(No Model.)

W. J. SMITH.

FENCE.

No. 363,557. Patented May 24, 1887.

Fig. 1.

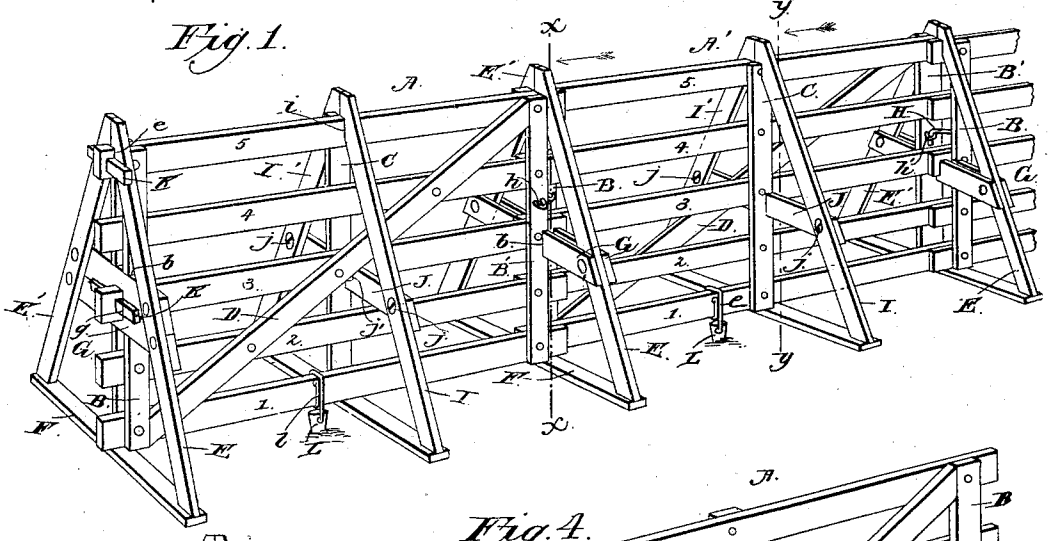


Fig. 2.

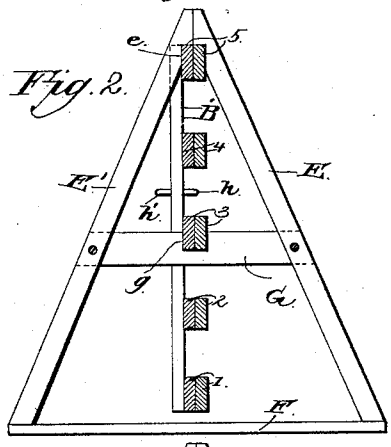


Fig. 3.

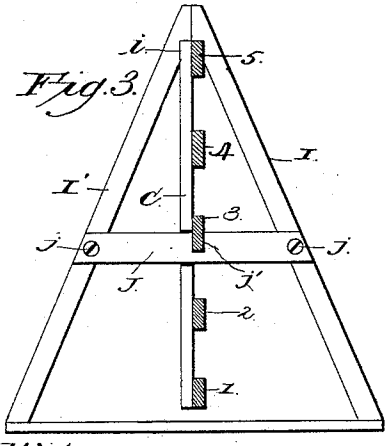


Fig. 4.

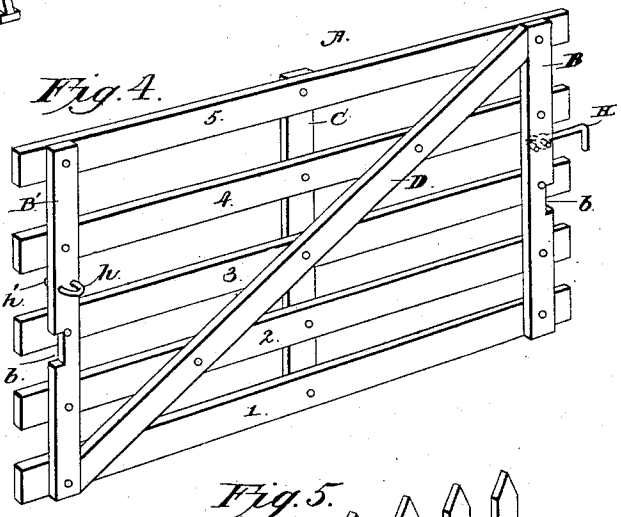
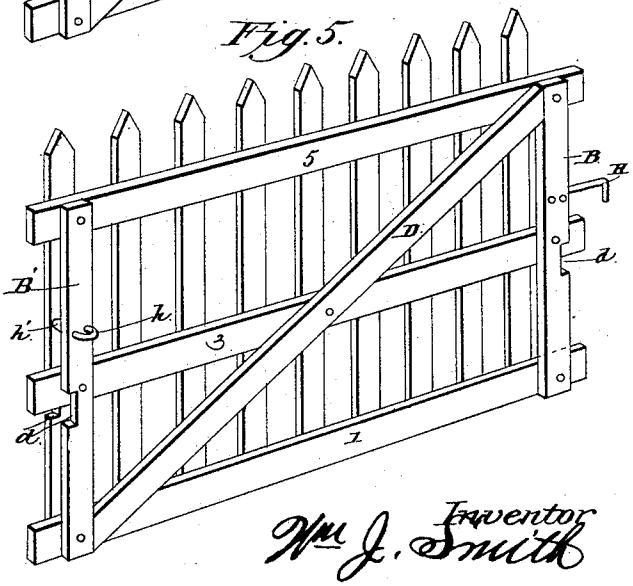


