# SCIENCE

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MSS. intended for publication and books, etc., intended for review should be sent to the responsible editor, Professor J. McKeen Cattell, Garrison-on-Hudson, N. Y.

## THE ASTRONOMICAL AND ASTROPHYSICAL SOCIETY OF AMERICA.

THE second winter meeting of this society was held in Washington, D. C., during convocation week, in affiliation with the American Association for the Advancement of Science.

On Monday, December 29, at 4 P.M., over two hundred persons assembled in the lecture room on the first floor of the Law Building of the Columbian University to hear the address of the president of the society, Professor Simon Newcomb. This address has already appeared in SCIENCE.

Three sessions of the society for the reading of papers and transaction of business were held in the Assembly Hall of the Cosmos Club, Tuesday, Wednesday and Thursday afternoons, the average attendance being about seventy-five.

Tuesday evening the annual dinner was given at Maison Raucher. Among the forty-three present were a number of ladies and, as guests, His Excellency, the Im-

It is hardly to be expected that an entirely new classification such as that proposed will at once be universally adopted, but it is believed that as time goes on it will recommend itself more and more to petrographers as a *quantitative* system of classification, much more precise and definite than any that has been hitherto proposed, and having the further advantage of being based on thoroughly scientific principles and capable of indefinite expansion, if necessary, to meet the growing needs of the science.

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*Ueber das Hirngewicht des Menschen.* By F. MARCHAND. Abh. d. math.-phys. Classe d. Königl. Sächsischen Ges. d. Wissensch., Bd. XXVII., 1902, No. IV., pp. 393–482.

Professor Marchand, of Marburg, has accumulated the largest number of human brain-weights ever published, and in a large series of tables, containing 1,169 cases, he gives a thorough analysis of these data. Marchand discusses the influences affecting the weight of the brain, such as the cause of death, bodily stature, sex and age. He finds a notable increase in the brain-weight of persons dying of diphtheria and other acute diseases, owing, no doubt, to the hyperæmia and œdema of this organ. In new-born children the average weight is 380 grams for males and 353 grams for females. Combining with these the infants less than one week old, the averages are 371 grams for males and 361 grams for females. These weights are doubled by the end of the first year, and tripled at the end of the third. After the fifth year the increase in the weight of the brain is more gradual. The figures show that in most persons the maximum brain-weight is attained at about the twentieth year in males, the average being about 1,400 grams, and at about the seventeenth year in females, the average being 1,275 grams. The reduction of the average brain-weight due to senile atrophy occurs in the eighth decade in men and in the seventh decade in women. The maximum absolute weight in Marchand's series was 1,705 grams in a male. Many high brain-weights were omitted from the tabulations on account of hydrocephalus, brain-tumor, meningitis and other brain affections. Low brain-weights, less than 1,200 grams in males and less than 1,100 grams in females, constituted about five and seven per cent., respectively, of all the cases, usually in phthisical subjects or in those dying of wasting diseases. The tables show a certain relation existing between the stature and brain-weight, but the ratio of increase is a very inconstant one. Finally Marchand discusses the relation of the sexes as to their brain-weight, and concludes that the lesser weight of the brain in women is not alone dependent upon her smaller stature, for a comparison of both sexes of the same stature shows the male brain to be invariably the heavier. In the growing child, until a stature of seventy centimeters is attained, the brain-weight increases proportionately to the increase in body-length, irrespective of age or sex; thereafter, however, the male brain begins to outstrip that of the female. Woman's lesser brain-weight, like her lesser head-circumference, as compared with males of the same stature, seems to be an expression of the different organization of the female body.

