No. 713,671. Patented Nov. 18, 1902.

C. M. OLIVER.

MACHINE FOR WASHING MATRICES PREPARATORY TO ELECTROTYPING.

(Application filed Aug. 26, 1902.)

(No Model.)

FIG. 1.

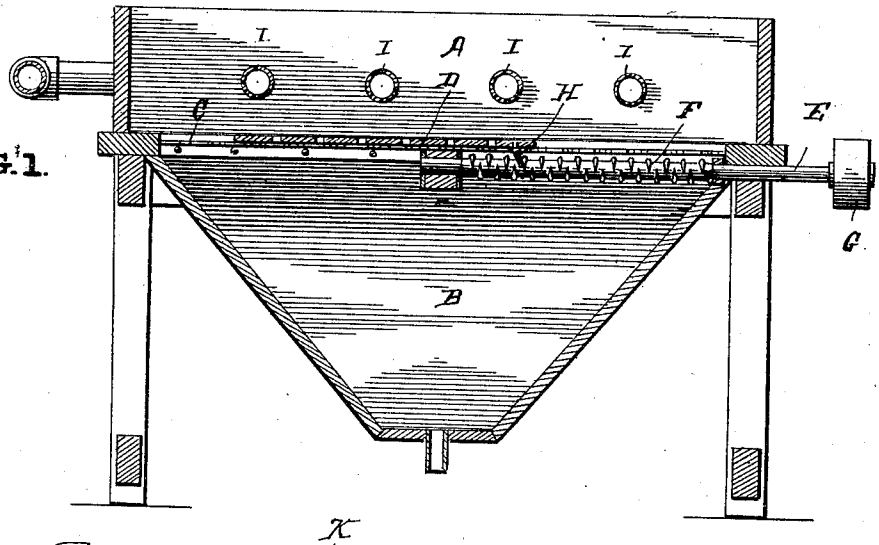


FIG. 2.

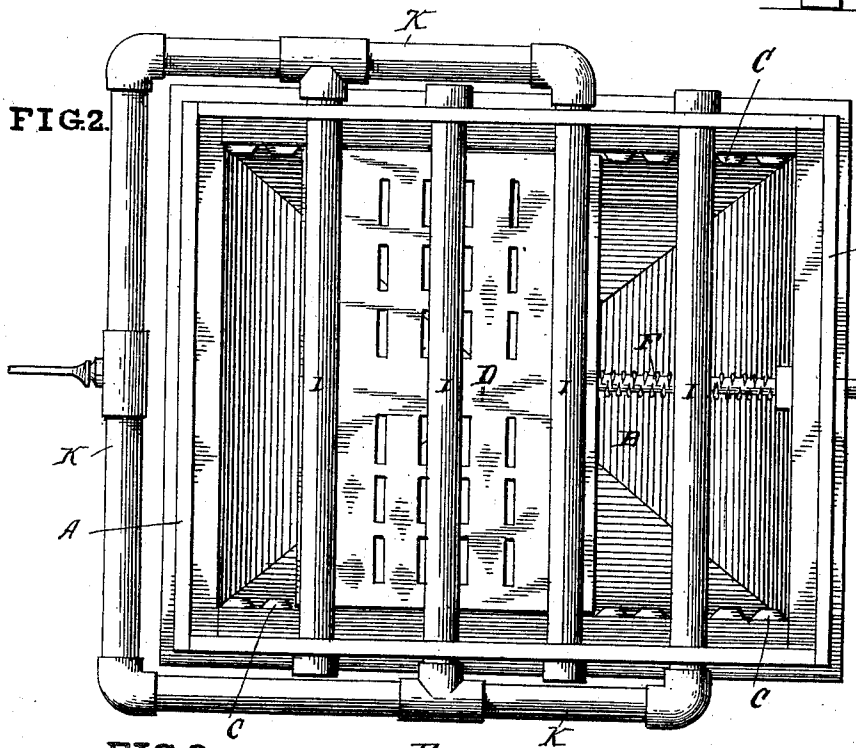


FIG. 4.

