

No. 3947 SATURDAY, JUNE 23, 1945 Vol. 155

CONTENTS

Page

Field Studies in Britain	739
University Reconstruction. By R. Brightman	740
Cosmological Theories. By Prof. A. D. Ritchie .	741
Science and Craft of Bee Culture. By H. J. Wadey .	742
The Council for the Promotion of Field Studies. By F. H. C. Butler	744
The Severn Barrage Scheme	746
	/40
Symbiotic Nitrogen Fixation. By Prof. Artturi I. Virtanen	747
Obituary :	
Mr. James Young. By A. A. Dee	749
News and Views	749
Letters to the Editors :	
Cancelled Visit of British Men of Science to the	
Academy of Sciences of the U.S.S.RProf.	
A. V. Hill, O.B.E., F.R.S.	753
Distribution of Vanadium, Chromium, Cobalt	700
and Nickel in Eruptive Rocks.—P. H.Lundegårdh	753
Intensities of Light Absorption.—Ernest A. Braude	753
The Two-body Gravitational Problem in Kine- matical Relativity.—Dr. G. L. Camm; Prof.	
E. A. Milne, F.R.S.	754
Thermal Stability of D.D.TDr. I. E. Balaban and	151
F. K. Sutcliffe	755
Effect of Pretreatment on the Toxicity of Insecti-	
cidal Films on Building Surfaces.—P. S. Hewlett	
and E. A. Parkin	755
Preliminary Report on the Purification and the Molecular Weight of Hypertensin.—Pehr Edman	756
British and Continental Races of the Starling,	
Sturnus vulgaris L., in CanadaDr. William S.	
Bullough	756
X-Ray Induced Mutations in the Physiology of	
Ophiostoma.—Dr. Nils Fries	757
Serodiagnosis of Trichinosis by Microscopical Testing with Living Triching Larvæ.—Dr. Hans	
Roth	758
Pharmacological Action of Cyanic Acid Dr. F.	
Schütz	759
"High Frequency Transmission Lines" Prof.	
Willis Jackson	759
Research Items	760
Significance of Hydrocarbon Oils in Chemical Industry	762
Russian Physics Journals. By Dr. W. H. George	763
Post-War University Problems in the United States. By Dr. V. J. Chapman	765
by Dr. v. J. Chapman	100

Editorial and Publishing Offices MACMILLAN & CO., LTD.,

ST. MARTIN'S STREET, LONDON, W.C.2.

Telephone Number : Whitehall 8831

Telegrams : Phusis Lesquare London Advertisements should be addressed to

T. G. Scott & Son, Ltd., Talbet House, 9 Arundel Street, London, W.C.2 Telephone : Temple Bar 1942

The annual subscription rate is £4 10 0, payable in advance, inland or Abroad. All rights reserved. Registered as a Newspaper at the General Post Office

FIELD STUDIES IN BRITAIN

To some, in particular to the young reared more or less exclusively in an urban environment, the rising hum of the machine age is as music in the ear —enticing, exciting, novel. Contemplation of mechanical achievement induces a pleasing impression of man's inventiveness, his sense of finding ways and means, his ability to triumph over all kinds of difficulties in the interest of utility.

Our present purpose, however, is not to discuss the merits or demerits of this trend in human affairs. but to indicate that there are other trends which have a special claim on our attention at the present time. In particular, attention may be directed to the advocacy, on many sides and by people of widely diverse background, of the need for encouraging and fostering a love of the countryside and of all the many interests and delights which it can provide for men of quiet mind. To some, perhaps, contact with country life is no more than an occasional need, the response to a passing nostalgic mood. To others it represents an escape from the grime and grind of city life. But these, on the whole, are negative aspects of the call of the countryside. The positive aspect is seen in the actions of those for whom life in the country, involving a close, personal contact with Nature, is regarded as both necessary and desirable because it provides something not to be found in town or city; something that is felt to be essential to the fullness of life.

No short description will cover the attractions which the English countryside can provide. To each one of us, according to his mind, it has something to offer. As our contact becomes more close and intimate, specific interests begin to take shape. These include what might be described as the general interests of the countryman, a combination of the æsthetic, the scientific and the utilitarian; and, more specifically, those of the field naturalist, the geologist, the geographer, the archæologist and the landscape painter. On each of us the world of Nature, whether represented by the open downs, the moor, the fen, the forest or the shore, lays its spell. Not only do we advance our particular interest and broaden our general sympathies : we also acquire an outlook on life other than that which emerges from the urban daily round. It seems improbable that anyone will seriously dispute the desirability of fostering a knowledge and appreciation of the countryside (and all that this connotes) as part of the educational equipment of a nation that now professes to look forward to a better way of life. Nor will it be denied that it is to young people in particular that this opportunity should be given.

