United States Patent [19]

Daily

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[45] **July 2, 1974**

[54] **TUBULAR PICKET FENCE**

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[73] Assignee: **Daily Corporation,** Montgomeryville, Pa.

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[21] Appl. No.: **208,659**

[52] **U.S. Cl.** **256/22,** 256/21, 256/65, 403/261, 403/263

[51] **Int. Cl.** **E04h 17/14**

[58] **Field of Search** ..... 256/21, 22, 26, 67, 70, 256/65; 287/56, 54 A, 113, 109, 54 B, 54 C, 189.36 C, 189.36 R, 189.36 H, 189.36 A; 52/166, 169, 296, 170, 687, 688; 211/182; 24/73 SM, 73 SA; 5/279 R, 282 R, 279 B, 288

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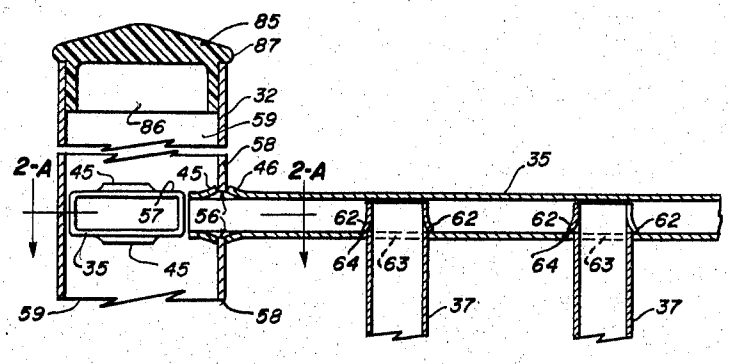
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Assistant Examiner—Conrad L. Berman
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[57] **ABSTRACT**

A picket fence formed of relatively thin-walled rectangular cross-sectioned tubular-steel posts, rails and pickets, with holes in the posts receiving the ends of the rails and with holes in the rails receiving the ends of the pickets. The ends of the rails are provided with spring-tangs pressed outwardly therefrom a slight distance and so arranged that when the ends of the rails are inserted into the rail-receiving holes in the posts, the tangs will first be deflected inwardly slightly and will then spring back to lock the ends of the rails in the posts with the facing ends of pairs of spring-tangs closely flanking the wall of the post, and the pickets are either provided with similar spring-tangs for locking the ends of the pickets to the rails when such picket-ends are inserted into the holes in the rails, or, in the alternative, the pickets are locked to the rails by expanding pairs of ribs from the walls of the pickets, which ribs closely flank the walls of the rails.

7 Claims, 35 Drawing Figures



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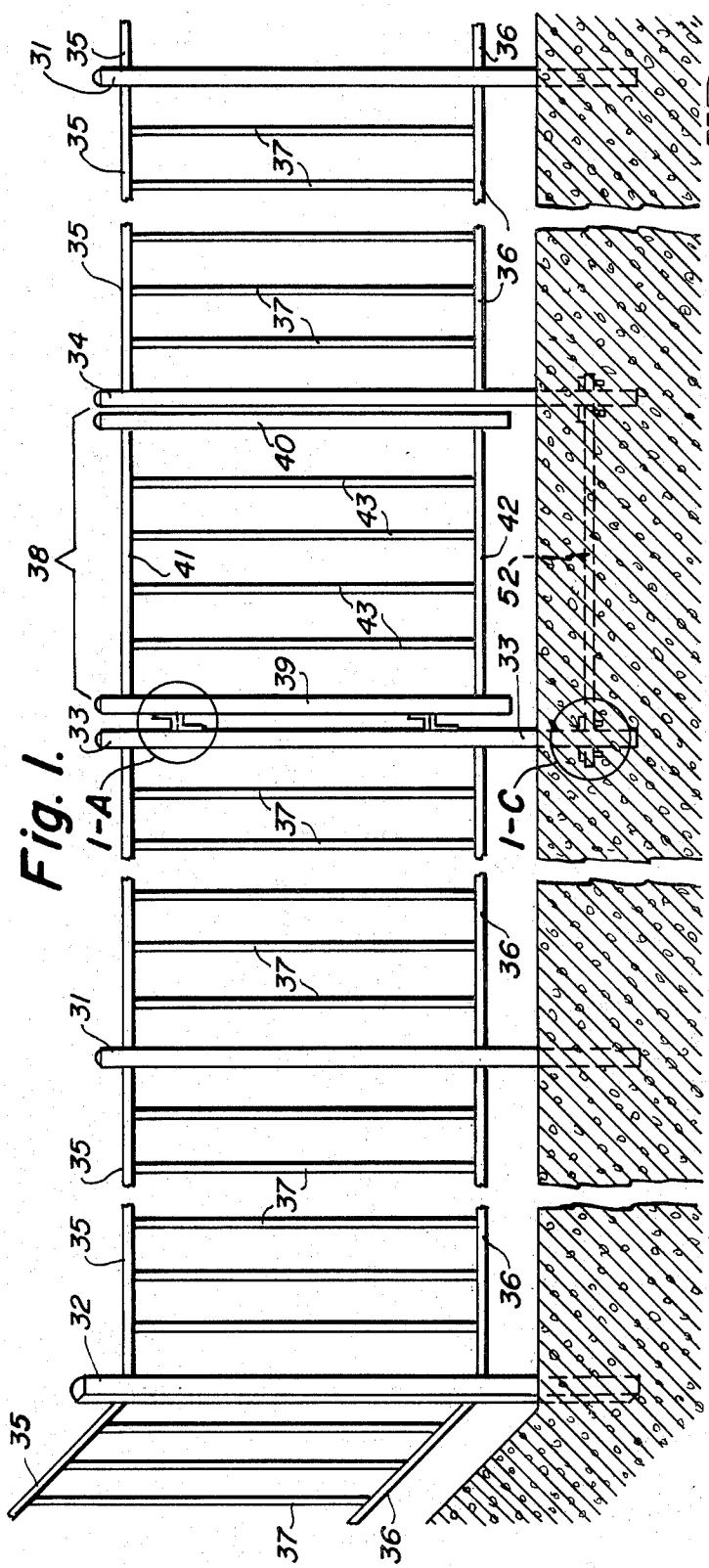


Fig. 1.

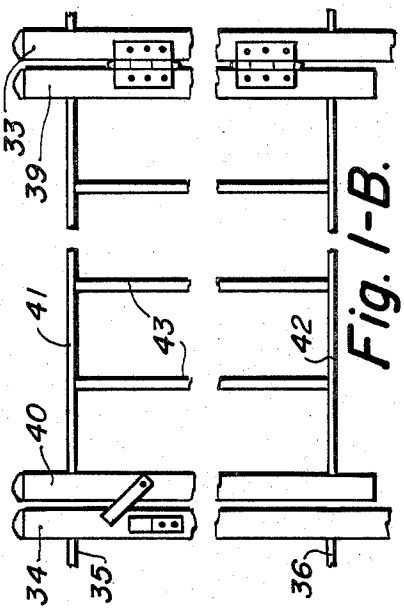


Fig. 1-B.

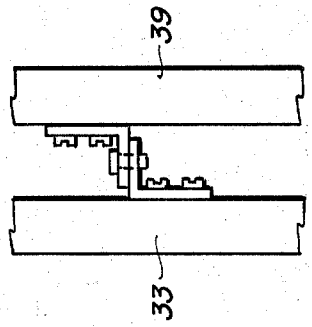


Fig. 1-A.

