

(No Model.)

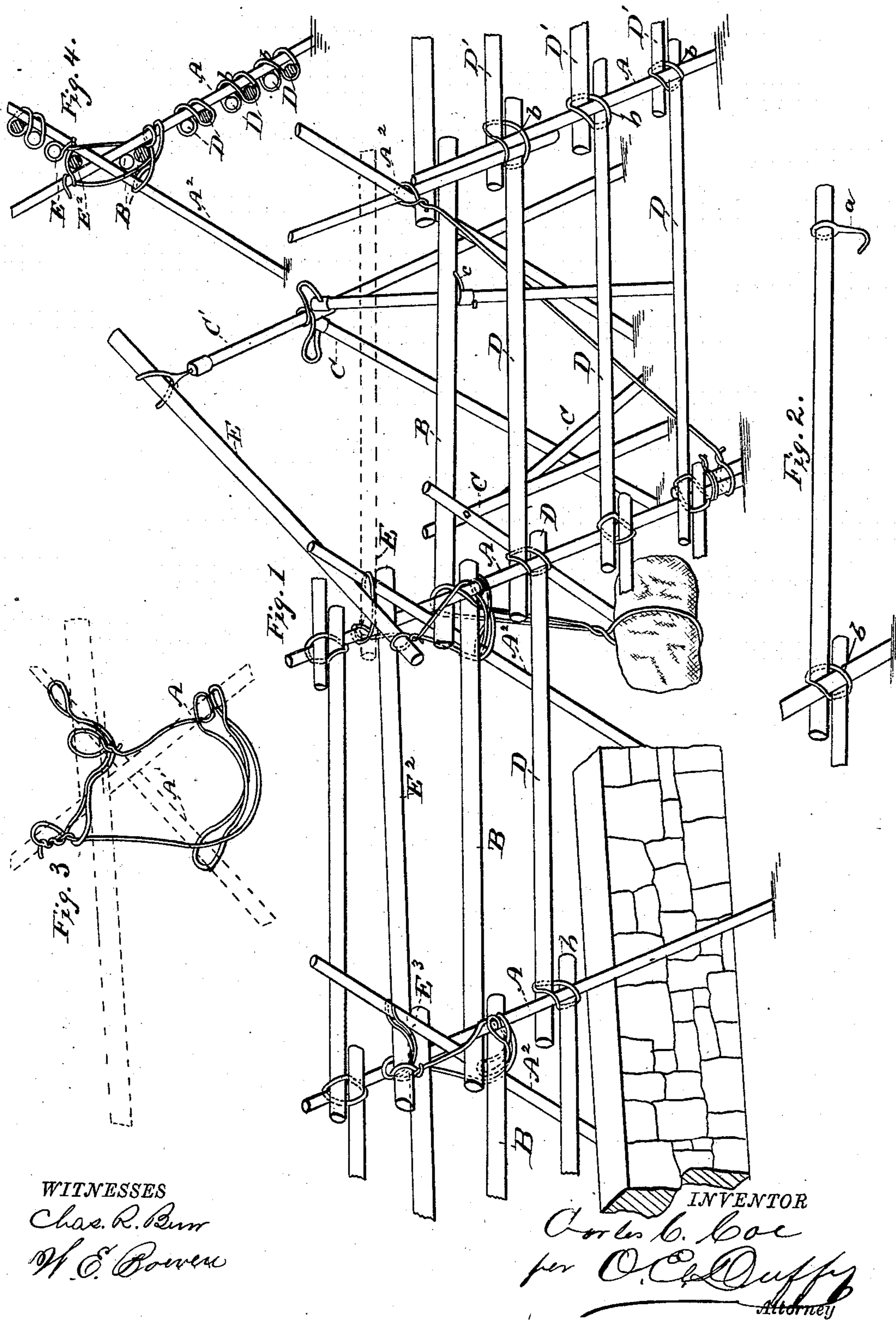
2 Sheets—Sheet 1

C. C. COE.

FENCE.

No. 275,591.

Patented Apr. 10, 1883.



