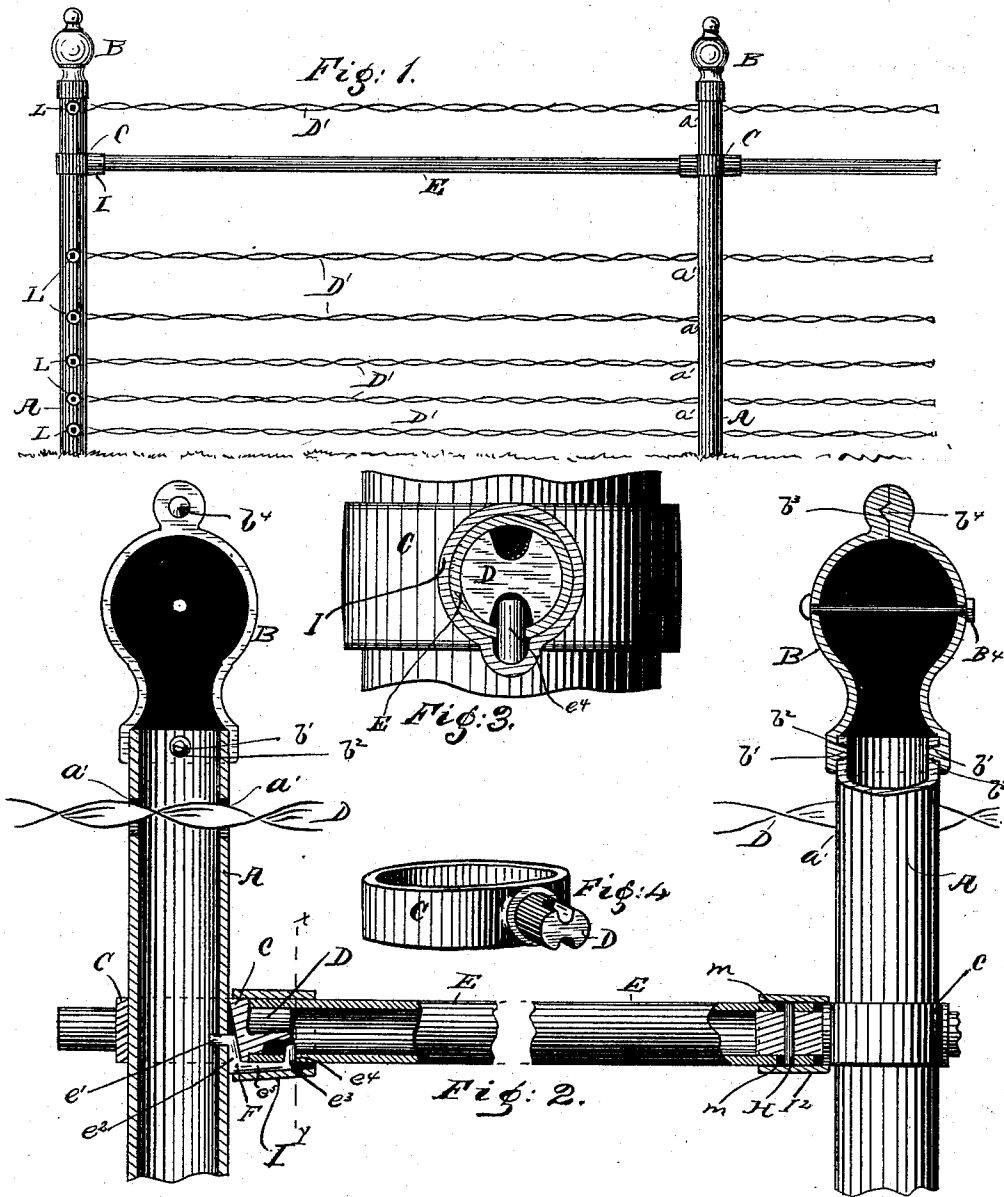


(No Model.)

M. L. CLEMENTS.
WIRE FENCE.

No. 474,813.

Patented May 17, 1892.



Witnesses:
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UNITED STATES PATENT OFFICE.

MASTEN L. CLEMENTS, OF INDIANAPOLIS, INDIANA.

WIRE FENCE.

SPECIFICATION forming part of Letters Patent No. 474,813, dated May 17, 1892.

Application filed June 25, 1891. Serial No. 397,524. (No model.)

To all whom it may concern:

Be it known that I, MASTEN L. CLEMENTS, 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 Wire Fences; and I do hereby 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.

This invention relates to fences, and is especially intended as an improvement upon that class of wire fences employing metal posts and tubular top rails and in which the wires and tubular rails will be vertically aligned to bring the strains central with relation to the posts and the tubular rails act as a support for the upper ends of a series of posts, keeping them in perfect alignment.

One object of the invention is to provide means for securely fastening the ends of the tubular rails to the posts, so that the posts and rails, which form the frame-work of the fence, will be maintained in a rigid and substantial manner independent of the tension of the wires.

Another object of the invention is to provide an ornamental cap for the tops of the posts which shall be made in two parts and quickly applied.