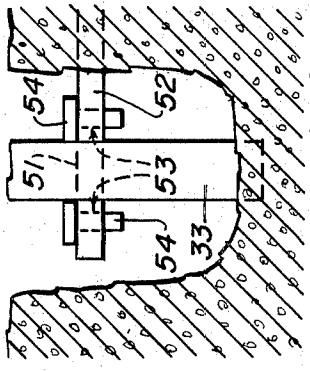


Fig. 1-C.

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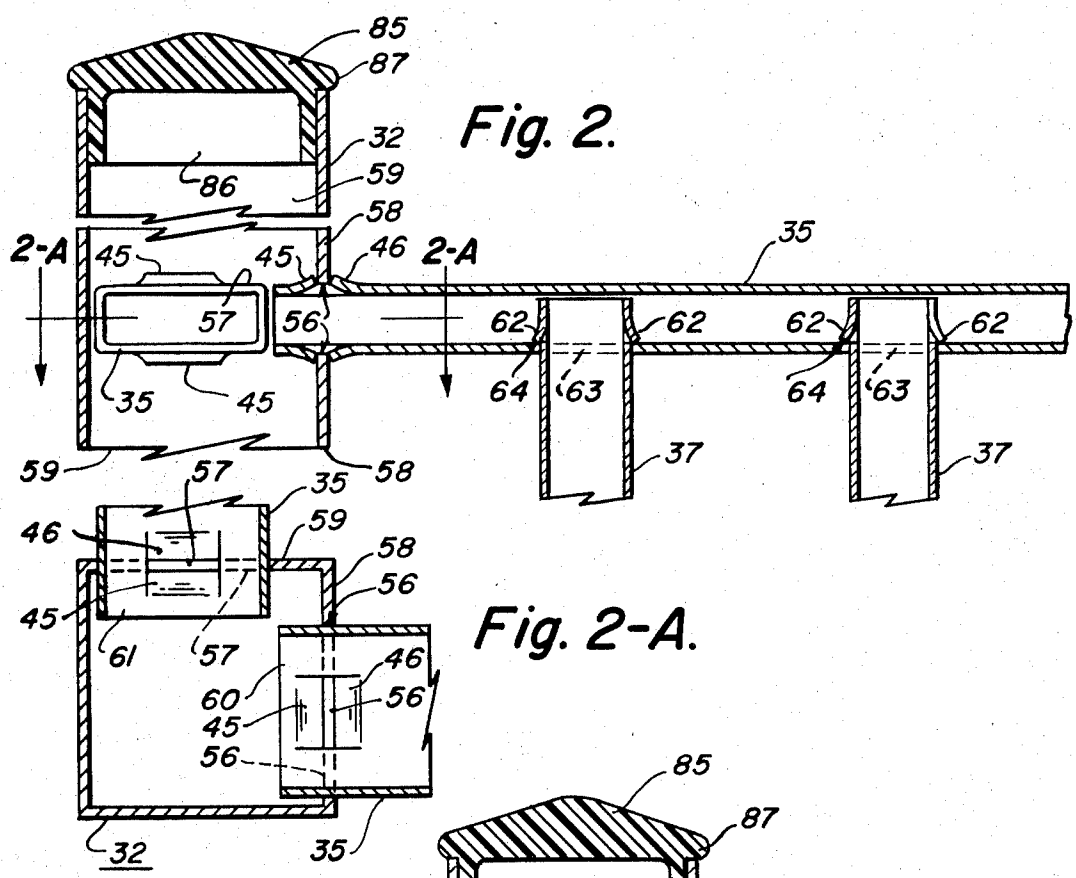


Fig. 2.

Fig. 2-A.

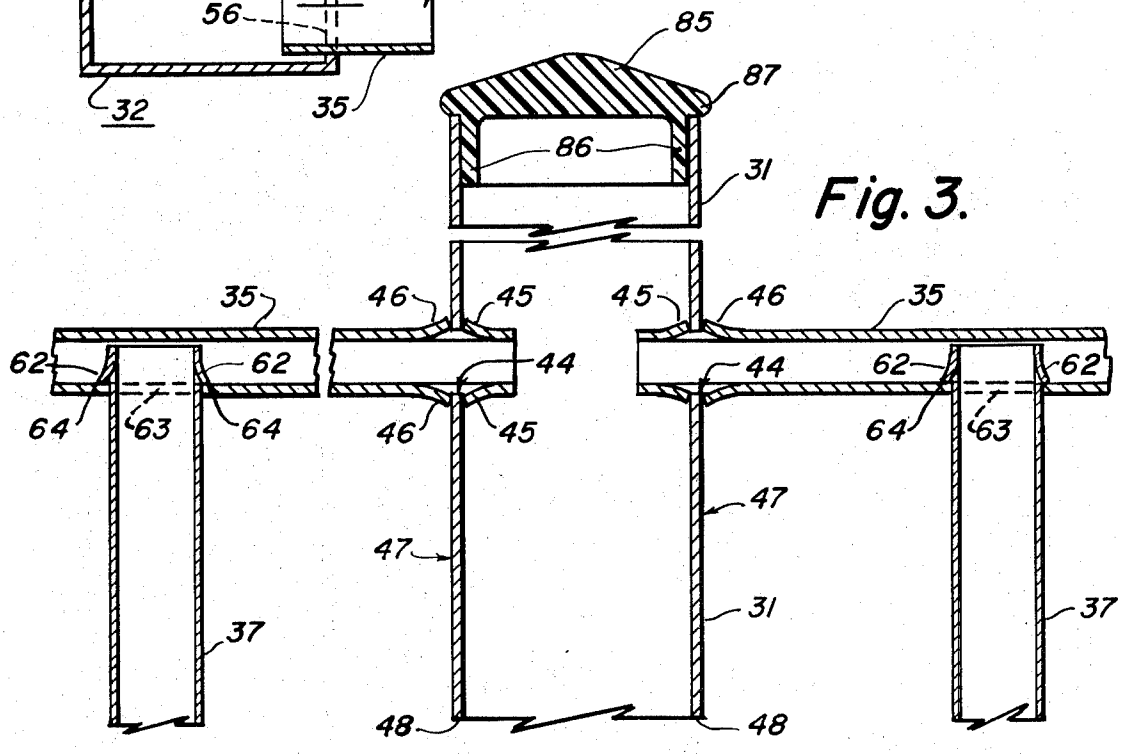


Fig. 3.

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Fig. 4.

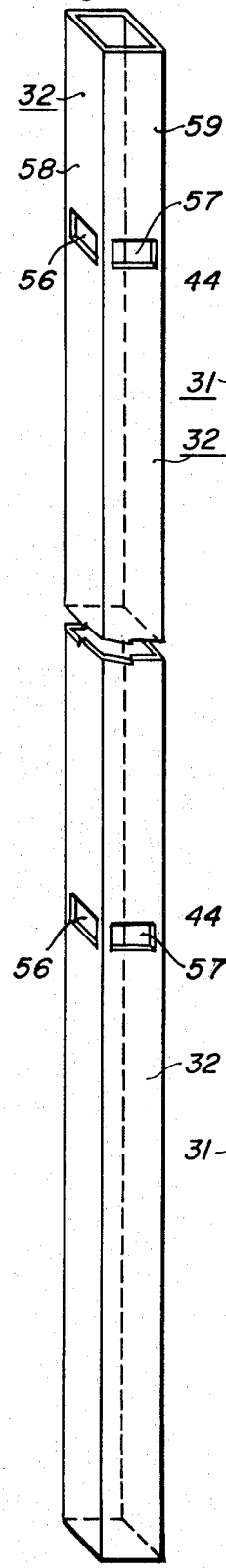


Fig. 5.

