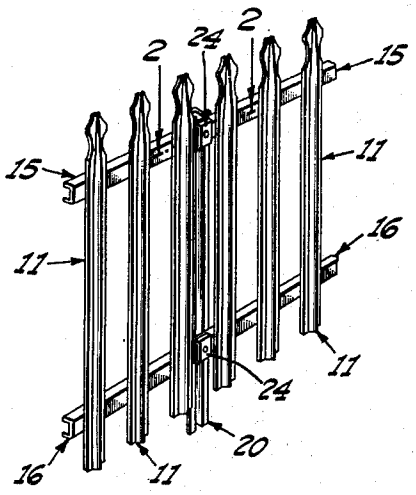
Aug. 29, 1950 C. D. HARRIS 2,520,313

FENCE

Filed Sept. 23, 1946

FIG. 1.



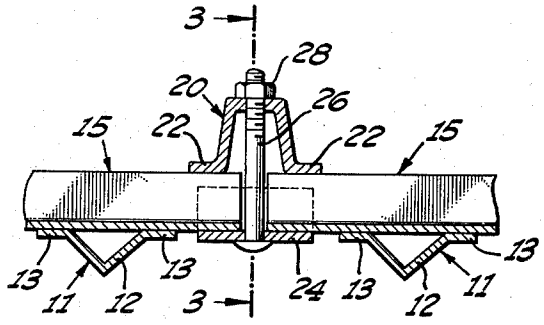
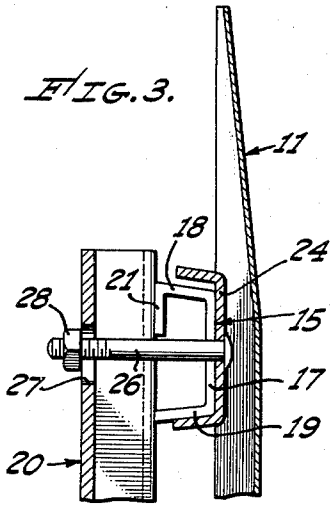


FIG. 2.

FIG. 3.



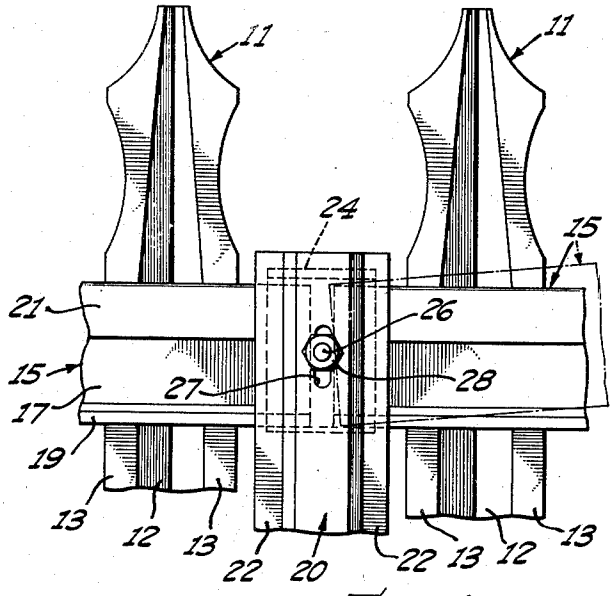


FIG. 4.

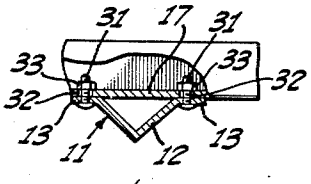


FIG. 5.

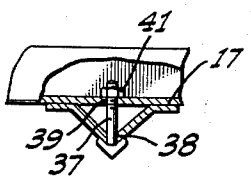


FIG. 6.

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FENCE

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3 Claims. (Cl. 256—22)

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The present invention relates to fences in general and particularly to a fabricated fence which is characterized by its ease of construction and its adaptability to sloping terrain. More specifically, the invention comprises a metallic picket fence fabricated and supported in an improved manner.

Fences have been used by man for centuries to define the limits of his domain, to restrain the intruder, and to prevent the escape of personalty such as domestic animals. Primitive fences took the form of stone barriers and at an early date fences formed of interlocked tree limbs served the same purpose. Fences formed from split rails were familiar landmarks on the American countryside for many years and still remain in certain parts of the country.

