

nebular light remained at the lowest point reached by the meteor, which assumed a vague oval shape and imperceptibly faded away. For four minutes the nebular light was easily watched; then I ceased to note the time, and after two or three minutes more I failed to distinguish it.

The position of the nebulous remains of the meteor appeared to me vertically beneath  $\beta$  Ursæ Majoris, at a distance from it rather more than one-third the distance of  $\alpha$  from  $\beta$ . I did not notice any motion, but if the apparent upward movement of the nebulous light were due to a north-north-west current of air drifting the light incandescent ash of the meteor to the south-south-west, the motion would be imperceptible to a distant observer who was nearly in the same line up or down the direction of the wind.

EDWARD F. LINTON.

Bournemouth, September 8.

IN case it may prove of interest, I write to say that I noticed the meteor mentioned in your last number by Mr. John Earle, as having been seen on the night of August 26. I was walking in the country that evening, and not long after 10 p.m. I saw the landscape lighted up as by a vivid flash of lightning from behind me—my back being towards the north at the time. On turning round, I just caught sight of the meteor as it disappeared, leaving a bright track behind it, about two degrees of arc in length. This track, as seen from where I stood, lay half-way, or nearly so, between the last star in the tail of Ursa Major and Alpha Canum Venaticorum, and in a line connecting the above two stars. It lasted several minutes, as far as I could judge, gradually fading away, and curled up at the lower end, after the manner described by Mr. Earle; but I did not detect any change of position. It seemed to remain about half-way between the end of the tail of Ursa Major and Alpha Canum Venaticorum all the time it was visible to me. I regret that, not having matches with me, I was unable to read my watch and take the exact time of the phenomenon.

T. B. CARTWRIGHT.

Brackley House, Brackley, September 7.

THE meteor of August 26, referred to by Mr. Earle, was seen at Northwich by me, and noted as remarkable owing to the long continuance of the brilliant light in the sky. We had had thunder and lightning in the afternoon, but the clouds had cleared away, and the stars were visible through a faint haze. On entering my garden shortly after 10 p.m., I saw a most brilliant flash of what I took to be lightning. Not hearing any thunder, I looked to see from whence the flash had proceeded. I then saw, almost in the zenith, but a little to the west, a brilliant streak of light. This remained nearly stationary for perhaps half a minute, and then one end bent till the light assumed the shape of the letter J, or, according to a note made at the time, the shape of a hockey stick. Whilst this was taking place there was a manifest movement of the whole, as I thought, towards the west. In the space of two or three minutes the light faded away. The whole time, from the brilliant flash till the fading away of the phosphorescent light, could not have been more than three minutes. Perhaps the slight haze hid the light here sooner than at Gloucester.

Northwich, September 9.

THOS. WARD.

#### Drought at Antigua.

[MR. THISELTON-DYER has kindly sent us the following interesting note received by him from the Superintendent of Agriculture, St. John's, Antigua.—ED. NATURE.]

We are suffering from a terrible drought here. I thought you might like to look at the accompanying average prepared for H.E. the Administrator. The *Bryophyllum calycinum* weeds are drying up, and in some parts the *Opuntias* are dying! No single fall of under 1 inch is of any use to us.

Jan. Feb. March. April. May. June. July.

1891 ... 3.74 ... 2.24 ... 0.33 ... 2.82 ... 1.87 ... 4.02 ... 10.04 ... =25.05  
1892 ... 5.81 ... 0.83 ... 0.88 ... 1.18 ... 2.39 ... 3.28 ... 3.15 ... =17.72  
1893 ... 1.77 ... 1.48 ... 2.64 ... 2.14 ... 2.02 ... 2.19 ... 4.63 ... =16.87  
1894 ... 2.02 ... 1.06 ... 1.31 ... 2.84 ... 2.86 ... 1.54 ... 1.73 ... =13.36

in.

NOTE.—1891 was a fair year with annual fall 3.83 over that for last 20 yrs.

