Jan. 27, 1970 G. GRIMSLEY 3,491,985

POST ANCHOR

Filed Nov. 21, 1968

Fig. 1

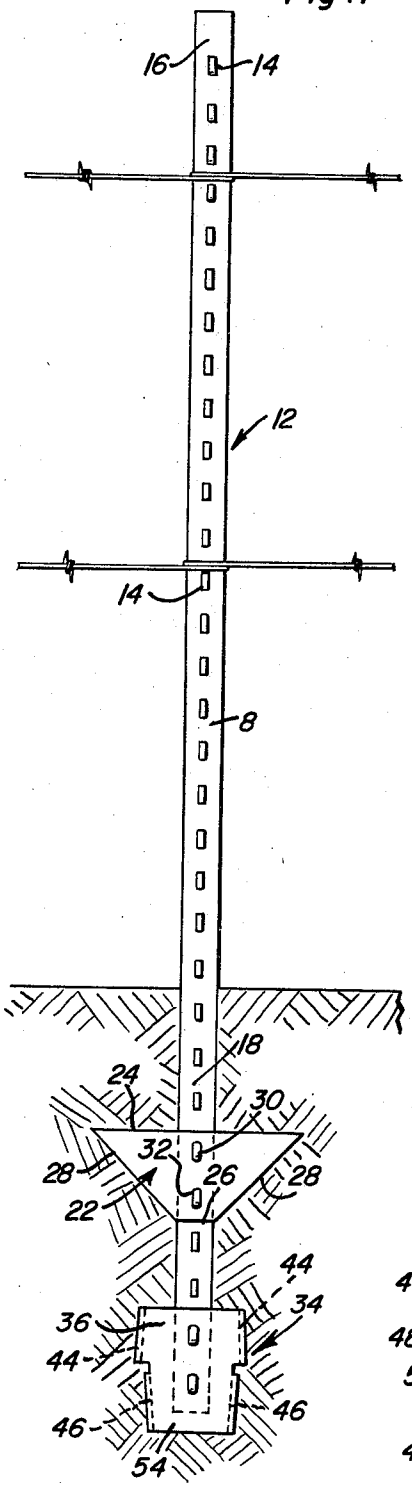


Fig. 2

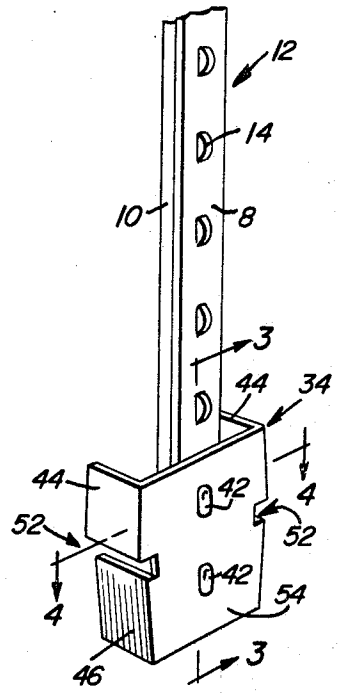


Fig. 3

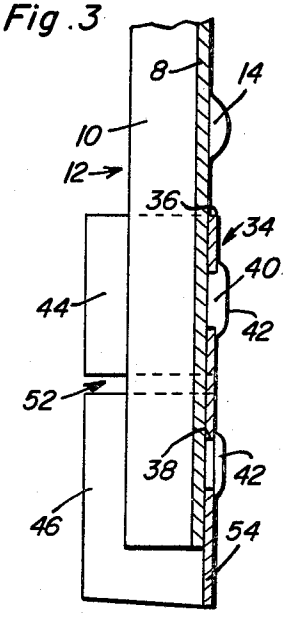


Fig. 4

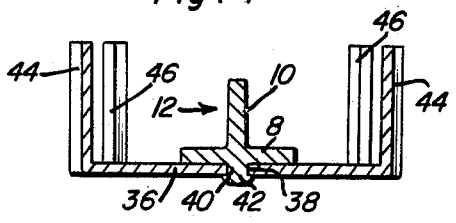
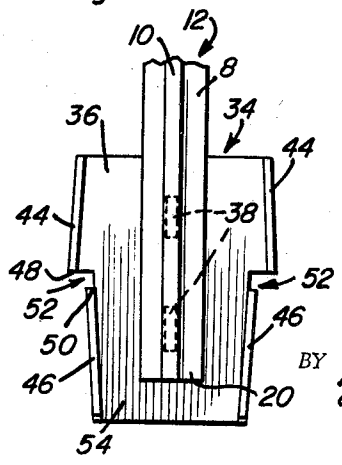


Fig. 5



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POST ANCHOR

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U.S. Cl. 256—47 9 Claims

ABSTRACT OF THE DISCLOSURE

A conventional fence post with a rigidly mounted stabilizing anchor plate is provided on the extreme lower end with an added foot-type anchor. This added anchor functions to hold the post down and against displacement where the wires of the fence bridge over ditches and low lying uneven terrain. This added anchor has a plate portion projecting below the bottom edge of the post. The outstanding vertical edges of the plate portion are provided with upper and lower pairs of laterally directed fluke-like holddown wings.

This invention relates to a conventional-type fence post, either wood or metal which, as is commonly the case, is provided upwardly of its lower anchorable end portion with a flat-faced anchor plate and is herein unique and distinct in that the extreme lower terminal end is structurally and functionally improved by the addition thereto of a unique foot-type earth cleaving, holddown and stabilizing anchor which is complemental to the above named anchor plate.

It is common in the fence post art to provide the elongate surface of a fence post a T-post for example, with a centralized row of spaced lugs or studs and to also equip the lower end portion with an elevated flat holddown and anchoring plate which, as is generally the case, is substantially trapezoidal in plan or configuration, as herein shown. The object of the present invention is to implement the leading or extreme lower end of the post by adding thereto a novel foot-type earth penetrating and holddown anchor.

