B. H. HARGRAVE.

Fence.

No. 217,372. Patented July 8, 1879.

Fig. 1.

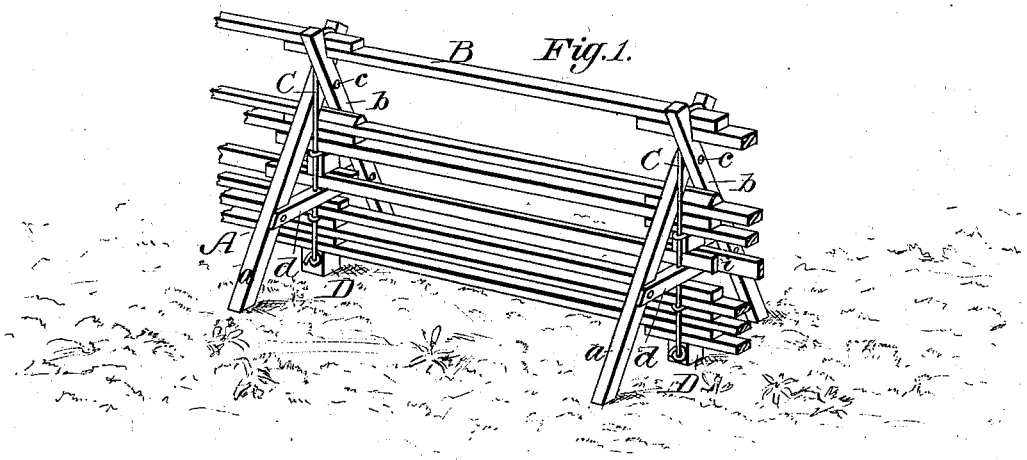
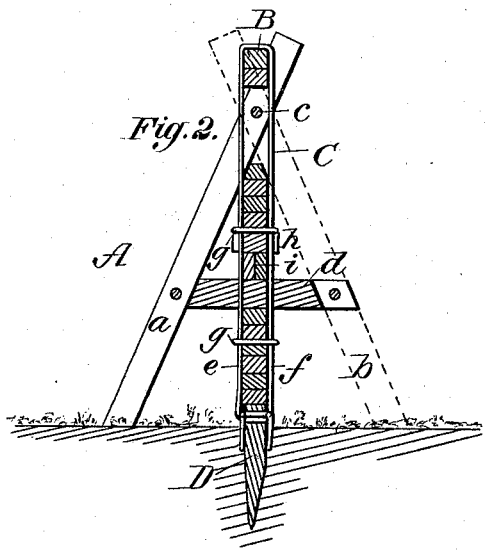



Fig. 2.

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BENJAMIN H. HARGRAVE, OF GALLATIN, TENNESSEE.

## IMPROVEMENT IN FENCES.

Specification forming part of Letters Patent No. **217,372**, dated July 8, 1879; application filed February 4, 1879.

*To all whom it may concern:*

Be it known that I, BENJAMIN H. HARGRAVE, of Gallatin, in the county of Sumner and State of Tennessee, have invented certain Improvements in Fences, of which the following is a specification.

My invention relates to portable fences; and consists in the peculiar combination and arrangement of devices hereinafter described.

In the accompanying drawings, Figure 1 represents a perspective view of a section of my improved fence, and Fig. 2 a vertical cross-section of the same.

In constructing my improved fence, I first provide a number of braces or supports, A, consisting of two bars or timbers, *a* and *b*, crossed near their upper ends, and secured to each other at the point of crossing by means of a bolt or nail, *c*, and preferably connected about midway of their height by a cross bar or brace, *d*, as shown. By this arrangement of the timbers *a b* a crotch is formed above the point of crossing, as represented in Figs. 1 and 2, to receive the rider or top rail, B, as shown.

C represents a heavy wire, which passes over the rider or top rail and vertically downward on opposite sides of the same to a stake or peg, D, through which its ends are passed, after which they are bent or twisted in such manner as to prevent their being pulled out of the same.

The supports or braces A being constructed as above are set up at suitable intervals, the rider or top rail seated in the crotch with the ends of adjoining sections overlapping, as shown, and the wire C passing over the rider and fastened below to the stake D, as described. When thus arranged the stake D is driven firmly into the ground, directly below the center of the rider, the driving down of said stake being continued until the wire draws the top rail or rider firmly to its seat in the crotch and becomes itself taut and well strained.

As stated, I prefer to employ a connecting-brace, *d*, between the timbers *a* and *b*, the object of which is primarily to prevent the spreading apart of the same at the bottom. As there is no tendency to draw together at the bottom this brace may be made either of wood or of wire, or it may be made of hoop-iron.

The brace *d* is provided with two holes, through which the wire C passes vertically, as represented in Fig. 2, this arrangement serving to maintain the two wires at their proper distance from each other, and preventing the wire from being bent or forced out of a vertical position.

The rider or top rail, B, and stake D are made of corresponding width, so that the wires shall pass downward on opposite sides parallel with each other, and thus form a space of uniform width for the reception of the rails or planks of which the fence is to be formed.

The supports A being thus set up and secured, the rails are passed end first through the space between the two parts *e f* of the wire C of one support, shoved through far enough to allow the insertion of its other end in the same manner at the next support, and then drawn backward to a position where both ends are held alike. The rails of adjoining sections are thus passed through the support connecting them, one above the other, and with their ends overlapping, as shown in Fig. 1.

In practice I prefer to place upon the wire C, at one or more points, a loop or loops, *g*, connecting the two portions *c d*, in order to prevent the same from spreading and allowing the rails to become loose. These loops may be made of wire or of wood, and when made of wood may be made of sufficient thickness to separate the rails or bars and produce wider openings between the same; or the wire loops may be employed in connection with blocks having notches in their ends to receive the wires *e f*, by which the blocks will be held in place, such a block being shown at *h* in Fig. 2.

The above-described arrangement of the panels or sections of the fence relates to rail-fences; but the description applies also to fences composed of boards as well, the only additional feature being that in the latter the boards are arranged to pass one behind the other at the ends, as at *i*, Figs. 1 and 2.

It will be observed, by reference to Fig. 1, that in passing over the top rail or rider, B, the wire C is carried between the braces *a b*, whereby it is prevented from becoming misplaced.

The braces *a b* may, if desired, be prevented

from spreading by seating their ends slightly in the ground, in which case the brace *d* may be omitted. The construction shown is, however, preferred.

The fence constructed as above is simple, cheap, and strong, and can be rapidly set up.

I am aware that the rider or top rail of a fence has been hitherto mounted in a crotch formed by two cross-timbers, and that it has been secured therein by wire passing over it.

In some cases I prefer to cross the wires *e f* above the cross-brace *d* before passing them through the same; but this arrangement is not essential.

I am aware that crossed posts have been combined with horizontal rails and vertical wires, that a central stake has been used in connection with said wires, and that a cross-brace has been used; and my invention consists only in the peculiar combination and arrangement shown.

Having thus described my invention, what I claim is—

1. In combination with the wires *e f*, a loop, *g*, to prevent the spreading of the wire, and a notched or perforated block, *h*, to separate the rails, as described.

2. The combination of the crossed and connected posts resting upon the surface of the ground, the central stake seated in the ground, the horizontal rails, the vertical wires passing over the top rail and secured to the central stake, and the cross-piece connecting the main braces or supports and the vertical wires, and serving to tie the whole fence together and in place, as shown.

BENJAMIN H. HARGRAVE.

Witnesses:
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