Nov. 22, 1966 J. E. ASHWORTH 3,286,416

FENCE POST AND SQUARING PLATE ATTACHMENT

Filed June 4, 1963

FIG. 1.

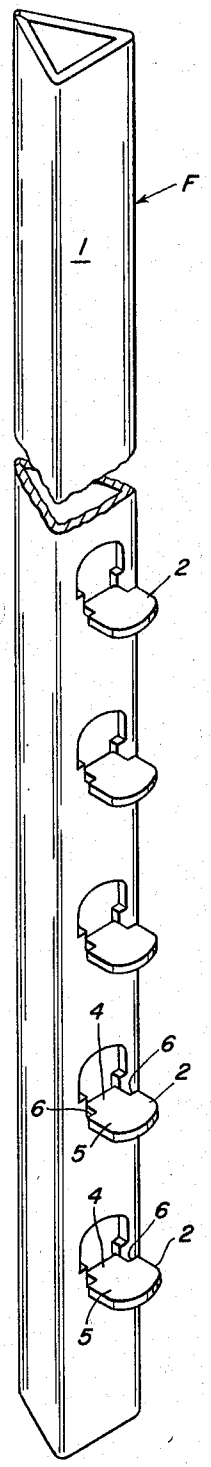


FIG. 3.

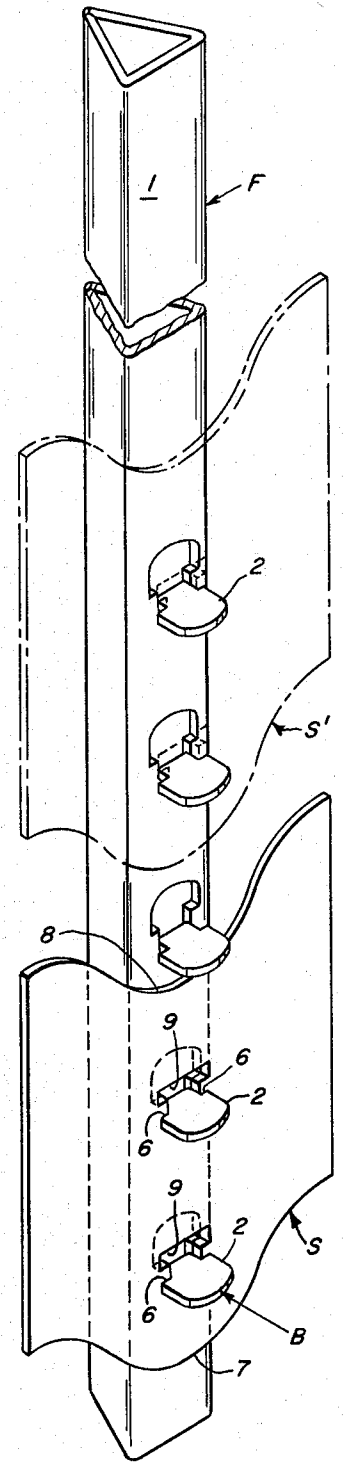


FIG. 2.

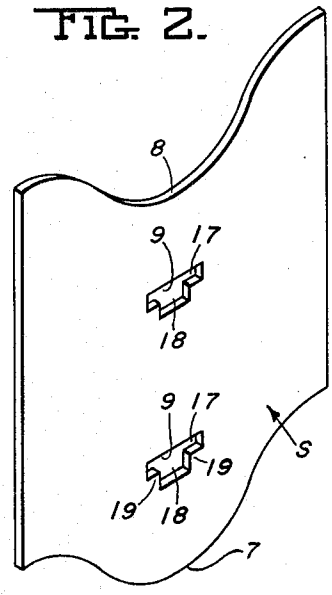


FIG. 4.