The metal post herein shown is conventional in that it is T-shaped in cross-section, but can be L-shaped or even I-shaped or the like. The flanged portion on which the fence wires are fastened is provided, as usual, with a centralized row of vertically spaced outstanding wire positioning lugs or studs. The aforementioned anchoring plate is flat-faced and generally trapezoidal in elevation. The central portion is slotted and securely fixed and the outstanding end portions provide triangulate wings, sometimes referred to in the art as penetrating and holddown flukes.

Briefly, the herein disclosed concept has to do with a substantially U-shaped fence post anchor which serves as a turn-resisting and stablizing foot. The web or plate portion has aligned slots and two of the post studs are passed therethrough and are hammered and peened in place. The porjecting end portions of the plate portion are provided with upper and lower pairs of flanges which serve as fluke-type earth cleaving and holddown wings. The wings of the upper pair are spaced above the wings of the lower pair in a manner to provide earth compacting, and consolidating and tamping gaps. Then, too, the upper wings are offset beyond the lower wings and converge upwardly and toe-in inwardly while the lower wings converge downwardly and also toe-in inwardly. This thus improved

post helps to tamp the soil within the confines of the upper and lower wings so firmly that the post is securely held in place.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIG. 1 is a view in elevation showing the improved post and both anchors embedded in the earth and illustrating fence wires attached to the upstanding portion of the post.

FIG. 2 is a fragmentary perspective view of the lower end portion of the post omitting the regular plate anchor and showing, on a slightly enlarged scale, the improved U-shaped foot-forming anchor.

FIG. 3 is an enlarged detail sectional view taken on the plane of the vertical section line 3—3 of FIG. 2 looking in the direction of the indicating arrows.

FIG. 4 is an enlarged horizontal section taken on the plane of the section line 4—4 of FIG. 2.

And FIG. 5 is a fragmentary elevational view showing the open or channel side of the improved anchor.

