In entering on the duties of the George Fisher Baker lectureship in Cornell University, I must first express my high appreciation of the great honor done to me by the university by its invitation, and of the great personal kindness and helpfulness of Professor Dennis in all matters concerning it.

Only a short time ago Mr. Baker, to whom this university owes so much, passed away, full of years and honor. Education in America has been singularly fortunate in attracting the support of many wealthy leaders of commerce and industry, and the results are to be seen in such magnificent buildings as this in which we meet, and in the facilities given for the interchange of students and teachers between different institutions and different countries. The visiting lectureship which George Fisher Baker founded in this university has been the means of bringing a number of European workers in various branches of science related to chemistry to Cornell and has given to them an unrivaled opportunity of seeing American university conditions at their best and of exchanging ideas with a new and keen group of students and colleagues.

With the possible exception of music, no form of human activity is so independent of national barriers as scientific research, and every step that brings into closer connection the scientific workers of different countries deserves a warm welcome. Judging by the enthusiasm and the affection with which my predecessors in this lectureship have spoken to me of their stay at Cornell, this scheme, which we owe on the one hand to Mr. Baker and on the other to Professor Dennis, must rank high among such efforts at international cooperation.

Previous lecturers have dealt with different branches of pure chemistry and of sciences allied to it, but I believe that I am the first whose teaching duties are definitely concerned with the application of science to industry, and I ask you to allow me to consider in...