

SCIENCE

VOL. LXXII

FRIDAY, AUGUST 22, 1930

No. 1860

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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 ORIGIN OF LAND PLANTS¹

By Dr. DOUGLAS H. CAMPBELL

PROFESSOR OF BOTANY, STANFORD UNIVERSITY

THE problem of how the existing vegetation of the earth has come into being is one of perennial interest to the botanist, and I have chosen as my subject some of the conclusions to which botanists have come as to the history of the plant life which now occupies so large a part of the earth's surface.

The evolution of the plant kingdom always has had for me a special fascination, and since my first serious botanical studies nearly fifty years ago, the subject has occupied a prominent place in my scientific work. Not, perhaps, a particularly practical subject, as ordinarily understood, and no doubt some of my audience may think it a waste of time to have devoted so large a part of one's life to such investigations.

¹ Address of the president of the Pacific Division of the American Association for the Advancement of Science, Eugene, Oregon, June 20, 1930.

"What use is it all?" one may ask, and the answer must depend on one's outlook on life.

I might reply that it has furnished me a livelihood—that I have been well paid for doing what I most wanted to do. This might be given as a "practical" result of my activities. I am afraid, however, that I have even encouraged some of my students to go ahead in similar unpractical lines of research, hoping that they might have some of the same satisfaction in their life work that I have found. If I have succeeded in some degree in this, I feel that I have as truly performed a service as if I had merely equipped them to go out into the world and fight for money and what it brings.

The pursuit of science for the love of it, and not primarily for the material rewards it may bring, has results that no money can purchase. Such a love of



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