By way of introduction to the detailed description, it is to be pointed out that while the example fence post herein shown is T-shaped in cross-section it is within the purview of the invention to employ posts having, as is common in the art, cross-sectional shapes such as L-shaped, I-shaped and the like (not shown). However, and for purposes of the present disclosure a T-shaped post is shown. The main flange or head is denoted by the numeral **8** and the centralized reinforcing rib at **10**. The over-all post is denoted by the numeral **12**. The post, as is customary, is centrally provided along the front surface with vertically or longitudinally spaced lugs **14** commonly referred to in the art as studs. The upper end of the post is denoted at **16**, the lower end portion at **18** and the extreme lower end or terminal portion at **20**. The portion **18** is provided above the terminal end **20** with a plate anchor **22** which is in common use on metal and steel fence posts. This plate anchor is substantially trapezoidal in elevation as brought out in FIG. 1, the upper straight edge being denoted at **24**, the lower narrower straight edge at **26**, and the inwardly and downwardly sloping marginal edges at **28**. The centrally apertured portion of the plate is superimposed on and secured in place with cooperating peened studs **30** extending through adapter slots **32** provided therefor as shown in FIG. 1. The anchor equipped post thus far described is conventional in the fence post art.

The lower end portion below the level of the anchor plate **22** is provided with an added as well as uniquely constructed and performing earth cleaving and holddown anchor which is denoted by the numeral **34**.

This anchor **34** is substantially U-shaped but may also be interpreted as channel-shaped in cross-section. The web or plate portion **36** is substantially rectangular in plan and has its central portion provided, as shown in FIG. 4, with upper and lower slots **38**. These slots are such that they permit the passage therethrough of registering studs one of which is designated in FIG. 4 by the numeral **40**. These studs are such that they project through and beyond the slots and the projecting ends are hammered or otherwise flattened and peened in place as at **42**. The plate portion **36** is of a width appreciably greater than the cross-sectional width of the flange **8**. As

will be evident particularly from FIG. 5, the upper half portion of the plate is wider than the lower half portion. The vertical marginal edges of this upper half portion are provided with laterally projecting opposed flanges which are designated as upper flanges **44**. Corresponding vertical marginal edges of the lower half portion are provided with similar laterally projecting flanges which are differentiated by the numeral **46**. It follows that the distance between the paired upper flanges **44** is greater than the distance between the companion pair of lower flanges **46**. It will also be noted that with this dimensional difference the flanges **44** are offset outwardly from the flanges **46**. Accordingly the lower edges **48** are spaced above the upper edges **50** in a manner to provide clearance gaps **52** to the left and right in the manner illustrated. It will be further noted that the flanges **44** converge upwardly and slope or toe-in toward the marginal edges of the post flange **8**. On the other hand the paired lower flanges **46** slope downwardly in inwardly and converge or toe-in toward the lower end portion of the post. It is also to be noted that the bottom edge of the plate **36** as denoted at **54** projects beyond the terminal end **20** as brought out advantageously in FIGS. 3 and 5 in particular. With this construction it is also obvious that the bottom edges of the paired flanges **46** also project beyond the terminal **20** so that the several coacting edges can be piloted and more easily driven into the earth or ground. As the post is driven into the ground the dirt passing between the respective upper and lower flanges by way of the gaps **52** is compacted and consolidated causing the post to be firmly held in the ground.

Experience has shown that a post whose lower end portion **18** is provided with upper and lower anchors **22** and **34** well serves the purposes for which it is intended. It functions to hold regular steel posts down so that the fence will not pull the post where it crosses a ditch or a low place in the terrain.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

What is claimed as new is as follows:

