

[54] POST
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 [51] Int. Cl. **F16b 7/00**
 [58] Field of Search 287/111, DIG. 3; 285/1, 285/2, 3, 4, 419, 373; 52/98; 404/10; 148/160; 40/125 N, 125 H, 145 A, 145 R; 403/2, 312

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[57] **ABSTRACT**

A highway sign post is anchored or coupled to a corresponding base by a tubular clamp secured to both the post and base and which has a groove therein extending peripherally of the coupling in the region of the parting line between the post and base.

1 Claim, 5 Drawing Figures

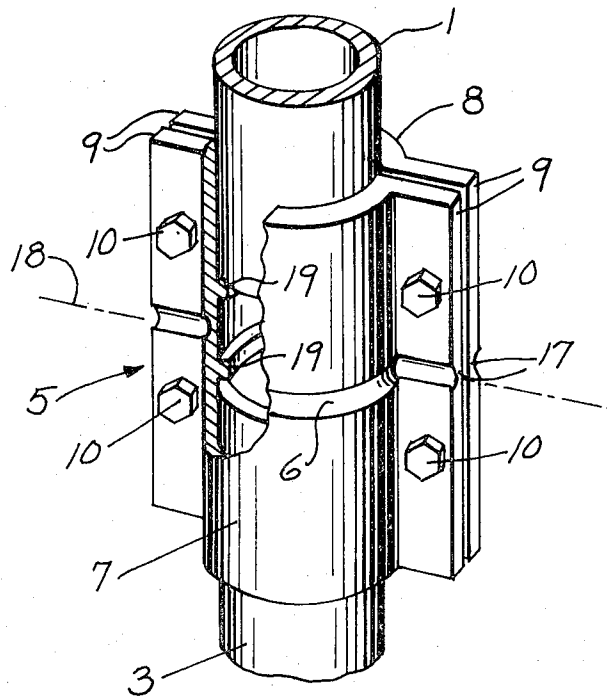


Fig. 1

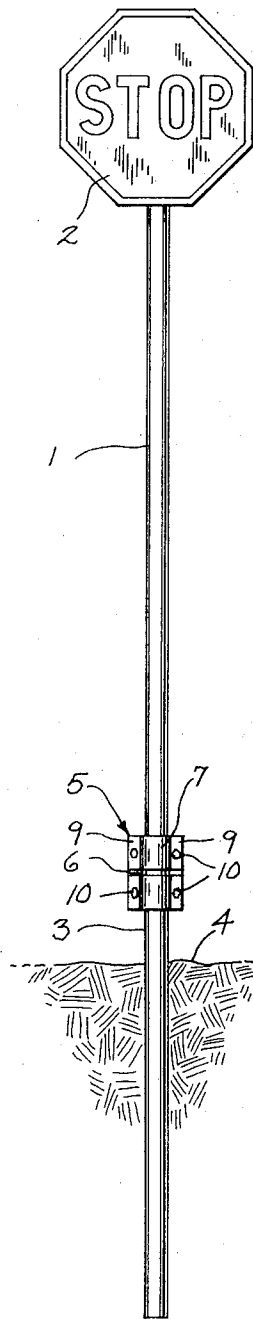


Fig. 2

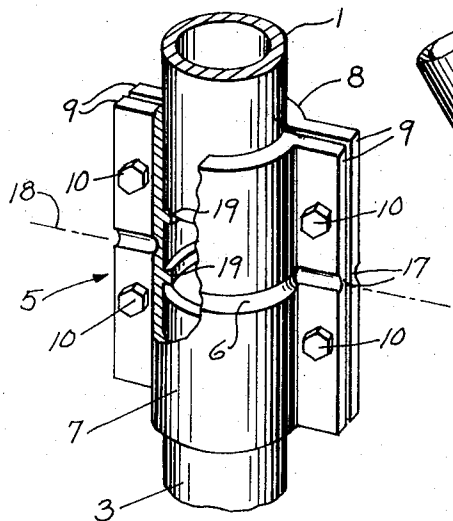


Fig. 4

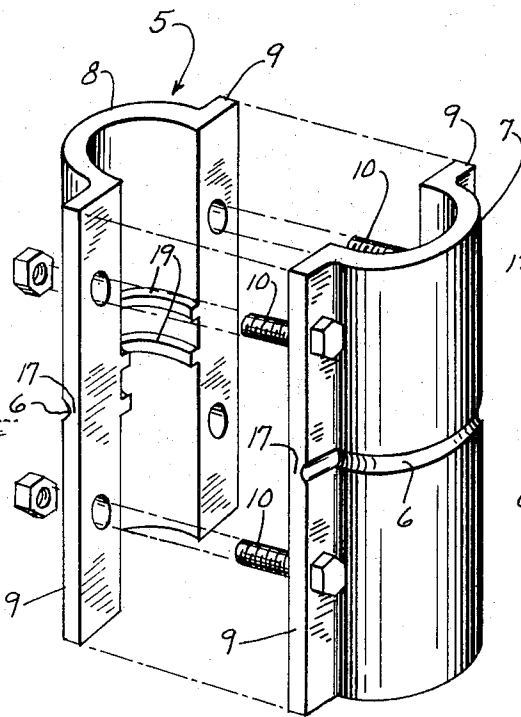
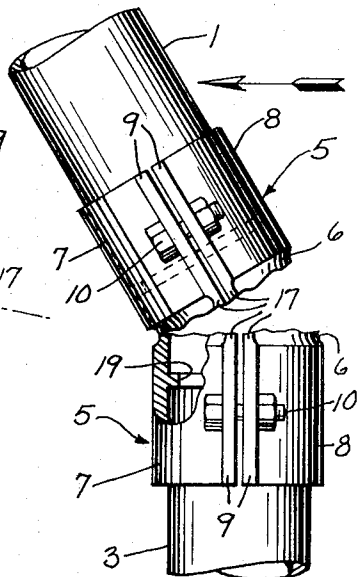


Fig. 3

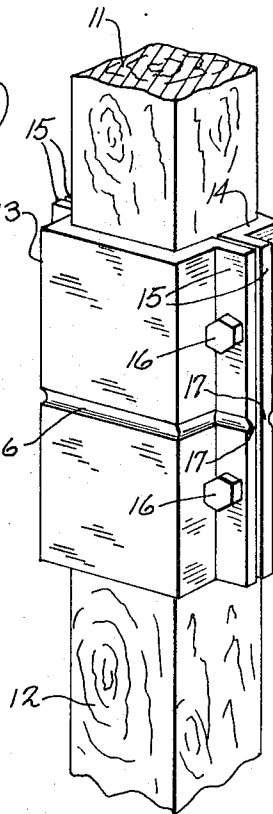


Fig. 5

BACKGROUND OF THE INVENTION

This invention relates to a post of the general type employed to support highway signs.

Many of the highway sign posts today are constructed of wood or of metal tubular pipe.

Such posts are installed by driving them into the ground or by embedding the lower end in concrete.

All highway posts are susceptible to damage from impact and often become completely bent over or broken off when hit, thus making them unusable and necessitating complete replacement.

Various complicated and costly frangible base mountings have been proposed heretofore but have generally not been acceptable to highway authorities due to their cost.

SUMMARY OF THE INVENTION

According to the present invention the standard highway sign post is made in two lengths, the upper length constituting the above ground part and the lower length constituting the base part which is anchored in the ground, and a coupling is employed which envelops and is clamped to the adjacent aligned ends of the two parts, with a weakened area generally of reduced thickness at the parting line between the two lengths of post to provide for a predetermined breaking of the coupling without undue damage to either length of post in the event the upper part of the post is hit and displaced by a vehicle.

The coupling is made up of a two piece clamp which is assembled on opposite sides of the post to bridge the gap at the parting line between the two lengths, and which is preferably bolted by a bolt passing through lateral adjacent flanges of the clamp members.

