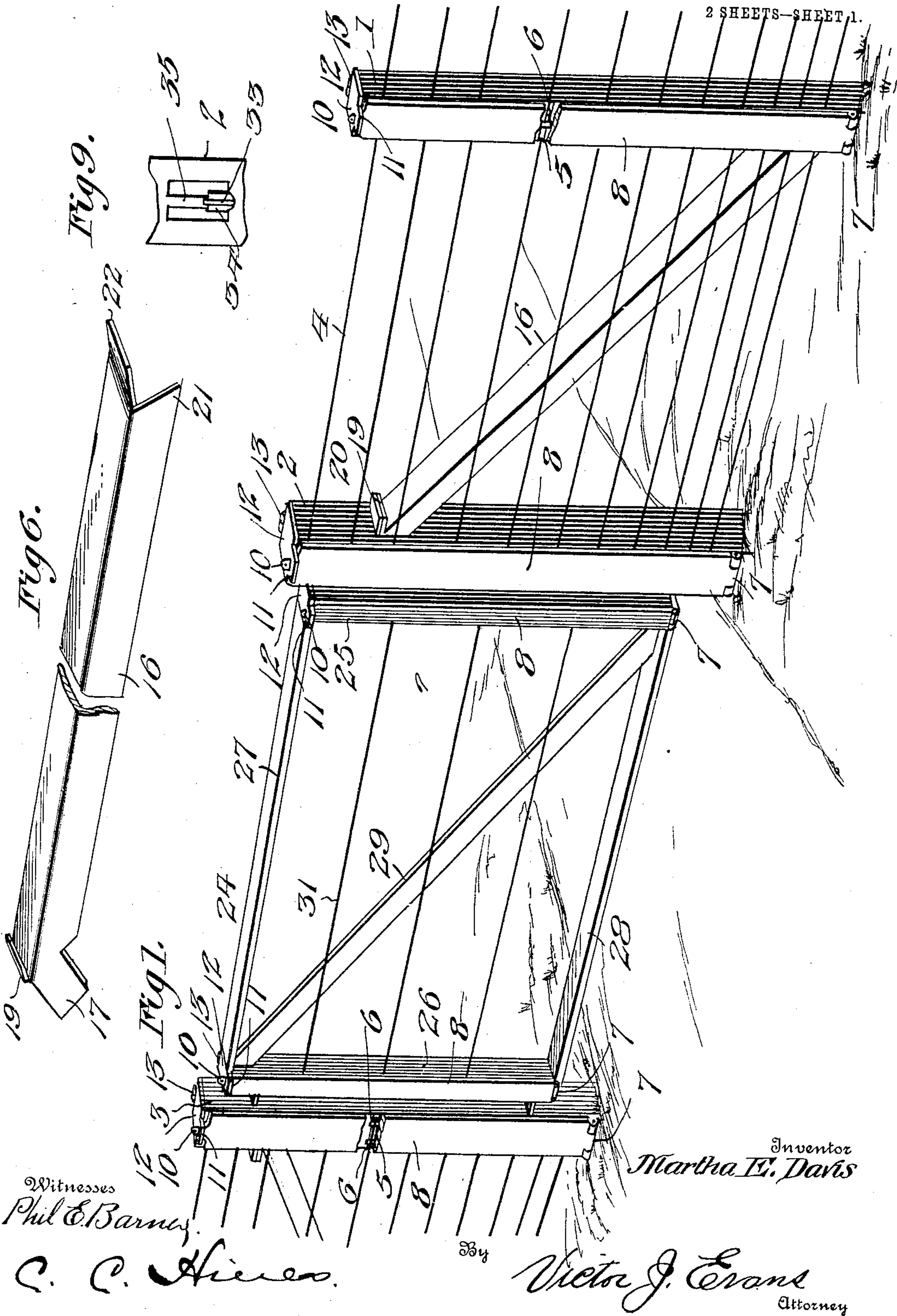


No. 810,626.

PATENTED JAN. 23, 1906.

M. E. DAVIS.
FENCE STRUCTURE.
APPLICATION FILED APR. 26, 1905.

2 SHEETS—SHEET 1.



Witnesses
Phil C. Barney.

