

*Philosophy and Modern Science.* By Harold T. Davis. Bloomington, Ind., The Principia Press, 1931. xiv+335 pp.

The remarkable concepts of recent physical science are here set forth as the culmination of past experience, and some of their implications are suggested in such a way as to give an insight "into the new philosophy of nature and the metaphysics of modern science." The exposition is non-technical and is about as simple as the character of the material will admit. The major movements in current physics and astronomy are well treated and the progress of ideas is clearly exhibited against a rapidly sketched historical background. The exposition sanely raises the relevant philosophical questions and makes their characteristics stand out with clarity. But these questions are frequently left unanswered—necessarily—in the present state of knowledge and speculation. The book is clear, interesting, and stimulating.

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*Vorlesungen über Darstellende Geometrie.* By Emil Müller. Band III: *Konstruktive Behandlung der Regelflächen*, bearbeitet von Dr. Joseph Leopold Krames. Leipzig and Wien, Franz Deuticke, 1931. viii+303 pp. M. 35.

The third volume of this well known treatise on descriptive geometry by Emil Müller has been edited and completed by Dr. Krames, professor at the Technische Hochschule at Brünn, and gives a constructive treatment of ruled surfaces from a scientific standpoint, which means argumentation with a rigorous algebraic and analytic basis.

The book is divided into seven chapters with contents as follows: I. Foundations and analytic representations, II. Methods of generating ruled surfaces and theorems connected with them, III. Differential geometry of ruled surfaces, IV. Algebraic geometry of ruled surfaces (*Geometrie im Grossen*), V. + VI. General and particular ruled surfaces of the third degree, VII. Ruled surfaces of the fourth degree.

Excepting Fiedler's activity at Zürich, culminating in the publication of *Darstellende Geometrie in organischer Verbindung mit der Geometrie der Lage*, Austria has always been the classic country for descriptive geometry with some of the most noted representatives in modern history. The level of instruction in this field at the Austrian polytechnic schools is in a general way above that of many other countries. Here in America for example, descriptive geometry in our schools of engineering is of a very elementary type, as taught in elementary European trade-schools and secondary schools. Somehow there never has been a desire to rise above the elementary level, which, for the purely utilitarian purpose of teaching students merely what is needed in practice is, of course, justifiable.

When reading a treatise on descriptive geometry like Dr. Krames' *Ruled Surfaces*, the beauties and results of a scientific treatment become at once manifest, so that not only the engineer but also the student of mathematics, in particular the geometrician, will profit by the study of such a book. Its value is furthermore increased by historic notes and references, an index, and a list of authors. Typography and figures are excellent.

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