

constant introduction, by so distinguished a petrologist, of personalities, which are quite unworthy of a man of science, which are sure to revert upon himself, and which may even reflect indirectly on the British School of Petrology, of which for so many years Professor Bonney has been a prominent exponent.

SOUTHWOOD, TORQUAY, 18th February, 1893.

A. R. HUNT.

SCANDINAVIAN ROCKS IN THE ENGLISH BOULDER-CLAYS.

SIR,—In connection with the subject raised by Herr Madsen's recently published paper on "Scandinavian Boulders at Cromer,"¹ it may be of interest to give a list, brought up to date, of the Norwegian rocks which I have examined from the Boulder-clays of Holderness.

- (i). Augite-syenite ('laurvikite' of Brögger) from the neighbourhood of Laurvig.
- (ii). 'Rhombenporphyr' of Kjerulf and others, from the Christiania district.
- (iii). 'Saussurite-gabbro,' as described by Möhl and Reusch from the west coast of Norway; two or three varieties.
- (iv). A rather coarse red granite with much microcline and microperthite and subordinate dark mica. This agrees well with the rock described by Brögger from the Christiania district, but I have no specimens for comparison.
- (v). Various grey granites with dark or with both dark and white micas, corresponding to those largely developed in the 'Grundfjeld' of Norway. These, unlike the preceding, always show cataclastic structures, strained quartz, etc.
- (vi). Well-banded gneisses, the coarser ones hornblendic, the finer micaceous.
- (vii). Various hornblende-schists and mica-schists, the latter often garnetiferous. These and the gneisses it would be impossible to refer to precise localities, but their Scandinavian origin cannot be doubted.

ALFRED HARKER.

ST. JOHN'S COLLEGE, CAMBRIDGE.

SIR,—There is a curious error, which by some oversight has crept into my letter in the February Number of this MAGAZINE. The sentence—"Creditably again is so variable a factor," etc. (which makes nonsense) should read "Credibility," as it stands in the rough MS. which I have by me. Most readers of the GEOL. MAG. have probably made the correction for themselves. A. IRVING.

WELLINGTON COLLEGE, BERKS, 4 Feb. 1893.

TITLES OF SEPARATE COPIES OF SCIENTIFIC PAPERS.

SIR,—A few years ago I advocated in your pages a reform in regard to the titles of separate copies of scientific papers: its adoption encourages me to venture further suggestions on the same lines in regard to the volumes themselves. My suggestions are:—

¹ Q.J.G.S. vol. xlix. p. 114, 1893.

that all papers should begin on a separate page; and that they should bear, as a heading, the full title of the publication in which they appear. My object is to facilitate work. I venture to say that it is a saving of time and temper for anyone, whether specialist or not, to have all their literature on any particular subject, or subdivision of a subject placed together: to attain this it is necessary to "break" publications, and to assort their papers. At present this too often entails the destruction of the preceding or succeeding paper—a matter for regret when only a limited number of copies is issued.

My suggestion would obviate this. I could wish it were applied to all publications in which original communications occur; but this, I fear, is Utopian. To the publications, however, of societies dealing with various sciences it is very necessary; to the publications of those dealing with one science it is quite as imperative, because subdivisions of a science are so numerous now. Very frequently the object desired could be attained by moving the first paper in the volume by one page; but in any case not one extra (blank) page per paper would be required. Expense, therefore, can hardly be urged against the proposal; while the boon conferred would be very great.

S. S. BUCKMAN.

THE MAMMOTH AND THE GLACIAL DRIFT.

SIR,—I have no desire to prolong this unprofitable controversy and must decline further argument with Sir H. Howorth, who still imagines he has completely proved his case, and who imputes to me words which I never employed. He takes up your space with discussing "authority" as if I had used the term, whereas my phrase was "the generally accepted views of geologists," or in other words what Sir Henry himself calls "the orthodox geological opinion."

With Dr. Hicks the case is different; but I think he should have known me better than to imagine I had the slightest idea of posing as an "official" or "professional" geologist. I used the term "practical," and by a *practical geologist* I mean anyone who has had experience in the work of mapping geological boundaries and collecting evidence for the construction of profile sections. By "approved work in the field" I mean work which stands the test of investigation by other geologists. I think Dr. Hicks will agree with me that a man who merely visits some well known sections in a faulted Palæozoic district is not entitled to criticize accepted views of its structure. Similarly in studying areas of Drift deposits it is often impossible to say whether a given patch of gravel is above or beneath Boulder-clay from a mere inspection of open sections, though their relations may become clear when the area is carefully mapped.

Is Dr. Hicks prepared to say, as Sir H. Howorth does, that there is no good ground for supposing the Hoxne deposits to be underlain by the neighbouring Boulder-clay? and in the face of Mr. Reid's statement in this *MAGAZINE* (1888, p. 442), does he consider the