

"Other Worlds than Ours"

MR. PRITCHARD, in reviewing my book on the plurality of worlds, says that I represent Mr. Lockyer as impeding the progress of science; on the contrary, I regard Mr. Lockyer as one who has, in a most marked and important manner, advanced the cause of science, and I confidently anticipate admirable work from him in the future. It is surely not wrong in me to express openly my opinion that Mr. Lockyer's theory of the corona* is erroneous, or that (precisely because an expedition will set forth next December to observe the corona) the arguments against it cannot advantageously be neglected. But to assert, in the face of the fact that I give reasons for objecting to it, that I object "simply because" Mr. Lockyer's "opinions do not square with mine," is to make a misstatement which one can scarcely imagine to result from mere negligence.

Mr. Pritchard quotes my words, "I have very little doubt that Uranus has at least eight satellites," and asks how I venture to set my *opinion* in antagonism with Mr. Lassell's *observations*. How strange he should not have quoted the next sentence also, which would have shown that, as a matter of fact, I set the *observations* of Sir W. Herschel against the *opinion* of the esteemed and eminent astronomer who is President of the Astronomical Society. One can scarcely imagine this omission to result from mere negligence.

Mr. Pritchard makes me say, in the face of Sir William Thomson's abandonment of the theory, that the sun's heat is derived from a battery of meteors, "*I am quite certain . . . that at least an important proportion of the sun's heat*" is so supplied. And he adds, "We may fairly ask whence has Mr. Proctor this *certain* knowledge?" How strange that he should have omitted the remainder of the sentence! What I actually wrote was, "I am quite certain there is no flaw in the evidence I have adduced from the laws of probability, and that we are bound to accept as a legitimate conclusion from that evidence the theory that at least an important proportion," &c. This reference to the evidence, and to the laws of probability, would have spoiled Professor Pritchard's reasoning. Here, again, we can scarcely imagine that the omission results from mere negligence.

There are other points of the same kind in Mr. Pritchard's review, which space prevents my dwelling on. Suffice it to say, that *every criticism it contains* is vitiated by misstatements or omissions, which one can scarcely imagine to result from mere negligence.

RICHARD A. PROCTOR

Pinkish Colour of the Sun

IN reference to the "pinkish colour of the sun," noticed by several of your correspondents, it may interest them to learn that in one of the last numbers of *Cosmos* an account is given of this very same appearance, observed on the 23rd of May, at Rohrbach, on the Moselle, by a M. Hamant. He states, "that up to about two o'clock the day had been very warm, without a breath of wind. At twenty minutes past two the horizon became charged with mist, and a storm seemed imminent. About three the sun lost its brilliancy, assumed a pale yellow hue, and might have been taken for the moon had it not been for its diameter. The mist now began to rise, a north-west wind began to blow very

* For an accurate though incomplete statement of Dr. Frankland's and Mr. Lockyer's theory of the Corona, we refer our readers to the first number of *NATURE*. Many of them will not be surprised to find that it is *not* what Mr. Proctor states it to be. Dr. Frankland and Mr. Lockyer, from their laboratory experiments, have shown that the pressure at the base of the chromosphere is small, and they have therefore stated that it is scarcely possible that a very extensive atmosphere lies outside the chromosphere. Mr. Lockyer has shown, moreover, that the height of the chromosphere as seen by the new method probably falls far short of its real height as seen during an eclipse as it was seen by Dr. Gould. A reference to the same number of this journal will also show that Mr. Proctor has misrepresented Dr. Gould's statements, which endorse the idea put forward by Dr. Frankland and Mr. Lockyer. Dr. Gould has expressly stated "that there were many phenomena which would almost lead to the belief that it was an atmospheric rather than a cosmical phenomenon." This is an opinion held by Faye and other distinguished astronomers, and Mr. Lockyer has simply shown that should this turn out to be the case, the continuous spectrum observed may be explained. Astronomers did not require Mr. Proctor to tell them what he has recently been enforcing; but, more modest than he, they have been waiting for facts, and Mr. Proctor surely is old enough to see that by attempting to evolve the secrets of the universe, about which the workers speak doubtfully, out of the depths of his moral consciousness, he simply makes himself ridiculous, and spoil much of the good work he is doing in popularising the science.—ED.

hard; at half-past four the sun became rose-coloured, and at a quarter-past five it turned scarlet."

The exact coincidence to be observed between this account and that given by Mr. A. S. Herschel (*NATURE*, June 16), is worthy of notice.

Mr. Herschel similarly observed this "very unusual pinkish colour," between five o'clock on the 23rd of May, at Hawkhurst in Kent. He notices the "thick haze of apparently low cirrostratus or, perhaps, rain cloud." This phenomenon is so rare that it is mentioned in old chronicles as a sign of Divine wrath. Of late years the most remarkable case was that observed in South America by M. Emdiais, alluded to in *Cosmos*.

It is, however, especially to be noticed that whereas the two accounts referred to above state distinctly that the phenomenon occurred on "the 23rd of May," your other correspondents state that it also occurred "on Sunday, the 22nd," at about the same time, five o'clock. (See *NATURE*, May 26, June 2).

It is most remarkable that such a rare phenomenon should have occurred on two consecutive days; visible on the first day at Dunmurry and Dublin and Tynemouth, and on the second in Kent and Gloucestershire and on the Moselle. The hazy nature of the atmosphere on both days seems to have been permanent, and is, without doubt, the cause of the phenomenon.

JOHN P. EARWAKER

Merton College, Oxford, June 28

Monographs of M. Michel Chasles

A FEW years ago I read ten or a dozen papers of a masterly history of geometry by M. Chasles. It was in French, in some quarto transactions of a learned society.

I am desirous of recovering the title and reference, and ask for assistance in the columns of *NATURE*.

No such paper as that I refer to is in the Royal Society's admirable catalogue.

Was Chasles' *Aperçu historique* contributed to a learned society? It was published at Brussels, in 1837, but it is scarce, and I have not seen a copy.

C. M. INGLEBY

Ilford, E., June 11

Geographical Prizes

IN reading the report in a recent number on the Prize Medals of the Royal Geographical Society, doubtless many of your readers will have thought very reasonable the wish of Sir Roderick Murchison, "that Eton, Harrow, and Rugby, and other great schools might in future years send candidates for these medals."

It may be well therefore if I explain very briefly the grounds on which the masters of Rugby were almost unanimous in wishing to decline the invitation of the Royal Geographical Society.

The examination is in fact a competition between schools in a subordinate branch of education. Hence the advantage lies not with the best school, but with the one which allows the greatest liberty of choice of special studies. A school like Rugby, whose curriculum, though not narrow, is strongly defined, is at a positive disadvantage in such a competition with a school whose general curriculum is narrower, but its organisation looser; one which allows free specialisation, and prepares for particular examinations. We cannot feel that the school that wins is likely to be the best school.

Further, we agreed that the proposal would not really encourage the study of geography in the school, but would attract only a few individuals. There are in every school certain accumulative prize-acquisitive boys who would learn Chinese or Crystallography or Indian Finance if a prize were offered for such subjects; and it would be these boys who would compete for the geographical medals—such boys would gain little by learning, and the school would gain nothing.

On these and some other grounds the proposal was declined by the Rugby masters; and when it is recollected that it was when Dr. Temple was head-master, most of your readers will be sure that it was not from indifference to real progress, nor from stupidity, nor from fear of novelty, nor to avoid honourable competition with other schools, that we did so decline it.

Rugby, June 13

J. M. WILSON