

the late Prof. James C. Watson the sum of about fourteen thousand dollars had been placed in his hands. When the estate is finally closed a further sum will be paid over to the Academy. The income of the Watson fund is to be used under the direction of three trustees—Messrs. J. E. Hilgard, S. Newcomb, and J. H. C. Coffin—for the purpose of aiding astronomical researches. In accordance with the recommendation of the trustees the Academy granted five hundred dollars from this fund towards defraying the expenses involved in observations of the total solar eclipse of May 6, 1883.

Later in the meeting Prof. Simon Newcomb of Washington was elected Vice-President, and Prof. Asaph Hall of Washington Home Secretary. Five new members were elected: Prof. A. Graham Bell of Washington, Dr. J. S. Billings, U.S.A., of the U.S. Army Medical Museum, Washington; G. K. Gilbert of the U.S. Geological Survey; H. B. Hill and C. L. Jackson, Professors of Chemistry in Harvard College. The whole number of members is now ninety-five.

On the afternoon of Thursday the Academy adjourned to take part by invitation in the ceremonies attending the unveiling of the statue of Prof. Henry in the grounds of the Smithsonian Institution. The time for these ceremonies was purposely fixed to coincide with that of the spring meeting of the Academy. Henry was preeminently a scientific man, and at the time of his death President of the Academy; and yet the members of the Academy were placed far down the line in the procession—after the Commissioners of the District of Columbia, and after officers of the army and navy. This fact must be regarded as evidence of a lack of appreciation of the relations existing between Henry and the Academy and of the true worth and dignity of science.

The exercises, which were in good taste, began with a short address by Chief Justice Waite. After this, at a signal, the covering was quickly drawn aside, instantly revealing the entire statue. Loud applause followed, those who were seated rose to their feet, and all hats were removed. The scene was highly impressive; and when the Philharmonic Society, accompanied by the full marine band, burst forth with Haydn's grand chorus, "The heavens are telling," the heart must have been a hardened one which did not experience a feeling of exaltation.

In the opinion of all, the statue is dignified and pleasing, and vividly calls to mind the honoured original. President Porter's oration, which was the principal event of the afternoon, was listened to with much interest. It dealt with the plain facts of the life of Henry, and was all that his best friends could have desired.

Among the pleasantest social features of the meeting was a reception given to the members of the Academy on Thursday evening by Prof. A. Graham Bell. There were present many well-known gentlemen, among them General Sherman, Chief Justice Waite, Senator Sherman, ex-Secretary Blaine, and the Japanese, Swedish, and Belgian ambassadors.

SCIENTIFIC SERIALS

Zeitschrift für wissenschaftliche Zoologie, Bd. xxxviii, Heft 1, February 20, 1883, contains:—On the vascular system and the imbibition of water in the Najadæ and Mytilidæ, by Dr. Hermann Griesbach (Pl. 1).—Researches among the Protozoa, by Dr. A. Gruber (Plates 2 to 4); describes and figures several new genera and species.—On the origin of the saliva (*Futter saft*) and the salivary glands in the bee, together with an appendix on their olfactory organ, by Dr. P. Schiemenz (Plates 5 to 7).—On the development of the red blood corpuscles, by Dr. W. Feuerstack (woodcuts).—Candid reply to my critics in the matter of the "Brain of Fishes," by G. Futsch.

Proceedings of the St. Petersburg Society of Natural History, Vol. xiii, Part 1, for 1882, contains: On the archæology of Russia, by Count Tivatkov (the Stone Period).—Notes of a journey on the Dnieper in 1844, by Dr. Kessler.—On *Capra caucasica*, Gild., by H. Dinik.—Darwinism from the point of view of universal physical science, by A. Beketov.—A monograph of the Mysidæ to be found in Russia (Marine, Lacustrine, and Fluvial), by Voldemar Czerniavsky, fasc. 2. All the above articles are in Russian except the last, which is in Latin, and it is illustrated by four lithographic plates.

