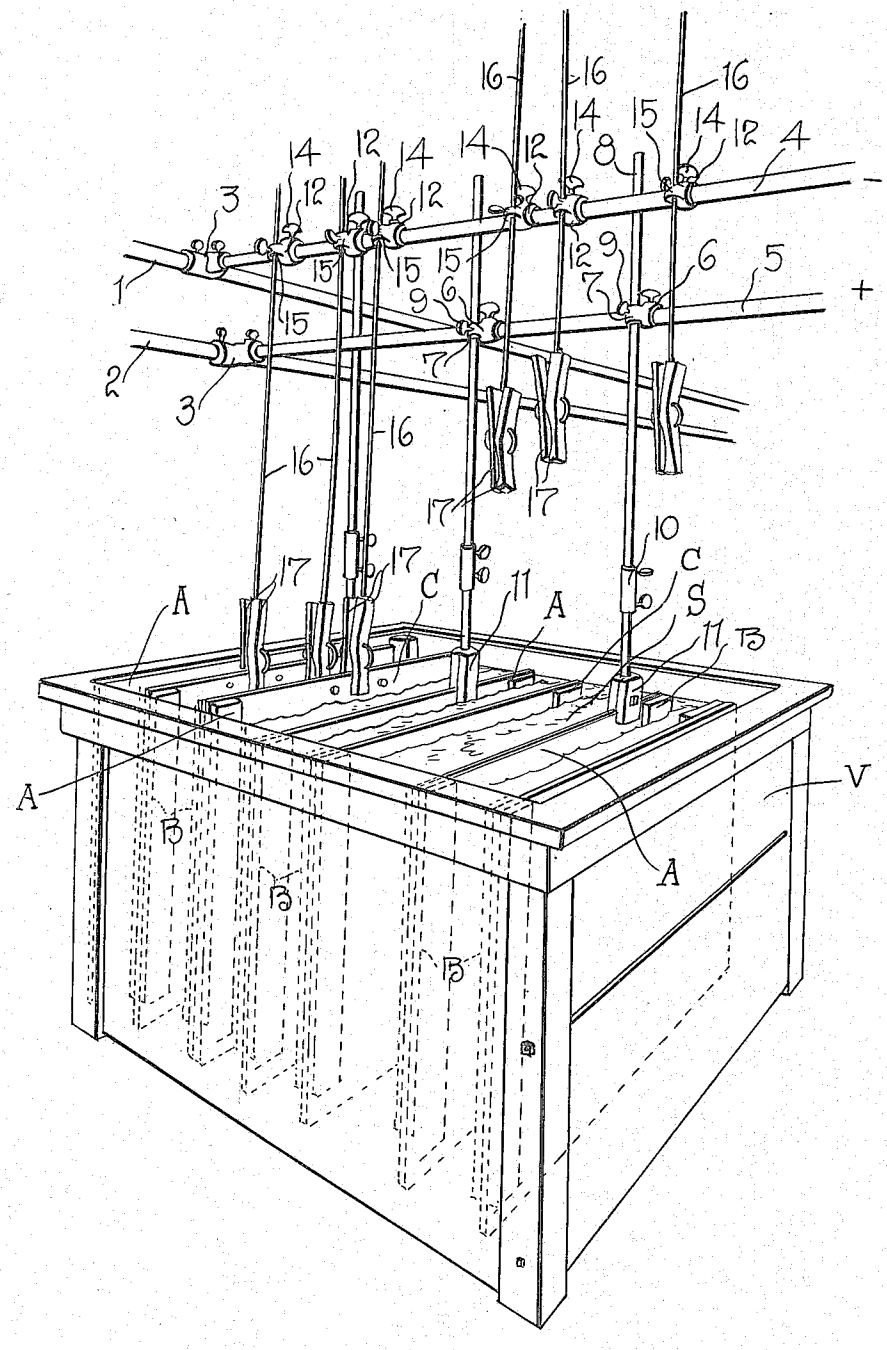
C. N. SMITH.

ELECTROPLATING APPARATUS.

APPLICATION FILED JULY 20, 1914.

1,129,241.

Patented Feb. 23, 1915.



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UNITED STATES PATENT OFFICE.

