

ourselves the first germs of the various developments. The only thing wanting in this respect is an index, into which the various facts and names of the book might have been collected with much advantage to the reader.

Another point of interest in the book is the prominence given to the graphical method of representing truth. The Isothermal and Adiabatic curves are largely dwelt upon, and their usefulness in leading us to detect new properties of bodies is well pointed out. We are glad to think that the importance of such graphical representations is becoming well recognised in many departments of science. Even in pure mathematics, if we have occasion to calculate a series of numerical values from a formula, by plotting them upon curve-paper we shall discover at once by the eye if we have made a mistake in our calculation. In like manner, if we plot the result of a series of careful experiments after the manner of Regnault and others, we shall probably be able to determine from the appearance of the curve whether or not we may trust to the accuracy of our determinations.

Finally, by a series of lines similar to those exhibited by Prof. Maxwell, we come to see with great ease the relation that exists between the various properties of bodies; for instance, we see at once and as a direct consequence of the definition, that the ratio between the two specific heats is the same as that between the two elasticities.

We cannot close this review without remarking upon the good English in which this excellent book is written; and this, we trust, will go far to convince the scientific public that the most profound and original treatment of physics is not inconsistent with purity of language.

B. STEWART

#### OUR BOOK SHELF

*Queen Charlotte Islands: A Narrative of Discovery and Adventure in the North Pacific.* By Francis Poole, C.E. Edited by John W. Lyndon. (London: Hurst and Blackett, 1872.)

MR. POOLE enjoys the distinction of being the only educated Englishman who has ever lived on Queen Charlotte Islands, where he spent two years in an endeavour to develop the mineral resources of the country. The volume therefore necessarily possesses the interest attaching to a narrative of a residence in an almost unknown country. We miss, however, those touches which add so much to the charm of books of travel, which indicate that the writer has visited many men and many cities, and is capable of contrasting the natural products or the habits of the people of one part of the world with those of another. The attraction for the author to these islands was the presence of copper, to work which a company was formed in 1862. There can be little doubt that copper-veins, and probably other minerals, do exist in the islands in quantities that would amply repay the investment of labour and capital in their working. The climate appears to be equable and agreeable, the harbours are magnificent, and the soil is rich and productive, so that we may hope that at some future time Queen Charlotte Islands will become a valuable dependency of the British Crown. If Mr. Poole's volume succeeds in drawing to their capabilities the attention of those who are competent to develop their resources, it will have performed good service.

*Hints and Facts on the Origin of Man, and of his Intellectual Faculties.* By Pius Melia, D.D. (London: Longmans and Co., 1872.)

THE writer of this little book states in his preface that "he has brought together systems, facts, statements, and

reasons, taken from all available sources, with the view of elucidating several important truths about man, which are at the present day either called in question or absolutely denied." The extent to which he has consulted, or the accuracy with which he has quoted from, original sources, we gathered from the fact that he entirely passes over, as unworthy of notice, the systems of Goethe and Oken, and from the statement that the "Philosophie Zoologique" of G. B. Lamarck (*sic*) was published in 1830.

#### LETTERS TO THE EDITOR

[The Editor does not hold himself responsible for opinions expressed by his correspondents. No notice is taken of anonymous communications.]

##### A Zoological Station at Torquay

THE article on "The Formation of Zoological Stations," by Anton Dohrn, which appeared in NATURE of the 8th inst., was read at the meeting of the Torquay Natural History Society on the 14th inst., and was the subject of an animated conversation. I am happy to add that the scheme met the warm approval of the members, and that if a station be established at Torquay, the cordial co-operation of the society may certainly be reckoned on.

W. PENGELLY, Hon. Sec.

Museum, Torquay, Feb. 17

##### The Chicago Observatory

A LETTER, signed by one of the Professors of the University of Chicago, commenting on the impoverished state of the Chicago Observatory since the great fire in that city, having had an extensive circulation through the Press, I have to request the favour of the insertion in your columns of the following statement on the subject, just received by the Secretary of the Royal Astronomical Society from the Director of the University, Prof. T. H. Safford.

EDWIN DUNKIN,

Hon. Sec. to the Royal Astronomical Society

Royal Observatory, Greenwich, February 22

"Dearborn Observatory, Chicago, Jan. 29, 1872

"DEAR SIR,—As the enclosed article from the London *Daily News* (see also London *Times* of January 9) might convey the impression that the Observatory is to be closed, permit me to state exactly the facts.

"The Observatory—whose funds are separate from those of the University—has, during the few years of its existence, accumulated a large stock (perhaps too large) of unpublished and only partially discussed observations, especially upon stars between 35° and 40° of declination, in connection with the German Astronomical Society, on Argelander's plan. A few months before the fire arrangements had been in progress by which it would gradually acquire the means to discuss and publish these observations, and these arrangements have been interrupted.

"So far, then, as the City of Chicago is concerned, nothing further is to be expected for the present, and, perhaps, the coming year; but as business has revived, it is expected that the difficulty of providing means will not be permanent.

"For the present it is necessary for me to give a portion of my time to geodetic and geographic-astronomical work for the United States engineers, who are conducting large operations in the central portion of the country; and the publication of our observations will be in consequence delayed.

"It is but fit that I should here acknowledge the indebtedness of the Observatory to the Hon. J. Young Scammon, at whose sole expense the Dearborn Tower and the Meridian Circle Room were built, and upon whom the support of the Institution has mainly depended.

"Our thanks are especially due to those scientific friends who have so kindly given their works. Were it not for the Greenwich and other star-catalogues received by past donations, I should have found myself in no condition to accomplish the work which I am now doing for support.

T. H. SAFFORD,

Director of Dearborn Observatory

"To the Secretary of the Royal Astronomical Society."