April 29, 1930. H. FELSENTHAL 1,756,023

FABRICATED NEWEL POST CONSTRUCTION

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Fig. 1.

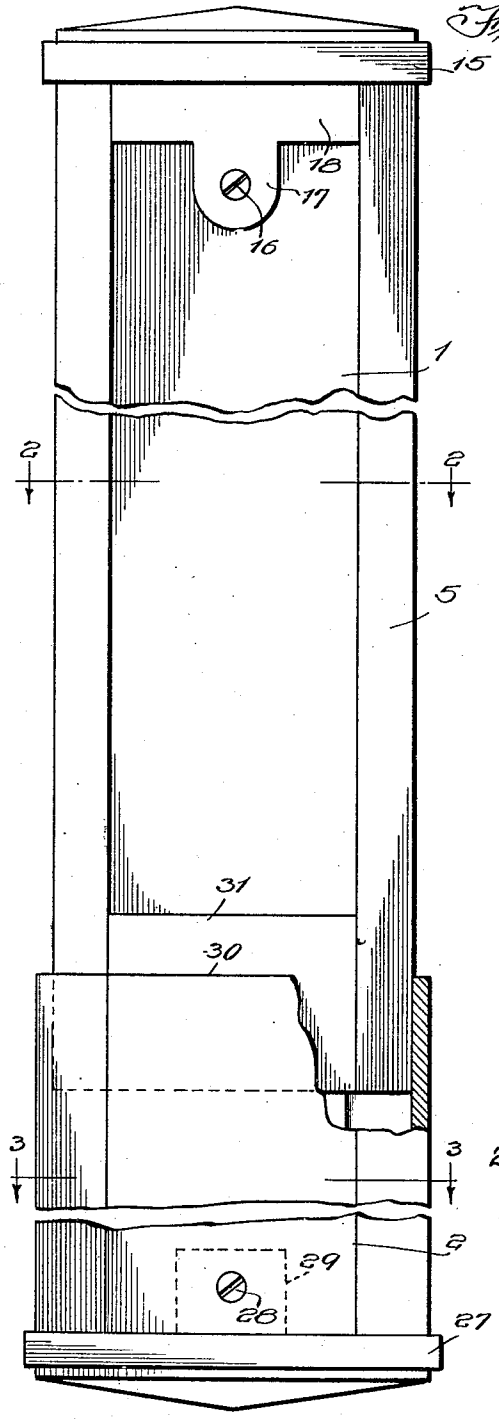


Fig. 2.

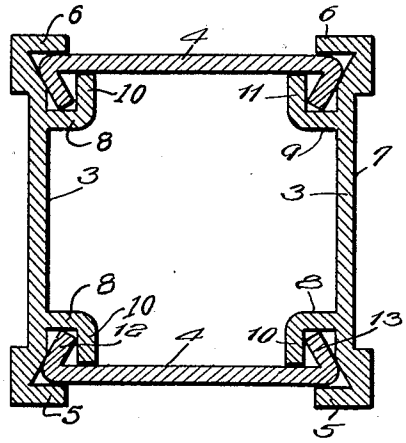
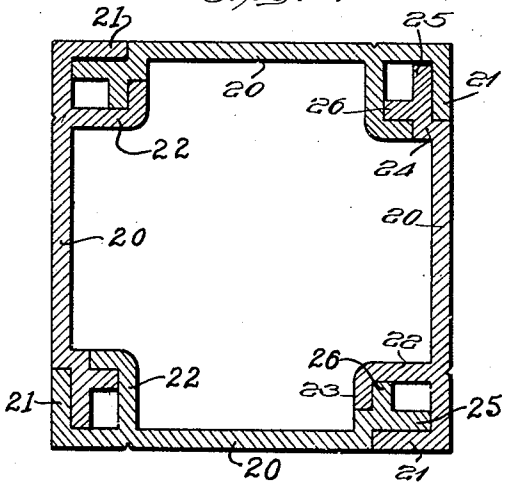


Fig. 3.



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Fig. 4.

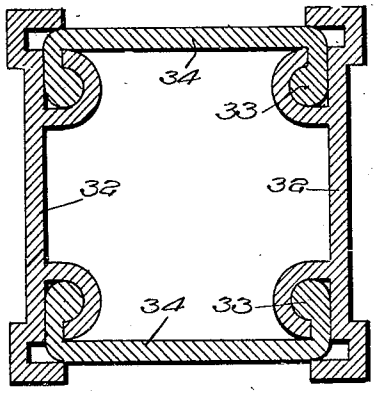


Fig. 5.

