greater to the naturalist than to the argonaut. The charms of discovery here seem endless and enthralling, and it is hard to call to mind a passage more replete with pioneer enthusiasm than this one. But each succeeding chapter carries new charm, and it is perhaps unfair to select any one as distinguished by its interest from the others. The river journey from the mines to the coast by canoe is as delightful a piece of descriptive writing as it has been our fortune to read. A real contribution, too, is the chapter on "The Life of the Abary Savannas," which contains a large amount of fine and original observation on the Hoatzin, an anomalous bird with reptilian tendencies and no close avian relationships.

The book is illustrated with well selected photographic half-tones, mostly by Mr. Beebe, and closes with a very complete and usable index. For the casual reader, as well as for the naturalist, it is replete with interest, and in places the excitement of scientific research, so generally quashed or altogether lacking, carries the reader into a new sympathy with the longing which leads men and women into the strange places of the earth.

LOUIS AGASSIZ FUERTES

SCIENTIFIC JOURNALS AND ARTICLES

The Journal of Experimental Medicine for September contains the following articles: "Effect of Various Agents on the Blood Flow through the Coronary Arteries and Veins," by G. S. Bond; "Another Point of Resemblance Between Anaphylactic Intoxication and Poisoning with Witte's Pepton," by Arthur D. Hirschfelder; "Studies on Immunity in Cancers of the White Rat," by Isaac Levin; "The Relation of Fatty Degeneration to the Oxidation of Purines by Liver Cells," by H. Gideon Wells; "Experimental Yaws in the Monkey and Rabbit," by Henry J. Nichols; "Changes in the Hemosiderin Content of the Rabbit's Liver during Autolysis," by W. H. Brown; "The Effect of Vagus Section upon Anaphylaxis in Guinea Pigs," by John Auer; "The Cultivation of the Leprosy Bacillus and the Experimental Production of Leprosy in the Japanese Dancing Mouse," by Charles W. Duval; "Intracellular Proteolytic Enzymes of Liver," by A. R. Dochez; "The Cell Changes in Amaurotic Family Idiocy," by B. Sachs and I. Strauss; "A Transmissible Avian Neoplasm. (Sarcoma of the Common Fowl)," by Peyton Rous.

SPECIAL ARTICLES

THE PREVENTION OF THE TOXIC ACTION OF VARIOUS AGENCIES UPON THE FERTILIZED EGG THROUGH THE SUPPRESSION OF OXIDATION IN THE CELL

IN former papers I had shown that the toxic effects of certain solutions on the fertilized eggs of the Californian sea urchin could be prevented by suppressing the oxidations in the eggs; either by depriving them of oxygen or by adding KCN to the solution. The solutions for which this was proved were: (1) hypertonic solutions, (2) hyperalkaline solutions and (3) solutions of certain neutral salts like LiCl, NaCl, KCl and others. The same observation as far as NaCl is concerned was made previously by O. Warburg.

I have continued these experiments this summer on the eggs of *Arbacia* in Woods Hole and find that the facts mentioned above are only special cases of a more general law. It is possible to prevent or diminish the toxic effects of the following agencies through the prevention of oxidation.

1. Neutral and alkaline salt solutions (with the exception of the salts of heavy metals).

2. Solutions of grape sugar (and probably other non-conductors).

3. Hypotonic solutions (*e. g.*, sea water diluted with equal parts of distilled water or a $\frac{3}{4}$ *m* solution of ethylalcohol).

4. Narcotics (chloral hydrate, phenylurethane, chloroform and alcohol dissolved in sea water).

In former papers I had shown that without oxygen no development of the egg is possible and it remained doubtful whether the life-saving effect of lack of oxygen under the conditions mentioned above was due merely to the inhibition of the morphological phenomena of development in the egg or to an inhibition of