

The remarkable fact is brought to notice that the term *sky-blue* is almost unknown in the ancient writings of any Asiatic people, e.g. in the Vedic hymns, in the Zend-Avesta, in the Old Testament, in Hebrew writings generally, and in Homer and Hesiod; the epithets applied to the sky being expressive of its vastness, depth, purity, brilliancy, &c., but not of its colour. A similar want of a precise colour-term is shown to exist in many modern barbarous languages. But it does not seem warrantable to conclude that *sky-blue* was a colour unknown to these peoples; indeed *sky-blue* pigments have been found (p. 37) at both Memphis and Thebes.

A part of Dr. Magnus's theory of the evolution of the colour-sense is that the eye acquired the power of recognising different colours in the order of their luminosity; but the order which he seems to assign (p. 71), viz. red, yellow, &c., is certainly not that of their luminosity. The physiological and emotional effects of colours on men and animals are noticed in this connection. Thus red is known to excite bulls and turkeys: the experiments of M. Paul Bert on the small crustacean *Daphnia* are quoted; when placed in a solar spectrum they congregate most thickly in the orange to green region, which is also the most luminous region. Goethe's speculations on the effects of colour on the emotions of mankind are noticed at length. A curious "colour-treatment" (chromo-photérapie) proposed for the insane is also mentioned, which consists in placing the patients amidst surroundings of a tint supposed to be capable of exciting healthful effects: thus red is said to excite, blue and violet to sadden, green to soothe. The results of this treatment do not seem to have been very definite (pp. 78, 79).

The comparative philology of colour-terms takes up—as might be expected—much of the work; the author has spared no pains in endeavouring to trace out the meanings of Homer's colour-terms by the help of the related words in other languages. As to the uncertainties of this process, take the words related to *blue* as an instance. Mr. L. Geiger's opinion is quoted (p. 50) that the modern European words *blue*, *blae*, *blau*, *blå*, *bleu*, &c. (English, Scotch, German, Danish, French), now meaning *blue*, meant *black* in early Europe, whilst another (p. 101) connects them with words conveying the idea of brightness, e.g. *briller*, *blanc*, *blink*, *bleach*, *blank*.

The author promises a further instalment of this essay, in which the evidence from the fine arts, pottery, and dyers' work, and that from morphology and physiology are to be set forth; also a full statement of conclusions.

ALLAN CUNNINGHAM (Major, R.E.)

OUR BOOK SHELF

The Journal of the Engineering Society of the Lehigh University, March, 1886.)

THE practice of forming engineering societies in universities where engineering is taught is an exceedingly good one, and should receive every encouragement and help from the authorities. In fact every college should have its society. The meetings give the students an opportunity of discussing interesting engineering works, and give them a greater interest in the subject-matter taught in the class-room. These junior engineering societies, if I may so call them, ought not to be only found in colleges, but all large engineering works should have a

society of their own, the members of which should include those of the pupils, apprentices, and men who are anxious to improve themselves by the reading and discussing of papers prepared in rotation by the members themselves. Visits to other works might also be arranged. No doubt the formation of such societies may seem very hard to accomplish, but in most works there will be found men willing and anxious to form such societies and to keep them going until their utility is recognised.

The *Journal* before us contains several articles of an interesting nature, the first being by Prof. Merriman on "The Internal Work and the Deflection of Beams"; the second article gives an account of "Boring the Big Aqueduct" for the New York water-supply from Croton Lake. We next have a short notice on technical education in Mexico, followed by a very good account dealing with "The Requisites of a Successful Engineer."

After notices on "Mine Water Formations" and "The Foundations of the Washington Monument," the *Journal* concludes with a condensed report dealing with the measurements necessary to ascertain "the velocity and discharge of the Lehigh River about Bethlehem."

Taken as a whole the contents of this *Journal* are disappointing from a professional point of view, Prof. Merriman's article on the deflection of beams being excepted. The descriptions are much too general and popular; the subjects are not treated with that accuracy demanded by an engineering article, and are written in a style more fitted for the columns of a daily paper than a journal published by an engineering society.

N. J. L.

Fresenius's Quantitative Analysis. Parts I. and II. Vol. II
Translated by C. E. Groves, F.R.S. From New Edition of Fresenius commencing in 1877. (No date.)

It is a great pity these books cannot be pushed forward much faster. The plan adopted by many German authors of sending out books in "Lieferungen" has some advantages, but generally these are more than balanced by the time allowed to elapse between each part. This slowness on the part of authors makes it somewhat unpleasant for a translator, who must of necessity be still somewhat later. In this particular instance, however, the translator has improved on the time by introducing or referring to methods not in the original, but it might have been carried further. The original does not contain anything about Victor Meyer's methods of vapour-density determination, and the translator has also refrained from noticing these methods. There may be some reason for this, but we think at least the methods might have been mentioned, as they are simpler to perform than any other, and do not fall behind any in accuracy.

The whole of Part I. and a small portion of Part II. is taken up with analysis of organic bodies; the remainder of Part II. is on the analysis of potable and spring waters, &c. If an index or table of contents had been added, it would have rendered the English edition more practical.

LETTERS TO THE EDITOR

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts. No notice is taken of anonymous communications.]

[The Editor urgently requests correspondents to keep their letters as short as possible. The pressure on his space is so great that it is impossible otherwise to insure the appearance even of communications containing interesting and novel facts.]

Protective Influence of Black Colour from Light and Heat

IN NATURE, vol. xxxiii. p. 559, a correspondent refers to the effect of blackening the skin round the eyes as a protection against the glare of strong sunlight. Probably the practice has good scientific grounds.