observations made at the observatory of Montsouris. The two observatories are at a distance of something less than a mile, and a deadly feud appears to exist between them.—M. Ch. Sainte-Claire Deville then read a paper relating to the part taken by him in the projecting of the meteorological atlas of France in 1847.—M. de Falen and Fisher described bathymetrical observations and researches executed on the coasts of France, in 1847, in depths varying up to 250 fathoms. The submarine fauna has no peculiarity worth mentioning. M. Gustave Tissandier, one of the postal aeronauts, presented a *résumé* of the results obtained by the sixty-four postal aeronautical expeditions during the siege of Paris. He merely gives however the number of letters and pigeons sent, but not the number of pigeons returned to Paris, and of letters duly posted in the post-offices of the French postal service delegated in the provinces.

July 3.—M. Claude Bernard in the chair.—M. Delaunay read a letter from M. Marie Davy, in answer to M. Ch. Sainte-Claire Deville's communication on the Physical Atlas of France. The learned astronomer, supporting M. Marie Davy, admits that the idea of constructing a physical atlas belongs to M. Ch. Sainte Claire Deville, who originated it in 1847; but he contends that in 1868 he tried to start it, since nothing had been done during twenty-one years. M. Delaunay contends moreover that it is a duty for the National Observatory to undertake such a publication. It is to be hoped that M. Delaunay's exertions will not interfere with M. Sainte-Claire Deville's own publications, and at all events, that we shall have at least an atlas worthy of the French reputation in meteorological matters. But the safer way for both contending parties should be to agree in a common work. Such a resolution would diminish the expenses to the Republic, and enlarge the chances of common success. M. Sainte-Claire Deville's brother, the chemist, was not returned a member for Paris, although he received more than 50,000 votes.—M. Delaunay presented for M. Latterade a most extraordinary memoir on "The Theory of two Suns." M. Latterade contends that the warm period which is demonstrated by the presence of tropical fossils in Sweden and Norway was produced by the proximity of a very powerful star which had given to the earth an immense quantity of heat, and which from that time has receded into the abysses of celestial space. M. Latterade contends that the *supplementary sun* has not disturbed the elements of the planets, because its attractive power was smaller than its warming power. He states, moreover, that the warming power does not vary according to the mass, like the attractive power. This communication was referred gravely to a committee composed of three members.—M. Champion sent a new memoir on nitro-glycerine, which he has studied with so much care during the investment of Paris. It is not only a very dangerous study, but also a very painful labour, as violent headaches are experienced by persons engaged in such operations. The whole of the memoir is worthy of being read attentively by working chemists. We will not try to analyse it, but merely mention two facts. Electricity is without action on glycerine as proved by Ruhmkorff, and explosion does not take place at 360° Fah. as supposed, but at 540° only.—M. Quatrefages presented an interesting memoir from M. Dareste, who is pursuing with constant success his studies on artificial monstrosities, produced by different operations on eggs during incubation. The learned physiologist examines the alterations produced in the blood, and finds the number of corpuscles is very small indeed under special circumstances.—Father Denza sent from Italy an account of the aurora borealis observed in Italy on the evenings of April 9, 10, 18, and 23. Father Denza mentions other auroræ boreales on the 7th, 12th, and 18th of June. This last display was very brilliant, and was accompanied with very great magnetical disturbances. It coincided, moreover, with great storms observed in England and other countries.—Baron Larey announced that Dr. Castano is just leaving France for a climatological and medical inspection of Denmark, Sweden, Norway, and perhaps Iceland, as well as the Faroe Islands.—In its secret sitting the Academy is discussing the titles of several candidates to fill the room of M. Lamé, who was mostly engaged in abstruse researches on the application of high mathematics to molecular physics during his whole lifetime. M. Puiteux was chosen as candidate in the first line. He will be certainly returned on the 10th. M. Lamé cannot have any fitter or more qualified successor.—M. Delaunay has published the result of observations for the month of June. The greatest excess of black bulb thermometer *in vacuo* exposed to the sun over the ordinary thermometer in the shade was $35\frac{1}{2}°$ Fah. on June 1, and the smallest on the 5th, when it was only 4°.

VIENNA

Imperial Academy of Sciences, May 11.—Dr. Neilreich communicated a critical revision of the species, forms, and hybrid forms of the genus *Hieracium* hitherto observed in Austria and Hungary. The author remarked upon the peculiar difficulty of deciding what constitutes a species among the Hawkweeds, and pointed that by one course, the number of species is inordinately increased, whilst the other diminishes it to an unnatural minimum. In his treatment of the Hawkweeds of Austria and Hungary he has adopted a middle course, namely, the establishment of what he calls "artificial species." — Prof. E. Linnemann transmitted a memoir on the simultaneous formation of propylic aldehyde, acetone, and allylic alcohol with acroleine, by the desiccating action of chloride of calcium upon glycerine.—Prof. F. Simony presented the conclusion of his memoir upon the glaciers of the Dachsteingebirge.—Prof. V. von Lang communicated a paper on the dioptrics of a system of centred spherical surfaces.—Prof. C. Jelinek communicated a note by Prof. Handl containing corections of errors in Kunzek's meteorological observations made at Lemberg.—Dr. von Monckhoven exhibited a blowpipe constructed by him for the production of the Drummond light, which permits the use of hydrogen, common gas, or alcohol as the combustible material. He also discussed some of the incandescent materials which may be employed, of which he seems to prefer white marble. Prof. Brühl transmitted three plates of the anatomy of the lice, intended for early publication, for the purpose of claiming priority in case of his results being hit upon by Dr. v. Graber, in his memoir on the same subject lately communicated to the Academy of Sciences.

May 16.— The following memoirs were communicated:—"Graphical determination of the stereographic and allied projections of the lines of the geographical sphere," by Prof. J. O. Streissler; "The pressure of water as a motor," by M. F. Schindler.—Director C. von Littrow presented a report upon the determination of the latitude and azimuth effected by Prof. E. Weiss at Dablitz.—M. F. Unferdinger communicated two mathematical papers, one upon four integrals, the other upon the theory of that spherical triangle in which one angle is equal to the sum of the other two.

BOOKS RECEIVED

ENGLISH.—Mycological Illustrations: W. W. Saunders, W. G Smith, A. W. Bennett, part 1 (Van Voorst).—Darwinism Refuted: S. H. Laing (E. Stock).—A Treatise on Asiatic Cholera: C. Macnamara (Churchill).—A History of British Birds: W. Yarrell, edited by A. Newton, part 1 (Van Voorst).—The Census of England and Wales for 1871, Preliminary Report.

AMERICAN.—A Treatise on Diseases of the Nervous System: W. A. Hammond (New York, Appleton).

FOREIGN.—Das Leben der Erde: N. Humnel (Leipzig, Fleischer).—Die Grundsätze graphischen Rechnens, part 1: K. Von Ott (Prag, Calve).

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