The building up of the corallum is followed out in detail through the formation of the third cycle of permanent septa. Among the illustrations of this part of the work special mention is due the microphotographs of macerated skeletons of developing polyps, and the figures of living polyps with the beginning skeleton *in situ*. Much interest attaches to Professor Duerden's account of the development of the septa. It has been hitherto assumed that the septa of a new cycle appear in the exocœles (*i. e.*, the space between two pairs of mesenteries), but are later embraced by the newly appearing pairs of mesenteries in such wise as to lie in the entocœles (*i. e.*, the space between the mesenteries of a pair). Thus the same septa would be first exocœlic and then entocœlic. In opposition to this scheme Duerden's observations lead him to the conclusion that while exosepta are formed in successive cycles, they never become entosepta. The cycles of entosepta are strictly new formations, appearing as do the primary six septa in entocœlic spaces. The succession of the cycles of exocœlic septa is maintained through the continued peripheral bifurcation of preexisting exocœlic septa. The bifurcated extremities become the (exocœlic) septa of a new cycle, while the main septum is incorporated in the growing body of one of the last formed cycle of entosepta. Having respect only to the actual facts as observed in *Siderastrea*, it has been found that any one of the permanent septa, later than the first six, has a double origin. It is in part a new formation (entocœlic), and in part a preexisting formation (exocœlic). The two parts fuse, and the fusion is interpreted by Professor Duerden as the incorporation by a growing organ of the remnant of a vanishing organ. In a developing corallum according to this view exosepta are formed at each stage of growth, only to disappear as the permanent septa, entosepta, come into existence. Thus the development of coral septa affords an excellent example of substitution: temporary organs precede and are replaced by permanent organs performing the same function as the former. As a corollary to this conclusion the author expresses his belief that the exoseptal predecessors of the permanent septa do not wholly disappear in all corals, as independent structures, but persist in some species in the shape of the *pali* found in front of the larger septa. H. V. W.

Die Krystallgestalten der Mineralogie in Stereoskopischen Bildern. Von Professor Theodor Hartwig, Professor at the Staatsrealschule in Steyr, Upper Austria. Vienna, Verlag von A. Pichler's Witwe und Sohn.

As the author says in his description of the set,[1] the method of stereoscopic illustration has been applied within a few years in medicine, in technical science, as for instance in drawings of machines, for the representation of microscopic objects, and in the measurement of terrestrial and astronomical distances. In this application to crystallography Professor Hartwig has prepared 120 stereographic drawings of crystals, which are printed on white cardboard and placed in a simple stereoscope with adjustable focus, the whole packed in a neat box.

The drawings are divided into two sets, (*A*) the simple crystal forms and separate projections of the axes of the six systems, and (*B*) the more usual combinations in examples of natural crystals. The usual clinographic projection is used, modified of course for the stereoscope, and in all cases the axes are projected inside the forms. The effect of solidity produced by these drawings and the clearness of the relations shown is surprising; in some ways they surpass the usual glass models with colored threads inserted to represent the axes. In the development of hemihedral forms from the corresponding holohedral the effect is particularly good and yet something is left to the imagination of the student in completing their derivation. The drawings are intended to supplement solid models, especially in individual instruction, and perhaps in some cases to replace the more expensive glass models, as with the hemihedral forms mentioned above.

John E. Wolff.

[1] *Zeitschrift für Lehrmittelwesen und pädagogische Literatur*, Vol. 1, No. 7, 1905, pp. 217–220.