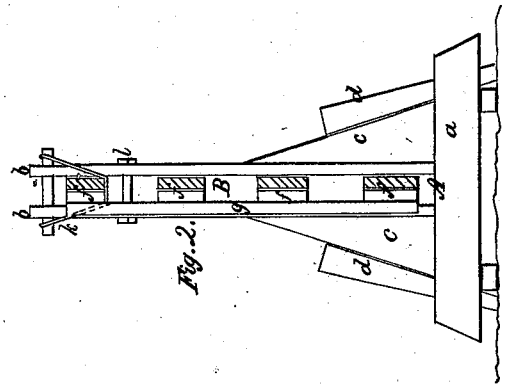
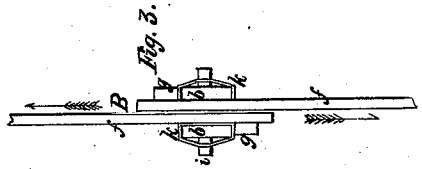
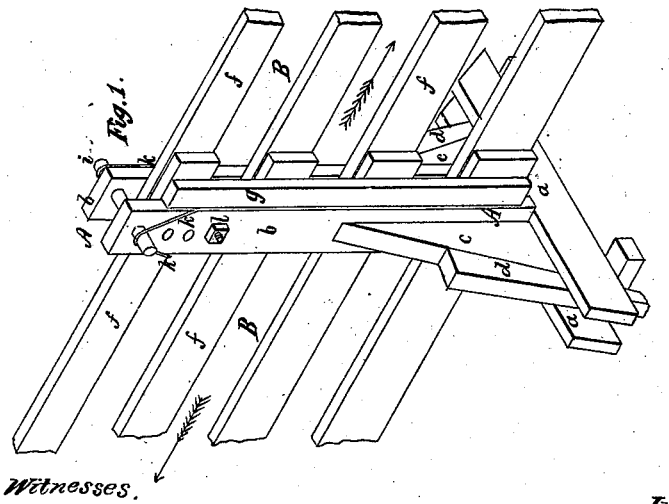
S. Saunders.

Portable Fence.

No. 52,611. Patented Feb. 13, 1866.







Witnesses.
R. F. Osgood
J. A. Davis

Inventor.
Smith Saunders.
By J. Fraser & Co
Attys.

UNITED STATES PATENT OFFICE.

SMITH SANDERS, OF FORT PLAIN, NEW YORK.

IMPROVEMENT IN FENCES.

Specification forming part of Letters Patent No. **52,611**, dated February 13, 1866.

To all whom it may concern:

Be it known that I, SMITH SANDERS, of Fort Plain, in the county of Montgomery and State of New York, have invented a certain new and useful Improvement in Fences; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Figure 1 is a perspective view of the ends of two sections of my improved fence, together with the standard that secures and retains them; Fig. 2, an elevation of the same; Fig. 3, a diagram representing a plan of the ends of the sections and the top of the standard, showing more particularly the method of sustaining and bracing the posts.

Like letters of reference indicate corresponding parts in all the figures.

My invention consists in the particular construction of the standards and the manner of joining and sustaining the sections in combination therewith, whereby the same are securely braced against sagging and are clamped and held together.

As represented in the drawings, A A are the standards, and B B the sections or panels. Each standard is composed of two base or horizontal pieces, *a a*, of suitable length to give the necessary support, two flexible vertical strips, *b b*, rising to a suitable height from the center of the same and at such a distance apart as will admit the ends of two sections or panels of fence between them, and an angular brace-board, *c*, at each side of the vertical strips, and resting between the base-pieces. This construction is clearly exhibited in the drawings. The brace-boards are so cut that the grain of the wood runs angularly or with the hypotenuse of the triangle. Under ordinary circumstances the standards will be self-sustaining; but on some grounds it may be necessary to stay them, in which case stakes *d d* are employed respectively at each side, being driven into the ground in the angular position indicated in Figs. 1 and 2.

