No. 687,142. Patented Nov. 19, 1901.

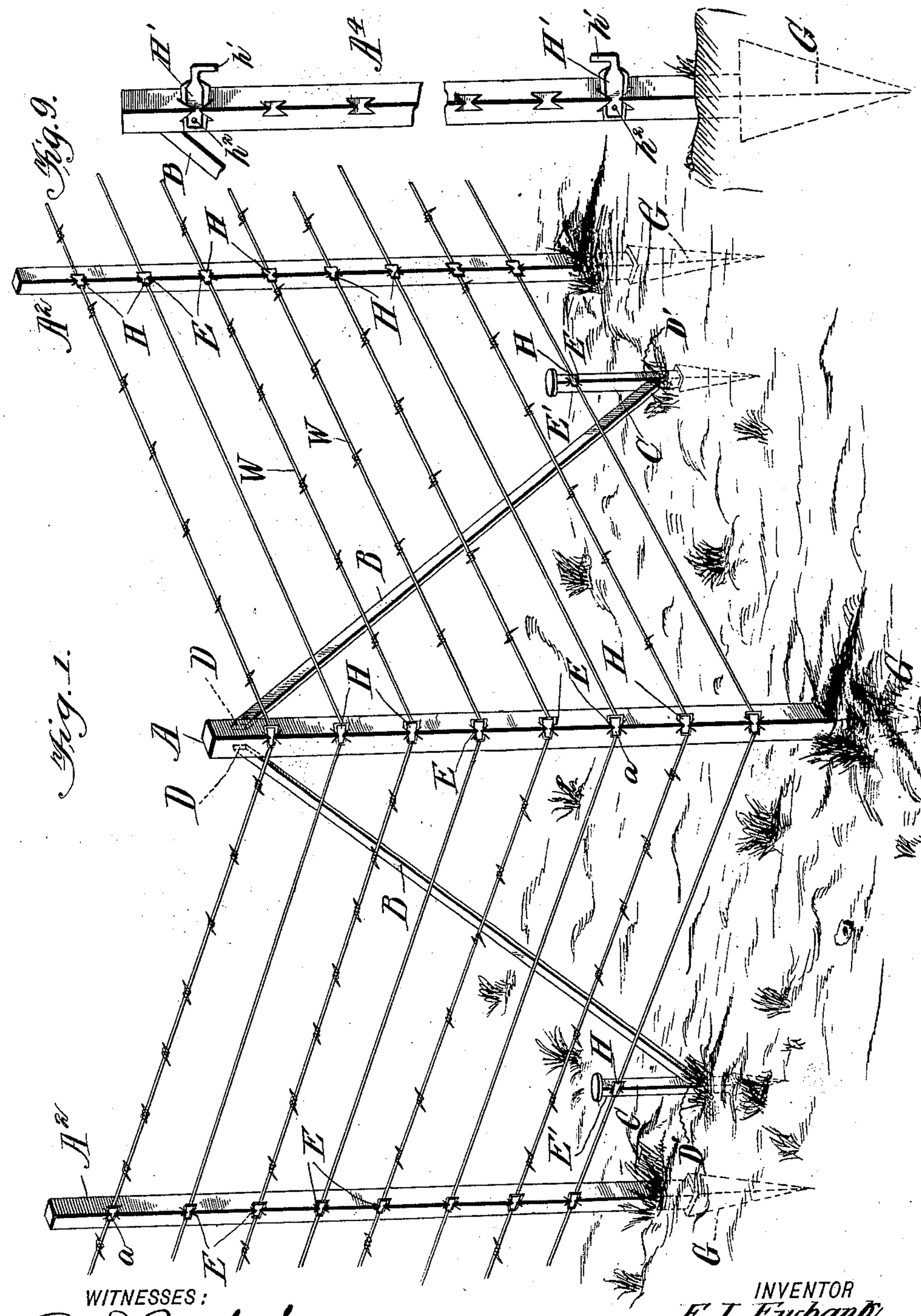
E. L. EWBANK.

WIRE FENCE.

(Application filed June 10, 1901.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.



WITNESSES:

Fred. D. Bradford.

Edw. W. Byrn.

INVENTOR

E. L. Ewbank.

BY Munn & Co.

