

J. LANZ.  
PICKET FENCE.

(Application filed June 8, 1900.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1

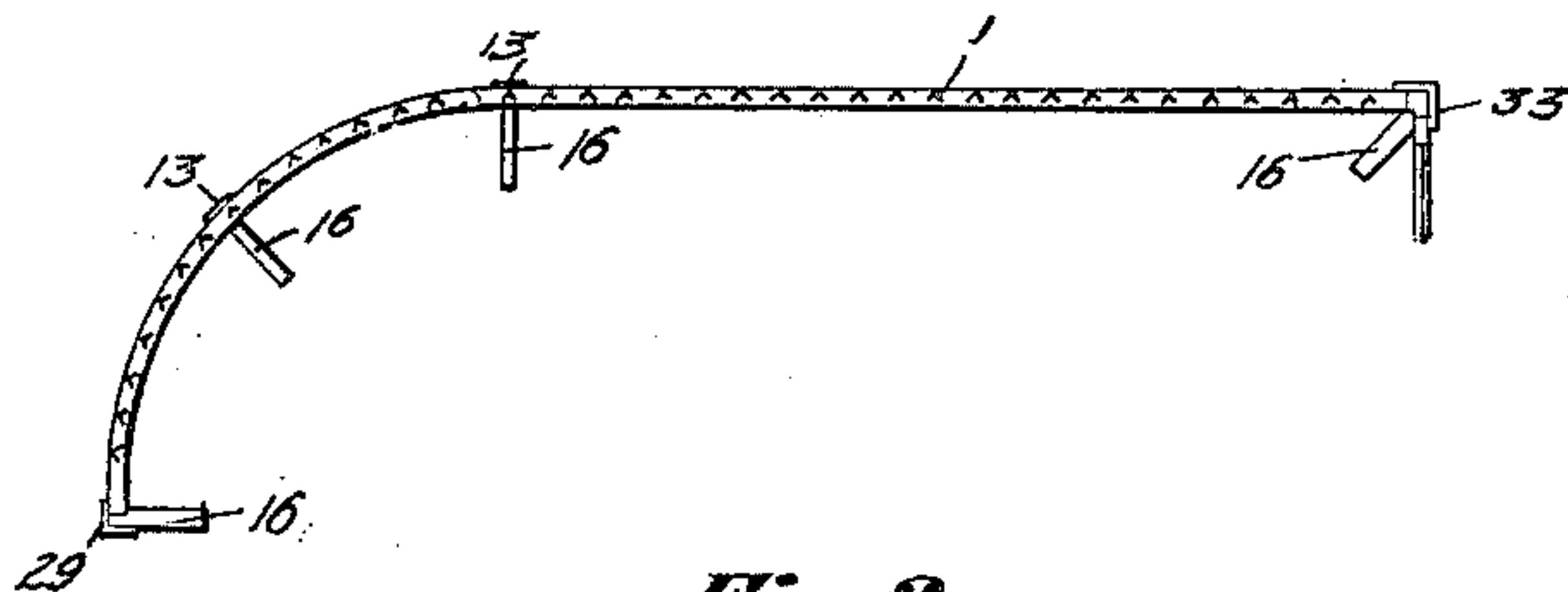


Fig. 2

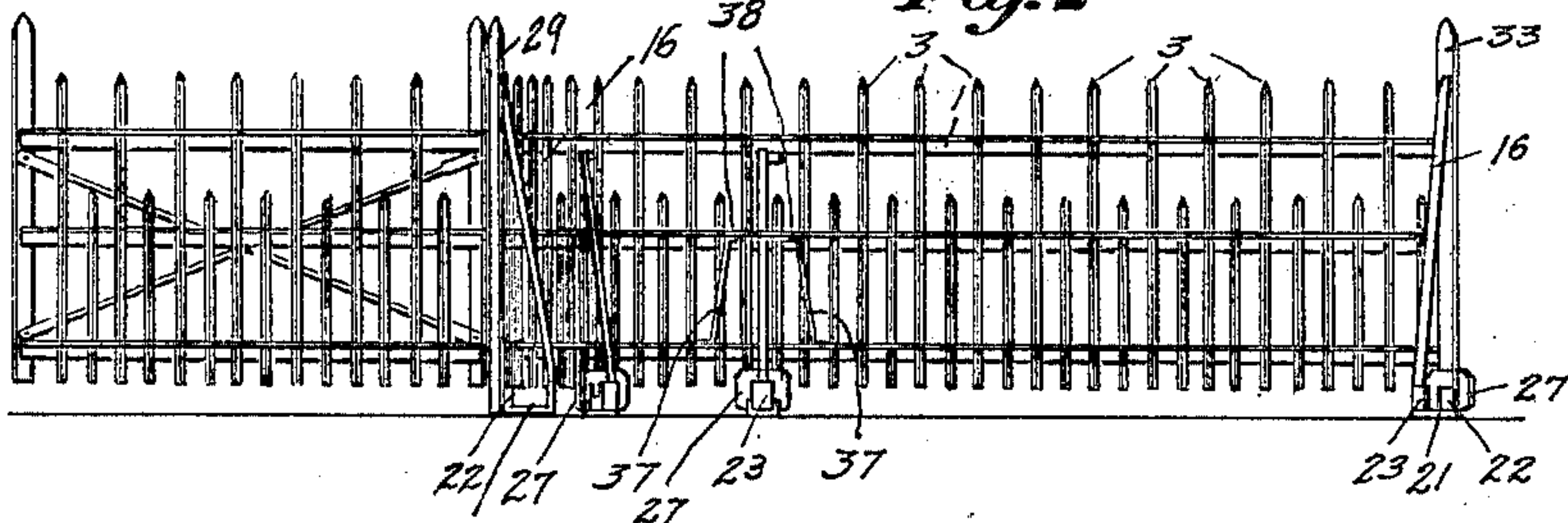


