

[54] CAP FOR A STAIRSTEP RAILING POST

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52/297, 298; 248/188.7, 188.9, 345.1; 108/150

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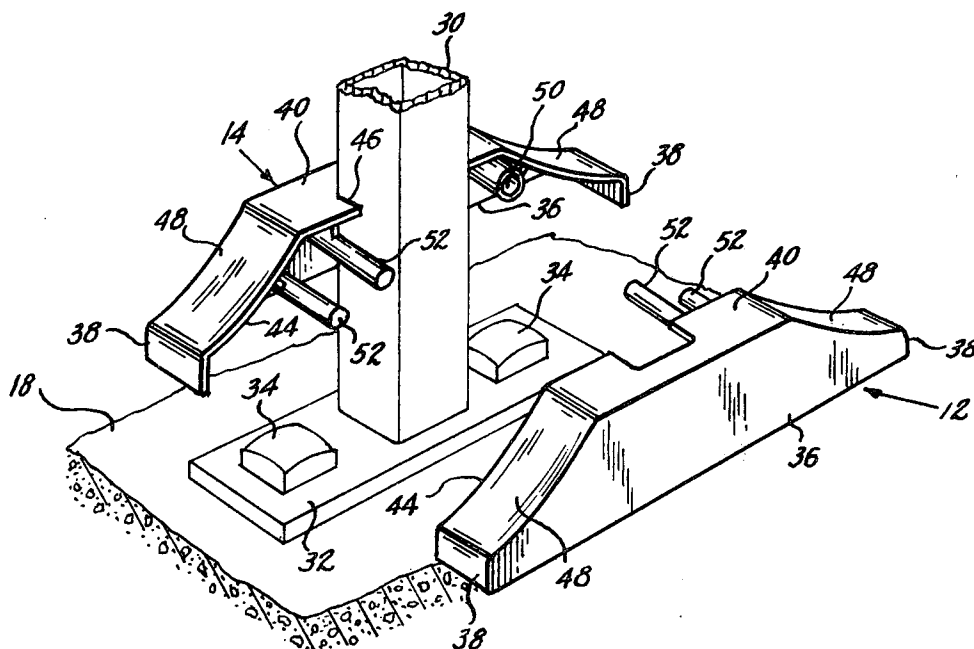
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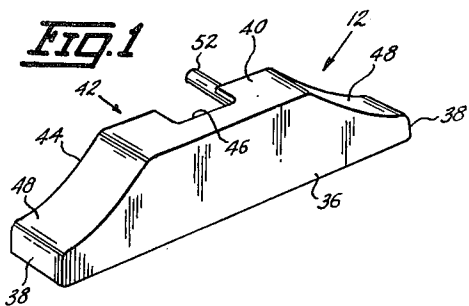
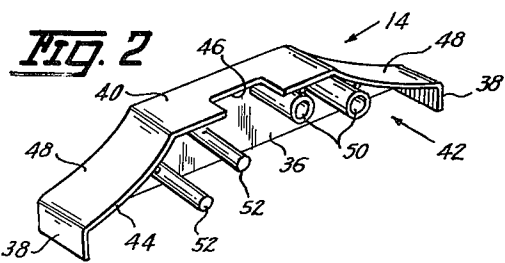
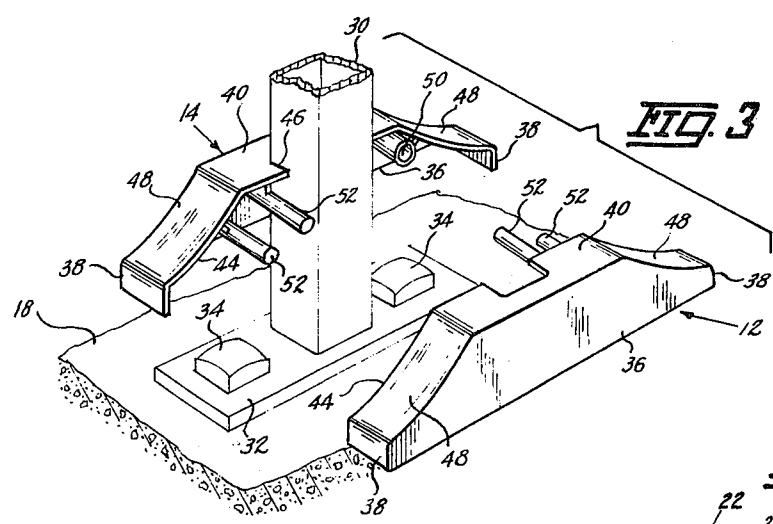
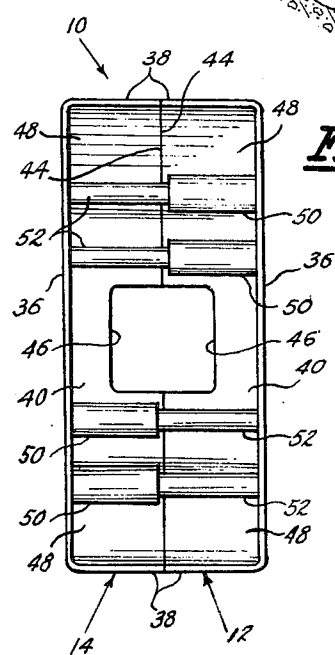
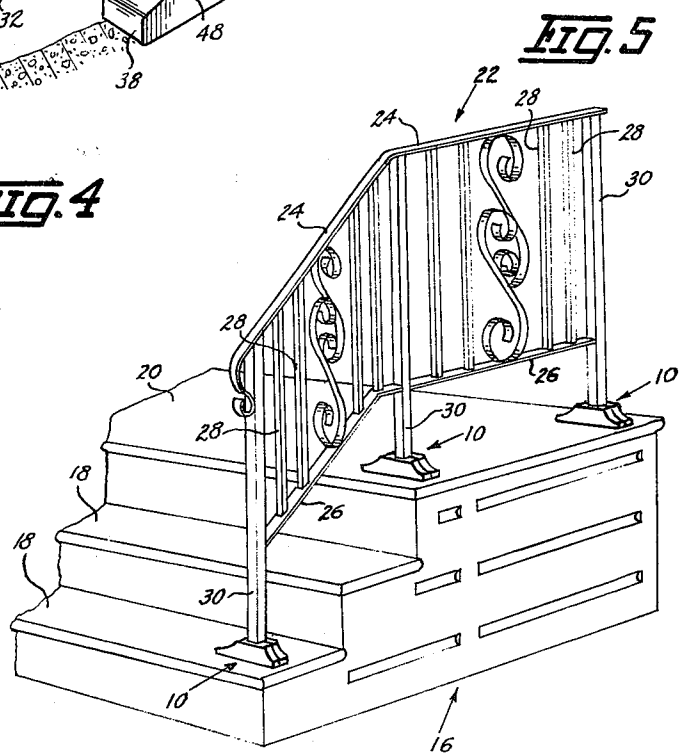
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[57] ABSTRACT

