

UNITED STATES PATENT OFFICE.

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ALLOY.

No Drawing.

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The objects of this invention are to produce an alloy of high electrical resistance which shall be largely composed of platinum; to secure a precious metal alloy which can be used for resistors of the best quality, such, for example, as in vacuum tubes; to secure such an alloy of good working qualities and a high melting point, and to obtain other advantages and results as may be brought out by the following description.

In carrying out my invention I make an alloy containing platinum and copper, and although the individual resistance of these metals is low, being about 60 ohms per mil. ft. and 10 ohms per mil. ft. respectively, yet when these metals are combined in certain proportions the alloys formed have resistances of more than 500 ohms per mil. ft. From 75% to 89% of platinum should be employed and 25% to 11% of copper, and wherever the word platinum is used in this specification it is understood to include both pure platinum and also platinum containing minor quantities of other elements of the platinum group of metals.

In addition to having high resistances the alloys which I have invented have very high melting points, 1400-1600 degrees centigrade, which is advantageous in many uses.

Within substantially the limits stated, platinum and copper may be alloyed into a high resistance alloy, the exact proportions being determined by the relative desirability of maximum resistance and maximum ease of working in that particular instance.

Having thus described the invention, what I claim is:

1. An alloy of high electrical resistance containing over 70% platinum and the rest copper.
2. An alloy of high electrical resistance composed of not less than 75% platinum and the rest copper.
3. An alloy of high electrical resistance composed of 75% to 89% platinum and 25% to 11% copper.

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