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1,588,513

C. G. BACKUS
METHOD OF MAKING ANODES

Filed June 6, 1925

Fig. 1.

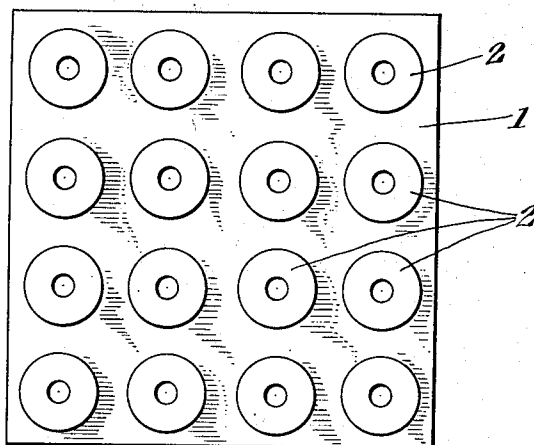


Fig. 2.

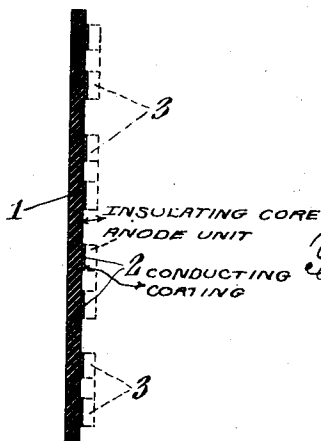


Fig. 4.

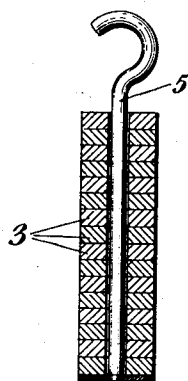
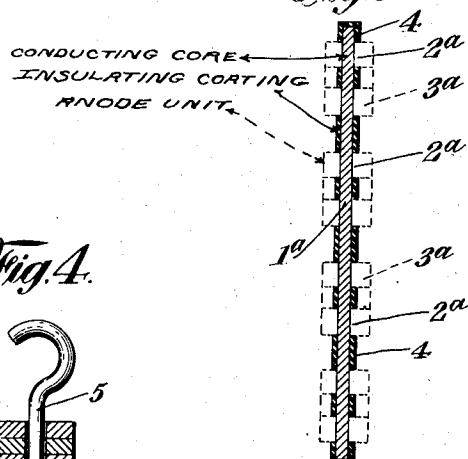


Fig. 3.



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METHOD OF MAKING ANODES.

Application filed June 8, 1925. Serial No. 35,364.

The primary object of the invention is to provide a method whereby specially shaped anodes of electrolytically deposited metal may be obtained without necessitating expensive operations, such as rolling, casting, etc.

The invention has particular application to anodes of purer metal, such as have heretofore been made by casting or rolling electrolytically deposited metal into the desired shape. According to the present invention I lay out, so to speak, upon a suitable core, a convenient number of conducting areas, corresponding in shape to the section of anode desired, and deposit metal electrolytically upon such areas to build up anode units which may then be removed from the core and assembled into anode form.

The description hereinafter contained, taken in connection with the accompanying drawings, discloses certain procedure whereby the objects of the invention may be attained but such disclosure should be considered merely as illustrative of its principles. In the drawings—

Fig. 1 is a face view of a rectangular core having certain conducting areas laid out thereupon in accordance with the invention.

Fig. 2 is an edge view of such a core showing certain anode units electrolytically deposited thereon.

Fig. 3 is a view similar to Fig. 2 but illustrates a modified form of core.

Fig. 4 is a longitudinal sectional view of one shape of completed anode constructed in accordance with the invention.

As shown in Fig. 1, I lay out upon a core 1 any suitable number of conducting areas 2 of a shape corresponding to the section of anode desired; for example, if it is desired to produce anode units of what is known as the "quoit" type, these areas 2 will be of a shape illustrated in Fig. 1 and it will be understood that such shape could be modified to conform to the other types of anodes desired to be produced.

The core 1 may be of insulating material in which case the conducting areas 2 will be formed by spreading a conducting substance, such as plumbago or other suitable conducting medium upon the surface of the core, usually after the latter has first been coated with some inert substance, such as paraffin or other insulating material to

which the plumbago or other conducting medium will adhere.

The conducting areas 2 may be provided on one or both sides of the core as desired, and the latter will then be connected at the cathode in an electrolytic bath containing the metal of which the anode is to be formed, thus building up upon the members 2 anode units 3 indicated in dotted lines in Fig. 2 which correspond approximately in cross section to the shape of the conducting areas 2. After the anode units 3 have been built up to the desired thickness, they may be stripped off of the core and mounted upon a suitable anode support, such as the spine 5 illustrated in Fig. 4.

Or, if desired, as illustrated in Fig. 3, a metallic core 1^a may be employed and coated with a layer 4 of inert material, such as paraffin, except at the conducting areas 2^a. Thus when the core 1^a is connected at the cathode of an electrolytic bath anode units 3^a will be deposited thereon in a similar manner. The core 1^a may be cut up to separate out the anode units 3^a which have been superimposed thereupon.

The anode units made as above described will have the purity of electrolytically deposited metal and does not necessitate the use of casting or rolling operations, such as have heretofore made a purer metal anode expensive.

It will be understood that the invention is applicable to copper, nickel and other metals usually employed in electroplating processes.

I claim:

1. The method of making specially shaped anodes of electrolytically deposited metal, which comprises laying out upon a core, conducting areas corresponding in shape to the section of anode desired, subjecting such core to electrolytic treatment to deposit metal upon such conducting areas, removing the built up metal anode units from the core and mounting them upon an anode support.

2. The method of making specially shaped anodes of electrolytically deposited metal, which comprises laying out upon a conducting core, conducting areas corresponding in shape to the section of anode desired, subjecting such core to electrolytic treatment to deposit metal upon such conducting areas,

detaching the built up metal anode units from the remainder of the core and mounting them upon an anode support.

3. The method of making annular shaped
5 anodes of electrolytically deposited metal which comprises laying out upon a core, annular conducting areas, subjecting such core to electrolytic treatment to deposit

metal upon such conducting areas and leave a hole through the units thereby built up, 10 and removing such units from the core.

In testimony that I claim the foregoing, I have hereunto set my hand this 23rd day of May, 1925.

CLARENCE G. BACKUS.