E. A. S.

## SCIENTIFIC JOURNALS AND ARTICLES.

*The Popular Science Monthly* for February has for frontispiece a portrait of Carroll D. Wright, president of the American Association. Asaph Hall has an article on 'The Science of Astronomy,' in which attention is called to the influence of science in promoting harmony among nations. Bradley M. Davis discusses 'The Evolution of Sex in Plants,' as illustrated by the Algæ. Alverton W. Price shows 'The Economic Importance of Forestry,' and Frederick A. Woods gives the seventh of his papers on 'Mental and Moral Heredity in Royalty,' this one dealing with the house of Nassau and Brunswick. An account of 'The Smithsonian Institution' is reprinted from its last report. Roger Mitchell discusses 'Jewish Immigration,' showing that it presents a somewhat serious problem in New York. Wesley Mills treats of 'The Behavior of Blind Animals,' adducing instances to show how great

is the effect on the disposition of the animals, and George M. Sternberg tells of the history and possibilities of 'Preventive Medicine.' Finally, J. McKeen Cattell presents 'A statistical Study of Eminent Men.'

*The Plant World* for January starts a new volume in a new dress, with a cover in two colors designed by Mr. Shull. Having changed its publisher and been copyrighted, it will henceforth appear promptly. It contains 'Obtusilobata Forms of Some Ferns,' by C. E. Waters; 'The Preservation of Our Native Plants,' by Ruth E. Messenger; 'Dimorphism in the Shoots of the Ginkgo,' by G. N. Collins; and numerous short articles and notes. 'The Families of Flowering Plants,' which has been running for three years as a supplement, has been completed, and for the present four pages are added to the size of the journal.

*The Zoological Society Bulletin* for January contains a description of the recently completed lion house in the New York Zoological Park with notes on its contents, which were mainly presented by friends of the society. A list of the more interesting animals includes a pair of snow leopards, another of Prejvalsky horses, a cape hunting dog (*Lycaon*) and a Tasmanian wolf. This last is the second specimen brought to this country alive, the first being in the National Zoological Park. It is rather surprising to learn that the cheetah is now rare in captivity, at least outside of India. The number contains a brief account of the New York Aquarium and its work.

*The Museums Journal* of Great Britain for January has an account of the Dutuit Bequest to Paris, which comprises, besides other art treasures, many rare and beautiful books. The collection has been in process of formation since 1832, and had been so well cared for that many of the specimens had never been unpacked. Among the many notes is recorded the formation for the Sydney Museum, New South Wales, of a collection of colors and chemicals used in color making, with samples of fabrics dyed with them.

## *SOCIETIES AND ACADEMIES.*

### PHILOSOPHICAL SOCIETY OF WASHINGTON.

The 32d annual meeting was held December 20, 1902. A new code of by-laws was adopted, the principal change from the old code consisting in the statement of the powers of the general committee in conformity with the statute under which the society is incorporated, and the establishment of an executive committee to care for routine business.

The report of the secretaries showed a present active membership of 110, a net gain of 2 during the year; besides the annual meeting 16 meetings have been held, with an average attendance of 37; 38 papers were presented.

The treasurer's report showed a gross income of about $950 and expenditures of $460.

Professor J. H. Gore, of the Columbian University, was elected president for the ensuing year; Messrs. Hagen, Marvin, Littlehales and Abbe were elected vice-presidents. The treasurer, Mr. Green, and the secretaries, Messrs. Hayford and Wead, were reelected, and the following were elected on the general committee: Messrs. De Caindry, Paul, Winston, Watkins, Briggs, Fischer, Bauer, Day and Harris.

The meeting regularly falling on January 3, 1903, was ordered omitted on account of the meetings of the American Association for the Advancement of Science during the week on which that date fell.

The 561st meeting was held January 17, 1903, with the new president, Professor J. H. Gore, in the chair.

The evening was devoted to reports from the committee on mathematical science.

Professor Cleveland Abbe, of the U. S. Weather Bureau, spoke of the German Mathematical Union and the new 'Encyclopædia of Mathematics.' The Mathematical Union or Association originated as a branch of the Association of German *Naturforscher und Aerzte* at the Heidelberg meeting of 1889, and its duties were definitely formulated at the Bremen meeting in September, 1890. It now numbers about 550 members; it has published two or three miscellaneous volumes, such as a list of German mathematical theses by can-