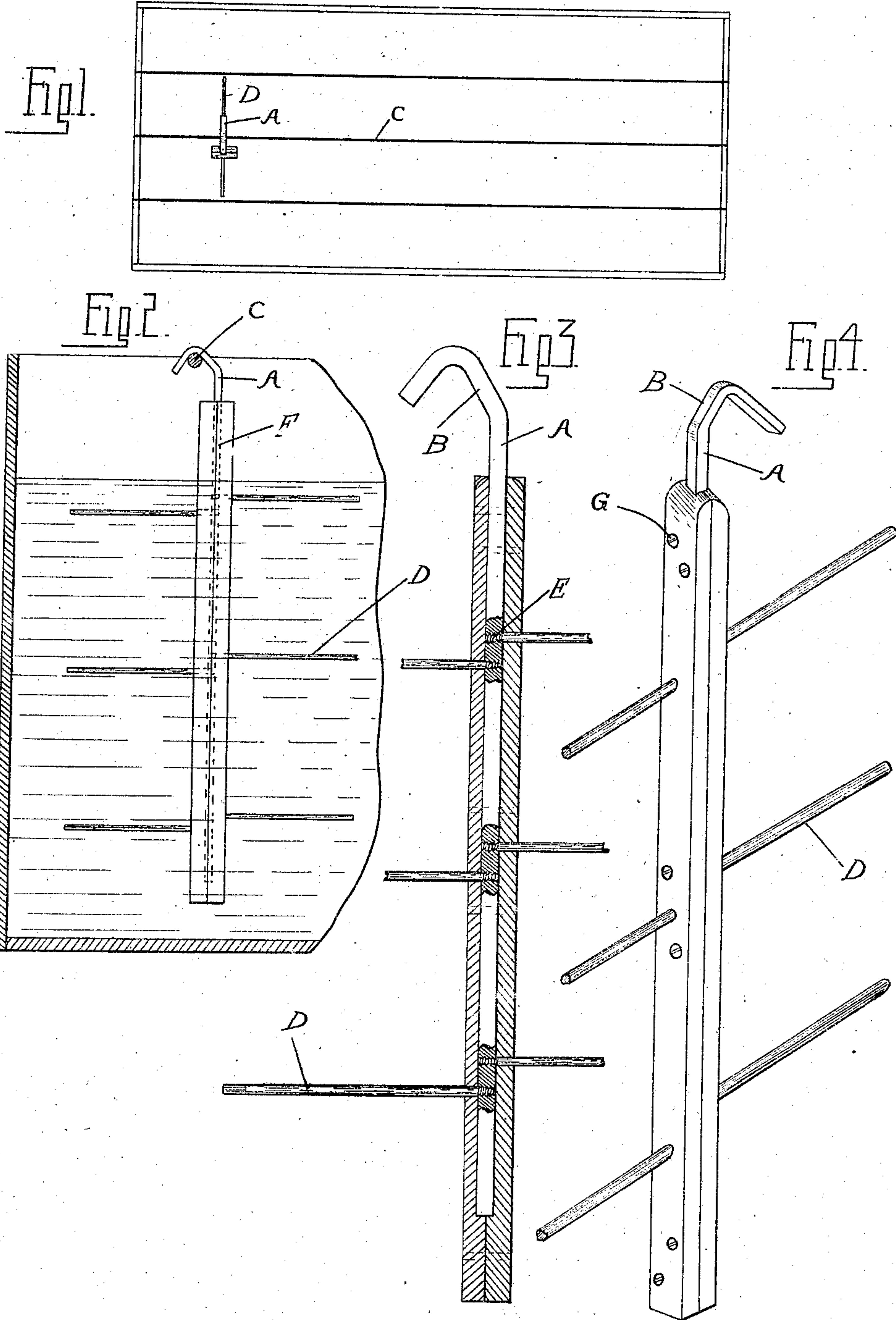


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ELECTRICAL PLATING RACK.  
APPLICATION FILED MAR. 16, 1909.

915,786.

Patented Mar. 23, 1909.



Witnesses

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# UNITED STATES PATENT OFFICE.

DOUGLAS B. MOYER, OF DETROIT, MICHIGAN.

