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RAILING ASSEMBLY HAVING A REPLACEABLE NEWEL POST CAP

Filed May 18, 1966

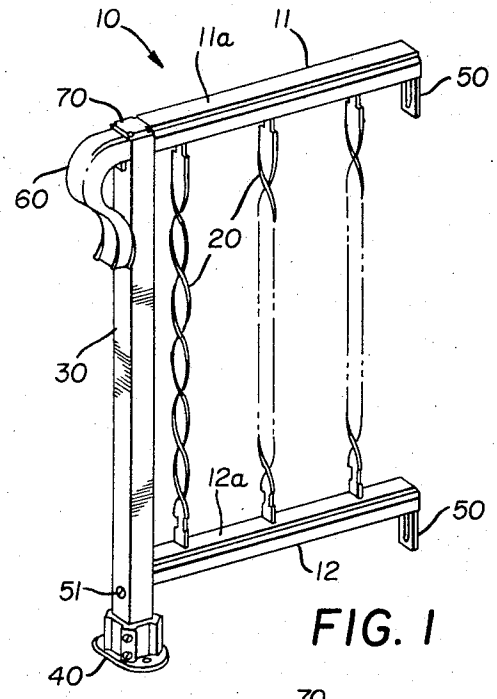


FIG. 1

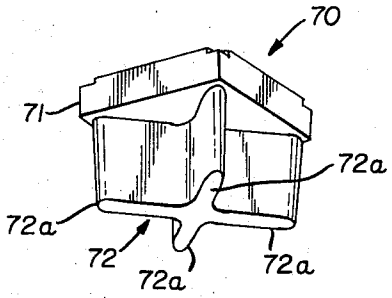


FIG. 3

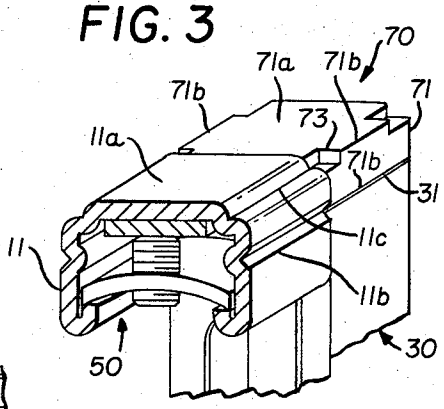


FIG. 4

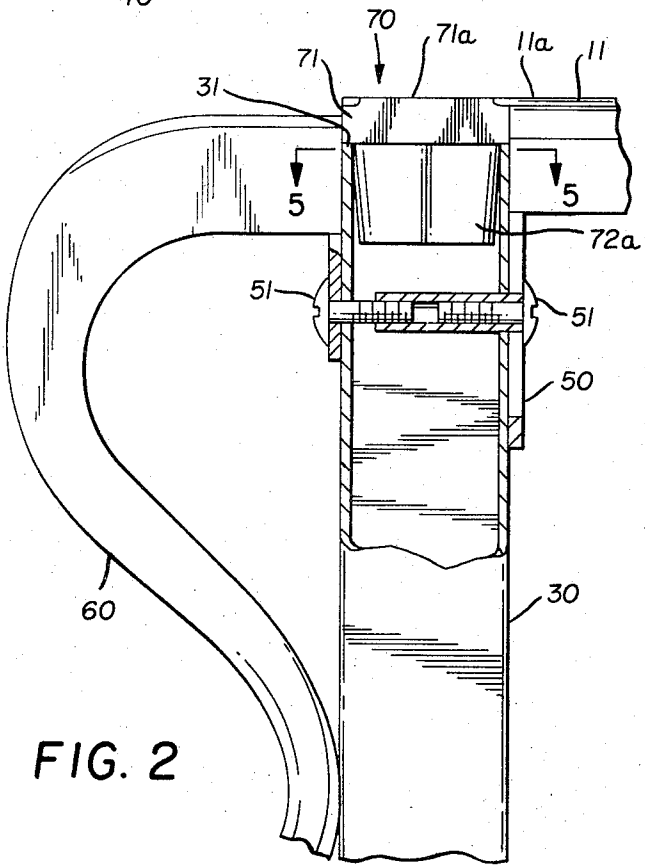


FIG. 2

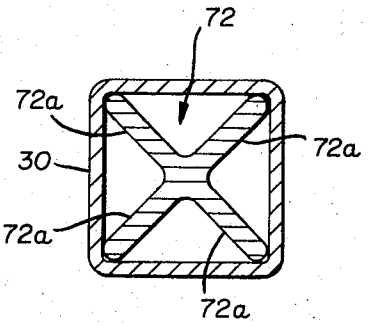


FIG. 5

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RAILING ASSEMBLY HAVING A REPLACEABLE NEWEL POST CAP

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ABSTRACT OF THE DISCLOSURE

A replaceable newel post cap for use in wrought iron railings which include a hollow newel post and at least one projecting railing member extending at right angles from the newel post. The cap characterized by fitting telescopically into the top of the post so that its edges lie in the same plane as the sides of the post and its top lies in the same plane as the top of the projecting rail. The bottom surface of the cap includes diagonal ribs which firmly locate and set the cap in the post.

This invention relates to the art of wrought iron railing assemblies and in particular relates to an improved newel post for use in such assemblies that has a removable top cap.

Wrought iron railing assemblies of the general type above referred to have long been known in the art with an example of such an assembly being shown in applicants' co-pending application Ser. No. 500,466, filed Oct. 11, 1965.

These assemblies are normally sold in disassembled condition and are intended to be put together and installed on a "do-it-yourself" basis. Generally, the assembly consists of elongate top and bottom rails that are interconnected by a series of parallel spindles with the opposed longitudinal ends of the top and bottom rails being, in turn, attached to a pair of upright newel posts or to a newel post and a wall depending upon the particular environment in which the assembly is used.

In applicants' co-pending application, above referred to, the top and bottom rails are shown as being generally U-shaped in cross-sectional configuration and with their ends being secured to the newel posts at a point somewhat below the top of the newel post. Thus, a portion of the post, as well as the contoured top of the post projects above the plane of the top railing.

In the known prior art the top of the newel post generally projected above the top of the top rail for essentially two reasons.