Fig. 3

Fig. 4

Fig. 5

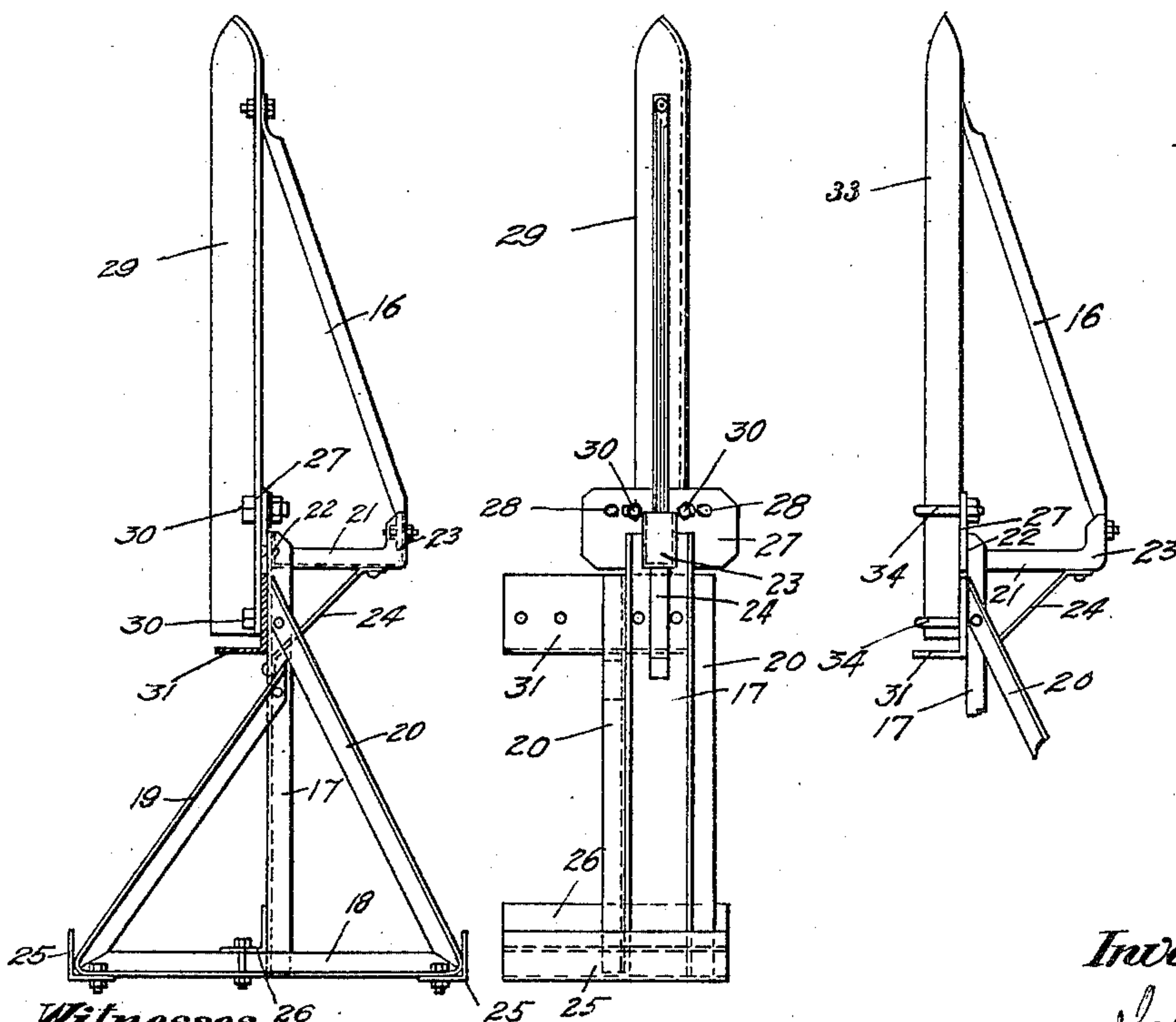
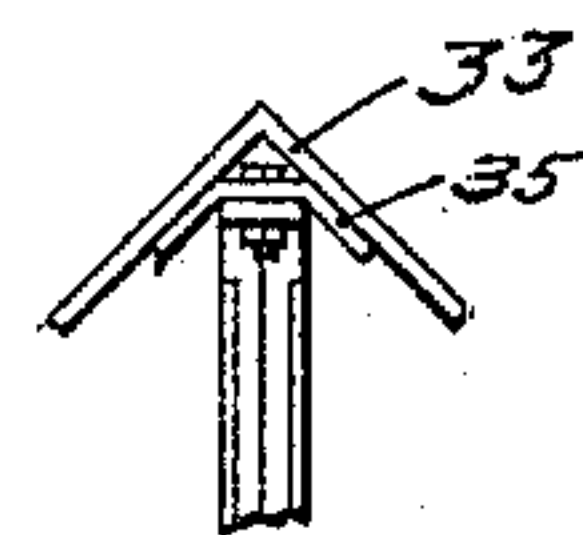


