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R. W. BARRETT

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PICKET FENCE

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2 SHEETS—SHEET 1

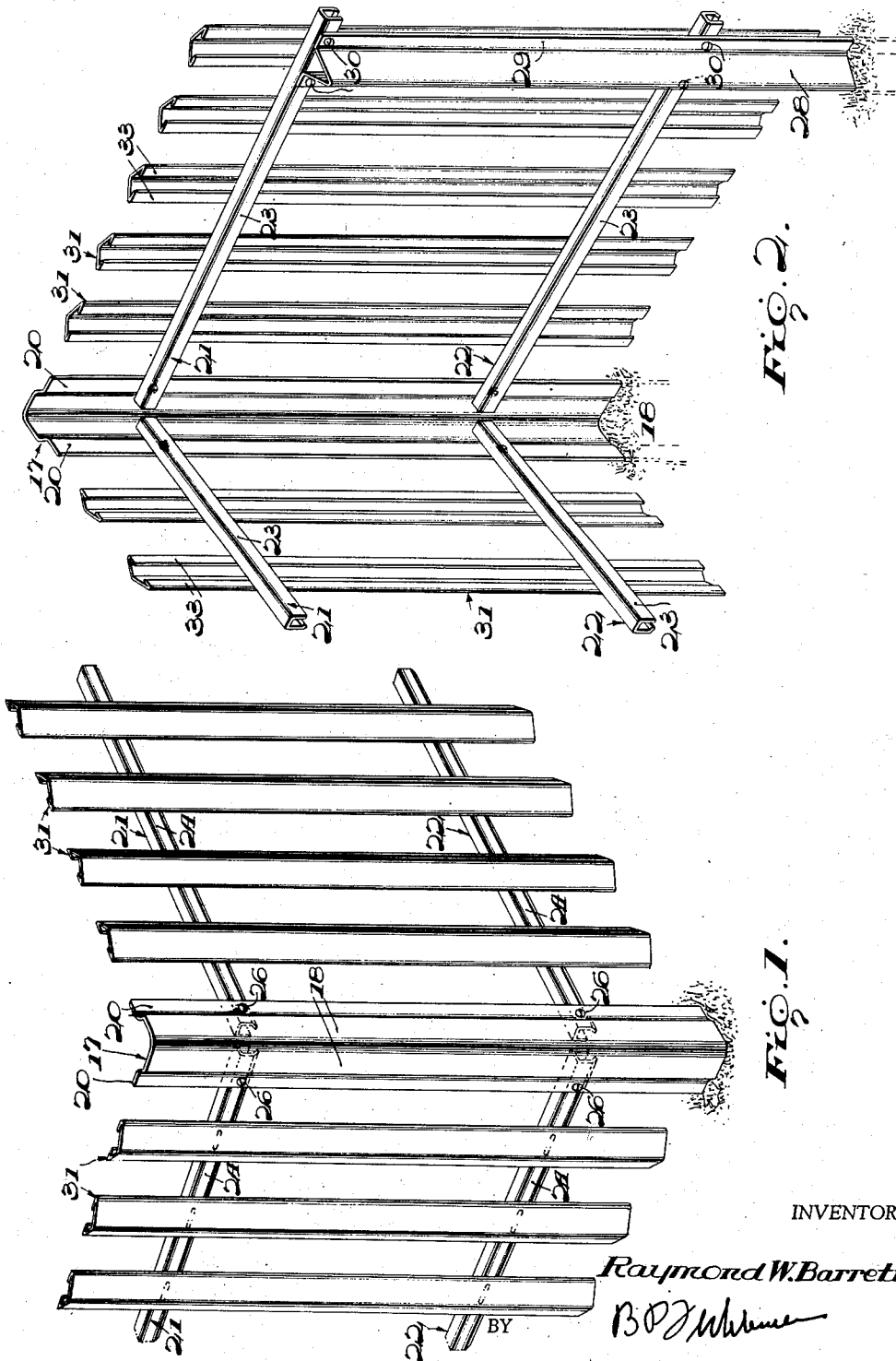


FIG. 2.

FIG. 1.

