

the radiating power of the solar materials may be compared to that of pure lamp-black, as he assumes at the end of the note.

Mr. Ericsson spends a great part of the note in proving that the law of the diminution of radiation according to the square of the distance is accurate, which certainly I have never questioned. The difference between his own result and mine may perhaps be due to a difference in the use or construction of the instrument; but as, unhappily, I have no information of this construction, I cannot attempt any discussion of his principles. I can only say that his table cannot be used in all seasons indifferently, since I have proved that at the same zenith distance, the absorption of solar heat is very different in summer and in winter, on account of the different quantity of aqueous vapour which is found in the atmosphere. And hence the deductions which he makes about the difference of radiation in aphelion and perihelion may be merely accidentally accurate, and not very conclusive.

On the whole, however, I see that the researches of M. Ericsson approach my results a great deal more nearly than those of M. Zollner, who fixes the temperature of the lower stratum of the solar atmosphere in contact with the photosphere at 68,400° C. only. And this is a number sixty times less than that of Mr. Ericsson, while mine is only thirty-seven times greater.

The conclusion which spontaneously flows from such extraordinary differences is, that we are yet far from having any exact information on the subject, and I hope that this question will now be better discussed, and that I may be able to find some improvement to be made in my book.

Rome

A. SECCHI

Neologisms

I THINK the most suitable word to indicate plane-direction is "position," though the word "pose" would serve, and has, indeed, been used in that sense. The word "position" bears the same relation to the word "direction" that "Stellung" bears to "Richtung," or "set" to "righting." "Position" is often (but incorrectly) used to indicate *place*, but we may reason with Colonel Manning, *Abusus non tollit usum*—the abuse of anything doth not abrogate the lawful use thereof. This recognised, the words "position of a plane" can bear no other meaning than that referred to by Mr. Wilson. For the purpose of indicating place, the word "location" would be convenient, but that it suggests to the Latinist a "setting to hire." Our American cousins (very wisely, I think) neglect such trifles.

By the way, is not the word "neologism" very ugly and unnecessary? We must have new words, but need we call them neologisms?

As to the invention of new words, I take it that every author who has anything new to say must sometimes want a new word, in which case he has as fair a right to invent and use such a word as to describe new ideas. If this is not the case, I must plead guilty to a grievous series of offences. In fact, I have received during the past year about a ream of letters rebuking a practice which I consider fully "in my right." You should not speak, writes one, of "a limitless expanse," but of an "unlimited expanse;" you must not say "forceful analogy," urges another, but "forcible analogy;" not "star-cloudlet" says a third, but "nebula;" not "square to" but either "perpendicular" or "at right angles to" says a fourth, and so on. So must you write if you wish to be understood, say these critics; or rather they say, "It is indispensable for the adequate conveyance of your meaning that you should thus conform to established usage."

I am not jesting; these words have not only been employed by one of my anonymous critics, but have been seriously suggested for my own use. In some cases modes of expression are vilified: for instance, it seems you must not say of Venus that she is "nearer to the sun than the earth is," for this is inelegant; you must say that she is "nearer to the sun than the earth;" and, in like manner, for the sake of euphony, one should say of Mercury that he is "nearer to the sun than the earth," rather than that he is "nearer to the sun than to the earth." My attention has been directed to each of the expressions here corrected as characterised by a vice of style. So that, since Venus in inferior conjunction is nearer to the earth than to the sun, but nearer to the sun than the earth is, she is (when so placed) at once nearer to the earth than the sun, and nearer to the sun than the earth,—a statement which appears to me less instructive than might be desired. But possibly I am prejudiced.

It is well to keep (where one may) within dictionary precincts, nor need the writer neglect the rounding of his periods;

but, in my judgment, he should set before both these things what the above quoted critic calls "the adequate conveyance of his meaning."

RICHD. A. PROCTOR

Brighton, September 9

THERE remains but one point to notice in reference to the hybrid (or monster) *prolificness*. Dr. Latham pretty well exhausts its etymological bearings. There remains its phonological bearings to consider. No new word has a chance of being naturalised unless it can be pronounced as well as written; and the greater the difficulty of pronunciation the less is that chance. Now, in order to render Mr. Wallace's word acceptable, it must be pronounced as if it were written, *proollyfickness*, in which phonetic form we almost lose the parent adjective. The reason of this is, that the syllables *ic* and *ness* will not inoculate. To use Mr. Sylvester's phraseology, there is not a perfect anastomosis, and this imperfection is remediable only by change of accent, viz., passing on the accent from *lif* to *ic*; otherwise we must sacrifice anastomosis, and write the word as a compound, *prolific-ness*, i.e., with a hyphen to indicate the necessity of a pause in that place. Surely on all accounts *prolificence* is by far the better word.

Yoxford, September 7

C. M. INGLEBY

The Aurora

I HAVE just read Mr. Wilson's interesting paper entitled "Some Speculations on the Auroras," published in your periodical for September 7. In the *Philosophical Magazine* for July 1870 I made a suggestion as to the origin of auroras similar to that just published by Mr. Wilson.

The periodicity in auroral displays noticed by Mr. Wilson had not attracted my attention. It would doubtless, if it were well established, be confirmatory of the views independently put forward by Mr. Wilson and myself.

A. S. DAVIS

Meteor

ON Saturday, September 2, at 8.14 or 8.15 P.M., I saw a fine meteor under very favourable circumstances. I was standing with several friends at the door of Mr. W. F. Moore's house at Croakbourne, in the Isle of Man, and we were looking up at the western sky at the moment when the meteor came. It started between, I think, γ and π Hercules (it was too cloudy to see those stars), descended nearly vertically, passing through Corona Borealis, and vanished a little below ζ Bootis, at about 15° above the horizon. It moved slowly but continuously, taking from two to three seconds in travelling over 45°. It broke into three, which followed one another, connected and followed by a luminous train which was visible for about one second. The first part of the three was brilliant white, and was estimated by Mr. A. W. Moore and myself independently as equal in size to $\frac{1}{4}$ th of the moon's surface. It was very brilliant, being mistaken by the Rev. John Howard, who was looking in another direction, for a flash of lightning. The two latter globes were blue.

Rugby, September 6

J. M. WILSON

The Earthquake at Worthing

IN your issue of the 31st ult. is an extract from a letter which appeared in the *Times* a day or two before, giving a very circumstantial and a somewhat sensational account of an earthquake which took place at Worthing, at 3.45 on Monday morning, the 28th of August. Is it not possible that there may be some connection between the said earthquake and the circumstances narrated as under in the *Brighton Gazette* of the Thursday following? If so, might it not be on the whole more prudent of correspondents of the *Times* or other papers, before they rush frantically into print on such subjects, just to put a question or two to some imperturbable old fisherman (if they be shaken out of their wits again at a watering place) instead of appealing to hysterical ladies and excitable old gentlemen for their notes of an event of great scientific interest?

"What's that? An earthquake! There it is again! Now again! And now again!" These were the exclamations which paterfamilias and materfamilias and lots of juveniles, roused from their slumbers, uttered on Monday at 3.40 A.M., just before the break of day. It was a strange noise; lights flashed from win-