Analytische Geometrie des Punktes, der geraden Linie und der Ebene. Von OTTO STAUDE. Leipzig, B. G. Teubner, 1905. viii + 447 pp.

THIS volume is offered as an introduction to the theory of surfaces of the second order, which the publishers requested Professor Staude to write in connection with the Encyklopädie der mathematischen Wissenschaften. It is largely concerned with the various systems of coordinates used in the study of points, lines, and planes. Each subject is based upon cartesian coordinates, from which the other systems are derived.

The text is divided into three parts : the first treats of ranges of points and plane pencils ; the second deals with the point, line, triangle, and quadrangle ; the third discusses configurations of lines and planes. The subject matter is not new ; the method is elegant.

Two characteristic features of this excellent work are the thoroughness with which the fundamental notions have been discussed, and the large place given to the principle of duality.

The historical and critical notes of the appendix are exceedingly valuable. The author indicates the important contributions of various geometers, states the sources of new conceptions, indicates parallel lines of development, and gives a multitude of references.

<div align="right">G. N. BAUER.</div>

Problems in Strength of Materials. By WILLIAM KENT SHEPARD. Ginn and Co. viii + 72 pp.

THE purpose of this book, another of the Yale series of mathematical texts, is to furnish a large variety of problems to supplement and illustrate the theory of the strength of materials. The author believes that, in order to obtain a working knowledge of any scientific subject, the average student should solve numerous problems illustrating the application of the theory, and that the present text-books on the strength of materials do not furnish a sufficient number.

The 568 problems proposed cover fully the field of the subject, as usually taught in scientific and technical schools. The fundamental subjects of tension, compression, shear, and elastic deformation are first considered ; after which the problems are mainly those of the design and investigation of cylinders and spheres, riveted joints, the various types of beams and columns, plates, and shapes to resist torsion and combined stresses.