Fig. 6



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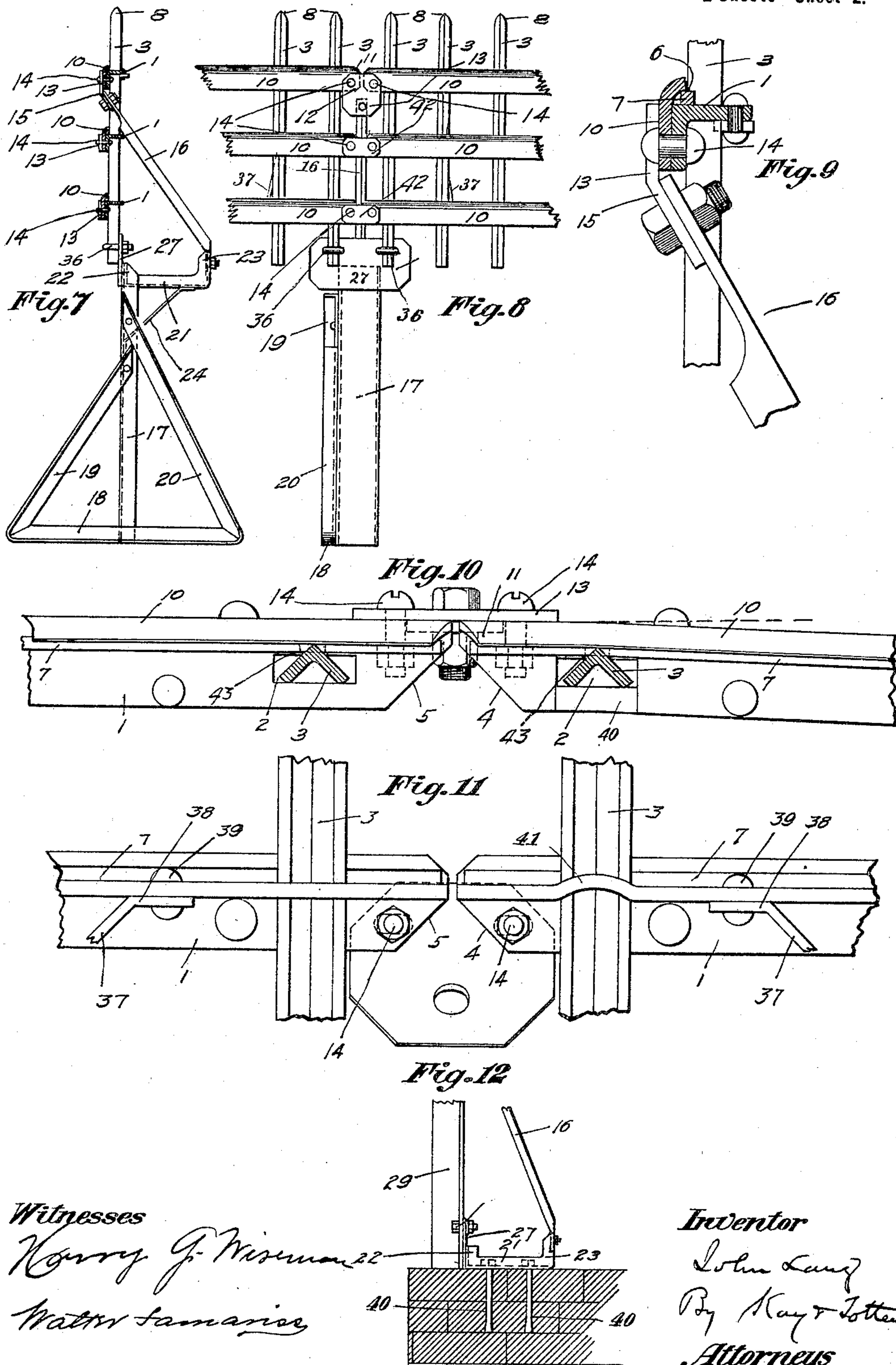
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2 Sheets—Sheet 2.



Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN LANZ, OF PITTSBURG, PENNSYLVANIA.

## PICKET FENCE.

SPECIFICATION forming part of Letters Patent No. 682,259, dated September 10, 1901.

Application filed June 8, 1900. Serial No. 19,560. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN LANZ, a resident of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Picket Fences; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to iron picket fences; and its object is to provide a picket fence in which the various parts are detachable and interchangeable, so that the fence can be shipped and stored as conveniently as bar-iron and can be readily assembled, in which the rails and necessary parts are so formed that the fence can be readily adapted to any inclination of ground or formed in any desired curves or angles, which is provided with adjustable connections between the bases and the fence, thereby obviating the necessity of setting the bases accurately, and, in general, a fence which is cheaper in construction than the fences now on the market.

To enable others to make and construct my improved picket fence, I will describe the same more fully, referring to the accompanying drawings, in which—

Figure 1 is a diagrammatic plan view of a form to which my improved fence is adapted. Fig. 2 is an elevation thereof. Fig. 3 is a side elevation of a post and base adapted to receive a heavy strain. Fig. 4 is a rear elevation thereof. Fig. 5 is a side elevation of a corner-post. Fig. 6 is a detail thereof. Fig. 7 is a side elevation of the ordinary base, showing the manner of attaching the fence thereto. Fig. 8 is a front elevation of the same, showing the rails and pickets on either side thereof. Fig. 9 is a vertical section showing the brace and the manner of securing the same to the fence. Fig. 10 is a plan view of the meeting ends of two rails. Fig. 11 is a rear view of the same, and Fig. 12 is a modification showing the manner of securing the fence to a wall.