In more modern times the wire fence made its apperance supported at intervals by posts extended into the ground. Wooden and metallic picket fences, sometimes with sharpened upper extremities were also constructed. It is toward this last variant that the present invention is directed, comprising as it does an improved method of picket fence construction and design.

It is an object of the present invention to provide a new and improved picket fence.

It is another object of the invention to provide improved demountable supporting means for a picket fence.

A further object of the invention is to provide supporting means for a picket fence which enables the fence to conform to the contour of the land.

These and other more specific objects will appear upon reading the following specification and claims and upon considering the connection therewith of the attached drawings to which they relate.

Referring now to the drawings in which a preferred embodiment of the invention is illustrated;

Figure 1 is a view in perspective of a fence constructed in accordance with the present invention;

Figure 2 is a partial horizontal section upon the line 2—2 of Figure 1;

Figure 3 is a vertical section through the support upon line 3—3 of Figure 2;

Figure 4 is an enlarged showing of the connection of two fence sections at the support, the possibility of angular adjustment being shown in dotted lines;

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Figure 5 is a section through a modified construction showing the pickets bolted to the transverse rail member; and

Figure 6 is a section similar to Figure 5 through a second modified construction.

Referring again to the drawings and particularly to Figures 1 to 4 inclusive, a fence constructed in accordance with a first preferred embodiment of the invention as illustrated, and is seen to comprise a plurality of vertically extending spaced pickets 11 which are preferably of metal cut and shaped to give a pleasing appearance. In the preferred form illustrated the pickets individually are formed with longitudinally extending V-sectioned ridges on their forward faces, indicated by the reference character 12, which ridges are bordered by parallel flat flanges 13. At the upper end of each picket the ridge 12 narrows gradually, the flanges 13 being correspondingly widened and there being shaped to provide pleasing edge curvatures. The pickets are secured adjacent at their upper and lower extremities to horizontally extending rails 15 and 16, respectively, preferably by welding at the flat flanges 13.

The fence sections are preferably assembled at the plant, a plurality of pickets being spot-welded to parallel rails, the length of which may vary but which are not so long as to make the section unmanageable. As is clearly illustrated in Figure 2, the horizontal rails extend beyond the end picket in each case to provide supporting means as will be described.

The rails 15 and 16 are identical and are formed, as is most clearly illustrated in Figure 3, in connection with rail 15, with a flat forward wall 17 from which extend upper and lower on walls 18 at obtuse angles varying slightly from the perpendicular. A partial rear wall 21 extends parallel to the front wall 17 and is integral with the top wall 18.

Rails 15 and 16 are supported at their ends by vertically extending posts 20 which are V-sectioned with flanges 22 extending along the open sides of the V. Each post is secured in the ground, in a preferred form, being fastened at their lower end in a suitable cement block in a standard manner although this is not essential.

In the assembled relationship, the ends of the rails 15 and 16 are drawn against the forward faces of post flanges 22 by means of a U-sectioned

bracket 24 which is shaped to extend around three sides of the rails, as illustrated in Figure 3, and in a manner which permits a slight tilting therein as shown by the dotted line position of rail 15 in Figure 4. The aligned rails extend within bracket 24 from both sides thereof and are forced at their rear walls 21 against the post 20 by the action of a bolt 26 the headed end of which is positioned forward of bracket 24. Bolt 26 extends between the adjacent ends of the aligned rails, 15 or 16, through the post 20 and specifically through a vertical slot 27 in the base thereof, to be locked in position by a nut 28 threaded thereon. The presence of the slot in the post permits a limited vertical adjustment of the supporting bolt 26 and of the brackets 24, to accommodate slight variations in the vertical position of the posts in the ground. The mounting of the aligned horizontal rails 16 is identical to that of the rails 15 described.

In assembling a fence constructed in accordance with the present invention, the fence sections comprising a plurality of pickets 11 secured to upper and lower rails 15 and 16 of desired length are brought to the job from the factory. The posts 20 are first mounted in the ground at desired distances apart and in position to give to the fence its desired shape. Thereafter the fence sections are secured to the posts by means of the brackets 24, adjacent sections preferably being positioned before the bolts 26 are tightened. If a fence post happens to be slightly high or slightly low it is possible, in order to secure exact fence alignment, to raise or to lower the supporting bracket 24 slightly by moving the bolt 26 in the slot 27. If the contour of the ground is such that it is desired to have the fence incline from the horizontal, the rails 15 and 16 may be tilted slightly within the supporting bracket 24 in a manner indicated in dotted lines in Figure 4. If still greater inclination is desired the end of the rail may be cut at an angle to make still greater inclination possible.