## ELECTRICAL PLATING-RACK.

No. 915,786.

Specification of Letters Patent.

Patented March 23, 1909.

Application filed March 16, 1908. Serial No. 421,310.

*To all whom it may concern:*

Be it known that I, DOUGLAS B. MOYER, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Electrical Plating-Racks, of which the following is a specification, reference being had therein to the accompanying drawings.

10 It is the object of the invention to economize in current consumption and to produce greater uniformity in the deposition of the metal on articles electrically plated by providing a novel construction of cathode rack  
15 for supporting and electrically connecting the work.

To this end the invention consists in the construction as hereinafter set forth.

20 In the drawings—Figure 1 is a plan view of the plating vat; Fig. 2 is a vertical cross section thereof showing one of the racks in elevation; Fig. 3 is a vertical longitudinal section through the rack; and Fig. 4 is a perspective view thereof.

25 As is well understood in electric plating, all conducting surfaces connected with the cathode and immersed in the solution will receive a deposit of the metal. As a consequence, the metallic supports which are used to hold  
30 the work and convey the current thereto soon become heavily coated with metal deposited thereon unnecessarily increasing the current consumption. Furthermore where the work is supported by small wires it is not  
35 always held in position where all parts of its surface are substantially equidistant from the anode, and consequently there is a heavier deposit of the metal in some portions of the surface than upon others.

40 My improved construction of rack comprises essentially a conducting support for the work, the surface of which is insulated, with exception of the portions to which the work is directly attached.

45 A further feature of the invention is that my improved rack also forms a guide for holding the articles to be plated in proper position to receive a uniform deposit.

50 As shown, A is a metallic rod which at its upper end is provided with a hook B for engagement with the rod C which forms the main cathode conductor for the vat.

D are laterally extending branches connected with the rod A preferably formed of

smaller rods having a threaded end E for engaging a correspondingly threaded aperture  
55 in the main rod. These branch rods D form the direct supports for the work and convey the electric current thereto.

The main rod A if immersed in the solution  
60 without protection would expose a large amount of the surface for the deposition of the metal, but this effect is prevented by covering the rod with an insulating coating F. This is preferably formed of wood, and  
65 preferably of two pieces of wood, each grooved to receive one-half the section of the rod and secured together by suitable means such as the screws G. The upper  
70 end of this insulating cover F extends above the level of the solution in the vat, while the lower end extends beyond the end of the rod F, the groove terminating so that the  
75 wood forms an end protection as well as a protection for the sides.

With the construction as described the rack, when hung in position, will afford a connection for the articles to be plated which latter rest against the flat side of the case F and are held thereby from turning  
80 and in a position where they are substantially parallel with the anode plates. The only conducting surface on the rack which is exposed to the fluid is that of the branches B, and this is but a small part of the surface  
85 of the hanger as a whole. Thus the deposition of the metal on the hanger is reduced to a minimum, and whenever the branches D become enlarged by deposit they may be quickly detached by unscrewing and re-  
90 placed by other rods.

What I claim as my invention is:

1. A cathode hanger for electric plating comprising a conducting rod, a wood sheathing for protecting said rod, and a detachable  
95 branch rod of conducting material projecting laterally through said sheathing.

2. A cathode hanger for electric plating comprising a conducting rod and an insulating sheathing therefor comprising grooved  
100 strips of wood clamped together upon opposite sides of said rod, and a detachable branch rod of conducting material projecting laterally through said sheathing.

3. A cathode hanger for electric plating  
105 comprising a conducting rod and an insulating sheathing therefor formed of grooved strips of wood clamped together on opposite



sides of the rod, and a branch rod of conducting material passing through said sheathing and having a screw threaded engagement with the conducting rod.

- 5 4. A cathode hanger for electric plating comprising a conducting rod and an insulating sheathing therefor formed of grooved strips of wood clamped together on opposite sides of the rod, and laterally extending  
10 branch rods of conducting material passing

through said sheathing and having a screw threaded engagement with the conducting rod.

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

DOUGLAS B. MOYER.

Witnesses:

NELLIE KINSELLA,  
JAMES P. BARRY.