

outbreak occurred in 1922 at Loch Maree from eating infected potted duck paste.

Well equipped in epidemiology, Dr. MacNalty is therefore able to give an admirable account of the epidemic nature and history of the three diseases—acute poliomyelitis and polioencephalitis, cerebrospinal fever, and encephalitis lethargica—not only in man but also of what is known about their occurrence in animals. Since the end of the War the incidence of cerebrospinal fever has greatly diminished, but unfortunately the reverse applies to the other two, both of which are due to infection with an ultra-microscopic virus spread by healthy 'carriers.' The after-effects of encephalitis lethargica on the brain, which may follow acute attacks so slight as to pass almost or quite unnoticed, are calamitous; when the incidence of abortive attacks and of its form, or the closely allied condition, known as epidemic hiccup, which do not appear in the notification returns, are taken into account, the increase becomes positively alarming. A thorough knowledge of the causation and epidemiology of these diseases is most important in providing efficient means for their prevention, a subject on which Dr. MacNalty also touches, and hence this well-written and detailed account of their epidemiology is most appropriate. H. R.

Our Bookshelf.

Lehrbuch der Geophysik. Herausgegeben von Dr. B. Gutenberg. Lieferung 3. Pp. 401-608. (Berlin: Gebrüder Borntraeger, 1926.) 12 gold marks.

THE third instalment of the work edited by Prof. Gutenberg maintains the standard of the first two. It begins with a clear and up-to-date account of terrestrial magnetism by Dr. J. Bartels. One learns in it that the whole energy of the earth's permanent magnetic field is equivalent to that of the radiation received from the sun in three seconds!—or, it may be remarked, to the gravitational energy released by a radial contraction of the order of 10^{-6} cm. Prof. Gutenberg then devotes sixty-six pages to the physical constitution, figure, density, and thermal state of the earth. In a useful, if brief, account of the figure of the earth, the Radau approximation is given, but neither Darwin nor Callandreaux is mentioned.

Present knowledge of the distribution of density is well summarized. The three physical states of matter are clearly defined on p. 455. The distinguishing mark of a gas is its high compressibility, while a solid is distinguished from a liquid by the possession of a measurable rigidity, or elasticity of form, which liquids have not. Glasses are therefore regarded as solids, and not as liquids. But Gutenberg seems to contemplate seriously the possibility that all solids have a finite viscosity; the proposi-

tion is perhaps worth consideration, though neither experiment nor theory lends it much support. The work of Bridgman, Tammann, and others on the properties of matter at high temperatures and pressures is described. Methods of measuring gravity and its variations with position are treated fully by Prof. Ansel, with special reference to the detection of masses of abnormal density near the surface. An account of electric currents in the crust is then given by Bartels.

The last chapter, by Gutenberg, deals with the application of seismological methods to the investigation of the uppermost layers of the crust. Until recently seismology, so far as it has dealt with the sedimentary layer at all, has usually regarded it mainly as a nuisance. But the problems it involves are now being attacked, and this chapter is, I believe, the first connected account of the results. Artificial shocks, such as explosions or even the fall of a heavy body, are recorded on instruments with magnifications of the order of a million, so that movements of almost molecular extent can be detected. The sound wave in the air is a prominent feature of the records. The velocities of compressional waves in the sedimentary rocks are notably less than in igneous ones, of the order of 2 km./sec. as against 5.4 km. to 8 km./sec. Distortional waves have hitherto been found more difficult to observe.

H. J.

Mind and its Disorders, a Textbook for Students and Practitioners of Medicine. By Dr. W. H. B. Stoddart. (Lewis's Practical Series.) Fifth edition. Pp. xx+593+12 plates. (London: H. K. Lewis and Co., Ltd., 1926.) 21s. net.

IN the fifth edition of his well-known text-book, Dr. Stoddart has made several changes to conform with the latest ideas on the ever-growing subject of psychiatry. It is perhaps in general paralysis that there has been during the last few years the most prominent advance in therapeutics of mental disease. The section on the treatment of this disorder contains details of the modern treatment by induced malaria, and also refers to the use of tryparsamide. The main new feature of clinical psychiatry is the recognition of mental changes following epidemic encephalitis, and a chapter is devoted to this disease and its sequelæ. Dr. Stoddart's experience is that certification is rarely required, and then only for the confused type of post-encephalitic state, but cases certainly occur in which that step is necessitated by changes in the moral sphere.

The author continues to deal with psychopathology on dogmatic Freudian lines. The root of the manic-depressive psychosis is regarded as a repressed sado-masochism; the former intraneuronic intoxication theory is quite abandoned. Paranoia is said to have an invariable foundation of repressed homosexuality. Exophthalmic goitre is considered to be a variety of anxiety hysteria. It is left undecided whether dementia præcox is primarily organic or psychogenic. While these views may not find general acceptance, they form excellent illustrations of the psycho-analytical