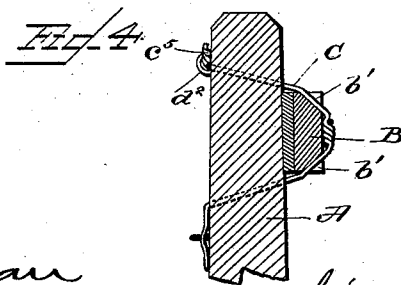
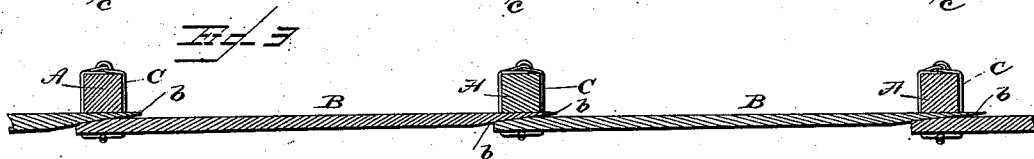
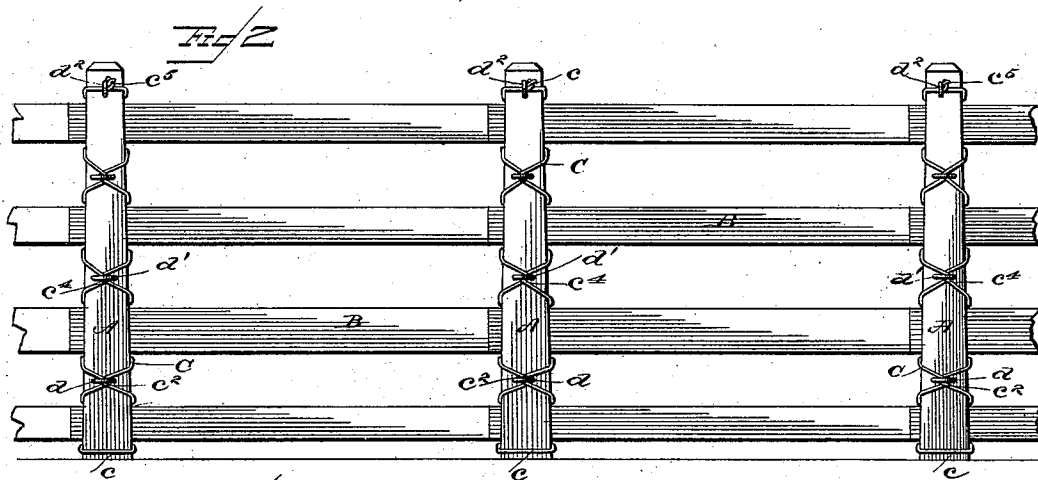
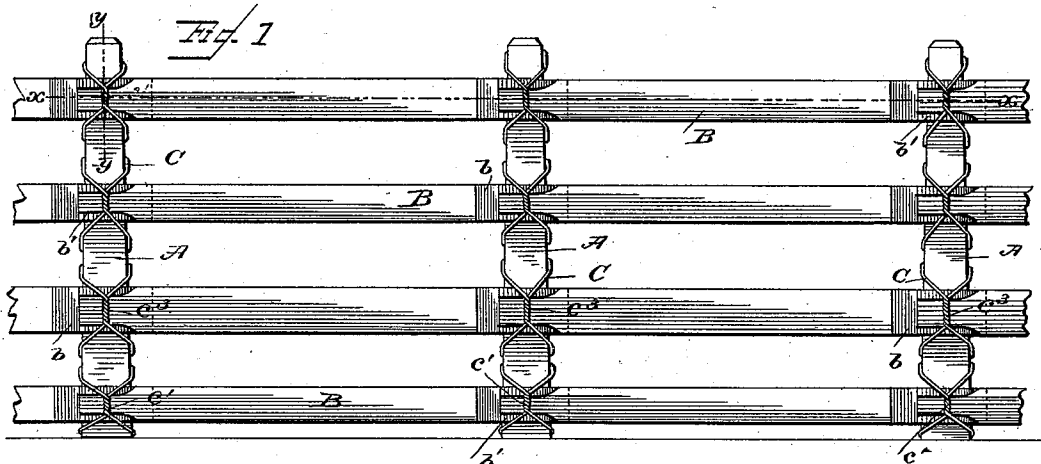


(No Model.)

R. H. NUTTER.
FENCE.

No. 466,422.

Patented Jan. 5, 1892.



Witnesses

J. V. Coleman

Harold B. May

Inventor

Robert H. Nutter

By his Attorneys

Douglas & Belton

UNITED STATES PATENT OFFICE.

