To whom it may concern:

Be it known that I, Eugene Berninghaus, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Methods of Enameling, of which the following is a specification.

My invention relates to improved methods of enameling applicable to the enamel coating of the structural parts of surgical, dental and barber chairs and other similar articles. One of its objects is to provide an improved method of producing improved fused enamel coated structures in which the enamel is applied as an annular coating. Another object comprises a method of applying annular coatings of fused enamel to structures and also at the same time applying heat to the structures through a dipping operation, all of which will be fully set forth in the description of the accompanying drawings in which:

Fig. 1 is a side elevation of a chair base embodying my improvements.

Fig. 2 is a central vertical section through the base Fig. 1.

Fig. 3 is an end view of the sheet metal base section detached.

Fig. 4 is a diagram illustrating the method of applying a fused enamel coating to the sheet metal base section by a dipping operation.

The accompanying drawings illustrate the preferred embodiment of my invention, in which 6 represents a base section formed from sheet metal, preferably from a sheet or strip of sheet metal by a rolling or similar operation, to form a tubular shaped member with its upper edge 7 turned inwardly and its lower edge 8 turned inwardly, the ends of said sheet being then united at 9 by means of a welding operation to form a seamless tubular member. The main or middle portion of said section 6 is preferably tapered with the larger end downwardly.

A base section 10 may be formed from sheet metal substantially as described for the section 6, or may be of cast metal, the two sections being united by bolts at 11. The upper flange 7 of the section 6 serves as a support for the flange 12 of a hydraulic cylinder 14 in which is to be seated a hydraulic plunger to support a chair seat, arms, back, foot-rest, and other adjustable parts of the chair. The lower flange 8 of section 6 is preferably employed to support the lower end of the cylinder 14 laterally.

By employing sheet metal base sections, particularly the section 6, members of light weight having the same relative strength are attainable, also the sections are more readily cleaned to receive an external finish coating of fused enamel to enable them to be readily kept clean and aseptic. The sections 6 are of relatively thin material as compared with castings, are of uniform thickness and with surfaces suited to receive an enamel coating by a dipping process, as distinguished from a non-dipping or flowing operation necessarily employed with larger sized castings. The inwardly turned ends of the section 6 also provide for the smooth and regular application of an annular band of enamel by a dipping operation in which said sections after being rotatably mounted relative to the enamel container 17 in which is maintained a fused bath of enamel, by means of an axle 16, and with the upper surface of the fused enamel reaching nearly to the inner edges respectively of the turned sections 7 and 8, as indicated in Fig. 4, are rotated with their peripheries in contact with the bath so as to easily quickly and smoothly lay an annular coating of enamel upon the sections 6 without liability of leaving any enamel defects or sharp points upon the exterior or visible portions of sections 6. Those regions on the sections 7 and 8 where the enamel coating terminates, and where defects in the enamel coating are more liable to occur, are not exposed to view.

My improved base structure is light, strong, durable, and economical of production, and capable of being kept clean and aseptic. The structure herein specified is capable of considerable modification without departing from the principle of my invention.

Having described my invention, what I claim is:

1. The method of producing annular sheet metal enameled articles which comprises applying heat and an annular coating of fused enamel to an annular sheet metal article of channel shaped cross-section by rotating said article with a portion of its channel shaped periphery dipping in a bath of fused enamel.

2. The method of producing enameled
chair sections which comprises applying an annular coating of fused enamel to the exterior of an annular sheet metal chair section having inwardly turned opposite edges by rotating said section with its exterior surface including portions of said inwardly turned edges in contact with a bath of fused enamel.

3. The method of producing annular sheet metal enameled articles, which comprises applying an annular coating of fused enamel to an annular sheet metal article of channel shaped cross-section by rotating said article with a portion of its channel shaped periphery dipping in a bath of fused enamel.

In testimony whereof I have affixed my signature in the presence of two witnesses.

EUGENE BERNINGHAUS.

Witnesses:

C. W. MILES,
W. THORNTON BOGERT.