(No Model.)

A. R. REAMS.

ELECTROPLATING APPARATUS.

No. 497,129. Patented May 9, 1893.

Fig. 1.

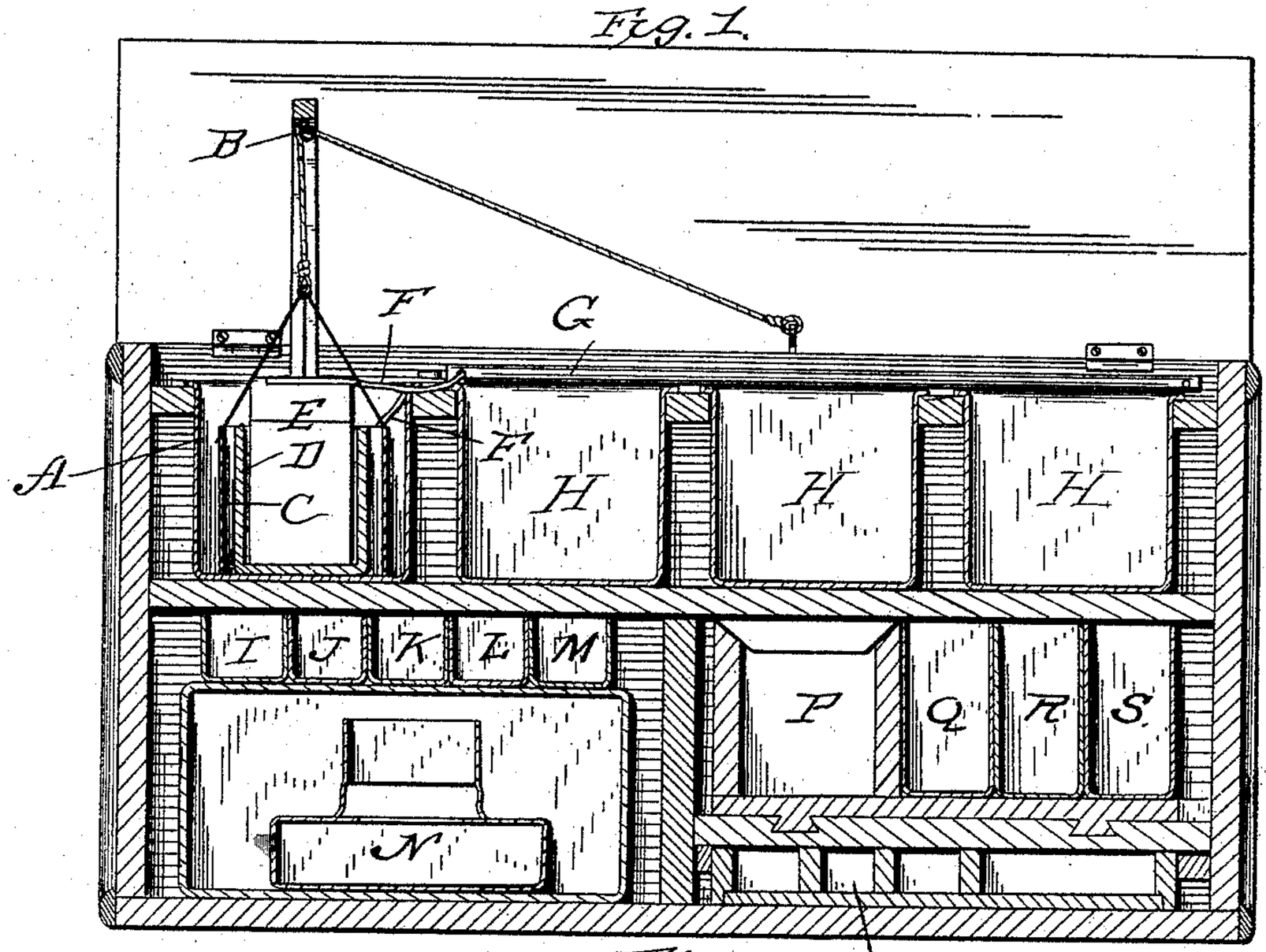
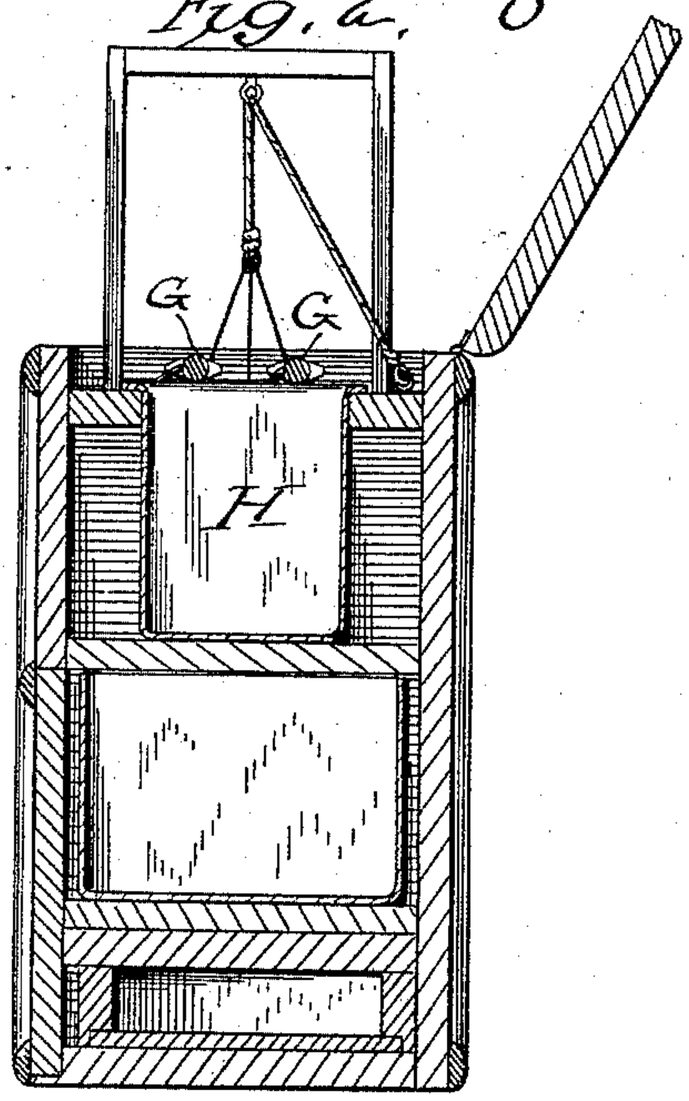


