1918.]

fleur et du fruit de l'hélianthe (ou d'autres plantes) et si cela peut influer sur la disposition de la mosaïque ou même la déterminer."

According to the volume before us\* it seems that there is no doubt about the logarithmic spiral arrangement in the sunflower, or indeed that we have systems intersecting isogonally. Reference is made to a careful and elaborate study by H. H. Church,† which has been adopted by T. A. Cook in his Curves of Life. But of Thompson's comment in this connection I shall not do more than quote a single sentence: "On the analogy of the hydrodynamic lines of force in certain vortex movements, and of similar lines of force in certain magnetic phenomena, Mr. Church proceeds to argue that the energies of life follow lines comparable to those of electric energy, and that the logarithmic spirals of the sunflower are, so to speak, lines of equipotential."

Professor Thompson's work is recommended as one of the most notable and most readable of scientific books appearing in the past decade.

## R. C. ARCHIBALD.

Hvorledes Mathematiken I Tiden Fra Platon Til Euklid Blev Rationel Videnskab. By H. G. ZEUTHEN. Reprinted from the D. Kgl. Danske Vidensk. Selsk. Skrifter, Naturvidensk. og Mathem. Afd., 8. Række, I. 5. Copenhagen, 1917. 183 pp.

ANY work by Professor Zeuthen on the history of mathematics, even though it be a reprint from the memoirs of an academy, deserves to be brought to the attention of other scholars than those who may chance to see the original publication. This is especially true when the memoirs of the academy are printed in a language not generally familiar to scholars and therefore are not as frequently consulted as those which appear in languages more nearly international.

In this particular case there is the more reason for calling attention to the memoir because a summary is given in the French language so that all scholars may have easy access to the argument and, with this as a guide and with a knowledge of German, may follow the more important details in the text itself.

<sup>\*</sup> Pp. 639-640.

<sup>&</sup>lt;sup>†</sup> Relation of Phyllotaxis to Mechanical Laws, Oxford, 1901–1903; cf., Ann. of Botany, vol. 15 (1901), p. 481.