

The meeting closed with some remarks by Mr. W. Lindgren, U. S. Geological Survey, on the Boise Folio (No. 45, of the Geol. Surv.), recently published.

WM. F. MORSELL.

DISCUSSION AND CORRESPONDENCE.

ON THE MAKING OF SOLUTIONS.

TO THE EDITOR OF SCIENCE: A remark in a recent paper by Professor Macloskie calls my attention afresh to a curious error which, so far as I know, is universally current in our zoological laboratories. Professor Macloskie remarks (*SCIENCE*, Vol. IX., p. 206) "a 1% solution of cane sugar in water, * * * that is 342 grams, * * * dissolved in 34,200 grams of water." In other words, a 1% solution is made by mixing 1 part of the substance to be dissolved with 100 parts of the solvent. In this conception the zoologists appear to be at one. It is sufficient to refer to any of the well-known text-books: Marshall and Hurst, 'Practical Zoology,' 4th ed., p. 464; Gage, 'The Microscope,' 6th ed., p. 179; Dodge, 'Elementary Practical Biology,' p. 391. Like many other text-books, Huxley and Martin's 'Practical Biology' (revised ed., p. 496), does not directly commit itself to the error, but gives directions to make the 'normal saline solution' by mixing 7.5 grams of salt with a liter of water. That the normal saline solution is a $\frac{3}{4}$ % solution is directly stated by Whitman ('Methods of Research,' etc., edition of 1885, p. 207), and Lee (The Microtome, 4th ed., p. 263.).

These citations abundantly prove that Professor Macloskie's conception of a 1% solution corresponds with that of other zoologists. If, however, we ask a chemist how such a solution is made, the reply will be: "Dissolve one part of salt, sugar, or whatever the substance may be, in *ninety-nine* parts of the solvent." And that this is logically correct becomes self-evident upon a moment's thought. A 1% solution of HCl, as all will agree, consists of one part of the acid to ninety-nine parts of water. Why should the fact that in one case we deal with a solid, in the other with a liquid, alter the case?

It would seem that unless, or until the zoologists come into agreement with the chemists,

every investigator in publishing his researches should make a point of preventing ambiguity by stating whether his 1%, 5%, 20% solutions of solids are compounded on the logical or the zoological plan.

M. A. WILLCOX.

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THE ORIGIN OF NIGHTMARE.

OVER and over again when a child I was for years the victim at night of a certain form of mild nightmare, so that it came to be to my fearful imagination no insignificant part of my unpleasant experiences. This nightmare always took the form of a great wave of something gradually rolling towards me and finally engulfing and oppressing me to a painful extent. It would roll up a huge shapeless mass of no particular material, but always irresistibly towards me helpless and overwhelmed. Most often it finally appeared to be a huge soft pillow or even formless feather bed, but without color or other qualities save that of engulfing and terrifying. At its worst on various occasions this mass as it rolled up became a huge fat boar, defined as such, however, only subconsciously, but always dreadful in its power to overwhelm me. All this was years ago.

One night recently, as I was falling asleep in bed in a lighted room, I became gradually aware of that sensation which compression of a nerve produces, a vague and quite indefinite sense of discomfort localized only in the region about my head and arms, but in my state of somnolence only a growing sensation of discomfort pressing on my consciousness. Increasing steadily, it finally began to awaken me, and I then became distinctly conscious of the well-remembered nightmare of my childhood beginning to approach. With the noise in the room I was now sufficiently awake to be interested in this familiar visitor, and I lay still deliberately. Gradually the mass rolled up towards me exactly as of yore, with no terror in its coming now, until finally it was upon me and all about me oppressively. I very slightly moved my arm (upon which my head was lying), and the nightmare was for the moment lost sight of in the sensations now localized there. I opened my eyes and instantly the whole experience vanished, closed them and it instantly returned