There is nothing new in the pursuit of field studies. No contemporary poem is necessary to extol the joys of the country life or the pleasures of contemplating wild Nature. But two things may perhaps be noted. One is that during the last few decades there has, in fact, been a relative decline in field work. The other is that with the development of large towns and suburbs, young people are of necessity being brought up in an environment which daily becomes more and more completely removed from the realm of meadow and hedgerow. There is, then, a real need for a renewal of interest in field studies. There is also a very real practical problem, namely, how ways and means can be provided to make good this want. On page 744, we publish a paper by Mr. F. H. C. Butler, honorary secretary of the Council for the Promotion of Field Studies, in which the aims, objects, inception and achievement, of this Council are fully set out.

After a perusal of that article, we feel sure that many readers will desire to support the work of the Council by individual subscription and personal advocacy. Such support will be welcome. But the matter should not be allowed to rest at this level. It is not too much to say that the work of the Council, if it can be carried out on an adequate scale, will contribute both directly and indirectly to the national wellbeing. In that the field studies envisaged have a definite educational, cultural and practical value, they should be regarded as an integral part of the new movement in education. They should therefore be encouraged and promoted by all who realize the value of this work, while, at the administrative level, they should be supported by a grant from the Treasury commensurate with the proposals indicated in the Council's modest but well-considered plan of action. Further, in view of the fact that the Council's work will turn on the acquisition of appropriate centres spread over the country, it can show a good case for the receipt of capital grants. Here the larger philanthropic bodies might well consider whether the Council's objects do not come within their range of interests, and whether they cannot help in establishing the Council on the secure basis which its significance for the future seems to justify.

UNIVERSITY RECONSTRUCTION

The University and the Modern World

An Essay in the Social Philosophy of University Education. By Arnold S. Nash. Pp. 223. (London: S.C.M. Press, Ltd., 1945.) 12s. 6d. net.

"HIS essay in the social philosophy of university ducation is in the nature of a tract for the times, and like most such tracts it is something of un cri du cœur and is apt to be stronger in criticism and diagnosis than in constructive suggestions. Mr. Nash faces the fundamental questions of the real function of the university in society which must be answered before we can determine finally its place in the organization and endowment of research or in the educational system as a whole. The problems he raises and discusses are more vital and searching than most of those which Mr. Brian Simon asked and, with the impatience of youth, did not stay to answer. Mr. Nash makes his diagnosis and writes a prescription, though whether the prescription can be made up, or whether its ingredients are available or potent, are matters on which opinion may differ widely.

As to the diagnosis, Mr. Nash is in good company. His main thesis, that the modern university has built up its curriculum and elaborated its educational procedures on the basis of an inadequate philosophy, and that some new unifying principle is needed, is reflected in much current criticism of the universities. Dr Lowe, for example, in "The Universities in Transformation", in a passage quoted by Mr. Nash commented that our future intellectual leaders would not be able to understand, and still less to plan, more than a small fraction of social life, unless they knew how to link together the various aspects of their experience into a unity of knowledge. They can only carry out this process if they have learnt how to utilize the findings of the specialist sciences, and at the same time have acquired some direct experience of, say, the particular benefits and strains arising from industrial life, of Nature as reshaped by technique, of social responsibility as increased by planning.

The same thesis is to be found in a recent essay of Prof. John MacMurray on "The Functions of a University" in the *Political Quarterly* and in the new edition of Sir Charles Grant Robertson's "The British Universities". It is implicit also in B. Dobrée's essay on arts faculties in modern universities, though not all who recognize as consistently as Rashdall and Mansbridge the unifying influence of a true university would agree that the task of integrating the various branches of learning is specially the function of the arts faculties.

Mr. Nash's argument elaborates at greater length this view that a university is not a university at all unless the various faculties and the subjects they treat gain unity of purpose and aim by some common view of man's nature and destiny. It is the substance of his indictment of the liberal democratic university in the first part of his book that the liberal university failed to supply such a view. By rejecting any real attempt to discover and then to teach a unified conception of life, the liberal university ceases to be a university, and in the second part of the book Mr. Nash argues that students on the continent of Europe embraced Nazism and Communism so readily because the totalitarian philosophies appeared to present the only live option to the confusion and chaos of the liberal world view which regards each academic subject as autonomous.

In these two parts of his book Mr. Nash writes with unmistakable courage and sincerity. His analysis is impartial, but there will be many who, while accepting his view as to the disintegration that is proceeding in the university world and even that the university is facing a profounder crisis than that evoked by the Renaissance or the Reformation, will challenge his conclusions or diagnosis in respect of particular fields. What is at stake, he urges, is not a question of the scientific tradition as opposed to the literary tradition as the basis of university education, but the adequacy of the common premises of any tradition now current in the liberal democratic world on the nature and function of the university in human society. Scientific knowledge of man and the universe does not, he holds, by itself provide an adequate foundation for intellectual reconstruction, though a place must be found for it in the superstructure, and he urges an attempt to discover the limits of reason and the range of validity of scientific method.

Neither that, nor his main thesis, is a new plea, but in his discussion of the liberal university, Mr. Nash is inclined to attribute a larger place to science as a discipline in the universities than it has actually held. It may well be disputed whether the modern university has ever assumed that the scientific method and spirit are an adequate guide in the pursuit of knowledge. Only last January Sir Lawrence