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM J. SMITH, OF CALEDONIA, OHIO.

FENCE.

SPECIFICATION forming part of Letters Patent No. 363,557, dated May 24, 1887.

Application filed February 25, 1887. Serial No. 228,814. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. SMITH, a citizen of the United States, residing at Caledonia, in the county of Marion and State of Ohio, have invented new and useful Improvements in Portable Fences, of which the following is a specification.

My invention relates to improvements in portable fences; and it consists of the peculiar combination and novel construction and arrangement of the various parts for service, substantially as hereinafter fully set forth, and particularly pointed out in the claim.

The object of my invention is to provide an improved fence which can be easily and rapidly taken apart and put together, and which shall be very simple and strong in construction, and cheap.

A further object is to provide an improved portable fence which cannot be blown down or displaced by cattle coming in contact therewith, and which can be readily built on hillsides and other uneven ground.

In the accompanying drawings, Figure 1 is a perspective view of a portable fence embodying my invention. Fig. 2 is a vertical transverse sectional view on the line *x x* of Fig. 1, and Fig. 3 is a like view on the line *y y* of the same figure. Fig. 4 is a detached perspective view of one of the sections of a portable fence of my invention. Fig. 5 is a like view of one section of a picket fence.

Referring to the drawings, in which like letters of reference denote corresponding parts in all the figures, A A′ designate the adjoining sections of a portable fence embodying my improvements, each of which consists of a suitable number of horizontal rails, of which, in the present instance, five are shown, numbered from 1 to 5, inclusive, although the number can be varied as desired, and two vertical bars, B B′, which are arranged near the ends of the horizontal rails, so that the ends of the latter project a limited distance beyond the outer vertical edge of the bars, which are securely fastened to the rails in any suitable manner.

The horizontal rails are braced at an intermediate point of their length, to insure strength and stability to the fence, by a vertical bar, C, and a diagonal bar, D, which are arranged on opposite sides of the rails and securely fastened thereto.

Each of the vertical bars B B′ of each section of the fence is provided on its outer edge and at an intermediate point of its length with a notch or recess, *b*, which is formed between the rails numbered 2 and 3, for a purpose presently described.

E E′ designate the supporting-stakes, which are inclined in opposite directions to each other, and are rigidly secured together at their upper meeting ends. These stakes are provided in the lower edges of the apex with a transverse notch, *e*, which is of a width equal to the combined thickness of the upper rails, 5, of the two adjoining sections A A′ of the fence. The lower ends of the inclined stakes are connected by a horizontal bar, F, which rests upon the ground, and thereby prevents the stakes from coming in contact with the ground, which is liable to cause the stakes to decay, and in which they are liable to sink if it is soft.

The inclined stakes are connected at an intermediate point of their length by horizontal parallel bars G, which are arranged in the same plane and on opposite sides of the stakes, to which they are rigidly secured. These bars serve to brace the stakes and prevent them from spreading, and they are provided at their upper edges with transverse aligned notches *y*, the length of which is equal to the combined thickness of the rails 3 of two adjoining sections of the fence, which are adapted to be fitted snugly therein when the fence is constructed.

The vertical bar B at one end of each section of the fence is provided with a hook, H, which is loosely connected to one side thereof, and the bar B′ at the opposite end of the fence-section is provided with two fixed staples or eyes, *h h′*, which are arranged on opposite sides of the rails of the fence-section.

