

UNITED STATES PATENT OFFICE.

GIDEON BOERICKE, OF PHILADELPHIA, PENNSYLVANIA.

METHOD OF MAKING COPPER ALLOYS.

959,048.

Specification of Letters Patent.

Patented May 24, 1910.

No Drawing.

Application filed October 31, 1908. Serial No. 460,422.

To all whom it may concern:

Be it known that I, GIDEON BOERICKE, a citizen of the United States, residing at Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Methods of Making Copper Alloys, of which the following is a specification.

My invention has particular reference to the production of alloys of copper with such metals as tungsten, molybdenum, vanadium, chromium and the like.

The object of my invention is the provision of a process for producing alloys of the character specified, which process can be economically practiced, and which will also produce a product of a superior character.

In carrying out my invention I prefer to use a solution of a salt of one of the metals selected, such as sodium tungstate, sodium molybdate, sodium chromate, or sodium vanadate, from which when combined with copper sulfate, a precipitate will be obtained which will be either tungstate of copper, molybdate of copper, chromate of copper, or vanadate of copper, according to which material is used.

In carrying out the process referred to, the sulfur constituent of the copper sulfate combines with the alkali metal in the formation in the above example of a sodium sulfate, while the tungsten, molybdenum, chromium, or vanadium is left free to combine with the copper, forming the copper alloys referred to which may then be reduced to metallic form by any of the well known methods of reduction.

I have found in the practice of my invention in the formation, for example, of tungstate of copper, the product is of a very superior character, having great ductility as well as other desirable characteristics.

Having thus described my invention and illustrated its use, what I claim as new and desire to secure by Letters Patent, is the following:

1. The process of producing a copper alloy, which consists in reacting upon a salt of the metal which is to be alloyed with copper sulfate, thereby forming a precipitate, and reducing said precipitate to metallic form, substantially as described.

2. The herein described process of producing an alloy of copper, with vanadium, molybdenum, tungsten, chromium, or similar metal, which consists in the reacting upon of a solution of a salt of said metal with copper sulfate thereby forming a precipitate, and reducing said precipitate to metallic form, substantially as described.

3. The herein described method of forming copper alloys, which consists in reacting upon a solution of a salt of sodium tungstate, with copper sulfate, thereby forming a precipitate, and then reducing said precipitate to metallic form, substantially as described.

In testimony whereof I have hereunto signed my name in the presence of the two subscribed witnesses.

GIDEON BOERICKE.

Witnesses:

ARTHUR BARTSCH,
G. MARSH FINLEY.