WITNESSES
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W. E. Bowler

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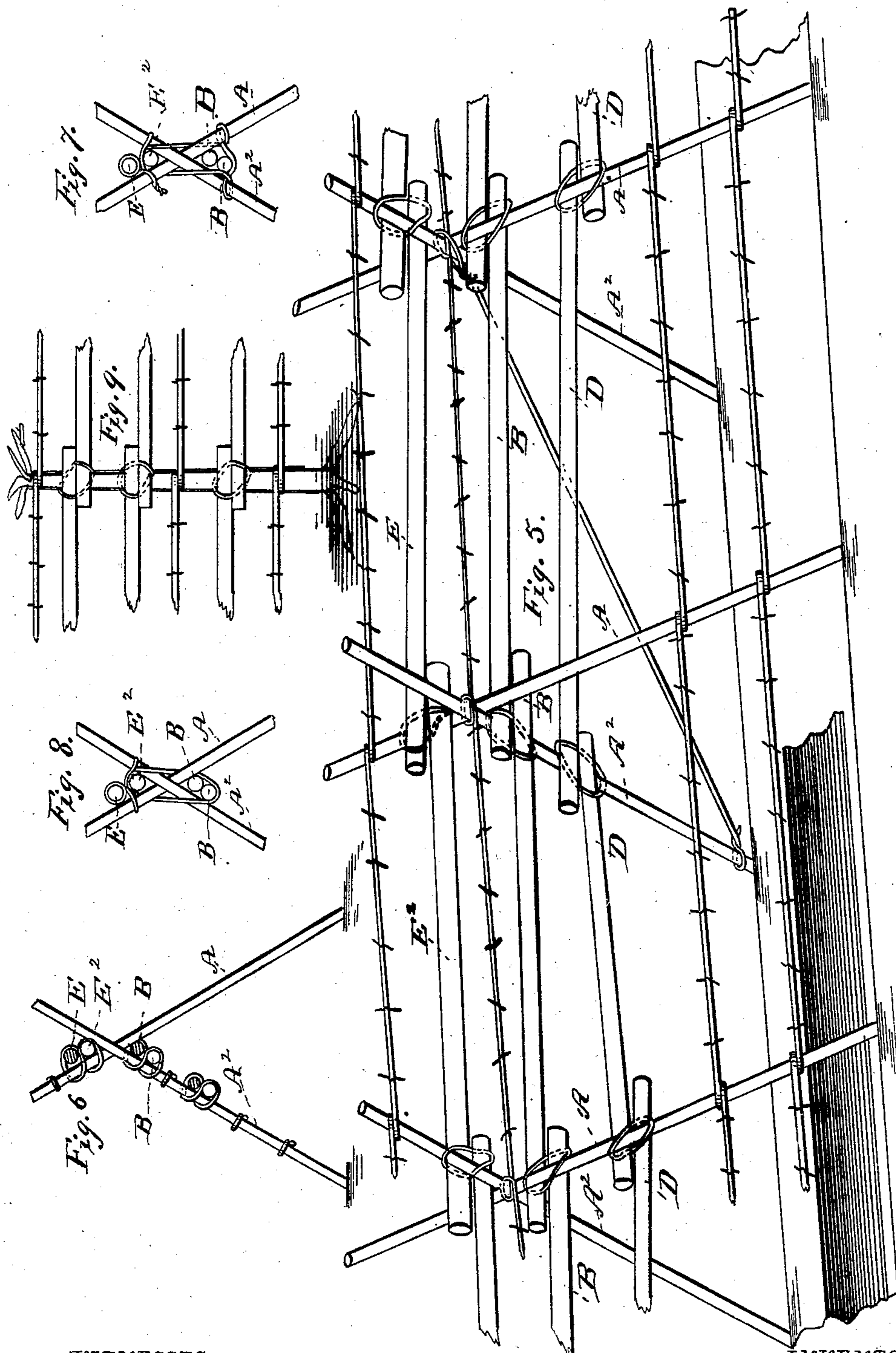
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UNITED STATES PATENT OFFICE.

CARLOS C. COE, OF ROME, NEW YORK.

FENCE.

SPECIFICATION forming part of Letters Patent No. 275,591, dated April 10, 1883.

Application filed March 21, 1883. (No model.)

To all whom it may concern:

Be it known that I, CARLOS C. COE, of Rome, in the county of Oneida and State of New York, have invented certain new and useful Improvements in Fences; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention relates to the class of fences known as "rail fences," but may be converted into barb fences, and may be portable or stationary, as occasion may require.

