UNITED STATES PATENT OFFICE.

GEORGE BOWER, OF ST. NEOTS, COUNTY OF HUNTINGDON, ENGLAND.

PROCESS OF DEPOSITING METALS UPON THE SURFACES OF IRON AND STEEL COATED WITH MAGNETIC OXIDE.

SPECIFICATION forming part of Letters Patent No. 270,004, dated January 2, 1883.

Application filed February 20, 1882. (No specimens.) Patented in England June 23, 1881, No. 2,750.

To all whom it may concern:

Be it known that I, GEORGE BOWER, a subject of the Queen of Great Britain and Ireland, and residing at St. Neots, in the county of Huntingdon, England, have invented certain Improvements in Apparatus for Depositing Metals upon the Surfaces of Iron and Steel Coated with Magnetic Oxide, (for which I have obtained a patent in Great Britain, No. 2,750, dated 23d day of June, 1881,) of which the following is a specification.

My invention relates to an improved method of depositing metals upon the surfaces of iron and steel; and it consists in first coating such surfaces with magnetic oxide, and then effecting the deposit of the desired metal by rubbing the surface of the article or object (coated with magnetic oxide) with a brush or device having its wires or filaments composed of or coated with the metal which it is required to deposit.

The particular method of first coating the iron or steel with magnetic oxide forms no part of my present invention, as any well-known method may be employed for that purpose.

By the mode described of depositing the required metal by first coating the surface with magnetic oxide, and then brushing this coated surface with wires of the metal to be deposited, I obtain results equal to those produced by the processes known as "gilding," "bronzing," and "platinizing," and other ornamental effects more economically than by the methods heretofore employed.

I am aware that it is old to deposit gold, silver, and other metals on surfaces of magnetic oxide, and I am aware that it has been proposed to bronze metals by rubbing a brass-brush over them. I do not claim either method separately, but both are essential to the carrying out of my invention. For instance, when it is desired to coat iron with German-silver, the brushing of the uncoated surface with a brush of German-silver is ineffectual, but if the iron is first coated with magnetic oxide and the brush is then applied to the coated surface, a deposit is readily formed.

I claim as my invention—

As an improvement in the art of coating metals, the process of depositing metals upon iron or steel, which process consists in first coating the metal with magnetic oxide, then brushing such coated metal with wires or filaments composed of or plated with the metal to be deposited, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEO. BOWER.

Witnesses:
CHAS. MILLS,
JOHN JAMES,
Both of 47 Lincoln's Inn Fields, London.