

connected therewith, ought to be considered as normal ramifications."—On the influence exercised by the time of cutting upon the production and development of shoots from the stocks in underwood, by M. E. Bartet.—Influence of the peritoneal transfusion of the blood of the dog upon the evolution of tuberculosis in the rabbit, by MM. J. Héricourt and Ch. Richet.—On the antiseptic and antipeptic doses of various substances, by M. Andrea Ferranini.

BERLIN.

Physiological Society, June 6.—Prof. du Bois-Reymond, President, in the chair.—Dr. Hagemann gave an account of his experiments on proteid metabolism during pregnancy and lactation; they were conducted upon two dogs supplied with a constant nitrogenous diet. During the first half of the period of pregnancy more nitrogen was excreted than was taken with the food, so that the nitrogen requisite for the growth of the foetus must have been derived from the tissue-proteids of the mother. After this period the nitrogenous excretion sank to a condition of equilibrium in the middle of pregnancy, and then fell further until the birth of the offspring. Immediately after parturition there was a very marked increase in the excretion of nitrogen, followed by a sudden fall which led to the output being, during four weeks' lactation, less than the in-take.—Prof. Zuntz made a further communication respecting the intestinal fistulæ which he described at the previous meeting of the Society. As regards the absorption of fats and fatty acids, he found that even the finest and most uniform emulsions were not absorbed either alone or with the addition of bile. When saponified, a marked absorption of the soaps took place, but to a much less extent than in normal animals; neither was it increased by the addition of glycerine. The results obtained were, on the whole, negative. The speaker put forward the view that the absorption of fat in the intestine is dependent upon some at present unknown function of the pancreas.

AMSTERDAM.

Royal Academy of Sciences, May 31.—Mr. Max Weber pointed out the characters of a true adult hermaphroditic finch (*Fringilla coelebs*), caught in the neighbourhood of Amsterdam. The right side of the bird has the plumage of the adult male, the left that of the adult female. The striking difference in the colouring of the plumage on the two sides corresponds to an internal co-existence of ovary and testis: the latter is, on the male-coloured (right), the former on the female-coloured (left) side. Both sexual glands, compared, also microscopically, with the testis and ovary of normal finches, are anatomically wholly normal, and able to produce male and female sexual elements. The case seems to be an illustration of the dependence of sexual colouring upon the nature of the sexual gland.—Mr. van Bemmen stated that Mr. Molengraaff had sent him a white substance found in the high moor of Drenthe (Netherlands), denominated by the moor-diggers as *White Klien*. It consists of 87 per cent. carbonate of oxydulated iron, 6 per cent. carbonate of lime, and 8 per cent. vegetable matter.—Prof. Hubrecht gave a description of the early developmental stages in the shrew. In the two-layered blastocyst the mesoblast makes its appearance: (a) from the hypoblast under the anterior portion of the epiblastic shield; (b) from the primitive streak and its anterior prolongation; (c) from an annular zone of hypoblast below, but just outside the border of the epiblastic shield. The mesoblast from these three sources very soon fuses into one continuous plate. There appears to be considerable agreement between the facts as presented by the shrew and those which Bonnet has described for the sheep. The gastrulation process in the Mammalia was then comparatively considered, and a theoretical interpretation put forward, differing considerably from E. van Beneden's latest hypothesis.

STOCKHOLM.

Royal Academy of Sciences, June 11.—Spiders from the Nicobar Islands and other parts of Southern Asia, mostly collected during the voyage of the Danish war-ship *Galatea* in the years 1845-47, described by Prof. T. Thorell.—On the remains of a fish preserved since the year 1289 in the cathedral of Wisby, and often mentioned in the old chronicles as a remarkable curiosity, by Prof. F. A. Smit.—Étude des conditions météorologiques à l'aide de cartes synoptiques représentant la densité de l'air, par Dr. N. Ekholm.—On an expedition which has just started for Spitzbergen, by Baron A. E. Norden-