A cap or cover with a decorative appearance is provided for the anchor bolt heads or nuts and base plates at the bottom of stairstep railing posts which are secured to the steps and platform of the step structure to which the railing is affixed. The cap includes separable complementary shell portions so that it can be placed in covering relationship to the bolt heads and base plate after the railing is secured in place and without any disassembly of the railing structure.

3 Claims, 5 Drawing Figures





CAP FOR A STAIRSTEP RAILING POST

BACKGROUND OF THE INVENTION

This invention relates to improvements in a cap or cover for the anchor bolts and base plate on the supporting posts of a stairstep railing assembly and is more particularly related to metal railing structures applied to concrete step units.

Stairstep railings which are primarily a safety element for obvious reasons can and do generally serve as a decorative accouterment not only in an inside environment but particularly in the outside step structure at the entrance to a home or building. Such railings must be securely anchored and in the art of concrete steps which dates back many decades, it has been a common practice to secure a base plate to the bottom of the railing posts whereby such posts are secured to a step and platform by bolts suitably anchored in the concrete. Various means have been devised for anchoring the bolts leaving at times exposed bolt heads and at times exposed nuts depending upon the manner of securing the bolts to the concrete.

While such railings including the base plate and exposed bolt heads or nuts are usually painted, this does not eliminate the general unattractiveness of the exposed fastening devices and it has been my observation in over 20 years devoted for the most part to the concrete stairstep art that while considerable attention has been given to improving the techniques of construction of such items, little attention has been given to improving the appearance of the railing at its anchor points. One such endeavor of recent origin has been the fabrication of a metal cap required to be slidably arranged on a railing post prior to the assembly with other parts such as rails and pickets into a finished railing structure and thereafter moved into place after the posts are anchored. Such type of caps, however, are freely movable until finally fixed and are susceptible to damage in shipment and general handling prior to permanent attachment. In addition, since this type of cap must be mounted to the post prior to the assembly of the railing structure, it can only be used on already erected railings by the disassembly thereof.

With the above observations in mind, the principle object of the present invention is to provide a suitable cover or cap for the anchor components of a railing structure for concrete steps which can be easily and simply fastened in place on a railing structure already attached to the step structure.

Another object herein is to provide a cap or cover of the above class which includes separable complementary components that can be assembled and disassembled without any tools and which can be easily replaced individually or entirely if required.

A further object is to fabricate such caps of a light weight but highly durable plastic material and of a selected color so as to eliminate any need for a protective coating of paint or the like.

Other objects are to provide a cap or cover as characterized which are extremely economical to manufacture and pleasing and decorative in appearance.