There are several advantages derived from this particular construction of the standard. It is in skeleton form, so as to be made very inexpensively. It is at the same time very strong and cannot be easily overturned. The most important features are, however, that while the vertical strips are rigidly braced against outward lateral action, their tops are at the same time flexible or yielding, so as to easily clamp inward on the fence-sections, as will be presently described, and in placing the brace-boards *c* in such a manner that any lateral outward action, as indicated by the red arrow, Fig. 1, will have a tendency to draw on the grain of the wood, and therefore not split it, as would be the case if the grain ran up and down, as in ordinary fences. Fences are usually so exposed that the wind exerts great power upon them. By driving the stakes into the ground in the angular position indicated they are not so easily drawn out as they would be if driven down vertically.

The fence sections or panels are made up of the ordinary rails or boards *f f*, with cleats or battens *g g* nailed crosswise at the ends and intermediately, if desired. The cleats at opposite ends are nailed on opposite sides. These cleats serve a double purpose—first, to form the sections, as above described, and, second, and most important, to form shoulders to rest against the opposite edges of the vertical strips *b b* of the standards. This arrangement is shown most clearly in the diagram Fig. 3. The end of each section projects inward through the standard, and its cleat or batten rests upon the opposite side from the section itself. It will be seen that the respective cleats of the sections not only thus rest on opposite sides, but also that they rest respectively against the opposite strips *b b*. The advantage of this arrangement is obvious. The cleats bear their whole length against the edge of the strips, so that it is impossible for the sections to sag or become displaced or for the standard to incline. It is equally impossible for the sections to be drawn out endwise.

In laying the fence the sections are drawn straight and taut; hence the broad or long bearing of the cleats on the edges of the strips will not allow any inclination of either end of the sections. In this manner the sections and the standards serve as a mutual support and brace.

It is common to form the ends of fence-sections in hooks and eyes, one section hooking into another; but I am not aware that sections

have before been used in combination with a standard whose sides are flexible in such a manner as to pass through and produce a long bearing from top to bottom by means of its cleats resting against the said flexible sides.

Through the upper end of the strips *b b* may pass a pin, *i*, projecting at each end sufficiently to receive a double loop, *k k*, of wire or cord, which extends down at each side of the standard and passes under the upper rail of the two sections of fence and sustains the weight of the same, as clearly indicated in the drawings. Not only are the sections sustained by the loops, but the weight of the same has a tendency to draw the flexible strips *b b* inward toward each other, thereby clamping them together on the end of the sections and holding the latter firmly in place under all circumstances. I am not aware that such an arrangement has ever before been known or used.

In order to hold the strips *b b* from lateral expansion, and at the same time retain the fence in place, I employ a bolt or pin, *l*, passing through the strips, as clearly shown. If desired a nut may be used upon it to tighten the strips together. A simple cap on top the strips would answer a similar purpose in some cases.

It is obvious that standards arranged as before described might be used with sections of a different construction—for instance, wire or rails.

I am aware that standards have before been employed having vertical sides for holding the sections between them; but I am not aware that such sides have been yielding or flexible.

I am also aware that side braces to the standards have been employed; but I am not aware that such have been arranged with the grain running angularly, as herein described, and extending only part way up.

I am also aware that the ends of the sections have extended through the standards and been secured on the opposite side; but I am not aware that the same have been employed in combination with flexible standards, or with long bearings resting against said sides so as to support the parts. I claim only my particular construction and arrangement of parts.

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

1. The combined construction and arrangement of the fence as herein set forth, the same consisting, essentially, of the standards made up of the parts *a b c*, the sections made up of the rails *f f* and cleats or battens *g g*, the wire loops *k k* and pins *i*, and the tightening-bolt *l*, the whole operating substantially as and for the purpose specified.

2. The particular construction of the skeleton-standard composed of the flexible vertical strips *b b*, for clamping and holding the sections, the brace-boards *c c*, bracing part way up the strips and having the grain running with the hypotenuse of the angle, and the base-pieces *a a*, the whole being arranged as herein described, and used either with or without the stakes *d d*, as set forth.

SMITH SANDERS.

Witnesses:
E. C. CRANE,
JAMES SOLLEY.