July 20, 1965 J. S. CASE 3,195,864

POST AND RAIL FENCE

Filed March 15, 1962

2 Sheets-Sheet 1

FIG. 1

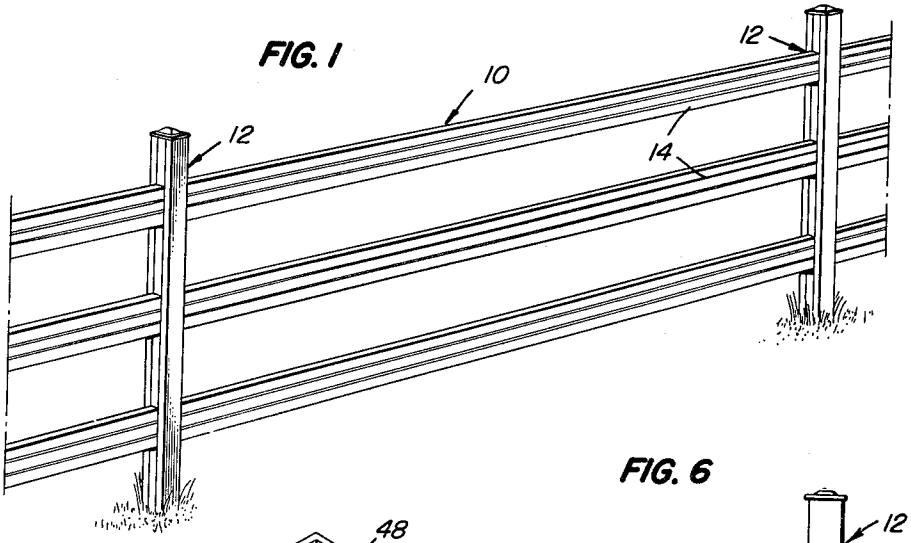


FIG. 5

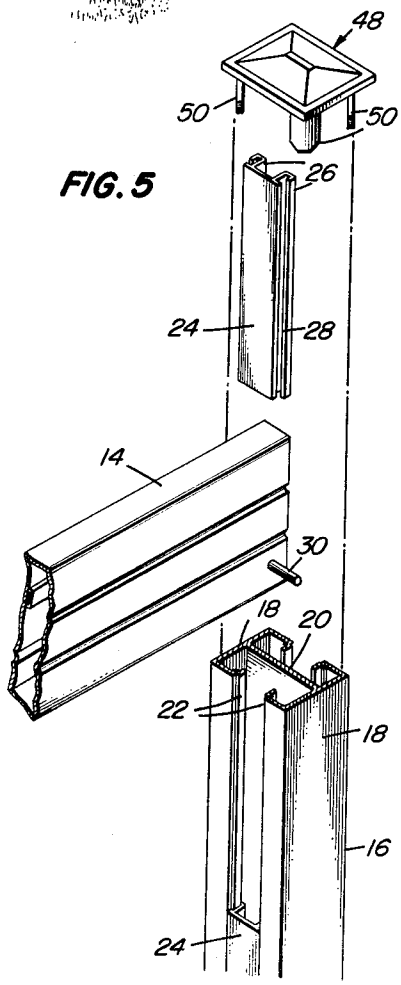


FIG. 6

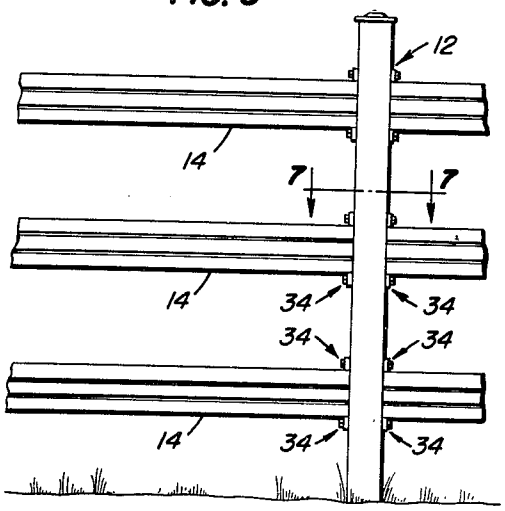
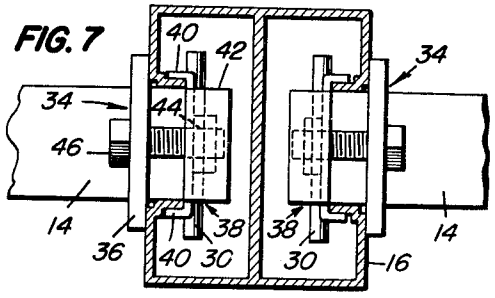


