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Communications relating to the Editorial Department should be addressed to the Editor, HENRY T. BOVEY, 31 McTavish Street, Montreal.  
The Editor does not hold himself responsible for opinions expressed by his correspondents.  
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## NEW BOOKS.

*Text-Book of Least Squares.*—By Mansfield Merriman. (New York: John Wiley & Sons. Montreal: Dawson Bros.)

This is another of the admirable series of text-books which are being issued by Messrs. John Wiley & Sons, of New York. The author, Mr. Mansfield Merriman, is well known as an accomplished mathematician, and this new work on least squares will be welcomed as a valuable contribution to the mathematical literature of students. It is a considerably altered and enlarged edition of the "Elements of the Method of Least Squares," published by Mr. Merriman, in 1877, and is divided into 10 chapters. In Chapters I. to IV. he deals very fully with the mathematical development of the principles, methods, and formulæ, and in Chapters V. to IX. he discusses their application to the different classes of observation. Questions and problems are given at the end of each chapter to test the student's knowledge of the preceding matter.

*The True Theory of the Sun.*—By Thomas Bassnett. (New York: G. P. Putman's Sons.)

Mr. Thomas Bassnett has been long known as an earnest and diligent investigator of various natural phenomena. In 1854 he published the "Outlines of a Mechanical Theory of Storms," being an exposition of his own speculations, on the subject. Many physical questions, however, he discussed only very briefly. With the object of explaining those more fully and explicitly, Mr. Bassnett now publishes a new work, which he calls the "True Theory of the Sun," "which theory," as he claims in his preface, "after 30 more years of observation is proved to be a true theory, and it is of some importance that the history of its origin and development should be preserved, as well of the adverse influence which have resulted, had the world out of the benefits which might have resulted, had not science emphatically condemned it." How far such claim can be maintained is for the reader to judge. The subjects dealt with are the ethereal medium, the constitution of the solar surface, the character and theories of the solar corona, sun spot theories, cometary phenomena.

## THE POETRY OF ARCHITECTURE,

OR

*Architecture in its relation to the other Fine Arts.*

Architecture has been practically described as "frozen music." In proportion as it is noble it speaks to the spirit of man in elevated and refining strains. Analyze the emotions aroused by hearing a masterpiece of Handel or Beethoven played on a cathedral organ by a Stainer or an Elvey; study a picture such as the marvellous Transfiguration, by Raphael, or a piece of sculpture breathed into being by the genius of a Michael Angelo, or come under the spell of a cathedral interior such as Westminster or York, Amiens, or Chartres, with their "dim religious light," and their "stained windows richly dight," and you will find that they have all much in common. They are all the outward expressions of the infinite in man striving for utterance. They have their fountain in that innate sense of beauty implanted in all of us. They embody the teachings of Nature to the soul of man, and his aspirations after the perfect beauty of a "new heaven and a new earth."

Such being so, it would be doing violence to separate the loving sisterhood, or, at any rate, the three graces—Architecture, Sculpture and Painting. History teaches us that they were intertwined in loving embrace in the early ages of the world, and although it is possible to have noble architecture, without either the aid of sculpture or painting, yet the perfect art is that which combines the three in due proportion and relation.

I therefore crave your company for a short time as we look, first, at architecture alone, from its artistic side, then glance at it in combination with the pictorial art, and then with the plastic. First, then, an essential element in all good artistic architecture is its proportion. Some have professed to reduce this to an inexorable set of rules; but proportion is too subtle to be thus "cribbed, cabined and confined." More stress has been laid upon it in classic architecture than in Gothic. In our first lecture we found that Vitruvius and others had made out a scale for the Greek temples and orders, in which the height of columns bore a certain relation to the diameter of them, in which the