and xii. They are, however, retranslated by permission of the publishers for the purpose of the present collected edition of English translations of Fabre's entomological writings. There is no doubt that the rendering of the latter into English will do something towards arousing interest in the phenomena of insect behaviour. We may even be permitted to express the pious hope that it will tempt the collector to turn aside from the mere acquisition of specimens and to observe the living more than the dead insect. The great family of the Curculionidæ, with more than 20,000 described species of weevils, provides a rich store of material for observation. Some of the most interesting features in the life-habits of these insects are discussed in the pages before us. Although lacking in the dramatic incidents so inseparably associated with the Hymenoptera, the behaviour of weevils as told of Fabre, and reproduced in this translation, will provide entertainment both to the general reader and the entomologist. A. D. I.

Modern Microscopy: a Handbook for Beginners and Students. By M. I. Cross and Martin J. Cole. Fifth edition, revised and rearranged by Herbert F. Angus. Pp. x+315. (London: Baillière, Tindall and Cox, 1922.) 10*s.* 6*d.* net.

THAT there has been a call for a fifth edition of this book we can well understand, as it gives an excellent introduction to all branches of microscopy. In the opening chapters the mechanics and optics of the microscope are described, and instructions are given on the general method of using the instrument, illumination, drawing and measuring apparatus, and for tests of the optical system.

In the second portion of the book, chapters written by specialists in their respective subjects deal with various aspects of microscopy. Thus, Mr. Barnard and Drs. Cooke and Drew describe the use of the microscope in medicine, including dark ground illumination; histology is dealt with by Mr. Cole, including hardening and embedding tissues and section cutting; and Prof. Cheshire writes on the microscope in geology and discusses simply and clearly the polarisation of light. Another interesting chapter is that by Mr. Cutler on the microscope in agriculture, particularly the protozoa of the soil. Pond life, foraminifera, mycetozoa, mosses and liverworts are some of the other subjects dealt with, and a final chapter by Mr. Cole describes the preparation and mounting of common objects. A useful glossary of technical terms is included, together with details of the Royal Microscopical Society's standards, the specifications of the British Science Guild, and microscopical societies and clubs. The book is very readable and well illustrated, and the information contained in it is accurate and up-to-date.

The Wirral Peninsula: an Outline Regional Survey. By W. Hewitt. Pp. x+293. (Liverpool: University Press of Liverpool, Ltd.; London: Hodder and Stoughton, Ltd., 1922.) 7*s.* 6*d.* net.

MR. HEWITT has selected a small and well-defined area, and in successive chapters has considered its physical, biological, and human aspects, in an endeavour to explain the geographical evolution of the area. The social and economic conditions of any region must necessarily depend to a large extent on its position, natural features, soil, climate, and vegetation. Wirral is only some 130 square miles in extent and until the middle of the nineteenth century was almost entirely agricultural. But the rapid increase of manufacturing industries across the Mersey and growing commercial importance of the Mersey estuary have resulted in an industrial invasion of the left bank of the river. Industries promise to show a steady increase in importance. Agriculture will probably retain its hold, but considerable changes in methods and conditions are taking place. The social evolution which Wirral is now undergoing can be adequately understood only by a study of its regional geography in the light of the past.

The volume is an example of the growing attention that is being paid to regional survey, and is a welcome addition to the small number of studies of this kind which have been prepared in this country. We gather that the author regards it as a preliminary sketch, and that a fuller survey is in course of preparation.

An Experiment in Synthetic Education. By Emily C. Wilson. With Chart for Five Years' Work. Pp. 62. (London: George Allen and Unwin, Ltd., 1921.) 4*s.* 6*d.* net.

MORE than one hundred years ago, Herbart sketched out his ideal system of education, which was to utilise all knowledge for the formation of character. For this purpose the knowledge was to be presented as a unity instead of in the usual way which drew a hard and fast line between each subject. Since his day the specialisation of knowledge has increased so much that the problem, difficult though it was then, is infinitely more difficult now; the intelligent teacher who would put his children into touch with all aspects of modern knowledge, while yet giving the requisite historical background for the understanding of that knowledge, is faced with difficulties at every stage.

This little book shows how one school attempted to deal with the problem. Each subject for convenience demands a name standing for particular aspects of knowledge, but it should be treated in relation to the other subjects. A chart giving details of a five years' scheme is appended. It is an interesting and suggestive experiment.

Leçons sur les Invariants Intégraux: Cours professé à la Faculté des Sciences de Paris. Par Prof. E. Cartan. Pp. x+210. (Paris: A. Hermann et Fils, 1922.) 20 francs.

AN account of Poincaré's theory of integral invariants with special reference to analytical dynamics is given in the volume under notice. It opens with Hamilton's principle of least action and contains detailed discussions of such questions as differential systems admitting infinitesimal transformations. There are also chapters on the application of Poincaré's theory to the problem of n bodies and to Fermat's principle in optics. Much matter collected here can only be found scattered elsewhere in scientific journals.

Rayonnement et gravitation. Par Félix Michaud. Pp. viii+62. (Paris: Gauthier-Villars et Cie, 1922.) 6 francs.

AN attempt which does not go into details to trace all physical phenomena back to radiation, gravitation for example being ascribed to ultra X-rays.