ATTORNEYS

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Fig. 2.

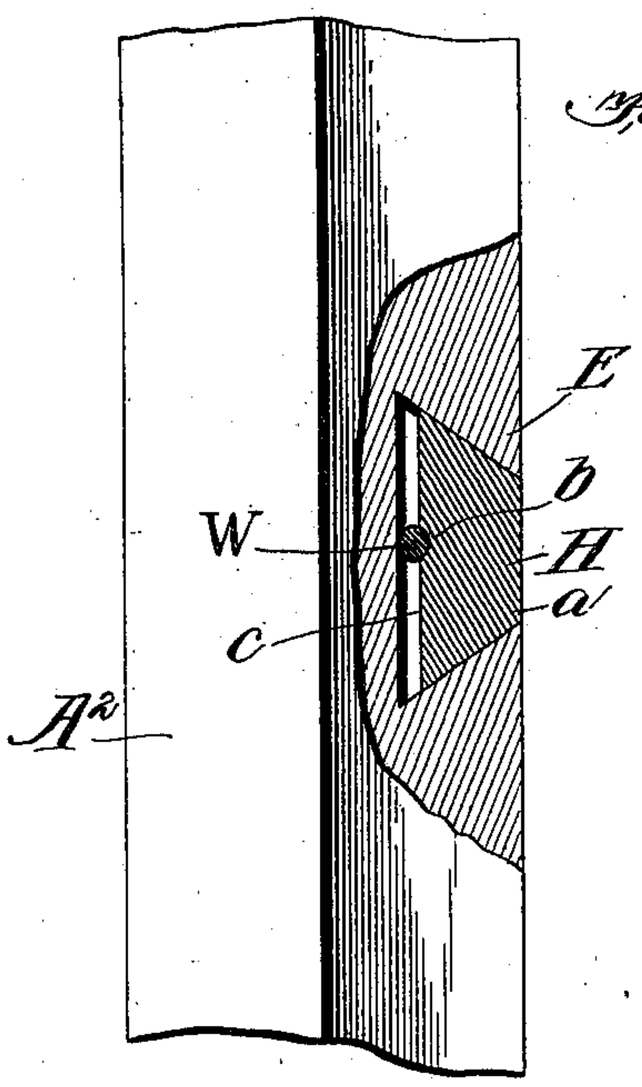


Fig. 3.

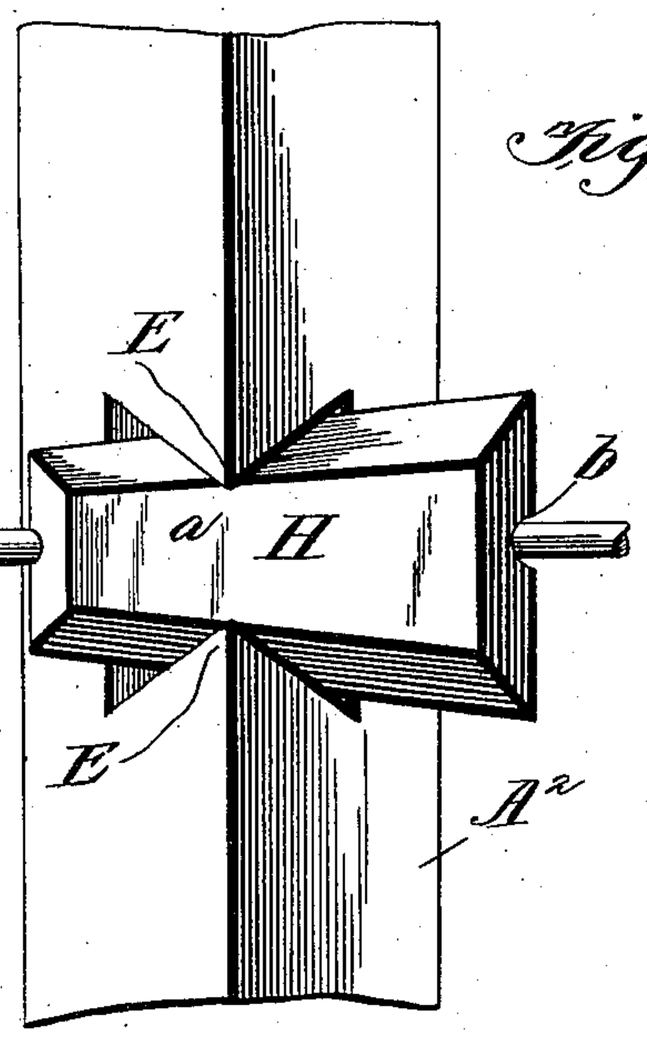


Fig. 4.

