

mere supposition, to be true, what possible bearing can it have upon the result? Why should not professional actors be as good subjects as any other persons? This objection seems to me about on an equality with some others which I have heard, *e. g.*, that all the subjects were trained to perform to suit the occasion. Your assertion that "the subjects of Dr. Beard are selected from the nervous classes of our population," is in direct contradiction to the doctor's declaration. In no sense can I regard your criticism as quite fair. Moreover, you have neglected to mention two of the most convincing demonstrations of the reality of the phenomena,—I refer to the extraction of two teeth from one subject, and the application of actual cautery to another. The opinion seems to be very common that the phenomena of mesmeric trance cannot be genuine unless all persons can be brought under its influence. A very little reflection will show that this is an erroneous opinion. There is much more that might be said upon the subject, but my purpose is only to correct the erroneous impressions which I am sure your article will give to many readers. I hope the columns of "SCIENCE" will be held open for a free discussion of these phenomena. R. HITCHCOCK.

To the Editor of "SCIENCE":

In Dr. Spitzka's suggestive "Notes on the Anatomy of the Encephalon, etc.," in "SCIENCE," No. 29, occurs the following passage:

"Now, the third ventricle, as shown by Hadlich and Wilder, extends over the entire thalami."

I regret to be obliged to make a correction. The passage contains two distinct statements: the one, that the third ventricle extends over the entire thalami, and the other that such was shown to be the case by Hadlich and myself.

Since upon this point—as upon all others presented in the article—no exact references are given, I will not speak now of Hadlich's views; but no such statement has ever been made by me, and I am at a loss to understand how Dr. Spitzka can have gained that impression. On the contrary, my paper "On the Foramina of Monro in the Domestic Cat," read at the Boston meeting of the A. A. S., but not yet published, included an expression of my belief that, in the cat, the dorsal limit of the third ventricle on each side corresponds with the *Habena*, (the so-called "peduncle of the pineal body,") along which the *Endyma* (the lining membrane of the ventricles), is reflected from the mesial surface of the thalamus toward the opposite side. Hence, only the mesial aspect of each thalamus is "in the third ventricle," the remaining and much larger part of the surface being wholly extra-ventricular. BURT G. WILDER.

ITHACA, N. Y., January 26, 1881.

BOOKS RECEIVED.

BULLETIN No. 3 of the Illinois State Laboratory of Natural History at Normal, Ill., is a pamphlet of 160 pages, containing papers by the Director of the Laboratory, Prof. S. A. Forbes, on the following subjects: On some Interactions of Organisms; The Food of Fishes; Acanthopteri; On the Food of Young Fishes; The Food of Birds; Notes on Insectivorous Coleoptera. Likewise a brief but significant paper—Notes upon the Food of Predaceous Beetles, by Mr. F. M. Webster, who has independently come to the same conclusion as Prof. Forbes that the Carabidae, in place of being exclusively insectivorous as is generally supposed, can, and in fact do, derive considerable sustenance from grains, grasses, and other vegetable substances.

The instructiveness and practical as well as scientific value of the researches which form the basis of these papers may be inferred from their titles, and from Prof.

Forbes' well known accuracy and enthusiasm. But they are also very interesting and entertaining reading, and will thus be more apt to reach the minds of many who would otherwise fail to profit by the stores of information they contain. It would be well for other states to make the slight provision required for carrying on similar investigations into the food habits of the Birds, Fishes and Insects found within their limits.

B. G. W.

CHEMICAL NOTES.

DETECTION OF IODINE IN BORMINE AND METALLIC BROMIDES.—A few drops of the bromine in question are placed in a small porcelain capsule, 30 c.c. of a solution of potassium chlorate, saturated in the cold, are added, and the liquid is boiled till colorless. The solution is then poured into a test-tube, allowed to cool, mixed with a few drops of a solution of morphine sulphate and a little chloroform. If the chloroform takes a violet color, iodine is present in the sample. The morphine solution is prepared by dissolving 0.5 gm. morphine in an excess of dilute sulphuric acid, and diluting to 50 c.c. In examining potassium bromide the solution is mixed with 2 or 3 drops of pure bromine water, and a few c.c. of a cold saturated solution of potassium chlorate, and further treated as above. —A. JORISSEN.

DETERMINATION OF SULPHUR IN IRON PYRITES.—On oxidizing pyrites with nitric acid and precipitating the sulphuric acid from the ferriferous solution, slightly acidified with hydrochloric acid, there is always obtained a barium sulphate, contaminated with iron, and still the results were too low. The following process is, therefore, adopted: 1 gm. pyrites was mixed in a large covered crucible with 8 grms. of a mixture of equal parts potassium chlorate, sodium carbonate, and sodium chloride. The crucible is heated at first gently so as to dry the contents, which are afterwards melted at a high temperature. The mass when cold is treated with boiling water, and the solution together with the deposit is introduced into a measuring-flask of 200 c.c. filled up, filtered, and the sulphuric acid is determined in aliquot parts, say 50 c.c. The insoluble residue does not retain any sulphuric acid. In this manner the use of nitric acid is evaded. The decomposition of the potassium chlorate is complete. —BERNHARD DENTECON.

CONTRIBUTION TO ELECTROLYSIS.—L. Schucht describes the electrolytic determination of uranium, thallium, indium, vanadium, palladium, molybdenum, selenium, and tellurium. For qualitative analysis he uses a strong test-glass, 10 to 12 c.m. high, and 1.5 c.m. wide, fitted with a cork coated with paraffin. Two platinum wires, $1\frac{1}{2}$ m.m. in thickness, pass through the cork down to the bottom, and are connected above the cork with the polar wires of the battery by means of small binding screws. This decomposition tube may be held in a wooden clamp. After the current has passed through the solution to be analyzed for ten to fifteen minutes, the stopper with the wires is drawn out, without interrupting the current, and the deposited metal is determined by its color, lustre, solubility in acids, &c. The manner of decomposition and the slight or strong evolution of gas is noticed. The solution is completely precipitated, rendered alkaline, and again electrolysed, after the wires have been cleansed. Copper is recognised by its color, mercury by the precipitated globules, nickel and cobalt by their lustre and sparing solubility in acids, zinc and cadmium by their color and solubility in potassa. The formation of peroxides is characteristic for lead, silver, bismuth, thallium, manganese. Bismuthic acid is gradually formed, whilst the peroxides of lead, silver, and thallium are deposited at the beginning of the precipitation. Silver peroxide dissolves in ammonia with liberation of nitrogen. The decomposition of the alkalis and alkaline earths is best effected in a U-tube. The hydroxides of the latter are separated in a voluminous form; those of calcium and magnesium in white crusts. The hydroxides of barium, strontium, and the alkalis dissolved on the negative wire, *Berg-und Hütten Zeitung*, 39, 121.