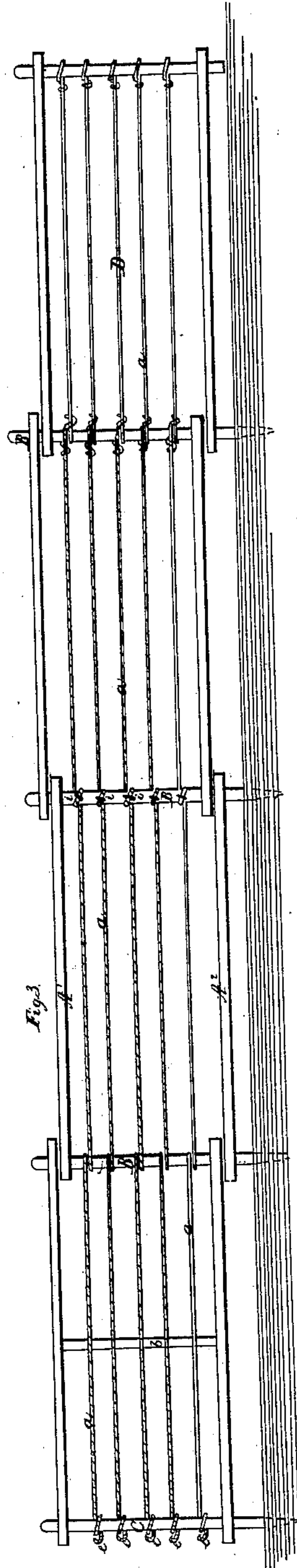
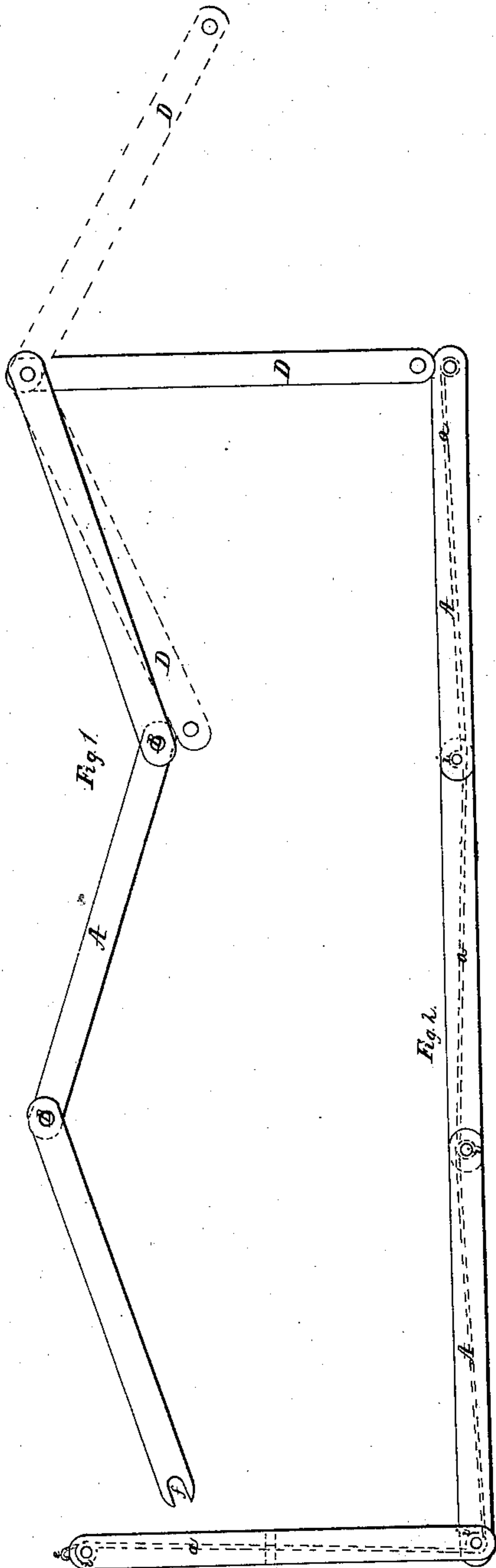


H. Burrows, Wire Fence,

N^o 30,021.

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Witnesses:
Edw. P. Brown.

J. B. Woods.

Inventor:
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UNITED STATES PATENT OFFICE.

HENRY BURROWS, OF GEORGETOWN, DISTRICT OF COLUMBIA, ASSIGNOR TO HIMSELF, AND
E. W. WOODRUFF, OF WASHINGTON, DISTRICT OF COLUMBIA.

FENCE.

Specification of Letters Patent No. 30,021, dated September 11, 1860.

To all whom it may concern:

Be it known that I, HENRY BURROWS, of Georgetown, in the District of Columbia, have invented a new and useful Improvement in the Mode of Constructing Fence, which I call a "Portable Compound Wire and Rail Fence;" and the following is a clear and exact description of the same, reference being had to the accompanying drawings, making a part of this specification.

Figure 1, represents a top view of section of the fence consisting of four span, with wood posts, set up zig-zag, one end being made to open either way for a gate. Fig. 2, shows a section in a line with one span set at a right angle, it having iron bars for posts. It illustrates the position in which the wire is put around the posts,—in dotted lines. Fig. 3, shows a side elevation of the fence, as set up.

Like letters represent the same parts in the several figures.

My invention consists, in the arrangement of a series of wood or metal posts, and the bracing them at certain distances apart, by wood or metal bars, top and bottom; and placing in the spaces between the bars, wire, at any required distances apart, and running parallel with them, each wire taking one or more turns around the posts in different directions, alternately right and left, by which means they are drawn taut, and any degree of tension is obtained, by straightening the fence in setting up,—the end span of any one of the sections may be used as a gate, by making separate connections of the wires,—(as seen in Fig. 3).

