

UNITED STATES PATENT OFFICE

2,118,957

ARTICLE SUPPORTING APPARATUS

Arthur M. Wagner, Riverside, Ill., assignor to
Western Electric Company, Incorporated, New
York, N. Y., a corporation of New York

Application June 27, 1936, Serial No. 87,671

1 Claim. (Cl. 204—5)

This invention relates to article supporting apparatus, and more particularly to plating racks for holding articles during the electro-plating thereof.

5 An object of this invention is to provide an apparatus for supporting a plurality of articles under tension.

10 In accordance with one embodiment of the invention a plurality of helical springs are mounted at one end of a rectangular rack, and each spring has a rod associated therewith to which one of a series of articles to be plated may be connected, bent wires serving to hold the remainder of each series of articles together and to the other end of the plating rack whereby the spring will hold all of the series of articles associated therewith under tension to insure a good electrical contact between the articles and frame during the electro-deposition of a plating on the articles.

A better understanding of the invention may be had from a consideration of the following detailed description when considered in conjunction with the accompanying drawing, wherein

Fig. 1 is a front elevational view of a plating rack embodying the invention, and

Fig. 2 is a sectional view taken on the lines 2—2 of Fig. 1 in the direction of the arrows.

35 Referring now to the drawing wherein like reference characters designate like parts throughout the several views, the numeral 11 indicates generally a rectangular framework composed of uprights 12 and 13 and cross members 14 and 15. The upper ends of the uprights 12 and 13 are bent as shown at 16 and 17 to form hangers by means of which the rack may be supported in a plating tank. Welded to the uprights 12 and 13 is a semi-circular handle 18 adapted for use when the plating rack is handled.

40 Supported on the cross member 15 is a spring supporting framework designated generally by the numeral 19 which may be easily placed on the rack or removed therefrom and which comprises a bracket 20, L-shaped in cross section, a spacer 21 and a retaining plate 22. The spacer 21 is substantially of the same thickness as the cross member 15, and when the spring supporting bracket 19 is in place upon the rectangular framework the spacer 21 will rest upon the cross member 15, and the bracket 20 and retaining plate 22 will engage the left and right faces of the cross member 15, respectively, (Fig. 2). Suitably secured to the spring supporting framework 19 is a guide bar 23 which, when the spring supporting framework is in place upon the rack 11

will engage left and right surfaces (Fig. 2) of the handle at its highest point between adjacent portions of the guide bar 23 which is bent over as shown at 24 to provide a substantially inverted U-shaped hook, thereby preventing the framework 19 from tilting on the cross member.

5 A plurality of spring guides 25, in the form of vertically extending rods are mounted upon the bracket 20, and serve to position coil springs 26 which rest upon the bracket 20, and surround the spring guide rods 25. A plurality of rods 27 are bent, as shown at 28, to surround the spring guide rods and engage the tops of the coil springs 26. The lower ends of these rods are passed through apertures in the bracket 20 and are bent over as shown at 29 at their lower extremity to engage in holes in articles to be plated. The articles to be plated may be strung together by means of bent wires or rods 30, and the bottom article of the series may be connected to the cross member 14 by a rod or wire 31.

20 As will be apparent, the articles strung together by means of the wires 30 and secured to the cross member 14 by means of the wires 31 having the upper one of each series thereof attached to the rod 27, will be held resiliently under spring pressure on the rack. In this manner the articles to be plated are supported upon the rack and a good electrical connection between the parts and the framework is assured, thereby materially aiding in the electro-plating of the articles.

35 It will be noted that the springs 26 are positioned some distance above the articles so that when the articles are plated the springs will not come in contact with the plating solution and will therefore be prevented from losing their tension by successive accumulations of electrodeposited metal and/or by the hydrogen embrittlement normally associated with electro-plating.

40 Although a specific type of article has been illustrated and a specific type of structure has been shown for supporting the articles, it will be understood that articles of any shape having apertures therein or other means, whereby the rods 29 may be attached thereto and which are capable of being strung on a rack, might be held on the disclosed type of rack. Furthermore, minor modifications might be made in the structure of the rack without departing from the scope of the appended claim.

What is claimed is:

45 An article supporting apparatus comprising a framework, a cross member on said framework, a handle extending from said framework, a spring 55

supporting bracket removably positioned on said cross member, a U-shaped member carried by said bracket for engaging said handle to position said bracket on the framework, a second cross member on said framework, a plurality of springs mounted on said bracket, and a rod individual

to each spring and normally urged away from said cross members by its associated spring for supporting a plurality of interconnected articles under tension between said cross members.

ARTHUR M. WAGNER.