

I trust that physicists will agree with me in this. I know that some Electricians try to sin in a similar way, by writing  $6\omega$  when they mean 6 ohms. But with all deference to any individuals who may have allowed themselves carelessly to drift into this practice, it is a thoroughly bad precedent. We shall soon be having  $12a$  and  $5v$  and  $\frac{3}{4}$  for current and voltage and inductance respectively; a simple specification will look like algebra, and algebra will look like gibberish.

Similarly the custom of writing  $M$  for a millionth of an atmosphere, or 1 barad, is a worrying custom. Let us always have names for units with which we have much to do, but never single letters. Single letters have to serve a far more important purpose, that of denoting the quantities themselves—the whole of a quantity, numerical part, unit, and all.

This last is an old hobby of mine. Ever since my brother showed me the advantage of consciously interpreting algebraical symbols as standing for concrete quantities, and not merely for abstract numbers, the advantage of doing so has presented itself to me with cumulative force. Most physicists are, I think, now of a similar opinion, if they have thought at all about the matter, and Prof. Greenhill is being left almost alone in his state of grievous error; I would say heresy, but that I fear he has some of the pure mathematicians with him for company.

I have dragged Prof. Greenhill in because I want to deny the extraordinary assertion which he makes in an article on page 457 of your issue for September 14, viz. that I would like to "banish the word *hundredweight* from our language." On the contrary, for the specification of loads I have always found it a very convenient word; and if architects use it thus, for pressure on foundations, so much the better. I know what he is referring to—a part of my book on mechanics where I am instructing youth in the meaning of the term *mass*, and the difference between mass and weight. Till they are clear on this point I say that "hundredweight" is a term better avoided for the present. I should, for instance, recommend its avoidance for the present by Prof. Greenhill.

But to return to Dr. Burdon Sanderson's address, which it is perhaps evident from a former part of this article that I have been trying to read, there are two small points on which I would ask a question. First, with regard to totally colour-blind vision. If a person sees all the world in shades of gray he may properly be called colour-blind, in one, and that the most important, sense; but it does not seem to me to follow that he necessarily appreciates white, still less that he proves a specific white sense in normal eyes. On the orthodox theory, as held by physicists, such an eye would strictly be called monochromatic; one only of the three colours would be seen, and which it was would matter nothing to the seer, though it might be ascertained by studying his spectrum vision which the one colour was in any given case. I believe that Abney and Festing found it usually blue. But as regards the psychological impression produced by mono-chromatic vision on the seer, its indiscriminating monotony would obviously result in total absence of colour perception. One colour sensation is psychologically the same as none.

The other question is whether it is useful to distinguish between "physical light" and "physiological or subjective light." The term *light* applies to the stimulus as far as the retina, but after that it is not better called either *sight* or some other and more impressive-looking word, beginning with *photo* or *neuro* and perhaps ending with *taxis*, signifying the specific disturbance of the optic nerve and brain centres. These terms light, heat, sound, &c., have always been ambiguous; but, if useful to discriminate, they had better perhaps now be handed over entirely to physics, to signify monosyllabically the external physical stimulus; while fresh words are coined for the physiological, and again, where not already existing, for the psychological, result.

I trust that this letter has not the appearance of undue presumption; the whole of it is written in the key of interrogation.

OLIVER J. LODGE.

#### British Association: Sectional Procedure.

MEMBERS of the British Association often entertain schemes for the improvement of sectional procedure, which rarely, so far as I have seen, commend themselves to the good opinion of the organising committees. I beg leave to produce one scheme more. Whether the remedy is practicable or not, I am quite sure that the grievance I have to point out is a real one.

Every member of the Association has suffered from the great uncertainty as to the hour at which a particular paper will come on. At the recent Nottingham meeting I was unlucky enough to spend one morning to no purpose. I had a direct interest in two communications; one was not reached that day, the other was taken as read. There is no care taken to prevent such accidents, and yet it would have been easy to provide against the second one at least by marking the communication as "Title only." The other case is of greater, but not, I think, of insuperable difficulty. The remedy which occurs to me is this: a fixed time should be assigned to communications which in the opinion of the Sectional Committee are of special interest and importance. There might be at least two absolute fixtures in each day's proceedings, when members would know that nothing would be allowed to interfere with the punctual production of certain papers or addresses. I should be inclined to mark these by some distinctive title, such as "Address by request of the Section." It seems to me very desirable to send out special invitations before the meeting to persons who could communicate interesting results, and I have little doubt that a fixed time would often lead to acceptance by persons whom the Sections would be glad to hear, but who rarely or never appear in the programme under the existing system. What is bad for the audience is bad for authors too, and after an author finds that his communication is addressed only to people who come to hear something else, and to people who in their despair are working through the entire list, he ceases to offer himself.

If the facilities granted to pre-arranged addresses should lead to a stricter treatment of trivial papers and business matter of no direct scientific interest, the Sections would not suffer.

L. C. M.

#### Orientation of Temples by the Pleiades.

EIGHTEEN months ago, while at the Mena House, Cairo, I came across a back number of *NATURE*, which contained an article on "The Origin of the Year," in which reference is made to the orientation of some Egyptian temples, and I suggested that inquiries should be made as to whether they were not in some cases oriented by the Pleiades. I had not then seen the numbers that referred to stellar orientation.

A pamphlet of 105 pp. was privately printed by myself *thirty years ago* (!) for my own use in the prosecution of "A Comparison of the Calendars and Festivals of Nations," with special reference to the Pleiades.

Since that pamphlet, and a second, of about 20 pp. on cycles regulated by the Pleiades, were printed, I have collected a great deal of further data confirming the conclusions arrived at in 1863. Müller says, in his *Religion, &c.*, of the Dorians, I. 337, that the famous eighth-year cycle, which was in general use in Greece, was luni-sidereal, and regulated by the Pleiades, and that the great feast of Apollo at Delphi, Crete, and Thebes, were arranged by it. He also states (p. 338) that there are vestiges of a sacred calendar in general use in Greece in early ages based on this cycle, but that it fell into disuse, and, in consequence, the Attic festivals and months were thrown into confusion. He had previously stated that the Olympiads were based on the eight-year cycle. Apollo, generally assumed to have been essentially a solar deity, though he evidently was originally a type of Karlikeya, was a god of the Pleiades, and hence the seventh day was sacred to him at Athens. As those stars were the daughters of Atlas, the forty days during which they deserted the nightly sky were spent by Apollo in dancing and singing among the Hyperboreans of Marlas. When the rising of the Pleiades at early morning took place, he returned. In 1882, at the American Association, I showed that he is still remembered south of the Atlas as "Apōlo, a good god, who comes and plays upon the harp." But in the lapse of centuries the Pleiades seemed to go astray, and were forgotten, and, strange to say, Athenæus was forced to treat the history of the Pleiades as a bit of obsolete folk-lore. In discussing the subject of the two groups of *Pleiades* on the handles of the divining cup of Nestor, he says that it is a mistake to suppose that Homer by *Pleiades* meant "doves" (a mistake which Mr. Gladstone has also made in his *Homeric Studies*), and he explains that the cup had two clusters of seven stars represented on it. Many persons, he says, are puzzled at the prominence thus given to those stars, but in early times they were regarded as very important, and left their impress on early mythology, and he also shows that they once regulated the time