females in these specimens, as compared with those met with on *Andrena convexiuscula*, and remarked on the importance of not confounding the species obtained from different *Andrenæ*, *Stylops Spencii* having been described from *A. atriceps*, while *S. Thwaitesii* had been described from *A. convexiuscula*. Mr. Smith believed that eventually a great many species would be found to inhabit this country, and that as many as a dozen different species would probably be found on the genus *Andrena* alone, independently of *Halictus*.—Mr. M'Lachlan read an extract from a report made to the Royal Society, on the Natural History of Kerguelen's Island, by the Rev. A. E. Eaton, who was attached as Naturalist to the Transit of Venus Expedition to the island (NATURE, vol. xii. p. 35). Nearly all the insects were remarkable for being either apterous or with greatly abbreviated wings. Mr. M'Lachlan said that the theory as to the apterous condition of the insects was that the general high winds prevailing in those regions rendered the development of wings useless; and Mr. Jenner Weir remarked that the apterous condition was correlated with the fact that plants under similar circumstances were apetalous and self-fertilising; and hence it was supposed that the existence of winged insects was unnecessary.—Mr. C. O. Waterhouse exhibited a *Chelifer* which he had discovered under the elytra of a *Fassalus* from Rio Janeiro.—Mr. C. O. Waterhouse also exhibited a drawing of a Neuropterous insect of the family *Ascalaphidæ*, from Swan River, presenting the peculiarity of having a large bifid hump on the basal segment of the abdomen, dorsally, each division of the hump bearing a crest of hairs. He believed it to be the male of *Suphalasca magna*, M'Lachlan.—Mr. Wormald exhibited a collection of Coleoptera, Neuroptera, and Lepidoptera, sent by Mr. H. Pryer, from Yokohama.—Prof. Westwood communicated descriptions of some new species of short-tongued bees belonging to the genus *Nomia*, Latreille; and also a paper, on the species of *Rutelidæ* inhabiting Eastern Asia and the islands of the Eastern Archipelago.—Mr. C. O. Waterhouse communicated a description of a new species belonging to the *Lucanidæ* (*Prosopocœlus Wimberleyi*), by Major F. J. Sidney Parry; and also a description of the male of *Alcimus dilatatus*, by himself.

**Royal Microscopical Society**, May 5.—Mr. H. C. Sorby, F.R.S., president, in the chair.—A discussion took place upon a paper read at the last meeting by the president, upon spectrum analysis by means of the microscope, and some additional particulars of interest were furnished by the author in reply to questions addressed to him by Dr. Pigott, Dr. Matthews, Mr. Slack, and Mr. Crisp.—Mr. Slack read a paper on the relation of angular aperture to surface markings and accurate vision, in which he showed the fallacy of the present system of using high-angled objectives for these purposes to the exclusion of those of small angular aperture, and pointed out that extreme angles were only to be obtained at the expense of accurate correction and penetrating power.

CAMBRIDGE

**Philosophical Society**, May 3.—A communication was made by Mr. Pirie, on a method of introducing a current into a galvanometer circuit. Mr. Pirie said that electricians had often to work with currents far too strong for their galvanometer. He mentioned various methods in use for checking the swing of the needle; but contended that an easily made and easily used controller for rough work was a desideratum. He described an instrument in the form of a continuously varying shunt, in which a moving connection was obtained by a tube filled with mercury sliding on a wire of suitable resistance. This form of connection was first used by Prof. Barrett of Dublin. With the aid of Mr. Garnett, the Demonstrator of Physics, Mr. Pirie showed that a very good connection was obtained by this means; and subsequently, that the instrument described gave a control over the movements of the needle in a galvanometer whose resistance was not too different from its own.

GLASGOW

**Geological Society**, April 15.—Mr. James Thomson, F.G.S., vice-president, read a paper on the geology of the River Liddel, Dumfriesshire. He described several fine sections exposed along the banks of that river, showing wonderful contortions, with great "faults" and "down-throws" of strata. He also referred to the striking identity of the fossils found in a band of impure limestone in that district with those found in many parts of the Ayrshire and Lancashire coal-fields.—Mr. Thomson also read some notes on new species of carboniferous corals, giving an account of his recent investigations in that department.

