unable to find any alteration in the peripheral nerves. The animal that survived the longest died ten days after the administration of the poison. Oxide of lead was the preparation used.

[Want of room obliges us to defer to the next number a notice we had prepared of a new Foreign Journal, "Neurologisches Centralblatt," edited by Dr. Mendel, of Berlin, which appeared in January. We wish it every success. The same observation applies to "Die Medicamentöse Behandlung der Psychosen," by Dr. Brosius, and various publications of Dr. Von Krafft-Ebing.—Eds.]

4.—Psychological Retrospect.

By B. F. C. Costelloe, B.Sc. and M.A. Glasgow.

Mind, Nos. XX.-XXV. (Oct., 1880-Jan., 1882).

In a review of the many issues that have appeared since our last retrospect, it will not be possible to do much more than indicate the main topics of interest to our readers in the various numbers of "Mind." No. XX. (October, 1880) was in reality a more than usually interesting one. Besides the conclusion of a curious but valuable series of papers on the cell-theory and the "Unity of the Organic Individual," to which we have referred before, it contained also an elaborate essay on "Æsthetic Evolution in Man," from the prolific pen of Mr. Grant Allen. It is sufficient to say of this that the theory propounded is one of "apanthropinisation;" or, in more intelligible language, the widening out of associations of beauty concentrically from the assumed starting-point in the sexual selection of the most ornamented mate. There is an unimportant essay by W. Davidson on "Botanical Classification"—a subject which has yet to be philosophically treated—and a very important one on Kant, by Professor John Watson, of Canada. Among the Notes are some remarks by Mr. Bain on Mr. Galton's very interesting scheme of mental statistics (previously noticed here), a discussion of "Brute Reason," and a noteworthy summary of the views lately stated with great clearness by Professor James, of Harvard, as to Muscular Sense and the feeling of effort, hitherto a subject for much loose theorising.

The January number of last year was likewise interesting, in spite of sundry heavy and not altogether valuable papers, by Mr. Shadworth Hodgson, Dr. G. Thompson, and Herbert Spencer. Mr. Sully opened with a too slight and sketchy discussion of a fruitful subject—"Illusions and Introspection"—meaning thereby the false semblances of immediate knowledge as to facts of the inner consciousness. He says, for example, that all men are capable of deceiving themselves

by fashion or otherwise into the idea that they are enjoying themselves when in reality they are rather bored. This special instance we distinctly doubt, or rather deny; for what is enjoyment but the sense that we are enjoying ourselves? But there is no doubt that in many cases the wish to feel something, or the preconceived belief that given certain conditions, we would feel something, does lead us to say and to imagine that we feel it when, in a sense, that is an illusion. The wish to feel religious fervour, no doubt, often creates a feeling which has a certain unreality. But it is dangerous to call this "illusion," without closely distinguishing our use of the word from the ordinary case of illusory sense-perception. Mr. Sully's paper is followed by one still more curious, on "Our Control of Space and Time," by J. Venn, which has a virtue rare in these pages, for it is amusing. The writer considers how unfortunate our condition is that we are able in only a comparatively limited range of cases so to overcome the difficulties of space, and still more of time, as to be permitted to settle a disputed point by personal experiment. The surveyor who cannot cross a brook has to resort to trigonometry. The temperature at the Antipodes is personally procurable; but none can say what it is half-way there, because of the laws of space. History would have no puzzles if we could shift our position in time, as we can geographically by travel. If we could conceive our power of locomotion in space or time (backwards or forwards) or our power to enlarge space and time at will in any way increased, the problems of science would be indefinitely simplified. A touch-microscope, for example, is much wanted. For a time-microscope, the curious reader will find a suggestion in M. Venn's paper. Altogether it is an interesting topic, and though it seems at first sight most unpractical, it would be rash to say that it is really so. Wilder suggestions have often proved fruitful in the end. There are a few notes on Hypnotism, on Baby-Psychology, and on "Mind-Stuff," and there is a notable review by Prof. Croom Robertson of Dr. Bastian's "Brain as an Organ of Mind." The review, though severe, gives the author full credit for his erudition, but criticises his theory as vitiated by a fundamental haziness in the definition of "Brain" and "Mind," especially the latter. place Dr. Bastian speaks of "almost the whole of the nervous system" as the organ of "Mind." In fact, he refuses to limit "Mind" to the region of "conscious experience," while reasonably objecting at the same time to such contradictory and too common terms as "unconscious sensation," or "unconscious memory." He therefore admits into "Mind," along with conscious states, "other mere unconscious nerve-actions which are contributory to, rather than directly associated with conscious states," while rigidly excluding always the "outgoing currents" transmitted downwards from the cortical substance. Obviously the author's attempt to define "Mind" breaks down under the complexity of the data, and this difficulty infects the reasoning of the whole book. It is less excusable, however, that in his final chapter he should speak as if he had a standing-ground to protest against theories of automatism, in which "Free-will, Duty, and Moral Obligation would seem to be consigned to a common grave, together with the underlying powers of Self-education and Control." As his reviewer shows, every page of the book leads up to the conclusion he denounces.

