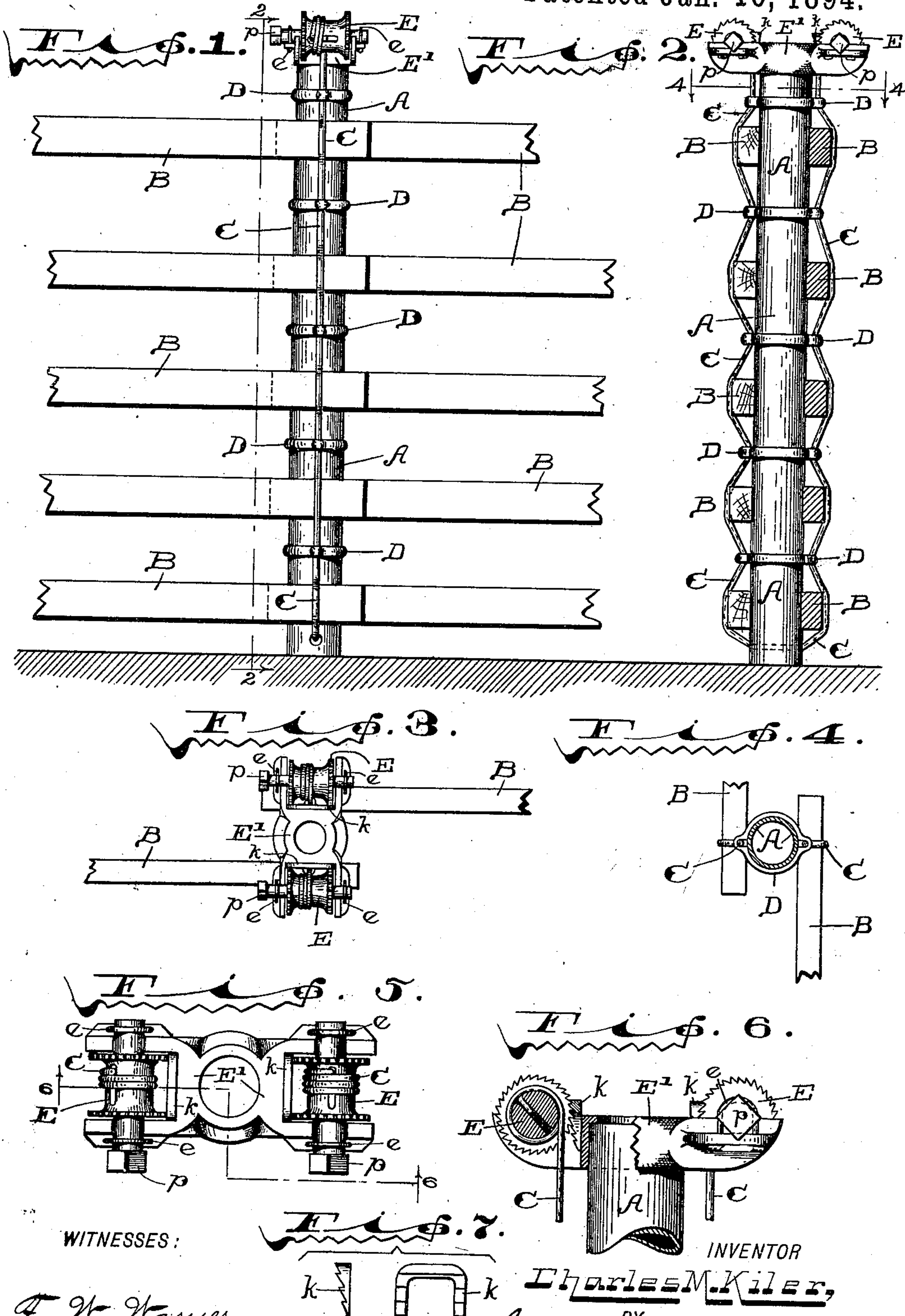


(No Model.)

C. M. KILER.
FENCE.

No. 512,885.

Patented Jan. 16, 1894.



WITNESSES:

F. H. Hamer.
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UNITED STATES PATENT OFFICE.

CHARLES M. KILER, OF INDIANAPOLIS, INDIANA, ASSIGNOR OF ONE-HALF
TO STEPHEN E. URMSTON, OF SAME PLACE.

FENCE.

SPECIFICATION forming part of Letters Patent No. 512,885, dated January 16, 1894.

Application filed September 5, 1893. Serial No. 484,820. (No model.)

To all whom it may concern:

Be it known that I, CHARLES M. KILER, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Fences, of which the following is a specification.

The object of my said invention is to provide a means whereby fence rails can be firmly and at the same time economically secured to their posts.

