rodents, in which he stated that the African genera *Ctenodactylus* and *Pectinator* differ in all essential points from the jerboas (*Dipus*), and agree rather with *Chinchilla*, and *Octodon*, or *Echinomys*, whilst they show some tendency towards the *Muriuæ*.

April 7.—Prof. Rammelsberg read a paper on the position of thallium in the series of elementary bodies. He described several salts of thallium, such as the iodates and periodates, the chlorides, bromides and iodides of thallium and their double salts, and referred to the isomorphism of the salts of thallium with those of potassium (rubidium and ammonium) as shown especially by the researches of Des Cloiseaux. He stated that although both physically and chemically thallium is a metal, it presents a combination of characters in its compounds which renders its precise location difficult. Prof. Poggendorff noticed a new form of electrical machine, upon which he promised full details at a future meeting of the Academy.

April 28.—A memoir by Dr. P. Groth on the relation between crystalline form and chemical constitution in some organic compounds, was communicated by Prof. G. Rose. The author remarked upon the failure hitherto experienced in all attempts to apply the theory of isomorphism to organic compounds, and stated that he adopted a new method of investigation, which consisted in ascertaining the nature of the change produced in a given crystalline form by the access of a definite atom or atomic group replacing hydrogen. He described a long series of experiments, which lead him to conclude that there are atoms and atomic groups, which, by substitution, alter the crystalline form of a body only in a certain direction. This change he proposes to call "morphotropism," and he indicates the different modes in which the "morphotropic force" may be modified in action.

German Chemical Society, June 13.—Prof. Hofmann has employed his method for taking vapour-densities, to control the formulæ of several organic compounds. Sulphuretted methylic aldehyde (or what has been considered as such) is $C_3 H_6 S_3$. The vapour-density taken in xylidine-vapour was found to be 70-72° instead of 69° required by the theory. The corresponding ethyl compound was found to be $C_6 H_{12} S_3$. It is more volatile than the methylic compound. Chinone (prepared from benzidine instead of aniline, the former giving a better result) has the formula $C_6 H_4 O_2$, and not the double formula which has been lately proposed for it. He then showed a fine specimen of anthrachinone prepared by Messrs. Hopkins and Williams of London.—M. Schlebusch has prepared some derivatives of camphoric acid, and of camphor, notably tetranitro-camphor.—W. Thomsen, who has lately published views on the connection of the basicity of an acid, and the heat developed by its combination with water, draws conclusions from this theory as to the basicity of silicic, hydrofluoric, and fluosilicic acids.—L. Henry described chloroiodides of ethylene, and of allyl.—A. Kekulé described the properties of crotonic acid prepared from aldehyde, from oil of mustard, and from cyanide of allyl; the latter two being identical. The former melts at 72°, boils at 184°·7 C., and crystallises in the monoclinoëdric system.—M. Daube has extracted the colouring principle of the curcuma-root. He gives to it the formula $C_{10} H_{10} O_3$, and the name curcumin.—W. Knop has published a preliminary notice of the action of sulphuric acid and alcohol on albumen.

GÖTTINGEN

Royal Society of Sciences, January 5.—A paper, by M. Max Nöther, on Algebraical Surfaces which may be represented by plane figures, was communicated by M. A. Clebsch.

January 19.—MM. W. Marmé and A. Creite communicated a paper on the Physiological Action of the Alcoholic Extract of *Cynoglossum officinale*. The authors deny that this extract acts in the manner of curare, as stated by some Russian writers; they describe its action as that of a narcotic, and state that it causes death by paralysing the respiratory centre. Dr. Rudolph Fittig communicated some further researches upon the constitution of piperic acid, in which he described several of its derivatives. Professor Wöhler noticed the analysis of the supposed meteoric iron of the Collina di Brianza, by Dr. Haushofer, who had stated that he found in it both nickel and cobalt, the presence of which was denied by previous analysts. The author had analysed a portion of this iron, and had also applied to Professor Rose for an analysis of the fragments in Berlin; no trace of cobalt or nickel was detected by them. Dr. Haushofer's analysis was probably made from a fragment of true meteoric iron.

February 16.—M. Clebsch communicated a memoir, by M. S. Lie, on the relations of reciprocity of Reyé's complex. Dr. Rudolph Fittig read a paper on Tetramethylbenzole, in which he described a new solid hydrocarbon, having the formula ascribed to tetramethylbenzole [$C_{10} H_{14} = C_6 H_2 (C H_3)_4$]. For this he proposed the name of *durole*, and he described two of its compounds, namely, *dinitrodurole* and *dibromodurole*.—Professor A. Enneper read a paper on an enlargement of the idea of parallel surfaces.

March 16.—Professor Kohlrausch communicated a memoir, by M. E. Riecke, on the replacement of a system of galvanic currents existing upon a surface by a distribution of magnetic masses.—Professor Henle communicated some zoological observations made at Naples by Dr. Alexander Stuart, of Odessa. The author described the development of new individuals in a colony of *Collozoum inerme*, which takes place by a process of gemmation, He confirmed his former statement that the cilia of *Coscinosphæra* are composed of calcareous crystals. With regard to the medusa-brood of *Velella spirans*, the author stated that all the tissues of the polypary take part in their formation, and that at an early period they possess a body cavity distinct from that of the stomach, which is afterwards filled up with connective tissue, so as to leave only the canals of the water-vascular system. He noticed the occurrence of something which he regards as a digestive passage in the *Gregarinæ* of the earthworms, and briefly described the nervous system of *Creseis acicula*, in which he found a ganglionic œsophageal ring and dorsal and ventral ganglia, each of the latter emitting nervous stems.

DIARY

THURSDAY, JUNE 23.

ZOOLOGICAL SOCIETY, at 8.30.—On the Walrus: Dr. J. Murie.—Catalogue of the Mammals of South China and Formosa: Mr. R. Swinhoe.—On a Collection of Birds from the Island of Trinidad: Dr. O. Finsch.

SUNDAY, JUNE 26.

SUNDAY LECTURE SOCIETY, at 8.—Cruelty in relation to the Lower Animals: Dr. T. S. Cobbold, F.R.S.

MONDAY, JUNE 27.

ETHNOLOGICAL SOCIETY (Extra Meeting), at 8.—On the opening of the Park Cwm Tumulus: Sir John Lubbock, Bart.—On the opening of Grim's Graves, Norfolk: Rev. Canon Greenwell.—On the discovery of Platycnemic Men in Denbighshire: W. B. Dawkins and Prof. Busk.

LONDON INSTITUTION, at 4.—Botany: Prof. Bentley, F.R.S.

WEDNESDAY, JUNE 22.

SOCIETY OF ARTS, at 4.—Anniversary Meeting.

BOOKS RECEIVED

ENGLISH.—Woolhope Naturalists' Field Club: Report for 1869.—Remarks on Synonyms of European Spiders, No. 1: T. Thorell (Williams and Norgate.)

FOREIGN.—(Through Williams and Norgate).—Bericht über die Fortschritte der Anatomie und Physiologie im Jahre 1869: Henle, Meissner und Grenacher.—Die Ophthalmologische Physik und ihre Anwendung auf die Praxis: Dr. H. Gerold.—Nouveaux éléments de Physique Médicale: Desplats et Gabriel.—Die Bierbrauerei und die Dickmaischbrauerei: P. Heiss.—Etude sur les Diatomacées: Ch. Manoury.—Die Land und Süsswasser Conchylien der Vorwelt: Dr. Sandberger.

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