereinafter fully described, and particularly pointed out in the claim.

Referring by letter to the accompanying 25 drawings, A designates a sill or piece of timber six or eight feet long securely embedded in the ground four feet below the surface. This sill A is provided in its upper face with two rectangular notches, B B', in which the 30 lower end of the fence post C and the lower end of the brace-post D, respectively, rest.

E E' are horizontal brace-bars, placed between the fence-post and brace-post, the one, E, near the upper ends of said posts, and the 35 other, E', about two feet below the surface of

the ground.

G is a diagonally disposed metal tie rod, which passes down through the sill A, and is secured at its lower end by a nut, H, and also 40 passes through a slot, I, near the upper end of the brace post, and is secured at its upper end by a nut, J.

K K' designate two sections of barbed wire, the adjacent ends of which are connected by 45 headed draw-rods L L', which are encircled by a spiral or coil spring, M, which provides for the expansion and contraction of the wires under heat and cold. The fence-posts are set about eighty feet apart, and the wires are se-50 cured to them by large staples P, which permit the wires to be drawn and stretched through

said staples.

Q designates wooden stay-bars, which are secured to the fence-wires by staples R, and rest upon the ground and prevent the fence- 55 wires from sagging to any considerable extent between the fence posts. At the ends of the fence-sections the fence-wires are connected to the fence posts by tightening devices, comprising headed bolts S and threaded nuts T, 60 screwed thereon, which carry loops T' for the attachment of the fence-wires. By turning the bolts S the fence-wires may be tightened at any time when necessary without causing the barbs to conflict with the large staples. 65 The spiral springs M, when drawn upon, contract and become stronger, instead of expanding and becoming weaker, as in most cases. If the wires become too tant in cold weather, they can be loosened by turning the nuts in 70 the proper direction; and should they become too loose they can be as easily tightened by turning the nuts in the proper direction. These bolts and nuts, in connection with the posts and fence-wires, form permanent stretch- 75 ers, and are always in place ready for use, so that the fence-wires may be tightened or loos-ened at any time, as may be necessary. Where the posts C are corner-posts, it is necessary to employ an auxiliary sill, A', and to connect 80 it with the post C by an extra tie-rod, G', in order to give the fence the requisite strength. The fence-posts C, at the points where the brace post D and tightening nuts are not needed, have a sill, A, with only the notch B and 85 a tie rod, G.

Having described this invention, what I claim, and desire to secure by Letters Patent,

The combination, with the fence-post, brace- 90 post, brace-bars, and brace-rod, of the fencewires, the headed threaded bolt-rods, and the tightening devices connecting the fence-wires and bolt-rods, substantially as specified.

In testimony whereof I affix my signature in 95 presence of two witnesses.

JAMES MADISON KELLY.

Witnesses:

JAMES W. CRAIG, CORTEZ EWING, Jr.