presence of selenious acid in the oxide of copper employed in the combustion tubes.—M. E. Royer read a paper on the reduction of carbonic acid into formic acid. The author, having found that formic acid is produced by the reduction of oxalic acid in the porous vessel of a Bunsen's battery in presence of hydrogen, has subjected carbonic acid to the same treatment, and found that this also furnishes formic acid.—M. Mauméné forwarded a further note on his general theory of chemical action; and M. Dubrunfaut a paper on the law of dilatation of gases.—M. Guyon communicated some remarks on a paper by M. Ramon de la Sagra, describing an anomalously branched structure in the stem of a palm-tree (*Oreodaxa regia*). M. Guyon stated that a similar anomaly is very common in the date palm.—In a note presented by M. de Quatrefages, on the inversion of the viscera and its artificial production, by M. C. Dareste, the author stated that he had produced this condition in young chicks, by maintaining a temperature at the heating point of 105·8°—107·6° F., whilst the surrounding temperature was allowed to oscillate from 21° to 28°.—M. Bouley communicated an important report on the results of the inquiry instituted by the Ministry of Agriculture into the occurrence of hydrophobia in France during the years 1863-1868. From his statements, which unfortunately rest on rather imperfect documents, it appears that a large number of persons bitten by dogs supposed to be rabid, escape all serious consequences of the bites; that the summer is not more dangerous than any other season; and that immediate cauterisation of the bite appears to be the only sure remedy.—M. H. Sainte-Claire Deville presented a note by M. Piarron de Montdésir on ventilation by means of compressed air, accompanied by a purification and cooling of the new air, and a disinfection of the vitiated air. The author proposed to employ strong jets of compressed air, which would carry with them a considerable body of uncompressed air; the cooling and purification of this air from dust is to be effected by means of a small jet of water in the midst of each air-jet; and the purification of the vitiated air by substituting a disinfecting liquid for the water in the jets of compressed air in action at the bottom of the ventilating flues. With regard to M. Wœstyn's recent proposal to purify the vitiated air of hospitals, &c., by burning it, which is rejected on the score of expense by the author, M. Montanier remarked that in 1864 he had suggested a similar plan.—MM. Mille and Durand Claye presented a memoir giving the results of the experiments made for the utilisation of the sewage waters flowing into the Seine, which they propose to divert entirely from their direct influx into the river, and to apply as manure to the neighbouring country.

VIENNA

Imperial Academy of Sciences, February 17.—The president noticed the decease of Dr. Franz Unger, the well-known botanist and vegetable palæontologist, on the 13th Feb.—The following papers were read:—1. On the observation of oscillations by Prof. E. Mach of Prague. He stated that a very simple and effective form of vibroscope is obtained by placing a row of König's burners along one side of an organ pipe, and described some of the effects observable by means of this instrument.—2. On the intestinal movements, by Dr. S. Mayer, containing the results of a series of experiments, relating especially to the innervation of the intestines, which had been made by him in conjunction with Dr. S. von Basch.—3. Dr. Boué completed his address on the petrographic and geognostic results of his travels in European Turkey.—The reports of observations at the Central Institution for meteorology and terrestrial magnetism during the month of January, were communicated.

March 10.—The president announced the death of Professor Joseph Redtenbacher on the 5th March. The following papers were read:—1. On the renal pelvis of the mammalia and of man, by Professor Hyrtl, in which the author described in detail the structure of the urine-secreting organs in a great number of mammals.—2. Phanological studies, by M. Karl Fritsch, containing the results of observations made in Austria and Hungary on the blooming and maturity of plants, and on the first and last appearances of periodically occurring animals.—3. On the after-pictures of excitant changes, by M. V. Dvorák, showing that the after-pictures of movements observed by Plateau and Oppel are not isolated phenomena, but that similar effects are produced by changes of brightness.—4. On the rational triangle by M. H. Rath.—5. On the simple construction of obliquely turned hyperboloids and paraboloids by Professor R. Niemtschik.—6. On a cosmical attraction exerted by the sun through its rays, by M. C. Puschl, in which the author sought to prove that by means of the æther-waves issuing from it the sun exerts an attraction upon opaque bodies, equivalent to the repulsion which it must have produced, according to the hypothesis of emanation, by the material particles emitted by it.—7. On the atomic heat of oxygen in its solid compounds, by M. J. Tollinger.—8. On the action of *Digitalis* and *Tinct. Veratri viridis* upon the temperature in crupose pneumonia, by Dr. L. von Schrötten.—9. Prof. V. von Lang delivered an address upon a new method of investigating the diffusion of gases through porous septa. His apparatus consists of a porous cell united by a thin caoutchouc tube with the air-tube of a Mariotte's bottle, so arranged that the gas in the cell is always under the atmospheric pressure, and as soon as an increase of volume takes place in it the excess flows over into the bottle, displacing an equivalent amount of water, which is determined by weighing.—10. The second part of investigations on ammonites by Prof. Suess, in which the author treated chiefly of the structure of the shell in the Cephalopodous mollusca. He showed that the shell which exists in the females of the existing genus *Argonauta*, is to be regarded as a rudimentary ammonite shell, consisting of an ostracum or outer layer without a nacreous layer, and that *Argonauta* belongs to a great group, commencing with *Trachiceras* and including *Cosmoceras*, *Toxoceras*, *Crioceras*, many *Scaphites*, and the *Flexuosi*.

DIARY

THURSDAY, APRIL 14.

MATHEMATICAL SOCIETY, at 8.—On the Mechanical Description of a Nodal Bicircular Quartic: Prof. Cayley.

MONDAY, APRIL 18.

ROYAL ASIATIC SOCIETY, at 3.

TUESDAY, APRIL 19.

ANTHROPOLOGICAL SOCIETY, at 8.—On the Hypothesis of Pangenesis applied to the Faculty of Memory: Mr. Alfred Saunders.—Note on Consanguineous marriages: Mr. G. C. Thompson.

WEDNESDAY, APRIL 20.

METEOROLOGICAL SOCIETY, at 7.
SOCIETY OF ARTS, at 8.

THURSDAY, APRIL 21.

LINNEAN SOCIETY, at 8.—On the Vertebrate Skeleton: Mr. St. George J. Mivart.
CHEMICAL SOCIETY, at 8.

BOOKS RECEIVED

ENGLISH.—Forms of Animal Life: Prof. Rolleston (Clarendon Press).—Manual of Zoology: Dr. Nicholson (Hardwicke).—Alpine Flowers for English Gardens: W. Robinson (Murray).

FOREIGN.—Ueber Gährung und die Quelle der Muskelkraft, und Ernährung: Liebig.—Through Williams and Norgate.

CONTENTS

ERRATA.—In No. 23, page 580, second column, line 1: for "Langel," read "Laugel;" for "Lartel," read "Lactet."—Line 3: for "carnulorum," read "carnutorum."—Line 4: for "Trojonotherium," read "Trogontherium."