I I′ designate brace-stakes, which are arranged at an intermediate point of each section of the fence, between the two adjoining pairs of supporting-stakes E E′. The brace-stakes are inclined in reverse directions to each other and united at their upper ends, the lower sides or edges of the stakes, at the apex thereof, being provided with a notch, *i*, of a width to receive the upper end of the bar C and the cor-

responding edge of the upper rail, 5. These brace-stakes are connected at an intermediate point of their length by a horizontal bar, J, which passes between two adjoining rails, 2 and 3, of the fence-section, and is firmly secured at its ends to the stakes by screws *j*, so that it can be readily detached when it is desired to take down the fence. This horizontal bar J is provided with a notch, *j'*, in its upper edge, into which the lower edge of the rail 3 of the fence-section is adapted to fit, and thereby brace and strengthen the fence-rails of the middle thereof.

I will now proceed to describe the manner of constructing a portable fence embodying my improvements.

A pair of the supporting stakes E E' is first placed at the point where it is desired to begin the fence, this first pair of stakes having two of the bars G arranged one above the other and provided in their opposing edges with aligned notches. These stakes are arranged at right angles to the line of the fence, and one section, A, is brought into proper juxtaposition with relation thereto, so that one end of the rail 3 will pass through the aligned notches in the bars G, and the corresponding end of the rail 5 will fit in the notches *e* in the lower edges of the supporting-stakes, the horizontal bars G fitting in the notches *d* of the rail B, as shown. Transverse pins K are now passed through suitable openings in the ends of the rails 3 5 of the section A, to prevent endwise movement of the same and the consequent displacement of the said rails in the notches of the stakes and the cross-bars G thereof. Another pair of the stakes E E', is placed at right angles to the opposite end of the fence-section A and the opposite ends of the rails 3 5, are fitted in the notches *e g*, after which another section, A', is adjusted in proper relation to the second pair of supporting-stakes, the ends of the rails 3 and 5 of the section A', in proximity to the section A, being adjusted or fitted in the notches *e g* of the said second pair of supporting-stakes. The meeting ends of the rails 3 and 5 of two adjoining sections of the fence are thus arranged out of line with each other and fitted snugly in the notches of the stakes. The brace-stakes are now adjusted over the middle of the sections of the fence, and the brace-bar J thereof passed through the sections, so that the lower edge of the rail 3 will fit in the notch therein, and secured at its ends to the stakes by screws *j*, so that it can be detached in taking down the fence. The hook H, at one end of the section A', is engaged with one of the eyes or staples *h* at the meeting end of the adjoining section A, so that the two sections are detachably connected together. This hook-connection provides a flexible or loose connection between the adjoining sections of the fence, so that they can be built with facility over hilly or uneven ground. Anchoring-stakes L are now driven into the ground on opposite sides of the fence, and these stakes are connected to the lower rails, 1, of the fence by suitable binding-wires, *l*.

In the form of the picket fence shown in Fig. 5 I employ a suitable number of horizontal rails, preferably three, to which the pickets are secured in any suitable manner; the vertical end pickets at opposite extremities of the section being provided with the notches *d*, to receive the bars G of the stakes E E', and the ends of the rails 3 and 5 being extended beyond the end pickets and adapted to fit in the notches *e i* of the supporting-stakes in the same manner as the panel-sections A A', as will be readily understood.

It will be seen that the supporting and brace stakes fitting over the fence-section will effectually prevent any vertical movement in an upward direction, and that the horizontal bars G J to the said stakes will prevent any downward play and consequent sagging of the fence-sections.

The sections are securely connected or locked together, and they can be separated and put together with ease and quickness.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a portable fence, the upwardly converging supporting-stakes E E', having the notches *e* formed between their meeting ends, and the horizontal cross-bars G, connecting the said stakes, in combination with the fence-sections having the horizontal rails and the vertical bars near the ends thereof, said vertical bars having the notches in their outer sides to receive the cross-bars G, the projecting ends of the horizontal rails resting on the cross-bars G and bearing in the notches *e*, the ends of the fence-sections being overlapped, the hooks connecting the ends of the fence-sections together, and the stakes L, driven in the ground, and the wires connecting the said stakes to the lower horizontal rails of the fence-sections, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM J. SMITH.

Witnesses:
D. H. BRELSFORD,
W. A. LEPERE.