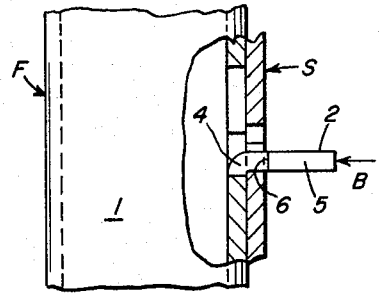
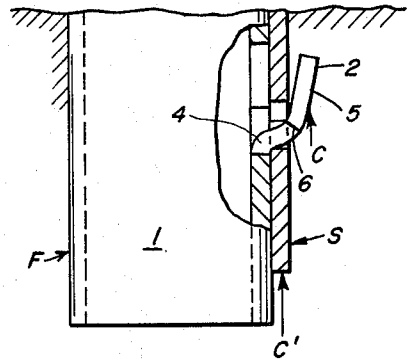


FIG. 5.



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FENCE POST AND SQUARING PLATE ATTACHMENT

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This invention relates to fence posts and, more particularly, to a means and method of attaching squaring plates to fence posts.

Squaring plates are used at the bottoms of fence posts to hold them from tilting in a direction transverse to the fence wires. These squaring plates are usually flat pieces of sheet metal, and are driven into the ground while attached to the fence posts. The top of the fence post is pounded to drive both the post and its squaring plate into the ground. Sometimes the squaring plate becomes loose or detached from the fence post by the friction between the earth and the squaring plate as it is driven into the ground.

It is an object of my invention to provide a fence post on which a squaring plate may be firmly attached thereto, and will remain so attached when driven into the ground.

Another object of my invention is to provide a method and means for attaching a squaring plate to a fence post, whereby the attachment will become more secure as the fence post and squaring plate are driven into the ground.

A further object of my invention is to provide a method of attaching a squaring plate to a fence post which utilizes the pounding of the post into the ground as a final step in securing the squaring plate to the post.

The attainment of these and other objects by my invention will appear more readily from the following detailed description thereof and the attached drawings, in which:

FIGURE 1 is a perspective view of a fence post with tabs for attaching a squaring plate;

FIGURE 2 is a perspective view of a squaring plate;

FIGURE 3 is a perspective view of the fence post of FIGURE 1 with the squaring plate of FIGURE 2 secured thereto, and an alternate position for the squaring plate shown in phantom;

FIGURE 4 is a partial side view of the fence post and squaring plate of FIGURE 3, with the portions of each near the squaring plate attaching means broken away and shown in section; and

FIGURE 5 is a partial side view, similar to FIGURE 4, showing the fence post and squaring plate as they would appear beneath the ground.

As shown in FIGURE 1, fence post F has a main body 1 and tabs 2 which protrude approximately at right angles therefrom. The tabs 2 are preferably spaced at equal intervals along one side of fence post F. A distance of two inches between the tabs 2 is recommended. The fence post F as shown is made of a flat rolled steel sheet or plate, which is bent into triangular shape and its longitudinal edges welded together. The tabs 2 are punched and bent out from the steel sheet. Each of the tabs 2 are generally T-shaped, having a neck portion 4 attached to the main body 1 of the post, and an outer flange portion 5. A squaring plate retaining surface 6 of flange portion 5 faces the main body 1.

Squaring plate S of FIGURE 2 is made of a flat rolled steel plate having a tapered projection 7 at its lower end and a cut-out portion 8 at its upper end. The squaring plate S has two slots 9 therein spaced apart vertically the same distance as tabs 2. Each slot has a wide portion 17, through which flange portion 5 of one of the tabs 2 may fit, and a narrow portion 18, which is too small to

receive flange portion 5. Slots 9 may also be thought of as rectangular slots with lugs 19 protruding into the bottom corners thereof.

FIGURE 3 shows the squaring plate S secured on the bottom two tabs 2 of fence post F. Other squaring plates, such as S' shown in phantom, may be secured at positions higher up on the post, or a single squaring plate S may be attached anywhere on the post F. The squaring plate is attached by inserting the flange portions 5 of the tabs 2 through the wide portions 17 of slots 9. When the flanges 5 protrude all the way through the slots 9, the squaring plate S is moved upwardly with respect to the post F so that the neck portions 4 of the tabs 2 rest in the narrow portions 18 of the slots 9. The tabs 2 are then pounded in the direction of force arrows B, until the retaining surfaces 6 of the flange portions 5 press the lugs 19 in the bottom corners of slot 9 against the main post body 1. This secures the squaring plate S to the fence post F with the tabs 2 substantially perpendicular to the post body 1 and squaring plate S as shown in FIGURE 4. The post is then ready to be driven into the ground.

