

H. R. BOISSIER.
MOUNTING FOR PRINTING ROLLS ON ELECTRODEPOSITING TANKS.
APPLICATION FILED OCT. 28, 1912.

1,055,512.

Patented Mar. 11, 1913.

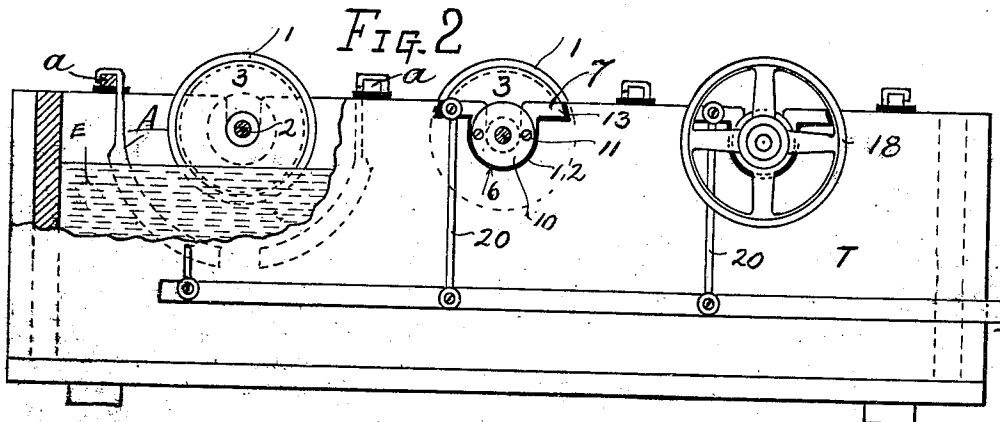
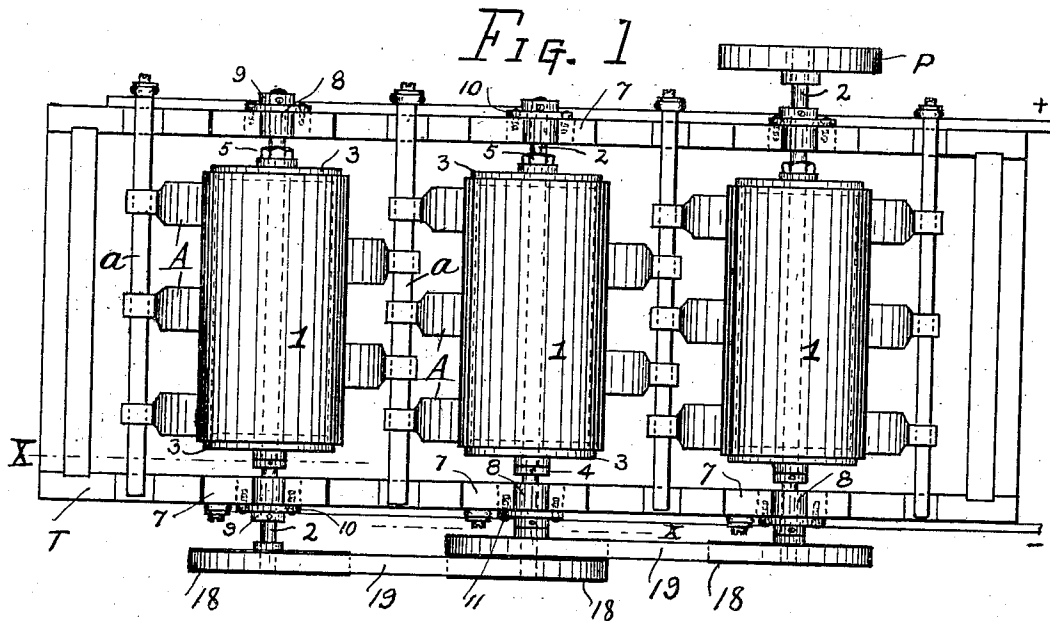


FIG. 5

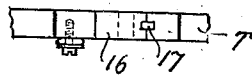


FIG. 3

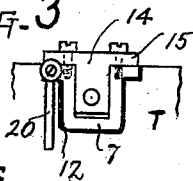
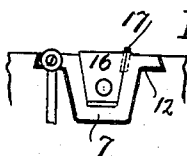


FIG. 4



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UNITED STATES PATENT OFFICE.