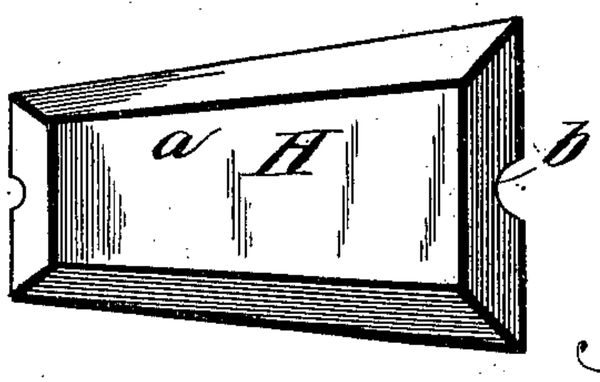


Fig. 5.

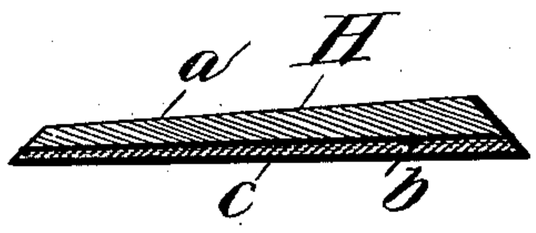


Fig. 6.

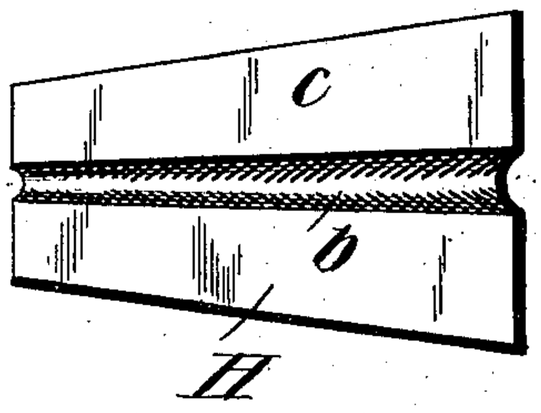


Fig. 10.

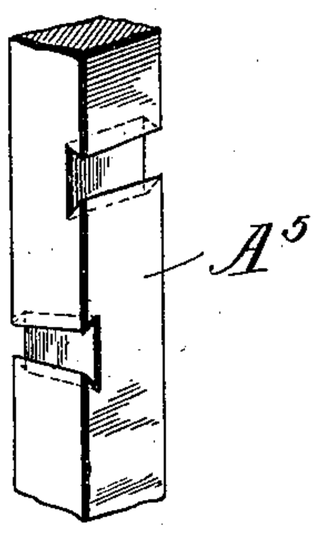


Fig. 7.

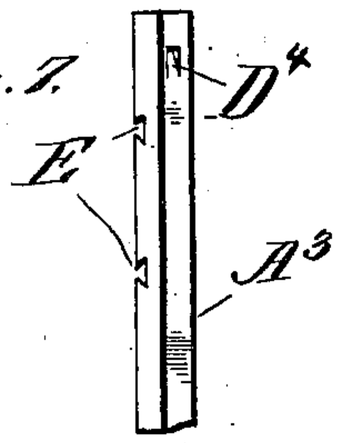


Fig. 8.

