O. E. BUTLER.

Fence Post.

No. 201,744. Patented March 26, 1878.

Fig: 2.

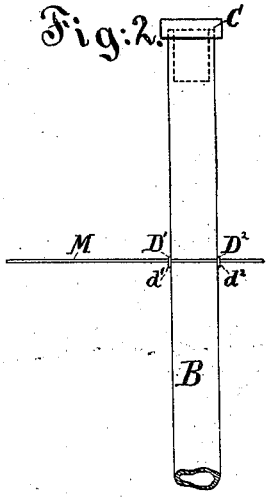
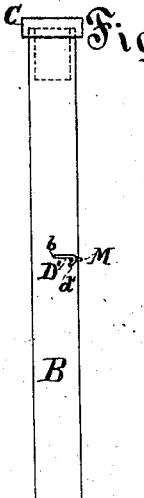


Fig: 1.



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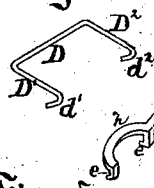

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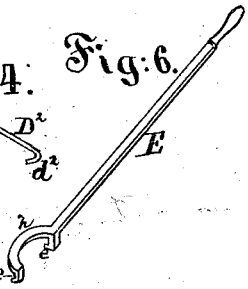


Fig: 5.

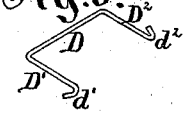


Fig: 3.

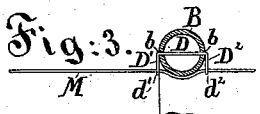


Fig: 7.

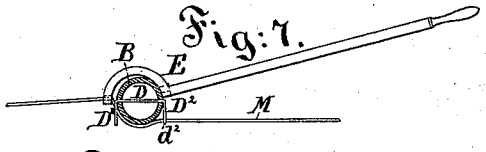


Fig: 8.

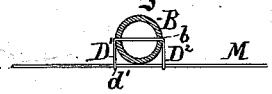


Fig: 9.

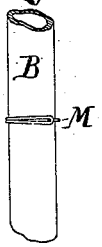
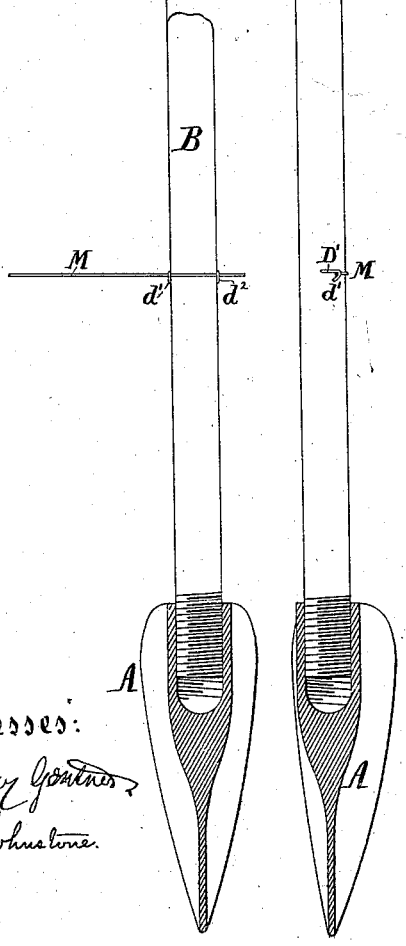


Fig: 10.



Witnesses:

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Inventor:

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by his attorney

Thomas D. Stetson

New York

UNITED STATES PATENT OFFICE.

ORRIN E. BUTLER, OF LAMOILLE, IOWA.

IMPROVEMENT IN FENCE-POSTS.

Specification forming part of Letters Patent No. **201,744**, dated March 26, 1878; application filed December 13, 1877.

To all whom it may concern:

Be it known that I, ORRIN E. BUTLER, of Lamoille, Marshall county, in the State of Iowa, have invented certain new and useful Improvements relating to Posts and Attachments for Wire Fences; and I do hereby declare that the following is a full and exact description thereof.

