

to many teachers of science throughout the country.

F. M. PERRY

TUCSON, ARIZONA

QUOTATIONS

SCIENCE IN THE BRITISH PARLIAMENT

AMONG the 707 members of the new parliament there are two fellows of the Royal Society, that is to say, of the body which contains the leading representatives of scientific knowledge and research. One of these, Mr. Balfour, must be taken as an example of the smaller number of fellows who are elected because of their social position and general culture rather than of the normal body of fellows elected because of their devotion to and distinction in scientific research. Sir Joseph Larmor, the other fellow, is a typical example of high scientific distinction, and it is merely an individual accident that his parliamentary record is one of blameless devotion to party politics rather than of specific representation of science. Curiously enough, there are two former teachers of human anatomy—Dr. Addison and Sir Auckland Geddes—and Mr. Mackinder was a well-known geographer before he became a politician. The great experience of Sir Philip Magnus has been in the directorate of institutions for applied science and technology rather than in actual scientific pursuits, and a similar comment may be made on Mr. Woolcock's relation to pharmacology and drugs.

The new parliament will be charged with the duty of reconstructing the social, commercial and industrial fabric of the country and of the empire, and among its 707 members there is only one whose life has been devoted to scientific research. Let it be said at once that the object of calling attention to this defect in the House of Commons is not to advocate the presence in parliament of scientific representatives who should try to protect the interests of scientific men in the fashion in which the representatives of professional and working-class trade unions foster the material interests of their members. The point which ought to be taken is wider, and concerns not a group of individuals, but the whole nation. Huxley, in

an address delivered to workingmen in 1868, stated the case in words of enduring cogency. After saying that any one would be a fool who should sit down to a game of chess on the winning or losing of which depended his life and fortune without knowing something of the rules of the game, he went on to say:

Yet it is a very plain and elementary truth, that the life, the fortune and the happiness of every one of us do depend upon our knowing something of the rules of a game infinitely more difficult and complicated than chess. It is a game which has been played for untold ages, every man and woman of us being one of two players in a game of his or her own. The chessboard is the world, the pieces are the phenomena of the universe, the rules of the game are what we call the laws of nature. The player on the other side is hidden from us. We know that his play is always fair, just and patient. But also we know, to our cost, that he never overlooks a mistake, or makes the smallest allowance for ignorance. To the man who plays well, the highest stakes are paid, with that sort of overflowing generosity with which the strong shows delight in strength, and one who plays ill is checkmated—without haste, but without remorse.

In the complicated conditions of modern life, very few of us can play our own game. In sanitation, housing, public health, provision for research, relation of general research to specific inquiries, and a multitude of other matters of fundamental importance, we have to leave all the important moves to parliament. Neither in parliament nor in the departments from which most of the initiation comes, and on which all the execution will depend, is there a sufficient leaven of the requisite knowledge.

It will be said that expert advice is always taken on scientific matters. Assuming this, and adding to it the further assumption that the advice is always acted on with intelligence and sympathy, it is to be noted that expert advice is also always taken on financial matters, commercial matters, legal matters and so forth, and that, none the less, there are in the House of Commons very many members with expert knowledge of, and interest in, finance business, and law. These are ready and able to suggest the final criticisms, adjustments and coordinations that may be required in the measures

that are proposed. There is not this opportunity in science, although science is fundamental.

The relative absence of scientific men from the House of Commons is both a cause and a symptom of the neglect of science in this country. The majority of members of parliament fall into two classes. One of these consists chiefly of representatives of the great working-class organizations, whose subscriptions supply the necessary funds for contesting elections, and whose membership gives the requisite electoral backing. Even if a similar combination were to be desired in the case of scientific workers—an extremely doubtful proposition—their numbers are too few to make it effective. The other great class consists chiefly of persons who have inherited or acquired a competence, and who have the money and the leisure to woo an electorate. As matters are arranged at present, it is almost impossible for a man who devotes his life to scientific research to acquire a competence. His life is spent between the laboratory and the lecture-room amid gray suburban or provincial surroundings, with possibly a small retiring pension. He must be content, and for the most part he is content, with the high adventures of thought and with the appreciation of his fellows. We suggest that this compulsory segregation is bad for scientific researchers and worse for the nation.—*London Times*.

SCIENTIFIC BOOKS

Contributions to Embryology. Published by the Carnegie Institution of Washington. No. 1, 1915; No. 26, 1918. Volumes 1-8.

Every American embryologist who does not indulge in envy may pardonably take pride in the *Contributions to Embryology* issued by the Carnegie Institution. They form an anatomical publication of unqualified distinction, since all three factors needed for success have fortunately been realized. First, there has been a group of able contributors with beautifully illustrated and important manuscripts; further, there has been generous means for the proper publication of whatever is accepted. Finally, there has been an editor in charge,

whose name does not appear in the title, but whose impress is upon every page. It is not by chance that the great journals of anatomy have been edited by no less distinguished leaders than Max Schultze, His and Virchow. The Carnegie Contributions which thus far rank so well with these are essentially Mall's *Archiv* and one of his worthiest memorials. Even though they are being so ably continued by his junior colleague in the Carnegie Laboratory, who may realize all that Mall had planned, we can not repress deep regret that the work was only well established—scarcely more than begun—when it was left for others to carry on.

Why is the publication so attractive? Possibly because of the absence of "efficiency" methods, so incompatible with scholarly and artistic work. The contributions even appear at irregular intervals when something of moment has been completed and not because it is time for a new issue. There are no rules for preparing standard manuscript, no Procrustean regulation that for every plate there must be so many pages of text, and thanks to the Carnegie Institution, no insulting request that authors of accepted articles pay any part of the cost of publication. If the editor finds a contribution unworthy of a place, he may decline it; but if accepted, it will be fittingly published with the needed figures skilfully and delicately reproduced. And because the editor's judgment is sound, it becomes an achievement to have an article appear in such select company. Probably the *Contributions* shed their enlightening rays in the far corners of the earth, but it is not so announced. The contributor, however, knows for himself that wherever human embryology is studied, these publications will be sought for and treasured.

The series of twenty-six papers thus far published begins auspiciously with Mall's monograph on the fate of the embryo in tubal pregnancy, and Professor Mall has contributed two others—on cyclopia and on the intra-chorionic magma. Professors Van der Stricht and Duesberg, who, during the occupation of Belgium, became the welcome guests of American anatomists, continued here their well-