

fessors Hans and Lobwirnski respecting ideal matter of various degrees. Can you inform me whether any English publications have appeared on this subject, and if not, what foreign works would be best suited to give an insight of the results that have been arrived at to one who can devote but a limited time to such investigations?

Surely the conclusion suggested by your correspondent (viz., that the moon in its composition closely resembles caseine) is intended only as a joke; for, assuming the equation given,

$$M = C_m N_n O_p H_q,$$

and even granting that the quantities  $m n p q$  are in such proportion as to make the right-hand member of the above equation assume the form of the chemical formula for caseine, there is surely no reason why the mass of the moon (which your correspondent has chosen to denote by C) should be interpreted as carbon, nor its direction of motion N as nitrogen, nor its velocity O as oxygen.

PERCY R. HARRISON

### Sun-Spots

In the "Life of Charlemagne," written by Eginardus, one of the Emperor's household, and afterwards Abbot of St. Bavon's, in Ghent, occurs the following passage:—

"Per tres continuos vitæque termino proximos annos et solis et lunæ cerebraria defectio, ac in sole macula quædam atri coloris septem diernum spatium visa."

"In three successive years nearest to his death [there were] very frequent eclipses of the sun and moon, and in the sun there were seen certain spots of a black colour, for the space of seven days."

This life, written between 814 and 843, and referred to by the writer's contemporaries, has been collated with several MSS. by the Bollandists, who give it in full in their Acta Sanctorum under January 28. It is a curious, if not a valuable, contribution to the early history of sun-spots, and suggests questions which some of your correspondents may care to consider.

HENRY BEDFORD

All Hallows College, Dublin, January 15

### A Clever Spider

In a letter I have just received from my brother at Rondebosch, near Cape Town, he narrates the following, which I thought might interest some of the readers of NATURE:—

"On Friday I was much interested in watching a spider and male glow-worm. The spider was a common long-legged house spider who had a web in the corner of the room. It was an aristocratic spider, in fact. Presently a male glow-worm flew into the web, and in a few minutes the spider had wound him round and round till no Egyptian mummy was more securely housed. Just as this operation was being finished, a second glow-worm flew into the web, a long way from the first. Off goes the spider, and soon he, too, was encased in silk. Then I noticed that the spider went three times backwards and forwards between the head of glow-worm No. 2 and a main strand of his web. After this he went round cutting all the threads around the glow-worm until it hung by the head strands alone. The spider then fixed a thread to the tail end, and by it dragged the carcass in the direction of glow-worm No. 1 (presumably the larder). As soon as the rope attached to the head was taut, the spider made the rope he was pulling by fast to a strand of the web, went back, cut the head ropes, attached himself to the head, and pulled the body towards the larder, until the tail rope was taut. In this way, by alternately cutting the head and tail ropes and dragging the glow-worm bit by bit, he conveyed it to the larder, where it hung alongs de mummy No. 1. Another presently flew in. After he was enwrapped in silk, the spider, whether on purpose or not I cannot say, cut the last thread by which he hung, and dropped him to the ground. Whether he thought that this morsel might get 'high' before he could eat it I cannot say. I should say that the prey was some twenty times the weight of the captor."

LL. A. MORGAN

St. Thomas's Hospital, Westminster, January 12

### Erratum in Paper on Tidal Friction

AN erratum has been pointed out to me in my article in NATURE, vol. xxi. p. 235, and I should be glad to correct it.

The forty-second line of the second column of p. 236 runs:—"so that the earth will rotate faster than the moon revolves." By a slip of the pen I here wrote "faster" instead of "slower."

G. H. DARWIN

January 16

### AFGHAN ETHNOLOGY

THE events now in progress on the north-western frontier of British India have for the third time in this century directed the serious attention of statesmen, historians, and ethnologists to the remarkable people who give their name, or rather one of their names, to the north-eastern division of the Iranian table-land. During the empire of the Sassanides the whole of this region, from Persia proper to the right bank of the Indus and from the Koh-i-Baba, Ghor and other western continuations of the Hindu-Kûsh to the Arabian Sea was known as Khorasan, that is, Khoristan, the Land of the Sun or the East. This term, with the gradual reduction of the Persian sway, has shrunk to the proportions of a province on the north-eastern frontier of the Shah's estates, and has been replaced further east by the ethnical expressions Afghanistan and Balochistan, the lands of the Afghans and Baloches. But these expressions, as so frequently happens, are so far misnomers and deceiving that the lands in question harbour many other peoples besides those from whom they are now named. In Balochistan, for instance, the most numerous, powerful, and influential element is not the Baloch at all, but the still unfathomed Brahûi, from which circumstance it has even been suggested that the country ought rather to be called Brahuistan. A similar suggestion could not certainly well be made with regard to Afghanistan, for here there is no other people who can for a moment compare with the Afghans in numbers or political importance. Still the subjoined rough estimate of the population according to nationalities will show that it is very far from being homogeneous:—

Afghans and Pathâns ...	Iranian stock ...	3,520,000
Tajiks ...	Iranian stock ...	1,000,000
Hindkis ...	Hindu stock ...	500,000
Hazaras and Aimaks ...	Mongolo-Tatar stock	600,000
Kataghâns ...	Türki stock ...	200,000
Badakshis ...	Galcha stock ...	100,000
Baloches ...	Iranian stock ..	100,000
Kizil-Bashes ...	Türki stock ...	75,000
Kohistanis and Siah Posh	Galcha stock ...	50,000

6,145,000<sup>1</sup>

It will be noticed that in this table are included all the races forming part of the present Afghan political system taken in its widest sense, whose northern frontier is now marked by the upper course of the Oxus. Before dealing with the Afghans proper, with whom we are chiefly concerned, a few words may be devoted to each of the minor elements, all of whom continue to keep aloof from their neighbours, seldom or never intermarrying, and mostly retaining their own national customs, dress, religion, and speech. No general amalgamation has, in fact, yet taken place of these heterogeneous ingredients, so that we cannot speak of the Afghan in the same sense as we do of, for instance, the Italian, French, or English nations. The Afghan race, though by far the most numerous, has been politically predominant only since the death of Nadir Shah (1747), and its rule has been far too chequered by intestine strife and foreign troubles to have allowed time or opportunity for the slow process of

<sup>1</sup> This figure exceeds by about a million that usually given as the total population of Afghanistan. But recent exploration has shown that many of the tribes are much more numerous than had been supposed, and as our knowledge of the country increases, it will probably be found to contain even a greater population than that here given.