(No Model.)

A. NEWKIRK.

FENCE.

No. 457,480. Patented Aug. 11, 1891.

Fig. 1

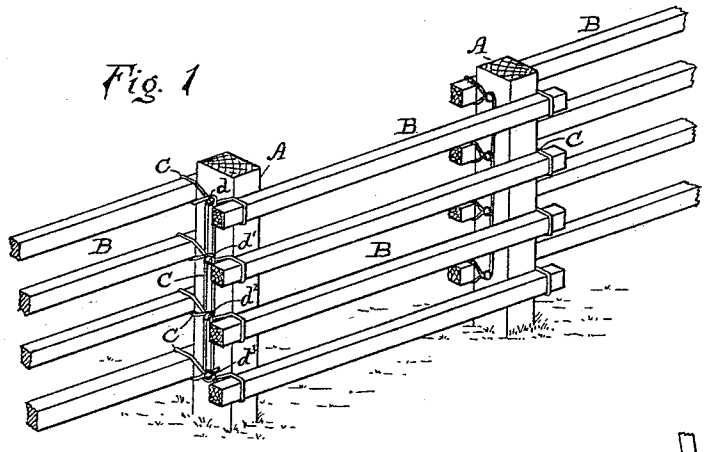


Fig. 3

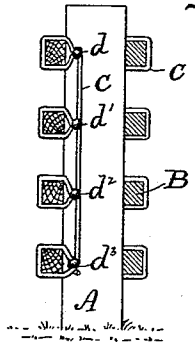


Fig. 2

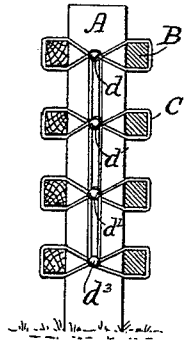
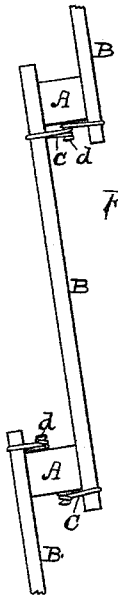


Fig. 4



WITNESSES

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SPECIFICATION forming part of Letters Patent No. 457,480, dated August 11, 1891.

Application filed February 9, 1891. Serial No. 380,768. (No model.)

To all whom it may concern:

Be it known that I, ABRAM NEWKIRK, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in 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.

My invention relates to improvements in the construction of post-and-rail fences, and is designed to secure economy in construction, greater durability, and increased convenience; and it consists in the construction and arrangement hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view, and Figs. 2 and 3 a sectional elevation, of a fence constructed according to my invention. Fig. 4 is a plan view of a modification.

A A represent the posts; B B, the rails; C, the binding-wires, and d d' d^2 d^3 the nails by which the binding-wires are secured. The posts, which may be of any shape, are first set along the line of the proposed fence. The nails are then driven in the side of each post at the level which it is desired to have the rails occupy. The panels of rails are on opposite sides of each post and may be alternately on one side and the other, as shown in Fig. 1, or they may be arranged to run diagonally between the posts, so that each panel has one end of the rails on one side of a post and the opposite ends on the opposite side of the next post, as shown in Fig. 4.

The method of applying the rails and wires is as follows: Beginning at the bottom or top, as preferred, the end of the wire is first twisted around the nail, which we will assume to be the bottom nail d^3. The bottom rail is then laid on the wire and against the post. The wire is drawn up over the rail and back under the same nail d^3, thence up and over the next nail d^2. The second rail is laid on, the wire passed up over it and back under the nail d^2, thence up and over the next nail d', the third rail laid on, the wire passed back under nail d', thence up to the next nail, and so on until the top rail is on, when the wire is given a twist around the top nail and completes the fastening of that end of the panel. Successive panels are applied in the same manner and very quickly, the nails when driven being left sufficiently projecting to receive the wire and hold it. One boy can drive the nails as fast as four men can apply the rails and wires, and nearly three times as much fence of this style can be put up in one day by the same number of men as of any other fence of which I have any knowledge employing wire binders for the rails. Owing to the rapidity with which it can be built, the small amount of material used, and the cheap labor required, this fence is cheaper than others, while, being evenly balanced, it has no tendency to lean or twist. Another advantage is that the fence can be readily taken down and moved, as the nails need not be disturbed; but the end of the binding-wire being untwisted from the nail the wire is very easily released from the nails successively to allow of the removal of the rails, when the posts can be taken up and reset elsewhere with the wires still attached, and the fence can be easily and quickly reconstructed. In applying the wires they are drawn tight enough to indent or cut into the rails and prevent endwise movement thereof, and by closely surrounding the rail they prevent any lifting or sagging of the rail in its loop, as will be seen by reference to Fig. 3.

Instead of using a separate wire for each panel of rails at each post a single wire may, if preferred, be used to bind the rails of two opposite panels, as shown in Fig. 2, in which case each nail serves to support the two opposite rails of each panel, and for a four or five rail fence only four or five nails to each post will be required, which is less than half as many nails as required by any other style of fence, and not more than one-quarter or one-third of the number usually required in building post-and-rail fence with binding-wires. When so applied, the wire is passed from the top or bottom nail, after securing one panel, to the rail opposite the one last secured, over the same and back around the nail, then to the next nail, and so on, finishing at the nail where the wire started in securing the first panel, or the binding-wire may be first twisted at its middle around the top or bottom nail and each end applied to a separate panel of rails in the manner described. The rubbing of stock against the rails has a tendency in

many fences to loosen the rails by bending the nails or drawing the staples and often to split the posts where the strain on the nail or staple is all from one side. In my fence, when constructed as shown in Fig. 2, the nail is equally supported from both sides and cannot be loosened or caused to split the post by the rubbing of stock or other causes. Owing to this support a lighter nail may be used than is commonly employed, and thus a further economy of construction is secured.

What I claim as my invention, and desire to secure by Letters Patent, is—

In a fence, the combination, with the posts and the rails arranged in panels on opposite sides of the posts, of the nails in the sides of the posts and the binding-wires passing from each nail around a rail and back around the same nail, and thence to the next nail, substantially as described.

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

ABRAM NEWKIRK.

Witnesses:
LOREN PRENTISS,
WM. G. TAYLOR.