Science News a Century Ago

Imperial Academy of Sciences, Russia

The Imperial Academy of Sciences in Russia has published a clause of the will of an artillery officer, Count Araktsehejen, by which the testator established a fund of 50,000 roubles for the author of the best History of the reign of the Emperor Alexander. The work is not to be written until 100 years after that monarch's death, that is, in 1925. The author must be a Russian subject. The money will remain 93 years in the bank where it will accumulate interest. Ten years before the time appointed, that is, in 1915, the Academy of Sciences of St. Petersburgh, will announce that competition is open, and that the prize will be awarded in 1925. Of the sum available one quarter will be devoted to the publication of the work, and the successful author will receive the remainder. (*Gentleman's Magazine*, Sept. 1834.)

Trials of S.S. *Nile*

The *Times* of September 16, 1834, recorded the trials of the S.S. *Nile*, which had been built for the Pasha of Egypt and was referred to as the largest steam vessel that had hitherto been constructed in Great Britain or probably in any country. She was 183 ft. 2 in. in length, 32 ft. 8 in. beam, 21 ft. 9 in. deep in the engine room, and drew about 14 ft. of water. She was more than 900 tons weight and was driven by engines by Boulton and Watt of 220 nominal horse-power. "The trial," said the *Times*, "was successful in every respect; her speed as ascertained at the measured mile below Northfleet, having exceeded from $\frac{1}{10}$ to $\frac{1}{8}$ that of our own Government Steam-ships of equal power. . . . The primary object of this vessel is said to be to tow the ships of the line belonging to the Pasha in and out of the harbour of Alexandria, but she is capable of being converted to purposes of war in case of emergency." The *Nile* appears to have been built at Limehouse and launched under the name of *Pasha* on May 7, 1834.

Ascent of Mont Blanc

"Dr. Martin Barry and six guides left the Priory at Chamouni at half-past eight in the morning of the 16th September, and at noon entered upon the snow, crossed the Boissons Glacier and saw some chamois. The fissures were found to be greatly widened from the lateness of the season [the ascent being by a week the latest that had been made]. The dangers and difficulties were thus much augmented, large masses of ice were met with over some of which it was necessary to climb, and the peril was particularly great in attaining the rock called the Grand Mulet, where the party slept. Next morning, they proceeded attached as they walked, two or three together with cords and cautiously trying every step with their batons. . . . They breakfasted on the Grand Plateau and saw the spot where the avalanche occurred during Dr. Hamel's attempt in 1820. . . . On approaching the summit, so great was the exhaustion from the diminished density of the air, that only a few steps could be taken at a time, and the doctor felt faintness and languor, but at length, his labours were repaid, and he stood on the highest point. He remained on the top an hour and a quarter." (*Annual Register*, 1834.)

Societies and Academies

PARIS

Academy of Sciences, July 23 (*C.R.*, 199, 249–328). CH. PORCHER, HENRI VOLKRINGER and MLLE. JEANNE BRIGANDO: Contribution to the study of casein. Detailed study of the absorption spectra of casein and paracasein. EDOUARD CHATTON and MLLE. BERTHE BIECHELER: The Coccidinidæ, dinoflagellate coccidiomorph parasites of Dinoflagellates and the phylum of the Phytodinozoa. MARC KRASNER: The first case of Fermat's theorem. A. GELFOND: Some new results in the theory of transcendental numbers. JEAN MASCART: The perihelia of the minor planets. HENRI MINEUR and HENRI CAMICHEL: The variations of the ellipsoid of velocities in the galactic plane. HANS EKSTEIN and MICHEL MAGAT: Remarks on the forces of Van der Waals in liquid mercury and in the molecule Hg_2. GEORGES DECHÊNE: The Johnsen-Rabbeck effect. The author gives a new explanation of this phenomenon which also affords an explanation of an experiment described by Toby. DANIEL BODROUX and RENE RIVAULT: Some attempts to photograph the television emissions from London and a local station on short waves. Description of the apparatus used for the reception with reproductions of the photographs obtained. ANTOINE GOLDET and ARCADIUS PIEKARA: The thermal variation of the magnetic double refraction of mixtures. The case of a mixture presenting a critical point. L. COLOMBIER: The electrolytic potential of nickel. Values varying between $-0{\cdot}138$ and $-0{\cdot}621$ have been published for this constant. The author discusses the possible causes of this variation and describes experiments in which the errors due to gases fixed on the surface of the nickel and to the increase of activity due to the presence of hydrogen are eliminated as far as possible. The values found fall between $-0{\cdot}225$ and $-0{\cdot}23$. ANTOINE MARSAT: The modes of graphical representation of the distribution of the flux emitted by a light source. JEAN PAUL MATHIEU: The optical activity and solubility of some cobaltammines. PRIVAULT: Weak lines of the K series of the elements from chromium to copper. The fluorescence lines of some compounds of these elements. F. HAMMEL: The X-ray spectra of manganese sulphate and its hydrates. Five specimens of the monohydrate of manganese sulphate prepared in different ways give the same spectrum: nothing in the spectra of the five specimens suggests a difference of structure. These results are not in agreement with those of Krepelka and Rejha. I. ZLOTOWSKI: The heat of the γ-radiation of radium. An application of the adiabatic microcalorimeter of Swietoslawski and Dorabialska. MARIUS BRIAND, PAUL DUMANOIS and PAUL LAFFITTE: The influence of temperature on the limits of inflammability of some combustible vapours either pure or in admixture. Data are given for isopentane, acetone, methyl, ethyl and butyl alcohols and some binary and ternary mixtures. MME. ALMA DOBRY: The osmotic pressure of polymerised substances. Utilising an apparatus capable of measuring with sufficient accuracy osmotic pressures down to 1·5 mm. of water, the limiting value of the ratio pressure to concentration can be determined. These limiting values are independent of the solvent. The molecular weight of nitrocellulose thus obtained is 110,000. MARCEL CHATELET: Some reactions of divalent chromium