The object of the invention is to provide a fence at once cheap in first cost, substantial in construction, readily and easily put together and taken apart, as for the replacement of new rails, and also to be adapted to walls and ditches in such manner that a comparatively small space is required for its erection, and thus, when land is valuable, this fence is economical.

The invention consists in an improvement in fences by joining them together in a peculiar manner and in weighting them, in combination with rails, which are fastened by loops, and in utilizing the rails for levers for tightening the wires and in other details of construction, as will be more fully hereinafter described, and pointed out in the claims.

Referring more particularly to the drawings, Figure 1 represents a perspective view of my improved fence as applied to a stone or other wall at one section, in which is also shown the mechanism for erecting the fence. Fig. 2 is a perspective view of the wire loop or tie whereby two rails are secured together, and also metal hook which is used for holding the rail to the stakes before driving the second stake of the next pair. Fig. 3 is a plan view of one form of my wire fastening before placing the rails in position; and Fig. 4, an end elevation of the fence when the rails are all located on one side for the purpose of loading or weighting the fence for special purpose. Fig. 5, Sheet 2, represents a view in perspective of my improved fastening when applied to a mixed wire-barb and rail fence, said fence being shown as straddling a ditch. Fig. 6 is

an end view of same. Figs. 7 and 8 are detail views of modified forms of my fence-fastening, and Fig. 9 illustrates the application of my invention as adapted to the utilization of tree-trunks for fence-posts.

The same letters denote like parts in all the figures.

A A² represent two stakes crossing each other above the middle of their length in the usual way.

B represents what is known as the "top rail," which is designed to fit snugly up into the fork formed by the crossing of the stakes. These top rails, B B, lap each other, so that one end only of each top rail fits into contact with the stake, the other end taking a lower position in the next adjacent fork. These top rails are temporarily held in position by means of the tripods C until the tie-wire is adjusted, by which they are ultimately secured. The first stake, A², of the next section is now driven, and the rails D D, below the rider, being placed in position, then the second stake, A, of second section is driven over them, the rails in the meantime being held in position by the hook *a*, one being applied to each rail. The wire loops *b b* are now slipped on the ends of the rails D beyond the stake A, and the lapping end of the other rail, D', is then slipped into the other eye of the loop at a suitable angle, so that when the rail D' is brought round to its proper position the stake A forms a fulcrum against which the rail D' rests and thus forms a lever, drawing the loop tightly against the stake and both ends of the rails, tightly binding them to each other and the stake, in which position they remain.

The above construction is repeated throughout the length of the fence, and completes the portion of the fence below the top rail, and also applies to the rail, above the rider.

I will now proceed to describe the fastening of the top rails, B, and the riders E'' with the cross-stakes A A², as follows: The rails B being held in position by the tripods, C, or where a short and long tripod are used, I provide a movable stirrup, *c*, on one of the legs of the latter, which adjusts the said rail B to the proper height. The rider E² of one of the sections being in position, I elevate one end of the rider E of the next section, which lowers its other end below the horizontal plane of rider E².

This elevation is done by means of the bifurcated long arm or leg of tripod C, which will be more fully hereinafter described. The top rails, the binders, and the stakes being all in proper position, as described.

I will now describe the method of binding them securely together, first fastening the wire to the lever-rider rail E, as shown, then down and below the crossing of the stakes, then looping it around the stake A, then across and around stake A², also looping it, then back to A, thence again around A, thence under the lapping top rails, B B, thence up to and looped around the upper portion of stake A above the crossing, thence around both of the stakes above the crossing and over rider E² and back, to be finally fastened to the loop-bearing near the top of stake A. The wire now being properly arranged for drawing the parts together, the lever-rail E is released from the long arm of the tripod. It is borne down to the next section to be built, and in the bearing of it down it rests upon the cross-wire under it, which forms a fulcrum and raises the lower end of the said lever-rail E up, drawing the various portions of the wire and the top rails, B B, and also draws the stakes and rider E² into one solid fixture, rigidly holding them together, as shown at E³, thus holding the stake from spreading above and below the crossing and from lateral and longitudinal movement, thus staying the fence from leaning, greatly adding to the stiffness of the stakes for holding the additional rails above and below the crossing.

It will be observed that the anchor may be of any material—logs or stone—and is anchored from the top rail, which anchor greatly assists in holding the fence firmly in position.

