lucidity and accuracy characteristic of these writers. A dozen tables are appended, the natural functions being given to five, and the logarithms and functions to six places of decimals. The book seems likely to prove very useful to a large class of engineers and surveyors and should find ready and extensive sale.

SCIENTIFIC JOURNALS.

THE MONIST, OCTOBER.

AFTER a careful examination of Darwin's own statements upon the matter, and a brief survey of the theories of Wallace, Weismann, Cope and the Neo-Lamarckians, Geddes, Henslow and others, the late Professor G. J. Romanes concludes, in the leading article of this number, on *The Darwinism of Darwin and of the Post-Darwinian Schools*, that Darwin's answer to the question whether the so-called Lamarckian factors were involved in the progressive modification of living forms was distinct and unequivocal, and that he never maintained that natural selection was to be regarded as the *sole* cause of organic evolution. As the mean between the two extremes of American Neo-Lamarckism and European Weismannism, Prof. Romanes believes that Darwin's judgment with respect to the relative importance of the factors of evolution will eventually prove the most accurate of all. Romanes' criticism of the American Neo-Lamarckians is that they do not distinguish between the 'statement of facts in terms of a proposition and an explanation of them in terms of causality,' but the bulk of the article is devoted to demolishing the erroneous and widely current impression implied in the so-called 'pure Darwinism' of Mr. Wallace, and especially to refuting the latter's conception of the intervention of a distinct individual intelligence in evolution.

Dr. Paul Topinard, in the second article, *Man as an Animal*, seeks to assign man's place in nature by a review of the results of anthropology, which for him is a branch of natural history pure and simple. His general conclusion is that man is not a creature apart in creation, but an animal like all the rest, only adapted and perfected to intellectual life; and that from this point of view his interests and impulses are all individual and egotistic. In details his views are opposed to prominent American theories on this subject.

In *Criminal Anthropology Applied to Pedagogy*, Prof. C. Lombroso shows how the conclusions of criminology can be turned to practical account by teachers in their treatment of children. His article indicates more clearly than most of his writings do what are the limitations of his doctrine of the criminal type.

By *Arrested Mentation* (fourth article) G. Ferrero understands that law of natural logic by which the person of average power and education stops short in his reasonings at facts and phenomena falling under the notice of the senses, never pushing his inquiries after causes beyond the *obtrusive* facts of his experience. He also includes under this term our penchant for syllogistic reasoning, as opposed to the laborious and repellent methods of inductive research, and gives well-known historical examples in illustration of his idea.

The three last articles form a logically coherent group on the moral and religious upshot of scientific inquiry. That on *Naturalism* by Professor C. Lloyd Morgan is a defense of science against the recent animadversions of Mr. Balfour, and finds that Mr. Balfour's onslaught is directed against a wholly imaginary conception of the naturalistic tenets, and one which is never held by the foremost representatives of scientific thought. Dr. Paul Carus in *The New Orthodoxy* makes a plea for that 'rightness of opinion' which proceeds from the rigorous observation of the *objective* criteria of truth established by science. In *The Fifth Gospel* Dr. Woods Hutchinson, of the University of Iowa, announces a new evangel—the Gospel according to Darwin—which, the author claims, places morals and religion on firmer foundations than ever before.

Prof. F. Jodl reviews the philosophical publications of Germany and Austria, M. Lucien Arréat those of France, and Theodore Stanton writes on some French opinions of the Chicago Congresses. Emilia Digby discusses Prof. Le Conte's view of 'social evolution through the ethical law.' Numerous book reviews. Contents of Periodicals.

THE JOURNAL OF COMPARATIVE NEUROLOGY, JULY.

The Mammalian Cerebellum. Part I. The Development of the Cerebellum in Man and the Cat: By Bert Brenette Stroud. This paper is introduced by sections on technique and terminology; also by an historical review. The development of the cerebellum of both man and the cat is presented in a series of drawings and descriptions of all of the important stages. In 1891 Herrick gave a brief description of the development of the cerebellum of the mammal and reptile, in which he showed that this organ arises not from a median anlag, but from two lateral centers of proliferation from which the neuroblastic elements migrate dorsad and mesad. In 1894 Schaper verified and amplified these observations in the teleosts. Mr. Stroud has fully illustrated the process in his two types, and has then traced the development of each of the major divisions of the adult organ. His paper is accompanied by eight plates and a bibliography.

Notes on Child Experiences: By C. L. Herrick. I. Anthropomorphization of Numerals. The strong tendency of children toward personification has led in the case cited to a phenomenon not unlike pseudochromæsthesia. The boy of ten years habitually personifies and visualizes his numerals and attributes to each a moral nature in keeping with his form. II. Hallucinations of Vision in Children. In the course of a description of certain unusually vivid visual hallucinations which the author experienced in his own childhood, he takes occasion to criticise the recent statistical studies of the power of visualization. The average untrained observer is unable to tell whether he truly visualizes or not, so that much of the work done on the basis of recent statistics is is fallacious.

The Cerebral Fissures of two Philosophers, Chauncey Wright and James Edward Oliver: By Burt G. Wilder. A brief comparison of the fissural patterns of these brains shows, in both, the frontal region unusually high and wide and the supertemporal fissure larger than common; but the very exceptional features of Wright's cerebrum are not repeated in Oliver's. But all estimates of the extent and significance of their peculiarities will be only provisional until the careful comparison of many average brains supplies one or more types or standards.

Formalin for the Preservation of Brains. [Preliminary Note]: By Pierre A. Fish. A minimum shrinkage and loss in weight, cheapness and rapidity of action are the advantages claimed for the mixture proposed.

The Physiological Condition of Consciousness: By Dr. Paul Carus. This article was called out by Professor Herrick's reply to Dr. Carus' article in the Journal of Comparative Neurology for September, 1894. Dr. Carus defends his use of the words 'feeling' and 'intelligence,' and reviews his arguments for regarding the corpus striatum as the seat of consciousness in the sense of an organ by which through some kind of a mechanical arrangement the connection between the memory-images are established so as to produce by their interaction the condition of consciousness. A bibliography accompanies the paper.

SOCIETIES AND ACADEMIES.

NEW YORK ACADEMY OF SCIENCES.

The first regular meeting of the year 1895–96 was held on Monday evening, October 7. No formal program had been announced beyond regular business, but after this had been transacted, the members present gave personal sketches of the work of the summer, and touched particularly on the meetings of the American Association, its affiliated societies and the British Association.

A proposed plan for the meeting of the British Association in joint session with the American Association at San Francisco in 1897 was brought up and informally discussed, but no action was taken.

J. F. Kemp,
Secretary.

THE TEXAS ACADEMY OF SCIENCE.

A regular meeting of the Academy was held on the evening of Friday, October 4, at which the annual address by the President, Dr. George Bruce Halsted, was given, the subject being 'The Culture Given by Science.'