First, the early railing assemblies of this type had caps which telescoped over the top of the post. Obviously if the top of the rail were flush with the top of the post at their point of connection attachment of the cap would have been impossible.

Second, and when wedge type caps were developed, the attachment means generally employed included a bracket interconnecting the post and rail and secured to the post by bolts. Thus, these bolts projected into the post to prevent insertion of the cap into the top of the post unless the post was extended above the top rail.

As a third reason it will also be noted that when wedge type caps were provided that the same were made oversize with respect to the newel post with this oversize arrangement preventing a flush type of connection between rail and newel post.

It has been found, however, that in use of the installed railing assembly the user will often run his hand along the top rail and with the construction shown in applicants' copending application, as well as in the other known prior art, when the hand of the user reaches the end of a railing section it will come into contact with the portion of the newel post that projects above the railing.

In addition to the inconvenience caused by this circumstance, the fact that newel posts project above the top railing presents somewhat less than the desired aesthetic effect of the railing assembly.

Brief summary of invention

It has been discovered that these disadvantages can be obviated and the assembly disclosed in applicants' copending application with its unique means for securing the rails to the post can be improved by providing a hollow newel post and a top cap member with a flat top surface that can be telescopically inserted into the open top end of the newel post.

In this way, the top rail can be secured to the newel post with its top surface lying in a plane above the top of the newel post so that upon insertion of the top cap a substantially co-planar continuous top surface can be obtained. Thus, the top surface of the assembly is substantially smooth and uninterrupted throughout its length thereby producing improved aesthetic and functional characteristics.

It has also been found that by providing a removable top cap for the newel post, that if desired the overall appearance of the railing assembly can be altered by providing ornamentation on the top of the removable top cap and changing the cap as desired. In this fashion the appearance of the assembly can be changed at the will of the user.