The rails 1 of the fence are formed of angle-iron, as shown, having their horizontal legs perforated, as at 2, for receiving the pickets 3 and having both the horizontal and vertical legs beveled off at each end, as shown at 4 and 5, to permit the rails to be set at an angle relative to each other either in a horizontal or vertical plane.

The pickets 3 consist of angle-irons, as shown, having notches 6 cut in the angle thereof for receiving the locking-rods 7, which lie on the upper face of the horizontal leg of the rails. The pickets as well as the posts have both legs cut off on a curve at the upper end, as shown at 8 8, and have the upper end bent in, as shown at Figs. 3 and 4, to form substantially a spoon-shaped top, ornamental in appearance. The pickets are set in the rails, as shown in Fig. 10, so as to present their angles toward the front of the fence, thereby forming a picket which is broad and easily visible and one having a neat appearance. In order to lock the rails to the pickets and conceal the locking-rod 7, a cover-plate 10, having a vertical leg and an intumed curved upper edge which takes over the locking-rod 7, is bolted or riveted to the vertical leg of the rails 1, as clearly shown in Fig. 9. These cover-plates 10 have their upper and lower edges beveled away at each end, as shown at 11 12, to permit of readily adjusting the fence to the required inclination on uneven ground. The top rails and cover-plates of two adjacent panels or sections are united at their ends by the plate 13, suitably secured, as by means of bolts 14, to the cover-plates and rails, said plate projecting downwardly and having its lower end curved rearward, as shown at 15, and suitably perforated to have secured thereto the brace 16.

In the construction of my fence I use two standard forms of bases, according to the strain to be placed upon them, the bases, however, being of substantially the same construction. Each base comprises a standard 17, formed of channel-iron, having secured to the lower end an angle-iron 18 to form the foot of the base, said foot having its outer ends connected to the upper end of the standard by the inclined braces 19 20, said braces being also formed of angle-irons and preferably being integral with the foot 18, as clearly shown in Figs. 3 and 7. In the upper end of the channel of the standard 17 is suitably secured, as by rivets, a horizontal bracket 21, said bracket consisting of a channel-bar having its ends bent upward, as at 22 23, the inner upturned end 22 serving as a convenient means for securing said bracket to the standard, and the outer upturned end 23 being



suitably perforated to have secured thereto the lower end of the brace 16, before described. The bracket 21 is further supported by means of a brace 24, extending from the lower side thereof to the standard 17. In all parts of the fence where an unusual strain is put upon the bases—as, for instance, at gate and other openings—I provide bases having two feet 18 and two sets of braces 19 and 20, one set on each side of the channel-standard 17, as clearly shown in Fig. 4. I also secure the transverse angle-irons 25 25 to the ends of the feet 18 and a similar transverse angle-iron 26 at the lower end of the standard 17. These angle-irons 25 26 are firmly embedded in the earth and provide a broad foot of extensive area and prevent the tipping of the post in either direction. To the upper end of the standard 17 is suitably secured, as by rivets or bolts, the plate 27, said plate being provided with four elongated holes 28, said holes being sufficient to have secured to said plate the various forms of posts and pickets, as will hereinafter appear.

On each side of gate and other openings in the fence I use the form of base disclosed in Figs. 3 and 4, provided with the double set of feet and braces and transverse angle-irons, as shown. The post comprises a large angle-iron 29, secured, as by means of bolts 30, to the plate 27, one web of said post lying flat against the plate 27. Below the plate 27, between the standards 17 and the post 29, is placed a suitable liner 31, said liner being preferably a piece of angle-iron, the horizontal web of which rests upon or slightly below the surface of the earth, so that in addition to being a liner it serves as an anchor to hold the post vertical. The liner 31 and the angle-irons 25 26 are provided with a series of holes whereby they may be secured to the base to project equally on both sides or only on one side or the other, as may be necessary in case the base is set near a wall or other obstruction. The brace 16 in that case has its lower end bolted to the outer end of the bracket 21 and its upper end bolted to one leg of the angle-post 29. The upper end of the post 29 is shaped in the same manner as the upper end of the pickets, as heretofore described, to give it an ornamental appearance. In all other places along the fence I prefer to use the form of base shown in Fig. 7, as the same is simpler and cheaper and forms a sufficiently firm foundation for the fence. At corners and other sharp angles of the fence the post 33 is used, said post consisting of a large angle-iron having its upper end shaped in the same manner as the upper ends of the pickets, said post having the edges of its legs bearing against the plate 27 and being secured thereto by means of a yoke 34, passing around the post and having its ends projecting through the slots 28 in the plate 27. Between the lower end of this post and the standard 17 is secured a liner 31, preferably consisting of an angle-iron the horizontal web of

