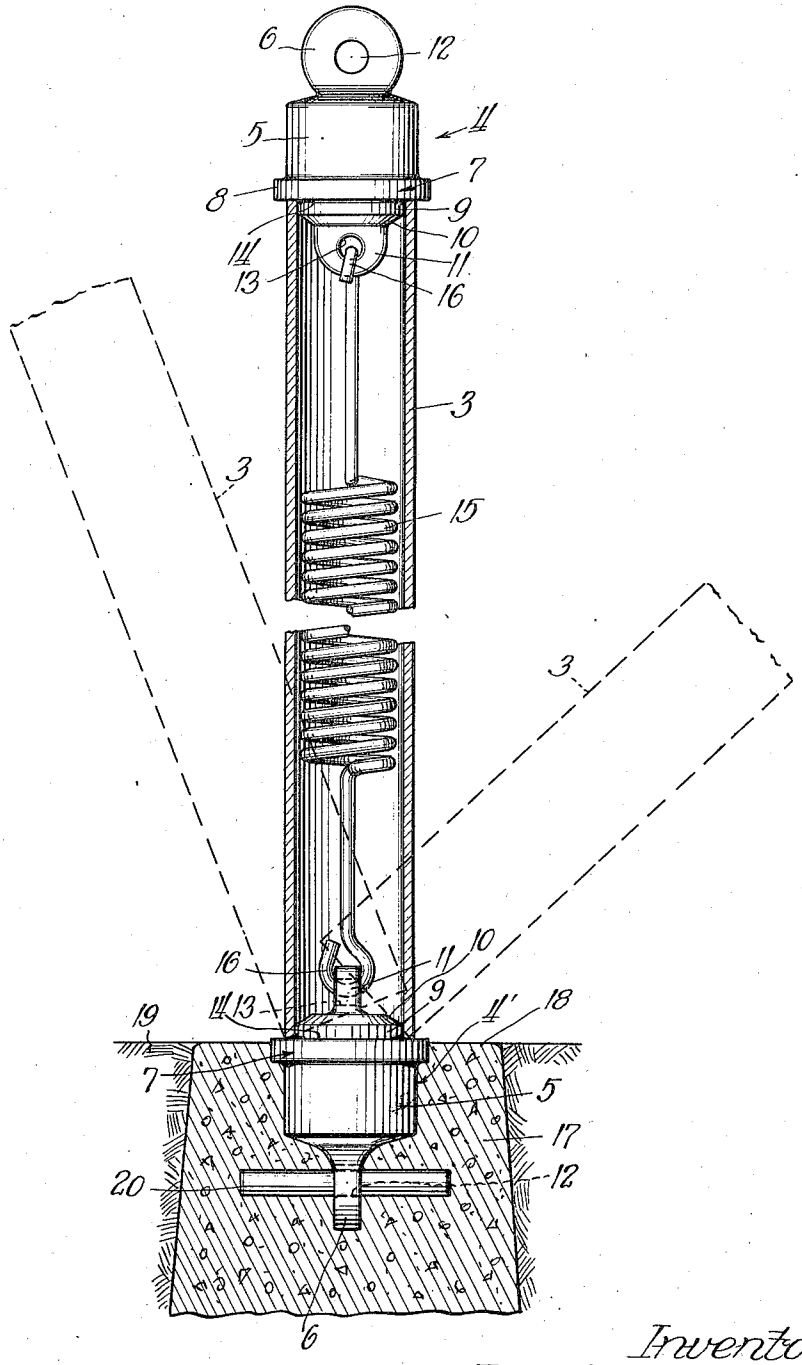
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POST CONSTRUCTION

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POST CONSTRUCTION

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This invention relates to post construction, and is more particularly concerned with a tiltable post adaptable for supporting barriers and other kindred uses such, for example, as supporting corner signs, traffic signals, etc., which are apt to be collided with by vehicular traffic.

Broadly, the primary object of the present invention resides in providing a simple, economical and durable post, which is normally supported in a vertical position upon suitable anchoring means, but which is tiltable about such anchoring means in all directions, whereby it will yield should it inadvertently be struck by a vehicle or other moving object, and will automatically resume its normal vertical position upon being relieved from pressure.

More specifically, the present invention contemplates a construction of post comprising a standard or casing of tubular shape, each of the ends of which are closed by a flanged cap. These caps are substantially identical in construction, both for convenience in manufacturing, and so that they may be interchangeable with respect to the ends of the standard. Each of the caps is provided with a projecting portion in the form of an external ear, which is disposed exteriorly of the standard when the cap is in place thereon, and with a circular stud, also having a projection in the form of an internal ear, both the stud and the internal ear being adapted to project within the standard when the cap is in place thereon. The flange of the upper cap seats on the standard, while the standard seats on the flange of the lower cap. Resilient means in the form of a coiled tension spring is confined within the standard and is connected at one end with the internal ear of the upper cap, while at its opposite end the spring is connected with the internal ear of the lower cap. This spring secures the caps to the standard, and the standard is, therefore, confined between the caps. The external ear of the upper cap is adapted to have any desired device secured thereto, while the lower cap is adapted to be embedded in an anchor, with the upper surface of the flange of said cap disposed substantially flush with the upper surface of the anchor. The anchor is sunk in the ground, with its upper end substantially flush with the ground line. Preferably, a rod extends through the external ear of the lower cap, at substantially right angles to the plane thereof, and is embedded in the anchor with the cap to insure that the cap will be rigidly secured within the anchor. The stud extending into the standard provides a fulcrum about which the post may tilt, and the resilient means connected between the caps serve to normally hold the post in a vertical position or, when the post has been tilted by reason of contact of a moving body therewith, to return the post from such tilted position to its normal vertical position when the pressure is removed therefrom.

