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Editorial and Publishing Offices :

MACMILLAN & CO., LTD.,

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

Editorial communications should be addressed to the Editor.
Advertisements and business letters to the Publishers.

Telephone Number: GERRARD 8830.

Telegraphic Address: PHUSIS, WESTRAND, LONDON.

NO. 2920, VOL. 116]

Co-ordination of Food Research.¹

THE appointment of the Imperial Economic Committee was a further step in the evolution of the Empire, and, should it be successful, an important one, for the aim is to promote “the greater prosperity of the Overseas Empire, the better distribution of the white population within the British Commonwealth, and the better employment of the population which remains at home.” This the Committee hopes to accomplish by devising “methods of turning the trend of commerce into channels which will most effectively assist in the development of the Empire”; and it goes on to say that this “is a task at once complex, difficult and delicate, and [one which] cannot be hurried”—a conclusion with which few will disagree.

This first report before us confines itself to food, and the daily press has familiarised the public with the main feature of the proposals put forward, namely, the establishment of a permanent organisation, modelled broadly on the lines of the Development Commission, designed to secure regularity and continuity of supplies, and to conduct a publicity campaign “calculated to appeal particularly to the young, so that a habit [of consuming Imperial products] may be engendered in the coming generation.” It is obvious that the effects of such a campaign could not be wholly commercial. If it were successful, it must increase the sense of empire, and of imperial responsibilities in the people. Its political import, therefore, would be great.

The special interest of the report to readers of NATURE lies in Part II., which is headed “The Importance of Research.” “We are impressed,” says the Committee, “by the paramount importance of research in solving the problems of the food supplies of the Empire,” and to meet this need it proposes what is neither more nor less than the establishment of an imperial scientific service with headquarters and institutions in every geographical unit. A beginning has already been made towards such a state scientific service. At home there is the Department of Scientific and Industrial Research; in Canada and Australia there are parallel organisations; whilst at the Cape there is an active scientific division of the Department of Mines. Co-operation already exists, but it is almost exclusively of the kind which commonly takes place in the scientific world—interchange of papers and letters, and, much more rarely, of actual workers. The Committee aims at something more, namely, the co-ordination of these several and scattered organisations into a real imperial scientific service for the application of science to the food industries. This it hopes to

¹ Report of the Imperial Economic Committee on Marketing and Preparing for Market of Foodstuffs produced in the Overseas Parts of the Empire. Pp. 38. Cmd. 2493. (London: H.M. Stationery Office, 1925.) *gd. net.*

attain by strengthening the scientific organisations in each country, and by establishing a system of studentships and grants which shall make it easy for scientific workers within the service to move from one part of the Empire to another.

Ultimately, the Committee hopes to see developed "an organised profession, trained at the Universities, specialised at the Research Stations, practised in research on a commercial scale, and utilised and rewarded in the trade at large," and "a professional institution which would play the same part in the food industry as that played by the Institution of Civil Engineers and the Institution of Mechanical Engineers in their industries."

That there is room for some such development as the Committee has outlined is not open to doubt. The application of science to the handling of food is patchy. On the engineering side it is good—cold storage engineering, for example, is as completely scientific as any other branch of engineering. But on the biological side, the industry, broadly speaking, is unscientific, and there is a great field for the application of botanical physiology, of biochemistry, and particularly of colloidal chemistry, to the problems of the storage of flesh, fruit, and vegetables. The food industry needs not only laboratory work on the biological side, but also infiltration by men with some training in the biological sciences—all this the Committee recognises. Before these aims can be attained, however, much persistent advocacy will be necessary. It is greatly to be hoped, therefore, that strong endeavours will be made to press forward the recommendation of the Committee as to research, until the scheme suggested is put into practice.

The Fundamentalist Controversy in the United States.

- (1) *Both Sides of Evolution: a Debate.* By the Rev. Charles Spurgeon Knight. Pp. 233. (San Jose, Cal.: The Arthur H. Field Publishing House, 1925.) 1 dollar.
- (2) *The Dogma of Evolution.* By Prof. Louis Trenchard More. (Louis Clark Vanuxem Foundation Lectures delivered at Princeton University, January 1925) Pp. vi + 387. (Princeton: Princeton University Press; London: Oxford University Press, 1925.) 16s. net.

THE nature of the fundamentalist controversy in the United States, and the issues that are really at stake in it, are admirably illustrated by these two books, which we propose to review together. The first is an account of a public debate which is stated to have taken place in some small town disguised under

the initial N—in what Americans are prone to call "the wild and woolly west"; the other is a series of lectures admirably thought out and expressed, delivered before an academic audience in Princeton in the cultured east. In the first book, it would be difficult to assign the palm for crudity of thought and expression between the supporters and opponents of evolution; but the second book is a mine of valuable facts and of thoughtful criticism, though, like the first, it contains a polemic against the theory of evolution in its ordinary American presentation.

(1) If we turn to consider the first book more in detail, we find that it consists of an introductory address on the history of the theory of evolution by the president of the State University, followed by a defence of evolution by Prof. Allen, the local biologist. This is succeeded by an attack on evolution and a defence of the doctrine of special creation by Dr. Barkly, who is apparently an eminent Californian divine. A rejoinder by Prof. Allen then follows, and the book concludes with a second attack by Dr. Barkly. As the author of the book is the Rev. Dr. Knight, who describes himself as pastor and evangelist, it is not surprising that he considers the supporters of evolution to have been finally vanquished, and that he is careful to let the Church speak last. From the preface we might be disposed to infer that the president, Prof. Allen, and Dr. Barkly are imaginary characters, and that the whole of the arguments are the outcome of Dr. Knight's brain, and for the credit of our biological confrères in California we hope that this is indeed the case.

We note to begin with that the word "Evolution" is understood in its widest Spencerian sense: it is defined as including the nebular theory of Laplace and the supposititious development of living from non-living matter. It is evident from "Dr. Barkly's" rejoinders that what is chiefly attacked by the fundamentalists is this speculative extension of the theory of evolution, and we consider that the whole case for the validity of the theory of organic evolution is prejudiced by binding it up with such wild and baseless guesses as that for which the authority of Dr. Salesby (*sic*, ? Saleeby) is quoted to the effect that the ferments constitute the bridge between living and non-living substance, or that of Prof. Leonard Trolland, of Harvard, who states that life is an "autocatalytic reaction." If science be defined as the study of natural processes and the imaginary prolongation of them into the past and future, then no conclusion is more firmly based than that life only arises from pre-existing life, and that therefore in all sound theories of organic evolution the fundamental properties of living things must be taken for granted and are the postulate on