

away from him, and he sees light from the sky reflected from the smooth cuticle on their upper surface. Where the roller has travelled in a direction towards the observer the blades of grass are bent over towards him, so that he sees more of their under surface, which, besides being partially shaded, has not so highly reflecting a cuticle as the upper surface, hence these strips appear, in comparison with the first, darker and of a deeper green.

H. FRANKLIN PARSONS.

Croydon, February 1.

WITH reference to the letters by Messrs. Evershed and Fermor in NATURE of January 30, it may be of interest that an amusing description of the appearance of halos around shadows is given by Benvenuto Cellini in his autobiography (book i., chap. cxxviii.). After being released from a well-deserved term of imprisonment, he noticed a halo round the shadow of his head, and interpreted it as a mark of the especial favour of heaven. A rough translation of the passage is as follows:—"Also I must not leave unmentioned a thing, the greatest that has happened to any man, which I tell to the glory of God and of His mysteries, who condescended to make me worthy of it. From that time . . . there remained a splendour (wondrous thing!) on my head, which is evident to all sorts of men to whom I have shown it (who have been very few). This is seen over my shadow in the morning from sunrise until two hours later, and is seen much better when the grass has dew upon it; it is visible again at sunset. I became aware of it in France at Paris, because the air there is so much more free from mist that one sees it more markedly than in Italy, where mists are more frequent."

Doubtless the "pochissimi" to whom he showed it knew him too well to confess that they saw the halo around the shadows of their own heads, not his.

I have often noticed the appearance, especially on short turf, such as that of golf links, when the grass is wet with dew, but it may sometimes be seen on dry grass.

L. DONCASTER.

Museum of Zoology, Cambridge, February 1.

Flowers in January.

SEVERAL interesting letters have recently appeared in these columns directing attention to the abnormal number of phanerogams in flower at the present time in Gloucestershire and other counties. In Somerset we have a similar increase in the number of plants flowering, as compared with the average January, and this month is not the only winter one in which such an increase has occurred. During the latter part of November I noticed more than eighty indigenous plants in flower, and many of these I considered to be survivals due to the retarding influence of the cold and wet summer followed by the cold and frosty nights of October. For the past two years the paucity of flowers in the early part of October has been particularly noticeable, but how different were the causes! In 1911 the flowering period had been accelerated by the large amount of sunshine, whilst in 1912 it was retarded or altogether eliminated owing to the lack of sunshine. In both years November was a happy month for flowers, in the first year the flowers being largely second blooms, in the last year retarded first blooms.

The acceleration of the life-cycle is also noticeable to a student of the lower forms of vegetation, some mosses, liverworts, and lichens showing a similar advance in the time of spore-production. For instance, amongst the mosses *Encalypta vulgaris* has

well-developed capsules, and amongst the liverworts *Lophocolea cuspidata* is already shedding its spores, these phases of the life-cycle being one to three months earlier than the normal time. No doubt, in the case of these and many other accelerated cryptogams, the wet weather is as potent a factor in the acceleration of the life-cycle as the mildness of the season.

W. WATSON.

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The Current Winter.

A FEW years ago (in 1908) I expressed in your columns two views about the Greenwich winter, which both appear to gain further support from what is now happening. One is that after a very wet Rothesay summer, the Greenwich winter tends to be mild (NATURE, March 12, 1908, p. 438), the other that after an autumn at Greenwich with all three months dry, the Greenwich winter tends to be mild (NATURE, December 24, 1908, p. 221). We have both those antecedents in 1912—that is, the Rothesay summer was very wet, and the three months September–November at Greenwich were all dry—and the current winter may now be safely characterised as mild.

ALEX. B. MACDOWALL.

Torquay, January 25.

MATERIAL FOR THE HISTORY OF MAN AND BEAST.¹

IT is easy to understand why Weimar was chosen as the meeting-place of the German Anthropological Society in 1912. The surrounding country is rich in remains of man of the Pleistocene and prehistoric periods; the municipal museum contains the fauna and flora of celebrated palæolithic stations such as Taubach, Suessenborn and Ehringsdorf; in this museum, also, can be seen one of the best collections in Europe for illustrating the evolution of prehistoric culture.

The three memoirs reviewed here were prepared to give the members of the Anthropological Society a just conception of the prehistoric treasures preserved at Weimar, but it must not be supposed that they will serve only a passing purpose. Far from it; each memoir is a valuable contribution to the department of knowledge to which it belongs. Dr. Ludwig Pfeiffer, well known to the medical men of Europe as a physician, writes on the evolution of human handiwork from the Pliocene to the present, employing the collections in the Weimar Museum to illustrate his memoir. Dr. Soergel deals with the greater mammals which became extinct during the Pleistocene period. Dr. Moeller, curator of the Weimar Museum, gives an account of the systematic exploration of one of the most remarkable tumuli ever opened. The subject-matter of all three memoirs is thus illustrated by the contents of the Museum of Weimar; Dr. Soergel's paper covers the Pleistocene epoch; Dr. Möller's deals with

¹ Festschrift zur xliii. allgemeinen Versammlung der Deutschen Anthropologischen Gesellschaft, Weimar, 4 bis 8 August, 1912. Erstes Heft. Die steinzeitliche Technik und ihre Beziehungen zur Gegenwart. By Dr. Ludwig Pfeiffer. Pp. vii+340. Price 13 marks.
Zweites Heft. Das Aussterben diluvialer Säugetiere und die Jagd des diluvialen Menschen. By Dr. W. Soergel. Pp. iii+81+3 plates. Price 5 marks.
Drittes Heft. Der Derfflinger Hügel bei Kalbsrieth (Grossherzogtum Sachsen). By Armin Möller. Pp. ii+76+4 plates. Price 5.40 marks. (Jena: Gustav Fischer, 1912.)