Production of a railing assembly having the above described advantages accordingly becomes the principal object of this invention with other objects thereof becoming more apparent upon a reading of the following brief specification considered and interpreted in view of the accompanying drawings.

Of the drawings:

FIGURE 1 is a perspective view of the improved railing assembly partially broken away.

FIGURE 2 is an enlarged side elevation of the improved railing assembly partially broken away and in section.

FIGURE 3 is a perspective view of the replaceable top cap.

FIGURE 4 is a perspective view of the top cap and top rail partially broken away and in section.

FIGURE 5 is a sectional view of the top cap locating means in place on the newel post taken along the lines 5—5 of FIGURE 2.

Referring now to the drawings, and in particular to FIGURE 1, the improved railing assembly generally designated by the numeral **10** includes identical elongate top and bottom rails **11** and **12** that are interconnected by spindles **20, 20** with the ends of the top and bottom rails **11** and **12** carrying attachment means **50, 50** which can be secured to the newel post **30**. The newel post **30** further carries a lambs tongue handle **60** and is received in a floor bracket **40** in a conventional fashion.

Turning next then to FIGURES 1 and 2 for a more detailed description of the top and bottom rails **11** and **12**, it will be noted that the same are of generally U-shaped cross-sectional configuration and have substantially flat top surfaces **11***a* and **12***a*.

Each attachment means **50** generally comprises an L-shaped strap like member having one leg received within and secured to rails **11** and **12** in a manner clearly set forth in applicants' co-pending application Ser. No. 500,466. This attachment structure forms no part of the present invention and will not be described in great detail except to note that the remaining leg of the attachment

means **50** is secured to newel post **30** by means of screws **51, 51** as clearly shown in FIGURE 2.

It is important to note in this regard that as shown in FIGURE 2 the top rail **11** is secured to newel post **30** so that its flat top surface **11***a* lies in a plane above top surface **31** of the newel post **30**. The importance of this positioning of the top rail **11** will be made more apparent below.

Turning next then to FIGURE 3 for a more detailed description of the top cap **70** and newel post **30** it will first be noted that the newel post **30** is shown as being essentially hollow although it should be understood that it is not essential that this be the case so long as an opening is provided adjacent its top end **31**.

The opposed end of newel post **30** is received in floor flange **40** which is in turn secured to the floor or other supporting surface in conventional fashion.

Top cap **70** is telescopically received in the top **31** of newel post **30** and attention is directed to FIGURES 2 to 5 for a more specific description of cap **70**.

Basically, top cap **70** is best shown in FIGURE 3 and includes a top piece **71** and an integral positioning or a locating member **72**. Top piece **71** is shown as generally rectangular in plan although this is not essential since it is contemplated only that the planar configuration of top piece **71** should conform to the cross sectional configuration of newel post **30** for aesthetic purposes. It is essential however, that the top piece **71** have transverse dimensions greater than the interior dimensions of the post **30** so that the same may rest on top end **31** of newel post **30**.

The top surface **71***a* of top piece **71** is substantially flat so as to form a continuous co-planar surface with the top surface **11***a* of top rail **11** when installed as will be subsequently described.

The locating member **72** of top cap **70** depends from the bottom of top piece **71** and is shown in the form of a cross with four legs **72***a*, **72***a*, **72***a*, **72***a* projecting at right angles to each other in the form of a cross and essentially extending from corner to corner of top piece **71** so as to form angles of approximately 45 degrees with the sides of top piece **71**. These legs are of indeterminate length and are slightly offset from the periphery of top piece **71** so that they may be received within newel post **30** as will be described.

While this form of locating means has been found particularly advantageous it should be understood that alternative forms could be employed so long as the transverse dimensions of the locating means **72** are only slightly smaller than the internal dimensions of the newel post **30**.

The particular form of locating means shown is, however, particularly advantageous since the projecting ends of legs **72***a*, **72***a*, **72***a*, **72***a* fit into the four corners of the newel post **30** and thus perform the dual function of aligning top piece **71** and preventing rotation of cap **70** relatively of post **30** as clearly shown in FIGURE 5. Furthermore, although four legs **72***a* are shown it should be noted that two legs extending diagonally across the bottom of top piece **71** could also be used.

