

(No Model.)

F. H. BISSELL
WIRE FENCE.

No. 314,785.

Patented Mar. 31, 1885.

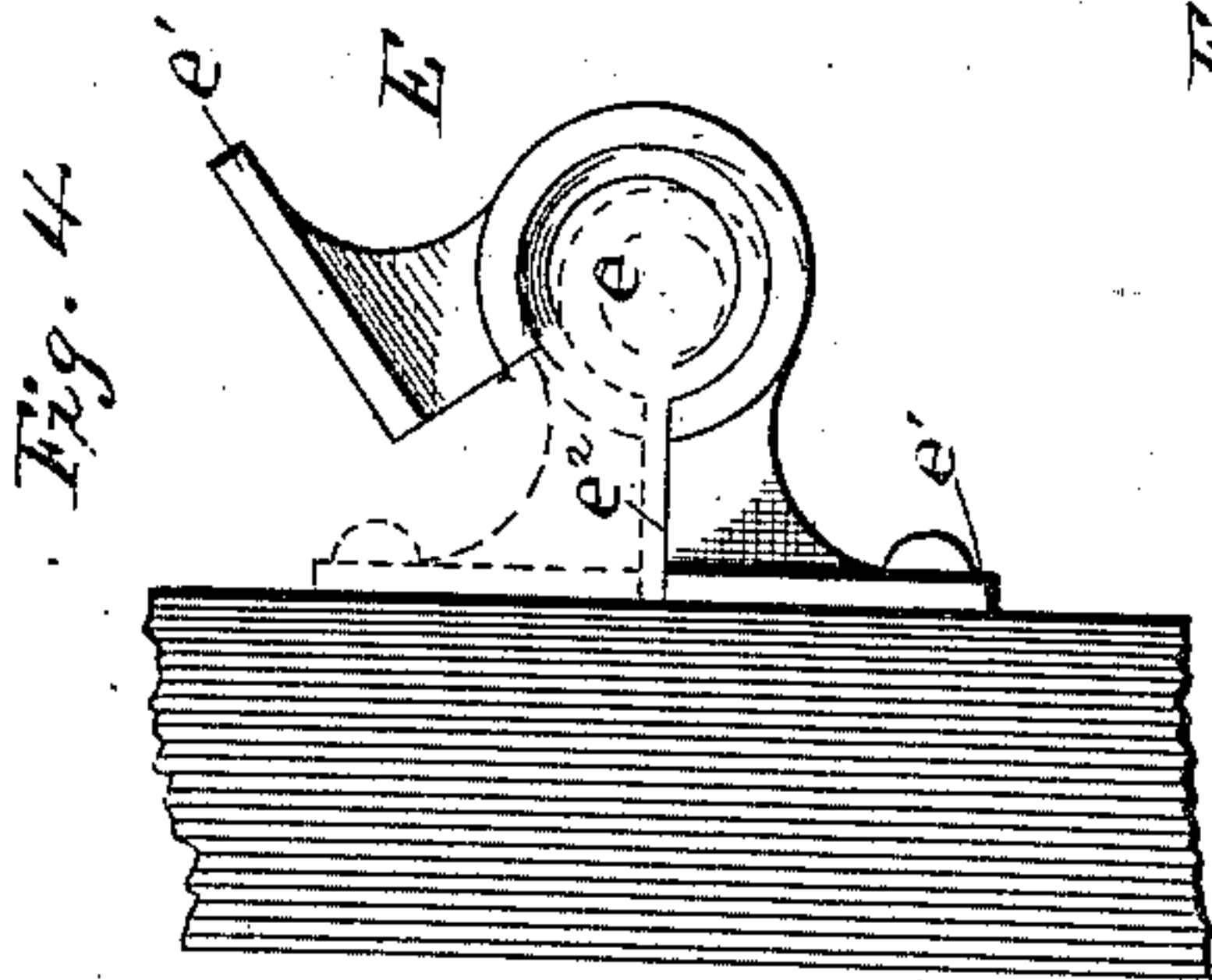
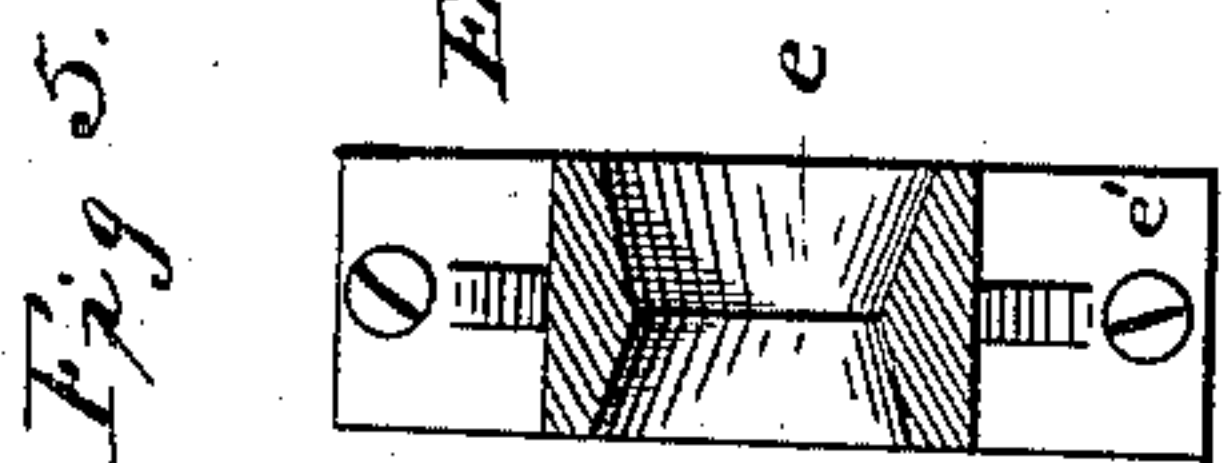
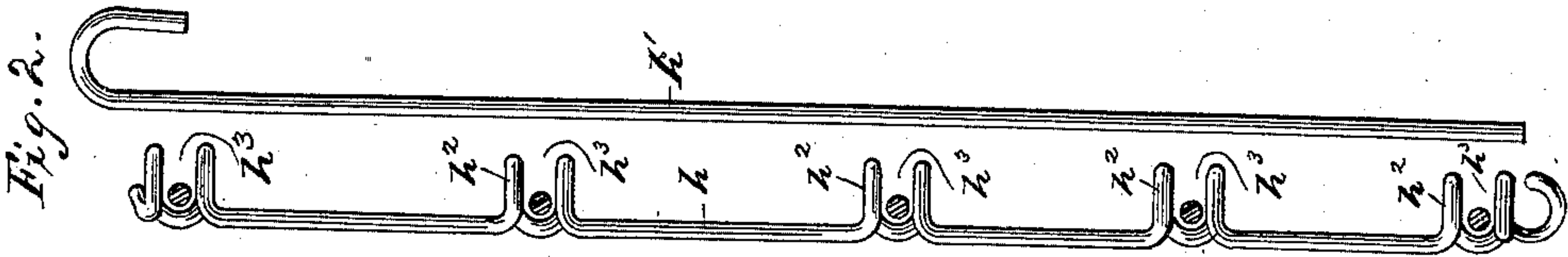