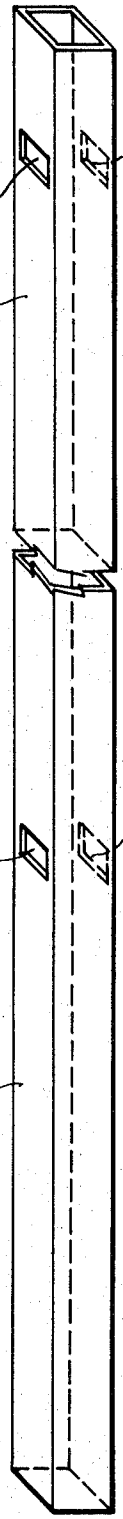


Fig. 6.

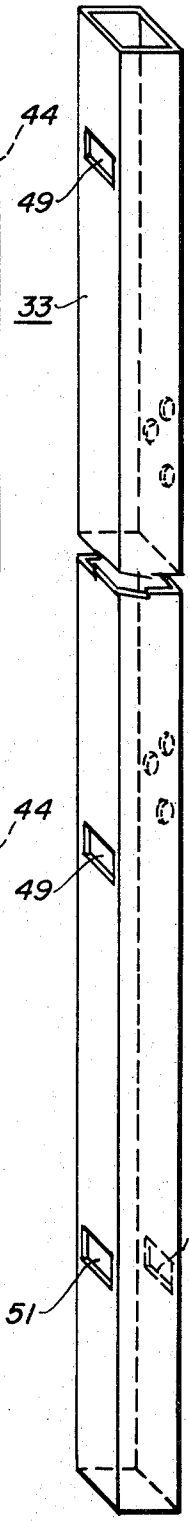


Fig. 7.

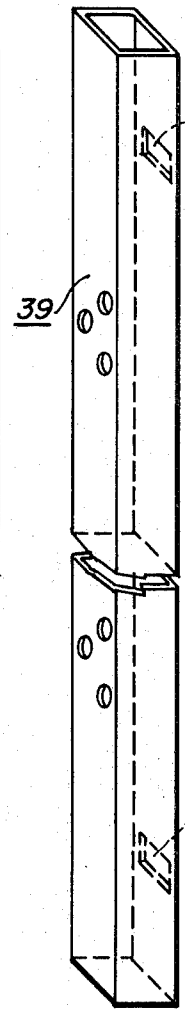


Fig. 8.

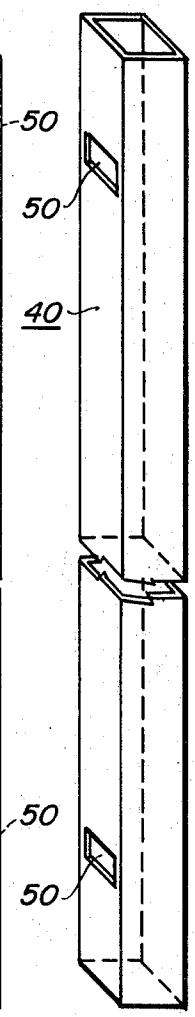
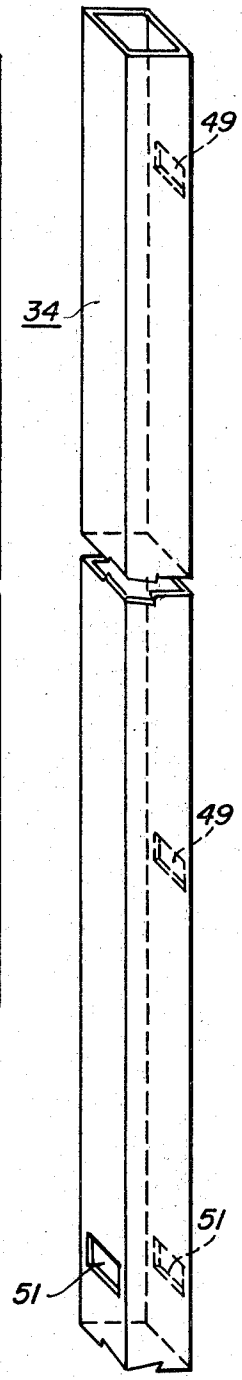


Fig. 9.



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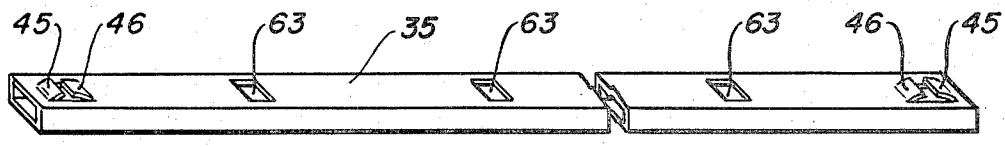


Fig. 10.

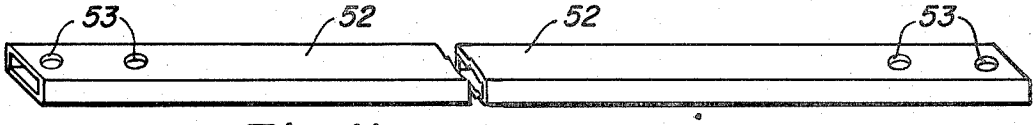


Fig. 11.

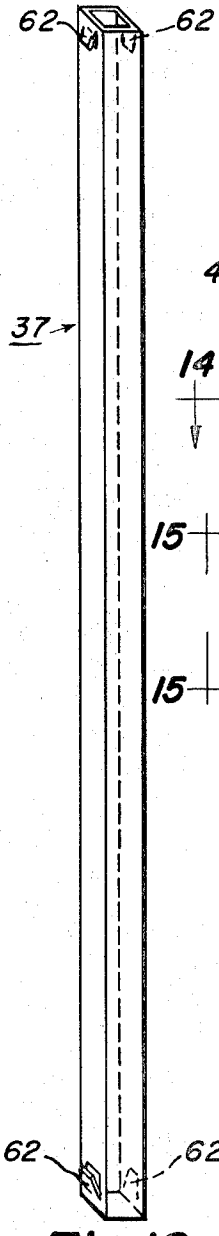


Fig. 16.

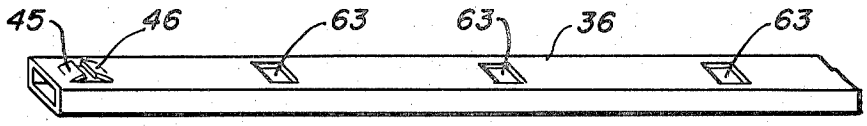


Fig. 12.

