Patented Jan. 6, 1942 2,268,939

22-231

UNITED STATES PATENT OFFICE

2,268,939

ELECTRIC CONTACT

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No Drawing. Original application April 15, 1940, Serial No. 329,829. Divided and this application April 1, 1941, Serial No. 386,305

1 Claim. (Cl. 200—166)

This invention relates to electric contacts. This application is a division of my copending application Serial No. 329,829, filed April 15, 1940.

An object of the invention is to improve electric contactor contacts and the like.

Other objects of the invention will be apparent from the following description taken in connection with the appended claim.

The present invention comprises the combination of elements, method of manufacture, and the product thereof brought out and exemplified in the disclosure hereinafter set forth, the scope of the invention being indicated in the appended claim.

While a preferred embodiment of the invention is described herein, it is contemplated that considerable variation may be made in the method of procedure and the combination of elements without departing from the spirit of the invention.

The present invention contemplates electric contacting elements formed of copper containing tellurium as an essential ingredient therein. I have found that tellurium imparts to copper a number of desirable properties, particularly low contact resistance and reduced tendency to stick or weld to surfaces with which electric contact is made. I have also found that tellurium can be added to copper in substantial quantities without greatly reducing its electric conductivity.

For electric contacting elements and particularly contactor contacts where extremely high contact pressures are not encountered, I contemplate the use of a binary copper-tellurium alloy containing .05 to 3% tellurium, balance copper.

One of the outstanding advantages of using tellurium with copper resides in the fact that the tellurium reduces the electrical conductivity of the copper only very slightly. This is probably due largely to the fact that tellurium does not form solid solutions with copper. In fact, it is possible to detect as little as .025% tellurium microscopically as a free phase. This free phase is not pure tellurium, but is an intermetallic compound of copper and tellurium having the formula Cu_2Te.

While the present invention, as to its objects and advantages, has been described herein as carried out in specific embodiments thereof, it is not desired to be limited thereby but it is intended to cover the invention broadly within the spirit and scope of the appended claim.

What is claimed is:

An electric contactor contact containing .05 to 3% tellurium, balance copper.

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