

buried under a talus of gravel. I have never seen it exposed; but I once collected a considerable number of specimens from the spot, after Mr. Keeping had been digging there, and his spoil heaps had been washed by the rain. The specimens have usually a peculiar pinkish hue, by which they may be identified in a collection.

O. FISHER.

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DR. STERRY HUNT.

SIR,—We have just said good-bye to a distinguished American geologist, whose visit to Europe deserves a passing notice in these pages. Dr. Sterry Hunt has been long well known among us by his numerous papers on Geology, Chemistry, and Physics. There is a freshness and vigour about him that makes him welcome at any scientific gathering, and a clearness of exposition and openness of communication that forces even those who do not agree with all his conclusions to admit that at any rate his work tends always to clear away error and suggest new directions and methods of search after truth.

Thomas Sterry Hunt was born in Norwich, Connecticut, New England, in 1826, and educated at Yale College, New Haven, where, under the late Professor Silliman, he devoted himself to Chemistry, Mineralogy, and Geology. In 1847 he became a member of the Geological Survey of Canada, on which he remained until he was called to Boston as Professor of Geology in 1872. This post he held till 1878, when he resigned his official duties, and returned to Montreal to devote himself more completely to professional and scientific work. During his former residence in Canada Dr. Hunt had successively occupied professorial chairs in the Laval University, Quebec, and that of McGill, at Montreal, and from these Universities had received the degrees of Doctor of Sciences and Doctor of Laws. He is also Master of Arts of Harvard University, Member of the National Academy of Sciences of the United States, and of the American Philosophical Society, and has been for more than twenty years a F.R.S. He is an officer of the French Legion of Honour, and has received many recognitions of his services from foreign Academies and Societies.

Dr. Hunt's work during twenty-five years has been in great part devoted to the Geology and Economic Mineralogy of Canada. During this period his published investigations into more purely scientific questions also have been numerous and important, at first in the direction of organic and theoretical chemistry, and later in mineralogy, lithology, and chemical geology; his aim being from the study of the chemistry of waters, sediments, and crystalline rocks, to construct a rational theory of the processes which have presided over the early growth and development of the earth's crust, a study which he designates *mineral physiology*. In this connexion he has made important contributions to cosmic chemistry and physics. We owe to him also in great part the advance which has been made in the grouping and classification on lithological and stratigraphical grounds of the crystalline bedded rocks which present in their succession a

history not less varied and extended than that of the entire Palæozoic era—and which he believes are in all cases of Pre-Cambrian date.

Dr. Hunt was the principal organizer and first Secretary of the International Committee for a Geological Congress; the first meeting of which was held at Paris in 1878, and the second at Bologna in 1881, at both of which he took an active part as one of the Vice-Presidents, and by his cordiality and good fellowship, backed by ability and knowledge, contributed much to the maintenance of a good understanding among the representatives of all the English-speaking nations gathered at Bologna. His work did not end at Bologna, and on his way home he, first at Paris (*Compte-rendu sommaire Soc. Géol. France*, Nov. 7, 1881), and afterwards in London (*Abst. Proc. Geol. Soc.* Nov. 16, 1881), gave an account of his recent examination of the metamorphic rocks of Italy and Germany, and his views as to their correlation with the older crystalline rocks of America and Britain. He also brought before the Philosophical Society of Cambridge his matured views with regard to the distribution of extremely attenuated matter through interstellar space (*Proc. Camb. Phil. Soc.* Nov. 28, 1881), pointing out that practically the same idea had been suggested by Newton in his earlier work, and had taken more definite shape in later editions. The University of Cambridge conferred on him the Honorary Degree of LL.D., and we hope that this new tie may unite our spirited scientific ally more closely to us, and insure a not too long deferred return to our shore.—CANTAB.

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#### THE TORRIDON SANDSTONE.

SIR,—I shall be obliged if you will allow me to correct an important misprint which occurs in the abstract of the debate on my paper on the Torridon Sandstone at the Geological Society, Dec. 21st. In my reply, I am represented as saying that north-east of Queenaig the sandstone passes “unconformably” under the quartzite. This contradicts my main conclusion. For “unconformably” read “conformably.”

WELLINGTON, SALOP, Dec. 31, 1881.

C. CALLAWAY.

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#### RATE OF DENUDATION OF THE LAND BY RIVERS.

SIR,—Mr. Tylor seems to have made a slip in his calculations. 3<sup>s</sup> is not 729 but 243. This makes Mr. Tylor's results three times too much. The 3000 years, of Mr. Tylor's sixth paragraph, will thus become 9000; the mean denudation not nine but three inches a year; and the annual rise of the sea-level one inch only.

In paragraph five—“the supposed period of 729 years” is probably a printer's error.

I am unable to follow Mr. Tylor's reasoning, and shall be glad of some information on the subject. For instance:

1. Where can I find Mr. Tylor's “formula of the increase of velocity of water at the same slope”?
2. Where some account of the “Pluvial Period”?