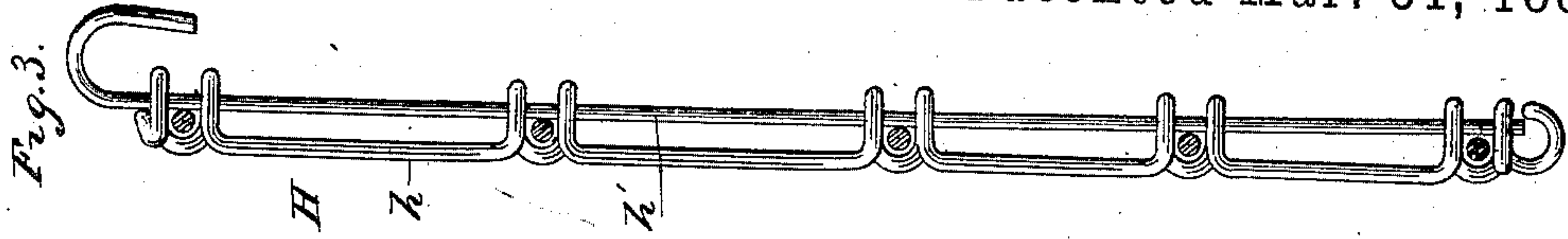
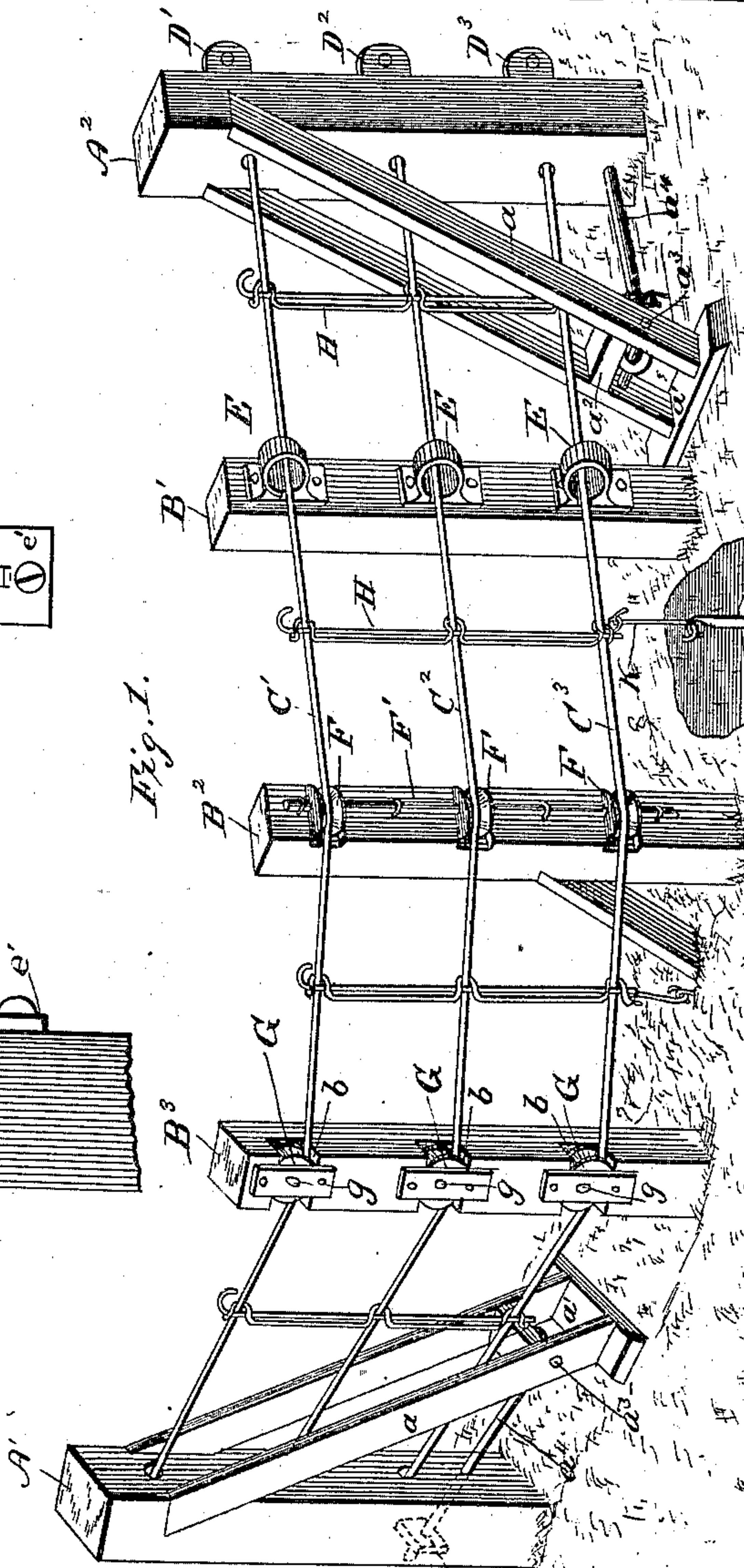