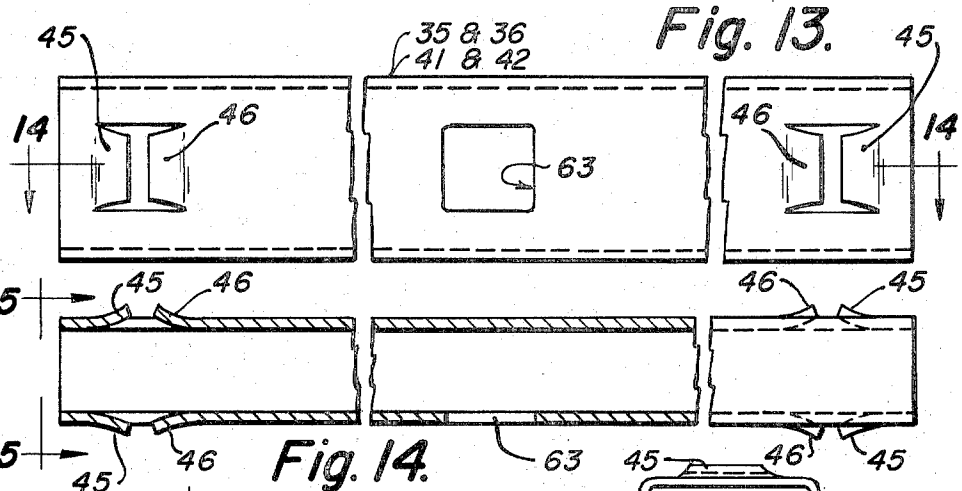


Fig. 13.

Fig. 14.

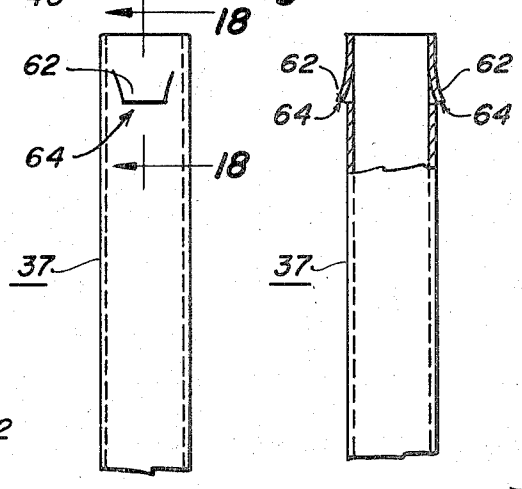


Fig. 17.

Fig. 18.

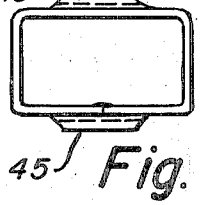


Fig. 15.

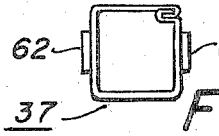


Fig. 19.

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Fig. 20.

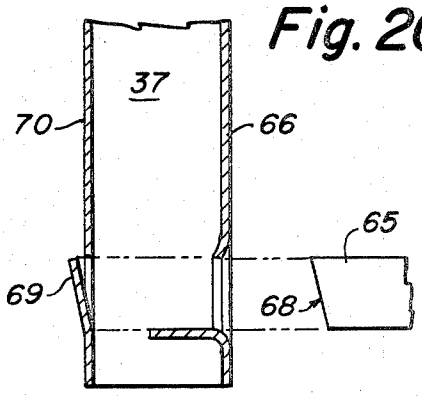
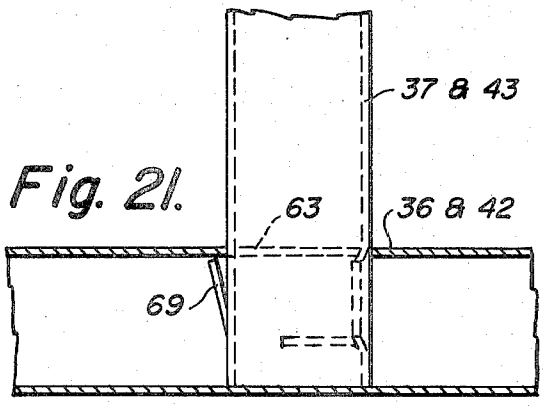


Fig. 21.



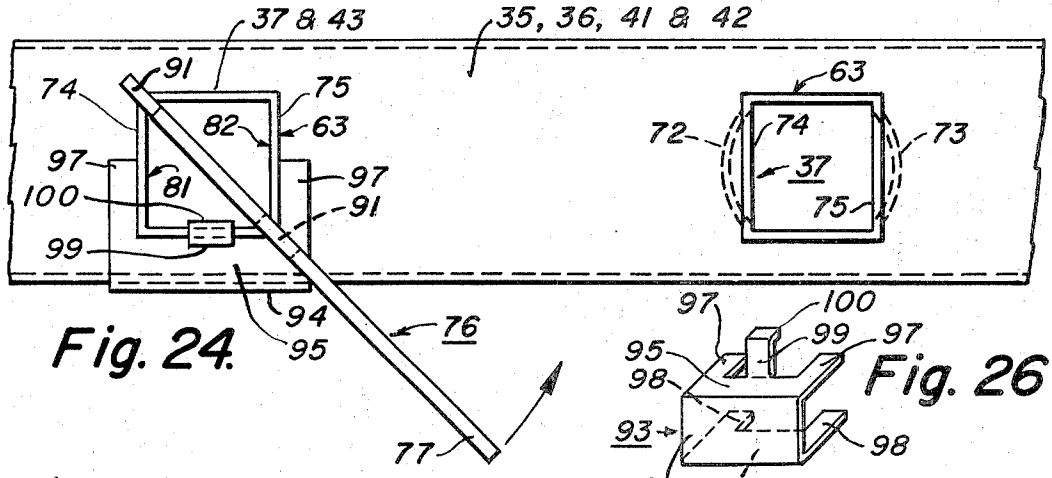


Fig. 24.

Fig. 26

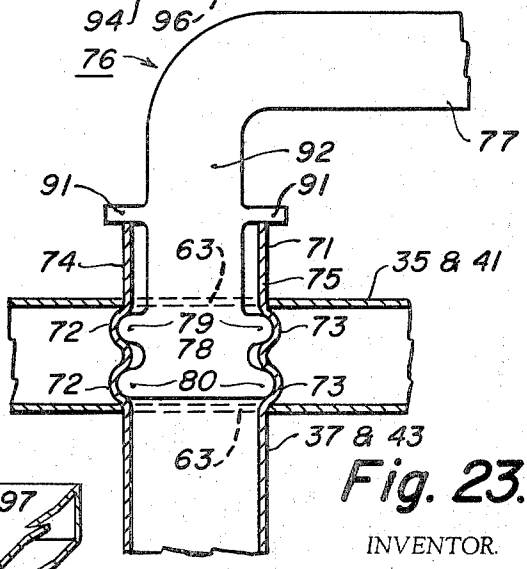


Fig. 23.

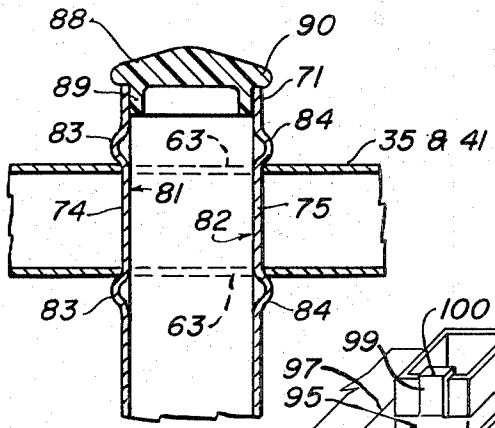


Fig. 22.

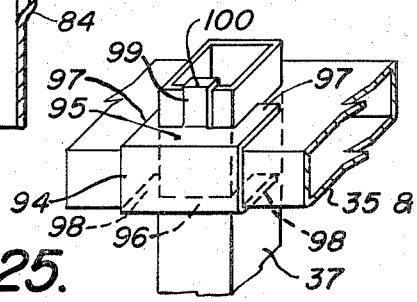


Fig. 25.

