(No Model.)

G. J. CLINE.

FENCE.

No. 490,946. Patented Jan. 31, 1893.

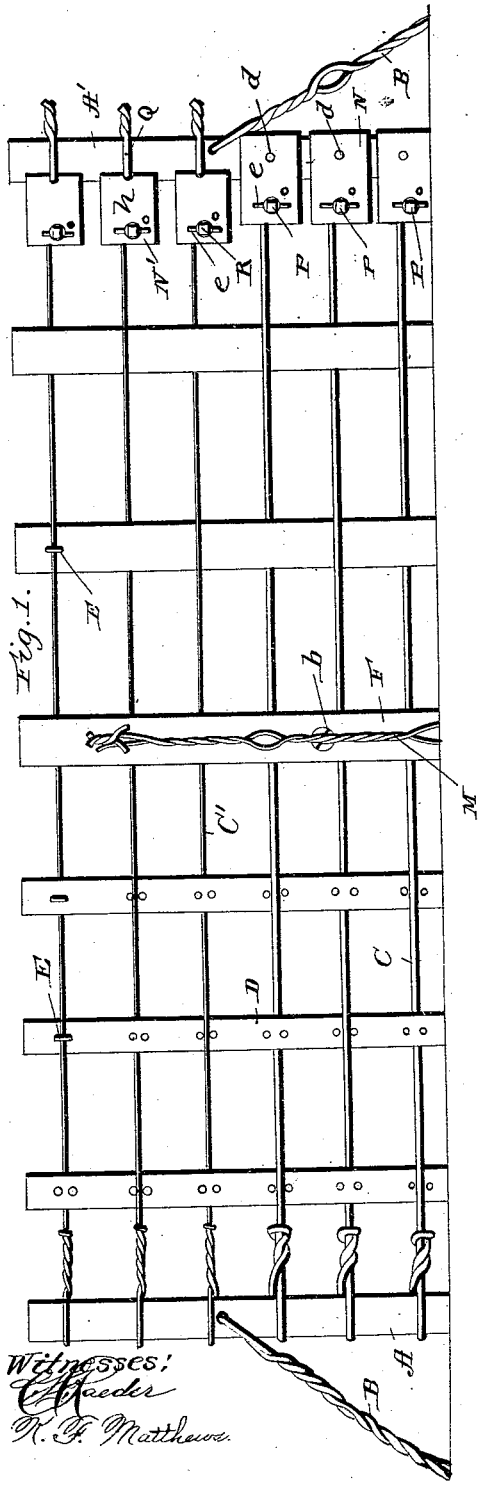

Fig. 1.

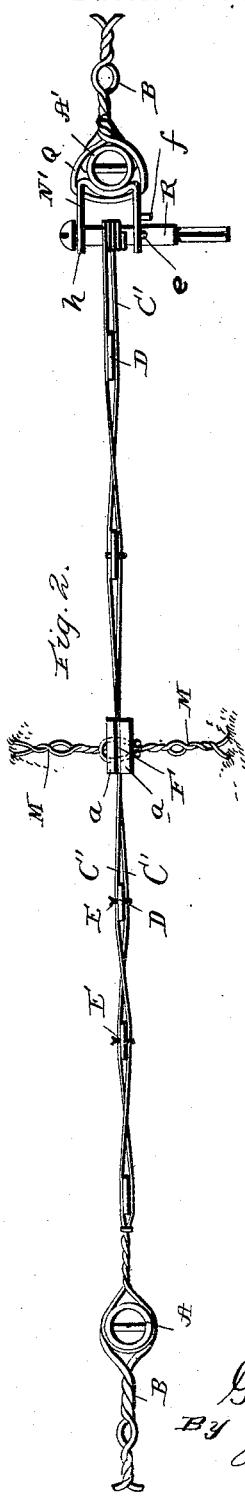

Fig. 2.

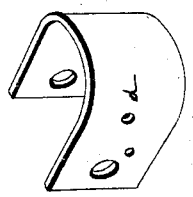

Fig. 3.

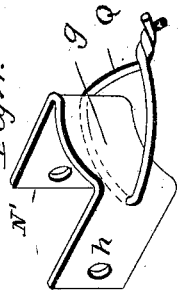

Fig. 4.

