

UNITED STATES PATENT OFFICE

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PRECIPITATION OF COPPER

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1 Claim. (Cl. 75—109)

The present invention relates to improvements in the recovery of copper from its solutions by precipitation.

It has already been proposed to precipitate copper from its aqueous solutions by means of base metals, as for example nickel. Commercial nickel is, however, relatively passive so that the precipitation requires very long, economically insupportable times if it is desired to obtain solutions poor in copper.

It has therefore been proposed to carry out the precipitation of the copper by nickel at temperatures of more than 100° C., as for example at from 160° to 180° C., and at correspondingly increased pressures.

We have now found that nickel which has been prepared electrolytically and which has not been remelted after its electrolytical deposition is considerably more suitable for the precipitation of copper from its solutions. When using such nickel it is not necessary to use either long times or temperatures above 100° C. in order to obtain solutions poor in copper.

The following example will further illustrate

the nature of this invention but the invention is not restricted to this example.

Example

A solution containing per liter 60 grams of copper dissolved in the form of cuprous chloride is heated to about 100° C. in the presence of an excess of cathodically deposited nickel for 8 hours. Even after 1 hour, the copper content is reduced to 36 grams per liter and after 8 hours it amounts to only 1 gram per liter. If the precipitation be effected at 90° C. the copper content after 8 hours is from 2 to 3 grams per liter.

If on the other hand pieces of sheet nickel which have been obtained by melting and rolling nickel are used, the solution still contains 44 grams of copper per liter after 8 hours.

What we claim is:

In the precipitation of copper by means of nickel the use of nickel which has been prepared electrolytically and which has not been remelted after its electrolytical deposition.

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