SCIENCE

VOL. 79 FRIDAY, MARCH 16, 1934 No. 2046

SCIENCE: A Weekly Journal devoted to the Advancement of Science, edited by J. MCKEEN CATTELL and published every Friday by

THE SCIENCE PRESS

New York City: Grand Central Terminal

Lancaster, Pa. Garrison, N. Y.

Annual Subscription, $6.00 Single Copies, 15 Cts.

SCIENCE is the official organ of the American Association for the Advancement of Science. Information regarding membership in the Association may be secured from the office of the permanent secretary, in the Smithsonian Institution Building, Washington, D. C.

THE PHYSICAL SCIENCES[1]

By Professor W. L. BRAGG, F.R.S.

LANGWORTHY PROFESSOR OF PHYSICS IN THE UNIVERSITY OF MANCHESTER, ENGLAND; NON-RESIDENT LECTURER IN CHEMISTRY AT CORNELL UNIVERSITY ON THE GEORGE FISHER BAKER FOUNDATION

MAY I first express my warm appreciation of the invitation you have extended to me to spend this semester at Cornell as your non-resident lecturer. It is an invitation of long standing, for on two occasions circumstances have made it necessary to postpone my visit, and I am warmly grateful to Professor Dennis and Professor Papish for their kindness in keeping the invitation open for so long. This is my third visit to your country, and my experience of your hospitality tells me what a very delightful stay this will be. I am glad of the occasion which this introductory lecture affords to express my gratitude.

When a scientist comes out into the open, away from the safe retreat of his own special line of work, he puts himself in a very dangerous position. In his own line he has some claim to expert knowledge. He can at all events save himself from falling into pitfalls of crudeness and naïveté, which will be ready for him if he wanders off the tract he knows. If I venture to talk about very general aspects of the physical sciences, I must try to disarm your criticism beforehand. I wish to show my appreciation of the invitation which you extend to your non-resident lecturers to talk to an audience with wide and varied interests. It would not be fair to ask you to take an interest in my own particular department of physics.

I want to talk about the development of the physical sciences, and review the general trend of the bewilderingly rapid advances of recent times. I must feel very diffident in proposing this as a subject, in view of the extent to which it has been treated by far more able exponents. On the other hand, it is of such interest and importance for us all that perhaps no ex-

[1] Introductory public lecture.