INVENTOR

Raymond W. Barrett

BY *B. J. White*

ATTORNEY

Oct. 30, 1951

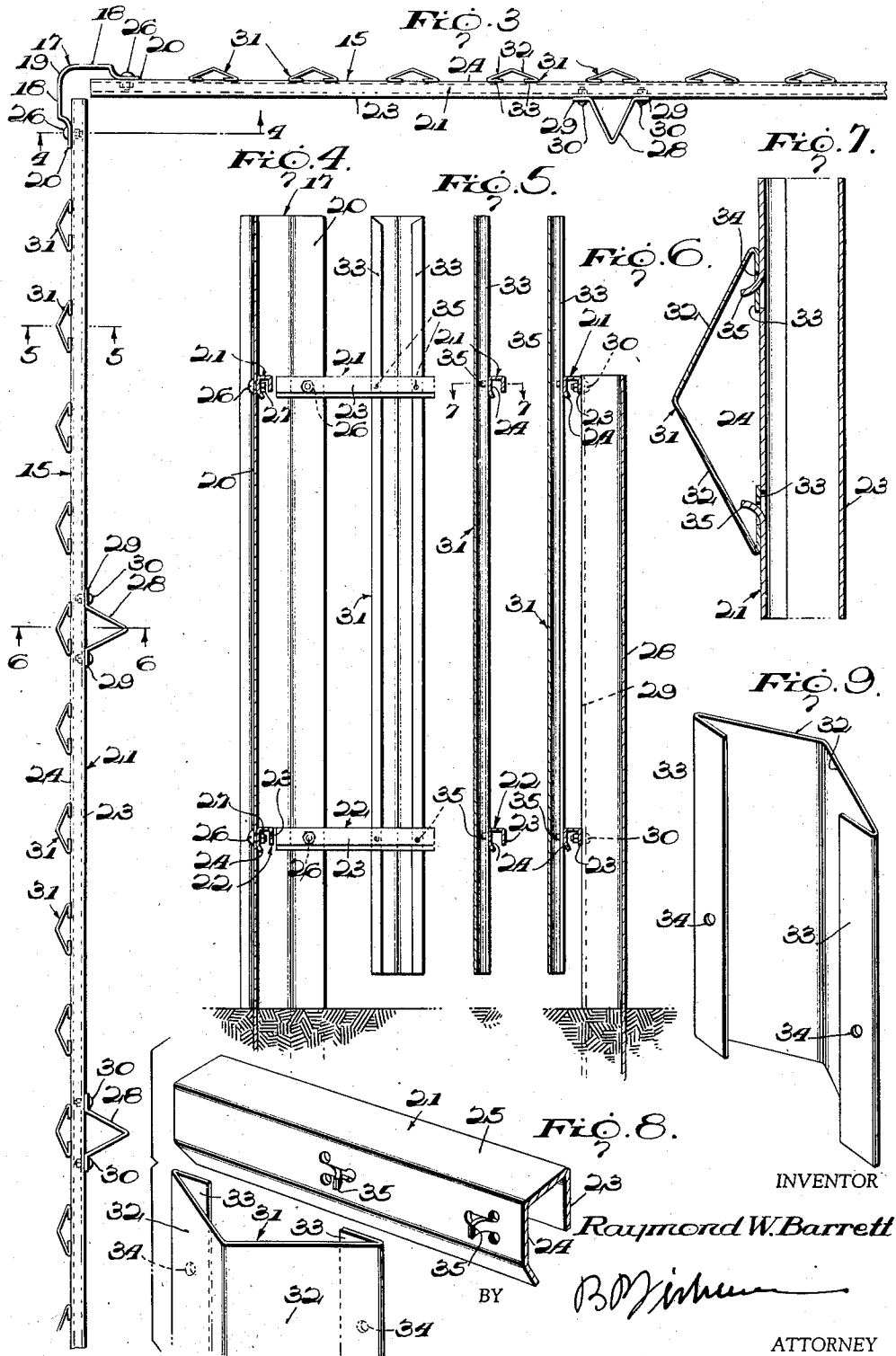
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2 SHEETS—SHEET 2



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PICKET FENCE

Raymond W. Barrett, Freeport, N. Y.

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5 Claims. (Cl. 256—22)

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My invention relates to fences.

An important object of the invention is to provide a novel and simplified sheet metal picket fence which is sturdy and durable in construction, neat and attractive in appearance, easy to construct and economical to manufacture.

A further object of the invention is to provide a sheet metal picket fence embodying novel means for attaching the pickets to the horizontal rails or stringers extending between the fence posts.

A further object is to provide a picket fence which requires no nails, screws or other separate fasteners for attaching the pickets to the stringers, thereby enabling unskilled workmen to erect the fence rapidly and with certainty that the finished fence will be uniform and attractive in appearance.

Other objects and advantages of the invention will be apparent during the course of the following description.

In the accompanying drawings, forming a part of this application, and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a fragmentary perspective view of a corner section of a fence embodying my invention,

Figure 2 is a similar view of the corner section of fence viewed from the inner side of the fence,

Figure 3 is a plan view of a corner section of my fence,

Figure 4 is a transverse vertical section taken on line 4—4 of Figure 3,

Figure 5 is a similar section taken on line 5—5 of Figure 3,

Figure 6 is a similar section taken on line 6—6 of Figure 3,

Figure 7 is an enlarged fragmentary horizontal section taken on line 7—7 of Figure 5,

Figure 8 is an enlarged fragmentary exploded perspective view of a picket and its associated stringer, and,

Figure 9 is a fragmentary perspective view of a picket removed.