I have devised a means for fastening, which consists of a sufficiently thick wire inserted through the body of the post, and bent out each side to form an extension laterally, terminating in a hook adapted to firmly engage with the wire.

The fastener may be so extended as to allow the wire to move longitudinally through it with ease, and allow the longitudinal wire of the fence to be tightened, or may be so short and so arranged as to hold the wire very firmly against end movement, the one construction or the other being adopted, as may be desired in any case.

Both the hooks at the termination of the arms may be turned up, or both may be turned down; or the one may be turned up and the other down. If the arms are long enough to allow the longitudinal wire of the fence to move along without being bent, the longitudinal wire may be tightened by any ordinary means applied at the end of a long section; but if it be preferred, as is sometimes the case with barbed-wire fencing, that the wire be held without capacity for end movement, retaining only the original strain imparted to it when it is first set up, it is preferable to make the arms of the fastening-wire shorter, so that the main wire, being properly inserted, will be somewhat bent, and will refuse to move endwise with any ordinary strain applied afterward.

I have devised a simple implement in engaging the longitudinal wires with my fasteners.

The following is a description of what I consider the best means of carrying out the invention.

The accompanying drawings form a part of this specification, in which drawings—

Figure 1 is a side elevation. Fig. 2 is a corresponding face view, a portion being broken out to make room for a horizontal section. Fig. 3 is a horizontal section in the plane of one of the main wires. Figs. 4 and 5 are perspective views, representing two forms of the peculiarly-bent fastening-wires. Fig. 6 is a perspective view of the tool by which I engage the main wire with the fastening-wires. Fig. 7 is a plan view, representing the mode of operating with the tool to engage the wires together. Fig. 8 is a horizontal section through the post, with the fastening-wires in place, the fastening-wires being so proportioned as to allow the main wire to be moved longitudinally through the fastening.

The remaining figures represent a somewhat analogous device; but I esteem it inferior thereto.

Fig. 9 is a side elevation of a part of a post, and Fig. 10 a corresponding horizontal section.

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

Referring to Figs. 1 and 2, B is a piece of iron gas-pipe, to serve as the body of the post, and A is a cast-iron base formed with wings, adapted to be driven in the ground, and to take a firm hold therein.

The body B may be engaged with the base A by screw-threads, or by being simply socketed therein with a small quantity of joining-cement—as melted sulphur or the like.

The top of the post B has a cap, C, adapted to exclude water from the interior. The cap may carry an upper wire of the fence, (not represented,) which may be attached in my peculiar manner, or any other convenient manner.

The cap C may be screwed into the body B, or may be simply socketed; or it may, if preferred, be threaded, or otherwise joined, to fit over the exterior of the body B. This last may be preferred in most cases, on account of its more efficiently excluding water.

I have represented two wires as attached by my fastenings D^1 D^2. The number of the wires may be varied, or their location changed within wide limits.

A corresponding number of small holes, *b*,

are drilled, punched, or otherwise produced, through the tubular body B, and through these holes are inserted short lengths of sufficiently-stout wires to form the hooked arms D^1 D^2. The main body of the fastening-wire, which extends across the main body of the post, is marked D. The ends of the arms D^1 D^2 are bent around to form hooks d^1 d^2.

I propose to produce the posts and fastenings by the aid of machinery, in which case the post may be delivered with the fastening-wires already in place.

The manufacture may be variously conducted. One preferable plan would be to bend one end of each wire fastening to form one hook, d^1, and one arm, D^1, all finished in the proper relation to the body D, while the remainder of the wire, which is to form the other arm, D^2, and the other hook, d^2, remains straight, ready to be thrust through the hole in the post. After being passed through the hole the arm D^2 may be bent by stout pinchers or analogous instrument.