From the foregoing, therefore, it will be apparent that the post of the present invention is resiliently mounted upon a countersunk supporting anchor and tiltable at the ground line in a manner to permit the same to be tilted or knocked down without damaging it, the resilient mounting of the post restoring it to its normal vertical position after such impact. Thus a post embodying the salient features of the present invention eliminates unsightliness wherever employed due to collision therewith by moving bodies, and at the same time eliminates frequent repair costs such as are required with posts which are bent, dented, or broken by such collisions.

Other features and advantages of the present invention will appear from the following detailed description of the preferred embodiment of the invention illustrated in the accompanying drawing, in which:

The single figure is an axial section through a post embodying the principles of the present invention, certain parts being shown in section.

Referring now in detail to the drawing, the post comprises a rigid standard 3 of tubular formation, which may be formed of any suitable or preferred metal. At its upper end, the standard is closed by a cap 4, while the lower end of the standard is closed by a cap 4'. These caps may also be formed of any suitable or preferred metal and are substantially identical in construction, to provide for convenient manufacturing, and so that they may readily be interchangeable with respect to the ends of the standard.

The caps 4 and 4' may be castings, and each comprises a body portion which, in the present instance, is in the form of a relatively thick disc 5, although it may be of any other suitable or preferred form. Substantially centrally thereof, one side of the disc has a relatively narrow and integral ear 6 projecting therefrom, while on its opposite side, the disc is provided with a relatively thin and integral disc 7. This latter disc is of greater diameter than disc 5 to form an outwardly extending annular flange 8. A circular stud 9, reduced in diameter with respect to disc 5, is formed integrally with the free face of disc 7, and substantially centrally thereof, and projects outwardly therefrom for a rela-

tively short distance. At its outer end, the stud is preferably beveled as indicated at 10, and the free end thereof has a relatively narrow integral ear 11 projecting outwardly therefrom. Ear 6 is preferably provided with an opening 12, while ear 11 has an opening 13 therethrough. As shown, face 14 of disc 7 of the caps is adapted to engage the marginal edges of the ends of standard 3, the upper cap 4 seating on the standard, and the standard seating on the lower cap 4', when the post is in normal upright position. In such position of the caps with respect to the standard, the studs 9 and the ears 11 are disposed within standard 3, the studs having a relatively loose or sliding fit with the inner surface of the wall of the standard. These studs restrain lateral movement of the caps with respect to the standard, and the caps are secured to the standard by yieldable means 15 associated with the ears 11. This yieldable means is a coiled tension spring, which is entirely confined within the standard and is provided with a hook 16 on each of the free ends thereof. These hooks, as shown engage through openings 13 in ears 11, thereby yieldingly securing the caps to the standard.

The post is normally supported in an upright position by suitable anchoring means 17. This anchoring means, in the present case is a concrete form, which is sunk in the ground with its upper face 18 disposed substantially flush with the ground line 19. The lower cap 4' is embedded and anchored in the concrete form, with its face 14 disposed substantially flush with the upper face 18 of the form.

As the caps are interchangeable with respect to the ends of the standard, the ears 12 may be employed for either of two purposes. When used as a lower cap, a rod 20, if desired, may be passed through the opening 12 in the ear to provide additional anchoring means for the cap in the concrete form. When used as an upper cap, the ear provides means for attaching any suitable device to the post. Such device may consist of a signal, when the post is used for traffic purposes, or it may consist of suitable barrier means when the post is employed in fence construction.

From the foregoing, it will be apparent that as the standard is confined between the caps 4 and 4' it will normally be supported in an upright position by the yieldable means 15. Should the standard, however, be struck by a vehicle, or subjected to some other lateral or transverse pressure, it will tilt about the stud 9 of the lower cap 4' as a fulcrum, as shown in the dotted line positions of the standard in the drawing. Such tilting of the standard about the stud 9 may be in any direction with respect to the axial center of the standard. The beveled portion 10 of the stud permits such tilting movement of the standard without binding between the standard and the stud. When the standard is relieved of the impact or pressure, it will be returned to its normal upright position by the action of the tension spring.

While there is herein shown and described the preferred embodiment of my invention, it is to be understood that minor changes in construction, combination and arrangement of parts may be made without departing from the spirit and scope of the invention as claimed.

Having thus described the invention, what is claimed is:

1. A post construction comprising a standard, caps closing the ends of said standard and including means restraining movement of said caps inwardly into said standard, studs on said caps cooperating with said standard to restrain lateral movement of said caps with respect thereto, ears on said studs, and means connected between said ears and securing said caps to said standard.

