

either writes extravagantly, or that, in describing the social, industrial, and other characteristics of the colony, they have allowed themselves to be unduly swayed by mere feeling. They have, of course, a good deal to say about the Maoris, and it is worth noting that each refers to habits and physical conditions which cannot but tend to hasten the decay of that interesting race. A strong liking for whisky is unfortunately characteristic of most Maoris, and Mr. Payton remarked that the state of drunkenness appeared to have a great fascination for them. "I once saw a Maori that I knew," he says, "walking up and down the veranda of an hotel, and looking very much disgusted about something. On my asking him what was the matter, he told me he had had thirteen glasses of whisky, and *couldn't* get drunk!"

LETTERS TO THE EDITOR.

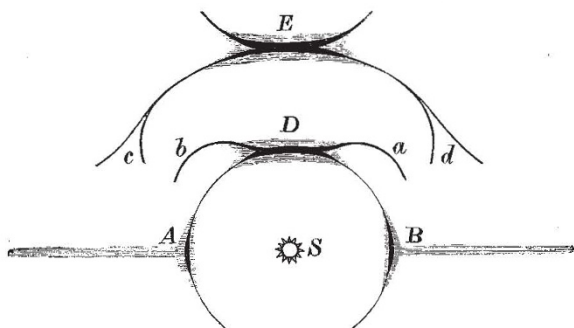
[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts intended for this or any other part of NATURE. No notice is taken of anonymous communications.]

Solar Halo.

BETWEEN 1 and 2 p.m. of January 11, a solar halo, so remarkable as to deserve some notice in the columns of NATURE, was observed and sketched by myself and several of my pupils. The mock suns A, B, and D (see diagram below), appeared to be at the usual distance of about $22\frac{1}{2}^\circ$ from S, and the halo at E about the same distance from D.

A and B were quite bright, but D and E were nearly twice as brilliant, and blazed with gorgeous prismatic colours.

The parhelic circle—observed by Prof. William Ellis on April 1, 1886 (NATURE, vol. xxxiii. p. 535)—was very bright. It extended only from the mock suns A and B outwards from S to about 120° from the latter; and on the right branch of this circle was another mock sun (not shown in diagram) at the dis-



tance of about 90° from B. This last sun, as well as the visible portions of the parhelic circle, was formed of pure white light, and the latter was everywhere parallel with the horizon.

But perhaps the most remarkable part of the phenomenon was the forking of the arc *c E d* at the ends *c* and *d*, and the concave recurving of the arc *a D b* (convex to S at D) at the ends *a* and *b*. These forkings and recurvings were very distinctly visible at about 1.30 p.m., traced in fainter prismatic hues.

There was a light cloudy haze covering the southern two-thirds of the sky, while the remainder was clear. Calm moderate weather both preceded and followed the phenomenon for some days. EVAN McLENNAN.

Brooklyn, Iowa, U.S.A., January 14.

[The altitude of the sun is not given, but (according to Bravais) it must have been less than 30° , because of the extreme vividness of the tangent arc to the halo of 46° . This also accounts for the "recurved" appearance of the tangent arc to the halo of 22° . The apparent bifurcation of the halo of 46° is too rudely drawn to afford the means for a rigorous investigation. As sketched, it may be due solely to diversity of inclination (*balancement*) of the axes of the ice-crystals.—ED.]

Seismic Disturbance at Venezuela.

ABOUT the middle of November 1888, there was a notable seismic disturbance in several places of Northern Venezuela. On the 13th, at 4h. 30m. a.m., a rather heavy concussion was felt at Caracas, and eastward as far as Rio Chico, where it caused some damage. On the 17th, two shocks were noticed at Cumaná, viz. at 5h. 8m. a.m. and 2h. p.m. It is reported that their force diminished towards the east, so that they were scarcely perceptible at Carúpano. On the same day two shocks (1h. 45m. and 5h. 15m. p.m.) damaged in a somewhat serious manner a large number of houses at Guanare ($69^\circ 20'$ W. of Greenwich, $8^\circ 45'$ N. lat.); two more were felt at the same place on the 18th at 3h. p.m., and on the 19th at 1h. 10m. a.m. The ultimate sign of the paroxysm was observed at Caracas on the last-named day, a few minutes before five o'clock in the afternoon. The zone of disturbance extended from Carúpano to Escuque (63° to 70° W. of Greenwich), and embraced the whole mountainous part of Northern Venezuela. In some cases the wave-motion is said to have been plainly north-east to south-west; but the maximum of disturbance (first shock at Guanare) showed decidedly a direction from north to south, as results from the numerous cracks in damaged walls and the way in which free-standing objects were thrown off their bases. The clock at the telegraph station, which hangs on a wall running east to west, was likewise instantly stopped. Dr. Lisandro Alvarado, a physician who resided at Guanare, who communicated these facts to me, informs me at the same time that the cracks emerge in an angle of from 75° to 80° . It is therefore very likely that the centre of the shock was not far from Guanare towards the north, where the crystalline schists of the Cordillera break through the overlying clay-slates and Cretaceous rocks, which form the northern margin of the great plains or *llanos* of Venezuela. Guanare lies on the very edge of these plains (185 metres above the sea), where the Cretaceous formation rather abruptly is met by the extensive deposit of conglomerate which covers the plains. Any disturbance in the raised strata forming the southern slope of the Cordillera will thus manifest itself with particular intensity in the vicinity of this border-line. The whole disturbance belongs, of course, to the class of tectonic earthquakes, as, indeed, do all those which happen now and then in this country. A. ERNST.

Caracas, January 6.

Opportunity for a Naturalist.

CAPTAIN JUAN PAGE, of the Argentine Navy, who is now in London, and read a paper on the exploration of the Rio Vermejo and Rio Pilcomayo at the last meeting of the Royal Geographical Society, has undertaken a new expedition for the survey of the Pilcomayo from the Paraná to the frontiers of Bolivia. Captain Page would be glad to give a place on the staff of this Expedition to a naturalist, who would thus have an opportunity of investigating the almost unknown fauna and flora of the Gran Chaco, through which the Pilcomayo runs. The Expedition will start from Buenos Ayres in June next, and be absent about six months. The naturalist would have to find his passage out to Buenos Ayres, and home, and his own equipment and collecting-materials, but on joining the Expedition would be free from charges. I should be glad to put any qualified person who might wish to avail himself of this excellent opportunity of exploring a most interesting country in communication with Captain Page. P. L. SCLATER.

Zoological Society of London, 3 Hanover Square,
London, W., February 4.

Mass and Inertia.

DR. LODGE (NATURE, January 17, p. 270) seems to have misunderstood the bearing of my letter on mass and inertia (January 10, p. 248).

I was careful to point out that my remarks on the advantages of a force-time-length system of units had reference solely to *procedure in teaching*. Dr. Lodge, failing to observe this, objects to the suggestion because it does not immediately afford an absolutely permanent, universal unit of force. It was not intended to do so. Anyone who has learnt dynamics and attained clear ideas, appreciates the convenience of the *inertia*-time-length system for the purposes of the record. But the teacher's business is with those who have not yet learnt, but who, knowing nothing