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Fig. 28.

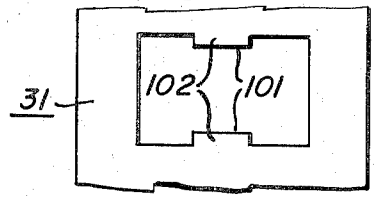
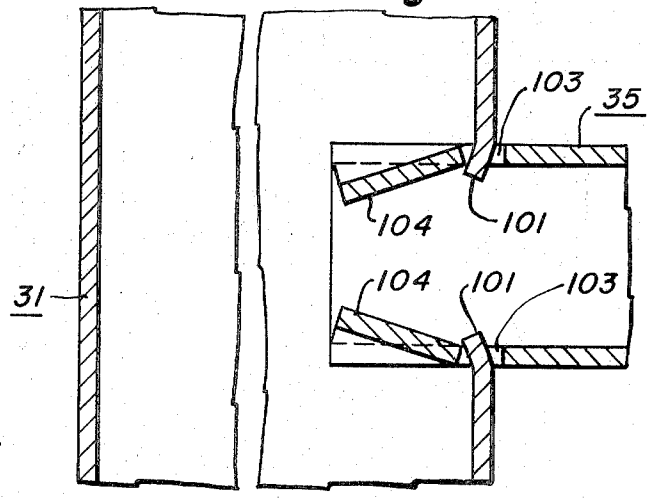


Fig. 27.

Fig. 29.



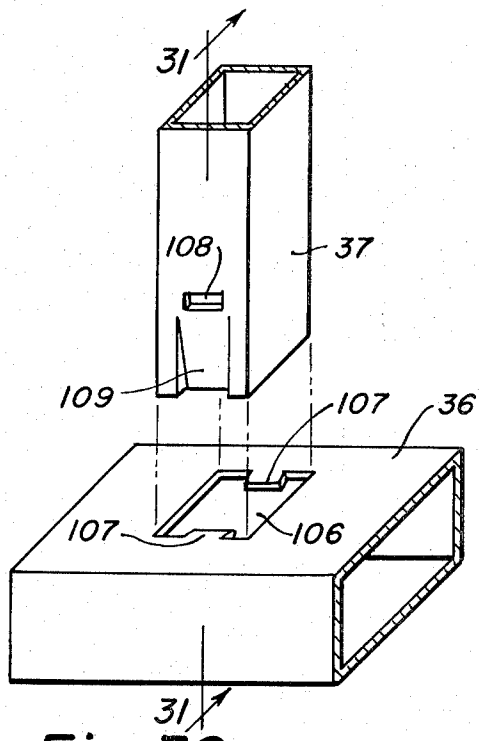


Fig. 30.

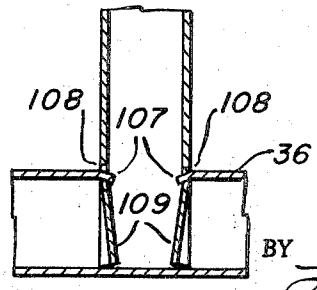


Fig. 31

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TUBULAR PICKET FENCE

BRIEF SUMMARY OF THE INVENTION

The object of the present invention is to provide a low-cost iron picket-fence, the component elements of which can be mass-produced at a low cost and marketed through retail channels of distribution in their unassembled form, and which can be assembled and installed by the ultimate user without the aid of welding or soldering the without separate fastening means such as screws, rivets or the like for assembling the component parts of the fence to each other, and which can be assembled and installed with low-level skill and minimal tools.

The picket-fence of the present invention is formed of relatively thin-walled metallic tubing (preferably steel tubing) of rectangular cross-section. The vertical posts and pickets are of square cross-section. The horizontal rails are of oblong rectangular cross-section, with the major dimension of the cross-section being horizontal and the minor dimension of the cross-section being vertical. The posts are provided with upper and lower oblong rectangular holes at the levels where the upper and lower rails are to be located; such holes being of a size which will receive the outer surfaces of the rails with a neat working clearance, or with a clearance just sufficient to permit the insertion of the ends of the rails into the posts without undue frictional interference. The ends of the rails are provided with a pair of spring-tangs pressed out from one of the walls thereof, with the ends of the tangs facing each other and spaced from each other a distance approximately equal to or slightly greater than the thickness of the wall of the tubular post, so that when the end of the rail is inserted into the rail-receiving hole in the post, the outboard spring-tang will be depressed momentarily until the wall of the post along the edge of the hole therein passes such tang and has its outer surface disposed against the end of the inboard tang; whereupon the rail becomes locked to the post with the wall of the post between the two spaced-apart ends of the pair of locking tangs.

In one embodiment of the invention, the pickets terminate within the upper and lower rails, and the rail-entering ends of such rail-terminating pickets are snap-locked to the rail by spring-tangs described hereinafter.

In another embodiment of the present invention, one or both ends of the pickets extend through both horizontal walls of the rails and extend a few inches beyond the rail. Such through-pickets are locked to the rail by slightly expanding a portion of the wall of the picket adjacent the horizontal wall of the rail (either internally or externally of the rail) so as to form a mechanical interlock between the rail and the picket.

In the rail-terminating-picket embodiment of the invention, the lower wall of the upper rail and the upper wall of the lower rail are provided with vertically aligned rectangular picket-receiving holes matching the outer dimensions of the pickets. The pickets are provided with single spring-tangs pressed outwardly from the end portions of the wall thereof, and with the free ends of such tangs facing away from the ends of the pickets, and with the distance between the end of the picket and the free end of the spring-tang being approximately the same as or slightly less than the interior vertical dimension of the rail, so that when the end of the picket is inserted into the picket-receiving hole of the rail, the spring-tang will be depressed until its free end passes the wall of the rail, whereupon the spring-tang snaps back into its original position and the picket is thereby locked to the rail.

In the through-picket or projecting-picket embodiment of the invention, the rails are provided with picket-receiving holes extending through both their upper and lower walls, and the pickets may be extended through the rails, with the free ends of the pickets extending beyond the rails to any desired extent.

In this embodiment, the pickets are locked in place in relation to the rails by forming pairs of slight ribs or beads in the wall of the picket, projecting outwardly therefrom to a slight extent and disposed adjacent to the upper and/or lower walls of the rails, so as to lock the pickets in place in relation to the rails. Such slight beads or ribs can be formed by means of a simple manually-operable tool inserted into the free open end of the picket to a depth corresponding to the desired location of the rail, such tool having upper and lower pairs of opposed tube-expanding projections, so that by turning the tool a quarter of a turn or so (or perhaps a half a turn), by means of an external handle, the walls of the picket are forced outwardly to a slight extent to form slight ribs or beads which interlock with the upper and/or lower walls of the rail.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** represents a fragmentary perspective view of a picket fence (including gate-posts and gate) representing one embodiment of the present invention.

FIG. **1-A** represents an enlarged vertical sectional view of the portion within the circle **1-A** on FIG. **1.**

FIG. **1-B** represents a rear elevational view of the gate portion of the fence shown in FIG. **1,** but showing an alternative hinging arrangement and also showing a latching arrangement.

FIG. **1-C** represents an enlarged view of the portion within circle **1-C** on FIG. **1.**

FIG. **2** represents a fragmentary vertical cross-sectional view through the upper portion of a corner-post, the upper rails and the upper ends of two pickets.