C. C. Hines.

By

Victor J. Evans
Attorney

Inventor
Martha E. Davis

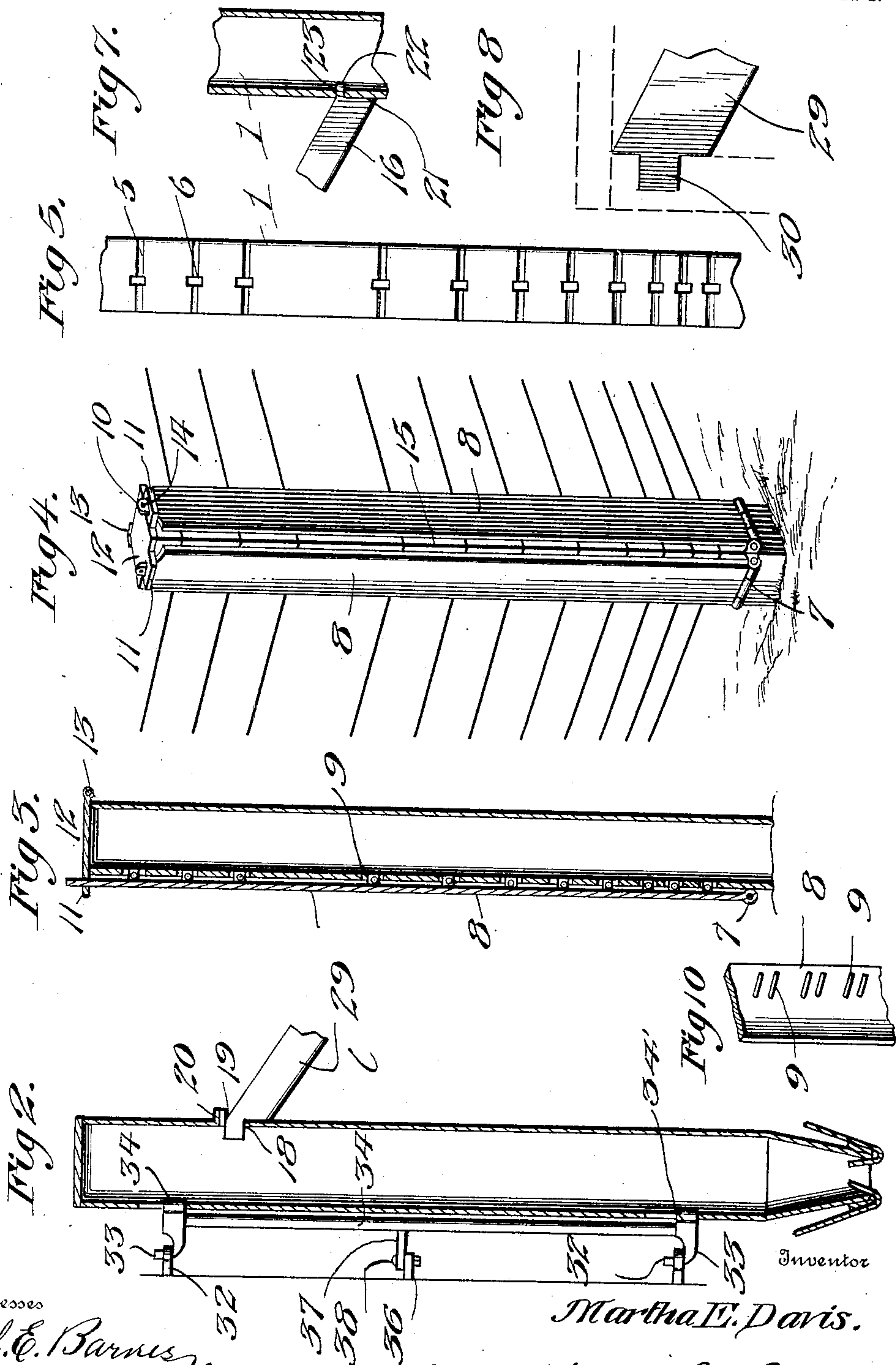
No. 810,626.

PATENTED JAN. 23, 1906.

M. E. DAVIS.
FENCE STRUCTURE.

APPLICATION FILED APR. 26, 1905.

2 SHEETS—SHEET 2.



Witnesses

Phil. E. Barnes,

C. C. Hines.

By

Martha E. Davis.

Victor J. Evans

Attorney

UNITED STATES PATENT OFFICE.

MARTHA ELLEN DAVIS, OF WORTHINGTON, MINNESOTA.

FENCE STRUCTURE.

No. 810,626.