In use or operation of the improved device, once the rails **11** and **12** have been secured to the newel post **30**, it is merely necessary to slip the locating means **72** of the cap **70** into the open top end **31** of newel post **30**. Due to the fact that the locating means **72** have transverse dimensions that approximate the internal dimensions of the newel post **30** a relatively snug fit is obtained.

Furthermore, due to the fact that top piece **71** of cap **70** has greater transverse dimensions than the interior dimensions of the newel post **30**, this top piece **71** will rest on the top **31** of the newel post **30**. At this time, due to the fact that the top piece **71** has a thickness which approximates the distance between the planes of the top **11***a* of rail **11** and the top **31** of newel post **30** the flat top surface **71***a* of the cap will be disposed in coplanar relationship with flat top surface **11***a* of top rail **11**.

In this fashion a smooth uninterrupted surface is provided throughout the length of the railing assembly. Thus no obstruction is encountered by the hand of the user and the overall apearance of the assembly is enhanced.

The configuration and dimensions of the cap **70** also provide additional aesthetic advantages. Examination of FIGURE 4 will show that the rail **11** has a slight elongate V-shaped indentation **11***b* in its opposed legs. The dimensions of the top cap **70** are such that when the rail **11** is secured to newel post **30** this slight indentation **11***b* in the rail **11** is co-extensive with the line of abutment between top piece **71** of the cap **70** and the top **31** of the newel post **30**. This has the visual effect of a continuous line to the normal observer thus further enhancing the continuity of appearance between the rail and the cap.

Furthermore, the rail has a slight offset at **11***c* which corresponds to notches **73, 73** formed in the cap. In this fashion again a continuous appearance is presented.

It should also be noted that the points of juncture between the legs of the rail **11** and its top member **11***a* are slightly rounded and it is contemplated that if desired the edges **71***b*, **71***b* of the top cap could also be rounded in the same fashion.

If it is desired to alter the overall apearance of the railing assembly it is possible to provide a cap **70** which instead of the flat top piece **71** has a decorative finial. This of course, would preclude the co-planar relationship between the top of the newel post cap and the top of the rail, but would give great flexibility in altering the overall appearance of the assembly.

It has been shown therefore how, by providing a hollow newel post and a top cap that is adapted to be telescopically received in the top of the newel post, an improved railing assembly with improved functional and aesthetic characteristics can be provided.

It has also been shown how, by modifying the top surface of the replaceable cap, great flexibility in the aesthetic appearance of the assembly can be achieved.

While a full and complete description of the invention has been set forth in accordance with the dictates of the Patent Statutes it is to be understood that this invention is not intended to be limited to the specific embodiments shown. Accordingly, modifications of the invention may be resorted to without departing from the spirit hereof or the scope of the appended claims.

What is claimed is:

1. An ornamental railing section of the character described, comprising;

(A) top and bottom rails
  (1) of generally U-shaped cross-section
  (2) having a substantially smooth top surface;
(B) a plurality of elongate spindles
  (1) arranged in parallel and
  (2) having their opposed ends interconnecting said top and bottom rails;
(C) at least one newel post
  (1) disposed in substantial parallelism with said spindles and
  (2) having an opening in its upper end;
(D) means for securing said top and bottom rails to said newel post with said smooth top surface of said top rail lying in a plane that is slightly above the plane of the top of said newel post; and
(E) a cap
  (1) adapted to be removably received within said opening in the upper end of said newel post and
  (2) having a smooth top surface that is disposed in substantial co-planar relationship with said top surface of said top rail when said cap is received in said opening
  (3) having perpendicular side surfaces that are in substantially co-planar relationship with the outer surfaces of said newel post at the top portion thereof with the lower portion of said cap being telescopically received within said newel post.

2. The device of claim 1 further characterized by the fact that the bottom surface of said cap includes diagonal ribs extending between opposed corners of said top portion of said cap.

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