which lies upon or just beneath the surface of the ground, as heretofore explained. The brace 16 in this case is suitably bolted to a bracket 35, secured in the angle of the post 33, as shown in Fig. 6.

At the meeting ends of the panels I place a base, as disclosed in Fig. 7, and no post is used in connection with the base at these places; but the fence is secured to the base by having the end pickets of the two panels secured to the plate 27 by means of yokes 36 36, each yoke straddling a picket and being secured in the slots 28 of the plates 27. The braces 16 in this instance are secured at their lower ends to the outer upturned ends of the brackets 21 and at their upper ends to the rearwardly-bent lower end 15 of the plates 13.

To further strengthen the fence, suitable braces 37 are used, said braces extending diagonally from the bottom rail to the rail next above and having their ends suitably bent, as shown at 38, for securing the braces to the rails, as by means of rivets 39.

In case it is desired to set the fence on a stone or brick wall or upon wooden posts set flush with the ground the ordinary base is entirely omitted and the channel-brackets 21 are directly secured to posts 29 or pickets 3, as shown in Fig. 12, said brackets being suitably secured to the wall or other foundation by means of anchor-bolts 40 40.

In order to curve the fence, the part of the horizontal web of the rails lying inside of the perforations 2 are bent up or down, as shown at 41, thereby shortening the inner edge of the horizontal leg of the rail and bending the same, as shown in plan view, Fig. 10.

The plate 13 is used to unite the meeting ends of the top rails only, the meeting ends of the other rails being united by plates 42, suitably bolted or riveted to the vertical legs of the rails and cover-plates, so as to permit the rails being placed at any desired inclination relatively to each other. At one side of the perforations 2 the horizontal legs of the rails are cut away, so as to form corners 43, which bear against the sides of the angle-pickets, and when the rails are set at an incline on uneven ground these corners bite into the pickets and also spring them somewhat, thereby holding the pickets securely in place.

The two forms of bases disclosed in Figs. 3 and 7, respectively, are or may be assembled at the factory; but all of the other parts of the fence, comprising the rails 1, locking-rods 7, cover-plates 10, braces 16 and 37, pickets 3, posts 29 and 33, and other various parts, are shipped to their point of destination detached, and consequently may be shipped and stored with the same facility as ordinary bar-iron. At their point of destination the various parts can be readily assembled and united and the fence built on any angle, curve, or inclination that may be necessary, and the various parts of the fence



need not necessarily be made according to measure to fit the particular location in which they are to be placed. The rails, cover-plates, and locking-rods are made in standard lengths, and if too long to fit a given place they can be readily sawed or cut off and their ends properly shaped by any ordinary blacksmith. The bases may be planted in the ground at substantially the proper distances apart, any slight variation out of the proper position being easily compensated for by the elongated slots 28 in the plates 27.

The numerous points of advantage of my fence over those now on the market will be readily apparent from the above description.

What I claim, and desire to secure by Letters Patent, is—

1. A picket fence consisting of detachable and adjustable parts, comprising rails provided with picket-openings having projections, pickets adapted to fit in the openings in the rails, said pickets being provided with notches, locking-bars extending along the sides of said pickets and engaging the notches therein, and means for securing said locking-bars to the rails.

2. A picket fence consisting of detachable parts comprising perforated rails, pickets adapted to fit in the perforated rails, said pickets being provided with notches, locking-rods adapted to engage the notches of the pickets, and cover-plates secured to the rails and taking over the locking-rods.