The foregoing objects and such further objects as may appear herein, or be hereinafter pointed, together with the advantages of this invention will be more fully discussed and developed in the more detailed description of the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of one of the two like half shell sections used to form the new cap or cover of this invention,

FIG. 2 is a perspective view of the cap section shown in FIG. 1 but reversed in position for mating association with the section shown in FIG. 1,

FIG. 3 is a perspective view of the lower end of a stairstep railing post anchored to a concrete step and showing in an exploded arrangement the shell sections of FIGS. 1 and 2 preparatory to being affixed in place,

FIG. 4 is an elevation view of the shell sections in FIGS. 1 and 2 inverted and in mating relationship to show the construction thereof, and

FIG. 5 is a fragmentary perspective view of a concrete stairstep structure showing a railing assembly mounted thereon and the placement of this new cap or cover device in its normal use.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to the drawings, this new cap is designated generally by the numeral 10 comprises the two like shell members 12 and 14 arranged in a mating relationship as will appear and for which the description thereof may be simplified by reference to the environment in which such cap is used as illustrated in FIGS. 3 and 4 where there is shown a concrete step structure 16 comprising one or more steps 18 and a platform 20 that represents a form of step structure in common use. The railing unit 22 as seen in FIG. 5 comprising top and bottom rails 24 and 26 connected by spaced pickets 28 includes general three spaced legs 30 arranged so that two of such legs may be secured to the respective front and back ends of the platform 20 as shown and the third leg can be attached to the lowermost step 18. No invention is claimed in such railing structure 22 as it is a type used for many years with concrete step structures.

A generally common means of fastening legs 30 to the concrete step 18 and platform 20 is illustrated in FIG. 3 where the bottom end of the leg is shown secured (usually by welding) to a transversely arranged plate 32 forming a T shaped end whereby plate 32 is anchored to the step surface by suitable bolts 34 that will engage an anchoring means embedded in the step (not shown) but one or more well known methods so that at the base of each leg 30, plate 32 and bolts 34 are quite visible and apparent and tend to be a point of distraction in what otherwise is a planned attractive step structure with a decorative attached railing. Cap 10 which is designed to eliminate this undesirable feature is described as follows:

The members 12 and 14 which are identical pieces produced in the same mold are generally complementary elongated half shells or caps having a closed side 36, closed ends 38, a top 40 and being open at the side 42 opposite to 36 defined by the top edge 44. The central portion of top 40 is notched or cut out as at 46 in a shape complementary to that of post 30 which, as shown, is customarily a metal tube and preferably I have sloped the respective end portions of top 40 downwardly as it 48 merely for purposes of providing a pleasing appearance and in this regard, it will be ap-

preciated that the overall design of sections 12 and 14 may be a matter of choice.

The shell sections 12 and 14 as best seen in FIG. 2 include a pair of integral spaced cylindrical sockets or wells 50 at one side of notch 46 and each secured at one end to the inner surface of side 36 so as to extend therefrom closely adjacent the underside of top 40 to terminate at approximately edge 44. At the opposite side of notch 46, a pair of spaced rod like prongs 52 are similarly arranged and extend outwardly from edge 46 a distance approximating one half the width of top 40 although this may, of course, be a matter of choice. Preferably, I have made shells 12 and 14 from a durable plastic material which can be of a selected color as is well known so that it is resistant to damage and scratching although any other suitable material may be used.

With shells 12 and 14 thus made as described, they are placed at opposite sides of post 30 with edges 44 in confronting relationship so that they may be introduced to post 30 (FIG. 3) with notches 46 embraceably accommodating the post and as this occurs, the prongs 52 on each half shell will frictionally enter the sockets 50 on the opposite half shell. Such shells are designed to embrace the perimeter of plate 32 and with shell edges 44 pressed into contact with each other (FIG. 4), an attractive cover or cap is provided for the mounted end of posts 30 as seen in FIG. 5.

It will be appreciated that cap 10 is easily applied to the railing post after it is already anchored and thus such cap may be used not only on newly constructed railings but particularly on those already in use. No disassembly of the post and plate is necessary and no tools are required to put caps 10 in place. In the unlikely event of either or both half shells being damaged, one or both can be easily replaced by reason of their construction and mating relationship and while not necessary, caulking can be applied around the post at the

notched area of cap 10 for a water seal if desired. Accordingly, in view of the foregoing, it is thought a full understanding of the construction and operation of this invention will be had and the advantages of the same will be appreciated.

1. A decorative cap for use in conjunction with a railing of the class used on a concrete step structure and including railing posts having means at one end for a bolt anchor attachment to the step structure, said cap comprising:

A pair of complementary shell members, identical in structure, with the two shell members in a reversed position relationship to form a complete cap, each shell member including a top, opposed ends, a closed side and having an open side,

said top being provided with a notch defining an outline complementary to that of a portion of the railing post whereby in the confronting relationship of said shell members, said open sides are in abutting contact with each other and said post is completely embraced by the perimeter of said notches,

said shell members being provided at one point interiorly with a channel like recess and having a projected prong in spaced relationship to said recess, whereby in the confronting relationship to said shell members the prong on one component is frictionally received in the recess of the other component.

2. A cap as defined in claim 1, wherein the top, closed sides and ends of said shell members completely cover and embrace the bolt anchor attachment means on said railing posts.

3. A cap as defined in claim 1 wherein the said shell members are of a light weight but durable plastic material.

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