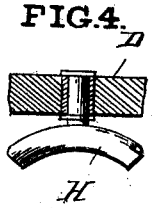
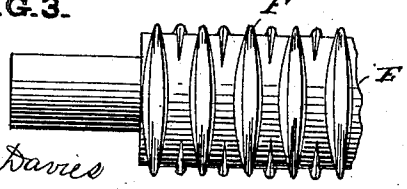


FIG. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES M. OLIVER, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-THIRD TO MAURICE JOYCE, OF WASHINGTON, DISTRICT OF COLUMBIA.

MACHINE FOR WASHING MATRICES PREPARATORY TO ELECTROTYPING.

SPECIFICATION forming part of Letters Patent No. 713,671, dated November 18, 1902.

Application filed August 26, 1902. Serial No. 121,082. (No model.)

To all whom it may concern:

Be it known that I, CHARLES M. OLIVER, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Machines for Washing Matrices Preparatory to Electrotyping, of which the following is a specification.

This invention relates to machines for washing or spraying molds or matrices preparatory to electrotyping.

The object of the invention is to produce a machine which shall thoroughly and quickly wash away or remove all superfluous particles of black-lead or other deleterious substance from the face of the matrix or mold, so that the electrodeposition of metal on the matrix or mold may be unobstructed and a perfect electrotype copy of the original type-form may be had; and the invention consists in certain constructions and combinations, as hereinafter described.

Figure 1 is a vertical central section of the washing-machine. Fig. 2 is a top plan of the same. Figs. 3 and 4 are broken details of the table-feed mechanism.

It is common after a mold or matrix is formed in which an electro plate or type is to be made to cover the surface of such mold or matrix with black-lead, which is usually brushed onto the mold, and the mold is then brushed clean; but as particles of black-lead or other foreign matter sometimes adhere to the face of the mold or matrix it has been common to wash the face of the matrix with a spray of water. This is an uncertain remedy, as a jet or spray as commonly applied is not apt to reach and clean all the depressions in the mold or matrix, and therefore some parts of the electroplate or electrotypes are imperfect.

By the use of my machine I dispense with hand-labor in the washing or spraying of the mold and secure a much more certain and perfect result.

In the drawings, A indicates a trough having an inclined or hopper bottom B and guide-rails C above said bottom. On these rails C a table D is made to slowly reciprocate within the trough above the hopper-bottom. The table D may be moved back and forth on the rails by any suitable mechanism. A shaft E is illustrated, said shaft being provided with a right and left worm-thread F. The shaft is supported in suitable bearings and caused to revolve by power applied to pulley G. The table is connected to the double worm-shaft by a button or abutment H on the table, which button engages the worm in manner well known to cause the table to reciprocate slowly while the shaft E rotates.

The table D is preferably perforated, so as to permit water to run off through the table as well as around the edges.

A number of tubes I extend from side to side of the trough A, these tubes receiving a water-supply from any usual supply-pipe, as K. The pipes I are perforated at their under sides, and the perforations are inclined in such directions as to insure the thorough distribution of water from these projections over the face of the table or mold as the same is moved back and forth under the spray-pipes.

The mold or matrix to be washed is laid face upward on table D, and in some cases several small molds or matrices may be placed on the table. The table is then made to reciprocate under the spray-pipes, and water from these pipes thoroughly washes the face of the molds or matrices on the table.

As the spray comes from all directions, the washing is more thorough than with any other machine known to me. A number of small molds can be spread on the table and the table put in motion. The jets will wash the foreign matter from the molds as far as is desirable, but will still leave the molds covered with black-lead and in excellent condition for the further steps needed to produce electrotype and nickeled-type plates.

What I claim is—

1. In a mold-washing machine as described the combination of a reciprocating table, and a series of sprayer-pipes above said table having sprayer-orifices directed at inclinations toward the face of said table, substantially as described.

2. In a mold-washing machine, the combination of a trough with inclined bottom and guide-rails at the sides, a perforated table reciprocating on said rails, and fixed sprayer-

pipes above the face of the reciprocating table.

3. In a mold-washing machine, a trough having hopper-bottom and side rails, a flat perforated table resting on said rails, means for reciprocating the table along the rails, and means for supplying jets to the molds on the table, substantially as described.

4. In a mold-washing machine, a trough with inclined bottom, and transverse tubes perforated on their lower surfaces, a perforated table below said tubes and above the bottom, and means for reciprocating the table, all combined substantially as described.

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

CHARLES M. OLIVER.

Witnesses:

MAURICE JOYCE,

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