

devoted to properties of inscribed and circumscribed circles, the nine-points circle, etc. The exercises are numerous but rather difficult. Sets of examination papers are given in the appendix. The matter taken up and its arrangement is somewhat the same as that in Locke's elementary trigonometry. The proofs are not, however, so full; nor is there such an abundance of easy exercises for the student. The concise way in which the book is written, and the difficult examples will help the student of good mathematical mind, or one who is fortunate enough to be under a good teacher, in the subject.

While admiring the systematic way in which the author has developed the theory of his subject, we would suggest that for the average student it is better not to introduce too many new definitions at the beginning of a book. Our ideal trigonometry for a high school would commence with simple problems in the solution of right-angled triangles. A large number of examples should be given at this stage. The idea of the sine, tangent, etc., would be clearly fixed in the student's mind. Then when the ideas of negative lines, angles larger than four right angles, etc., can be developed, the need for the conceptions can be more easily seen.

The relations between the ratios and the solution of oblique-angled triangles would follow. The radian and the more theoretical portions of the subject would come last of all. While making these criticisms we can recommend the book as being concise and well arranged in form, as being well adapted for the ground-work for an advanced study of the subject.—T. C. M.

**The September Magazines.**

The September number of *The Chautauquan* opens with a richly illustrated article on "Venetian Fetes—Past and Present," by F. Cooley; "Englishmen who won Fame in India," is the subject of an entertaining sketch, by S. Parkes Cadman; Cyrus C. Adams tells of the recent remarkable change in the methods and purposes of African research. Meadville,

Pa., \$2.00 per year. . . . In the September *Forum*, Dr. J. M. Rice writes on "Teaching by Travel: a school excursion from Indiana to Virginia, recommending the adoption by our public schools of the German method of instruction by means of school excursions, and it describes one lately made by the Anderson (Ind.) school, which lasted seven days, covered a distance of 1,800 miles, and eminently successful in every way. . . . *The Century* for September contains two entertaining papers adapted to the season for the re-opening of the schools, the first being an account of "School Excursions in Germany," by Dr. J. M. Rice, author of the volume, "The Public School System of the United States." This paper includes a record of an excursion of this kind in which Dr. Rice participated, and has the advantage of being the first article on the subject printed in America, where the idea of school excursions has already taken root, and promises to spread. The other paper is on "Playgrounds for City Schools. . . . *St. Nicholas* for September has "Two School-houses and a Shipwreck," by Isabel Marbury, an account of the succouring of the crew of an American vessel by the Japanese, and the building of school houses with the money granted them by Congress for their humanity. . . . In *Littell's Living Age*, (Boston) for Sep. 1, there is a most instructive article on "Iceland To-day," containing an account of the physical features, products and habits of the people of this curious country. . . . Prof. James Sully of University College, London, heads the list of contributors to the September *Popular Science Monthly*, with the second of his studies of Childhood, dealing with the imaginative side of play. He shows by means of many incidents how strong is the power of "making believe" that enters so largely into children's plays. Dr. H. G. Armstrong, F. R. S., has a strong article on scientific education, and what it should do for the young. . . . In the *Atlantic Monthly* for September, William Davies contributes an able article on "The Religion of Gotama Buddha," and "An Entertaining Scholar," by Harriet Waters Preston and Louise Dodge, adds to the interest and instructiveness of the issue.

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