

teresting illustration of the facts described in the earlier parts of the book, and as being expeditions which the author could describe and recommend from personal knowledge. They are illustrated by 145 pictures on 33 half-tone plates, all being reproductions of the author's own photographs.

These pictures are admirable as illustrations. Some are of full-page size, others half-page, but the great majority are six on a page, each of these being about 2 in. x 2 in. Selected with good judgment, they illustrate point after point of interest in the forms of snow and of ice, in the work of frost and of glaciers, and in the scenery produced in the course of prolonged ice action. Each bears definite relation to the text, and the text references to them are complete. Small in size though they are, each makes its point to the eye clearly, yet the execution is such that every one of them stands well the test of detailed examination under a reading lens.

The arrangement of matter in the chapters that deal with definite expeditions is a happy one. It emphasises the individuality of each of the areas traversed and it presents in various settings examples of the different phenomena which in Part II. are discussed as types. It is replete with human interest.

(2) In his "Art and Sport of Alpine Photography," Mr. Gardner presents an arresting series of fine photographs—150 plates, six of which have two pictures each, the others are single full-page photographs. These show what can be achieved by skill in the selection of subjects as to each of the many conditions upon which success depends. The author does not, however, leave the pictures—and they *are* pictures—to speak entirely for themselves. In a light and pleasant running commentary he points to the main factors upon which success depends, and in illustration of the influence of these he refers to the examples in this real album of the Alps which his series of photographs forms. Thus, under "Composition and Foreground" he deals successively with water, trees, rocks, ice, and snow in varied forms. In the following section he deals with weather, lighting, and seasons. In all such matters his work shows that he is exceptionally well qualified to advise those who would produce photographs that are pictures as well as mementoes. In his chapter on mountain portraits, Mr. Gardner points to twenty excellent pictures of the Matterhorn and thirteen of Mont Blanc in illustration of the aspects and moods that go to form what the lovers of a mountain feel as its individuality.

F. G. OGILVIE.

Our Bookshelf.

Stars and Atoms. By Prof. A. S. Eddington. Pp. 127 + 6 plates. (Oxford: Clarendon Press; London: Oxford University Press, 1927.) 7s. 6d. net.

THIS new volume from Prof. Eddington bears the same relation to his "Internal Constitution of the Stars" as does his "Space, Time, and Gravitation" to his "Mathematical Theory of Relativity." It is in the form of three lectures, "The Interior of a Star," "Some Recent Investigations," and "The Age of the Stars," with an appendix on the ultimate fate of 'white dwarfs.'

The modern theory of the stars and the way it fits in with and makes use of the modern theory of the atom is a fascinating story, however told. But Prof. Eddington tells it with the full vigour of a powerful and gifted imagination. "Stars and Atoms" is sheer enjoyment in the reading. It is difficult to do justice to the liveliness of his style—the atoms fairly dance before one's eyes; in his own phrase, we see them "riding sunbeams." His wealth of metaphor is apparently inexhaustible—we have Daedalus and his flying equipment, ball-rooms and crinolines, detectives and finger-prints, larders and mousetraps.

Extensive trains of argument are followed through without a mathematical symbol. Prof. Eddington is never content with a merely mathematical deduction. He insists that we shall see for ourselves the inwardness of the matter—that we shall not only acquiesce but also give joyful assent. For this reason, and for inspiration's sake, the professional astronomer will profit from this work as much as the general reader. One illustration will suffice. Though not connected particularly with atomic physics, the principle of the Michelson stellar interferometer is described in a way which illumines the whole of optics.

The prospective reader may rest assured that he is not asked to listen to vague speculations. A charm of the book is the author's candidness. Problems are discussed from which present theories are shown to be inadequate. Prof. Eddington, a great theorist, shows himself also a disciplined one.

E. A. M.

Aluminium: the Metal and its Alloys. (A Critical Descriptive Treatise.) By M. G. Corson. Including Chapter on 'Structurography,' prepared in co-operation with J. R. Vilella. Pp. xx + 291 + 122 plates. (London: Chapman and Hall, Ltd., 1926.) 36s. net.

ALUMINIUM and its alloys are now used very extensively in almost all branches of engineering, and new uses for them are found every year, even in competition with steel. A trustworthy compilation of knowledge concerning them would therefore be of value to the engineer as well as to the metallurgist. This has been attempted by the author of the present work, unfortunately with imperfect success. He has shown great patience and industry in collecting data, but the treatment of