

collection had been distributed and described by the experts, the account of the arthropod fauna would not have been available until the present interest of Funafuti had passed.

#### OUR BOOK SHELF.

*Weather Lore. A Collection of Proverbs, Sayings and Rules concerning the Weather.* By Richard Inwards, F.R.A.S. Third edition. (London: Elliot Stock, 1898.)

MR. INWARDS is to be congratulated on the fact that his industry, exhibited in the collection of quaint sayings concerning the weather, has been rewarded by the demand for a third edition of his book on weather lore. If this popularity indicates a greater taste for an acquaintance with unscientific rules to be applied for the purposes of weather prediction over long periods, than an appreciation for the forecasts made on sound principles but for shorter intervals, it would imply a retrograde movement in meteorological education; but we imagine the demand for the book arises rather from the curious information it contains, and the old-world wisdom it exhibits, than from its scientific teaching and character of guide to weather prophecy. This edition is apparently much increased in size, and some features of a distinctly scientific value have been added. We notice a frontispiece in which the typical forms of cloud are well illustrated, and the average height at which these clouds float is marked by the marginal introduction of well-known mountain summits, calculated to bring home to us a correct notion of the elevation at which these clouds circulate. Cloud study is deserving of much more attention than it generally receives, and we welcome any attempt to induce more regular examination of the forms and motions of the familiar spectacle clouds present.

Then the section on the average dates for the first flowering of plants and appearance of migratory birds, which is either new or has been enlarged, should lead to more accurate observation of familiar phenomena. Such sections interest us much more than the proverbs and sayings which go to make up the bulk of the book. The arrangement of these proverbs seems to be much the same as in the first edition. Of the value of these, apart from their literary character, perhaps it is as well to say nothing. We follow the author or compiler in calling these rules proverbs, but the term is scarcely a happy one. A proverb has been defined as the wisdom of many and the wit of one, but in some cases, here preserved, it is difficult to recognise either the wit or the wisdom. They may give some evidence of national customs or of local manners, and sometimes display shrewd observance on the part of the authors; but this mass of endless detail, collected by many generations of weather-wise people, may become somewhat wearisome if taken in large doses. Yet, if we understand Mr. Inwards correctly, he implies that the persevering labour and continuous observation bestowed on weather signs have resulted in securing some insight into meteorological phenomena, and he recommends us to imbibe the general spirit of these rules and adages, and try to find where similar results have followed similar indications. This would lead to the detection of a number of coincidences no doubt, but it is not easy to see how true science would be advanced thereby.

*First Stage Magnetism and Electricity.* (The Organised Science Series.) By R. H. Jude, M.A., D.Sc. Pp. 350 + xv. (London: W. B. Clive, 1898.)

ALTHOUGH there are several books on these subjects prepared specially to cover the syllabus of the elementary examination of the Science and Art Department, the one before us has some peculiarities which renders the treatment different in many respects. The chief

difficulty which the author has attempted to overcome is the conception of electrical potential, which so often forms a stumbling-block to the beginner. This he has introduced much earlier than usual, leading appropriately up to it. In this, the first part of the book, the author has further expounded in a simple manner the conceptions of the ethereal theory, thus bringing it within reach of the beginner. The second two parts deal with magnetism and electro-dynamics, the main points of treatment being the emphasis of fundamental principles, the omission of the disputed points in the theory of the voltaic cell, and, as the author states, "a liberal use of the conception of potential gradient." Numerous illustrations are inserted in the text, and a great number of examples and examination questions are added.

As a first course on magnetism and electricity the book should prove serviceable.

*Problems of Nature. Researches and Discoveries of Gustav Jaeger, M.D. Selected from his published Writings.* Edited and translated by Henry G. Schlichter, D.Sc. Pp. ii + 261. (London: Williams and Norgate, 1897.)

THIS small volume has been formed by collecting together a number of Jaeger's brief essays on various important subjects. They are classified under three headings as Zoological, Anthropological, and Varia. The essays are highly ambitious, and lay down the law upon matters of the deepest difficulty with commendable brevity. Thus the fourteen zoological essays range from "The Origin and Development of the First Organisms" and "The Origin of Species" to "Inheritance," "The Animal Soul," and "The Development of the Vertebrate Type," and altogether occupy eighty-three pages. The essays classed as anthropological deal chiefly with the author's pronounced views on physiological processes, infection, immunity, constitutional strength, &c.

The author is apparently a man with an active original mind and a great respect for his own opinion. Subjects of such intricacy and difficulty are not to be handled so boldly except by those who have not been able to study, or have not cared to study all that has been said about them. Allowing for the dictatorial and peremptory style of the author, much that is suggestive and interesting will be found in many of the essays, as indeed we should expect from the writings of a man who was one of the first, if not the first, to suggest the continuity of the substance of the germ cells of parent and offspring as the biological basis of heredity. A letter, written to the author by Charles Darwin in 1869, and a second in 1875, are printed, and the latter also reproduced in facsimile. Both are very characteristic in their high appreciation of the work of another.

The book is well translated and edited. The printing is good, but the few illustrations are not well executed, the representation of a nerve-cell (after Max Schultze) on p. 9 being especially bad.

E. B. P.

*Medical Missions in their Relation to Oxford.* By Sir Henry W. Acland, Bart., K.C.B., F.R.S. Pp. 92. (London: Henry Frowde, 1898.)

THIS is an address, with a series of notes, delivered by Sir Henry Acland to the Oxford University Junior Scientific Club at the beginning of last December, with the object of showing the valuable work which can be accomplished by men with scientific knowledge acting in connection with foreign missions, either as coadjutors or as appointed religious teachers, as medical practitioners, or as health officers. The needs of India for such men are especially referred to, and it is shown that the prevention of disease, or the care of the public health among various races under different conditions of climate, life, and character, as well as the treatment of disease under the same conditions, should be an essential object of foreign missions. The establishment at Oxford of a