

One of the most important novel points of manipulatory detail which we notice, is the value of mucilage as an imbedding agent when the microtome is employed for freezing, as suggested by Dr. Pritchard. It depends on the fact that "frozen mucilage can be sliced as readily as a piece of cheese," a most valuable property, as all who have had any experience will acknowledge.

Prof. Rutherford has supplied a deficiency. He has given us a manual which will meet the requirements of a large class of students who will never find it necessary to enter into the details of practical histology so minutely as they are discussed in larger works, such as the "Hand-book for the Physiological Laboratory," or the still deeper manual of Stricker.

OUR BOOK SHELF

A Yachting Cruise in the South Seas. By C. F. Wood. With six photographic illustrations. (London: King and Co., 1875.)

MR. WOOD'S narrative is so interesting that we wish it had been very much longer. He has made several voyages among the Pacific Islands during the last eight years, and, judging from this and what he tells us in the work before us, he must possess much valuable information concerning these islands, and especially with regard to their puzzling populations, which he would do well to publish in detail, and which would be welcomed especially by ethnologists. Mr. Wood is evidently a careful observer, and has the power of describing what he observes interestingly and clearly.

The present volume contains a narrative of a cruise which the author made, starting from New Zealand, from May to December 1873, among some of the most interesting groups of the Pacific Islands. Among the islands visited during this time were Rotumah, to the N.E. of Fiji, Futuna, Savaii, and Upolu, in the Samoan group; Niuafo, some of the islands in the Fiji group, the New Hebrides, the Solomon Islands, the Caroline Islands, Oualan, the Mulgrave Islands, and the Ellice group. Concerning every island which he visited, Mr. Wood has some interesting and valuable information to give, either about its physical condition, its products, its people, its history, or its antiquities. One of the main objects of his cruise was the collection of native implements and weapons, and in this he seems to have succeeded to his heart's content. His observations concerning the people seem to us especially valuable; he has gathered many traditions as to their migrations, and gives some specimens of folk-lore. In many of the islands the natives seem restless and discontented, and Mr. Wood was frequently petitioned to give them a passage from one island to another. Like many other Pacific voyagers, he has but a poor opinion of the results of the attempts which have been made to Christianise the natives. Not that he disapproves of attempting to civilise them and to raise them in the scale of humanity, but he thinks the methods which are generally adopted are quite abortive. The unmodified European garment of civilisation evidently cramps and enervates the Pacific Islander.

The information which Mr. Wood gives concerning the Rotumans, their traditions as to their predecessors in the island, their migrations, customs, superstitions, folk-lore, &c., is especially valuable. He refers briefly to the remarkable mounds among the hills in Bonabi, or Ascension Island, in the Caroline group, about which them have no tradition, but which would be likely to repay a careful examination. Quite as interesting, and still more wonderful, are the remains of large buildings of stone in the same island, some of the blocks of which are of immense size, and concerning which also the natives seem

to have no traditions. Mr. Wood believes these ruins to be the work of a people that have passed away, and it is very unlikely that the original buildings were the work of passing Spaniards, as has been supposed. We have certainly much yet to learn concerning the history and relationships of the Pacific Island populations, and it is a subject well worth careful investigation. Mr. Wood's modest volume is a valuable, though small, contribution to our knowledge of the subject; he must, we should think, have a great deal more to tell as the result of his long intercourse with these islands. The few autotype illustrations are appropriate and well executed.

LETTERS TO THE EDITOR

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts. No notice is taken of anonymous communications.]

Living Birds of Paradise in Europe

WE have just received at the Zoological Gardens of Dresden two living Birds of Paradise, viz., *Paradisea papuana*, from New Guinea, and *Paradisea apoda*, from the Aru Islands, both males, in excellent health and fine condition. Mr. von Below, Assistant-Resident of Makassar, in Celebes, brought them home in a three-months' passage from Makassar, *via* Java, Suez, Gibraltar, London, and Hamburg to Dresden, where he intends to spend the winter, and has deposited the birds in the Zoological Gardens. They have already been about three years in captivity with him at Makassar, where I saw them when passing through that place to New Guinea in 1873. The birds, therefore, are accustomed to cage-life, and as the conditions under which we have placed them are most favourable—consisting chiefly in a large space to allow free movement, and in an equal temperature of about 20° Réaumur—there is some hope of our being able to keep them alive. Mr. von Below got these birds through native traders who have their home at Makassar and trade to New Guinea and the Aru Islands. He fed the birds in India with grasshoppers, bananas, and rice, and on board the steamers with the same, cockroaches being substituted for grasshoppers. In Dresden we try to feed them with bread, rice, and worms (*Mehlwürmer*). Both are very active, and cry their well-known "wök, wök" with much force; the specimen of *Paradisea apoda* especially is not the least shy, and takes the worms out of one's hands. Their fine plumage suffered, of course, on the voyage, but I was astonished to see that it was not damaged more. As they probably will moult from about November till April, the plumage will not be at its finest condition till the month of May, and, supposing that the readers of NATURE will be interested in the further fate of these Birds of Paradise, I shall report in time how they are getting on.

I believe I am not mistaken in saying that a living specimen of *Paradisea apoda* has never before been alive in Europe. The two Birds of Paradise which Mr. Wallace brought home, which he had bought at Singapore, were *Paradisea papuana* (if I remember correctly, having no books at hand here); Mr. Cerrutti, some years ago, brought over a specimen of *Seleucidés alba*, but I did not hear how long it lived in Europe. No other species of Birds of Paradise have yet been brought alive to Europe, so far as I know, and we may therefore felicitate Mr. von Below on having increased the number of these at least to three.

The inhabitants of those parts of New Guinea which I visited in 1873 are not accustomed to catch *Paradisea papuana* alive, as Mr. Wallace states is the case with *Paradisea apoda* from the Aru Islands; they only know how to kill the bird with the arrow, and I did not succeed in teaching them otherwise, but I suppose that the Papoos of the south-west coast of New Guinea know how to catch the Birds of Paradise alive, and that Mr. von Below's specimen is from that part of New Guinea.

Wildbad Gastein, Sept. 11

A. B. MEYER

Source of Volcanic Energy

MR. W. S. GREEN, like others of Mr. Mallet's supporters, takes wider ground than he did himself in his original paper. It is obvious that he regarded his experiments conclusive as to the amount of heat that could be produced by rock crushing