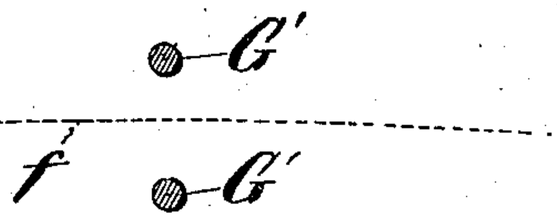
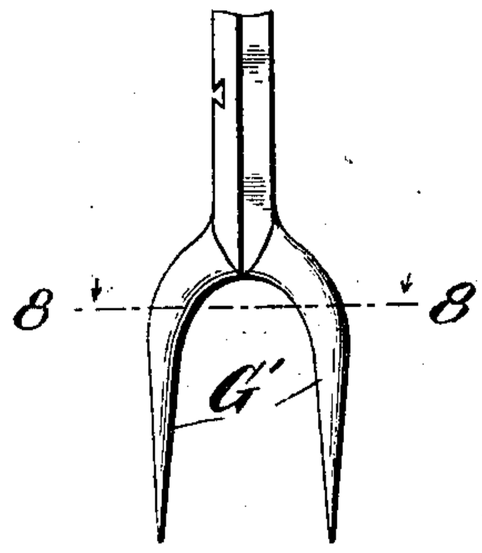


Fig. 9.



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ATTORNEYS

UNITED STATES PATENT OFFICE.

ERNEST L. EWBANK, OF HENDERSONVILLE, NORTH CAROLINA, ASSIGNOR OF ONE-HALF TO HILARY B. BRUNOT, OF HENDERSONVILLE, NORTH CAROLINA.

WIRE FENCE.

SPECIFICATION forming part of Letters Patent No. 687,142, dated November 19, 1901.

Application filed June 10, 1901. Serial No. 63,874. (No model.)

To all whom it may concern:

Be it known that I, ERNEST LUCAS EWBANK, of Hendersonville, in the county of Henderson and State of North Carolina, have invented a new and useful Improvement in Wire Fences, of which the following is a specification.

The object of my invention is to provide a simple, practical, and cheap wire fence which may be expeditiously put up or taken down without special tools and by unskilled workmen and which shall also be strong and durable and adapted to be constructed either of plain or barbed wire or twisted cable.

It consists in the special construction of the iron posts, in combination with the wires and fastening-wedges, together with suitable braces for the corners, as I will now proceed to describe with reference to the drawings, in which—

Figure 1 is a side view of a corner-section of my fence. Fig. 2 is an enlarged vertical section through a part of the post and retaining-wedge, showing the wire locked in place thereby. Fig. 3 is an enlarged front view of the same parts. Figs. 4, 5, and 6 are enlarged details of the wedge. Fig. 7 is a modification of the post used for gradual curves. Fig. 8 shows in section on line 8 8 of Fig. 7 the position that the prongs of the post occupy to the curved line of fence. Fig. 9 is a detail view of the fence-post and gate-hanger wedges. Fig. 10 is a detail of a modified form of post.

In the drawings, A and A^2 are the fence-posts, of which A is a corner-post and A^2 an intermediate post. These posts are made of cast-iron, wrought-iron, or steel and are to be either solid or hollow with large fluke-shaped bases G, which are to be firmly anchored in the ground. The posts may be round, square, triangular, or any other desired shape in cross-section and have along one side, at the intervals the wires are to be apart, dovetail or undercut notches E, having a small outlet or opening and widening therefrom inwardly on both sides of the outlet, so as to form symmetrical overhanging edges.

W represents the wires, which may be either plain, barbed, or cable twisted or woven wire. These wires are inserted in the notches in the posts and are there retained by iron or steel wedges H. These wedges have their outer faces *a* smaller than their inner faces *c* and have inclined sides, which in cross-section correspond to and fit under the overhang of the notches. The wedges are also tapered along their sides, so that when the small end is inserted into the notches E and the wedge is driven in it will tighten in its seat. On the under and broader side of the wedge there is formed a corrugated groove *b*, extending along the middle line of said side. The wedge is also thicker at its wide end, and the groove *b* at the wide end may be somewhat larger than it is at the narrow end, so as to fit larger size wire, thus allowing the same wedge to be applied to different sizes of wire. When the wire is laid in a notch E, the wedge H is applied to the same, with the groove *b* fitting against the wire. Then when the wedge is driven in it passes under the overhanging symmetrical edges of the notch and jams the wire against the post by reason of the taper until the wire and wedge are tightly held to the post. This forms a very secure and simple joint or connection and one that may be easily and quickly loosened to take down the fence or repair the strands by simply tapping with a hammer on the small end of the wedge.

