

be the seat of extensive climatic and seasonal changes, and even of rudimentary forms of life.

The ideas presented in the book are interesting and highly provocative, and the significance of much of the experimental and theoretical work that has been done is discussed in considerable detail, with helpful technical details in the appendixes. Basically, however, the author's arguments only show that his ideas are barely possible; he has certainly not shown that they are at all likely. In particular, the idea that water is present on the lunar surface is highly implausible, not because of escape, but because of the presence of solar ultra-violet radiation, which is known to dissociate water vapour into hydrogen and oxygen in the upper atmosphere of the Earth; the resulting hydrogen would certainly escape from the Moon. Again, the discussion of craters and mountains fails to do justice to the very strong and detailed case for meteorite impact that has been made by R. B. Baldwin and T. Gold. The value of the book thus lies more in its description of observations and in the questions it provokes than in the answers that it suggests.

B. E. J. PAGEL

SECONDARY MODERN SCHOOLS

Your Secondary Modern Schools

An Account of Their Work in the Late 1950's.
By J. Vincent Chapman. Pp. 298. (London: The College of Preceptors, 1959.) 12s. 6d. net.

ALTHOUGH many opinions are given about the encouraging successes or the utter inadequacies of the secondary modern school, these are often coloured by information gathered from one or two areas only. As a result many educationists, including heads and assistants from secondary modern schools themselves, have a distorted picture of the general position in the 3,500 secondary modern schools scattered throughout Great Britain.

Benefiting by the award of the Doreck-Isbister Fellowship by the College of Preceptors, J. V. Chapman has been in touch with about half the total number of schools and here records the information and impressions he has gained from his face-to-face and written inquiries. Chapman sought information under three headings. First, on the amount of time allowed for a certain subject on the school's timetable; secondly, the general syllabus of work; and thirdly, the titles of books being used in the main subjects. From this he has built up a record which, on the whole, is one of good work being done in discouraging circumstances, but which, given more buildings and adequate staffing, could be considerably improved.

The demands on school headmasters and headmistresses are heavy but cheerfully accepted. Her Majesty's inspectors have to be accommodated; parent-teachers' associations have to be stimulated; medical inspections have to be arranged; reports for parents and employers have to be written; school journeys need organizing. These and many extra-mural activities throw considerable strain on the school staff; but, even with school milk and school meals, the masters and mistresses carry on with the main job of providing an all-round general education for pupils of widely varying intellectual levels.

Despite the explosive outbursts of the 'Now-when-I-was-a-boy' school, English is well taught in the 3½

hr. a week which is allotted to it in the average school. The influence of good teaching, however, is soon minimized in homes which culturally know little more than the 'Daily Distress' and Channel 9. About the same time is allowed for mathematics; but here the quality of work done depends quite simply on whether or not the school has managed to capture and retain a competent teacher.

Science teaching is, by-and-large, non-existent. Apart from the odd school with a proud record, the story is one of laboratories waiting for teachers or of teachers, despairing of facilities which take a long time to come, leaving to go elsewhere. It is a sad reflexion that the author of such a book has to fill up a chapter heading with 'Science, including Gardening'. Subjects like history, geography and crafts are well covered although many more schools would teach metalwork if they had the facilities. Physical education is a credit to the schools; a beginning has been made with French and commercial subjects. Domestic science and needlework are given considerable attention in girls' schools, while, in some schools, music is treated with such enthusiasm that "the bugbear of the breaking voice is overcome simply by denying that it exists".

The findings in this factual account of what is going on in secondary modern schools to-day inevitably leads one to question the wisdom of the Crowther Committee in recommending that the school leaving age be raised compulsorily for all children to sixteen. Before this is done the nation should repay the considerable debt to the worthy men and women in secondary modern schools who have managed to make such good bricks with so little straw. Any money available for education should be spent on better buildings, providing adequate staff, and seeing that no longer should some headmasters be able to write that in each year they are allowed to spend a total of 9s. 6d. on books for each child. Two packets of cigarettes a year!

T. H. HAWKINS

"B.D.S." PHYSIOLOGY AND BIOCHEMISTRY

Textbook of Physiology and Biochemistry

By Prof. George H. Bell, Prof. J. Norman Davidson and Prof. Harold Scarborough. Fourth edition. Pp. xi+1065. (Edinburgh and London: E. and S. Livingstone, Ltd., 1959.) 63s. net.

THIS text-book, like an old friend, is often referred to by initials rather than by name, and to many students, even dental students, "B.D.S." probably first suggests this book rather than a degree. This new edition comes only three years after the last one—an indication of the popularity of the book—and it is good to see that Spanish and Italian editions are now being published. It would scarcely be expected that many major changes would have been made after so short a time, and the chapter headings are the same as before, except that a chapter on glycolysis and the citric acid cycle replaces one which summarized liver function. Many changes, though, have been made within the chapters to bring the text and bibliographies up to date. The chemical structures are, in many cases, more clearly set out, and there are some new illustrations, including an attractive coloured one of protein chains. This book has