1892 " very dry "

1893 " " " "

1894 promises to be worse than any

7.24 below " "

6.73 " " "

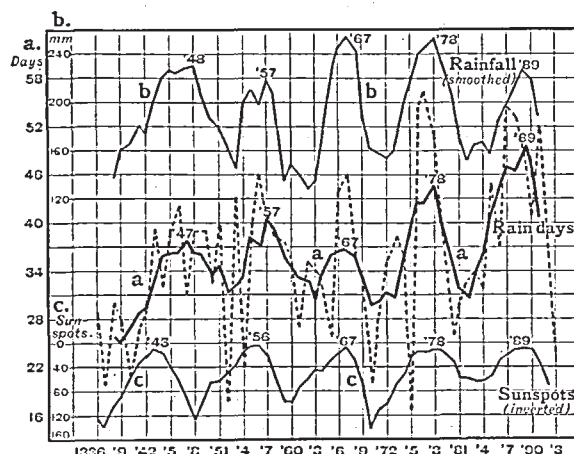
Antigua, West Indies, August 13.

C. A. BARBER.

NO. 1298, VOL. 50]

#### On Spring Rains in Geneva.

THE variation of rain at Geneva Observatory in spring (March to May), through a long series of years, appears to have been subject to a certain periodicity, to which it might be well to draw attention, even if its (considerable) similarity to that of the sun-spot curve should prove to be merely of a fortuitous nature. In the accompanying diagram, I have dealt with both rainfall and rain days (rain hours would have been better than rain days, but these extend back only to 1861). The dotted-line curve shows the actual variation in the annual number of rain days, and the continuous curve with it is the result of smoothing with averages of five. Above is a similarly smoothed curve of the spring rainfall, which is very similar (the actual variations are not given). Below is the *inverted* sun-spot curve.



The letters a, b, c, connect the curves with their respective vertical scales on the left. It will be seen that, the sun-spot minima occurring in 1843, 1856, 1867, 1878, and 1889, we have in the smoothed rain curves, maxima in 1847 or 1848 (but note that the curves rise nearly as high in 1844), in 1857, in 1867, in 1878, and in 1889. In the case of the sun-spot maxima (the earlier at least) there seems to be more "lag."

It would be interesting to know what happens in other parts of Europe in this respect. The Paris curve is, I think, like the Geneva one; but Bremen and Berlin present some important differences.

A. B. M.

#### Interesting Marine Animals.

Two rare and interesting animals, which we have had alive and under observation for a week past in the aquarium of the Port Erin Biological Station, are probably worthy of record in the pages of NATURE. The one is the yellow variety (?) of *Sarcodictyon* (*Rhizoxenia*) *catenata*. This was first found by Forbes and Goodsir in the Hebrides, and has been described since by myself from specimens dredged in Loch Fyne in 1883. We have now found it here, off the west side of the Calf Island, in 25 fathoms, and have at present several colonies alive with the polypes expanded. The commoner red form of *Sarcodictyon* is rarely seen expanded, and I do not know that the yellow one has ever been seen in this condition. The polypes are of a beautiful transparent white, and glisten in the light like frosted silver.

The other interesting animal is the Polynoid worm *Panthalis oerstedi*. We dredge in the deep water near here large muddy sausage-like tubes, which sometimes contain *Panthalis*, but are frequently empty. Some doubt has been felt, however, as to whether the *Panthalis* really builds the tubes, and it is therefore satisfactory to have had the matter definitely settled by the formation of a new tube before our eyes by a living *Panthalis* in the aquarium during the last few days. Mr. Arnold Watson, of Sheffield, who has been studying the formation of Polychæte tubes for some years, after examining our preserved specimens, became anxious to settle the *Panthalis* question, and came here on my suggestion to get living material. I was fortunately able to take a steamer to the ground on the 25th inst., and amongst the tubes brought up in the dredge, from over 50 fathoms, one