

On the Effect of Magnesium Salts upon the Excitability and Conductivity of Nerves.

S. J. MELTZER and JOHN AUER.

Numerous applications of solutions of magnesium salts to the sciatic, pneumogastric, depressor and sympathetic nerves of rabbits failed to produce any evidence of excitation, but in each case there resulted sooner or later a profound inhibitory effect upon the conductivity of the nerve under observation. Thus, after application to the sciatic nerve, the conduction of motor and sensory impulses was manifestly inhibited: a strong stimulus applied below the 'block' caused strong contractions of the muscles of the thigh but no pain; when applied above the 'block,' stimulation induced pain but failed to cause contraction. Such effects were obtained with hypertonic as well as with isotonic and even with strongly hypotonic solutions. The weaker the solution the longer it took to establish complete interruption of conductivity. Conductivity could be restored by washing the nerve with Ringer's solution.

WILLIAM J. GIES,
Secretary.

DISCUSSION AND CORRESPONDENCE.

THE GEOGRAPHICAL DISTRIBUTION OF STUDENTS.

TO THE EDITOR OF SCIENCE: In Dr. Tombo's interesting article on 'The Geographical Distribution of the Student Body at a Number of American Universities' which appeared in SCIENCE for October 6, 1905, he was careful to state that 'in the case of Harvard University the students of Radcliffe College (undergraduate women) are not included.' May I amend that statement by saying that only men were counted in the Harvard table, the graduate students as well as the undergraduate students of Radcliffe College having been excluded. Had these 407 students been included, several comparative statements in the article would have been affected. Harvard would have led in the North Atlantic division by 47, and would have gone from fourth place to third place in the South Atlantic division. In the line of grand totals Harvard would have led by 361, Columbia being second and Michigan third. Had women been wholly omitted or

separately counted in Dr. Tombo's table, several rearrangements would obviously have been necessary.

JEROME D. GREENE.

HARVARD UNIVERSITY.

THE MAKING OF LANTERN SLIDES.

TO THE EDITOR OF SCIENCE: Every one knows how troublesome it is, in the making of lantern slides from a variety of objects, to accurately center the images on the negative plates; how very troublesome it is to get a centered lantern slide from an eccentric negative, and how much time is required in cutting paper mats for bounding the field of a lantern slide. For several years I have employed a method which I find obviates these difficulties almost completely.

In making my negatives I take pains to get the desired size of image, but do not take the trouble to center the image upon the spot where the negative plate is expected (?) to be.

I take these negatives and trim them by means of a cutting diamond to the size of the transparent square desired on the lantern slide. I can trim thirty negatives in fifteen minutes.

I then take my lantern plates, lay them film side up on a black ground, lay a trimmed negative centrally on each, and print by a light held above.

The resulting positives are perfectly centered, and the desired field is sharply bounded by a nearly opaque border which is as satisfactory as a carefully cut paper mat.

W. S. FRANKLIN.

SPECIAL ARTICLES.

ORTHOGENETIC VARIATION.

SINCE I am responsible for the term 'orthogenetic variation,' whilst the far greater idea of 'orthogeny' falls to the credit of the late Theodor Eimer, I am anxious that it should not be misrepresented.

The paper by Mr. Robert E. Coker, entitled 'Gadow's Hypothesis of Orthogenetic Variation in *Chelonia*,' Johns Hopkins University Circular No. 178, May, 1905, calls for some remarks on my part by way of protest and

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Jerome D. Greene

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