

organisms consist of distinct, separate and independent units.

As a practical application of the theory he suggests that many forms of insanity are merely the distinguishing characteristics of human mutants. "*Dementia præcox* is neither fatal in itself, nor curable. Were it either we could not of course regard it as the expression of a character or group of characters, or compare its victims to mutants." In addition to the punctuation, one might be inclined to object to the implication that the possessor of a new character can not be compared to a mutant if the new character be fatal to its possessor.

The author assures us that the philosophical conclusions in the last chapter were reached before reading Bergson. There is something of a similarity—at least as to the quality of indefiniteness and the appeal to the unknowable. The concluding sentence is a warning that the belief in natural selection encourages a belief in "the right of the spirit of competition which is daily invoked in order to smother those altruistic feelings that are an important part of the human mind."

The discussion of "species" is interesting and the important facts concerning the rats are well presented.

FRANK E. LUTZ

The Flowing Road; Adventuring on the Great Rivers of South America. By CASPAR WHITNEY. Philadelphia and London, J. B. Lippincott Company. 1912. Pp. 319. Illustrated.

The title of this book leads one to look for something in the way of scientific results, but the author disclaims any scientific mission (173), and it is only by much courtesy that it can be regarded as scientific in any sense. But in spite of this, it is a book full of interest for every one who knows, or wishes to know, about the ups and downs of canoe travel in the thinly populated and little-known regions of the upper Rio Negro, or for the matter of that, on any of the rivers that empty into the Amazon.

The author's preface would lead one to sup-

pose that Humboldt and Wallace were almost the only explorers of the upper Rio Negro region, and he fails to mention Dr. Richard Spruce, who lived and labored there longer than all the others put together. Humboldt was on the upper Orinoco only two months—April and May, 1800; Wallace went up the Rio Negro in August, 1850, and returned to Manaus May 17, 1852; Spruce lived in that region from December, 1851, to December, 1854—just three years. The account of Spruce's residence is given in the "Notes of a Botanist on the Amazon and Andes by Richard Spruce, London, 1908," and his results are published in more than fifty scientific papers, mostly on South American botany and natural history, brought out by the learned societies of England and Scotland.

Likewise no mention is made of the almost incredible explorations of Henri A. Coudreau in the Amazon region, including a trip up the Uaupés in 1884, and described in his "Voyage a travers les Guyanes et l'Amazonie," Paris, 1887.

This, however, has but little to do with the book itself. In spite of the almost deadly sameness of the region and of the daily life, the author finds something or much of interest and beauty everywhere, and under all circumstances. And it is a great pleasure to follow a man who likes to see the animals without wanting to shoot them all to pieces, who accepts the weather and the fortunes of travel as they come along without complaint, who has human sympathy with the people, however humble, and who doesn't want to impose his ways of doing things upon every one he meets. This wholesome attitude of the author, even if there were nothing else in it, makes the book richly worthy of the attention of naturalists and of others who would travel in the country treated of.

Another peculiarity of the book is that the author doesn't begin in New York or London with the details of how many trunks, boxes and packages he had and what each one contained; he doesn't describe the voyage out, and the steamer, and the service, and the flying fish, and the southern cross and all the

rest of it. With a brief sketch of the lower Amazon and lower Rio Negro, he begins his story of the trip at Santa Isabel nearly half way up the Rio Negro. With the same promptness, the best of the book—the part which treats of the trip across from Santa Isabel to Ciudad Bolívar on the lower Orinoco—comes to a living end at 4:30 A.M., after his long voyage, when “my canoe grated the sloping bank of Ciudad Bolívar, and I stood upon the beach, bare-legged to the thighs, looking, no doubt, in tattered shirt, like a derelict cast up by the sea.”

The remainder of the book is only remotely related to this first and most important part of it, but it is all interesting. Chapter XIX., however, at the end, relates to outfitting for travel in tropical regions and is the best thing of the sort we have seen; and in the opinion of the reviewer the best things among the many valuable suggestions are these: go light, eat what the natives eat, sleep in a hammock, avoid liquor, don't scratch insect bites. He forgot to add: “Learn the language of the people.”

This last point suggests that the book contains a few errors in Portuguese which a little care might have avoided. Such are “batelão” for *batelão*, “Rio Janeiro” (74, etc.) instead of Rio de Janeiro, “cachaca,” rum, for *cachaça* (43, etc.), “igarapee” for *igarapé* (47-49), “madrugar” for *madrugada* (84).

There are also a few erroneous statements in regard to plants which it is hoped may be corrected in future editions: that *farinha de mandioca* is made from the root of a *yucca* (33); that *piassava* is a “fiber parasite” of a palm (118); that Panama hats are made of “the fine and enduring straw” of a palm. As a matter of fact the *piassava* fiber is from the edges of the petioles of the palm, and is in no sense a parasite, while the straw of which the hats are made are from the leaves of a species of screwpine.

On the other hand he does well to correct the impression, so popular in temperate regions, that South America swarms with snakes; and he justly discredits the exagger-

ated stories to be heard all over South America of the numbers and dangers of the jaguars. He does well also to mention the everlasting stumbling blocks placed in the road of the foreign wayfarer (213)—an item the foreigner should be prepared for before he begins his wayfaring.

In his preface Mr. Whitney speaks rather lightly of the fevers and intimates that they belong to the category of robbers and reptiles (4). Having come safely out of some of the most unhealthful parts of South America, it is natural enough for him to think lightly of the fevers. But when he takes a serious view of the possibilities of the region about San Fernando he finds himself confronted by “the insect host and the fever—a forbidding pair” (111).

The writer is in entire sympathy with this author's general cheerful attitude in regard to the people and their ways and the country in general, but he thinks it due to those who are likely to go there to call attention to the abundant evidences of fevers and of their sad work as set forth in “Recollections of an Ill-fated Expedition,” etc., by N. B. Craig, Philadelphia, 1907, and indeed in the experience of every one who has lived long in that country.

It is a pity that the book is not supplied with better maps.

J. C. BRANNER

MINERALOGY IN JAPAN

THE valuable Japanese periodical issued in Tokyo by T. Wada, under the German title “Beiträge zur Mineralogie von Japan,” offers many interesting articles in its fourth number (June, 1912), all of them being written in English by their Japanese authors. Among them we note an account of the fall of meteorites which took place July 24, 1909, in the districts of Mugi and Yamagata, province of Mino.¹ The writer, Tetsugoro Wakimizu, states he was at the time in the town of Ogaki, about twenty miles distant, when he heard a sound like the report of a cannon, accom-

¹“Beiträge zur Mineralogie von Japan,” ed. by T. Wada, No. 4, pp. 145-150, 1 pl., 1 map; Tokyo, June, 1912.