Referring now to the second embodiment of the invention, illustrated in Figure 5, it is to be understood that that embodiment is identical to the embodiment first described with the exception of the means for securing the picket flanges 13 to the supporting rails. In this embodiment short bolts 31 extend through the flanges 13 and through the front wall of the rail at holes 32, being secured in place by suitable nuts 33. Limited play between the bolts and the apertures in which they extend makes possible the sloping of the horizontal supporting rails 15 while maintaining the vertical alignment of the pickets, a result not possible in the first embodiment. To effect this result the apertures 32 through which the bolts 31 extend are intentionally made larger than the bolts.

Referring particularly to the modified picket securing means of Figure 6 it is seen that the two bolts upon opposite sides of the picket 11 have been replaced at each horizontal supporting rail 15 by a single elongated bolt 37 having a V-sectioned head fitting the sloping sides of the picket and an elongated shank which extends centrally through the forward flat wall of the rail. Openings 38 and 39 in the picket and rail 15, respectively, receive the bolt shank which is threaded at its end to seat a retaining nut 41. This form of picket-retaining means is particularly desirable where the ground slopes and it is designed to vary the angularity of the pickets relative to the rails. A single retaining bolt permits of a much wider range of angular variation than can be obtained within the embodiment of Figure 5.

While the particular apparatus herein shown and described in detail is fully capable of attaining the objects and providing the advantages hereinbefore stated, it is to be understood that it is merely illustrative of the presently preferred embodiment of my invention, and that I do not mean to limit myself to the details of construction or design herein shown, other than as defined in the appended claims.

I claim:

1. In a fence, a vertical V-sectioned post formed with spaced vertically extending side flanges, a horizontally extending rail formed with vertically extending front and rear faces for at least a portion of its length including its ends, the rear face of said rail abutting a flange of said post, a U-sectioned bracket seating the end of said rail having a greater interior vertical dimension than the vertical height of said rail whereby with said rail extended only partially through said bracket the rail is tiltable in a vertical plane, the front and rear faces of said rail being guided by a side flange of said post and by the inner front surface of said bracket upon being tilted, and the end of said rail resting upon the underlying lower arm of said U-sectioned bracket, and a bolt extended through said bracket and through said post having a sufficient range of adjustment to enable said bracket to support the end of said rail for free tilting movement and being adapted to be drawn tight to clamp the end of said rail between said bracket and said post to prevent relative movement.

2. In a fence, a vertical V-sectioned post formed with spaced vertically extending side flanges, a horizontally extending rail formed with vertically extending front and rear faces for at least a portion of its length including its ends, the rear face of said rail abutting a flange of said post, a U-sectioned bracket seating the end of said rail having a greater interior vertical dimension than the vertical height of said rail whereby with said rail extended only partially through said bracket the rail is tiltable in a vertical plane, the front and rear faces of said rail being guided by a side flange of said post and by the inner front surface of said bracket upon being tilted, and the end of said rail resting upon the underlying lower arm of said U-sectioned bracket, and a bolt extended through said bracket and through a slot in said post and having a sufficient range of longitudinal adjustment to support said bracket loosely to permit said rail free tilting movement and being adapted to be drawn tight to clamp said rail tight against said post, the vertical displacement of said bolt in said slot enabling said bolt to be raised and lowered with respect to said post and with it said bracket.

3. In a fence, a vertical V-sectioned post formed with spaced vertically extending side flanges, a horizontally extending rail formed with vertically extending front and rear faces for at least a portion of its length including its ends, the rear face of said rail abutting a flange of said post, a U-sectioned bracket freely pivoted for angular adjustment about a horizontal axis, said bracket seating the end of said rail having a greater interior vertical dimension than the vertical height of said rail whereby with said rail extended only partially through said bracket the rail is tiltable in a vertical plane, the front and rear faces of said rail being guided by a side

flange of said post and by the inner front surface of said bracket upon being tilted, and the end of said rail resting upon the underlying lower arm of said U-sectioned bracket, and a bolt extended through said bracket and through said post having a sufficient range of adjustment to enable said bracket to support the end of said rail for free tilting movement and being adapted to be drawn tight to clamp the end of said rail between said bracket and said post to prevent relative movement.

CLARENCE D. HARRIS.

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