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MOUNTING FOR PRINTING-ROLLS ON ELECTRODEPOSITING-TANKS.

1,055,512.

Specification of Letters Patent.

Patented Mar. 11, 1913.

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To all whom it may concern:

Be it known that I, HERMANN R. BOISSIER, a citizen of the United States, and a resident of Great Neck, in the county of Nassau and State of New York, have invented a new and useful Mounting for Printing-Rolls on Electrodepositing-Tanks, of which the following is a specification.

My invention relates to re-coppering rolls or cylinders which are used in certain kinds of fabric printing, which have become too small in diameter or where it is desired to obliterate one design and substitute another and also to the coating of cylinders such as iron, with copper, on which designs may be engraved or etched.

My present improvement relates especially to the means for mounting these cylinders on the depositing tank so that they may be conveniently placed in position, partially submerged in the electrolyte and to means for securing proper contact with the cylinders for the electric current which has to pass through the cylinders.

Referring to the accompanying drawings: Figure 1 is a plan of a depositing tank, showing three cylinders in position; Fig. 2 is a front elevation—part of the view being shown in section on the line X—X of Fig. 1; Fig. 3 is an elevation of an alternative form of mounting; Figs. 4 and 5 are respectively an elevation and plan of another alternative form of mounting.

The cylinders 1, which are to receive the coating of copper are mounted on shafts 2, by means of disks or heads 3. These heads fit the cylinders tightly and they are secured on the shafts between fixed collars 4 and clamping nuts 5. Into notches 6 in the sides of the tank T are placed contact yoke pieces 7 which form sockets for bearing blocks 8 in which the shafts 2 are journaled. The shafts have collars 9 to hold them in position in their bearing blocks. In order to secure good and sufficient contact of the bearing blocks with the contact supporting yokes, these blocks are each formed with a flange 10 and they are secured to the yokes by screws 11.

It is important that the bearing yokes be firmly fixed in and insulated from the sides of the tank. Screws were at first used; but owing to dampness in the wood and the

large amount of current that had to be transmitted, a leakage ensued and the wood became carbonized and contact was finally made with the lining of the tank. I cement the yokes into the notches of the tank by a layer of pitch 12. This holds each yoke firmly in position and at the same time insulates it from the walls of the tank. The notches in the tank may be undercut as shown at 13 to prevent the yokes from being loosened from their settings by any upward strain on the yokes as the shafts are raised in lifting out the cylinders.

Fig. 3 shows an alternative form for the bearing blocks 14, in which the flanges 15 are on the top of the yokes. Figs. 4 and 5 show still another form of bearing block 16, which is wedge or keystone in shape. The sockets of the yokes fit these and the weight of the shaft and cylinder secures a good contact while a feather or key 17 holds each block in its place in its socket. The cylinder shafts are provided with pulleys 18 on their front ends which are connected by belts 19. By applying power to a pulley P which is on the rear end of one of the shafts, all the cylinders are turned or revolved. As the cylinders are about one-third submerged in the electrolyte E all parts of the cylinder are brought under the action of the current during the revolution of the shaft. The current enters the bath from the positive lead in the usual manner through anode rods a and anodes A and the supporting yokes 7 are connected to the negative lead by wires 20.

What I claim is:

1. Means for mounting a printing roll or cylinder, partially submerged in a tank for the electro-deposition of copper, said means comprising a shaft on which said roll or cylinder is supported; a pair of bearing blocks on said shaft, each in the form of a flanged sleeve; a pair of supporting, current-carrying yokes for said bearing blocks formed in the side walls of said tank—the flanges of said bearing blocks being screwed to said yokes and said yokes being secured in the notches of said tank by an adhesive non-conducting substance.

2. In a mounting of a printing roll or cylinder on an electro-depositing tank, the combination of the following elements: a

shaft on which said cylinder is mounted; a
pair of bearing blocks for said shaft; and a
pair of supporting yokes for said bearing
blocks—said supporting yokes being firmly
5 fixed in dovetailed or undercut notches in
the side walls of said tank by an adhesive
non-conducting substance.

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

HERMANN R. BOISSIER.

Witnesses:

JOHN E. SWEET,
JOHN P. WHELAN.