When the fence post and squaring plate are driven into the ground by hammer blows on the top of the post, the tabs 2 will become bent as shown in FIGURE 5. The resistance of the ground as the fence post is pounded is represented by the force arrows C and C'. Force C will act on the flange portions 5 of tabs 2 and bend them upwardly, thereby making further pounding into the ground easier. Upward force C' on the bottom of the squaring plate will cause the bottom of each slot 9 to press against the under side of the neck portions of the associated tab 2. The retaining surfaces 6 of the tabs 2 will thus remain pressed against the lugs in the bottom corners of slots 9. As the post F is pounded into the ground, tensile forces developed in the neck 4 of tab 2 will increase the pressure of retaining surfaces 6 on lugs 9 and secure the squaring plate S more tightly to the fence post F.

It will be seen that the fence post and squaring plate herein described have a novel and improved means of attachment to one another. The squaring plate may be easily secured to the fence post, yet without fear that it will become detached when the post is pounded into the ground. This is because the ground resistance forces, heretofore a hindrance to the squaring plate attachments of prior art fence posts, are now utilized to further tighten my improved attachment.

While one embodiment of my invention has been shown and described, it will be apparent that other adaptations and modifications may be made without departing from the scope of the following claims.

I claim:

1. In combination, a metal fence post having a T-shaped tab protruding from one side thereof, a squaring plate secured to said post and having a horizontal slot therein, said T-shaped tab of said post having a flange portion with a squaring plate retaining surface substantially facing said post and a neck portion between said flange portion and said post, said horizontal slot in said plate having a top portion wider than said flange portion of said tab and a bottom portion narrower than said flange portion, said neck portion of said tab positioned within the narrower bottom portion of said slot in said plate, said squaring plate retaining surface of the flange portion of said tab bearing against said plate at points laterally adjacent said narrow portion of said horizontal slot, said tab being upwardly bent at said neck portion, and said neck portion being pulled in tension between said post and said squaring plate retaining surface bearing against said plate.

2. In combination, a metal fence post having a tab protruding out from one side thereof, a squaring plate secured to said post and having a slot therein, said tab having an outer flange portion and a neck portion between said flange portion and said post, said slot having a portion wider than said flange portion of said tab and a portion narrower than said flange portion, said neck portion of said tab positioned within the narrower portion of said hole in said plate, said flange portion of said tab bearing against said plate at points adjacent said narrower portion of said slot, said tab being upwardly bent at said neck portion, and said neck portion being pulled in tension between said post and said flange portion bearing against said plate.

3. Means for securing a squaring plate having a horizontal slot to a metal fence post, said means comprising lugs on said squaring plate protruding into the bottom corners of said horizontal slot and a T-shaped tab protruding from one side of said post and capable of being inserted through said slot, said tab having a narrowed neck portion for fitting between said lugs on the squaring plate and a wide flange portion with a squaring plate retaining surface for bearing against said lugs, said tab being upwardly bent at said neck portion, and said neck portion being pulled in tension between said post and said squaring plate retaining surface bearing against said lugs.

4. The method of securing a squaring plate having a slot therein with its top portion wider than its bottom portion to a fence post with a T-shaped tab protruding therefrom and having an outer flange portion and a neck portion between said flange portion and said post, which method comprises inserting said flange portion of said tab completely through said wider top portion of said slot, moving said squaring plate upwardly with respect to said post until said neck portion of said tab rests within said bottom portion of said slot, pounding said flange portion of said tab against said squaring plate, and then pounding said post into the ground and thereby bending said tab upwardly at said neck portion and pulling said neck portion in tension to secure said squaring plate to said post.

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