BERLIN

**German Chemical Society**, May 10.—T. Böhm studied the influence of various salts on the growth of *Phaseolus multiflorus*, and found lime salts alone efficient for the culture of these plants.—G. Gerlich, bringing into contact sulphocyanide of potassium or of ammonium with bromide of allyl, obtained sulphocyanide of allyl when the reaction was allowed to take place at 0°, while at higher temperatures the isomeric mustard-oil prevailed.—L. Nilson has studied the selenites of beryllium, lanthanium, cerium, didymium, yttrian, erbium, and yttrium. The former metal appeared to enter into the salt as a diad, the rest as triads; thorium as a tetrad.—V. Hæmilian has proved the presence of a considerable portion of ordinary alcohol in commercial methylic alcohol.—L. Pfaundler stated the influence various solvents have on the proportion in which a base is divided between two acids.—W. Ebstein and J. Müller have isolated the ferment contained in the liver and found its action on glycogen to disappear not only when phenol but when the trace of any acid was added.—O. Fischer has transformed methyl-anthracen into methylalizarine, $C_{15}H_{10}O_4$.—A. Ladenburg observed the action of acetic acid on diamines to consist in the formation of ethenyl compounds:

$$\underset{\text{Toluylendiamine.}}{C_7H_6(NH_2)_2} + C_2H_4O_2 = \underset{\text{Ethenyltoluylendiamine.}}{C_7H_6N_2HC_2H_3} + 2H_2O.$$

—V. Meyer and W. Michler, by treating disulphobenzolic acid with cyanide of potassium and potash, have obtained both terepthalic and isophthalic acid in the same reaction.—Drs. von Mering and Musculus, after giving large quantities of chloral to patients, have found an acid in the urine of the composition $C_7H_{12}Cl_2O_6$. They deny the decomposition of chloral into formic acid and chloroform to take place in the human system.—P. T. Austin, treating chloronitrobenzol $C_6H_3(NO_2)_2Cl$ with ethylate of sodium, has obtained the ether $C_6H_3(NO_2)_2OC_2H_4$.—A. W. Hofmann has observed the following reaction of cyanogen on mercaptans $RSH + CN_2 = CNH + R - S - C = N$. Where R is $= C_3H_5$ allyl, the sulpho-cyanide is first obtained, which at ordinary temperatures passes into the isomerical oil of mustard.—R. Lussy has been able to combine one molecule of toluylene-diamine with two molecules of phenyl-iso-sulphocyanate. The compound diphenyl-toluylen-sulphurea, when treated with hydrochloric acid, yields aniline and the mustard-oil of toluylene $C_7H_6''(NCS)_2$.

## BOOKS AND PAMPHLETS RECEIVED

BRITISH.—A Sketch of Philosophy: J. G. Macvicar, LL.D., D.D. (Wm. Blackwood and Sons).—Wanderings in the Interior of New Guinea: Capt. J. A. Lawson (Chapman and Hall).—The Chemistry of Light and Photography in its applications to Art, Science, and Industry: Dr. Hermann Vogel (H. S. King and Co.)—Fourth (December 1872 to December 1873) and Fifth (December 1873 to December 1874) Annual Reports of the Wellington College Natural Science Society.—Vestiges of the Molten Globe: William Lowthian Green (E. Stanford).—The Native Races of the Pacific States. Vol. ii.: Hubert Howe Bancroft (Longmans).—The Province of Psychology—the Inaugural Address at the First Meeting, April 14, 1875, of the Psychological Society of Great Britain, by the President, Mr. Serjeant Cox.—On the Distribution of Rain over the British Isles during the Year 1874. Compiled by G. J. Symons, F.R.B.S. (E. Stanford).

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