FIG. **2-A** represents a cross-sectional view on line **2A—2A** of FIG. **2.**

FIG. **3** represents a vertical cross-sectional view through the upper portion of a line-post and the upper rails and the upper ends of the pickets.

FIG. **4** represents a perspective view of a corner-post.

FIG. **5** represents a perspective view of a line-post.

FIG. **6** represents a perspective view of the gate-hinge-post.

FIG. **7** represents a perspective view of the hinge stile of the gate.

FIG. **8** represents a perspective view of the latch-stile of the gate.

FIG. **9** represents a perspective view of the gate-latch-post.

FIG. **10** represents the prospective view of one of the upper rails turned at 180° about its axis to show the bottom wall thereof facing upwardly, thereby to expose to view the picket-receiving holes and the post-engaging spring tangs of the bottom wall of the rail.

FIG. 11 represents a prospective view of spacer-rail immediate the lower ends of the two gate-posts;— embedded in the ground (shown in FIGS. 1 and 1-C).

FIG. 12 represents a prospective view of a fragmentary portion of a lower rail.

FIG. 13 represents a plan view of the bottom wall of one of the upper rails on an enlarged scale, namely, approximately full size.

FIG. 14 represents a vertical cross-section on line 14—14 of FIG. 13.

FIG. 15 represents a vertical view of the end of the rail showing FIGS. 13 & 14, as viewed on line 15—15 of FIG. 14.

FIG. 16 represents a perspective view of one of the pickets.

FIG. 17 represents an elevational view of the upper end of the picket, on approximately full scale.

FIG. 18 represents an elevational view of the upper end of the picket shown in FIG. 17 but turned 90° in relation to FIG. 17 and with the uppermost portion of the picket in vertical cross-section through the two spring-tangs thereof, on line 18—18 of FIG. 17.

FIG. 19 represents an end view of one of the pickets.

FIG. 20 represents a vertical cross-sectional view of the lower end of one of the pickets, illustrating another embodiment of the securement of the ends of the pickets in the lower and upper rails.

FIG. 21 represents a vertical cross-sectional view through the same picket as inserted into and locked in one of the picket-receiving holes in a lower rail.

FIG. 22 shows another embodiment in regards to the securement of the ends of the pickets in the upper and lower rails, in which picket-receiving holes are provided in both upper and lower walls of the rails and in which the ends of the pickets extend suitably beyond the rails and are secured therein by slight outwardly expanded bulges or ribs formed in opposite walls of the pickets after the pickets are inserted into the rails;- FIG. 22 showing these picket-locking projections flanking the upper and lower walls of the rail exteriorly thereof and in close proximity thereto.

FIG. 23 represents the modified embodiment of the locking of the ends of the pickets in the upper and lower rails;— this embodiment being similar to that shown in FIG. 22 but with the picket-locking ribs or projections being disposed within the rail and in close proximity to the upper and lower walls thereof, this Figure also showing the rib-forming tool in operative relation to the picket and the rail.

FIG. 24 represents a top plan view of the upper rail (and also represents a bottom plan view of the lower rail) with the rib-forming tool inserted through the free end of the rail preparatory to being turned to form the ribs.

FIG. 25 represents a perspective view of a fragmentary portion of an upper rail and of a picket extending therethrough, with the tool-spacing jig of FIG. 26 applied thereto.

FIG. 26 represents a perspective view of the tool-spacing jig shown in FIG. 25 and also shown at the left end of FIG. 24.

FIG. 27 represents a perspective view of a fragmentary portion of the post and of the end portion of the rail, showing another embodiment of the rail-to-post interlocking means.

FIG. 28 represents an elevational view of the fragmentary portion of the post shown in FIG. 27, illustrating the shape of the rail-receiving holes in the side-walls thereof.

FIG. 29 represents a vertical cross-sectional view on line 29—29 of FIG. 27;— this view being on a somewhat larger scale then FIG. 27.

FIG. 30 represents a perspective view of a fragmentary portion of the bottom rail and of the lower end of the rail-terminating picket, illustrating the picket-to-rail interlocking means similar to that shown in FIGS. 27 to 29.

FIG. 31 represents a vertical cross-sectional view on line 31—31 of FIG. 30, showing the modified interlock between the picket and rail.

DESCRIPTION

The picket fence of the present invention includes tubular line-posts 31 at suitably spaced intervals (as, for instance, 6 feet or so apart), corner posts 32, a gate-hinge-post 33 and a gate-latch-post 34, and upper and lower rails 35 and 36 (respectively) between successive line-posts 31 and between the corner-post 32 and the line-posts nearest thereto and between the gate-hinge-post 33 and the line-post 31 nearest thereto and between the gate-latch-post 34 and the line-post 31 nearest thereto. Vertically disposed tubular pickets 37 extend between upper and lower rails 35 and 36. The gate, designated generally by the numeral 38, is formed of the gate-hinge-stile 39, the gate-latch-stile 40, and an upper gate-rail 41 and a lower gate-rail 42 and gate-pickets 43 between the gate-rails 41 & 42.

The line-posts 31 and the corner-posts 32 and the gate-posts 33 & 34 and the gate-stiles 39 & 40 are preferably formed of square welded steel tubing of suitable size, as, for instance, a 2 inch or so square tubing having a wall-thickness of about 0.035 inch to 0.060 inch (more or less). The rails 35, 36, 41, & 42 may be formed of welded steel tubing or of lock-seam steel tubing of oblong rectangular cross-section of suitable size, as, for instance, with its horizontally disposed major outer cross-section dimension being an inch and a quarter or so and with its vertically disposed minor dimension being three quarters of an inch or so. If these rails are formed of welded steel tubing then the wall-thickness thereof may be about 0.035 inch to 0.060 inch (more or less), while if they are formed of lock-seam tubing then the wall-thickness thereof may be of the general order of about 0.025 inch, more or less.

If the horizontally disposed major dimension of the cross-section of the rail is an inch and a quarter or so, then the pickets 37 & 43 are preferably one half-inch square lock-seam tubing having a wall-thickness of the general order of 0.015 inch to 0.025 inch. The pickets are preferably lock-seam tubing.

The line-posts shown in FIGS. 1, 3 & 5 are provided with pairs of opposite rail-receiving holes 44 near the tops thereof and similar pairs of opposite rail-receiving holes 44 near the bottoms thereof, for receiving the ends of the upper and lower rails 35 & 36, respectively, as indicated in FIG. 3. The rail-receiving holes 44 are of oblong rectangular shape corresponding to a cross-section of the rails, with their dimensions such as to accomodate the outer dimensions of the rails 35 & 36 with just sufficient working clearance to permit the insertion thereinto of the ends of said rails without undue friction or resistance, except for the need to depress the

outboard spring-tangs **45** at the ends of the rails when such ends are pushed into the holes **44** until the ends of the inboard tangs **46** of the rails abut against the outer surfaces **47** of the walls **48** of the post, as indicated in FIG. **3**;— at which point the outboard tangs **45** spring back into their open position so that the walls **48** of the posts adjacent the rail-receiving holes are disposed and locked between the facing ends of the spring-tangs **45** & **46**, thereby locking the ends of the rails to the post. The aforementioned depression of the outboard tangs is aided or augmented by a slight temporary inward deflection of the tang-carrying portions of the rail when the end of the rail is pushed into the rail-receiving hole of the post.

