

# UNITED STATES PATENT OFFICE.

WILLIAM F. McNULTY, OF ALLEGHENY, PENNSYLVANIA.

## METHOD OF PREPARING METALLIC POWDERS.

No. 869,591.

Specification of Letters Patent.

Patented Oct. 29, 1907.

Application filed January 25, 1906. Serial No. 297,782.

*To all whom it may concern:*

Be it known that I, WILLIAM F. McNULTY, of Allegheny, Allegheny county, Pennsylvania, have invented a new and useful Method of Preparing Metallic Powders, of which the following is a full, clear, and exact description.

My invention relates to the metallic powders which are employed in connection with the electroplating of objects. It is common in the electroplating art to provide an article or a portion thereof with a layer of adhesive material, such as asphalt varnish, and then apply a metallic powder such as copper bronze, brass, &c., to said coating in order to prepare the surface so that it will properly receive the deposit of electroplated metal. These metallic powders can be bought in the open market, and have heretofore been used in the condition in which they are sold. I have discovered that such powders are slightly contaminated with grease or foreign material, which may be removed by heating or burning the powder.

In carrying out my process I may heat or burn the powder to cleanse and purify it without any previous treatment. I prefer however to slightly moisten the powder with bisulfid of carbon; and then by touching a match to the powder, or otherwise igniting it the bisulfid will take fire and burn so as to cleanse and purify the powder. The powder will ordinarily ignite even without the application of the bisulfid or a similarly acting substance; but I prefer to add such a substance, and mix it thoroughly with the powder, since thereby I get a more complete and uniform cleansing of the powder throughout its different portions. I have found that when powder thus treated is applied to the surface to be metallized, the electroplating metal is applied in a uniform and efficient manner. Where heretofore it was

very difficult to make the electrodeposit coating uniform and continuous, when this powder is used there is no trouble whatever.

The general process of electroplating by the use of my improved powder may be carried out in any ordinary or desirable way, and if properly conducted, a uniform coating of good quality will be obtained. The patches, or defective portions of the coating, which have heretofore occurred in such processes, I have found to be the result of grease or impurity in the powder. By cleansing the powder, preferably by heating or burning, as above described, I prevent this action and obtain uniform and excellent results. Other means for cleansing the powder may be used, although I prefer the burning method.

I claim:—

1. The method of treating metallic powders for electroplating purposes, consisting in cleansing them from greasy impurities; substantially as described.

2. The method of treating metallic powders for electroplating purposes, consisting in cleansing them from greasy impurities by subjecting the powder to flame or heat; substantially as described.

3. In the process of electroplating, the step of cleansing the metallic powder, and then applying said powder to the surface to be metallized; substantially as described.

4. The method of cleaning metallic powder for electroplating purposes, consisting in adding an ignitable liquid thereto, and then burning the same; substantially as described.

5. The process of electro-plating, consisting in heating or burning a metallic powder, applying said powder to a surface to be metallized, and then electro-plating said surface; substantially as described.

In testimony whereof, I have hereunto set my hand.

WM. F. McNULTY.

Witnesses:

GEO. C. WATT,  
THOS. G. ATEN.