The longitudinal wires of the fence are marked M. If they are provided with barbs, (not represented,) they cannot, of course, be efficiently tightened by straining a whole section at a time, and causing the main wires M to move through the fastenings on the posts. Care should be taken in such case to avoid having a barb come directly opposite a post; but when such happens to be the case, my invention will allow for it by simply causing the main wire to be sufficiently bent between the hooks d^1 d^2 to allow for the addition made to the thickness of the wire by the presence of the barb.

When a smooth portion of the wire comes opposite the post the main wire will be bent or not, according as the arms D^1 D^2 are made of greater or less length than the semi-diameter of the post.

Fig. 8 shows the arms D^1 D^2 made long. Thus formed, my fastening allows the main wire M to be moved endwise through the fastening with facility. This is a good way to construct the fastenings for smooth main wires, or wires without barbs.

Fig. 3 shows the arms D^1 D^2 made shorter. This construction compels the main wire to press hard against the post, and to be considerably bent, even when a plain part of the wire comes against the post. If a barb comes there, the main wire will lie in the same general condition, but will be still more bent. The bending with this form of my fastener prevents the main wire from being drawn endwise through the fastening, even when there are no barbs. This is a good form of the fastener for barbed-wire fence.

Fig. 5 shows the hook d^2 turned up. All the other hooks are represented as turned down; but it will be understood that all the hooks may be turned up, if preferred.

There is little, if any, choice in regard to the perfection of the fence, whether the hooks turn up or down, or whether each fastening has one hook turned down and the other up.

The main wire M is usually of such thickness as to possess a good deal of rigidity. When, in addition to its own stiffness, it is strained strongly at the end of each section of a quarter of a mile (more or less) previous to attaching it to my post, it becomes a matter of some difficulty to engage the main wires with my hooks d^1 d^2. The points of these hooks should not be long, but should be sufficient to take a firm hold.

The peculiarly-formed lever E, made of steel, or other suitable metal of sufficient strength and stiffness, is adapted to fit against the post and to slide partly around on it after its end has been engaged with the main wire.

By operating with this lever E, as will be obvious from inspection of Fig. 7, the main wire may be easily and rapidly deflected from its straight line to a little more than the finally-required degree, and allowed to spring back into its hook d^1 or d^2 with great ease and rapidity. It will then remain firmly engaged for an indefinite period.

My post and fastenings may be painted with any cheap paint or coated with thin coal-tar—anything which will preserve the parts well from the weather and stop the holes *b* around the fastening-wires.

Figs. 9 and 10 show a modification of the fastening, which I consider not as good, but worthy of mention.

Here the holes *b* need not extend quite through the post, but only in one side, and the post is so set that the hole *b* is not, as in the other figures, parallel to the corresponding main wire M, but at right angles to it.

Instead of a single fastening-wire for each main wire, there are two such wires; and instead of being formed with hooks, they may be complete loops, each loop embracing the main wire M, and extending thence half around the post, and terminating with a hooked end, which engages in the hole *b*.

The fastening-wire may, when thus formed, be of smaller diameter than in the other form.

The hole *b* must be large enough to receive four thicknesses or parts of the fastening-wire.

The lever E is important in the use of barbed wire, or of any which requires to be strained before its application to the post.

My lever E gives a sufficient purchase to allow the slight deflection of the wire without requiring it to be slackened.

There may be a hole in the side of the post, near the bottom, to allow the free escape of any water which may get inside.

I claim as my invention—

1. In combination with a metallic fence-post, B, a main wire, M, the tie D D^1 D^2 en-

gaging with the main wire, and engaging in a hole or holes in said post, as herein specified.

2. The fasteners D D^1 D^2, with their hooks d^1 d^2 constructed and arranged, relatively to the post B and wire M, so as to hold the latter in a bent condition, as herein specified.

In testimony whereof I have hereunto set my name in presence of two subscribing witnesses.

ORRIN E. BUTLER.

Witnesses:
G. W. McMILLAN,
A. J. HURNDON.