FIG. 7



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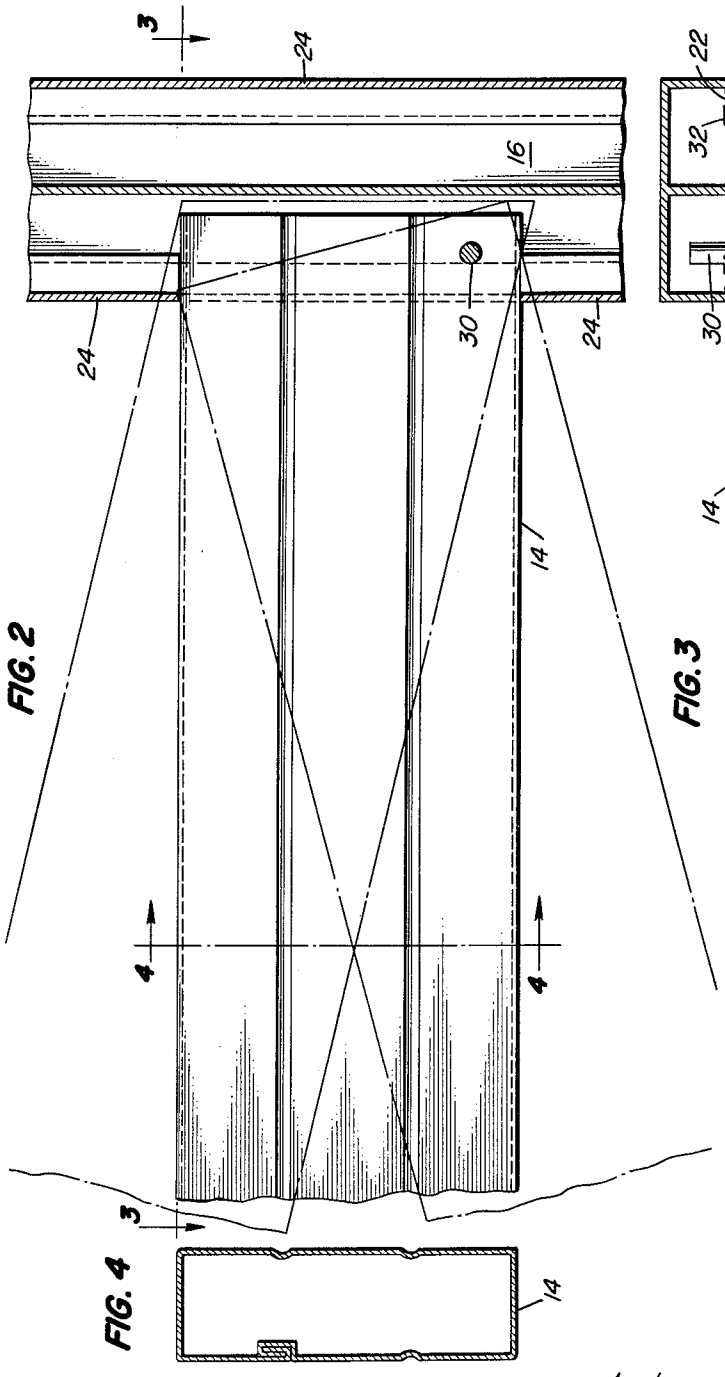

FIG. 2

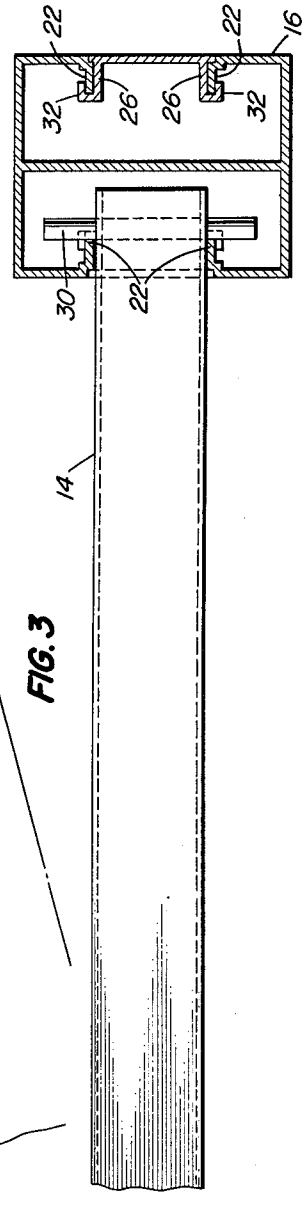

FIG. 3

FIG. 4

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3,195,864

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3,195,864

POST AND RAIL FENCE

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Filed Mar. 15, 1962, Ser. No. 179,990
1 Claim. (Cl. 256—65)

This invention relates generally to fences, and more particularly it pertains to an all metal post-and-rail fence assembly.