Said invention will be first fully described and the novel features thereof then pointed out in the claims.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a side elevation of fragments of two panels of fence where they unite upon a post, the attachment being made by means of my invention; Fig. 2 a transverse sectional view thereof as seen from the dotted line 2 2 in Fig. 1; Fig. 3 a top or plan view of the parts as shown in Fig. 1; Fig. 4 a horizontal sectional view looking downwardly from the dotted line 4 4 in Fig. 2; Fig. 5 a top or plan view of the tightening and fastening device separately on an enlarged scale; Fig. 6 a detail view of the same, as seen from the dotted line 6 6 in Fig. 5, and Fig. 7 an edge and face view of one of the keys whereby the spools are locked in position.

In said drawings the portions marked A represent the fence post; B the rails; C the wires whereby the rails are secured to the post; D rings holding the wire toward the post at points intermediate the rails; and E spools attached to the ends of the wire, by which the same is manipulated. The post A is shown as an ordinary tubular iron post, although it may be of any desired character; and the rails B are common fence rails. The wire C is first inserted through a hole drilled through the post A below the lower rails, and its central portion rests in said hole. It then passes up on both sides, engaging with the rails B, and thence passes under or through the rings D, and its ends are attached to and governed by the spools E, as will be presently described. When drawn taut, as it is intended to be when the fence is finished, it cuts into the corners of the rails, and thus forms a very secure fas-

tening therefor, longitudinally as well as vertically.

The rings may be of any appropriate form or construction, but are preferably of the form shown most plainly in Fig. 4, adapted to fit around the post, and having ears or extensions at the sides through which the wire C passes. By making these of malleable iron, or some such strong material which is not capable of being easily broken, they may be made very light and cheap.

The spools E are mounted in supports E' therefor, which in turn are mounted upon the tops of the posts A, and the shafts of said spools are held into bearings in said supports preferably by wire clips *e*. Said spools are flanged, as shown, to hold the wire properly, and they are perforated through the center to receive the ends of the wire. One end of each of said spool shafts preferably has a square portion *p* by which the spool can be conveniently turned by means of a wrench. The edges of the flanges of the spools are serrated, and keys *k* provided with similar serrations are adapted to pass down behind said spools and engage with said serrated edges, as shown most plainly in Fig. 6. Said keys are preferably bifurcated, (see Fig. 7,) and the two limbs are adapted to engage with the two flanges of the spool.

In building a fence according to my invention, I prefer to take the piece of wire (or wire cable) which is to be used, and first insert it through the hole in the bottom of the fence post, bringing the ends up and attaching them to the spools E, and winding the slack wire up on said spools until it is substantially taut. A sufficient number of rings D are of course placed over the wire under the spool support at the same time. The lower rails are then inserted between the wire and the post, one of the rings D forced down to the proper position, and the spools turned until the wire cuts into the substance of the wood of the rails. The wire is then slacked off enough to permit the insertion of the next set of rails, when another ring D is slid down to position and the operation is continued, and so on, until all the rails are thus tightly secured in place. After the rails are all placed, the spools are turned up tightly and the keys *k* inserted behind them, locking them to position, the

spools and spool supporting frame remaining a part of the fence structure. Whenever, from the ravages of time or otherwise, the fence rails become loose, a slight tightening of the wires, by means of the spools already in place, corrects the difficulty, and in case a rail becomes broken, it is only necessary to slacken the wires up somewhat, pull out the old rail, insert a new one in its place, and re-tighten the wire by means of the spools. Old rails can thus be used up in fence building, and, as they decay, the fence can be renewed or kept in repair by other rails at very slight cost, the posts being substantially indestructible.

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

1. The combination of post A, a wire C inserted through said posts and running up alongside thereof upon both sides, rings D surrounding said posts and said wire, and fence rails B inserted between the post and the wire upon both sides of the post in the intervals between the rings.

2. The combination, in a fence, of the post A, the wire extending through it, fence rails secured between said post and said wire with

intermediate rings or devices for holding the wire toward the post, and tightening spools mounted upon the top of the post whereby the wire is brought into forcible contact with said rails, substantially as set forth.

3. The combination, in a fence, of the post, the wire extending through a hole therein and passing up alongside the rails as described, a spool support mounted upon the top of the post, spools therein attached to the ends of the wire, and keys, whereby said spools, when the wires are tightened thereby, may be held in adjusted position, substantially as set forth.

4. The combination, in a fence, of the post, the rails, a wire passing through the posts and around the rails against the outer surface thereof, and rings D interposed between the sets of rails, said rings being provided with wings or extensions to permit the passage of the wire, and through which said wire passes, substantially as shown and described.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 30th day of August, A. D. 1893.

CHARLES M. KILER. [L. S.]

Witnesses:

CHESTER BRADFORD,
JAMES A. WALSH.