Fig. 1.



WITNESSES

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WIRE FENCE.

SPECIFICATION forming part of Letters Patent No. 314,785, dated March 31, 1885.

Application filed February 6, 1884. (No model.)

To all whom it may concern:

Be it known that I, FRANK H. BISSELL, of Orwell, in the county of Ashtabula and State of Ohio, have invented certain new and useful Improvements in Wire Fences; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the figures and letters of reference marked thereon.

I will first describe my several improvements in connection with the accompanying drawings of a fence embodying them, and will then point them out specifically in the claims at the end of this specification.

In the drawings referred to, Figure 1 represents a perspective view of a fence to which my improvements are applied. Figs. 2 and 3 are detail views of the stays for spacing and holding the wires. Fig. 4 is a side view of one of the tubular post-brackets, showing in full lines the bracket open to admit a wire, and in dotted lines the same closed; and Fig. 5 is a sectional view of one of the post-brackets.

Similar letters of reference in the several figures indicate the same parts.

The letters A' A² represent the two end posts of a fence-section, B' B² B³ the intermediate posts, and C' C² C³ the several lines of wire. These wires are strung by being fastened to one of the end posts—A', for instance—carried thence along these several intermediate posts, and then fastened to suitable stretchers, D' D² D³, located on the end post A², and by said stretchers drawn to the proper degree of tightness.

The post B' represents one of a series of posts which in practice are set in line with the end post A². Each of said posts is provided with a bracket, E, made, preferably, of malleable iron, and provided with a tubular eye or socket, e, and with attaching flanges or wings e' e', having a slot or opening, e², between them, as shown in Fig. 4. These brackets are each attached to its post by means of screws, nails, or other fastenings passed through one of its wings, as represented in Fig. 4 in full lines, and the wire to be carried by it is inserted in the open eye or socket e, after which the other flange is bent or sprung down and also fastened to the post, thus closing the socket and securing the wire in place, as shown by the dotted lines, Fig. 4, and by the full

lines, Fig. 1. The interior of the tubular portion of the brackets may be made tapering in either or both directions to facilitate the passage of the barbs of the wire (where barbed wire is used) through them.

The post B² represents a corner-post, and instead of being provided with brackets—such as E—it is furnished with a series of horizontal pulleys, F—one for each wire—mounted upon a common vertical rod or axis, F', secured to the post, as shown. Opposite each pulley the post is cut away to accommodate the pulley, and the walls of the recesses thus formed serve to prevent the vertical movement of the pulleys, but do not interfere with their free rotation.

The post B³ represents a post succeeding the post B², but located on lower or higher ground. The position of this post is such as to render it impracticable to employ upon it either the tubular brackets E or the horizontally-arranged pulleys F, as either of such devices would tend to more or less bind the wire and prevent its being freely and uniformly stretched or slackened when desired. To overcome this difficulty, however, I employ upon said post a series of vertically-arranged pulleys, G, mounted upon horizontal pivots or axes g, within recesses b in the sides of the post, as represented in Fig. 1.

To prevent any displacement of the end posts, A' A², by the tension of the wires applied to them, I preferably provide each of said posts with inclined brace-bars a a, preferably mortised into the upper part of the post, and extending down, one on each side of the wires, to a base-piece, a'. Between the inclined bars, near their lower ends, I insert a spacing-block, a², and then through both bars, near said spacing-block, I pass a cross-bolt, a³, with which is engaged the hooked end of horizontal bar or bolt a⁴, which passes back through the post near the latter's base and is provided with an adjusting-nut, a⁵, on its inner screw-threaded end. This arrangement of braces tends to keep the post normally upright, and if from any cause the tension of the wires causes its upper end to lean the application of a wrench to the screw-nut a⁵ will so draw upon the lower ends of the brace-bars as to restore the post to its normal upright position.