In the drawings, where for the purpose of illustration is shown a preferred embodiment of my invention, the numeral 15 designates generally sections of the fence, arranged at right angles and connected with a corner post 17, for forming a typical corner portion of the fence.

A corner post 17 is provided at each corner or turning point in the fence, and the vertical corner posts are firmly anchored in the ground, as shown. Each corner post 17 is formed of heavy gauge sheet metal, and is substantially rigid.

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Each corner post comprises flat vertical webs 18, arranged at right angles and joined by a rounded corner portion or web 19, integral therewith. The webs 18 carry laterally inwardly offset flanges 20, integral therewith and these flanges are flat, and extend for the entire length of the corner post. The flanges 20 are arranged at right angles, as shown.

Each fence section 15 comprises upper and lower horizontal rails or stringers 21 and 22, spaced apart vertically and extending for the entire length of the fence section 15 and parallel to each other. The stringers 21 and 22 extend between adjacent corner posts 17, and the upper stringer 21 is spaced below the tops of the corner posts while the lower stringer is spaced above the ground, as shown. Each stringer 21 and 22 is straight, and formed from a unitary section of sheet metal which is substantially U-shaped in transverse cross-section. Each stringer includes an inner and outer substantially vertical side or web 23 and 24, integrally connected at their tops by a flat horizontal web 25. The U-shaped stringers are inverted in use, so that they shed water readily. The ends of the stringers 21 and 22 extend across and inwardly of the flanges 20, and the outer webs 24 of the stringers are detachably rigidly secured to the flanges 20 by bolts 26 or the like, which bolts extend through openings formed in the webs 24 and flanges 20. The bolts 26 may carry nuts 27, disposed between the webs 23 and 24 of the stringers.

Intermediate or auxiliary posts 28 are provided at desired intervals between adjacent corner posts 17, and these auxiliary posts 28 are V-shaped in transverse cross-section and also firmly anchored in the ground. The auxiliary posts 28 are arranged at the inner sides of the fence sections 15, adjacent to the inner vertical webs 23. The auxiliary posts 28 are provided with flat lateral flanges 29, arranged at their opposite sides, and these flanges engage the inner webs 23 and are rigidly secured thereto by bolts 30 or the like. The auxiliary posts 28 may be spaced apart any desired distance, such as every six feet along the fence. If the distance between adjacent corner posts 17 is small enough, the intermediate auxiliary posts may be omitted.

Vertical pickets 31 are provided, and these pickets are detachably mounted upon the stringers 21 and 22 in a novel manner to be described. The pickets are equidistantly spaced apart laterally, and the tops of the pickets terminate in alignment above the upper stringer 21, and preferably in alignment with the tops of

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the corner posts 17. The lower ends of the pickets extend below the lower stringer 22 and terminate in alignment, slightly above the ground. As shown in Figure 3, the spacing of the auxiliary posts 28 is such that each auxiliary post is arranged adjacent to a picket 31 and substantially concealed thereby when viewed from the outer side of the fence.

The pickets 31 are formed from relatively stiff sheet metal, and are generally V-shaped in transverse cross-section, as shown. Each picket comprises integrally connected diverging flat sides or webs 32, to the free longitudinal edges of which flat longitudinal flanges or mounting strips 33 are rigidly secured, and preferably formed integral therewith. The flanges 33 project laterally inwardly of the longitudinal side edges of the picket, in opposed laterally spaced relation and the flanges extend throughout the entire length of the picket. The flanges 33 are adapted to lie flat against the outer webs 24 of the stringers, in assembly, with the apex of the V-shaped picket directed outwardly. The pickets 31 are vertically disposed in assembly and arranged at right angles to the stringers 21 and 22.

Adjacent to the stringers 21 and 22, the flanges 33 are provided with upper and lower pairs of laterally spaced openings 34. These openings are adapted to receive pairs of outwardly projecting prongs or tongues 35, stamped from the outer webs 24. As shown clearly in Figure 7, the tongues 35 of each pair are curved and converge outwardly or forwardly of the stringer from which they are stamped. The free ends of the projections or tongues 35 of each pair terminate in alignment, as shown. Each pair of tongues 35 on the upper stringer 21 is arranged in vertical alignment with a pair of tongues on the lower stringer 22, and the tongues in all of the pairs are equidistantly spaced apart.

When the pickets 31 are disconnected from the stringers 21 and 22, and freely disposed, the pairs of openings 34 are spaced apart laterally a slightly greater distance than the distance between the free extremities of the pairs of tongues 35. Since the pickets 31 are formed of sheet metal, they possess some degree of resiliency, and are accordingly compressible laterally, or deformable.