Similar rail-receiving holes **49** are provided in the gate-hinge-post **33** and in the gate-latch-post **34** as indicated in FIGS. **6** & **9**. Similar rail-receiving holes **50** are provided in the facing walls of the gate-hinge-stile **39** and the gate-latch-stile **40**, as indicated in FIGS. **7** & **8**. The two gate-posts **33** & **34** are also provided with similar spacer-receiving holes **51** in their ground-embedded or concrete-embedded lower ends thereof (as indicated in FIGS. **1-C**, **6** & **9**), through which the tubular spacer-rail **52** is ended. The spacer **52** has pairs of holes **53** at its opposite ends, flanking the respective gate-posts, into which holes headed pins or bolts or threadless headed members **54** are inserted for holding the lower embedded ends of the gate-posts in the desired spaced relationship to each other, to accommodate the gate **38**.

The corner-post **32** is provided with similar upper and lower rail-receiving holes **56** in the wall **58** thereof and with like upper and lower rail-receiving holes **57** in the wall **59** thereof which is at a right angle to the wall **58**. The rail-receiving holes **57** & **58** are off-set from the vertical center-lines of the respective walls **58** & **59**, so that the inner ends **60** & **61** of the two rails **35** clear each other and do not obstruct or interfere with each other, as shown particularly in FIGS. **2** & **2-A**.

The rails **35** & **36** and **41** & **42** have pairs of oppositely facing spring-tangs **45** & **46** pressed outwardly from their upper and lower walls near the ends thereof, as indicated in FIGS. **2**, **2-A**, **3**, **10**, **12**, **13**, **14** & **15** for locking the ends of the rails to the posts **31**, **32**, **33** & **34** and to the stiles **39** & **40**, in the manner indicated particularly in FIGS. **2**, **2-A** & **3** and described hereinabove.

The pickets **37** & **43** may be provided with pairs of opposite and outwardly flared spring-tangs **62**, with their ends facing away from the ends of the pickets, so that when the ends of the pickets are inserted into the picket-receiving holes **63** of the rails (**35** & **36** and **41** & **42**), the spring-tangs will be collapsed or deflected until their free ends **64** have passed the wall of the rail and then snap out again against the inner surface of the wall of the rail, thereby to lock the pickets to the rails as indicated in FIGS. **2** & **3**. Such deflection of the tangs **62** is aided or augmented by a slight temporary inward deflection of the tang-carrying portions of the picket when the end of the picket is pushed into the picket-receiving hole of the rail.

In FIGS. **20** & **21** an alternative form of picket-to-rail locking construction is shown, in which a piercing punch **65** is quickly projected through the wall **66** near the end of the picket, in the direction of the arrow **67**, until its slanted end **68** presses a spring-tang **69** outwardly from the opposite wall **70** of the picket, as indicated in FIG. **20**. The pickets with this alternative tang construction are inserted into the picket-receiving holes **63** of the upper and lower rails in the manner indicated in FIG. **21**, with the free ends of the spring-tangs **69** engaging against the inner surface of the horizontal walls of the rails as shown in FIG. **21**.

In FIGS. **22**, **23** & **24**, an alternative form of picket-to-rail locking construction is shown, in which a picket-receiving hole **63** is provided in each of the two horizontal walls of the upper and lower rails (**35**, **36**, **41** & **42**) as indicated in FIGS. **22** & **23**, and the ends of the pickets are projected or telescoped through both upper and lower holes **63**, with the free ends **71** of the pickets extending a suitable distance beyond the rail, as indicated in FIGS. **22**, **23** & **25**.

Slight arcuate upper and lower ribs **72** & **73** are then pressed outwardly from opposite walls **74** & **75** of the picket (FIGS. **23** & **24**), by means of a tool designated generally by the numeral **76**. The tool **76** may be a flat L-shaped piece of steel having a handle-portion **77** and a picket-entering portion **78** provided with opposite upper and lower wall-deforming projections **79** & **80**. The distance between the outer ends of the opposite projections **79** as well as the distance between the outer ends of the opposite projections **80** are less than the interior diagonal dimension of the picket but suitably greater than the distance between the inner parallel wall-surfaces **81** & **82** of the picket (FIG. **24**), so that the end **78** of the tool **76** may be inserted into the free end of the picket across the diagonal thereof, as indicated in FIG. **24**, and then turned 90°, so that the pairs of upper and lower projections **79** & **80** sweep across the interior of wall-surfaces **81** & **82** and deform the walls **74** & **75** by pressing the slight ribs or bead-like projections **72** & **73** outwardly therefrom, adjacent to the upper and lower horizontal walls of the rail, thereby locking the picket to the rail in the manner indicated in FIGS. **23** & **24**. Opposite spacer-arms **91** extend from the stem **92** of the tool **76** and overlap and bear against the free end of the picket, so as to space the wall-deforming projections **79** & **80** of the tool a predetermined distance from the free end of the picket as indicated in FIG. **23**.

The picket-to-rail locking construction shown in FIG. **22** differs from that shown in FIGS. **23** & **24**, in that the outwardly-pressed ribs **83** & **84** flank the outer surfaces of the upper and lower walls of the rail exteriorly thereof (instead of being disposed interiorly thereof as in FIG. **23**). The upper & lower rib-forming projections of the end **78** of the tool **76** are spaced apart further, to form the ribs or bead-like projections **83** & **84**. After the tool **76** has been turned 90°, its end **78** is again disposed diagonally of the picket, so that it can be removed therefrom.

The line-posts **31**, the corner-posts **32**, the gate-posts **33** & **34** and the gate-stiles **39** & **40** are provided with suitable square plastic caps **85**, as indicated in FIGS. **2** & **3** (preferably of the same color as the paint or other coating or finish of the posts). The caps **85** have a square tubular lower portion **86** telescoping into the upper ends of the posts with a press-fit or being cemented thereinto by any suitable cement such as an epoxy cement or the like. Slight horizontal flanges **87** extend outwardly from the caps **85** and overlap the free ends of the walls of the posts.

In the alternative construction indicated in FIGS. **22**, **23** & **24**, in which the free ends **71** of the pickets extend

beyond the rails, similar square plastic caps **88** are provided, having tubular portions **89** telescoped into the free ends of the pickets and having similar overlapping flanges **90,** and being similarly press-fitted and/or cemented into the free ends of the pickets.

In FIGS. **24, 25 & 26,** a picket-spacer jig **93** is shown. The jig **93** is suitably formed of a sheet metal of suitable rigidity and hardness, and includes the vertical spacer of panel **94** and upper and lower horizontal panels **95 & 96** extending therefrom, which panels are spaced apart from each other a distance such as will neatly straddle the rain (**35** or **41**) as indicated in FIG. **25.** The upper panel **95** as well as the lower panel **96** are each of a generally U-shaped formation, with the legs **97** of the upper U-shaped panel and the legs **98** of the lower U-shaped panel neatly straddling the picket, as indicated particularly in FIG. **25.** A vertical picket-to-rail spacer-member **99** extends upwardly from the base of the U-shaped upper panel **95,** and has a horizontal projection **100** at the upper end thereof which overlaps and bears against the upper end of the picket (as indicated in FIGS. **24 & 25**), thereby fixing the length or the extent of the projection of the picket beyond the rail (as indicated in FIG. **25**).

In FIGS. **27, 28 & 29** I have shown a modified embodiment of the rail-to-post locking construction, and in FIGS. **30 & 31** I have shown a similar picket-to-rail locking construction.