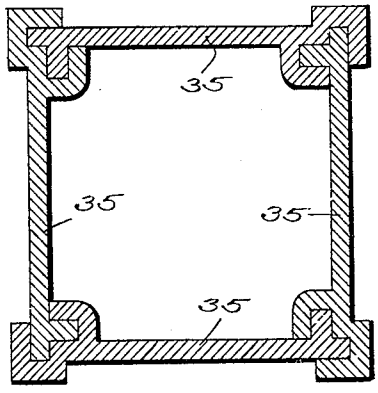


Fig. 6.

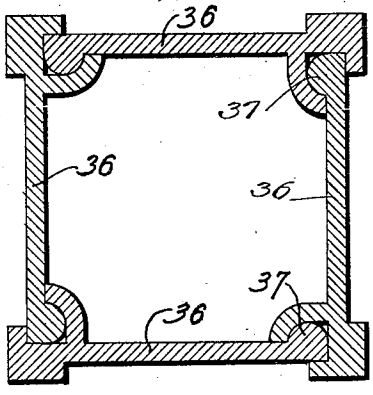


Fig. 7.

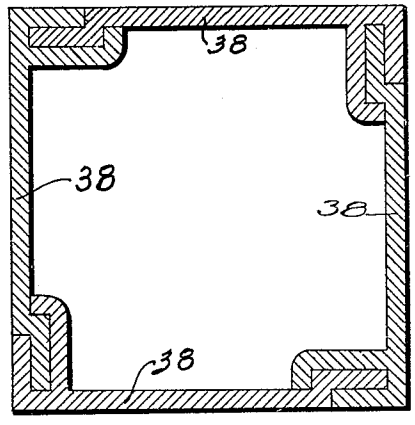
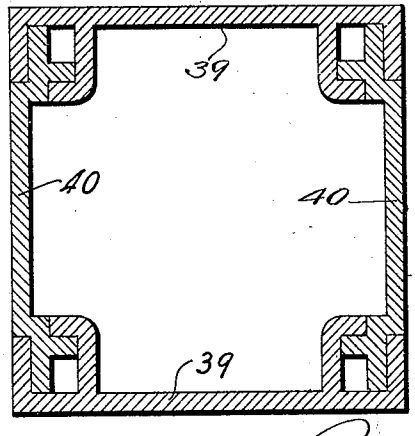


Fig. 8.



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UNITED STATES PATENT OFFICE

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FABRICATED NEWEL-POST CONSTRUCTION

Application filed December 2, 1927. Serial No. 237,312.

This invention relates to an improved construction of hollow steel tubing particularly adapted for use in newel posts.

The main objects of this invention are to provide an improved form of newel post that can be made up of a plurality of substantially flat rolled steel plates interlocked to form a unitary square hollow structure; to provide a newel post which is not subject to the objection of being brittle and easily breakable; to provide a newel post which can be assembled from a series of standardized plates of indeterminate length; to provide a square cornered fabricated newel post having the seams all removed from the corners; and to provide such a newel post which has a smoother surface and a more finished appearance than has heretofore been obtainable from cast iron structures used for similar purposes.

An illustrative embodiment of this invention is shown in the accompanying drawings in which:—

Figure 1 is an elevation of the improved form of newel post showing the completed device with cap and drop assembled thereon, the upper part of the post being of sunken panel construction and the lower end of the post being of smooth surfaced construction.

Fig. 2 is a section taken on the line 2—2 of Figure 1.

Fig. 3 is a section taken on the line 3—3 of Fig. 1.

Figs. 4, 5 and 6 are modifications of the sunken panel construction.

Figs. 7 and 8 are modifications of the smooth surfaced constructions.

Heretofore in the manufacture of newel posts it has been customary to make them from cast iron. This method of manufacture necessitated the provision of patterns for each different length and size of newel post, making of a core for each of the castings, and considerable work was necessitated in finishing the cast product such as cutting off the gates, trimming up the casting and then either filing or grinding the ends of the posts to a square surface perpendicular to the axis thereof so that the cap and drop might be snugly fitted thereon. Also, in using cast iron newel posts it was necessary that all holes for screws and bolts be drilled therethrough as they are not susceptible of having the holes punched.

