and physiology, Zürich, 1849; professor of physiology and zoölogy, Vienna, 1855; professor of physiology, Leipsic, 1865.

Probably few American physiologists received the news of Ludwig's death without a feeling of sadness far beyond that occasioned by the loss to science. Ludwig liked America and Americans, and many of his colleagues upon this side of the Atlantic have been his pupils and have found in him a warm personal friend. His wit, his sympathy, his breadth of mind, his love of books and of music, were conspicuous. To work with him was to receive the undying stimulus of a master mind and to feel the charm of a simple, sweet, winning personality.

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CORRESPONDENCE.

THE FROG WAS NOT BRAINLESS BUT DECEREBRIZED.

In the report of the meeting of the Association of American Anatomists last December in Science for March 15, 1895, p. 297, it is said that 'Dr. Wilder exhibited a Brainless Frog, etc.' The animal shown had been deprived of his cerebrum Dec. 7, 1894, for demonstration to my class in physiology of the points first, I believe, observed by Goltz. The brain was transected at the diencephal (thalami) and the entire cerebrum removed as described by me in 1886.* The frog was unusually large and vigorous, and was exhibited partly on that account, and partly because when it dies the condition of the brain will be determined and reported to the Association. At this writing, however, it is still living and has been photographed in various attitudes, amongst others while maintaining its balance on a cylinder *by 'backing' instead of going forward as usual.*

The object of the present note is to reprobate the use of *brainless* and *decerebrized* as interchangeable terms. The latter alone was used by me at the meeting, and was accessible in type-writing to all who were present. Nevertheless, both at that time and afterward, there appeared many newspaper paragraphs as to 'Dr. Wilder's brainless frog.' An attempt to correct the misapprehension through the Associated Press only made the matter worse, for I was promptly credited with 'another brainless frog.'

Perhaps, however, we ought not to condemn the popular confusion of terms too strongly in view of the following example among professional anatomists. At the Tenth International Medical Congress in Berlin, August 5, 1890, Professor Sir William Turner, F. R. S., etc., delivered an address, the official title of which, as printed in the *Journal of Anatomy and Physiology* for October, is 'The Convolutions of the Brain;' the real subject is The Fissures of the Cerebrum.

Burt G. Wilder.

Ithaca, N. Y., May 25, 1895.

TEXT-BOOK OF INVERTEBRATE MORPHOLOGY.

To the Editor of Science: A reply to a book review is undoubtedly in many cases inadvisable, but there are certain statements in the review of my Text-book of Invertebrate Morphology in your issue of May 3d which seem, as a matter of justice, to call for some comment. A reviewer has a perfect right to express his opinion concerning the views set forth by an author, but the latter has a right to expect that his statements will not be misrepresented either directly or by implication, and I wish to call attention to certain misrepresentations

* Remarks upon a living frog which was decerebrized more than seven months ago. *Amer. Neurol. Assoc. Trans.*, 1886. *Jour. Nerv. and Mental Dis.*, XIII., p. 30. (Abstracts in *N. Y. Med. Record*, July 31, 1886, Science, Aug. 7, 1886, and *Medical News*, Aug. 7, 1886.)

contained in Professor Packard's review.

In the first place the following statement is made: "Thus in writing of the Brachiopoda the author speaks of the bivalved shell 'similar to that of the bivalve mollusk,' but he does not add that the shells are dorsal and ventral, a point in which they differ from any mollusk." Professor Packard must have read my description of the Brachiopoda very perfunctorily; otherwise he would have seen fifteen lines further on the statement: "Since the mantle-lobes are dorsal and ventral in position, so too are the valves of the shell," and a little further on still he would have found an express statement that there are important differences between the shells of the Brachiopods and those of the bivalve mollusks.

Secondly, it is implied in the review that I state that the thoracic segments in the butterflies and Diptera 'seem to be reduced to two, etc.' If my entire statement had been quoted my meaning would have been clear. The concluding words of the sentence, replaced in the review by 'etc.,' reading 'owing to the close association of the metathorax with the first abdominal segment.' The reviewer implies that I state that but two segments occur in the insects mentioned, whereas I distinctly imply that all three are present.

Thirdly, the reviewer implies that I state on p. 414 that the elements of the ovipositors (in insects) are situated on the 'last abdominal segment.' As it happens at p. 414, it is the Isopods, and not the Insecta, which are under consideration. My statement regarding the ovipositors of insects are: (1) "Cerci, ovipositors and copulatory organs are frequently borne by the posterior abdominal segments" (p. 489); (2) "The genital orifice is situated on the ventral surface of the ninth abdominal segment and is usually surrounded by a number of papillæ, or sometimes by long processes which serve as ovipositors, and are to be regarded simply as processes of the segments from which they arise, and not as modified limbs" (p. 497). In both cases I use the word 'segments' and not 'segment,' and in neither case do I state that the ovipositors are on the last segment.

There are several other points which might be similarly commented upon, but I do not desire to occupy space by multiplying examples of inaccuracies in the review. Surely, in the review of a scientific book evidence of ordinary care in the preliminary perusal of it is to be expected.

Yours truly,

J. PLAYFAIR MCMURRICH.

UNIVERSITY OF MICHIGAN, May 7th, 1895.

[IN reply to Professor McMurrich I regret to say that I did overlook the words on p. 269, to which he draws attention, although I still think the dorsal and ventral relations of the valves had better have been emphasized in the beginning of the last paragraph of the preceding page. In regard to the second point, I still think that the expression 'seem to be reduced to two' is unnecessary and a grain misleading. Third, on p. 489 ('p. 414' is a printer's error, for which the reviewer is not responsible) the sentence in question still seems to me to be vague, inexact, and in part incorrect. The cerci *are* the homologues of the other jointed appendages of the body, as may be seen in the cockroach and other orthoptera, as well as Lyda, and the Cinura (Machilis). This and the few other errors noted by us are blemishes which can easily be corrected in a second edition. The charge that 'ordinary care' was not exercised by the reviewer is a gratuitous one. In conclusion, I may say that I regard the book as a most excellent and useful one, and wish it every success, as it fills a vacancy hitherto existing in our literature.

A. S. PACKARD.]