The April number is much less important. The most notable papers are the reviews of Mr. Gurney's "Power of Sound," by Mr. Sully, and of Geiger's "Development of the Human Race," by Mr. Grant Allen. Mr. Sully is not at all satisfied that his author should have come, after a most exhaustive and able discussion of the whole field of music, to the conclusion that, "the origin of musical pleasure is inscrutable," and that the "enjoyment of music is referable to a unique faculty." Mr. Seth, of Edinburgh, also contributes to the Reviews an excellent and interesting note on the first part of the new

translation of Zeller's History of Greek Philosophy.

The July issue was also below the average of interest. A discussion of "George Eliot's Art" is interesting, and should be quite within the range of a psychological magazine; but it may be doubted whether Mr. Sully was the best person to write it. Dr. Montgomery contributes another of his difficult but noteworthy papers, this time in the form of a plea for "the actual existence of an identical, indivisible, perdurable, and self-sustaining substance of which the transient phenomena of consciousness are but inherent affections." This he calls "The Substantiality of Life," but it is practically an argument for the existence of some kind of spiritual Self or Soul as distinguished from Body, and underlying our mental and organic activities as a basis and principle of unity. Professor Josiah Royce sends from California an essay on Clifford's "Mind-Stuff," and there is a valuable review of Mr. Sully's recent and rather sketchy volume on "Illusions," by Dr. Burns-Gibson. An important note is printed on a tentative hypothesis lately put forward by Prof. James, of Harvard, concerning the functions of the semicircular canals—namely, that they are the organs of a special sense of "translation through space," which, when intensified, becomes vertigo. In support of this he alleges first that a large proportion of congenital deaf-mutes are incapable of dizziness, and secondly, that where disease has affected the internal ear, disorders of locomotion very frequently follow. The subject is well worthy of the attention of all scientific observers.

The number for October is chiefly remarkable for a long and ambitious article by Mr. Grant Allen, on "Sight and Smell among the Vertebrates." It is another of those reckless hypothetical generalisations which bid fair to be the ruin of modern psychological and biological science, but it has at least the merit of being ingenious. The theory is that in an evolutionary scale of intelligence, Sight and Smell are in inverse proportion. At the bottom of the scale, say the amphioxus or the lamprey, the olfactory brain-organ has compara-

tively a great development. Indeed, the author does not hesitate to suggest that the cerebral hemispheres may have been at some remote period merely appendages to an organ of smell, and in this sense he refers specially to the morphology of the Cyclostome Fishes. After careering through the different levels of animal life, and tracing what he takes to be a gradual increase in the importance of Vision—though the gradual or continuous character of the change seems to be conclusively refuted by his own facts—he leads us naturally to the trite observation that savages rely more on smell than the philosophic children of civilisation. Mr. Whittaker contributes a curious paper tending to establish an analogy between the "Mind Stuff" theory and the peculiar cosmology of Schopenhauer, and Mr. Seth has a comprehensive but very well-written account of the general Hegelian position. Among the Notes is a curious one by Mr. D. Macgregor, on certain reflex effects of extempore speaking—a practical subject

which would repay wider study.

The current number of "Mind" opens with the first of an important series of papers by Prof. T. H. Green, entitled, "Can there be a Natural Science of Man?" in which he seeks to give an intelligible and at the same time conclusive answer to the prevalent English psychology from the stand-point of the Hegelian idealism. This excellent paper is followed by a second contribution from the Californian Professor Royce, on "Mind and Reality," being an attempt to state what he takes to be the true views underlying the "Mind-Stuff" theory, which theory is also commented on by Mr. F. W. Frankland, writing from New Zealand. The Notes are peculiarly rich in interest. comes an excellent and forcible reply by Mr. Gurney, the author of "The Power of Music," to Mr. Sully's already noticed strictures upon his psychological theory. The answer, we confess, appears to us altogether convincing, and the views laid down are full of instructive suggestion upon a topic which is too little considered by the students of mental science. Dr. Montgomery follows with a note headed, "Are we Cell-aggregates?" in which he vigorously attacks Prof. Huxley's cellular profession of faith at the International Medical Congress, and expounds the opposite position with a terseness and close reasoning that will repay more than a passing attention. W. H. S. Monck adds some interesting "Observations on Cases Among the reviews are those of of Couching for Cataract." Harper's "Metaphysics of the School," by Dr. Burns-Gibson, and of Lange's "History of Materialism," by Mr. Seth. notices of new books include "The Brain and its Functions," by J. Luys, Physician to the Salpêtrière, and the English translation of Prof. Morselli's "Suicide."