

two primary causes of relative motion of the earth's outer layers are a tendency of the uppermost layers towards the equator, and of the subcrustal layer to flow polewards; on the second of these he differs from Wegener, who postulated a westerly drift of the continents as the cause co-operating with the drift towards the equator.

*Tin Mining: a Complete Guide for all Actively Interested or Engaged in Tin Mining.* By C. G. Moor. Pp. xi+171. (London: Sir Isaac Pitman and Sons, Ltd., 1928.) 8s: 6d. net.

THE sub-title to this book describes it as a complete guide for all actively interested or engaged in tin mining. In the introduction the book is stated to have been designed to help the practical miner and those investing in tin-mining enterprises. Actually, it is a book treating principally of alluvial tin mining and well suited to enlighten the working miner and the layman on the general aspects of that most important branch of tin mining. It is written in a lucid and fluent style; the type is clear and the format of the book is good.

While, therefore, it can be recommended to those desiring to have some broad knowledge of the subject, it is not written for the mining engineer. It includes no mining plans nor lay-out of areas; there are no drawings of dressing machines; the only illustrations in the book are photographs of tin mining in the Straits, and even these are not referred to in the text.

### Medical Science.

*Food Infections and Food Intoxications.* By Prof. Samuel Reed Damon. Pp. viii+266+18 plates. (London: Baillière, Tindall and Cox, 1928.) 18s. net.

THE author has divided the contents of this book into sections comprising (1) infections from food, (2) intoxications from food, (3) zoo-parasitic infections acquired through food. The section which deals with food infections includes not only food poisoning due to the Salmonella group of bacteria, but also infections such as *B. tuberculosis*, *B. melitensis* (undulant or Malta fever), *Streptococcus epidemicus* (septic sore throat), and the ray fungus (actinomycosis). This must be regarded as a somewhat arbitrary list, which, if it includes actinomycosis and septic sore throat, might equally well have been extended to include infections by *B. diphtheriae*, *B. typhosus*, and *B. dysenteriae*, all of which are in greater or less degree conveyed by food and drink. No mention is made of the possible transmission by milk of the *B. abortus* of cattle and the illness which it causes in man, though the author refers to the close relationship which exists between this organism and the virus of undulant fever, *B. melitensis*.

Under food intoxications, those toxins are described which are associated with *B. botulinus* (botulism), mushrooms, fish (certain organs of certain fish at certain times, and fish that are infected with bacteria pathogenic for man),

grain (ergotism and lathyrism), potatoes (the alkaloid, solanin, occasionally present in increased amounts), and milk. This last is an interesting case of intoxication at second hand. It is caused by drinking the milk or eating the flesh of cattle which have themselves been poisoned by feeding on certain poisonous plants, particularly white snakeroot (*Eupatorium urticæfolium*) and rayless golden-rod (*Aplopappus heterophyllus*); it occurs in certain areas of the southern and mid-western States of America, though much less frequently than formerly.

The etiology, symptomatology, diagnosis, treatment, and prophylaxis of each infection or intoxication are described and very useful lists of references appended, though much recent work on the Salmonella group of bacteria has been disregarded.

H. S.

*Pharmacognosy and Materia Medica: for Students in Pharmacy and Practising Pharmacists.* By Prof. Homer C. Washburn and Walter H. Blome. With a Chapter on Vitamines and one on Insulin, by Water Pitz. Pp. xiii+585. (New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1927.) 25s. net.

'MATERIA medica,' in the conventional sense in which the term is used in this book, means knowledge of the diagnostic characters of natural drugs of botanical or zoological origin. In these days, when the factory has largely replaced the individual craftsman in the art of converting crude natural drugs into medicinal preparations, such knowledge is rarely required in practice, from either the medical man or the pharmacist, and it has been urged that this position should be recognised by appropriate changes in this branch of pharmaceutical education. Moreover, 'Materia medica,' as a subject in a course of pharmaceutical training, still includes many natural drugs, which have, or should have, ceased to interest orthodox medical men, except perhaps as items in the history of medicine, and on this ground also there is room for reform of the kind just indicated.

The book under review is well written on what are now almost classical lines for such literature, but it does show some modernist tendencies. Thus it devotes separate chapters to vitamins and insulin, and though the section on animal drugs includes musk and leeches, it does also deal with antitoxins, epinephrine, and thyroxine. But until educational authorities change their conception of 'Materia medica' to something more akin to the range of chemical and biological materials actually used in medicine to-day, little change can be expected in books of this character. Even now, however, pharmacognosists might impart more living interest to their textbooks by being more critical and more explanatory in regard to the chemistry of natural drugs. In the present instance, for example, the paragraphs headed "Constituents" throughout the book would gain enormously in interest and value by revision and extension by a competent and critically minded chemist.