

purpose of absorbing the maximum amount of carbon dioxide from the air, and in this manner it may be possible enormously to increase the amount of carbon which a given area of land will pick up. This may sound fanciful, but the wonderful improvements which hybridisation has effected in the past make it quite possible that in the future still greater improvements may be looked for.

A PRACTICAL HANDBOOK ON RUBBER.

Rubber Cultivation in the British Empire. By Herbert Wright. Pp. vi+100. (London: Mac-laren and Sons, 1907.) Price 2s. 6d.

THIS is one of the most interesting and useful little books yet published on rubber cultivation, and should be in the hands of every planter. It is a reprint of a lecture delivered before the Society of Arts. The book is not only of great value to those interested in plantation rubber, but also to those interested in the development of wild rubber. Mr. Herbert Wright, who was at one time controller of the Government experimental station in Ceylon, is now the editor of the *India Rubber Journal*. He is also the author of one of our best standard works on rubber, viz. "Hevea Brasiliensis," which is a scientific treatise on the botany of rubber. The present publication is more in the form of a useful and practical handbook, and deals with the great potentialities of the rubber industry, and its importance from "the producer's standpoint, especially in British possessions."

The gradually increasing demand for raw rubber, and the remunerative prices obtained, have produced enormous developments in the past few years on Eastern plantations. At the present the most important centre for rubber collection is tropical America, which supplies about 60 per cent. of the world's output. Africa comes next with 30 per cent. to 35 per cent., but tropical Asia last year only contributed 3 per cent. Borneo, New Guinea, Fiji, New Caledonia, and the Seychelles are also commencing to develop a strong interest in rubber-producing plants.

"It may be safely stated," writes Mr. Wright, "that to-day there are no less than 14,000,000l. of English money represented as paid up capital in companies directly or indirectly concerned with rubber growing. Furthermore, it may be estimated that approximately 30,000,000l. worth of rubber may be consumed during the present year."

The natural order which supplies the greater part of the world's rubber is the Euphorbiaceæ, the most valuable species being the Hevea, which produces the well-known Para rubber which has been planted so extensively in Ceylon, Federated Malay States, Straits Settlements, and Sumatra.

Mr. Wright speaks with considerable authority and experience on plantation Para rubber, and he thinks that it will sooner or later obtain a prominent, if not the commanding, position as a source of future rubber; but this will not be for many years, for in speaking of wild rubber he says:—

"Should the supply from wild sources become scarce—an improbable occurrence—it would be impossible for the plantations to supply the balance for many

years to come, as the producing capacity of the land now alienated for rubber in the East will only be in 1912 or 1913 some 12,500 to 25,000 tons per year. The rubber manufacturers have hitherto been dependent, almost entirely, on wild rubber; and it seems illogical to suggest that the rubber forests on which so much new capital and enterprise have been recently expended, and in which prominent scientific and business men are concerned, will be unable to satisfy the increased demand expected in the next few years. It may confidently be regarded as the principal source of rubber for the next half score of years, for the simple reason that plantations in the proper sense do not exist to produce what will be required."

At the end of the lecture there is an instructive discussion, in which Lieut.-Col. Prain, Mr. Gray, Mr. Fritz Zorn, and Mr. S. Figgis took part.

L. C. B.

OUR BOOK SHELF.

School Hygiene; a Handbook for Teachers of all Grades, School Managers, &c. By Herbert Jones. Pp. x+151. Dent's Mathematical and Scientific Text-books for Schools. (London: Dent and Co., 1907.) Price 2s.

THIS is one of the many books that the great movement towards school hygiene has thrown up. The book, or rather booklet, contains practically nothing that is new, but the selection of topics is done with judgment and care; every main subject of environmental hygiene is touched on with sufficient fulness to meet the needs of immediate practice or to provoke to further reading, and the illustrations are profuse and good. The author has succeeded in treating "the subject as simply as possible." The work of Dr. Kerr at the London County Council is largely drawn upon. As in Dr. Newsholme's "School Hygiene," the book is allocated half to the school and half to the scholar. In criticism, it may be said that rather much space is given to matters, e.g. site, building construction, and sanitary appliances, &c., that the teacher cannot alter or affect, and rather little space to what he can affect. But with this qualification the booklet forms a good introduction to the subject. The writing is well adapted to the intended readers.

Regeneration and Transplantation. By Prof. E. Korschelt. Pp. 286; 144 figures. (Jena: G. Fischer, 1907.) Price 7 marks.

OF recent years there has been much experimenting and not a little theorising regarding regeneration and grafting. The results of the experiments have sometimes been very remarkable and full of theoretical suggestiveness, and they are now so numerous that a general survey of their import is very welcome. We have already a volume on regeneration by Prof. T. H. Morgan which has been of great service; we have now an analogous volume by Prof. Korschelt. He traces the phenomena of regeneration through the world of organisms, in unicellulars and multicellulars, in plants and in animals, in young forms and full-grown forms, showing the varied distribution of the regenerative capacity and its varied expressions, and always returning to the central question, How has it come about, and by what precise processes does it come about, that a lost part is re-grown and the in-tactness of the creature restored? Special sections of the book are devoted to a discussion of such subjects as the following:—autotomy, often-repeated regeneration, restitutions and regulations, heteromorphosis, atavism in regeneration, imperfect and superfluous regeneration, the relation of the nervous system to