Specification of Letters Patent.

Patented Jan. 23, 1906.

Application filed April 26, 1905. Serial No. 257,501.

To all whom it may concern:

Be it known that I, MARTHA ELLEN DAVIS, a citizen of the United States, residing at Worthington, in the county of Nobles and State of Minnesota, have invented new and useful Improvements in Fence Structures, of which the following is a specification.

This invention relates to certain new and useful improvements in fence structures, and particularly to wire fences, one of the objects of the invention being to provide simple and efficient means for securing the fence-wires to the posts in such manner as to facilitate the construction, removal, and repairs of such fences, the securing means being adapted to permit of the removal of the wires without bending, breaking, or injuring the same, so that the wire removed from a fence may be used for building other fences or for other purposes.

Another object of the invention is to provide a fence-post which is simple of construction, light, strong, and durable, and provided with improved means for fastening the wires thereto, and, further, to provide improved means for bracing the gate and corner posts.

With the above and other objects in view the invention consists of the construction, combination, and arrangement of parts hereinafter fully described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a section of a fence structure embodying my invention, portions being broken away to clearly show the construction of certain parts. Fig. 2 is a vertical longitudinal section through the hinging-post of the gate, the section being taken on a plane parallel with the line of the fence. Fig. 3 is a section through one of the posts, showing the construction of the wire-securing means. Fig. 4 is a view showing the application of the invention to a corner-post. Fig. 5 is a broken detail front or face view of one of the posts. Fig. 6 is a detail view of one of the diagonal braces. Fig. 7 is a detail section through the lower portion of one of the intermediate posts, showing the manner in which the diagonal brace is connected thereto. Fig. 8 is a detail sectional view through the intermediate post, showing the brace connected therewith. Fig. 9 is a fragmentary view of the hinging-post, showing the adjustable connection of one of the hinge members there-

with; and Fig. 10 is a detail fragmentary view of one of the retaining-plates.

Referring now more particularly to the drawings, the numeral 1 designates one of the intermediate supporting-posts, 2 and 3 the hinging and latch posts, and 4 the line-wires of a fence structure. The posts are hollow or tubular and preferably made of metal and are also preferably of rectangular form in cross-section, although they may be of any other suitable form. As shown, the post 1 is provided upon its outer or front face with a series of transverse grooves 5 for the reception of the wires 4 and is formed with a vertical slot 6 crossing each groove. To the lower end of the fence-post, as indicated at 7, is pivoted a retaining-plate 8, provided upon its inner face, as clearly shown in Figs. 3 and 10, with pairs of spaced pins or retaining members 9 equal in number to the grooves and wires to be secured. When the plate 8 is turned up parallel with the face of the post and holds the wires seated in the grooves 5, the retaining-pins 9 engage above and below the respective wires and project into the slot 6, thus holding the wires from independent movement. The plate 8 preferably conforms in width to the width of the face of the post; but it may be of less width. The upper end of the plate 8 is formed with a tongue or reduced extension 10, adapted to engage and pass upward through a slot in an ear 11, projecting laterally from a keeper-plate 12, pivoted at 13 to the top of the post. The tongue is formed with an aperture 14 to receive a split pin or suitable key by which the plate 8 may be held from disconnection from the keeper-plate 12 and the line-wires thereby maintained in engagement with the seat-groove 5. When it is desired to remove any one or all the wires from engagement with the post, the split pin or key is removed and the keeper-plate 12 swung upward, whereupon the retaining-plate 8 may be swung downwardly to release the wires from engagement with the seat-groove. This construction of securing means for the wires is employed upon each of the posts throughout the fence structure, except that the terminal posts of a fence, as well as the gate-post, will be formed with an increased number of slots 6, the slots being arranged in pairs, as shown in Fig. 1, in order that the terminal ends of the longitudinal

wires may be more securely clamped. Where the wires pass across more than one side of a post, as in the case of a corner-post, as indicated at 15 in Fig. 4, the securing devices 5 will be applied upon each face of the post across which the wires pass. As the wires pass across two sides of the post 15 and two retaining-plates are employed to clamp the wire thereto, it is necessary to provide means 10 for holding both keeper-plates in clamping position, which is effected in the simplest form by providing the plate 12 upon the post with an additional slotted ear 11' to receive the tongue of the extra retaining-plate. When 15 this construction of keeper-plate is used, the plate will be hinged or pivoted at its corner portion to the top of the post, as indicated at 13', to permit it to be swung into and out of engagement with the tongues of both retaining-plates, as will be readily understood. 20

It will be seen that by securing the line-wires of the fence to the posts in the manner described provision is made for fastening them without injury and to permit of their 25 removal in the simplest possible manner when occasion requires, so that the fence may be erected and taken down in the shortest possible time and portions demolished without injury to the wires, which may be removed 30 and used for building other fences or for other purposes.