ROBERT H. NUTTER, OF GEORGETOWN, KENTUCKY.

FENCE.

SPECIFICATION forming part of Letters Patent No. 466,422, dated January 5, 1892.

Application filed September 24, 1891. Serial No. 406,700. (No model.)

To all whom it may concern:

Be it known that I, ROBERT H. NUTTER, a citizen of the United States, residing at Georgetown, in the county of Scott and State of Kentucky, have invented certain new and useful Improvements in Fences, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in fences of the class wherein use is made of vertical posts or uprights, horizontal rails, and wire-fastening devices for securing the rails to the posts.

The object is to provide a fence which can be rapidly and cheaply constructed, but which shall be more durable than have been those heretofore devised of this sort.

Figure 1 is a side view of a portion of a fence sufficient to illustrate the manner of embodying my improvements. Fig. 2 is a reverse side view of the same. Fig. 3 is a horizontal section on the line $x x$, Fig. 1; and Fig. 4 is a vertical section on the line $y y$, Fig. 1.

In the drawings, A A represent the vertical posts or uprights, which are secured in place by inserting the lower ends of them in the ground or by fastening them in any other suitable way. They are shown as tapering somewhat from the bottom upward; but they may be of other shapes without departing from the invention.

B B represent the horizontal rails. Preferably these are of substantially the shape shown—that is to say, they are tapered from one end toward the other in thickness; or one of the ends may be chamfered, as at b , for a purpose to be described. At the thicker end notches or recesses b' are formed.

The rails are held in place upon the posts not in any of the ordinary ways, by means of nails fastened through the rails, or by notches or grooves in the posts, together with other fastening devices, but by peculiarly woven and twisted wires C C. In applying a wire the central part of it is placed against the rear side of a post, as shown at c . The two ends are then carried to the front of the post and they are twisted together several times, as shown at c' . The twisted part c' is laid over and against the front face of the two overlapping ends of the bottom rails, and then the two ends are carried to the rear side of

the post and are again twisted, as shown at c^2 . This twisted part c^2 is fastened in place by a staple d driven into the post. Then the ends of the wire are again carried to the front side of the post and twisted several times, as at c^3 , and drawn tightly against the next pair of rails, after which they are carried again to the back of the post, twisted, as at c^4 , and fastened by a staple d' . These steps are repeated as often as there are rails to be secured. The ends of the wire are finally secured by twisting them together, as at c^5 , and are fastened by the top staple d^2 . The parts of the wire adjacent to the twisted portions $c' c^3$, &c., lie in the notches or recesses b' , and the latter act to prevent the rails from slipping endwise, the notched thicker end of each rail lying outside of and against the chamfered or thinner end of the adjacent rail. In case there should be looseness at any point the construction which I have provided permits the tightening of the rails by driving them from the thicker ends lengthwise.

I am aware of the fact that it has been proposed to construct a fence with posts, rails, and wires, the posts to have a series of apertures to receive the wires and a series of triangular notches to receive the ends of the triangular rails, as shown in the patent, No. 455,147, to S. F. Ames, dated June 30, 1891; but the purpose of the present invention is to avoid the expense and difficulty incident to the manufacture of the fence in that way, to provide for holding the rails and the wires more firmly, and to cheapen the whole construction. By twisting the wires a number of times, as shown at c' and c^3 , &c., I prevent them from being pushed out of proper relation to each other under any circumstances and hold them permanently in the desired relation. This is not attainable when the wires are merely crossed in front of the rails, as they are readily slipped one away from the other and forced into improper positions under such circumstances. Moreover, by prolonging the twisted portions at $c' c^3$, &c., I provide an enlarged loop of permanent form to engage with and hold the ends of the rails. The wires when twisted in front and in rear of the posts in the manner which I have described provide such firm support for the rails that notches or grooves in the posts or

rails are not necessary, small staples at the rear being sufficient to prevent any vertical movement, and even these are not necessary under all circumstances.

5 What I claim is—

The combination, with the posts A and the rails B horizontally overlapping each other at the ends, of the wire C, carried from the rear side of the post to the front side and having
10 the two ends twisted together two or more times, so as to firmly interlock with each other, as at c' , which twisted part c' is placed against the front side of the outer of two overlapping rails and said ends then extending to the rear

of the post, where they are again twisted one 15 or more times, said wires then extending to and similarly twisted in front of the second pair of rails and then again to the rear of the post, and the staples $d d'$, which engage with the rear of the post and with the twisted 20 parts c^2 of the wires, substantially as set forth.

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

ROBERT H. NUTTER.

Witnesses:

JAMES E. CANTRILL,
C. B. PATTERSON.