Between each two posts I preferably ar-

range one or more spacing-stays, H, for the purpose of preventing the parting or displacement of the wires and to add to the general strength of the fence. The form of the stay which I prefer to use is shown in detail in Figs. 2 and 3. It consists of two parts, h and h' . The part h is preferably of wire, and is provided with a series of pairs of vertical eyes or guides, $h^2 h^2$, and with lateral recesses or rests h^3 for accommodating the line-wires of the fence, said eyes and recesses being preferably formed by bending the wire in the manner shown in Fig. 2. The part h' , on the other hand, consists simply of a straight piece of stout wire adapted to be passed through the vertical eyes $h^2 h^2$ of the part h , and having a bent upper portion to prevent its slipping out of place. In applying these stays all the line-wires are inserted in the several horizontal recesses, h^3 , of the part h , and then the part h' is passed down through all the pairs of eyes $h^2 h^2$ in succession, thus securely confining all the line-wires and preventing them by any possibility from being displaced laterally or vertically. The strength and stability of the stay are increased by the formation of the eyes and lateral recesses in the manner shown in Fig. 2, wherein the lateral rests or recesses h^3 and the vertical eyes h^2 are formed from the material of the part h , doubled and bent back into the space between the straight vertical portions of the wire, thus bringing the rests or lateral recesses for the line-wire between the straight portions, and the vertical eyes h^2 for the part h' at one side and at the open end of the lateral recess h^3 . By this means the two parts h and h' are securely held together, so as mutually to resist any lateral pressure upon any one of the line-wires, while the separation or vertical displacement of the line-wires will be resisted by the doubled wire constituting the upper and lower portions of the recess h^2 , and the thrust will be borne by the straight portion of the part h , as shown.

When the posts are placed a considerable distance apart, or when from other considerations greater stability is desired, the stays may be connected by any suitable flexible or jointed connection—such as K—to an anchoring-plate, L, of any suitable construction, buried in or otherwise anchored to the ground. This anchoring-plate may be also used in connection with the stay where from the unevenness of the ground too large a space is left between the lower wire and the surface of the ground, the anchoring of the stay under such circumstances serving to draw the wire closer to the ground.

I am aware that it is not new, broadly, to secure the wires in a wire fence from vertical movement by means of a spacer composed of two pieces of wire, the one bent in spiral form and adapted to contain the line-wires between its convolutions, and the second piece of wire passed down through the spiral to hold the line-wires in position.

Having thus described my invention, I claim as new—

1. As a means for positioning and sustaining the wire during the stretching operation, and for fastening the same to the posts, the tubular bracket herein described attached to the post by one of its flanges, the other flange being raised and the eye open to receive the wire, in combination with the wire and post, substantially as described.

2. The tubular post-bracket having the open eye, beveled as described, and flanges or wings for securing it to the post, substantially as described.

3. The hereinbefore-described improved stay for wire fences, composed, essentially, of a vertical rod or wire provided with a series of pairs of vertical eyes, and a lateral recess between the members of each pair for the reception of the line-wires, and a second wire passing through the vertical eyes formed in the first-mentioned wire to close the open side of the lateral recesses, and thus retain the line-wires therein, substantially as described.

4. In a stay for wire fences, a wire for sustaining the line-wires, formed with a series of vertical eyes, intermediate lateral recesses and connecting straight sections, and a second wire inserted through the said vertical eyes and across the open ends of the lateral recesses, substantially as described.

5. A stay for wire fences composed of a wire looped and bent upon itself to form the lateral recesses and vertical eyes, as described, and the vertical confining-wire passed through the vertical eyes, as set forth.

6. The herein-described improved stay for wire fences, composed of the parts h h' , the part h provided with the vertical eyes or guides h^2 and the lateral recesses or rests h^3 , and the part h' passing through the eyes or guides h^2 and closing the lateral recesses h^3 , as set forth.

7. A stay for wire fences composed of two substantially parallel wires, the one provided at intervals throughout its length with a series of lateral recesses, substantially in line with the straight portion, for the reception of the line-wires, and with projecting vertical eyes for the reception of the other vertical wire, substantially as described.

8. In a wire fence, and in combination with the vertical post to which the line-wires are secured, the inclined brace-bars mortised at one end to said post and attached at the other to a common base-piece resting upon the surface of the ground, the cross-bolt passing through said brace-bars and connected to the vertical post by a rod or bolt screw-threaded at one end and provided with a hook at the other for engagement with the said cross-bolt, substantially as described.

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Witnesses:

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