BRIEF DESCRIPTION OF THE DRAWING

The best mode presently contemplated for carrying out the invention is illustrated in the accompanying drawings in which:

FIG. 1 is a front elevation of a post with the ground sectioned showing installation;

FIG. 2 is an enlarged perspective view showing a coupling for adjacent parts of a tubular post and with parts sectioned to show detail;

FIG. 3 is an exploded view showing the parts of the coupling of FIG. 2 ready for assembly;

FIG. 4 is a side elevation of the coupling and adjacent post sections showing the manner in which the coupling breaks upon impact; and

FIG. 5 is a view similar to FIG. 2 showing a coupling adapted to protect a wood post, with parts broken away and sectioned.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

The highway sign posts shown in the drawings comprise two lengths of post disposed in alignment, upper part 1 being that part of the post extending upwardly to support the sign 2, and lower part 3 being that part of the post constituting the base which is generally driven into the ground 4 or otherwise secured in the ground or in concrete.

The two aligned parts 1 and 3 of the post are coupled together as by a two-piece clamp 5 which has a shallow groove 6 extending in the plane of the parting line be-

tween the post parts, whereby this region of the clamp is weakened for preferential breakage in the event of an impact upon the upper post part 1.

As shown in FIGS. 1 to 4 the post is made up of two aligned pipe sections 1 and 3, and the clamp 5 comprises two complementary U-shaped clamp members 7 and 8 adapted to envelop the adjacent ends of post parts 1 and 3 when assembled thereon.

Clamp members 7 and 8 have lateral flanges 9 extending from their vertical edges and which are secured together by suitable bolts 10 as shown.

In the embodiment of FIG. 5, the post is made up of two aligned wood 4 x 4 inch sections 11 and 12, and the two complementary channel clamp members 13 and 14 are adapted to embrace the adjacent ends of the sections. Members 13 and 14 have lateral flanges 15 extending along their vertical edges to be secured together by bolts 16.

Each of the clamp members 7, 8, 13 and 14 is provided with a weakened zone 17, preferably of reduced thickness transversely thereof in the general plane of the parting line 18 between the abutting ends of the corresponding post sections.

The reduced thickness is provided by the shallow groove 6, shown on the outside of the clamp members, but which may be provided on the inside instead.

A shallow rib 19 is provided on the inside surface of each clamp member just above and below the weakened zone 17.

When the clamp coupling is assembled upon the post sections 1 and 3, or 11 and 12, as the case may be, the ribs 19 serve as abutments for the ends of the post sections to effectively locate the sections.

The functioning of the post is illustrated in FIG. 4 wherein the impact indicated by the arrow tilts the upper section of the post forward and effects breakage of the coupling members at the zone 17, without damage to either post section.

The upper post section can thereafter be re-assembled upon the base section with a new coupling or clamp 5.

It will be understood that the strength of the coupling parts and particularly of the weakened zone 17 must be determined with the desired results in mind, taking into account the strength of the post sections and their resistance against bending. For instance, the zone 17 should break before either post section permanently distorts or bends under a given impact. Impacts which are insufficient to break the coupling will then also be insufficient to distort or bend the post sections.

Various modes of carrying out the invention are contemplated as being within the scope of the following claims particularly pointing out and distinctly claiming the subject matter which is regarded as the invention.

I claim:

1. A post for highway signs and the like comprising two aligned post sections, one adapted to extend downwardly into the ground and the other adapted to extend upwardly to support a sign or other object, a two piece clamp of complementary flanged U-shaped members bridging the parting line between the two post sections and enveloping the adjacent ends of the sections to secure the same together with said clamp constituting the sole support for said upper post section upon said lower post section, and bolts extending through the flanges to secure the clamp members together and upon the post

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sections, characterized by a portion of reduced cross-sections on each clamp member in the general plane of the parting line between the post sections to provide a preferential breakage of the clamp members in the event of a severe impact upon the upper post, and spaced shoulder means integral with and projecting in-

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ternally of at least one of the clamp members above and below said weakened portion of the clamp members serving to space the ends of said post sections and to center the same with respect to said weekend clamp portion.

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