To brace the corner-post, it is formed near the top on two sides with sockets D to receive the ends of the inclined braces B, the lower ends of which are received into corresponding sockets D′ in a short brace-post C. This brace-post is formed with an undercut notch E′ to receive a wedge H, by which it is secured to the lower fence-wire and by which it is firmly held against the thrust strain of the brace B.

For intermediate posts I use the form shown at A^2, except when describing a curve, and in such case I use a post of the kind shown at A^3, Fig. 7, which has near its top a notch D^4 to receive a brace and at its bottom is forked at G′, the forks of which are made to straddle the curve line of the fence *f*, Fig. 8, so that the pull on the radial line of the curve, due to the tension of the wires, will be resisted by the double anchorage in the ground of the two prongs G′ G′. If the curve is not of very small radius, the double base

only may be sufficient; but when the strain is increased by a sharp curve both the double base G′ G′ and the brace B may be used.

When there is an opening through the fence for a gate, the fence-post is made as at A^4 in Fig. 9, in which an undercut slot of large size is made near the top and bottom of the post, and the wedge is formed, as shown at H′, with pintle-arms h', the upper one of which is turned down and the lower one up to prevent the gate from being lifted off the hinges. A pin h^2 through a hole in the small end of the wedge keeps it from accidentally coming out. The wedge-plate forming the base of the hinge is also adapted to perform the function of a wire-fastener, as will be readily understood.

In defining my invention with greater clearness I would state that I am aware that fence-wires have been retained in seats in the posts by wedges and I do not claim this broadly.

In Figs. 1, 2, and 3 the undercut notches of the posts are shown in the corners; but I would have it understood that I do not limit myself to this arrangement, but may place them in the flat side of the post, and for corner-posts there may be two sets of slots or notches in said flat sides, as seen at A^5 in Fig. 10. The wedges may also be made of a definite size to suit the wire used and be numbered accordingly.

In constructing a fence according to my invention the wedges are driven in from the advance side, so that the tension of the wires will have a tendency to draw them in instead of loosening them. Thus in Fig. 1 the fence is to be constructed from the left-hand side of the figure toward the right and the wedges are driven in from right to left.

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

1. A wire fence comprising a metal post having dovetail notches along its edges with broad vertical bases and equally-inclined sides, horizontal wires located in said notches, and flat wedges each having inclined edges corresponding to those of the notches, said wedge being made tapering from a wide end to a narrow end with a double convergence, that is a convergence of its two flat sides, and a convergence of its two edges, and said wedge being also made of greater vertical width in transverse direction than it is in thickness substantially as and for the purpose described.

2. A wire fence comprising a metel post having dovetail notches along its edges with broad vertical bases and equally-inclined sides, horizontal wires located in said notches, and flat wedges each having inclined edges corresponding to those of the notches, said wedge being made tapering from a wide end to a narrow end with a double convergence, that is a convergence of its two flat sides, and a convergence of its two edges, and said wedge being also made of greater vertical width in transverse direction than it is in thickness and having on its inner broad face a longitudinal groove to form a wire-seat substantially as described.

3. A wire fence comprising a metal post angular in cross-section and provided with dovetail notches formed transversely across its corners and intersecting the two adjacent side planes of the post, said notches having broad bases and equally-inclined sides, horizontal wires located in said notches, and flat wedges each having inclined edges corresponding to those of the notches, and said wedge being made tapering from a wide end to a narrow end with a double convergence, that is a convergence of the two flat sides, and a convergence of the two edges, said wedge being made of greater vertical width in transverse direction than it is in thickness and having on its inner broad face a longitudinal groove to form a wire-seat substantially as described.

4. An iron fence-post for wire fences having a slot with overhanging edges combined with a tapered wedge formed with a pintle-pin for the gate-hinge substantially as described.

5. A locking-wedge for the wire of a wire fence made in cross-section wider on one side with an equal taper of each edge to the narrow side and having two flat sides converging in their planes and two inclined edges also converging toward the same end of the wedge and having also on the broad flat side a middle longitudinal groove substantially as and for the purpose described.

ERNEST L. EWBANK.

Witnesses:
T. F. ORR,
GEO. H. VALENTINE.