

is startling. It almost shakes one's confidence in the author to learn that he cannot go into camp with a friend for two months without a dozen tins each of lobster and salmon, two dozen tins of sausages, and three dozen tins of fruits in syrup.

The book is well printed and beautifully illustrated.

(3) The third book on the list reveals Science in her severest mood. The aim of this conscientious piece of work is to elevate the outdoor pursuit of natural history into a serious academic study embracing each and every species of animal in relation to its environment, particularly to its organic environment, and still more particularly in its relations of interdependence with other species of animals. It may almost be regarded as embodying a formulary or ritual of the precepts and principles shown forth in the third chapter of that immortal book, "The Origin of Species."

The author adheres firmly and steadily to the great truth that all the animals of a given habitat form a definite interdependent association; but his application of the term "community" to an assemblage bound by ties so non-moral implies a cynical view of the ethics of communal life in this twentieth century. He sets out to determine by a prolonged and detailed study of a given territory—its streams, ponds, lakes, swamps, prairie, thickets, forests, etc.—the salient impressive features of its different kinds of habitat, and the character and exact specific composition of the animal-associations appertaining to each. An incidental end is to teach the sentimental person "sanity towards nature," and to show the practical man that he himself has much to find out before he can learn any animal to be a toad. So far so good; but the esoteric terminology of it all is wondrous pitiful, and there is much dressing up of old plain truths in confusing folds of majestic language—such as the following:—"The breeding instincts are the centre about which all other activities of the organism rotate, and the breeding-place is the axis of the environmental relations of the organism."

#### THE TOTAL SOLAR ECLIPSE OF AUGUST 21.

WHILE a number of expeditions were organised, and some were dispatched, to observe the total solar eclipse on Friday last, August 21, many were unable to take up their stations owing to the upheaval now taking place in Europe. It is, therefore, with the greatest satisfaction that we learn of at least two expeditions which successfully reached their destinations and observed the eclipse under most favourable weather conditions. The two parties were the observers from the Royal Observatory, Greenwich, consisting of Messrs. Jones and Davidson, and the expedition sent out by the Joint Permanent Eclipse Committee of the Royal and Royal Astronomical Societies, composed of Fathers Cortie and O'Connor and Messrs. Atkinson and Gibbs.

According to a telegram to the *Daily Mail* of  
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August 24, the Greenwich party, stationed at Minsk (Russia), observed the eclipse under good conditions in a clear sky, and photographs of both the corona and chromosphere were secured. It is stated that the form of the corona was of the intermediate type, *i.e.* of the square type, there being no large equatorial streamers or streamers in the regions of the solar poles. The corona is also stated to have been very bright. The party under Father Cortie, S.J., took up their position at Hernoesand in Sweden, and his telegram to the Royal Astronomical Society says, "Weather perfect. All operations successful. Intermediate corona."

It is interesting to mention that the Greenwich party was specially equipped for recording the ultra-violet spectrum of the chromosphere, while Father Cortie's instruments were more restricted to the yellow and red regions of the spectrum. Should the photographs turn out successful after development a wide range of the chromospheric spectrum will have been secured.

It is a great pity that Prof. Fowler was prevented from making any observations, for the interesting method of photographing the spectrum of the chromosphere for a long interval of time both before and after the total phase had every chance of being successfully tried.

#### ALFRED JOHN JUKES-BROWNE, F.R.S.

SELDOM has the triumph of force of will over the most serious disabilities been more strikingly illustrated than in the case of the subject of this notice. To most geologists engaged in field-work the loss of the full use of the limbs would seem to be fatal, but Jukes-Browne, in spite of all difficulties, continued his work as a geological surveyor for twenty years after the almost complete loss of his powers of locomotion.

Alfred John Browne was born near Wolverhampton in 1851; his mother was a sister of the distinguished geologist, J. Beete Jukes, whose work on the English and Irish geological surveys, and whose fame as a teacher in Dublin, are so well known; and young Browne, probably fired by his uncle's example, added the name of Jukes to his own as soon as he came of age.

After receiving his early education at Highgate, Jukes-Browne entered St. John's College, Cambridge, and, under the inspiring teaching and influence of Prof. T. G. Bonney, was able to add his name to the group of distinguished geologists who made that college famous during the last half of the nineteenth century. After a successful university career, Jukes-Browne joined the geological survey in 1874, and during the next nine years did good work in parts of East Anglia and Lincolnshire. But never, probably, a very strong man, the strenuous labours of a geological surveyor began to tell upon his health, enforcing retirement for a time.

