Jan. 10, 1928. 1,655,781

G. CARACCIO

APPARATUS FOR ELECTROPLATING

Filed Aug. 3, 1926

Fig. 1

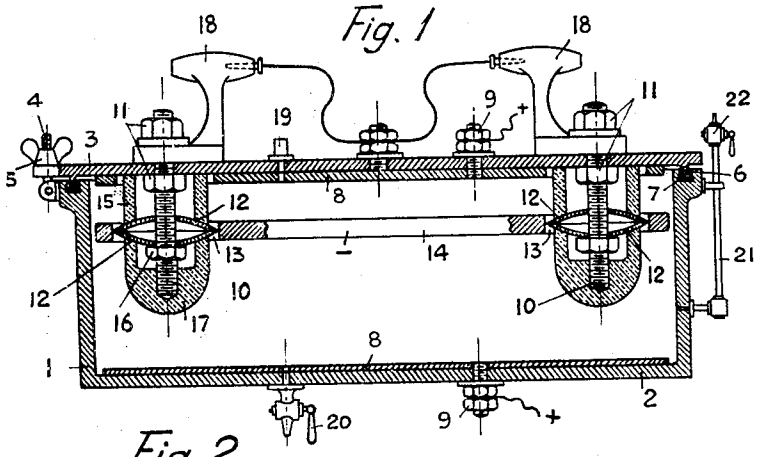
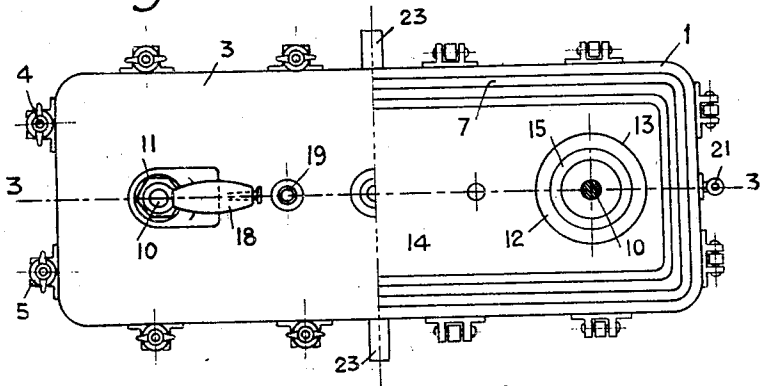


Fig. 2



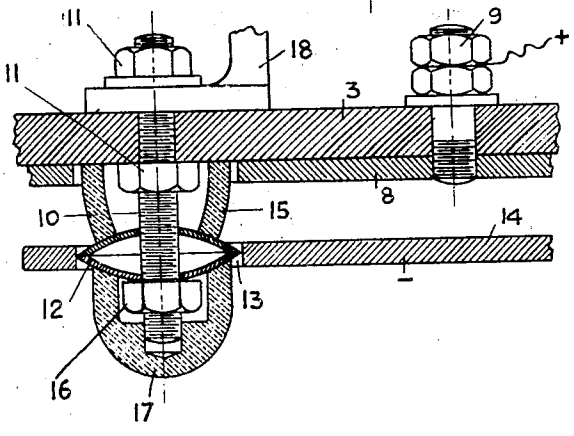


Fig. 3

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UNITED STATES PATENT OFFICE.

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APPARATUS FOR ELECTROPLATING.

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The invention refers to an electrolytic cell for electro-plating on the cover of which are provided fastening means for the cathode.

According to the present invention these fastening means consist in screws of conducting material which penetrate circular holes of the cathode and carry clamps which can be adjusted axially and radially with respect to the axis of the screws, so as to enable the clamps to be pressed against the walls of the hole of the cathode, whereby the cathode is connected with the screw.

This arrangement presents the advantage of a very simple and safe fastening of the object or cathode which has to be subjected to the electroplating. In addition, the distance of the cathode from the anodes can be regulated exactly in the simplest manner.

The accompanying drawings show examples of constructions of the device according to the invention:—

Figure 1 is a vertical sectional middle view of the apparatus;

Figure 2 is a top view of Figure 1 and in the right half with the cover taken off;

Figure 3 is a partial sectional view according to line 3—3 of Figure 2.

In these figures 1 is a rectangular receptacle of non-conductive material, which cannot be attacked by the bath adopted for electroplating. 2 is the bottom thereof, 3 the cover, 4 are threaded bolts supplied with winged nuts for fastening the cover on the receptacle. 6 is a strip of material which extends along the edge of the cover and which engages a corresponding groove 7 of the receptacle, which is supplied with a packing by means of which an air-tight closure of the cover is obtained. 8 are the anodes; 9 are the wire clamps for the anodes; 10 are the screws connected with the cover by nuts and locknuts 11; 12 are metal discs forming the clamps for fastening the cathode. 13 are holes in the cathode 14 against the walls of which is pressed the circular edge of the discs. 15 is a tubular socket of non-conductive material; 16 is a nut on the screw 10; 17 is another tubular socket also of non-conductive material, carried by the lower end of the screw 10 and which presses against the lower disc 12. 18 are handles for grasping the cover; they serve in the present form of construction of the invention also as conducting means for the current. 19 is an opening in the cover for filling in the electrolytic bath or the cleaning liquid for washing out the receptacle; 20 is a discharge cock in the bottom of the receptacle. 21 is a gauge for the liquid in the receptacle provided with a cock 22 for the discharge of gases. 23 are pivots on the walls of the receptacle for supporting same in adapted bearings in case the galvanic treatment has to be effected while the bath is in motion.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. Improvements in an apparatus for electroplating characterized by a receptacle with a cover which is supplied with fastening means for the cathode, these fastening means consisting of screws of conductive material, which penetrate circular holes of the cathode and carry clamps, which can be adjusted axially as well as radially with respect to the axis of the screw, so as to be pressed against the wall of the hole of the cathode, whereby the cathode is connected with the screw.

2. Improvements in an apparatus for electroplating according to claim 1, characterized in this that the clamp consists in two curved elastic plates abutting against each other at their edges, one plate bearing against the end face of a socket of non-conductive material coaxially arranged on the screw and the other end face of which bearing against the cover of the receptacle, while the other plate which is held by a second socket threaded on the screw is pressed against the first plate by a nut, so that the screw is entirely protected from the effect of the bath.

In testimony whereof I have signed my name to this specification.

DOCTOR GIOVANNI CARACCIO.