

MATHEMATICAL ASSOCIATION



supporting mathematics in education

Review

Source: *The Mathematical Gazette*, Vol. 2, No. 43 (Jan., 1904), p. 390

Published by: Mathematical Association

Stable URL: <http://www.jstor.org/stable/3604353>

Accessed: 04-12-2015 14:36 UTC

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at <http://www.jstor.org/page/info/about/policies/terms.jsp>

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



Mathematical Association is collaborating with JSTOR to digitize, preserve and extend access to *The Mathematical Gazette*.

<http://www.jstor.org>

Projection Drawing. By O. GUETH, M.E. (E. & F. Spon, price 3s. net.)

This work consists of twelve plates, without explanations, illustrating projections of prisms and pyramids, sections and developments of certain solids, and inter-sections of prisms, cylinders, and spheres.

The diagrams are well chosen, and the mode of lettering and the auxiliary projections and developments indicated seem well calculated to aid a student in grasping the essentials of descriptive geometry—particularly if he actually cuts the developments out in cardboard, and folds them up so as to form the solid represented. C. S. J.

Traité de Géométrie. By C. GUICHARD. Part II. Compléments. Pp. vii. and 430. 1903. (Nony, Paris.)

The addition of fresh matter to the "programmes" of the secondary and higher schools in France has necessitated a fresh sequel to M. Guichard's book on the elements of geometry. The additions are threefold: in Geometry, the orthogonal projection of a circle and the theorems of Dandelin; in Mechanics, the theory of vectors; and in Descriptive Geometry, central projections and the generation of conics by means of homographic pencils. To this the author adds transversals, poles and polars, coaxial circles, tangent circles, inversion, spherical geometry, homology, elementary geometrical conics, systems of four lines belonging to the same quadric, etc. Although the theory of vectors finds its principal applications in Mechanics it rightly takes its place in a volume such as this, inasmuch as it forms a body of doctrine of a purely geometrical character. The author has also found that it is an admirable introduction to the study of systems of lines. He defines conics by their elementary properties, and by Dandelin's theorems a conic may be taken as the projection of a circle, hence are deduced properties of conics which enable him to prove that the projection of a circle wherever its centre of projection may be is a conic. Thus he directly proves that the conic is the locus of intersection of the corresponding rays of two homographic pencils. The volume closes with a section on plane polygons, polyhedra, and the measurement of areas.

An Elementary Treatise on Conic Sections and Algebraic Geometry, especially designed for the use of beginners. By G. H. PUCKLE. Pp. vii. and 379. 1903. (Macmillan.)

The first addition of this book was published in 1854, shortly after the appearance of Dr. Salmon's classical treatise. The fifth edition (stereotyped) was issued in 1884, and the book has been reprinted with revisions in 1887, 1892, 1896, and now again in 1903. Mr. Puckle's "Conics" is therefore well known to the majority of our readers, and there is but one point to which attention may be drawn. In the present edition, pp. 281-288, we find collected simple methods of reduction of the equation of the second degree, and of finding the foci, axes, and directrices. Mr. Puckle's memory is short when he claims that "the equation to the directrix (Art. 294) has not, as far as I know, appeared in any other work." This is true enough if a "work" is a text-book. But the equation in question will be found on p. 61 of the 68th volume of the *Educational Times Reprint*, and that, too, under the name of G. H. Puckle.

Geometrische Aufgaben und Lehrbuch der Geometrie: Planimetrie, Stereometrie, Ebene und Sphärische Trigonometrie. Vol. II. Trigonometrie. By M. SCHUSTER. Pp. vii. and 112. 1903. (Teubner.)

The chief interest of this admirable collection of questions to English teachers is the large number devoted to the application of Trigonometry to practical purposes—physics, navigation, planimetry, mathematical geography, and astronomy. The questions appear to be carefully graduated, and the majority of them are practical applications in the subjects we have mentioned. It is needless to dwell upon the educative effect on the mind of the student when he has to apply to realities what theory he has learned. His horizon is widened, his interest is sustained, and the faculty of concentration, on the development of which his intellectual future depends, is being steadily cultivated.