

In the *American Journal of Science* for September, 1883, Messrs. Hague and Iddings prove that the four great volcanic peaks of Mount Rainier, Mount Hood, Mount Shasta, and Lassen's Peak, rising to heights of from 10,500 to 14,444 feet above sea-level in California, Washington Territory, and Oregon, are mainly composed of andesitic lavas and tuffs, in which hypersthene is the predominating bisilicate.

In the *Geological Magazine* for July, 1883, Mr. Waller describes a similar rock from Montserrat, and I have just analysed one for Prof. Bonney from Old Providence Island in the Caribbean Sea. Prof. Bonney also informs me that he has found the rhombic pyroxene in the andesites brought by Mr. Whymper from Pichincha and Antisina.

It must not, however, be supposed that the rock is limited either to the Pacific region or to the Tertiary and Recent periods.

M. Fouque has shown that hypersthene occurs in the Santorin lava of 1866.

Niedzwiedski described a hypersthene-andesite from Steiermark in 1872. Mr. Whitman Cross and myself have recognised the rhombic pyroxene in many well known Hungarian rocks, in which it had previously been regarded as augite. Lastly, thanks to kind assistance rendered by Prof. Rosenbusch, I have been enabled to show that some Palæozoic lavas and tuffs of the Cheviot region are of essentially the same type (*Geol. Mag.*, March, June, and August, 1883).
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Diffusion of Scientific Memoirs

PROF. TAIT'S admirable remarks on the moral obligation laid upon "every society whose memoirs are worthy of appearing in print" to disseminate its publications must have awakened a cordial response in the minds of many whose lot is cast in some provincial city or outlying local college. It is only too true that the volumes of the *Cambridge Philosophical Transactions* are "almost inaccessible" to many like myself, who often find themselves tantalised by the desire of consulting some of the classical masterpieces of research or analysis therein enshrined, which, therefore, are not to be consulted without a pilgrimage to Cambridge or to London. Yet I hardly understand why Prof. Tait should—save for the occasion of reviewing the happily eulphomed memoirs of Prof. Stokes—have chosen the *Cambridge Transactions* as the one instance of "inaccessibility," since it is at least equally to be regretted that a memoir published in the *Transactions of the Royal Society of Edinburgh*—and there are masterpieces of research and analysis by the score irrevocably buried therein—equally necessitates a pilgrimage on the part of the provincial reader. I, for one, shall be extremely glad if Prof. Tait will act upon his own prescription—that simple, easy cure—and consider himself "bound to disseminate as widely as possible" the memoirs which he has himself consigned to those very inaccessible *Transactions*. I doubt, indeed, if even Prof. Tait has realised the difficulty besetting a would-be reader of original memoirs and researches, who is compelled to journey from one shore of England to the other in order to consult the *Edinburgh Transactions*, the *Cambridge Transactions*, the *Comptes Rendus*, the volumes of *Pogendorff's Annalen*, or those of the *Annales de Chimie et de Physique*, or the memoirs of any one of the five great Academies of the European Continent.

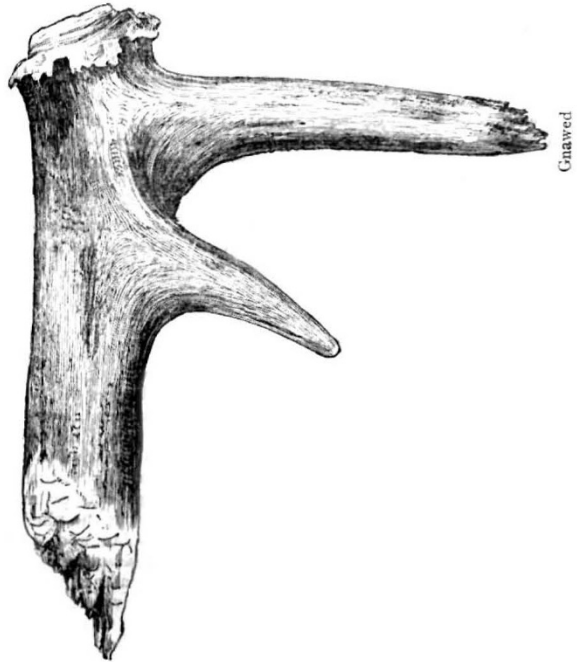
SILVANUS P. THOMPSON

University College, Bristol, December 14

Deer and their Horns

THE question is often asked, What becomes of the horns shed every year in the deer forests? the number picked up or found hardly accounts for all those which have been shed. It is said that the deer themselves eat them. It is difficult to conceive how a deer, with its toothless upper jaw, can eat a hard bone—for such is a shed horn—but it seems probable, nevertheless, that they do so. I picked up a horn recently in the deer forest at Dunrobin which appears to show that it has been in great part eaten away; and this, I think, was the opinion of the members of the Zoological Society to whom I exhibited it last Monday. On inquiry from the head-keeper at Dunrobin, Mr. James Inglis, I find that it is the general belief that the deer do eat the shed horns, whilst the appearance of the specimen here referred to, confirms the popular belief. The marks on it are such as would be made by the broad incisors of the lower jaw, and the appearance generally suggests that the horn has been

gnawed and mumbled by the cutting teeth of the lower and the toothless gums of the upper jaw. It would appear, therefore, I think, that deer do eat some at least of the shed horns, and this



Red deer's horn, eaten (by other deer?), picked up in deer forest, Sutherland, 1883. A young stag's horn.

is rendered the more probable by the fact, according to Mr. Inglis, that there are no foxes or other animals in this particular forest to account for the mischief.

J. FAYRER

December 8

"I BEG leave to inform you that I am unable to say from personal knowledge whether it is the stags or hinds that eat the shed horns in the forest. I have never seen either eating horns, but I have no doubt they do so, probably both stags and hinds.

"I have never known dogs to eat deer-horns, and we have no foxes in our forest, and very rarely any dogs are to be seen in it; 'even although they should eat them,' the number of pieces we find all the year round, nearly all partially eaten, leaves no room to doubt that no other animal could have eaten them. I think they commonly eat them after they have been lying exposed to the weather for some time; the horns are then softer from exposure.

"In every case that I have seen, they commence at the top or point of the horn, and eat down towards the root or burr; the latter part is often left uneaten. As soon as I can collect a few specimens I will send them to you.

"We often find horns entire without any marks of teeth on them, but those are mostly not long shed. I have also got horns that had apparently lain for years without any marks on them. But of course no one would expect all the shed horns to be eaten.

"I am sorry that I cannot give you more information, and I am also sorry that as yet I have not been able to collect more information than I know myself, but when I have any fresh evidence I will let you know.

"JAMES INGLIS

"November 18"

Sprengel on the Fertilisation of Flowers

IN NATURE, vol. xxix. p. 29, is a letter from Prof. Hagen of Cambridge, Mass., calling attention to the fact that Sprengel's treatise on the structure and fertilisation of flowers was not appreciated in his own day. Now it so happened that only a week or two before reading this I took up by chance the "Introduction to Physiological and Systematical Botany," by Sir James Edward Smith, the American edition, dated 1814. On p. 208 the author says:—