places, and finally develop into a crystal form reminiscent of certain snowflakes. One of these photographs shows how crowding has impaired the symmetrical growth. Other examples of equal interest were illustrated in the *Monthly Weather Review* for November 1907.

It is hoped that the publication of this volume will stimulate interest in a study which is not only fascinating, but also requires little apparatus, though much patience and skill, for its prosecution.

The Evolution of Culture

The Evolution of Culture. By Julius Lippert. Translated and edited by Prof. George Peter Murdock. Pp. xxxiii + 716. (London: George Allen and Unwin, Ltd., 1931.) 20*s*. net.

PROF. MURDOCK, of Yale University, has made an admirable translation of Lippert's "Kulturgeschichte der Menschheit in ihrem organischen Aufbau" (1886–87), which together with his other writings, gained for the author the reputation in Germany of being in the front rank of sociologists, though his work has scarcely had due recognition in other countries. At that time trustworthy data on the ethnography of backward peoples were very scanty and incomplete, so it is not surprising that occasionally his imagination led him beyond his facts and that he was inclined to read too much into them. Such faults are characteristic of most pioneers, but Lippert consciously strove to be inductive, as is shown by his use of the method of comparative ethnology. His approach was distinctly evolutionary, as was almost inevitable at that time, and he covered, so far as he could, the whole field of social anthropology with a due regard to balance and perspective. He did not, however, make the common mistake of confusing evolution with progress. Although Lippert says that "human ingenuity has striven in different places to achieve the goal set by the care for life with the elements there at hand" (p. 169), he does not ignore diffusion from a single centre in the case of the bow (p. 180) and claims it for the fire cult (p. 584) and for the origin of grape wine (p. 199), but in his time the conception of the diffusion of cultures had not achieved the importance which it has now attained.

Although, according to Lippert, social evolution finds expression in increasing foresight and socialisation, and although he regards economic factors as playing an important part in that evolution, he recognises that it is "characteristic of the evolution of mankind that on each stage it has been stimulated and directed by a subjective element, its store of ideas. . . . Undoubtedly man has gone astray on devious paths in his interpretation of objective reality . . . on these devious paths of trial and error man has created, or rather acquired incidentally, a series of means adopted to bring about social integration and an extension of foresight" (p. 345).

The editor has wisely used his discretion in translation; his object was to do full justice to the meaning rather than to the wording of the original text, and thus we are indebted to him for a clearly expressed rendering of a very ponderous and involved argument. The original was devoid of references, but wherever possible the editor has recovered these and has added very numerous references to more recent literature which largely make up for the out-of-date information of the author. Lippert himself was strongest on the history and literature of classical antiquity and on the folklore and history of the Germanic and Slavic peoples, and he was fairly well acquainted with the then available ethnographic evidence. He is eminently suggestive, and students of sociology will find much that will throw light on problems in which they are interested.

A. C. HADDON.

Short Reviews

Annual Reports on the Progress of Chemistry for 1931. Issued by the Chemical Society. Vol. 28. Pp. 443. (London: Chemical Society, 1932.) 10*s*. 6*d*. net.

THE divisions of chemistry which receive annual treatment in the Chemical Society's report—general and physical chemistry (C. N. Hinshelwood), inorganic chemistry (H. Bassett), organic chemistry (aliphatic: E. H. Farmer; homocyclic: G. M. Bennett and J. W. Baker; heterocyclic: S. G. P. Plant), analytical chemistry (J. J. Fox and B. A. Ellis), and biochemistry (A. G. Pollard and J. Pryde)—are on this occasion joined by crystallography (J. D. Bernal and W. A. Wooster), colloid chemistry (W. T. Astbury, D. C. Henry, E. K. Rideal, and R. K. Schofield), and the structure of simple molecules (N. V. Sidgwick and E. J. Bowen). The sound policy of not attempting the impossible is continued, and the report therefore is to be regarded as a collection of short reviews on selected subjects rather than as a compressed record.

Among the subjects treated by Mr. Hinshelwood are effects attributed to the intensive drying of liquids, adsorption at surfaces, and chemical kinetics. Prof. Bassett refers cautiously to the announcement of the discovery of the missing alkali metal (No. 87); Dr. Farmer commences his section with a discussion of olefinic and polyolefinic additions; Prof. Bennett and Dr. Baker continue