It is an object of this invention to provide an all metal fence of the rail type which is easily assembled, strongly locked together, attractive and pleasing to the eye.

Another object of this invention is to provide high production, economical, factory-made components which can be easily assembled in the field to form a sturdy multi-rail all metal fence to fit any situation with a minimum of field labor.

Other objects and attendant advantages of this invention will become more readily apparent and understood from the following detailed specification and accompanying drawings in which:

FIG. 1 is a perspective view of a fence assembly incorporating features of this invention;

FIG. 2 is a much enlarged vertical section of a joint between rail and post of the fences shown in FIG. 1 illustrating optional positions of the rail;

FIG. 3 is a horizontal section of the post taken on line 3—3 of FIG. 2;

FIG. 4 is a cross-section of a rail taken on line 4—4 of FIG. 2;

FIG. 5 is an exploded perspective view of a post assembly showing the method of rail attachment thereto;

FIG. 6 is a vertical elevation of a fence similar to that ilustrated in FIG. 1 but incorporating rail clamps; and

FIG. 7 is an enlarged detail horizontal section taken on line 7—7 of FIG. 6.

Referring to the details of the drawings, there is shown depicted in FIG. 1 a rail fence **10** comprising post assemblies **12** and horizontal rails **14**. As shown in FIG. 5, each post assembly **12** consists of a post **16** which is driven or otherwise secured in the ground. This post **16** is a metal extrusion having a general I cross-section which further has inwardly facing square cornered C-shaped flanged sides **18** joined by the central web **20**.

It will be noted these flanged sides **18** terminate in vertical runners **22** which extend in pairs the entire length of the post **16** on both faces thereof.

A plurality of filler strips **24** are provided for each post assembly **12**. Each strip **24** is of metal extruded in the form of a flat web with L-shaped flanges **26** which run lengthwise and are slightly set in from each edge of the web.

These flanges **26** turn outwardly and so, with the edge of the web, provide channels **28** on each side of the filler strip **24** for engaging the previously mentioned runners **22** and thus close the face gaps between the flanged sides **18** of the post **16** when assembled thereon giving the appearance of a square post.

The rails **14** are of sheet metal folded and seamed to rectangular tubing shape or they may also be extruded, as shown best in FIG. 4.

A filler strip **24** is used above and below each rail **14**. The ends of the rails **14** are provided with a transverse pin **30** loosely inserted during assembly in the field. This pin **30** becomes captivated behind the runners **22** when a rail **14** is assembled to a post **16** as best shown in FIGS. 2 and 3.

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A considerable angular position of the rail **14** can be accommodated to take care of fences on a hillside as shown by the dot-dash lines of FIG. 2, with the posts **16** remaining true vertical for good appearance.

If the post **16** is to serve a terminal or end post rather than an intermediate line post, a long length of filler strip **24** is used as shown on the right in FIGS. 2 and 3.

In addition to completing the square appearance of a post assembly, the filler strip **24** may also be a means of strengthening the post **16**. To this purpose, the ends of the L-shaped flanges **26** of the filler strips **24** may be hook-shaped as shown by reference **32** to more firmly engage the runners **22** on both sides.

Also the edges of the web portion of the filler **24** may be inset so as to be flush with the surface of the post **16**.

Where the fence **10** is subject to climbing and there is possibility of the filler strips **24** being cumulatively forced downwardly, the rails **14** may be supported vertically by a clamp **34** as shown in FIGS. 6 and 7.

This clamp **34** consists of a strip **36** somewhat longer than the gap between runners **22** of a post, and a bridge member **38**. The bridge member **38** mounts inside the post and straddles the runners **22** with a pair of legs **40**. It also has a pair of ears **42** which hold a square nut **44** from turning between them. A headed bolt **46** passes through centered apertures in both the strip **36** and bridge member **38** and engages the nut **44**.

One of these clamps **34** is used above and one below each rail **14** and so placed prevent the vertical displacement thereof when the bolts **46** are tightened. The use of filler strips **24** in this case is optional.

A cap **48** with ears **50** may be used as a decorative trim for the post assembly **12**. The ears **50** frictionally engage within the flanged sides **18**.

Obviously many modifications and variations of the present invention are possible in light of the above teachings. It is, therefore, to be understood that within the scope of the appended claim the invention may be practiced otherwise than as specifically described.

What is claimed is:

In combination, a pair of spaced hollow posts each having a pair of spaced longitudinally and inwardly extending flanges defining a slot along the inner side thereof, a plurality of rails, each having its ends received in said slot in each said post to form a fence, with each said rail having a pin member extending transversely therethrough at a pair of opposite corners and across said flanges in the interior of said posts to retain the ends of said rails in their respective slot and to permit said rails to pivot to conform to sloping terrain, and a filler strip slidably engaged with said flanges for spacing said rails from each other.

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