2. A post construction comprising a rigid standard open at its opposite ends, caps closing the open ends of said standard, said caps each being provided with an outwardly extending flange seating on the open ends of said standard to thereby restrain movement of said caps into said standard, studs projecting from said flange and extending into the open ends of said standard to restrain lateral movement of said caps with respect thereto, ears on said studs, and tension means connected between said ears and securing said caps to said standard.

3. A post construction comprising a standard, caps closing the ends of said standard and including means restraining inward axial movement of said caps with respect to said standard, studs on said caps cooperating with said standard to restrain lateral movement of said caps with respect thereto, ears on said studs, and a coiled spring connected between said ears and constituting the sole means for securing said caps to said standard, said spring being normally connected between said ears under tension.

4. A post construction comprising an anchor, a cap embedded in said anchor, a standard normally disposed in an upright position and having one end seated on said cap, means on said cap cooperating with said standard and providing a fulcrum about which said standard can tilt in any direction from its normal position upon the application of transverse or lateral pressure thereon, a cap on the opposite end of said standard and including means restraining axial movement of said cap with respect to said standard, and means secured to said caps and operative to maintain said post in its normal upright position, said means being stretchable upon tilting of said post and being contractible to restore said standard from its tilted position to its normal position.

5. A post likely to be knocked down by a passing vehicle or the like comprising an anchor, a cap embedded in said anchor, a standard normally disposed in an upright position and having one end seated on said cap, said standard being adapted to be engaged directly by said passing vehicle, a stud on said cap extending upwardly into said standard, said stud restraining lateral movement of said standard with respect to the cap and providing a fulcrum about which said standard can tilt in any direction from its normal position upon the application of transverse or lateral pressure thereon, a cap on the opposite end of said standard and including means restraining inward axial movement of said cap with respect to said standard, and means secured to said caps and operative to maintain said post in its normal upright position, said means being stretchable upon tilting of said post and being contractible to restore said standard from its tilted position to its normal position.

6. A post construction comprising an anchor, a cap embedded in said anchor, a standard normally disposed in an upright position and having one end seated on said cap, a stud on said cap extending upwardly into said standard, said stud restraining lateral movement of said standard with respect to said cap and providing a fulcrum about which said standard can tilt in any direc-

tion from its normal position upon the application of transverse or lateral pressure thereon, a cap on the opposite end of said standard and including means restraining inward axial movement of said cap with respect to said standard, and a spring confined entirely within said standard and constituting the sole means for securing said caps thereto, said spring being normally under tension to maintain said standard in its upright position and being stretchable upon tilting of said post and contractible to restore said standard from its tilted position to its normal position.

7. A post construction comprising an anchor, a cap embedded in said anchor, a standard normally disposed in an upright position and having one end seated on said cap, a stud on said cap extending upwardly into said standard, said stud restraining lateral movement of said standard and providing a fulcrum about which said standard can tilt in any direction from its normal position upon the application of transverse or lateral pressure thereon, a cap on the opposite end of said standard and including means restraining movement of said cap inwardly into said standard, ears on said caps, and a coiled spring connected between said ears on said caps under tension to maintain said post in its normal upright position, said spring being stretchable upon tilting of said post and being contractible to restore said standard from its tilted position to its normal position.

8. A post construction comprising an anchor, a cap embedded in said anchor, means securing said cap in said anchor, a standard normally disposed in an upright position and having one end seated on said cap, a stud on said cap extending upwardly into said standard, said stud restraining lateral movement of said standard with respect to said cap and providing a fulcrum about which said standard can tilt in any direction from its normal position upon the application of transverse or lateral pressure thereon, a cap on the opposite end of said standard, said cap being provided with an outwardly extending annular flange for engagement with said standard to thereby restrain movement of said cap into said standard, ears on said caps, and a coiled spring connected between said ears under tension to maintain said post in its normal upright position, said spring being stretchable upon tilting of said post and being contractible to restore said standard from its tilted position to is normal position.

9. A post construction comprising a rigid standard, caps closing the ends of said standard, cooperating means associated with said caps and standard and restraining lateral and inward axial movement of said caps with respect to said standard, and means normally under tension confined entirely within said standard and constituting the sole means for securing said caps thereto.

10. A post construction comprising an anchor, a cap rigidly fixed to said anchor, a standard seating on said cap, said cap including means restraining axial and lateral sliding movement of said standard with respect thereto, a cap closing the opposite end of said standard and including means restraining lateral and inward axial movement of said cap with respect to said standard, and means secured to said caps under tension, said means securing said caps to said standard and normally maintaining said standard in an upright position but permitting tilting of said standard about said first named cap upon the application of lateral or transverse pressure upon said standard.

11. A post construction comprising a rigid standard open at its ends, caps closing the open ends of said standard, each of said caps having a flange cooperating with said standard to restrain inward axial movement of said caps with respect to said standard, studs on said caps cooperating with said standard to restrain lateral movement of said caps with respect thereto, ears on said studs, and a coiled spring confined entirely within said standard and constituting the sole means for securing said caps thereto, said spring being normally connected between said ears under tension.

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