

although this property of the surface curve is very often referred to and used by modern writers upon these subjects.

This last section of the book is very much compressed ; but the reader will find there at least the fundamental theorems necessary for a more extensive study of surface curves.

Very few misprints which could mislead the reader have been observed in the volume. One which is, perhaps, worth mentioning is the use of the word "Flächen" for the word "Ebenen" in theorem 7, page 26.

The figures are drawn with care, and are numerous, which is a very helpful feature of the work for a beginner. The references, in footnotes, to other treatises and to original sources, are full and instructive. Tables containing the principal formulas established are appended at the end, as is also an excellent index.

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SOME RECENT BOOKS ON MECHANICS.

The Principles of Mechanics: An Elementary Exposition for Students of Physics. By FREDERICK SLATE. Part I. New York, The Macmillan Co., 1900. Crown 8vo., vii + 299 pp.

A Treatise on Elementary Dynamics. By H. A. ROBERTS. London, Macmillan & Co., 1900. 16mo., xi + 258 pp.

Die Dynamik der Systeme starrer Körper von E. J. ROUTH. Autorisierte deutsche Ausgabe von ADOLF SCHEPP mit einem Vorwort von FELIX KLEIN. Zwei Bände. B. G. Teubner, Leipzig, 1898-1900.

DURING the past decade many works which treat mechanics from one standpoint or another have been published. The list of authors includes Appell, Boltzmann, Föppl, Gray, Hertz, Routh, Volkmann, and others perhaps less well known. The different authors differ greatly both in their aims and in their methods of presenting the subject ; but on the whole they show a tendency toward something which is to a considerable extent a recent development—to the careful consideration of the underlying principles of mechanics. The amount of attention given to this phase of