Referring to the tripods which I propose to use in the erection of my fence, as shown by Fig. 1, it has two short legs and one long leg. One of the short legs is provided with a stirrup, which is movably adjustable for holding the rails at the required heights, and at the junction of the three legs projections are formed, which also subserve the same purpose. The long leg extends up above the others a considerable distance and is surmounted by a fork, whereby the lever-rail is held in position, for the purpose hereinafter described. The short and long tripods are of course portable, and are moved from section to section as the building of the fence progresses. When the fence is built a stay-wire may be run from the bottom of one section to the top of the other, and so on alternately, whereby the fence is held from bearing longitudinally in either direction.

Where it is preferred, common or barbed wire may be substituted for the rails, either above or below the rider, which wire may be wound around the stakes for holding it in position, as well as at the same time to hold the stakes from spreading.

When trees are used for fence-posts they

will of course be properly protected from the cutting action of the wires, and at the same time not to interfere with their growth.

When the wire-barb is used instead of the rails, (and which are dangerous to cattle,) I prefer to always use the rider-rail, so that the cattle can see an impediment to their escape, and are thus prevented from running against the barbed wire, which is well known to be objectionable to users for the reasons before stated.

I am aware that fences have been made with rails having tie-wires for securing them in position; but such wire, being looped by ordinary means, does not bind the parts rigidly and securely together; but I am not aware that the rail of a fence was ever before known as a tightening-lever, nor that the staying-wire was ever before used as a fulcrum for tightening and drawing all the parts together by the means of said rails, nor that a fence has been weighted by placing the fence-rails all on one side, nor that rails or wire have ever been fastened above the rider to the stakes to make the fence higher. Therefore I desire to have it understood that I do not limit myself to the exact form shown, nor to the method of looping and binding the wire to the rails, as there may be a wide departure therefrom without departing from the spirit of my invention.

Having thus described my invention, and the means of carrying the same into effect, what I claim as new is—

1. A fence consisting of the cross-stakes A A², the top rails, B B, and the rider-rails E E², in combination with the binding-wire arranged to draw the said parts together by the leverage imparted by the rider-rail E, as described.

2. A fence consisting of the cross-stakes A A², the top rails, B, the rider-rails secured as described, in combination with the lower section of rails D, the latter being secured by the eye-loops in such manner that one of the rails D D' is also a lever and the stake the fulcrum, substantially as described.

3. The combination of a fence having a rider-rail and cross-stakes with the rails D D' and the loops, the latter being adapted to secure the said rails and the stake together by leverage imparted by one of the rails, substantially as set forth.

4. The combination, in a rail fence, of the cross-stakes, the rider-rail, and the rails above the rider, whereby the fence is made higher, the upper rails being secured by the loops to one of the cross-stakes by the leverage exerted by one of them, as set forth and described.

5. A fence consisting of the cross-stakes, the rider-rails, the top rails, B B, the rails above the rider, and the series of rails D D' below the top rail, all fastened as set forth and described.

6. A fence consisting of the cross-stakes A A², the rider-rails, and the top rails, B B, secured by the wire bindings in the manner set

forth, in combination with the anchor-weight, all arranged to retain the fence in a fixed position, as shown.

7. A fence consisting of the cross-stakes, the rider-rails, and the top rails, B B, in combination with the binding-wire, a portion of said wire being above one of the rider-rails and under the other, forming a fulcrum for the latter, and said wire being also provided with a loop for the insertion of the end of one of the rider-rails, whereby, by the forcing down of the fulcrum-wire and the drawing up of the loop end by means of the lever-rail, the wire is drawn tightly and securely around all the parts, binding them together, as described.

8. A fence having cross-stakes A A², rider-rails and top rails, in combination with the rails above the riders secured to the upper portion of stake A² by loops, and the rails D D' below the top rail secured by loops to the

lower portion of stake A, whereby the fence is weighted on one side more than on the other, for the purpose set forth.

9. The combination, in a fence, of cross-stakes and rails in their under and over forks secured to their positions by suitable wire fastenings arranged to run diagonally upward across the junction of the rails in the direction of their length and in opposite directions on each side of the fence, whereby the fence is stayed against leaning to either direction lengthwise, as set forth.

In testimony that I claim the foregoing as my own invention I affix my signature in presence of two witnesses.

CARLOS C. COE.

Witnesses:

B. F. MORSELL,
O. E. DUFFY.