Journal of the Russian Chemical and Physical Society, vol. xv, fascicule 3.—On the hydrocarbon $C_{12}H_{20}$ obtained from the allyl dimethyl carbinol, by Prof. A. Zaytseff and W. Nicolsky.—On the hydrocarbon $C_{10}H_{18}$ obtained from the allyl dipropyl carbinol,

by S. Reformatzky. It is a colourless liquid boiling at about 158° Celsius, insoluble in water, and easily soluble in alcohol and ether. It rapidly absorbs the oxygen of the air; density 0.787 at 0° , 0.774 at 16° , and 0.770 at 21° .—Chemical analysis of Kieff clays, by S. Bogdanoff. The white clay contains 96 per cent. of kaolins; the loess contains 83.5 per cent. of quartz, feldspar, mica, and other silicates, 5.38 of kaolin, and 6.73 of carbonate of lime.—On the diisocetyl, by A. Alechin.—On the composition of the water which accompanies the naphtha and is discharged by mud-volcanoes of the Government of Tiflis, by A. Potylitzin (second paper).—An elementary demonstration of the pendulum-formula, and on a differential aërial calorimeter, by W. Preobrajensky.

THE Archives des Sciences Physiques et Naturelles for February, 1883, contains papers by C. E. Guillaume on electrolytic condensers; by Emile Yung, on the errors of the senses, a contribution to the study of illusions and hallucinations; by Ernest Favre, on the Geological Survey of Switzerland for 1882, concluded in the March number. To the latter C. de Candolle sends an interesting essay on the ripple marks formed on the surface of sands under water, and on other analogous phenomena.

THE Journal de Physique théorique et appliquée for March contains papers by Ph. Gilbert, on the experiments best suited for demonstrating the rotation of the earth; by G. Lippmann, on Helmholtz's theory of double electric layers as applied to electro capillary phenomena; by H. Pellat, on the same subject; by A. Rosenstiehl, on the definition of complementary colours; by Ch. Cros and Aug. Vergeraud, on a direct positive photographic paper.

SOCIETIES AND ACADEMIES LONDON

Royal Society, March 15.—"On the Changes which take place in the Deviations of the Standard Compass in the Iron Armour-plated, Iron, and Composite-built Ships of the Royal Navy on a considerable change of Magnetic Latitude." By Staff-Commander E. W. Creak, R.N., of the Admiralty Compass Department. Communicated by Capt. Sir F. J. Evans, R.N., K.C.B., F.R.S., Hydrographer of the Admiralty.

The period comprised between the years 1855-68 was one of active research into the magnetic character of the armour-plated and other ships of the Royal Navy and iron ships of the Mercantile Navy.

Among other contributions to this subject a paper by F. J. Evans, Staff-Commander R.N., F.R.S., and Archibald Smith, F.R.S., was read before the Royal Society in March 1865, relating to the armour-plated ships of the Royal Navy, and containing the first published results of the system of observation and analysis of the deviation of the compass established four years previously.

From lack of observations in widely different magnetic latitudes the authors of that paper were unable to define the proportions of the semicircular deviations arising from vertical induction in soft iron and that arising from permanent or sub-permanent magnetism in hard iron.

During the last fifteen years vessels of all classes—except turret ships—have visited places of high southern magnetic inclination or dip, and the analysis of the deviations of their standard compasses has been made, showing the constants of hard and soft iron producing semicircular deviation.

The constants for soft iron provide a means of predicting probable changes of deviation on change of magnetic latitude for certain vessels of the following classes, and others of similar construction.

1. Iron armour-plated ships.
2. Iron cased with wood.
3. Iron troopships.
4. Iron and steel cased with wood.
5. Composite-built vessels.
6. Wooden ships with iron beams and vertical bulkheads.

These vessels were all in a state of magnetic stability previous to the observations which have been discussed, and their compasses have had the semicircular deviation reduced to small values, or corrected, in England by permanent bar magnets.

This correction may be considered as the introduction of a permanent magnetic force acting independently, and in opposition to the magnetic forces of the ship proceeding from hard iron,