

OUR BOOKSHELF.

Subtropical Vegetable-Gardening. By P. H. Rolfs. Pp. xviii+309. (New York: The Macmillan Company; London: Macmillan and Co., Ltd., 1916.) Price 6s. 6d. net.

THE Rural Science Series, under the able editorship of Prof. L. H. Bailey, enjoys a deserved reputation for the high standard of excellence reached by its constituent volumes, and the one before us is no exception in this respect. Those whose lot is cast in the hotter parts of the world ought to be grateful to Mr. Rolfs for his practical and sensible work on subtropical vegetable growing. The author is the director of the experimental station of Florida. In America the exploitation of the land is looked on as a proposition of chief importance, and much enterprise, brains, and money are devoted to the solution of the multifarious problems that confront the cultivator.

Although Mr. Rolfs's book is designed primarily to meet the needs of the Florida people, it will be found, none the less, of great use in other parts of the tropical and subtropical belts, and the suggestive way in which difficulties of all kinds are indicated and disposed of should render it good reading to the dwellers of temperate zones as well.

The chapter on irrigation is an example to the point, for the water-question is certain to turn up in one form or another in all gardens, wherever they may be situated. The present writer has seen something like the subterranean methods of irrigation there described applied with remarkable results, even in this country. The cultural notes respecting the different vegetables are good, and the hints as to suitable manures, as well as the accounts of the various pests likely to be encountered, will be useful. In fact, the author is able to draw on a wealth of experience and knowledge which is at his disposal as head of an important experimental station, and we have no hesitation in cordially recommending the book to all whom it may concern, and furthermore in congratulating the author on the skill with which he has discharged his part of the matter.

Earliest Man. By F. W. H. Migeod. Pp. xii+133. (London: Kegan Paul, Trench and Co., Ltd., 1916.) Price 3s. 6d. net.

THESE are the musings and observations of one who has had long experience of life among primitive men and wild animals. While resident in the Gold Coast Colony the author not only devoted himself with well-known success to the study of the native languages, but was also a keen and thoughtful observer of the various tribes and their environment. He is, therefore, well equipped by first-hand knowledge for making suggestions as to the manner in which the earliest men may have gradually acquired the various habits and manifestations of intellect which distinguished them from their ape-like ancestors.

Mr. Migeod assumes that "if a creature of some species low in the scale of evolution can perform certain acts tending to operate on inanimate nature, another creature no lower, such

as Pre-man, cannot be denied the possession of the same capacity. Further, if there are natural occurrences which can cause lower species to act out of their usual habits, and evince undoubtedly new mental activities, the same potential capacity must also be allowed in the case of Pre-man." He then discusses in order the possible origin of man's primary instincts, the making of implements, the use of fire, the beginning of speech, and his special social organisation, with the dawn of religion. He concludes with an interesting observation that when an ordinary monkey dies in the forest, the rest of the troop simply leaves the corpse and abandons the place, at least for a time; while when an ape such as a chimpanzee dies, its companions drop the body into a hole in the ground if one can be found, and in any case cover it with a great heap of sticks and branches.

Some of Mr. Migeod's conceptions of the laws and causes of organic evolution will by no means commend themselves to those who are accustomed to approach the subject from a wider point of view, but the novelty of the circumstances in which his little book was written makes it stimulating and interesting.

A. S. W.

LETTERS TO THE EDITOR.

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A Nomenclature for "Resistance Derivatives."

IT is evident from Mr. Bairstow's National Physical Laboratory papers that the notion of "resistance derivatives" is likely to play a permanent part in the experimental study of aeroplane motions, as well as in the theoretical rigid dynamics associated with them. It therefore becomes important to have a uniform nomenclature for these quantities which shall be independent of the choice of axes, and thus free from any possible ambiguity or source of difficulty.

The following names are used by Mr. Bairstow to distinguish the quantities depending on translation and rotation respectively:—

<i>Translational.</i>	<i>Rotational.</i>
Longitudinal.	Rolling.
Normal.	Yawing.
Lateral.	Pitching.

Now, it will be found that a possible word of four letters can be made by combining the first two letters of any one of these names with the first two of any other, and such words are not more objectionable than nine-tenths of the names that are introduced to cover new inventions. The nine resistance derivatives for the longitudinal oscillations will then be designated as follows:—

Lolo	Lono	Lopi.
Nolo	Nono	Nopi.
Pilo	Pino	Pipi.

While the names of the lateral derivatives will be:—

Lala	Laro	Laya.
Rola	Roro	Roya.
Yala	Yaro	Yaya.