

As in the case of his volume on the "Laws of Wages," Prof. Moore brings a distinct freshness of view to his task, and has made an important contribution to the subject with which he deals. What one most misses is any reference to the labours of others who have preceded him in the same field, and rendered the hypothesis one that many have already accepted, though some of them may only be willing to regard the weather-cycle as a contributory cause.

Directions for a Practical Course in Chemical Physiology. By Dr. W. Cramer. Second edition. Pp. viii+102. (London: Longmans, Green and Co., 1915.) Price 3s. net.

THIS is a useful little laboratory manual, in which the author states he has departed from the method usually employed. This departure may be illustrated by an example; there are certain tests for starch; it is usual to take commercial starch and perform the tests with this; the student is generally instructed also to prepare enough starch from the potato to illustrate its microscopic appearances. Dr. Cramer adopts the method of starting with the potato, and instructs his pupils to prepare from it enough starch for macroscopic experiments also. The distinction between the two methods is rather apparent than real, and Dr. Cramer's method involves more trouble to the student, which may not be a bad thing. Another departure one notices is that the results of a reaction are not explained; he interpolates instead questions such as, what change occurs? or why is this? or explain the result. This plan of stimulating inquiry is an excellent one for the student above the average; but one fears that 95 per cent. of the class will leave the questions unanswered, and be content with their ignorance. The author, moreover, is not consistent in the use of this method of questioning; one notes, for instance, in such subjects as blood-clotting and nerve chemistry, subjects on which Dr. Cramer holds special views of his own, that the teaching is didactic; it would evidently be unsafe to leave students here free to pursue independent inquiry.

W. D. H.

Soil Conditions and Plant Growth. By Dr. E. J. Russell. Pp. viii+190. New edition. Monographs on biochemistry. (London: Longmans, Green and Co., 1915.) Price 5s.

THE first edition of Dr. Russell's book was reviewed in the issue of NATURE for October 24, 1912 (vol. xc., p. 215). To the new edition a chapter has been added on the relationship between the micro-organic population of the soil and the growth of plants, and also a number of sections dealing with recent developments of other parts of the subject.

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LETTERS TO THE EDITOR.

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Early Figures of the Opossum.

IN view of the fact that several communications have appeared in NATURE during the past year concerning the first mention of the American opossum in literature, it may not be inopportune to direct attention to some of the early illustrations of this animal in maps and in printed works. First of all, it should be stated that the earliest reference to the opossum is found in the famous collection of voyages known as "Paesi Novamente Retrovati," published in 1507. In chapter cxiii. of that work it is mentioned that a live specimen, taken by the Pinzons in Brazil in 1500, was exhibited in Granada.

In the Waldseemüller map of 1516 a drawing intended to represent the opossum, as indicated by its accompanying legend, is introduced in the Brazilian region of South America; and this figure is copied in a number of later maps, and also in the Italian edition (1558) of Sebastian Münster's "Cosmographia."



FIG. 1.

Under the native designation of "Su," a grotesque figure of the opossum was given by André Thevet, in his volume published in 1558, and in the same year appeared the "Wahrhaftig Historia" of Hans Stade, of Homburg, wherein occur (cap. xxxi.) two illustrations, and descriptions, of these Brazilian animals, one of which is called the "Servoy" (*Didelphis marsupialis*, L.) and the other "Dattu" (*Dasyfus novemcinctum*). The descriptions read as follows:—

"There is also a kind of game, called servoy, which is as large as a cat, and has a tail like a cat; its fur is gray, and sometimes grayish black. And when it breeds, it bears five or six young. It has a slit in the belly about half a span in length. Within the slit there is yet another skin; for its belly is not open, and within this slit are the teats. Wherever it goes, it carries its young in the pocket between the two skins. I have often helped to catch them and have taken the young ones from out of the slit."

"There is another sort of animal found in this country which the savages call *dattu*; it stands about six inches high and is nine inches long; its body is covered all over, except underneath, with a kind of armor. This covering is horn-like, and the plates overlap one another like those of chain armor. This animal has a very long snout, and is usually found on rocks. It feeds on ants. Its flesh is sweet and I have often eaten of it."