Just at this period, however, a new and promising field of work opened out for the young geologist. The famous French palæontologist Hébert

had shown, by the study of the fossils of the enormous deposits of chalk in his own country, that not only must the deposition of this thick formation have occupied vast periods of time, but that the changes taking place in the fauna during those periods furnish us with evidence by means of which the almost homogeneous mass of strata could be divided into a number of clearly recognisable "palæontological zones." Hébert's distinguished pupil, Prof. Charles Barrois, of Lille, by a general *reconnaissance* over the chalk areas in the British Isles, proved that these zones could be traced through the length and breadth of our land. Jukes-Browne took up the task of working out the details of this classification of the English chalk strata, and after traversing during nine years the Cretaceous areas of the south and west of England published his results in three volumes of the Survey Memoirs.

In the winter of 1888-9 the state of his health caused Jukes-Browne to go to Barbadoes; there he worked at his favourite studies with such good purpose as to be able to publish, in conjunction with Prof. J. B. Harrison, a most valuable description of the upraised oceanic deposits in that island.

Besides his survey memoirs, and many papers in scientific journals, Jukes-Browne wrote three geological text-books and a work of more general and speculative character, "The Building of the British Isles," and some of his books have passed through several editions. The value of his scientific labours was recognised by the award of the Murchison medal by the Geological Society and by his election to the Royal Society. In 1902 the state of his health compelled his retirement from the Geological Survey, and the last twelve years of his life were passed at Torquay, where he died on August 14.

J. W. J.

#### NOTES.

A CENTRAL NEWS message from Melbourne on Tuesday, August 25, states that a number of members of the British Association attending the Australian meeting are curtailing their proposed tour and preparing for a speedy departure for England. Exactly what this message signifies is, however, not quite clear. The Sydney session did not begin until August 20, and the intention was to proceed to Brisbane afterwards, but the whole meeting was not to last more than about three weeks from August 8.

It is reported in the *Times* that an oil well has been discovered at Muir of Ord, about ten miles' distance from Inverness, and that tests are being applied to discover the nature of the oil and its commercial value, if any.

THE outbreak of war has, of course, made it impossible for drugs to be obtained from Germany as has hitherto been the case. In this connection the Government has appointed a committee to consider questions in relation to the supply of drugs in the United Kingdom. The members of the committee are: Dr. J. Smith Whitaker, Sir Thomas Barlow, Sir Lauder Brunton, Dr. A. Cox, Prof. A. R. Cushny,

Dr. E. Rowland Fothergill, Dr. B. A. Richmond, Dr. F. J. Smith, Dr. W. Hale White, with Dr. E. W. Adams as secretary.

THE Government of Madras recently undertook an investigation into the causation, prevention, and possible cure of diabetes, and secured the services of Dr. S. W. Patterson as investigator. We learn from the Allahabad *Pioneer Mail* that the sum of 50,000 rupees has been given by the Raja of Pithapuram for the purpose of carrying out the project, and that the Surgeon-General with the Government of Madras has been requested to submit to the Government by an early date proposals for providing Dr. Patterson with the necessary staff and laboratory accommodation.

THE twenty-fifth annual general meeting of the Institution of Mining Engineers will be held at Stoke-on-Trent on September 9, under the presidency of Sir W. E. Garforth, when the following papers will be read, or taken as read:—The absorption of oxygen by coal: part ii., the quantity of oxygen absorbed; part iii., the thermal value of the absorption; part iv., the influence of temperature; part vi., the ratio of spontaneous heating of coal, T. F. Winmill; the absorption of oxygen by coal, part v., the influence of temperature on the rates of absorption of different parts of the Barnsley Bed, J. I. Graham; self-contained rescue-apparatus and smoke-helmets for use in irrespirable atmospheres, Dr. J. S. Haldane; the unknown clays in coal-mines, Dr. J. W. Mellor.

IN the June number of *Folk-lore* Mr. J. H. Powell discusses the rite of hook-swinging in India. He describes, with numerous good photographs, the ceremony which he witnessed in the Manbhūm district of Chota Nagpur in 1912; and he has collected accounts of the rite from that of Duarte Barbosa in Malabar down to recent times. He compares it with the meriah sacrifice of the Khonds, which Sir J. Frazer explains to be a fertility rite, and he regards it as a survival of human sacrifice. The facts recorded in the article are useful, and the argument is ingenious; but the object of the ceremony still remains obscure. On the analogy of other swinging rites in other parts of the world, it may be suggested that the rotation of the victim is intended to disperse, as a fertility charm, the *mana* of the performer, who by submitting to the rite is believed to be sacrosanct.

THE Congress of Archæological Societies, in issuing its report for the past year, directs attention to the passing into law of the Ancient Monuments Consolidation and Amendment Bill, and suggests that societies affiliated to the union, if they have no special earthworks section, should appoint some competent member to watch over the earthworks in their district. It announces with pleasure that steps have been taken to place Worlebury Camp, Somerset, under the protection of the Act, and that steps have been taken to stop the damage that was being done to Bokerly Dyke and some ancient remains near Bristol. But much destruction, as at the Burh of Edward the Elder at Witham, and of Whitehawk Camp near Brighton, still continues, and it is pointed out that the absence of