

Wilder has nothing to do with zoological nomenclature.

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THE SOURCE OF METENCEPHALON AND OTHER
LATIN NAMES FOR THE SEGMENTS
OF THE BRAIN.

TO THE EDITOR OF SCIENCE: In my paper, 'The definitive encephalic segments and their designations,' read before the Association of American Anatomists last May, were offered objections to the action of the Anatomische Gesellschaft* in designating the region between the cerebellum and the myel (spinal cord), not by *metencephalon*, as in the last three editions of Quain's 'Anatomy,' but by *myelencephalon*. This last was proposed by Owen for the entire neuron (central nervous system) in 1866 or earlier, and, so far as I know, its application to a single segment was made by Huxley in 1871. Before printing the paper above named, I desire to ascertain when and by whom that region of the brain was first called metencephalon; incidentally, also, the source and date of the other words, *prosencephalon*, *diencephalon*, *thalamencephalon*, *mesencephalon* and *eiencephalon*, that have been offered as equivalents for von Baer's names, *Vorderhirn*, *Zwischenhirn*, *Mittelhirn*, *Hinterhirn* and *Nachhirn*. Information through your columns or directly will be very welcome.

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ANDRÉE'S NORTH POLE BALLOON VOYAGE.

IN SCIENCE for August 20th, p. 291, occurs a copy of a telegram purporting to come from Dr. Nils Ekholm regarding the Andrée balloon which is attracting so much attention. One serious error in the transcription should be corrected. It is stated that the balloon at the start rose to a height of 15,000 to 25,000 ft. The original may have been 150 to 250 metres (490 to 820 ft.), but could not possibly have been as given. To ascend 25,000 ft., over 3 tons of ballast would have to be thrown out, and this, of course, is not thinkable. At 25,000 ft. two-

thirds of the gas would have been lost and the voyagers would have been in great danger of freezing to death.

It is a little difficult to understand Dr. Ekholm's figures. Admitting that 1,800 cubic feet of gas leaked out each 24 hours, entailing a loss in buoyancy of 123 pounds, as he gives it, there should still be enough gas for over 70 days, instead of 22 to 24 days, as given. A leakage of 1,800 cubic feet would be about 1%, which is not excessive, though about 2 times as much as was expected. There are very few balloons built that have a leakage less than 3%. The very best 'cæcum' balloons ever made have a leakage of $\frac{1}{2}$ % in 24 hours. The total buoyancy of the gas was 12,000 pounds. The 3 men would weigh 500 and the balloon probably not over 1,700 pounds. Very tight balloons have been made in this country that would weigh for the same size about 900 pounds. This would give 80 days' flotation. It is probable that the computation calls for even a heavier balloon and also for carrying the car all the way. It is customary, however, to prepare the car so that it can be used as ballast and at the last use the ring of the balloon.

It is a great pity that more experience was not gained in a long voyage before attempting the extremely hazardous voyage to the Pole. The fact that the balloon was beyond control at the very start is very significant. It is doubtful if any aeronaut living can release safely a balloon of 170,000 cubic feet capacity in a twenty-five-mile wind. Those who were present at St. Louis on June 16, 1887, will remember the extreme difficulty experienced in sending off the World balloon 160,000 cubic feet in a twenty-mile wind.

If plans had been made to keep the balloon at 6,000 feet or so the success of the voyage would have been better assured. By using a small pilot balloon it would have been easy to send the overflow into the smaller balloon and, after the larger had leaked out enough, the gas in the smaller balloon could have been sent into the larger and the smaller used as ballast. At 6,000 feet the danger of rain and sleet freezing on the balloon would have been avoided and the currents which are far steadier and more rapid would have reduced the voyage by

* His. W. Die Anatomische Nomenclatur. *Archiv. für Anat. u. Physiol.*, Anat. Abt., Supplement-Band, 1895, p. 156.