

UNITED STATES PATENT OFFICE.

EDWARD T. BURROWES, OF PORTLAND, MAINE.

PROCESS OF ELECTROPLATING WITH ALLOYS.

SPECIFICATION forming part of Letters Patent No. 477,350, dated June 21, 1892.

Application filed November 7, 1891. Serial No. 413,338. (No specimens.)

To all whom it may concern:

Be it known that I, EDWARD T. BURROWES, a citizen of the United States, residing at Portland, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Processes of Electroplating with Alloys; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

It is very desirable that some substitute be produced for the ordinary iron-wire screen-cloth from which door and window screens are made. There is a demand for something which will not rust or change color by the necessary exposure which such articles are subjected to, and while bright wire-netting composed either of brass, copper, or composition avoids the objection first above mentioned it will tarnish, becoming spotted and exceedingly dilapidated and, if possible, more unsightly than rusty iron wire. Bright wire of some sort is preferable to iron for wire-screening for various reasons, among which may be mentioned its durability and its smooth and finished surface; but its objectionable features, as noted above, will prevent such wire in its original state from taking the place of the ordinary iron wire.

The present invention relates to wire screen-cloth when made of brass, copper, or composition.

The object of the invention is to so treat screen-cloth made from brass, copper, or composition or any bright smoothly-finished wire as to diminish its excessive brightness, toning it down to a darker and more subdued color,

rendering it less conspicuous and better adapted for house-screen use.

To this end my invention consists in subjecting the bright wire-screening to an electroplating process, the solution being composed of thirty pounds of copper sulphate, one and one-half ounce caustic potash, ten pounds sulphate zinc, six ounces chloride of tin, five pounds sal-ammoniac, and eight ounces of muriate of iron. This I deposit electrocally by means of an anode composed of copper, tin, and zinc, the necessary proportions being eight pounds of the copper and one and one-half pounds each of the tin and the zinc.

This plating process changes the bright-wire screening to a fine dark-brown color resembling statuary bronze, thus giving screens a rich and attractive appearance, but not conspicuously so, and the color so obtained will be permanent and not liable to be affected by the atmosphere.

Having described my improvement, what I claim, and desire to patent, is—

The herein-described process for coloring bright wire-netting, which consists in placing it in a solution composed of copper sulphate, caustic potash, zinc sulphate, chloride of tin, sal-ammoniac, and muriate of iron and passing a current to it from an anode of copper, tin, and zinc.

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

EDWARD T. BURROWES.

Witnesses:

GEO. H. ALLAN,
EDWIN T. DYER.