1. In combination, a vertical fence post characterized by an upper end portion, a lower end portion and an intervening body portion, a first one piece earth penetrating and post stabilizing anchor positioned at an elevation above the extreme lower end, and a second one piece earth penetrating and stabilizing anchor spaced from and located at a level below the level of said first anchor, said second anchor constituting a foot for said extreme lower end and the bottom thereof projecting a significant distance beyond said extreme lower end in a manner to facilitate the initial piloting and subsequent earth cleaving and penetrating steps, said first anchor comprising a flat-faced plate having a median portion superimposed upon and fixed to said surface and having its respective end portions projecting outwardly beyond the respective vertical marginal edges of said post, and also wherein said second anchor embodies a flat-faced plate portion whose median portion is likewise superimposed upon and fixed to said surface and which also has end portions projecting respectively beyond said vertical margianl edges, said last named end portions being provided with an upper pair of integral laterally directed flanges providing opposed oriented fluke-like earth cleaving and holddown wings, and are further provided with a second pair of integral laterally directed flanges providing additional opposed and oriented fluke-like earth cleaving and holddown wings, the last-named wings being disposed at a level below the level of the upper wing.

2. The combination defined in and according to claim **1**, and wherein the lower edges of the upper wings are spaced from and terminate in a plane above the plane of the upper edges of the lower wings and provide earth compacting and tamping gaps.

3. The combination defined in and according to claim **2**, and wherein said upper wings are obliquely inclined and have their upper portions converging and toed inwardly toward the marginal edges of said post, and also wherein said lower wings are also obliquely inclined and have their lower portions converging and toed inwardly toward said marginal edges.

4. The combination defined in and according to claim **3**, and wherein the distance between the upper wings is greater than the distance between the lower wings, whereby the lower wings are closest to said marginal edges.

5. A foot-type anchor for the lower earth penetrating end of a fence post comprising a substantially flat plate portion having paired slots for reception of mounting and securing studs provided, as usual, on said fence post, said plate being adapted to be superimposed upon the stud-equipped surface of said post and having end portions adapted to project beyond the respectively cooperable vertical marginal edges of said post, the outward vertical ends of said end portions being provided with (1) an upper pair of laterally directed rectangular flanges providing opposed oriented fluke-like earth cleaving and holddown wings, and further provided (2) with a second pair of integral laterally directed similar flanges providing additional fluke-like earth cleaving and holddown wings, the latter wings being located at a level below the level of said upper wings.

6. The anchor defined in and according to claim **5**, and wherein the lower horizontal margianl edges of the upper wings are spaced upwardly from underlying horizontal upper marginal edges of the lower wings in a manner to provide open gaps between the respectively cooperable marginal edges, and wherein said upper wings are obliquely inclined and have their upper portions converging and toed inwardly toward the marginal edges of said post, and also wherein said lower wings are also obliquely inclined and have their lower portions converging and toed inwardly toward said marginal edges.

7. The combination defined in and according to claim **6** and wherein the distance between the upper wings is greater than the distance between the lower wings, whereby the lower wings are closest to said marginal edges.

8. In combination, a vertical fence post characterized by an upper end portion, a lower end portion and an intervening body portion, a one piece earth penetrating and stabilizing anchor constituting a holddown foot for the extreme lower end portion and the bottom thereof projecting a predetermined distance beyond said extreme lower end portion in a manner to facilitate the desired piloting, earth cleaving and anchoring result, said anchor embodying a flat-faced plate portion whose median portion is superimposed upon and fixed to said lower end portion and which has like end portions projecting respectively beyond the respective vertical marginal edges of said post, said projecting end portions being provided with an upper pair of integral laterally directed flanges providing opposed oriented fluke-like earth cleaving and holddown wings, and are further provided with a second pair of integral laterally directed flanges providing additional opposed and oriented fluke-like earth cleaving and holddown wings, the last named wings being disposed at a level below the level of said upper wings.

9. As a new article of manufacture, a foot-type anchor designed and adapted to be fixed on a predetermined selected surface of the extreme lower end portion of a conventional type fence post, said anchor being of one piece construction and comprising a plate portion having vertically elongated edge portions which when the anchor is fixedly mounted on said post project outwardly and beyond cooperable vertical surfaces of said post, said edge

portions being provided (1) with an upper pair of laterally directed flanges providing a first pair of opposed oriented fluke-like earth cleaving and holddown wings, and provided (2) with a second pair of integral laterally directed similar flanges providing additional fluke-like earth cleaving and holddown wings, the latter wings being located at a level below the level of said upper pair of wings.

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