In order to effectually support the gate-posts, a diagonal brace 16 is provided for connecting each gate-post with the adjacent 35 intermediate post. This brace 16 is composed of a casting or piece of sheet metal bent or folded longitudinally in a substantially V form. The upper end of the brace which engages the gate-post is cut away or 40 bent at an angle to provide one or more obliquely-extending tongues 17 projecting into the post through a slot 18 formed in the side thereof, the said end of the brace being turned backwardly to form a flange 19, underlying a 45 flange 20 formed upon the post at the top of the opening 18, said flanges being apertured for the passage of bolts, rivets, or other securing devices. The lower end of the brace has the edges of its wings cut away at an 50 angle to fit against the sides of the post 1 and the extremity of one of its wings bent to form a tongue 22, which engages a slot 23 formed in the post 1. By this construction a simple form of connection is provided to effectually 55 brace the gate-post from the contiguous intermediate posts of the fence structure.

The gate 24 may be generally of ordinary construction and, as shown, comprises hinging and latch stiles 25 and 26, top and bottom 60 rails 27 and 28, and a diagonal brace 29, suitably secured at its lower end to the hinging-stile and bottom rail at their point of junction and provided at its upper end with a tongue

30, entering the latch-stile 26, to securely connect the brace therewith and sustain said stile 65 against strain. Wires 31 may be stretched across the gate, in which event the gate-stiles will be provided with the wire-securing means employed upon the posts, as previously described. The stile 25 is provided with hinge- 70 eyes 32, detachably engaging hinge-hooks 33, carried by a supporting bar or rod 34, provided in rear of the hooks with guides 34', engaging vertical guide-strips 35, formed upon the contiguous face of the hinging-post 75 21 by forming parallel slots therein, leaving the intermediate portion of the wall intact to form the strip 35. This construction permits of the gate being raised or lowered to swing at different elevations as occasion requires, 80 and any suitable means may be employed to retain it in the adjusted position. The stile 25 and bar 34 are provided with overlapping arms 36 and 37, apertured to receive a securing-bolt 38, whereby the gate is attached to 85 the bar to prevent the hinge-eyes 32 from jumping out of engagement with the hooks 33 when the gate is swung open or closed with force. Any suitable means for connecting the gate when closed to the latch-post 3 90 may be employed.

From the foregoing description, taken in connection with the accompanying drawings, the construction and mode of operation of the invention will be understood without a further 95 extended description.

Changes in the form, proportions, and minor details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages 100 thereof.

Having thus described the invention, what is claimed as new is—

1. In a fence structure, a post provided with wire-receiving grooves upon the face thereof, 105 a retaining-plate hinged or pivoted at its lower end to the post to swing toward and from said face and adapted to when swung against the face to clamp the wires in the grooves, and means for engaging the upper end of the plate 110 and retaining it in clamping position.

2. In a fence structure, a post provided in the face thereof with transverse wire-receiving grooves and slots intersecting said grooves, a retaining-plate hinged at one end to the post 115 and provided with spaced retaining elements to engage the wires and hold them seated in the grooves, said retaining elements being adapted to enter said slots, and means upon the post to engage the free end of the plate 120 and hold it in operative position.

3. In a fence structure, a post provided upon the face thereof with grooves, a retaining-plate hinged at its lower end to the post and adapted to fold against the same to hold the wires seated 125 in said grooves, said plate being provided at

its upper end with a projection, and a keeper hinged to the top of the post and adapted to engage said projection to hold the plate in retaining position.

- 5 4. In a fence structure, a post provided with slots therein, a retaining element adapted to bear against the post and provided with retaining-pins adapted to engage the fence-wires and to enter said slots, and means movably

mounting said element upon the post whereby the same may be moved out of engagement with the post to release the wires.

In testimony whereof I affix my signature in presence of two witnesses.

MARTHA ELLEN DAVIS.

Witnesses:

NED JONES,

G. W. MOELLER.