Cast iron newel posts are also objectionable in that they are brittle and therefore easily shattered.

In the present invention the newel posts are fabricated from substantially flat rolled steel plates of a considerably longer length than those needed for the usual length of post. By reason of the shape of the plates they may be snugly packed and kept in stock and newel posts are fabricated from them of whatever length is needed for a particular job. Being of rolled steel instead of cast iron, they are not brittle and likely to shatter and the necessary holes for securing the posts to stringers and for putting on caps and drops may be punched in the steel instead of drilled as is necessary in cast iron.

Fabricated structures of this nature which have seams at the corners are objectionable both from the standpoint of appearance and from a utilitarian standpoint. For these improved newel posts, flanges are provided along the lateral edge so that they overlap the next succeeding plate, thus securing a closed corner on the post and placing the seam at a distance removed from the corner.

In the construction shown in the drawings, the preferred form of complete and assembled newel post has a paneled upper section 1 and a lower smooth-sided section 2 as shown in Figure 1 of the drawings. The upper section is formed from a plurality of substantially flat rolled steel plates 3 and 4. The plate 3 has flanges 5 and 6 along its respective lateral edges, bent up at substantially right angles to the remainder of the plate and the outer face of the plate is depressed as shown at 7, a distance substantially equal to the thickness of the body of the plate, to form a sunken panel.

The inner surfaces of the plates 3 have upstanding flanges 8 and 9, adjacent to flanges 5 and 6 respectively, but spaced inwardly therefrom and the upper ends thereof are bent outwardly as shown at 10 and 11 respec-

tively toward the flanges 5 and 6 to form a substantially closed channelway.

The plates 4 have their lateral edges bent upwardly and inwardly forming flanges 12 and 13 which are adapted to be embraced within the closed channelways formed by the flanges and plates 3 and adapted to be assembled therein by sliding the plates endwise relatively to each other. The outer surface of the plates 4 is substantially flat and when in assembled relationship with the plates 3 is spaced inwardly a distance equal to the thickness of the upstanding flanges 5 and 6, thereby forming paneled sides similar to the sunken panel 7 of the plates 3 as shown particularly in Fig. 2 of the drawings.

When the plates are assembled to form a rectangular hollow, unitary structure, a cap 15 is secured in abutting relationship against the ends of the plates by means of a screw 16, passing through a depending ear 17 of a panel plate 18 which is formed on the cap 15.

The lower portion of the newel post is similarly fabricated from a plurality of rolled steel plates 20, each of which is identical in construction and the outer surface of which, when assembled, is smooth as distinguished from the panel construction of the upper portion 1. One of the lateral edges of the plates 20 has a flange 21 bent at substantially right angles to the remainder of the plate and the inner surface of the plate has an upstanding flange 22 adjacent to flange 21, in spaced relation thereto. The upper edge 23 of the flange 22 is bent at substantially right angles at the remainder of the flange and outwardly toward the flange 21, thus forming a substantially closed rectangular-shaped channelway. The opposite lateral edge of each of the plates 20 is offset inwardly as at 24, a distance substantially equal to the thickness of the flange 21 and the offset portion 25 has a short upstanding flange or rib 26 formed thereon at substantially right angles to the offset portion 25, thus forming a head which is adapted to fit snugly in the channelway of the next succeeding plate 20.

These plates are assembled in a substantially square, unitary, hollow structure in the same manner as the plates 3 and 4, forming the upper portion 1 of the newel post by sliding them endwise relatively to each other, the flanges 25 and 26 forming a head which is adapted to be embraced within the channelway of the next succeeding plate. The lower end of the post is closed by a drop 27, snugly secured in abutting relationship against the ends of the plates and held thereon by a screw 28 which passes through the plate 21 and into an upstanding lug 29, formed on the drop 27.

The inside dimensions of the lower portion 2 are substantially the same as the outside dimensions of the upper portion 1 of the newel post and the two sections are secured together by cutting away the interior projecting flanges of the portion 2 for a short distance adjacent the upper end thereof and slipping the same over the lower end of the upper portion 1. The two portions are held in this telescopic relationship by welding along the line 30 at the upper end of the lower portion 2. A thin plate 31 is placed in the depressed panel portion 7 before welding and is welded in place as shown in Fig. 1 of the drawings, so as to give a finished appearance to the lower end of the panel construction.

