concerned with changes which take place in the cell. Such enzymes as are well known are highly specific and selective, a different enzyme being required for

each class of compound.

Armed with the knowledge of the fundamentals of chemical action in the cell, the time is ripe for the chemist to ascertain the inner meaning of phenomena which the biologist can investigate only by the recording of external visual characteristics. a case in point, the coloration of flowers and its inheritance may be cited. There is much in favour of the view that flower colours, whether anthocyans or belonging to other groups, are the product of the interaction of two factors, an oxidase and a colour-less precursor of the pigment. The absence of either factor means failure to develop colour by the plant, that is, white flowers, and there may also be a third factor present which prevents action taking place between oxidase and leucobase.

If proper combination of effort between the biologist and chemist can be ensured, numerous baffling problems, many of which are of far-reaching economic importance, can be attacked. As illustrating one such, in which that all-essential factor quality is concerned, the puzzling fact well known to agriculturists may be mentioned, that one pasture can fatten stock whereas another is of very little value

for this purpose.

## University and Educational Intelligence.

CAMBRIDGE.—Dr. Horace Lamb, Trinity College, has been appointed to give the first Rouse Ball lecture on some subject related to mathematical

Mr. M. H. A. Newman has been elected a fellow of St. John's College.

It is proposed that the sum of 3030l. bequeathed to the University by Mrs. Amy Price Read, shall be devoted to the establishment of a research scholarship similar to the Allen scholarship. In the years when the Allen scholarship is confined to literary subjects of study the Amy Price Read scholarship is to be confined to scientific subjects and vice versa. The scholarship would be open to women students who have been admitted to the titles of degrees on the same terms as to graduates of the University.

London.—The degree of Ph.D. in Science has been conferred on Fanny Lowater (Imperial College-Royal College of Science) for a thesis entitled "A Study of the Band Spectrum of Titanium Oxide."

The use of wireless for university extension work has progressed rapidly in America. Of fifty-seven universities and colleges possessing broadcasting stations at least two—the University of Michigan and Michigan Agricultural College—have organised regular radio extension courses, and the National Radio Chamber of Commerce is developing a plan for establishing other similar courses.

The Council of Armstrong College, Newcastle-on-Tyne, has appointed Prof. A. S. Ferguson, Ontario, to the chair of philosophy rendered vacant by the departure of Prof. R. F. A. Hoernlé to the University of the Witwatersrand, Johannesburg. Prof. Ferguson is a student of St. Andrews and Oxford, and has contributed articles on Plato to various periodicals.

THE directors of the Leplay House educational visits abroad are taking a group of their members, and others who care to join, to Spain for the Christmas

vacation, leaving London December 22, and returning January 6, or with extension January 13. social, economic, and political problems will be touched upon both from the point of view of the peasant life and the city life of to-day. A course of lectures will be included in the programme. Full particulars can be obtained from Miss Margaret Tatton, Leplay House, 65 Belgrave Road, Westminster, S.W.I.

A DEPARTMENT of Geology, Mining, and Metallurgy has been established by the Benares Hindu University under the direction of Prof. N. P. Gandhi. This development was made possible by a gift of Rs. 200,000 by the Maharaja of Jodhpur, who has also endowed a Jodhpur-Hardinge chair of technology. At present the staff of the department comprises two professors-of mining and metallurgy and of geology -an assistant professor of assaying and two demon-

Two travelling fellowships open to women graduates of Great Britain, each of the value of 1000 dollars, are being offered through the British Federation of University Women, 92 Victoria Street, S.W.I. One is offered by the American University Women, to enable the holder to carry on a year's research in any foreign country she may choose. The other, the Rose Sidgwick Memorial fellowship, also endowed by the Americans, offers the same amount to enable a British woman graduate to carry on a year's research or advanced work at an American university, the choice of the university being left to the holder.

In an article on the Rhodes Scholarships in the Empire Review for October, Mr. Ian D. Colvin celebrates the "coming of age" of the great scheme founded in 1902. He remarks that it is yet too young for us to judge of its fruits, as scholars have not yet had time to reach maturity and make their name in the world: he accordingly confines himself to an appreciation of the character of the founder and his aims in founding the scholarships, and a description of the administration of the trust. President Frank Aydelotte, of Swarthmore College, the American Secretary to the Rhodes trustees, is less cautious, having attempted in "Oxford of To-day" an estimate of the influence exerted by the American Rhodes scholars. In the first place he points out that they have, almost to a man, returned to America, and there is a consensus of opinion that they go back better Americans for their Oxford experience. Only one of them has become a British subject. More than a third of them are engaged in educational work, and of these many are already college professors, deans, and presidents. "Perhaps there is no career in the United States at the present time which represents more accurately what Rhodes thought of as public life, no career which offers a better opportunity to influence public opinion than that of professor or administrative officer in one of our American colleges or universities." One of them is United States Commissioner of Education, and as head of the Washington Bureau undoubtedly exercises very great influence. No account such as President Aydelotte has given for the Americans seems to have been published regarding the careers after leaving Oxford of the other Rhodes It is known, however, that an occupational census of those who were elected to scholarships up to 1916 gave the following percentages: educational work 32, law 25, business and industry 11, administration and other government service 8, medicine 7, ministers of religion 4, farming 3, social and philanthropic work 11, journalism and publishing 11, engineering and mining  $1\frac{1}{2}$ , other occupations 5.