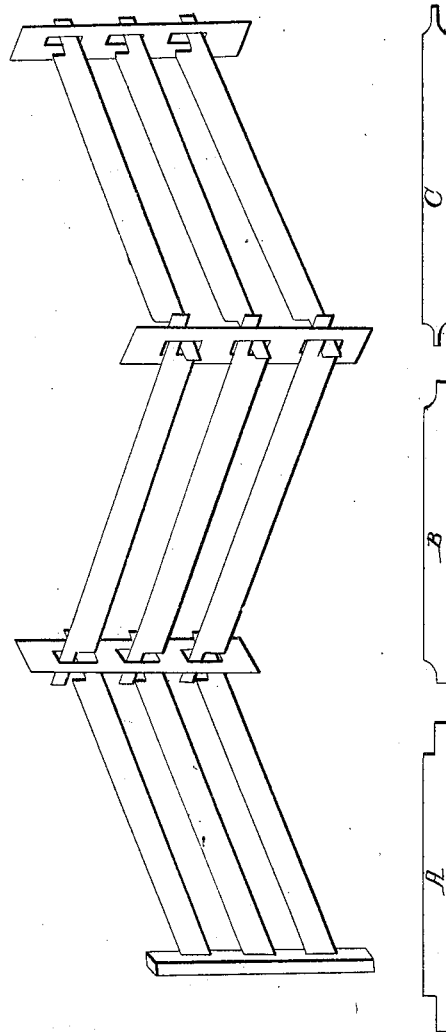


W. G. Brainard,

Wood Fence,

N^o 5,406.

Patented Dec. 28, 1847.



Inventor;
William G. Brainard

UNITED STATES PATENT OFFICE.

W. G. BRAINARD, OF HAMILTON, NEW YORK.

FENCE.

Specification of Letters Patent No. 5,406, dated December 28, 1847.

To all whom it may concern:

Be it known that I, WILLIAM G. BRAINARD, of the town of Hamilton and county of Madison and State of New York, have invented a new and useful Improvement in Making Post and Bar or Rail Fences, which I denominated a "Self-Supporting Lever and Fulcrum Fence; and I do hereby declare that the following is a full and exact description of said fence.

The posts are hewed or sawed two inches in thickness from six to eight inches in width from four to five feet in length with four mortises in each post seven inches in length and two in width to receive the rails or to receive two tenons in each mortise one above the other; the tenons of the rails to be made thinner than the width of the mortises in the posts so as to give the fence a proper angle for its support. It will be readily perceived that the angle of said fence will be more acute or obtuse as the space between the side of the tenon and the side of the mortise varies in width. The rails to said fence are to be ten or twelve feet in length and from six to eight inches in width to be either sawed or split if sawed to be from one and one fourth to one and three fourth inches in thickness. The tenons three inches in width or half the length of the mortises, and six inches in length. They may be made in the several different forms represented in drawings marked A, B and C. The tenons may be brought to the desired width by cutting all from one side of the bars or equally from both sides of the rails as represented by the drawings marked C. The ends of the rails are inserted in the mortises of the posts the tenon of one above the tenon of the other in the same mortise on the opposite side of the post the tenon of the bars or rails being made thinner than the width of the mortises in the posts.

The method of erecting the above named fence is as follows: First place a post firmly in the ground then insert the tenons of the bars in the mortises placing the opposite tenons in the second post carrying round (in a manner similar to opening a gate) and pressing it from two to three feet from the intended line of the fence or so far as may be necessary to make the bars operate as levers on the first post. Then insert the second length of bars as before placing the third post on the tenons of the second set of rails pressing them on the opposite side

of said intended line so far as to make the second length of bars operate as levers on the second post placing a stone or driving a stake at the bottom of the post on the inside corner, so on in the same manner through the line of fence. The tenons of the rails being six inches in length should be passed through the mortises in said posts leaving three inches on the opposite side of the posts in order that the bars may form a double lever the posts being the fulcrums which will produce a powerful binding effect of the ends of the rails and posts upon each other sustaining the fence against any ordinary pressure from wind or cattle.

The benefits and advantages to be derived from the use of said fence consists in building and materials. When compared with common post and bar or board fence; timber may be used for posts which if set in the ground would not be durable, which being placed on top of the ground will not rot or decay for a great length of time. Fences built as above described must endure or last much longer than fences built any other way as there are but small portions of the timber either of posts or bars that come in contact one part with the other and therefore not liable to retain moisture, when wet will soon dry it being exposed to the sun and wind and another and important advantage is, that any kind of timber may be used in the construction of said fence, which obviates the necessity of selecting a peculiar kind or quality.

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

The application of the lever and fulcrum principle in building and supporting on the surface of the ground post and bar or rail fence as above described, the said principle to be applied in the following manner: After fastening the first post permanently, insert in the mortises of said post any desired number of bars or rails, say from three to six, then place a second post on the opposite ends of the bars or rails, carrying said second post with bars inserted around in a perpendicular position say to the right of the intended line of fence so far as to make the bars operate as levers on the first post. Then insert a second set of bars or rails in the same mortises with the first set of bars the tenons of one set above the others in the second post placing a third post on the opposite ends of the second set of bars carrying

the third post to the left of said intended line to such an angle as to make the second set of bars operate as levers on the second post, proceeding in the same manner carrying each succeeding post with bars inserted each way from the intended line of fence far enough to bind the bars and posts firmly together supporting each set of rails together with the posts firmly in their per-

pendicular position fastening the last post 10 as the first firmly in its place, all the other posts being placed on the surface of the ground.

WILLIAM G. BRAINARD.

Witnesses:

ELIJAH BRAINARD,
HIRAM H. GREEN.