3. A picket fence consisting of detachable parts, comprising perforated angle-iron rails, pickets adapted to fit in the perforated rails, said pickets being provided with notches, locking-rods adapted to lie on the horizontal legs of the rails and engage the notches of the pickets, and cover-plates secured to the vertical legs of the rails and taking over the locking-rods.

4. A picket fence consisting of detachable and adjustable parts, comprising rails having openings with projections therein, pickets adapted to fit in the openings in the rails so that said pickets are bound in said openings when the rails are inclined, said pickets consisting of angle-irons provided with notches at the angles, and locking-bars engaging the notches in the pickets and secured to the rails.

5. A picket fence consisting of detachable parts, comprising perforated angle-iron rails, pickets adapted to fit in the perforated rails, said pickets consisting of angle-irons provided with notches at the angles, locking-rods adapted to engage the notches of the pickets and lie on the horizontal legs of the rails, and cover-plates secured to the vertical legs of the rails and taking over the locking-rods.

6. A picket fence consisting of detachable and adjustable parts, comprising rails having openings with projections therein, pickets adapted to fit in the openings in the rails, said pickets consisting of angle-irons set with their angles toward the front of the fence so

that they are bound in the openings when the rails are inclined, and means for locking the pickets to the rails.

7. A picket fence consisting of detachable parts, comprising perforated rails cut away on one side of said perforations to form corners, pickets adapted to fit in the perforated rails, said pickets consisting of angle-irons set with their angles in the cut-away portion of the rails and having the corners of the latter bearing against their sides, and means for locking the pickets to the rails.

8. A picket fence consisting of detachable parts, comprising the perforated angle-iron rails, pickets adapted to fit in the rails, and the locking-rods for the pickets, the rails having their horizontal and vertical legs cut away at the ends to permit said rails to be set at any angle, vertically or horizontally, to each other.

9. A picket fence consisting of detachable parts, comprising the perforated angle-iron rails, pickets adapted to fit in the rails, locking-rods for the pickets, and cover-plates for the locking-rods, the rails having their horizontal and vertical legs cut away at the ends and the cover-plates having their upper and lower corners cut away, in order to adapt the fence to curves or inclinations as desired.

10. A picket fence consisting of detachable parts, comprising the perforated angle-iron rails, pickets and locking-rods, the horizontal leg of the rail being bent inside the perforation to curve the rail.

11. A picket fence consisting of detachable parts, comprising rails provided with picket-openings, pickets adapted to fit in said openings, means for locking said pickets to the rails, and connecting-plates secured to the ends of adjacent rails by means of horizontal connecting means, whereby the rails may be inclined vertically.

12. A picket fence comprising a series of standard bases, panels comprising detachable rails and pickets, connecting-plates secured to the ends of adjacent rails by means of horizontal connecting means, whereby independent vertical inclination of the rails is permitted, and means for detachably securing the end pickets of adjacent panels to one of the bases.

13. A picket fence comprising a series of standard bases, panels comprising detachable rails and pickets, connecting-plates secured to the ends of adjacent rails by means of horizontal connecting means, whereby independent vertical inclination of the rails is permitted, means for detachably securing the end pickets of adjacent panels to one of the bases, and a brace extending from said base and secured to one of the connecting-plates.

14. A picket fence comprising a series of standard bases, posts detachably secured to the bases at openings and angles in the fence, the panels comprising detachable rails and pickets, connecting-plates secured to the ends of adjacent rails by means of horizontal con-



necting means, whereby independent vertical inclination of the rails is permitted, and means for detachably securing the end pickets of adjacent panels to the bases intermediate the posts.

15. A picket fence comprising a series of standard bases, an adjusting-plate secured to each base, posts secured to the plates of the bases at openings and angles in the fence, the panels comprising detachable rails and pickets, connecting-plates secured to the ends of adjacent rails by means of horizontal con-

necting means, whereby independent vertical inclination of the rails is permitted, and means for securing the end pickets of adjacent panels to the adjusting-plates of the bases intermediate the posts.

In testimony whereof I, the said JOHN LANZ, have hereunto set my hand.

JOHN LANZ.

Witnesses:

F. W. WINTER,  
ROBERT C. TOTTEN.