

Among the oaks, *Quercus castaneaefolia*, *Q. ambigua*, *Q. aquatica* and *Q. haliphlaeos* were fine foliated kinds.

M. Rissot, Inspector of the Forests of the Bois de Boulogne, exhibited a good collection of conifers, more suitable in general for forest planting; among which were some Mexican species of *Pinus*, which seemed hardy looking kinds. The same exhibitor had also a good general collection of forest trees.

A series of plants were also exhibited for the purpose of showing the effects of pruning by different methods, preparatory to planting in forests and in towns, as well as for ordinary ornamental purposes. This was not a successful exhibition, as many, in fact nearly all, the trees which had been brought for the purpose were dead, owing to their having been removed at a late period of the year.

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## ON THE EXTRACTION OF COPPER FROM ITS ORES IN THE HUMID WAY.

By THOMAS MACFARLANE.

In a former paper on this subject published some time ago in this Journal,\* I described a series of experiments, which had, for their object, the economical extraction of the copper contained in the poor pyritous ores of the Eastern Townships. The results of these experiments may be briefly stated here. It was shewn—1st, That it is impossible to remove from a very pyritous ore, by simple calcination with common salt, and lixiviation with water, more than a small proportion of its copper contents; 2nd, That by calcining such an ore with twice its weight of impure iron oxide, and the necessary quantity of common salt, it is possible to remove 95 per cent. of the copper; 3rd, That, if, in such an operation, a temperature much above redness be employed, copper is, to a considerable extent, volatilized; 4th, That in order to complete extraction it is necessary that the materials should remain undisturbed during calcination; 5th, That even with the use of a large quantity of iron oxide and salt, it is impossible to extract the whole of the

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\* Vol. ii [2nd series], p. 219.