In the rail-to-post locking construction illustrated by FIGS. **27, 28 & 29,** the rail-receiving hole **101** in the post (**31** or **32**) is provided with a pair of opposite (upper and lower) short inwardly-slanted locking tangs or projections. The end of the rail (**35, 36, 41, 42**) is provided with corresponding upper and lower tang-receiving holes or projection-receiving holes **103,** and inwardly-pressed inclined tang-leading or projection-leading portions **104.** When the end of the rail is pushed into the rail-receiving hole **101** in the manner indicated in FIGS. **27 & 29,** the short tangs or projections **102** ride up on the tang-leading inclines **104** and deflect inwardly the upper and lower walls of the rail just sufficiently to permit the tans or projections **101** to reach and snap into the tang-receiving holes **103,** whereupon the upper and lower walls of the end of the rail return to their original positions, with the rail locked to the post in a manner indicated in FIG. **29.**

A similar locking construction may be provided for locking the picket to the rail in a similar manner, as indicated in FIGS. **30 & 31.** Thus, the picket-receiving hole **106** in the rail (**35, 36, 41 & 42**) has similar inwardly extending and inwardly-slanted locking prongs or projections **107,** and the end of the picket has similar prong-receiving or projection-receiving holes **108** and prong-leading inclined portions **109,** as indicated in FIGS. **30 & 31.**

Having illustrated and described embodiments of my invention, I claim the following:

1. A tubular metallic picket fence, adapted to be assembled without welding and without screws, bolts or like separate fasterners, said picket fence including tubular posts having upper and lower rail-receiving holes in the walls thereof adapted telescopically to receive the ends of tubular rails, tubular rails having their ends telescoped into the rail-receiving holes of the posts and concealed within the posts, said rails having picket-receiving holes, tubular pickets having their ends telescoped into the picket-receiving holes of the rails, rail-to-post locking means associated with the post and the rail and including a pre-formed integral locking-projection carried by one of them and interlocking with the wall of the other and so arranged that during the aforementioned telescoping of the end of the rail into the rail-receiving hole in the wall of the post a portion of one of two said members is temporarily sprung to permit the pre-formed locking-projection to reach its interlocking position with the wall of the other member, whereupon the sprung portion returns to its unsprung condition, and picket-to-rail locking means associated with the rail and the picket and including an integral locking-projection carried by one of them and interlocking with the wall of the other.

2. A tubular metallic picket fence, adapted to be assembled without welding and without screws, bolts or like separate fasteners, said picket fence including tubular posts having upper and lower rail-receiving holes in the walls thereof adapted telescopically to receive the ends of tubular rails, tubular rails having their ends telescoped into the rail-receiving holes of the posts and concealed within the posts, said rails having picket-receiving holes, tubular pickets having their ends telescoped into the picket-receiving holes of the rails, rail-to-post locking means associated with the post and the rail and including a pre-formed integral locking-tang carried by one of them and snap-locked to the wall of the other and so arranged that during the aforementioned telescoping of the end of the rail into the rail-receiving hole in the wall of the post a portion of one of two said members is temporarily sprung to permit the pre-formed locking-projection to reach its interlocking position with the wall of the other member, whereupon the sprung portion returns to its unsprung condition, and picket-to-rail locking means associated with the rail and the picket and including an integral locking-tang carried by one of them and snap-locked to the wall of the other.

3. A tubular metallic picket fence, adapted to be assembled without welding and without screws, bolts or like separate fasteners, said picket fence including tubular posts having upper and lower rail-receiving holes in the walls thereof adapted telescopically to receive the ends of tubular rails, tubular rails having their ends telescoped into the rail-receiving holes of the posts and concealed within the posts, said rails having picket-receiving holes, tubular pickets having their ends telescoped into the picket-receiving holes of the rails, rail-to-post locking means associated with the post and the rail and including a pre-formed integral locking projection carried by one of them and snap-locked to the wall of the other, and picket-to-rail locking means associated with the rail and the picket and including a pair of integral locking-projections extending outwardly from the walls of the picket immediately adjacent to the wall of the rail so as to interlock with the wall of the rail.

4. A tubular metallic picket fence, adapted to be assembled without welding and without screws, bolts or like separate fasteners, said picket fence including tubular posts having upper and lower rail-receiving holes in the walls thereof adapted telescopically to receive the ends of tubular rails, tubular rails having their ends telescoped into the rail-receiving holes of the posts and having their ends concealed within the posts, said rails having picket-receiving holes, tubular pickets having their ends telescoped into the picket-receiving holes of

the rails, said rails having integral spring-tangs extending outwardly from the walls thereof near their ends and arranged to be depressed when said ends are telescoped into the rail-receiving holes in the posts and thereafter to snap outwardly so that their ends lock the rails to the walls of the posts, and said pickets having their ends telescoped into the picket-receiving holes in the horizontal walls of the rails and having portions of their walls near the ends thereof extending outwardly into interlocking relation to the walls of the rails, thereby to lock the ends of the pickets to the rails.

5. A tubular metallic picket-fence, adapted to be assembled without welding and without screws, bolts or like separate fasteners, said picket fence including tubular posts having upper and lower rail-receiving holes in the walls thereof adapted telescopically to receive the ends of tubular rails, tubular rails having their ends telescoped into the rail-receiving holes of the posts and having their ends concealed within said posts said rails having picket-receiving holes in both horizontal walls thereof, tubular pickets having their ends telescoped into both picket-receiving holes of the rails, said rails having integral spring-tangs extending outwardly from the walls thereof near their ends and arranged to be depressed when said ends are telescoped into the rail-receiving holes in the posts and thereafter to snap outwardly so that their ends lock the rails to the walls of the posts, and the ends of the pickets being telescoped through the two picket-receiving holes in the opposite parallel horizontal walls of the rails with a terminal portion of at least one of the ends of the pickets protruding beyond the rail into the holes of which it is telescoped, and having integral bead-like projections extending outwardly from the walls thereof into interlocking justaposition to the walls of the rails adjacent the picket-receiving holes thereof, thereby to lock the pickets to the rails.

6. A tubular metallic picket fence, adapted to be assembled without welding and without screws, bolts or like separate fasteners, said picket fence including tubular posts having upper and lower rail-receiving holes in the walls thereof adapted telescopically to receive the ends of tubular rails, tubular rails having their ends telescoped into the rail-receiving holes of the posts and having their end concealed within the posts, said rails having picket-receiving holes in the horizontal walls thereof, tubular pickets having their ends telescoped into the picket-receiving holes of the rails, said rails having spring-tangs extending outwardly from the walls thereof near their ends and arranged to be depressed when said ends are telescoped into the rail-receiving holes in the posts and thereafter to snap outwardly so that their ends lock the rails to the walls of the posts, and said pickets having their ends telescoped into the picket-receiving holes of the rails and having spring-tangs extending outwardly from the ends thereof and arranged to be depressed when said ends are telescoped into the picket-receiving holes of the rails and thereafter to snap outwardly with their ends engaging the apertured walls of the rails interiorly thereof, thereby to lock the pickets to the rails.

7. In a tubular picket fence including a gate-hinge post and gate-latch post, each having a below-ground portion of substantial length, aligned horizontal through-holes in the below-ground portions of each of said posts, a horizontal spacer-bar extending between said posts and through said through-holes with terminal portions of said spacer-bar extending beyond said below-ground portions of said posts, said spacer-bar having two pairs of holes therein, with the two holes of each pair flanking one of the below-ground portions of said posts, and stop-members in said flanking holes of said spacer-bar maintaining the below-ground portions of said posts in predetermined spaced relation to the said horizontal spacer-bar and spacing said below-ground portions of said posts in predetermined relation to each other.

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