full well that the same tale may be told of you a few months later."

(3) "Intemperance in the quantity of food taken is almost the rule. Adults eat far too much."

(4) "Things medical and gruesome have a singular attraction for many people. . . . To talk of diseases is a sort of Arabian night's entertainment to which no discreet nurse will lend her talents."

For graver and more intimate converse with Osler's mind, we have this anthology as our companion—a book worth reading, worth buying.

Our Bookshelf.

The Position in Space of the Aurora Polaris, from Observations made at the Haldde Observatory, 1913-14. By L. Vegard and O. Krogness. (Geofysiske Publicationer, vol. 1, No. 1.) Pp. vii+172+plates. (Kristiania: A. W. Brøggers Boktrykkeri A/S, 1920.)

THIS is an elaborate account of observations made to determine the height of the aurora, by the method originally devised by Störmer, and used by him in 1910. The method consists in photographing the aurora simultaneously at two stations some miles apart, and determining its parallactic shift relative to the stars. In the present work the authors employed a base line of 12·5 kilometres, much larger than the base of only 4·5 kilometres used by Störmer in his first experiments.

The lowest height of the aurora is a question of long-standing controversy. Many of the older observers thought that it reached on occasion to the ground level, but Dr. Simpson's observations in the Antarctic led him to think that this was an illusion, and certainly it seems very improbable if the theories now current of the origin of the aurora in corpuscular rays are to stand. Störmer never found anything lower than about 40 kilometres, and the present work seems to indicate that the lowest values found by him were erroneous, the base line employed not being long enough for accuracy. Vegard and Krogness find the lower limit to range from 73 to 166 kilometres. They find an indication of two maxima in the height distribution curve, at 100 and 106 kilometres respectively, and incline strongly to believe that these are real, and due to the presence of two kinds of corpuscular rays.

The methods of measurement and reduction are set out in great detail, and a large number of photographs are reproduced. R.

Dairy Bacteriology. By Prof. Orla-Jensen. Translated from the second Danish edition, with Additions and Revisions. By P. S. Arup. Pp. xii+180. (London: J. and A. Churchill, 1921.) 18*s.* net.

THIS book has already passed through two editions in Denmark, and is now translated into English. It will be found to present a useful summary of the subject for the dairy worker, giving him information that will be of value in his routine work, and will help him in coping with the troubles that periodically arise in dealing with farm products.

Milk fresh from healthy cows contains a few organisms derived mainly from the air, the udder, and the teats; these are nearly all micro-cocci and sarcina forms, most of which are without action on the milk, though a few acidify and peptonise it. Milk which has been less carefully handled is liable to contain a great variety of organisms—coli, aerogenes, and others from the dung; fluorescent bacteria from the water used for rinsing the pails; and others from the bedding, stable dust, etc. The American "certified milk" contains less than 10,000 of these organisms per c.c.; this keeps well. The author gives other figures for other samples, running up to hundreds of millions per c.c. There is a good account of milk preservation and treatment.

Mitteilungen der Naturforschenden Gesellschaft in Bern aus dem Jahre 1919. Pp. lxxv+231+Tafel 5. (Bern: K. J. Wyss Erben, 1920.)

THE scientific communications published in this volume are mainly of local interest. Prof. Ed. Fischer chronicles additions to the list of species in the flora of Berne which have been noted in the past ten years; a large number are aliens which have been introduced in various ways. The most important communication in point of length is by Werner Lüdi on "The Succession of Plant Associations," an ecological study of the vegetation of the Bernese Oberland, with special reference to the Lauterbrunnen valley. Dr. R. Stäger describes some myrmecological observations on the Belalp at more than 2000 metres elevation, in which he notes the distribution of the seeds of *Thesium alpinum* by two species of ant. E. Gäumann gives an account of the occurrence and area of distribution in Switzerland of the species of the parasitic fungus genus Peronospora, and there is also a paper on the etiology of the "grippe" by Dr. Sahli.

The Elements of Direct-current Electrical Engineering. By H. F. Trewman and G. E. Condliffe. Pp. vii+219. (London: Sir Isaac Pitman and Sons, Ltd., 1921.) 7*s.* 6*d.* net.

THE object of this addition to the many electrical text-books is to bridge the gap between elementary handbooks and treatises on dynamo design. The general principles of induced currents and electromagnetism are briefly recapitulated, a few of the more common instruments are described, and the main features of the direct-current dynamo and motor are treated in a practical way. We are pleased that the authors have the courage to use the calculus in such an elementary work where it simplifies proofs, for, as they rightly point out, "it is essential to all students of engineering." The treatment is apt to be a little too sketchy for the second-year student for whom the work is intended, and future editions should remove such blemishes as "electric-motive force."