CHRIS N. SMITH, OF ELGIN, ILLINOIS, ASSIGNOR OF ONE-HALF TO DAVID C. COOK PUBLISHING COMPANY, OF ELGIN, ILLINOIS, A CORPORATION OF ILLINOIS.

ELECTROPLATING APPARATUS.

1,129,241. Specification of Letters Patent. Patented Feb. 23, 1915.

Application filed July 20, 1914. Serial No. 852,005.

To all whom it may concern:

Be it known that I, CHRIS N. SMITH, a citizen of the United States, residing at Elgin, in the county of Kane and State of Illinois, have invented certain new and useful Improvements in Electroplating Apparatus, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to certain improvements in electro-plating apparatus, and the object of the invention is to provide a device of this general character wherein the anodes and cathodes may be applied within or removed from the vat with convenience and facility and whereby the same may be manipulated in a manner to reduce to a minimum the possibility of foreign substances being collected within the vat whereby such vat is maintained clean.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved electro-plating apparatus, whereby certain important advantages are attained and the device is rendered simpler, less expensive and otherwise more convenient and advantageous for use, all as will be hereinafter more fully set forth.

The novel features of the invention will be carefully defined in the appended claim.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawings, wherein is illustrated a fragmentary view in perspective of a plating apparatus constructed in accordance with an embodiment of my invention.

As disclosed in the accompanying drawings, V denotes a vat of predetermined configuration and dimensions adapted to contain the plating solution S, and the interior walls of the vat V are provided with the blocks B serving to maintain the anodes A and the cathodes C in applied position within the vat V. The foregoing elements in their details form no particular part of my present invention and it is therefore thought that a further description and disclosure thereof in the accompanying drawings is unnecessary.

Positioned above the vat V and preferably to one side thereof, are the bus bars 1 and 2 having adjustably connected thereto, as at 3, respectively, the supplemental bus bars 4 and 5 adapted to be disposed above the vat V. The bars 1 and 2 are adapted to be suitably connected with a proper source of electrical energy, the bar 1 constituting the negative pole, while the bar 2 constitutes the positive pole.

Adjustably connected with the supplemental bar 5 are the sleeves 6 in electrical contact with such bar 5, and each of such sleeves 6 is provided with a tubular extension 7 through which is disposed the vertically arranged metallic rod 8 maintained in operative position through the medium of the clamping screw 9, and adjustably engaged, as indicated at 10, with the lower extremity of such rod 8 is the clamp 11 adapted to be engaged with an anode A.

The supplemental bar 4 has adjustably mounted thereon and in electrical contact therewith, the sleeves 12 maintained in their requisite adjusted position through the medium of the clamping screw 14, and each of such sleeves is provided with the tubular extension 15 through which is adjustably directed a vertical metallic rod 16 provided at its lower extremity with the spring clamping jaws 17 adapted to engage a cathode C.

In view of the foregoing arrangement of the rods 8 and 16, it will be observed that the anodes and cathodes can be positioned with facility and convenience at any predetermined point within the vat V and that the same, especially the cathodes, can be raised and lowered with the best advantage. It is also to be observed that by this arrangement, the vat V is substantially destitute of accessories or adjuncts whereby unhampered flow of current through S is afforded. It will also be observed that with the foregoing arrangement, the anodes and cathodes can be manipulated with greater convenience and facility, as there is but one point of contact with each of the same to consider.

From the foregoing description, it is thought to be obvious that an electroplating apparatus constructed in accordance with my invention is of an extremely simple and comparatively inexpensive nature and is particularly well adapted for use by reason of the convenience and facility with which it may be assembled, and it will also be obvious that my invention is susceptible of some change and modification without

material departure from the principles and spirit thereof and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice.

I claim:

In combination with a vat, bus bars positioned relatively thereto and adapted to be electrically connected with the opposite poles, sleeves longitudinally adjustable on each of the bars, rods operatively engaged by the sleeves and capable of vertical adjustment relative thereto, and a clamping member carried by the lower extremity of each of the bars, the clamping members carried by certain of the rods being capable of independent adjustment relative thereto.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

CHRIS N. SMITH.

Witnesses:
ERIC J. HILL,
E. E. STEWART.