When applying the pickets 31 to the stringers 21 and 22, each picket is grasped with the hand adjacent to a pair of the openings 34 and squeezed laterally. This shifts the flanges 33 having the openings 34 together, and reduces the distance between the openings 34, until such distance is equal to the distance between the extremities of the projections 35. The projections or tongues 35 are now introduced into the openings 34 and the pickets are shifted toward the stringers, until the flanges 33 contact the webs 24. The picket is now released, and the picket springs back to its normal shape, thus spreading the openings 34 further apart. When this occurs, the inner opposed edges of the openings 34 shift into locking engagement beneath the inner portions of the converging tongues 35, Figure 7, so that the picket is firmly secured to the stringer. When a pair of the tongues 35 on both the upper and lower stringers has thus been introduced into the pairs of openings 34 of the picket, and the picket is released, it will remain rigidly secured to the stringers until it is again grasped and squeezed or compressed laterally so that the tongues 35 may pass out of the openings 34.

It is thus seen that a highly simplified, strong,

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and durable picket fence is provided, and the completed fence is very neat and attractive in appearance. The pickets, stringers and posts are prefabricated and preferably painted before assembly. No separate fasteners are employed for securing the pickets to the stringers, and the entire fence may be erected rapidly by an unskilled workman.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same, and that various changes in the shape, size and arrangement of parts may be resorted to, without departing from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention, I claim:

1. In a picket fence, a stringer having pairs of spaced projections having their free ends extending forwardly beyond the front face of the stringer, and upstanding pickets mounted upon the front face of the stringer adjacent to the pairs of projections, each picket being transversely resilient so that its width may be changed when placed under tension, each picket having a pair of openings near its longitudinal edges which are spaced apart for a different distance than the distance between the free ends of the adjacent pair of projections when the picket is not under tension and before it is applied to the stringer, the arrangement being such that when the picket is placed under tension to vary its transverse width its openings will be in alignment with the free ends of the projections to receive them and when the picket is freed from some of its tension the projections will engage corresponding walls of the openings.

2. In a picket fence, a stringer having pairs of spaced projections having their free ends extending forwardly beyond the front face of the stringer, and upstanding pickets mounted upon the front face of the stringer adjacent to the pairs of projections, each picket being generally V-shaped in cross section and transversely resilient so that its width may be reduced when placed under tension, each picket having a pair of openings near its longitudinal edges which are spaced apart for a greater distance than the distance between the free ends of the adjacent pair of projections when the picket is not under tension and before it is applied to the stringer, the arrangement being such that when the picket is placed under tension to reduce its width the openings will be moved toward each other in alignment with the free ends of the projections to receive them and when the picket is freed from some of its tension the projections will securely hold the picket upon the stringer.

3. In a picket fence, a stringer having pairs of spaced projections having their free ends extending forwardly beyond the front face of the stringer, the projections in each pair having their free ends offset inwardly with relation to the rear ends of the projections which are secured to the stringer, and upstanding pickets mounted upon the front face of the stringer adjacent to the pairs of projections, each picket being generally V-shaped in cross section and transversely resilient so that its width may be reduced when placed under tension, each picket having a pair of openings near its longitudinal edges for receiving the adjacent pair of projections with the free ends of the projections extending laterally inwardly beyond the inner walls of the openings, the arrangement being such that when the picket is placed under tension to reduce its width the

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openings will be moved toward each other so that the picket may be removed from the projections.

4. In a picket fence, a stringer having pairs of spaced projections having their free ends extending forwardly beyond the front face of the stringer and converging forwardly in a substantially horizontal plane, and upstanding pickets mounted upon the front face of the stringer adjacent to the pairs of projections, each picket being generally V-shaped in cross section and transversely resilient so that its width may be reduced when placed under tension, each picket having a pair of openings near its longitudinal edges for receiving the adjacent pair of projections with the rear ends of the projections substantially contacting with the opposite inner walls of openings, the arrangement being such that when the picket is placed under tension to reduce its width the openings will receive the forward ends of the projections so that the picket may be removed from the stringer.

5. In a picket fence, a stringer having pairs of spaced projections having their free ends extending forwardly beyond the front face of the stringer, and upstanding pickets mounted upon the front face of the stringer adjacent to the

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pairs of projections, each picket being generally V-shaped in cross section and transversely resilient to vary its width under tension, each picket having a pair of inwardly facing flanges disposed at the rear of the picket to be covered from front view by the picket, the flanges having openings formed therein which are spaced apart for a different distance than the distance between the free ends of the projections when the picket is free from tension and before it is applied to the stringer, the free ends of the projections being out of alignment with such openings when the openings receive the projections, and the picket is applied to the stringer.

RAYMOND W. BARRETT.

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