Witnesses:
C. Haeder
R. F. Matthews.

Inventor
George J. Cline
By James J. Sheehy
Attorney

UNITED STATES PATENT OFFICE.

GEORGE J. CLINE, OF GOSHEN, INDIANA.

FENCE.

SPECIFICATION forming part of Letters Patent No. 490,946, dated January 31, 1893.

Application filed August 1, 1892. Serial No. 441,840. (No model.)

To all whom it may concern:

Be it known that I, GEORGE J. CLINE, a citizen of the United States, residing at Goshen, in the county of Elkhart and State of Indiana, have 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.

My invention has relation to improvements in that class of fences known as "wire and picket fences," and it has for its general object to provide such a fence of a cheap, simple and durable construction embodying devices whereby it may be readily tightened and rendered more rigid when necessary.

With the foregoing end in view, the invention will be fully understood from the following description and claim when taken in conjunction with the annexed drawings, in which:—

Figure 1, is a side elevation embodying my invention. Fig. 2, is a top plan view of the same. Fig. 3, is a perspective view of one of the hangers for the tension device, which form is more especially designed for use upon iron posts and in conjunction with heavy line wires, and:—Fig. 4, is a similar view of a modified hanger designed more especially for use upon wooden posts and in conjunction with light wires.

Referring by letter to the said drawings:—A, indicates the end post of a fence, which may be of wood, iron or other material, and B, indicates the brace which has one end anchored in the ground and the other end connected to the post A, as shown so as to enable said post to effectually resist longitudinal strain.

C, C′, respectively indicate the heavy and light line wires, which have their ends suitably connected to the end post A, and are arranged as shown; the heavy wires forming the lower series so as to strengthen the lower portion of the fence which is subjected to the greatest strain and the light wires forming the upper series where the strain is lightest.

A′, indicates the end post of the fence upon which the tension devices are mounted, which post is provided with a brace B, similar to that sustaining the post A.

When an iron end post is employed and it is desired to use heavy line wires as C, I prefer to employ hangers N, which are of an approximate U-form and are provided with transverse bolt holes as *d*, for the passage of bolts through the medium of which they are fixedly connected to the post A′, which they straddle and upon which they are mounted one above the other as better illustrated in Fig. 1, of the drawings.

Journaled in the parallel branches of the hangers N, are winding shafts P, to which are connected the line wires C, which are designed and adapted to be tightened by being wound upon the said shafts. These shafts P, which have one of their ends squared to receive a crank or the like, are held in position by suitable keys *e*, which are designed to be engaged by the removable laterally disposed pins *f*, which take through apertures in the branches of the hangers and serve to prevent a casual unwinding of the shafts P, and a consequent slackening of the line wires.

N′, indicates a modified form of hanger which embodies a shaft R, key *e*, and a pin *f*, similar to those of the hangers N, before described. These hangers N′, which are designed more particularly for wooden posts which are liable to be weakened by passing bolts through them, comprise a concavo-convex body *g*, designed to rest against the post, and the parallel branches *h*, designed to form bearings for the winding shafts R, and their appurtenances, as before described.

Taking through the branches *h*, of the hangers N′, adjacent to the body *g*, thereof, are wires Q, which embrace the post and have their ends twisted tightly so that they serve to hold the hangers securely in position.

From the foregoing description it will be readily perceived that I have provided an exceedingly cheap, simple, and durable fence and one embodying such a construction that it may be easily tightened when necessary, and consequently be kept in a rigid and stiff position.

Having described my invention what I claim is:—

In a fence, substantially as specified, the combination with an end post and a series of line wires connected thereto, of another end post, a series of hangers connected to said

post and respectively comprising a concavo convex body adapted to rest against the post, parallel branches, and a wire loop, embracing the post and serving to connect the hanger thereto the transverse shafts journaled in the branches of the hangers and adapted to wind the line wires, the keys securing said shafts in position and the pins adapted to engage the keys, substantially as and for the purpose specified.

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

GEORGE J. CLINE.

Witnesses:
GEO. W. RICH,
H. N. JENNER.