Referring to Fig. 4 of the drawings, a modification is shown very similar to the construction shown in Fig. 2, the post being fabricated from two different types of plates. A plate 32 of sunken panel construction is provided at each lateral edge with upstanding flanges and longitudinally extending channelways for receiving the beaded ends 32 of plates 34 which are of identical construction.

In Fig. 5 of the drawings, the post is fabricated from a plurality of plates 35 each of identical construction, one lateral edge of one plate being embraced in the channelway of the next succeeding plate.

The construction shown in Fig. 6 of the drawings is similar to that of Fig. 5, whereas each of the plates 36 is of identical construction, one lateral edge however being provided with a beaded portion 37 instead of angularly disposed flanges as in the construction shown in Fig. 5.

In the modification shown in Fig. 7 of the drawings, the exterior surface of the assembled newel post is substantially flat as in the lower portion of the construction shown in Fig. 1, the plates 38 however, being all of identical construction.

The modification shown in Fig. 8 of the drawings is also of flat exterior construction and is fabricated from two different styles of plates 39 and 40. The interlocking arrangement of all of these modifications is practically the same. Many combinations of these modifications can be, of course, utilized in making different portions of a newel post.

In the use of this newel post, the rolled steel plates are kept in stock in indeterminate lengths and when an order is received for a certain length of newel post, plates are cut the required length and then assembled into a hollow unitary structure by slipping them into interlocking relationship by sliding the head edge of the plates endwise into the channelways of the other plates. Posts may be made all of the same type of plates; that is all paneled or all plain surfaced, as desired, or any combination of the two as shown in Fig. 1 of the drawings in which case the two sections are telescoped and then welded or otherwise suitably secured together. Holes for fastening the newels to stringers may be

punched in the plates before assembling by the use of a proper templet and also holes for receiving the screws for securing the cap and drop on the ends of the post where these elements are required.

Although several specific embodiments of this invention have been herein shown and described, it will be understood that details of the construction shown may be altered or omitted without departing from the spirit of this invention as defined by the following claims:

I claim:

1. In a newel post, a pair of spaced side members, comprising metal plates, side flanges on the inner surfaces of the plates, a flange on each lateral extremity of the side members forming interior channel-ways in conjunction with adjacent side flanges, and a pair of side plates having flanged side extremities engaged in said channel-ways, the last-mentioned pair of plates being clamped intermediate their lateral extremities between the edges of the lateral flanges and the sides of the end flanges of the first-mentioned pair of side members.

2. In a newel post of the class described, a pair of side members, comprising metal plates, a pair of side flanges on the inner surface of the plates, intermediate the lateral edges thereof, outwardly offset portions on the lateral edge portions of the plates forming depressed panels, a flange on the outer extremity of each offset portion forming a constricted channel-way between the same and each adjacent side flange, and a pair of side members engaged at their lateral edges in the channel-ways and extending between the first mentioned side members, the outer flange of the first mentioned pair of side members being extended in advance of the surfaces of the second mentioned pair, substantially as far as the offset portions of the first mentioned side members project beyond their surfaces for providing a symmetrical arrangement of panels.

3. In a newel post of the class described, a pair of side members comprising metal plates arranged in spaced relation with their inner surfaces positioned towards each other, side flanges on the inner surfaces of said plates, a second pair of side members having flanged lateral extremities positioned between the first mentioned side members, and inwardly disposed lateral edge portions on the extremities of the first mentioned side members extending outwardly over the outer surface of the second mentioned side members and forming channel-ways in conjunction with said side flanges for receiving the edge portions of the second mentioned side members.

4. In a newel post of the class described, a pair of side members comprising sheet metal and having outwardly offset lateral edge portions, longitudinally extending side flanges on the inner surfaces of the side members intermediate the lateral extremities thereof comprising an outwardly directed section, inclined surfaces on the inner sides of the offset portions, a pair of side members extending between the first mentioned side members, each comprising inclined lateral edged sections engaged against the inclined surfaces, and flanges on the lateral extremities of the first mentioned side members overlapping the second mentioned side members.

Signed at Chicago this 29th day of November 1927.

HAROLD FELSENTHAL.