With these objects in view the invention consists in the special construction and in the combination and arrangement of the several parts of the fence, substantially as hereinafter described, and set forth in the claims.

Figure 1 is a view in front elevation of a panel of fence constructed in accordance with this invention; Fig. 2, an enlarged detail, partially in section, of portions of the intermediate posts and tubular rail; Fig. 3, a vertical section through the line *x y*, Fig. 2; Fig. 4, a view in perspective of the dowel to be inserted into the end of the rail and of the ring or band by which the dowel is fastened to the post.

In the drawings, A represents the posts, which will preferably be constructed from gas-pipe of suitable length and diameter and be provided with a suitable base, said posts A having each a series of transverse holes *a'* formed through them, through which the

wires D' are extended, as shown. The end post, instead of having holes *a'* through both sides of the post, will have them through one side only and will be provided with wire-tighteners located inside the post, or tighteners of any suitable form may be used inside or outside the post that will engage and tighten the wires.

The caps B will preferably be of cast-iron or brass and will be in two parts in order that the interior may be hollowed out to lighten the weight and cheapen the cost of manufacture. Each cap will have an enlarged end adapted to fit over and engage the top of a post, to which it will be fastened by means of the inwardly-projected spurs *b'*, integral with the cap, which will enter detents *b²* in the post. These detents *b²* are formed by punching or drilling holes at the proper points through the sides of the post. The top ends of the cap are held from displacement by the detent *b³* and spur *b⁴*, and the two parts of the cap are joined rigidly by the bolt B⁴, which also holds the spurs in the post and prevents the removal of the cap.

Secured to the posts near their upper ends are clips C, having dowels D formed therein to enter the ends of the tubular top rails E. These clips are fastened to the post to prevent vertical displacement thereon and to the tubular rails to prevent the withdrawal of the dowels from the ends of the rails by means of the key F at one end of the rail, and at the opposite end the rail is keyed to the lug by means of a pin H, projected transversely through the tube and the lug. The key F is cranked upwardly at the end next to the post, and the post *e'* is inserted through a suitable opening drilled or punched in the side of the post. The post *e'* is wedge-shaped, so as to tighten the clip onto the post, and, if desired, the inside wall of the clip next to the wedge may be beveled to conform therewith, as shown in the drawings. The outer end of the key F is provided with an upwardly-projected spur *e³*, which enters a corresponding opening *e⁴*, drilled or punched in the tubular rail. By the above construction when the key is inserted and the clip driven down firmly the wedge-shaped portion will be combined between the clip and the post, thereby locking

the rail to the clip and the clip to the post. To make the fastening still more secure, the sleeve I may be inserted over the key and joint, and by beveling the under side e^5 of the key the sleeve may be drawn on so as to form a very secure connection. As the pin to enter the post is not necessary on both sides of the clip, the opposite dowel may be fastened in the pipe by inserting a cross-pin H through the dowel and pipe, as shown in Fig. 2. The openings m through the sides of the pipe will preferably be enlarged in the direction of the length of the tubular rail to form slots in which the ends of the pin H may slide sufficiently to allow for the variation in the length of the rail occasioned by expansion and contraction. Sleeves I^2 , which will cover the pins and the slots, may be used, in which case the ends of the pin will not need to be swaged out to form a head to prevent their displacement, which will be necessary if the sleeve is not used.

I am aware that fences have been constructed wherein the post was provided with a clip having pins therein to enter the ends of the tubular rail, as shown in a patent, No. 392,948, heretofore granted; but I do not desire to claim such construction. In the patent referred to the pins are loosely inserted in the ends of the tubes and the tension of the wires alone prevents the disengagement and displacement of the rails. It has been found in practice that the expansion and contraction of the wires will cause so much variation in the tension of the wires that it is impossible to preserve the alignment of the rails and posts with a loose connection, as above referred to, and the beauty and consequent value of the fence is therefore greatly impaired. It is the chief object of my invention to construct a fence that will be inde-

pendent of the tension of the wires for its stability and alignment.

Secured to the end post is a series of wire-tighteners L, which engage the ends of the wires and by means of which said wires are drawn taut, said tighteners being of any suitable construction.

I claim—

1. The combination, in a fence, with the posts having openings a' and wires secured at their ends to the corner-posts and passing through the openings in the intermediate posts, of clips provided with dowels, a horizontal tubular rail connecting each pair of posts and engaging the dowels thereon, and a key cranked upwardly at the end next the post and having its end inserted through the side of the post made tapering to act as a wedge between the clip and the post, the outer end of the key being bent up to form a spur and projected through the side of the tubular rail, and a movable sleeve to envelop the key, thereby securing it and hiding the joint, said key forming a lock to secure the tubular rail to the lug and to fasten the clip to the post, as described.

2. In a fence, the two-part cap B, having an enlarged lower end forming a socket to receive the top of the post and having the inside spurs b' , adapted to enter corresponding recesses in the post, the two parts of said cap being held together by the transverse bolt B^4 and from displacement by the spur b^4 and detent b^3 , substantially as described and shown.

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

MASTEN L. CLEMENTS.

Witnesses:

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