

UNITED STATES PATENT OFFICE.

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GALVANIZING APPARATUS.

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To all whom it may concern:

Be it known that I, JOHN C. SCARLES, a citizen of the United States, residing at Oakland, in the county of Alameda and State of California, have invented certain new and useful Improvements in Galvanizing Apparatus, of which the following is a specification.

My invention is an improved galvanizing apparatus, particularly useful for galvanizing wire screens, which is simple in construction and highly efficient in operation.

Referring to the annexed drawing in which my invention is illustrated and which forms a part of this specification:

Figure 1 is a plan view of my galvanizing apparatus.

Figure 2 is a longitudinal vertical section of my apparatus.

In the drawing 1 indicates a tank preferably formed of wood, which contains a galvanizing solution, and 2 indicates a wooden frame detachably mounted in said tank. Said frame includes two bars 3-3, two walls 4-4 depending respectively from said bars, two connecting members 5 and 6 joining the walls 4-4, and four metallic connecting rods 7, 8, 9 and 10 are also spaced between said walls. The connecting member 5 connects at its ends to the lower part of the walls 4-4 midway of their ends and the connecting member 6 connects to the walls 4-4 a short distance above the member 5. The rods 7 and 8 connect to the walls 4-4 near their upper left corners. The rods 9 and 10 connect the walls 4-4 near their upper right corners. On opposite sides of the connecting member 5 are formed ledges 11 and 12 on which rest the lower ends of a plurality of arcuate zinc anodes 13 and 14 respectively, arranged side by side a short distance apart, the upper edges of said anodes being suspended by their hooks 15 and 16 respectively on the rods 7 and 9 respectively. On opposite sides of the connecting member 6 are ledges 17 and 18 on which rest the lower ends of a plurality of arcuate zinc anodes 19 and 20 respectively, arranged side by side a short distance apart, the upper ends of said anodes being suspended by their hooks 21 and 22 respectively on the rods 8 and 10 respectively. Wooden rollers 23 and 24 are journaled between the connecting members 5 and 6 on shafts 25 and 26 secured at their ends in the walls 4-4,

said connecting members being grooved to receive half of said rollers. A pair of wooden rollers 27 and 28 are journaled between the upper ends of the cathodes 13 and 19 on rods 29 and 30 which are secured at their ends in the walls 4-4. A pair of wooden rollers 31 and 32 are journaled between the anodes 13 and 19 intermediate the ends of said anodes on rods 33 and 34 which are secured at their ends in the walls 4-4. A pair of wooden rollers 35 and 36 are journaled between the upper ends of the anodes 14 and 20 on rods 37 and 38 which are secured at their ends in the walls 4-4. A pair of wooden rollers 39 and 40 are journaled between the anodes 14 and 20 intermediate the ends thereof on rods 41 and 42 respectively which are secured at their ends in the walls 4-4. A metallic roller 43 is secured on a shaft 44 journaled in brackets 45 mounted on the left ends of the bars 3-3. A metallic roller 46 is secured on a shaft 47 journaled in brackets 48 mounted on the right ends of the bars 3-3.

The negative lead 50 of an electric circuit is connected to the roller shaft 44. Leads 51 and 52 are connected to rods 7 and 8 respectively and to a lead 53. Leads 54 and 55 are connected to rods 9 and 10 respectively and to lead 53. The positive lead 56 of the circuit is connected to lead 53.

The screen 60 to be galvanized is fed over the roller 43 between the rollers 27 and 28, 31 and 32, 23 and 24, 39 and 40, and 35 and 36, between the cathodes 13 and 19 and the anodes 14 and 20 and over the roller 46. The screen forms the cathode as it passes through the apparatus and the zinc of the anodes 13 and 19 and 14 and 20 is deposited on the screen and the screen is galvanized.

The frame 2, and the parts mounted thereon including the anodes 13, 19, 14 and 20, may be removed from the tank and the anodes may be readily removed from the frame.

Having described my invention, I claim:

1. A galvanizing apparatus including a tank, sets of anodes suspended in said tank in superposed spaced relation, a plurality of rollers arranged in pairs in the space between the sets and journaled in said tank, between which rollers the material to be galvanized is fed.

2. A galvanizing apparatus including a tank, a frame detachably mounted in said

5 tank, said frame including a pair of super-
imposed cross members in the lower part
thereof and a pair of cross rods in each
upper end thereof, a pair of arcuate anodes
suspended at their upper ends on a pair of
said cross rods and resting at their lower
ends upon the upper cross member, another
pair of anodes suspended on the other two
cross rods at their upper ends and resting
at their lower ends on said upper cross
member, rollers arranged in pairs journaled
in said frame between said anodes, between
which the material to be galvanized is fed,
and a roller on each end of said frame over
which the material extends.

In testimony whereof I affix my signature.

JOHN C. SCARLES.