To enable others skilled in the art,—to make and use my improved mode of constructing, and setting up fence, I will proceed to describe it more fully, referring to the drawings, and the letters marked thereon.

In constructing my fence, the timber for rails, may be sawed into scantling (A, A, A', A²,) say, two by four inches, or of less size, according to the length of the span between the posts, (B, B, B, B,) the distance of which may be varied to suit, or as circumstances may require,—from six to twenty four feet apart. When the span is long, the two rails may be stayed together, and brace each other, by having one, or more vertical pieces, fitted in between them, which

pieces (b,) by having holes, notches, or saw kerfs made in them, will also steady the wires (a, a, a, a, a) which run horizontal or parallel with the top and bottom rails (A' and A²) which may both be alike, the ends may have holes to fit onto the posts, or they will answer equally well to have notches to fork on, as they will be kept in bearing firmly by the tension of the wires.

The posts (B, B, B,) may be made of sawed or split timber having the corners rounded off, and need not be more than two inches in diameter, when it is desirable to use iron rods for posts, they may vary from $\frac{3}{4}$ to 1 inch in size and of any desired length, pointed at the end to admit their being driven into hard soil, which is a practical and expeditious mode of setting up the fence.

The sections are made to consist of any convenient number of span, from four to twelve, so that they are convenient to handle, are put together, and the wires (a, a, a, a, a,) are put on and secured to each section by a twisted eye on the first post (C,) leaving a loop or hook (e, e, e, e, e,) extending out sufficient to attach the wires of the next section to, as the chain of fence is being extended.

The wires (a, a, a, a,) of which any number may be used are put on to the posts (B, B, B, B,) by taking a turn or two around each post reversing the side alternately on every other post, they being at the time placed at such an angle that it is not necessary to draw the wires tight more than is convenient for fastening at the end. The wires are held at the right distances apart to be parallel with the rails, and each other by driving a small wire staple (i, i, i, i,) over them into the posts, or a small notch made in them at the right distances,—when metal bars are used for the posts, or the rails of each section have holes to fit onto the posts, the end rails of each section can be cut out so as to fork *f*, on to the post that has been already set up, then by connecting the extended wires to the hooks (e, e, e, e,) the chain is continued uniformly to any indefinite length.

The fitting of the posts and rails can all be done under cover, in rainy weather, or in the winter season, the sections put together, and the wires put on before they are taken to the field. When the fence is designed to

be set up zig-zag, the wires are left a little shorter, than they should be for making a straight fence, so that the wires are drawn about as taut as they will bear and not
5 break in either case.

When the fence is prepared in sections, as above described, it can be folded up, and piled up snugly, until it is wanted for setting up in the field, it being portable, so as to be
10 easily loaded on a wagon, or cart, and distributed where it is designed to be set up, which process is accomplished in the following manner: The first section is unfolded and placed in the position it is to stand,
15 having a man hold of each section to draw it into a straight line, when it is wired for that purpose, or, until there is sufficient tension upon the wires, when they are put on for the purpose of having the fence zig-zag. Thus
20 while it is being held and the wires being drawn taut, a man drives upon the top of the posts with a maul or sledge and sets each post by a blow alternately until he has driven them sufficiently to stand and hold
25 the fence in its position. Then another section is coupled on by connecting the bars and wires, as shown till the tension is produced upon the wires, the posts driven and secured, and thus the process is continued
30 till the whole line of fence is completed.

Wherever it is desirable to have a passage-way a gate (D) may be made to open either way by having separate wires attached to a single span and starting anew with the next
35 section.

The utility and economy of my portable compound wire and rail fence will be readily seen and understood, and the advantages of its construction, whereby the objections
40 to wire fence are obviated. In the first place, the posts, whether of wood or metal, may be very small and light, they being so thoroughly supported, and braced, on the opposite sides by the bars, and wires, that they
45 can be set sufficiently firm in the ground by driving, thereby saving the time and labor of digging post holes and setting the posts. They may also be easily drawn, or raised out of the ground for the purpose of removing,
50 or changing the position of the fence, with-

out injury in the slightest degree. Second, the rails can be comparatively small, as the pressure is entirely endwise on them, they acting against the tension of the wires, and when the span between the posts is long, the
55 rails can be stayed by a vertical brace or two, placed between them, which will also steady, and hold the wires in their proper places, the bars and braces will also present obstacles that cattle can readily see, so that they
60 will not be liable to run against the fence, to push it out of place, or cut and injure themselves by the wires. Thirdly, the wires being put on, or around the posts, alternately right, and left, they bind in so short sections,
65 that they cannot be much affected by the contraction or expansion of the metal, and being drawn so tight, they will not sag, or vary so as to admit of small animals crowding through between them. They also pre-
70 sent so little surface for the wind to act upon, that even on the prairies where most exposed, there will be very little danger of the fence being blown down or moved out of its place. Fourthly, the lightness and porta-
75 bility of the fence is such that large fields can be inclosed with a small quantity of material, and a larger amount of fence can be set up, and secured, in less time than any other known or used, and where fence is in
80 danger of being swept away by floods, it can be easily taken up, and placed out of danger. Fifth and lastly, my fence can be made and erected cheaper than any other good fence, at a cost of from fifty cents to \$1.00
85 per rod in any section of the country.

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

Adjusting the wires around the posts of a
90 portable folding fence, in the manner described, so that the requisite degree of tension is produced, by prolonging the sections, and the wires are held firmly in their places, as herein shown, and set forth, for the pur-
95 poses specified.

HENRY BURROWS.

Witnesses:

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