

DISCUSSION.

Professor W. W. Haldane Gee (*communicated*). The method adopted by Professor Huntington and Dr. Desch seems likely to be of considerable practical importance. It might be used to compare the relative losses of the constituents of an alloy after prolonged etching with different reagents, and so help to throw light on the method of corrosion. It would be

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of especial interest to apply planimetric analysis to alloys which had been electrolytically corroded by being made anodes in various salt solutions.

Professor A. K. Huntington said further extension of the method would probably be made to the case of the phosphor-tin alloys as soon as the curves had been arrived at. He thought the method—apart merely from its analytical value—gave an insight into the structural composition of a metal not revealed by chemical analysis.

Dr. C. H. Desch said it was not claimed that the method was of universal applicability; for example, in many low percentage bronzes the metal was homogeneous, and an inspection of the structure therefore gave no information as to the composition. Again, it was necessary for the alloy to be in a state of physical equilibrium—slow, solid diffusion often took place even after annealing had been continued for some time, and he had been much struck by this in commercial alloys. The chief point of scientific interest in the paper that he would like to accentuate was the effect of segregation. This had not been studied quantitatively before, and was, he believed, more general in alloys than was usually supposed.