skiöld. This expedition consists of some young Swedish naturalists who propose to make geological and zoological researches.—On the fungi of Omberg and its neighbourhood in Ostrogothia, by Herr L. Romell.—On the different kinds of vegetation on the surface of the peat bogs of Southern Sweden, by Herr G. Andersson.—Dendrological studies made in several Swedish provinces, by Herr F. Laurell.—On the vegetation of Norrbotten, by Dr. A. Lundström.—Botanical rambles in the south-west of Jemtland in the summer of 1889, and description of some Hieracia and Carices found, by Dr. M. Elfstrand.—On the oxidation of the phenyl-methyl-triazol-carbon acid, i., by Dr. J. A. Bladin.—On some ammoniacal platina combinations, by Dr. O. Carlgren.—Critical remarks on the history of the vegetation of Greenland, by Prof. A. G. Nathorst.—Studies on the Turbellaria and Nemertinae of the northern countries, by Dr. D. Bergendal.

BOOKS, PAMPHLETS, and SERIALS RECEIVED.

Catalogue of Stars observed at the U.S. Naval Observatory during the Years 1845-77, 3rd edition: Prof. M. Yarnall and Prof. E. Frisby (Washington).—Father Perry, F.R.S.: A. L. Corrie (Catholic Truth Society).—Travels in Africa during the Years 1875-78: Dr. W. Junker, translated by A. H. Keane (Chapman and Hall).—Nitrogen: its Uses and Sources in Agriculture: C. M. Aikman (Glasgow, Wright).—A Handy Guide to the Birds in the Bootle Museum: J. J. Ogle (Bootle).—Record of Experiments in the Production of Sugar from Sorghum in 1889: H. W. Wiley (Washington).—A Revised Account of the Experiments made with the Bashforth Chronograph to find the Resistance of the Air to the Motion of Projectiles: F. Bashforth (Cambridge University Press).—Selected Subjects in Connection with the Surgery of Infancy and Childhood: E. Owen (Baillière).—The Triumph of Philosophy: J. Gillespie (Dumfries).—A Hand-book of Descriptive and Practical Astronomy; III. The Starry Heavens, 4th edition: G. F. Chambers (Oxford, Clarendon Press).—Die Pflanzen und Thiere in den Dunklen Räumen der Rotterdamer Wasserleitung: H. de Vries (Jena, Fischer).—Lehrbuch der Entwicklungsgeschichte des Menschen und der Wirbelthiere: Dr. O. Hertwig (Jena, Fischer).—Oxford and Modern Medicine: Sir H. W. Acland (Frowde).—The Quarterly Journal of Microscopical Science, June (Churchill).

CONTENTS.

PAGE

Zoological Geography. By Dr. H. Gadow	193
Jevons and Mill. By S. A.	195
The Washington Medical Library. By Dr. A. T. Myers	196
Our Book Shelf:—	
Yeo: "Food in Health and Disease"	196
" Fifth and Sixth Annual Reports of the Bureau of Ethnology to the Secretary of the Smithsonian Institution "	197
Draper: "Light, Heat, and Sound"	197
Letters to the Editor:—	
The Bourdon Gauge.—Lord Rayleigh, F.R.S.	197
The Optics of the Lightning Flash.—Eric Stuart Bruce	197
The Bagshot Beds of Essex.—Horace W. Monckton	198
Electro-magnetic Repulsion.—W. B. Croft	198
A Remarkable Appearance in the Sky.—M. E.	198
Problems in the Physics of an Electric Lamp. I. (Illustrated.) By Prof. J. A. Fleming	198
Some Experiments on feeding Fishes with Nudi-branches. By Prof. W. A. Herdman	201
The Pulkova Refractor. By W. E. P.	204
Sir Warington W. Smyth, F.R.S.	205
Notes	205
Our Astronomical Column:—	
Objects for the Spectroscope.—A. Fowler	208
Greenwich Spectroscopic Results	209
The Rotation of Venus	209
Geographical Notes	209
The Ladies' <i>Conversazione</i> of the Royal Society	210
The Sunday Society	211
Scientific Serials	212
Societies and Academies	213
Books, Pamphlets, and Serials Received	216