J. H. ERB.

Fence Wire Tightener.

No. 211,139. Patented Jan. 7, 1879.

Fig. 1.

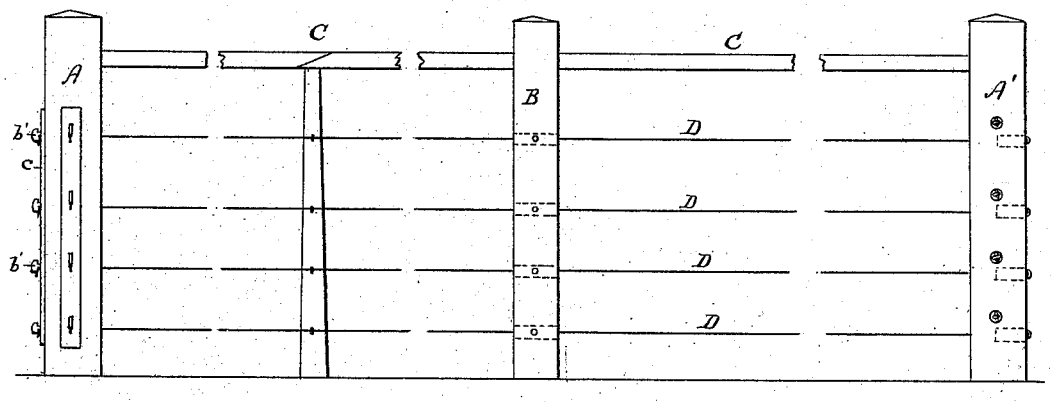
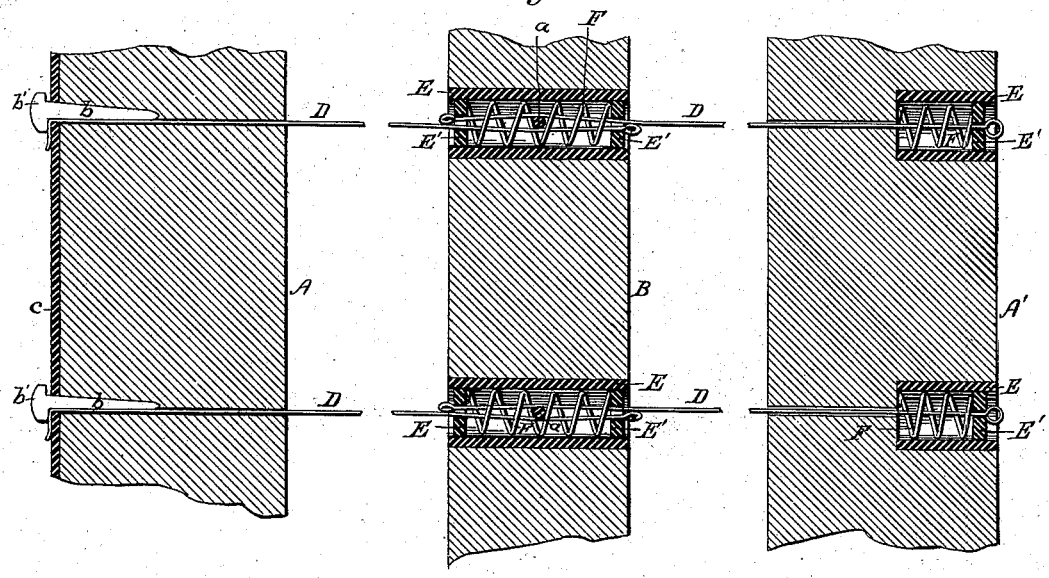


Fig. 2.



Witnesses:

C. Clarence Poole

Warren Selby

Inventor

Jesse H. Erb

by Geo. W. Dyer & Co.

Attys.

UNITED STATES PATENT OFFICE.

JESSE H. ERB, OF CLEVELAND, OHIO.

IMPROVEMENT IN FENCE-WIRE TIGHTENERS.

Specification forming part of Letters Patent No. **211,139**, dated January 7, 1879; application filed April 29, 1878.

To all whom it may concern:

Be it known that I, JESSE H. ERB, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and Improved Device for Constructing Wire Fences; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object I have in view is to produce a wire fence in which the wires will always be maintained at sufficient tension independent of their expansion or contraction, and which will be simple in its construction and will have means for protecting the tension-springs from the weather and for hiding them from sight; and my invention therein consists in placing in the desired number of the posts a metal tube for each line of wire, and a spring within each tube, the said tubes being closed at their ends by plates, and the ends of the wire being lapped and secured to such plates, so as to compress the springs.

In the drawings, Figure 1 is an elevation of one side of a wire fence; and Fig. 2, an enlarged sectional view of three of the posts through two wires.

A A′ represent the corner posts of the wire fence, and B an intermediate post. These may be connected by a top rail, C, of wood, which serves the double purpose of strengthening the fence and of making the wire panels visible, preventing pedestrians or cattle from accidentally running against the wires.

The wires D are stretched from post to post to form the panels, any required number being employed. In such intermediate posts B where the ends of the wires meet a hole is bored through the post for each line of wire, and in this hole is inserted a metal tube, E, in which is placed a spring, F, of proper material. These springs are preferably made of coiled wire, but may be constructed from rubber or other suitable elastic material.

The wires are passed through the springs and secured to plates E′, which close the ends of the tubes and compress the springs between them. Each wire passes loosely through the plate E′ it first reaches, through the spring, and is secured to the opposite plate E′, the ends of the wires lapping throughout the length of the tube E.

A pin, *a*, may be driven through the post B, passing centrally through each tube E and spring F, so as to hold such parts in position and prevent the spring from being pulled from the post when either wire is broken.

The tension-spring and the other parts just described would not be used in every intermediate post, but only at regular intervals, as may be found necessary. The wires are attached to the other intermediate posts by being passed directly through them, or, preferably, through staples driven into their sides, as shown.

At the corner post A′, where the wires are started, a tube, E, spring F, and a single compressing-plate, E′, are preferably used; but the wires may be rigidly secured, as at the terminal post A, where, after the wires are stretched to the proper tension by any suitable machine, they are secured, as shown, by wedge-shaped metal pins *b*, having heads *b′*, such pins being driven through a proper plate, *c*, into the post.

By the use of the spring tension the wires are always kept taut and less posts are required. The springs are also concealed from sight, so as not to mar the symmetry of the fence, and are protected from the effects of the weather.

What I claim as my invention is—

In a wire fence, the combination, with an intermediate post, B, of the metal tubes E, placed therein, the springs F in the tubes, the plates E′ at the ends of the tubes, and the wires D, lapped at their ends and secured to the plates E′, constructed and arranged substantially as described and shown.

This specification signed and witnessed this 18th day of February, 1878.

JESSE H. ERB.

Witnesses:
EDW. S. TRACY,
OSCAR BALZER.