Fig. 2.



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UNITED STATES PATENT OFFICE.

ALBERT ROPER REAMS, OF ELMIRA, CALIFORNIA.

ELECTROPLATING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 497,129, dated May 9, 1893.

Application filed October 15, 1892. Serial No. 448,983. (No model.)

To all whom it may concern:

Be it known that I, ALBERT ROPER REAMS, of Elmira, in the county of Solano and State of California, have invented a new and useful Improvement in Electroplating Apparatus; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to an electro-plating apparatus so constructed and arranged that the entire process of plating may be carried on conveniently and rapidly and at the same time plating of different characters may be done, and the force of the current be increased or diminished to correspond with the number of articles being plated, thereby preventing the burning or destroying of the plating material used.

It is the object of my invention to obviate the difficulty heretofore existing in electro-plating and to construct an apparatus whereby this character of work may be done without the necessity of other machinery than that set forth and described in my invention, and at the same time so regulate the current as to make a perfect and complete plate without loss or waste of plating material.

I have represented my improvements in the accompanying drawings in which—

Figure 1 is a central, longitudinal section of the apparatus. At A I represent the acid battery by which the current is generated, at B the pulley for raising or lowering the movable battery zinc by means of which the current is increased by lowering the battery zinc and diminished by raising the same. C represents the movable battery zinc. D represents the porous cell; E the battery carbon; F F the connecting wires used to connect the battery with the carrying rods; G G the carrying rods extending over the plating vats and from which the article to be plated and the plating material are suspended so as to bring them in contact with the solution used. H H H represent the plating vats into which the solution is placed. I represents the vat in which the solution for stripping is placed which must be used hot; J the vat for hot cleansing solution. K represents the vat for clear, hot water. L represents the vat to hold hot saw-dust. M represents the vat used for heating gilding solution. N represents the heating apparatus. O represents compartment drawer for polish, powder and tools; P scrubbing tray; Q cold water vat; R cold cleansing solution vat; S vat for mercury dip.

Fig. 2 represents the combination chest or apparatus in transverse section.

Thus it will be seen that in my invention I have so arranged the carrying rods, plating vats, solution vats and heating apparatus that I can use the hot and cold solutions rapidly and plate with different materials, different articles at the same time and so constructed and arranged the battery that the current may be increased or diminished so as to correspond with the number of articles to be plated, thereby saving time and greatly reducing the cost.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. An electro-plating apparatus comprising a casing having a horizontal partition with an acid battery and a series of plating vats above the same, a heating chamber beneath the partition at one end provided with a series of hot solution vats, and a cold chamber containing a series of cold solution vats at the other end with a vertical partition separating said chambers, substantially as described.

2. The acid battery A, movable battery zinc C, porous cell D, carbon E, connecting wires F F, connecting rods G G, plating vats H H H, hot stripping solution vat I, hot cleansing solution vat J, hot water vat K, hot saw dust vat L, heating gilding solution vat M, compartment drawer O, scrubbing tray P, cold water vat Q, cold cleansing solution vat R in connection with mercury dip vat S, substantially as and for the purposes above set forth and described.

3. The acid battery A, movable battery zinc C, porous cell D, carbon E, connecting wires F F, connecting rods G G, plating vats H H H, hot stripping solution vat I, hot cleansing solution vat J, hot water vat K, hot saw dust

vat L, heating gilding solution vat M, compartment drawer O, scrubbing tray P, cold water vat Q, cold cleansing solution vat R, mercury dip vat S, combination chest T in connection with heating apparatus N, substantially as and for the purposes above set forth and described.

In testimony whereof I have affixed my name in the presence of two witnesses.

ALBERT ROPER REAMS.

Witnesses:
T. F. PARKER,
J. W. HUBERT.