

MATHEMATICAL ASSOCIATION



supporting mathematics in education

Review

Source: *The Mathematical Gazette*, Vol. 7, No. 105 (May, 1913), pp. 127-128

Published by: Mathematical Association

Stable URL: <http://www.jstor.org/stable/3603335>

Accessed: 29-12-2015 07:57 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>

us, and is at least as real as that with which we are environed." "I do not regard mathematics as a science purely of calculation, but one of ideas, and as the embodiment of a philosophy. . . . Faraday, at the end of his experimental lectures, was accustomed to say—I have myself heard him do so—'We will now leave that to the calculators.' So long as we are content to be regarded as mere calculators we shall be . . . Pariahs." One of the remarks above is repeated in the form: "This is another example of the law in Heuristic that the whole is easier of deglutition than its part." "One is surprised to reflect on the change which has come over the face of Algebra in the last quarter of a century. It is now possible to enlarge to an almost unlimited extent on any branch of it. These thirty lectures . . . might be compared to an unfinished epic in thirty cantos. Does it not seem as if Algebra had attained to the character of a fine art, in which the workman has a free hand to develop his conceptions as in a musical theme or a subject for painting? Formerly it consisted almost exclusively of detached theorems, but now-a-days it has reached a point to which every properly developed algebraical composition, like a skilful landscape, is expected to suggest the notion of an infinite distance lying beyond the limits of the canvas." "I am not one of those who look upon analysis as only valuable for the positive results to which it leads, and who regard proofs as almost a superfluity, thinking it sufficient that mathematical formulæ should be obtained, no matter how, and duly entered on a register. . . . It is scarcely possible that a well-reasoned mathematical proof shall not contain within itself subordinate theorems—germs of thought of intrinsic value and capable of extended application." "Thus a theorem of pure form is brought to depend on considerations of greater and less, or as we may express it, Quality is made to stoop its neck to the levelling yoke of Quantity." These random quotations may perhaps send some of our younger members to the pages of the four volumes. Even if the memoirs are over the heads of a reader, he will find purple patches and every now and then catch a glimpse of the matchless fire and inspiring enthusiasm of this great personality. We cannot conclude, however, without quoting the final passages of Mr. Baker's tribute: "He was, however, before all an abstract thinker, his admiration was ever for intellectual triumphs, his constant worship was of the things of the mind. This it was which seems to have impressed those who knew him personally. And because of this, his work will endure, according to its value—mingling with the stream fed by the toil of innumerable men—of which the issue is as the source. He is of those to whom it is given to renew in us the sanity which is called faith."

Practical Geometry and Graphics. By D. A. Low. Pp. vii + 448. 7s. 6d. net. 1912. (Longmans, Green & Co.)

Prof. Low's volume may be regarded as an excellent companion to a course of instruction on these subjects. One of the features of the book is the illustrations, which are of the best, and excellently printed. It is a pity that the volume is not furnished with a tabulated list of sections suitable for a first reading. "Starring" the sections required would attain the same end. A book so packed with matter is apt to make the private student despair of ever reaching the end of his labours. Another of the pitfalls in wait for him is the feeling that he ought to work out all the examples, and it does not appear to be clearly stated anywhere that he is free to select. The book fairly bristles with questions (of which by far the greater number are original); the essence of the training is that each should be worked out on the drawing board; and each takes *some* time. Again, on the fourth page we find the student has to be reminded that the sine of an angle is the cosine of its complement, and so on. By the time he reaches p. 157 or thereabouts he is supposed to be able to tackle the analytical work comprised in the treatment of periodic motion. No doubt the author's experience with technical students has shown him that there is no practical difficulty in this arrangement of the work. And it must be admitted that the book is explicitly intended for the technical student. But from the point of view of the unaided student who is getting his knowledge of the subject from the book, it is a blemish that might be removed by a few lines of indication as to the complementary mathematical work that should be done in the period intervening between beginning the subject and reaching p. 157. This is in our opinion the only adverse reflection that can be made. Prof. Low's expository power is well known, and is here to be seen at his best. No

student who is able to go through this volume with the aid of a competent instructor can fail to get a thorough grasp of the principles so clearly set forth. The book is beautifully got up and is a pleasure to read. The leaded headings of the sections and the index make the work of reference easy. The usual apparatus of mathematical tables is supplied in an appendix.

CORRESPONDENCE.

THE UNIVERSITY OF CHICAGO,
Founded by John D. Rockefeller,
The Board of Recommendations, *January*, 1913.

Office of the Secretary.

DEAR SIR,

The National Committee on Geometry Syllabus, working under the joint auspices of the American Federation of Science and Mathematical Teachers and the National Education Association, has just completed its final report, and has made arrangements with the Commissioner of Education for its distribution to teachers of mathematics and others interested. Will you kindly insert the following statement in one or more issues of your journal, in order that your readers may have the privilege of securing copies.

Yours very truly, H. E. SLAUGHT,
Chairman of the Committee.

The report of the National Committee of Fifteen on Geometry Syllabus, which has been under consideration for nearly three years, and which was revised and finally adopted at the N.E.A. meetings in July, 1912, has now been re-published in a pamphlet of 80 pages, and is ready for distribution to teachers of geometry and all others interested. This report was prepared under the joint auspices of the American Federation of Teachers of the Mathematical and Natural Sciences and the National Education Association. It includes a historical introduction and sections on axioms and definitions, on exercises and problems, and the syllabus itself, including both plane and solid geometry. It is the hope of the committee that this report may be of great service to all teachers of geometry, and to this end that it may have a wide distribution among all interested. Copies may be secured gratis upon application to the Commissioner of Education, Department of the Interior, Washington, D.C.

THE LIBRARY.

THE Library has now a home in the rooms of the Teachers' Guild, 74 Gower Street, W.C. A catalogue has been issued to members containing the list of books, etc., belonging to the Association and the regulations under which they may be inspected or borrowed.

The Librarian will gladly receive and acknowledge in the *Gazette* any donation of ancient or modern works on mathematical subjects.

Wanted by purchase or exchange :

- | | |
|---|--|
| 1 or 2 copies of <i>Gazette</i> No. 2 (very important). | |
| 2 or 3 copies of Annual Report No. 11 (very important). | |
| 1 or 2 " " Nos. 10, 12 (very important). | |
| 1 copy " " Nos. 1, 2. | |

ERRATA.

- l. 8, p. 70, "it" after "meeting."
 l. 14, for $a : b$ read $b : a$.
 Index, Vol. V. p. vi, l. 20, for "W. Gallatly" read "Cecil Hawkins."
 l. 28, p. 339, for $2^{83} - 1$ read $2^{89} - 1$.